



**SAN JOSE BOULEVARD 76 STORE
TRAFFIC STUDY**

DUVAL COUNTY, FLORIDA

May 2021

BUCKHOLZ TRAFFIC



**BUCKHOLZ TRAFFIC
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JACKSONVILLE, FLORIDA 32257
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May 20, 2021

Mr. Jared Richardson, P.E.
Neikirk Engineering, LLC
306 North Market Street / Suite 101
Mt. Carmel, Illinois 62863

Re: Revised SR 76 Store Traffic Study; Jacksonville, Florida

Dear Mr. Richardson:

Attached is the revised traffic study which now includes a recommendations section. If you or FDOT have any questions or comments regarding this study, please contact me.

Sincerely,

Jeffrey W. Buckholz, P.E., PTOE
Principal

This item has been digitally signed and sealed by Jeffrey W. Buckholz, P.E. on 5/20/21. Printed copies of this document are not considered signed and sealed and the signature must be verified on any electronic copies.

INTRODUCTION

This commercial development consists of a 4800 gsf convenience store with 20 fueling stations and a car wash along with an integrated 2300 sf fast-food restaurant with drive-thru window. The development will be located in the southwest quadrant of the San Jose Boulevard/Ricky Drive intersection in Jacksonville, Florida and will replace the currently vacant Golden Corral restaurant. Access to the site will be provided via a proposed left-in-right-in-right-out only driveway on San Jose Boulevard and an internal connection to the adjacent Publix parking lot which will provide access to Mandarin Road and to Ricky Drive.

In the vicinity of the site, San Jose Boulevard (SR 13) is a six lane divided urban minor arterial with exclusive left turn lanes accommodated within a raised median. It has a posted speed limit of 45 mph in each direction and an FDOT access management classification of 5. Mandarin Road is a two lane undivided local road with a posted speed limit of 30 mph. Figure 1 shows the site location and surrounding road network while the proposed site plan for the development is provided in Appendix A.

The development is expected to be complete and fully operational in 2021, therefore 2021 was chosen as the design year for this study.

EXISTING TRAFFIC VOLUMES

During early February of 2019, FDOT conducted pre-virus weekday AM peak period and weekday PM peak period turning movement counts at the San Jose Boulevard/Mandarin Road intersection and at the San Jose Boulevard/Ricky Drive intersection. Buckholz Traffic supplemented these counts with fall of 2020 mid-virus turning movement counts at the Mandarin Road/Publix Driveway intersection and at the San Jose Boulevard/Credit Union/Future Site Drive intersection. Peak hour count results are summarized in Figures 2 through 5 with the supporting count data provided in Appendix B.

A comparison of the pre-virus and mid-virus counts indicates little difference during both the weekday AM and PM peak hours on Mandarin Road (see Figure 4) but a large difference during the weekday AM peak hour on San Jose Boulevard (see Figure 5). Consequently, 2019 counts were used as the basis for subsequent analysis along San Jose Boulevard while 2020 counts were used along Mandarin Road.

Appendix C provides daily traffic volumes from the FDOT annual traffic counting program for a station near the site. The current Average Daily Traffic (ADT) on the portion of San Jose Boulevard in the vicinity of the site is about 62,000 vehicles per day and daily traffic has been growing at an average annual rate of 1.9% over the past five years.

TRIP GENERATION OF SITE TRAFFIC

Trip generation calculations were carried out using the 10th edition of ITE's Trip Generation Manual and referencing land use code 945 (Gasoline/Service Station with Convenience Market) and land use code 934 (Fast Food Restaurant with Drive-Thru Window). Tables 1 and 2 contain the daily, AM peak hour, and PM peak hour trip generation calculations. During an average weekday the development is expected to generate 5292 total trips (2646 entering and 2646 exiting) with 376 total trips (192 entering and 184 exiting) occurring during the AM peak hour and 355 total trips (182 entering and 173 exiting) occurring during the PM peak hour. Approximately 60% of the trips are expected to be pass-by trips. However, since the primary goal of this study is to analyze the access situation for the planned development, we are interested in total driveway volumes and thus no adjustment has been made for pass-by capture. This results in site traffic volumes at the San Jose Boulevard/Mandarin Road intersection and the San Jose Boulevard/Ricky Drive intersection that are conservatively high.

DISTRIBUTION AND ASSIGNMENT OF SITE TRAFFIC

Peak hour trips were directionally distributed based on the results of a 2025 ABM NERPM model run. A new zonal centroid was added to the 2025 model at the location of the site. Centroid connectors were installed to both San Jose Boulevard and Mandarin Road and the new zone was loaded with 200 commercial employees. 2021 socio-economic data was used in the model run. The weekday AM peak period and PM peak period model results are provided in Appendix D with the corresponding model trip distribution percentages summarized in Figures 6 and 7. Multiplying these trip distribution percentages by the corresponding peak hour total trip generation produces the site traffic assignments shown in Figures 8 and 9.

FUTURE TRAFFIC VOLUMES

The expected weekday AM and PM peak hour No Build traffic volumes and Build traffic volumes at intersections of interest in the study area are graphically depicted in Figures 10 through 13. The 2021 No Build traffic volumes were obtained by multiplying either the 2019 or 2020 traffic counts by the appropriate Florida Department of Transportation (FDOT) seasonal adjustment factor and then by the corresponding annual growth rate (1.9%). The 2021 Build traffic volumes were then obtained by adding the traffic generated by the new development to the 2021 No Build traffic volumes.

TURN LANE ANALYSIS

A formal analysis was made to determine if a right turn lane is warranted at the Site Drive on SR 13 or at the Publix driveway on Mandarin Road. The methodology contained in NCHRP Report 279 was used to conduct this analysis. As is indicated in Figures 14 and 15, expected 2021 Build right turn volumes on Mandarin Road will not be high enough to warrant an exclusive right turn lane. However, expected future traffic volumes will be high enough on San Jose Boulevard. These results are supported by NCHRP Report 420.

Using the 2021 Build traffic volumes a formal analysis was also made to determine if a left turn lane is warranted on Mandarin Road at the Publix driveway. The methodology contained in a paper written by M.D. Harmelink entitled: "Volume Warrants for Left Turn Storage Lanes at Unsignalized Grade Intersections" was used to conduct this evaluation. The results indicate that expected traffic volumes on Mandarin Road will not be high enough to warrant a left turn lane at the site drive. The supporting analysis is provided in Figures 16 and 17.

SIGNALIZED INTERSECTION CAPACITY ANALYSIS

2021 Build weekday AM and PM peak hour signalized intersection capacity analyses were performed for the San Jose Boulevard/Mandarin Road and the San Jose Boulevard/Ricky Drive intersections using the operational methodology discussed in Chapter 19 of the Sixth Edition of the Highway Capacity Manual. Intersection layouts are provided in Figure 18 and the existing signal timings for the coordinated signalized intersections are provided in Appendix E. The intersection capacity results are summarized in Table 3 while Appendix F provides the supporting capacity analysis calculations. Both intersections are expected to operate at level of service B or better during weekday peak hours under 2021 Build conditions.

UNSIGNALIZED INTERSECTION CAPACITY ANALYSIS

2021 Build weekday AM and PM peak hour intersection capacity analyses were performed for the unsignalized San Jose Boulevard/Site Driveway intersection and the unsignalized Mandarin Road/Publix Driveway intersection using the two-way stop control methodology contained in Chapter 20 of the Sixth Edition of the Highway Capacity Manual. Appendix G contains the capacity analysis calculations with the capacity results summarized in Table 4. A review of Table 4 indicates that all minor movements at the Mandarin Road/Publix Driveway intersection are expected to operate at level of service B or better with minimal queueing and delay. A review of Table 4 also indicates that all minor movements at the SR 13/ Site Driveway intersection are expected to operate at level of service D or better ó with one exception. The southbound left turn movement is expected to operate at level of service F during the weekday PM peak hour. However all minor movements, including this southbound left turn, will experience minimal queuing and a volume-to-capacity ratio of well less than one.

ACCESS MANAGEMENT EVALUATION

The full median openings located along San Jose Boulevard to the south of Ricky Drive violate FDOT's 1320-foot access management spacing guidelines. Converting the existing full median opening at the Site Drive to a dual directional median opening will improve the access management situation along San Jose Boulevard.

RECOMMENDED IMPROVEMENTS

The following traffic-related improvements are recommended. No attempt is made to determine what portion of the cost of these improvements should be paid by the site developer.

- 1.) The full median opening on San Jose Boulevard at the site drive should be converted to a dual-directional median opening.
- 2.) I would encourage the developer to provide internal access between this new development and the adjacent U-Haul facility to the south so that vehicles entering U-Haul from the south can reach the facility by making a left turn instead of a U-turn.
- 3.) Because of its proximity to the over-capacity San Jose Boulevard/Mandarin Road intersection, and considering the potential safety benefits, an exclusive left turn lane should be installed on Mandarin Road at the Publix driveway. I would also improve the side drive at this location to provide two egress lanes in order to expedite traffic operations.
- 4.) Even though the right turn lane warrant is met on San Jose Boulevard at the site drive I would not install this lane. San Jose Boulevard is six lanes wide along this corridor and the outermost lane can accommodate the traffic stream friction caused by right turns. There are no other exclusive right turn lanes in the area, even at signalized intersections.



