TRANSPORTATION ANALYSIS

SPRINGS AT SUNCOAST

Prepared For

CONTINENTAL PROPERTIES COMPANY, INC.

Prepared By

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

TRANSPORTATION ANALYSIS

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CONTINENTAL PROPERTIES COMPANY, INC.

Prepared By

LINCKS & ASSOCIATES, INC.
5023 West Laurel Street
Tampa, Florida 33607
813-289-0039
State of Florida Authorization No. EB0004638

July, 2023

Project No. 22213

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

8/10/23
Date

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INTRODUCTION

The purpose of this report is to provide a Transportation Analysis in conjunction with the development of the property located north of County Line Road and west of Ayers Road in Hernando County, Florida, as shown in Figure 1. The subject property is currently approved for 400 Multi-Family dwelling units. Phase 1 of the project is under construction with 264 Multi-Family dwelling units. The developer proposed to amend the approval to allow up to 540 Multi-Family dwelling units.

This analysis was conducted in conformance with the approved Traffic Methodology Statement dated November 8, 2022. A copy of the Methodology Statement is included in the Appendix of this report.

ESTIMATED PROJECT AVERAGE DAILY TRAFFIC

The trip rates utilized in this report were obtained from the latest computerized version of "OTISS" which utilizes the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition, 2021, as its data base. Based on these trip rates, the proposed land use would generate approximately 2,452 daily trip ends, with a net increase of 636 trip ends.

PROJECT PEAK HOUR TRAFFIC

Again, based on the ITE Trip Generation Manual, 11th Edition, the proposed land use would generate approximately 200 trip ends during the AM peak hour with 46 inbound and 154 outbound with a net increase of 36 trip ends, as shown in Table 1. During the PM peak hour, the proposed land use would generate approximately 211 trip ends with 129 inbound and

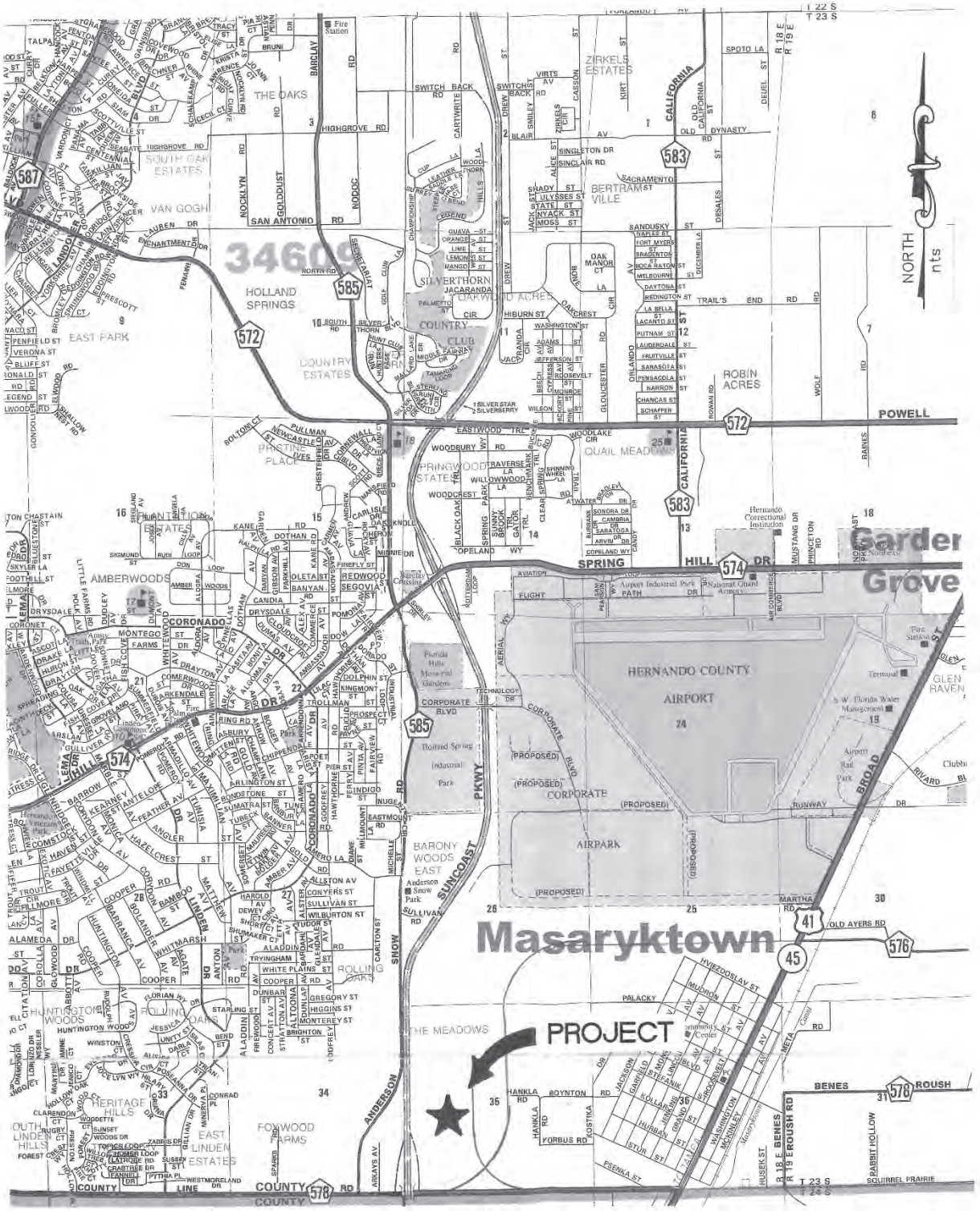

FIGURE 1
PROJECT LOCATION

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TABLE 1

ESTIMATED PEAK HOUR PROJECT TRIP ENDS (1)

Scenario	Land Use	ITE LUC	Size	Daily Trip Ends	AM Peak Hour Trip Ends			PM Peak Hour Trip Ends		
					In	Out	Total	In	Out	Total
Approved	Multi-Family	221	400 DU's	1,816	38	126	164	95	61	156
Proposed	Multi-Family	221	540 DU's	2,452	46	154	200	129	82	211
			Difference	636	8	28	36	34	21	55

(1) Source: ITE Trip Generation Manual, 11th Edition, 2021.

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82 outbound with a net increase of 55 trip ends, as shown in Table 1.

PROJECT TRIP DISTRIBUTION

The distribution of the project traffic was estimated based on the model included in the Appendix.

Figure 2 illustrates the assignment of the net increase in the AM and PM peak hour project trip ends on the adjacent transportation network.

ADJACENT ROADWAYS

As stated previously, the project is located north of County Line Road and west of Ayers Road in Hernando County, Florida. County Line Road and Ayers Road are both four (4) lane divided roadways in the vicinity of the project.

According to the Hernando County CIP, there are no capacity adding improvements budgeted in the vicinity of the project.

STUDY AREA

The study network includes those roadways in which the net increase in the project traffic consumes 5.0% of the peak hour adopted Level of Service capacity for the roadways within the vicinity of the project. Based on the results shown in Table 2, the study network includes Ayers Road from County Line Road to Trillium Boulevard. The study network also includes the following intersections:

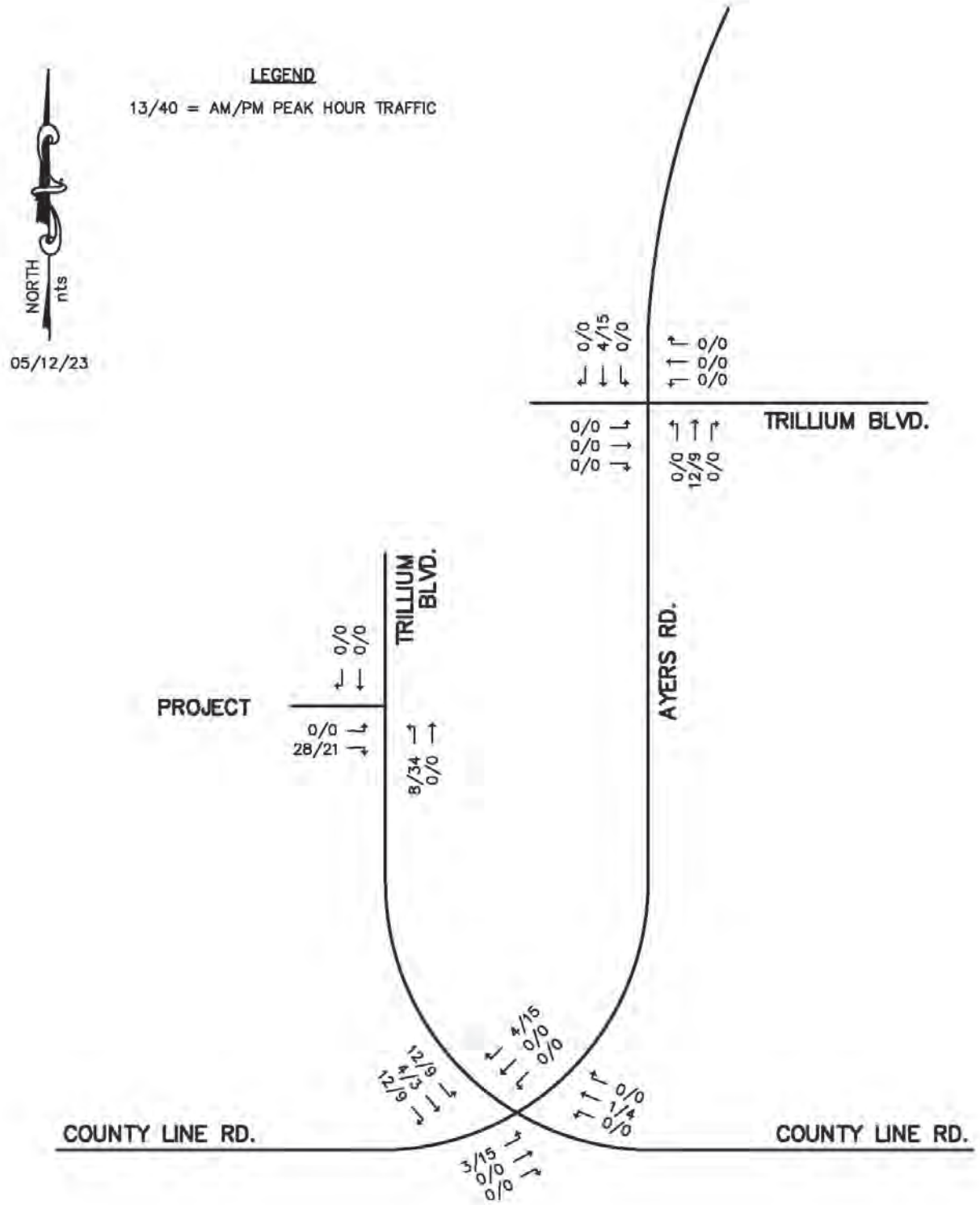

FIGURE 2
PROJECT TRAFFIC

- Ayers Road and County Line Road
- Ayers Road and Trillium Boulevard
- Trillium Boulevard and Project Access

BUILDOUT

Buildout of the project is anticipated to be 2030.

BACKGROUND TRAFFIC

The 2030 background traffic utilized in this analysis was calculated as follows:

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

    - Ayers Road and County Line Road
    - Ayers Road and Trillium Boulevard

2) The existing counts were conducted during the peak season based on the FDOT Peak Season Adjustment Factors for Hernando County; therefore, no adjustments were made.

Figure 3 illustrates the peak season traffic.

3) The peak season traffic was increased by the annual growth rate for each segment contained in the Hernando County Tier I spreadsheet.

TABLE 2

STUDY NETWORK DETERMINATION

Roadway	From	To	Lanes	Capacity (1)	Percent Project Distribution	Net Increase Project Traffic	Percent Consumed	Study Network?
Ayers Blvd	County Line Rd	Project	4 LD	3,222	55.4%	31	1.0%	Yes (2)
	Project	Trillium Blvd	4 LD	3,222	44.6%	24	0.7%	Yes (2)
	Trillium Blvd	US 41	4 LD	3,222	38.0%	21	0.6%	No
County Line Rd	Suncoast Pkwy	Ayers Blvd	4 LD	3,222	43%	24	0.7%	No
	Ayers Blvd	US 41	2 LU	1,440	12.4%	7	0.5%	No

(1) Source: FDOT 2020 Quality/Level of Service Handbook.
(2) Directly accessed roadway.

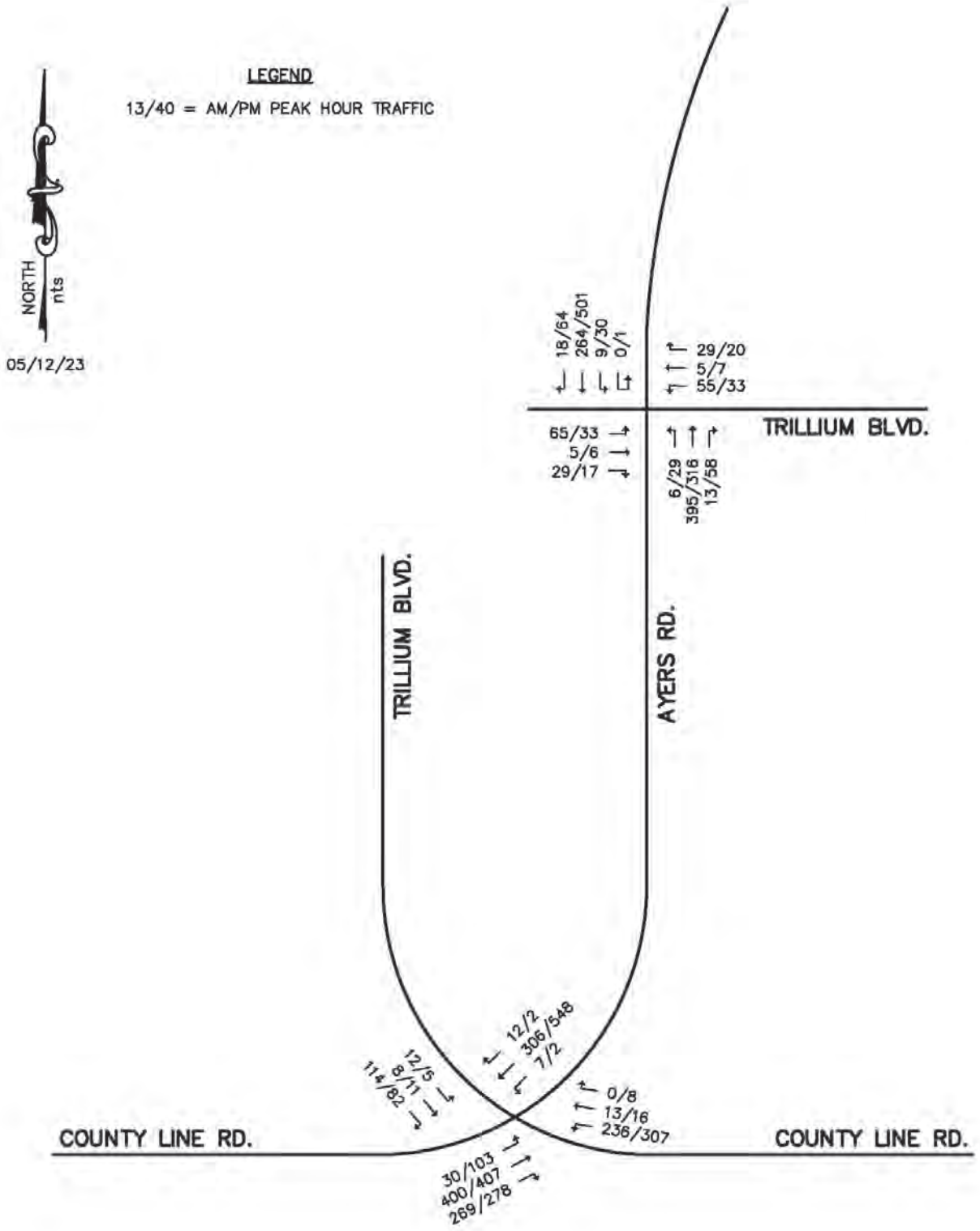

FIGURE 3
PEAK SEASON TRAFFIC

4) The project traffic associated with Suncoast Commercial/Residential Development to the south and the approved 400 dwelling unit Multi-Family was added to the volumes in #3 above as background traffic. Project traffic figures for each project are included in the Appendix of this report.

Figure 4 illustrates the 2030 background traffic and Figure 5 illustrates the 2030 background plus project traffic for the AM and PM peak hours.

INTERSECTION ANALYSIS

A capacity analysis was conducted for the AM and PM peak hours at the following intersections:

- Ayers Road and County Line Road
- Ayers Road and Trillium Boulevard
- Trillium Boulevard and Project Access

These calculations were performed utilizing HCS and SYNCHRO softwares. Tables 3 and 4 summarize the results of the analysis and the results are described in the following paragraphs:

Ayers Road and County Line Road

Signalized intersection analysis indicates that the overall intersection may operate at Level of Service C and D during the AM and PM peak hours, respectively, with the 2030 background traffic and existing geometry and signal timings. It is required to add a southbound right turn lane to allow all the movements to operate with a V/C ratio less

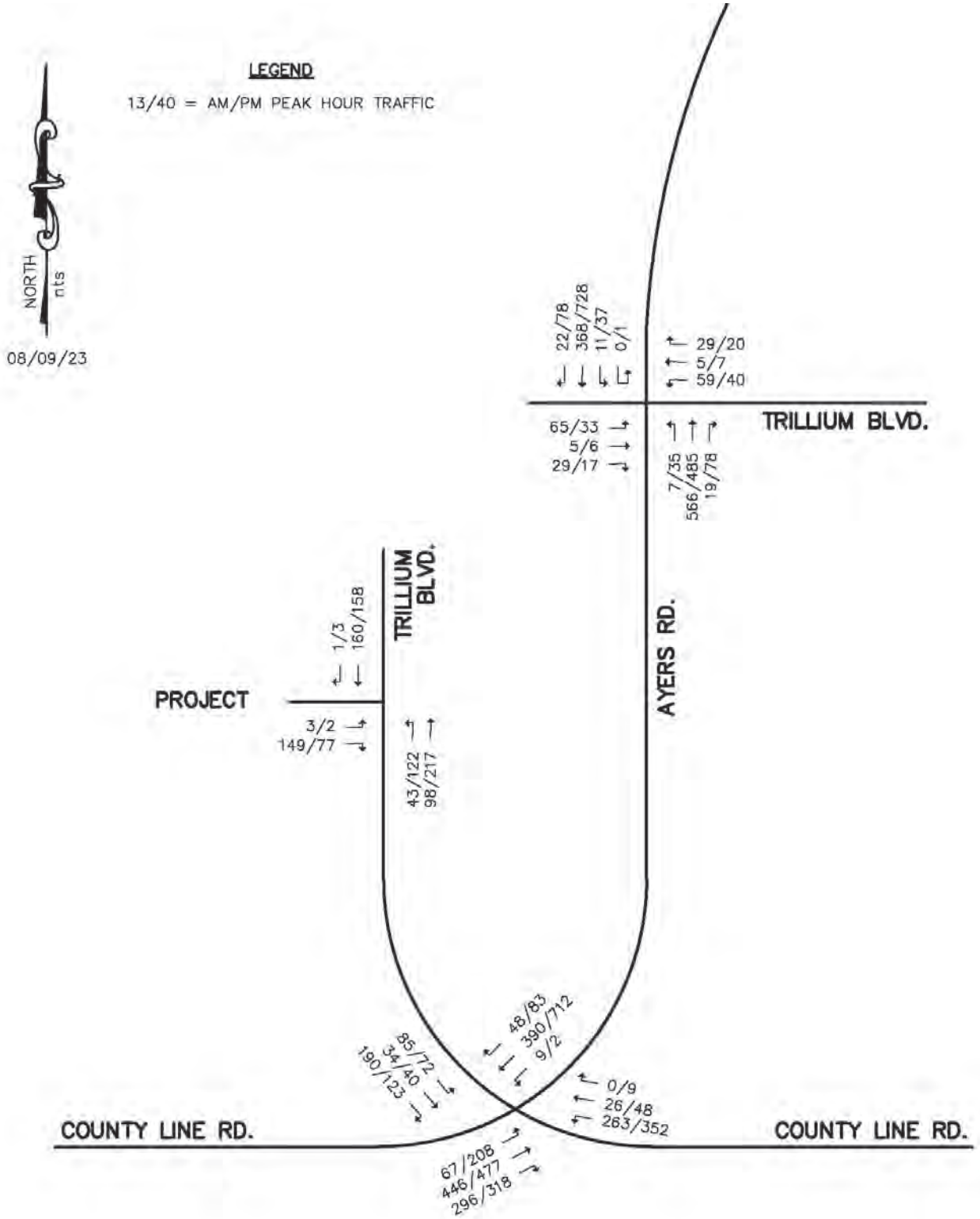

FIGURE 4
2030 BACKGROUND TRAFFIC

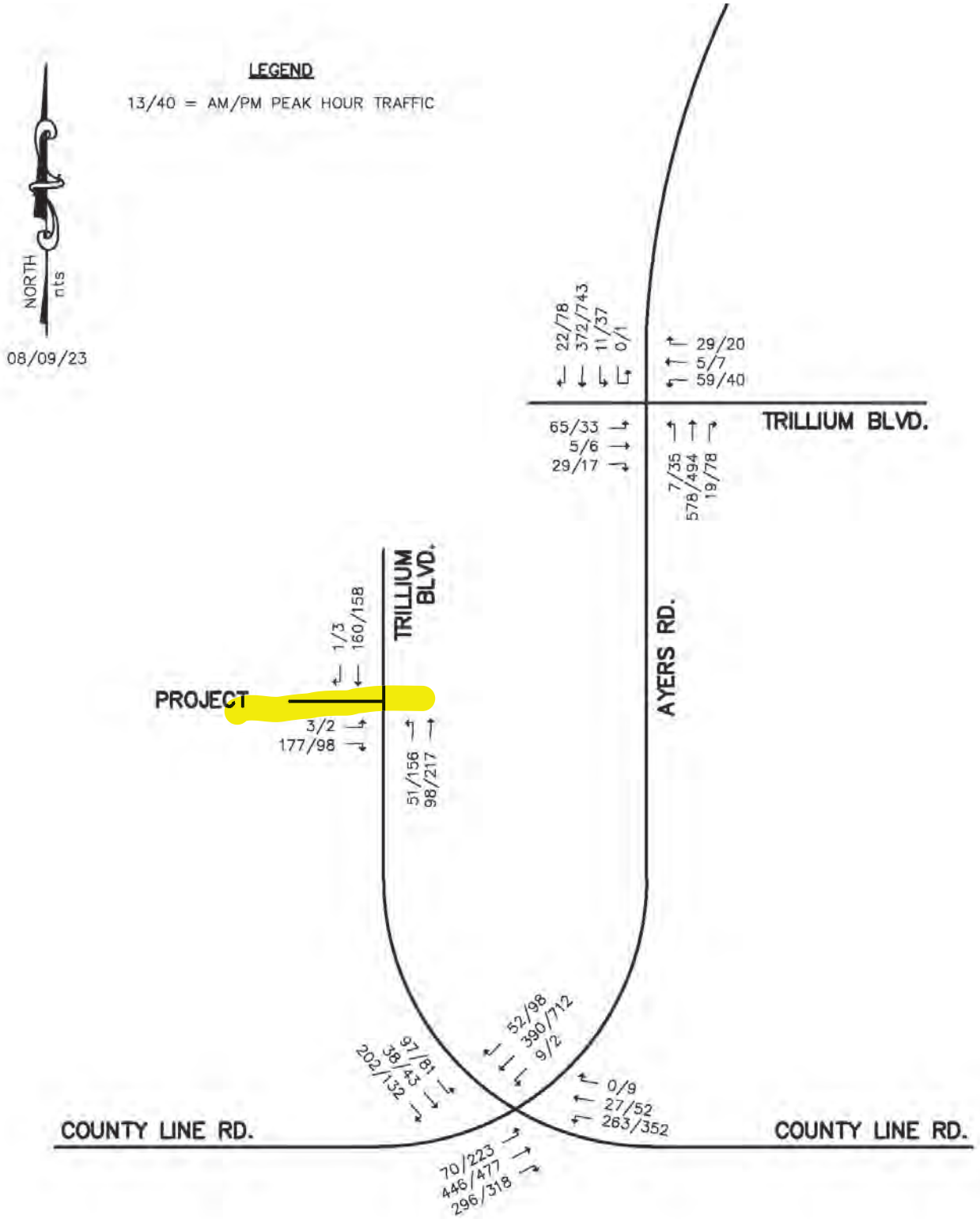

FIGURE 5
2030 BACKGROUND PLUS PROJECT TRAFFIC

TABLE 3

ESTIMATED INTERSECTION
LEVEL OF SERVICE (SIGNALIZED)

Intersection	Time Period	2030 Background Traffic Existing Geometry Delay	2030 Background Traffic Existing Geometry LOS	Required Improvement	2030 Background Traffic Proposed Improvement Delay	2030 Background Traffic Proposed Improvement LOS	2030 Background Plus Project Traffic Background Improvement Delay	2030 Background Plus Project Traffic Background Improvement LOS	Required Improvements
Ayers Rd and County Line Rd	AM	34.2	C	SBR	24.6	C	24.6	C	None
	PM	46.0	D		28.9	C	30.2	C	
Ayers Rd and Trillium Blvd	AM	10.6	B	None	-	-	10.6	B	None
	PM	11.7	B		-	-	11.7	B	

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TABLE 4

ESTIMATED INTERSECTION LEVEL OF SERVICE
(UNSIGNALIZED)

		AM Peak Hour Bakground Plus Project Traffic			PM Peak Hour Background Plus Project Traffic		
Intersection	Direction	Left	Thru	Right	Left	Thru	Right
Trillium Blvd and	EB	B	-	B	B	-	B
Project Access	NB	A	*	-	A	*	-

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than 1.0 with the background traffic. With the addition of the project traffic, the overall intersection should operate at Level of Service C during both AM and PM peak hours, and V/C ratio of less than 1.0 for all movements with the geometry required for the background traffic and signal timings, as shown in Table 3.

