
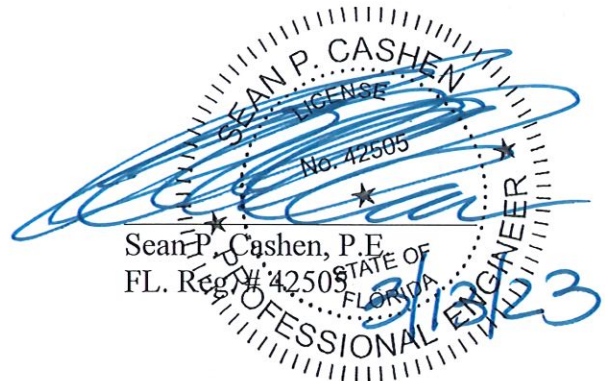


**TIMING & PHASING TRAFFIC ANALYSIS  
FOR  
DOLLAR GENERAL SR 39 /JERRY ROAD SITE  
REZONING  
PASCO COUNTY, FLORIDA**

PREPARED FOR:  
TERAMORE DEVELOPMENT, LLC

PREPARED BY:  
GULF COAST CONSULTING, INC.  
REVISED MARCH 2023  
PROJECT # 22-085

  
Robert Pergolizzi, AICP/PTP  
AICP #9023/PTP #133



## **I. INTRODUCTION**

The applicant is rezoning a 2.11-acre site to C-2 with plans to develop a Dollar General Store on a site located on the northeast corner of the SR 39 / Jerry Road intersection in the Crystal Springs area of Pasco County. (See Figure 1) The subject parcel is proposed to contain a 10,640 SF Dollar General store.

The proposed development has a current zoning of AC & AR and C-2 and rezoning the site to C-2 requires a “Timing & Phasing Analysis” to evaluate impacts and anticipated operations on off-site roadways and intersections. In addition, a site access analysis was conducted to evaluate the conditions at the project driveway to Jerry Road. This analysis accompanies a rezoning application, and this analysis was conducted in accordance with the projects approved methodology as contained in Appendix A. Pursuant to the approved project methodology, the site was analyzed as a 10,640 SF Dollar general store. The expected build-out date is early 2025.

## **II. EXISTING CONDITIONS**

The project is expected to have direct access to Jerry Road approximately 175 feet east of the intersection with SR 39 (Paul Buchman Highway). Direct access to SR 39 is not proposed. Existing conditions were established by conducting AM peak period (7-9 AM) and PM peak period (4-6 PM) intersection turning movement counts at the following locations in April 2021.

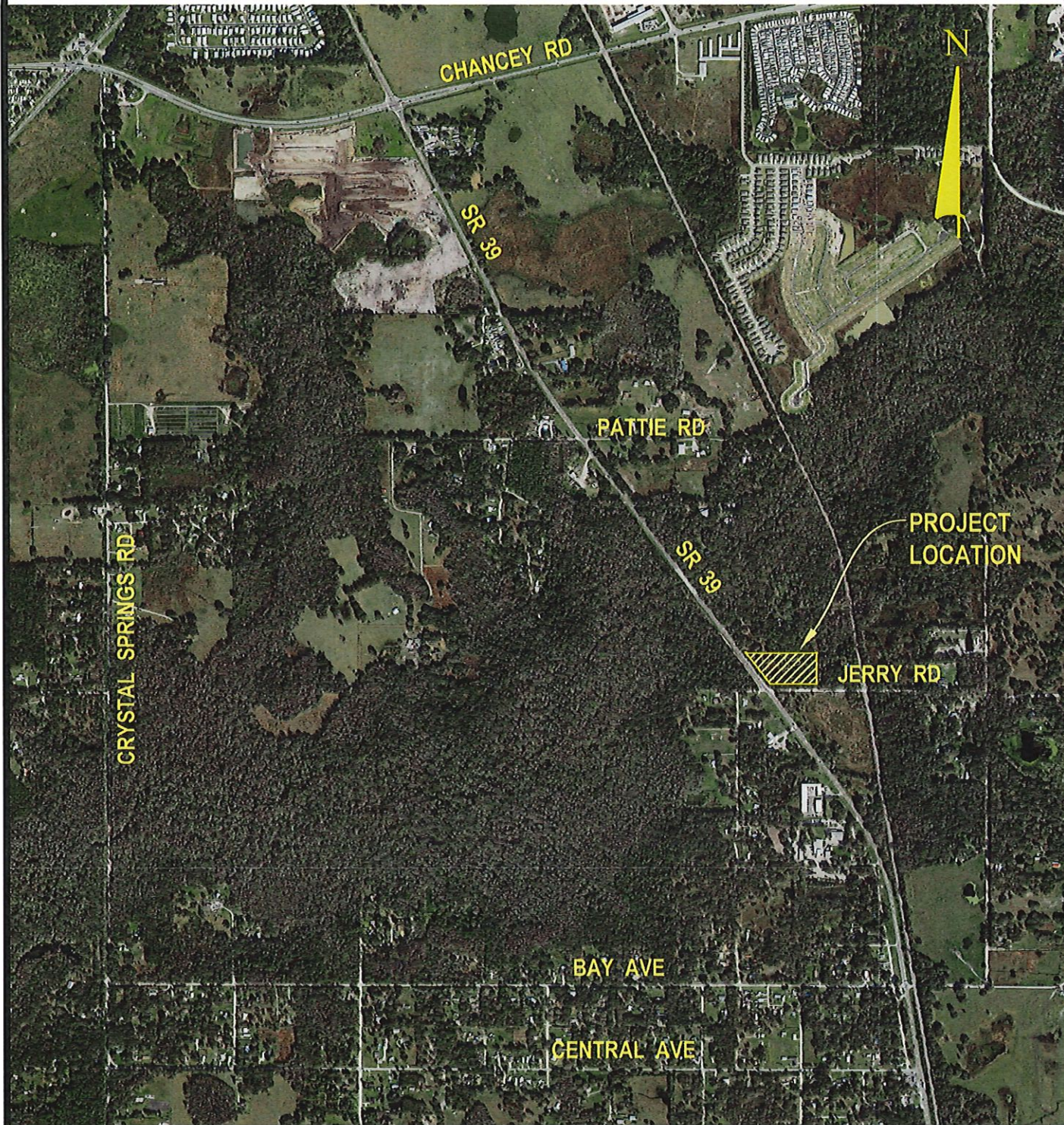
### **US 301/ Jerry Road**

These counts were seasonally adjusted to peak season equivalents using FDOT seasonal adjustment factors. Intersection geometrics were obtained in the field and the intersection was analyzed using HCS22 software. Existing peak hour/peak season traffic volumes are shown in Figure 2 and the HCS printout is included in Appendix A.

During the AM peak hour southbound left turns operate at LOS A with 9.1 seconds average delay and the westbound approach (Jerry Rd) operates at LOS B with 13.0 seconds of average delay. During the PM peak hour, the southbound left turns operate at LOS B with 10.2 seconds average delay and the westbound approach operates at LOS C with 22.7 seconds of average delay.

SR 39 is a two-lane undivided arterial roadway with exclusive right turn lanes and a posted speed of 60 MPH in front of the project site. According to FDOT counts near the site, this segment carries 14,900 vehicles per day AADT. SR 39 has infrequent traffic signal interruptions since the nearest signal to the north is 1.3 miles north at Chancey Road, and the nearest signal to the south is 7.8 miles south at Knights-Griffin Road in Hillsborough County. Per FDOT QLOS Manual procedures, this segment was analyzed as a two-lane uninterrupted roadway with a LOS D capacity of 2,170 vehicles per hour. Currently SR 39 south of Jerry Road operates at LOS C carrying 1,142 vph during the





PROJECT LOCATION – DOLLAR GENERAL ZEPHYRHILLS

PROJECT NO:  
22-085



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Land Development Consulting

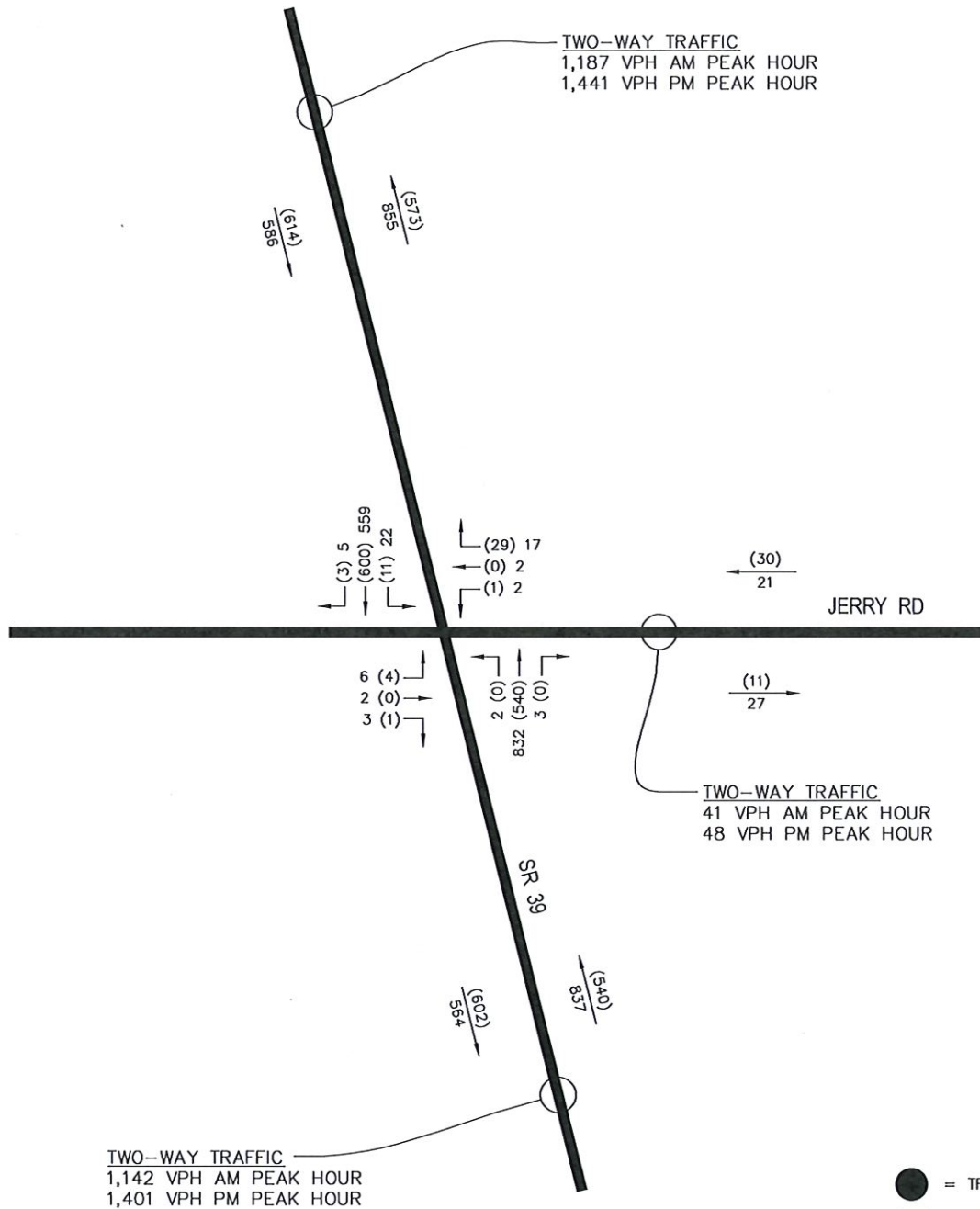
DATE:  
11/2022

DRAWN BY:  
GJS

FIGURE:

1





## EXISTING PEAK HOUR/PEAK SEASON TRAFFIC (2022)

PROJECT NO:  
22-085



**Gulf Coast Consulting, Inc.**  
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ENGINEERING TRANSPORTATION PLANNING PERMITTING  
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Clearwater, Florida 33760  
Phone: (727) 524-1818 Fax: (727) 524-6090  
[www.gulfcoastconsultinginc.com](http://www.gulfcoastconsultinginc.com)

DATE:

12/2022

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FIGURE:

2

AM peak hour and 1,401 vehicles during the PM peak hour. SR 39 north of Jerry Road operates at LOS C during the AM peak hour carrying 1,187 vehicles and at LOS C during the PM peak hour carrying 1,441 vehicles.