(S) = EXISTING TRAFFIC SIGNAL

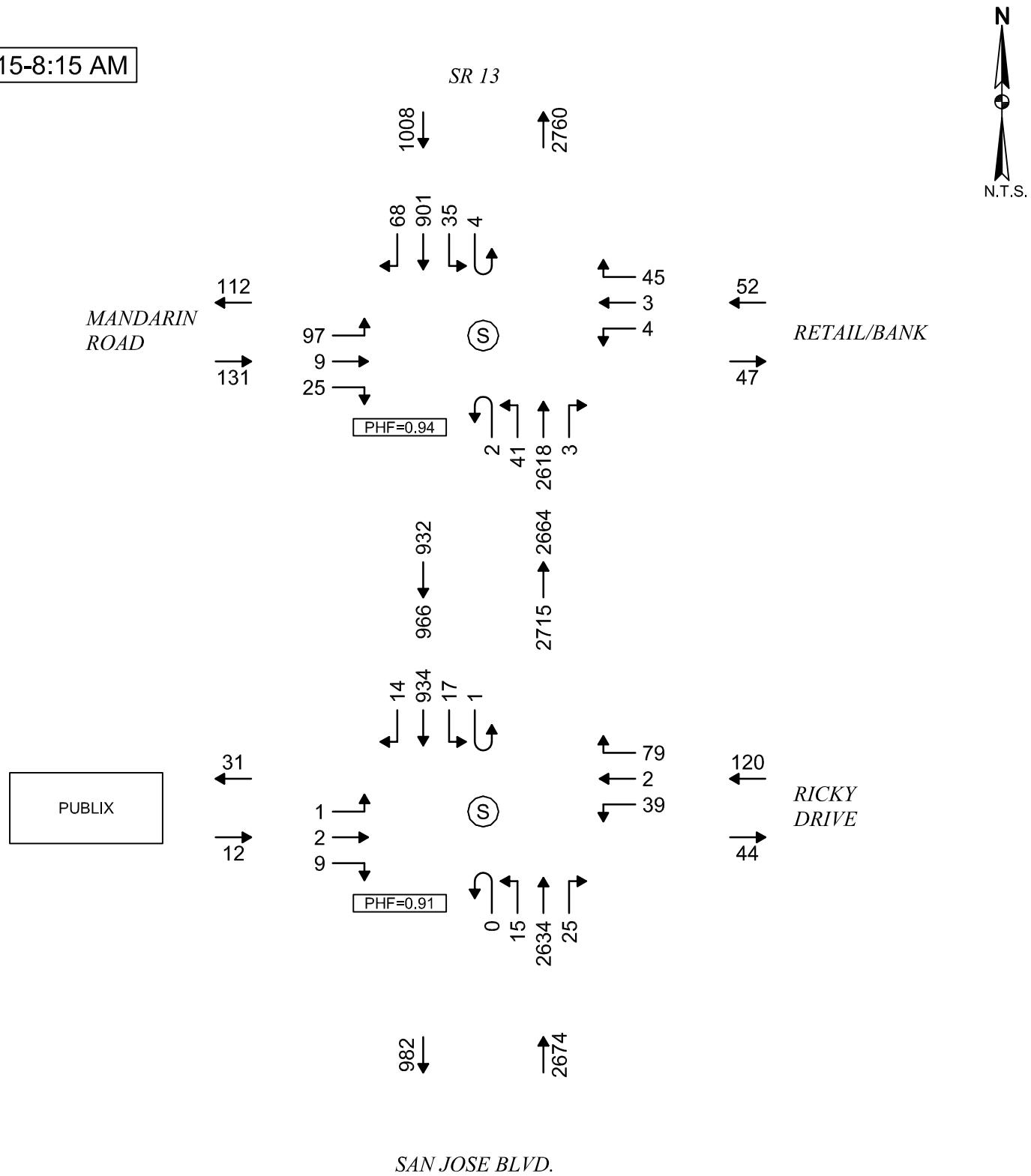
FIGURE 1

SITE LOCATION

Buckholz Traffic



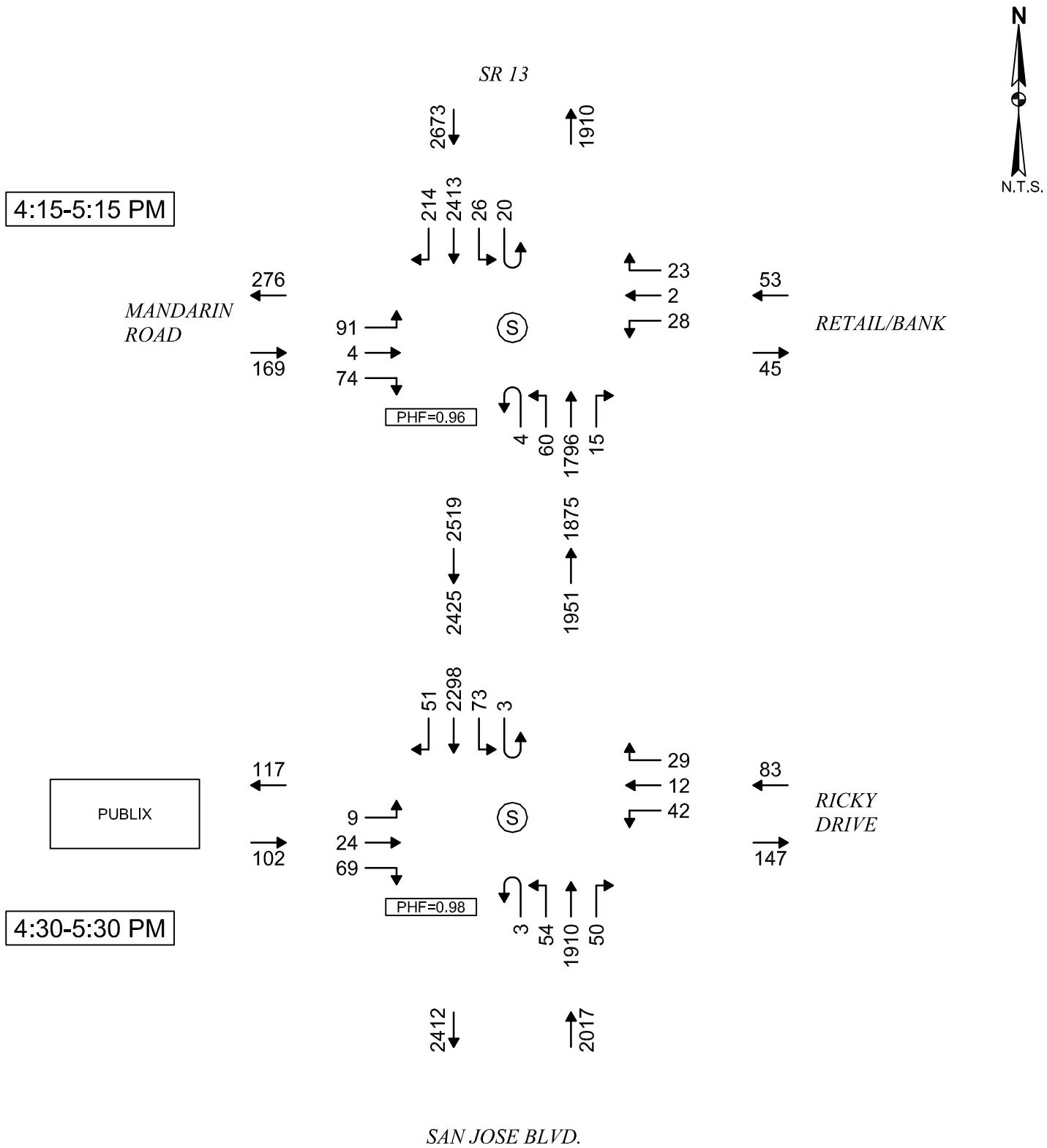
7:15-8:15 AM



Buckholz Traffic

FIGURE 2
2019 TRAFFIC COUNTS
WEEKDAY AM PEAK HOUR



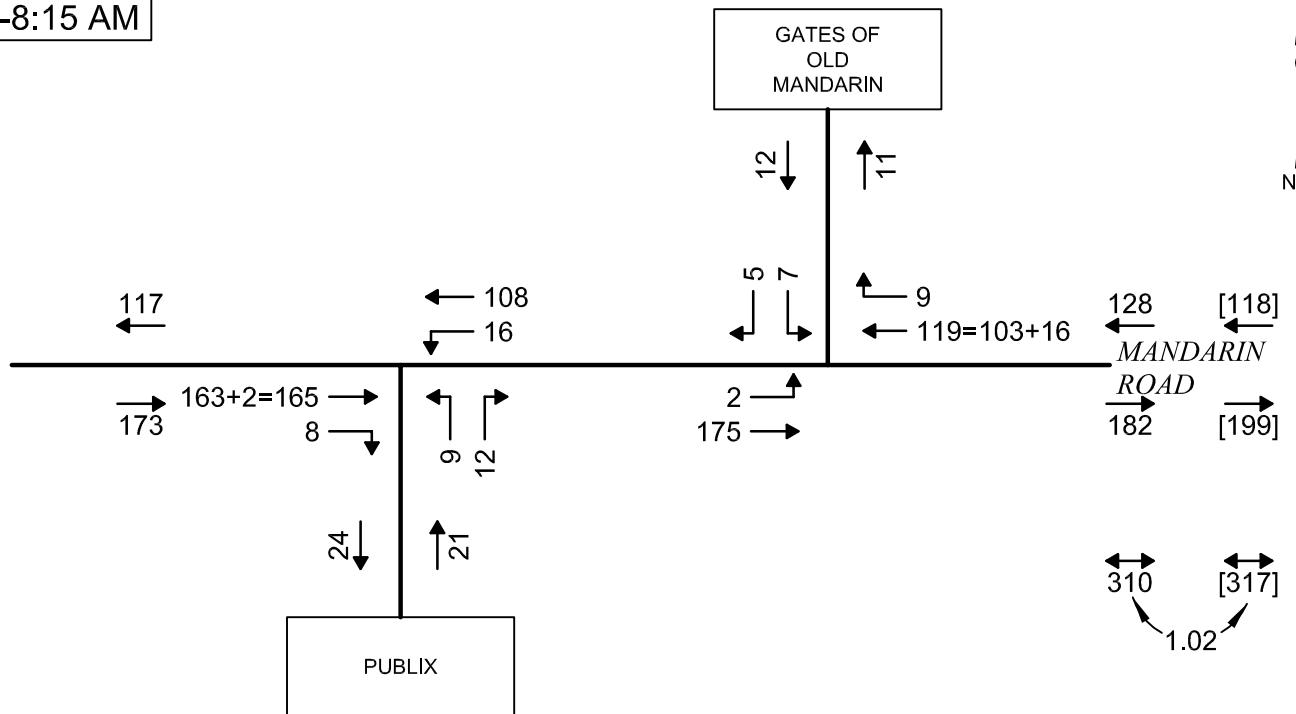


Buckholz Traffic

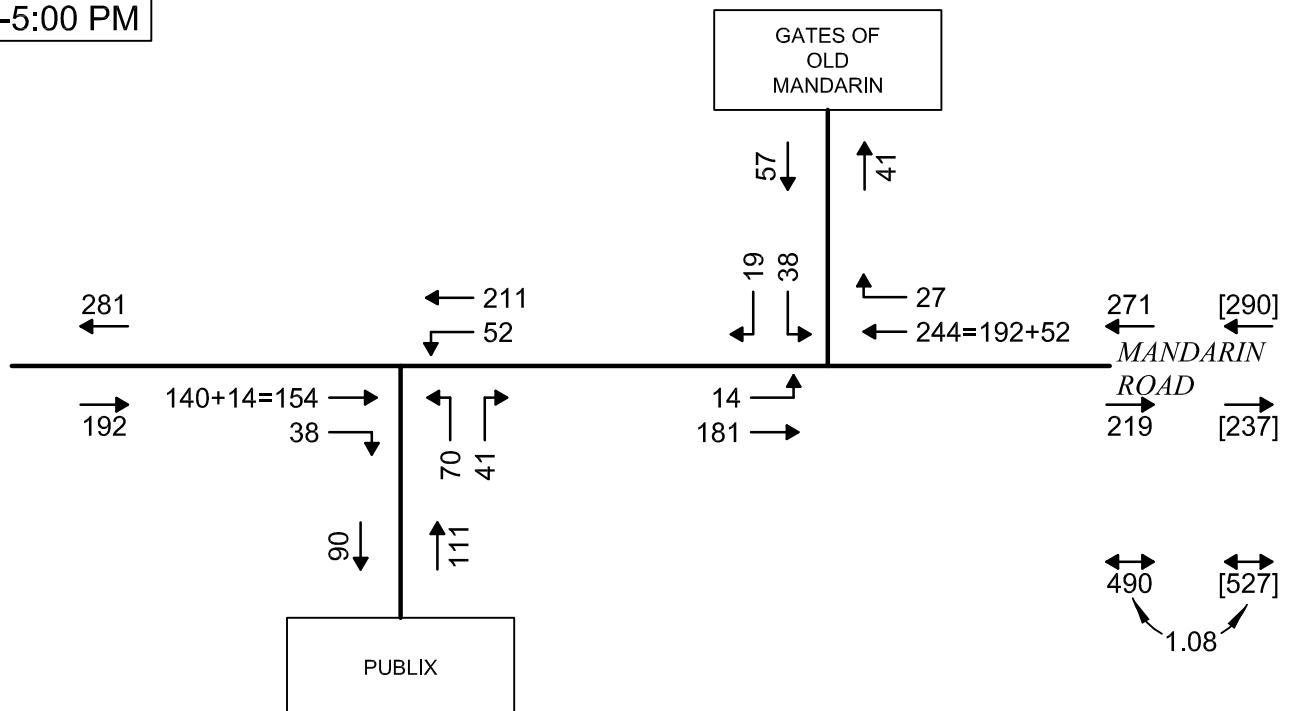
FIGURE 3
2019 TRAFFIC COUNTS
WEEKDAY PM PEAK HOUR



7:15-8:15 AM



4:00-5:00 PM



[XXX] = 2019 COUNTS

Buckholz Traffic

FIGURE 4

2020 TRAFFIC
COUNTS

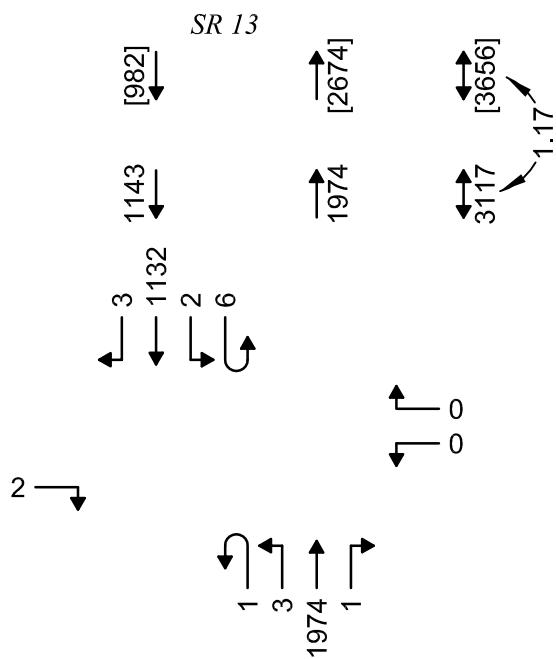
WEEKDAY PEAK HOURS



7:15-8:15 AM

*U-HAUL
DRIVEWAY*

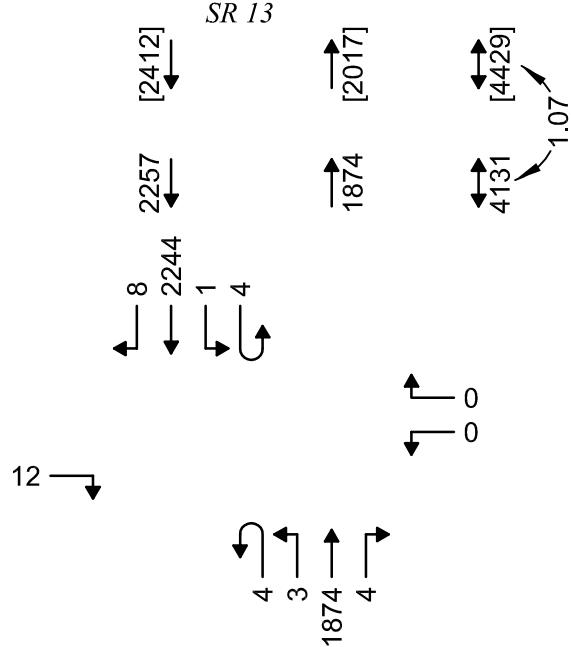
SR 13



3:45-4:45 PM

*U-HAUL
DRIVEWAY*

SR 13



*CREDIT UNION
DRIVEWAY*

[XXX] = 2019 COUNTS

Buckholz Traffic

FIGURE 5

2020 TRAFFIC
COUNTS

WEEKDAY PEAK HOURS



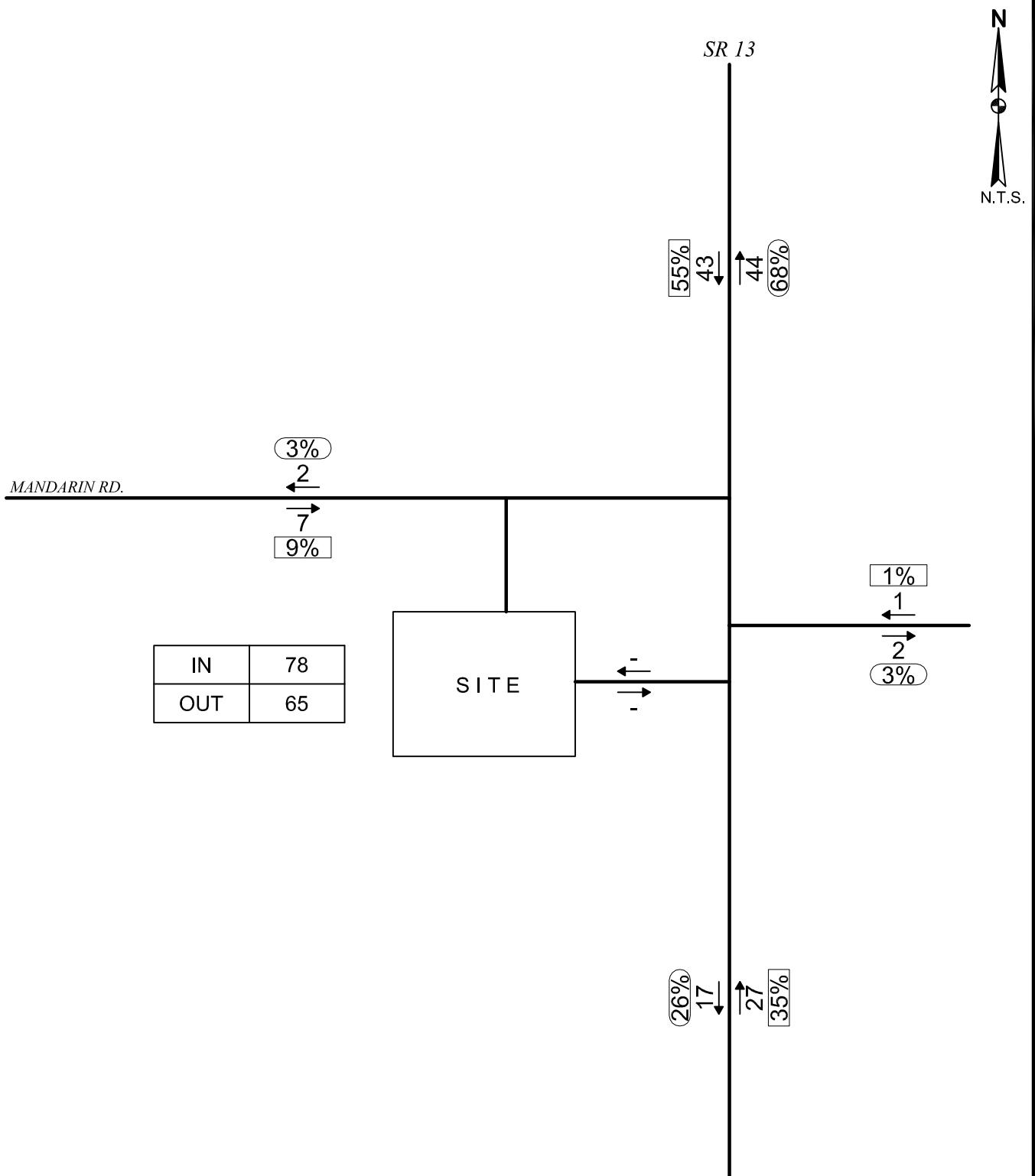


FIGURE 6

ABM NERPM
RESULTS

WEEKDAY AM PEAK PERIOD



Buckholz Traffic

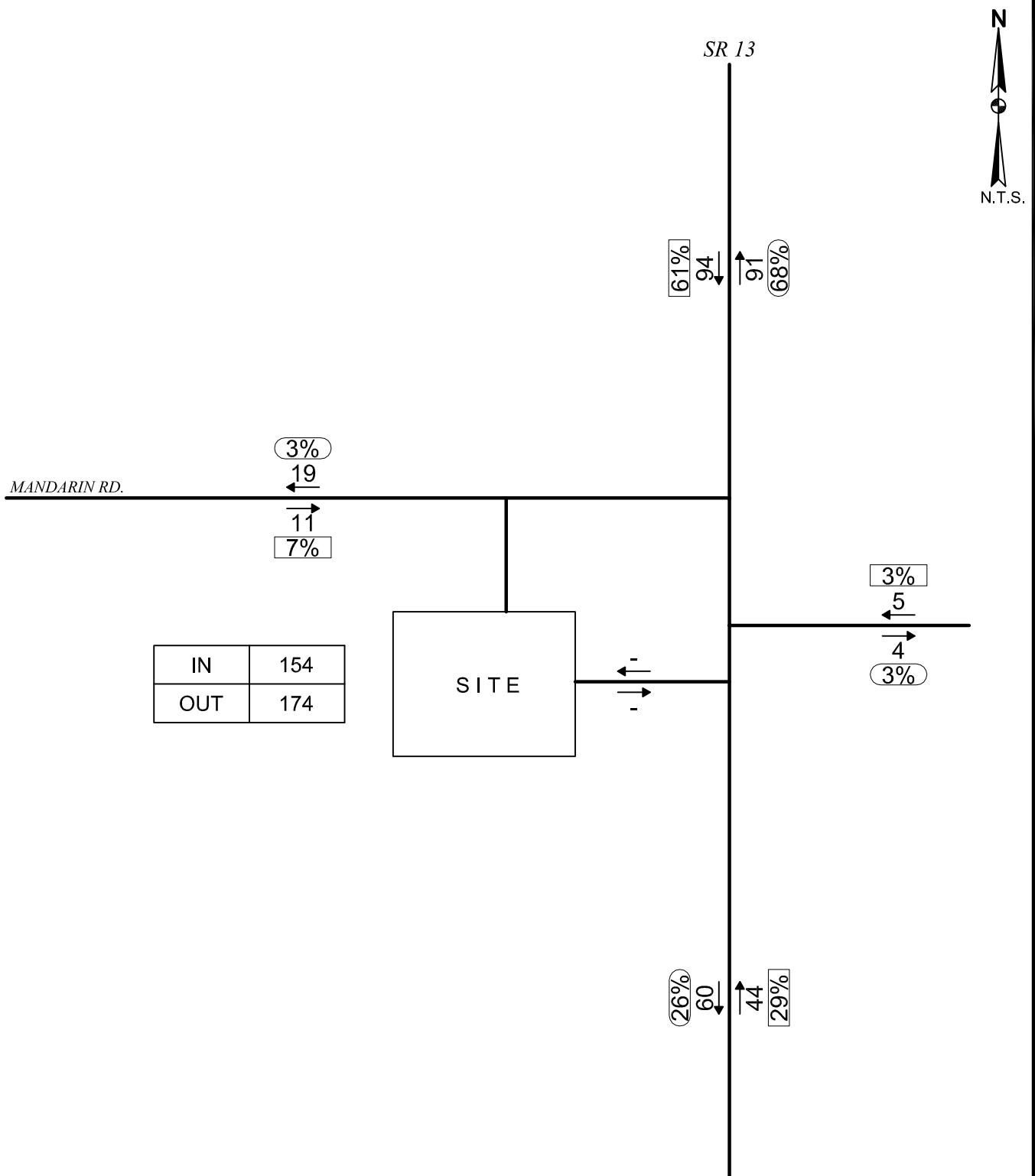


FIGURE 7

ABM NERPM
RESULTS

WEEKDAY PM PEAK PERIOD



Buckholz Traffic

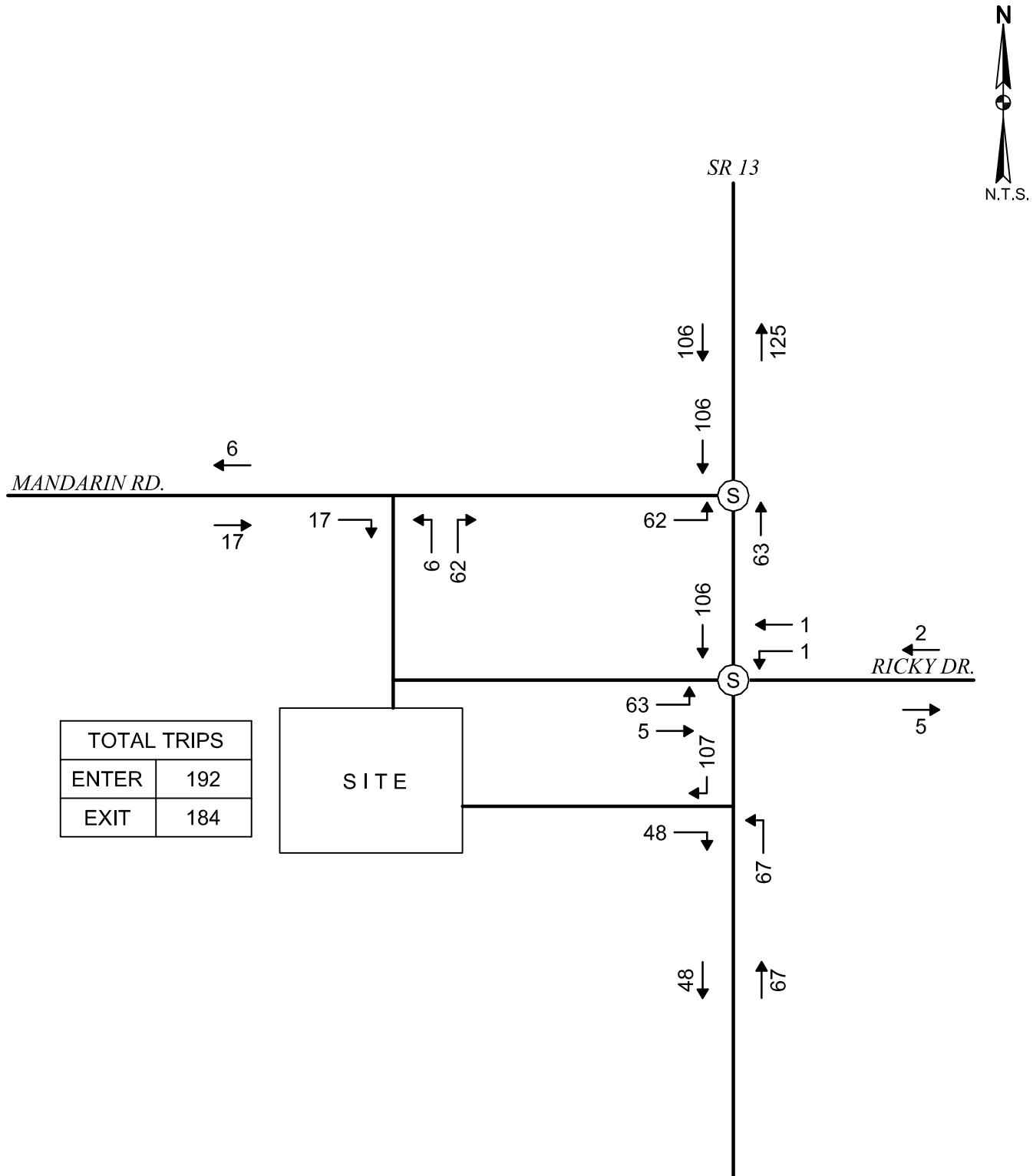


FIGURE 8

SITE TRAFFIC
ASSIGNMENT

WEEKDAY AM PEAK HOUR



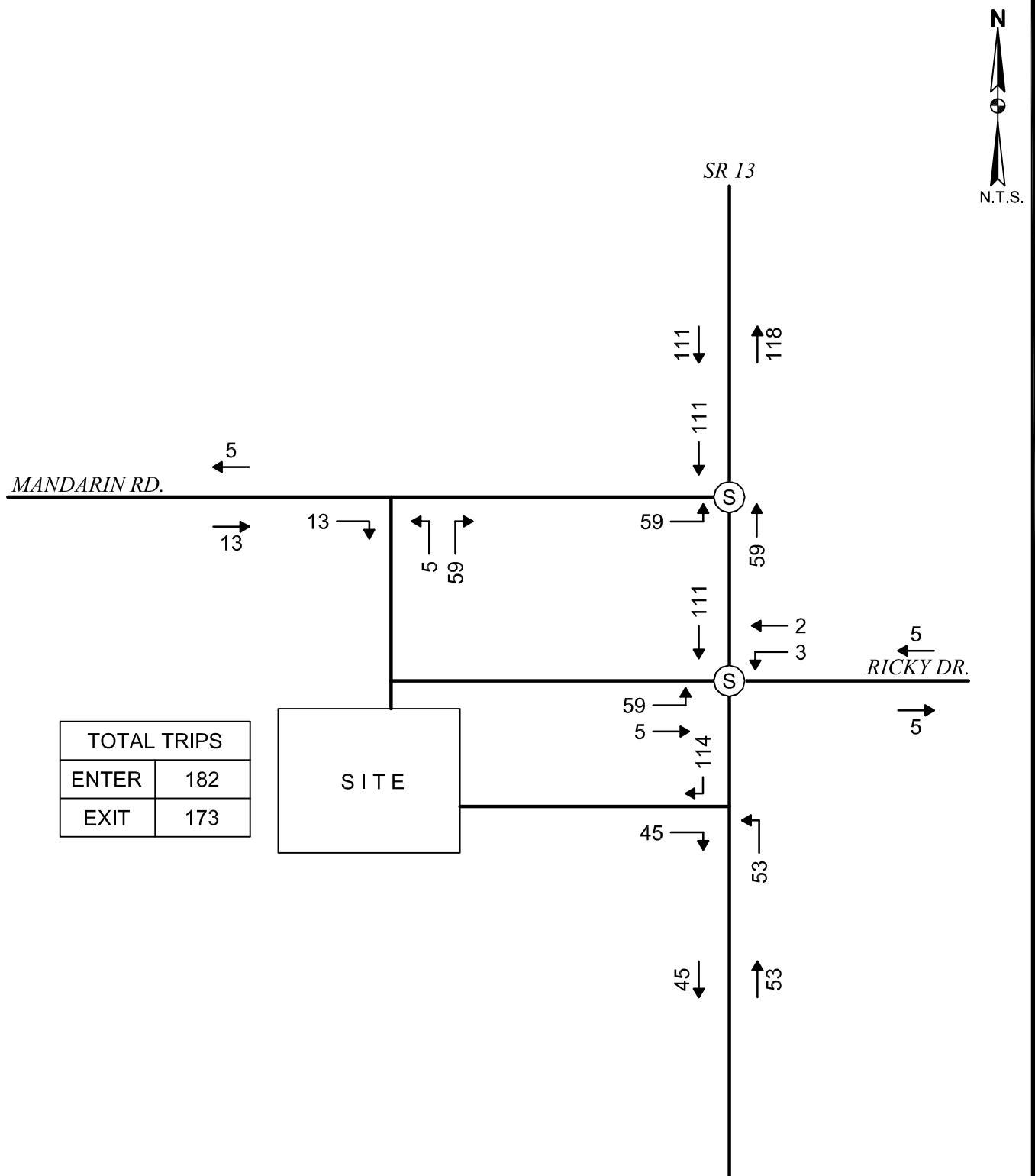
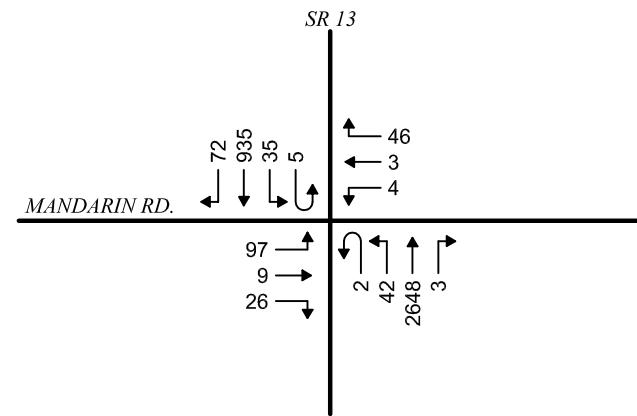


