TRANSPORTATION ANALYSIS

RESTORATION BAY

Prepared For

TTGC, LLC

Prepared By

LINCKS & ASSOCIATES, INC.
Engineers – Planners
Tampa, Florida

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State of Florida Authorization No. EB0004638

November, 2019

Project No. 19145

Steven J. Henry, P.E.
P.E. No. 51555

_____
_____Date

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INTRODUCTION

The purpose of this report is to provide the Transportation Analysis in conjunction with the rezoning of the subject property located west of 113th Street and south of 66th Avenue North in Pinellas County, Florida as shown in Figure 1. The subject property is proposed to be rezoned to allow up to 273 Single Family Homes. The existing use of the property is a Golf Course. The access for the project is proposed to be based on two options as follows:

- Option A: One (1) full access to 66th Avenue North
- Option B: One (1) full access to 66th Avenue North and one (1) full access to Irving Avenue

This report will evaluate the two access options to serve the project.

ESTIMATED DAILY PROJECT TRAFFIC

The trip rates utilized in this report were obtained in the latest computerized version of "OTISS" which is utilizes the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 10th Edition, 2017, as its data base. Based on these trip rates, it is estimated the proposed land use would generate 2,619 daily trip ends, as shown in Table 1.

ESTIMATED AM PEAK HOUR PROJECT TRAFFIC

Based on data contained in the ITE Trip Generation Manual, 10th Edition the proposed land use would generate 199 trip ends during the AM peak hour with 50 inbound and 149 outbound, as shown in Table 1.

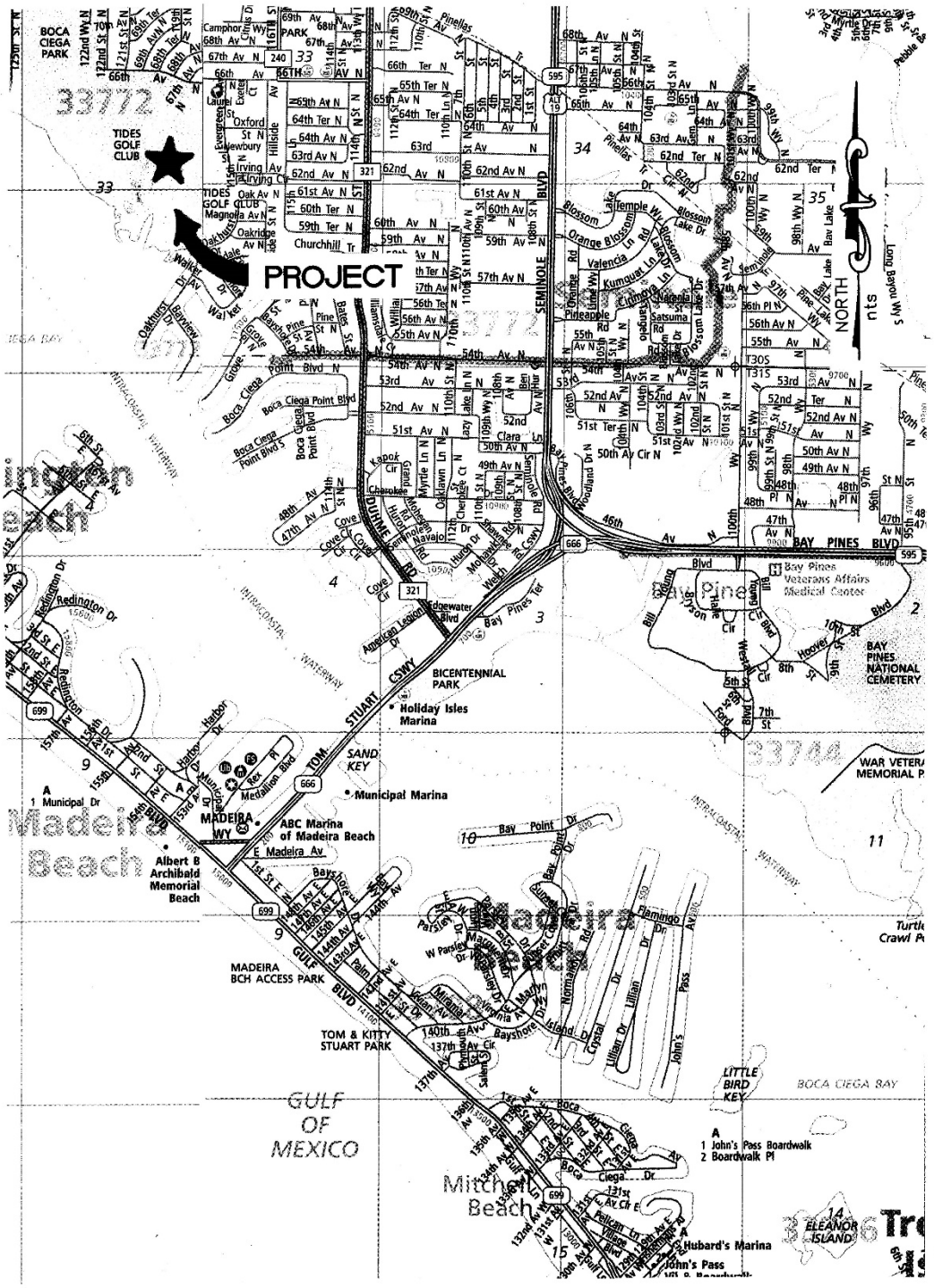


FIGURE 1
PROJECT LOCATION

TABLE 1

TRIP GENERATION COMPARISON (1)

Land Use	Land Use	Size	Daily Trip Ends (1)	AM Peak Hour Trip Ends (1)			PM Peak Hour Trip Ends (1)		
				In	Out	Total	In	Out	Total
Existing	Golf Course	18 Holes	547	25	7	32	28	24	52
Proposed	Single Family	273 DU's	2,619	50	149	199	168	98	266
		Difference	2,072	25	142	167	140	74	214

(1) Source: ITE Trip Generation Manual, 10th Edition, 2017.

ESTIMATED PM PEAK HOUR PROJECT TRAFFIC

Again, based on data contained in the ITE Trip Generation Manual, 10th Edition, during the PM peak hour, the proposed land use would generate 266 trip ends with 168 inbound and 98 outbound, as shown in Table 1.

PROJECT TRAFFIC DISTRIBUTION

The following distribution of the project traffic was estimated based on existing travel patterns and existing development in the vicinity of the project:

- 40% to and from the North (via 113th Street and 116th Street)
- 60% to and from the South (via 113th Street)

Table 2 provides the project traffic distribution. Figures 2 and 3 illustrates the assignment of the AM and PM peak hour project trip ends for Options A and B respectively.

BUDGETED IMPROVEMENTS

As stated previously the project is located west of 113th Street and South of 66th Avenue North. 66th Avenue North is a two lane undivided roadway and 113th Street is a six lane divided roadway in the vicinity of the project.

According to the Pinellas County Capital Improvement Plan (CIP), there are no capacity adding improvements budgeted for construction in the vicinity of the project.

TABLE 2

PROJECT TRAFFIC DISTRIBUTION

Time Period	North (40%)		South (60%)		Total	
	In	Out	In	Out	In	Out
AM	20	60	30	89	50	149
PM	67	39	101	59	168	98

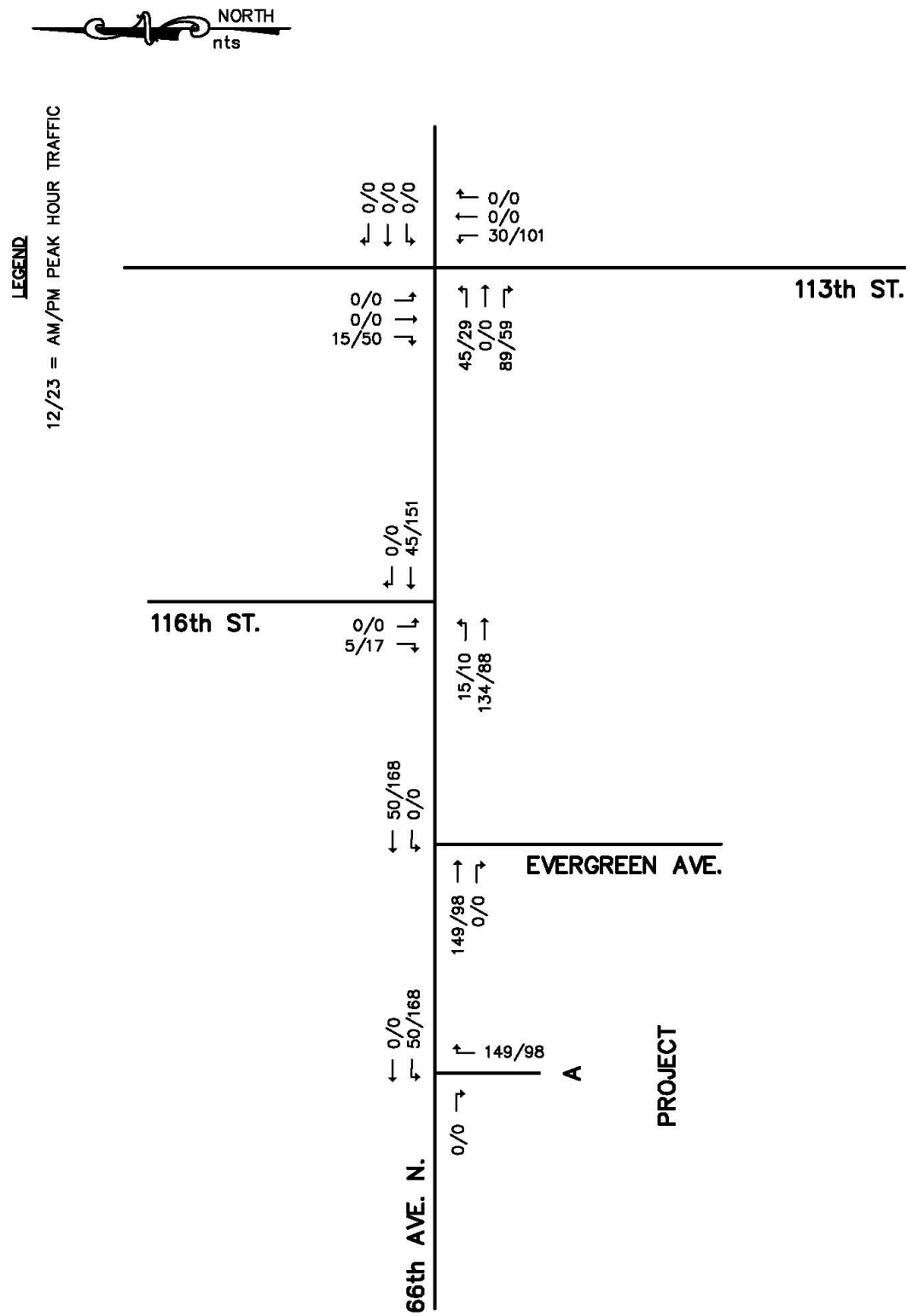


FIGURE 2
OPTION A
PROJECT TRAFFIC

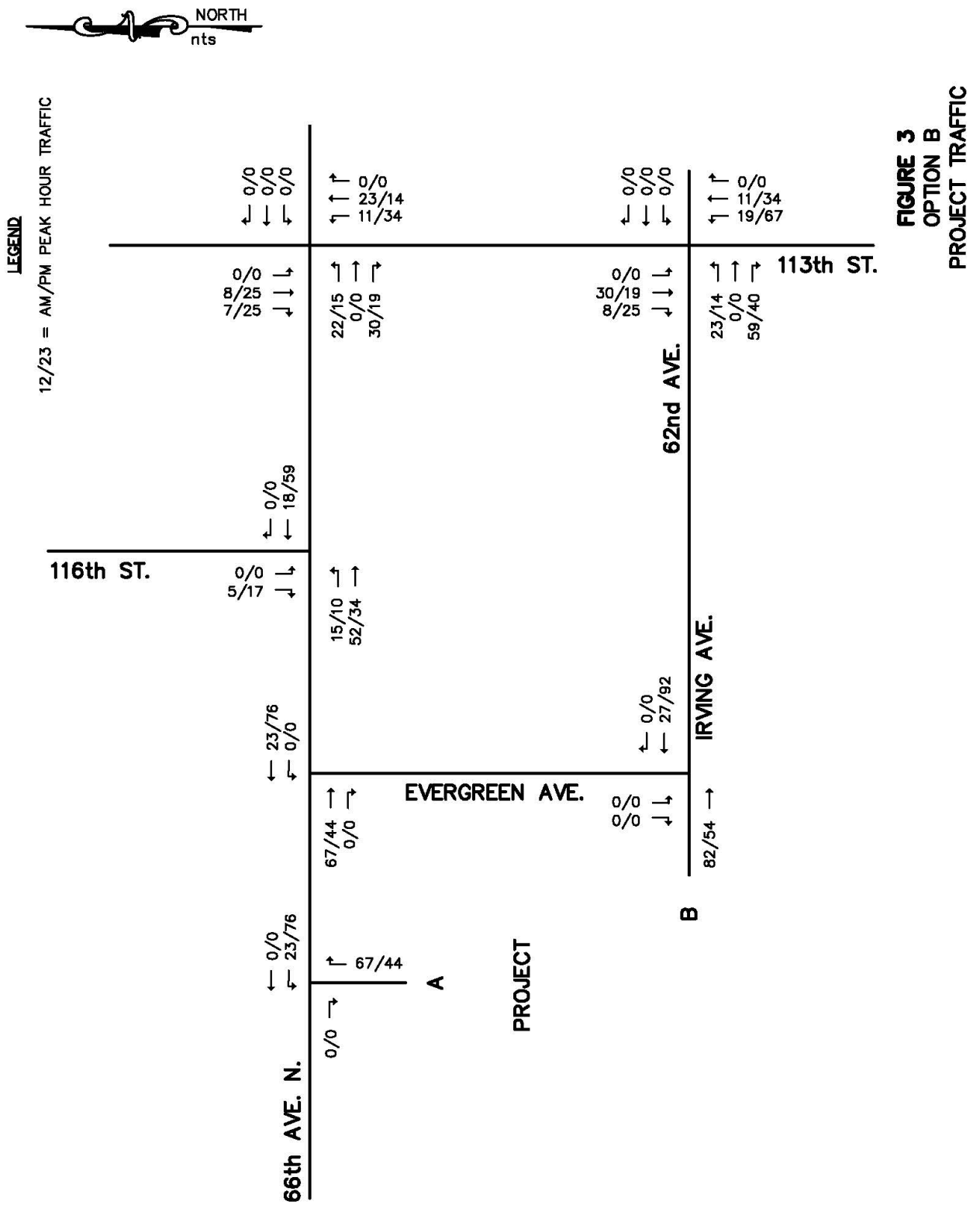


FIGURE 3
OPTION B
PROJECT TRAFFIC

PEAK SEASON TRAFFIC

The following methodology was utilized to estimate the peak season traffic utilized in this analysis:

1. AM (7:00 – 9:00) and PM (4:00-6:00) peak hour turning movement counts were conducted at the following intersections:

    - 113th Street and 66th Avenue North
    - 113th Street and 62nd Avenue
    - 116th Street and 66th Avenue North
    - Evergreen Avenue and 66th Avenue North
    - Evergreen Avenue and Irving Avenue

Figure 4 illustrates the existing counts.

2. The existing counts were adjusted to peak season based on the FDOT Seasonal Adjustment Factors for Pinellas County.

Figure 5 illustrates the peak season traffic. Figures 6 and 7 illustrates the peak season plus project traffic for the AM and PM peak hours for Options A and B respectively.

INTERSECTION ANALYSIS

Intersection analysis was conducted for the AM and PM peak hours for the Options A and B. These calculations were performed utilizing the methodology described in Chapters 18 and 19, Signalized and Unsignalized Intersections, of the Transportation Research Board (TRB) Special Report, the 2010 Highway Capacity Manual. Existing signal timings were used in the analysis. The results of the analysis are described in the following paragraphs for

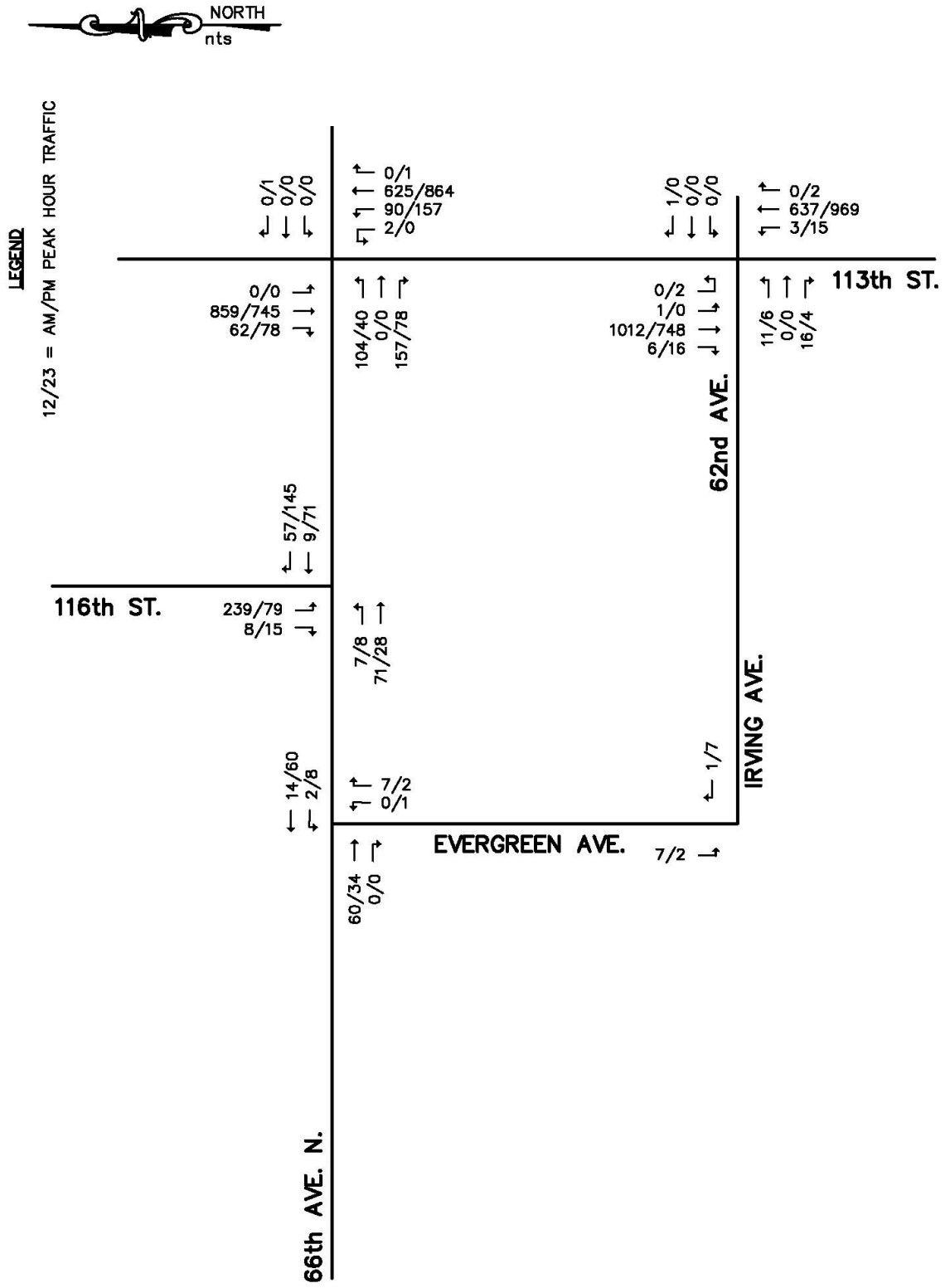


FIGURE 4
EXISTING TRAFFIC

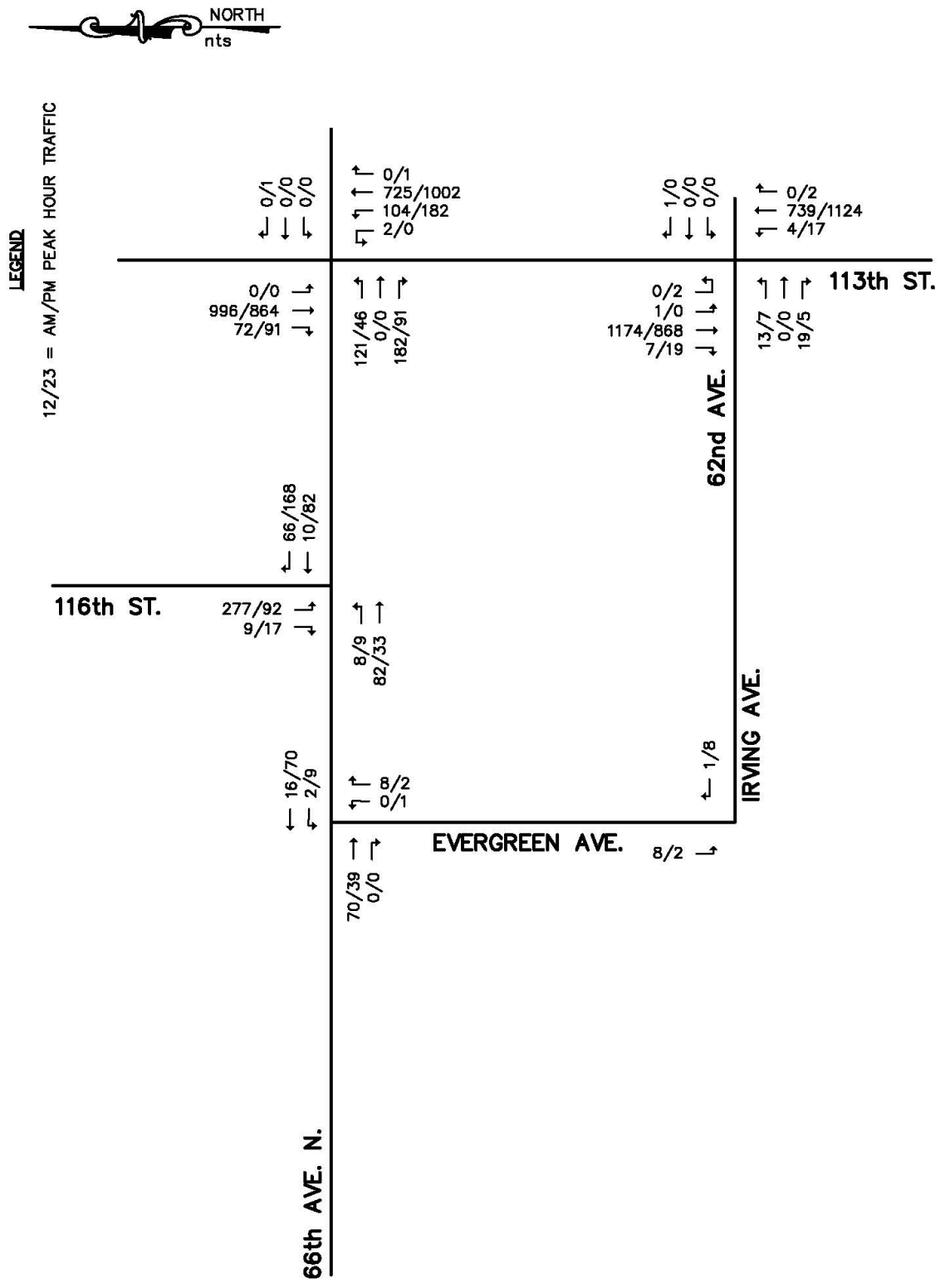


FIGURE 5
PEAK SEASON TRAFFIC

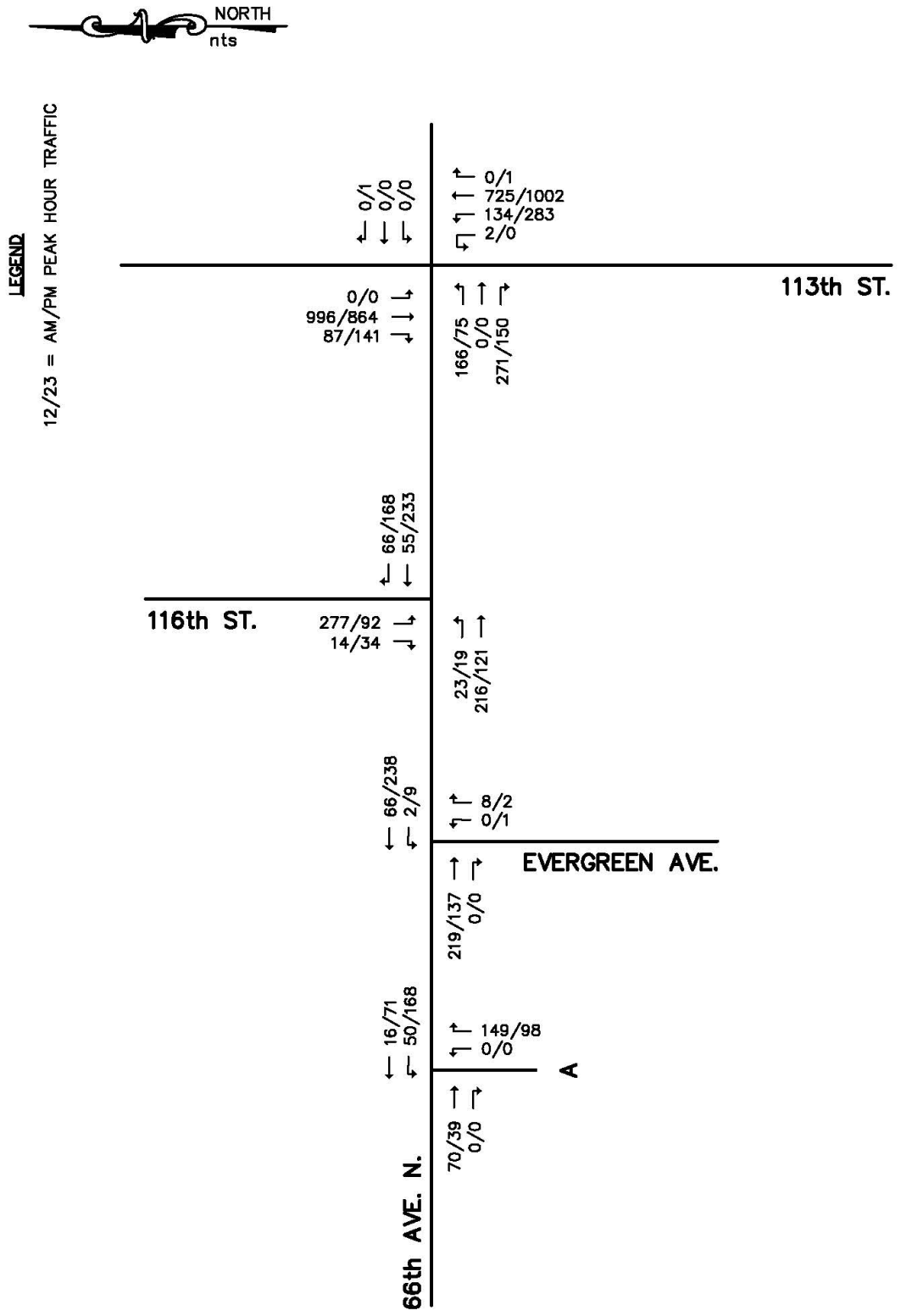


FIGURE 6
OPTION A
PEAK SEASON PLUS
PROJECT TRAFFIC

NORTH
nts
LEGEND
12/23 = AM/PM PEAK HOUR TRAFFIC
FIGURE 7
OPTION B
PEAK SEASON PLUS
PROJECT TRAFFIC
113th ST.
116th ST.
62nd AVE.
IRVING AVE.
EVERGREEN AVE.
66th AVE. N.
A
B
0/1
0/0
0/0
0/1
748/1016
115/216
2/0
1/0
0/0
0/0
0/2
750/1158
23/84
0/0
1004/889
79/116
143/61
0/0
212/110
0/2
1/0
1204/887
15/44
36/21
0/0
78/45
66/168
28/141
277/92
14/34
23/19
134/67
39/146
2/9
8/2
0/1
1/8
27/92
137/83
0/0
8/2
82/54
16/71
23/76
67/44
0/0
70/39
0/0

Options A and B.

Option A

The following intersections were analyzed for the Option A:

- 113th Street and 66th Avenue North
- 116th Street and 66th Avenue North
- Project Access A and 66th Avenue North

Tables 3 and 4 summarizes the results of the analysis for the Option A and described in the following paragraphs:

113th Street and 66th Avenue North

This intersection is currently signalized. Based on signalized intersection analysis this intersection should operate at an acceptable level of service during the AM and PM peak hours with the peak season traffic and with peak season plus project traffic, as shown in Table 3.

116th Street and 66th Avenue North

This intersection is currently unsignalized. Based on unsignalized intersection analysis all movements should operate at an acceptable level of service during AM and PM peak hours with peak season traffic and with peak season plus project traffic, as shown in Table 4.

Project Access A and 66th Avenue North

This project access is proposed to have full access to 66th Avenue North. Based on unsignalized intersection analysis all movements should operate at an acceptable level of service during AM and PM peak hours with peak season plus project traffic, as shown in Table 4.

TABLE 3
OPTION A
ESTIMATED INTERSECTION LEVEL OF SERVICE
(SIGNALIZED)

Intersection	Time Period	Peak Season Traffic	Peak Season Plus Project Traffic
113th Street	AM	B	C
and 66th Avenue North	PM	A	B

TABLE 4
OPTION A
ESTIMATED INTERSECTION LEVEL OF SERVICE
(UNSIGNALIZED)

		AM Peak Hour						PM Peak Hour					
		Peak Season			Peak Season Plus Project Traffic			Peak Season			Peak Season Plus Project Traffic		
Intersection	Direction	Left Delay	Through Delay	Right Delay	Left Delay	Through Delay	Right Delay	Left Delay	Through Delay	Right Delay	Left Delay	Through Delay	Right Delay
116th Street	EB	9.1	9.1	-	13.0	13.0	-	7.7	7.7	-	8.8	8.8	-
and 66th Avenue North	WB	-	8.2	8.2	-	9.9	9.9	-	8.3	8.3	-	11.0	11.0
	SB	12.1	-	12.1	15.5	-	15.5	8.4	-	8.4	9.3	-	9.3
Project Access A and	WB	-	-	-	7.5	7.5	-	-	-	-	7.8	7.8	-
66th Avenue North	NB	-	-	-	9.5	-	9.5	-	-	-	9.2	-	9.2

Option B

The following intersections were analyzed for the Option B:

- 113th Street and 66th Avenue North
- 116th Street and 66th Avenue North
- 113th Street and 62nd Avenue
- Project Access A and 66th Avenue North
- Project Access B and Evergreen Avenue

Tables 5 and 6 summarizes the results of the analysis for the Option B and described in the following paragraphs:

113th Street and 66th Avenue North

This intersection is currently signalized. Based on signalized intersection analysis this intersection should operate at an acceptable level of service during AM and PM peak hours with peak season traffic and with peak season plus project traffic, as shown in Table 5.