Jerry Road is a two-lane undivided roadway and carries 41 vehicles during the AM peak hour and 48 vehicles during the PM peak hour. This represents LOS C conditions.

### III. FUTURE CONDITIONS

#### Background Traffic

The expected build-out date is assumed to be 2025. The existing peak hour/peak season traffic volumes were adjusted to 2025 using a 3.28% annual growth rate based on the approved methodology. Background traffic is shown in Figure 3 and the HCS22 printouts are included in Appendix B.

During the AM peak hour southbound left turns would operate at LOS A with 9.3 seconds average delay and the westbound approach (Jerry Rd) would operate at LOS B with 13.8 seconds average delay. During the PM peak hour, the southbound left turns would operate at LOS B with 10.6 seconds average delay and the westbound approach would operate at LOS D with 26.2 seconds average delay.

SR 39 would continue to operate at LOS C during the AM peak hour carrying 1,256 vehicles, and at LOS D carrying 1,540 vehicles during the PM peak hour south of Jerry Road. SR 39 north of Jerry Road would continue to operate at LOS C in the AM peak hour carrying 1,305 vehicles and at LOS D during the PM peak hour carrying 1,585 vehicles.

Jerry Road would continue to operate at LOS C with a volume of 45 vehicles during the AM peak hour and 52 vehicles during the PM peak hour.

#### Project Traffic Impacts

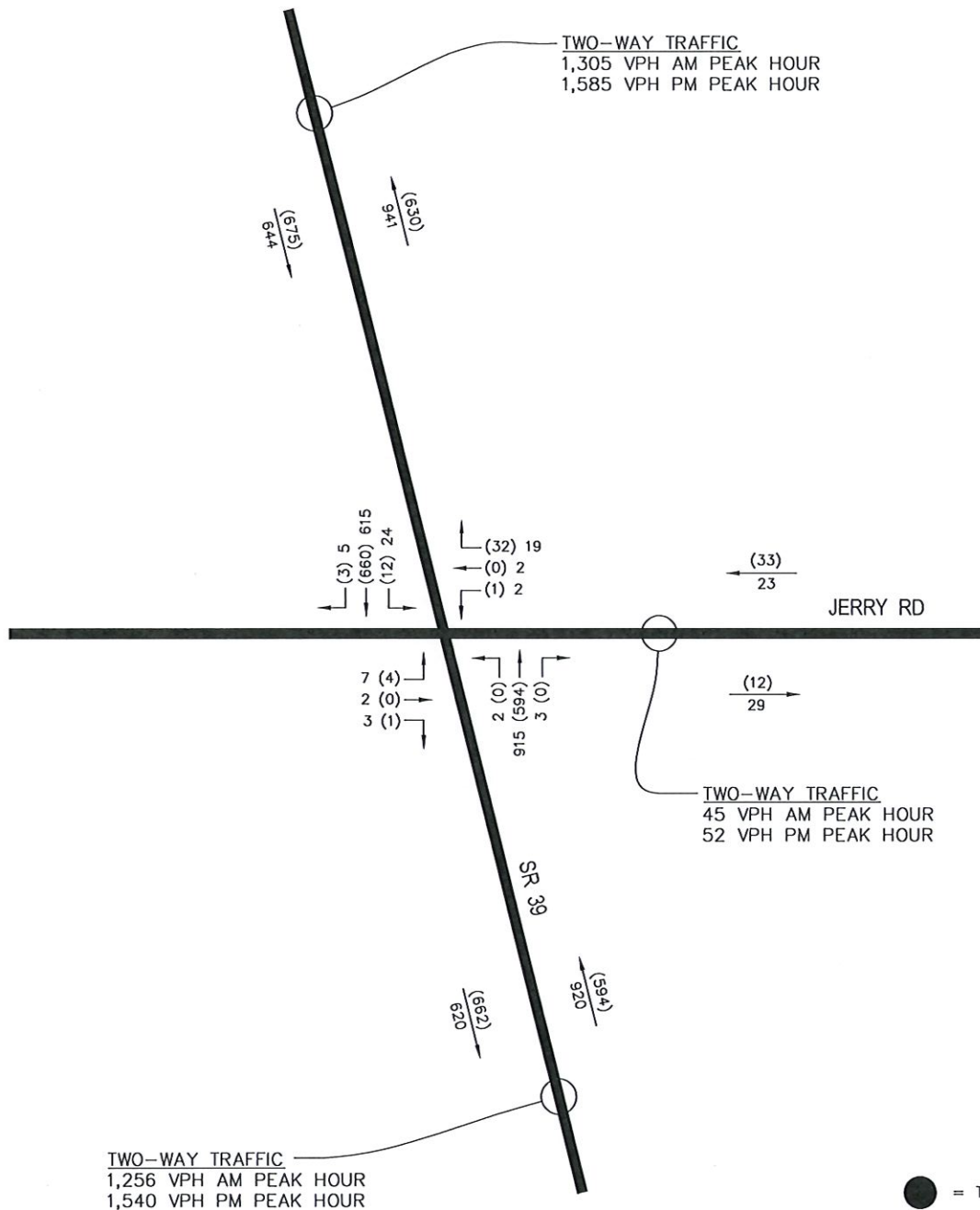
##### Trip Generation/Trip Distribution

Trip generation was estimated using ITE Trip Generation, 11<sup>th</sup> Edition average rates and is estimated below:

Land Use	Size	ITE LUC	Daily Trips	AM Trips enter/exit	PM Trips (enter/exit)
Variety Store	10,640 SF	814	677	32 (18/14)	71 (36/35)

Project traffic was distributed by the following percentages based on the approved methodology as shown in Figure 4:

55% north on SR 39 (18 AM peak hour trips, 39 PM peak hour trips)  
40% south on SR 39 (12 AM peak hour trips, 28 PM peak hour trips)  
5% east on Jerry Rd. (2 AM peak hour trips, 4 PM peak hour trips)



## BACKGROUND PEAK HOUR/PEAK SEASON TRAFFIC (2025)

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22-085



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DATE:

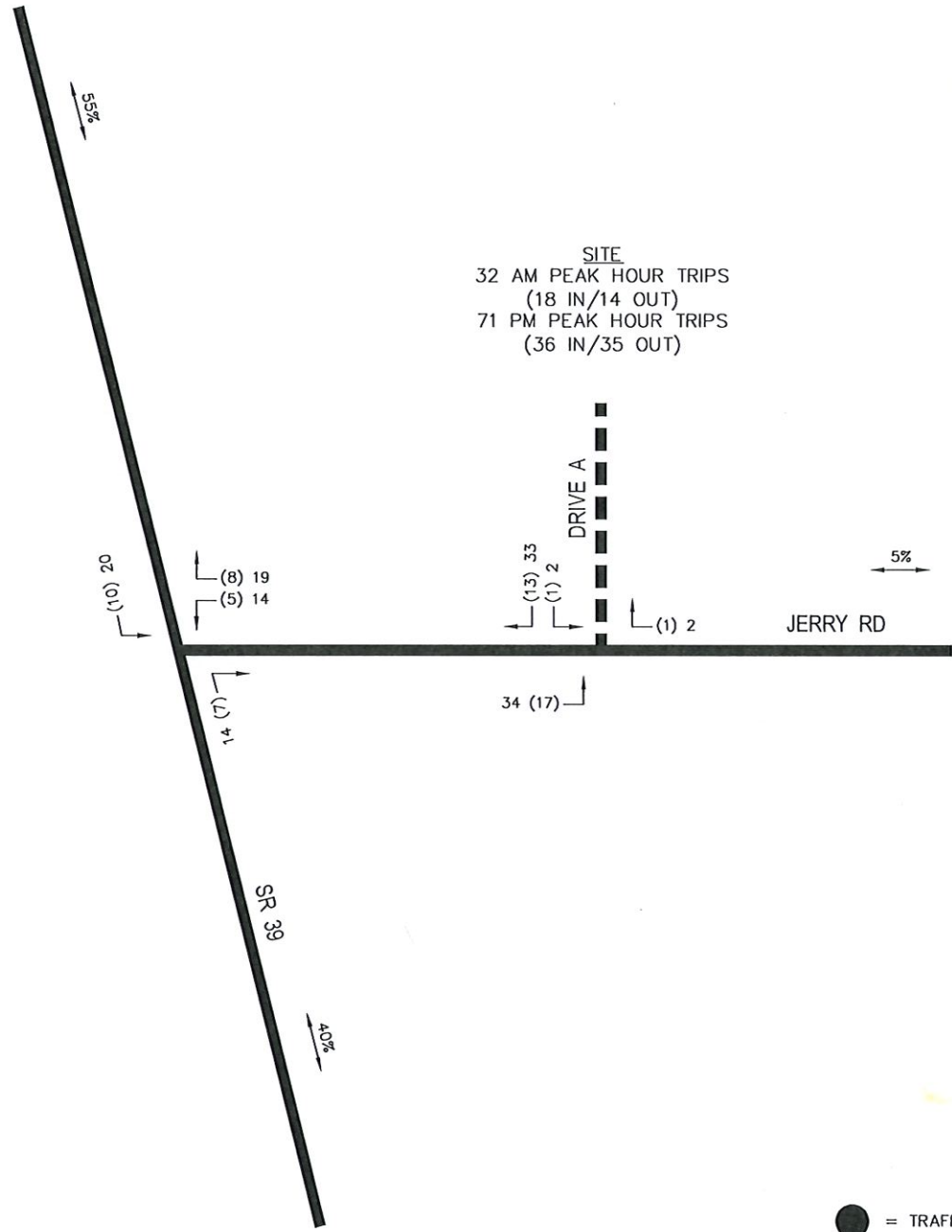
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FIGURE:

3



SITE  
32 AM PEAK HOUR TRIPS  
(18 IN/14 OUT)  
71 PM PEAK HOUR TRIPS  
(36 IN/35 OUT)

● = TRAFFIC SIGNAL  
(XX) = AM PEAK HR  
XX = PM PEAK HR

## PROJECT TRAFFIC DISTRIBUTION

PROJECT NO:  
22-085



**Gulf Coast Consulting, Inc.**  
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FIGURE:

4

The PM peak hour impact of the project traffic to the surrounding roadways is shown below:

<u>Roadway Segment</u>	<u>Project Traffic</u>	<u>LOS D Capacity</u>	<u>Project %</u>
SR 39 (North of Jerry Rd)	39	2,170	1.80%
SR 39 (South of Jerry Rd)	28	2,170	1.29%
Jerry Rd (East of Site)	4	1,200	0.03%

Project generated traffic was added to background traffic and the intersection and project driveway were reanalyzed using HCS. The applicant will be modifying the westbound approach on Jerry Road at the SR 39 intersection to add pavement and restripe for an exclusive right turn lane, and a shared WB left turn/through lane. A southbound left turn lane on SR 39 will also be added and per discussions with FDOT the SB approach will be modified to contain a shared through/right turn lane. These improvements are included in the future conditions analysis. The HCS22 printouts are included in Appendix C and peak hour / peak season volumes are shown in Figure 5.