FIGURE 9

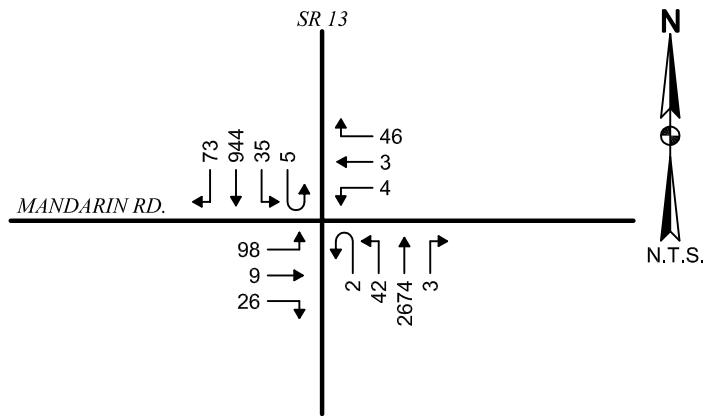
SITE TRAFFIC
ASSIGNMENT

WEEKDAY PM PEAK HOUR

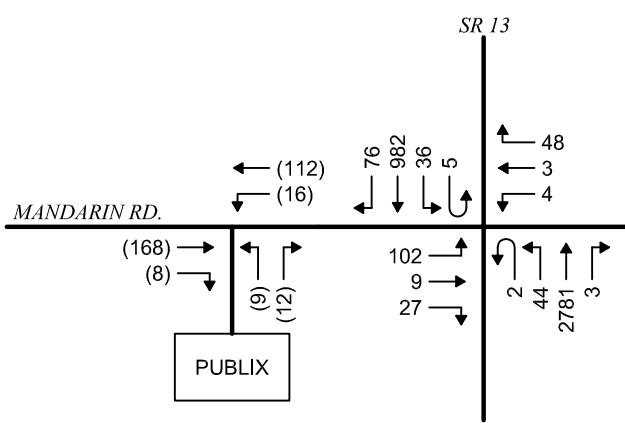




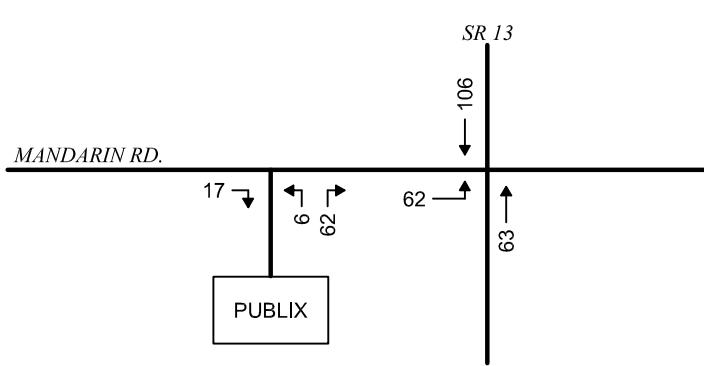
EXISTING TRAFFIC
02/07/19
7:15-8:15 AM



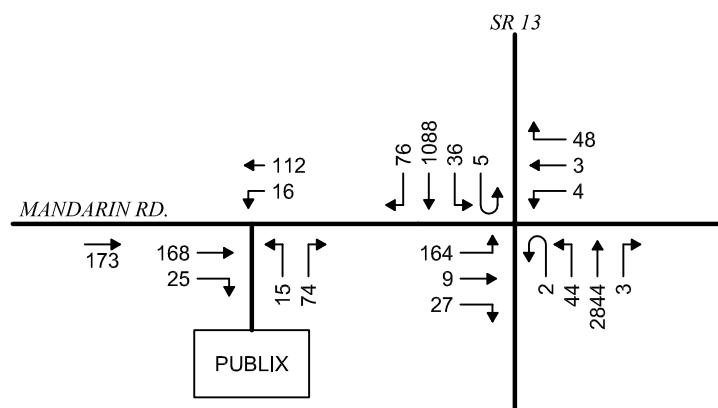
2019 SEASONALLY ADJUSTED TRAFFIC
FDOT SEASONAL CORRECTION FACTOR = 1.01



2021 NO BUILD TRAFFIC
AVERAGE ANNUAL GROWTH RATE = 1.9% (GF=1.04)



SITE TRAFFIC



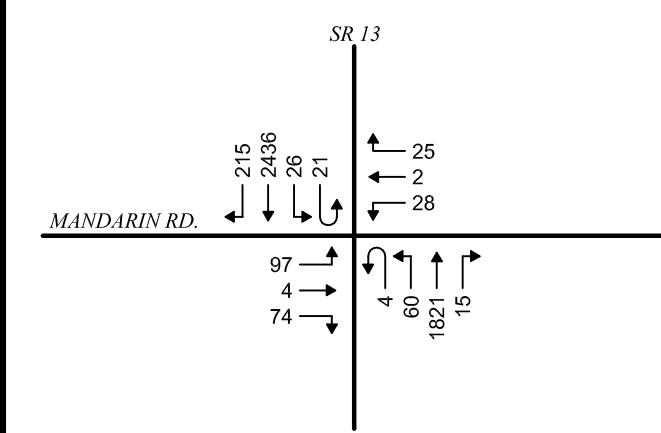
2021 BUILD TRAFFIC

(XX) = 2020 COUNTS x 1.00 x 1.019

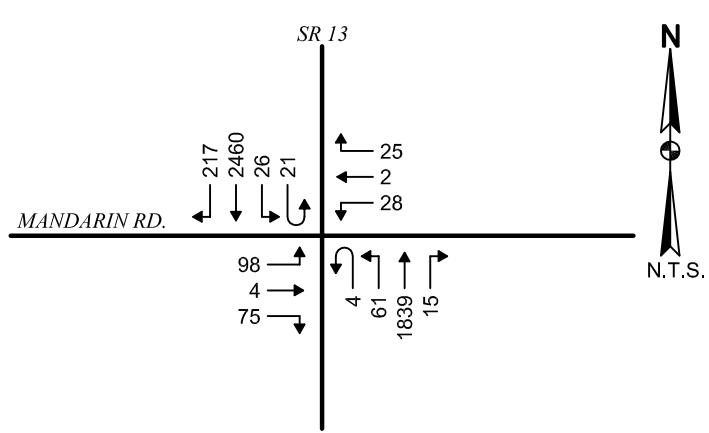
Buckholz Traffic

FIGURE 10
2021 BUILD TRAFFIC
SR 13 / MANDARIN ROAD
WEEKDAY AM PEAK HOUR

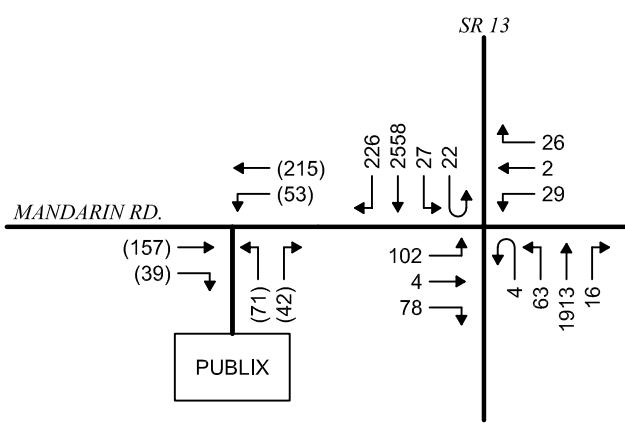




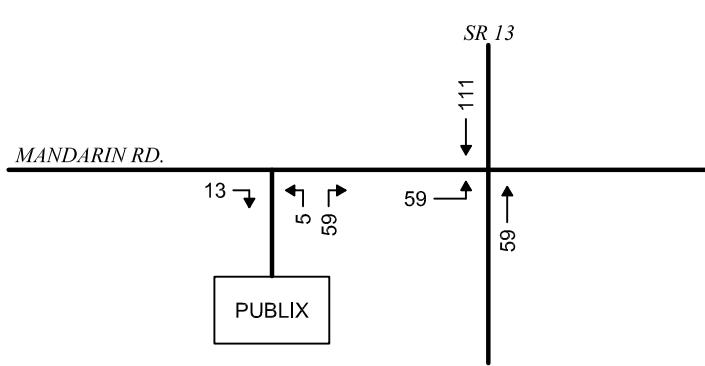
EXISTING TRAFFIC
02/07/19
4:15-5:15 PM



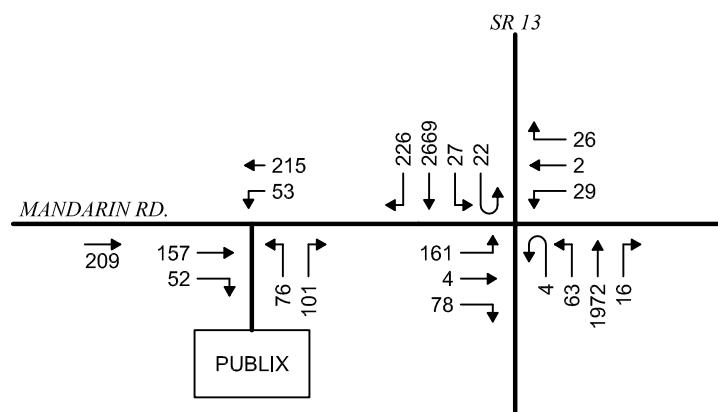
2019 SEASONALLY ADJUSTED TRAFFIC
FDOT SEASONAL CORRECTION FACTOR = 1.01



2021 NO BUILD TRAFFIC
AVERAGE ANNUAL GROWTH RATE = 1.9% (GF=1.04)



SITE TRAFFIC



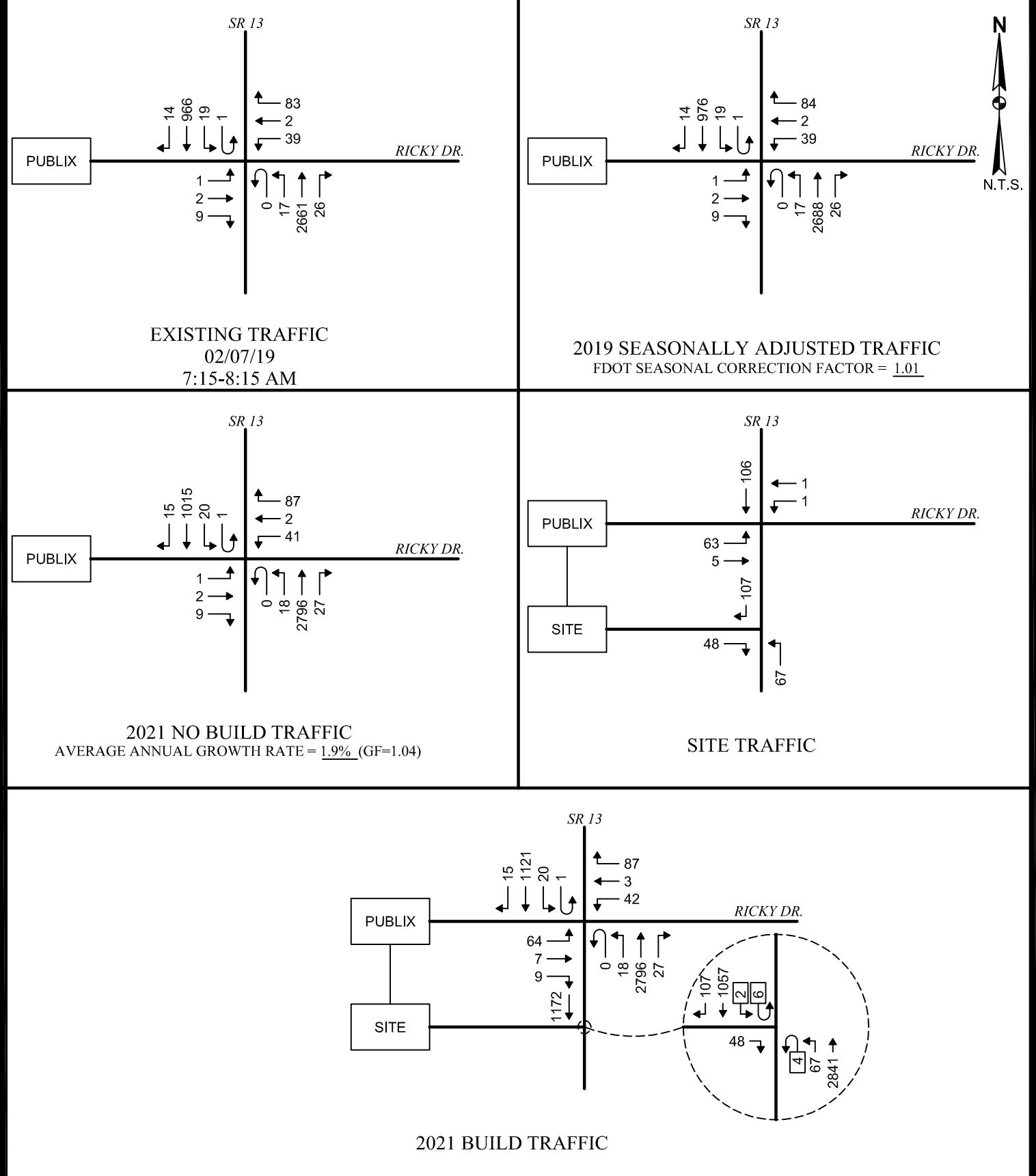
2021 BUILD TRAFFIC

(XX) = 2020 COUNTS x 1.00 x 1.019

Buckholz Traffic

FIGURE 11
2021 BUILD TRAFFIC
SR 13 / MANDARIN ROAD
WEEKDAY PM PEAK HOUR





= FROM 2020 COUNTS

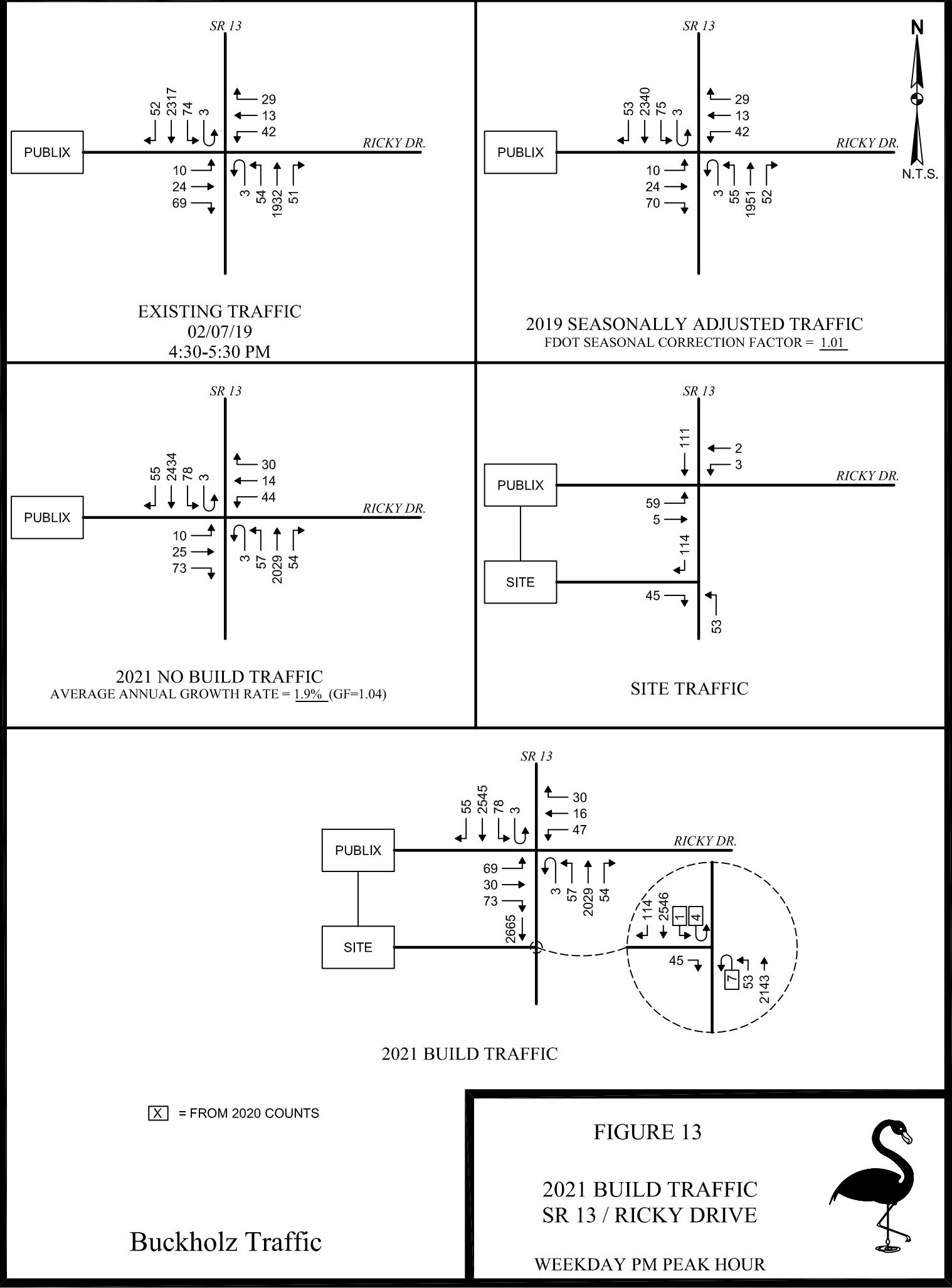
FIGURE 12

2021 BUILD TRAFFIC
SR 13 / RICKY DRIVE

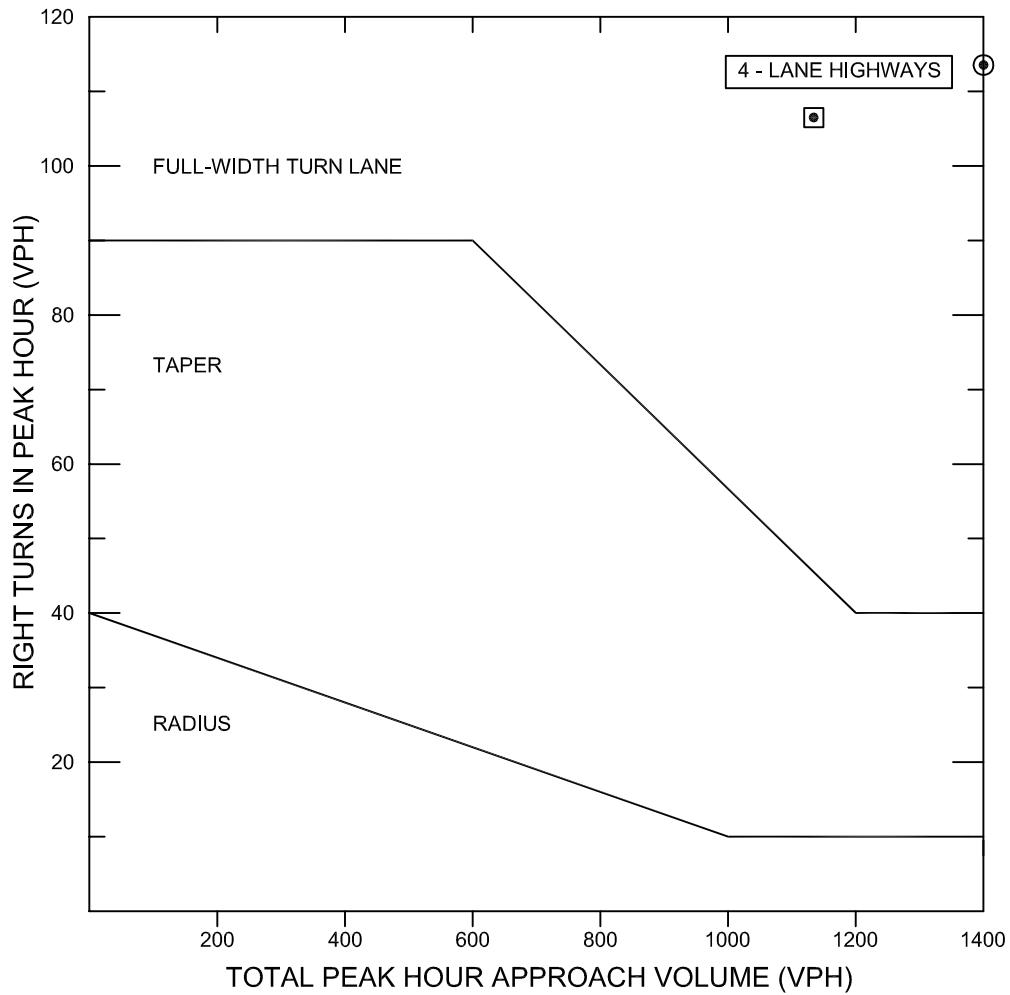
WEEKDAY AM PEAK HOUR

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SR 13 @ SITE DRIVE



NOMOGRAPH FOR RIGHT TURN LANES

SOURCE: TRANSPORTATION RESEARCH BOARD NCHRP REPORT #279

AM PEAK HOUR

V _A	1138
V _R	107

PM PEAK HOUR

V _A	2648
V _R	114

NCHRP 420	
MULTI-LANE	≤ 45 MPH

114 > 110 REQUIRED

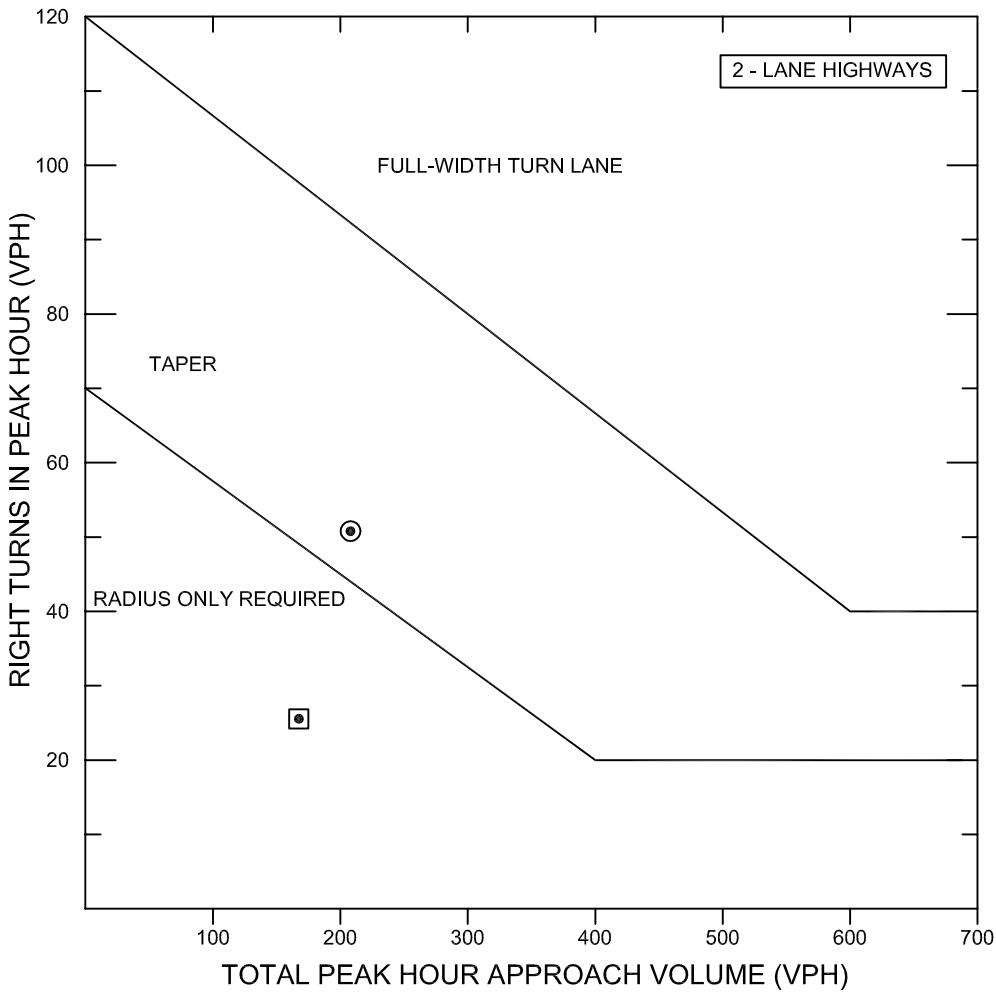
FIGURE 14

RIGHT TURN LANE
ANALYSIS

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MANDARIN ROAD @ PUBLIX DRIVEWAY



NOMOGRAPH FOR RIGHT TURN LANES

SOURCE: TRANSPORTATION RESEARCH BOARD NCHRP REPORT #279

AM PEAK HOUR

V _A	173
V _R	25

PM PEAK HOUR

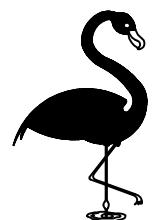
V _A	209
V _R	52

NCHRP 420	
2 LANE	≤ 45 MPH

25 & 52 < 80 REQUIRED

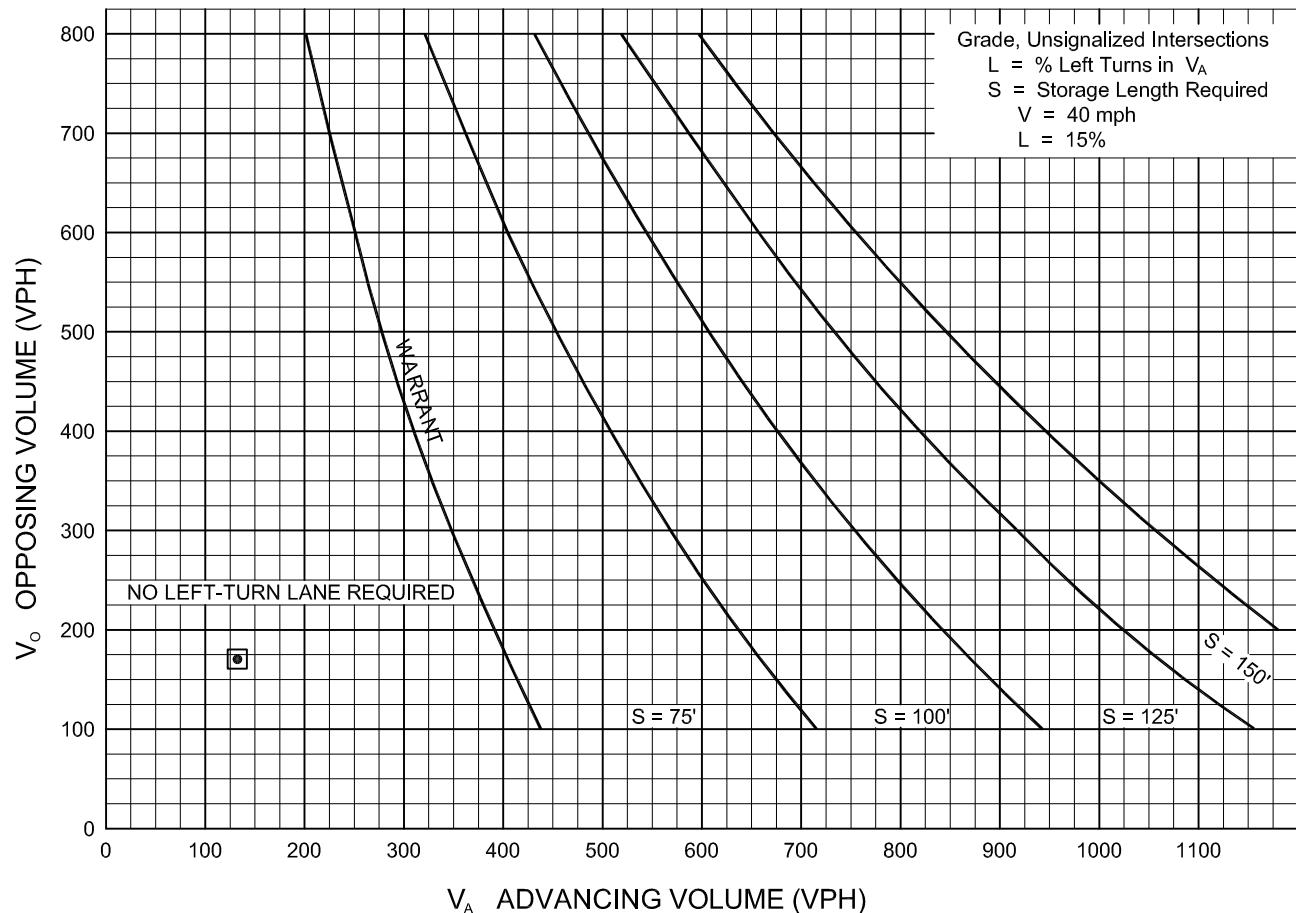
FIGURE 15

RIGHT TURN
LANE ANALYSIS]



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MANDARIN ROAD @ PUBLIX DRIVEWAY



WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAYS

AM PEAK HOUR

$V_A = 128$
$V_o = 173$
$V_L = 16$
$\%LT = \frac{V_L}{V_A} = \frac{16}{128} = 13\%$

FIGURE 16

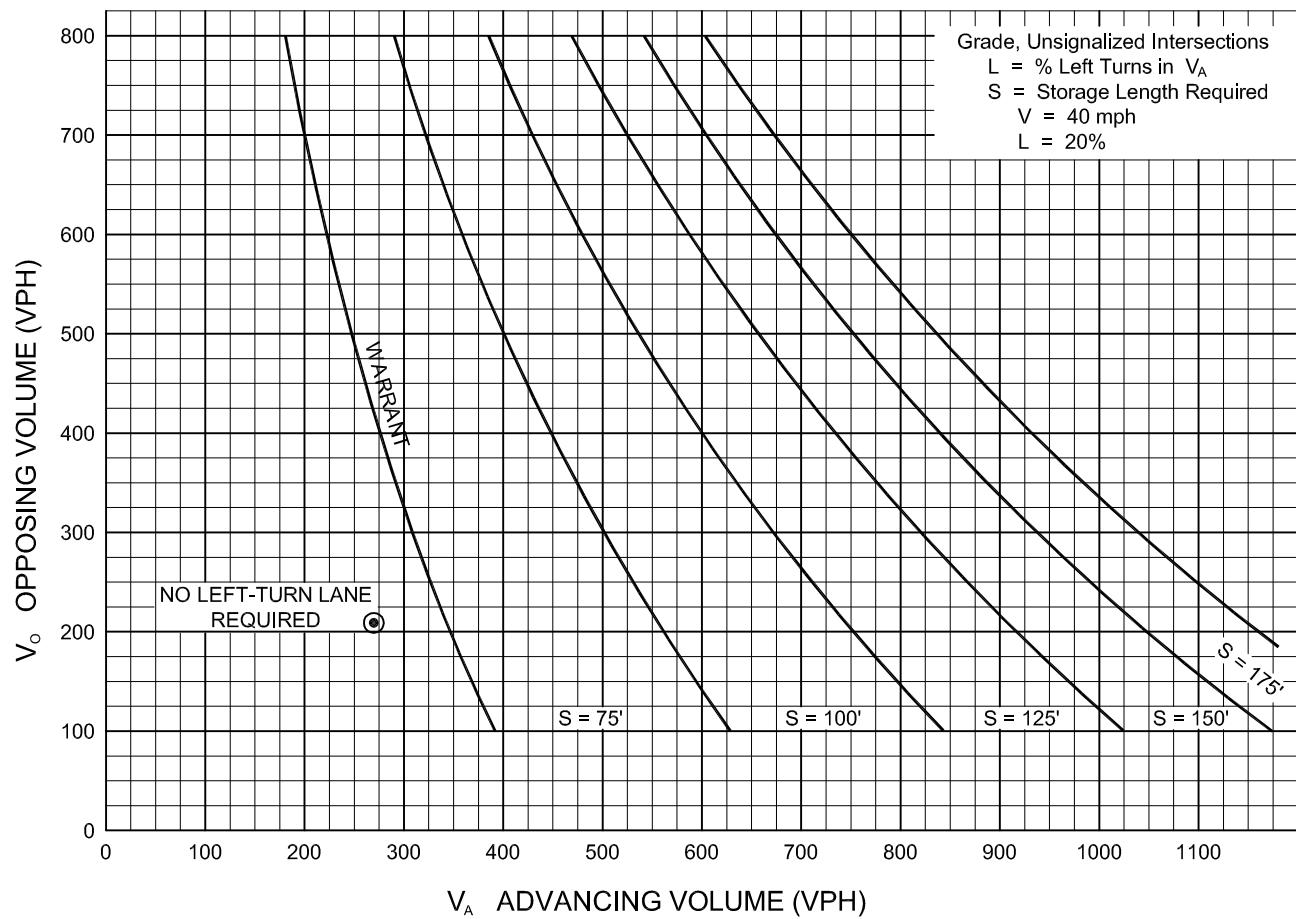
LEFT TURN
LANE ANALYSIS



SOURCE: HARMELINK

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MANDARIN ROAD @ PUBLIX DRIVEWAY



WARRANT FOR LEFT-TURN STORAGE LANES ON TWO-LANE HIGHWAYS

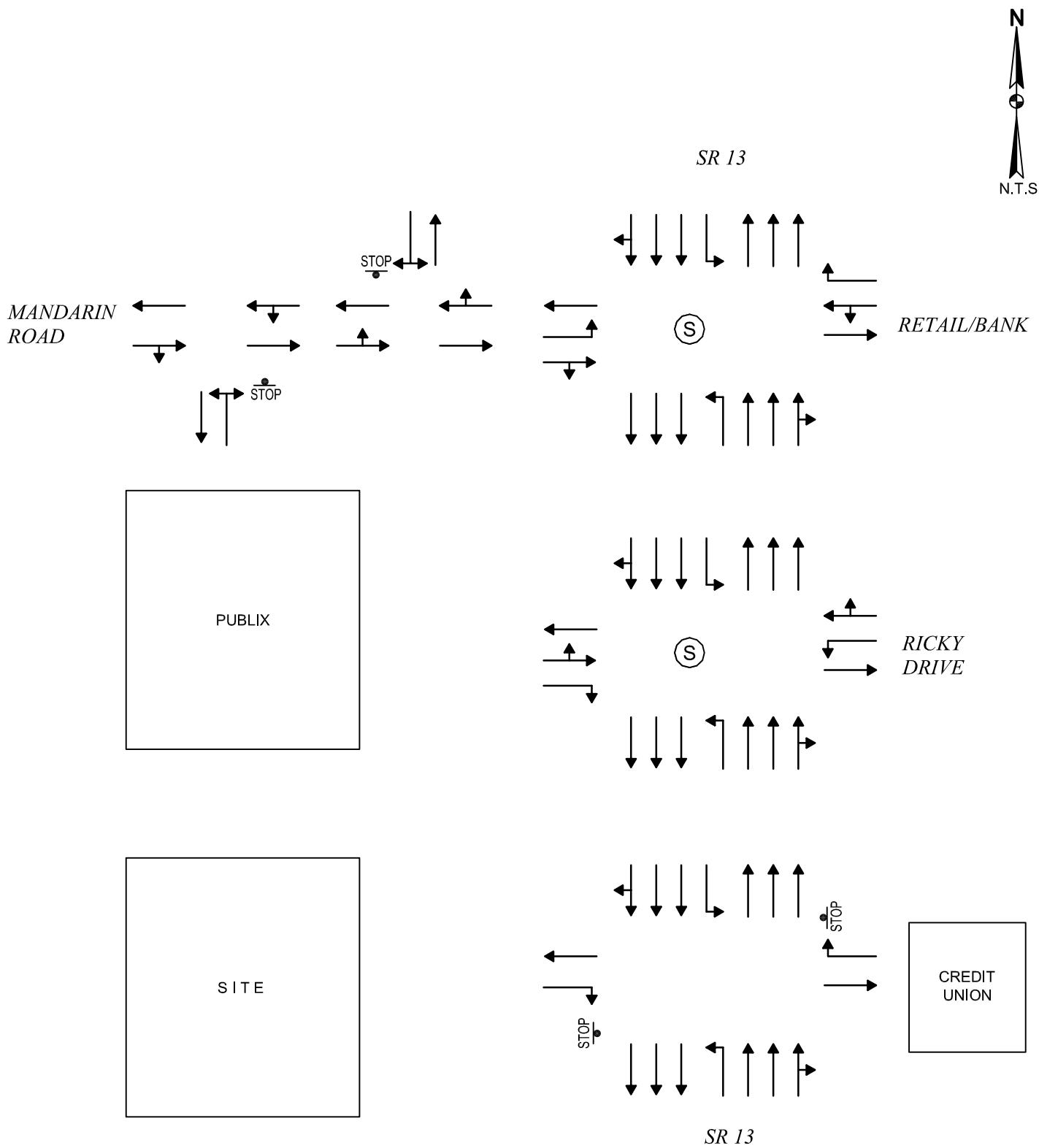
◎PM PEAK HOUR

$V_A = 268$
$V_o = 209$
$V_L = 53$
$\%LT = \frac{V_L}{V_A} = \frac{53}{268} = 20\%$

FIGURE 17

LEFT TURN
LANE ANALYSIS





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FIGURE 18

INTERSECTION
LAYOUTS



TABLE 1
TRIP GENERATION CALCULATIONS

GASOLINE/SERVICE STATION WITH CONVENIENCE MARKET

Land Use Code 945

T = Number of Vehicle Trip Ends

X = Vehicle Fueling Positions = 20

<u>TIME PERIOD</u>	<u>TOTAL</u> TRIP GENERATION <u>EQUATION</u>	<u>TOTAL</u> TRIP ENDS	<u>PERCENT</u> <u>ENTERING</u>	<u>PERCENT</u> <u>EXITING</u>	<u>TOTAL</u> TRIP ENDS <u>ENTERING</u>	<u>TOTAL</u> TRIP ENDS <u>EXITING</u>
WEEKDAY						
Daily	T = 268.46 X - 1161	4208	50%	50%	2104	2104
AM Peak Hour	T = 19.00 X - 96.53	284	51%	49%	145	139
PM Peak Hour	T = 13.99 X	280	51%	49%	143	137