116th Street and 66th Avenue North

This intersection is currently unsignalized. Based on unsignalized intersection analysis all movements should operate at an acceptable level of service during AM and PM peak hours with peak season traffic and with peak season plus project traffic, as shown in Table 6.

113th Street and 62nd Avenue North

This intersection is currently unsignalized. Based on unsignalized intersection analysis all movements should operate at an acceptable level of service during AM and PM peak hours with peak season traffic and with peak season plus project traffic, as shown in table 6.

Project Access A and 66th Avenue North

This project access is proposed to have full access to 66th Avenue North. Based on unsignalized intersection analysis all movements should operate at an acceptable level of

TABLE 5
OPTION B
ESTIMATED INTERSECTION LEVEL OF SERVICE
(SIGNALIZED)

Intersection	Time Period	Peak Season Traffic	Peak Season Plus Project Traffic
113th Street	AM	B	B
and 66th Avenue north	PM	A	A

TABLE 6
OPTION B
ESTIMATED INTERSECTION LEVEL OF SERVICE
(UNSIGNALIZED)

		AM Peak Hour						PM Peak Hour					
		Peak Season			Peak Season Plus Project Traffic			Peak Season			Peak Season Plus Project Traffic		
Intersection	Direction	Left Delay	Through Delay	Right Delay	Left Delay	Through Delay	Right Delay	Left Delay	Through Delay	Right Delay	Left Delay	Through Delay	Right Delay
116th Street	EB	9.1	9.1	-	10.4	10.4	-	7.7	7.7	-	8.8	8.8	-
and 66th Avenue North	WB	-	8.2	8.2	-	8.8	8.8	-	8.3	8.3	-	11.1	11.1
	SB	12.1	-	12.1	13.5	-	13.5	8.4	-	8.4	9.7	-	9.7
113th Street and	EB	30.0	30.0	30.0	63.5	63.5	63.5	24.5	24.5	24.5	31.5	31.5	31.5
62nd Avenue	WB	12.1	12.1	12.1	12.2	12.2	12.2	-	-	-	-	-	-
	NB	18.2	*	*	20.0	*	*	13.8	*	*	16.2	*	*
	SB	12.5	*	*	12.6	*	*	16.1	*	*	16.6	*	*
Project Access A and	WB	-	-	-	7.4	7.4	-	-	-	-	7.5	7.5	-
66th Avenue North	NB	-	-	-	9.0	-	9.0	-	-	-	8.8	-	8.8
Project Access B and	EB	-	-	-	7.9	7.9	-	-	-	-	7.6	7.6	-
Evergreen Avenue	WB	-	-	-	-	7.4	7.4	-	-	-	-	8.0	8.0
	SB	-	-	-	7.7	-	7.7	-	-	-	7.7	-	7.7

* Free flow therefore delay not calculated.

service during AM and PM peak hours with peak season plus project traffic, as shown in table 6.

Project Access B and Evergreen Avenue

This project access is proposed to have full access to Evergreen Avenue and align with Irving Avenue. Based on unsignalized intersection analysis all movements should operate within acceptable level of service during AM and PM peak hours with peak season plus project traffic, as shown in Table 6.

ACCESS RECOMMENDATIONS

The recommendations included in this report are based on a field review of the site, the proposed site plan and the Transportation Analysis. The methodology utilized to determine the need for a left and/or right turn lane was based on NCHRP Report 279. The access recommendations for Options A and B are summarized in Tables 7 and 8 respectively and described in the following paragraphs:

Option A

113th Street and 66th Avenue North

As shown in Table 7, the existing northbound left turn lane is approximately 140 feet. The length to accommodate the peak season plus project traffic would be 360 feet. It should be noted the existing northbound left turn lane does not accommodate the peak season traffic.

TABLE 7
ACCESS RECOMMENDATIONS
OPTION A

Intersection	Movement	Volume (1)	Turn Lane Warranted? (2)	Queue Storage (3)	Deceleration Length (4)	Total Length	Existing Length
113th Street and 66th Avenue North	NBL	136/283	Existing	175'	185'	360'	140'
Project Access A and 66th Avenue North	EBR	0/0	No	-	-	-	-
	WBL	50/168	No	-	-	-	-

(1) Based on Figure 6 of the report
(2) Based on NCHRP Report #279
(3) Based on Sim Traffic
113th Street and 66th Avenue North
NBL - 162' Use 175'
(4) Based on 45 MPHdesign speed on 113th Street (posted speed plus 5 MPH).

Project Access A and 66th Avenue North

This project access is proposed to have full access to 66th Avenue North. Based on the projected volumes an eastbound right turn lane and a westbound left turn lane are not warranted, as shown in table 7.

Option B

113th Street and 66th Avenue North

As shown in Table 8, the existing northbound left turn lane is approximately 140 feet. The length to accommodate the peak season plus project traffic would be 335+ feet. It should be noted the existing northbound left turn lane does not accommodate the peak season traffic.

113th Street and 62nd Avenue

As shown in Table 8, the existing northbound left turn lane is approximately 145 feet. The length required to accommodate the peak season plus project traffic is 260 feet. It should be noted the existing northbound left turn lane does not accommodate the peak season traffic.

Project Access A and 66th Avenue North

This project access is proposed to have full access to 66th Avenue North. Based on the projected volumes an eastbound right turn lane and a westbound left turn lane are not warranted, as shown in Table 8.

Project Access B and Evergreen Avenue

This project access is proposed to have full access to Evergreen Avenue and align with Irving Avenue. Based on the projected volumes a southbound right turn lane and a westbound right turn lane are not warranted, as shown in Table 8.

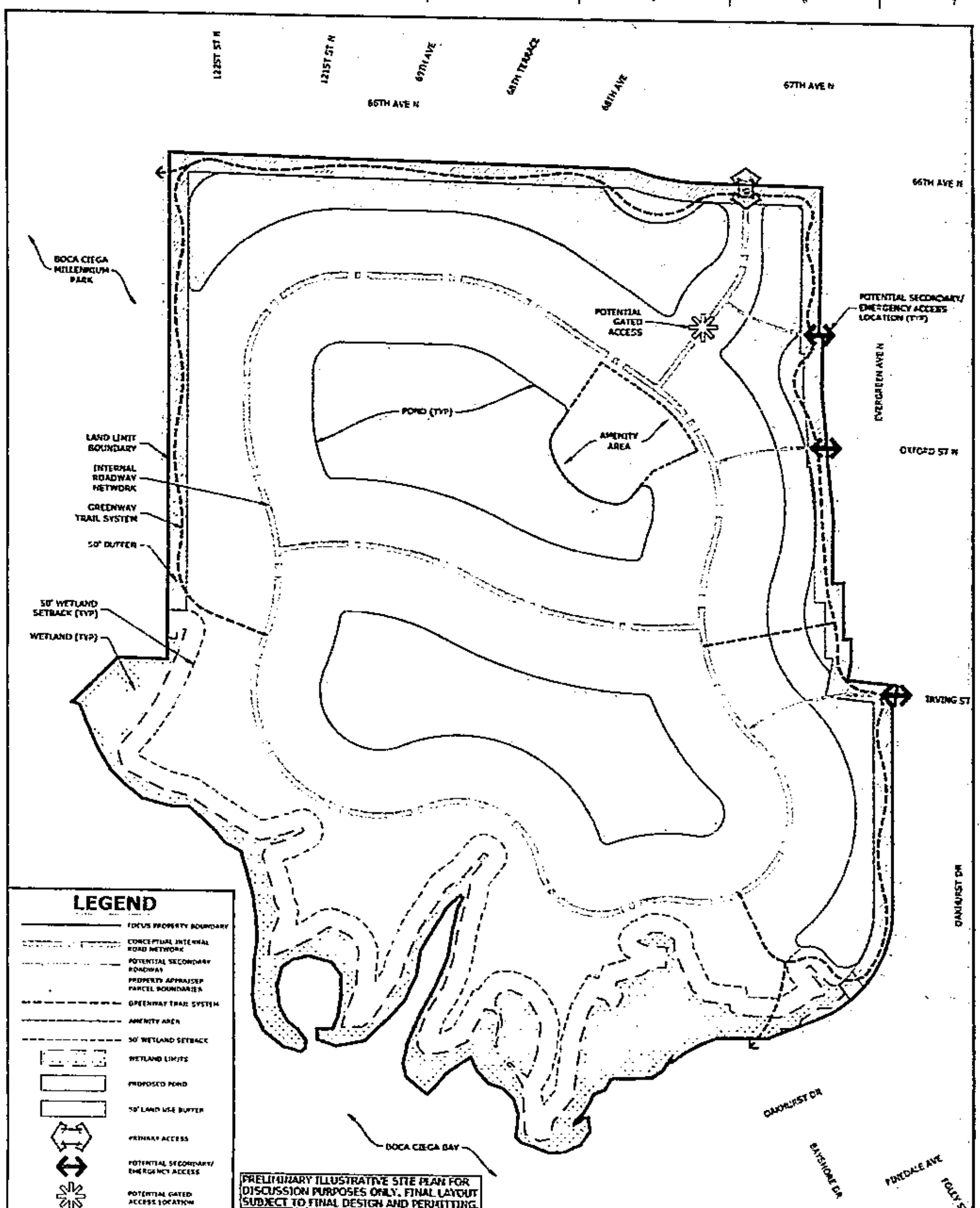
TABLE 8
ACCESS RECOMMENDATIONS
OPTION B

Intersection	Movement	Volume (1)	Turn Lane Warranted? (2)	Queue Storage (3)	Deceleration Length (4)	Total Length	Existing Length
113th Street and 66th Avenue North	NBL	115/216	Existing	150'	185'	335'	140'
113th Street and 62nd Avenue	NBL	23/84	Existing	75'	185'	260'	145'
Project Access A and	EBR	0/0	No	-	-	-	-
66th Avenue North	WBL	23/76	No	-	-	-	-
Project Access B and	SBR	0/0	No	-	-	-	-
Evergreen Avenue	WBR	1/8	No	-	-	-	-

(1) Based on Figure 7 of the report
(2) Based on NCHRP Report #279
(3) Queue Storage Calculations
113th Street and 66th Avenue North
NBL - 149' Use 150' Based on Sim Traffic
113th Street and 62nd Avenue
NBL - 84/30 x 25' = 70' Use 75'
(4) Based on 45 MPH design speed on 113th Street (posted speed plus 5 MPH).

APPENDIX

PRELIMINARY SITE PLAN



SITE DATA

FOCUS PROPERTY BOUNDARY	±95.96 AC
TOTAL UPLANDS	±88.08 AC
TOTAL WETLAND AREAS	±7.88 AC
100-YEAR FLOODPLAIN	±51.31 AC (AE = 35.06 AC) (VE = 16.25 AC)
EXISTING FUTURE LAND USE	ROS (±76.27 AC)
	P (±34.96 AC)
	RL (±8.83 AC)
PROPOSED FUTURE LAND USE	RL (±88.27 AC)
	P (±11.94 AC)
RL MAXIMUM DENSITY (5 DU/AC)	441 DU
EXISTING ZONING	R-A, RL
PROPOSED ZONING	RPD
TOTAL MAXIMUM PROPOSED UNITS	273 DU
RL DENSITY	3.1 DU/AC
TOTAL OPEN SPACE	±37.67 AC
WETLAND	±7.88 AC
POND	±22.67 AC
AMENITY	±3.93 AC
GREENSCAPE CORRIDOR (50' WIDE MIN.)	±3.97 AC

GENERAL NOTES

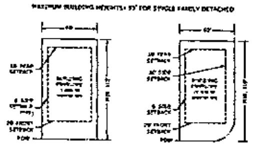
1. THE PROJECT IS LOCATED IN FEMA FLOOD ZONE "X", "AE" AND "VE" AS SHOWN ON FEMA FIRM MAP, PANEL [illegible], DATED [illegible]/2003.
2. THERE ARE PLATTED LOTS WITHIN 150' OF THE SITE AS SHOWN.
3. NO CULTURAL FACILITIES, COMMUNITY RECREATION AREAS OR PUBLIC FACILITIES EXIST ON SITE OR WITHIN 150 FEET OF THE PROJECT'S BOUNDARY.
4. THERE ARE NO EXISTING ROADS ON SITE.
5. NO SPECIFIC ARCHITECTURAL DESIGNS ARE PROPOSED.
6. IT IS ANTICIPATED THE PROJECT WILL BE DEVELOPED IN MULTIPLE PHASES.
7. BUFFERING AND SCREENING SHALL BE PROVIDED AS REQUIRED BY THE PINELLAS COUNTY LAND DEVELOPMENT CODE UNLESS OTHERWISE SHOWN.
8. POINTS OF INGRESS AND EGRESS FOR PRINCIPAL [illegible], PRIVATE VEHICLES, COMMERCIAL VEHICLES, MASS TRANSIT AND WATERWAY TRAFFIC SHALL BE AS GENERALLY SHOWN.
9. THE CONCEPTUAL INTERNAL ROADWAY NETWORK IS AS SHOWN AND WILL BE LOCAL ROADWAYS. A PORTION OF THE INTERNAL ROADWAY NETWORK MAY BE GATED. ALL INTERNAL ROADWAYS WILL BE 2[illegible]' ROW, 2 LANES MAXIMUM [illegible] TURN LANES, ACCELERATION AND DECELERATION LANES, ON STREET PARKING, ETC.). ALL ROADWAYS ADJACENT TO THE PROPERTY ARE PUBLIC.
10. THERE ARE NO TRANSIT STOPS OR [illegible] WITHIN 150' OF THE SITE.
11. PUBLIC FACILITIES AND SERVICES AS DETERMINED BY THE APPROPRIATE REGULATORY AGENCY OR PUBLIC SERVICE PROVIDER SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.
12. THE DEVELOPMENT SHALL BE SERVED BY PUBLIC SERVICE WATER LINES.
13. THE DEVELOPMENT SHALL BE SERVED BY A CENTRAL WASTEWATER SYSTEM.
14. WETLAND AREAS AND OTHER ENVIRONMENTAL FEATURES ON SITE AND WITHIN 150 FEET OF THE SITE ARE GENERALLY LOCATED AS SHOWN.
15. ACCORDING TO THE LDC, NO MASS TRANSIT FACILITIES ARE REQUIRED AND NONE ARE PROPOSED.
16. OPEN SPACE [illegible] WILL BE OWNED/MAINTAINED BY HOA, CDD, OR OTHER ENTITY.
17. SEE COMPREHENSIVE PLAN AMENDMENT APPLICATION EXHIBITS FOR SURROUNDING FLU, ZONING, AND LOCATION MAP.

LEGAL DESCRIPTION

PT OF S 1/2 OF N 1/2 & S 1/2 OF SEC 11-30-15 [illegible] PART OF [illegible] ESTATES SEC 11 DESC AS FROM NW COR BLK 25 LOT 12 TH [illegible] [illegible] TO POB [illegible] TIDES COUNTRY CLUB & GOLF COURSE & SUBM LANDS [illegible] PART OF GOVT LOTS 2 & 3 CONT [illegible])

TYPICAL LOT LAYOUT

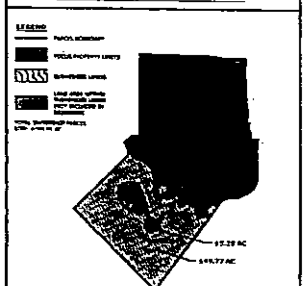
MAXIMUM BUILDING HEIGHTS: 35' FOR SINGLE FAMILY DETACHED

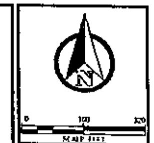


MINIMUM SINGLE FAMILY DETACHED 60' LOT DETAIL
N.T.S.

MINIMUM SINGLE FAMILY DETACHED CORNER 60' LOT DETAIL
N.T.S.

OWNERSHIP PARCEL BOUNDARY





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License #2610

NO.	DATE	REVISION	BY

RESTORATION BAY
PINELLAS COUNTY, FLORIDA

DEVELOPMENT MASTER PLAN

JOB NO.	2019-0195-00
DATE	3-5-2019

TRIP GENERATION

PERIOD SETTING

Analysis Name :	Weekday		
Project Name :	Restoration Bay-Golf Coarse	**No :**	
Date:	11/11/2019	**City:**	
State/Province:		**Zip/Postal Code:**	
Country:		**Client Name:**	
Analyst's Name:		**Edition:**	Trip Generation Manual, 10th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
430 - Golf Course (General Urban/Suburban)	Holes	18	Weekday	Average 30.38	274(0) 50%	273(0) 50%	547(0)

(0) indicates small sample size, use carefully.

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
430 - Golf Course	0 %	274	0 %	273

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
430 - Golf Course	547	0	0	547

ITE DEVIATION DETAILS

Weekday

Landuse — No deviations from ITE.

Methods — No deviations from ITE.

External Trips — 430 - Golf Course (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	274
Total Exiting	273
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	0
Total Exiting Internal Capture Reduction	0
Total Entering Pass-by Reduction	0
Total Exiting Pass-by Reduction	0
Total Entering Non-Pass-by Trips	274
Total Exiting Non-Pass-by Trips	273

PERIOD SETTING

Analysis Name :	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.		
Project Name :	Restoration Bay-Golf Coarse	**No :**	
Date:	11/11/2019	**City:**	
State/Province:		**Zip/Postal Code:**	
Country:		**Client Name:**	
Analyst's Name:		**Edition:**	Trip Generation Manual, 10th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
430 - Golf Course (General Urban/Suburban)	Holes	18	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 1.76	25 78%	7 22%	32

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
430 - Golf Course	0 %	25	0 %	7

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
430 - Golf Course	32	0	0	32

ITE DEVIATION DETAILS

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

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 430 - Golf Course (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	25
Total Exiting	7
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	0
Total Exiting Internal Capture Reduction	0
Total Entering Pass-by Reduction	0
Total Exiting Pass-by Reduction	0
Total Entering Non-Pass-by Trips	25
Total Exiting Non-Pass-by Trips	7

PERIOD SETTING

Analysis Name :	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.		
Project Name :	Restoration Bay-Golf Coarse	**No :**	
Date:	11/11/2019	**City:**	
State/Province:		**Zip/Postal Code:**	
Country:		**Client Name:**	
Analyst's Name:		**Edition:**	Trip Generation Manual, 10th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
430 - Golf Course (General Urban/Suburban)	Holes	18	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 2.91	28 54%	24 46%	52

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
430 - Golf Course	0 %	28	0 %	24

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
430 - Golf Course	52	0	0	52

ITE DEVIATION DETAILS

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

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 430 - Golf Course (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	28
Total Exiting	24
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	0
Total Exiting Internal Capture Reduction	0
Total Entering Pass-by Reduction	0
Total Exiting Pass-by Reduction	0
Total Entering Non-Pass-by Trips	28
Total Exiting Non-Pass-by Trips	24

PERIOD SETTING

Analysis Name :	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.		
Project Name :	RESTORATION BAY	**No :**	
Date:	10/15/2019	**City:**	
State/Province:		**Zip/Postal Code:**	
Country:		**Client Name:**	
Analyst's Name:		**Edition:**	Trip Generation Manual, 10th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
210 - Single-Family Detached Housing (General Urban/Suburban)	Dwelling Units	273	Weekday	Best Fit (LOG) Ln(T) = 0.92Ln(X) +2.71	1310 50%	1309 50%	2619

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
210 - Single-Family Detached Housing	0 %	1310	0 %	1309

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
210 - Single-Family Detached Housing	2619	0	0	2619

ITE DEVIATION DETAILS

Weekday

Landuse — No deviations from ITE.

Methods — No deviations from ITE.

External Trips — 210 - Single-Family Detached Housing (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	1310
Total Exiting	1309
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	0
Total Exiting Internal Capture Reduction	0
Total Entering Pass-by Reduction	0
Total Exiting Pass-by Reduction	0
Total Entering Non-Pass-by Trips	1310
Total Exiting Non-Pass-by Trips	1309

PERIOD SETTING

Analysis Name :	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.		
Project Name :	RESTORATION BAY	**No :**	
Date:	10/15/2019	**City:**	
State/Province:		**Zip/Postal Code:**	
Country:		**Client Name:**	
Analyst's Name:		**Edition:**	Trip Generation Manual, 10th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
210 - Single-Family Detached Housing (General Urban/Suburban)	Dwelling Units	273	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) T = 0.71 (X)+4.8	50 25%	149 75%	199

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
210 - Single-Family Detached Housing	0 %	50	0 %	149

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
210 - Single-Family Detached Housing	199	0	0	199

ITE DEVIATION DETAILS

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

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 210 - Single-Family Detached Housing (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	50
Total Exiting	149
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	0
Total Exiting Internal Capture Reduction	0
Total Entering Pass-by Reduction	0
Total Exiting Pass-by Reduction	0
Total Entering Non-Pass-by Trips	50
Total Exiting Non-Pass-by Trips	149

PERIOD SETTING

Analysis Name :	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.		
Project Name :	RESTORATION BAY	**No :**	
Date:	10/15/2019	**City:**	
State/Province:		**Zip/Postal Code:**	
Country:		**Client Name:**	
Analyst's Name:		**Edition:**	Trip Generation Manual, 10th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
210 - Single-Family Detached Housing (General Urban/Suburban)	Dwelling Units	273	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) Ln(T) = 0.96Ln(X) +0.2	168 63%	98 37%	266

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
210 - Single-Family Detached Housing	0 %	168	0 %	98

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
210 - Single-Family Detached Housing	266	0	0	266

ITE DEVIATION DETAILS

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

Landuse No deviations from ITE.

Methods No deviations from ITE.

External Trips 210 - Single-Family Detached Housing (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	168
Total Exiting	98
Total Entering Reduction	0
Total Exiting Reduction	0
Total Entering Internal Capture Reduction	0
Total Exiting Internal Capture Reduction	0
Total Entering Pass-by Reduction	0
Total Exiting Pass-by Reduction	0
Total Entering Non-Pass-by Trips	168
Total Exiting Non-Pass-by Trips	98

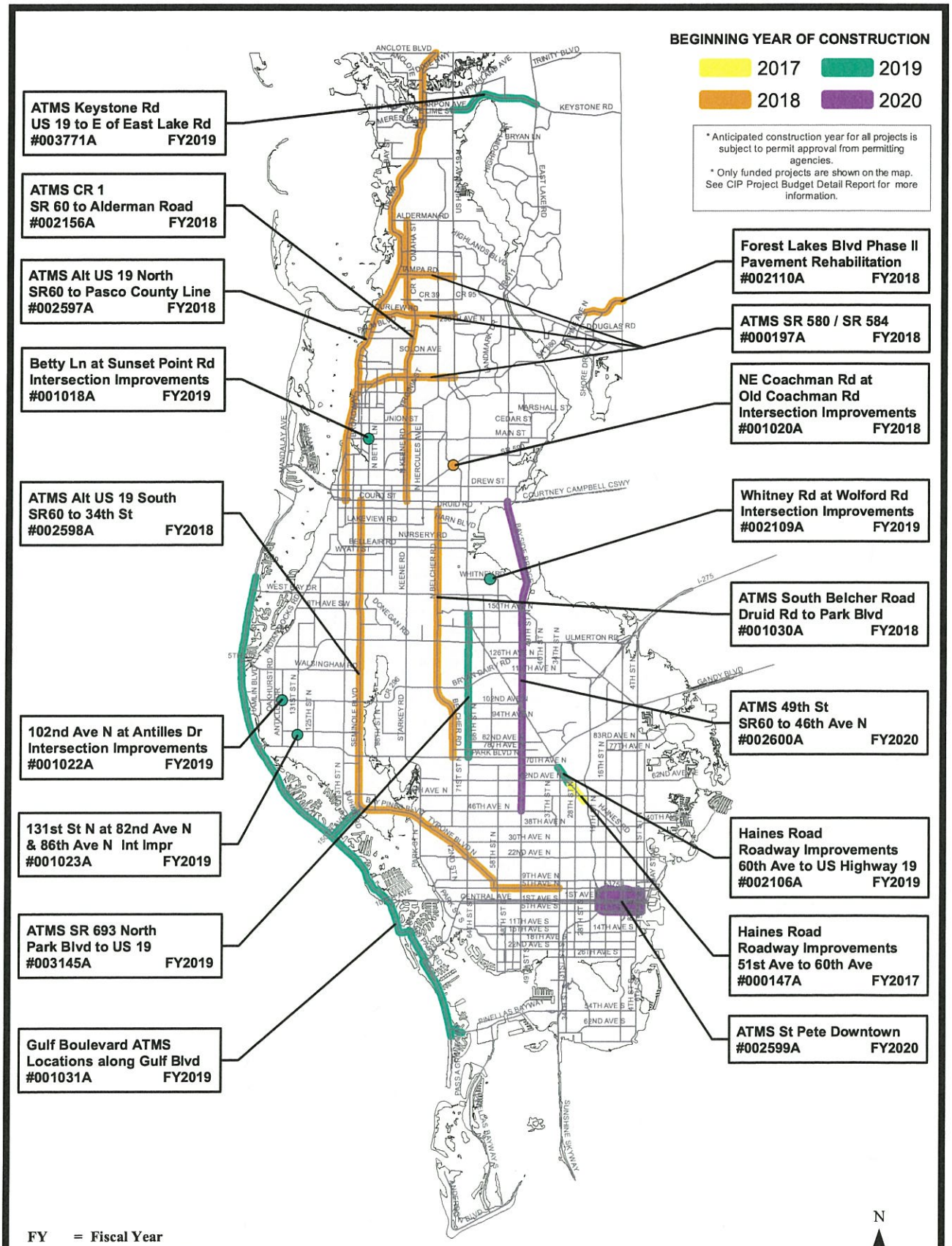
PINELLAS COUNTY CIP

Pinellas County

Capital Improvement Program

Six-Year Work Plan:
FY19 - FY24

www.pinellascounty.org/budget



Pinellas County

PINELLAS COUNTY WORK PROGRAM
FY 2019 through FY 2024
Major Transportation and ATMS Projects

Print Date: 8/24/2018

TRAFFIC COUNTS

National Data & Surveying Services

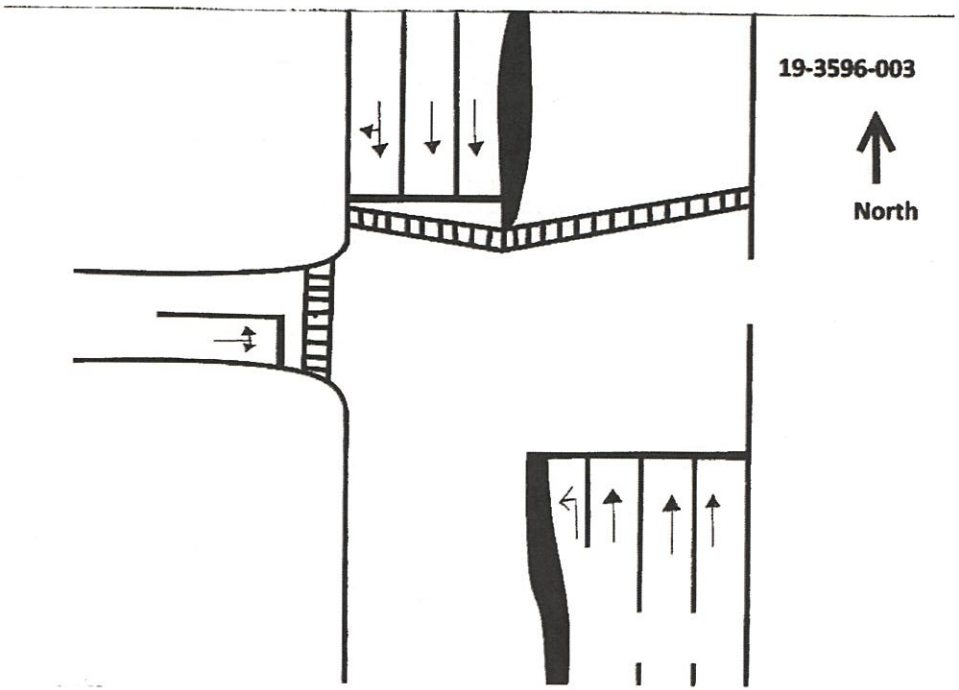
N

N/S Street: **113th St**

Speed: **40 MPH**

E/W Street: **66th Ave N**

Speed: **30 MPH**



Site Code: **19-3596-003**

Date: **9/17/2019**

Weather: **Sunny**

City: **Seminole**

County: **Pinellas**

Count Times: **07:00 – 09:00**

16:00 - 18:00

Control: **Signalized**

SIGNAL TIMING

PHASES	1	2	3
NL/NT	-	00:11	00:18
NT/ST	01:23	01:04	01:24
EL	00:31	00:23	00:17

Prepared by National Data & Surveying Services

113th St & 66th Ave N

Peak Hour Turning Movement Count

ID: 19-03596-003
City: Seminole

Day: Tuesday
Date: 09/17/2019

	PEAK HOURS	COUNT PERIODS
AM	07:00 AM - 08:00 AM	07:00 AM - 09:00 AM
NOON	NONE	NONE
PM	04:45 PM - 05:45 PM	04:00 PM - 06:00 PM

113th St — SOUTHBOUND

	Right	Thru	Left	U-Turn	Departing
AM	62	859	0	0	729
NOON	0	0	0	0	0
PM	78	745	0	0	905
	0	0	0	0	

66th Ave N — EASTBOUND

	AM	NOON	PM	
Departing	152	0	235	
U-Turn	0	0	0	0
Left	104	0	40	0
Thru	0	0	0	0
Right	157	0	78	0

66th Ave N — WESTBOUND

		PM	NOON	AM
Right	0	1	0	0
Thru	0	0	0	0
Left	0	0	0	0
U-Turn	0	0	0	0
Departing		1	0	0

113th St — NORTHBOUND

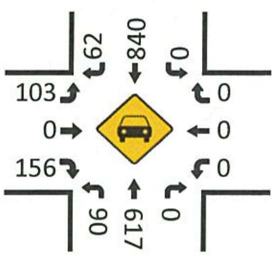
	Departing	U-Turn	Left	Thru	Right
		0	0	0	0
PM	823	0	157	864	1
NOON	0	0	0	0	0
AM	1018	2	90	625	0

CONTROL

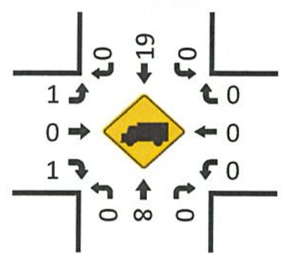
0

	AM	NOON	PM
TEV	1899	0	1964
PHF	0.91		0.98

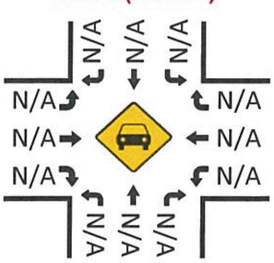
Cars (AM)