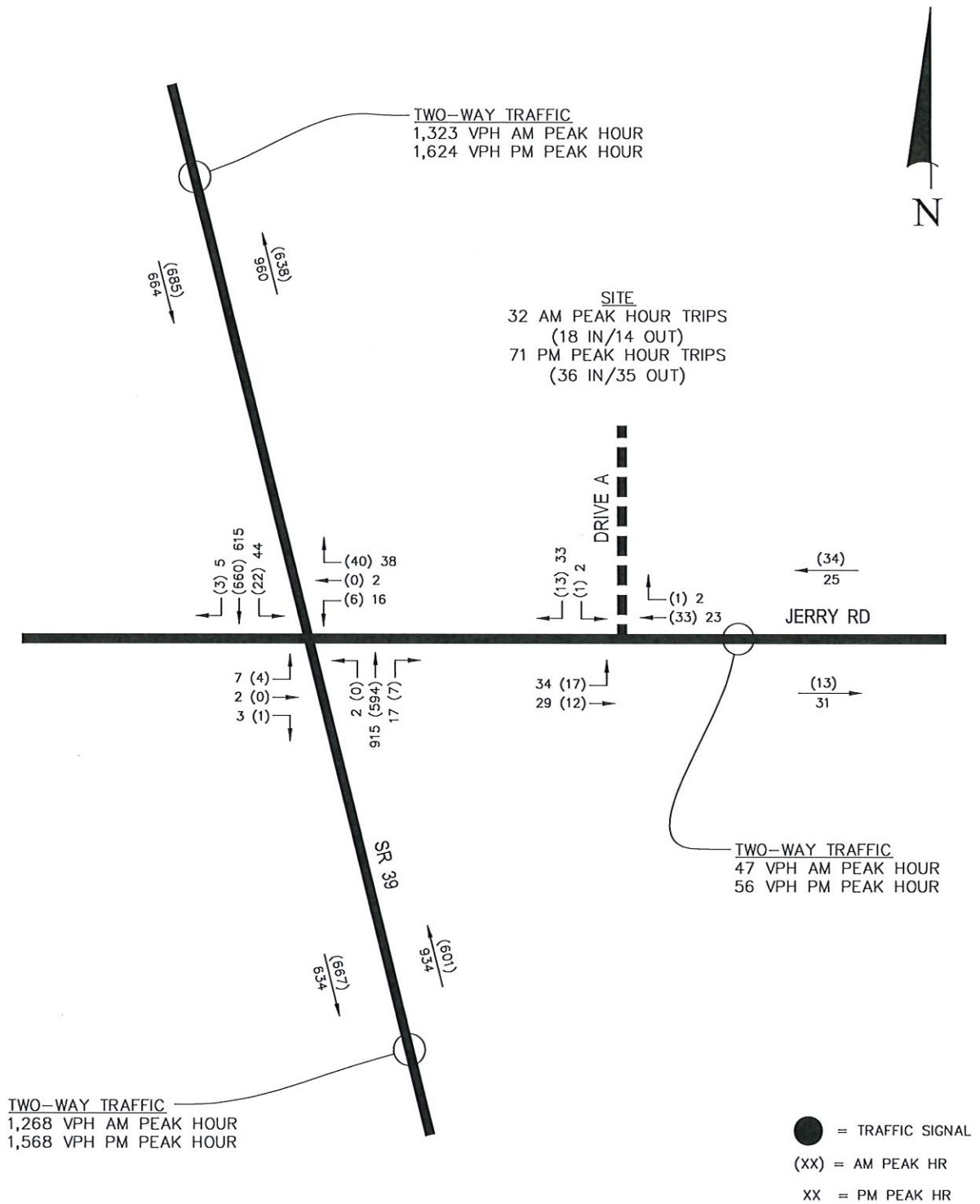
During the AM peak hour southbound left turns would operate at LOS A with 9.4 seconds average delay and the westbound approach (Jerry Rd) would operate at LOS C with 16.4 seconds average delay. During the PM peak hour, the southbound left turns would operate at LOS B with 10.9 seconds average delay and the westbound approach would operate at LOS E with 42.3 seconds average delay. The WB approach shared left should be able to store 2 vehicles based on expected queues from HCS22.

At the project driveway to Jerry Road (Drive A), eastbound left turns entering the site would operate at LOS A with 7.3 seconds delay, and the southbound approach exiting the site would operate at LOS A with 8.5 seconds average delay during the AM peak hour. During the PM peak hour, eastbound left turns would operate at LOS A, with 7.3 seconds delay and the southbound approach exiting the site would operate at LOS A with 8.6 seconds delay.

According to the graphs from Pasco County Access Management guidelines a westbound right turn lane is not warranted along Jerry Road at the proposed driveway. An eastbound left turn lane is not warranted on Jerry Road at the project driveway. The graphs are included in Appendix C

SR 39 would continue to operate at LOS C during the AM peak hour carrying 1,268 vehicles and at LOS D carrying 1,568 vehicles during the PM peak hour south of Jerry Road. SR 39 north of Jerry Road would continue to operate at LOS C in the AM peak hour carrying 1,323 vehicles and at LOS D carrying 1,624 vehicles during the PM peak hour.





FUTURE PEAK HOUR/PEAK SEASON TRAFFIC WITH PROJECT (2025)

PROJECT NO:  
22-085



**Gulf Coast Consulting, Inc.**  
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DATE:

12/2022

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FIGURE:

5

Jerry Road would continue to operate at LOS C with a volume of 47 vehicles during the AM peak hour and 56 vehicles during the PM peak hour east of the site driveway.

#### **IV. CONCLUSIONS AND RECOMMENDATIONS**

The proposed C-2 rezoning, if developed with a 10,640 SF variety store, would generate 677 daily trips of which 32 would occur in the AM peak hour and 71 would occur during the PM peak hour. The project would have minor impacts to the nearest segments of SR 39 and these segments would operate at LOS C during the AM peak hour and LOS D during the PM peak hour with significant excess capacity. At the intersection of SR 39 / Jerry Road all approaches would operate at LOS C or better during the AM peak hour, and during the PM peak hour side street delays on Jerry Road would exceed 42 seconds (LOS E) with the proposed improvements. At the project driveway delays would be minimal and all movements would operate at LOS A.

The applicant has proposed intersection improvements at SR 39/Jerry Road which include constructing a SB left turn lane and modifying the SB approach for a shared through/right turn lane as discussed with FDOT , and widening and restriping Jerry Road for an exclusive WB right turn lane, and a shared left/through lane which will mitigate the project impacts and improve future operations.

## **APPENDIX A**



## Robert Pergolizzi

---

**From:** Robert Pergolizzi  
**Sent:** Monday, December 05, 2022 3:48 PM  
**To:** Bennett Elbo; Amir Jamali  
**Cc:** Scott Lincoln; Barbara Wilhite  
**Subject:** RE: Dollar General SR 39/Jerry Road - METHODOLOGY

I acknowledged the below statements, Bennet. Pass-by will be per ITE Trip Generation, and will not exceed 10% of adjacent street traffic on SR 39. The TNA will be done separately from the T&P Analysis, the T&P Analysis will be signed/sealed by a PE.

Thanks for the methodology approval.

Robert Pergolizzi, AICP PTP  
Gulf Coast Consulting, Inc.  
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Clearwater, FL 33760  
Phone: 727-524-1818  
Fax: 727-524-6090  
Cell: 727-644-2695  
Email: pergo@gulfcoastconsultinginc.com

**From:** Bennett Elbo <belbo@pascocountyfl.net>  
**Sent:** Monday, December 05, 2022 12:51 PM  
**To:** Robert Pergolizzi <pergo@gulfcoastconsultinginc.com>; Amir Jamali <ajamali@pascocountyfl.net>  
**Cc:** Scott Lincoln <slincoln@lacivil.com>; Barbara Wilhite <barbara@wilhitelaw.net>  
**Subject:** RE: Dollar General SR 39/Jerry Road - METHODOLOGY

Hi Robert – please proceed with acquiring the traffic counts per methodology. Also please address the following –

- ☐ Please ensure the following: Passerby capture will not exceed 20 percent of site generated traffic, unless data supporting higher rates are included in the current version of the ITE Manual reference, latest mobility fee study, or are otherwise approved by the County. **In no event shall the total passerby trips entering and exiting a site exceed ten percent of the total background (existing plus future) traffic on the adjacent roadway.**
- ☐ Please provide a Transportation Needs Assessment.
- ☐ All Analysis shall be signed and sealed by a Licensed Engineer (PE).

Thanks,  
-Ben



**Bennett Elbo,**  
Transportation Planner II  
Planning and Development Department  
Current Planning Division  
Pasco County  
P: 727-847-8142 Ext. 7227

## Robert Pergolizzi

---

**From:** Amir Jamali <ajamali@pascocountyfl.net>  
**Sent:** Friday, December 02, 2022 11:30 AM  
**To:** Robert Pergolizzi; Bennett Elbo  
**Cc:** Scott Lincoln; Barbara Wilhite  
**Subject:** Re: Dollar General SR 39/Jerry Road - METHODOLOGY

Robert,

I'm fine overall with the methodology for TNA section. But you need to use Cost Affordable Plan volumes.

Thanks,

[cid:f6b84a63-9a22-49c5-a603-ec45fcad0653]<<http://www.pascocountyfl.net/>>

[cid:54c5d78c-7e81-4b60-bf09-deede0e2bbe9]

Amir Jamali, Ph.D., P.E.

Senior Transportation Planner

Planning and Development Department

Pasco County

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[www.pascocountyfl.net](http://www.pascocountyfl.net)<<http://www.pascocountyfl.net/>>

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[social media icons] <<http://fl-pascocounty.civicplus.com/index.aspx?NID=2174>>

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From: Robert Pergolizzi <[pergo@gulfcoastconsultinginc.com](mailto:pergo@gulfcoastconsultinginc.com)>  
Sent: Monday, November 28, 2022 3:12 PM  
To: Amir Jamali <[ajamali@pascocountyfl.net](mailto:ajamali@pascocountyfl.net)>; Bennett Elbo <[belbo@pascocountyfl.net](mailto:belbo@pascocountyfl.net)>  
Cc: Scott Lincoln <[slincoln@lacivil.com](mailto:slincoln@lacivil.com)>; Barbara Wilhite <[barbara@wilhitelaw.net](mailto:barbara@wilhitelaw.net)>  
Subject: Dollar General SR 39/Jerry Road - METHODOLOGY

Amir – We just finished a pre-application meeting that Bennet Elbo attended. He requested I send you the methodology that was uploaded this morning. (T&P-2022-00121) to Acela.

Please review the methodology and let me know of any changes you want.

For the Transportation Needs Assessment, in the past we had used the 2045 LRTP NEEDS PLAN volumes/capacities, but if you want us to use the 2045 COST AFFORDABLE Plan volumes/capacities we can do that.

I am looking to do both the Transportation Needs Assessment and the T&P Analysis in December. So I need the methodology approval to do so.

Robert Pergolizzi, AICP PTP

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# TRANSPORTATION NEEDS ASSESSMENT METHODOLOGY

## TIMING AND PHASING METHODOLOGY

Meeting Date: None Requested

Draft Submitted: 11/23/2022

Final Approved: 12/5/2022

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**Project Name:** Dollar General Zephyrhills- SR 39/Jerry Rd, Pasco County, FL  
**Comp Plan/Zoning Action:** Comp Plan Amendment RES-1 to COM;  
Rezone from AR & AC to C-2

### Transportation Needs Assessment

- 1) Exemption Status:  
The FLU Designation is RES-1, the applicant seeks to amend the Comprehensive Plan to COM
- 2) Site Parameters: (See Figure 1)  
The site is 2.11 acres and is located on the NE corner of SR 39 (Paul Buchman Highway)/Jerry Road in the Crystal Springs area of unincorporated Pasco County. The applicant intends to build a 10,640 SF Dollar General (Variety Store)
- 3) Study Area: The study area is the segment of SR 39 (Central Avenue – Chancey Road). SR 39 is a 2-lane arterial roadway and is shown as a 4LD arterial roadway on the 2045 LRTP Needs Plan and as 2-lanes on the 2045 Cost Affordable Plan.
- 4) 2045 Volumes: The 2045 Volumes shown in the Pasco County 2045 LRTP **Cost Affordable** Plan LOS Report will be used.
- 5) Development Traffic: The trips generation for the proposed Variety Store will be estimated using ITE Trip Generation, 11<sup>th</sup> Edition rates. The increased traffic associated with the development will be calculated.
- 6) Distribution: 95% of the project traffic will be assigned to SR 39 and 5% will be assigned to Jerry Road east of the SR 39 intersection.
- 7) Analysis: PM Peak hour generalized roadway segment analysis will be conducted for SR 39 using the 2045 LRTP volumes and capacity and will also include project generated traffic. LOS and v/c will be reported in the Transportation Needs Assessment.

Note: To maintain the review schedule, the applicant will be required to respond to the draft methodology statement within four (4) business days. The applicant may request additional time for review, which will trigger an automatic extension of the review schedule.

## Timing and Phasing Analysis

### 1) Exemption status:

- a. The property is currently zoned AR and AC and is 2.11 acres.