Ayers Road and Trillium Boulevard

Signalized intersection analysis indicates that the overall intersection may operate at Level of Service B during both AM and PM peak hours, with the 2030 background traffic and existing geometry and signal timings, as shown in Table 3. With the addition of the project traffic, the overall intersection should continue to operate at Level of Service B during both AM and PM peak hours, with a V/C ratio less than 1.0 for all the movements.

Trillium Boulevard and Project Access

Unsignalized intersection analysis indicates that all movements within this intersection should operate with the adopted Level of Service, as shown in Table 4.

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 M.D. Harmelink and AASHTO Exhibit 9-75. The access recommendations are summarized in Table 5 and described in the following paragraph:

TABLE 5

ACCESS RECOMMENDATIONS

Intersection	Movement	Volume (1)	Turn Lane Warranted (2)	Estimated Queue Length (3)	Deceleration Length (4)	Total Length
Trillium Blvd and	NBL	51/156	Yes	125'	155'	280'
Project Access	SBR	1/3	No	-	-	-

(1) See Figure 5, Background plus Project Traffic, of this report
(2) Based on M.D. Harmelink and AASHTO Exhibit 9-75
(3) Queue Storage Length:
Trillium Blvd and Project Access:
NBL - 156/30 x 25 = 130' Use 125'
(4) Based on FDOT FDM Index 212-1 and a design speed of 40 MPH on Trillium Blvd.

Trillium Boulevard and Project Access

This project driveway has full access to Trillium Boulevard. Based on the projected volumes, a northbound left turn lane is warranted and a southbound right turn lane is not warranted, as shown in Table 5. It is recommended a 280 foot northbound left turn lane be provided.

CONCLUSION

Based on the results of the analysis, all intersections within the study area should operate at the adopted Level of Service with the 2030 background plus project traffic with the required improvements for background traffic. Consistent with Chapter 2011 – 139, Laws of Florida and Chapter 163.3180 of the Florida Statue as amend by HB 319 improvements required to mitigate backlogged facilities is the responsibility of the local government.

APPENDIX

APPROVED METHODOLOGY

DEPARTMENT OF PUBLIC WORKS
AQUATIC SERVICES • ENGINEERING • FACILITIES • ROADS/BRIDGES • STORMWATER • TRAFFIC • WATERWAYS
1525 EAST JEFFERSON STREET • BROOKSVILLE, FLORIDA 34601
P 352.754.4060 • F 352.754.4423 • W www.HernandoCounty.us

December 1, 2022

Mr. Steven J. Henry, PE
LINCKS & Associates, Inc.
5023 West Laurel Street
Tampa, Florida 33607

SUBJECT: Springs at Suncoast (AKA: Authentix)
Transportation Analysis Methodology Statement

Dear Mr. Henry:

Staff has reviewed your Methodology Statement (dated November 8, 2022) for the Springs at Suncoast project. The methodology statement is in the format shown in the Hernando County guidelines. Staff accepts the methodology as presented with one addition.

Under the Study Network, the Single Family and Commercial directly South of this project will need to be included in the Analysis.

These comments are not intended to be inclusive of any or all errors or omissions within the subject analysis. It remains the responsibility of the consulting engineer to thoroughly check the analysis and make necessary corrections.

Please provide the Synchro files with the Analysis submittal.

Please contact me with any questions or comments.

Sincerely,

D. Todd Crosby, P.E.
Assistant County Engineer

EL:DTC

Attachments: Hernando County Facility Design Guideline's sheet IV-18.

cc: Laura A. Borgesi P.E., Traffic Engineer
Kandi McCorkel, Engineering Development Coordinator
File

Engineers
Planners

LINCKS & ASSOCIATES, INC.

November 8, 2022

Mr. Ernie Lane
Hernando County
1525 E. Jefferson St.
Brooksville, Florida 34601

Re: Springs at Suncoast
Lincks Project No. 22213

Dear Mr. Lane,

The purpose of this letter is to establish the methodology to be utilized for the Transportation Analysis for the proposed development located north of Countyline Road and west of Ayers Road in Hernando County, Florida, as shown in Figure 1.

The subject property is currently approved for 400 Multi-Family dwelling units. Phase I of the project is under construction with 264 Multi-Family dwelling units. The developer proposes to amend the approval to allow up to 540 Multi-Family dwelling units.

A copy of the site plan is included in the Appendix of this letter.

Trip Generation

The trip rates to be utilized in the analysis will be obtained from the latest computerized version of "OTISS" which utilizes the Institute of Transportation Engineers' (ITE) Trip Generation Manual, 11th Edition, 2021, as its data base. Table 1 provides the trip generation for the approve and proposed land uses.

Distribution

The distribution will be based on the distribution utilized in the previous analysis for the project. The distribution is included in the Appendix of this letter.

Study Network

Since the project is currently approved for 400 Multi-Family dwelling units, therefore, the study network will include those roadways in which the net increase in project traffic consumes 5% of the peak hour adopted Level of Service capacity of the roadways within the vicinity of the project.

Based on the results shown in Table 2, the net project traffic does not consume 5% of

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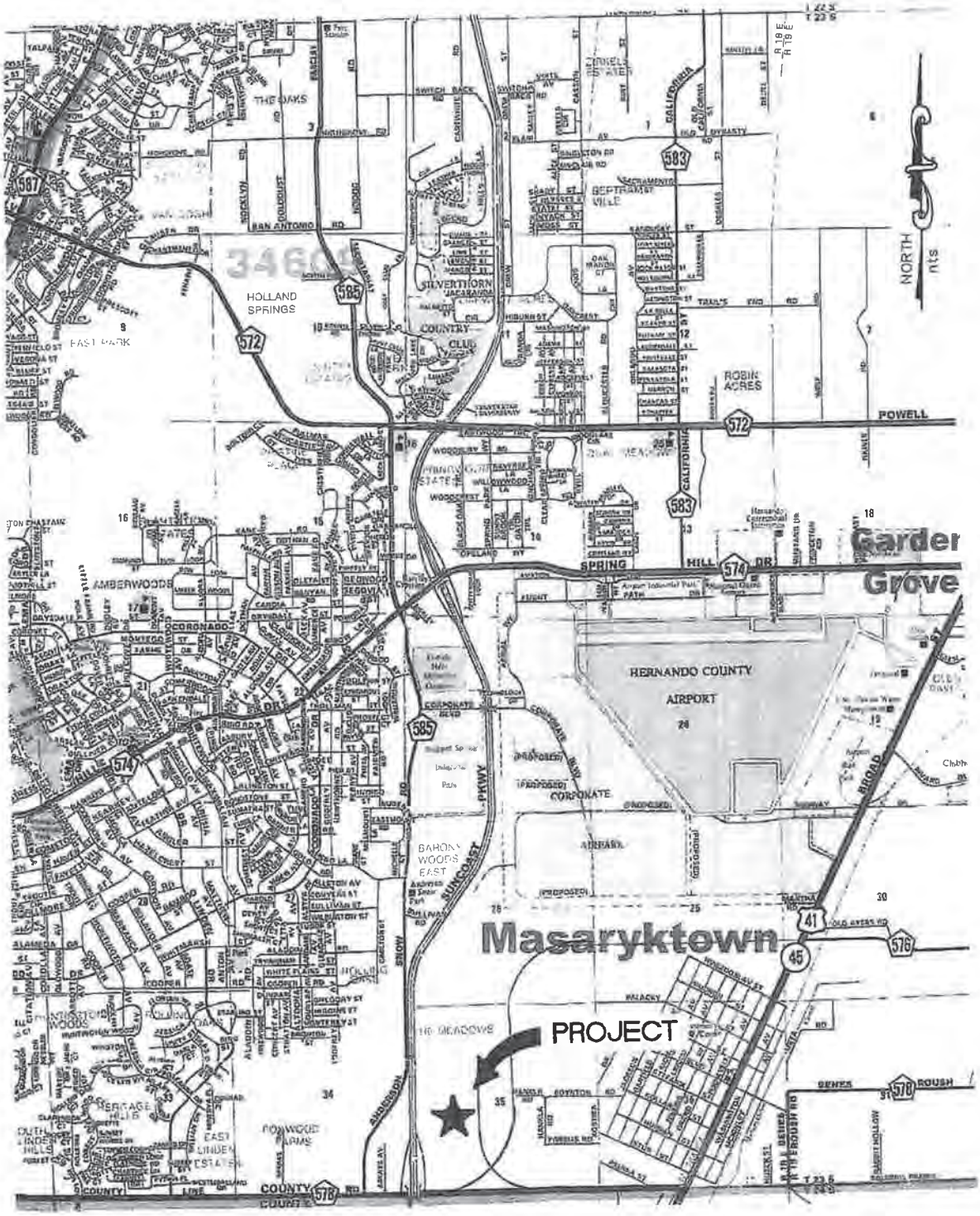

FIGURE 1
PROJECT LOCATION

TABLE 1

ESTIMATED PEAK HOUR PROJECT TRIP ENDS (1)

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					In	Out	Total	In	Out	Total
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Proposed	Multi-Family	221	540 DU's	2,452	46	154	200	129	82	211
			Difference	636	8	28	36	34	21	55

(1) Source: ITE Trip Generation Manual, 11th Edition, 2021.

TABLE 2

STUDY NETWORK DETERMINATION

Roadway	From	To	Lanes	Capacity (1)	Percent Project Distribution	Net Increase Project Traffic	Percent Consumed	Study Network?
Ayers Blvd	County Line Rd	Project	4 LD	3,222	55.4%	31	1.0%	Yes (2)
	Project	Trillium Blvd	4 LD	3,222	44.6%	24	0.7%	Yes (2)
	Trillium Blvd	US 41	4 LD	3,222	38.0%	21	0.6%	No
County Line Rd	Suncoast Pkwy	Ayers Blvd	4 LD	3,222	43%	24	0.7%	No
	Ayers Blvd	US 41	2 LU	1,440	12.4%	7	0.5%	No

(1) Source: FDOT 2020 Quality/Level of Service Handbook.
(2) Directly accessed roadway.

any roadway segments. Therefore, the study network includes the directly accessed segment of Ayers Road from County Line Road to Trillium Boulevard. The following intersections will be included in the analysis:

- Ayers Road and County Line Road
- Ayers Road and Trillium Boulevard
- Ayers Road and Project Access

Buildout

Buildout of the project is anticipated to be 2030.

Background Traffic

The 2030 background traffic to be utilized in this analysis will be calculated as follows:

1) AM (7:00 to 9:00) and PM peak hour (4:00 to 6:00) turning movement counts will be conducted at the intersections within the study network. The intersections to be included are as follows:

    - Ayers Road and County Line Road
    - Ayers Road and Trillium Boulevard
    - Ayers Road and Project Access

2) The existing counts will be adjusted to the peak season based on the 2021 FDOT Peak Season Adjustment Factors for Hernando County.

3) The peak season traffic will be increased by the annual growth rate for each segment contained in the Hernando County Tier I spreadsheet.

Signal Timings

The existing signal timings will be utilized for the intersection analysis.

Analysis Scenario

Intersection analysis shall be conducted based on HCS and/or SYNCHRO methodology for the following scenarios:

1) 2030 background traffic with budgeted geometry and signal timings. If the intersection operates at or above the adopted level of service, then no additional analysis is required.

2) 2030 background traffic with the improvements required to allow the intersection to operate at the adopted level of service.

3) 2030 background plus project traffic with the background improvements identified in #2 above.

4) 2030 background plus project traffic with any additional improvements required beyond the background traffic to allow the intersection to operate at an acceptable level of service.

Proportionate Share

The proportionate share for any improvements required by the project traffic will be determined.

Please indicate your acceptance of the proposed methodology for the project by signing on the line provided below.

Sincerely,

LINCKS & ASSOCIATES, INC.

Steven J. Henry, P.E.
President

SJH/TSF

Enclosures

I concur:

_____

Ernie Lane Date

APPENDIX

SITE PLAN

VICINITY MAP
SCALE: NTS

2 STORY
24 UNITS
MINIMUM UNIT SIZE 500FT

2 STORY
20 UNITS
MINIMUM UNIT SIZE 500FT

GENERAL NOTES

0 150 300 600

CITY	HERNANDO COUNTY
STREET	COUNTY LINE ROAD_SUNCOAST PARKWAY_NEC
STATE	FL
DRAWN BY	MTD
INITIAL DATE DRAWN	05/27/2022

REVISIONS

REV	DESCRIPTION	DATE	REV	DESCRIPTION	DATE

NORTH

SHEET: MASTER DEVELOPMENT PLAN

REV:

TRIP GENERATION

PERIOD SETTING

Analysis Name :	New Analysis		
Project Name :	Springs at Suncoast	**No :**	
Date:	11/4/2022	**City:**	
State/Province:		**Zip/Postal Code:**	
Country:		**Client Name:**	
Analyst's Name:		**Edition:**	Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)	Dwelling Units	400(0)	Weekday	Average 4.54	908 50%	908 50%	1816
221 - Multifamily Housing (Mid-Rise) - 1 - Not Close to Rail Transit (General Urban/Suburban)	Dwelling Units	540(0)	Weekday	Average 4.54	1226 50%	1226 50%	2452

(0) indicates size out of range.

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
221 - Multifamily Housing (Mid-Rise)	0 %	908	0 %	908
221 - Multifamily Housing (Mid-Rise) - 1	0 %	1226	0 %	1226

INTERNAL TRIPS

221 - Multifamily Housing (Mid-Rise)

Exit 908	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	**Entry** 1226
Entry 908	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	**Exit** 1226

221 - Multifamily Housing (Mid-Rise) - 1

221 - Multifamily Housing (Mid-Rise)

	Total Trips	Internal Trips		External Trips
		221 - Multifamily Housing (Mid-Rise) - 1	Total	
Entry	908 (100%)	0 (0%)	0 (0%)	908 (100%)
Exit	908 (100%)	0 (0%)	0 (0%)	908 (100%)
Total	1816 (100%)	0 (0%)	0 (0%)	1816 (100%)

221 - Multifamily Housing (Mid-Rise) - 1

	Total Trips	Internal Trips		External Trips
		221 - Multifamily Housing (Mid-Rise)	Total	
Entry	1226 (100%)	0 (0%)	0 (0%)	1226 (100%)
Exit	1226 (100%)	0 (0%)	0 (0%)	1226 (100%)
Total	2452 (100%)	0 (0%)	0 (0%)	2452 (100%)

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
221 - Multifamily Housing (Mid-Rise)	1816	0	0	1816
221 - Multifamily Housing (Mid-Rise) - 1	2452	0	0	2452

ITE DEVIATION DETAILS

Weekday

Landuse — No deviations from ITE.

Methods — No deviations from ITE.

External Trips — 221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

221 - Multifamily Housing (Mid-Rise) - 1 - Not Close to Rail Transit (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	2134
Total Exiting	2134
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	2134
Total Exiting Non-Pass-by Trips	2134

PERIOD SETTING

Analysis Name :	New Analysis		
Project Name :	Springs at Suncoast	**No :**	
Date:	11/4/2022	**City:**	
State/Province:		**Zip/Postal Code:**	
Country:		**Client Name:**	
Analyst's Name:		**Edition:**	Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)	Dwelling Units	400	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) T = 0.44 (X)+-11.61	38 23%	126 77%	164
221 - Multifamily Housing (Mid-Rise) - 1 - Not Close to Rail Transit (General Urban/Suburban)	Dwelling Units	540(0)	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 0.37	46 23%	154 77%	200

(0) indicates size out of range.

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
221 - Multifamily Housing (Mid-Rise)	0 %	38	0 %	126
221 - Multifamily Housing (Mid-Rise) - 1	0 %	46	0 %	154

INTERNAL TRIPS

221 - Multifamily Housing (Mid-Rise)

Exit 126	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	**Entry** 46
Entry 38	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	**Exit** 154

221 - Multifamily Housing (Mid-Rise) - 1

221 - Multifamily Housing (Mid-Rise)

	Total Trips	Internal Trips		External Trips
		221 - Multifamily Housing (Mid-Rise) - 1	Total	
Entry	38 (100%)	0 (0%)	0 (0%)	38 (100%)
Exit	126 (100%)	0 (0%)	0 (0%)	126 (100%)

Total	164 (100%)	0 (0%)	0 (0%)	164 (100%)

221 - Multifamily Housing (Mid-Rise) - 1

	Total Trips	Internal Trips		External Trips
		221 - Multifamily Housing (Mid-Rise)	Total	
Entry	46 (100%)	0 (0%)	0 (0%)	46 (100%)
Exit	154 (100%)	0 (0%)	0 (0%)	154 (100%)
Total	200 (100%)	0 (0%)	0 (0%)	200 (100%)

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
221 - Multifamily Housing (Mid-Rise)	164	0	0	164
221 - Multifamily Housing (Mid-Rise) - 1	200	0	0	200

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 — 221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

221 - Multifamily Housing (Mid-Rise) - 1 - Not Close to Rail Transit (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	84
Total Exiting	280
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	84

Total Exiting Non-Pass-by Trips 280

PERIOD SETTING

Analysis Name :	New Analysis		
Project Name :	Springs at Suncoast	**No :**	
Date:	11/4/2022	**City:**	
State/Province:		**Zip/Postal Code:**	
Country:		**Client Name:**	
Analyst's Name:		**Edition:**	Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)	Dwelling Units	400	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LIN) T = 0.39 (X)+0.34	95 61%	61 39%	156
221 - Multifamily Housing (Mid-Rise) - 1 - Not Close to Rail Transit (General Urban/Suburban)	Dwelling Units	540(0)	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 0.39	129 61%	82 39%	211

(0) indicates size out of range.

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
221 - Multifamily Housing (Mid-Rise)	0 %	95	0 %	61
221 - Multifamily Housing (Mid-Rise) - 1	0 %	129	0 %	82

INTERNAL TRIPS

221 - Multifamily Housing (Mid-Rise)

Exit 61	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	**Entry** 129
Entry 95	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	**Exit** 82

221 - Multifamily Housing (Mid-Rise) - 1

221 - Multifamily Housing (Mid-Rise)

	Total Trips	Internal Trips		External Trips
		221 - Multifamily Housing (Mid-Rise) - 1	Total	
Entry	95 (100%)	0 (0%)	0 (0%)	95 (100%)
Exit	61 (100%)	0 (0%)	0 (0%)	61 (100%)

Total	156 (100%)	0 (0%)	0 (0%)	156 (100%)

221 - Multifamily Housing (Mid-Rise) - 1

	Total Trips	Internal Trips		External Trips
		221 - Multifamily Housing (Mid-Rise)	Total	
Entry	129 (100%)	0 (0%)	0 (0%)	129 (100%)
Exit	82 (100%)	0 (0%)	0 (0%)	82 (100%)
Total	211 (100%)	0 (0%)	0 (0%)	211 (100%)

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
221 - Multifamily Housing (Mid-Rise)	156	0	0	156
221 - Multifamily Housing (Mid-Rise) - 1	211	0	0	211

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 — 221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

221 - Multifamily Housing (Mid-Rise) - 1 - Not Close to Rail Transit (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	224
Total Exiting	143
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	224

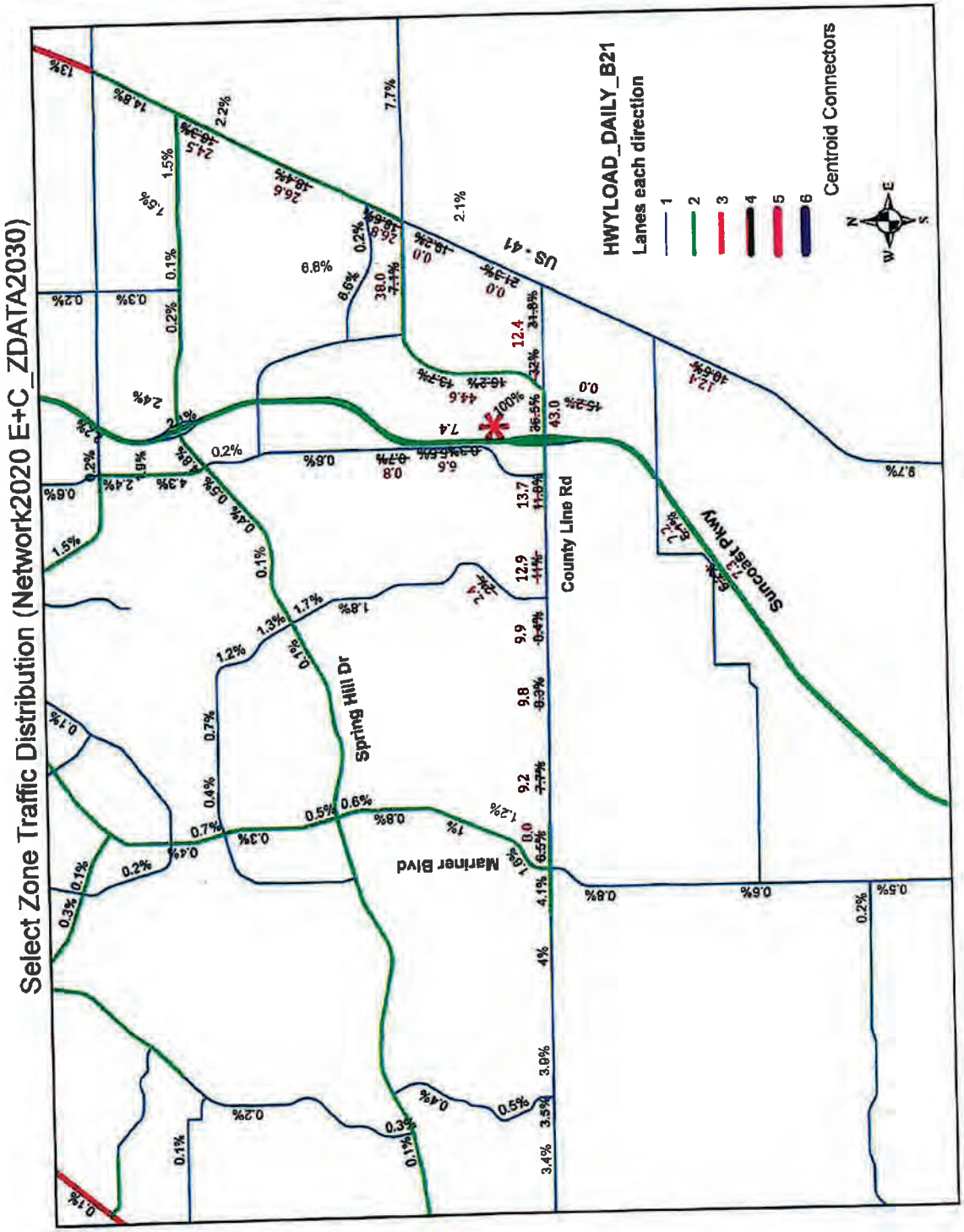
Total Exiting Non-Pass-by Trips

PROJECT TRAFFIC DISTRIBUTION

ATTACHMENT "C"

Suncoast Residential Site

Tampa Bay Regional Planning Model Project Site Trip Distribution (with edits)



2020 FDOT QUALITY / LEVEL OF SERVICE HANDBOOK TABLES

TABLE 4

Generalized **Peak Hour Two-Way** Volumes for Florida's Urbanized Areas[1]

January 2020

INTERRUPTED FLOW FACILITIES

STATE SIGNALIZED ARTERIALS

Class I (40 mph or higher posted speed limit)

Lanes	Median	B	C	D	E
2	Undivided	*	1,510	1,600	**
4	Divided	*	3,420	3,580	**
6	Divided	*	5,250	5,390	**
8	Divided	*	7,090	7,210	**

Class II (35 mph or slower posted speed limit)

Lanes	Median	B	C	D	E
2	Undivided	*	660	1,330	1,410
4	Divided	*	1,310	2,920	3,040
6	Divided	*	2,090	4,500	4,590
8	Divided	*	2,880	6,060	6,130

Non-State Signalized Roadway Adjustments

(Alter corresponding state volumes by the indicated percent.)