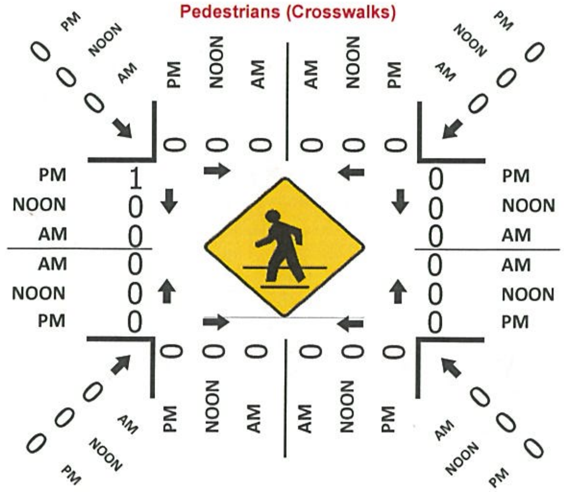
HT (AM)



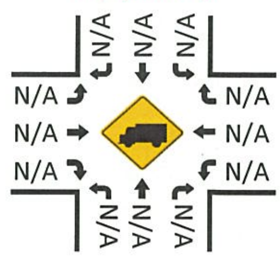
Cars (NOON)



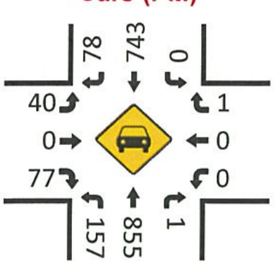
Pedestrians (Crosswalks)



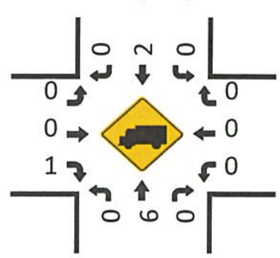
HT (NOON)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: 113th St & 66th Ave N
City: Seminole
Control:

Project ID: 19-03596-003
Date: 9/17/2019

Total

NS/EW Streets:	113th St				113th St				66th Ave N				66th Ave N				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	14	123	0	1	0	227	9	0	19	0	33	0	0	0	0	0	426
7:15 AM	23	157	0	1	0	242	9	0	16	0	41	0	0	0	0	0	489
7:30 AM	33	174	0	0	0	202	31	0	37	0	45	0	0	0	0	0	522
7:45 AM	20	171	0	0	0	188	13	0	32	0	38	0	0	0	0	0	462
8:00 AM	18	133	0	0	0	190	5	0	25	0	34	0	0	0	0	0	405
8:15 AM	22	147	0	0	0	172	11	0	23	0	18	0	0	0	0	0	393
8:30 AM	10	146	0	0	0	178	8	0	15	0	35	0	0	0	0	0	392
8:45 AM	8	109	0	0	0	165	9	0	17	0	26	0	0	0	0	0	334
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	148	1160	0	2	0	1564	95	0	184	0	270	0	0	0	0	0	3423
APPROACH %'s :	11.30%	88.55%	0.00%	0.15%	0.00%	94.27%	5.73%	0.00%	40.53%	0.00%	59.47%	0.00%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	90	625	0	2	0	859	62	0	104	0	157	0	0	0	0	0	1899
PEAK HR FACTOR :	0.682	0.898	0.000	0.500	0.000	0.887	0.500	0.000	0.703	0.000	0.872	0.000	0.000	0.000	0.000	0.000	0.909
		0.866				0.917				0.796							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	25	202	1	0	0	153	9	0	15	0	12	0	0	0	0	0	417
4:15 PM	23	181	0	0	0	184	16	0	15	0	15	0	0	0	0	0	434
4:30 PM	48	218	0	0	0	154	20	0	14	0	19	0	0	0	0	0	473
4:45 PM	37	218	0	0	0	191	24	0	15	0	17	0	0	0	0	0	502
5:00 PM	47	227	0	0	0	173	15	0	9	0	18	0	0	0	0	0	489
5:15 PM	37	224	1	0	0	169	21	0	8	0	25	0	0	0	1	0	486
5:30 PM	36	195	0	0	0	212	18	0	8	0	18	0	0	0	0	0	487
5:45 PM	28	185	1	1	0	186	14	0	9	0	23	0	0	0	0	0	447
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	281	1650	3	1	0	1422	137	0	93	0	147	0	0	0	1	0	3735
APPROACH %'s :	14.52%	85.27%	0.16%	0.05%	0.00%	91.21%	8.79%	0.00%	38.75%	0.00%	61.25%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	157	864	1	0	0	745	78	0	40	0	78	0	0	0	1	0	1964
PEAK HR FACTOR :	0.835	0.952	0.250	0.000	0.000	0.879	0.813	0.000	0.667	0.000	0.780	0.000	0.000	0.000	0.250	0.000	0.978
		0.932				0.895				0.894				0.250			

National Data & Surveying Services

Intersection Turning Movement Count

Location: 113th St & 66th Ave N
City: Seminole
Control: 0

Project ID: 19-03596-003
Date: 9/17/2019

Cars

NS/EW Streets:	113th St				113th St				66th Ave N				66th Ave N				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	14	122	0	1	0	227	9	0	19	0	32	0	0	0	0	0	424
7:15 AM	23	154	0	1	0	241	9	0	16	0	41	0	0	0	0	0	485
7:30 AM	33	172	0	0	0	194	31	0	37	0	45	0	0	0	0	0	512
7:45 AM	20	169	0	0	0	178	13	0	31	0	38	0	0	0	0	0	449
8:00 AM	17	130	0	0	0	189	5	0	25	0	34	0	0	0	0	0	400
8:15 AM	21	145	0	0	0	170	11	0	23	0	18	0	0	0	0	0	388
8:30 AM	10	144	0	0	0	176	8	0	14	0	34	0	0	0	0	0	386
8:45 AM	8	108	0	0	0	163	8	0	17	0	25	0	0	0	0	0	329
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	146	1144	0	2	0	1538	94	0	182	0	267	0	0	0	0	0	3373
APPROACH %'s :	11.30%	88.54%	0.00%	0.15%	0.00%	94.24%	5.76%	0.00%	40.53%	0.00%	59.47%	0.00%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	90	617	0	2	0	840	62	0	103	0	156	0	0	0	0	0	1870
PEAK HR FACTOR :	0.68	0.897	0.000	0.500	0.000	0.871	0.500	0.000	0.696	0.000	0.867	0.000	0.000	0.000	0.000	0.000	0.913
	0.865				0.902				0.790								

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	24	199	1	0	0	153	9	0	13	0	12	0	0	0	0	0	411
4:15 PM	23	179	0	0	0	184	16	0	15	0	14	0	0	0	0	0	431
4:30 PM	48	217	0	0	0	153	19	0	14	0	18	0	0	0	0	0	469
4:45 PM	37	215	0	0	0	191	24	0	15	0	16	0	0	0	0	0	498
5:00 PM	47	226	0	0	0	171	15	0	9	0	18	0	0	0	0	0	486
5:15 PM	37	219	1	0	0	169	21	0	8	0	25	0	0	0	1	0	481
5:30 PM	36	195	0	0	0	212	18	0	8	0	18	0	0	0	0	0	487
5:45 PM	28	185	1	1	0	185	14	0	9	0	23	0	0	0	0	0	446
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	280	1635	3	1	0	1418	136	0	91	0	144	0	0	0	1	0	3709
APPROACH %'s :	14.59%	85.20%	0.16%	0.05%	0.00%	91.25%	8.75%	0.00%	38.72%	0.00%	61.28%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	157	855	1	0	0	743	78	0	40	0	77	0	0	0	1	0	1952
PEAK HR FACTOR :	0.84	0.946	0.250	0.000	0.000	0.876	0.813	0.000	0.667	0.000	0.770	0.000	0.000	0.000	0.250	0.000	0.980
	0.928				0.892				0.886				0.250				

National Data & Surveying Services

Intersection Turning Movement Count

Location: 113th St & 66th Ave N
City: Seminole
Control: 0

Project ID: 19-03596-003
Date: 9/17/2019

HT

NS/EW Streets:	113th St				113th St				66th Ave N				66th Ave N				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	1	0	0	0	0	0	0	0	0	1	0	0	0	0	0	2
7:15 AM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
7:30 AM	0	2	0	0	0	8	0	0	0	0	0	0	0	0	0	0	10
7:45 AM	0	2	0	0	0	10	0	0	1	0	0	0	0	0	0	0	13
8:00 AM	1	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	5
8:15 AM	1	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
8:30 AM	0	2	0	0	0	2	0	0	1	0	1	0	0	0	0	0	6
8:45 AM	0	1	0	0	0	2	1	0	0	0	1	0	0	0	0	0	5
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	16	0	0	0	26	1	0	2	0	3	0	0	0	0	0	50
APPROACH %'s :	11.11%	88.89%	0.00%	0.00%	0.00%	96.30%	3.70%	0.00%	40.00%	0.00%	60.00%	0.00%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	8	0	0	0	19	0	0	1	0	1	0	0	0	0	0	29
PEAK HR FACTOR :	0.000	0.667	0.000	0.000	0.000	0.475	0.000	0.000	0.250	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.558
		0.667				0.475				0.500							

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	1	3	0	0	0	0	0	0	2	0	0	0	0	0	0	0	6
4:15 PM	0	2	0	0	0	0	0	0	0	0	1	0	0	0	0	0	3
4:30 PM	0	1	0	0	0	1	1	0	0	0	1	0	0	0	0	0	4
4:45 PM	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4
5:00 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	5
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	15	0	0	0	4	1	0	2	0	3	0	0	0	0	0	26
APPROACH %'s :	6.25%	93.75%	0.00%	0.00%	0.00%	80.00%	20.00%	0.00%	40.00%	0.00%	60.00%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	9	0	0	0	2	0	0	0	0	1	0	0	0	0	0	12
PEAK HR FACTOR :	0.00	0.450	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.600
		0.450				0.250				0.250							

National Data & Surveying Services

Intersection Turning Movement Count

Location: 113th St & 66th Ave N
City: Seminole
Control: 0

Project ID: 19-03596-003
Date: 9/17/2019

Bikes

NS/EW Streets:	113th St				113th St				66th Ave N				66th Ave N				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	1
7:30 AM	0	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	2	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3	0	0	0	0	0	0	0	0	3	0	0	0	0	0	6
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%					
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	3	0	0	0	0	0	0	0	0	1	0	0	0	0	0	4
PEAK HR FACTOR :	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.500
	0.375				0.000				0.250								

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

National Data & Surveying Services

Intersection Turning Movement Count

Location: 113th St & 66th Ave N
City: Seminole

Project ID: 19-03596-003
Date: 9/17/2019

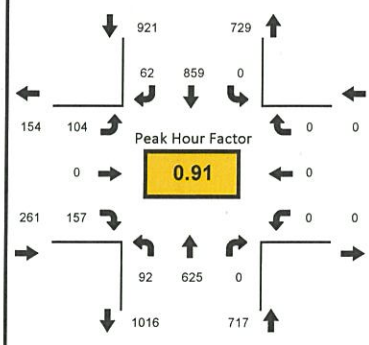
Pedestrians (Crosswalks)

NS/EW Streets:	113th St		113th St		66th Ave N		66th Ave N		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	3	0	0	0	0	0	2	5
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	1	0	0	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	3	0	0	0	0	0	2	6
APPROACH %'s :	25.00%	75.00%					0.00%	100.00%	
PEAK HR :	07:00 AM - 08:00 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	1	1
APPROACH %'s :							0.00%	100.00%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	1	1
PEAK HR FACTOR :								0.250	0.250
							0.250		

LOCATION: 113th St & 66th Ave N
CITY/STATE: Seminole, FL

PROJECT ID: 19-03596-003
DATE: 09/17/2019



Peak-Hour: 07:00 AM - 08:00 AM
Peak 15-Minute: 07:30 AM - 07:45 AM

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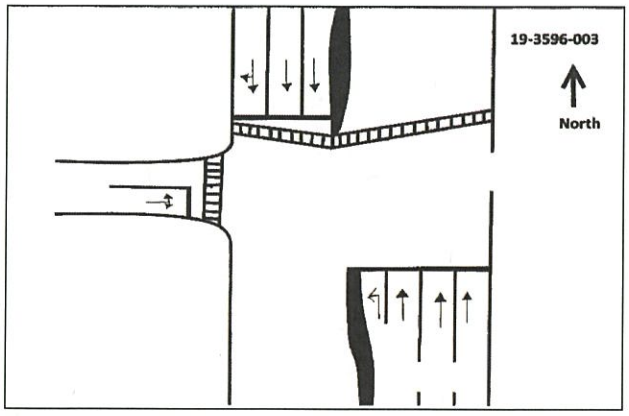
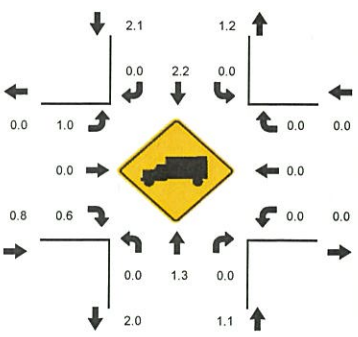
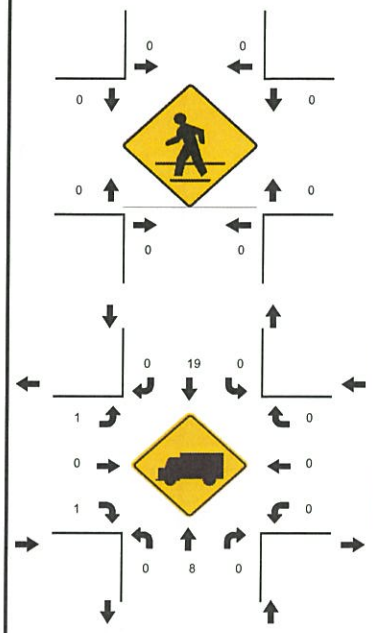
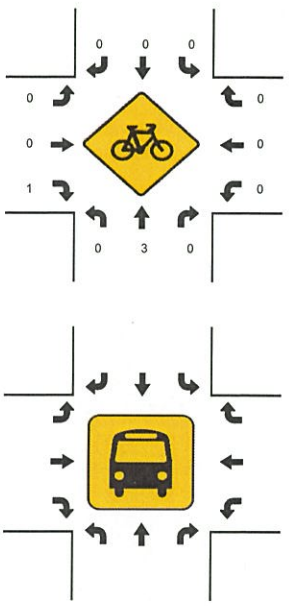






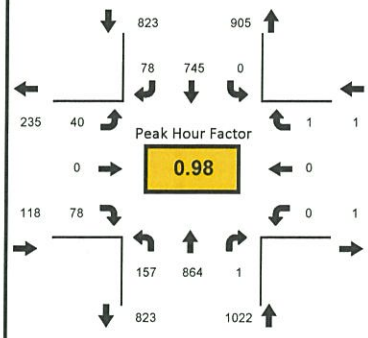


15-Min Count Period Beginning At	113th St Northbound					113th St Southbound					66th Ave N Eastbound					66th Ave N Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	14	123	0	1		0	227	9	0		19	0	33	0		0	0	0	0		426	1899
07:15 AM	23	157	0	1		0	242	9	0		16	0	41	0		0	0	0	0		489	1878
07:30 AM	33	174	0	0		0	202	31	0		37	0	45	0		0	0	0	0		522	1782
07:45 AM	20	171	0	0		0	188	13	0		32	0	38	0		0	0	0	0		462	1652
08:00 AM	18	133	0	0		0	190	5	0		25	0	34	0		0	0	0	0		405	1524
08:15 AM	22	147	0	0		0	172	11	0		23	0	18	0		0	0	0	0		393	1119
08:30 AM	10	146	0	0		0	178	8	0		15	0	35	0		0	0	0	0		392	726
08:45 AM	8	109	0	0		0	165	9	0		17	0	26	0		0	0	0	0		334	334
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	132	696	0	4		0	968	124	0		148	0	180	0		0	0	0	0		**2252**	
Heavy Trucks	0	12	0			0	40	0			4	0	4			0	0	0			**60**	
Pedestrians		0					0					0					0				**0**	
Bicycles	0	8	0			0	0	0			0	0	4			0	0	0			**12**	
Railroad Stopped Buses																						

LOCATION: 113th St & 66th Ave N
CITY/STATE: Seminole, FL

PROJECT ID: 19-03596-003
DATE: 09/17/2019

Peak-Hour: 04:45 PM - 05:45 PM
Peak 15-Minute: 04:45 PM - 05:00 PM



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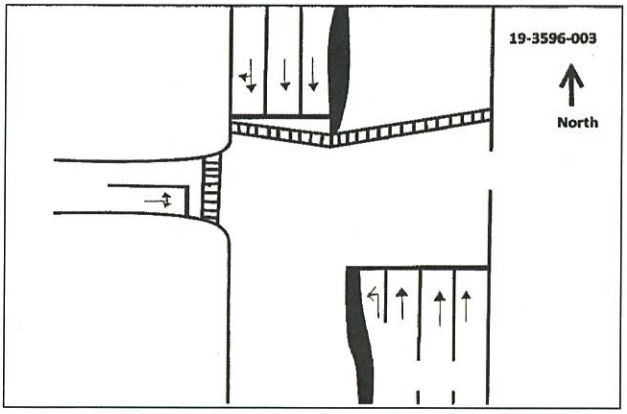
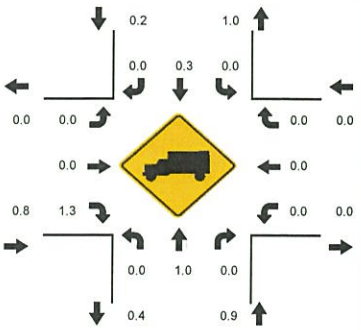
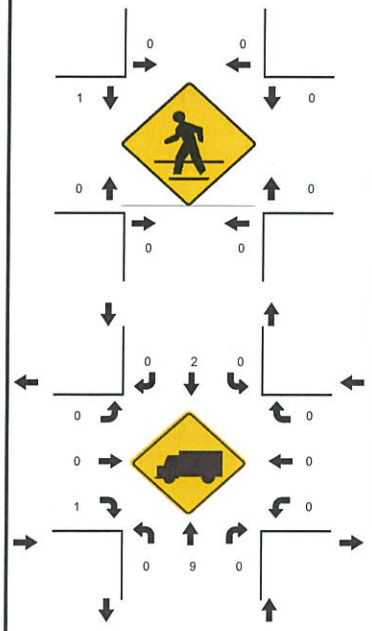
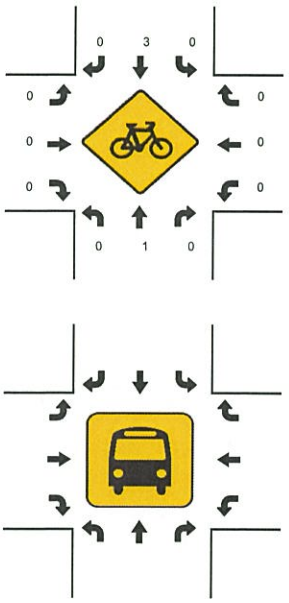








15-Min Count Period Beginning At	113th St Northbound					113th St Southbound					66th Ave N Eastbound					66th Ave N Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	25	202	1	0		0	153	9	0		15	0	12	0		0	0	0	0		417	1826
04:15 PM	23	181	0	0		0	184	16	0		15	0	15	0		0	0	0	0		434	1898
04:30 PM	48	218	0	0		0	154	20	0		14	0	19	0		0	0	0	0		473	1950
04:45 PM	37	218	0	0		0	191	24	0		15	0	17	0		0	0	0	0		502	1964
05:00 PM	47	227	0	0		0	173	15	0		9	0	18	0		0	0	0	0		489	1909
05:15 PM	37	224	1	0		0	169	21	0		8	0	25	0		0	0	1	0		486	1420
05:30 PM	36	195	0	0		0	212	18	0		8	0	18	0		0	0	0	0		487	934
05:45 PM	28	185	1	1		0	186	14	0		9	0	23	0		0	0	0	0		447	447

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	
All Vehicles	188	908	4	0		0	848	96	0		60	0	100	0		0	0	4	0		2208
Heavy Trucks	0	20	0			0	8	0			0	0	4			0	0	0			32
Pedestrians		0					0					4					0				4
Bicycles	0	4	0			0	8	0			0	0	0			0	0	0			12
Railroad Stopped Buses																					

National Data & Surveying Services

N

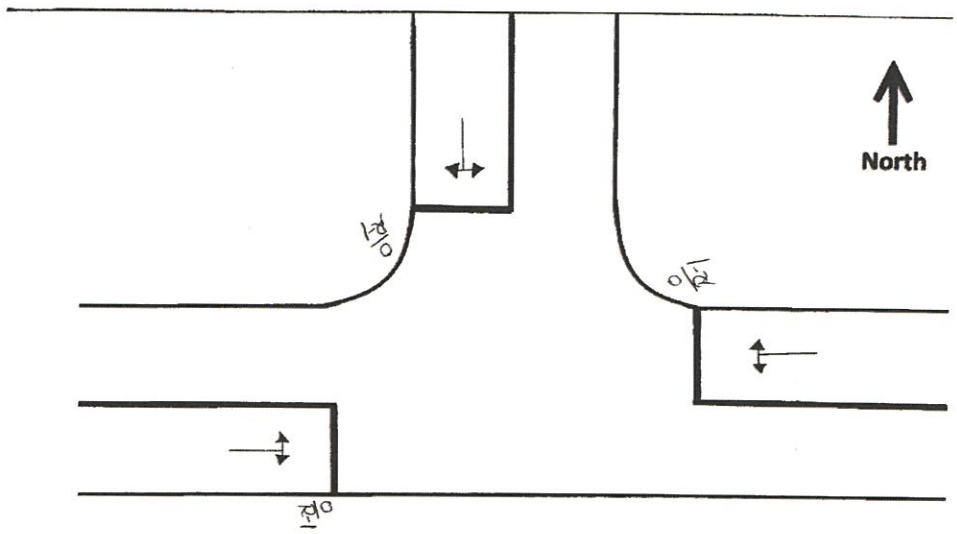
N/S Street: **116th St N**

Speed: **30 MPH**

E/W Street: **66th Ave N**

Speed: **30 MPH**

Site Code:	**19-3596-002**
Date:	**9/17/2019**
Weather:	**Sunny**
City:	**Seminole**
County:	**Pinellas**
Count Times:	**07:00 – 09:00**
	16:00 - 18:00
Control:	**3-Way Stop (SB/EB/WB)**



Prepared by National Data & Surveying Services

116th St N & 66th Ave N

Peak Hour Turning Movement Count

ID: 19-03596-002
City: Seminole

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM: 07:15 AM - 08:15 AM
NOON: NONE
PM: 04:30 PM - 05:30 PM

COUNT PERIODS

AM: 07:00 AM - 09:00 AM
NOON: NONE
PM: 04:00 PM - 06:00 PM

116th St N — SOUTHBOUND

AM	8	0	239	0	64	AM
NOON	0	0	0	0	0	NOON
PM	15	0	79	0	153	PM

66th Ave N — EASTBOUND

AM	NOON	PM	
17	0	86	⇦
0	0	0	↶ 0
7	0	8	↱ 0
71	0	28	→ 0
0	0	0	↴ 0
AM	NOON	PM	

CONTROL

0

TEV	391	0	346
	AM	NOON	PM
PHF	0.75		0.98

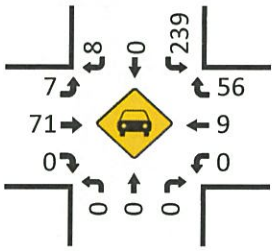
66th Ave N — WESTBOUND

PM	NOON	AM	
145	0	57	0 ↰
71	0	9	0 ←
0	0	0	0 ↶
0	0	0	0 ↩
107	0	310	⇨
PM	NOON	AM	

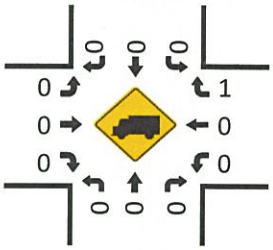
NORTHBOUND — 116th St N

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

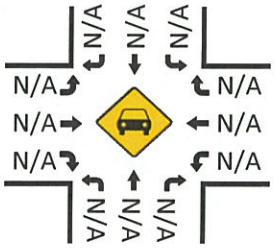
Cars (AM)



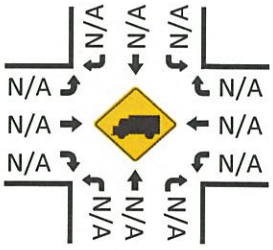
HT (AM)



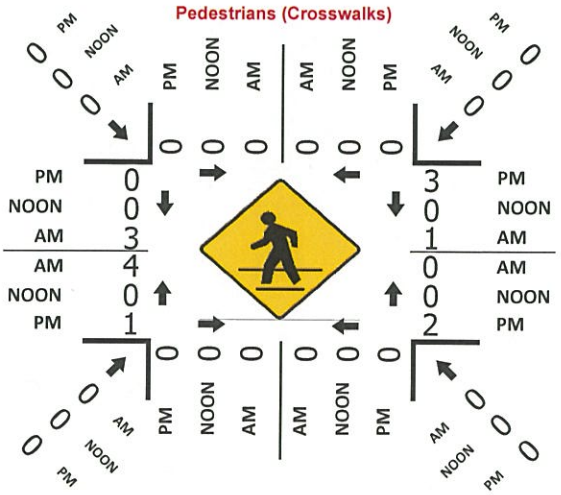
Cars (NOON)



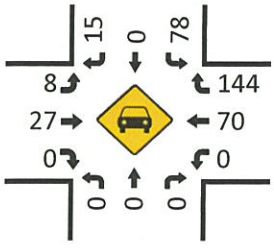
HT (NOON)



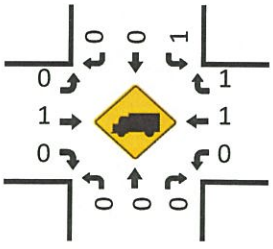
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: 116th St N & 66th Ave N
City: Seminole
Control:

Project ID: 19-03596-002
Date: 9/17/2019

Total

NS/EW Streets:	116th St N				116th St N				66th Ave N				66th Ave N				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	24	0	0	0	5	18	0	0	0	1	18	0	66
7:15 AM	0	0	0	0	34	0	2	0	0	17	0	0	0	0	12	0	65
7:30 AM	0	0	0	0	88	0	2	0	4	19	0	0	0	1	9	0	123
7:45 AM	0	0	0	0	89	0	2	0	3	18	0	0	0	3	15	0	130
8:00 AM	0	0	0	0	28	0	2	0	0	17	0	0	0	5	21	0	73
8:15 AM	0	0	0	0	21	0	0	0	0	18	0	0	0	6	19	0	64
8:30 AM	0	0	0	0	35	0	0	0	3	12	0	0	0	4	15	0	69
8:45 AM	0	0	0	0	21	0	0	0	2	12	0	0	0	2	16	0	53
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	340	0	8	0	17	131	0	0	0	22	125	0	643
APPROACH %'s :					97.70%	0.00%	2.30%	0.00%	11.49%	88.51%	0.00%	0.00%	0.00%	14.97%	85.03%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	239	0	8	0	7	71	0	0	0	9	57	0	391
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.671	0.000	1.000	0.000	0.438	0.934	0.000	0.000	0.000	0.450	0.679	0.000	0.752
					0.679				0.848				0.635				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	15	0	2	0	1	8	0	0	0	6	25	0	57
4:15 PM	0	0	0	0	11	0	2	0	2	7	0	0	0	13	18	0	53
4:30 PM	0	0	0	0	15	0	2	0	2	6	0	0	0	22	36	0	83
4:45 PM	0	0	0	0	16	0	4	0	1	8	0	0	0	17	42	0	88
5:00 PM	0	0	0	0	19	0	4	0	3	8	0	0	0	19	34	0	87
5:15 PM	0	0	0	0	29	0	5	0	2	6	0	0	0	13	33	0	88
5:30 PM	0	0	0	0	24	0	5	0	1	5	0	0	0	15	33	0	83
5:45 PM	0	0	0	0	17	0	1	0	0	12	0	0	0	16	22	0	68
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	146	0	25	0	12	60	0	0	0	121	243	0	607
APPROACH %'s :					85.38%	0.00%	14.62%	0.00%	16.67%	83.33%	0.00%	0.00%	0.00%	33.24%	66.76%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	79	0	15	0	8	28	0	0	0	71	145	0	346
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.681	0.000	0.750	0.000	0.667	0.875	0.000	0.000	0.000	0.807	0.863	0.000	0.983
					0.691				0.818				0.915				

National Data & Surveying Services

Intersection Turning Movement Count

Location: 116th St N & 66th Ave N
City: Seminole
Control: 0

Project ID: 19-03596-002
Date: 9/17/2019

Cars

NS/EW Streets:	116th St N				116th St N				66th Ave N				66th Ave N				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	24	0	0	0	5	18	0	0	0	1	17	0	65
7:15 AM	0	0	0	0	34	0	2	0	0	17	0	0	0	0	12	0	65
7:30 AM	0	0	0	0	88	0	2	0	4	19	0	0	0	1	9	0	123
7:45 AM	0	0	0	0	89	0	2	0	3	18	0	0	0	3	15	0	130
8:00 AM	0	0	0	0	28	0	2	0	0	17	0	0	0	5	20	0	72
8:15 AM	0	0	0	0	21	0	0	0	0	18	0	0	0	6	19	0	64
8:30 AM	0	0	0	0	34	0	0	0	3	12	0	0	0	4	14	0	67
8:45 AM	0	0	0	0	21	0	0	0	2	12	0	0	0	2	16	0	53
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	339	0	8	0	17	131	0	0	0	22	122	0	639
APPROACH %'s :					97.69%	0.00%	2.31%	0.00%	11.49%	88.51%	0.00%	0.00%	0.00%	15.28%	84.72%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	239	0	8	0	7	71	0	0	0	9	56	0	390
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.671	0.000	1.000	0.000	0.438	0.934	0.000	0.000	0.000	0.450	0.700	0.000	0.750
					0.679				0.848				0.650				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	0	0	0	0	15	0	2	0	1	6	0	0	0	6	24	0	54
4:15 PM	0	0	0	0	10	0	2	0	2	7	0	0	0	13	18	0	52
4:30 PM	0	0	0	0	14	0	2	0	2	6	0	0	0	21	36	0	81
4:45 PM	0	0	0	0	16	0	4	0	1	7	0	0	0	17	41	0	86
5:00 PM	0	0	0	0	19	0	4	0	3	8	0	0	0	19	34	0	87
5:15 PM	0	0	0	0	29	0	5	0	2	6	0	0	0	13	33	0	88
5:30 PM	0	0	0	0	24	0	5	0	1	5	0	0	0	15	33	0	83
5:45 PM	0	0	0	0	17	0	1	0	0	12	0	0	0	16	22	0	68
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	144	0	25	0	12	57	0	0	0	120	241	0	599
APPROACH %'s :					85.21%	0.00%	14.79%	0.00%	17.39%	82.61%	0.00%	0.00%	0.00%	33.24%	66.76%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	78	0	15	0	8	27	0	0	0	70	144	0	342
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.672	0.000	0.750	0.000	0.667	0.844	0.000	0.000	0.000	0.833	0.878	0.000	0.972
					0.684				0.795				0.922				

