



August 22, 2024

Nicole Aiton, PE
Operations Program Engineer
FDOT Ocala Operations

Donald Watson, PE
Senior Engineer
Office of the County Engineer
Marion County Board of County Commissioners
412 SE 25th Ave.
Ocala, FL 34471

RE: Wayne Storage Reddick Traffic Statement

Dear Nicole, Donald,

CHW has prepared the following Traffic Statement Letter in accordance with Marion County’s Traffic Impact Analysis Guidelines. Based on pre-application discussion with FDOT staff, left and right turn lane warrant analyses should be included with the FDOT permit application, so these analyses are also included in this study.

Wayne Storage Reddick is a proposed self storage facility with approximately 93.8 KSF of building area. The site will be located on US HWY 441 approximately 860 FT north of HWY 318 in Marion County, Florida. A single access is proposed on US HWY 441 at the existing median opening located approximately 860 FT north of HWY 318. The buildout of the site is anticipated in 2026. The site concept plan is provided in Attachment A.

Trip Generation

The trip generation for Wayne Storage Reddick is provided in Table 1 . This trip generation is based on the ITE Trip Generation Manual, 11th Edition. The trip generation documentation is provided in Attachment B.

Table 1: Trip Generation - Wayne Storage Reddick									
Land Use	ITE LU Code	Variable KSF	Daily	AM Peak			PM Peak		
			Total	Total	In	Out	Total	In	Out
Mini- Warehouse	151	93.800	136	8	5	3	14	7	7

Access Management

US HWY 441, at the project site location, has a Class 3 access designation and a posted speed limit of 60 MPH, according to the straight line diagram provided in Attachment C. The FDOT spacing standards of a Class 3 facility and a 60 MPH speed limit are provided in Table 2, per the *FDOT Access Management Guidebook 2023*.

Table 2: FDOT Access Management Standards			
Connection Spacing	Directional Median Opening	Full Median Opening	Signal Spacing
660 FT	1,320 FT	2,640 FT	2,640 FT

Figure 1 provides the existing connection and median opening separation on US HWY 441 adjacent to the project. As indicated in Figure 1 the current connection and full median openings do not meet the FDOT spacing standards.

The proposed condition provides improvements to the access management along US HWY 441. Per discussion with FDOT, the existing median opening adjacent to the site should be closed since it does not meet FDOT spacing standards. Therefore, this median opening is planned to be closed as part of the site development. By removing this median opening and providing a single right-in/right-out access, at the location shown in Figure 1, the following access management improvements result:

- The full median opening spacing is increased from approximately 850 FT to 1,700 FT.
- The connection spacing is increased from 290 FT to 430 FT

Though the proposed condition is still short of meeting the FDOT access standards, the improvements being proposed greatly improve access management along US HWY 441 and should therefore be acceptable to FDOT.

Buildout Traffic Volume Forecast

US HWY 441 segment counts, provided by FDOT Traffic Online, were used to forecast the US HWY 441 2026 background traffic. Seasonal adjustment factors were applied to the AM and PM peak hour traffic at count stations 360166 and 360233, located to the north and south of the project, respectively. These volumes were then averaged to provide the US HWY 441 AM and PM peak hour traffic volumes used for the analysis. The historic growth rate was calculated from count station 360166. Since the calculated growth rate was less than 1.0%, a 1.0% growth rate was conservatively applied to the existing (peak season) volumes to derive the 2026 US HWY 441 background volumes.

The project trip distribution was based on the directional distribution along US HWY 441 during the AM and PM peak hours. The project trip turning movements were combined with the US HWY 441 background volumes to derive the 2026 buildout volumes used for the analysis. The buildout traffic volume forecast is documented in Attachment D.



Figure 1 - Existing/Proposed Connection and Median Opening Separation



Turn Lane Warrant Analysis

As noted above, the median opening adjacent to the site is proposed to be closed with the site construction. This will require northbound entering vehicles to utilize the median opening to the north as the location to make a U-turn, followed by a right turn to enter the site. A northbound left turn lane warrant analysis was performed at this median opening during the buildout year in 2026. In accordance with *FDOT Access Management Guidebook, 2023*, both NCHRP 745 and NCHRP 457 criteria were used for the analysis. Based on these criteria a left turn lane is not recommended at the median opening north of the site.