SOURCE: Institute of Transportation Engineers, "Trip Generation", 10th Edition (2017)

NEW TRIPS

<u>TIME PERIOD</u>	<u>PERCENT NEW TRIPS</u>	<u>NEW</u> TRIP ENDS	<u>PERCENT</u> <u>ENTERING</u>	<u>PERCENT</u> <u>EXITING</u>	<u>NEW</u> TRIP ENDS <u>ENTERING</u>	<u>NEW</u> TRIP ENDS <u>EXITING</u>
WEEKDAY						
Daily	41%	1726	50%	50%	863	863
AM Peak Hour	38%	108	51%	49%	55	53
PM Peak Hour	44%	123	51%	49%	63	60

SOURCE: ITE, "Trip Generation Handbook", 3rd Edition, Tables E.37 and E.38

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TABLE 2
TRIP GENERATION CALCULATIONS

FAST-FOOD RESTAURANT WITH DRIVE-THRU WINDOW

Land Use Code 934

T = Number of Vehicle Trip Ends

Size of Building = 2300 (X = 2.3)

<u>TIME PERIOD</u>	TOTAL TRIP GENERATION <u>EQUATION</u>	TOTAL TRIP ENDS	<u>PERCENT</u> <u>ENTERING</u>	<u>PERCENT</u> <u>EXITING</u>	TOTAL TRIP ENDS <u>ENTERING</u>	TOTAL TRIP ENDS <u>EXITING</u>
AVERAGE WEEKDAY						
Daily	T = 470.95 (X)	1084	50%	50%	542	542
AM Peak Hour	T = 40.19 (X)	92	51%	49%	47	45
PM Peak Hour	T = 32.67 (X)	75	52%	48%	39	36

SOURCE: Institute of Transportation Engineers, "Trip Generation", 10th Edition (2017)

<u>TIME PERIOD</u>	NEW TRIPS <u>PERCENT NEW TRIPS</u>	NEW TRIP ENDS	<u>PERCENT</u> <u>ENTERING</u>	<u>PERCENT</u> <u>EXITING</u>	NEW TRIP ENDS <u>ENTERING</u>	NEW TRIP ENDS <u>EXITING</u>
AVERAGE WEEKDAY						
Daily	50%	542	50%	50%	271	271
AM Peak Hour	51%	47	51%	49%	24	23
PM Peak Hour	50%	38	52%	48%	20	18

SOURCE: ITE, "Trip Generation Handbook", 3rd Edition, Tables E.31 and E.32

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TABLE 3
SUMMARY OF SIGNALIZED INTERSECTION CAPACITY RESULTS
WITH OPTIMIZED SIGNAL TIMINGS

SAN JOSE BOULEVARD / MANDARIN ROAD

WEEKDAY AM PEAK HOUR	Highest v/c Ratio	Highest Queue Storage Ratios	Highest Delay Movements with LOS	Approach LOS	Intersection Delay & LOS
2021 BUILD	0.79 EBLT	1.71 WBRT	WBRT: 105.3 sec/veh LOS F EBLT: 99.0 sec/veh LOS F WBLT/T: 89.1 sec/veh LOS F	NB/SB: A EB/WB: F	12.6 sec/veh LOS B
WEEKDAY PM PEAK HOUR	Highest v/c Ratio	Highest Queue Storage Ratios	Highest Delay Movements with LOS	Approach LOS	Intersection Delay & LOS
2021 BUILD	0.92 EBLT	1.09 EBLT	WBLT/T: 127.2 sec/veh LOS F EBLT: 123.5 sec/veh LOS F WBRT: 92.3 sec/veh LOS F	NB/SB: B/A EB/WB: F	14.5 sec/veh LOS B

SAN JOSE BOULEVARD / RICKY DRIVE

WEEKDAY AM PEAK HOUR	Highest v/c Ratio	Highest Queue Storage Ratios	Highest Delay Movements with LOS	Approach LOS	Intersection Delay & LOS
2021 BUILD	0.94 WBLT	2.24 EBLT/T 1.76 WBLT	WBLT: 140.4 sec/veh LOS F EBLT/T: 91.0 sec/veh LOS F	NB/SB: A EB/WB: F	8.1 sec/veh LOS A
WEEKDAY PM PEAK HOUR	Highest v/c Ratio	Highest Queue Storage Ratios	Highest Delay Movements with LOS	Approach LOS	Intersection Delay & LOS
2021 BUILD	0.78 WBLT	2.24 EBLT/T 1.84 WBLT 1.38 EBRT	WBLT: 136.8 sec/veh LOS F EBLT/T: 90.3 sec/veh LOS F	NB/SB: A/B EB/WB: F	13.8 sec/veh LOS B

TABLE 4
UNSIGNALIZED INTERSECTION CAPACITY RESULTS

SAN JOSE BOULEVARD / SITE DRIVEWAY

2021 BUILD WEEKDAY AM PEAK HOUR				
Movement	LOS	Delay	v/c Ratio	95th % Queue (vehicles)
Northbound Left Turn	C	17.4 sec/veh	0.17	1
Southbound Left Turn	D	27.0 sec/veh	0.03	1
Eastbound Right Turn	C	20.7 sec/veh	0.17	1

2021 BUILD WEEKDAY PM PEAK HOUR				
Movement	LOS	Delay	v/c Ratio	95th % Queue (vehicles)
Northbound Left Turn	C	18.3 sec/veh	0.22	1
Southbound Left Turn	F	75.1 sec/veh	0.15	1
Eastbound Right Turn	C	21.1 sec/veh	0.19	1

MANDARIN ROAD / PUBlix DRIVEWAY

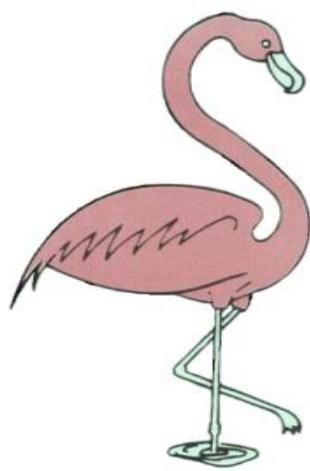
2021 BUILD WEEKDAY AM PEAK HOUR				
Movement	LOS	Delay	v/c Ratio	95th % Queue (vehicles)
Westbound Left Turn	A	7.8 sec/veh	0.04	1
Northbound Approach	B	12.0 sec/veh	0.26	1.1

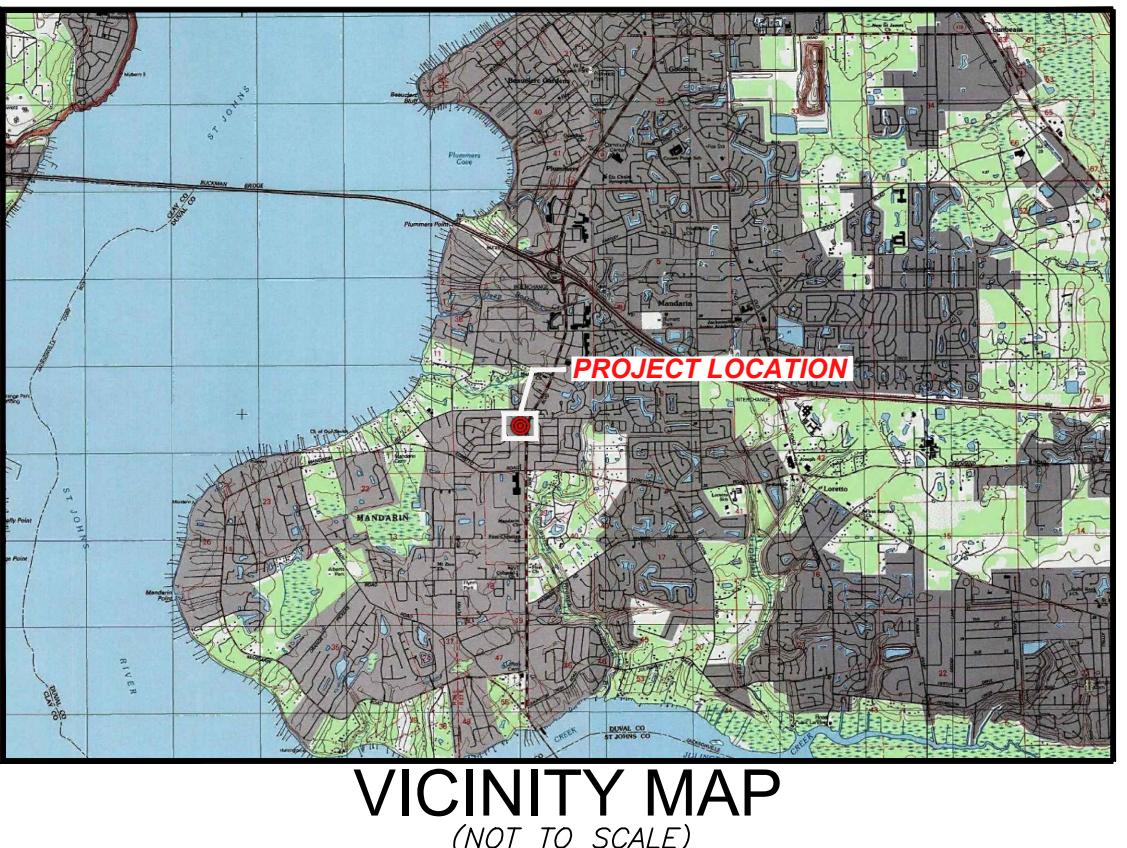
2021 BUILD WEEKDAY PM PEAK HOUR				
Movement	LOS	Delay	v/c Ratio	95th % Queue (vehicles)
Westbound Left Turn	A	7.8 sec/veh	0.01	1
Northbound Approach	A	10.0 sec/veh	0.11	1

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APPENDIX A

SITE PLAN





SITE DATA

1. AREA OF SITE: 3.13 ACRES.
 2. PROPERTY ZONING: PUD, COMMERCIAL
 3. FLOODPLAIN: THE PROPERTY IS ZONE X, MINIMAL RISK AREAS OUTSIDE THE 1 PERCENT AND 0.2 PERCENT ANNUAL CHANCE FLOODPLAINS, ACCORDING TO 12031C0542J EFFECTIVE 11/2/2018
 4. REQUIRED PARKING:
CONVENIENCE STORE:
3 PER 1000 SQ.FT. GROSS FLOOR SPACE
TOTAL GROSS FLOOR SPACE: 4,800 SQ. FT.
PARKING REQUIRED: 14 STALLS
RESTAURANT:
1 PER 4 SEATS & 1 PER EACH 2 EMPLOYEES
TOTALS: SEATS = 84, EMPLOYEES = 10
PARKING REQUIRED: 26 STALLS
TOTAL PARKING REQUIRED: 40 STALLS
ACTUAL PARKING STALLS:
37 REGULAR STALLS
7 VACUUM STALLS
2 ACCESSIBLE STALLS
TOTAL STALLS: 46
 5. PARKING LOT LANDSCAPE SETBACK:
REQUIRED:
ADJACENT TO R.O.W.: 10'
ADJACENT TO COMPLEMENTARY USE: 5'
ADJACENT TO UNCOMPLIMENTARY USE: 10'
ACTUAL:
ADJACENT TO R.O.W.: 21.41'
ADJACENT TO COMPLEMENTARY USE: 5.00'
ADJACENT TO UNCOMPLIMENTARY USE: 195.20'
 6. INTERIOR LANDSCAPING VUA REQUIRED: 10%
VUA = 58,687 SQ.FT. = 5,869 SQ.FT. AREA REQUIRED
ACTUAL INTERIOR LANDSCAPING VUA: 6,128 SQ.FT.

Legend

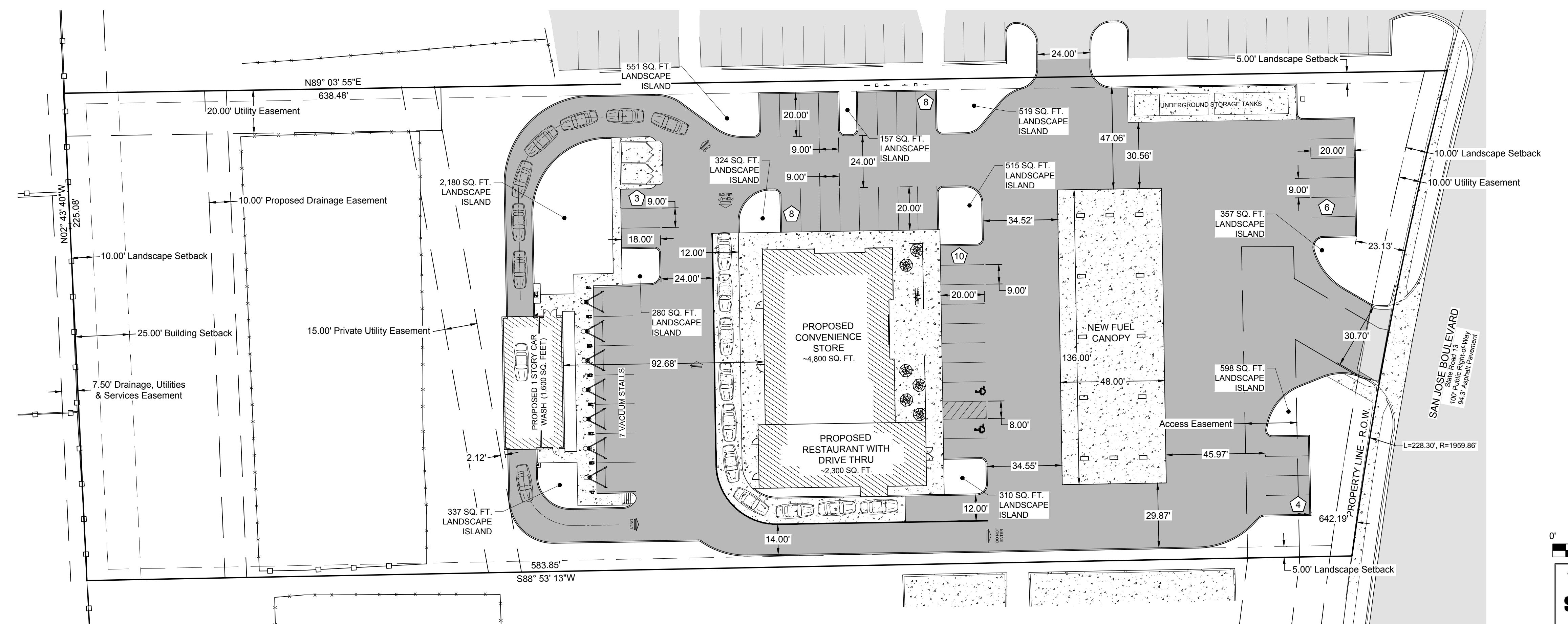
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REVISIONS

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Civil Engineer
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Mt. Carmel, IL 62863
Phone: (618) 263-4100

E: 1"=30'
N BY:
NER: TJL
KED BY: TJL
EER: Michael E. Neikirk
TECT:
P:



JOB TITLE
**76 STORE
11470 SAN JOSE BLVD.
JACKSONVILLE, FL**

SITE PLAN

FILE LOCATION	DRAWING NUMBER C2	REV #
------------------	-----------------------------	-------

APPENDIX B

TURNING MOVEMENT COUNTS

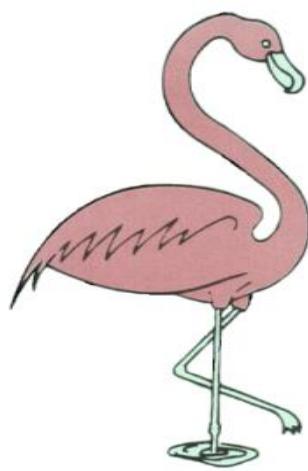


TABLE B-1
MANDARIN ROAD
MANUAL TURNING MOVEMENT COUNTS

Thursday October 8, 2020

Publix Driveway				
	Right Turn In	Right Turn Out	Left Turn In	Left Turn Out
6:45-7:00 AM	2	2	2	0
7:00-7:15 AM	1	2	2	0
7:15-7:30 AM	1	3	8	1
7:30-7:45 AM	4	3	1	0
7:45-8:00 AM	1	2	5	5
8:00-8:15 AM	2	4	2	3
TOTAL:	11	16	20	9

Mandarin Road	
Eastbound	Westbound
27	8
33	17
40	18
48	24
39	35
36	26
223	128

Gates of Old Mandarin Shopping Center Driveway			
Right Turn In	Right Turn Out	Left Turn In	Left Turn Out
0	0	0	3
2	0	0	1
3	1	0	0
1	2	1	3
4	0	0	0
1	2	1	4
11	5	2	11

AM PEAK HOUR:	8	12	16	9	163	103	9	5	2	7
----------------------	---	----	----	---	-----	-----	---	---	---	---

Friday October 9, 2020

Publix Driveway				
	Right Turn In	Right Turn Out	Left Turn In	Left Turn Out
4:00-4:15 PM	12	14	12	13
4:15-4:30 PM	10	7	14	15
4:30-4:45 PM	7	12	10	15
4:45-5:00 PM	9	8	16	27
5:00-5:15 PM	14	9	15	21
5:15-5:30 PM	13	17	12	16
5:30-5:45 PM	15	11	17	20
TOTAL:	80	78	96	127

Mandarin Road	
Eastbound	Westbound
34	52
25	52
42	49
39	39
25	41
32	45
32	38
229	316

Gates of Old Mandarin Shopping Center Driveway			
Right Turn In	Right Turn Out	Left Turn In	Left Turn Out
5	4	5	12
7	7	5	11
8	4	1	10
7	4	3	5
8	1	1	9
6	3	5	14
4	2	4	7
45	25	24	68

PM PEAK HOUR:	38	41	52	70	140	192	27	19	14	38
----------------------	----	----	----	----	-----	-----	----	----	----	----

BUCKHOLZ TRAFFIC

JW BUCKHOLZ TRAFFIC ENGINEERING INC

MANUAL TURNING MOVEMENT COUNTS

Site Code : 77766655

SR 13 AT U-HAUL DR./CREDIT UNION DR.

Start Date: 09/28/20

DAY: MONDAY

DATE: 09/28/20

WEATHER: CLEAR & DRY

BEGIN TIME (MILITARY): 06:15 Hrs

DUVAL COUNTY, FLORIDA

File I.D. : 201636A1

Page : 1

AUTOMOBILES, COMMERCIAL VEHICLES

SR 13		CREDIT UNION DRIVE				SR 13				U-HAUL DRIVE								
From North		From East				From South				From West								
		Left	Thru	Right	U-TURN	Left	Thru	Right	Other	Left	Thru	Right	U-TURN	Left	Thru	Right	Other	Total
Date 09/28/20 -----																		
06:15	0	131	0	0		0	0	0		0	302	0	0		0	0	0	433
06:30	0	148	0	0		0	0	0		0	313	0	0		0	0	0	461
06:45	0	200	1	1		0	0	0		0	368	0	0		0	0	0	570
07:00	0	189	0	0		0	0	0		0	468	0	0		0	0	0	657
Hr Total	0	668	1	1		0	0	0		0	1451	0	0		0	0	0	2121
07:15	0	186	1	2		0	0	0		0	490	0	0		0	0	0	679
07:30	2	258	1	3		0	0	0		1	547	1	0		0	0	1	814
07:45	0	311	1	0		0	0	0		2	514	0	0		0	0	1	829
08:00	0	377	0	1		0	0	0		0	423	0	1		0	0	0	802
Hr Total	2	1132	3	6		0	0	0		3	1974	1	1		0	0	2	3124
TOTAL	2	1800	4	7		0	0	0		3	3425	1	1		0	0	2	5245

Peak Hour Analysis By Entire Intersection for the Period: 07:15 to 08:15 on 09/28/20

Peak start 07:15						07:15						07:15						07:15					
Volume	2	1132	3	6		0	0	0		3	1974	1	1		0	0	2	0					
Percent	0%	99%	0%	1%		0%	0%	0%		0%	100%	0%	0%		0%	0%	100%	0%					
Pk total	1143					0				1979					2								
Highest	08:00					06:15				07:30					07:30								
Volume	0	377	0	1		0	0	0		1	547	1	0		0	0	1	0					
Hi total	378					0				549					1								
PHF	.76					.0				.90					.50								

JW BUCKHOLZ TRAFFIC ENGINEERING INC

MANUAL TURNING MOVEMENT COUNTS

Site Code : 77766655

SR 13 AT U-HAUL DR./CREDIT UNION DR.

Start Date: 09/28/20

DAY: MONDAY

DATE: 09/28/20

WEATHER: CLEAR & DRY

BEGIN TIME (MILITARY): 06:15 Hrs

File I.D. : 201636A1

Page : 1

AUTOMOBILES

SR 13		CREDIT UNION DRIVE						SR 13		U-HAUL DRIVE								
From North		From East			From South			From West										
		Left	Thru	Right	U-TURN	Left	Thru	Right	Other	Left	Thru	Right	U-TURN	Left	Thru	Right	Other	Total
Date 09/28/20 -----																		
06:15	0	125	0	0		0	0	0		0	295	0	0		0	0	0	420
06:30	0	133	0	0		0	0	0		0	308	0	0		0	0	0	441
06:45	0	189	1	1		0	0	0		0	360	0	0		0	0	0	551
07:00	0	174	0	0		0	0	0		0	459	0	0		0	0	0	633
Hr Total	0	621	1	1		0	0	0		0	1422	0	0		0	0	0	2045
07:15	0	177	0	2		0	0	0		0	482	0	0		0	0	0	661
07:30	2	239	1	3		0	0	0		1	533	1	0		0	1	0	781
07:45	0	298	1	0		0	0	0		2	498	0	0		0	1	0	800
08:00	0	354	0	1		0	0	0		0	409	0	1		0	0	0	765
Hr Total	2	1068	2	6		0	0	0		3	1922	1	1		0	0	2	3007
TOTAL	2	1689	3	7		0	0	0		3	3344	1	1		0	0	2	5052

Peak Hour Analysis By Entire Intersection for the Period: 07:15 to 08:15 on 09/28/20

Peak start 07:15						07:15						07:15							
Volume	2	1068	2	6		0	0	0		3	1922	1	1		0	0	2	0	
Percent	0%	99%	0%	1%		0%	0%	0%		0%	100%	0%	0%		0%	0%	100%	0%	
Pk total	1078					0				1927					2				
Highest	08:00					06:15				07:30					07:30				
Volume	0	354	0	1		0	0	0		1	533	1	0		0	0	1	0	
Hi total	355					0				535					1				
PHF	.76					.0				.90					.50				

JW BUCKHOLZ TRAFFIC ENGINEERING INC

MANUAL TURNING MOVEMENT COUNTS

Site Code : 77766655

DAY: MONDAY

SR 13 AT U-HAUL DR./CREDIT UNION DR.

Start Date: 09/28/20

DATE: 09/28/20

DUVAL COUNTY, FLORIDA

File I.D. : 201636A1

WEATHER: CLEAR & DRY

Page : 1

BEGIN TIME (MILITARY): 06:15 Hrs

COMMERCIAL VEHICLES

SR 13				CREDIT UNION DRIVE				SR 13				U-HAUL DRIVE								
From North				From East				From South				From West								
Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Total
Date 09/28/20 -----																				
06:15	0	6	0	0	0	0	0	0	7	0	0	0	0	0	0	0	0	0	0	13
06:30	0	15	0	0	0	0	0	0	5	0	0	0	0	0	0	0	0	0	0	20
06:45	0	11	0	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	19
07:00	0	15	0	0	0	0	0	0	9	0	0	0	0	0	0	0	0	0	0	24
Hr Total	0	47	0	0	0	0	0	0	29	0	0	0	0	0	0	0	0	0	0	76
07:15	0	9	1	0	0	0	0	0	8	0	0	0	0	0	0	0	0	0	0	18
07:30	0	19	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	33
07:45	0	13	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0	29
08:00	0	23	0	0	0	0	0	0	14	0	0	0	0	0	0	0	0	0	0	37
Hr Total	0	64	1	0	0	0	0	0	52	0	0	0	0	0	0	0	0	0	0	117
TOTAL	0	111	1	0	0	0	0	0	81	0	0	0	0	0	0	0	0	0	0	193

Peak Hour Analysis By Entire Intersection for the Period: 07:15 to 08:15 on 09/28/20

Peak start 07:15				07:15				07:15				07:15							
Volume	0	64	1	0	0	0	0	0	52	0	0	0	0	0	0	0	0	0	0
Percent	0%	98%	2%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	0%
Pk total	65			0				52				0							
Highest	08:00			06:15				07:45				06:15							
Volume	0	23	0	0	0	0	0	0	16	0	0	0	0	0	0	0	0	0	0
Hi total	23			0				16				0							
PHF	.71			.0				.81				.0							

JW BUCKHOLZ TRAFFIC ENGINEERING INC

MANUAL TURNING MOVEMENT COUNTS

Site Code : 77766655

SR 13 AT U-HAUL DR./CREDIT UNION DR.