National Data & Surveying Services

Intersection Turning Movement Count

Location: 116th St N & 66th Ave N
City: Seminole
Control: 0

Project ID: 19-03596-002
Date: 9/17/2019

HT

NS/EW Streets:	116th St N				116th St N				66th Ave N				66th Ave N				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	4
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250
													0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	2	0	0	0	0	1	0	3
4:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
4:30 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2
4:45 PM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	1	0	2
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	2	0	0	0	0	3	0	0	0	1	2	0	8
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	33.33%	66.67%	0.00%	
PEAK HR :	04:30 PM - 05:30 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	0	0	1	0	0	0	1	1	0	4
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.250	0.000	0.500
					0.250				0.250				0.500				

National Data & Surveying Services

Intersection Turning Movement Count

Location: 116th St N & 66th Ave N
City: Seminole
Control: 0

Project ID: 19-03596-002
Date: 9/17/2019

Bikes

NS/EW Streets:	116th St N				116th St N				66th Ave N				66th Ave N				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:15 AM	0	0	0	0	1	0	0	0	0	1	0	0	0	0	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	2	0	0	0	1	1	0	0	0	0	0	0	4
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	5	0	0	0	1	2	0	0	0	1	0	0	9
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%	33.33%	66.67%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	0	0	0	0	0	0	1	0	0	2
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.500
					0.250								0.250				

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

National Data & Surveying Services

Intersection Turning Movement Count

Location: 116th St N & 66th Ave N
City: Seminole

Project ID: 19-03596-002
Date: 9/17/2019

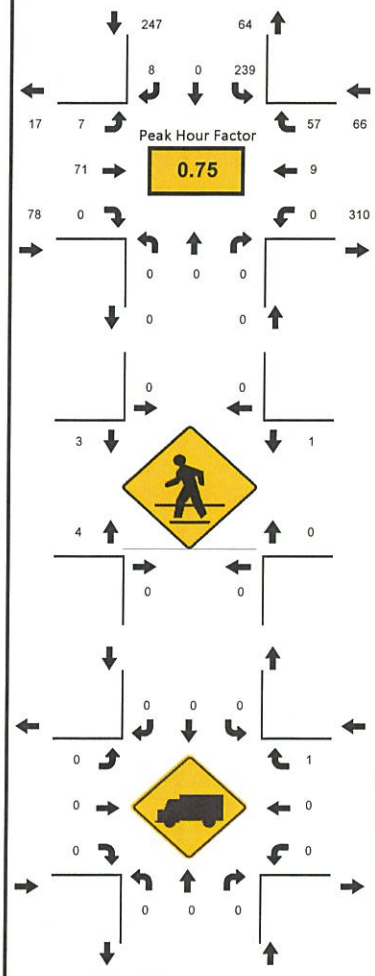
Pedestrians (Crosswalks)

NS/EW Streets:	116th St N		116th St N		66th Ave N		66th Ave N		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	2	0	2
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	1	0	1
8:00 AM	0	0	0	0	0	1	1	3	5
8:15 AM	1	0	0	0	0	1	0	0	2
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	1	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	1	0	0	0	0	2	4	4	11
APPROACH %'s :	100.00%	0.00%			0.00%	100.00%	50.00%	50.00%	
PEAK HR :	**07:15 AM - 08:15 AM**								TOTAL
PEAK HR VOL :	0	0	0	0	0	1	4	3	8
PEAK HR FACTOR :						0.250	0.500	0.250	0.400
					0.250		0.438		

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	1	0	0	0	1
4:15 PM	2	1	0	0	0	2	0	0	5
4:30 PM	0	0	0	0	0	0	1	0	1
4:45 PM	0	0	0	0	2	0	0	0	2
5:00 PM	0	0	0	0	0	3	0	0	3
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	1	0	0	3	5	1	0	12
APPROACH %'s :	66.67%	33.33%			37.50%	62.50%	100.00%	0.00%	
PEAK HR :	**04:30 PM - 05:30 PM**								TOTAL
PEAK HR VOL :	0	0	0	0	2	3	1	0	6
PEAK HR FACTOR :					0.250	0.250	0.250		0.500
					0.417		0.250		

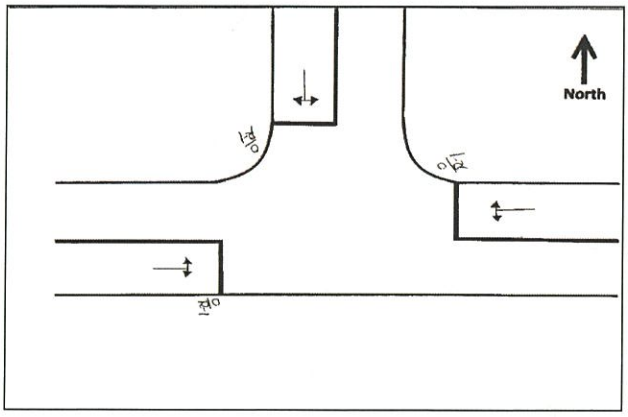
LOCATION: 116th St N & 66th Ave N
CITY/STATE: Seminole, FL

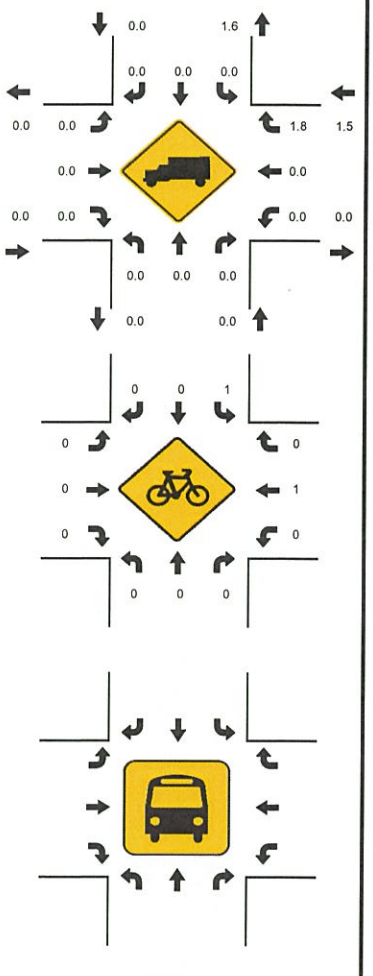
PROJECT ID: 19-03596-002
DATE: 09/17/2019



Peak-Hour: 07:15 AM - 08:15 AM
Peak 15-Minute: 07:45 AM - 08:00 AM

National Data & Surveying Services

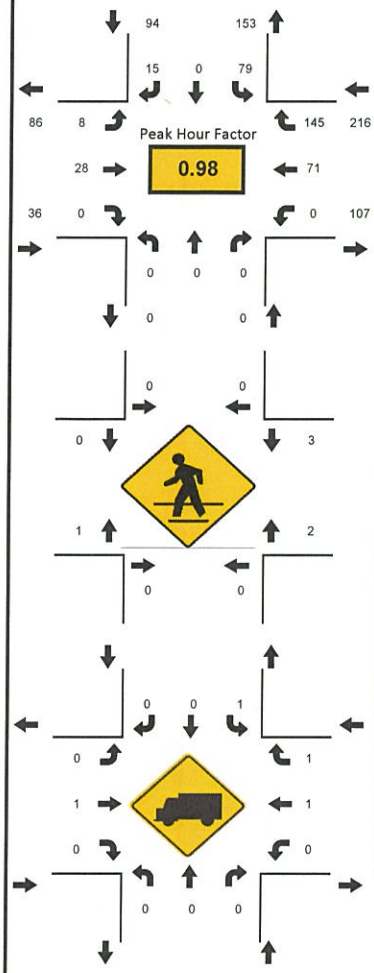




15-Min Count Period Beginning At	116th St N Northbound					116th St N Southbound					66th Ave N Eastbound					66th Ave N Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	0	0	0	0		24	0	0	0		5	18	0	0		0	1	18	0		66	384
07:15 AM	0	0	0	0		34	0	2	0		0	17	0	0		0	0	12	0		65	391
07:30 AM	0	0	0	0		88	0	2	0		4	19	0	0		0	1	9	0		123	390
07:45 AM	0	0	0	0		89	0	2	0		3	18	0	0		0	3	15	0		130	336
08:00 AM	0	0	0	0		28	0	2	0		0	17	0	0		0	5	21	0		73	259
08:15 AM	0	0	0	0		21	0	0	0		0	18	0	0		0	6	19	0		64	186
08:30 AM	0	0	0	0		35	0	0	0		3	12	0	0		0	4	15	0		69	122
08:45 AM	0	0	0	0		21	0	0	0		2	12	0	0		0	2	16	0		53	53
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	0	0	0	0		356	0	8	0		16	76	0	0		0	20	84	0		560	
Heavy Trucks	0	0	0			0	0	0			0	0	0			0	0	4			4	
Pedestrians		0					0					16					4				20	
Bicycles	0	0	0			4	0	0			0	0	0			0	4	0			8	
Railroad																						
Stopped Buses																						

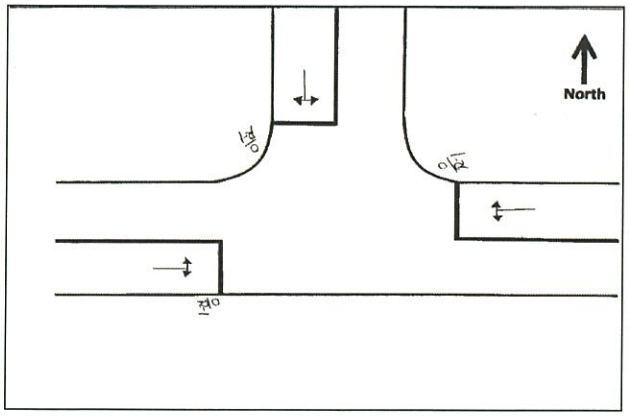
LOCATION: 116th St N & 66th Ave N
CITY/STATE: Seminole, FL

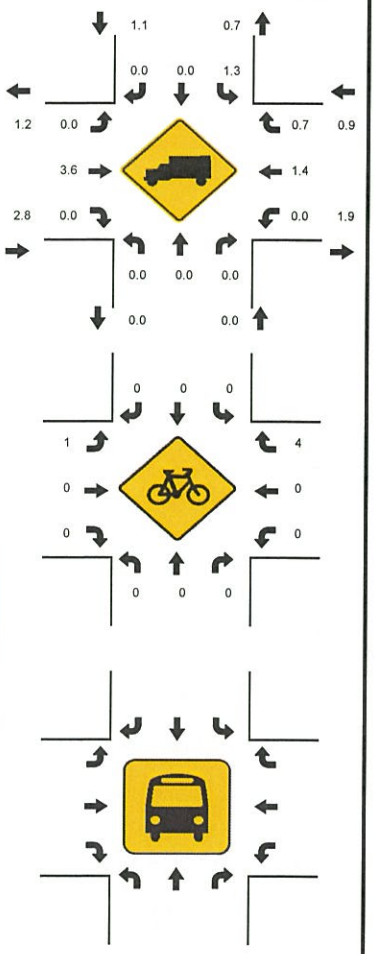
PROJECT ID: 19-03596-002
DATE: 09/17/2019



Peak-Hour: 04:30 PM - 05:30 PM
Peak 15-Minute: 04:45 PM - 05:00 PM

National Data & Surveying Services





15-Min Count Period Beginning At	116th St N Northbound					116th St N Southbound					66th Ave N Eastbound					66th Ave N Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	0	0	0	0		15	0	2	0		1	8	0	0		0	6	25	0		57	281
04:15 PM	0	0	0	0		11	0	2	0		2	7	0	0		0	13	18	0		53	311
04:30 PM	0	0	0	0		15	0	2	0		2	6	0	0		0	22	36	0		83	346
04:45 PM	0	0	0	0		16	0	4	0		1	8	0	0		0	17	42	0		88	346
05:00 PM	0	0	0	0		19	0	4	0		3	8	0	0		0	19	34	0		87	326
05:15 PM	0	0	0	0		29	0	5	0		2	6	0	0		0	13	33	0		88	239
05:30 PM	0	0	0	0		24	0	5	0		1	5	0	0		0	15	33	0		83	151
05:45 PM	0	0	0	0		17	0	1	0		0	12	0	0		0	16	22	0		68	68

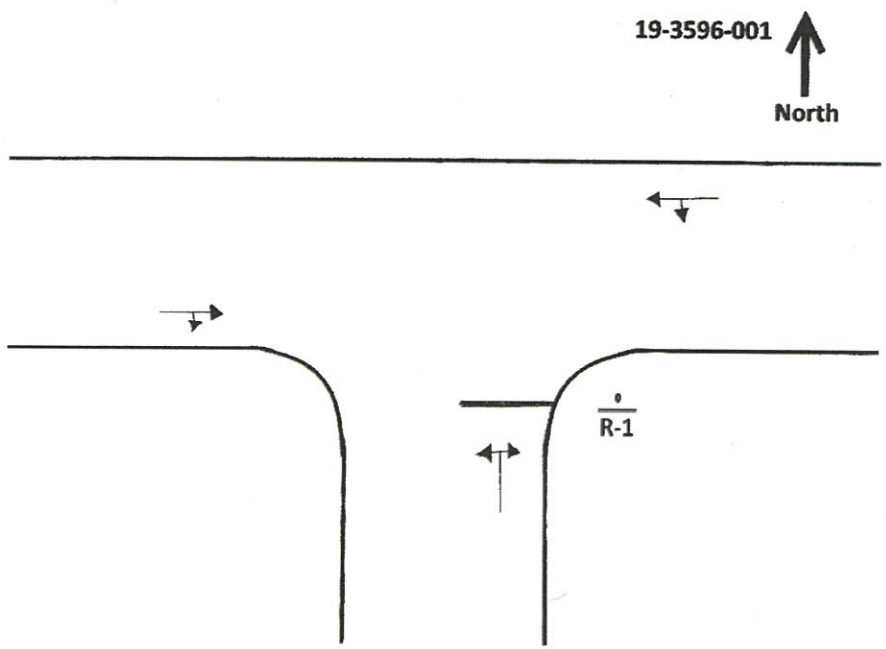
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	
All Vehicles	0	0	0	0		116	0	20	0		12	32	0	0		0	88	168	0		436
Heavy Trucks	0	0	0			4	0	0			0	4	0			0	4	4			16
Pedestrians		0					0					4					12				16
Bicycles	0	0	0			0	0	0			4	0	0			0	0	16			20
Railroad																					
Stopped Buses																					

National Data & Surveying Services

N/S Street: **Evergreen Ave N** | Speed: **25 MPH**

E/W Street: **66th Ave N** | Speed: **30 MPH**

Site Code:	**19-3596-001**
Date:	**9/17/2019**
Weather:	**Sunny**
City:	**Seminole**
County:	**Pinellas**
Count Times:	**07:00 – 09:00**
	16:00 - 18:00
Control:	**1-Way Stop (NB)**



Prepared by National Data & Surveying Services

Evergreen Ave N & 66th Ave N

Peak Hour Turning Movement Count

ID: 19-03596-001
City: Seminole

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM	07:30 AM - 08:30 AM
NOON	NONE
PM	04:15 PM - 05:15 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	NONE
PM	04:00 PM - 06:00 PM

Evergreen Ave N — SOUTHBOUND

AM	0	0	0	0	0	AM
NOON	0	0	0	0	0	NOON
PM	0	0	0	0	0	PM

66th Ave N — EASTBOUND

AM	NOON	PM	
14	0	61	⇦
0	0	0	↶ 0
0	0	0	↱ 0
60	0	34	→ 0
0	0	0	↳ 0
AM	NOON	PM	

CONTROL

0

	AM	NOON	PM
TEV	83	0	105
PHF	0.86		0.66

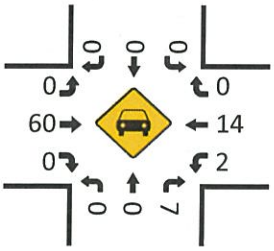
WESTBOUND — 66th Ave N

PM	NOON	AM	
0	0	0	0 ↶
60	0	14	0 ←
8	0	2	0 ↰
0	0	0	0 ↰
			⇨
36	0	67	
PM	NOON	AM	

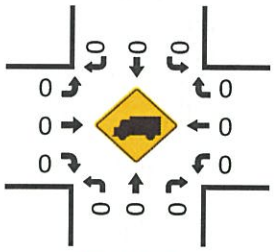
Evergreen Ave N — NORTHBOUND

PM	8	0	1	0	2	PM
NOON	0	0	0	0	0	NOON
AM	2	0	0	0	7	AM

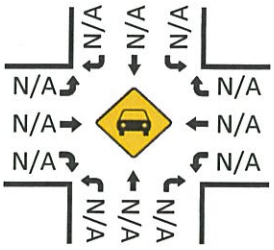
Cars (AM)



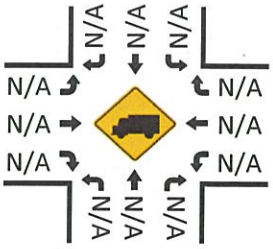
HT (AM)



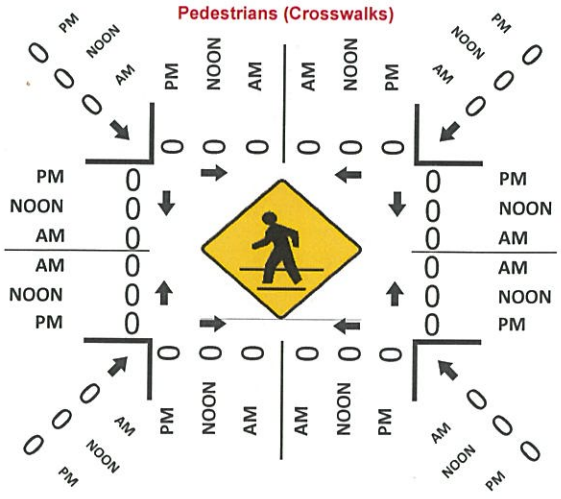
Cars (NOON)



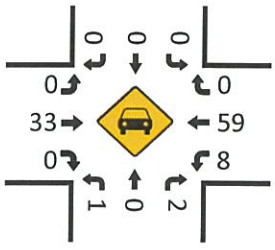
HT (NOON)



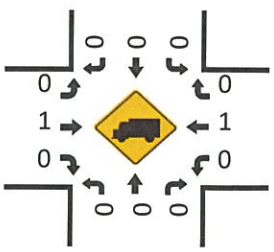
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Evergreen Ave N & 66th Ave N
City: Seminole
Control:

Project ID: 19-03596-001
Date: 9/17/2019

Total

NS/EW Streets:	Evergreen Ave N				Evergreen Ave N				66th Ave N				66th Ave N				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	2	0	0	0	0	0	0	16	1	0	1	0	0	0	20
7:15 AM	0	0	2	0	0	0	0	0	0	12	0	0	0	1	0	0	15
7:30 AM	0	0	3	0	0	0	0	0	0	15	0	0	0	0	0	0	18
7:45 AM	0	0	0	0	0	0	0	0	0	19	0	0	0	4	0	0	23
8:00 AM	0	0	2	0	0	0	0	0	0	15	0	0	1	6	0	0	24
8:15 AM	0	0	2	0	0	0	0	0	0	11	0	0	1	4	0	0	18
8:30 AM	1	0	2	0	0	0	0	0	0	12	0	0	1	1	0	0	17
8:45 AM	1	0	0	0	0	0	0	0	0	12	0	0	0	1	0	0	14
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	0	13	0	0	0	0	0	0	112	1	0	4	17	0	0	149
APPROACH %'s :	13.33%	0.00%	86.67%	0.00%					0.00%	99.12%	0.88%	0.00%	19.05%	80.95%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	7	0	0	0	0	0	0	60	0	0	2	14	0	0	83
PEAK HR FACTOR :	0.000	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.789	0.000	0.000	0.500	0.583	0.000	0.000	0.865
	0.583								0.789				0.571				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	6	0	0	1	4	0	0	11
4:15 PM	1	0	1	0	0	0	0	0	0	7	0	0	2	9	0	0	20
4:30 PM	0	0	0	0	0	0	0	0	0	8	0	0	3	16	0	0	27
4:45 PM	0	0	0	0	0	0	0	0	0	8	0	0	1	9	0	0	18
5:00 PM	0	0	1	0	0	0	0	0	0	11	0	0	2	26	0	0	40
5:15 PM	0	0	0	0	0	0	0	0	0	6	0	0	1	13	0	0	20
5:30 PM	0	0	2	0	0	0	0	0	0	5	0	0	0	12	0	0	19
5:45 PM	1	0	0	0	0	0	0	0	0	8	0	0	0	14	0	0	23
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	0	4	0	0	0	0	0	0	59	0	0	10	103	0	0	178
APPROACH %'s :	33.33%	0.00%	66.67%	0.00%					0.00%	100.00%	0.00%	0.00%	8.85%	91.15%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	1	0	2	0	0	0	0	0	0	34	0	0	8	60	0	0	105
PEAK HR FACTOR :	0.250	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.773	0.000	0.000	0.667	0.577	0.000	0.000	0.656
	0.375								0.773				0.607				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Evergreen Ave N & 66th Ave N
City: Seminole
Control: 0

Project ID: 19-03596-001
Date: 9/17/2019

Cars

NS/EW Streets:	Evergreen Ave N				Evergreen Ave N				66th Ave N				66th Ave N				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	2	0	0	0	0	0	0	16	1	0	1	0	0	0	20
7:15 AM	0	0	2	0	0	0	0	0	0	12	0	0	0	1	0	0	15
7:30 AM	0	0	3	0	0	0	0	0	0	15	0	0	0	0	0	0	18
7:45 AM	0	0	0	0	0	0	0	0	0	19	0	0	0	4	0	0	23
8:00 AM	0	0	2	0	0	0	0	0	0	15	0	0	1	6	0	0	24
8:15 AM	0	0	2	0	0	0	0	0	0	11	0	0	1	4	0	0	18
8:30 AM	1	0	2	0	0	0	0	0	0	12	0	0	1	1	0	0	17
8:45 AM	1	0	0	0	0	0	0	0	0	12	0	0	0	1	0	0	14
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	0	13	0	0	0	0	0	0	112	1	0	4	17	0	0	149
APPROACH %'s :	13.33%	0.00%	86.67%	0.00%					0.00%	99.12%	0.88%	0.00%	19.05%	80.95%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	7	0	0	0	0	0	0	60	0	0	2	14	0	0	83
PEAK HR FACTOR :	0.00	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.789	0.000	0.000	0.500	0.583	0.000	0.000	0.865
	0.583								0.789				0.571				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	4	0	0	1	4	0	0	9
4:15 PM	1	0	1	0	0	0	0	0	0	7	0	0	2	9	0	0	20
4:30 PM	0	0	0	0	0	0	0	0	0	8	0	0	3	15	0	0	26
4:45 PM	0	0	0	0	0	0	0	0	0	7	0	0	1	9	0	0	17
5:00 PM	0	0	1	0	0	0	0	0	0	11	0	0	2	26	0	0	40
5:15 PM	0	0	0	0	0	0	0	0	0	6	0	0	1	13	0	0	20
5:30 PM	0	0	2	0	0	0	0	0	0	5	0	0	0	12	0	0	19
5:45 PM	1	0	0	0	0	0	0	0	0	8	0	0	0	14	0	0	23
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	2	0	4	0	0	0	0	0	0	56	0	0	10	102	0	0	174
APPROACH %'s :	33.33%	0.00%	66.67%	0.00%					0.00%	100.00%	0.00%	0.00%	8.93%	91.07%	0.00%	0.00%	
PEAK HR :	04:15 PM - 05:15 PM																TOTAL
PEAK HR VOL :	1	0	2	0	0	0	0	0	0	33	0	0	8	59	0	0	103
PEAK HR FACTOR :	0.25	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.750	0.000	0.000	0.667	0.567	0.000	0.000	0.644
	0.375								0.750				0.598				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Evergreen Ave N & 66th Ave N
City: Seminole
Control: 0

Project ID: 19-03596-001
Date: 9/17/2019

HT

NS/EW Streets:	Evergreen Ave N				Evergreen Ave N				66th Ave N				66th Ave N				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

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

National Data & Surveying Services

Intersection Turning Movement Count

Location: Evergreen Ave N & 66th Ave N
City: Seminole
Control: 0

Project ID: 19-03596-001
Date: 9/17/2019

Bikes

NS/EW Streets:	Evergreen Ave N				Evergreen Ave N				66th Ave N				66th Ave N				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	0	1
8:15 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	1	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	2	0	0	0	1	0	0	3
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	
PEAK HR :	07:30 AM - 08:30 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	1	0	0	0	1	0	0	2
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.500
									0.250				0.250				

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

National Data & Surveying Services

Intersection Turning Movement Count

Location: Evergreen Ave N & 66th Ave N
City: Seminole

Project ID: 19-03596-001
Date: 9/17/2019

Pedestrians (Crosswalks)

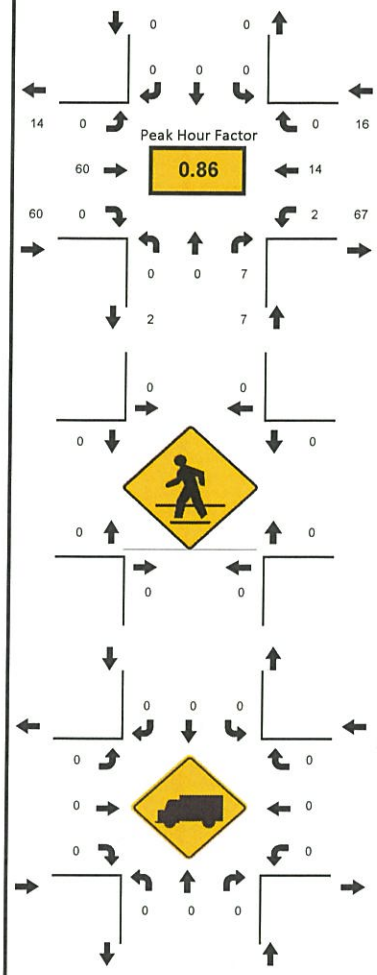
NS/EW Streets:	Evergreen Ave N		Evergreen Ave N		66th Ave N		66th Ave N		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0
APPROACH %'s :									
PEAK HR :	07:30 AM - 08:30 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	2	1	2	0	0	0	5
5:45 PM	0	0	1	0	0	0	0	1	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	3	1	2	0	0	1	7
APPROACH %'s :			75.00%	25.00%	100.00%	0.00%	0.00%	100.00%	
PEAK HR :	04:15 PM - 05:15 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

LOCATION: Evergreen Ave N & 66th Ave N
CITY/STATE: Seminole, FL

PROJECT ID: 19-03596-001
DATE: 09/17/2019

Peak-Hour: 07:30 AM - 08:30 AM
Peak 15-Minute: 08:00 AM - 08:15 AM



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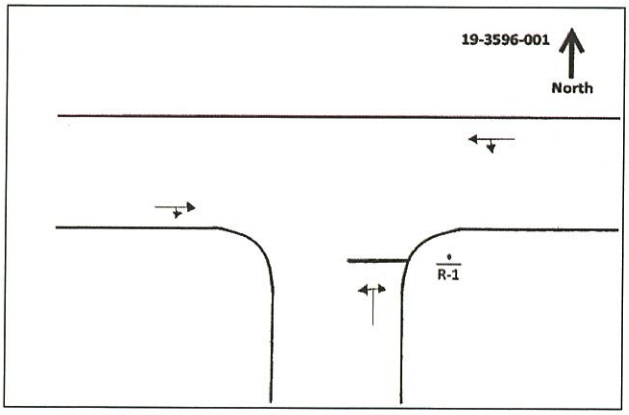
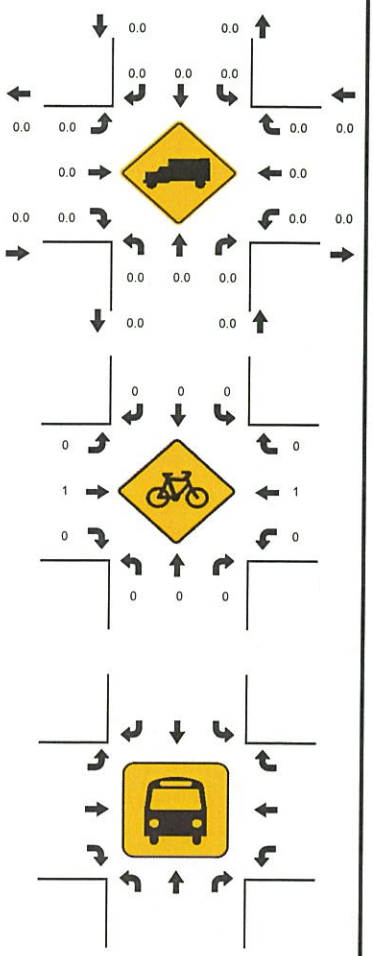


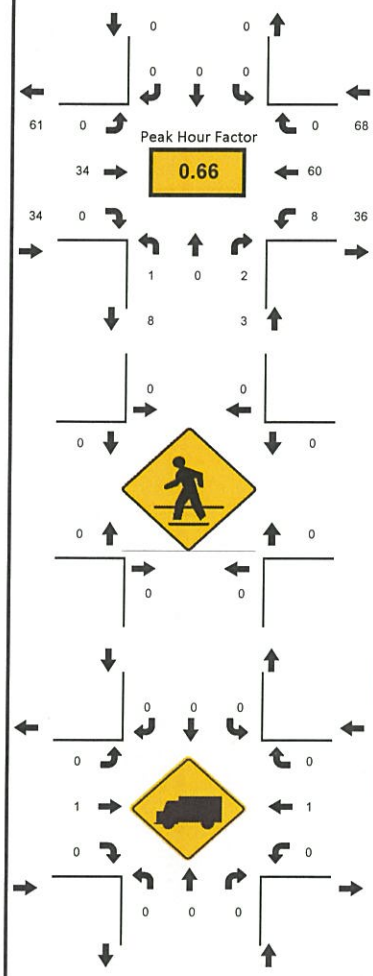


15-Min Count Period Beginning At	Evergreen Ave N Northbound					Evergreen Ave N Southbound					66th Ave N Eastbound					66th Ave N Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	0	0	2	0		0	0	0	0		0	16	1	0		1	0	0	0		20	76
07:15 AM	0	0	2	0		0	0	0	0		0	12	0	0		0	1	0	0		15	80
07:30 AM	0	0	3	0		0	0	0	0		0	15	0	0		0	0	0	0		18	83
07:45 AM	0	0	0	0		0	0	0	0		0	19	0	0		0	4	0	0		23	82
08:00 AM	0	0	2	0		0	0	0	0		0	15	0	0		1	6	0	0		24	73
08:15 AM	0	0	2	0		0	0	0	0		0	11	0	0		1	4	0	0		18	49
08:30 AM	1	0	2	0		0	0	0	0		0	12	0	0		1	1	0	0		17	31
08:45 AM	1	0	0	0		0	0	0	0		0	12	0	0		0	1	0	0		14	14
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	0	0	12	0		0	0	0	0		0	76	0	0		4	24	0	0		116	
Heavy Trucks	0	0	0			0	0	0			0	0	0			0	0	0			0	
Pedestrians		0					0					0					0				0	
Bicycles	0	0	0			0	0	0			0	4	0			0	4	0			8	
Railroad																						
Stopped Buses																						