The access to the site will be via a right-in/right-out connection on US HWY 441. A southbound right turn lane warrant analysis was performed on US HWY 441 at the proposed site access during the buildout year in 2026 using NCHRP 457 criteria. Based on these criteria a right turn lane is not recommended at the proposed US HWY 441/proposed site access connection.

The turn lane warrant analysis documentation is provided in Attachment E.

Should you have any question or concerns, please contact me at (386) 518-5154 or Brian.Snyder@nv5.com.

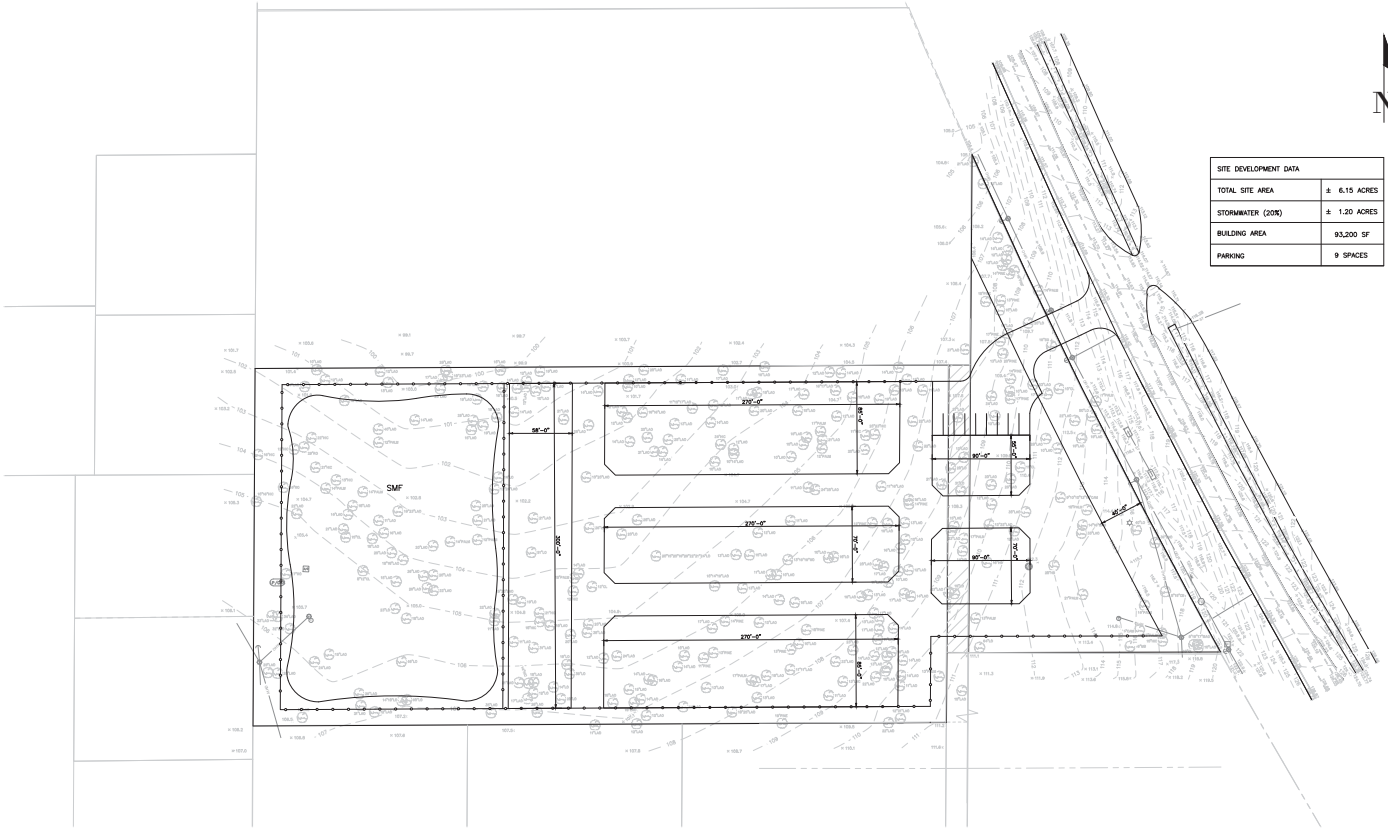
Sincerely,
CHW

A handwritten signature in blue ink that reads 'Brian Snyder'.