The site is proposed to be rezoned to C-2. The parcel #25-26-21-0010-04600-0000 comprises 2.11 acres and would have access to Jerry Road which is a 2-lane local road. The Jerry Road intersection at SR 39 is an unsignalized intersection. SR 39 is a 2-lane undivided arterial roadway with infrequent traffic signals. The Timing and phasing analysis is triggered based on the C-2 rezoning request and the traffic analysis will be submitted with the rezoning package.

- b. The applicant has elected to complete this analysis and is proposing this methodology.

### 2) Site Parameters:

- a. *Description of land uses –*

<u>Exempt Uses</u>	<u>Existing</u>
Vacant site	Vacant site
<u>Non-exempt Uses</u>	<u>Proposed</u>
C-2	10,640 SF Variety Store

- b. *Site Location* – Project is located at the Northeastern corner of the SR 39/Jerry Road intersection in the Crystal Springs area of Pasco County. Full access to Jerry Road is proposed, no direct access to SR 39 is proposed.
- c. *Buildout schedule and Phasing* – The buildout year for the project is 2025. The analysis will do a future year analysis of 2025 conditions.
- d. *Interim uses generating traffic* – None

### 3) Study Area:

- a. The study area will include segment of SR 39 between Central Avenue and Chancey Road. Analysis will include the intersection of SR 39/Jerry Road.

### 4) Traffic Counts

- a. Traffic counts include AM & PM peak period intersection counts at the following intersection:

SR 39/Jerry Road

Counts will be adjusted to peak season equivalents. This will provide AM peak hour/peak season and PM peak hour/peak season volumes for all adjacent segments of SR 39 and Jerry Road.

### 5) Trip Generation:

Note: To maintain the review schedule, the applicant will be required to respond to the draft methodology statement within four (4) business days. The applicant may request additional time for review, which will trigger an automatic extension of the review schedule.

- a. For purposes of analysis the trip generation will be based on the Institute of Transportation Engineers (ITE) Trip Generation, 11<sup>th</sup> Edition. We will evaluate the project as a 10,640 SF variety store. The project will generate only 677 daily trips of which 32 would occur during the AM peak hour and 71 would occur during the PM peak hour.

6) Internal Capture/Pass-by:

- a. Internal Capture – No internal capture for the proposed use.
- b. Pass-by – Pass-by capture will be 34% per ITE Trip Generation Handbook.

7) Background Growth Procedure:

- a. A growth rate of 3.28% per year for all studied roadways will be used to estimate background traffic in 2025. This is based on nearby FDOT count station historical counts.

8) Distribution and Assignment:

- a. Project traffic distribution will be 55% to/from the north on SR 39, 40% to/from south on SR 39, and 5% east on Jerry Road to adjacent neighborhoods.

9) Analysis:

- a. The analysis will be done for the AM & PM peak hours. Intersections will be analyzed using SYNCHRO and HCS software.
- b. FDOT 2012 Generalized tables will be used to complete the Timing & Phasing portion of the analysis.
- c. Existing G/C ratios will be based on the Pasco County data and field measurements. (if applicable)

Access Management Analysis:

An Access Management Analysis will be conducted for the project driveway intersection with Jerry Road. This will evaluate if turn lanes are required with the traffic associated with the addition of the project. The intersection analysis shall be based on HCS software and Pasco County Access Management graphs. All other parameters outlined above shall be utilized in the analysis.

*The current version of Transportation Analysis Guidelines will be used for parameters not specifically mentioned here.*

Note: To maintain the review schedule, the applicant will be required to respond to the draft methodology statement within four (4) business days. The applicant may request additional time for review, which will trigger an automatic extension of the review schedule.



2021 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL  
 CATEGORY: 1400 PASCO COUNTYWIDE

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

1.00 - COUNTS 12/16/21

\* PEAK SEASON

08-MAR-2022 12:36:28

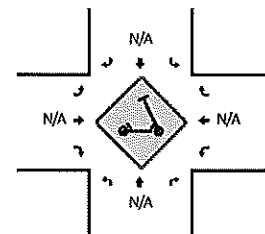
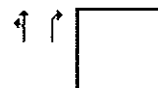
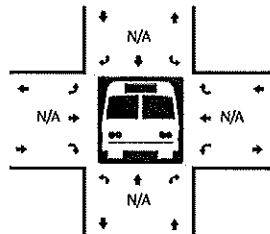
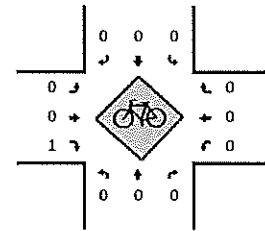
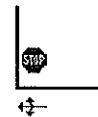
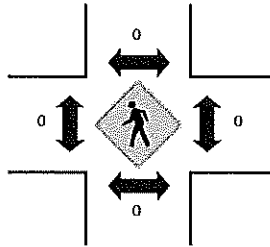
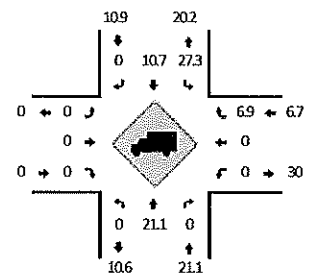
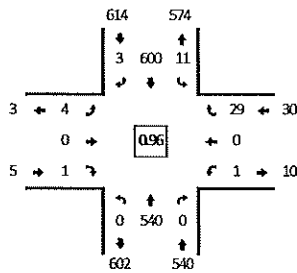
830UPD

7\_1400\_PKSEASON.TXT

LOCATION: SR 39 -- Jerry Rd  
CITY/STATE: Crystal Springs, FL

QC JOB #: 16034901  
DATE: Thu, Dec 8 2022

Peak-Hour: 7:00 AM -- 8:00 AM  
Peak 15-Min: 7:30 AM -- 7:45 AM



15-Min Count Period Beginning At	SR 39 (Northbound)				SR 39 (Southbound)				Jerry Rd (Eastbound)				Jerry Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
7:00 AM	0	109	0	0	1	144	0	0	4	0	1	0	0	0	6	0	265	
7:15 AM	0	139	0	0	1	159	0	0	0	0	0	0	0	0	9	0	308	
7:30 AM	0	159	0	0	4	138	2	1	0	0	0	0	0	0	5	0	309	
7:45 AM	0	133	0	0	4	159	1	0	0	0	0	0	1	0	9	0	307	1189
8:00 AM	0	115	0	0	4	119	0	0	0	0	0	0	0	0	4	0	242	1166
8:15 AM	0	104	0	0	4	112	1	0	0	0	1	0	1	0	7	0	230	1088
8:30 AM	0	125	0	0	1	122	1	0	1	0	0	0	1	0	11	0	262	1041
8:45 AM	1	113	0	0	2	125	0	0	0	0	1	0	0	0	4	0	246	980
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	636	0	0	16	552	8	4	0	0	0	0	0	0	20	0	1236	
Heavy Trucks	0	152	0	0	8	52	0	0	0	0	0	0	0	0	0	0	212	
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Scoters	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments:

Report generated on 12/9/2022 12:22 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

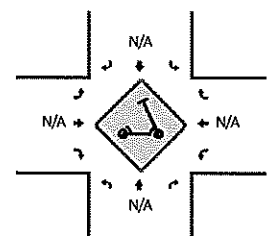
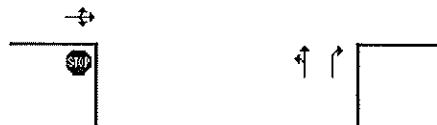
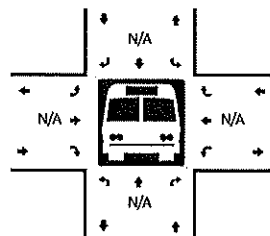
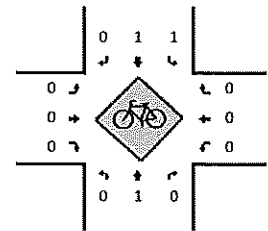
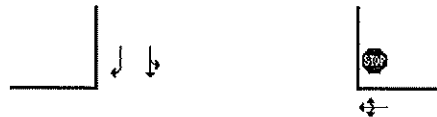
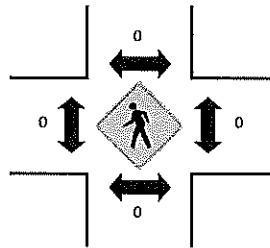
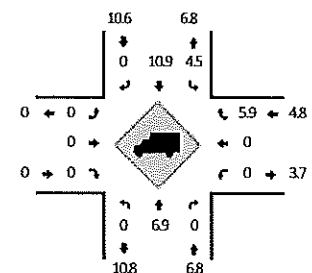
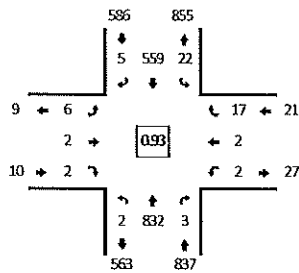
PSCF = 1.0

NO ADJUSTMENT

LOCATION: SR 39 -- Jerry Rd  
CITY/STATE: Crystal Springs, FL

QC JOB #: 16034902  
DATE: Thu, Dec 8 2022

Peak-Hour: 4:45 PM -- 5:45 PM  
Peak 15-Min: 5:30 PM -- 5:45 PM



15-Min Count Period Beginning At	SR 39 (Northbound)				SR 39 (Southbound)				Jerry Rd (Eastbound)				Jerry Rd (Westbound)				Total	Hourly Totals
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
4:00 PM	2	150	0	0	3	131	0	0	0	0	0	0	0	0	3	0	289	
4:15 PM	0	196	0	0	3	118	1	0	1	0	0	0	0	0	5	0	324	
4:30 PM	1	173	1	0	12	127	3	0	1	0	0	0	0	0	5	0	323	
4:45 PM	1	201	1	0	8	124	0	0	0	1	0	0	0	0	4	0	340	1276
5:00 PM	0	206	1	0	7	115	0	0	1	0	0	0	2	1	2	0	335	1322
5:15 PM	1	202	0	0	5	168	2	0	3	0	1	0	0	0	7	0	389	1387
5:30 PM	0	223	1	0	2	152	3	0	2	1	1	0	0	1	4	0	390	1454
5:45 PM	0	197	0	0	7	118	1	0	0	0	0	0	0	0	2	0	325	1439
Peak 15-Min Flowrates	Northbound				Southbound				Eastbound				Westbound				Total	
	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U	Left	Thru	Right	U		
All Vehicles	0	892	4	0	8	608	12	0	8	4	4	0	0	4	16	0	1560	
Heavy Trucks	0	60	0	0	0	44	0	0	0	0	0	0	0	0	0	0	104	
Buses	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Pedestrians	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Bicycles	0	4	0	0	0	0	0	0	0	0	0	0	0	0	0	0	4	
Scoters	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Comments:

Report generated on 12/9/2022 12:22 PM

SOURCE: Quality Counts, LLC (<http://www.qualitycounts.net>) 1-877-580-2212

PSCF = 1.0 NO ADJUSTMENT

# HCS Two-Way Stop-Control Report

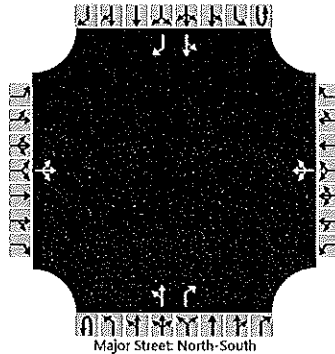
## General Information

Analyst	RP
Agency/Co.	GCC
Date Performed	12/12/2022
Analysis Year	2022
Time Analyzed	AM PEAK HOUR
Intersection Orientation	North-South
Project Description	EXISTING CONDITIONS 2022

## Site Information

Intersection	SR 39 / JERRY RD
Jurisdiction	FDOT/PASCO
East/West Street	JERRY RD
North/South Street	SR 39 (PAUL BUCHMAN HWY)
Peak Hour Factor	0.96
Analysis Time Period (hrs)	0.25