Non-State Signalized Roadways - 10%

Median & Turn Lane Adjustments

Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
2	Divided	Yes	No	+5%
2	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
–	–	–	Yes	+ 5%

One-Way Facility Adjustment

Multiply the corresponding two-directional volumes in this table by 0.6

BICYCLE MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Paved Shoulder/Bicycle Lane Coverage	B	C	D	E
0-49%	*	260	680	1,770
50-84%	190	600	1,770	>1,770
85-100%	830	1,700	>1,770	**

PEDESTRIAN MODE[2]

(Multiply vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)

Sidewalk Coverage	B	C	D	E
0-49%	*	*	250	850
50-84%	*	150	780	1,420
85-100%	340	960	1,560	>1,770

BUS MODE (Scheduled Fixed Route)[3]

(Buses in peak hour in peak direction)

Sidewalk Coverage	B	C	D	E
0-84%	> 5	≥ 4	≥ 3	≥ 2
85-100%	> 4	≥ 3	≥ 2	≥ 1

UNINTERRUPTED FLOW FACILITIES

FREEWAYS

Core Urbanized

Lanes	B	C	D	E
4	4,050	5,640	6,800	7,420
6	5,960	8,310	10,220	11,150
8	7,840	10,960	13,620	14,850
10	9,800	13,510	17,040	18,580
12	11,600	16,350	20,930	23,200

Urbanized

Lanes	B	C	D	E
4	4,130	5,640	7,070	7,690
6	6,200	8,450	10,510	11,530
8	8,270	11,270	13,960	15,380
10	10,350	14,110	17,310	19,220

Freeway Adjustments

Auxiliary Lanes Present in Both Directions	Ramp Metering
+ 1,800	+ 5%

UNINTERRUPTED FLOW HIGHWAYS

Lanes	Median	B	C	D	E
2	Undivided	1,050	1,620	2,180	2,930
4	Divided	3,270	4,730	5,960	6,780
6	Divided	4,910	7,090	8,950	10,180

Uninterrupted Flow Highway Adjustments

Lanes	Median	Exclusive left lanes	Adjustment factors
2	Divided	Yes	+5%
Multi	Undivided	Yes	-5%
Multi	Undivided	No	-25%

[1] Values shown are presented as peak hour directional volumes for levels of service and are for the automobile/truck modes unless specifically stated. This table does not constitute a standard and should be used only for general planning applications. The computer models from which this table is derived should be used for more specific planning applications. The table and deriving computer models should not be used for corridor or intersection design, where more refined techniques exist. Calculations are based on planning applications of the HCM and the Transit Capacity and Quality of Service Manual.

[2] Level of service for the bicycle and pedestrian modes in this table is based on number of vehicles, not number of bicyclists or pedestrians using the facility.

[3] Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

* Cannot be achieved using table input value defaults.

** Not applicable for that level of service letter grade. For the automobile mode, volumes greater than level of service D become F because intersection capacities have been reached. For the bicycle mode, the level of service letter grade (including F) is not achievable because there is no maximum vehicle volume threshold using table input value defaults.

Source:
Florida Department of Transportation
Systems Implementation Office
https://www.fdot.gov/planning/systems/

TABLE 4
(continued)

Generalized **Peak Hour Two-Way** Volumes for Florida's Urbanized Areas

January 2020

INPUT VALUE ASSUMPTIONS	Uninterrupted Flow Facilities				Interrupted Flow Facilities					
					State Arterials				Class I	
	Freeways	Core Freeways	Highways		Class I		Class II		Bicycle	Pedestrian
ROADWAY CHARACTERISTICS										
Area type (urban, rural)	urban	urban								
Number of through lanes (both dir.)	4-10	4-12	2	4-6	2	4-8	2	4-8	4	4
Posted speed (mph)	70	65	50	50	45	50	30	30	45	45
Free flow speed (mph)	75	70	55	55	50	55	35	35	50	50
Auxiliary Lanes (n,y)	n	n								
Median (d, twlt, n, nr, r)				d	n	r	n	r	r	r
Terrain (l,r)	l	l	l	l	l	l	l	l	l	l
% no passing zone			80							
Exclusive left turn lane impact (n, y)			[n]	y	y	y	y	y	y	y
Exclusive right turn lanes (n, y)					n	n	n	n	n	n
Facility length (mi)	3	3	5	5	2	2	1.9	1.8	2	2
TRAFFIC CHARACTERISTICS										
Planning analysis hour factor (K)	0.090	0.085	0.090	0.090	0.090	0.090	0.090	0.090	0.090	0.090
Directional distribution factor (D)	0.55	0.55	0.55	0.55	0.550	0.560	0.565	0.560	0.565	0.565
Peak hour factor (PHF)	0.95	0.95	0.95	0.95	1.000	1.000	1.000	1.000	1.000	1.000
Base saturation flow rate (pcphpl)	2,400	2,400	1,700	2,200	1,950	1,950	1,950	1,950	1,950	1,950
Heavy vehicle percent	4.0	4.0	2.0	2.0	1.0	1.0	1.0	1.0	2.5	2.0
Speed Adjustment Factor (SAF)	0.975	0.975		0.975						
Capacity Adjustment Factor (CAF)	0.968	0.968		0.968						
% left turns					12	12	12	12	12	12
% right turns					12	12	12	12	12	12
CONTROL CHARACTERISTICS										
Number of signals					4	4	10	10	4	6
Arrival type (1-6)					3	3	4	4	4	4
Signal type (a, c, p)					c	c	c	c	c	c
Cycle length (C)					120	150	120	120	120	120
Effective green ratio (g/C)					0.44	0.45	0.44	0.44	0.44	0.44
MULTIMODAL CHARACTERISTICS										
Paved shoulder/bicycle lane (n, y)									n, 50%, y	n
Outside lane width (n, t, w)									t	t
Pavement condition (d, t, u)									t	
On-street parking (n, y)										
Sidewalk (n, y)										n, 50%, y
Sidewalk/roadway separation(a, t, w)										t
Sidewalk protective barrier (n, y)										n

LEVEL OF SERVICE THRESHOLDS

Level of Service	Freeways	Highways		Arterials		Bicycle	Ped	Bus
	Density	Two-Lane %ffs	Multilane Density	Class I ats	Class II ats	Score	Score	Buses/hr.
B	≤ 17	> 83.3	≤ 17	> 31 mph	> 22 mph	≤ 2.75	≤ 2.75	≤ 6
C	≤ 24	> 75.0	≤ 24	> 23 mph	> 17 mph	≤ 3.50	≤ 3.50	≤ 4
D	≤ 31	> 66.7	≤ 31	> 18 mph	> 13 mph	≤ 4.25	≤ 4.25	< 3
E	≤ 39	> 58.3	≤ 35	> 15 mph	> 10 mph	≤ 5.00	≤ 5.00	< 2

% ffs = Percent free flow speed ats = Average travel speed

HERNANDO COUNTY
TIER 1 SPREADSHEET

Table 1

Hernando County Concurrency Management System

Tier I Test: To Determine Concurrency or Need for Additional Analysis

Version: 12/04/2009 Valid August 2011 - August 2017 unless superseded

Sorted ascending by Facility ID and On Street

Notes

1) In the Lanes/Type column, "0" indicates that the segment does not exist in existing or future years

2) Refer to the Technical Support Appendix for 2012, 2015 and 2017 LOS Reports for detailed Level of Service Information

(1) New Project Traffic = Total Trips Generated - Pass By + Internal Capture

(2) Total Project Traffic = Total Trips Generated - Internal Capture

(3) ... "Study 1" an (updated) ARTPLAN ... is required

General Information							Lanes/Type		Hurricane Evacuation Route	Strategic Intermodal System	Dr. Emissions Status (2015)	Growth			AADT (Daily Volumes)			K Factor	Segment Peak Hour Two Way Volumes			Net New External Project Traffic	Total External Project Traffic	Facility Level of Service (LOS)		Facility Maximum Service Volumes (MSV) Peak Hour Two Way			Conceptual Analysis Required (V/MSV > 90%)									Within Radius of Influence	On Study Network	Trips Added as Percent of MSV	% Distribution
Segment ID	Facility ID (2012)	Facility ID (2015)	Facility ID (2017)	On Street	From Street	To Street	Existing Number of Lanes and Type	Programmed Improvements				Base Year Volume	Base Year of Count	Annual Growth Rate	AADT (2012)	AADT (2015)	AADT (2017)		2012	2015	2017			LOS Method	LOS Standard	MSV (2012)	MSV (2015)	MSV (2017)	2012 Volume Total	2012 V/MSV Ratio	2012 Status	2015 Volume Total	2015 V/MSV Ratio	2015 Status	2017 Volume Total	2017 V/MSV Ratio	2017 Status				
A	B	B	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	R	S	T	U	W	W	X	Y	Z	AA	AB	AC	AD	AE	AG	AH	AI	AJ	AK	AL	AF	AG	AH	AS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Notes
1) In the Lanes/Type columns, "0" indicates that the segment does not exist in existing or future years
2) Refer to the Technical Support Appendix for 2012, 2015 and 2017 LOS Reports for detailed Level of Service information

1. Manually enter the total external project traffic (consistent with your development data logic should be reported as peak hour two way volumes)

   New Project Traffic = Total Trips Generated - Pass By - Internal Capture

2. Manually enter the total external project traffic (consistent with your development data logic should be reported as peak hour two way volumes)

   Total Project Traffic = Total Trips Generated - Internal Capture

3. Review the status column to verify the level of study that will need to be performed

   If in the LOS Method or Conceptual Failure (Column Y) but the "Status" column indicates "Study 2" then an ARTPLAN analysis will need to be done as a minimum.
   If in the LOS Method or Conceptual Failure (Column Y) and "Status" column indicate "Study 1" an (updated) ARTPLAN analysis will need to be done.
   If in the "Status" column indicate "Data 1" then data collection is required

Segment ID	Facility ID (2012)	Facility ID (2015)	Facility ID (2017)	On Street	From Street	To Street	Lanes/Type: Existing Number of Lanes and Type	Lanes/Type: Programmed Improvements	Hurricane Evacuation Route	Strategic Intermodal System	On Multimodal Network (2017)	Growth: Base Year Volume	Growth: Base Year of Count	Growth: Annual Growth Rate	AADT (Daily Volumes): AADT (2012)	AADT (2015)	AADT (2017)	R Factor	Segment Peak Hour Two Way Volumes: 2012	2015	2017	Net New External Project Traffic	Total External Project Traffic	Facility Level of Service (LOS): LOS Method	LOS Standard	Facility Maximum Service Volume (MSV) Peak Hour Two Way: 2012 (2012)	2015 (2015)	2017 (2017)	Conceptual Analysis Required (V/SSV > 90%) Base Traffic + 3 or 5 Year Growth + Project Traffic: 2012 Volume Total	2012 V/MSV Ratio	2013 Status	2015 Volume Total	2015 V/MSV Ratio	2016 Status	2017 Volume Total	2017 V/MSV Ratio	2017 Status	Visible Status of Intersects	On Study Network	Trips Added on Percent of MSV	% Exceedance
A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	VH	WE	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AP	AQ	AR	AS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

Notes:
1) In the Lanes/Type columns "0" indicates that the segment does not exist in existing or future years
2) Refer to the Technical Support Appendix for 2012, 2015 and 2017 LOS Reports for detailed Level of Service information

(1) Manually enter the new external project traffic associated with your development. New trips should be reported as peak hour two-way volumes.
New Project Traffic = Total Trips Generated - Pass By - Internal Capture

(2) Manually enter the total external project traffic associated with your development. New trips and project traffic should be reported as peak hour two-way volumes.
Total Project Traffic = Total Trips Generated - Internal Capture

(3) Review the status columns to verify the level of study that will need to be performed.
1) If the LOS Method is Generalized Tables (Column X) but the "Status" column indicates "Study 2" then an ARTPLAN analysis will need to be performed.
2) If the LOS Method is "Conceptual (ARTPLAN)" and "Status" column indicates "Study 1", an (updated) ARTPLAN analysis will need to be done.
3) If the "Status" column indicates "Data 1" then data collection is required.

General Information							Lanes/Type		Minimum Evacuation Route	Strategic Intermodal System	On Mobility Route (2016)	Growth			AADT (Daily Volumes)			K Factor	Segment Peak Hour Two Way Volumes			Net New External Project Traffic	Total External Project Traffic	Facility Level of Service (LOS)		Facility Maximum Service Volume (MSV) Peak Hour Two Way			Conceptual Analysis Required (V/MSV > 90%) Base Traffic + 3 or 5 Year Growth + Project Traffic									Within Radius of Influence	On Study Network	Trips Added as Percent of MSV	% Distribution
Segment ID	Facility ID (2012)	Facility ID (2015)	Facility ID (2017)	On Street	From Street	To Street	Existing Number of Lanes and Type	Programmed Improvements				Base Year Volume	Base Year of Count	Annual Growth Rate	AADT (2012)	AADT (2015)	AADT (2017)		2012	2015	2017			LOS Method	LOS Standard	MSV (2012)	MSV (2015)	MSV (2017)	2012 Volume Total	2012 V/MSV Ratio	2012 Status	2015 Volume Total	2015 V/MSV Ratio	2015 Status	2017 Volume Total	2017 V/MSV Ratio	2017 Status				
A	B	B	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	R	S	T	U	W1	W2	X	Y	Z	AA	AB	AC	AD	AF	AG	AH	AI	AJ	AK	AL	AP	AQ	AR	AS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]

[illegible]

Notes:
1) In the Lanes/Type column, "0" indicates that the segment does not exist in existing or future years
2) Refer to the Technical Support Appendix for 2012, 2015 and 2017 LOS Reports for detailed Level of Service calculation

1 Manually enter the new external project traffic associated with your development. New trips should be reported as peak hour two-way volumes.

New Project Traffic = Total Trips
Generated - Pass-By & Internal Capture

2 Manually enter the total external project traffic associated with your development. New trips and pass-by trips should be reported as peak hour two-way volumes.

Total Project Traffic = Total Trips
Generated - Internal Capture

3 Review the status columns to verify the level of study that will need to be performed.

1) If the LOS Method is Generalized "Volume (Column K)" in the "Status" column indicate "Study 1" (see AASHTO analysis and Volume to Capacity Ratio)
2) If the LOS Method is "Generalized Volume" and "Delay" volumes exceed "Study 1" then an AASHTO analysis is required or an error
3) If the "Status" indicates "Study 1" then the Generalized volume

Enter yes or if unsure the % Distribution for each segment which will further determine how the New Project Traffic (Column W) will be distributed

General Information							Lanes/Type		Maximum Exemption Flows	Strategic Intermodal System	On Shoulder Bicycle (SHS)	Volumes			AADT (Daily Volumes)			n Factor	Segment Peak Hour Two Way Volumes			Avg Peak Hour Vol Project Trips	Total Estimate Project Traffic	Facility Level of Service (LOS)		Facility Maximum Service Volume (MSV) Peak Hour Two Way			Management Analysis Required (Volume v MSV) Base Traffic + Est 5 Year Growth + Project Traffic									Vehicle Number of Influence	Cut Through Research	Trips Added as Percent of MSV	% Distribution
Segment ID	Facility ID (2010)	Facility ID (2015)	Facility ID (2017)	On Street	From Street	To Street	Existing Number of Lanes and Type	Programmed Improvements				Base Year Volume	Base Year of Count	Annual Growth Rate	AADT (2012)	AADT (2015)	AADT (2017)		AM	PM	OP			LOS Method	LOS Standard	MSV (2010)	MSV (2015)	MSV (2017)	2010 Volume Total	2010 Volume Status	2015 Volume Total	2015 Volume Status	2017 Volume Total	2017 Volume Status									
A	B	B1	B2	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	VV	WW	X	Y	Z	AA	AB	AC	AD	AE	AF	AG	AH	AI	AJ	AK	AL	AP	AQ	AR	AS
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2U		N	N		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	D	[illegible]	[illegible]	[illegible]	[illegible]	OK	[illegible]	[illegible]	OK	[illegible]	[illegible]	[illegible]	OK		N	%	[illegible]	
[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	2U		N	N		[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]			[illegible]	D	[illegible]	[illegible]	[illegible]	[illegible]	OK	[illegible]	[illegible]	OK	[illegible]	[illegible]	[illegible]	OK		N	%	[illegible]	

BACKGROUND TRAFFIC

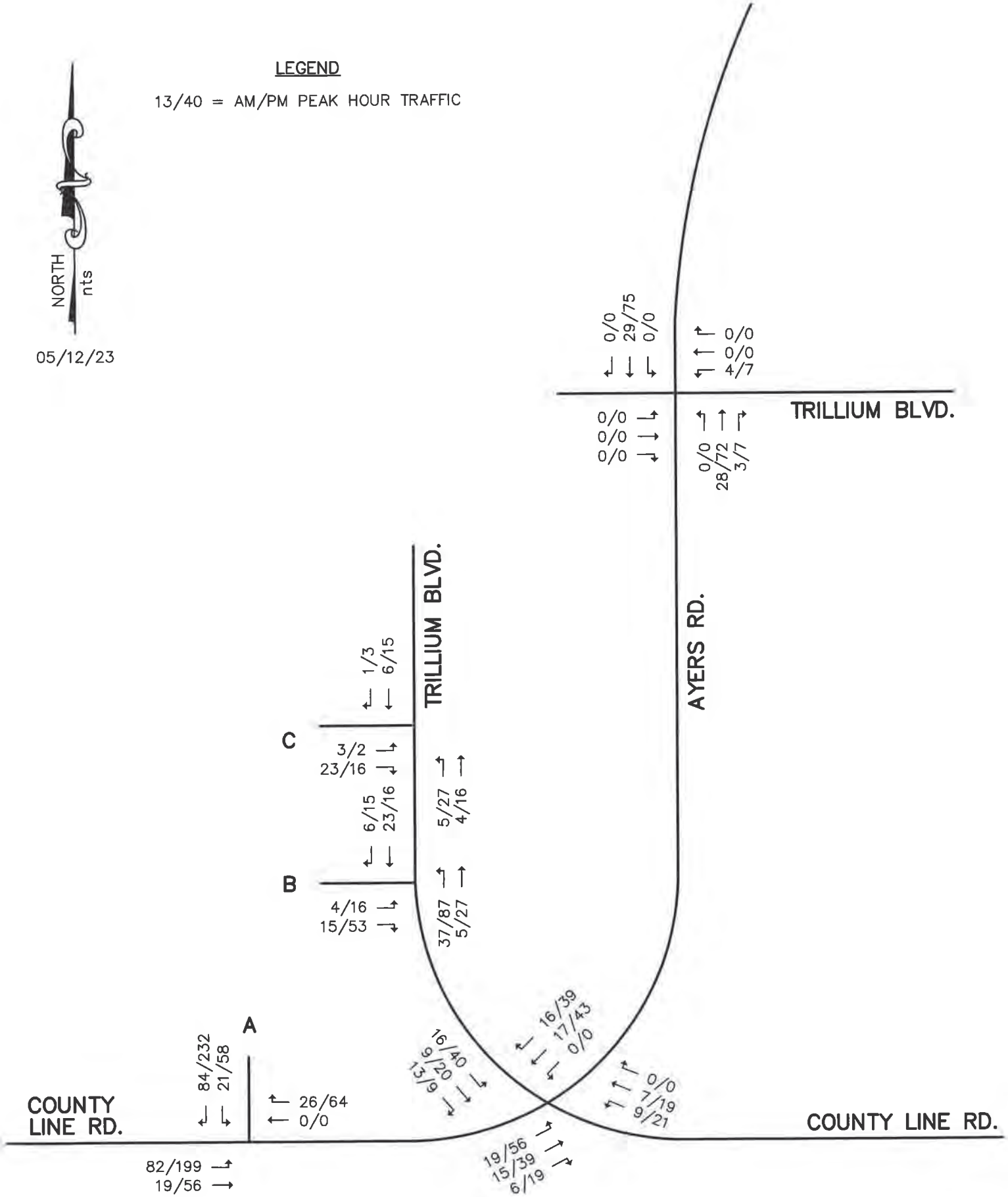


FIGURE A–1
SUNCOAST RESIDENTIAL/
COMMERCIAL SITE

PERIOD SETTING

Analysis Name :	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.		
Project Name :	Suncoast Background	**No :**	
Date:	4/11/2023	**City:**	
State/Province:		**Zip/Postal Code:**	
Country:		**Client Name:**	
Analyst's Name:	KE	**Edition:**	Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
821 - Shopping Plaza (40-150k) - Supermarket - No (General Urban/Suburban)	1000 Sq. Ft. GLA	125(0)	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Average 1.73	134 62%	82 38%	216
210 - Single-Family Detached Housing (General Urban/Suburban)	Dwelling Units	125	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LOG) Ln(T) = 0.91Ln(X) +0.12	23 25%	68 75%	91
					157	150	307

(0) indicates size out of range.

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
821 - Shopping Plaza (40-150k)	0 %	134	0 %	82
210 - Single-Family Detached Housing	0 %	23	0 %	68

INTERNAL TRIPS

821 - Shopping Plaza (40-150k)

Exit 82	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	**Entry** 23
Entry 134	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	**Exit** 68

210 - Single-Family Detached Housing

821 - Shopping Plaza (40-150k)

	Total Trips	Internal Trips		External Trips
		210 - Single-Family Detached Housing	Total	
Entry	134 (100%)	0 (0%)	0 (0%)	134 (100%)

Exit	82 (100%)	0 (0%)	0 (0%)	82 (100%)
Total	216 (100%)	0 (0%)	0 (0%)	216 (100%)

210 - Single-Family Detached Housing

	Total Trips	Internal Trips		External Trips
		821 - Shopping Plaza (40-150k)	Total	
Entry	23 (100%)	0 (0%)	0 (0%)	23 (100%)
Exit	68 (100%)	0 (0%)	0 (0%)	68 (100%)
Total	91 (100%)	0 (0%)	0 (0%)	91 (100%)

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
821 - Shopping Plaza (40-150k)	216	0	0	216
210 - Single-Family Detached Housing	91	0	0	91

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 — 821 - Shopping Plaza (40-150k) - Supermarket - No (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

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

SUMMARY

Total Entering	157
Total Exiting	150
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	157
Total Exiting Non-Pass-by Trips	150

PERIOD SETTING

Analysis Name :	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.		
Project Name :	Suncoast Background	**No :**	
Date:	4/11/2023	**City:**	
State/Province:		**Zip/Postal Code:**	
Country:		**Client Name:**	
Analyst's Name:	KE	**Edition:**	Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
821 - Shopping Plaza (40-150k) - Supermarket - No (General Urban/Suburban)	1000 Sq. Ft. GLA	125	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Average 5.19	318 49%	331 51%	649
210 - Single-Family Detached Housing (General Urban/Suburban)	Dwelling Units	125	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LOG) Ln(T) = 0.94Ln(X) +0.27	77 63%	46 37%	123
					395	377	772

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
821 - Shopping Plaza (40-150k)	0 %	318	0 %	331
210 - Single-Family Detached Housing	0 %	77	0 %	46

INTERNAL TRIPS

821 - Shopping Plaza (40-150k)

Exit 331	Demand Exit: 0 % (0)	Balanced: 0	Demand Entry: 0 % (0)	**Entry** 77
Entry 318	Demand Entry: 0 % (0)	Balanced: 0	Demand Exit: 0 % (0)	**Exit** 46

210 - Single-Family Detached Housing

821 - Shopping Plaza (40-150k)

	Total Trips	Internal Trips		External Trips
		210 - Single-Family Detached Housing	Total	
Entry	318 (100%)	0 (0%)	0 (0%)	318 (100%)
Exit	331 (100%)	0 (0%)	0 (0%)	331 (100%)

Total	649 (100%)	0 (0%)	0 (0%)	649 (100%)

210 - Single-Family Detached Housing

	Total Trips	Internal Trips		External Trips
		821 - Shopping Plaza (40-150k)	Total	
Entry	77 (100%)	0 (0%)	0 (0%)	77 (100%)
Exit	46 (100%)	0 (0%)	0 (0%)	46 (100%)
Total	123 (100%)	0 (0%)	0 (0%)	123 (100%)

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
821 - Shopping Plaza (40-150k)	649	0	0	649
210 - Single-Family Detached Housing	123	0	0	123

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 — 821 - Shopping Plaza (40-150k) - Supermarket - No (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

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

SUMMARY

Total Entering	395
Total Exiting	377
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	395

Total Exiting Non-Pass-by Trips 377

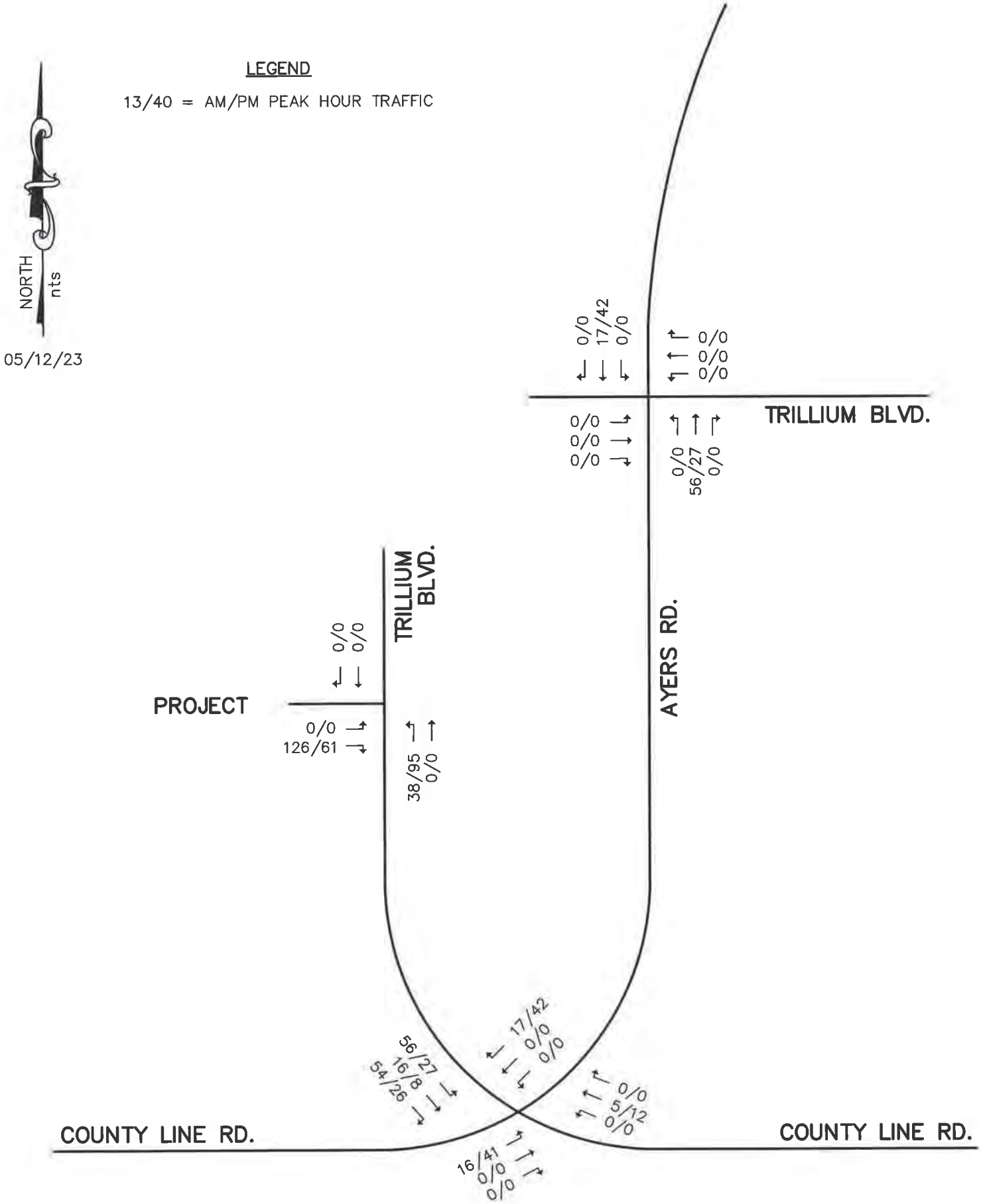


FIGURE A–2
APPROVED 400 DU
MULTI–FAMILY

PERIOD SETTING

Analysis Name :	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.		
Project Name :	400 MF	**No :**	
Date:	5/12/2023	**City:**	
State/Province:		**Zip/Postal Code:**	
Country:		**Client Name:**	
Analyst's Name:		**Edition:**	Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)	Dwelling Units	400(0)	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 7 and 9 a.m.	Best Fit (LIN) T = 0.44 (X)+-11.61	38 23%	126 77%	164

(0) indicates size out of range.