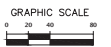
Brian Snyder, PE
Project Manager

N:\2023\23-0660\Departments\04_Engineering\04_Traffic\240822 Wayne Storage Reddick Traffic Statement and Turn lane Warrant Analysis.docx

Attachment A - Concept Plan



SITE DEVELOPMENT DATA	
TOTAL SITE AREA	± 6.15 ACRES
STORMWATER (20% _s)	± 1.20 ACRES
BUILDING AREA	93,200 SF
PARKING	9 SPACES



Attachment B - Trip Generation

Mini-Warehouse (151)

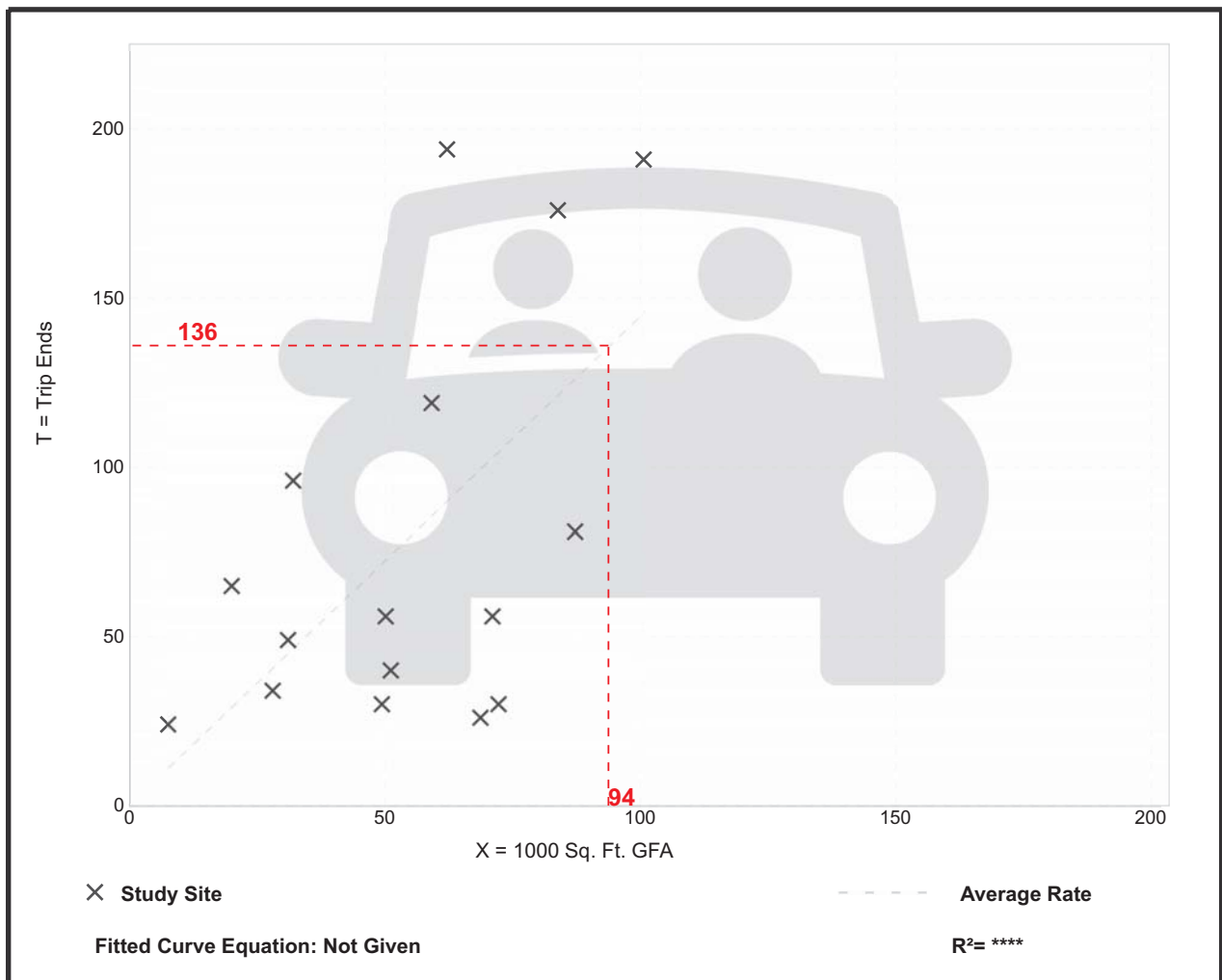
Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday

Setting/Location: General Urban/Suburban
Number of Studies: 16
Avg. 1000 Sq. Ft. GFA: 55
Directional Distribution: 50% entering, 50% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
1.45	0.38 - 3.25	0.92

Data Plot and Equation



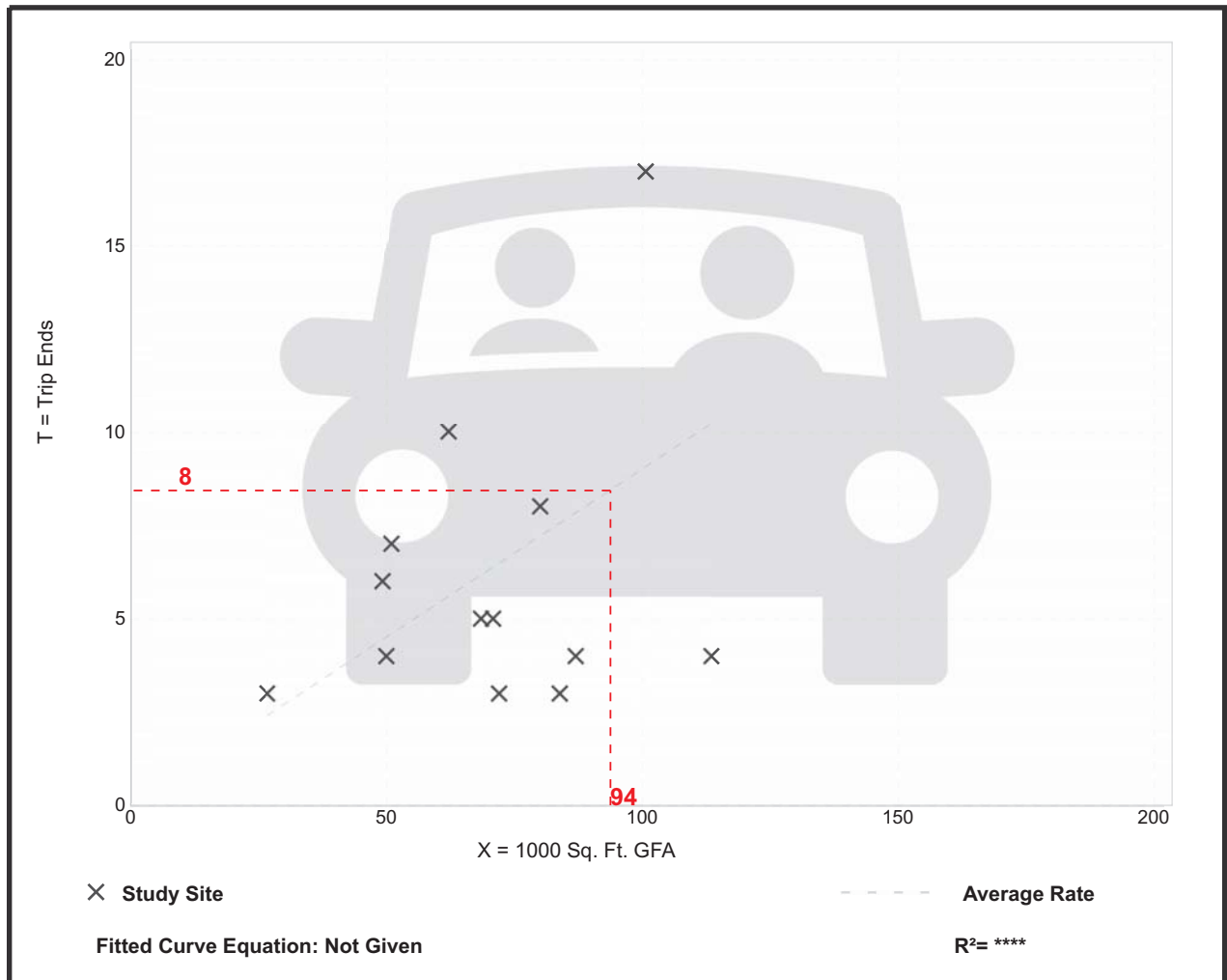
Mini-Warehouse (151)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 7 and 9 a.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 13
 Avg. 1000 Sq. Ft. GFA: 70
 Directional Distribution: 59% entering, 41% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.09	0.04 - 0.17	0.05