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	1	0	0	1	1
Configuration			LTR				LTR			LT		R		LT		R
Volume (veh/h)		4	0	1		1	0	29		0	540	0		11	600	3
Percent Heavy Vehicles (%)		0	0	0		7	7	7		0				27		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No				No			
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.17	6.57	6.27		4.10				4.37		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.56	4.06	3.36		2.20				2.44		

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			5				31			0				11		
Capacity, c (veh/h)			173				479			964				896		
v/c Ratio			0.03				0.07			0.00				0.01		
95% Queue Length, Q <sub>95</sub> (veh)			0.1				0.2			0.0				0.0		
Control Delay (s/veh)			26.5				13.0			8.7	0.0			9.1	0.1	
Level of Service (LOS)			D				B			A	A			A	A	
Approach Delay (s/veh)	26.5				13.0				0.0				0.3			
Approach LOS	D				B				A				A			

# HCS Two-Way Stop-Control Report

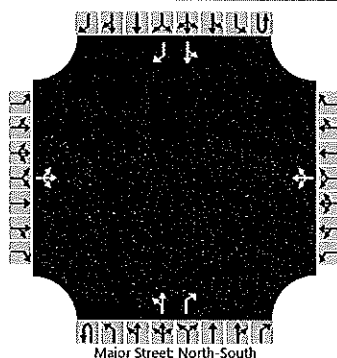
## General Information

Analyst	RP
Agency/Co.	GCC
Date Performed	12/12/2022
Analysis Year	2022
Time Analyzed	PM PEAK HOUR
Intersection Orientation	North-South
Project Description	EXISTING CONDITIONS 2022

## Site Information

Intersection	SR 39 / JERRY RD
Jurisdiction	FDOT/PASCO
East/West Street	JERRY RD
North/South Street	SR 39 (PAUL BUCHMAN HWY)
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	1	0	0	1	1
Configuration			LTR				LTR			LT		R		LT		R
Volume (veh/h)		6	2	3		2	2	17		2	832	3		22	559	5
Percent Heavy Vehicles (%)		0	0	0		5	5	5		7				11		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No				No			
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.15	6.55	6.25		4.17				4.21		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.55	4.05	3.35		2.26				2.30		

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			12				23			2				24		
Capacity, c (veh/h)			114				226			948				720		
v/c Ratio			0.10				0.10			0.00				0.03		
95% Queue Length, Q <sub>95</sub> (veh)			0.3				0.3			0.0				0.1		
Control Delay (s/veh)			40.2				22.7			8.8	0.0			10.2	0.4	
Level of Service (LOS)			E				C			A	A			B	A	
Approach Delay (s/veh)	40.2				22.7				0.0				0.7			
Approach LOS	E				C				A				A			



Generalized Peak Hour Two-Way Volumes for Florida's  
Urbanized Areas<sup>1</sup>

TABLE 4

12/18/12

INTERRUPTED FLOW FACILITIES					
STATE SIGNALIZED ARTERIALS					
Class I (40 mph or higher posted speed limit)					
Lanes	Median	B	C	D	E
2	Undivided	*	1,510	1,600	**
4	Divided	*	3,420	3,580	**
6	Divided	*	5,250	5,390	**
8	Divided	*	7,090	7,210	**

Class II (35 mph or slower posted speed limit)					
Lanes	Median	B	C	D	E
2	Undivided	*	660	1,330	1,410
4	Divided	*	1,310	2,920	3,040
6	Divided	*	2,090	4,500	4,590
8	Divided	*	2,880	6,060	6,130
7	Turn Rd	210	90%	600	1200

Non-State Signalized Roadway Adjustments  
(Alter corresponding state volumes  
by the indicated percent.)

Non-State Signalized Roadways -10%

Median & Turn Lane Adjustments				
Lanes	Median	Exclusive Left Lanes	Exclusive Right Lanes	Adjustment Factors
2	Divided	Yes	No	+5%
2	Undivided	No	No	-20%
Multi	Undivided	Yes	No	-5%
Multi	Undivided	No	No	-25%
—	—	—	Yes	+5%

One-Way Facility Adjustment  
Multiply the corresponding two-directional  
volumes in this table by 0.6

UNINTERRUPTED FLOW FACILITIES				
FREEWAYS				
Lanes	B	C	D	E
4	4,120	5,540	6,700	7,190
6	6,130	8,370	10,060	11,100
8	8,230	11,100	13,390	15,010
10	10,330	14,040	16,840	18,930
12	14,450	18,880	22,030	22,860

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

SR 39 (Hills Co - Chocoma)

UNINTERRUPTED FLOW HIGHWAYS					
Lanes	Median	B	C	D	E
2	Undivided	770	1,530	2,170	2,990
4	Divided	3,300	4,660	5,900	6,530
6	Divided	4,950	6,990	8,840	9,790

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

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

<sup>2</sup> Level of service for the bicycle and pedestrian modes in this table is based on number of motorized vehicles, not number of bicyclists or pedestrians using the facility.

<sup>3</sup> Buses per hour shown are only for the peak hour in the single direction of the higher traffic flow.

\* Cannot be achieved using table input value defaults.

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

Source:  
Florida Department of Transportation  
Systems Planning Office  
[www.dot.state.fl.us/planning/systems/sni/los/defaults.htm](http://www.dot.state.fl.us/planning/systems/sni/los/defaults.htm)

BICYCLE MODE <sup>2</sup>				
(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)				
Paved Shoulder/Bicycle Lane Coverage				
	B	C	D	E
0-49%	*	260	680	1,770
50-84%	190	600	1,770	>1,770
85-100%	830	1,770	>1,770	**

PEDESTRIAN MODE <sup>2</sup>				
(Multiply motorized vehicle volumes shown below by number of directional roadway lanes to determine two-way maximum service volumes.)				
Sidewalk Coverage				
	B	C	D	E
0-49%	*	*	250	850
50-84%	*	150	780	1,420
85-100%	340	960	1,560	>1,770

BUS MODE (Scheduled Fixed Route) <sup>3</sup>				
(Buses in peak hour in peak direction)				
Sidewalk Coverage				
	B	C	D	E
0-84%	>5	≥4	≥3	≥2
85-100%	>4	≥3	≥2	≥1

*Freeways are divided highways with at least two lanes in each direction and full access control.*

*Uninterrupted flow highways are non-freeway roadways that generally have uninterrupted flow, with average signalized intersection spacing greater than 2.0 miles.*

*Interrupted flow roadways are roadways with fixed causes of periodic delay or interruption and average signalized intersection spacing less than or equal to 2.0 miles.*

---

## 4.1. Roadway Type

Compatible with the terminology of the HCM, this Q/LOS Handbook and accompanying software are based on three major roadway types:

- Freeways
- Uninterrupted flow highways
- Interrupted flow roadways

### 4.1.1. Freeways

**Freeways** are multilane, divided highways with at least two lanes for exclusive use of traffic in each direction and full control of ingress and egress.

### 4.1.2. Highways

**Uninterrupted flow highways** are roadways with a combination of roadway segments, which have average signalized intersection spacing greater than 2 miles and are not freeways. Because of the significantly different operating characteristics, these types of roadways are frequently also distinguished as two-lane highways and multilane highways.

### 4.1.3. Arterials

**Interrupted flow roadways** are characterized by signals with average signalized intersection spacing less than or equal to 2 miles. In this Q/LOS Handbook and accompanying software, signalized arterials are the predominant type of interrupted flow roadway. They primarily are operated by the state and serve through traffic. Also included in this category are signalized non-state roadways, but not local streets. As used here, signalized intersections refer to all fixed causes of interruption to the traffic stream, and may occasionally include STOP signs or other control types.

Arterials are further classified based on posted speed. There are two arterial classes:

- **Class I** – Arterials with a posted speed of 40 mph or greater
- **Class II** – Arterials with a posted speed of 35 mph or less

## **APPENDIX B**

FLORIDA DEPARTMENT OF TRANSPORTATION  
TRANSPORTATION STATISTICS OFFICE  
2021 HISTORICAL AADT REPORT

COUNTY: 14 - PASCO

SITE: 5308 - SR 39, S OF CHANCY RD

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----	-----	-----	-----	-----	-----
2021	14900 C	N 7300	S 7600	9.00	54.60	16.60
2020	13700 C	N 6800	S 6900	9.00	55.40	18.20
2019	13400 C	N 6300	S 6900	9.00	56.20	14.40
2018	13400 C	N 6600	S 6800	9.00	57.10	14.50
2017	13400 F	N 6600	S 6800	9.00	57.30	14.30
2016	12800 C	N 6300	S 6500	9.00	57.90	14.30
2015	12000 C	N 5900	S 6100	9.00	57.90	14.60
2014	12100 C	N 6000	S 6100	9.00	56.10	13.90
2013	11800 C	N 6000	S 5800	9.00	60.00	14.30
2012	11600 C	N 5800	S 5800	9.00	59.00	14.50
2011	10900 C	N 5400	S 5500	9.00	58.20	15.20
2010	11700 C	N 5900	S 5800	9.07	58.18	13.40
2009	11700 C	N 5800	S 5900	9.17	58.07	16.60
2008	11600 C	N 5800	S 5800	9.52	56.97	14.40
2007	12700 C	N 6300	S 6400	9.26	52.68	16.50
2006	13800 C	N 6800	S 7000	9.38	56.87	14.30

5 yr growth rate (2016-2021) = 3.28 % annually

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

# HCS Two-Way Stop-Control Report

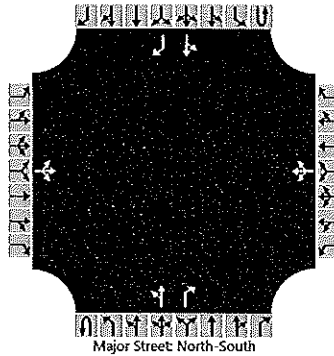
## General Information

Analyst	RP
Agency/Co.	GCC
Date Performed	12/12/2022
Analysis Year	2025
Time Analyzed	AM PEAK HOUR
Intersection Orientation	North-South
Project Description	BACKGROUND TRAFFIC CONDITIONS 2025

## Site Information

Intersection	SR 39 / JERRY RD
Jurisdiction	FDOT/PASCO
East/West Street	JERRY RD
North/South Street	SR 39 (PAUL BUCHMAN HWY)
Peak Hour Factor	0.96
Analysis Time Period (hrs)	0.25

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	1	0	0	1	1
Configuration			LTR				LTR			LT		R		LT		R
Volume (veh/h)		4	0	1		1	0	32		0	594	0		12	660	3
Percent Heavy Vehicles (%)		0	0	0		7	7	7		0				27		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No				No			
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.17	6.57	6.27		4.10				4.37		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.56	4.06	3.36		2.20				2.44		

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			5				34			0				13		
Capacity, c (veh/h)			142				442			914				851		
v/c Ratio			0.04				0.08			0.00				0.01		
95% Queue Length, Q <sub>95</sub> (veh)			0.1				0.3			0.0				0.0		
Control Delay (s/veh)			31.4				13.8			8.9	0.0			9.3	0.2	
Level of Service (LOS)			D				B			A	A			A	A	
Approach Delay (s/veh)	31.4				13.8				0.0				0.3			
Approach LOS	D				B				A				A			



# HCS Two-Way Stop-Control Report

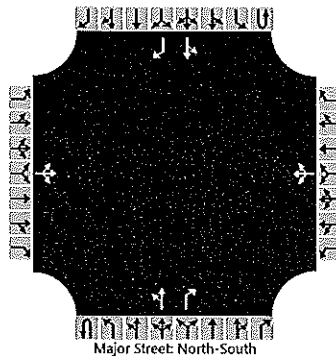
## General Information

Analyst	RP
Agency/Co.	GCC
Date Performed	12/12/2022
Analysis Year	2025
Time Analyzed	PM PEAK HOUR
Intersection Orientation	North-South
Project Description	BACKGROUND TRAFFIC CONDITIONS 2025

## Site Information

Intersection	SR 39 / JERRY RD
Jurisdiction	FDOT/PASCO
East/West Street	JERRY RD
North/South Street	SR 39 (PAUL BUCHMAN HWY)
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	0	0	0	1	1	0	0	1	1
Configuration			LTR				LTR			LT		R		LT		R
Volume (veh/h)		7	2	3		2	2	19		2	915	3		24	615	5
Percent Heavy Vehicles (%)		0	0	0		5	5	5		7				11		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized									No				No			
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.15	6.55	6.25		4.17				4.21		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.55	4.05	3.35		2.26				2.30		