LOCATION: Evergreen Ave N & 66th Ave N
CITY/STATE: Seminole, FL

PROJECT ID: 19-03596-001
DATE: 09/17/2019

Peak-Hour: 04:15 PM - 05:15 PM
Peak 15-Minute: 05:00 PM - 05:15 PM



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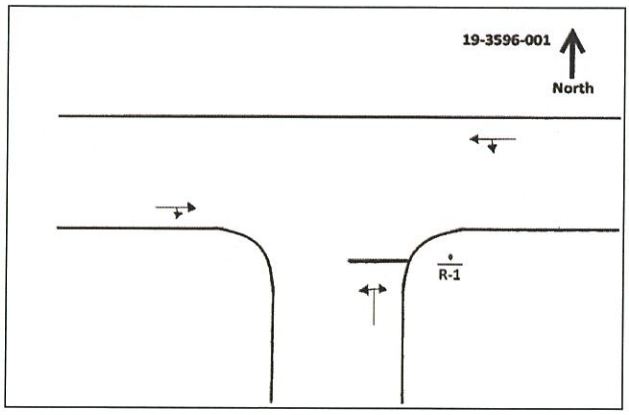
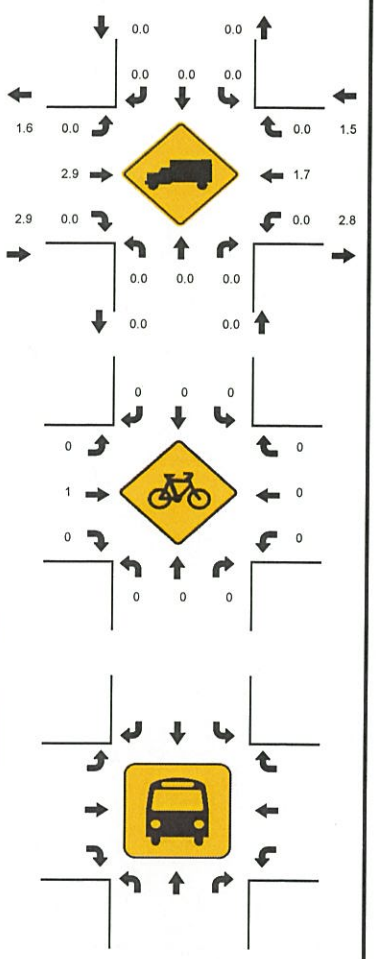




15-Min Count Period Beginning At	Evergreen Ave N Northbound					Evergreen Ave N Southbound					66th Ave N Eastbound					66th Ave N Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	0	0	0	0		0	0	0	0		0	6	0	0		1	4	0	0		11	76
04:15 PM	1	0	1	0		0	0	0	0		0	7	0	0		2	9	0	0		20	105
04:30 PM	0	0	0	0		0	0	0	0		0	8	0	0		3	16	0	0		27	105
04:45 PM	0	0	0	0		0	0	0	0		0	8	0	0		1	9	0	0		18	97
05:00 PM	0	0	1	0		0	0	0	0		0	11	0	0		2	26	0	0		40	102
05:15 PM	0	0	0	0		0	0	0	0		0	6	0	0		1	13	0	0		20	62
05:30 PM	0	0	2	0		0	0	0	0		0	5	0	0		0	12	0	0		19	42
05:45 PM	1	0	0	0		0	0	0	0		0	8	0	0		0	14	0	0		23	23

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	
All Vehicles	4	0	4	0		0	0	0	0		0	44	0	0		12	104	0	0		168
Heavy Trucks	0	0	0			0	0	0			0	4	0			0	4	0			8
Pedestrians		0					0					0					0				0
Bicycles	0	0	0			0	0	0			0	4	0			0	0	0			4
Railroad																					
Stopped Buses																					

National Data & Surveying Services

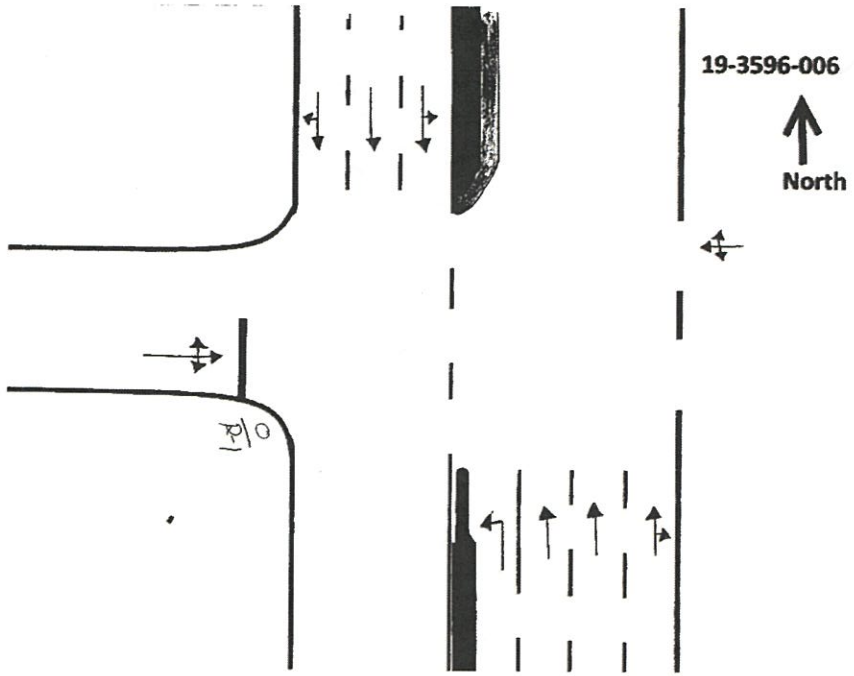
N/S Street: **113th St**

Speed: **40 MPH**

E/W Street: **62nd Ave**

Speed: **25 MPH**

Site Code:	**19-3596-006**
Date:	**9/17/2019**
Weather:	**Sunny**
City:	**Seminole**
County:	**Pinellas**
Count Times:	**07:00 – 09:00**
	16:00 - 18:00
Control:	**1-Way Stop (EB)**



Prepared by National Data & Surveying Services

113th St & 62nd Ave

Peak Hour Turning Movement Count

ID: 19-03596-006
City: Seminole

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM: 07:15 AM - 08:15 AM
NOON: NONE
PM: 04:45 PM - 05:45 PM

COUNT PERIODS

AM: 07:00 AM - 09:00 AM
NOON: NONE
PM: 04:00 PM - 06:00 PM

113th St — SOUTHBOUND

AM	6	1012	1	0	649	AM
NOON	0	0	0	0	0	NOON
PM	16	748	0	2	977	PM

62nd Ave — EASTBOUND

AM	NOON	PM	
9	0	31	⇦
0	0	0	↶ 0
11	0	6	↱ 0
0	0	0	→ 0
16	0	4	↴ 0
AM	NOON	PM	

62nd Ave — WESTBOUND

PM	NOON	AM	
0	0	1	0 ↰
0	0	0	0 ←
0	0	0	0 ↰
0	0	0	0 ↶
2	0	1	⇨
PM	NOON	AM	

CONTROL

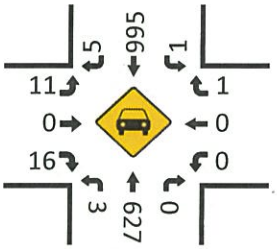
0

TEV	1687	0	1762
	AM	NOON	PM
PHF	0.91		0.97

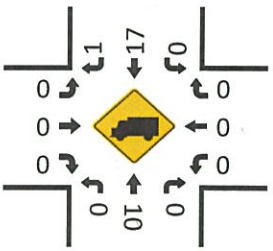
113th St — NORTHBOUND

PM	752	0	15	969	2	PM
NOON	0	0	0	0	0	NOON
AM	1028	0	3	637	0	AM

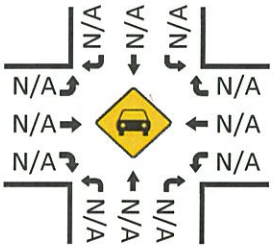
Cars (AM)



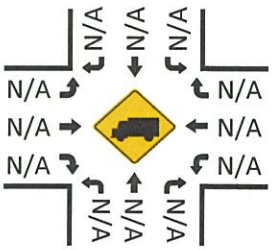
HT (AM)



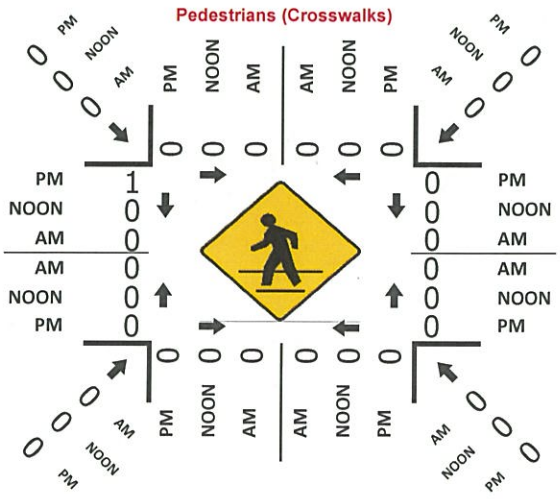
Cars (NOON)



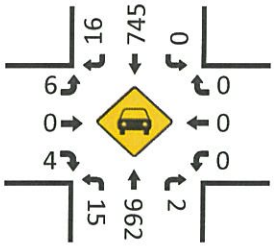
HT (NOON)



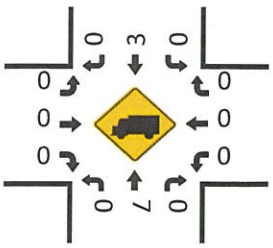
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: 113th St & 62nd Ave
City: Seminole
Control:

Project ID: 19-03596-006
Date: 9/17/2019

Total

NS/EW Streets:	113th St				113th St				62nd Ave				62nd Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	1	112	0	0	0	212	0	0	4	0	4	0	0	0	0	0	333
7:15 AM	0	155	0	0	0	301	1	0	3	0	3	0	0	0	1	0	464
7:30 AM	1	181	0	0	0	258	0	0	1	0	5	0	0	0	0	0	446
7:45 AM	1	160	0	0	1	215	4	0	4	0	3	0	0	0	0	0	388
8:00 AM	1	141	0	0	0	238	1	0	3	0	5	0	0	0	0	0	389
8:15 AM	0	138	0	0	0	194	3	0	2	0	1	0	0	0	0	0	338
8:30 AM	1	134	1	0	0	208	5	0	3	0	3	0	0	0	0	0	355
8:45 AM	2	124	1	0	0	172	2	0	1	0	2	0	0	0	0	0	304
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	7	1145	2	0	1	1798	16	0	21	0	26	0	0	0	1	0	3017
APPROACH %'s :	0.61%	99.22%	0.17%	0.00%	0.06%	99.06%	0.88%	0.00%	44.68%	0.00%	55.32%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	3	637	0	0	1	1012	6	0	11	0	16	0	0	0	1	0	1687
PEAK HR FACTOR :	0.750	0.880	0.000	0.000	0.250	0.841	0.375	0.000	0.688	0.000	0.800	0.000	0.000	0.000	0.250	0.000	0.909
		0.879				0.844				0.844				0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	5	219	0	0	0	169	2	0	1	0	0	0	0	0	0	0	396
4:15 PM	2	195	0	0	0	183	4	0	1	0	1	0	0	0	0	0	386
4:30 PM	1	263	0	0	0	157	4	0	3	0	0	0	0	0	0	0	428
4:45 PM	3	250	0	0	0	182	5	1	1	0	1	0	0	0	0	0	443
5:00 PM	1	243	0	0	0	180	3	0	2	0	1	0	0	0	0	0	430
5:15 PM	8	253	0	0	0	185	5	1	2	0	1	0	0	0	0	0	455
5:30 PM	3	223	2	0	0	201	3	0	1	0	1	0	0	0	0	0	434
5:45 PM	2	200	0	0	0	198	0	0	2	0	0	0	0	0	0	0	402
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	25	1846	2	0	0	1455	26	2	13	0	5	0	0	0	0	0	3374
APPROACH %'s :	1.33%	98.56%	0.11%	0.00%	0.00%	98.11%	1.75%	0.13%	72.22%	0.00%	27.78%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	15	969	2	0	0	748	16	2	6	0	4	0	0	0	0	0	1762
PEAK HR FACTOR :	0.469	0.958	0.250	0.000	0.000	0.930	0.800	0.500	0.750	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.968
		0.944				0.939				0.833							

National Data & Surveying Services

Intersection Turning Movement Count

Location: 113th St & 62nd Ave
City: Seminole
Control: 0

Project ID: 19-03596-006
Date: 9/17/2019

Cars

NS/EW Streets:	113th St				113th St				62nd Ave				62nd Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	1	110	0	0	0	211	0	0	4	0	4	0	0	0	0	0	330
7:15 AM	0	152	0	0	0	300	1	0	3	0	3	0	0	0	1	0	460
7:30 AM	1	180	0	0	0	256	0	0	1	0	5	0	0	0	0	0	443
7:45 AM	1	159	0	0	1	206	3	0	4	0	3	0	0	0	0	0	377
8:00 AM	1	136	0	0	0	233	1	0	3	0	5	0	0	0	0	0	379
8:15 AM	0	137	0	0	0	193	3	0	1	0	1	0	0	0	0	0	335
8:30 AM	1	133	1	0	0	205	5	0	3	0	3	0	0	0	0	0	351
8:45 AM	2	124	1	0	0	170	2	0	1	0	2	0	0	0	0	0	302
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	7	1131	2	0	1	1774	15	0	20	0	26	0	0	0	1	0	2977
APPROACH %'s :	0.61%	99.21%	0.18%	0.00%	0.06%	99.11%	0.84%	0.00%	43.48%	0.00%	56.52%	0.00%	0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	3	627	0	0	1	995	5	0	11	0	16	0	0	0	1	0	1659
PEAK HR FACTOR :	0.75	0.871	0.000	0.000	0.250	0.829	0.417	0.000	0.688	0.000	0.800	0.000	0.000	0.000	0.250	0.000	0.902
		0.870				0.831				0.844				0.250			

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	5	216	0	0	0	169	2	0	1	0	0	0	0	0	0	0	393
4:15 PM	2	194	0	0	0	182	4	0	1	0	1	0	0	0	0	0	384
4:30 PM	1	260	0	0	0	156	4	0	3	0	0	0	0	0	0	0	424
4:45 PM	3	249	0	0	0	180	5	1	1	0	1	0	0	0	0	0	440
5:00 PM	1	241	0	0	0	179	3	0	2	0	1	0	0	0	0	0	427
5:15 PM	8	249	0	0	0	185	5	1	2	0	1	0	0	0	0	0	451
5:30 PM	3	223	2	0	0	201	3	0	1	0	1	0	0	0	0	0	434
5:45 PM	2	200	0	0	0	198	0	0	2	0	0	0	0	0	0	0	402
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	25	1832	2	0	0	1450	26	2	13	0	5	0	0	0	0	0	3355
APPROACH %'s :	1.34%	98.55%	0.11%	0.00%	0.00%	98.11%	1.76%	0.14%	72.22%	0.00%	27.78%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	15	962	2	0	0	745	16	2	6	0	4	0	0	0	0	0	1752
PEAK HR FACTOR :	0.47	0.966	0.250	0.000	0.000	0.927	0.800	0.500	0.750	0.000	1.000	0.000	0.000	0.000	0.000	0.000	0.971
		0.952				0.935				0.833							

National Data & Surveying Services

Intersection Turning Movement Count

Location: 113th St & 62nd Ave
City: Seminole
Control: 0

Project ID: 19-03596-006
Date: 9/17/2019

HT

NS/EW Streets:	113th St				113th St				62nd Ave				62nd Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
7:15 AM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
7:30 AM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
7:45 AM	0	1	0	0	0	9	1	0	0	0	0	0	0	0	0	0	11
8:00 AM	0	5	0	0	0	5	0	0	0	0	0	0	0	0	0	0	10
8:15 AM	0	1	0	0	0	1	0	0	1	0	0	0	0	0	0	0	3
8:30 AM	0	1	0	0	0	3	0	0	0	0	0	0	0	0	0	0	4
8:45 AM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	14	0	0	0	24	1	0	1	0	0	0	0	0	0	0	40
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	96.00%	4.00%	0.00%	100.00%	0.00%	0.00%	0.00%					
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	10	0	0	0	17	1	0	0	0	0	0	0	0	0	0	28
PEAK HR FACTOR :	0.000	0.500	0.000	0.000	0.000	0.472	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.636
		0.500				0.450											

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
4:15 PM	0	1	0	0	0	1	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
4:45 PM	0	1	0	0	0	2	0	0	0	0	0	0	0	0	0	0	3
5:00 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
5:15 PM	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	14	0	0	0	5	0	0	0	0	0	0	0	0	0	0	19
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	7	0	0	0	3	0	0	0	0	0	0	0	0	0	0	10
PEAK HR FACTOR :	0.00	0.438	0.000	0.000	0.000	0.375	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.625
		0.438				0.375											

National Data & Surveying Services

Intersection Turning Movement Count

Location: 113th St & 62nd Ave
City: Seminole
Control: 0

Project ID: 19-03596-006
Date: 9/17/2019

Bikes

NS/EW Streets:	113th St				113th St				62nd Ave				62nd Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
7:45 AM	0	3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	3
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3	0	0	0	2	0	0	0	0	0	0	0	0	0	0	5
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%									
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	0	3	0	0	0	1	0	0	0	0	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333
	0.250				0.250												

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	0	1	0	0	0	1	0	0	0	0	1	0	0	0	0	0	3
4:15 PM	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	2	0	0	0	1	0	0	0	0	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
5:45 PM	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	3	0	0	0	6	0	0	0	0	1	0	0	0	0	0	10
APPROACH %'s :	0.00%	100.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%					
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	2	0	0	0	2	0	0	0	0	0	0	0	0	0	0	4
PEAK HR FACTOR :	0.00	0.250	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.333
	0.250				0.500												

National Data & Surveying Services

Intersection Turning Movement Count

Location: 113th St & 62nd Ave
City: Seminole

Project ID: 19-03596-006
Date: 9/17/2019

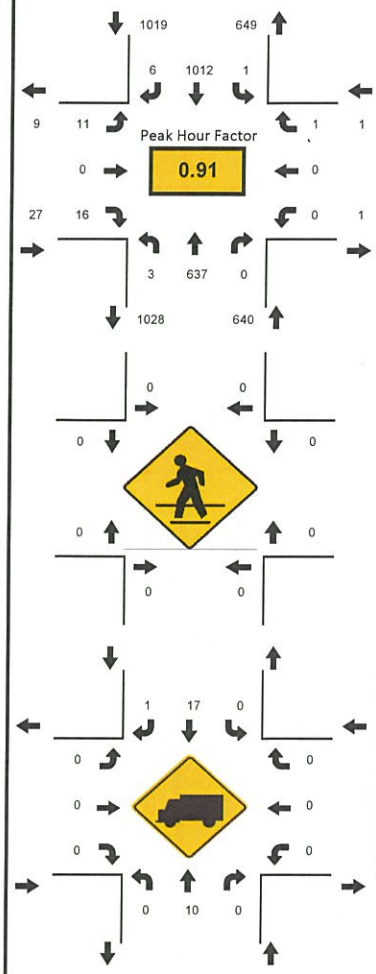
Pedestrians (Crosswalks)

NS/EW Streets:	113th St		113th St		62nd Ave		62nd Ave		
AM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
7:00 AM	0	0	0	0	0	1	0	0	1
7:15 AM	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	1	0	0	1	2
8:30 AM	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	2	0	0	0	2
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	3	1	0	1	5
APPROACH %'s :					75.00%	25.00%	0.00%	100.00%	
PEAK HR :	07:15 AM - 08:15 AM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	1	1
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	1	1
APPROACH %'s :							0.00%	100.00%	
PEAK HR :	04:45 PM - 05:45 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	1	1
PEAK HR FACTOR :								0.250	0.250
							0.250		

LOCATION: 113th St & 62nd Ave
CITY/STATE: Seminole, FL

PROJECT ID: 19-03596-006
DATE: 09/17/2019



Peak-Hour: 07:15 AM - 08:15 AM
Peak 15-Minute: 07:15 AM - 07:30 AM

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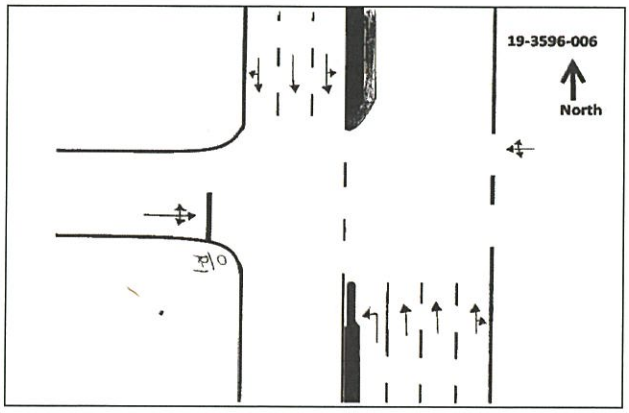
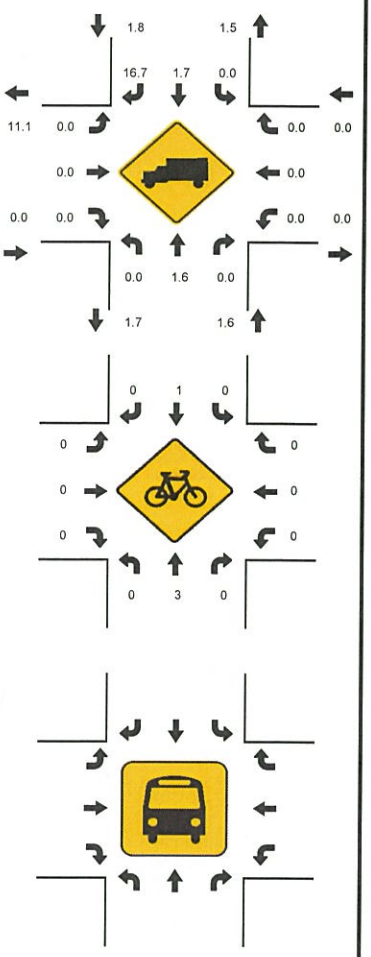


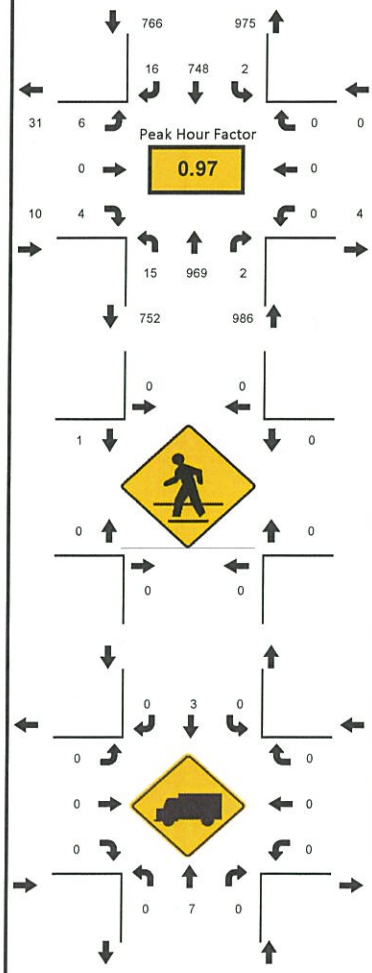


15-Min Count Period Beginning At	113th St Northbound					113th St Southbound					62nd Ave Eastbound					62nd Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	1	112	0	0		0	212	0	0		4	0	4	0		0	0	0	0		333	1631
07:15 AM	0	155	0	0		0	301	1	0		3	0	3	0		0	0	1	0		464	1687
07:30 AM	1	181	0	0		0	258	0	0		1	0	5	0		0	0	0	0		446	1561
07:45 AM	1	160	0	0		1	215	4	0		4	0	3	0		0	0	0	0		388	1470
08:00 AM	1	141	0	0		0	238	1	0		3	0	5	0		0	0	0	0		389	1386
08:15 AM	0	138	0	0		0	194	3	0		2	0	1	0		0	0	0	0		338	997
08:30 AM	1	134	1	0		0	208	5	0		3	0	3	0		0	0	0	0		355	659
08:45 AM	2	124	1	0		0	172	2	0		1	0	2	0		0	0	0	0		304	304
Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	4	724	0	0		4	1204	16	0		16	0	20	0		0	0	4	0		1992	
Heavy Trucks	0	20	0			0	36	4			0	0	0			0		0	0		60	
Pedestrians		0						0				0					0				0	
Bicycles	0	12	0			0	4	0			0	0	0			0		0	0		16	
Railroad																						
Stopped Buses																						

LOCATION: 113th St & 62nd Ave
CITY/STATE: Seminole, FL

PROJECT ID: 19-03596-006
DATE: 09/17/2019

Peak-Hour: 04:45 PM - 05:45 PM
Peak 15-Minute: 05:15 PM - 05:30 PM



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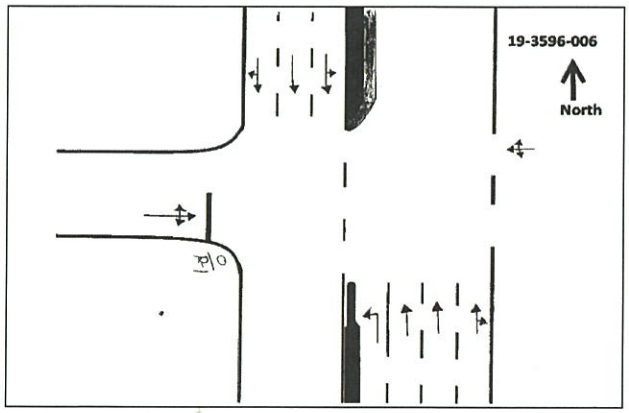
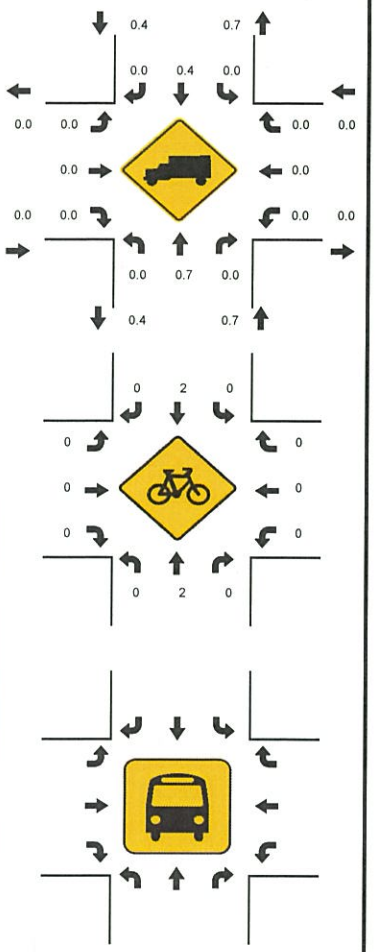




15-Min Count Period Beginning At	113th St Northbound					113th St Southbound					62nd Ave Eastbound					62nd Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	5	219	0	0		0	169	2	0		1	0	0	0		0	0	0	0		396	1653
04:15 PM	2	195	0	0		0	183	4	0		1	0	1	0		0	0	0	0		386	1687
04:30 PM	1	263	0	0		0	157	4	0		3	0	0	0		0	0	0	0		428	1756
04:45 PM	3	250	0	0		0	182	5	1		1	0	1	0		0	0	0	0		443	1762
05:00 PM	1	243	0	0		0	180	3	0		2	0	1	0		0	0	0	0		430	1721
05:15 PM	8	253	0	0		0	185	5	1		2	0	1	0		0	0	0	0		455	1291
05:30 PM	3	223	2	0		0	201	3	0		1	0	1	0		0	0	0	0		434	836
05:45 PM	2	200	0	0		0	198	0	0		2	0	0	0		0	0	0	0		402	402

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	
All Vehicles	32	1012	8	0		0	804	20	4		8	0	4	0		0	0	0	0		1892
Heavy Trucks	0	16	0			0	8	0			0	0	0			0		0	0		24
Pedestrians		0						0				4					0				4
Bicycles	0	8	0			0	4	0			0	0	0			0		0	0		12
Railroad Stopped Buses																					

National Data & Surveying Services

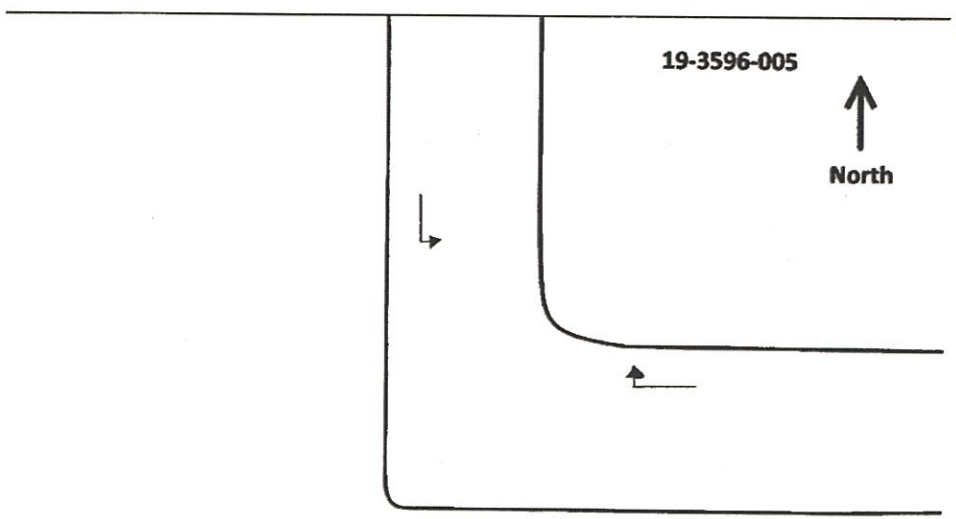
N/S Street: **Evergreen Ave N**

Speed: **25 MPH**

E/W Street: **Irving Ave**

Speed: **25 MPH**

Site Code:	**19-3596-005**
Date:	**9/17/2019**
Weather:	**Sunny**
City:	**Seminole**
County:	**Pinellas**
Count Times:	**07:00 – 09:00**
	16:00 - 18:00
Control:	**No Control**