Data Plot and Equation



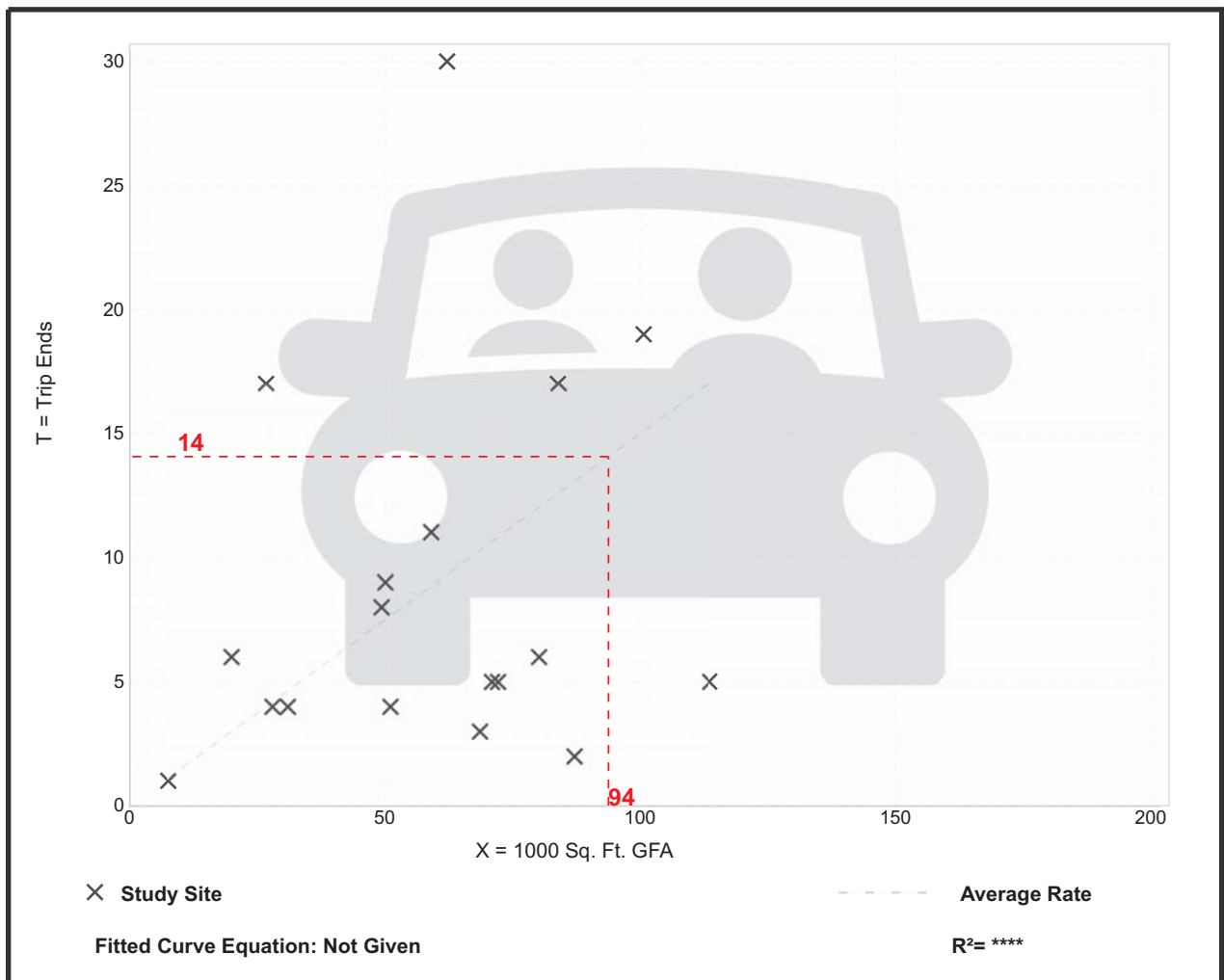
Mini-Warehouse (151)