Start Date: 09/28/20

DAY: MONDAY

DATE: 09/28/20

WEATHER: CLEAR & DRY

BEGIN TIME (MILITARY): 06:15 Hrs

DUVAL COUNTY, FLORIDA

File I.D. : 201636A1

Page : 1

PEDESTRIAN & BICYCLE

SR 13				CREDIT UNION DRIVE				SR 13				U-HAUL DRIVE								
From North				From East				From South				From West								
Left	Thru	Right	PEDS	Left	Thru	Right	PEDS	Left	Thru	Right	PEDS	Left	Thru	Right	PEDS	Left	Thru	Right	PEDS	Total
Date 09/28/20 -----																				
06:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
06:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
06:45	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	0	1	
07:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Hr Total	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	0	1	2	2	
07:15	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
07:30	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	2	
07:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
08:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	1	1	
Hr Total	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	0	1	3	
TOTAL	0	0	0	0	0	0	3	0	0	0	0	0	0	0	0	0	2	5		

Peak Hour Analysis By Entire Intersection for the Period: 07:15 to 08:15 on 09/28/20

Peak start 07:15				07:15				07:15				07:15							
Volume	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	
Percent	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%	
Pk total	0				2				0				1						
Highest	06:15				07:30				06:15				08:00						
Volume	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	0	0	1	
Hi total	0				2				0				1						
PHF	.0				.25				.0				.25						

JW BUCKHOLZ TRAFFIC ENGINEERING INC

MANUAL TURNING MOVEMENT COUNTS

Site Code : 88885555

SR 13 AT U-HAUL DR/CREDIT UNION DR

Start Date: 09/25/20

DUVAL COUNTY, FLORIDA

File I.D. : 201636P1

DAY: FRIDAY

DATE: 09/25/20

WEATHER: CLEAR & DRY

BEGIN TIME (MILITARY): 15:30 Hrs

Page : 1

AUTOMOBILES, COMMERCIAL VEHICLES

SR 13		CREDIT UNION DRIVE						SR 13						U-HAUL DRIVE					
From North		From East			From South			From West											
		Left	Thru	Right	U-TURN	Left	Thru	Right	Other	Left	Thru	Right	U-TURN	Left	Thru	Right	Other	Total	
Date 09/25/20 -----																			
15:30	0	519	0	0		0	0	0		1	463	1	3		0	0	3	0 990	
15:45	1	562	2	0		0	0	0		1	500	3	2		0	0	2	0 1073	
16:00	0	534	1	2		0	0	0		0	468	0	1		0	0	3	0 1009	
<u>16:15</u>	<u>0</u>	<u>577</u>	<u>2</u>	<u>2</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>2</u>	<u>454</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>0 1042</u>	
Hr Total	1	2192	5	4		0	0	0		4	1885	4	6		0	0	13	0 4114	
16:30	0	571	3	0		0	0	0		0	452	1	1		0	0	2	0 1030	
16:45	0	546	2	1		0	0	0		2	456	0	1		0	0	4	0 1012	
17:00	1	516	1	0		0	0	0		2	482	0	1		0	0	8	0 1011	
<u>17:15</u>	<u>0</u>	<u>532</u>	<u>1</u>	<u>1</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>2</u>	<u>484</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>3</u>	<u>0 1023</u>	
Hr Total	1	2165	7	2		0	0	0		6	1874	1	3		0	0	17	0 4076	
17:30	0	530	3	1		0	0	0		1	424	0	0		0	0	3	0 962	
<u>17:45</u>	<u>0</u>	<u>485</u>	<u>3</u>	<u>0</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>3</u>	<u>433</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>0 929</u>	
Hr Total	0	1015	6	1		0	0	0		4	857	0	0		0	0	8	0 1891	

TOTAL	2	5372	18	7		0	0	0		14	4616	5	9		0	0	38	0 10081
<hr/>																		
Peak Hour Analysis By Entire Intersection for the Period: 15:45 to 16:45 on 09/25/20																		
Peak start 15:45	15:45						15:45						15:45					
Volume	1	2244	8	4		0	0	0		3	1874	4	4		0	0	12	0
Percent	0%	99%	0%	0%		0%	0%	0%		0%	99%	0%	0%		0%	0%	100%	0%
Pk total	2257					0				1885					12			
Highest	16:15					15:30				15:45					16:15			
Volume	0	577	2	2		0	0	0		1	500	3	2		0	0	5	0
Hi total	581					0				506					5			
PHF	.97					.0				.93					.60			

JW BUCKHOLZ TRAFFIC ENGINEERING INC

MANUAL TURNING MOVEMENT COUNTS

Site Code : 88885555

SR 13 AT U-HAUL DR/CREDIT UNION DR

Start Date: 09/25/20

DAY: FRIDAY

DATE: 09/25/20

WEATHER: CLEAR & DRY

BEGIN TIME (MILITARY) :15:30 Hrs

File I.D. : 201636P1

Page : 1

AUTOMOBILES

SR 13		CREDIT UNION DRIVE						SR 13						U-HAUL DRIVE					
From North		From East			From South			From West											
		Left	Thru	Right	U-TURN	Left	Thru	Right	Other	Left	Thru	Right	U-TURN	Left	Thru	Right	Other	Total	
Date 09/25/20 -----																			
15:30	0	513	0	0		0	0	0		1	444	1	3		0	0	3	0 965	
15:45	1	552	1	0		0	0	0		1	478	2	2		0	0	0	0 1037	
16:00	0	524	1	2		0	0	0		0	454	0	1		0	0	1	0 983	
<u>16:15</u>	<u>0</u>	<u>564</u>	<u>2</u>	<u>2</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>2</u>	<u>438</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>0 1013</u>	
Hr Total	1	2153	4	4		0	0	0		4	1814	3	6		0	0	9	0 3998	
16:30	0	561	3	0		0	0	0		0	438	1	1		0	0	2	0 1006	
16:45	0	537	2	1		0	0	0		1	438	0	1		0	0	2	0 982	
17:00	1	511	1	0		0	0	0		2	467	0	1		0	0	6	0 989	
<u>17:15</u>	<u>0</u>	<u>512</u>	<u>1</u>	<u>1</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>0</u>	<u>473</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>0 989</u>	
Hr Total	1	2121	7	2		0	0	0		3	1816	1	3		0	0	12	0 3966	
17:30	0	521	3	1		0	0	0		1	412	0	0		0	0	3	0 941	
<u>17:45</u>	<u>0</u>	<u>478</u>	<u>2</u>	<u>0</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>3</u>	<u>420</u>	<u>0</u>	<u>0</u>	<u> </u>	<u>0</u>	<u>0</u>	<u>5</u>	<u>0 908</u>	
Hr Total	0	999	5	1		0	0	0		4	832	0	0		0	0	8	0 1849	
TOTAL	2	5273	16	7		0	0	0		11	4462	4	9		0	0	29	0 9813	

Peak Hour Analysis By Entire Intersection for the Period: 15:45 to 16:45 on 09/25/20

Peak start 15:45						15:45						15:45						15:45					
Volume	1	2201	7	4		0	0	0		3	1808	3	4		0	0	8	0					
Percent	0%	99%	0%	0%		0%	0%	0%		0%	99%	0%	0%		0%	0%	100%	0%					
Pk total	2213					0				1818					8								
Highest	16:15					15:30				15:45					16:15								
Volume	0	564	2	2		0	0	0		1	478	2	2		0	0	5	0					
Hi total	568					0				483					5								
PHF	.97					.0				.94					.40								

JW BUCKHOLZ TRAFFIC ENGINEERING INC

MANUAL TURNING MOVEMENT COUNTS

Site Code : 88885555

SR 13 AT U-HAUL DR/CREDIT UNION DR

Start Date: 09/25/20

DAY: FRIDAY

DATE: 09/25/20

WEATHER: CLEAR & DRY

BEGIN TIME (MILITARY): 15:30 Hrs

DUVAL COUNTY, FLORIDA

File I.D. : 201636P1

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COMMERCIAL VEHICLES

SR 13				CREDIT UNION DRIVE				SR 13				U-HAUL DRIVE							
From North				From East				From South				From West							
	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Left	Thru	Right	Other	Total		
Date 09/25/20 -----																			
15:30	0	6	0	0	0	0	0	0	0	19	0	0	0	0	0	0	25		
15:45	0	10	1	0	0	0	0	0	0	22	1	0	0	0	2	0	36		
16:00	0	10	0	0	0	0	0	0	0	14	0	0	0	0	2	0	26		
<u>16:15</u>	<u>0</u>	<u>13</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>16</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>29</u>		
Hr Total	0	39	1	0	0	0	0	0	0	71	1	0	0	0	4	0	116		
16:30	0	10	0	0	0	0	0	0	0	14	0	0	0	0	0	0	24		
16:45	0	9	0	0	0	0	0	0	1	18	0	0	0	0	2	0	30		
17:00	0	5	0	0	0	0	0	0	0	15	0	0	0	0	2	0	22		
<u>17:15</u>	<u>0</u>	<u>20</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>2</u>	<u>11</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1</u>	<u>0</u>	<u>34</u>		
Hr Total	0	44	0	0	0	0	0	0	3	58	0	0	0	0	5	0	110		
17:30	0	9	0	0	0	0	0	0	0	12	0	0	0	0	0	0	21		
<u>17:45</u>	<u>0</u>	<u>7</u>	<u>1</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>13</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>21</u>		
Hr Total	0	16	1	0	0	0	0	0	0	25	0	0	0	0	0	0	42		

----- *TOTAL* 0 99 2 0 | 0 0 0 0 | 3 154 1 0 | 0 0 9 0 | 268 -----

Peak Hour Analysis By Entire Intersection for the Period: 15:45 to 16:45 on 09/25/20

Peak start 15:45				15:45				15:45				15:45							
Volume	0	43	1	0	0	0	0	0	0	66	1	0	0	0	4	0			
Percent	0%	98%	2%	0%	0%	0%	0%	0%	0%	99%	1%	0%	0%	0%	100%	0%			
Pk total	44				0				67			4							
Highest	16:15				15:30				15:45			15:45							
Volume	0	13	0	0	0	0	0	0	0	22	1	0	0	0	2	0			
Hi total	13				0				23			2							
PHF	.85				.0				.73			.50							

JW BUCKHOLZ TRAFFIC ENGINEERING INC

MANUAL TURNING MOVEMENT COUNTS

Site Code : 88885555

SR 13 AT U-HAUL DR/CREDIT UNION DR

Start Date: 09/25/20

DAY: FRIDAY

DATE: 09/25/20

WEATHER: CLEAR & DRY

BEGIN TIME (MILITARY): 15:30 Hrs

DUVAL COUNTY, FLORIDA

File I.D. : 201636P1

Page : 1

PEDESTRIAN & BICYCLE

SR 13				CREDIT UNION DRIVE				SR 13				U-HAUL DRIVE							
From North				From East				From South				From West							
	Left	Thru	Right	PEDS	Left	Thru	Right	PEDS	Left	Thru	Right	PEDS	Left	Thru	Right	PEDS	Total		
Date 09/25/20 -----																			
15:30	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
15:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
16:00	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
<u>16:15</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0 </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0 </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0 </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>1 </u>	<u>1</u>		
Hr Total	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1	2		
16:30	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	0	1		
16:45	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2	2		
17:00	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0		
<u>17:15</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0 </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0 </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0 </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0 </u>	<u>0</u>		
Hr Total	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	2	3		
17:30	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	1	5		
<u>17:45</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0 </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0 </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0 </u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0 </u>	<u>0</u>		
Hr Total	0	0	0	0	0	0	0	4	0	0	0	0	0	0	0	1	5		

----- *TOTAL* 0 0 0 0 | 0 0 0 6 | 0 0 0 0 | 0 0 0 0 | 0 0 4 | 10

Peak Hour Analysis By Entire Intersection for the Period: 15:45 to 16:45 on 09/25/20

Peak start 15:45				15:45				15:45				15:45							
Volume	0	0	0	0	0	0	0	2	0	0	0	0	0	0	0	1			
Percent	0%	0%	0%	0%	0%	0%	0%	100%	0%	0%	0%	0%	0%	0%	0%	100%			
Pk total	0				2				0				1						
Highest	15:30				16:00				15:30				16:15						
Volume	0	0	0	0	0	0	0	1	0	0	0	0	0	0	0	1			
Hi total	0				1				0				1						
PHF	.0				.50				.0				.25						

FDOT D2 TWO 08 - San Jose Blvd (SR 13)
San Jose Blvd (SR 13) & Mandarin Rd
Weekday TMC

Albeck Gerken, Inc.
1907 N US 301
Suite 120
Tampa, Florida, United States 33619
(813) 319-3790

Count Name: 314_San Jose Blvd (SR 13) &
Mandarin Rd_WD
Site Code: 314
Start Date: 02/07/2019
Page No: 1

Turning Movement Data

Start Time	Mandarin Rd West Approach						Mandarin Rd East Approach						San Jose Blvd (SR 13) South Approach						San Jose Blvd (SR 13) North Approach						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00	0	18	3	3	0	24	0	0	0	9	0	9	0	6	664	0	0	670	2	6	147	10	0	165	868
7:15	0	22	2	8	1	32	0	1	0	10	0	11	1	8	783	1	0	793	1	5	193	13	0	212	1048
7:30	1	31	2	7	0	41	0	0	3	13	0	16	1	11	637	1	0	650	1	7	207	13	0	228	935
7:45	0	15	3	6	0	24	0	1	0	14	2	15	0	14	614	1	0	629	2	14	304	22	0	342	1010
Hourly Total	1	86	10	24	1	121	0	2	3	46	2	51	2	39	2698	3	0	2742	6	32	851	58	0	947	3861
8:00	0	28	2	5	0	35	0	2	0	9	0	11	0	9	614	0	0	623	1	9	231	24	0	265	934
8:15	0	39	1	8	0	48	0	2	0	7	0	9	1	18	577	3	0	599	2	9	275	19	0	305	961
8:30	0	18	4	11	0	33	0	2	2	10	0	14	0	15	546	0	0	561	5	8	304	32	0	349	957
8:45	0	29	4	30	0	63	0	2	0	6	1	8	1	20	509	1	0	531	3	9	297	22	2	331	933
Hourly Total	0	114	11	54	0	179	0	8	2	32	1	42	2	62	2246	4	0	2314	11	35	1107	97	2	1250	3785
9:00	0	34	2	12	0	48	0	0	1	7	0	8	1	10	481	5	0	497	3	9	311	19	0	342	895
9:15	0	34	2	8	0	44	0	6	1	10	0	17	3	6	487	3	0	499	4	11	276	17	1	308	868
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hourly Total	0	68	4	20	0	92	0	6	2	17	0	25	4	16	968	8	0	996	7	20	587	36	1	650	1763
12:00	0	47	2	33	0	82	0	6	0	7	0	13	1	18	442	1	0	462	1	8	447	48	0	504	1061
12:15	0	43	2	23	0	68	0	2	2	4	0	8	0	16	437	4	0	457	3	3	412	24	0	442	975
12:30	0	37	2	23	0	62	0	4	0	6	0	10	1	7	443	2	0	453	6	4	498	43	0	551	1076
12:45	0	46	2	25	0	73	0	4	0	5	1	9	0	13	436	2	1	451	10	8	489	38	0	545	1078
Hourly Total	0	173	8	104	0	285	0	16	2	22	1	40	2	54	1758	9	1	1823	20	23	1846	153	0	2042	4190
13:00	0	34	1	26	2	61	0	1	0	9	1	10	0	10	433	5	0	448	4	10	485	55	0	554	1073
13:15	0	43	2	16	2	61	0	4	3	10	2	17	0	10	470	2	0	482	3	8	448	26	0	485	1045
13:30	0	37	5	15	1	57	0	3	4	6	0	13	0	10	443	3	0	456	2	9	446	35	0	492	1018
13:45	0	44	2	25	1	71	0	3	1	8	2	12	0	17	431	7	1	455	4	14	476	45	1	539	1077
Hourly Total	0	158	10	82	6	250	0	11	8	33	5	52	0	47	1777	17	1	1841	13	41	1855	161	1	2070	4213
14:00	0	25	0	20	0	45	0	3	0	13	3	16	0	13	419	5	1	437	1	10	518	34	1	563	1061
14:15	0	29	2	20	0	51	0	4	1	6	2	11	1	17	423	7	0	448	5	9	489	43	0	546	1056
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hourly Total	0	54	2	40	0	96	0	7	1	19	5	27	1	30	842	12	1	885	6	19	1007	77	1	1109	2117
16:00	0	22	0	18	0	40	0	1	1	6	1	8	0	10	447	1	2	458	2	6	637	57	0	702	1208
16:15	0	27	1	15	1	43	0	11	0	2	1	13	1	17	463	1	0	482	6	11	618	51	0	686	1224
16:30	0	24	0	19	2	43	0	4	1	5	2	10	1	7	419	1	0	428	3	6	578	53	0	640	1121
16:45	0	21	3	17	1	41	0	2	0	8	2	10	2	13	450	10	0	475	7	7	631	49	0	694	1220
Hourly Total	0	94	4	69	4	167	0	18	2	21	6	41	4	47	1779	13	2	1843	18	30	2464	210	0	2722	4773
17:00	0	25	0	23	0	48	0	11	1	10	2	22	0	23	489	3	0	515	5	2	609	62	0	678	1263
17:15	0	26	2	17	0	45	0	4	2	7	3	13	1	17	483	3	1	504	0	7	552	37	0	596	1158
17:30	0	26	2	15	0	43	0	3	3	9	2	15	1	24	436	4	0	465	7	10	576	51	0	644	1167
17:45	0	27	1	22	1	50	0	3	1	7	2	11	1	22	412	1	0	436	3	4	614	52	1	673	1170

Hourly Total	0	104	5	77	1	186	0	21	7	33	9	61	3	86	1820	11	1	1920	15	23	2351	202	1	2591	4758	
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
19:00	0	35	1	15	0	51	0	8	2	4	3	14	2	24	296	1	1	323	2	8	414	42	0	466	854	
19:15	0	24	0	25	1	49	0	3	1	5	1	9	0	13	309	2	0	324	2	3	401	45	0	451	833	
19:30	0	20	1	22	0	43	0	3	2	3	3	8	0	12	277	0	0	289	2	4	395	45	1	446	786	
19:45	0	33	0	8	0	41	0	0	1	3	0	4	0	7	237	2	0	246	3	2	367	40	0	412	703	
Hourly Total	0	112	2	70	1	184	0	14	6	15	7	35	2	56	1119	5	1	1182	9	17	1577	172	1	1775	3176	
Lights	1	938	55	527	-	1521	0	103	33	232	-	368	19	429	14730	81	-	15259	102	237	13429	1144	-	14912	32060	
% Lights	100.0	97.4	98.2	97.6	-	97.5	-	100.0	100.0	97.5	-	98.4	95.0	98.2	98.2	98.8	-	98.2	97.1	98.8	98.4	98.1	-	98.4	98.2	
Other Vehicles	0	25	1	13	-	39	0	0	0	6	-	6	1	8	277	1	-	287	3	3	216	22	-	244	576	
% Other Vehicles	0.0	2.6	1.8	2.4	-	2.5	-	0.0	0.0	2.5	-	1.6	5.0	1.8	1.8	1.2	-	1.8	2.9	1.3	1.6	1.9	-	1.6	1.8	
Bicycles on Crosswalk	-	-	-	-	-	3	-	-	-	-	6	-	-	-	-	-	1	-	-	-	-	-	3	-	-	
% Bicycles on Crosswalk	-	-	-	-	-	23.1	-	-	-	-	16.7	-	-	-	-	-	14.3	-	-	-	-	-	-	42.9	-	-
Pedestrians	-	-	-	-	-	10	-	-	-	-	30	-	-	-	-	-	6	-	-	-	-	-	4	-	-	
% Pedestrians	-	-	-	-	-	76.9	-	-	-	-	83.3	-	-	-	-	-	85.7	-	-	-	-	-	-	57.1	-	-

FDOT D2 TWO 08 - San Jose Blvd (SR 13)
San Jose Blvd (SR 13) & Mandarin Rd
Weekday TMC

Albeck Gerken, Inc.
1907 N US 301
Suite 120
Tampa, Florida, United States 33619
(813) 319-3790

Count Name: 314_San Jose Blvd (SR 13) &
Mandarin Rd_WD
Site Code: 314
Start Date: 02/07/2019
Page No: 3

Turning Movement Peak Hour Data (7:15)

FDOT D2 TWO 08 - San Jose Blvd (SR 13)
San Jose Blvd (SR 13) & Mandarin Rd
Weekday TMC

Albeck Gerken, Inc.
1907 N US 301
Suite 120
Tampa, Florida, United States 33619
(813) 319-3790

Count Name: 314_San Jose Blvd (SR 13) & Mandarin Rd_WD
Site Code: 314
Start Date: 02/07/2019
Page No: 5

Turning Movement Peak Hour Data (16:15)

FDOT D2 TWO 08 - San Jose Blvd (SR 13)
San Jose Blvd (SR 13) & Mandarin Rd
Weekday TMC

Albeck Gerken, Inc.
1907 N US 301
Suite 120
Tampa, Florida, United States 33619
(813) 319-3790

Count Name: 314_San Jose Blvd (SR 13) &
Mandarin Rd_WD
Site Code: 314
Start Date: 02/07/2019
Page No: 6

Turning Movement Peak Hour Data (19:00)

Start Time	Mandarin Rd West Approach						Mandarin Rd East Approach						San Jose Blvd (SR 13) South Approach						San Jose Blvd (SR 13) North Approach						Int. Total	
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total		
19:00	0	35	1	15	0	51	0	8	2	4	3	14	2	24	296	1	1	323	2	8	414	42	0	466	854	
19:15	0	24	0	25	1	49	0	3	1	5	1	9	0	13	309	2	0	324	2	3	401	45	0	451	833	
19:30	0	20	1	22	0	43	0	3	2	3	3	8	0	12	277	0	0	289	2	4	395	45	1	446	786	
19:45	0	33	0	8	0	41	0	0	1	3	0	4	0	7	237	2	0	246	3	2	367	40	0	412	703	
PHF	0.000	0.800	0.500	0.700	-	0.902	0.000	0.438	0.750	0.750	-	0.625	0.250	0.583	0.905	0.625	-	0.912	0.750	0.531	0.952	0.956	-	0.952	0.930	
Lights	0	111	2	69	-	182	0	14	6	15	-	35	2	56	1106	5	-	1169	9	17	1576	172	-	1774	-	3160
% Lights	-	99.1	100.0	98.6	-	98.9	-	100.0	100.0	100.0	-	100.0	100.0	100.0	98.8	100.0	-	98.9	100.0	100.0	99.9	100.0	-	99.9	99.5	
Other Vehicles	0	1	0	1	-	2	0	0	0	0	-	0	0	0	13	0	-	13	0	0	1	0	-	1	16	
% Other Vehicles	-	0.9	0.0	1.4	-	1.1	-	0.0	0.0	0.0	-	0.0	0.0	0.0	1.2	0.0	-	1.1	0.0	0.0	0.1	0.0	-	0.1	0.5	
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	
% Bicycles on Crosswalk	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-	
Pedestrians	-	-	-	-	1	-	-	-	-	-	7	-	-	-	-	-	1	-	-	-	-	-	1	-	-	
% Pedestrians	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-	

FDOT D2 TWO 08 - San Jose Blvd (SR 13)
San Jose Blvd (SR 13) & Ricky Dr
Weekday TMC

Albeck Gerken, Inc.
1907 N US 301
Suite 120
Tampa, Florida, United States 33619
(813) 319-3790

Count Name: 313_San Jose Blvd (SR 13) &
Ricky Dr_WD
Site Code: 313
Start Date: 02/07/2019
Page No: 1

Turning Movement Data

Start Time	Ricky Dr West Approach						Ricky Dr East Approach						San Jose Blvd (SR 13) South Approach						San Jose Blvd (SR 13) North Approach						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:00	0	0	1	0	2	1	0	9	0	24	0	33	1	3	667	5	1	676	2	5	139	1	0	147	857
7:15	0	0	0	0	0	0	0	12	0	20	0	32	0	4	789	6	0	799	0	4	212	3	0	219	1050
7:30	0	0	0	3	0	3	0	8	1	23	0	32	0	2	643	7	0	652	0	4	249	3	1	256	943
7:45	0	0	2	4	0	6	0	9	1	22	2	32	0	5	620	9	0	634	0	7	276	2	0	285	957
Hourly Total	0	0	3	7	2	10	0	38	2	89	2	129	1	14	2719	27	1	2761	2	20	876	9	1	907	3807
8:00	0	1	0	2	0	3	0	10	0	18	0	28	0	6	609	4	0	619	1	4	229	6	0	240	890
8:15	0	1	0	4	0	5	0	6	0	21	1	27	0	6	648	2	0	656	0	8	317	2	0	327	1015
8:30	0	1	0	6	0	7	0	13	2	14	0	29	0	4	610	7	0	621	1	8	263	5	0	277	934
8:45	0	1	2	2	0	5	0	14	1	9	0	24	0	2	581	3	0	586	0	9	321	13	0	343	958
Hourly Total	0	4	2	14	0	20	0	43	3	62	1	108	0	18	2448	16	0	2482	2	29	1130	26	0	1187	3797
9:00	0	1	1	5	0	7	0	7	5	10	0	22	0	11	502	4	0	517	2	8	314	8	0	332	878
9:15	0	2	2	6	0	10	0	6	1	18	0	25	1	7	514	6	0	528	0	11	277	8	0	296	859
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hourly Total	0	3	3	11	0	17	0	13	6	28	0	47	1	18	1016	10	0	1045	2	19	591	16	0	628	1737
12:00	0	1	4	16	0	21	0	7	3	16	0	26	0	18	441	8	1	467	0	4	460	10	1	474	988
12:15	0	3	6	11	0	20	0	5	2	14	1	21	0	12	441	7	0	460	0	12	408	16	0	436	937
12:30	0	6	2	21	0	29	0	13	1	12	0	26	2	18	451	10	0	481	0	12	506	12	0	530	1066
12:45	0	3	4	16	0	23	0	10	2	13	0	25	0	13	436	10	0	459	2	10	495	7	0	514	1021
Hourly Total	0	13	16	64	0	93	0	35	8	55	1	98	2	61	1769	35	1	1867	2	38	1869	45	1	1954	4012
13:00	0	2	1	16	0	19	0	15	2	10	1	27	1	16	412	8	0	437	2	15	462	9	0	488	971
13:15	0	3	2	10	1	15	0	9	4	19	2	32	4	12	450	11	0	477	0	11	448	6	0	465	989
13:30	0	7	1	15	0	23	0	9	2	16	0	27	2	14	445	10	4	471	1	7	443	9	0	460	981
13:45	0	2	3	13	1	18	0	18	8	8	1	34	1	6	434	13	0	454	2	17	485	13	0	517	1023
Hourly Total	0	14	7	54	2	75	0	51	16	53	4	120	8	48	1741	42	4	1839	5	50	1838	37	0	1930	3964
14:00	0	4	0	10	1	14	0	11	2	11	1	24	0	9	420	11	0	440	0	13	522	3	0	538	1016
14:15	0	3	4	10	0	17	0	12	1	13	0	26	2	5	435	5	0	447	0	13	504	21	1	538	1028
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Hourly Total	0	7	4	20	1	31	0	23	3	24	1	50	2	14	855	16	0	887	0	26	1026	24	1	1076	2044
16:00	0	1	3	16	0	20	0	7	7	16	0	30	1	17	448	9	0	475	0	19	608	10	0	637	1162
16:15	0	4	6	17	1	27	0	10	2	9	0	21	4	8	480	7	1	499	1	16	608	12	0	637	1184
16:30	0	5	4	18	2	27	0	8	5	7	0	20	0	14	449	14	0	477	1	20	604	17	0	642	1166
16:45	0	3	8	16	1	27	0	11	4	8	0	23	1	15	462	11	0	489	1	15	573	7	0	596	1135
Hourly Total	0	13	21	67	4	101	0	36	18	40	0	94	6	54	1839	41	1	1940	3	70	2393	46	0	2512	4647
17:00	0	0	7	16	0	23	0	14	2	9	3	25	1	10	494	12	0	517	0	22	573	17	0	612	1177
17:15	0	2	5	19	0	26	0	9	2	5	1	16	1	15	527	14	0	557	1	17	567	11	0	596	1195
17:30	0	4	5	18	0	27	0	14	3	21	2	38	0	8	436	12	0	456	0	11	606	5	0	622	1143
17:45	0	4	5	15	1	24	0	11	7	12	0	30	1	12	426	10	0	449	2	21	530	8	0	561	1064