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
221 - Multifamily Housing (Mid-Rise)	0 %	38	0 %	126

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
221 - Multifamily Housing (Mid-Rise)	164	0	0	164

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.

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

External Trips 221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	38
Total Exiting	126
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	38
Total Exiting Non-Pass-by Trips	126

PERIOD SETTING

Analysis Name :	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.		
Project Name :	400 MF	**No :**	
Date:	5/12/2023	**City:**	
State/Province:		**Zip/Postal Code:**	
Country:		**Client Name:**	
Analyst's Name:		**Edition:**	Trip Generation Manual, 11th Ed

Land Use	Independent Variable	Size	Time Period	Method	Entry	Exit	Total
221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)	Dwelling Units	400(0)	Weekday, Peak Hour of Adjacent Street Traffic, One Hour Between 4 and 6 p.m.	Best Fit (LIN) T = 0.39 (X)+0.34	95 61%	61 39%	156

(0) indicates size out of range.

TRAFFIC REDUCTIONS

Land Use	Entry Reduction	Adjusted Entry	Exit Reduction	Adjusted Exit
221 - Multifamily Housing (Mid-Rise)	0 %	95	0 %	61

EXTERNAL TRIPS

Land Use	External Trips	Pass-by%	Pass-by Trips	Non-pass-by Trips
221 - Multifamily Housing (Mid-Rise)	156	0	0	156

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.

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

External Trips 221 - Multifamily Housing (Mid-Rise) - Not Close to Rail Transit (General Urban/Suburban)
ITE does not recommend a particular pass-by% for this case.

SUMMARY

Total Entering	95
Total Exiting	61
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	95
Total Exiting Non-Pass-by Trips	61

TURNING MOVEMENT COUNTS

National Data & Surveying Services

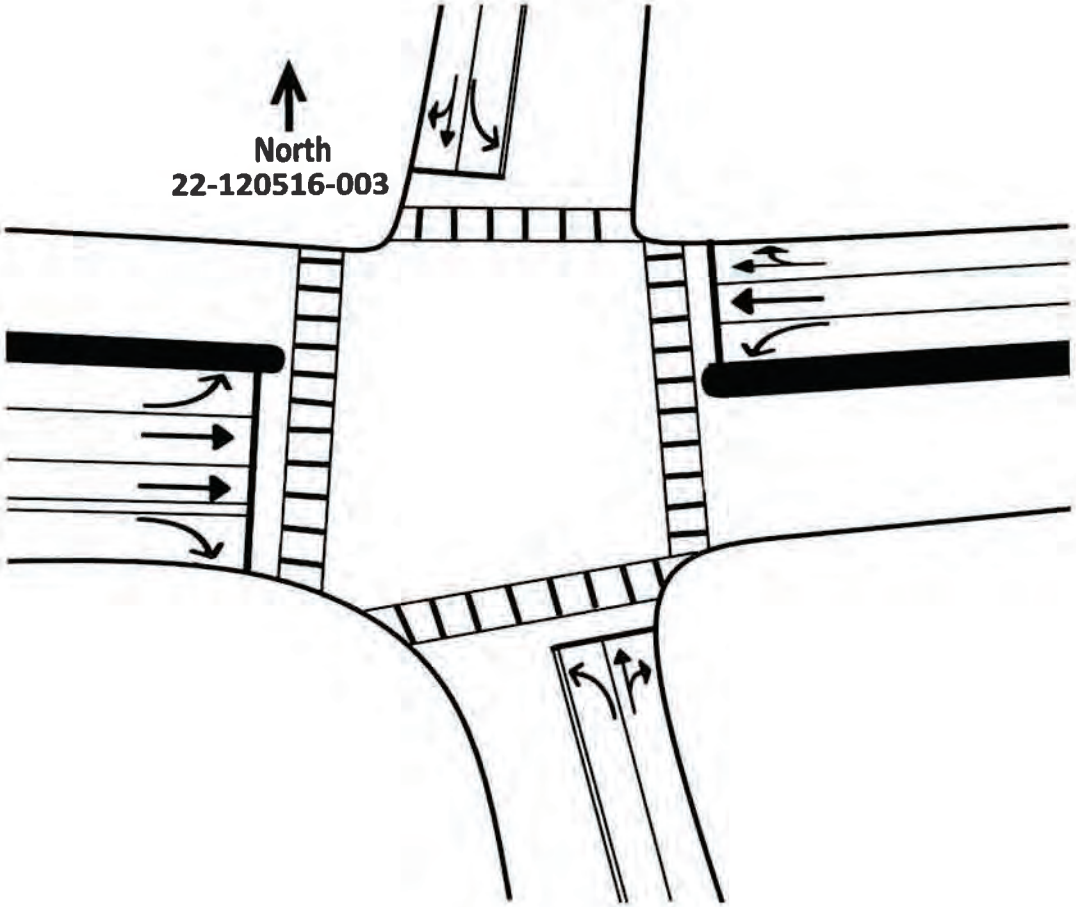
N↑

N/S Street: **Trillium Blvd/County Line Rd**

Speed: **30 MPH**

E/W Street: **County Line Rd/CR 578/Ayers Rd**

Speed: **35 MPH**



Site Code: **22-120516-003**

Date: **12/01/2022**

Weather: **Sunny**

City: **Brooksville**

County: **Hernando**

Count Times: **07:00 - 09:00**

16:00 - 18:00

Control: **Signalized**

SIGNAL TIMING

PHASES	1	2	3
NL/SL	00:21	00:20	00:40
EL/ET	00:25	00:25	00:14
ET/WT	00:21	00:42	00:40

National Data & Surveying Services Intersection Turning Movement Count

Location: Trillium Blvd/County Line Rd & County Line Rd/CR 578/Ayers Rd
City: Brooksville
Control: Signalized

Project ID: 22-120516-003
Date: 12/1/2022

Data - Total

NS/EW Streets:	Trillium Blvd/County Line Rd				Trillium Blvd/County Line Rd				County Line Rd/CR 578/Ayers Rd				County Line Rd/CR 578/Ayers Rd				
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	62	6	0	0	7	0	33	0	4	104	69	0	2	59	6	0	352
7:15 AM	59	1	0	0	0	2	27	0	10	116	81	0	0	88	2	0	386
7:30 AM	52	2	0	0	5	3	30	0	9	88	53	0	2	89	3	0	336
7:45 AM	63	4	0	0	0	3	24	0	7	92	66	0	3	70	1	0	333
8:00 AM	57	2	0	0	3	2	27	0	8	100	54	0	1	79	1	0	334
8:15 AM	52	2	0	0	0	2	18	0	13	90	46	0	3	81	2	0	309
8:30 AM	56	1	0	0	1	4	22	0	14	81	48	0	0	96	3	0	326
8:45 AM	35	4	0	0	1	3	22	0	12	71	51	0	2	65	0	0	266
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	436	22	0	0	17	19	203	0	77	742	468	0	13	627	18	0	2642
APPROACH %'s :	95.20%	4.80%	0.00%	0.00%	7.11%	7.95%	84.94%	0.00%	5.98%	57.65%	36.36%	0.00%	1.98%	95.29%	2.74%	0.00%	
PEAK HR :	**07:00 AM - 08:00 AM**																TOTAL
PEAK HR VOL :	236	13	0	0	12	8	114	0	30	400	269	0	7	306	12	0	1407
PEAK HR FACTOR :	0.937	0.542	0.000	0.000	0.429	0.667	0.864	0.000	0.750	0.862	0.830	0.000	0.583	0.860	0.500	0.000	0.911
	0.915				0.838				0.844				0.864				

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	64	5	1	0	0	2	16	0	27	82	79	0	0	93	0	0	369
4:15 PM	58	1	5	0	1	2	20	0	17	97	83	1	0	98	1	0	384
4:30 PM	58	3	1	0	2	2	19	0	19	93	83	0	3	114	0	0	397
4:45 PM	76	7	4	0	0	1	13	0	22	104	60	0	0	108	1	0	396
5:00 PM	72	4	1	0	1	5	20	0	25	111	80	0	1	163	0	0	483
5:15 PM	79	3	1	0	2	2	27	0	29	103	71	0	1	149	1	0	468
5:30 PM	80	2	2	0	2	3	22	0	27	89	67	0	0	128	0	0	422
5:45 PM	68	3	0	0	2	3	15	0	23	80	51	1	1	125	0	0	372
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	555	28	15	0	10	20	152	0	189	759	574	2	6	978	3	0	3291
APPROACH %'s :	92.81%	4.68%	2.51%	0.00%	5.49%	10.99%	83.52%	0.00%	12.40%	49.80%	37.66%	0.13%	0.61%	99.09%	0.30%	0.00%	
PEAK HR :	**04:45 PM - 05:45 PM**																TOTAL
PEAK HR VOL :	307	16	8	0	5	11	82	0	103	407	278	0	2	548	2	0	1769
PEAK HR FACTOR :	0.959	0.571	0.500	0.000	0.625	0.550	0.759	0.000	0.888	0.917	0.869	0.000	0.500	0.840	0.500	0.000	0.916
	0.951				0.790				0.912				0.841				

National Data & Surveying Services Intersection Turning Movement Count

Location: Trillium Blvd/County Line Rd & County Line Rd/CR 578/Ayers Rd
City: Brooksville
Control: Signalized

Project ID: 22-120516-003
Date: 12/1/2022

Data - Cars

NS/EW Streets: Trillium Blvd/County Line Rd | Trillium Blvd/County Line Rd | County Line Rd/CR 578/Ayers Rd | County Line Rd/CR 578/Ayers Rd

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	55	6	0	0	7	0	33	0	4	99	62	0	2	51	6	0	325
7:15 AM	54	1	0	0	0	2	27	0	10	109	76	0	0	85	2	0	366
7:30 AM	52	2	0	0	5	3	30	0	9	81	49	0	2	83	2	0	318
7:45 AM	54	4	0	0	0	3	23	0	6	85	61	0	3	61	1	0	301
8:00 AM	54	2	0	0	3	2	27	0	8	89	51	0	1	70	0	0	307
8:15 AM	44	1	0	0	0	2	17	0	13	84	43	0	3	74	1	0	282
8:30 AM	48	1	0	0	1	4	19	0	14	68	44	0	0	81	2	0	282
8:45 AM	31	4	0	0	1	3	21	0	12	67	49	0	2	59	0	0	249
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	392	21	0	0	17	19	197	0	76	682	435	0	13	564	14	0	2430
APPROACH %'s :	94.92%	5.08%	0.00%	0.00%	7.30%	8.15%	84.55%	0.00%	6.37%	57.17%	36.46%	0.00%	2.20%	95.43%	2.37%	0.00%	
PEAK HR :	**07:00 AM - 08:00 AM**																TOTAL
PEAK HR VOL :	215	13	0	0	12	8	113	0	29	374	248	0	7	280	11	0	1310
PEAK HR FACTOR :	0.977	0.542	0.000	0.000	0.429	0.667	0.856	0.000	0.725	0.858	0.816	0.000	0.583	0.824	0.458	0.000	0.895
	0.934				0.831				0.835				0.856				

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	62	5	1	0	0	2	16	0	27	80	70	0	0	83	0	0	346
4:15 PM	56	1	5	0	1	1	19	0	17	91	75	1	0	96	1	0	364
4:30 PM	55	3	1	0	1	2	18	0	18	89	76	0	2	106	0	0	371
4:45 PM	71	7	4	0	0	1	13	0	22	99	54	0	0	99	0	0	370
5:00 PM	69	4	1	0	1	5	20	0	24	101	78	0	1	155	0	0	459
5:15 PM	73	3	1	0	2	2	26	0	29	102	67	0	1	146	1	0	453
5:30 PM	79	2	2	0	2	3	22	0	27	87	66	0	0	122	0	0	412
5:45 PM	63	3	0	0	2	2	15	0	22	75	49	1	1	122	0	0	355
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	528	28	15	0	9	18	149	0	186	724	535	2	5	929	2	0	3130
APPROACH %'s :	92.47%	4.90%	2.63%	0.00%	5.11%	10.23%	84.66%	0.00%	12.85%	50.03%	36.97%	0.14%	0.53%	99.25%	0.21%	0.00%	
PEAK HR :	**04:45 PM - 05:45 PM**																TOTAL
PEAK HR VOL :	292	16	8	0	5	11	81	0	102	389	265	0	2	522	1	0	1694
PEAK HR FACTOR :	0.924	0.571	0.500	0.000	0.625	0.550	0.779	0.000	0.879	0.953	0.849	0.000	0.500	0.842	0.250	0.000	0.923
	0.952				0.808				0.931				0.841				

National Data & Surveying Services Intersection Turning Movement Count

Location: Trillium Blvd/County Line Rd & County Line Rd/CR 578/Ayers Rd
City: Brooksville
Control: Signalized

Project ID: 22-120516-003
Date: 12/1/2022

Data - HT

NS/EW Streets:	Trillium Blvd/County Line Rd				Trillium Blvd/County Line Rd				County Line Rd/CR 578/Ayers Rd				County Line Rd/CR 578/Ayers Rd				
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	7	0	0	0	0	0	0	0	0	5	7	0	0	8	0	0	27
7:15 AM	5	0	0	0	0	0	0	0	0	7	5	0	0	3	0	0	20
7:30 AM	0	0	0	0	0	0	0	0	0	7	4	0	0	6	1	0	18
7:45 AM	9	0	0	0	0	0	1	0	1	7	5	0	0	9	0	0	32
8:00 AM	3	0	0	0	0	0	0	0	0	11	3	0	0	9	1	0	27
8:15 AM	8	1	0	0	0	0	1	0	0	6	3	0	0	7	1	0	27
8:30 AM	8	0	0	0	0	0	3	0	0	13	4	0	0	15	1	0	44
8:45 AM	4	0	0	0	0	0	1	0	0	4	2	0	0	6	0	0	17
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	44	1	0	0	0	0	6	0	1	60	33	0	0	63	4	0	212
APPROACH %'s :	97.78%	2.22%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	1.06%	63.83%	35.11%	0.00%	0.00%	94.03%	5.97%	0.00%	
PEAK HR :	07:00 AM - 08:00 AM																TOTAL
PEAK HR VOL :	21	0	0	0	0	0	1	0	1	26	21	0	0	26	1	0	97
PEAK HR FACTOR :	0.583	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.929	0.750	0.000	0.000	0.722	0.250	0.000	0.758
	0.583				0.250				0.923				0.750				

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	2	0	0	0	0	0	0	0	0	2	9	0	0	10	0	0	23
4:15 PM	2	0	0	0	0	1	1	0	0	6	8	0	0	2	0	0	20
4:30 PM	3	0	0	0	1	0	1	0	1	4	7	0	1	8	0	0	26
4:45 PM	5	0	0	0	0	0	0	0	0	5	6	0	0	9	1	0	26
5:00 PM	3	0	0	0	0	0	0	0	1	10	2	0	0	8	0	0	24
5:15 PM	6	0	0	0	0	0	1	0	0	1	4	0	0	3	0	0	15
5:30 PM	1	0	0	0	0	0	0	0	0	2	1	0	0	6	0	0	10
5:45 PM	5	0	0	0	0	1	0	0	1	5	2	0	0	3	0	0	17
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	27	0	0	0	1	2	3	0	3	35	39	0	1	49	1	0	161
APPROACH %'s :	100.00%	0.00%	0.00%	0.00%	16.67%	33.33%	50.00%	0.00%	3.90%	45.45%	50.65%	0.00%	1.96%	96.08%	1.96%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	15	0	0	0	0	0	1	0	1	18	13	0	0	26	1	0	75
PEAK HR FACTOR :	0.625	0.000	0.000	0.000	0.000	0.000	0.250	0.000	0.250	0.450	0.542	0.000	0.000	0.722	0.250	0.000	0.721
	0.625				0.250				0.615				0.675				

National Data & Surveying Services Intersection Turning Movement Count

Location: Trillium Blvd/County Line Rd & County Line Rd/CR 578/Ayers Rd
City: Brooksville
Control: Signalized

Project ID: 22-120516-003
Date: 12/1/2022

Data - Bikes

NS/EW Streets:	Trillium Blvd/County Line Rd				Trillium Blvd/County Line Rd				County Line Rd/CR 578/Ayers Rd				County Line Rd/CR 578/Ayers Rd				
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	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	0	0	1	0	0	0	0	0	0	0	0	0	1
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	1	0	0	0	0	0	0	0	1	0	2
APPROACH %'s :					0.00%	0.00%	100.00%	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	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	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	1	0	0	1
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	1	0	0	1
APPROACH %'s :													0.00%	100.00%	0.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 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 :	0.000	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	

National Data & Surveying Services Intersection Turning Movement Count

Location: Trillium Blvd/County Line Rd & County Line Rd/CR 578/Ayers Rd
City: Brooksville
Project ID: 22-120516-003
Date: 12/1/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Trillium Blvd/County Line Rd		Trillium Blvd/County Line Rd		County Line Rd/CR 578/Ayers Rd		County Line Rd/CR 578/Ayers Rd		
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	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	0	0
APPROACH %'s :									
PEAK HR :	**04:45 PM - 05:45 PM**								TOTAL
PEAK HR VOL :	0	0	0	0	0	0	0	0	0
PEAK HR FACTOR :									

Prepared by National Data & Surveying Services

Trillium Blvd/County Line Rd & County Line Rd/CR 578/Ayers Rd

Peak Hour Turning Movement Count

ID: 22-120516-003
City: Brooksville

Day: Thursday
Date: 12/1/2022

PEAK HOURS	
AM	07:00 AM - 08:00 AM
NOON	NONE
PM	04:45 PM - 05:45 PM

COUNT PERIODS	
AM	7:00 AM - 09:00 AM
NOON	NONE
PM	4:00 PM - 06:00 PM

SOUTHBOUND — Trillium Blvd/County Line Rd

	Right	Thru	Left	U-Turn	Exiting
AM	114	8	12	0	55
NOON	0	0	0	0	0
PM	82	11	5	0	121
	0	0	0	0	

WESTBOUND — County Line Rd/CR 578/Ayers Rd

		PM	NOON	AM
Right	0	2	0	12
Thru	0	548	0	306
Left	0	2	0	7
U-Turn	0	0	0	0
Exiting		420	0	412

EASTBOUND — County Line Rd/CR 578/Ayers Rd

	AM	NOON	PM	
Exiting	656	0	937	
U-Turn	0	0	0	0
Left	30	0	103	0
Thru	400	0	407	0
Right	269	0	278	0

NORTHBOUND — Trillium Blvd/County Line Rd

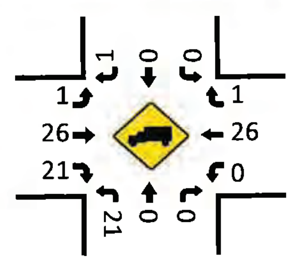
	Exiting	U-Turn	Left	Thru	Right
		0	0	0	0
PM	291	0	307	16	8
NOON	0	0	0	0	0
AM	284	0	236	13	0

CONTROL: Signalized

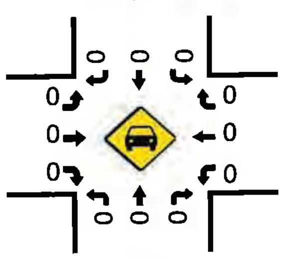
	AM	NOON	PM
TEV	1407	0	1769
PHF	0.91		0.92

Cars (AM)

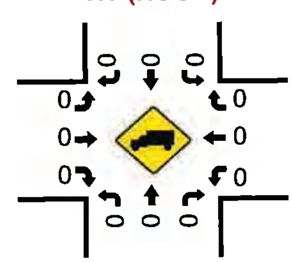
HT (AM)



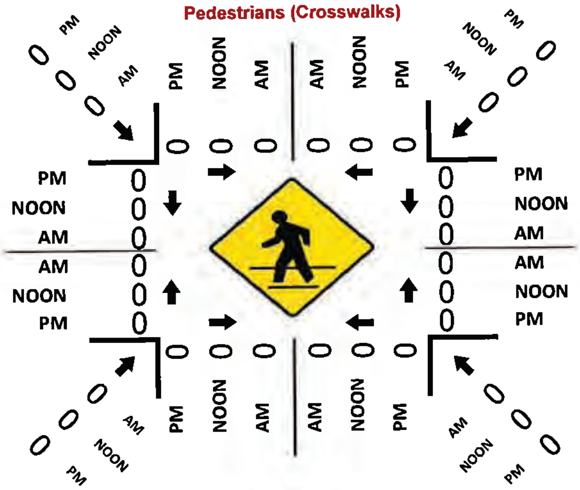
Cars (NOON)



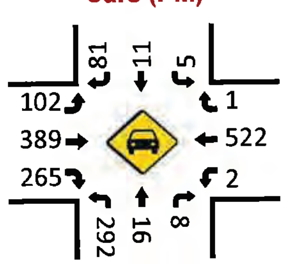
HT (NOON)



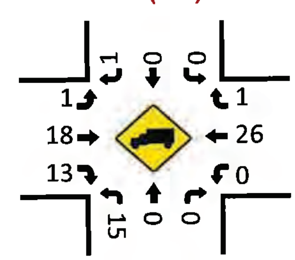
Pedestrians (Crosswalks)



Cars (PM)



HT (PM)

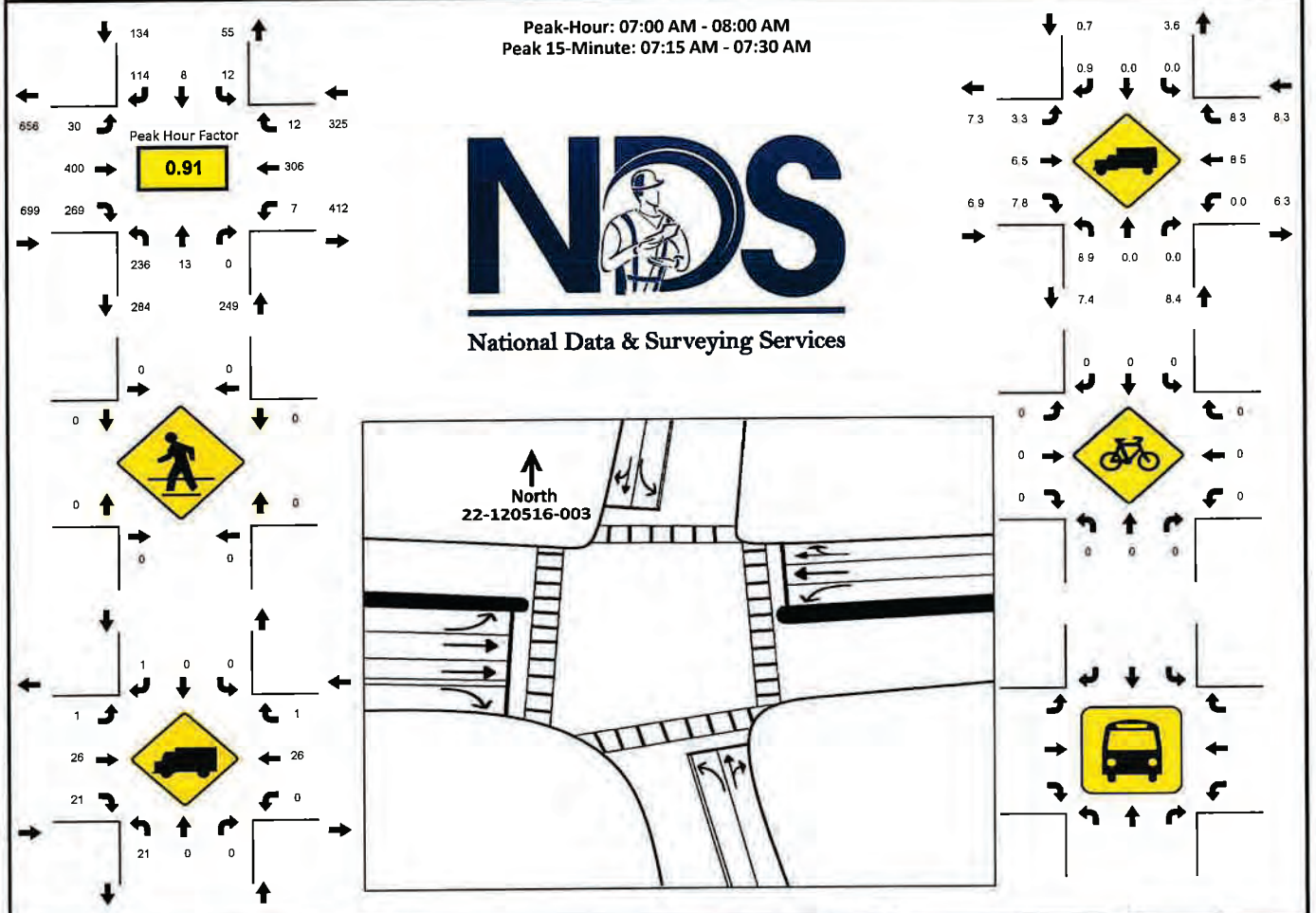


LOCATION: Trillium Blvd/County Line Rd & County Line Rd/CR 578/Ayers Rd
CITY/STATE: Brooksville, FL