## Delay, Queue Length, and Level of Service

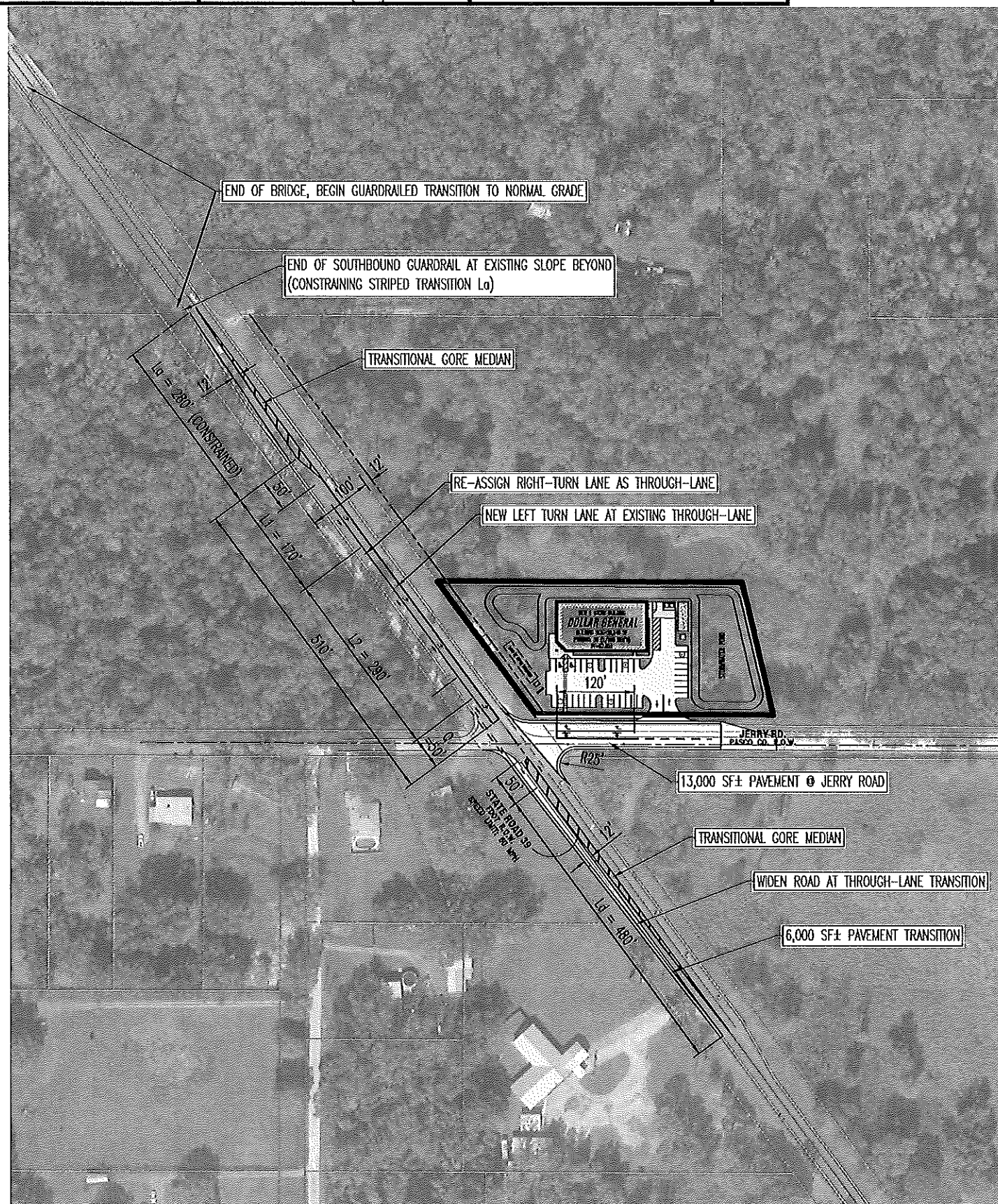
Flow Rate, v (veh/h)			13				25			2				26		
Capacity, c (veh/h)			85				195			900				666		
v/c Ratio			0.15				0.13			0.00				0.04		
95% Queue Length, Q <sub>95</sub> (veh)			0.5				0.4			0.0				0.1		
Control Delay (s/veh)			54.5				26.2			9.0	0.0			10.6	0.5	
Level of Service (LOS)			F				D			A	A			B	A	
Approach Delay (s/veh)	54.5				26.2				0.0				0.8			
Approach LOS	F				D				A				A			

## **APPENDIX C**

# ROADWAY WORK SITE PLAN

CITY, STATE - STREET:  
ZEPHYRHILLS, FL — STATE ROAD 39 @ JERRY ROAD

PROTOTYPE:	F	DEVELOPER	DESIGNER	DATE
BLDG/SALES SF:	10,640/8,513	COMPANY: TERAMORE DEVELOPMENT, LLC	COMPANY: LA CIVIL, INC.	03/09/23
ACREAGE:	2.11±	NAME: CHAD STRICKLAND	NAME: SCOTT LINCOLN, PE	
PARKING REQ'D/PROVIDED:	36/36	PHONE #: (229) 516-4289	PHONE #: 727-446-9000	



# Variety Store (814)

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

Setting/Location: General Urban/Suburban

Number of Studies: 29

Avg. 1000 Sq. Ft. GFA: 9

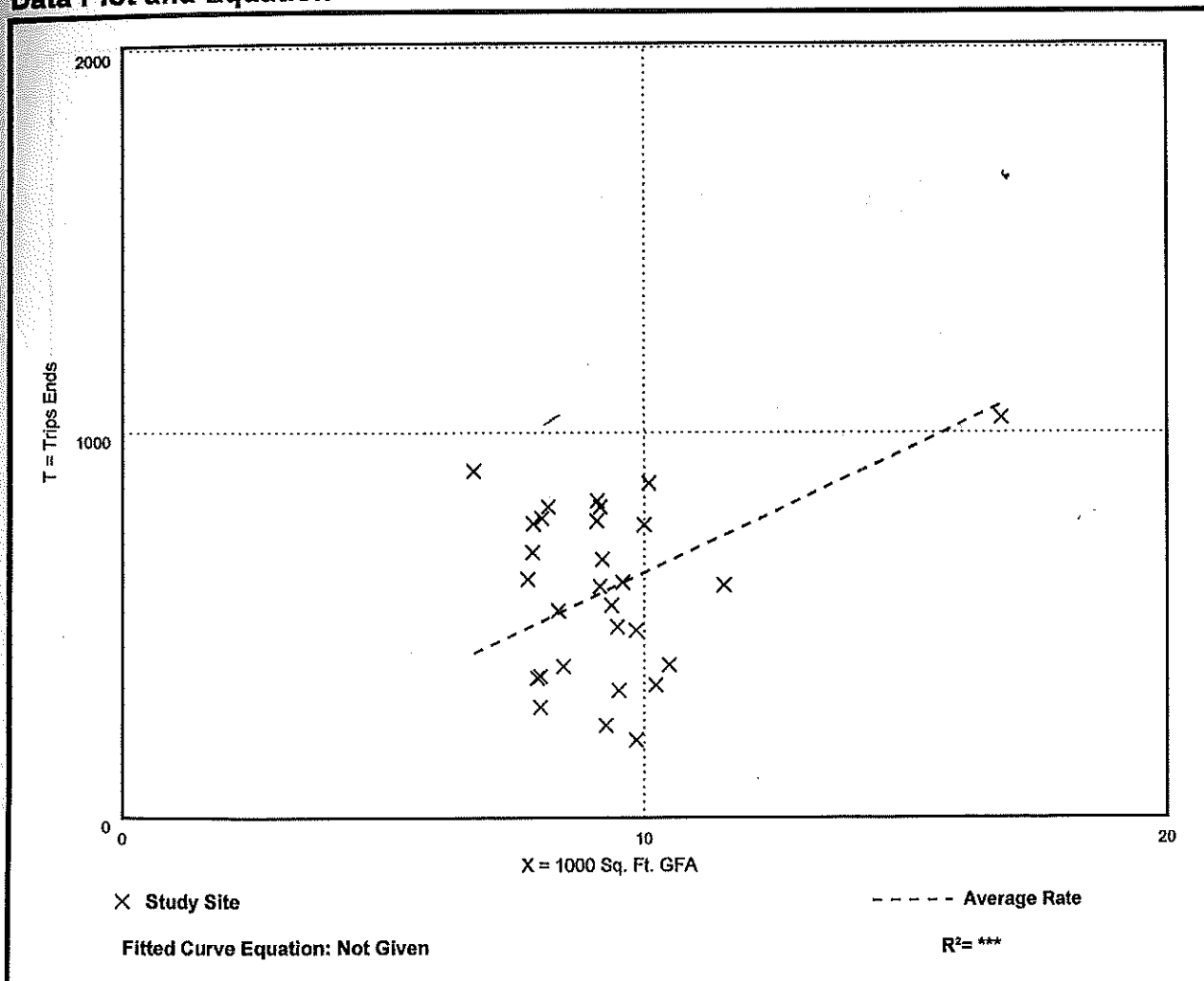
Directional Distribution: 50% entering, 50% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
63.66	20.51 - 133.68	25.23

## Data Plot and Equation

10,640 SFs 63.66 = 677 daily



# Variety Store (814)

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: 29

Avg. 1000 Sq. Ft. GFA: 9

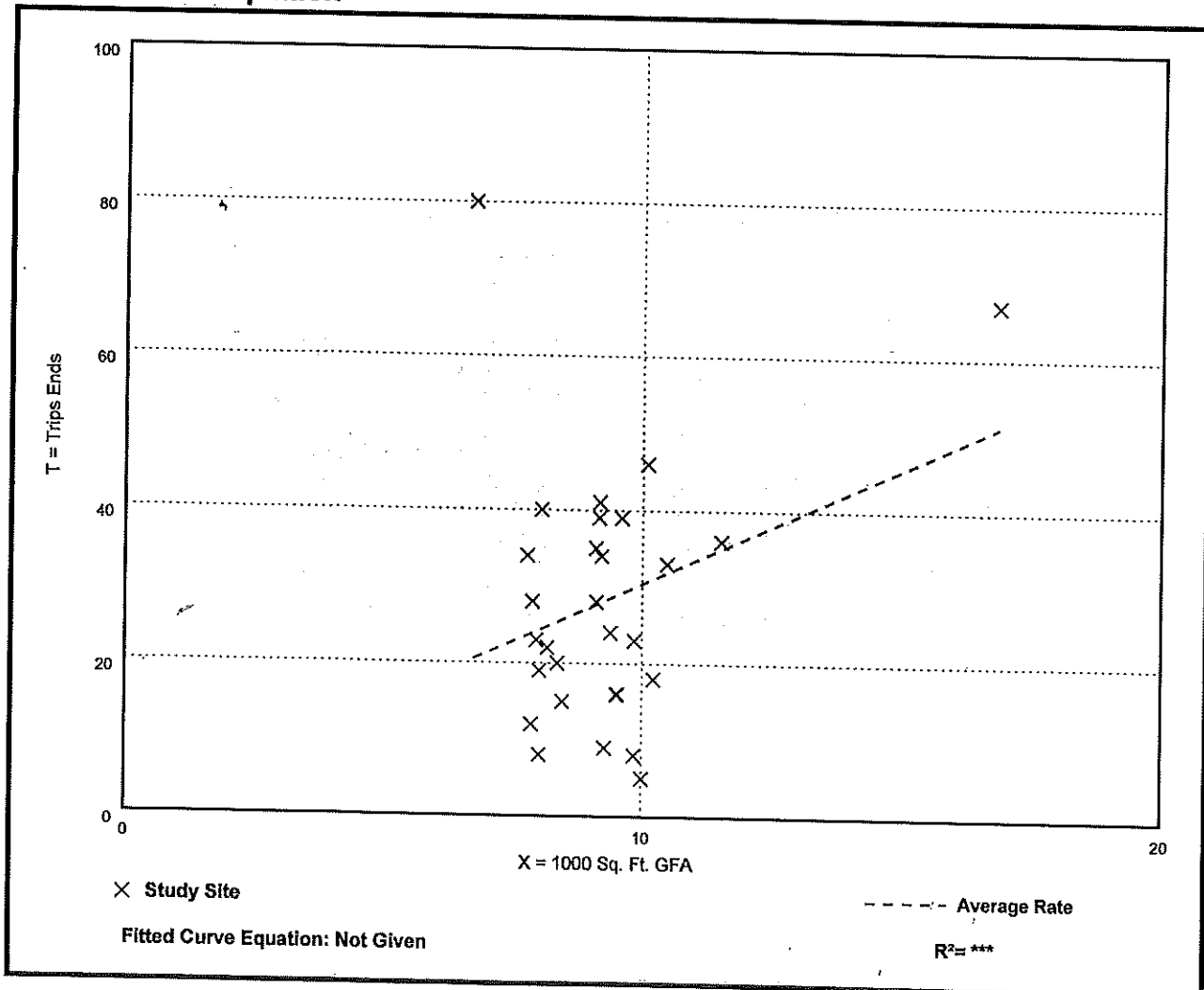
Directional Distribution: 55% entering, 45% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
3.04	0.50 - 11.87	1.91