Vehicle Trip Ends vs: 1000 Sq. Ft. GFA
On a: Weekday,
Peak Hour of Adjacent Street Traffic,
One Hour Between 4 and 6 p.m.
Setting/Location: General Urban/Suburban
 Number of Studies: 18
 Avg. 1000 Sq. Ft. GFA: 59
 Directional Distribution: 47% entering, 53% exiting

Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
0.15	0.02 - 0.64	0.14

Data Plot and Equation



Header information including project name 'STRAIGHT LINE DIAGRAM OF ROAD INVENTORY', section number '12', and sheet number '2 OF 3'. It includes metadata for SDR REV, SMP, BMP, and ND, along with project details like COUNTY (MARION), DISTRICT (05), and ROADWAY ID (36030000).

Attachment C - Straight Line Diagram

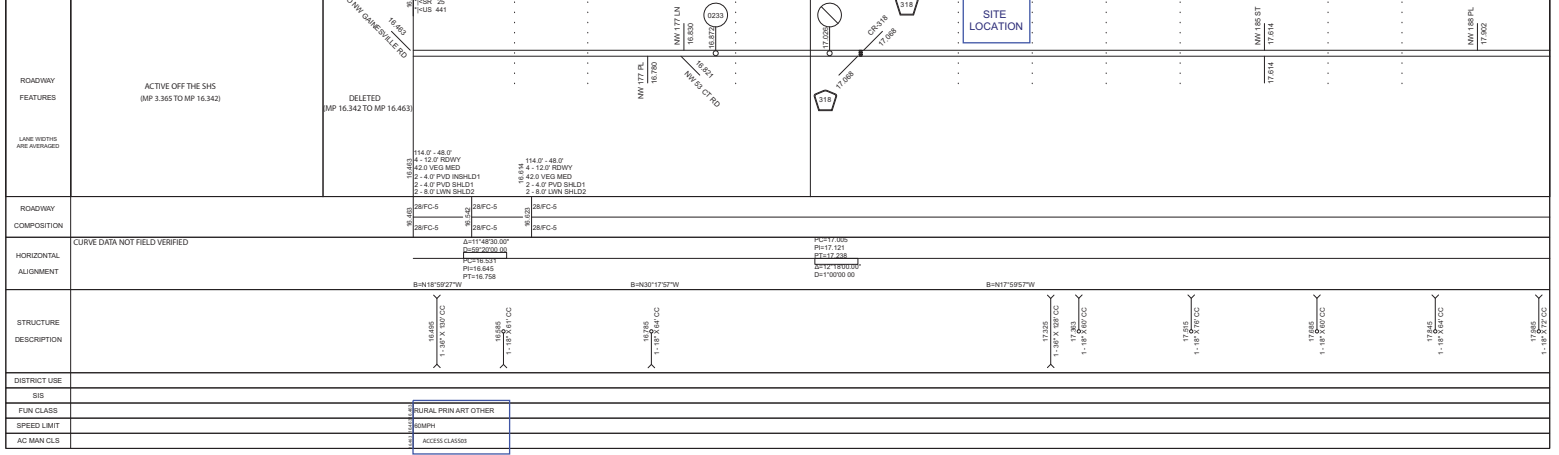


Table with columns for ROADWAY FEATURES, LANE WIDTHS, ROADWAY COMPOSITION, HORIZONTAL ALIGNMENT, and STRUCTURE DESCRIPTION. It provides detailed technical data for various road segments.