PROJECT ID: 22-120516-003
DATE: Thu, Dec 01, 2022

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

National Data & Surveying Services



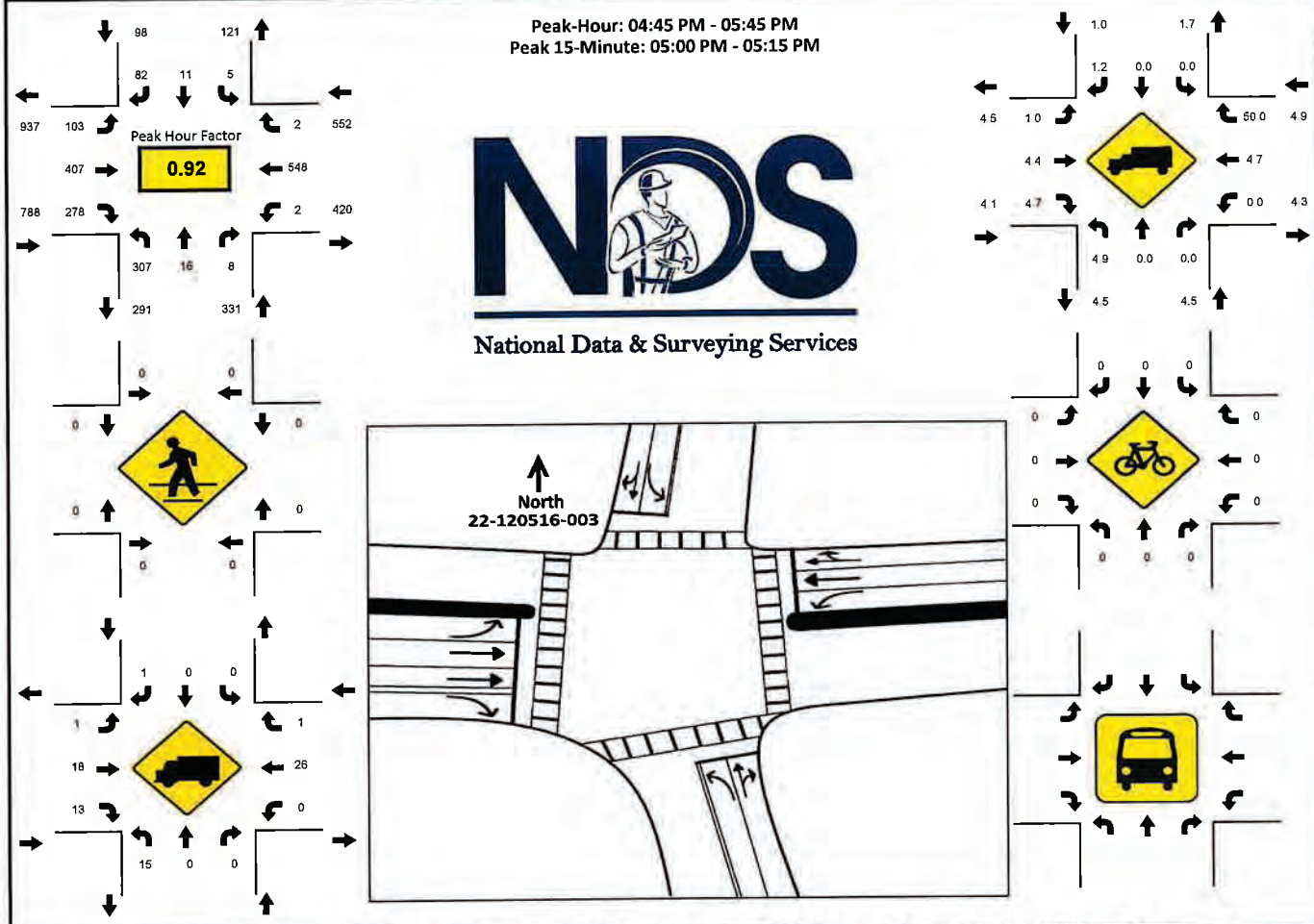
15-Min Count Period Beginning At	Trillium Blvd/County Line Rd Northbound					Trillium Blvd/County Line Rd Southbound					County Line Rd/CR 578/Ayers Rd Eastbound					County Line Rd/CR 578/Ayers Rd Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	62	6	0	0		7	0	33	0		4	104	69	0		2	59	6	0		352	1407
7:15 AM	59	1	0	0		0	2	27	0		10	116	81	0		0	88	2	0		386	1389
7:30 AM	52	2	0	0		5	3	30	0		9	88	53	0		2	89	3	0		336	1312
7:45 AM	63	4	0	0		0	3	24	0		7	92	66	0		3	70	1	0		333	1302
8:00 AM	57	2	0	0		3	2	27	0		8	100	54	0		1	79	1	0		334	1235
8:15 AM	52	2	0	0		0	2	18	0		13	90	46	0		3	81	2	0		309	901
8:30 AM	56	1	0	0		1	4	22	0		14	81	48	0		0	96	3	0		326	592
8:45 AM	35	4	0	0		1	3	22	0		12	71	51	0		2	65	0	0		266	266
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	252	24	0	0		28	12	132	0		40	464	324	0		12	356	24	0		1668	
Heavy Trucks	36	0	0	0		0	0	4	0		4	28	28	0		0	36	4	0		140	
Pedestrians		0					0					0					0				0	
Bicycles	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	
Buses																						
Stopped Buses																						

LOCATION: Trillium Blvd/County Line Rd & County Line Rd/CR 578/Ayers Rd
CITY/STATE: Brooksville, FL

PROJECT ID: 22-120516-003
DATE: Thu, Dec 01, 2022

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

National Data & Surveying Services



15-Min Count Period Beginning At	Trillium Blvd/County Line Rd Northbound					Trillium Blvd/County Line Rd Southbound					County Line Rd/CR 578/Ayers Rd Eastbound					County Line Rd/CR 578/Ayers Rd Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
4:00 PM	64	5	1	0		0	2	16	0		27	82	79	0		0	93	0	0		369	1546
4:15 PM	58	1	5	0		1	2	20	0		17	97	83	1		0	98	1	0		384	1660
4:30 PM	58	3	1	0		2	2	19	0		19	93	83	0		3	114	0	0		397	1744
4:45 PM	76	7	4	0		0	1	13	0		22	104	60	0		0	108	1	0		396	1769
5:00 PM	72	4	1	0		1	5	20	0		25	111	80	0		1	163	0	0		483	1745
5:15 PM	79	3	1	0		2	2	27	0		29	103	71	0		1	149	1	0		468	1262
5:30 PM	80	2	2	0		2	3	22	0		27	89	67	0		0	128	0	0		422	794
5:45 PM	68	3	0	0		2	3	15	0		23	80	51	1		1	125	0	0		372	372
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	320	28	16	0		8	20	108	0		116	444	320	0		4	652	4	0		2040	
Heavy Trucks	24	0	0	0		0	0	4	0		4	40	24	0		0	36	4	0		136	
Pedestrians		0					0					0					0				0	
Bicycles	0	0	0	0		0	0	0	0		0	0	0	0		0	0	0	0		0	
Buses																						
Stopped Buses																						

National Data & Surveying Services

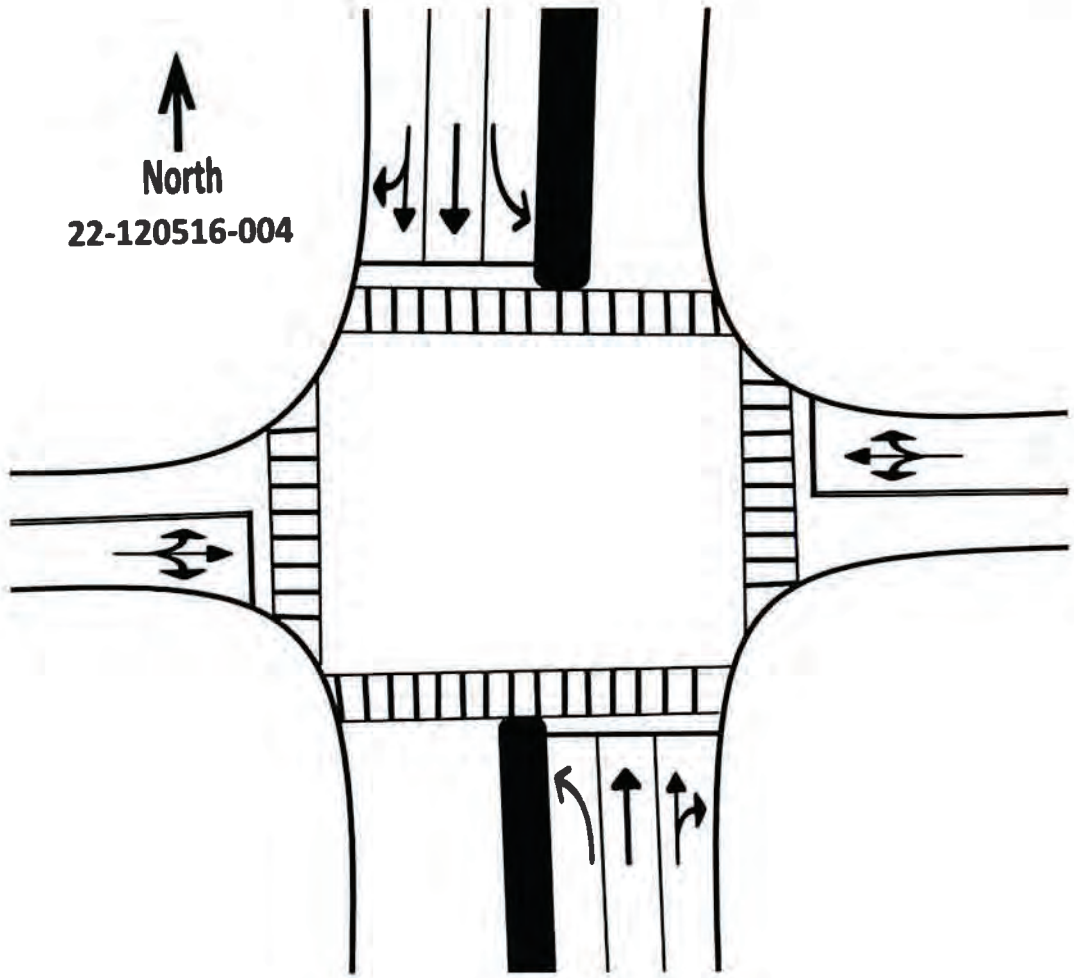
N↑

N/S Street: **Ayers Rd**

Speed: **45 MPH**

E/W Street: **Trillium Blvd**

Speed: **25 MPH**



Site Code: **22-120516-004**

Date: **12/01/2022**

Weather: **Sunny**

City: **Brooksville**

County: **Hernando**

Count Times: **07:00 - 09:00**

16:00 - 18:00

Control: **Signalized**

SIGNAL TIMING

PHASES	1	2	3
NT/ST	02:28	00:27	00:31
ET/WT	00:23	00:21	00:23

National Data & Surveying Services Intersection Turning Movement Count

Location: Ayers Rd & Trillium Blvd
City: Brooksville
Control: Signalized

Project ID: 22-120516-004
Date: 12/1/2022

Data - Total

NS/EW Streets:	Ayers Rd				Ayers Rd				Trillium Blvd				Trillium Blvd				
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	1	103	1	0	2	56	4	0	17	0	3	0	10	0	15	0	212
7:15 AM	2	115	3	0	5	72	4	0	12	0	7	0	16	0	7	0	243
7:30 AM	0	93	3	0	2	75	2	0	17	2	6	0	10	2	8	0	220
7:45 AM	0	89	1	0	2	51	6	0	15	1	11	0	12	2	10	0	200
8:00 AM	4	98	6	0	0	66	6	0	21	2	5	0	17	1	4	0	230
8:15 AM	2	84	2	0	6	67	3	0	9	3	5	0	10	2	6	0	199
8:30 AM	0	81	1	0	3	78	6	0	8	3	3	0	15	1	4	0	203
8:45 AM	1	64	8	0	4	53	6	0	10	1	5	0	10	0	3	0	165
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	10	727	25	0	24	518	37	0	109	12	45	0	100	8	57	0	1672
APPROACH %'s :	1.31%	95.41%	3.28%	0.00%	4.15%	89.46%	6.39%	0.00%	65.66%	7.23%	27.11%	0.00%	60.61%	4.85%	34.55%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	6	395	13	0	9	264	18	0	65	5	29	0	55	5	29	0	893
PEAK HR FACTOR :	0.375	0.859	0.542	0.000	0.450	0.880	0.750	0.000	0.774	0.625	0.659	0.000	0.809	0.625	0.725	0.000	0.919
	0.863				0.898				0.884				0.927				

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	5	65	12	0	8	83	17	0	8	0	4	0	2	1	3	0	208
4:15 PM	6	88	14	0	6	94	15	0	10	2	5	0	6	0	5	0	251
4:30 PM	8	81	10	0	12	110	12	0	6	2	5	0	5	1	6	0	258
4:45 PM	5	79	11	0	4	106	14	1	13	3	3	0	6	3	2	0	250
5:00 PM	6	83	19	0	6	142	20	0	6	1	4	0	9	1	5	0	302
5:15 PM	12	78	17	0	12	133	17	0	8	0	3	0	12	0	5	0	297
5:30 PM	6	76	11	0	8	120	13	0	6	2	7	0	6	3	8	0	266
5:45 PM	5	69	11	0	12	106	13	1	11	1	1	0	9	0	2	0	241
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	53	619	105	0	68	894	121	2	68	11	32	0	55	9	36	0	2073
APPROACH %'s :	6.82%	79.67%	13.51%	0.00%	6.27%	82.40%	11.15%	0.18%	61.26%	9.91%	28.83%	0.00%	55.00%	9.00%	36.00%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	29	316	58	0	30	501	64	1	33	6	17	0	33	7	20	0	1115
PEAK HR FACTOR :	0.604	0.952	0.763	0.000	0.625	0.882	0.800	0.250	0.635	0.500	0.607	0.000	0.688	0.583	0.625	0.000	0.923
	0.933				0.887				0.737				0.882				

National Data & Surveying Services Intersection Turning Movement Count

Location: Ayers Rd & Trillium Blvd
City: Brooksville
Control: Signalized

Project ID: 22-120516-004
Date: 12/1/2022

Data - Cars

NS/EW Streets:	Ayers Rd				Ayers Rd				Trillium Blvd				Trillium Blvd				
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	1	99	1	0	2	47	4	0	17	0	3	0	10	0	15	0	199
7:15 AM	2	107	3	0	5	69	4	0	12	0	7	0	16	0	7	0	232
7:30 AM	0	88	3	0	2	67	2	0	17	2	6	0	10	2	8	0	207
7:45 AM	0	81	0	0	1	43	5	0	15	0	11	0	12	2	9	0	179
8:00 AM	4	92	4	0	0	60	5	0	19	2	5	0	15	1	4	0	211
8:15 AM	2	76	1	0	6	57	3	0	9	3	5	0	10	2	6	0	180
8:30 AM	0	71	1	0	3	65	6	0	7	2	3	0	14	1	3	0	176
8:45 AM	1	58	8	0	4	48	6	0	10	1	5	0	10	0	3	0	154
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	10	672	21	0	23	456	35	0	106	10	45	0	97	8	55	0	1538
APPROACH %'s :	1.42%	95.59%	2.99%	0.00%	4.47%	88.72%	6.81%	0.00%	65.84%	6.21%	27.95%	0.00%	60.63%	5.00%	34.38%	0.00%	
PEAK HR :	07:15 AM - 08:15 AM																TOTAL
PEAK HR VOL :	6	368	10	0	8	239	16	0	63	4	29	0	53	5	28	0	829
PEAK HR FACTOR :	0.375	0.860	0.625	0.000	0.400	0.866	0.800	0.000	0.829	0.500	0.659	0.000	0.828	0.625	0.778	0.000	0.893
	0.857				0.843				0.923				0.935				

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	5	62	12	0	8	73	17	0	8	0	4	0	2	1	3	0	195
4:15 PM	5	84	14	0	6	92	15	0	10	2	5	0	6	0	5	0	244
4:30 PM	8	75	10	0	12	100	11	0	6	1	4	0	5	1	5	0	238
4:45 PM	5	75	11	0	4	97	14	1	11	3	3	0	6	3	2	0	235
5:00 PM	6	75	18	0	6	136	20	0	6	1	4	0	8	1	5	0	286
5:15 PM	12	75	17	0	12	129	17	0	8	0	3	0	12	0	5	0	290
5:30 PM	6	73	11	0	8	113	13	0	6	2	7	0	6	3	8	0	256
5:45 PM	5	65	11	0	12	104	13	1	11	1	1	0	9	0	2	0	235
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	52	584	104	0	68	844	120	2	66	10	31	0	54	9	35	0	1979
APPROACH %'s :	7.03%	78.92%	14.05%	0.00%	6.58%	81.62%	11.61%	0.19%	61.68%	9.35%	28.97%	0.00%	55.10%	9.18%	35.71%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	29	298	57	0	30	475	64	1	31	6	17	0	32	7	20	0	1067
PEAK HR FACTOR :	0.604	0.993	0.792	0.000	0.625	0.873	0.800	0.250	0.705	0.500	0.607	0.000	0.667	0.583	0.625	0.000	0.920
	0.923				0.880				0.794				0.868				

National Data & Surveying Services Intersection Turning Movement Count

Location: Ayers Rd & Trillium Blvd
City: Brooksville
Control: Signalized

Project ID: 22-120516-004
Date: 12/1/2022

Data - HT

NS/EW Streets:	Ayers Rd				Ayers Rd				Trillium Blvd				Trillium Blvd				
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	4	0	0	0	9	0	0	0	0	0	0	0	0	0	0	13
7:15 AM	0	8	0	0	0	3	0	0	0	0	0	0	0	0	0	0	11
7:30 AM	0	5	0	0	0	8	0	0	0	0	0	0	0	0	0	0	13
7:45 AM	0	8	1	0	1	8	1	0	0	1	0	0	0	0	1	0	21
8:00 AM	0	6	2	0	0	6	1	0	2	0	0	0	2	0	0	0	19
8:15 AM	0	8	1	0	0	10	0	0	0	0	0	0	0	0	0	0	19
8:30 AM	0	10	0	0	0	13	0	0	1	1	0	0	1	0	1	0	27
8:45 AM	0	6	0	0	0	5	0	0	0	0	0	0	0	0	0	0	11
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	0	55	4	0	1	62	2	0	3	2	0	0	3	0	2	0	134
APPROACH %'s :	0.00%	93.22%	6.78%	0.00%	1.54%	95.38%	3.08%	0.00%	60.00%	40.00%	0.00%	0.00%	60.00%	0.00%	40.00%	0.00%	
PEAK HR :	**07:15 AM - 08:15 AM**																TOTAL
PEAK HR VOL :	0	27	3	0	1	25	2	0	2	1	0	0	2	0	1	0	64
PEAK HR FACTOR :	0.000	0.844	0.375	0.000	0.250	0.781	0.500	0.000	0.250	0.250	0.000	0.000	0.250	0.000	0.250	0.000	0.762
	0.833				0.700				0.375				0.375				

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	3	0	0	0	10	0	0	0	0	0	0	0	0	0	0	13
4:15 PM	1	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	7
4:30 PM	0	6	0	0	0	10	1	0	0	1	1	0	0	0	1	0	20
4:45 PM	0	4	0	0	0	9	0	0	2	0	0	0	0	0	0	0	15
5:00 PM	0	8	1	0	0	6	0	0	0	0	0	0	1	0	0	0	16
5:15 PM	0	3	0	0	0	4	0	0	0	0	0	0	0	0	0	0	7
5:30 PM	0	3	0	0	0	7	0	0	0	0	0	0	0	0	0	0	10
5:45 PM	0	4	0	0	0	2	0	0	0	0	0	0	0	0	0	0	6
	NL	NT	NR	NU	SL	ST	SR	SU	EL	ET	ER	EU	WL	WT	WR	WU	TOTAL
TOTAL VOLUMES :	1	35	1	0	0	50	1	0	2	1	1	0	1	0	1	0	94
APPROACH %'s :	2.70%	94.59%	2.70%	0.00%	0.00%	98.04%	1.96%	0.00%	50.00%	25.00%	25.00%	0.00%	50.00%	0.00%	50.00%	0.00%	
PEAK HR :	**04:45 PM - 05:45 PM**																TOTAL
PEAK HR VOL :	0	18	1	0	0	26	0	0	2	0	0	0	1	0	0	0	48
PEAK HR FACTOR :	0.000	0.563	0.250	0.000	0.000	0.722	0.000	0.000	0.250	0.000	0.000	0.000	0.250	0.000	0.000	0.000	0.750
	0.528				0.722				0.250				0.250				

National Data & Surveying Services Intersection Turning Movement Count

Location: Ayers Rd & Trillium Blvd
City: Brooksville
Control: Signalized

Project ID: 22-120516-004
Date: 12/1/2022

Data - Bikes

NS/EW Streets:	Ayers Rd				Ayers Rd				Trillium Blvd				Trillium Blvd				
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	1	0	0	0	1
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	2	0	0	0	1	0	0	3
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	2	0	0	1	1	0	0	4
APPROACH %'s :									0.00%	100.00%	0.00%	0.00%	50.00%	50.00%	0.00%	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	1	0	0	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	0.250	0.000	0.000	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	0	0	0	0	1	0	0	1
4:15 PM	0	0	1	0	0	0	0	0	0	0	0	0	1	0	0	0	2
4:30 PM	0	0	0	0	0	0	0	0	1	0	0	0	1	0	1	0	3
4:45 PM	0	0	0	0	1	0	1	0	0	0	0	0	0	0	0	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	3	0	0	0	0	0	0	3
5:30 PM	0	0	0	0	0	2	0	0	2	0	0	0	0	0	3	0	7
5:45 PM	0	0	0	0	0	0	4	0	0	0	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	1	0	1	2	5	0	3	3	0	0	2	1	4	0	22
APPROACH %'s :	0.00%	0.00%	100.00%	0.00%	12.50%	25.00%	62.50%	0.00%	50.00%	50.00%	0.00%	0.00%	28.57%	14.29%	57.14%	0.00%	
PEAK HR :	04:45 PM - 05:45 PM																TOTAL
PEAK HR VOL :	0	0	0	0	1	2	1	0	2	3	0	0	0	0	3	0	12
PEAK HR FACTOR :	0.000	0.000	0.000	0.000	0.250	0.250	0.250	0.000	0.250	0.250	0.000	0.000	0.000	0.000	0.250	0.000	0.429
						0.500				0.417					0.250		

National Data & Surveying Services Intersection Turning Movement Count

Location: Ayers Rd & Trillium Blvd
City: Brooksville

Project ID: 22-120516-004
Date: 12/1/2022

Data - Pedestrians (Crosswalks)

NS/EW Streets:	Ayers Rd		Ayers Rd		Trillium Blvd		Trillium Blvd		
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	1	0	0	0	0	1
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	1	0	0	0	0	1
APPROACH %'s :			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	1	0	1
4:30 PM	0	0	0	0	0	0	0	1	1
4:45 PM	0	0	0	0	0	1	0	0	1
5:00 PM	1	0	0	0	0	0	0	0	1
5:15 PM	0	0	0	0	0	0	0	0	0
5:30 PM	1	0	0	0	0	0	0	0	1
5:45 PM	0	1	0	0	0	0	0	0	1
	EB	WB	EB	WB	NB	SB	NB	SB	TOTAL
TOTAL VOLUMES :	2	1	0	0	0	1	1	1	6
APPROACH %'s :	66.67%	33.33%			0.00%	100.00%	50.00%	50.00%	
PEAK HR :	**04:45 PM - 05:45 PM**								TOTAL
PEAK HR VOL :	2	0	0	0	0	1	0	0	3
PEAK HR FACTOR :	0.500					0.250			0.750
	0.500				0.250				

Prepared by National Data & Surveying Services

Ayers Rd & Trillium Blvd

Peak Hour Turning Movement Count

ID: 22-120516-004
City: Brooksville

Day: Thursday
Date: 12/1/2022

PEAK HOURS	COUNT PERIODS
07:15 AM - 08:15 AM	7:00 AM - 09:00 AM
NONE	NONE
04:45 PM - 05:45 PM	4:00 PM - 06:00 PM

SOUTHBOUND (Ayers Rd)