Prepared by National Data & Surveying Services

Evergreen Ave N & Irving Ave

Peak Hour Turning Movement Count

ID: 19-03596-005
City: Seminole

Day: Tuesday
Date: 09/17/2019

PEAK HOURS

AM	07:00 AM - 08:00 AM
NOON	NONE
PM	05:00 PM - 06:00 PM

COUNT PERIODS

AM	07:00 AM - 09:00 AM
NOON	NONE
PM	04:00 PM - 06:00 PM

Evergreen Ave N — SOUTHBOUND

AM	0	0	7	0	1	AM
NOON	0	0	0	0	0	NOON
PM	0	0	2	0	7	PM

EASTBOUND — Irving Ave

AM	NOON	PM	
0	0	0	⇦
0	0	0	↱ 0
0	0	0	→ 0
0	0	0	↴ 0
AM	NOON	PM	

WESTBOUND — Irving Ave

PM	NOON	AM	
7	0	1	↰ 0
0	0	0	← 0
0	0	0	↲ 0
0	0	0	↳ 0
2	0	7	⇨
PM	NOON	AM	

CONTROL

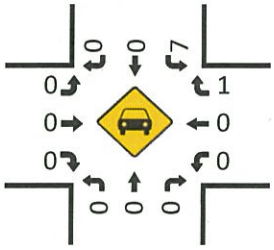
0

TEV	8 AM	0 NOON	9 PM
PHF	0.50		0.56

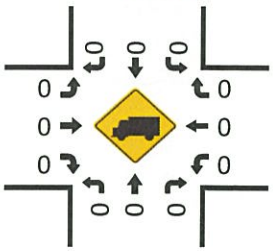
NORTHBOUND — Evergreen Ave N

PM	0	0	0	0	0	PM
NOON	0	0	0	0	0	NOON
AM	0	0	0	0	0	AM

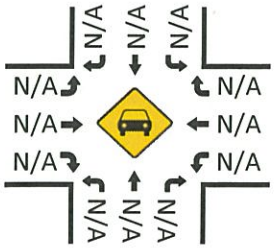
Cars (AM)



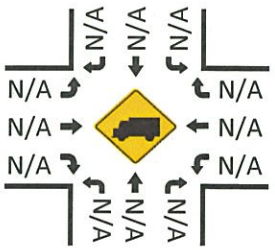
HT (AM)



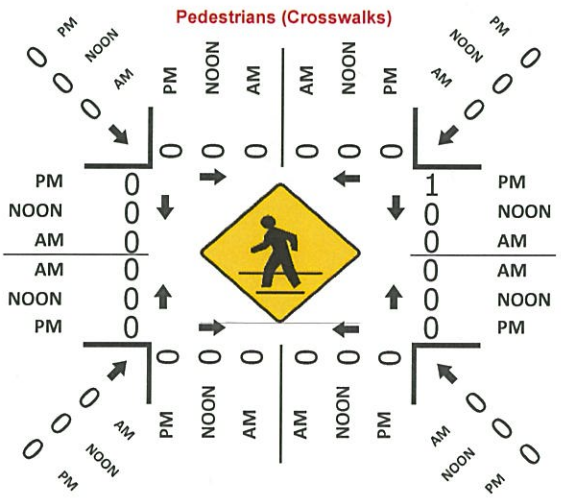
Cars (NOON)



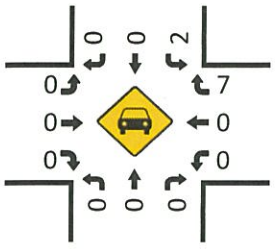
HT (NOON)



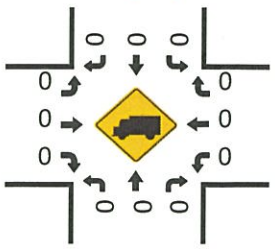
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)



National Data & Surveying Services

Intersection Turning Movement Count

Location: Evergreen Ave N & Irving Ave
City: Seminole
Control:

Project ID: 19-03596-005
Date: 9/17/2019

Total

NS/EW Streets:	Evergreen Ave N				Evergreen Ave N				Irving Ave				Irving Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	4
7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	10	0	0	0	0	0	0	0	0	0	6	0	16
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	7	0	0	0	0	0	0	0	0	0	1	0	8
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.500
					0.583								0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	3
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	2	0	0	0	0	0	0	0	0	0	9	0	11
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	2	0	0	0	0	0	0	0	0	0	7	0	9
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.583	0.000	0.563
					0.500								0.583				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Evergreen Ave N & Irving Ave
City: Seminole
Control: 0

Project ID: 19-03596-005
Date: 9/17/2019

Cars

NS/EW Streets:	Evergreen Ave N				Evergreen Ave N				Irving Ave				Irving Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	0	2
7:15 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
7:30 AM	0	0	0	0	3	0	0	0	0	0	0	0	0	0	1	0	4
7:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
8:00 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
8:30 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	0	2
8:45 AM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	3
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	10	0	0	0	0	0	0	0	0	0	6	0	16
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	7	0	0	0	0	0	0	0	0	0	1	0	8
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.583	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.500
					0.583								0.250				

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	2	0	3
5:15 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	3	0	4
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	2	0	0	0	0	0	0	0	0	0	9	0	11
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%					0.00%	0.00%	100.00%	0.00%	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	2	0	0	0	0	0	0	0	0	0	7	0	9
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.500	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.583	0.000	0.563
					0.500								0.583				

National Data & Surveying Services

Intersection Turning Movement Count

Location: Evergreen Ave N & Irving Ave
City: Seminole
Control: 0

Project ID: 19-03596-005
Date: 9/17/2019

HT

NS/EW Streets:	Evergreen Ave N				Evergreen Ave N				Irving Ave				Irving Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

National Data & Surveying Services

Intersection Turning Movement Count

Location: Evergreen Ave N & Irving Ave
City: Seminole
Control: 0

Project ID: 19-03596-005
Date: 9/17/2019

Bikes

NS/EW Streets:	Evergreen Ave N				Evergreen Ave N				Irving Ave				Irving Ave				
AM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
7:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
7:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:00 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:15 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:30 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
8:45 AM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
APPROACH %'s :																	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	

PM	NORTHBOUND				SOUTHBOUND				EASTBOUND				WESTBOUND				
	0 NL	0 NT	0 NR	0 NU	0 SL	0 ST	0 SR	0 SU	0 EL	0 ET	0 ER	0 EU	0 WL	0 WT	0 WR	0 WU	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:30 PM	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
APPROACH %'s :					100.00%	0.00%	0.00%	0.00%									
PEAK HR :	05:00 PM - 06:00 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	0	1
PEAK HR FACTOR :	0.00	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.250
					0.250												

National Data & Surveying Services

Intersection Turning Movement Count

Location: Evergreen Ave N & Irving Ave
City: Seminole

Project ID: 19-03596-005
Date: 9/17/2019

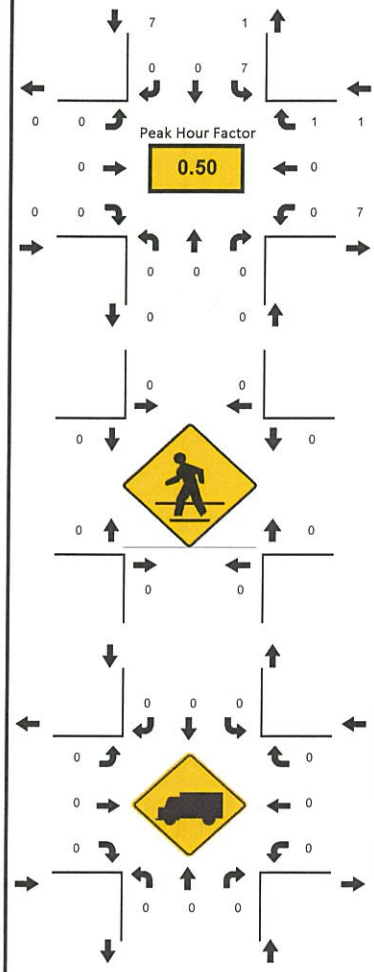
Pedestrians (Crosswalks)

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

PM	NORTH LEG		SOUTH LEG		EAST LEG		WEST LEG		
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
4:00 PM	0	0	0	0	0	0	0	0	0
4:15 PM	0	0	0	0	0	0	0	0	0
4:30 PM	0	0	0	0	0	0	0	0	0
4:45 PM	0	0	0	0	0	0	0	0	0
5:00 PM	0	0	0	0	0	0	0	0	0
5:15 PM	0	0	0	0	0	1	0	0	1
5:30 PM	0	0	0	0	0	0	0	0	0
5:45 PM	0	0	0	0	0	0	0	0	0
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	0	0	0	0	0	1	0	0	1
APPROACH %'s :					0.00%	100.00%			
PEAK HR :	05:00 PM - 06:00 PM								TOTAL
PEAK HR VOL :	0	0	0	0	0	1	0	0	1
PEAK HR FACTOR :						0.250			0.250
						0.250			

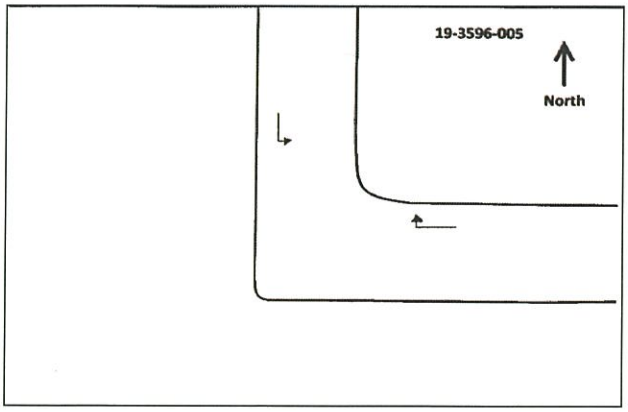
LOCATION: Evergreen Ave N & Irving Ave
CITY/STATE: Seminole, FL

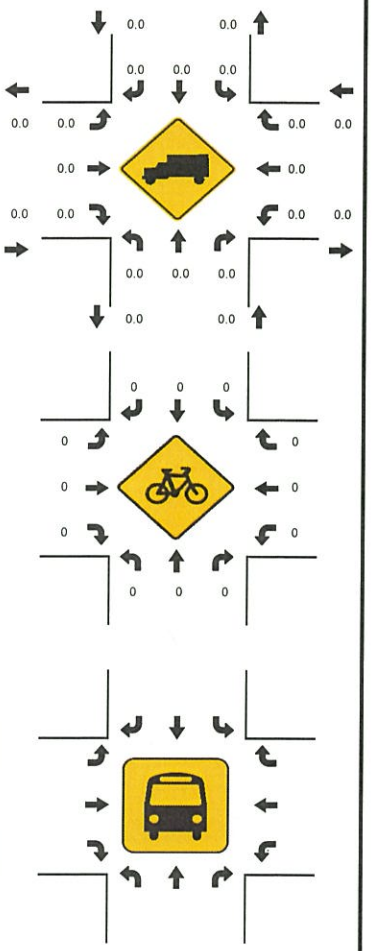
PROJECT ID: 19-03596-005
DATE: 09/17/2019



Peak-Hour: 07:00 AM - 08:00 AM
Peak 15-Minute: 07:30 AM - 07:45 AM

National Data & Surveying Services

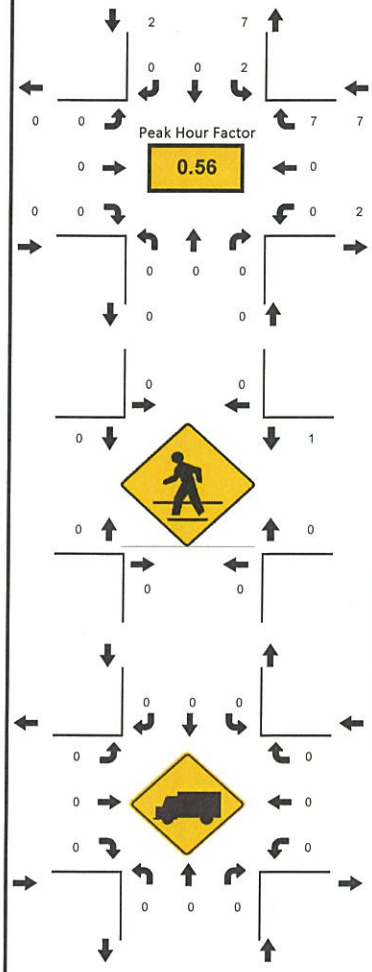




15-Min Count Period Beginning At	Evergreen Ave N Northbound					Evergreen Ave N Southbound					Irving Ave Eastbound					Irving Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
07:00 AM	0	0	0	0		2	0	0	0		0	0	0	0		0	0	0	0		2	8
07:15 AM	0	0	0	0		1	0	0	0		0	0	0	0		0	0	0	0		1	8
07:30 AM	0	0	0	0		3	0	0	0		0	0	0	0		0	0	1	0		4	8
07:45 AM	0	0	0	0		1	0	0	0		0	0	0	0		0	0	0	0		1	6
08:00 AM	0	0	0	0		1	0	0	0		0	0	0	0		0	0	1	0		2	8
08:15 AM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0		1	6
08:30 AM	0	0	0	0		1	0	0	0		0	0	0	0		0	0	1	0		2	5
08:45 AM	0	0	0	0		1	0	0	0		0	0	0	0		0	0	2	0		3	3
Peak 15-Min Flowrates	**Northbound**					**Southbound**					**Eastbound**					**Westbound**					**Total**	
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
All Vehicles	0	0	0	0		12	0	0	0		0	0	0	0		0	0	4	0		16	
Heavy Trucks	0	0	0			0	0	0			0	0	0			0	0	0			0	
Pedestrians		0					0					0					0				0	
Bicycles	0	0	0			0	0	0			0	0	0			0	0	0			0	
Railroad Stopped Buses																						

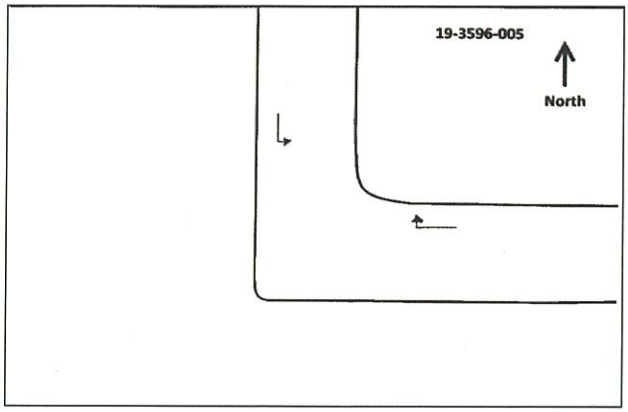
LOCATION: Evergreen Ave N & Irving Ave
CITY/STATE: Seminole, FL

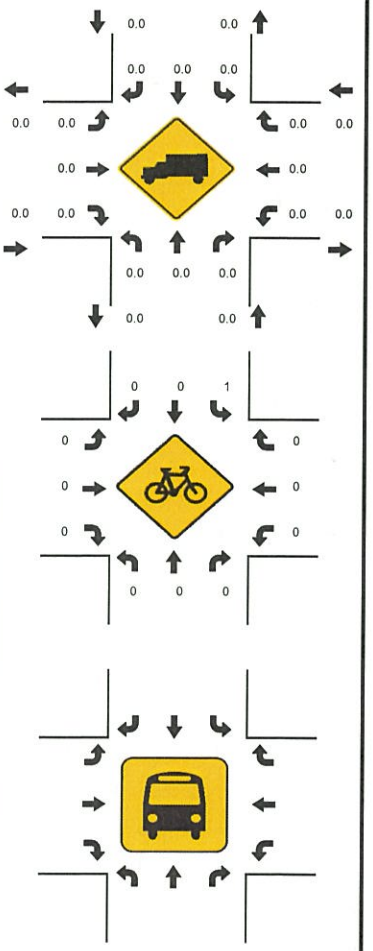
PROJECT ID: 19-03596-005
DATE: 09/17/2019



Peak-Hour: 05:00 PM - 06:00 PM
Peak 15-Minute: 05:15 PM - 05:30 PM

National Data & Surveying Services





15-Min Count Period Beginning At	Evergreen Ave N Northbound					Evergreen Ave N Southbound					Irving Ave Eastbound					Irving Ave Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
04:00 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0		1	2
04:15 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0		1	4
04:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	7
04:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	8
05:00 PM	0	0	0	0		1	0	0	0		0	0	0	0		0	0	2	0		3	9
05:15 PM	0	0	0	0		1	0	0	0		0	0	0	0		0	0	3	0		4	6
05:30 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0		1	2
05:45 PM	0	0	0	0		0	0	0	0		0	0	0	0		0	0	1	0		1	1

Peak 15-Min Flowrates	Northbound					Southbound					Eastbound					Westbound					Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	
All Vehicles	0	0	0	0		4	0	0	0		0	0	0	0		0	0	12	0		16
Heavy Trucks	0	0	0			0	0	0			0	0	0			0	0	0			0
Pedestrians		0					0					0					4				4
Bicycles	0	0	0			4	0	0			0	0	0			0	0	0			4
Railroad																					
Stopped Buses																					

FDOT PEAK SEASON FACTOR

2018 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 1500 PINELLAS COUNTYWIDE

MOCF: 0.93

WEEK	DATES	SF	PSCF
1	01/01/2018 - 01/06/2018	1.07	1.15
2	01/07/2018 - 01/13/2018	1.06	1.14
3	01/14/2018 - 01/20/2018	1.04	1.12
4	01/21/2018 - 01/27/2018	1.02	1.10
5	01/28/2018 - 02/03/2018	0.99	1.06
* 6	02/04/2018 - 02/10/2018	0.96	1.03
* 7	02/11/2018 - 02/17/2018	0.93	1.00
* 8	02/18/2018 - 02/24/2018	0.93	1.00
* 9	02/25/2018 - 03/03/2018	0.92	0.99
*10	03/04/2018 - 03/10/2018	0.92	0.99
*11	03/11/2018 - 03/17/2018	0.91	0.98
*12	03/18/2018 - 03/24/2018	0.92	0.99
*13	03/25/2018 - 03/31/2018	0.92	0.99
*14	04/01/2018 - 04/07/2018	0.93	1.00
*15	04/08/2018 - 04/14/2018	0.93	1.00
*16	04/15/2018 - 04/21/2018	0.94	1.01
*17	04/22/2018 - 04/28/2018	0.96	1.03
*18	04/29/2018 - 05/05/2018	0.98	1.05
19	05/06/2018 - 05/12/2018	1.00	1.08
20	05/13/2018 - 05/19/2018	1.02	1.10
21	05/20/2018 - 05/26/2018	1.01	1.09
22	05/27/2018 - 06/02/2018	0.99	1.06
23	06/03/2018 - 06/09/2018	0.98	1.05
24	06/10/2018 - 06/16/2018	0.97	1.04
25	06/17/2018 - 06/23/2018	0.98	1.05
26	06/24/2018 - 06/30/2018	0.98	1.05
27	07/01/2018 - 07/07/2018	0.99	1.06
28	07/08/2018 - 07/14/2018	1.00	1.08
29	07/15/2018 - 07/21/2018	1.00	1.08
30	07/22/2018 - 07/28/2018	1.01	1.09
31	07/29/2018 - 08/04/2018	1.02	1.10
32	08/05/2018 - 08/11/2018	1.02	1.10
33	08/12/2018 - 08/18/2018	1.03	1.11
34	08/19/2018 - 08/25/2018	1.04	1.12
35	08/26/2018 - 09/01/2018	1.06	1.14
36	09/02/2018 - 09/08/2018	1.07	1.15
37	09/09/2018 - 09/15/2018	1.08	1.16
38	09/16/2018 - 09/22/2018	1.08	1.16
39	09/23/2018 - 09/29/2018	1.07	1.15
40	09/30/2018 - 10/06/2018	1.06	1.14
41	10/07/2018 - 10/13/2018	1.05	1.13
42	10/14/2018 - 10/20/2018	1.05	1.13
43	10/21/2018 - 10/27/2018	1.05	1.13
44	10/28/2018 - 11/03/2018	1.05	1.13
45	11/04/2018 - 11/10/2018	1.04	1.12
46	11/11/2018 - 11/17/2018	1.04	1.12
47	11/18/2018 - 11/24/2018	1.05	1.13
48	11/25/2018 - 12/01/2018	1.06	1.14
49	12/02/2018 - 12/08/2018	1.06	1.14
50	12/09/2018 - 12/15/2018	1.07	1.15
51	12/16/2018 - 12/22/2018	1.06	1.14
52	12/23/2018 - 12/29/2018	1.05	1.13
53	12/30/2018 - 12/31/2018	1.04	1.12

* PEAK SEASON

SIGNAL TIMINGS

Intersection **870**

Report Date: **10/15/2019**
Run Time: 06:36 AM

Main Street: 113TH ST
Side Street: 66TH AVE N
Jurisdiction: COUNTY
Section #: 62 MIST
Comm. Addrs: IP: 10.198.100.138 Gateway: 10.198.100.254 Subnet: 255.255.255.0
Pre-empt: Y

Phase #	Street Name	Direction		Left Turn Type
1	113TH ST.	NB	LT	Protected/Permitted
2	113TH ST. N.	SB		
3				
4				
5				
6	113TH ST. N.	NB		
7				
8	66TH AVE. N.	EB/WB		

Timing Plan 1 (MM,2,1)

PHASE	1	2	3	4	5	6	7	8
Min. Green	7	20				20		7
Walk		7				7		7
Ped Clr		11				11		22
Veh Ext	2	4				4		3
Yellow Clr	4.4	4.4				4.4		3.7
Red Clr	2.1	2.2				2.2		3.6
Max 1	13	45				45		25
Max 2								
Max 3								
Walk 2								
Ped Clr 2								
Lock Det								
Veh Recall								
Ped Recall								
Max Recall		X				X		
CNA 1		X				X		
Phase In Use	X	X				X		X
Flash		Y				Y		R
Delay Det.								8

Last Timing Change Date: 02/11/2019	**Database Modified:** 02/12/2019
Technician Initials:	**Control Room Pers. Initials:**

COORD PATTERNS (CYCLE / OFFSET) (MM,3,2)

Cycle	Sec.
1	105
2	90
3	105
4	85

Offset	Sec. / %
1	75
2	23
3	100
4	75

COORD PATTERNS

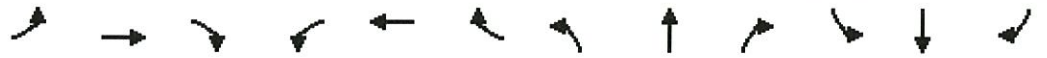
	Ph 1 Sec / %	Ph 2 Sec / %	Ph 3 Sec / %	Ph 4 Sec / %	Ph 5 Sec / %	Ph 6 Sec / %	Ph 7 Sec / %	Ph 8 Sec / %
PATTERN 1	18	52	0	0	0	70	0	35
PATTERN 2	16	43				59	0	31
PATTERN 3	16	53	0	0	0	69	0	36
PATTERN 4	17	37	0	0	0	54	0	31

DAY PLANS (MM,5,3)

	Event	Action Plan #	Time	Action	On/Off
DAY PLAN1					
	1	1	**0600**		
	2	2	**0930**		
	3	3	**1430**		
	4	4	**1830**		
	5	100	**2100**	FRE	ON
DAY PLAN2					
	1	2	**0800**		
	2	100	**2100**	FRE	ON

Notes:

INTERSECTION ANALYSIS

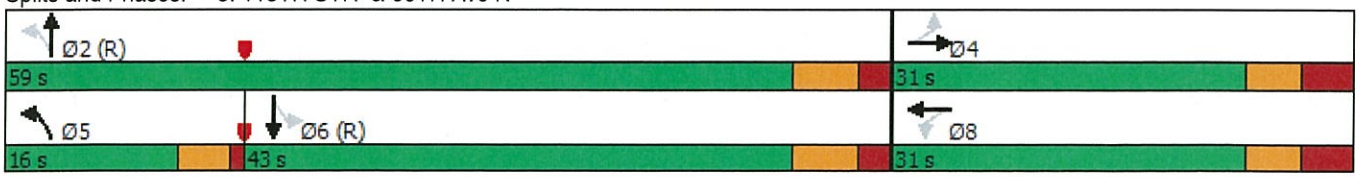


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	121	0	182	0	0	0	106	725	0	0	996	72
Future Volume (vph)	121	0	182	0	0	0	106	725	0	0	996	72
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	142		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.91	0.91
Frt		0.919									0.990	
Flt Protected		0.980					0.950					
Satd. Flow (prot)	0	1678	0	0	1863	0	1770	5085	0	0	5034	0
Flt Permitted		0.869					0.175					
Satd. Flow (perm)	0	1488	0	0	1863	0	326	5085	0	0	5034	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		98									15	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			271			694			648	
Travel Time (s)		16.1			6.2			15.8			14.7	
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
Adj. Flow (vph)	133	0	200	0	0	0	116	797	0	0	1095	79
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	333	0	0	0	0	116	797	0	0	1174	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
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		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
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)	20	6		20	6		20	6		20	6	
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	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA					pm+pt	NA			NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	25.3	25.3		25.3	25.3		9.5	24.6		24.6	24.6	
Total Split (s)	31.0	31.0		31.0	31.0		16.0	59.0		43.0	43.0	
Total Split (%)	34.4%	34.4%		34.4%	34.4%		17.8%	65.6%		47.8%	47.8%	
Maximum Green (s)	23.7	23.7		23.7	23.7		11.5	52.4		36.4	36.4	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	4.4		4.4	4.4	
All-Red Time (s)	3.6	3.6		3.6	3.6		1.0	2.2		2.2	2.2	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)		7.3			7.3		4.5	6.6			6.6	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)		19.2					59.0	56.9			46.6	
Actuated g/C Ratio		0.21					0.66	0.63			0.52	
v/c Ratio		0.85					0.34	0.25			0.45	
Control Delay		42.9					9.6	8.0			15.9	
Queue Delay		0.0					0.0	0.0			0.0	
Total Delay		42.9					9.6	8.0			15.9	
LOS		D					A	A			B	
Approach Delay		42.9						8.2			15.9	
Approach LOS		D						A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 23 (26%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.85			
Intersection Signal Delay: 16.7		Intersection LOS: B	
Intersection Capacity Utilization 69.8%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: 113TH STR & 66TH Ave N



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	46	0	91	0	0	1	182	1002	1	1	864	91
Future Volume (vph)	46	0	91	0	0	1	182	1002	1	1	864	91
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	142		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.91	0.91
Frt		0.910			0.865						0.986	
Flt Protected		0.983					0.950					
Satd. Flow (prot)	0	1666	0	0	1611	0	1770	5085	0	0	5014	0
Flt Permitted		0.888					0.255				0.939	
Satd. Flow (perm)	0	1505	0	0	1611	0	475	5085	0	0	4708	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		93			112						22	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			271			694			648	
Travel Time (s)		16.1			6.2			15.8			14.7	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	47	0	93	0	0	1	186	1022	1	1	882	93
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	140	0	0	1	0	186	1023	0	0	976	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
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		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
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)	20	6		20	6		20	6		20	6	
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	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	25.3	25.3		25.3	25.3		9.5	24.6		24.6	24.6	
Total Split (s)	36.0	36.0		36.0	36.0		16.0	69.0		53.0	53.0	
Total Split (%)	34.3%	34.3%		34.3%	34.3%		15.2%	65.7%		50.5%	50.5%	
Maximum Green (s)	28.7	28.7		28.7	28.7		11.5	62.4		46.4	46.4	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	4.4		4.4	4.4	
All-Red Time (s)	3.6	3.6		3.6	3.6		1.0	2.2		2.2	2.2	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)		7.3			7.3		4.5	6.6			6.6	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)		9.4			9.4		83.8	81.7			69.0	
Actuated g/C Ratio		0.09			0.09		0.80	0.78			0.66	
v/c Ratio		0.64			0.00		0.39	0.26			0.31	
Control Delay		30.6			0.0		5.2	3.7			8.5	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		30.6			0.0		5.2	3.7			8.5	
LOS		C			A		A	A			A	
Approach Delay		30.6						3.9			8.5	
Approach LOS		C						A			A	

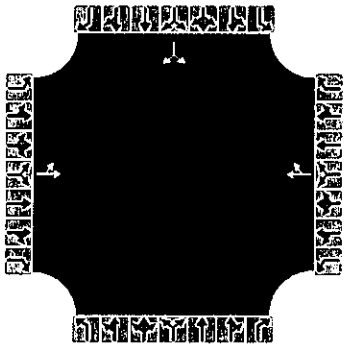
Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 105			
Offset: 100 (95%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.64			
Intersection Signal Delay: 7.5		Intersection LOS: A	
Intersection Capacity Utilization 70.0%		ICU Level of Service C	
Analysis Period (min) 15			

Splits and Phases: 3: 113TH STR & 66TH Ave N

HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst		Intersection	
Agency/Co.		Jurisdiction	
Date Performed	10/17/2019	East/West Street	66th Ave North
Analysis Year	2019	North/South Street	116th St
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.75
Time Analyzed	AM Peak		
Project Description	Background		

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	8	82			10	66				277		9
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LT			TR						LR		
Flow Rate, v (veh/h)	120			101						381		
Percent Heavy Vehicles	2			2						2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20		
Initial Degree of Utilization, x	0.107			0.090						0.339		
Final Departure Headway, hd (s)	5.05			4.54						4.66		
Final Degree of Utilization, x	0.168			0.128						0.494		
Move-Up Time, m (s)	2.0			2.0						2.0		
Service Time, ts (s)	3.05			2.54						2.66		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	120			101						381		
Capacity	713			792						772		
95% Queue Length, Q_{95} (veh)	0.6			0.4						2.8		
Control Delay (s/veh)	9.1			8.2						12.1		
Level of Service, LOS	A			A						B		
Approach Delay (s/veh)	9.1			8.2						12.1		
Approach LOS	A			A						B		
Intersection Delay, s/veh | LOS	10.9						B					

HCS7 All-Way Stop Control Report

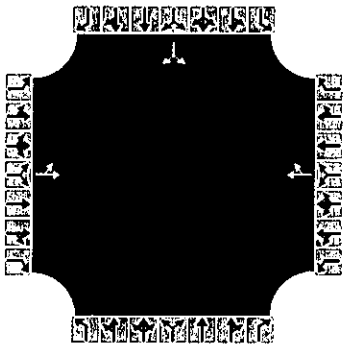
General Information

Analyst	
Agency/Co.	
Date Performed	10/17/2019
Analysis Year	2019
Analysis Time Period (hrs)	0.25
Time Analyzed	PM Peak
Project Description	Background

Site Information

Intersection	
Jurisdiction	
East/West Street	66th Ave North
North/South Street	116th St
Peak Hour Factor	0.98