Hourly Total	0	10	22	68	1	100	0	48	14	47	6	109	3	45	1883	48	0	1979	3	71	2276	41	0	2391	4579
*** BREAK ***	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
19:00	0	3	5	10	0	18	0	2	4	10	2	16	0	8	320	10	0	338	0	15	415	8	1	438	810
19:15	0	3	6	10	0	19	0	10	1	12	0	23	0	9	309	9	0	327	1	16	428	8	1	453	822
19:30	0	2	5	14	0	21	0	3	0	10	1	13	1	8	291	1	0	301	0	15	370	5	0	390	725
19:45	0	2	1	12	0	15	0	7	3	10	0	20	0	11	241	5	0	257	1	14	365	5	0	385	677
Hourly Total	0	10	17	46	0	73	0	22	8	42	3	72	1	36	1161	25	0	1223	2	60	1578	26	2	1666	3034
Lights	0	72	94	349	-	515	0	306	75	415	-	796	23	301	15164	252	-	15740	21	364	13361	265	-	14011	31062
% Lights	-	97.3	98.9	99.4	-	99.0	-	99.0	96.2	94.3	-	96.3	95.8	97.7	98.3	96.9	-	98.2	100.0	95.0	98.4	98.1	-	98.3	98.2
Other Vehicles	0	2	1	2	-	5	0	3	3	25	-	31	1	7	267	8	-	283	0	19	216	5	-	240	559
% Other Vehicles	-	2.7	1.1	0.6	-	1.0	-	1.0	3.8	5.7	-	3.7	4.2	2.3	1.7	3.1	-	1.8	0.0	5.0	1.6	1.9	-	1.7	1.8
Bicycles on Crosswalk	-	-	-	-	3	-	-	-	-	-	7	-	-	-	-	-	1	-	-	-	-	-	0	-	
% Bicycles on Crosswalk	-	-	-	-	30.0	-	-	-	-	-	38.9	-	-	-	-	-	14.3	-	-	-	-	-	0.0	-	
Pedestrians	-	-	-	-	7	-	-	-	-	-	11	-	-	-	-	-	6	-	-	-	-	-	5	-	
% Pedestrians	-	-	-	-	70.0	-	-	-	-	-	61.1	-	-	-	-	-	85.7	-	-	-	-	-	100.0	-	

FDOT D2 TWO 08 - San Jose Blvd (SR 13)
 San Jose Blvd (SR 13) & Ricky Dr
 Weekday TMC

Albeck Gerken, Inc.
 1907 N US 301
 Suite 120
 Tampa, Florida, United States 33619
 (813) 319-3790

Count Name: 313_San Jose Blvd (SR 13) &
 Ricky Dr_WD
 Site Code: 313
 Start Date: 02/07/2019
 Page No: 3

Turning Movement Peak Hour Data (7:15)

Start Time	Ricky Dr West Approach						Ricky Dr East Approach						San Jose Blvd (SR 13) South Approach						San Jose Blvd (SR 13) North Approach						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
7:15	0	0	0	0	0	0	0	12	0	20	0	32	0	4	789	6	0	799	0	4	212	3	0	219	1050
7:30	0	0	0	3	0	3	0	8	1	23	0	32	0	2	643	7	0	652	0	4	249	3	1	256	943
7:45	0	0	2	4	0	6	0	9	1	22	2	32	0	5	620	9	0	634	0	7	276	2	0	285	957
8:00	0	1	0	2	0	3	0	10	0	18	0	28	0	6	609	4	0	619	1	4	229	6	0	240	890
PHF	0.000	0.250	0.250	0.563	-	0.500	0.000	0.813	0.500	0.902	-	0.969	0.000	0.708	0.843	0.722	-	0.846	0.250	0.679	0.875	0.583	-	0.877	0.914
Lights	0	0	2	9	-	11	0	39	2	79	-	120	0	15	2634	25	-	2674	1	17	934	14	-	966	3771
% Lights	-	0.0	100.0	100.0	-	91.7	-	100.0	100.0	95.2	-	96.8	-	88.2	99.0	96.2	-	98.9	100.0	89.5	96.7	100.0	-	96.6	98.2
Other Vehicles	0	1	0	0	-	1	0	0	0	4	-	4	0	2	27	1	-	30	0	2	32	0	-	34	69
% Other Vehicles	-	100.0	0.0	0.0	-	8.3	-	0.0	0.0	4.8	-	3.2	-	11.8	1.0	3.8	-	1.1	0.0	10.5	3.3	0.0	-	3.4	1.8
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	2	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-

FDOT D2 TWO 08 - San Jose Blvd (SR 13)
 San Jose Blvd (SR 13) & Ricky Dr
 Weekday TMC

Albeck Gerken, Inc.
 1907 N US 301
 Suite 120
 Tampa, Florida, United States 33619
 (813) 319-3790

Count Name: 313_San Jose Blvd (SR 13) &
 Ricky Dr_WD
 Site Code: 313
 Start Date: 02/07/2019
 Page No: 4

Turning Movement Peak Hour Data (13:30)

Start Time	Ricky Dr West Approach						Ricky Dr East Approach						San Jose Blvd (SR 13) South Approach						San Jose Blvd (SR 13) North Approach						Int. Total
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	
13:30	0	7	1	15	0	23	0	9	2	16	0	27	2	14	445	10	4	471	1	7	443	9	0	460	981
13:45	0	2	3	13	1	18	0	18	8	8	1	34	1	6	434	13	0	454	2	17	485	13	0	517	1023
14:00	0	4	0	10	1	14	0	11	2	11	1	24	0	9	420	11	0	440	0	13	522	3	0	538	1016
14:15	0	3	4	10	0	17	0	12	1	13	0	26	2	5	435	5	0	447	0	13	504	21	1	538	1028
PHF	0.000	0.571	0.500	0.800	-	0.783	0.000	0.694	0.406	0.750	-	0.816	0.625	0.607	0.974	0.750	-	0.962	0.375	0.735	0.936	0.548	-	0.954	0.984
Lights	0	16	8	47	-	71	0	49	12	44	-	105	5	33	1690	36	-	1764	3	47	1917	45	-	2012	3952
% Lights	-	100.0	100.0	97.9	-	98.6	-	98.0	92.3	91.7	-	94.6	100.0	97.1	97.5	92.3	-	97.4	100.0	94.0	98.1	97.8	-	98.0	97.6
Other Vehicles	0	0	0	1	-	1	0	1	1	4	-	6	0	1	44	3	-	48	0	3	37	1	-	41	96
% Other Vehicles	-	0.0	0.0	2.1	-	1.4	-	2.0	7.7	8.3	-	5.4	0.0	2.9	2.5	7.7	-	2.6	0.0	6.0	1.9	2.2	-	2.0	2.4
Bicycles on Crosswalk	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	0	-	-	-	-	-	0	-	-
% Bicycles on Crosswalk	-	-	-	-	50.0	-	-	-	-	-	50.0	-	-	-	-	-	0.0	-	-	-	-	-	0.0	-	-
Pedestrians	-	-	-	-	1	-	-	-	-	-	1	-	-	-	-	-	4	-	-	-	-	-	1	-	-
% Pedestrians	-	-	-	-	50.0	-	-	-	-	-	50.0	-	-	-	-	-	100.0	-	-	-	-	-	100.0	-	-

FDOT D2 TWO 08 - San Jose Blvd (SR 13)
San Jose Blvd (SR 13) & Ricky Dr
Weekday TMC

Albeck Gerken, Inc.
1907 N US 301
Suite 120
Tampa, Florida, United States 33619
(813) 319-3790

Count Name: 313_San Jose Blvd (SR 13) &
Ricky Dr_WD
Site Code: 313
Start Date: 02/07/2019
Page No: 5

Turning Movement Peak Hour Data (16:30)

FDOT D2 TWO 08 - San Jose Blvd (SR 13)
San Jose Blvd (SR 13) & Ricky Dr
Weekday TMC

Albeck Gerken, Inc.
1907 N US 301
Suite 120
Tampa, Florida, United States 33619
(813) 319-3790

Count Name: 313_San Jose Blvd (SR 13) &
Ricky Dr_WD
Site Code: 313
Start Date: 02/07/2019
Page No: 6

Turning Movement Peak Hour Data (19:00)

Start Time	Ricky Dr						Ricky Dr						San Jose Blvd (SR 13)						San Jose Blvd (SR 13)						Int. Total	
	West Approach						East Approach						South Approach						North Approach							
	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total	U-Turn	Left	Thru	Right	Peds	App. Total		
19:00	0	3	5	10	0	18	0	2	4	10	2	16	0	8	320	10	0	338	0	15	415	8	1	438	810	
19:15	0	3	6	10	0	19	0	10	1	12	0	23	0	9	309	9	0	327	1	16	428	8	1	453	822	
19:30	0	2	5	14	0	21	0	3	0	10	1	13	1	8	291	1	0	301	0	15	370	5	0	390	725	
19:45	0	2	1	12	0	15	0	7	3	10	0	20	0	11	241	5	0	257	1	14	365	5	0	385	677	
PHF	0.000	0.833	0.708	0.821	-	0.869	0.000	0.550	0.500	0.875	-	0.783	0.250	0.818	0.907	0.625	-	0.905	0.500	0.938	0.922	0.813	-	0.919	0.923	
Lights	0	10	17	46	-	73	0	22	8	38	-	68	1	36	1152	24	-	1213	2	59	1577	26	-	1664	3018	
% Lights	-	100.0	100.0	100.0	-	100.0	-	100.0	100.0	90.5	-	94.4	100.0	100.0	99.2	96.0	-	99.2	100.0	98.3	99.9	100.0	-	99.9	99.5	
Other Vehicles	0	0	0	0	-	0	0	0	0	4	-	4	0	0	9	1	-	10	0	1	1	0	-	2	16	
% Other Vehicles	-	0.0	0.0	0.0	-	0.0	-	0.0	0.0	9.5	-	5.6	0.0	0.0	0.8	4.0	-	0.8	0.0	1.7	0.1	0.0	-	0.1	0.5	
Bicycles on Crosswalk	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	-	-	-	0	-	-	
% Bicycles on Crosswalk	-	-	-	-	-	-	-	-	-	-	0.0	-	-	-	-	-	-	-	-	-	-	-	0.0	-	-	
Pedestrians	-	-	-	-	0	-	-	-	-	-	3	-	-	-	-	-	0	-	-	-	-	-	2	-	-	
% Pedestrians	-	-	-	-	-	-	-	-	-	-	100.0	-	-	-	-	-	-	-	-	-	-	-	100.0	-	-	

APPENDIX C

FDOT TRAFFIC DATA

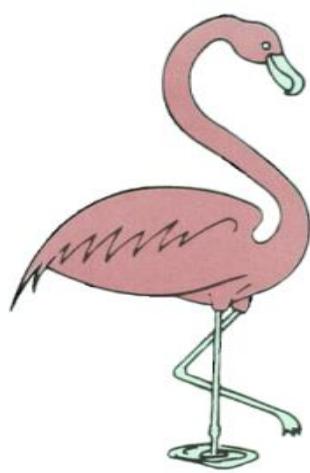
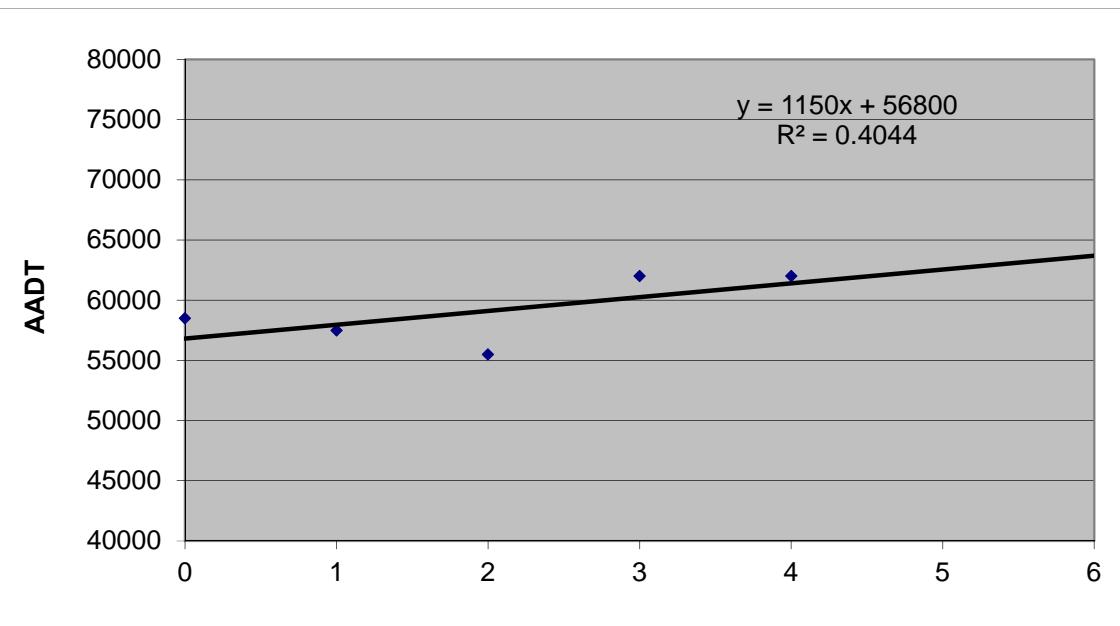


TABLE C-1
LINEAR REGRESSION ANALYSIS

SR 13, North of Mandarin Road

<u>Year</u>	<u>X</u>	<u>Actual AADT (Y)</u>	<u>Predicted AADT</u>
2015	0	58500	56800
2016	1	57500	57950
2017	2	55500	59100
2018	3	62000	60250
2019	4	62000	61400
2020	5		62550
2021	6		63700

i = 1.9%



BUCKHOLZ TRAFFIC

FLORIDA DEPARTMENT OF TRANSPORTATION
 TRANSPORTATION STATISTICS OFFICE
 2019 HISTORICAL AADT REPORT

COUNTY: 72 - DUVAL

SITE: 0128 - SR 13 150' N. OF MANDARIN RD.

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2019	62000 C	N 31000	S 31000	9.00	55.90	1.10
2018	62000 C	N 31000	S 31000	9.00	55.80	0.90
2017	55500 C	N 28500	S 27000	9.00	56.10	1.20
2016	57500 C	N 29500	S 28000	9.00	56.20	1.10
2015	58500 C	N 29500	S 29000	9.00	56.30	0.90
2014	55000 C	N 28000	S 27000	9.00	56.40	1.10
2013	56000 C	N 28500	S 27500	9.00	57.10	1.30
2012	55000 C	N 27500	S 27500	9.00	57.80	1.00
2011	56500 C	N 28500	S 28000	9.00	56.60	1.20
2010	58500 C	N 29500	S 29000	9.75	56.38	1.10
2009	54500 C	N 27500	S 27000	9.48	57.48	1.10
2008	59500 C	N 30000	S 29500	9.68	57.27	3.60
2007	65500 C	N 33000	S 32500	9.26	57.87	3.70
2006	60500 C	N 30500	S 30000	9.52	57.03	2.90
2005	62000 C	N 31500	S 30500	9.00	56.50	4.50
2004	62500 C	N 32000	S 30500	9.20	58.40	2.20

AADT FLAGS: C = COMPUTED; E = MANUAL ESTIMATE; F = FIRST YEAR ESTIMATE
 S = SECOND YEAR ESTIMATE; T = THIRD YEAR ESTIMATE; R = FOURTH YEAR ESTIMATE
 V = FIFTH YEAR ESTIMATE; 6 = SIXTH YEAR ESTIMATE; X = UNKNOWN

*K FACTOR: STARTING WITH YEAR 2011 IS STANDARDK, PRIOR YEARS ARE K30 VALUES

COUNTY: 72
 STATION: 0128
 DESCRIPTION: SR 13 150' N. OF MANDARIN RD.
 START DATE: 09/26/2019
 START TIME: 1100

TIME	DIRECTION: N					DIRECTION: S					COMBINED	
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	TOTAL	
0000	48	36	27	20	131	56	37	40	24	157	288	
0100	16	12	9	22	59	24	23	23	22	92	151	
0200	12	23	10	13	58	17	17	10	12	56	114	
0300	13	22	19	15	69	10	5	19	12	46	115	
0400	30	54	59	78	221	10	16	27	29	82	303	
0500	98	129	178	232	637	33	38	62	96	229	866	
0600	289	366	502	552	1709	108	155	208	249	720	2429	
0700	667	634	619	574	2494	253	257	306	389	1205	3699	
0800	560	548	598	576	2282	374	391	426	457	1648	3930	
0900	573	467	500	466	2006	349	400	380	436	1565	3571	
1000	514	454	502	450	1920	417	357	446	423	1643	3563	
1100	491	449	465	484	1889	461	408	456	470	1795	3684	
1200	437	492	470	477	1876	466	520	494	509	1989	3865	
1300	466	451	435	429	1781	512	485	525	509	2031	3812	
1400	505	428	462	420	1815	472	488	535	554	2049	3864	
1500	466	476	522	451	1915	599	552	628	642	2421	4336	
1600	454	432	457	471	1814	604	615	684	678	2581	4395	
1700	548	489	461	435	1933	698	647	657	660	2662	4595	
1800	442	440	416	410	1708	623	578	584	513	2298	4006	
1900	371	363	294	306	1334	470	494	386	408	1758	3092	
2000	324	288	205	202	1019	413	341	364	291	1409	2428	
2100	188	160	145	131	624	241	223	202	179	845	1469	
2200	108	82	89	71	350	143	119	104	70	436	786	
2300	59	55	34	30	178	54	61	64	58	237	415	

24-HOUR TOTALS: 29822 29954 59776

PEAK VOLUME INFORMATION											
DIRECTION: N				DIRECTION: S				COMBINED DIRECTIONS			
HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME				
A.M.	700	2494	800	1648	800	3930					
P.M.	1645	1969	1630	2707	1630	4672					
DAILY	700	2494	1630	2707	1630	4672					

2019 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 7200 DUVAL COUNTYWIDE

MOCF: 0.98
 PSCF

WEEK	DATES	SF	
=====			
1	01/01/2019 - 01/05/2019	1.03	1.05
2	01/06/2019 - 01/12/2019	1.04	1.06
3	01/13/2019 - 01/19/2019	1.05	1.07
4	01/20/2019 - 01/26/2019	1.04	1.06
5	01/27/2019 - 02/02/2019	1.03	1.05
6	02/03/2019 - 02/09/2019	1.01	1.03
7	02/10/2019 - 02/16/2019	1.00	1.02
8	02/17/2019 - 02/23/2019	1.00	1.02
9	02/24/2019 - 03/02/2019	0.99	1.01
*10	03/03/2019 - 03/09/2019	0.98	1.00
*11	03/10/2019 - 03/16/2019	0.98	1.00
*12	03/17/2019 - 03/23/2019	0.97	0.99
*13	03/24/2019 - 03/30/2019	0.97	0.99
*14	03/31/2019 - 04/06/2019	0.97	0.99
*15	04/07/2019 - 04/13/2019	0.97	0.99
*16	04/14/2019 - 04/20/2019	0.97	0.99
*17	04/21/2019 - 04/27/2019	0.97	0.99
*18	04/28/2019 - 05/04/2019	0.98	1.00
*19	05/05/2019 - 05/11/2019	0.98	1.00
*20	05/12/2019 - 05/18/2019	0.99	1.01
*21	05/19/2019 - 05/25/2019	0.99	1.01
*22	05/26/2019 - 06/01/2019	0.99	1.01
23	06/02/2019 - 06/08/2019	0.99	1.01
24	06/09/2019 - 06/15/2019	0.99	1.01
25	06/16/2019 - 06/22/2019	0.99	1.01
26	06/23/2019 - 06/29/2019	1.00	1.02
27	06/30/2019 - 07/06/2019	1.00	1.02
28	07/07/2019 - 07/13/2019	1.01	1.03
29	07/14/2019 - 07/20/2019	1.01	1.03
30	07/21/2019 - 07/27/2019	1.01	1.03
31	07/28/2019 - 08/03/2019	1.00	1.02
32	08/04/2019 - 08/10/2019	0.99	1.01
33	08/11/2019 - 08/17/2019	0.99	1.01
34	08/18/2019 - 08/24/2019	1.00	1.02
35	08/25/2019 - 08/31/2019	1.02	1.04
36	09/01/2019 - 09/07/2019	1.03	1.05
37	09/08/2019 - 09/14/2019	1.05	1.07
38	09/15/2019 - 09/21/2019	1.06	1.08
39	09/22/2019 - 09/28/2019	1.04	1.06
40	09/29/2019 - 10/05/2019	1.02	1.04
41	10/06/2019 - 10/12/2019	1.00	1.02
42	10/13/2019 - 10/19/2019	0.98	1.00
43	10/20/2019 - 10/26/2019	0.99	1.01
44	10/27/2019 - 11/02/2019	1.00	1.02
45	11/03/2019 - 11/09/2019	1.01	1.03
46	11/10/2019 - 11/16/2019	1.03	1.05
47	11/17/2019 - 11/23/2019	1.03	1.05
48	11/24/2019 - 11/30/2019	1.03	1.05
49	12/01/2019 - 12/07/2019	1.03	1.05
50	12/08/2019 - 12/14/2019	1.03	1.05
51	12/15/2019 - 12/21/2019	1.03	1.05
52	12/22/2019 - 12/28/2019	1.04	1.06
53	12/29/2019 - 12/31/2019	1.05	1.07

* PEAK SEASON

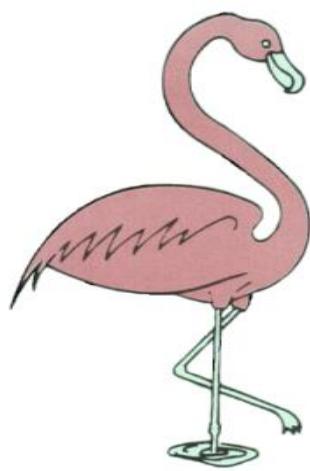
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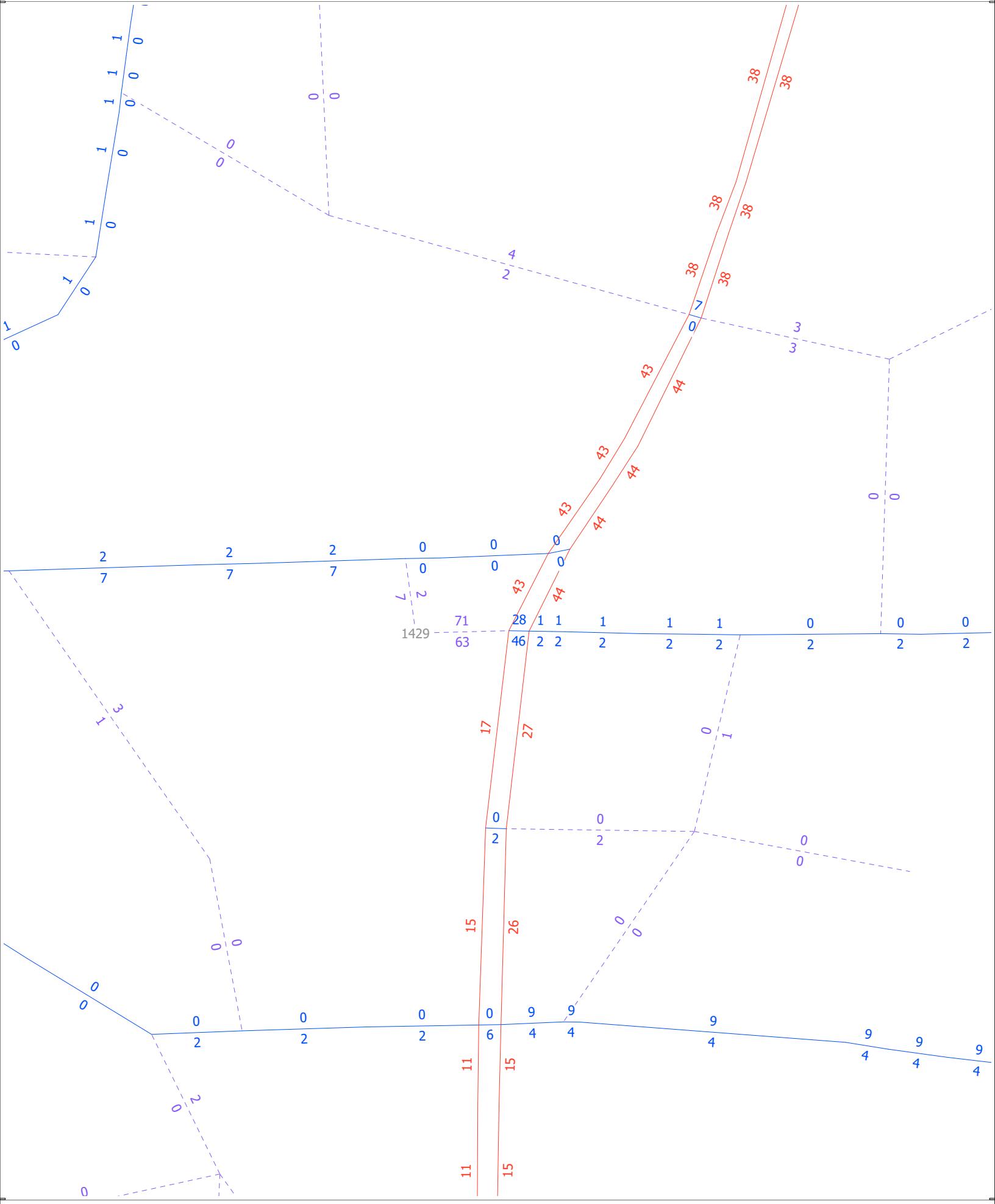
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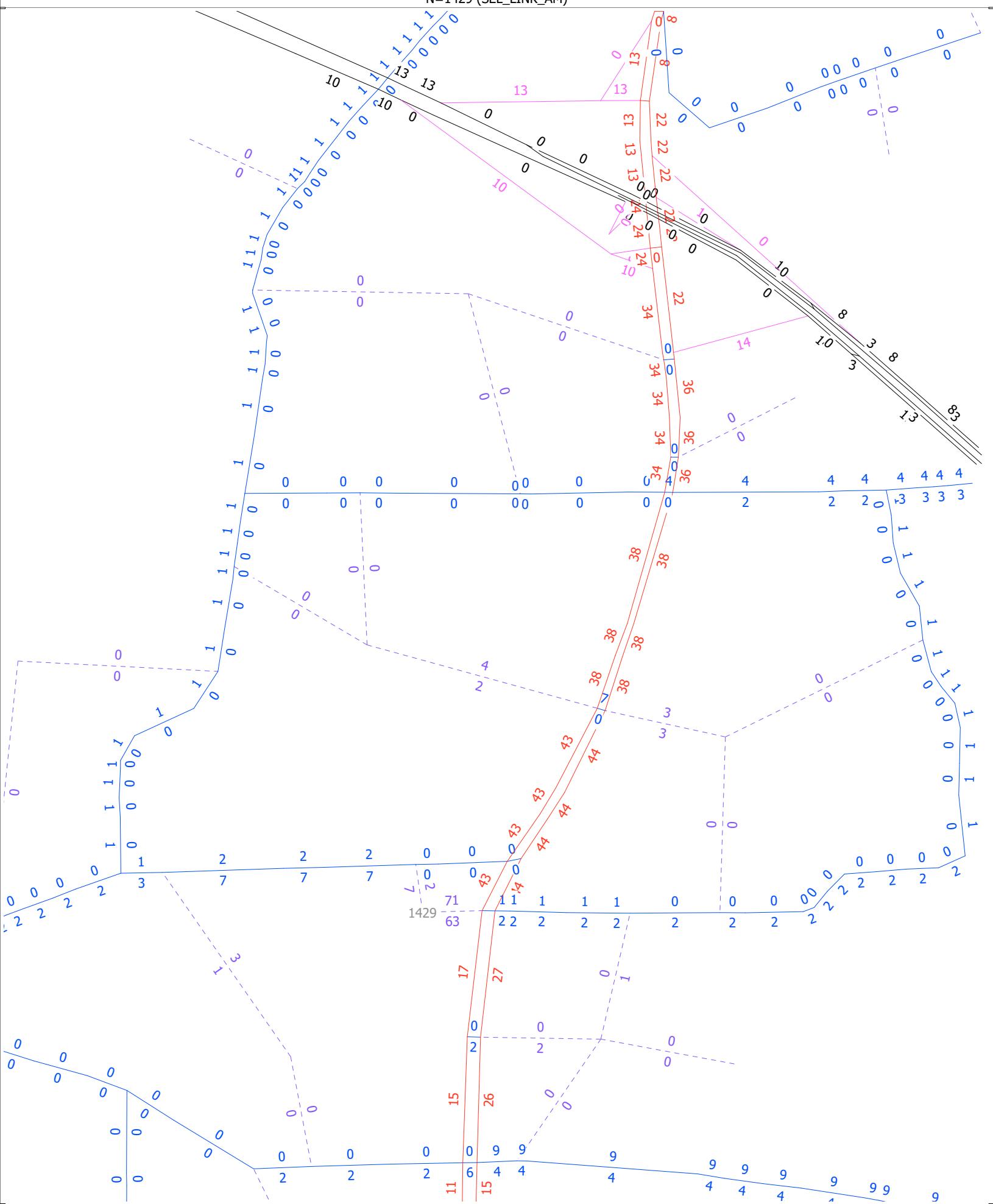
APPENDIX D