AM	18	264	9	0	489	AM
NOON	0	0	0	0	0	NOON
PM	64	501	30	1	370	PM

EASTBOUND (Trillium Blvd)

AM	NOON	PM	
29	0	100	
0	0	0	0
65	0	33	0
5	0	6	0
29	0	17	0
AM	NOON	PM	

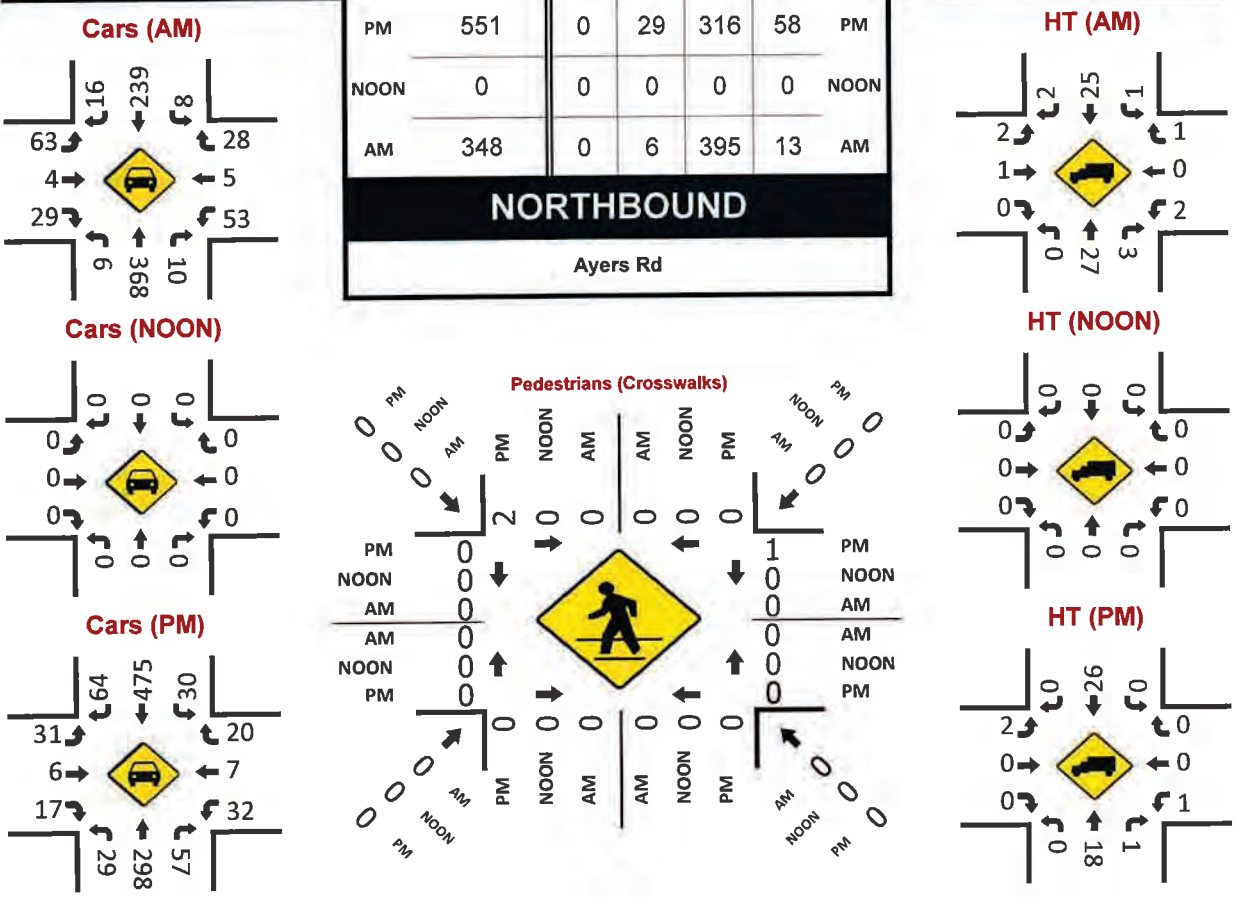
WESTBOUND (Trillium Blvd)

	PM	NOON	AM
0	20	0	29
0	7	0	5
0	33	0	55
0	0	0	0
	94	0	27
	PM	NOON	AM

NORTHBOUND (Ayers Rd)

PM	551	0	29	316	58	PM
NOON	0	0	0	0	0	NOON
AM	348	0	6	395	13	AM

CONTROL			
Signalized			
TEV	893	0	1115
	AM	NOON	PM
PHF	0.92		0.92

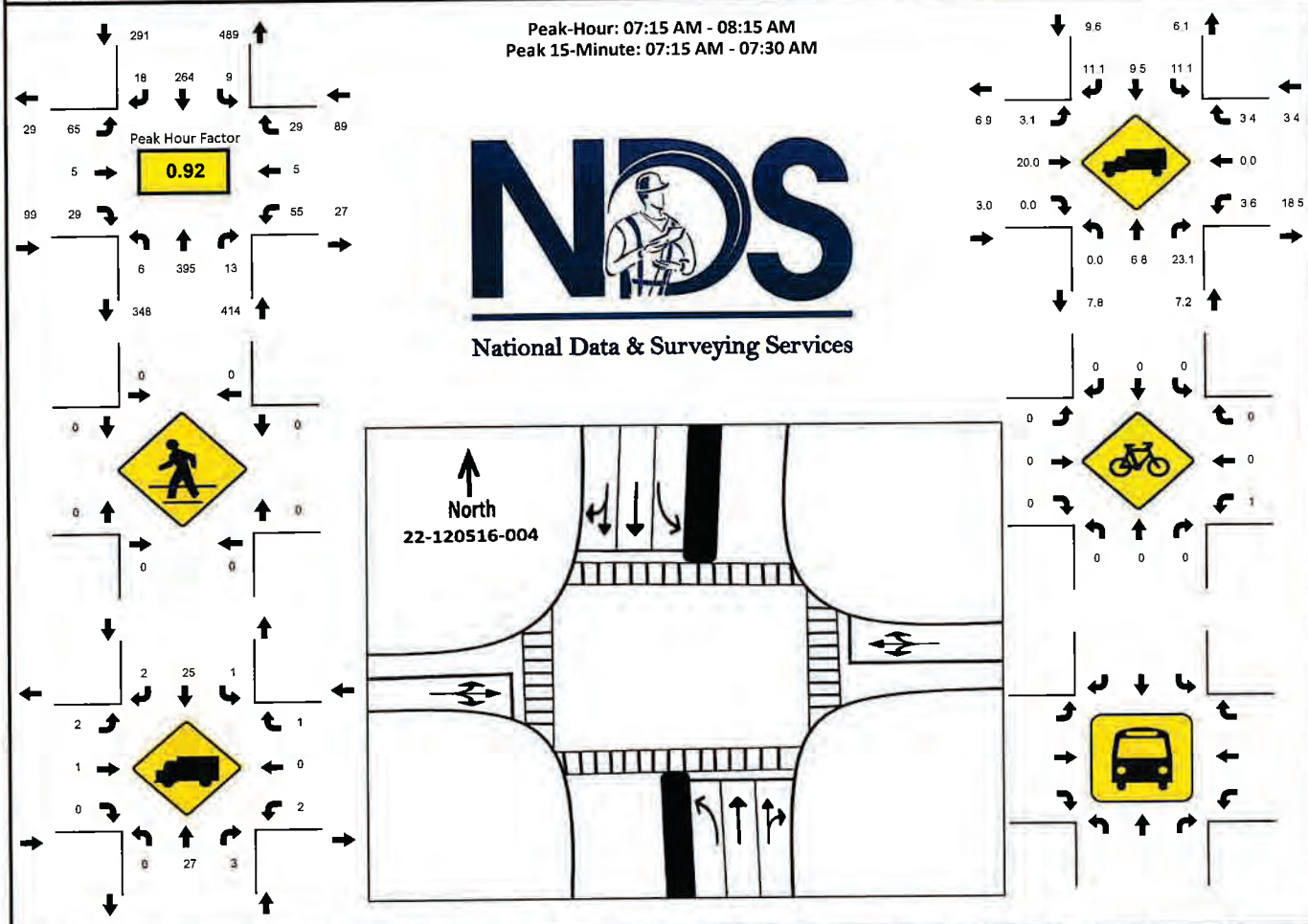


LOCATION: Ayers Rd & Trillium Blvd
CITY/STATE: Brooksville, FL

PROJECT ID: 22-120516-004
DATE: Thu, Dec 01, 2022

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

National Data & Surveying Services



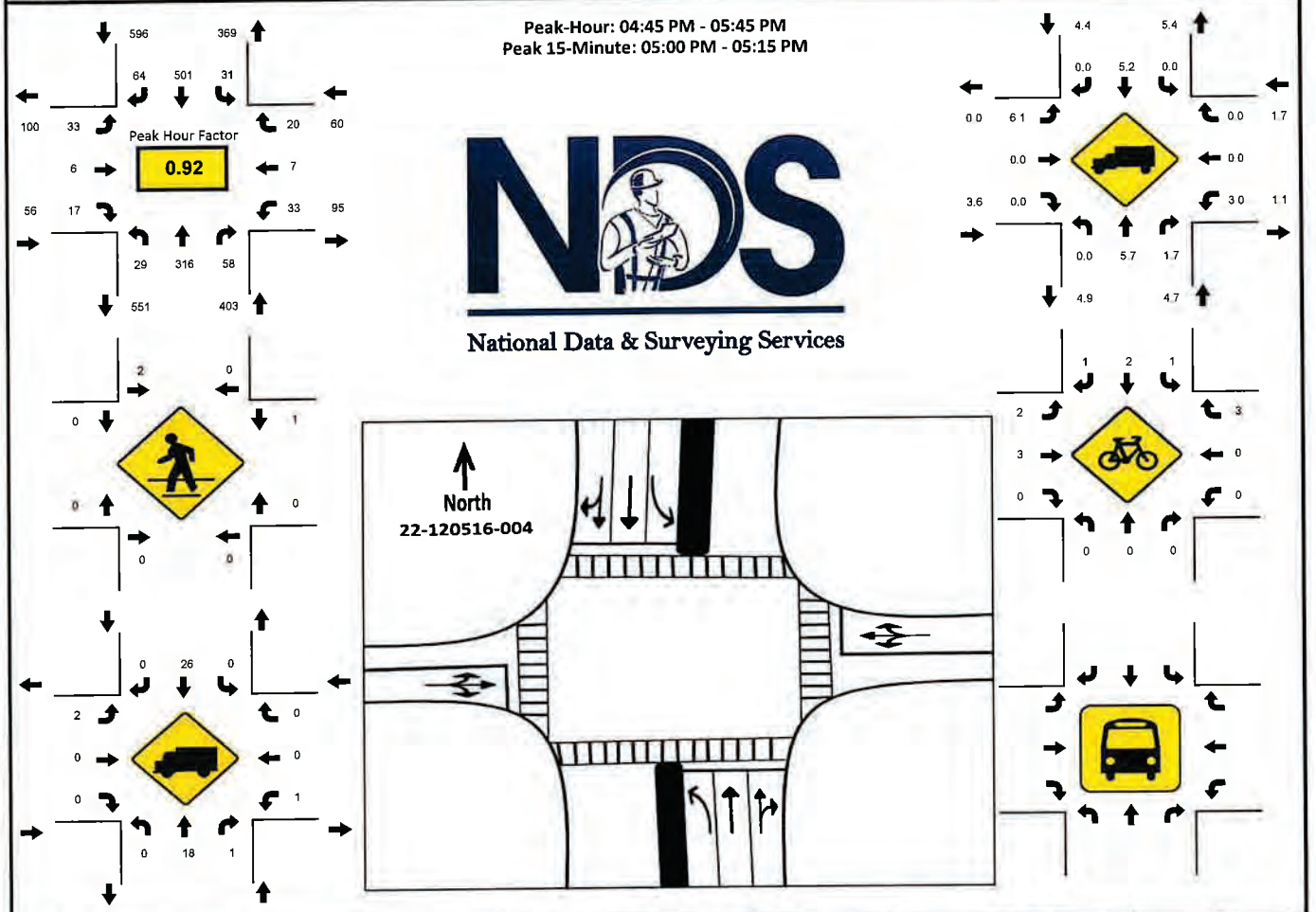
15-Min Count Period Beginning At	Ayers Rd Northbound					Ayers Rd Southbound					Trillium Blvd Eastbound					Trillium Blvd Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
7:00 AM	1	103	1	0		2	56	4	0		17	0	3	0		10	0	15	0		212	875
7:15 AM	2	115	3	0		5	72	4	0		12	0	7	0		16	0	7	0		243	893
7:30 AM	0	93	3	0		2	75	2	0		17	2	6	0		10	2	8	0		220	849
7:45 AM	0	89	1	0		2	51	6	0		15	1	11	0		12	2	10	0		200	832
8:00 AM	4	98	6	0		0	66	6	0		21	2	5	0		17	1	4	0		230	797
8:15 AM	2	84	2	0		6	67	3	0		9	3	5	0		10	2	6	0		199	567
8:30 AM	0	81	1	0		3	78	6	0		8	3	3	0		15	1	4	0		203	368
8:45 AM	1	64	8	0		4	53	6	0		10	1	5	0		10	0	3	0		165	165
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	16	460	24	0		20	300	24	0		84	8	44	0		68	8	40	0		1096	
Heavy Trucks	0	32	8	0		4	32	4	0		8	4	0	0		8	0	4	0		104	
Pedestrians		0					0					0					0				0	
Bicycles	0	0	0	0		0	0	0	0		0	0	0	0		4	0	0	0		4	
Buses																						
Stopped Buses																						

LOCATION: Ayers Rd & Trillium Blvd
CITY/STATE: Brooksville, FL

PROJECT ID: 22-120516-004
DATE: Thu, Dec 01, 2022

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

National Data & Surveying Services



15-Min Count Period Beginning At	Ayers Rd Northbound					Ayers Rd Southbound					Trillium Blvd Eastbound					Trillium Blvd Westbound					Total	Hourly Total
	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*	Left	Thru	Rgt	U	R*		
4:00 PM	5	65	12	0		8	83	17	0		8	0	4	0		2	1	3	0		208	967
4:15 PM	6	88	14	0		6	94	15	0		10	2	5	0		6	0	5	0		251	1061
4:30 PM	8	81	10	0		12	110	12	0		6	2	5	0		5	1	6	0		258	1107
4:45 PM	5	79	11	0		4	106	14	1		13	3	3	0		6	3	2	0		250	1115
5:00 PM	6	83	19	0		6	142	20	0		6	1	4	0		9	1	5	0		302	1106
5:15 PM	12	78	17	0		12	133	17	0		8	0	3	0		12	0	5	0		297	804
5:30 PM	6	76	11	0		8	120	13	0		6	2	7	0		6	3	8	0		266	507
5:45 PM	5	69	11	0		12	106	13	1		11	1	1	0		9	0	2	0		241	241
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	48	332	76	0		48	568	80	4		52	12	28	0		48	12	32	0		1340	
Heavy Trucks	0	32	4	0		0	36	0	0		8	0	0	0		4	0	0	0		84	
Pedestrians		0					4					0					4				8	
Bicycles	0	0	0	0		4	8	4	0		8	12	0	0		0	0	12	0		48	
Buses																						
Stopped Buses																						

FDOT PEAK SEASON ADJUSTMENT FACTORS

2021 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
CATEGORY: 0800 HERNANDO COUNTYWIDE

MOCF: 0.97

WEEK	DATES	SF	PSCF
1	01/01/2021 - 01/02/2021	0.95	0.98
2	01/03/2021 - 01/09/2021	1.02	1.05
3	01/10/2021 - 01/16/2021	1.08	1.11
4	01/17/2021 - 01/23/2021	1.07	1.10
5	01/24/2021 - 01/30/2021	1.06	1.09
6	01/31/2021 - 02/06/2021	1.06	1.09
7	02/07/2021 - 02/13/2021	1.05	1.08
8	02/14/2021 - 02/20/2021	1.04	1.07
9	02/21/2021 - 02/27/2021	1.02	1.05
10	02/28/2021 - 03/06/2021	1.01	1.04
11	03/07/2021 - 03/13/2021	0.99	1.02
12	03/14/2021 - 03/20/2021	0.98	1.01
13	03/21/2021 - 03/27/2021	0.98	1.01
14	03/28/2021 - 04/03/2021	0.98	1.01
15	04/04/2021 - 04/10/2021	0.98	1.01
16	04/11/2021 - 04/17/2021	0.98	1.01
17	04/18/2021 - 04/24/2021	0.98	1.01
18	04/25/2021 - 05/01/2021	0.98	1.01
19	05/02/2021 - 05/08/2021	0.98	1.01
20	05/09/2021 - 05/15/2021	0.98	1.01
21	05/16/2021 - 05/22/2021	0.98	1.01
22	05/23/2021 - 05/29/2021	0.99	1.02
23	05/30/2021 - 06/05/2021	0.99	1.02
24	06/06/2021 - 06/12/2021	0.99	1.02
25	06/13/2021 - 06/19/2021	1.00	1.03
26	06/20/2021 - 06/26/2021	1.01	1.04
27	06/27/2021 - 07/03/2021	1.02	1.05
28	07/04/2021 - 07/10/2021	1.04	1.07
29	07/11/2021 - 07/17/2021	1.05	1.08
30	07/18/2021 - 07/24/2021	1.05	1.08
31	07/25/2021 - 07/31/2021	1.05	1.08
32	08/01/2021 - 08/07/2021	1.05	1.08
33	08/08/2021 - 08/14/2021	1.05	1.08
34	08/15/2021 - 08/21/2021	1.05	1.08
35	08/22/2021 - 08/28/2021	1.05	1.08
36	08/29/2021 - 09/04/2021	1.04	1.07
37	09/05/2021 - 09/11/2021	1.04	1.07
38	09/12/2021 - 09/18/2021	1.03	1.06
39	09/19/2021 - 09/25/2021	1.02	1.05
*40	09/26/2021 - 10/02/2021	1.00	1.03
*41	10/03/2021 - 10/09/2021	0.99	1.02
*42	10/10/2021 - 10/16/2021	0.97	1.00
*43	10/17/2021 - 10/23/2021	0.97	1.00
*44	10/24/2021 - 10/30/2021	0.97	1.00
*45	10/31/2021 - 11/06/2021	0.96	0.99
*46	11/07/2021 - 11/13/2021	0.96	0.99
*47	11/14/2021 - 11/20/2021	0.96	0.99
*48	11/21/2021 - 11/27/2021	0.95	0.98
*49	11/28/2021 - 12/04/2021	0.95	0.98
*50	12/05/2021 - 12/11/2021	0.95	0.98
*51	12/12/2021 - 12/18/2021	0.95	0.98
*52	12/19/2021 - 12/25/2021	1.02	1.05
53	12/26/2021 - 12/31/2021	1.08	1.11

* PEAK SEASON

SIGNAL TIMING SHEETS

CONTROLLER OPERATIONS:

1. MAJOR STREET IS CR 578 (COUNTY LINE RD.)/CR 576 (AYERS RD.) (MOVEMENTS 1, 2, 5, 6 & 6R), AND MINOR STREET IS TRILLIUM BLVD./CR 578 (COUNTY LINE RD.) (MOVEMENTS 3, 4, 7 & 8)

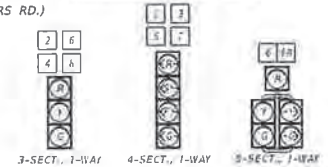
2. CONTROLLER TO BE WIRED FOR SOP 10 AND SHALL OPERATE AS AN SOP 10.

(A) CONCURRENT/ACTUATED PEDESTRIANS FOR MOVEMENTS 2 (P2), 4 (P4), 6 (P6) AND 8 (P8)

(B) WHEN SIGNAL IS IN FLASHING MODE, MOVEMENTS 2 AND 6 SHALL FLASH YELLOW. ALL OTHER VEHICLE MOVEMENTS SHALL FLASH RED.

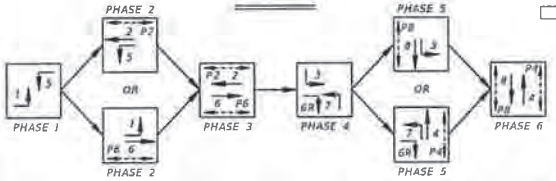
3. EACH PHASE/MOVEMENT SHALL BE WIRED FROM THE SIGNAL DISPLAY TO THE CONTROLLER AS A SEPARATE PHASE/MOVEMENT. THIS INCLUDES LEFT TURN MOVEMENTS. EACH LEFT TURN MOVEMENT SHALL HAVE CONDUCTORS AVAILABLE FOR PROTECTED AND PERMISSIVE OPERATION.

SIGNAL HEAD DETAILS



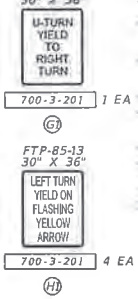
PED. SIGNAL COUNT-DOWN 1-SECT., 1-WAY
8 AS
653-1-11

S.O.P. 10



LED INTERNALLY ILLUMINATED SIGNS

700-5-22 | 4 EA



700-3-201 | 1 EA

700-3-201 | 4 EA

CONTROLLER TIMINGS

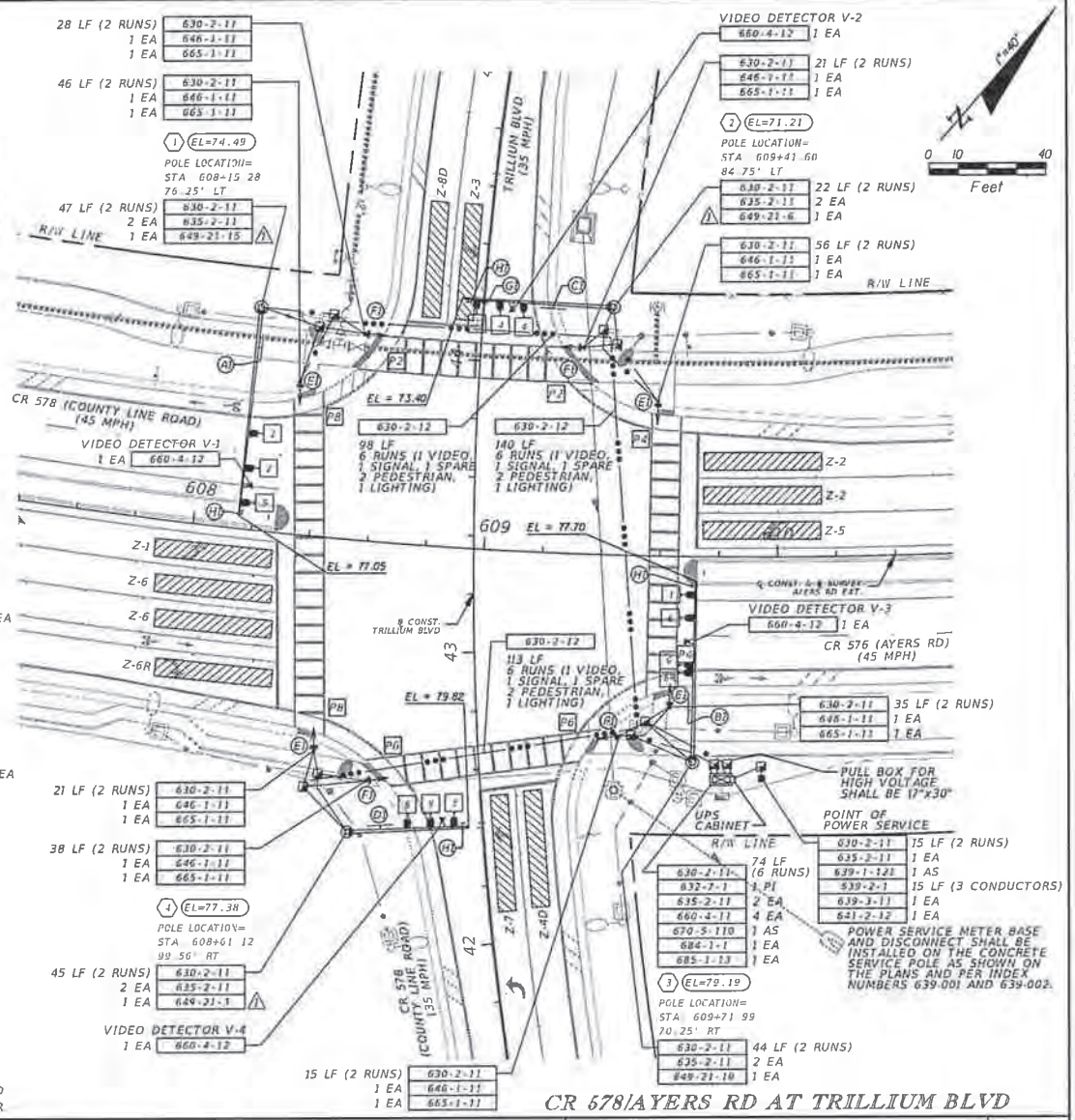
TIMING FUNCTION									
MOVEMENT NUMBER		1	2	3	4	5	6	7	8
TIMING FUNCTION	MINIMUM GREEN	5	15	5	15	5	15	5	15
	EXTENSION	3	3	3	3	3	3	3	3
	MAXIMUM GREEN 1	15	45	10	35	15	45	10	35
	MAXIMUM GREEN 2								
	YELLOW CLEARANCE	4.8	4.8	4.0	4.0	4.8	4.8	4.0	4.0
	ALL RED	2.5	2.4	3.1	3.1	2.4	2.5	3.1	3.1
	PEDESTRIAN WALK		7		7		7		7
	PED. CLEARANCE		18		22		22		28
	RECALL		MIN				MIN		

TIMINGS ARE INITIAL AND MAY REQUIRE FIELD ADJUSTMENT AS DIRECTED BY PROJECT ENGINEER

VIDEO DETECTOR ZONES

[illegible]	[illegible]	[illegible]	[illegible]
Z-1	V-3	1	
Z-2	V-1	2	
Z-3	V-4 △1	3	
Z-4D	V-2	4	10
Z-5	V-1	5	
Z-6	V-3	6	
Z-6R	V-3	6R	10 △1
Z-7	V-2 △1	7	
Z-8D	V-4	8	10

DELAY TIME IS INITIAL AND MAY REQUIRE FIELD ADJUSTING AS DIRECTED BY PROJECT ENGINEER



CR 578/AYERS RD AT TRILLIUM BLVD

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS			
DATE	DESCRIPTION	DATE	DESCRIPTION
02/14/19	△1 REPLACED SPECIAL MAST ARM PAY ITEMS WITH STANDARD PAY ITEMS. UPDATED VIDEO DETECTION ZONES		

AMERICAN CONSULTING ENGINEERS OF FLORIDA, LLC
2000 Palm Beach Lakes Blvd, Suite 1000
West Palm Beach, Florida 33409
Phone: (561) 253-9550
Certificate of Authorization No. 9302
Rohan Gopalakrishna, P.E. No. 40720

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR 578	HERNANDO	257298-5-52-01

SIGNALIZATION PLAN (3)

SHEET NO. T-10

Hernando County, FL

County Line Rd & Trillium Blvd - Econolite Type - Cobalt

Plan 1 - ""

Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
Direction	N-L	S-T	E-L	W-T	S-L	N-T	W-L	E	N	N	N	N	N	N	N	N
Min Green	5	15	5	15	5	15	5	15	5	5	5	5	5	5	5	5
Bk Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
CS Min Green	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Delay Green	0	3	0	3	0	3	0	3	0	0	0	0	0	0	0	0
Walk	0	7	0	7	0	7	0	7	0	10	0	10	0	10	0	10
Walk2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Walk Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear	0	18	0	22	0	22	0	28	0	16	0	16	0	16	0	16
Ped Clear 2	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped Clear Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Ped CO	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Vehicle Ext	3.0	3.0	3.0	3.0	3.0	3.0	3.0	3.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Vehicle Ext 2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max1	15	45	10	35	15	45	10	35	15	45	10	35	15	45	10	35
Max2	40	40	40	40	40	40	40	40	0	0	0	0	0	0	0	0
Max3	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
DYM Max	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Dym Step	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Yellow	4.8	4.8	4.0	4.0	4.8	4.8	4.0	4.0	4.8	4.8	4.0	4.0	4.8	4.8	4.0	4.0
Red Clear	2.5	2.4	3.1	3.1	2.4	2.5	3.1	3.1	2.5	2.4	3.1	3.1	2.4	2.5	3.1	3.1
Red Max	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Red Revert	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0	2.0
Act B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Sec/Act	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Max Int	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Time B4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Cars Wt	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
STPTDuc	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TTReduc	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Min Gap	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

CONTROLLER OPERATIONS:

1. MAJOR STREET IS CR 578 (AYERS RD.). (MOVEMENTS 1, 2, 5 & 6), AND MINOR STREET IS TRILLIUM BLVD. (MOVEMENTS 4 & 8).

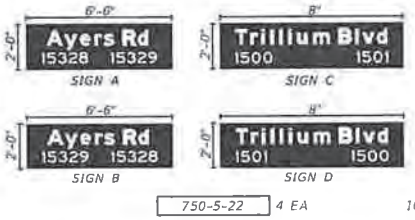
2. CONTROLLER AND CABINET TO BE WIRED FOR SOP 10, BUT OPERATE AS SOP 7.