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	9	33			82	168				92		17
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LT			TR						LR		
Flow Rate, v (veh/h)	43			255						111		
Percent Heavy Vehicles	2			2						2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20		
Initial Degree of Utilization, x	0.038			0.227						0.099		
Final Departure Headway, hd (s)	4.49			3.85						4.61		
Final Degree of Utilization, x	0.053			0.273						0.143		
Move-Up Time, m (s)	2.0			2.0						2.0		
Service Time, ts (s)	2.49			1.85						2.61		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	43			255						111		
Capacity	802			935						780		
95% Queue Length, Q_{95} (veh)	0.2			1.1						0.5		
Control Delay (s/veh)	7.7			8.3						8.4		
Level of Service, LOS	A			A						A		
Approach Delay (s/veh)	7.7			8.3						8.4		
Approach LOS	A			A						A		
Intersection Delay, s/veh | LOS	8.3						A					

HCS7 Two-Way Stop-Control Report

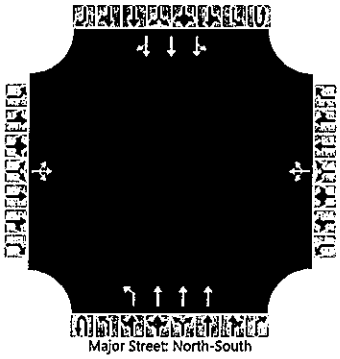
General Information

Analyst	
Agency/Co.	
Date Performed	10/23/2019
Analysis Year	2019
Time Analyzed	AM Peak
Intersection Orientation	North-South
Project Description	Background

Site Information

Intersection	
Jurisdiction	
East/West Street	62nd Avenue
North/South Street	113th Street
Peak Hour Factor	0.91
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	3	0	0	0	3	0
Configuration			LTR				LTR			L	T			LT	T	TR
Volume (veh/h)		13	0	19		0	0	1	0	4	739			1	1174	7
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	7.1		5.3				5.3		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	7.16		5.36				5.36		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.9		3.1				3.1		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.93		3.13				3.13		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			35				1			4				1		
Capacity, c (veh/h)			179				506			278				479		
v/c Ratio			0.20				0.00			0.02				0.00		
95% Queue Length, Q_{95} (veh)			0.7				0.0			0.0				0.0		
Control Delay (s/veh)			30.0				12.1			18.2				12.5		
Level of Service (LOS)			D				B			C				B		
Approach Delay (s/veh)	30.0				12.1				0.1				0.0			
Approach LOS	D				B											

HCS7 Two-Way Stop-Control Report

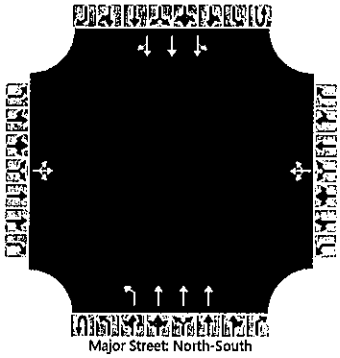
General Information

Analyst	
Agency/Co.	
Date Performed	10/23/2019
Analysis Year	2019
Time Analyzed	PM Peak
Intersection Orientation	North-South
Project Description	Background

Site Information

Intersection	
Jurisdiction	
East/West Street	62nd Avenue
North/South Street	113th Street
Peak Hour Factor	0.97
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

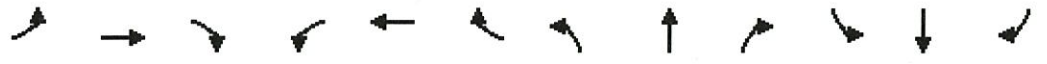
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	3	0	0	0	3	0
Configuration			LTR				LTR			L	T			LT	T	TR
Volume (veh/h)		7	0	5		0	0	0	0	17	1124			2	868	19
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	7.1		5.3				5.3		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	7.16		5.36				5.36		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.9		3.1				3.1		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.93		3.13				3.13		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			12				0			18				2		
Capacity, c (veh/h)			197							427				325		
v/c Ratio			0.06							0.04				0.01		
95% Queue Length, Q_{95} (veh)			0.2							0.1				0.0		
Control Delay (s/veh)			24.5							13.8				16.1		
Level of Service (LOS)			C							B				C		
Approach Delay (s/veh)		24.5								0.2				0.1		
Approach LOS		C														

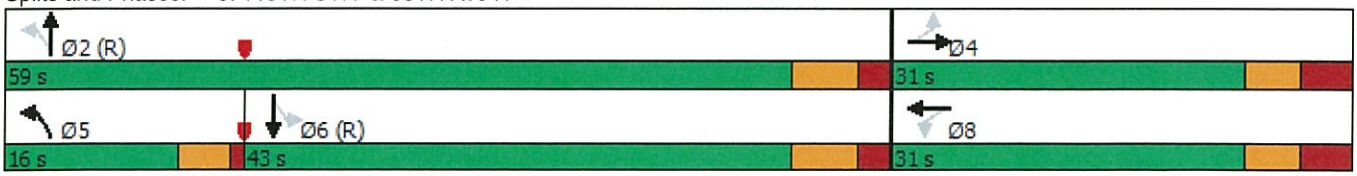


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	166	0	271	0	0	0	136	725	0	0	996	87
Future Volume (vph)	166	0	271	0	0	0	136	725	0	0	996	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	142		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.91	0.91
Frt		0.916									0.988	
Flt Protected		0.981					0.950					
Satd. Flow (prot)	0	1674	0	0	1863	0	1770	5085	0	0	5024	0
Flt Permitted		0.875					0.152					
Satd. Flow (perm)	0	1493	0	0	1863	0	283	5085	0	0	5024	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		98									19	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			271			694			648	
Travel Time (s)		16.1			6.2			15.8			14.7	
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
Adj. Flow (vph)	182	0	298	0	0	0	149	797	0	0	1095	96
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	480	0	0	0	0	149	797	0	0	1191	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
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		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
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)	20	6		20	6		20	6		20	6	
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	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA					pm+pt	NA			NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	25.3	25.3		25.3	25.3		9.5	24.6		24.6	24.6	
Total Split (s)	31.0	31.0		31.0	31.0		16.0	59.0		43.0	43.0	
Total Split (%)	34.4%	34.4%		34.4%	34.4%		17.8%	65.6%		47.8%	47.8%	
Maximum Green (s)	23.7	23.7		23.7	23.7		11.5	52.4		36.4	36.4	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	4.4		4.4	4.4	
All-Red Time (s)	3.6	3.6		3.6	3.6		1.0	2.2		2.2	2.2	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)		7.3			7.3		4.5	6.6			6.6	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)		23.7					54.5	52.4			39.1	
Actuated g/C Ratio		0.26					0.61	0.58			0.43	
v/c Ratio		1.03					0.47	0.27			0.54	
Control Delay		78.4					12.8	9.6			19.9	
Queue Delay		0.0					0.0	0.0			0.0	
Total Delay		78.4					12.8	9.6			19.9	
LOS		E					B	A			B	
Approach Delay		78.4						10.1			19.9	
Approach LOS		E						B			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 23 (26%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 1.03			
Intersection Signal Delay: 27.1		Intersection LOS: C	
Intersection Capacity Utilization 78.1%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: 113TH STR & 66TH Ave N

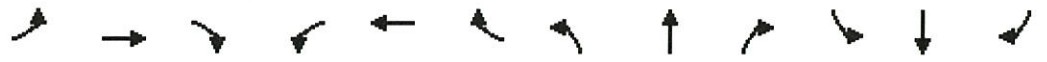


Intersection: 3: 113TH STR & 66TH Ave N

Movement	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	T	T	TR	LT	T	TR
Maximum Queue (ft)	355	97	155	123	54	262	225	121
Average Queue (ft)	234	60	104	65	17	189	141	59
95th Queue (ft)	401	103	168	126	58	269	236	126
Link Distance (ft)	651		666	666	666	620	620	620
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		142						
Storage Blk Time (%)			2					
Queuing Penalty (veh)			2					

Network Summary

Network wide Queuing Penalty: 2

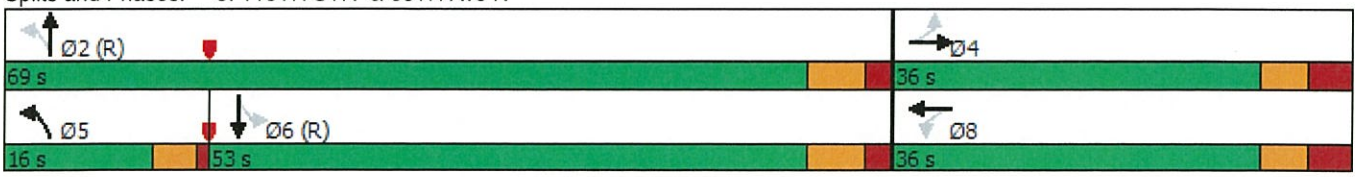


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	75	0	150	0	0	1	283	1002	1	1	864	141
Future Volume (vph)	75	0	150	0	0	1	283	1002	1	1	864	141
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	142		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.91	0.91
Frt		0.910			0.865						0.979	
Flt Protected		0.984					0.950					
Satd. Flow (prot)	0	1668	0	0	1611	0	1770	5085	0	0	4979	0
Flt Permitted		0.888					0.225				0.939	
Satd. Flow (perm)	0	1505	0	0	1611	0	419	5085	0	0	4675	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		94			112						38	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			271			694			648	
Travel Time (s)		16.1			6.2			15.8			14.7	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	77	0	153	0	0	1	289	1022	1	1	882	144
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	230	0	0	1	0	289	1023	0	0	1027	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
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		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
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)	20	6		20	6		20	6		20	6	
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	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	25.3	25.3		25.3	25.3		9.5	24.6		24.6	24.6	
Total Split (s)	36.0	36.0		36.0	36.0		16.0	69.0		53.0	53.0	
Total Split (%)	34.3%	34.3%		34.3%	34.3%		15.2%	65.7%		50.5%	50.5%	
Maximum Green (s)	28.7	28.7		28.7	28.7		11.5	62.4		46.4	46.4	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	4.4		4.4	4.4	
All-Red Time (s)	3.6	3.6		3.6	3.6		1.0	2.2		2.2	2.2	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)		7.3			7.3		4.5	6.6			6.6	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)		15.4			15.4		77.8	75.7			59.4	
Actuated g/C Ratio		0.15			0.15		0.74	0.72			0.57	
v/c Ratio		0.76			0.00		0.63	0.28			0.39	
Control Delay		40.9			0.0		11.4	6.0			14.1	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		40.9			0.0		11.4	6.0			14.1	
LOS		D			A		B	A			B	
Approach Delay		40.9						7.2			14.1	
Approach LOS		D						A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 105			
Offset: 100 (95%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.76			
Intersection Signal Delay: 12.9		Intersection LOS: B	
Intersection Capacity Utilization 76.4%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: 113TH STR & 66TH Ave N



Intersection: 3: 113TH STR & 66TH Ave N

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	LT	T	TR
Maximum Queue (ft)	242	12	148	204	152	101	242	209	107
Average Queue (ft)	136	2	97	107	79	36	148	100	48
95th Queue (ft)	252	13	162	224	165	100	267	222	105
Link Distance (ft)	651	213		666	666	666	620	620	620
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			142						
Storage Blk Time (%)			4	2					
Queuing Penalty (veh)			12	6					

Network Summary

Network wide Queuing Penalty: 18

HCS7 All-Way Stop Control Report

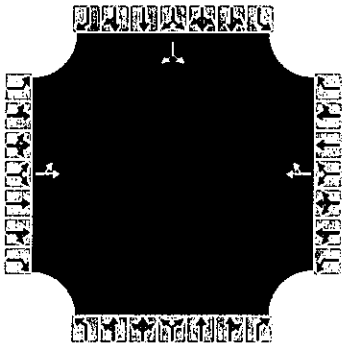
General Information

Analyst	
Agency/Co.	
Date Performed	10/17/2019
Analysis Year	2019
Analysis Time Period (hrs)	0.25
Time Analyzed	AM Peak
Project Description	Option A -Background Plus Project

Site Information

Intersection	
Jurisdiction	
East/West Street	66th Ave North
North/South Street	116th St
Peak Hour Factor	0.75

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	23	216			55	66				277		14
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LT			TR						LR		
Flow Rate, v (veh/h)	319			161						388		
Percent Heavy Vehicles	2			2						2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20		
Initial Degree of Utilization, x	0.283			0.143						0.345		
Final Departure Headway, hd (s)	5.34			5.25						5.38		
Final Degree of Utilization, x	0.473			0.235						0.580		
Move-Up Time, m (s)	2.0			2.0						2.0		
Service Time, ts (s)	3.34			3.25						3.38		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	319			161						388		
Capacity	674			686						669		
95% Queue Length, Q_{95} (veh)	2.5			0.9						3.7		
Control Delay (s/veh)	13.0			9.9						15.5		
Level of Service, LOS	B			A						C		
Approach Delay (s/veh)	13.0			9.9						15.5		
Approach LOS	B			A						C		
Intersection Delay, s/veh | LOS	13.6						B					

HCS7 All-Way Stop Control Report

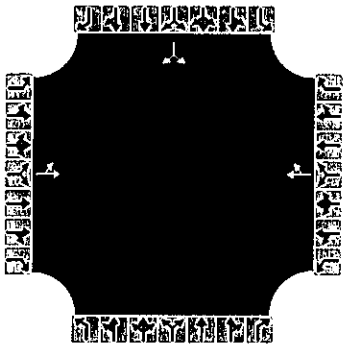
General Information

Analyst	
Agency/Co.	
Date Performed	10/17/2019
Analysis Year	2019
Analysis Time Period (hrs)	0.25
Time Analyzed	PM Peak
Project Description	Option A -Background Plus Project

Site Information

Intersection	
Jurisdiction	
East/West Street	66th Ave North
North/South Street	116th St
Peak Hour Factor	0.98

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	19	121			233	168				92		34
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LT			TR						LR		
Flow Rate, v (veh/h)	143			409						129		
Percent Heavy Vehicles	2			2						2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20		
Initial Degree of Utilization, x	0.127			0.364						0.114		
Final Departure Headway, hd (s)	4.75			4.21						5.13		
Final Degree of Utilization, x	0.188			0.478						0.183		
Move-Up Time, m (s)	2.0			2.0						2.0		
Service Time, ts (s)	2.75			2.21						3.13		

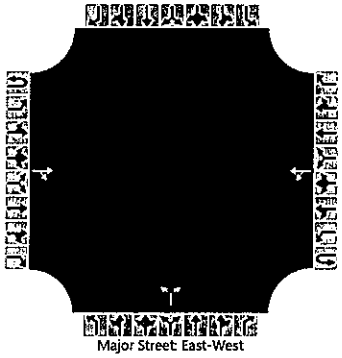
Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	143			409						129		
Capacity	758			856						701		
95% Queue Length, Q_{95} (veh)	0.7			2.6						0.7		
Control Delay (s/veh)	8.8			11.0						9.3		
Level of Service, LOS	A			B						A		
Approach Delay (s/veh)	8.8			11.0						9.3		
Approach LOS	A			B						A		
Intersection Delay, s/veh ¦ LOS	10.2						B					

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst		Intersection	
Agency/Co.		Jurisdiction	
Date Performed	10/18/2019	East/West Street	66th Avenue North
Analysis Year	2019	North/South Street	Project Access A
Time Analyzed	AM Peak	Peak Hour Factor	0.86
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Option A-Background Plus Project		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			70	0		50	16			0		149				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						58					173					
Capacity, c (veh/h)						1510					976					
v/c Ratio						0.04					0.18					
95% Queue Length, Q_{95} (veh)						0.1					0.6					
Control Delay (s/veh)						7.5					9.5					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)					5.7				9.5							
Approach LOS									A							

HCS7 Two-Way Stop-Control Report

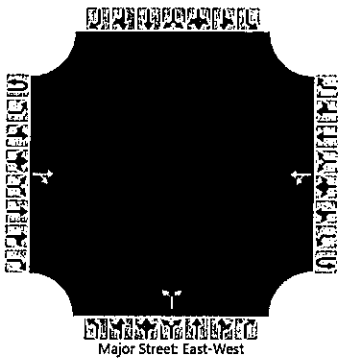
General Information

Analyst	
Agency/Co.	
Date Performed	10/18/2019
Analysis Year	2019
Time Analyzed	PM Peak
Intersection Orientation	East-West
Project Description	Option A-Background Plus Project

Site Information

Intersection	
Jurisdiction	
East/West Street	66th Avenue North
North/South Street	Project Access A
Peak Hour Factor	0.66
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

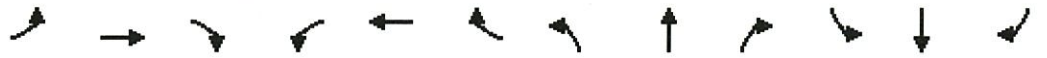
Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			39	0		168	71			0		98				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						255					148					
Capacity, c (veh/h)						1538					1004					
v/c Ratio						0.17					0.15					
95% Queue Length, Q_{95} (veh)						0.6					0.5					
Control Delay (s/veh)						7.8					9.2					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)					5.9				9.2							
Approach LOS									A							

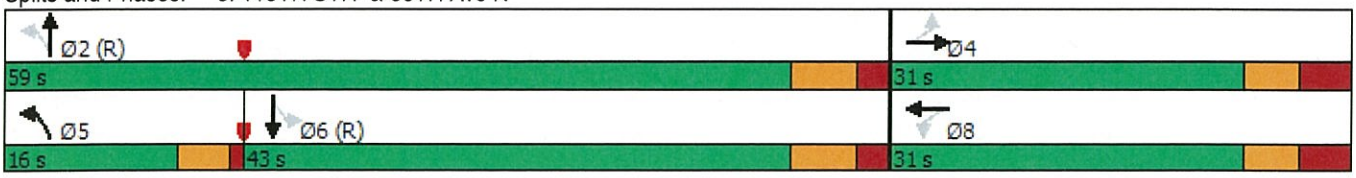


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	143	0	212	0	0	0	117	748	0	0	1004	79
Future Volume (vph)	143	0	212	0	0	0	117	748	0	0	1004	79
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	142		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.91	0.91
Frt		0.919									0.989	
Flt Protected		0.980					0.950					
Satd. Flow (prot)	0	1678	0	0	1863	0	1770	5085	0	0	5029	0
Flt Permitted		0.868					0.160					
Satd. Flow (perm)	0	1486	0	0	1863	0	298	5085	0	0	5029	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		98									17	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			271			694			648	
Travel Time (s)		16.1			6.2			15.8			14.7	
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
Adj. Flow (vph)	157	0	233	0	0	0	129	822	0	0	1103	87
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	390	0	0	0	0	129	822	0	0	1190	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
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		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
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)	20	6		20	6		20	6		20	6	
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	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA					pm+pt	NA			NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	25.3	25.3		25.3	25.3		9.5	24.6		24.6	24.6	
Total Split (s)	31.0	31.0		31.0	31.0		16.0	59.0		43.0	43.0	
Total Split (%)	34.4%	34.4%		34.4%	34.4%		17.8%	65.6%		47.8%	47.8%	
Maximum Green (s)	23.7	23.7		23.7	23.7		11.5	52.4		36.4	36.4	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	4.4		4.4	4.4	
All-Red Time (s)	3.6	3.6		3.6	3.6		1.0	2.2		2.2	2.2	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)		7.3			7.3		4.5	6.6			6.6	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)		21.6					56.6	54.5			41.8	
Actuated g/C Ratio		0.24					0.63	0.61			0.46	
v/c Ratio		0.90					0.40	0.27			0.51	
Control Delay		50.6					11.1	9.0			18.3	
Queue Delay		0.0					0.0	0.0			0.0	
Total Delay		50.6					11.1	9.0			18.3	
LOS		D					B	A			B	
Approach Delay		50.6						9.3			18.3	
Approach LOS		D						A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 90			
Actuated Cycle Length: 90			
Offset: 23 (26%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.90			
Intersection Signal Delay: 19.9		Intersection LOS: B	
Intersection Capacity Utilization 73.6%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: 113TH STR & 66TH Ave N



Intersection: 3: 113TH STR & 66TH Ave N

Movement	EB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	L	T	T	TR	LT	T	TR
Maximum Queue (ft)	276	92	149	115	46	256	217	133
Average Queue (ft)	165	55	98	63	15	177	122	58
95th Queue (ft)	295	97	164	118	46	268	223	133
Link Distance (ft)	651		666	666	666	620	620	620
Upstream Blk Time (%)								
Queuing Penalty (veh)								
Storage Bay Dist (ft)		142						
Storage Blk Time (%)			1					
Queuing Penalty (veh)			1					

Network Summary

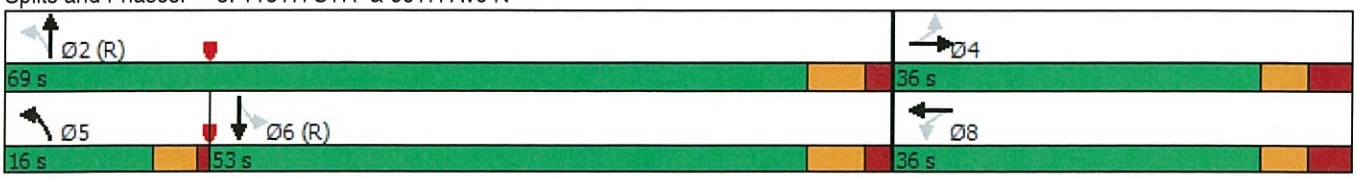
Network wide Queuing Penalty: 1

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	61	0	110	0	0	1	216	1016	1	1	889	116
Future Volume (vph)	61	0	110	0	0	1	216	1016	1	1	889	116
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (ft)	0		0	0		0	142		0	0		0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (ft)	25			25			25			25		
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.91	0.91	0.91	0.91	0.91
Frt		0.913			0.865						0.983	
Flt Protected		0.982					0.950					
Satd. Flow (prot)	0	1670	0	0	1611	0	1770	5085	0	0	4999	0
Flt Permitted		0.882					0.235				0.939	
Satd. Flow (perm)	0	1500	0	0	1611	0	438	5085	0	0	4694	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		85			108						28	
Link Speed (mph)		30			30			30			30	
Link Distance (ft)		709			271			694			648	
Travel Time (s)		16.1			6.2			15.8			14.7	
Peak Hour Factor	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98	0.98
Adj. Flow (vph)	62	0	112	0	0	1	220	1037	1	1	907	118
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	174	0	0	1	0	220	1038	0	0	1026	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(ft)		0			0			12			12	
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		1	2		1	2		1	2	
Detector Template	Left	Thru		Left	Thru		Left	Thru		Left	Thru	
Leading Detector (ft)	20	100		20	100		20	100		20	100	
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)	20	6		20	6		20	6		20	6	
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	
Detector 2 Position(ft)		94			94			94			94	
Detector 2 Size(ft)		6			6			6			6	
Detector 2 Type		Cl+Ex			Cl+Ex			Cl+Ex			Cl+Ex	
Detector 2 Channel												
Detector 2 Extend (s)		0.0			0.0			0.0			0.0	
Turn Type	Perm	NA			NA		pm+pt	NA		Perm	NA	
Protected Phases		4			8		5	2			6	
Permitted Phases	4			8			2			6		

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Detector Phase	4	4		8	8		5	2		6	6	
Switch Phase												
Minimum Initial (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Minimum Split (s)	25.3	25.3		25.3	25.3		9.5	24.6		24.6	24.6	
Total Split (s)	36.0	36.0		36.0	36.0		16.0	69.0		53.0	53.0	
Total Split (%)	34.3%	34.3%		34.3%	34.3%		15.2%	65.7%		50.5%	50.5%	
Maximum Green (s)	28.7	28.7		28.7	28.7		11.5	62.4		46.4	46.4	
Yellow Time (s)	3.7	3.7		3.7	3.7		3.5	4.4		4.4	4.4	
All-Red Time (s)	3.6	3.6		3.6	3.6		1.0	2.2		2.2	2.2	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0			0.0	
Total Lost Time (s)		7.3			7.3		4.5	6.6			6.6	
Lead/Lag							Lead			Lag	Lag	
Lead-Lag Optimize?							Yes			Yes	Yes	
Vehicle Extension (s)	3.0	3.0		3.0	3.0		3.0	3.0		3.0	3.0	
Recall Mode	None	None		None	None		None	C-Max		C-Max	C-Max	
Walk Time (s)	7.0	7.0		7.0	7.0			7.0		7.0	7.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0			11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0			0		0	0	
Act Effct Green (s)		12.1			12.1		81.1	79.0			65.3	
Actuated g/C Ratio		0.12			0.12		0.77	0.75			0.62	
v/c Ratio		0.70			0.00		0.48	0.27			0.35	
Control Delay		37.6			0.0		7.4	4.7			10.6	
Queue Delay		0.0			0.0		0.0	0.0			0.0	
Total Delay		37.6			0.0		7.4	4.7			10.6	
LOS		D			A		A	A			B	
Approach Delay		37.6						5.2			10.6	
Approach LOS		D						A			B	

Intersection Summary			
Area Type:	Other		
Cycle Length: 105			
Actuated Cycle Length: 105			
Offset: 100 (95%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green			
Natural Cycle: 60			
Control Type: Actuated-Coordinated			
Maximum v/c Ratio: 0.70			
Intersection Signal Delay: 9.7		Intersection LOS: A	
Intersection Capacity Utilization 73.3%		ICU Level of Service D	
Analysis Period (min) 15			

Splits and Phases: 3: 113TH STR & 66TH Ave N



Intersection: 3: 113TH STR & 66TH Ave N

Movement	EB	WB	NB	NB	NB	NB	SB	SB	SB
Directions Served	LTR	LTR	L	T	T	TR	LT	T	TR
Maximum Queue (ft)	187	9	144	173	135	72	237	192	84
Average Queue (ft)	103	1	85	79	65	26	142	100	40
95th Queue (ft)	193	12	149	182	147	76	260	226	105
Link Distance (ft)	651	213		666	666	666	620	620	620
Upstream Blk Time (%)									
Queuing Penalty (veh)									
Storage Bay Dist (ft)			142						
Storage Blk Time (%)			0	2					
Queuing Penalty (veh)			1	4					

Network Summary

Network wide Queuing Penalty: 5

HCS7 All-Way Stop Control Report

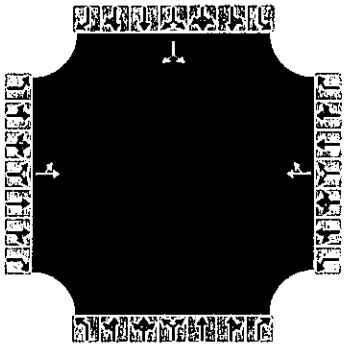
General Information

Analyst	
Agency/Co.	
Date Performed	10/17/2019
Analysis Year	2019
Analysis Time Period (hrs)	0.25
Time Analyzed	AM Peak
Project Description	Option B-Background +Project

Site Information

Intersection	
Jurisdiction	
East/West Street	66th Ave North
North/South Street	116th St
Peak Hour Factor	0.75

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	23	134			28	66				277		14
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LT			TR						LR		
Flow Rate, v (veh/h)	209			125						388		
Percent Heavy Vehicles	2			2						2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20		
Initial Degree of Utilization, x	0.186			0.111						0.345		
Final Departure Headway, hd (s)	5.18			4.86						4.96		
Final Degree of Utilization, x	0.301			0.169						0.534		
Move-Up Time, m (s)	2.0			2.0						2.0		
Service Time, ts (s)	3.18			2.86						2.96		

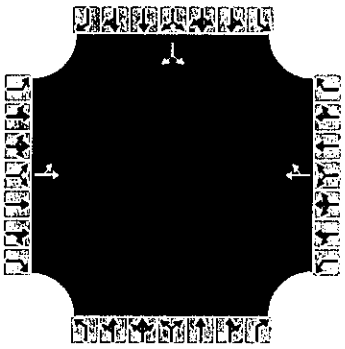
Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	209			125						388		
Capacity	695			741						726		
95% Queue Length, Q_{95} (veh)	1.3			0.6						3.2		
Control Delay (s/veh)	10.4			8.8						13.5		
Level of Service, LOS	B			A						B		
Approach Delay (s/veh)	10.4			8.8						13.5		
Approach LOS	B			A						B		
Intersection Delay, s/veh | LOS	11.8						B					

HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst		Intersection	
Agency/Co.		Jurisdiction	
Date Performed	10/17/2019	East/West Street	66th Ave North
Analysis Year	2019	North/South Street	116th St
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.75
Time Analyzed	PM Peak		
Project Description	Option B-Background +Project		

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	19	67			141	168				92		34
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LT			TR						LR		
Flow Rate, v (veh/h)	115			412						168		
Percent Heavy Vehicles	2			2						2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20		
Initial Degree of Utilization, x	0.102			0.366						0.149		
Final Departure Headway, hd (s)	4.89			4.21						5.09		
Final Degree of Utilization, x	0.156			0.482						0.237		
Move-Up Time, m (s)	2.0			2.0						2.0		
Service Time, ts (s)	2.89			2.21						3.09		

Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	115			412						168		
Capacity	737			855						708		
95% Queue Length, Q_{95} (veh)	0.5			2.7						0.9		
Control Delay (s/veh)	8.8			11.1						9.7		
Level of Service, LOS	A			B						A		
Approach Delay (s/veh)	8.8			11.1						9.7		
Approach LOS	A			B						A		
Intersection Delay, s/veh | LOS	10.3			B								

HCS7 Two-Way Stop-Control Report

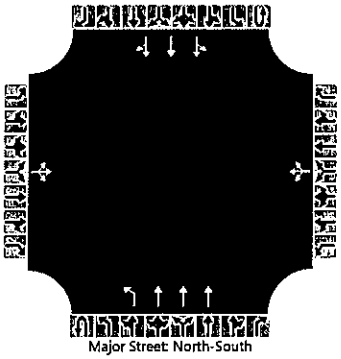
General Information

Analyst	
Agency/Co.	
Date Performed	10/23/2019
Analysis Year	2019
Time Analyzed	AM Peak
Intersection Orientation	North-South
Project Description	Option B-Background Plus Project

Site Information

Intersection	
Jurisdiction	
East/West Street	62nd Avenue
North/South Street	113th Street
Peak Hour Factor	0.91
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	3	0	0	0	3	0
Configuration			LTR				LTR			L	T			LT	T	TR
Volume (veh/h)		36	0	78		0	0	1	0	23	750			1	1204	15
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	7.1		5.3				5.3		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	7.16		5.36				5.36		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.9		3.1				3.1		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.93		3.13				3.13		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			125				1			25				1		
Capacity, c (veh/h)			177				501			265				472		
v/c Ratio			0.71				0.00			0.10				0.00		
95% Queue Length, Q_{95} (veh)			4.3				0.0			0.3				0.0		
Control Delay (s/veh)			63.5				12.2			20.0				12.6		
Level of Service (LOS)			F				B			C				B		
Approach Delay (s/veh)	63.5				12.2				0.6				0.0			
Approach LOS	F				B											