Attachment D - Buildout Traffic Volume Forecast

FDOT Traffic Online - Count Stations

The average volumes from FDOT count station 360166 and 360233, along US HWY 441, are used for the analysis.



COUNTY: 36
 STATION: 0166
 DESCRIPTION: ON US-441, 0.15 MI. S OF CR-320 (RVL)
 START DATE: 08/24/2023
 START TIME: 0000

TIME	DIRECTION: N					DIRECTION: S					COMBINED TOTAL		
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL			
0000	7	7	8	6	28	12	6	5	10	33	61		
0100	5	3	3	2	13	8	7	7	7	29	42		
0200	3	2	9	2	16	6	5	4	3	18	34		
0300	4	5	7	4	20	6	1	6	6	19	39		
0400	10	5	13	9	37	3	6	9	7	25	62		
0500	17	36	27	37	117	10	12	11	18	51	168		
0600	59	64	81	84	288	19	31	35	34	119	407		
0700	95	124	128	119	466	49	55	60	50	214	680		
0800	76	93	88	76	333	72	60	38	42	212	545		
0900	72	81	447	89	67	309	58	29	237	48	58	193	502
1000	75	55	55	52	237	55	57	63	52	227	464		
1100	60	61	60	61	242	59	53	62	48	222	464		
1200	49	67	45	81	242	68	63	71	64	266	508		
1300	57	56	65	59	237	68	75	77	64	284	521		
1400	62	77	54	71	264	83	70	76	70	299	563		
1500	60	55	52	61	228	84	82	107	85	358	586		
1600	84	77	63	80	304	116	114	116	120	466	770		
1700	69	83	91	77	320	126	102	112	95	435	755		
1800	65	66	65	42	238	72	67	70	55	264	502		
1900	45	29	323	30	28	132	50	42	460	35	40	167	299
2000	29	32	37	32	130	33	35	30	25	123	253		
2100	21	28	12	17	78	22	28	16	22	88	166		
2200	14	11	12	9	46	12	12	10	11	45	91		
2300	10	8	8	9	35	15	13	6	10	44	79		
24-HOUR TOTALS:	4360					4201					8561		

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	700	466	730	242	715	684
P.M.	1645	323	1615	476	1645	783
DAILY	700	466	1615	476	1645	783

COUNTY: 36
 STATION: 0233
 DESCRIPTION: ON US-441, 0.153 MI. S OF CR-318 (RVL)
 START DATE: 04/12/2023
 START TIME: 0000

TIME	DIRECTION: N					DIRECTION: S					COMBINED TOTAL	
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL		
0000	10	6	14	7	37	8	7	4	4	23	60	
0100	7	4	3	2	16	3	1	6	4	14	30	
0200	2	5	4	3	14	8	2	5	5	20	34	
0300	4	9	7	10	30	3	9	9	4	25	55	
0400	12	15	13	13	53	6	8	10	12	36	89	
0500	16	27	35	47	125	8	15	19	18	60	185	
0600	65	80	77	82	304	23	39	44	48	154	458	
0700	90	121	95	122	428	78	89	83	78	328	756	
0800	111	89	73	66	339	76	53	77	66	272	611	
0900	76	83	84	64	307	57	59	66	60	242	549	
1000	73	69	74	68	284	55	73	62	69	259	543	
1100	73	79	69	76	297	65	68	68	73	274	571	
1200	78	83	79	83	323	69	73	84	69	295	618	
1300	80	87	68	76	311	75	86	91	80	332	643	
1400	79	89	73	84	325	69	91	81	78	319	644	
1500	78	91	61	78	308	74	96	97	116	383	691	
1600	115	123	112	95	445	114	101	113	111	439	884	
1700	89	93	94	92	368	109	114	94	98	415	783	
1800	79	66	68	51	264	74	57	66	61	258	522	
1900	45	32	35	35	147	62	49	44	40	195	342	
2000	40	41	33	30	144	50	71	41	33	195	339	
2100	30	13	8	19	70	33	28	19	18	98	168	
2200	11	21	16	5	53	23	11	12	16	62	115	
2300	10	10	6	8	34	9	15	19	8	51	85	
24-HOUR TOTALS:					5026						4749	9775