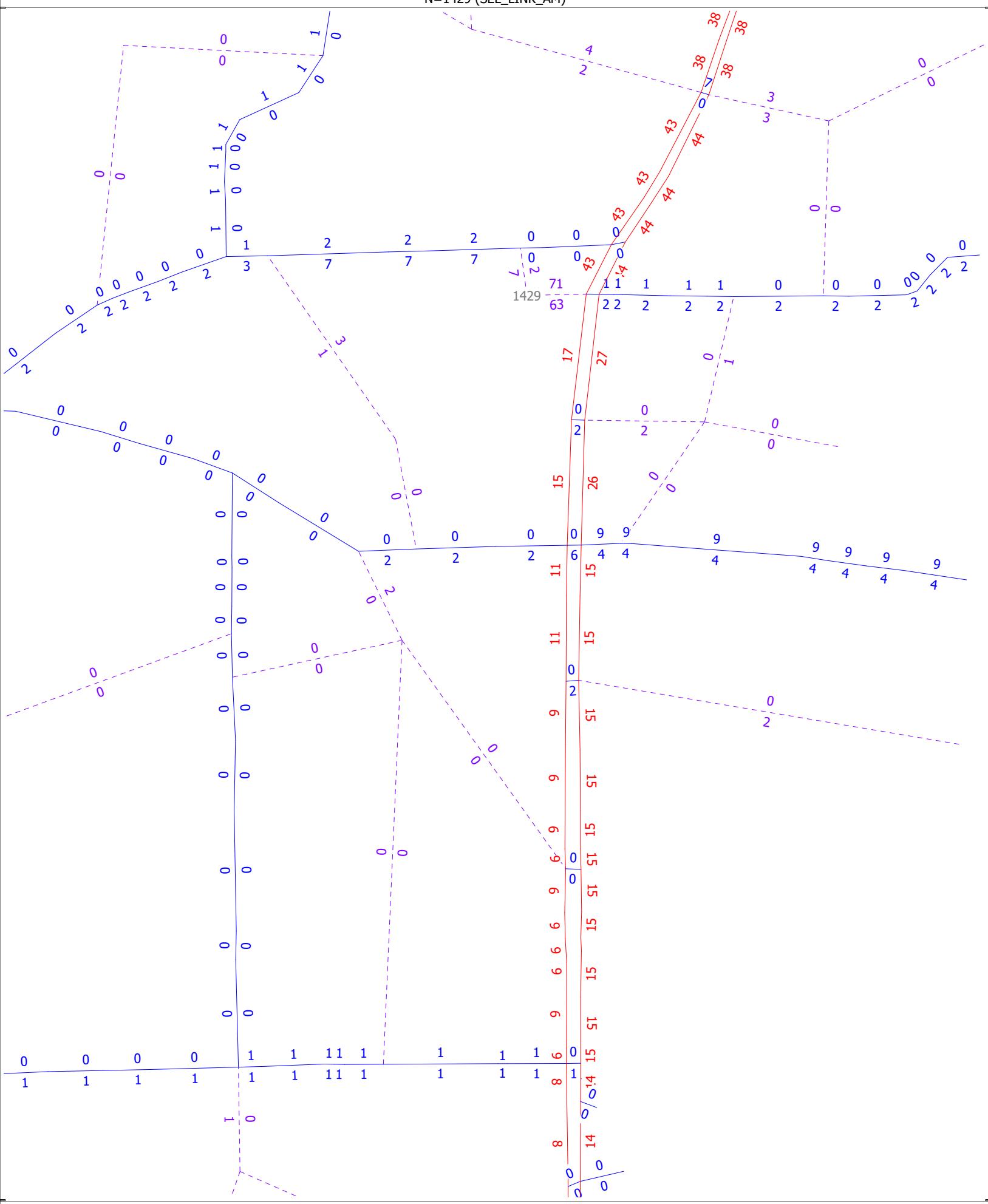
NERPM RESULTS



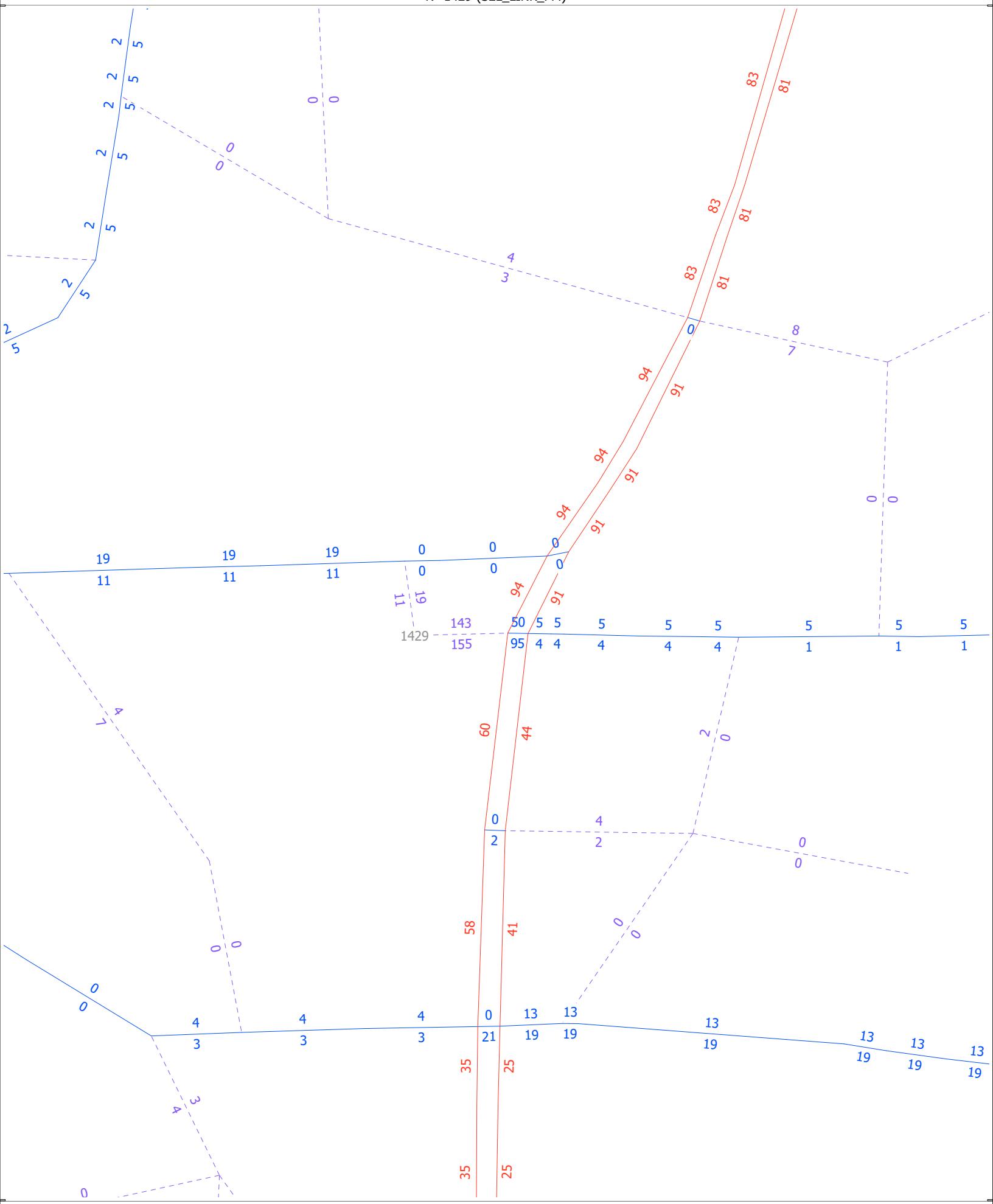
AM PEAK PERIOD

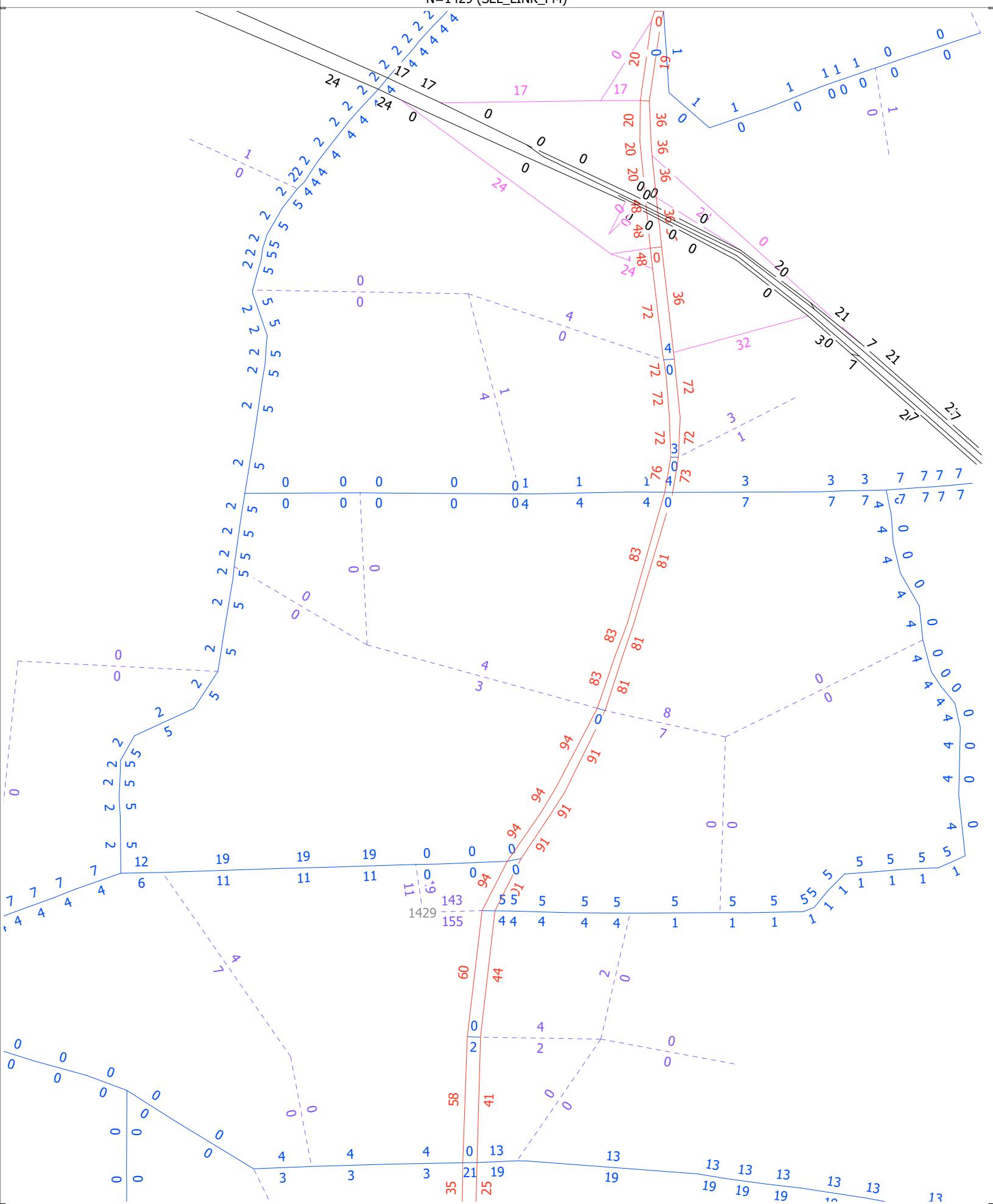


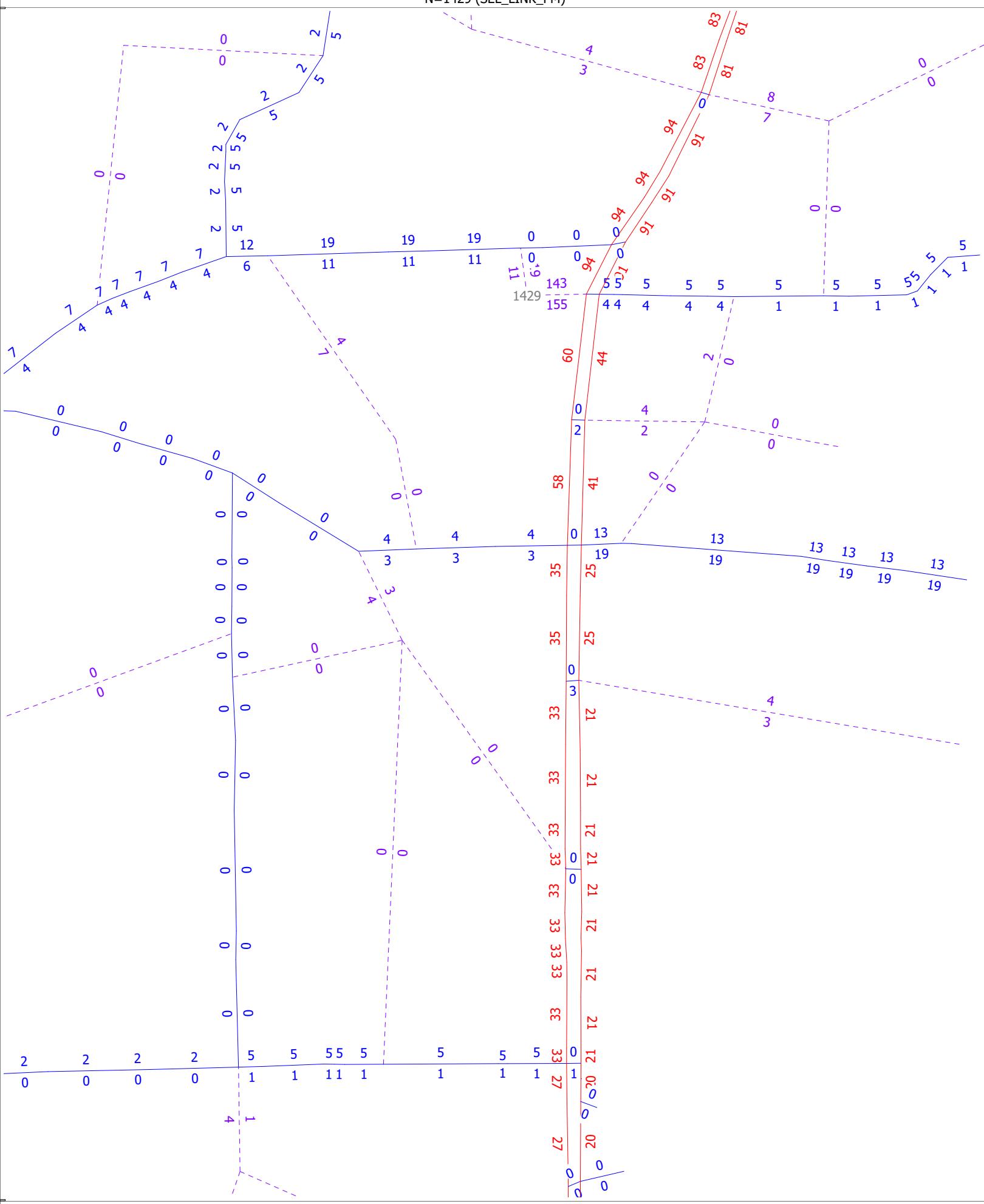




PM PEAK PERIOD

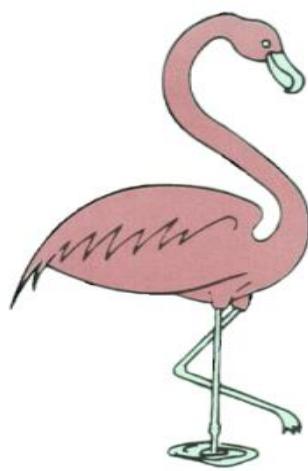






APPENDIX E

SIGNAL TIMINGS



Location Details															
Signal ID:	314								Date:	April 26, 2019					
Major Street:	San Jose Blvd SR 13								Orientation:	N-S					
Minor Street:	Mandarin Rd								Orientation:	E-					

Controller Timings seconds

Movement Controller Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Notes
Direction	NBLT	SB	EBLT	B	SBLT	NB	BLT	EB									
Turn Type	Prot Perm		Prot Perm		Prot Perm		Prot Perm										
Min Green	4	18	4	6	4	18	4	6									
Ext	3.0	4.0	4.0	3.0	3.0	4.0	3.0	3.0									
Yellow	4.9	4.9	3.7	3.7	4.8	4.9	3.7	3.7									
All Red	2.0	2.0	2.6	2.6	2.0	2.0	2.5	2.6									
Max I	15	100	30	40	15	100	15	40									
Max II	45	90	45	45	45	90	45	45									
alk		7		7		7		7									
Flashing Don t alk		24		32		22		34									
Detector Memory																	
Det. Switching to:	6		8		2		4										
Recall		MIN				MIN											
CNA																	

Coordination Timings seconds

Pattern	C-S-O	Cycle Length	Splits																Offset	Se	Coord
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16			
1		190	15	137 MAX	22	16	15	137 MAX	15	23									110	1	2
2		140	15	87 MAX	22	16	18	84 MAX	15	23									60	1	2
3		180	19	126 MAX	19	16	19	126 MAX	17	18									10	1	2
4		110	16	62 MAX	16	16	15	63 MAX	15	17									11	1	2
5		120	17	66 MAX	21	16	16	67 MAX	15	22									1	1	2
6		160	18	100 MAX	26	16	18	100 MAX	15	27									11	1	2
7		110	15	60 MAX	19	16	15	60 MAX	15	20									2	1	2
8		120	17	66 MAX	21	16	16	67 MAX	15	22									1	1	2
9		160	18	100 MAX	26	16	18	100 MAX	15	27									11	1	2
10		110	15	60 MAX	19	16	15	60 MAX	15	20									2	1	2
18		120	17	61 MAX	26	16	16	62 MAX	15	27									1	1	2
19		160	19	94 MAX	31	16	18	95 MAX	15	32									10	1	2

Offset Reference Point	Phase Mode
End of Green of first through movement	STD8

SE	1
Ring - 1	1
Ring - 2	5

Notes:

- 1) Use 'Max I' during FREE Operation.
- 2) Program phase restriction to omit Ø1 during Ø2 green and omit Ø5 during Ø6 green.
- 3) Redirect calls from Ø3 to Ø8 when Ø4 is green and from Ø7 to Ø4 when Ø8 is green.

Signal ID:	314
Major Street:	San Jose Blvd SR 13
Minor Street:	Mandarin Rd

Day Plans

Monday-Friday			
Day Plan 1			
Hr	Min	Patt	Cycl
00	00	254	Free
5	30	4	110
6	30	1	190
9	30	2	140
14	30	3	180
19	00	4	110
21	30	254	Free

Saturday			
Day Plan 2			
Hr	Min	Patt	Cycl
00	00	254	Free
7	15	5	120
9	15	6	160
18	30	7	110
21	30	254	Free

Sunday			
Day Plan 3			
Hr	Min	Patt	Cycl
00	00	254	Free
8	30	8	120
10	25	8	120
11	00	9	160
11	40	19	160
12	5	9	160
17	00	10	110
20	00	254	Free

Day Plan 4			
Hr	Min	Patt	Cycl

Day Plan 5			
Hr	Min	Patt	Cycl

Day Plan 6			
Hr	Min	Patt	Cycl

Day Plan 7			
Hr	Min	Patt	Cycl

Day Plan 8			
Hr	Min	Patt	Cycl

Patt	Force Mode	Alt Opt Table	Alt Time Table	Coord Max Plan	Alt Time Table Max Values Seconds															
					1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16
1	FIXED	None	None	Max Inh																
2	FIXED	None	None	Max Inh																
3	FIXED	None	None	Max Inh																
4	FIXED	None	None	Max Inh																
5	FIXED	None	None	Max Inh																
6	FIXED	None	None	Max Inh																
7	FIXED	None	None	Max Inh																
8	FIXED	None	None	Max Inh																
9	FIXED	None	None	Max Inh																
10	FIXED	None	None	Max Inh																
18	FIXED	None	None	Max Inh																
19	FIXED	None	None	Max Inh																

Location Details															
Signal ID:	313							Date:	April 26, 2019						
Major Street:	San Jose Blvd SR 13							Orientation:	N-S						
Minor Street:	Ricky Dr							Orientation:	E-						

Controller Timings seconds

Movement Controller Phase	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	Notes
Direction	NBLT	SB		B	SBLT	NB	BLT	EB									
Turn Type	Prot				Prot		Prot Perm										
Min Green	4	18		6	4	18	4	6									
Ext	3.0	4.0		3.0	3.0	4.0	3.0	3.0									
Yellow	4.8	4.8		3.7	4.8	4.8	3.7	3.7									
All Red	2.0	2.0		3.0	2.0	2.0	2.3	3.0									
Max I	20	100		40	15	100	20	40									
Max II	45	70		45	45	70	45	45									
alk		7				7		7									
Flashing Don t alk		20				21		36									
Detector Memory																	
Det. Switching to:	6				2												
Recall		MIN				MIN											
CNA																	

Coordination Timings seconds

Pattern	C-S-O	Cycle Length	Splits																
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	
1		190	15	155 MAX		20	15	155 MAX		20							116	1	2
2		140	16	99 MAX		25	20	95 MAX		25							66	1	2
3		180	19	140 MAX		21	25	134 MAX		21							15	1	2
4		110	17	74 MAX		19	17	74 MAX		19							19	1	2
5		120	17	80 MAX		23	18	79 MAX		23							1	1	2
6		160	20	116 MAX		24	20	116 MAX		24							30	1	2
7		110	17	70 MAX		23	17	70 MAX		23							8	1	2
8		120	17	80 MAX		23	18	79 MAX		23							1	1	2
9		160	20	116 MAX		24	20	116 MAX		24							30	1	2
10		110	17	70 MAX		23	17	70 MAX		23							8	1	2

Offset Reference Point	Phase Mode
End of Green of first through movement	STD8

		SE 1	
Ring - 1	1	2	4
Ring - 2	5	6	7 8

Notes:

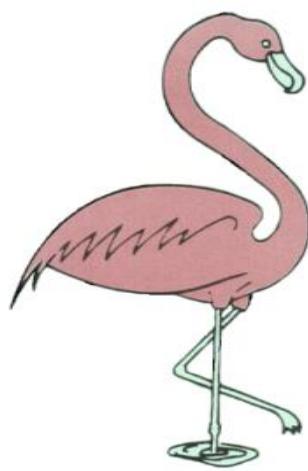
- 1) Use 'Max I' during FREE Operation.
- 2) Program phase restriction to omit Ø1 during Ø2 green and omit Ø5 during Ø6 green.
- 3) Ø7 active only during fire station preemption.