HCS7 Two-Way Stop-Control Report

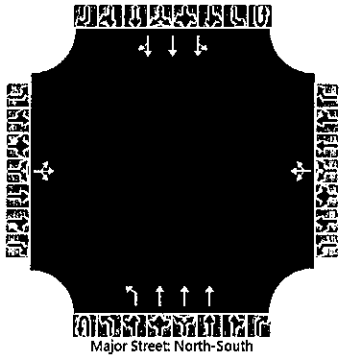
General Information

Analyst	
Agency/Co.	
Date Performed	10/23/2019
Analysis Year	2019
Time Analyzed	PM Peak
Intersection Orientation	North-South
Project Description	Option B-Background Plus Project

Site Information

Intersection	
Jurisdiction	
East/West Street	62nd Avenue
North/South Street	113th Street
Peak Hour Factor	0.97
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	1	3	0	0	0	3	0
Configuration			LTR				LTR			L	T			LT	T	TR
Volume (veh/h)		21	0	45		0	0	0	0	84	1158			2	887	44
Percent Heavy Vehicles (%)		3	3	3		3	3	3	3	3				3		
Proportion Time Blocked																
Percent Grade (%)		0				0										
Right Turn Channelized																
Median Type | Storage		Undivided														

Critical and Follow-up Headways

Base Critical Headway (sec)		6.4	6.5	7.1		6.4	6.5	7.1		5.3				5.3		
Critical Headway (sec)		6.46	6.56	7.16		6.46	6.56	7.16		5.36				5.36		
Base Follow-Up Headway (sec)		3.8	4.0	3.9		3.8	4.0	3.9		3.1				3.1		
Follow-Up Headway (sec)		3.83	4.03	3.93		3.83	4.03	3.93		3.13				3.13		

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			68				0			87				2		
Capacity, c (veh/h)			203							406				313		
v/c Ratio			0.34							0.21				0.01		
95% Queue Length, Q_{95} (veh)			1.4							0.8				0.0		
Control Delay (s/veh)			31.5							16.2				16.6		
Level of Service (LOS)			D							C				C		
Approach Delay (s/veh)		31.5								1.1				0.1		
Approach LOS		D														

HCS7 Two-Way Stop-Control Report

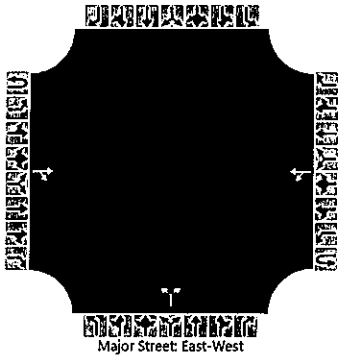
General Information

Analyst	
Agency/Co.	
Date Performed	10/23/2019
Analysis Year	2019
Time Analyzed	AM Peak
Intersection Orientation	East-West
Project Description	Option B-Background Plus Project

Site Information

Intersection	
Jurisdiction	
East/West Street	66th Ave North
North/South Street	Project Access A
Peak Hour Factor	0.86
Analysis Time Period (hrs)	0.25

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			70	0		23	16			0		67				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

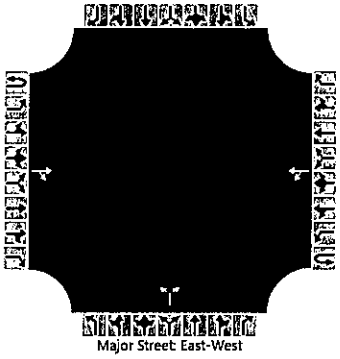
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						27					78					
Capacity, c (veh/h)						1510					976					
v/c Ratio						0.02					0.08					
95% Queue Length, Q_{95} (veh)						0.1					0.3					
Control Delay (s/veh)						7.4					9.0					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)					4.4				9.0							
Approach LOS									A							

HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst		Intersection	
Agency/Co.		Jurisdiction	
Date Performed	10/23/2019	East/West Street	66th Ave North
Analysis Year	2019	North/South Street	Project Access A
Time Analyzed	PM Peak	Peak Hour Factor	0.66
Intersection Orientation	East-West	Analysis Time Period (hrs)	0.25
Project Description	Option B-Background Plus Project		

Lanes



Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	1	0		0	1	0		0	0	0
Configuration				TR		LT					LR					
Volume (veh/h)			39	0		76	71			0		44				
Percent Heavy Vehicles (%)						3				3		3				
Proportion Time Blocked																
Percent Grade (%)										0						
Right Turn Channelized																
Median Type | Storage	Undivided															

Critical and Follow-up Headways

Base Critical Headway (sec)						4.1				7.1		6.2				
Critical Headway (sec)						4.13				6.43		6.23				
Base Follow-Up Headway (sec)						2.2				3.5		3.3				
Follow-Up Headway (sec)						2.23				3.53		3.33				

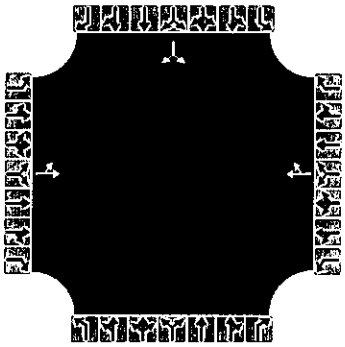
Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)						115					67					
Capacity, c (veh/h)						1538					1004					
v/c Ratio						0.07					0.07					
95% Queue Length, Q_{95} (veh)						0.2					0.2					
Control Delay (s/veh)						7.5					8.8					
Level of Service (LOS)						A					A					
Approach Delay (s/veh)					4.2				8.8							
Approach LOS									A							

HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst		Intersection	
Agency/Co.		Jurisdiction	
Date Performed	10/25/2019	East/West Street	Access B/Irving Ave
Analysis Year	2019	North/South Street	Evergreen Ave
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.50
Time Analyzed	AM Peak		
Project Description	Option B- Background Plus Project		

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	0	82			27	1				8		0
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LT			TR						LR		
Flow Rate, v (veh/h)	164			56						16		
Percent Heavy Vehicles	2			2						2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20		
Initial Degree of Utilization, x	0.146			0.050						0.014		
Final Departure Headway, hd (s)	4.03			4.10						4.60		
Final Degree of Utilization, x	0.183			0.064						0.020		
Move-Up Time, m (s)	2.0			2.0						2.0		
Service Time, ts (s)	2.03			2.10						2.60		

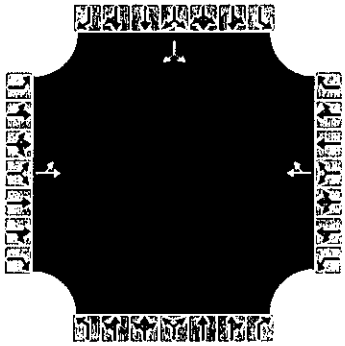
Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	164			56						16		
Capacity	894			877						783		
95% Queue Length, Q_{95} (veh)	0.7			0.2						0.1		
Control Delay (s/veh)	7.9			7.4						7.7		
Level of Service, LOS	A			A						A		
Approach Delay (s/veh)	7.9			7.4						7.7		
Approach LOS	A			A						A		
Intersection Delay, s/veh | LOS	7.8						A					

HCS7 All-Way Stop Control Report

General Information		Site Information	
Analyst		Intersection	
Agency/Co.		Jurisdiction	
Date Performed	10/25/2019	East/West Street	Access B/Irving Ave
Analysis Year	2019	North/South Street	Evergreen Ave
Analysis Time Period (hrs)	0.25	Peak Hour Factor	0.56
Time Analyzed	PM Peak		
Project Description	Option B- Background Plus Project		

Lanes



Vehicle Volume and Adjustments

Approach	Eastbound			Westbound			Northbound			Southbound		
Movement	L	T	R	L	T	R	L	T	R	L	T	R
Volume	0	54			92	8				2		0
% Thrus in Shared Lane												
Lane	L1	L2	L3	L1	L2	L3	L1	L2	L3	L1	L2	L3
Configuration	LT			TR						LR		
Flow Rate, v (veh/h)	96			179						4		
Percent Heavy Vehicles	2			2						2		

Departure Headway and Service Time

Initial Departure Headway, hd (s)	3.20			3.20						3.20		
Initial Degree of Utilization, x	0.086			0.159						0.003		
Final Departure Headway, hd (s)	4.11			3.99						4.71		
Final Degree of Utilization, x	0.110			0.198						0.005		
Move-Up Time, m (s)	2.0			2.0						2.0		
Service Time, ts (s)	2.11			1.99						2.71		

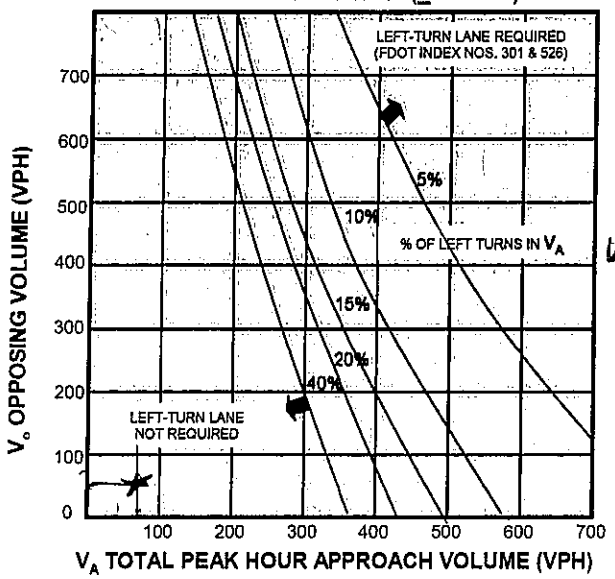
Capacity, Delay and Level of Service

Flow Rate, v (veh/h)	96			179						4		
Capacity	877			903						765		
95% Queue Length, Q_{95} (veh)	0.4			0.7						0.0		
Control Delay (s/veh)	7.6			8.0						7.7		
Level of Service, LOS	A			A						A		
Approach Delay (s/veh)	7.6			8.0						7.7		
Approach LOS	A			A						A		
Intersection Delay, s/veh | LOS	7.8						A					

NCHRP 279

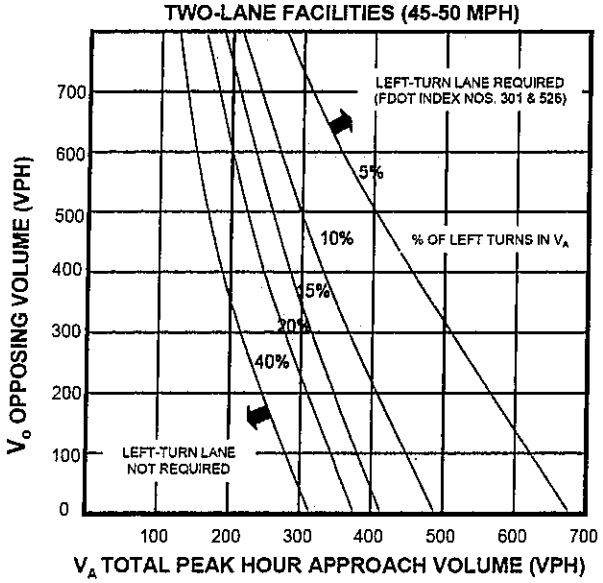
AM – option A
Project Access / 66th Ave North
A
VA = 66
VO = 70
% left turn in VA =
50/66 = 76
WBL turn lane not warranted

GRAPH 2A. LEFT-TURN LANE WARRANTS – TWO-LANE FACILITIES (≤ 40 MPH)



NOTE: Left-turn lane not required when intersection of V_A and V_O is below the curve corresponding to the % of left turns in V_A.

GRAPH 2B. LEFT-TURN LANE WARRANTS – TWO-LANE FACILITIES (45-50 MPH)

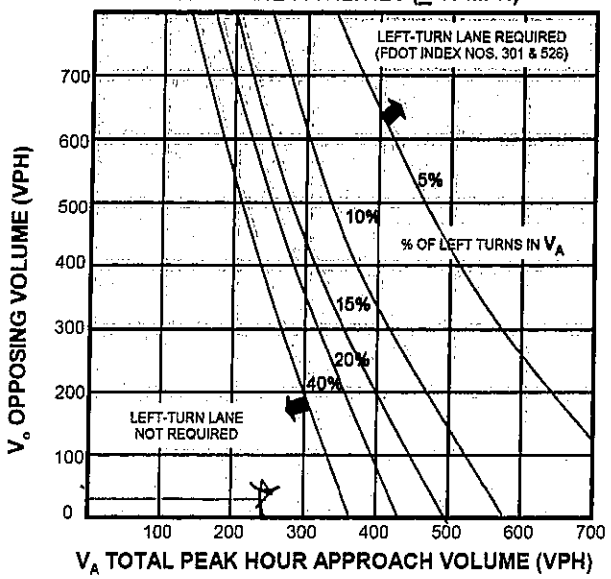


NOTE: Left-turn lane not required when intersection of V_A and V_O is below the curve corresponding to the % of left turns in V_A.

Graphs 2A & 2B Source: National Cooperative Highway Research Program, Report No. 279.

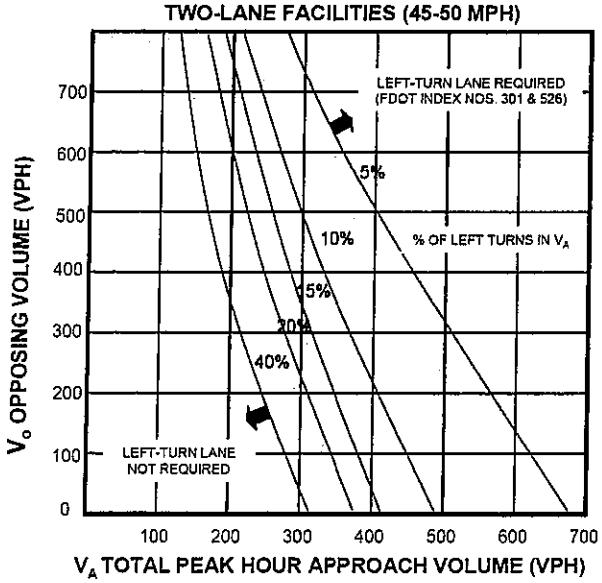
PM – option A
project Access / 66th Ave North
A
VA = 239
VO = 39
% of left turns in VA =
168/239 = 70
WBL turn lane not Warranted

GRAPH 2A. LEFT-TURN LANE WARRANTS – TWO-LANE FACILITIES (≤ 40 MPH)



NOTE: Left-turn lane not required when intersection of V_A and V_O is below the curve corresponding to the % of left turns in V_A.

GRAPH 2B. LEFT-TURN LANE WARRANTS – TWO-LANE FACILITIES (45-50 MPH)



NOTE: Left-turn lane not required when intersection of V_A and V_O is below the curve corresponding to the % of left turns in V_A.

Graphs 2A & 2B Source: National Cooperative Highway Research Program, Report No. 279.

AM - option B

Project Access A / 66th Avenue N

VA = 39

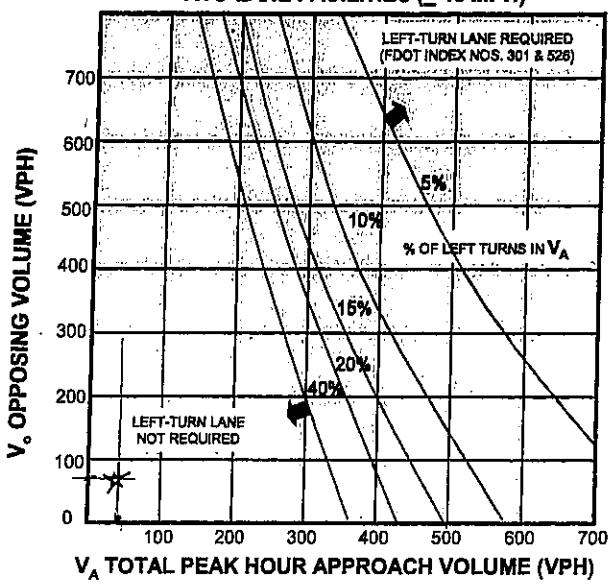
VO = 70

% of Left turns in VA

$\frac{23}{39} = 59$

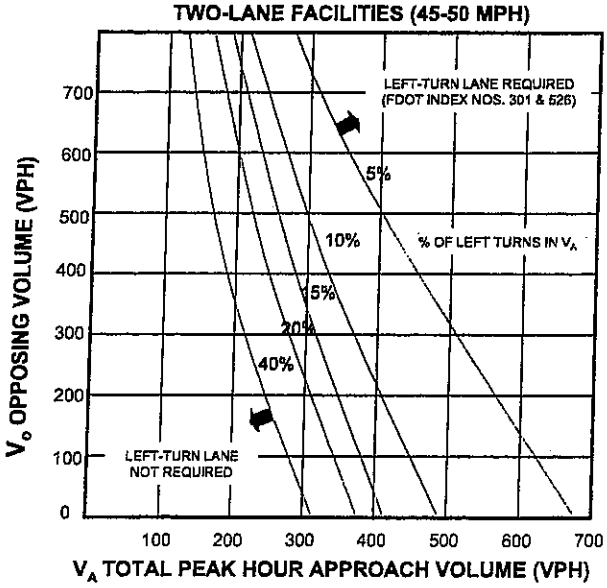
WBL is not warranted

GRAPH 2A. LEFT-TURN LANE WARRANTS – TWO-LANE FACILITIES (≤ 40 MPH)



NOTE: Left-turn lane not required when intersection of V_A and V_O is below the curve corresponding to the % of left turns in V_A.

GRAPH 2B. LEFT-TURN LANE WARRANTS – TWO-LANE FACILITIES (45-50 MPH)



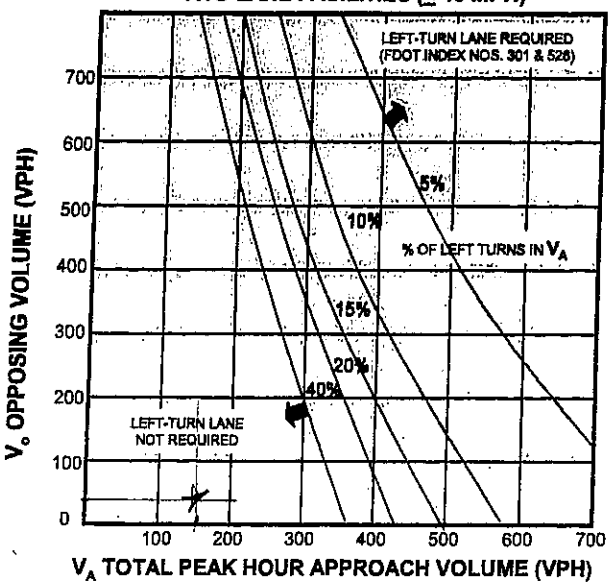
NOTE: Left-turn lane not required when intersection of V_A and V_O is below the curve corresponding to the % of left turns in V_A.

Graphs 2A & 2B Source: National Cooperative Highway Research Program, Report No. 279.

PM – option B
Project Access A/
Goethe N.

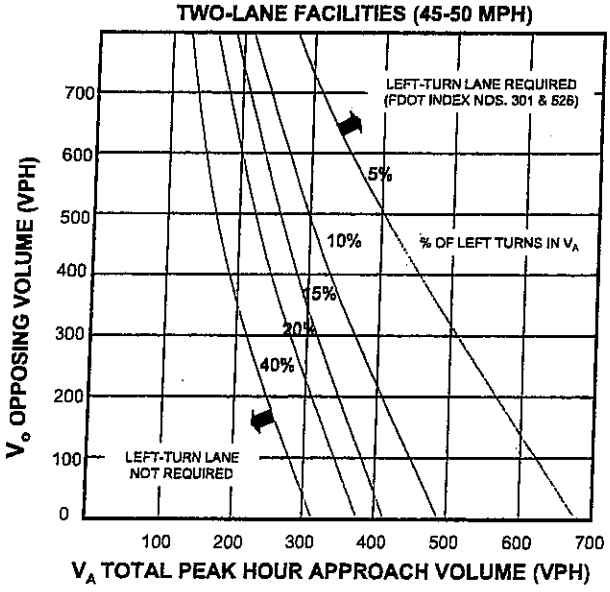
VA = 147
VO = 39
% of left turns in VA
$\frac{76}{147} = 52$
WBL is not warranted.

GRAPH 2A. LEFT-TURN LANE WARRANTS – TWO-LANE FACILITIES (≤ 40 MPH)



NOTE: Left-turn lane not required when intersection of V_A and V_O is below the curve corresponding to the % of left turns in V_A.

GRAPH 2B. LEFT-TURN LANE WARRANTS – TWO-LANE FACILITIES (45-50 MPH)



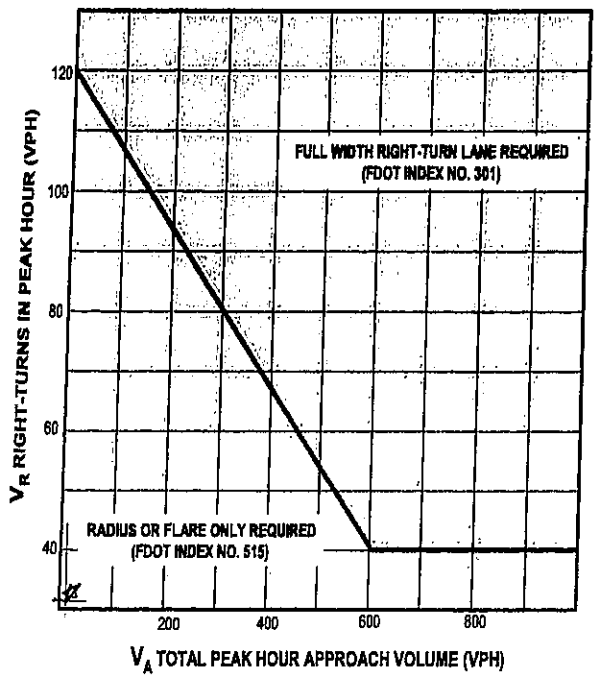
NOTE: Left-turn lane not required when intersection of V_A and V_O is below the curve corresponding to the % of left turns in V_A.

Graphs 2A & 2B Source: National Cooperative Highway Research Program, Report No. 279.

Am - option B
Project Access B / Evergreen Avenue

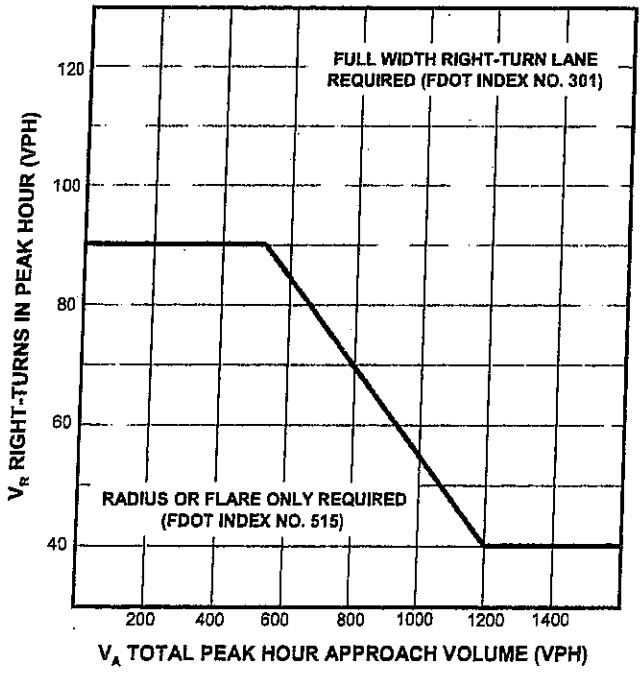
VA = 28
VR = 1
WBR is not warranted

GRAPH 1A. RIGHT-TURN LANE WARRANTS – TWO-LANE FACILITIES



NOTE: For posted speeds at or under forty-five (45) mph, peak hour right turns greater than forty (40) VPH, and total peak hour approach less than 300 VPH, adjust right turn volumes. Adjust peak hour right turns = peak hour right turns-twenty (20).

GRAPH 1B. RIGHT-TURN LANE WARRANTS
FOUR- OR SIX-LANE FACILITIES



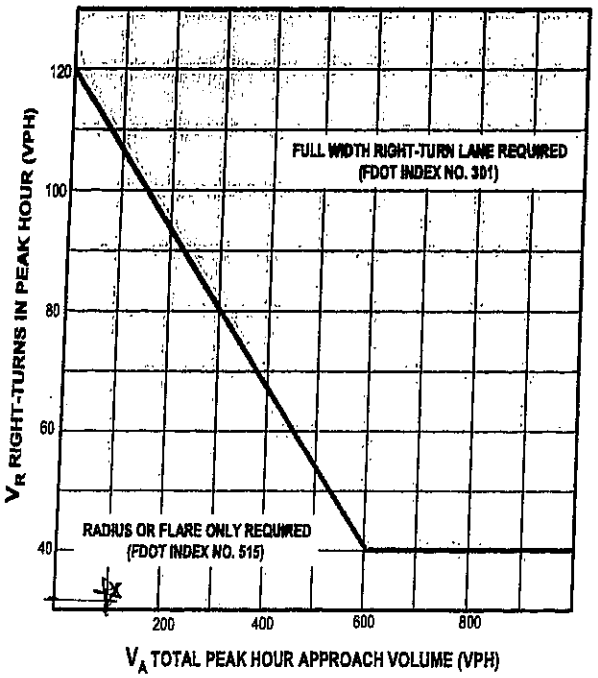
NOTE: For application on high speed highways.

Graphs 1A & 1B Source: National Cooperative Highway Research Program, Report No. 279.

PM_option B
Project Access B
EVERGreen Avenue

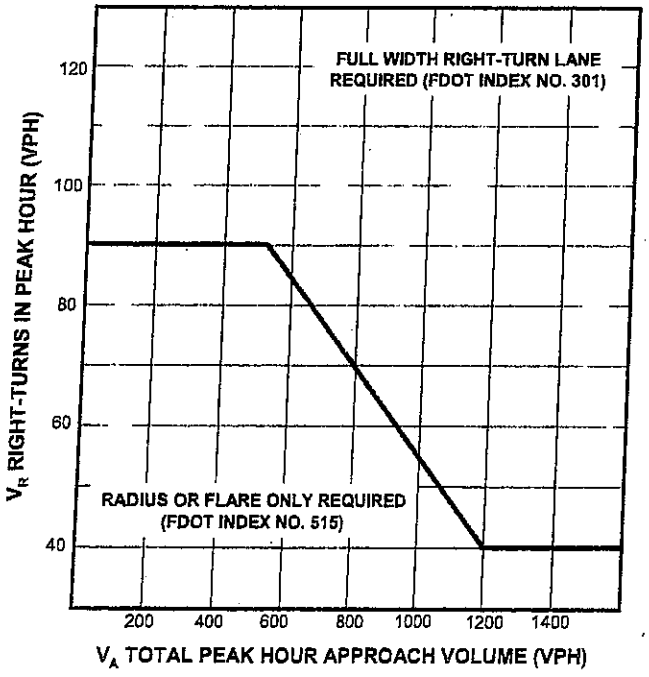
VA = 100
VR = 8
WBR is not Warranted

GRAPH 1A. RIGHT-TURN LANE WARRANTS – TWO-LANE FACILITIES



NOTE: For posted speeds at or under forty-five (45) mph, peak hour right turns greater than forty (40) VPH, and total peak hour approach less than 300 VPH, adjust right turn volumes. Adjust peak hour right turns = peak hour right turns-twenty (20).

GRAPH 1B. RIGHT-TURN LANE WARRANTS
FOUR- OR SIX-LANE FACILITIES

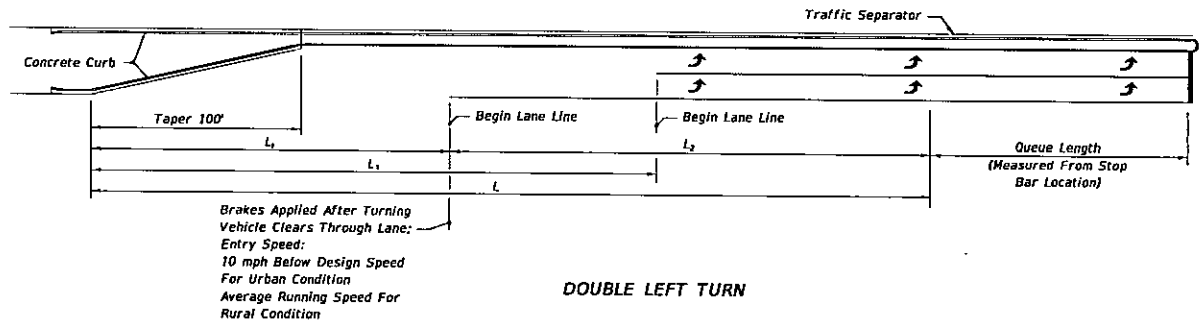


NOTE: For application on high speed highways.

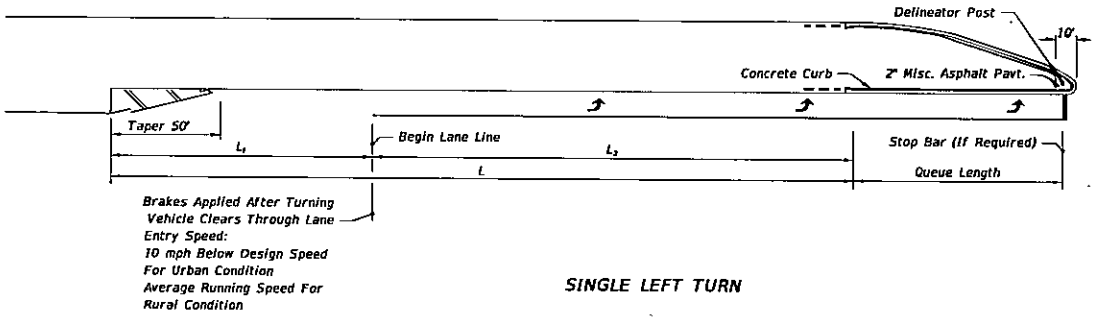
Graphs 1A & 1B Source: National Cooperative Highway Research Program, Report No. 279.

FDOT EXHIBIT 212-1

MEDIAN TURN LANES
MINIMUM DECELERATION LENGTHS



DOUBLE LEFT TURN



SINGLE LEFT TURN

MEDIAN TURN LANES								
			URBAN CONDITIONS			RURAL CONDITIONS		
Design Speed (mph)	Entry Speed (mph)	Clearance Distance L_1 (ft.)	Brake To Stop Distance L_2 (ft.)	Total Decel. Distance L (ft.)	Clearance Distance L_3 (ft.)	Brake To Stop Distance L_2 (ft.)	Total Decel. Distance L (ft.)	Clearance Distance L_3 (ft.)
35	25	70	75	145	110	—	—	—
40	30	80	75	155	120	—	—	—
45	35	85	100	185	135	—	—	—
50	40/44	105	135	240	160	185	290	160
55	48	125	—	—	—	225	350	195
60	52	145	—	—	—	260	405	230
65	55	170	—	—	—	290	460	270

NOT TO SCALE

EXHIBIT 212-1
01/01/2018