## Data Plot and Equation

$$10,640 \text{ BE} \times 3.04 = 32 \text{ AM (18/14)}$$





# Variety Store (814)

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: 29

Avg. 1000 Sq. Ft. GFA: 9

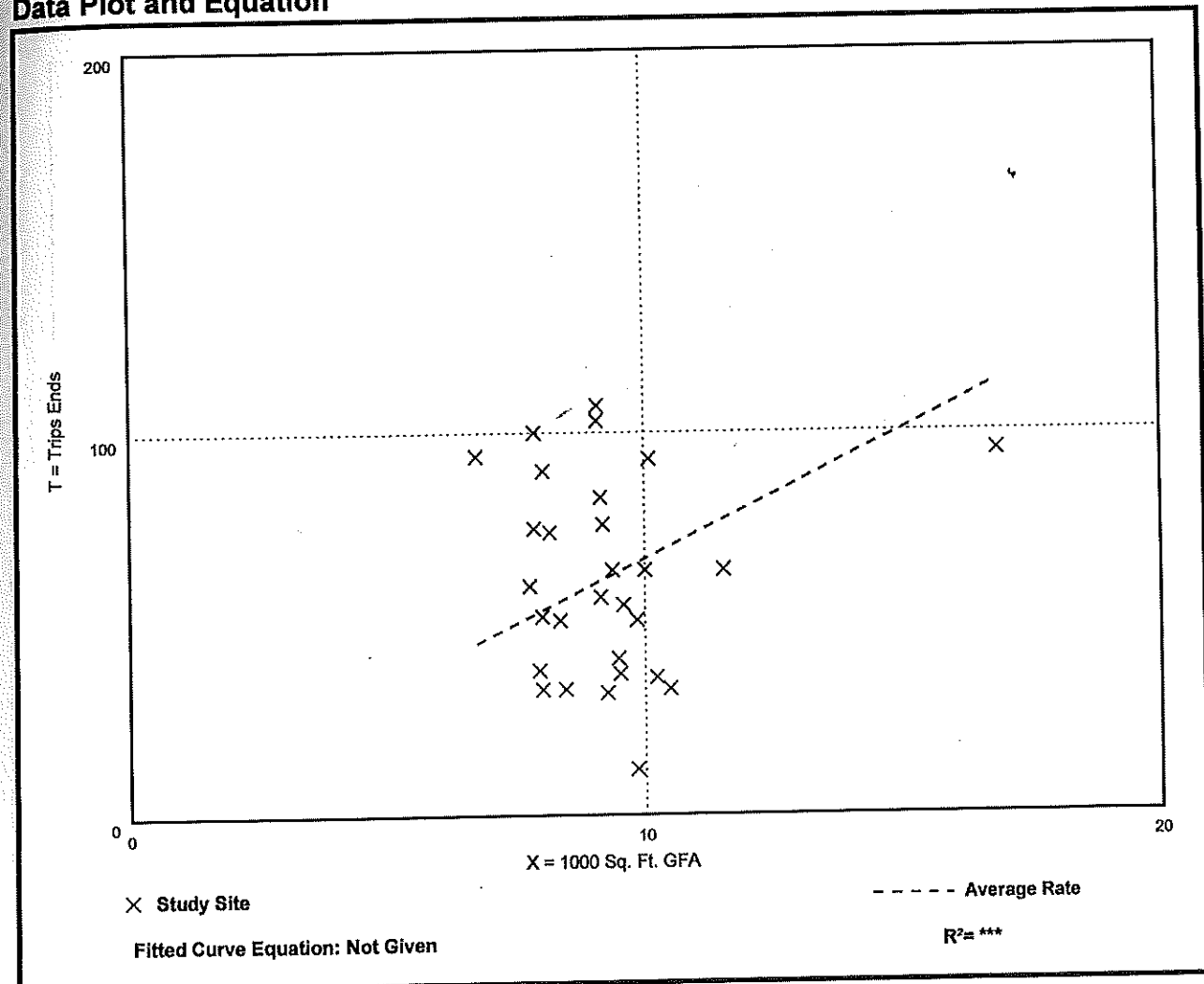
Directional Distribution: 51% entering, 49% exiting

## Vehicle Trip Generation per 1000 Sq. Ft. GFA

Average Rate	Range of Rates	Standard Deviation
6.70	1.22 - 13.95	3.08

## Data Plot and Equation

$$10,640 \text{ SF} \times 6.70 = 71 (34/35)$$



**Table E.5 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period**  
**Land Use Code 814—Variety Store**

SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
						PRIMARY	DIVERTED	TOTAL		
8	Tallahassee, FL	May 2010	145	3:00–7:00 p.m.	30	—	—	70	610	731
10	Jacksonville, FL	May 2010	127	3:00–7:00 p.m.	34	—	—	66	1,284	731
10	Tampa, FL	May 2010	247	3:00–7:00 p.m.	40	—	—	60	3,165	731
17	Tampa, FL	May 2010	50	3:00–7:00 p.m.	22	—	—	78	1,380	731
10	Daytona Beach, FL	May 2010	154	3:00–7:00 p.m.	44	—	—	56	1,573	731

Average Pass-By Trip Percentage: 34

“—” means no data were provided

**Table E.6 Pass-By and Non-Pass-By Trips Weekday, PM Peak Period**  
**Land Use Code 815—Free-Standing Discount Store**

SIZE (1,000 SQ. FT. GFA)	LOCATION	WEEKDAY SURVEY DATE	NO. OF INTERVIEWS	TIME PERIOD	PASS-BY TRIP (%)	NON-PASS-BY TRIP (%)			ADJ. STREET PEAK HOUR VOLUME	SOURCE
						PRIMARY	DIVERTED	TOTAL		
116	Auburn, NY	Nov. 1994	80	4:00–6:00 p.m.	29	34	37	71	1,490	Bergmann Associates
116	Fredonia, NY	Nov. 1994	80	4:00–6:00 p.m.	24	46	30	76	1,620	Bergmann Associates
122	Marlton, NJ	Nov. 1994	73	4:15–5:15 p.m.	22	51	27	78	1,380	Raymond Keyes Assoc.
127	Marlton, NJ	Nov. 1994	23	4:00–5:00 p.m.	39	22	39	61	1,410	Raymond Keyes Assoc.
127	Toms River, NJ	Nov. 1994	137	4:00–5:00 p.m.	13	46	41	87	1,430	Raymond Keyes Assoc.
128	Toms River, NJ	Nov. 1994	89	4:00–5:00 p.m.	7	60	33	93	1,290	Raymond Keyes Assoc.
128	Brick, NJ	Nov. 1994	48	4:15–5:15 p.m.	8	42	50	92	2,560	Raymond Keyes Assoc.
128	Brick, NJ	Nov. 1994	56	4:00–5:00 p.m.	14	47	39	86	2,550	Raymond Keyes Assoc.
126	Berlin, NJ	Feb. 1994	45	4:30–5:30 p.m.	7	75	18	93	1,230	Raymond Keyes Assoc.
126	Berlin, NJ	Feb. 1994	95	4:00–5:00 p.m.	1	61	38	99	1,430	Raymond Keyes Assoc.
133	Mays Landing, NJ	Feb. 1994	22	4:00–5:00 p.m.	9	82	9	91	3,640	Raymond Keyes Assoc.
133	Mays Landing, NJ	Feb. 1994	40	4:00–5:00 p.m.	3	55	42	97	3,700	Raymond Keyes Assoc.
127	Toms River, NJ	Sept. 1994	58	4:00–5:00 p.m.	14	65	21	86	1,380	Raymond Keyes Assoc.
127	Toms River, NJ	Sept. 1994	83	4:15–5:15 p.m.	13	58	29	87	1,390	Raymond Keyes Assoc.
128	Brick, NJ	Sept. 1994	117	4:30–5:30 p.m.	27	47	26	73	2,640	Raymond Keyes Assoc.
128	Brick, NJ	Sept. 1994	98	4:00–5:00 p.m.	30	49	21	70	2,640	Raymond Keyes Assoc.
127	Berlin, NJ	Sept. 1994	35	4:00–5:00 p.m.	9	71	20	91	1,240	Raymond Keyes Assoc.
88	Omaha, NE	—	—	4:00–6:00 p.m.	23	26	51	77	—	University of Nebraska—Lincoln
100	Omaha, NE	—	—	4:00–6:00 p.m.	22	32	46	78	—	University of Nebraska—Lincoln
100	Omaha, NE	—	—	4:00–6:00 p.m.	29	22	49	71	—	University of Nebraska—Lincoln
88	Omaha, NE	—	—	4:00–6:00 p.m.	19	33	48	81	—	University of Nebraska—Lincoln
66	Omaha, NE	—	—	4:00–6:00 p.m.	19	21	60	81	—	University of Nebraska—Lincoln

Average Pass-By Trip Percentage: 17

“—” means no data were provided

# HCS Two-Way Stop-Control Report

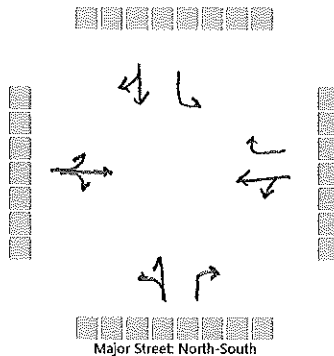
## General Information

Analyst	RP
Agency/Co.	GCC
Date Performed	02/13/2023
Analysis Year	2025
Time Analyzed	AM PEAK HOUR
Intersection Orientation	North-South
Project Description	FUTURE CONDITIONS WITH PROJECT 2025

## Site Information

Intersection	SR 39 / JERRY RD
Jurisdiction	FDOT/PASCO
East/West Street	JERRY RD
North/South Street	SR 39 (PAUL BUCHMAN HWY)
Peak Hour Factor	0.96
Analysis Time Period (hrs)	0.25

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	1	0	0	1	1	0	1	1	0
Configuration			LTR			LT		R		LT		R		L		TR
Volume (veh/h)		4	0	1		6	0	40		0	594	7		22	660	3
Percent Heavy Vehicles (%)		0	0	0		7	7	7		0				27		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized					No				No							
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.17	6.57	6.27		4.10				4.37		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.56	4.06	3.36		2.20				2.44		

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			5			6		42		0				23		
Capacity, c (veh/h)			134			120		477		914				846		
v/c Ratio			0.04			0.05		0.09		0.00				0.03		
95% Queue Length, Q <sub>95</sub> (veh)			0.1		Q	0.2		0.3		0.0				0.1		
Control Delay (s/veh)			33.0			36.7		13.3		8.9	0.0			9.4		
Level of Service (LOS)			D			E		B		A	A			A		
Approach Delay (s/veh)	33.0				16.3				0.0				0.3			
Approach LOS	D				C				A				A			