   (A) CONCURRENT/ACTUATED PEDESTRIANS FOR MOVEMENTS 2 (P2), 4 (P4), 6 (P6) AND 8 (P8)

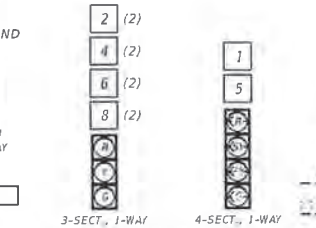
   (B) WHEN SIGNAL IS IN FLASHING MODE, MOVEMENTS 2 AND 6 SHALL FLASH YELLOW. ALL OTHER VEHICLE MOVEMENTS SHALL FLASH RED

3. EACH PHASE/MOVEMENT SHALL BE WIRED FROM THE SIGNAL DISPLAY TO THE CONTROLLER AS A SEPARATE PHASE/MOVEMENT. THIS INCLUDES LEFT TURN MOVEMENTS. EACH LEFT TURN MOVEMENT SHALL HAVE CONDUCTORS AVAILABLE FOR PROTECTED AND PERMISSIVE OPERATION.

LED INTERNALLY ILLUMINATED SIGNS



750-5-22 4 EA

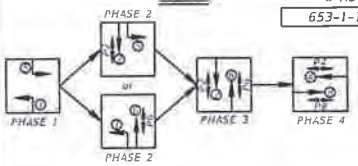


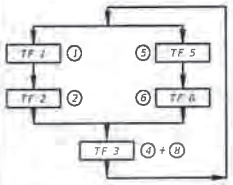
8 AS 650-1-14

2 AS 650-1-16

PED. SIGNAL COUNT-DOWN 1-SECT., 1-WAY

8 AS 653-1-11





FTP-68B-6 9"x18"

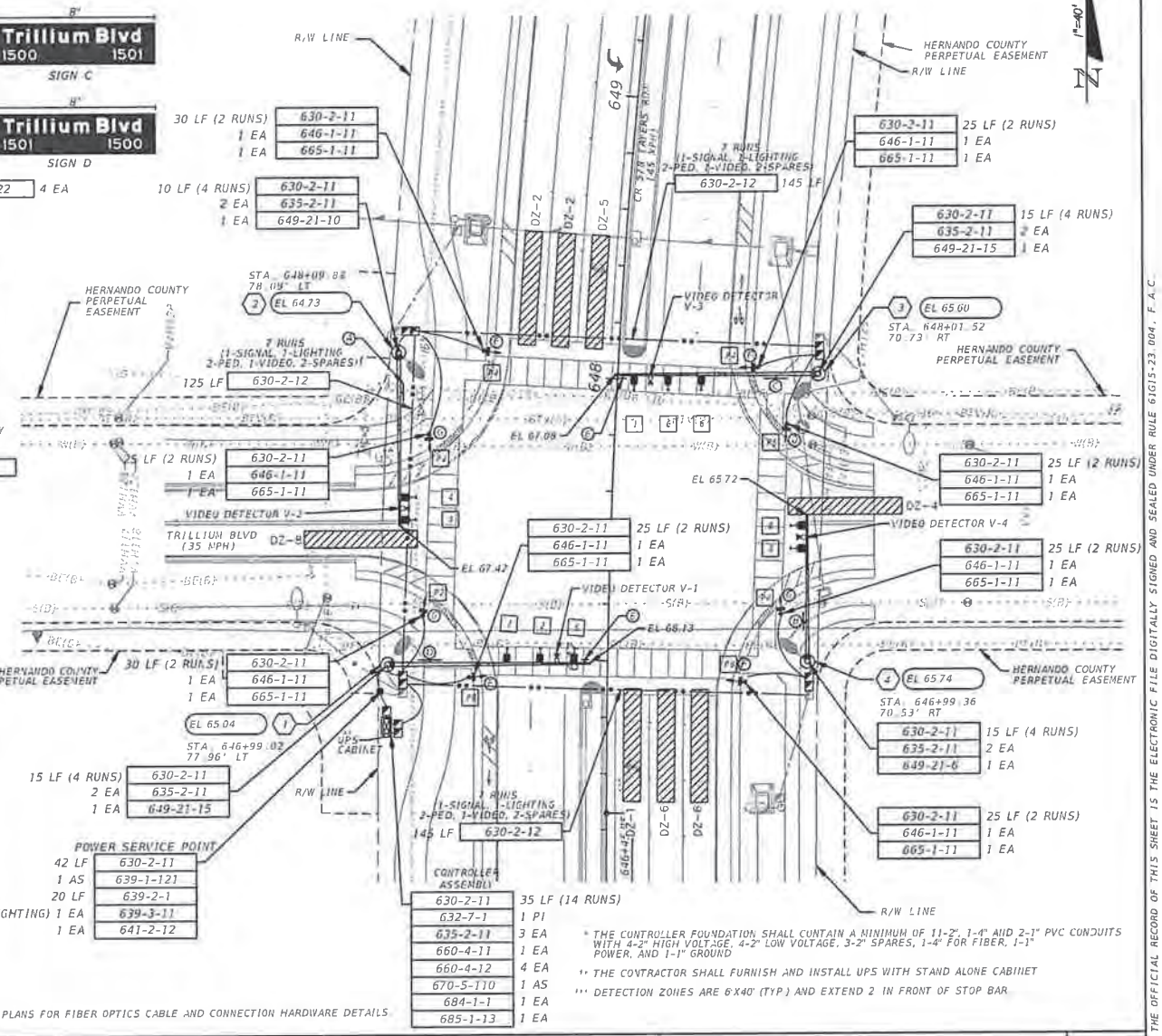
SIGN F 4 EA

FTP-68B-6 9"x18"

SIGN G 4 EA

FTP-85-13 30" X 36"

SIGN E 700-3-201 2 EA



* THE CONTROLLER FOUNDATION SHALL CONTAIN A MINIMUM OF 11-2", 1-4" AND 2-1" PVC CONDUITS WITH 4-2" HIGH VOLTAGE, 4-2" LOW VOLTAGE, 3-2" SPARES, 1-4" FOR FIBER, 1-1" POWER, AND 1-1" GROUND

** THE CONTRACTOR SHALL FURNISH AND INSTALL UPS WITH STAND ALONE CABINET

*** DETECTION ZONES ARE 6'X40' (TYP.) AND EXTEND 2' IN FRONT OF STOP BAR

CONTROLLER TIMINGS

	TIMING FUNCTION	1	2	3	4	5	6	7	8
	MOVEMENT NUMBER	1	2	3	4	5	6	7	8
TIMING FUNCTION	MINIMUM GREEN	5	15	-	15	5	15	-	15
	EXTENSION	3	3	-	3	3	3	-	3
	MAXIMUM GREEN 1	15	45	-	35	15	45	-	35
	MAXIMUM GREEN 2			-				-	
	YELLOW CLEARANCE	4.8	4.8	-	4.0	4.8	4.8	-	4.0
	ALL RED	2.0	2.0	-	2.6	2.0	2.0	-	2.6
	PEDESTRIAN WALK		7	-	7		7	-	7
	PED. CLEARANCE		15	-	24		16	-	25
	RECALL		MIN	-			MIN	-	

TIMINGS ARE INITIAL AND MAY REQUIRE FIELD ADJUSTMENT AS DIRECTED BY PROJECT ENGINEER.

VIDEO DETECTOR ZONES

DZ-1	V-3	1
DZ-2	V-1	2
DZ-4	V-2	4
DZ-5	V-1	5
DZ-6	V-3	6
DZ-8	V-4	8

SEE INTERCONNECT PLANS FOR FIBER OPTICS CABLE AND CONNECTION HARDWARE DETAILS

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

REVISIONS

DATE	DESCRIPTION	DATE	DESCRIPTION
2/14/19	△ Added Signalization Plan (5) Sheet		

PREPARED BY:
HNTB CORPORATION
201 N. FRANKLIN ST., SUITE 1200
TAMPA, FL 33602
PHONE: (813) 402-4150
CERTIFICATE OF AUTHORIZATION NO. 6500
SUBHASIS GHOSH, P.E. 68269

STATE OF FLORIDA
DEPARTMENT OF TRANSPORTATION

ROAD NO.	COUNTY	FINANCIAL PROJECT ID
CR 578	HERNANDO	257298-5-52-02

CR 578 / AYERS RD AND TRILLIUM BLVD

SIGNALIZATION PLAN (5)

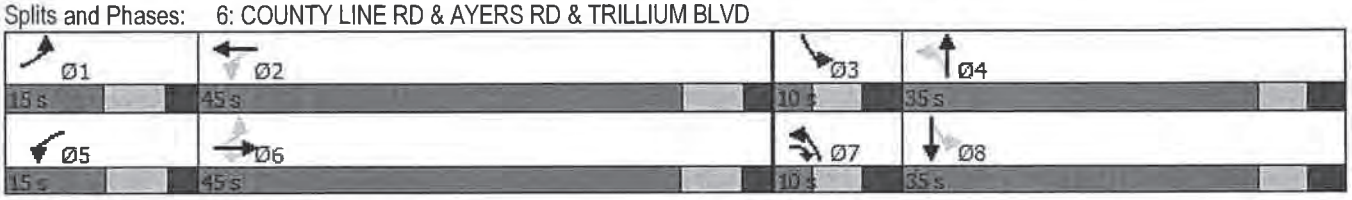
SHEET NO. △ T-11A

INTERSECTION ANALYSIS

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	446	296	9	390	48	263	26	0	85	34	190
Future Volume (vph)	67	446	296	9	390	48	263	26	0	85	34	190
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6	7	5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Detector Phase	1	6	7	5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	5.0	15.0		5.0	15.0		5.0	5.0	
Minimum Split (s)	12.3	22.3	12.1	12.2	22.2		12.1	25.1		12.1	12.1	
Total Split (s)	15.0	45.0	10.0	15.0	45.0		10.0	35.0		10.0	35.0	
Total Split (%)	14.3%	42.9%	9.5%	14.3%	42.9%		9.5%	33.3%		9.5%	33.3%	
Yellow Time (s)	4.8	4.8	4.0	4.8	4.8		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.5	2.5	3.1	2.4	2.4		3.1	3.1		3.1	3.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.3	7.3	7.1	7.2	7.2		7.1	7.1		7.1	7.1	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min	None	None	Min		None	None		None	None	
Act Effct Green (s)	26.5	25.2	35.8	21.1	16.7		11.6	15.6		15.2	9.2	
Actuated g/C Ratio	0.43	0.41	0.58	0.34	0.27		0.19	0.25		0.25	0.15	
v/c Ratio	0.18	0.34	0.31	0.03	0.51		1.19	0.06		0.27	0.59	
Control Delay	11.5	14.9	2.5	11.0	22.4		152.8	22.7		20.9	12.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	11.5	14.9	2.5	11.0	22.4		152.8	22.7		20.9	12.6	
LOS	B	B	A	B	C		F	C		C	B	
Approach Delay		10.1			22.2			140.9			14.9	
Approach LOS		B			C			F			B	

Intersection Summary	
Cycle Length: 105	
Actuated Cycle Length: 61.9	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.19	
Intersection Signal Delay: 34.2	Intersection LOS: C
Intersection Capacity Utilization 68.7%	ICU Level of Service C
Analysis Period (min) 15	

Splits and Phases: 6: COUNTY LINE RD & AYERS RD & TRILLIUM BLVD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	208	477	318	2	712	83	352	48	9	72	40	123
Future Volume (vph)	208	477	318	2	712	83	352	48	9	72	40	123
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA		pm+pt	NA	
Protected Phases	1	6	7	5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		
Detector Phase	1	6	7	5	2		7	4		3	8	
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	5.0	15.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	12.3	22.3	12.1	12.2	25.2		12.1	25.1		12.1	22.1	
Total Split (s)	15.0	45.0	10.0	15.0	45.0		10.0	35.0		10.0	35.0	
Total Split (%)	14.3%	42.9%	9.5%	14.3%	42.9%		9.5%	33.3%		9.5%	33.3%	
Yellow Time (s)	4.8	4.8	4.0	4.8	4.8		4.0	4.0		4.0	4.0	
All-Red Time (s)	2.5	2.5	3.1	2.4	2.4		3.1	3.1		3.1	3.1	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)	7.3	7.3	7.1	7.2	7.2		7.1	7.1		7.1	7.1	
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	
Recall Mode	None	Min	None	None	Min		None	None		None	None	
Act Effct Green (s)	41.3	39.9	50.2	32.9	27.3		19.5	17.3		18.0	15.1	
Actuated g/C Ratio	0.50	0.49	0.61	0.40	0.33		0.24	0.21		0.22	0.18	
v/c Ratio	0.75	0.30	0.31	0.00	0.74		1.33	0.16		0.25	0.43	
Control Delay	29.5	13.8	1.9	9.5	27.7		202.2	28.0		26.8	13.7	
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay	29.5	13.8	1.9	9.5	27.7		202.2	28.0		26.8	13.7	
LOS	C	B	A	A	C		F	C		C	B	
Approach Delay		13.3			27.7			178.0			17.7	
Approach LOS		B			C			F			B	

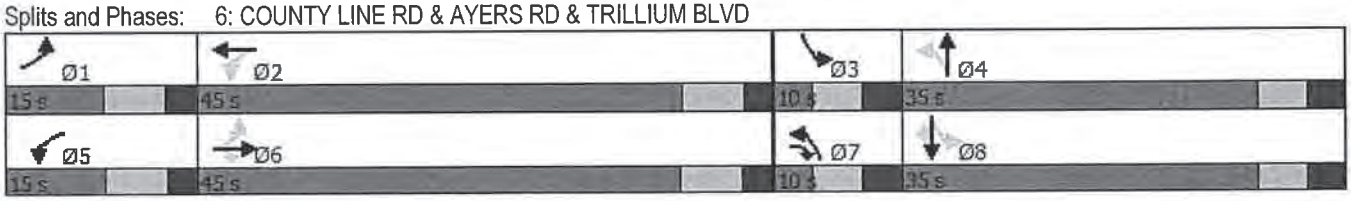
Intersection Summary	
Cycle Length: 105	
Actuated Cycle Length: 81.9	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 1.33	
Intersection Signal Delay: 46.0	Intersection LOS: D
Intersection Capacity Utilization 89.8%	ICU Level of Service E
Analysis Period (min) 15	

Splits and Phases: 6: COUNTY LINE RD & AYERS RD & TRILLIUM BLVD

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	67	446	296	9	390	48	263	26	0	85	34	190
Future Volume (vph)	67	446	296	9	390	48	263	26	0	85	34	190
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6	7	5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Detector Phase	1	6	7	5	2		7	4		3	8	8
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	5.0	15.0		5.0	15.0		5.0	15.0	15.0
Minimum Split (s)	12.3	22.3	12.1	12.2	25.2		12.1	25.1		12.1	22.1	22.1
Total Split (s)	15.0	45.0	10.0	15.0	45.0		10.0	35.0		10.0	35.0	35.0
Total Split (%)	14.3%	42.9%	9.5%	14.3%	42.9%		9.5%	33.3%		9.5%	33.3%	33.3%
Yellow Time (s)	4.8	4.8	4.0	4.8	4.8		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	3.1	2.4	2.4		3.1	3.1		3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.1	7.2	7.2		7.1	7.1		7.1	7.1	7.1
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	Min	None	None	Min		None	None		None	None	None
Act Effct Green (s)	26.5	25.1	35.4	21.0	16.5		14.0	17.7		20.9	15.2	15.2
Actuated g/C Ratio	0.39	0.37	0.53	0.31	0.24		0.21	0.26		0.31	0.23	0.23
v/c Ratio	0.20	0.37	0.33	0.03	0.56		0.96	0.06		0.22	0.09	0.40
Control Delay	12.9	17.0	2.6	11.4	25.2		79.4	23.6		19.6	23.8	6.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	12.9	17.0	2.6	11.4	25.2		79.4	23.6		19.6	23.8	6.8
LOS	B	B	A	B	C		E	C		B	C	A
Approach Delay		11.4			24.9			74.3			12.2	
Approach LOS		B			C			E			B	

Intersection Summary	
Cycle Length: 105	
Actuated Cycle Length: 67.4	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.96	
Intersection Signal Delay: 24.6	Intersection LOS: C
Intersection Capacity Utilization 57.4%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 6: COUNTY LINE RD & AYERS RD & TRILLIUM BLVD

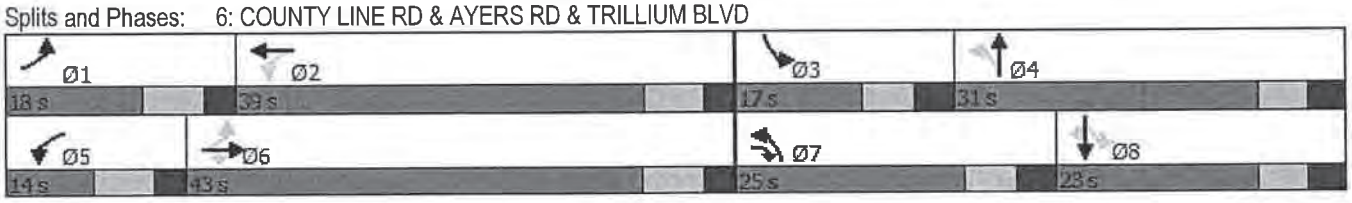


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	208	477	318	2	712	83	352	48	9	72	40	123
Future Volume (vph)	208	477	318	2	712	83	352	48	9	72	40	123
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6	7	5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Detector Phase	1	6	7	5	2		7	4		3	8	8
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	5.0	15.0		5.0	15.0		5.0	15.0	15.0
Minimum Split (s)	12.3	22.3	12.1	12.2	25.2		12.1	25.1		12.1	22.1	22.1
Total Split (s)	18.0	43.0	25.0	14.0	39.0		25.0	31.0		17.0	23.0	23.0
Total Split (%)	17.1%	41.0%	23.8%	13.3%	37.1%		23.8%	29.5%		16.2%	21.9%	21.9%
Yellow Time (s)	4.8	4.8	4.0	4.8	4.8		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	3.1	2.4	2.4		3.1	3.1		3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.1	7.2	7.2		7.1	7.1		7.1	7.1	7.1
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	Min	None	None	Min		None	None		None	None	None
Act Effct Green (s)	47.1	45.0	70.2	35.2	29.6		40.0	27.5		23.2	15.0	15.0
Actuated g/C Ratio	0.46	0.44	0.69	0.35	0.29		0.39	0.27		0.23	0.15	0.15
v/c Ratio	0.82	0.33	0.29	0.01	0.85		0.74	0.12		0.23	0.16	0.29
Control Delay	44.0	20.2	1.5	15.0	42.4		35.1	29.1		23.7	40.6	1.6
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	44.0	20.2	1.5	15.0	42.4		35.1	29.1		23.7	40.6	1.6
LOS	D	C	A	B	D		D	C		C	D	A
Approach Delay		19.2			42.4			34.2			14.9	
Approach LOS		B			D			C			B	

Intersection Summary

Cycle Length: 105
Actuated Cycle Length: 102
Natural Cycle: 90
Control Type: Actuated-Uncoordinated
Maximum v/c Ratio: 0.85
Intersection Signal Delay: 28.9 Intersection LOS: C
Intersection Capacity Utilization 78.0% ICU Level of Service D
Analysis Period (min) 15

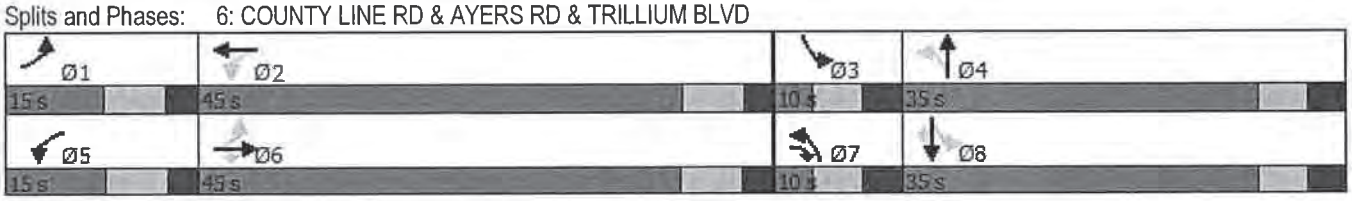
Splits and Phases: 6: COUNTY LINE RD & AYERS RD & TRILLIUM BLVD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	70	446	296	9	390	52	263	27	0	97	38	202
Future Volume (vph)	70	446	296	9	390	52	263	27	0	97	38	202
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
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
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6	7	5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Detector Phase	1	6	7	5	2		7	4		3	8	8
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	5.0	15.0		5.0	15.0		5.0	15.0	15.0
Minimum Split (s)	12.3	22.3	12.1	12.2	25.2		12.1	25.1		12.1	22.1	22.1
Total Split (s)	15.0	45.0	10.0	15.0	45.0		10.0	35.0		10.0	35.0	35.0
Total Split (%)	14.3%	42.9%	9.5%	14.3%	42.9%		9.5%	33.3%		9.5%	33.3%	33.3%
Yellow Time (s)	4.8	4.8	4.0	4.8	4.8		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	3.1	2.4	2.4		3.1	3.1		3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.1	7.2	7.2		7.1	7.1		7.1	7.1	7.1
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	Min	None	None	Min		None	None		None	None	None
Act Effct Green (s)	26.6	25.2	35.5	21.0	16.6		14.0	17.7		20.9	15.2	15.2
Actuated g/C Ratio	0.39	0.37	0.53	0.31	0.25		0.21	0.26		0.31	0.23	0.23
v/c Ratio	0.21	0.37	0.33	0.03	0.56		0.97	0.06		0.25	0.10	0.42
Control Delay	12.9	17.0	2.6	11.4	25.2		80.4	23.6		20.4	24.0	6.9
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	12.9	17.0	2.6	11.4	25.2		80.4	23.6		20.4	24.0	6.9
LOS	B	B	A	B	C		F	C		C	C	A
Approach Delay		11.4			24.9			75.1			12.7	
Approach LOS		B			C			E			B	