Signal ID:	313
Major Street:	San Jose Blvd SR 13
Minor Street:	Ricky Dr

Day Plans

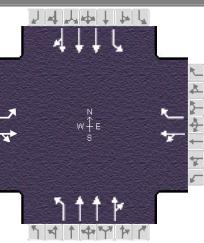
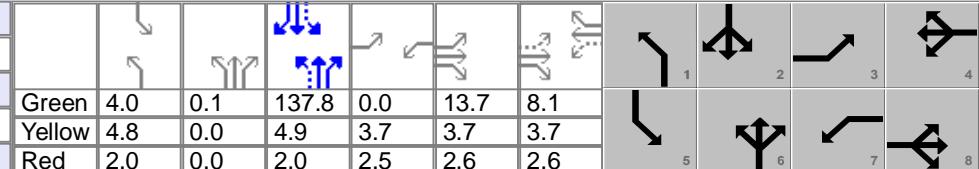
APPENDIX F

SIGNALIZED INTERSECTION CAPACITY ANALYSIS

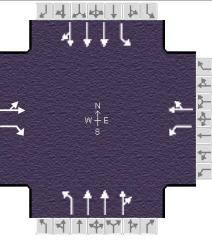
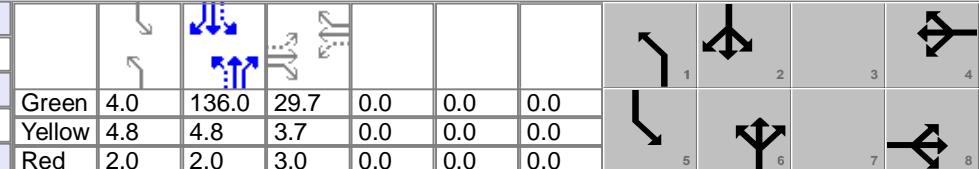


AM PEAK HOUR

HCS7 Signalized Intersection Results Summary

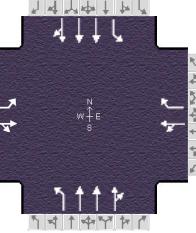
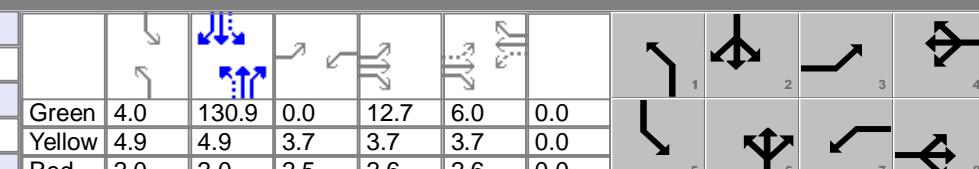
General Information								Intersection Information									
Agency	BUCKHOLZ TRAFFIC					Duration, h		0.25									
Analyst	J. Buckholz		Analysis Date	5/9/2013		Area Type		Other									
Jurisdiction	Duval County			Time Period	AM Peak Hour		PHF		0.94								
Urban Street	SR 13			Analysis Year	2021 - Optimized Timings		Analysis Period		1> 7:15								
Intersection	SR 13/Mandarin Road			File Name	Opt_2021_AM_B_SR13.xus												
Project Description	2021 AM Peak Hr Build Traffic																
Demand Information				EB		WB		NB		SB							
Approach Movement				L	T	R	L	T	R	L	T	R					
Demand (v), veh/h				164	9	27	4	3	48	46	2844	3					
Signal Information																	
Cycle, s	190.0	Reference Phase	2														
Offset, s	110	Reference Point	End														
Uncoordinated	No	Simult. Gap E/W	Off														
Force Mode	Fixed	Simult. Gap N/S	Off														
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT						
Assigned Phase				3	8	7	4	1	6	5	2						
Case Number				1.1	4.0	0.0	13.0	1.1	4.0	1.1	4.0						
Phase Duration, s				20.0	34.4	0.0	14.4	10.9	144.8	10.8	144.7						
Change Period, (Y+R _c), s				6.3	6.3	6.2	6.3	6.9	6.9	6.8	6.9						
Max Allow Headway (MAH), s				5.0	4.2	0.0	4.2	3.9	0.0	3.9	0.0						
Queue Clearance Time (g _s), s				15.7	5.9		8.1	3.4		3.2							
Green Extension Time (g _e), s				0.0	0.1	0.0	0.1	0.2	0.0	0.1	0.0						
Phase Call Probability				1.00	1.00		0.99	1.00		1.00							
Max Out Probability				1.00	0.00		0.00	0.00		0.00							
Movement Group Results				EB		WB		NB		SB							
Approach Movement				L	T	R	L	T	R	L	T	R					
Assigned Movement				3	8	18	7	4	14	1	6	16					
Adjusted Flow Rate (v), veh/h				174	38		7	51	51	2125	1062	44					
Adjusted Saturation Flow Rate (s), veh/h/ln				1810	1635		373	1585	1781	1885	1884	1767					
Queue Service Time (g _s), s				13.7	3.9		0.7	6.1	1.4	48.5	48.6	1.2					
Cycle Queue Clearance Time (g _c), s				13.7	3.9		0.7	6.1	1.4	48.5	48.6	1.2					
Green Ratio (g/C)				0.13	0.15		0.04	0.04	0.75	0.73	0.73	0.73					
Capacity (c), veh/h				222	242		46	68	389	2736	1367	105					
Volume-to-Capacity Ratio (X)				0.787	0.158		0.163	0.753	0.132	0.777	0.777	0.415					
Back of Queue (Q), ft/ln (95 th percentile)				124.7	77		16.9	128.1	24.7	446	522.4	66.6					
Back of Queue (Q), veh/ln (95 th percentile)				5.0	3.0		0.7	5.0	1.0	17.7	18.3	2.6					
Queue Storage Ratio (RQ) (95 th percentile)				0.71	0.00		0.00	1.71	0.16	0.00	0.00	0.53					
Uniform Delay (d ₁), s/veh				81.2	70.6		87.5	89.9	6.5	7.9	7.9	26.0					
Incremental Delay (d ₂), s/veh				17.8	0.3		1.6	15.4	0.1	1.3	2.6	2.6					
Initial Queue Delay (d ₃), s/veh				0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0					
Control Delay (d), s/veh				99.0	70.9		89.1	105.3	6.6	9.2	10.5	28.6					
Level of Service (LOS)				F	E		F	F	A	A	B	C					
Approach Delay, s/veh / LOS				94.0	F	103.2	F		9.5	A		2.7					
Intersection Delay, s/veh / LOS				12.6					B								
Multimodal Results				EB		WB		NB		SB							
Pedestrian LOS Score / LOS																	
Bicycle LOS Score / LOS																	

HCS7 Signalized Intersection Results Summary

General Information						Intersection Information									
Agency		BUCKHOLZ TRAFFIC				Duration, h		0.25							
Analyst		J. Buckholz		Analysis Date		5/9/2013		Area Type	Other						
Jurisdiction		Duval County		Time Period		AM Peak Hour		PHF	0.91						
Urban Street		SR 13		Analysis Year		2021 - Optimized Timings		Analysis Period	1> 7:15						
Intersection		SR 13/Ricky Drive		File Name		Opt_2021_AM_B_SR13.xus									
Project Description		2021 AM Peak Hr Build Traffic													
Demand Information				EB		WB		NB		SB					
Approach Movement				L	T	R	L	T	R	L	T				
Demand (v), veh/h				64	7	9	42	3	87	18	2796				
				27	21	1121	15								
Signal Information															
Cycle, s	190.0	Reference Phase	2												
Offset, s	116	Reference Point	End	Green	4.0	136.0	29.7	0.0	0.0	0.0					
Uncoordinated	No	Simult. Gap E/W	Off	Yellow	4.8	4.8	3.7	0.0	0.0	0.0					
Force Mode	Fixed	Simult. Gap N/S	Off	Red	2.0	2.0	3.0	0.0	0.0	0.0					
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase					8			4	1	6	5				
Case Number					7.0			6.0	1.1	4.0	1.1				
Phase Duration, s						36.4		36.4	10.8	142.8	10.8				
Change Period, (Y+R _c), s						6.7		6.7	6.8	6.8	6.8				
Max Allow Headway (MAH), s						4.1		4.1	3.9	0.0	3.9				
Queue Clearance Time (g _s), s						28.6		30.5	2.6		2.6				
Green Extension Time (g _e), s						0.3		0.5	0.1	0.0	0.1				
Phase Call Probability						1.00		1.00	1.00		1.00				
Max Out Probability						0.00		0.00	0.00		0.00				
Movement Group Results				EB		WB		NB		SB					
Approach Movement				L	T	R	L	T	R	L	T				
Assigned Movement				3	8	18	7	4	14	1	6				
Adjusted Flow Rate (v), veh/h					78	10	46	99		20	2068				
Adjusted Saturation Flow Rate (s), veh/h/ln					581	1610	1430	1555		1640	1885				
Queue Service Time (g _s), s					14.3	1.0	1.5	11.0		0.6	14.3				
Cycle Queue Clearance Time (g _c), s					26.6	1.0	28.5	11.0		0.6	14.3				
Green Ratio (g/C)					0.16	0.16	0.16	0.16		0.74	0.72				
Capacity (c), veh/h					123	241	49	233		383	2723				
Volume-to-Capacity Ratio (X)					0.634	0.041	0.939	0.424		0.052	0.759				
Back of Queue (Q), ft/ln (95 th percentile)					224.3	19	131.6	207.9		10.1	109.7				
Back of Queue (Q), veh/ln (95 th percentile)					7.1	0.8	5.3	8.0		0.4	4.4				
Queue Storage Ratio (RQ) (95 th percentile)					2.24	0.24	1.76	0.00		0.08	0.00				
Uniform Delay (d ₁), s/veh					85.7	69.1	94.8	73.3		6.4	1.2				
Incremental Delay (d ₂), s/veh					5.3	0.1	45.6	1.2		0.1	2.0				
Initial Queue Delay (d ₃), s/veh					0.0	0.0	0.0	0.0		0.0	0.0				
Control Delay (d), s/veh					91.0	69.2	140.4	74.6		6.4	3.3				
Level of Service (LOS)					F	E	F	E		A	A				
Approach Delay, s/veh / LOS					88.5	F	95.5	F		4.1	A				
Intersection Delay, s/veh / LOS						8.1					A				
Multimodal Results				EB		WB		NB		SB					
Pedestrian LOS Score / LOS															
Bicycle LOS Score / LOS															

PM PEAK HOUR

HCS7 Signalized Intersection Results Summary

General Information						Intersection Information									
Agency		BUCKHOLZ TRAFFIC				Duration, h		0.25							
Analyst		J. Buckholz		Analysis Date		5/9/2013		Area Type							
Jurisdiction		Duval County		Time Period		PM Peak Hour		PHF							
Urban Street		SR 13		Analysis Year		2021 - Optimized Timings		Analysis Period							
Intersection		SR 13/Mandarin Road		File Name		Opt_2021_PM_B_SR13.xus									
Project Description		2021 PM Peak Hr Build Traffic													
Demand Information				EB		WB		NB		SB					
Approach Movement				L	T	R	L	T	R	L					
Demand (v), veh/h				161	4	78	29	2	26	67	1972	16	49	2669	226
Signal Information															
Cycle, s	180.0	Reference Phase	2												
Offset, s	10	Reference Point	End	Green	4.0	130.9	0.0	12.7	6.0	0.0	1	2	3	4	
Uncoordinated	No	Simult. Gap E/W	Off	Yellow	4.9	4.9	3.7	3.7	3.7	0.0	5	6	7	8	
Force Mode	Fixed	Simult. Gap N/S	Off	Red	2.0	2.0	2.5	2.6	2.6	0.0					
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT				
Assigned Phase				3	8	7	4	1	6	5	2				
Case Number				1.1	4.0	0.0	13.0	1.1	4.0	1.1	4.0				
Phase Duration, s				19.0	31.3	0.0	12.3	10.9	137.9	10.8	137.8				
Change Period, (Y+R _c), s				6.3	6.3	6.2	6.3	6.9	6.9	6.8	6.9				
Max Allow Headway (MAH), s				5.0	4.2	0.0	4.1	3.9	0.0	3.9	0.0				
Queue Clearance Time (g _s), s				14.7	10.6		5.2	3.8		3.3					
Green Extension Time (g _e), s				0.0	0.2	0.0	0.0	0.0	0.0	0.0	0.0				
Phase Call Probability				1.00	1.00		1.00	1.00		1.00					
Max Out Probability				1.00	0.00		1.00	1.00		1.00					
Movement Group Results				EB		WB		NB		SB					
Approach Movement				L	T	R	L	T	R	L	T	R			
Assigned Movement				3	8	18	7	4	14	1	6	16	5	2	12
Adjusted Flow Rate (v), veh/h				168	85		32	24	71	1402	699	51	2010	1005	
Adjusted Saturation Flow Rate (s), veh/h/ln				1725	1622		30	1510	1810	1885	1877	1781	1885	1809	
Queue Service Time (g _s), s				12.7	8.6		3.2	2.8	1.8	34.8	34.9	1.3	10.1	28.8	
Cycle Queue Clearance Time (g _c), s				12.7	8.6		3.2	2.8	1.8	34.8	34.9	1.3	10.1	28.8	
Green Ratio (g/C)				0.11	0.14		0.03	0.03	0.75	0.73	0.73	0.75	0.73	0.73	
Capacity (c), veh/h				183	225		40	50	125	2744	1366	182	2742	1316	
Volume-to-Capacity Ratio (X)				0.917	0.379		0.813	0.476	0.565	0.511	0.511	0.281	0.733	0.764	
Back of Queue (Q), ft/ln (95 th percentile)				191.4	166		84.7	57.5	109.1	528.6	606.6	23.3	84.8	242.3	
Back of Queue (Q), veh/ln (95 th percentile)				7.3	6.6		3.4	2.2	4.4	21.0	21.2	0.9	3.4	9.3	
Queue Storage Ratio (RQ) (95 th percentile)				1.09	0.00		0.00	0.77	0.73	0.00	0.00	0.19	0.00	0.00	
Uniform Delay (d ₁), s/veh				79.4	70.5		89.8	85.5	20.7	14.5	14.5	10.9	0.9	3.4	
Incremental Delay (d ₂), s/veh				44.1	1.1		37.4	6.8	3.4	0.6	1.2	0.8	1.8	4.3	
Initial Queue Delay (d ₃), s/veh				0.0	0.0		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Control Delay (d), s/veh				123.5	71.5		127.2	92.3	24.1	15.1	15.7	11.7	2.7	7.7	
Level of Service (LOS)				F	E		F	F	C	B	B	B	A	A	
Approach Delay, s/veh / LOS				106.0	F	112.3	F		15.6	B		4.5		A	
Intersection Delay, s/veh / LOS				14.5						B					
Multimodal Results					EB		WB		NB		SB				
Pedestrian LOS Score / LOS															
Bicycle LOS Score / LOS															

HCS7 Signalized Intersection Results Summary

General Information								Intersection Information																
Agency	BUCKHOLZ TRAFFIC				Duration, h	0.25																		
Analyst	J. Buckholz		Analysis Date	5/9/2013		Area Type		Other																
Jurisdiction	Duval County		Time Period	PM Peak Hour		PHF		0.98																
Urban Street	SR 13		Analysis Year	2021 - Optimized Timings		Analysis Period		1 > 16:15																
Intersection	SR 13/Ricky Drive		File Name	Opt_2021_PM_B_SR13.xus																				
Project Description	2021 PM Peak Hr Build Traffic																							
Demand Information				EB		WB		NB		SB														
Approach Movement				L	T	R	L	T	R	L	T	R												
Demand (v), veh/h				69	30	73	47	16	30	60	2029	54	81	2545	55									
Signal Information																								
Cycle, s	180.0	Reference Phase	2																					
Offset, s	116	Reference Point	End																					
Uncoordinated	No	Simult. Gap E/W	Off	Green	4.0	136.4	19.3	0.0	0.0	0.0	1	2	3	4										
Force Mode	Fixed	Simult. Gap N/S	Off	Yellow	4.8	4.8	3.7	0.0	0.0	0.0	5	6	7	8										
Cycle Queue Clearance Time (g_c), s																								
Queue Clearance Time (g_s), s																								
Green Extension Time (g_e), s																								
Phase Call Probability																								
Max Out Probability																								
Timer Results				EBL	EBT	WBL	WBT	NBL	NBT	SBL	SBT													
Assigned Phase								8	4	1	6	5	2											
Case Number								7.0	6.0	1.1	4.0	1.1	4.0											
Phase Duration, s								26.0	26.0	10.8	143.1	10.9	143.2											
Change Period, (Y+R_c), s								6.7	6.7	6.8	6.8	6.8	6.8											
Max Allow Headway (MAH), s								4.1	4.0	3.9	0.0	3.9	0.0											
Queue Clearance Time (g_s), s								18.6	21.3	3.4	4.0													
Green Extension Time (g_e), s								0.0	0.0	0.0	0.0	0.0	0.0											
Phase Call Probability								1.00	1.00	1.00	1.00	1.00	1.00											
Max Out Probability								1.00	1.00	1.00	1.00	1.00	1.00											
Movement Group Results				EB		WB		NB		SB														
Approach Movement				L	T	R	L	T	R	L	T	R												
Assigned Movement				3	8	18	7	4	14	1	6	16	5	2	12									
Adjusted Flow Rate (v), veh/h				101	67	48	47			61	1422	703	87	1871	934									
Adjusted Saturation Flow Rate (s), veh/h/ln				1135	1610	1401	1674			1810	1885	1859	1795	1885	1864									
Queue Service Time (g_s), s				11.9	7.0	2.7	4.6			1.4	0.0	2.5	2.0	51.1	52.1									
Cycle Queue Clearance Time (g_c), s				16.6	7.0	19.3	4.6			1.4	0.0	2.5	2.0	51.1	52.1									
Green Ratio (g/C)				0.11	0.11	0.11	0.11			0.78	0.76	0.76	0.78	0.76	0.76									
Capacity (c), veh/h				156	173	61	179			125	2856	1408	223	2857	1412									
Volume-to-Capacity Ratio (X)				0.649	0.390	0.784	0.262			0.489	0.498	0.500	0.391	0.655	0.661									
Back of Queue (Q), ft/ln (95 th percentile)				223.7	135.1	137.9	94			88.2	11.2	50.5	32.5	695.5	731.4									
Back of Queue (Q), veh/ln (95 th percentile)				8.7	5.4	5.5	3.7			3.5	0.4	1.8	1.3	27.6	28.1									
Queue Storage Ratio (RQ) (95 th percentile)				2.24	1.38	1.84	0.00			0.71	0.00	0.00	0.33	0.00	0.00									
Uniform Delay (d_1), s/veh				81.2	74.9	89.4	73.8			25.9	0.0	0.4	4.6	15.0	15.1									
Incremental Delay (d_2), s/veh				9.1	1.4	47.4	0.8			2.9	0.6	1.3	0.7	0.7	1.5									
Initial Queue Delay (d_3), s/veh				0.0	0.0	0.0	0.0			0.0	0.0	0.0	0.0	0.0	0.0									
Control Delay (d), s/veh				90.3	76.3	136.8	74.6			28.9	0.6	1.7	5.3	15.7	16.6									
Level of Service (LOS)				F	E	F	E			C	A	A	A	B	B									
Approach Delay, s/veh / LOS				84.7	F	106.0	F			1.8	A		15.7	B										
Intersection Delay, s/veh / LOS				13.8				B																
Multimodal Results				EB		WB		NB		SB														
Pedestrian LOS Score / LOS																								
Bicycle LOS Score / LOS																								

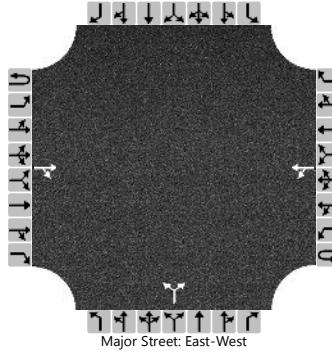
APPENDIX G

UNSIGNALIZED INTERSECTION CAPACITY ANALYSIS



AM PEAK HOUR

HCS7 Two-Way Stop-Control Report

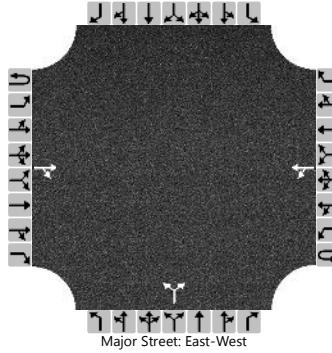
General Information				Site Information																																
Analyst	J. Buckholz			Intersection			Mandarin Rd/Publix Drive																													
Agency/Co.	BUCKHOLZ TRAFFIC			Jurisdiction			Duval County																													
Date Performed	10/12/2020			East/West Street			Mandarin Road																													
Analysis Year	2021			North/South Street			Publix Driveway																													
Time Analyzed	AM Peak Hour - BUILD			Peak Hour Factor			0.94																													
Intersection Orientation	East-West			Analysis Time Period (hrs)			0.25																													
Project Description	#20-1636																																			
Lanes																																				
 Major Street: East-West																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority	1U	1	2	3	4U	4	5	6		7	8	9	10																							
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0	0	0																							
Configuration				TR		LT				LR																										
Volume (veh/h)			168	25		16	112			15		74																								
Percent Heavy Vehicles (%)						13				2		2																								
Proportion Time Blocked																																				
Percent Grade (%)										0																										
Right Turn Channelized																																				
Median Type Storage		Left + Thru										1																								
Critical and Follow-up Headways																																				
Base Critical Headway (sec)						4.1				7.1		6.2																								
Critical Headway (sec)						4.23				6.42		6.22																								
Base Follow-Up Headway (sec)						2.2				3.5		3.3																								
Follow-Up Headway (sec)						2.32				3.52		3.32																								
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)						17				95																										
Capacity, c (veh/h)						1303				816																										
v/c Ratio						0.01				0.12																										
95% Queue Length, Q ₉₅ (veh)						0.0				0.4																										
Control Delay (s/veh)						7.8				10.0																										
Level of Service (LOS)						A				A																										
Approach Delay (s/veh)		1.1					10.0																													
Approach LOS		A					A																													

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	J. Buckholz			Intersection			SR 13 / Site Drive																													
Agency/Co.	BUCKHOLZ TRAFFIC			Jurisdiction			Duval County																													
Date Performed	10/12/2020			East/West Street			Site Drive																													
Analysis Year	2021			North/South Street			SR 13																													
Time Analyzed	AM Peak Hour - BUILD			Peak Hour Factor			0.91																													
Intersection Orientation	North-South			Analysis Time Period (hrs)			0.25																													
Project Description	#20-1636																																			
Lanes																																				
 Major Street: North-South																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority		10	11	12		7	8	9	1U	1	2	3	4U																							
Number of Lanes		0	0	1		0	0	0	0	1	3	0	0																							
Configuration				R						L	T		L																							
Volume (veh/h)				48					4	67	2841		6																							
Percent Heavy Vehicles (%)				2					2	2		2	2																							
Proportion Time Blocked				0.700					0.700			0.000																								
Percent Grade (%)	0																																			
Right Turn Channelized	No																																			
Median Type Storage	Left + Thru						1																													
Critical and Follow-up Headways																																				
Base Critical Headway (sec)				7.1					5.6	5.3			5.6																							
Critical Headway (sec)				7.14					5.64	5.34			5.64																							
Base Follow-Up Headway (sec)				3.9					2.3	3.1			2.3																							
Follow-Up Headway (sec)				3.92					2.32	3.12			2.32																							
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)				53					78				9																							
Capacity, c (veh/h)				276					348				60																							
v/c Ratio				0.19					0.22				0.15																							
95% Queue Length, Q ₉₅ (veh)				0.7					0.8				0.5																							
Control Delay (s/veh)				21.1					18.3				75.1																							
Level of Service (LOS)				C					C				F																							
Approach Delay (s/veh)	21.1								0.4			0.5																								
Approach LOS	C																																			

PM PEAK HOUR

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	J. Buckholz			Intersection			Mandarin Rd/Publix Drive																													
Agency/Co.	BUCKHOLZ TRAFFIC			Jurisdiction			Duval County																													
Date Performed	10/12/2020			East/West Street			Mandarin Road																													
Analysis Year	2021			North/South Street			Publix Driveway																													
Time Analyzed	PM Peak Hour - BUILD			Peak Hour Factor			0.96																													
Intersection Orientation	East-West			Analysis Time Period (hrs)			0.25																													
Project Description	#20-1636																																			
Lanes																																				
 Major Street: East-West																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority	1U	1	2	3	4U	4	5	6		7	8	9	10																							
Number of Lanes	0	0	1	0	0	0	1	0	0	1	0	0	0																							
Configuration				TR		LT				LR																										
Volume (veh/h)			157	52		53	215			76		101																								
Percent Heavy Vehicles (%)						2				2		2																								
Proportion Time Blocked																																				
Percent Grade (%)										0																										
Right Turn Channelized																																				
Median Type Storage					Left + Thru								1																							
Critical and Follow-up Headways																																				
Base Critical Headway (sec)						4.1				7.1		6.2																								
Critical Headway (sec)						4.12				6.42		6.22																								
Base Follow-Up Headway (sec)						2.2				3.5		3.3																								
Follow-Up Headway (sec)						2.22				3.52		3.32																								
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)						55				184																										
Capacity, c (veh/h)						1352				698																										
v/c Ratio						0.04				0.26																										
95% Queue Length, Q ₉₅ (veh)						0.1				1.1																										
Control Delay (s/veh)						7.8				12.0																										
Level of Service (LOS)						A				B																										
Approach Delay (s/veh)						1.8				12.0																										
Approach LOS										B																										

HCS7 Two-Way Stop-Control Report

General Information				Site Information																																
Analyst	J. Buckholz			Intersection			SR 13 / Site Drive																													
Agency/Co.	BUCKHOLZ TRAFFIC			Jurisdiction			Duval County																													
Date Performed	10/12/2020			East/West Street			Site Drive																													
Analysis Year	2021			North/South Street			SR 13																													
Time Analyzed	PM Peak Hour - BUILD			Peak Hour Factor			0.98																													
Intersection Orientation	North-South			Analysis Time Period (hrs)			0.25																													
Project Description	#20-1636																																			
Lanes																																				
 Major Street: North-South																																				
Vehicle Volumes and Adjustments																																				
Approach	Eastbound				Westbound				Northbound				Southbound																							
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U																							
Priority		10	11	12		7	8	9	1U	1	2	3	4U																							
Number of Lanes		0	0	1		0	0	0	0	1	3	0	0																							
Configuration				R						L	T		L																							
Volume (veh/h)				45					7	53	2143		4																							
Percent Heavy Vehicles (%)				2					2	2		2	2																							
Proportion Time Blocked				0.700					0.700			0.000																								
Percent Grade (%)	0																																			
Right Turn Channelized	No																																			
Median Type Storage	Left + Thru						1																													
Critical and Follow-up Headways																																				
Base Critical Headway (sec)				7.1					5.6	5.3			5.6																							
Critical Headway (sec)				7.14					5.64	5.34			5.64																							
Base Follow-Up Headway (sec)				3.9					2.3	3.1			2.3																							
Follow-Up Headway (sec)				3.92					2.32	3.12			2.32																							
Delay, Queue Length, and Level of Service																																				
Flow Rate, v (veh/h)				46					61				5																							
Capacity, c (veh/h)				276					351				169																							
v/c Ratio				0.17					0.17				0.03																							
95% Queue Length, Q ₉₅ (veh)				0.6					0.6				0.1																							
Control Delay (s/veh)				20.7					17.4				27.0																							
Level of Service (LOS)				C					C				D																							
Approach Delay (s/veh)	20.7								0.5			0.1																								
Approach LOS	C																																			