# HCS Two-Way Stop-Control Report

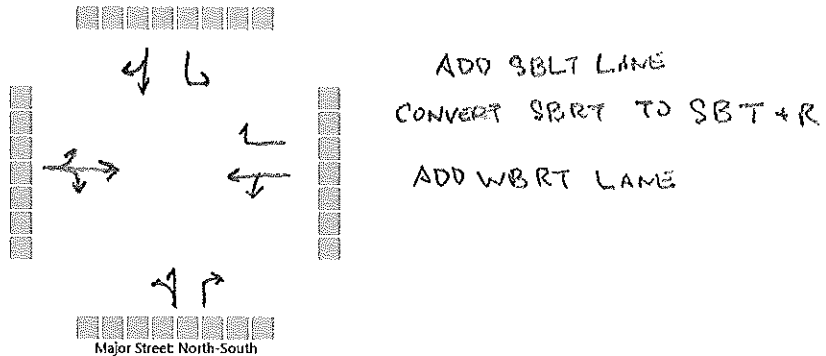
## General Information

Analyst	RP
Agency/Co.	GCC
Date Performed	03/13/2023
Analysis Year	2025
Time Analyzed	PM PEAK HOUR
Intersection Orientation	North-South
Project Description	FUTURE CONDITIONS WITH PROJECT 2025

## Site Information

Intersection	SR 39 / JERRY RD
Jurisdiction	FDOT/PASCO
East/West Street	JERRY RD
North/South Street	SR 39 (PAUL BUCHMAN HWY)
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority		10	11	12		7	8	9	1U	1	2	3	4U	4	5	6
Number of Lanes		0	1	0		0	1	1	0	0	1	1	0	1	1	0
Configuration			LTR			LT		R		LT		R		L		TR
Volume (veh/h)		7	2	3		16	2	38		2	915	17		44	615	5
Percent Heavy Vehicles (%)		0	0	0		5	5	5		7				11		
Proportion Time Blocked																
Percent Grade (%)	0				0											
Right Turn Channelized					No				No							
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)		7.1	6.5	6.2		7.1	6.5	6.2		4.1				4.1		
Critical Headway (sec)		7.10	6.50	6.20		7.15	6.55	6.25		4.17				4.21		
Base Follow-Up Headway (sec)		3.5	4.0	3.3		3.5	4.0	3.3		2.2				2.2		
Follow-Up Headway (sec)		3.50	4.00	3.30		3.55	4.05	3.35		2.26				2.30		

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)			13			19		41		2				47		
Capacity, c (veh/h)			73			60		294		900				657		
v/c Ratio			0.18			0.32		0.14		0.00				0.07		
95% Queue Length, Q <sub>95</sub> (veh)			0.6			1.2		0.5		0.0				0.2		
Control Delay (s/veh)			64.7			90.9		19.2		9.0	0.0			10.9		
Level of Service (LOS)			F			F		C		A	A			B		
Approach Delay (s/veh)	64.7				42.3				0.0				0.7			
Approach LOS	F				E				A				A			

# HCS Two-Way Stop-Control Report

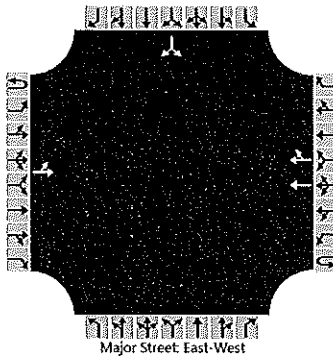
## General Information

Analyst	RP
Agency/Co.	GCC
Date Performed	12/12/2022
Analysis Year	2025
Time Analyzed	AM PEAK HOUR
Intersection Orientation	East-West
Project Description	FUTURE CONDITIONS WITH PROJECT 2025

## Site Information

Intersection	JERRY ROAD / DRIVE A
Jurisdiction	PASCO
East/West Street	JERRY ROAD
North/South Street	DRIVE A
Peak Hour Factor	0.96
Analysis Time Period (hrs)	0.25

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	2	0		0	0	0		0	1	0
Configuration		LT					T	TR							LR	
Volume (veh/h)		17	12				33	1						1		13
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		18													15	
Capacity, c (veh/h)		1567													1040	
v/c Ratio		0.01													0.01	
95% Queue Length, Q <sub>95</sub> (veh)		0.0													0.0	
Control Delay (s/veh)		7.3	0.1												8.5	
Level of Service (LOS)		A	A												A	
Approach Delay (s/veh)		4.3													8.5	
Approach LOS		A													A	

EBLT JERRY RD

SP

EXIT



# HCS Two-Way Stop-Control Report

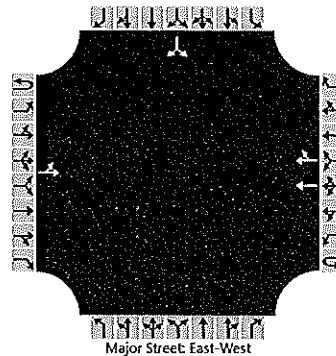
## General Information

Analyst	RP
Agency/Co.	GCC
Date Performed	12/12/2022
Analysis Year	2025
Time Analyzed	PM PEAK HOUR
Intersection Orientation	East-West
Project Description	FUTURE CONDITIONS WITH PROJECT 2025

## Site Information

Intersection	JERRY ROAD / DRIVE A
Jurisdiction	PASCO
East/West Street	JERRY ROAD
North/South Street	DRIVE A
Peak Hour Factor	0.93
Analysis Time Period (hrs)	0.25

## Lanes



## Vehicle Volumes and Adjustments

Approach	Eastbound				Westbound				Northbound				Southbound			
Movement	U	L	T	R	U	L	T	R	U	L	T	R	U	L	T	R
Priority	1U	1	2	3	4U	4	5	6		7	8	9		10	11	12
Number of Lanes	0	0	1	0	0	0	2	0		0	0	0		0	1	0
Configuration		LT					T	TR							LR	
Volume (veh/h)		34	29				23	2						2		33
Percent Heavy Vehicles (%)		3												3		3
Proportion Time Blocked																
Percent Grade (%)													0			
Right Turn Channelized																
Median Type   Storage	Undivided															

## Critical and Follow-up Headways

Base Critical Headway (sec)		4.1												7.5		6.9
Critical Headway (sec)		4.16												6.86		6.96
Base Follow-Up Headway (sec)		2.2												3.5		3.3
Follow-Up Headway (sec)		2.23												3.53		3.33

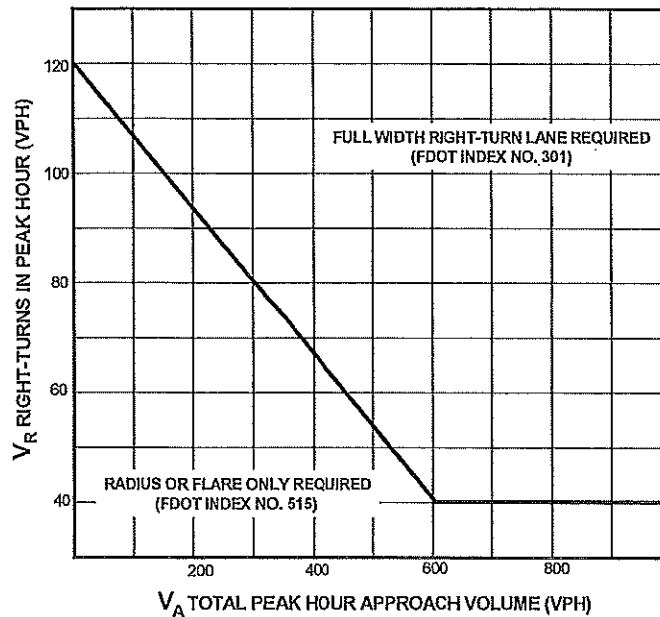
## Delay, Queue Length, and Level of Service

Flow Rate, v (veh/h)		37													38	
Capacity, c (veh/h)		1578													1043	
v/c Ratio		0.02													0.04	
95% Queue Length, Q <sub>95</sub> (veh)		0.1													0.1	
Control Delay (s/veh)		7.3	0.2												8.6	
Level of Service (LOS)		A	A												A	
Approach Delay (s/veh)		4.0											8.6			
Approach LOS		A											A			

EBLT

SB  
EBLT

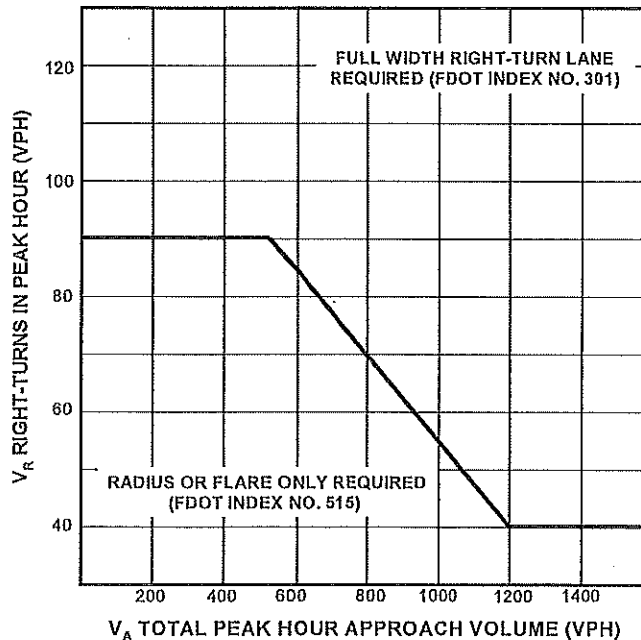
GRAPH 1A. RIGHT-TURN LANE WARRANTS -- TWO-LANE FACILITIES



JERRY RD / DRIVE A  
 AM  
 $V_{RT} = 1$   
 $V_A = 34$   
 PM  
 $V_{RT} = 2$   
 $V_A = 25$   
 WBRT LANE NOT WARRANTED

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

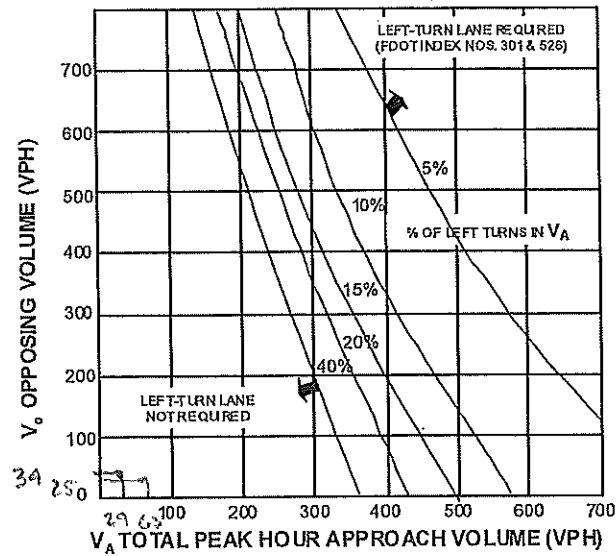
GRAPH 1B. RIGHT-TURN LANE WARRANTS  
FOUR- OR SIX-LANE FACILITIES



NOTE: For application on high speed highways.

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

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



JERRY RD / DRIVE A

AM

$$V_A = 29$$

$$V_O = 34$$

PM

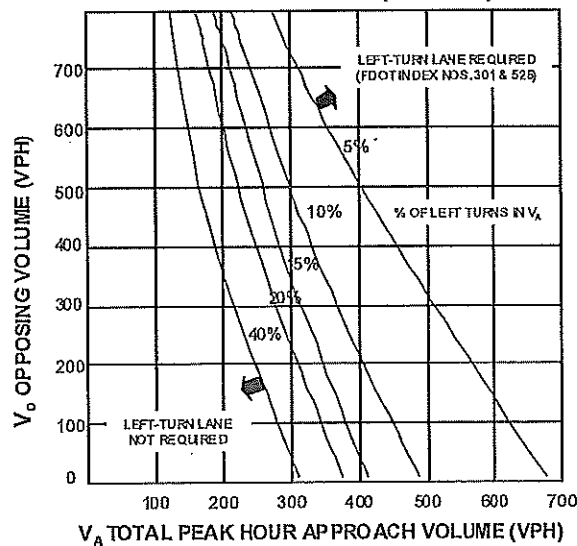
$$V_A = 63$$

$$V_O = 25$$

EB LT LANE NOT WARRANTED

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

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



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

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