Intersection Summary	
Cycle Length: 105	
Actuated Cycle Length: 67.5	
Natural Cycle: 75	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.97	
Intersection Signal Delay: 24.6	Intersection LOS: C
Intersection Capacity Utilization 57.4%	ICU Level of Service B
Analysis Period (min) 15	

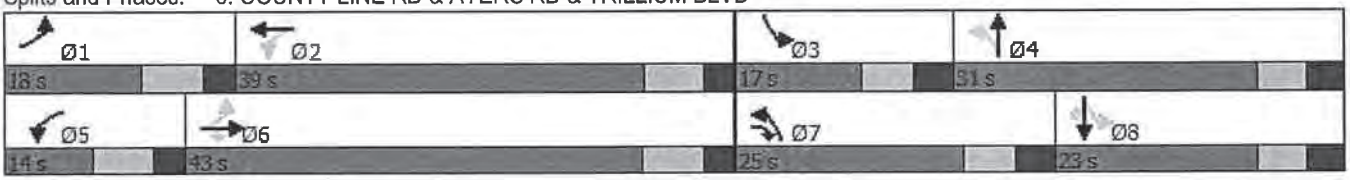
Splits and Phases: 6: COUNTY LINE RD & AYERS RD & TRILLIUM BLVD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	223	477	318	2	712	98	352	52	9	81	43	132
Future Volume (vph)	223	477	318	2	712	98	352	52	9	81	43	132
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	pm+pt	NA	pm+ov	pm+pt	NA		pm+pt	NA		pm+pt	NA	Perm
Protected Phases	1	6	7	5	2		7	4		3	8	
Permitted Phases	6		6	2			4			8		8
Detector Phase	1	6	7	5	2		7	4		3	8	8
Switch Phase												
Minimum Initial (s)	5.0	15.0	5.0	5.0	15.0		5.0	15.0		5.0	15.0	15.0
Minimum Split (s)	12.3	22.3	12.1	12.2	25.2		12.1	25.1		12.1	22.1	22.1
Total Split (s)	18.0	43.0	25.0	14.0	39.0		25.0	31.0		17.0	23.0	23.0
Total Split (%)	17.1%	41.0%	23.8%	13.3%	37.1%		23.8%	29.5%		16.2%	21.9%	21.9%
Yellow Time (s)	4.8	4.8	4.0	4.8	4.8		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	2.5	2.5	3.1	2.4	2.4		3.1	3.1		3.1	3.1	3.1
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Lost Time (s)	7.3	7.3	7.1	7.2	7.2		7.1	7.1		7.1	7.1	7.1
Lead/Lag	Lead	Lag	Lead	Lead	Lag		Lead	Lag		Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes		Yes	Yes		Yes	Yes	Yes
Recall Mode	None	Min	None	None	Min		None	None		None	None	None
Act Effct Green (s)	47.4	45.3	70.5	35.5	29.9		40.0	27.3		23.4	15.0	15.0
Actuated g/C Ratio	0.46	0.44	0.69	0.35	0.29		0.39	0.27		0.23	0.15	0.15
v/c Ratio	0.89	0.33	0.29	0.01	0.86		0.75	0.14		0.26	0.17	0.31
Control Delay	54.9	20.1	1.5	15.0	43.1		35.4	29.9		24.1	41.0	1.8
Queue Delay	0.0	0.0	0.0	0.0	0.0		0.0	0.0		0.0	0.0	0.0
Total Delay	54.9	20.1	1.5	15.0	43.1		35.4	29.9		24.1	41.0	1.8
LOS	D	C	A	B	D		D	C		C	D	A
Approach Delay		21.9			43.0			34.6			15.4	
Approach LOS		C			D			C			B	

Intersection Summary	
Cycle Length: 105	
Actuated Cycle Length: 102.3	
Natural Cycle: 90	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.89	
Intersection Signal Delay: 30.2	Intersection LOS: C
Intersection Capacity Utilization 79.3%	ICU Level of Service D
Analysis Period (min) 15	

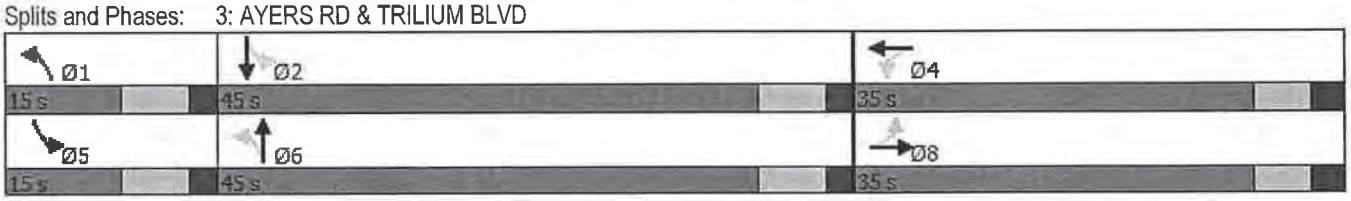
Splits and Phases: 6: COUNTY LINE RD & AYERS RD & TRILLIUM BLVD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	5	29	59	5	29	7	566	19	11	368	22
Future Volume (vph)	65	5	29	59	5	29	7	566	19	11	368	22
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	24.6	24.6		24.6	24.6		11.8	24.8		11.8	24.8	
Total Split (s)	35.0	35.0		35.0	35.0		15.0	45.0		15.0	45.0	
Total Split (%)	36.8%	36.8%		36.8%	36.8%		15.8%	47.4%		15.8%	47.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.8	4.8		4.8	4.8	
All-Red Time (s)	2.6	2.6		2.6	2.6		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.6			6.6		6.8	6.8		6.8	6.8	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		16.9			16.9		22.1	25.5		22.3	25.6	
Actuated g/C Ratio		0.40			0.40		0.53	0.61		0.53	0.61	
v/c Ratio		0.20			0.18		0.01	0.30		0.02	0.20	
Control Delay		12.7			12.3		8.0	10.6		8.1	9.8	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		12.7			12.3		8.0	10.6		8.1	9.8	
LOS		B			B		A	B		A	A	
Approach Delay		12.7			12.3			10.5			9.7	
Approach LOS		B			B			B			A	

Intersection Summary	
Cycle Length: 95	
Actuated Cycle Length: 41.9	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.30	
Intersection Signal Delay: 10.6	Intersection LOS: B
Intersection Capacity Utilization 39.9%	ICU Level of Service A
Analysis Period (min) 15	

Splits and Phases: 3: AYERS RD & TRILIUM BLVD



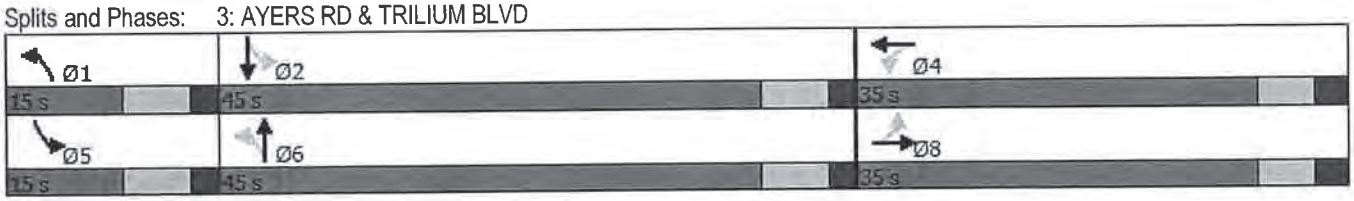
Timings
3: AYERS RD & TRILIUM BLVD

05/10/2023

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	6	17	40	7	20	35	485	78	38	728	78
Future Volume (vph)	33	6	17	40	7	20	35	485	78	38	728	78
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	24.6	24.6		24.6	24.6		11.8	24.8		11.8	24.8	
Total Split (s)	35.0	35.0		35.0	35.0		15.0	45.0		15.0	45.0	
Total Split (%)	36.8%	36.8%		36.8%	36.8%		15.8%	47.4%		15.8%	47.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.8	4.8		4.8	4.8	
All-Red Time (s)	2.6	2.6		2.6	2.6		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.6			6.6		6.8	6.8		6.8	6.8	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		17.2			17.2		31.2	32.6		32.8	35.2	
Actuated g/C Ratio		0.33			0.33		0.59	0.62		0.62	0.67	
v/c Ratio		0.13			0.16		0.08	0.29		0.07	0.38	
Control Delay		17.7			17.5		6.7	12.1		6.4	11.1	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		17.7			17.5		6.7	12.1		6.4	11.1	
LOS		B			B		A	B		A	B	
Approach Delay		17.7			17.5			11.8			10.9	
Approach LOS		B			B			B			B	

Intersection Summary	
Cycle Length: 95	
Actuated Cycle Length: 52.9	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.38	
Intersection Signal Delay: 11.7	Intersection LOS: B
Intersection Capacity Utilization 55.2%	ICU Level of Service B
Analysis Period (min) 15	

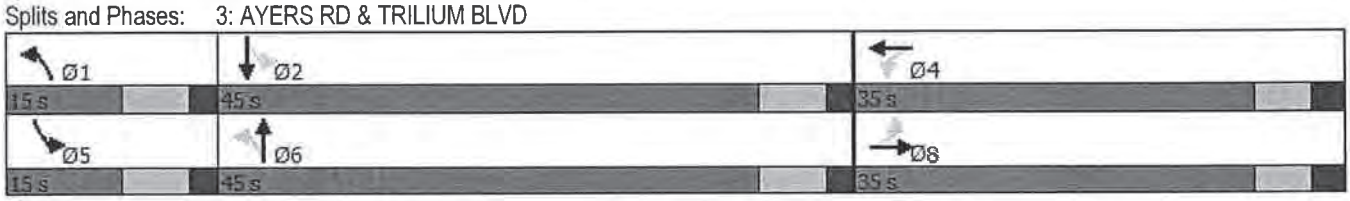
Splits and Phases: 3: AYERS RD & TRILIUM BLVD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	65	5	29	59	5	29	7	578	19	11	372	22
Future Volume (vph)	65	5	29	59	5	29	7	578	19	11	372	22
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	24.6	24.6		24.6	24.6		11.8	24.8		11.8	24.8	
Total Split (s)	35.0	35.0		35.0	35.0		15.0	45.0		15.0	45.0	
Total Split (%)	36.8%	36.8%		36.8%	36.8%		15.8%	47.4%		15.8%	47.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.8	4.8		4.8	4.8	
All-Red Time (s)	2.6	2.6		2.6	2.6		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.6			6.6		6.8	6.8		6.8	6.8	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		16.9			16.9		22.2	25.6		22.3	25.7	
Actuated g/C Ratio		0.40			0.40		0.53	0.61		0.53	0.61	
v/c Ratio		0.20			0.18		0.01	0.30		0.02	0.20	
Control Delay		12.8			12.4		8.0	10.6		8.1	9.8	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		12.8			12.4		8.0	10.6		8.1	9.8	
LOS		B			B		A	B		A	A	
Approach Delay		12.8			12.4			10.5			9.7	
Approach LOS		B			B			B			A	

Intersection Summary	
Cycle Length: 95	
Actuated Cycle Length: 42	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.30	
Intersection Signal Delay: 10.6	Intersection LOS: B
Intersection Capacity Utilization 40.2%	ICU Level of Service A
Analysis Period (min) 15	

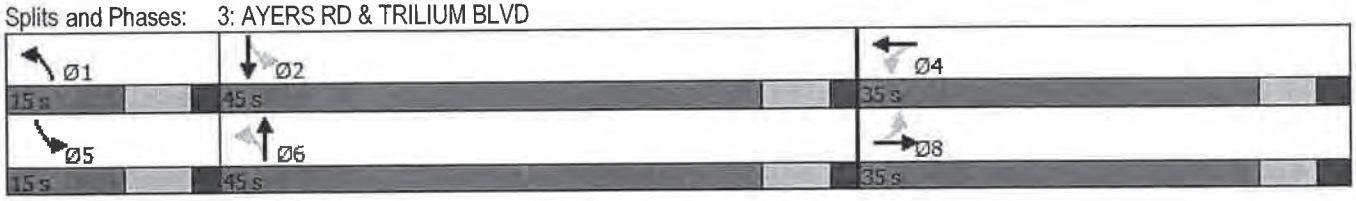
Splits and Phases: 3: AYERS RD & TRILIUM BLVD



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	33	6	17	40	7	20	35	494	78	38	743	78
Future Volume (vph)	33	6	17	40	7	20	35	494	78	38	743	78
Confl. Peds. (#/hr)												
Confl. Bikes (#/hr)												
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Growth Factor	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%
Heavy Vehicles (%)	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%	2%
Bus Blockages (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Parking (#/hr)												
Mid-Block Traffic (%)		0%			0%			0%			0%	
Shared Lane Traffic (%)												
Turn Type	Perm	NA		Perm	NA		pm+pt	NA		pm+pt	NA	
Protected Phases		8			4		1	6		5	2	
Permitted Phases	8			4			6			2		
Detector Phase	8	8		4	4		1	6		5	2	
Switch Phase												
Minimum Initial (s)	15.0	15.0		15.0	15.0		5.0	15.0		5.0	15.0	
Minimum Split (s)	24.6	24.6		24.6	24.6		11.8	24.8		11.8	24.8	
Total Split (s)	35.0	35.0		35.0	35.0		15.0	45.0		15.0	45.0	
Total Split (%)	36.8%	36.8%		36.8%	36.8%		15.8%	47.4%		15.8%	47.4%	
Yellow Time (s)	4.0	4.0		4.0	4.0		4.8	4.8		4.8	4.8	
All-Red Time (s)	2.6	2.6		2.6	2.6		2.0	2.0		2.0	2.0	
Lost Time Adjust (s)		0.0			0.0		0.0	0.0		0.0	0.0	
Total Lost Time (s)		6.6			6.6		6.8	6.8		6.8	6.8	
Lead/Lag							Lead	Lag		Lead	Lag	
Lead-Lag Optimize?							Yes	Yes		Yes	Yes	
Recall Mode	None	None		None	None		None	Min		None	Min	
Act Effct Green (s)		17.2			17.2		31.5	32.9		33.1	35.5	
Actuated g/C Ratio		0.32			0.32		0.59	0.62		0.62	0.67	
v/c Ratio		0.13			0.16		0.08	0.29		0.07	0.38	
Control Delay		17.8			17.7		6.7	12.1		6.4	11.1	
Queue Delay		0.0			0.0		0.0	0.0		0.0	0.0	
Total Delay		17.8			17.7		6.7	12.1		6.4	11.1	
LOS		B			B		A	B		A	B	
Approach Delay		17.8			17.7			11.8			10.9	
Approach LOS		B			B			B			B	

Intersection Summary	
Cycle Length: 95	
Actuated Cycle Length: 53.2	
Natural Cycle: 65	
Control Type: Actuated-Uncoordinated	
Maximum v/c Ratio: 0.38	
Intersection Signal Delay: 11.7	Intersection LOS: B
Intersection Capacity Utilization 55.2%	ICU Level of Service B
Analysis Period (min) 15	

Splits and Phases: 3: AYERS RD & TRILIUM BLVD



HCS7 Two-Way Stop-Control Report

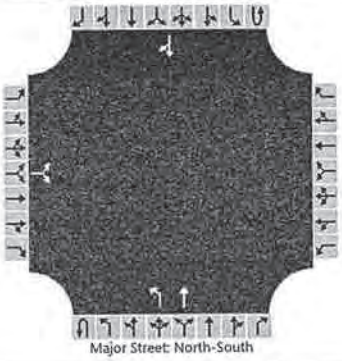
General Information

Analyst	KE
Agency/Co.	LINCKS & ASSOCIATES, INC.
Date Performed	5/11/2023
Analysis Year	2030
Time Analyzed	AM PEAK HOUR
Intersection Orientation	North-South
Project Description	BACKGROUND PLUS PROJECT TRAFFIC

Site Information

Intersection	TRILLIUM BLVD & ACCESS
Jurisdiction	
East/West Street	
North/South Street	
Peak Hour Factor	0.92
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	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		3		177						51	98				160	1
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)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			196							55						
Capacity, c (veh/h)			859							1395						
v/c Ratio			0.23							0.04						
95% Queue Length, Q_{95} (veh)			0.9							0.1						
Control Delay (s/veh)			10.4							7.7						
Level of Service (LOS)			B							A						
Approach Delay (s/veh)	10.4								2.6							
Approach LOS	B															

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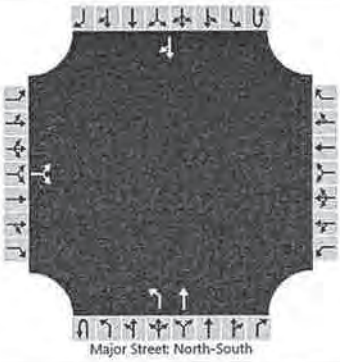
HCS7 Two-Way Stop-Control Report

General Information		Site Information	
Analyst	KE	Intersection	TRILLIUM BLVD & ACCESS
Agency/Co.	LINCKS & ASSOCIATES, INC.	Jurisdiction	
Date Performed	5/11/2023	East/West Street	
Analysis Year	2030	North/South Street	
Time Analyzed	PM PEAK HOUR	Peak Hour Factor	0.92
Intersection Orientation	North-South	Analysis Time Period (hrs)	0.25
Project Description	BACKGROUND PLUS PROJECT TRAFFIC		

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	0	0	0	1	1	0	0	0	1	0
Configuration			LR							L	T					TR
Volume (veh/h)		2		98						156	217				158	3
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)		7.1		6.2						4.1						
Critical Headway (sec)		6.43		6.23						4.13						
Base Follow-Up Headway (sec)		3.5		3.3						2.2						
Follow-Up Headway (sec)		3.53		3.33						2.23						

Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			109							170						
Capacity, c (veh/h)			840							1395						
v/c Ratio			0.13							0.12						
95% Queue Length, Q_{95} (veh)			0.4							0.4						
Control Delay (s/veh)			9.9							7.9						
Level of Service (LOS)			A							A						
Approach Delay (s/veh)	9.9								3.3							
Approach LOS	A															

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TURN LANE WARRANTS

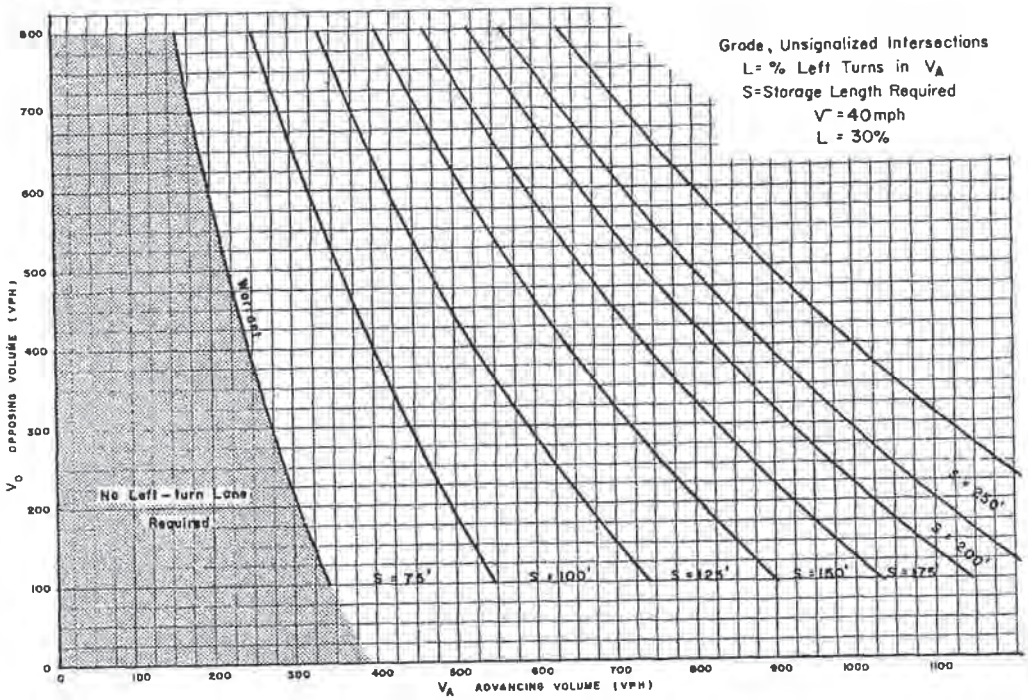


Figure 6. Warrant for left-turn storage lanes on two-lane highways.

$\frac{V_L}{V_A} = 49\%$

Speed = 35 MPH

PM

$V_A = 317$

$V_O = 260$

Warranted

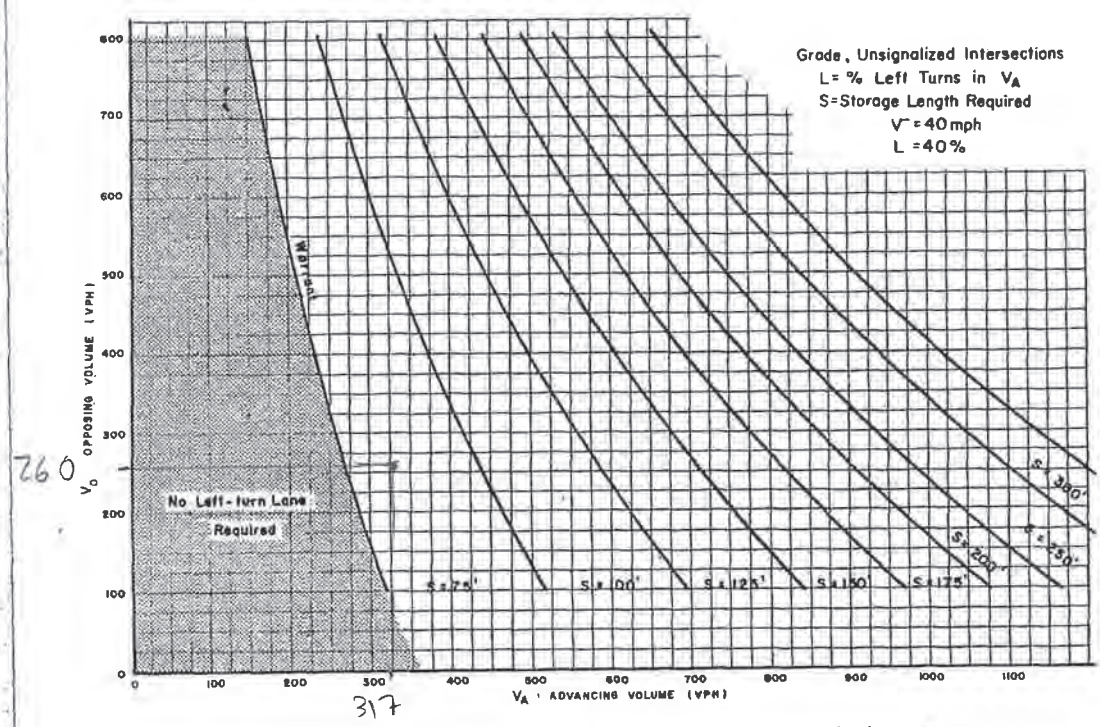
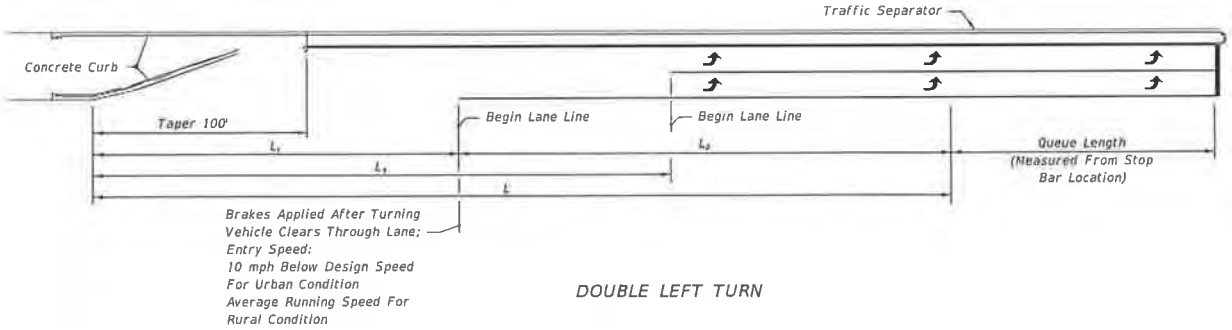


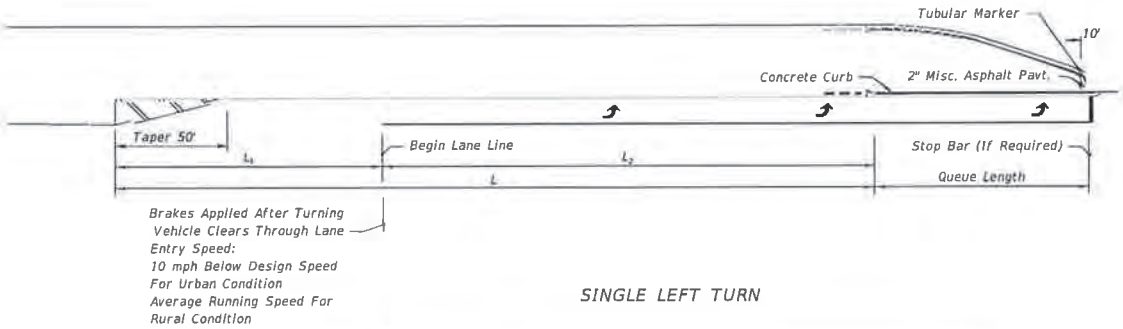
Figure 7. Warrant for left-turn storage lanes on two-lane highways.

FDOT DESIGN MANUAL
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
01/01/2023