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	715	449	700	328	715	775
P.M.	1600	445	1630	447	1600	884
DAILY	715	449	1630	447	1600	884

TRUCK PERCENTAGE 15.98 16.42 16.19

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
N	15	3411	797	47	556	30	2	118	42	1	3	1	3	0	0	803	5026
S	45	3105	819	36	549	49	34	63	31	4	3	5	6	0	0	780	4749

2023 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL
 CATEGORY: 9701 MAINLINE,I75-I4

MOCF: 0.99
 PSCF

WEEK	DATES	SF	PSCF
1	01/01/2023 - 01/07/2023	0.99	1.00
2	01/08/2023 - 01/14/2023	1.01	1.02
3	01/15/2023 - 01/21/2023	1.02	1.03
4	01/22/2023 - 01/28/2023	1.02	1.03
5	01/29/2023 - 02/04/2023	1.02	1.03
6	02/05/2023 - 02/11/2023	1.01	1.02
7	02/12/2023 - 02/18/2023	1.01	1.02
8	02/19/2023 - 02/25/2023	1.00	1.01
9	02/26/2023 - 03/04/2023	0.99	1.00
10	03/05/2023 - 03/11/2023	0.98	0.99
11	03/12/2023 - 03/18/2023	0.97	0.98
12	03/19/2023 - 03/25/2023	0.98	0.99
13	03/26/2023 - 04/01/2023	0.99	1.00
14	04/02/2023 - 04/08/2023	1.00	1.01
15	04/09/2023 - 04/15/2023	1.01	1.02
16	04/16/2023 - 04/22/2023	1.01	1.02
17	04/23/2023 - 04/29/2023	1.01	1.02
18	04/30/2023 - 05/06/2023	1.02	1.03
19	05/07/2023 - 05/13/2023	1.02	1.03
20	05/14/2023 - 05/20/2023	1.02	1.03
21	05/21/2023 - 05/27/2023	1.02	1.03
22	05/28/2023 - 06/03/2023	1.03	1.04
23	06/04/2023 - 06/10/2023	1.03	1.04
24	06/11/2023 - 06/17/2023	1.03	1.04
25	06/18/2023 - 06/24/2023	1.03	1.04
26	06/25/2023 - 07/01/2023	1.04	1.05
27	07/02/2023 - 07/08/2023	1.04	1.05
28	07/09/2023 - 07/15/2023	1.04	1.05
29	07/16/2023 - 07/22/2023	1.04	1.05
30	07/23/2023 - 07/29/2023	1.04	1.05
31	07/30/2023 - 08/05/2023	1.05	1.06
32	08/06/2023 - 08/12/2023	1.05	1.06
33	08/13/2023 - 08/19/2023	1.05	1.06
34	08/20/2023 - 08/26/2023	1.05	1.06
35	08/27/2023 - 09/02/2023	1.06	1.07
36	09/03/2023 - 09/09/2023	1.06	1.07
37	09/10/2023 - 09/16/2023	1.06	1.07
38	09/17/2023 - 09/23/2023	1.05	1.06
39	09/24/2023 - 09/30/2023	1.04	1.05
40	10/01/2023 - 10/07/2023	1.03	1.04
*41	10/08/2023 - 10/14/2023	1.02	1.03
*42	10/15/2023 - 10/21/2023	1.01	1.02
*43	10/22/2023 - 10/28/2023	1.00	1.01
*44	10/29/2023 - 11/04/2023	0.99	1.00
*45	11/05/2023 - 11/11/2023	0.97	0.98
*46	11/12/2023 - 11/18/2023	0.96	0.97
*47	11/19/2023 - 11/25/2023	0.97	0.98
*48	11/26/2023 - 12/02/2023	0.98	0.99
*49	12/03/2023 - 12/09/2023	0.98	0.99
*50	12/10/2023 - 12/16/2023	0.99	1.00
*51	12/17/2023 - 12/23/2023	1.00	1.01
*52	12/24/2023 - 12/30/2023	1.01	1.02
*53	12/31/2023 - 12/31/2023	1.02	1.03

COUNT STATION 360233

COUNT STATION 360166

* PEAK SEASON