

# I-95 at SR 524

## Interchange Modification Report (IMR)

*Brevard County, Florida*

**FPID 437983-1**

*February, 2022*



*Final*

# **Interchange Modification Report (IMR)**

**for Interstate 95 (I-95) at SR 524**

Brevard County, Florida

Florida Department of Transportation (FDOT)

Financial Project Number (FPID): 437983-1

ETDM Number: 14321

**February 2022**

# Interchange Modification Report (IMR)




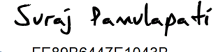
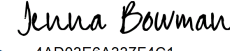
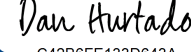
## I-95 at SR 524 Interchange

[FPID 437983-1]

### Florida Department of Transportation

#### Determination of Safety, Operational and Engineering Acceptability

Acceptance of this document indicates successful completion of the review and determination of safety, operational and engineering acceptability of the Interchange Access Request. Approval of the access request is contingent upon compliance with applicable Federal requirements, specifically the National Environmental Policy Act (NEPA) or Department's Project Development and Environment (PD&E) Procedures. Completion of the NEPA/PD&E process is considered approval of the project location design concept described in the environmental document.

Requestor	DocuSigned by:  7F665A34FA324EF...	3/7/2022   3:18 PM EST
	Lorena Cucek, FCCM, CPM, PMI District Five Project Manager	Date
Interchange Review Coordinator	DocuSigned by:  FE89B6447E1043B...	3/7/2022   3:21 PM EST
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	Jenna Bowman, PE Systems Implementation Office – Central Office	Date
State Chief Engineer	DocuSigned by:  C42B6EE133D643A...	3/7/2022   5:16 PM EST
	Dan Hurtado, P.E. Central Office	Date

SYSTEMS IMPLEMENTATION OFFICE

QUALITY CONTROL CERTIFICATION FOR INTERCHANGE ACCESS REQUEST SUBMITTAL

Submittal Date: 2/28/2022

FM Number: 437983-1

Project Title: I-95 at SR 524 Interchange Modification Report (IMR)

District: Five

Requestor: Lorena Cucek

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Document Type: [ ] MLOU [ ] IJR [x] IMR [ ] IOAR [ ] OTHER

Final

Status of Document (Only complete documents will be submitted for review; however, depending on the complexity of the project, interim reviews may be submitted as agreed upon in the MLOU)

Quality Control (QC) Statement

This document has been prepared following FDOT Procedure Topic No. 525-030-160 (New or Modified Interchanges) and complies with the FHWA two policy requirements. Appropriate District level quality control reviews have been conducted and all comments and issues have been resolved to their satisfaction. A record of all comments and responses provided during QC review is available in the project file or Electronic Review Comments (ERC) system.

Requestor Lorena Cucek

Lorena Cucek FCCM, CMP, PMI

Date: 3/7/2022 | 3:18 PM EST

IRC Suraj Pamulapati

Suraj Pamulapati PE, PTOE

Date: 3/7/2022 | 3:21 PM EST

**Quality Control Checklist and Review Log  
Interchange Access Request Proposals**

**Project Name:** I-95 at SR 524 IMR

**FDOT Project Manager:**  
Lorena Cucek FCCM, CMP, PMI

**FPID No.** 437983-1

**IRC:**  
Suraj Pamulapati PE, PTOE

No.	ITEM	READY FOR REVIEW	
		CHECKED BY	DATE
<b>1</b>	<b>Travel Demand Forecasting</b>		
	<i>Has the latest version of approved model been used? Have all adjustments been made per FDOT guidelines and MLOU and reviewed?</i>	<b>BA</b>	<b>03/11/19</b>
	<i>Have the traffic factors been reviewed and checked to make sure K, D, and T factors are reasonable?</i>	<b>BA</b>	<b>03/11/19</b>
	<i>Did the project traffic development follow FDOT Traffic Forecasting Handbook and MLOU?</i>	<b>BA</b>	<b>03/11/19</b>
	<i>Have existing and future traffic volumes been checked for reasonableness?</i>	<b>BA</b>	<b>03/11/19</b>
<b>2</b>	<b>Operational Analysis</b>		
	<i>Are the inputs into traffic software correct?</i>	<b>PR</b>	<b>05/21/20</b>
	<i>Has the validation/calibration of microsimulation been properly documented?</i>	<b>PR</b>	<b>05/21/20</b>
	<i>Are operational analysis results reasonable?</i>	<b>PR</b>	<b>05/21/20</b>
<b>3</b>	<b>Safety Analysis</b>		
	<i>Has appropriate safety analysis been performed to quantify impacts of the recommended improvements?</i>	<b>PR</b>	<b>01/14/22</b>
<b>4</b>	<b>Concept Design</b>		
	<i>Does the proposed design meet minimum design standards?</i>		
	<i>Have the exceptions and variations, if any, been justified?</i>		
<b>5</b>	<b>Conceptual Signing Plan</b>		
	<i>Has a conceptual signing plan been reviewed, checked to make sure it can be signed and meets MUTCD?</i>	<b>CR</b>	<b>01/14/22</b>
<b>6</b>	<b>FHWA's Two Policy Points</b>		
	<i>Does the proposal satisfy FHWA's policy points?</i>	<b>PR</b>	<b>06/29/20</b>
<b>7</b>	<b>Report Review</b>		
	<i>Has the report been reviewed for grammatical and editorial errors?</i>	<b>BA</b>	<b>02/24/22</b>

**CERTIFICATION BY**  
**VANASSE HANGEN BRUSTLIN, INC.**

Financial Project ID: 437983-1

Roadway ID: 70070000 (SR 524)

Roadway ID: 70225000 (Interstate 95)

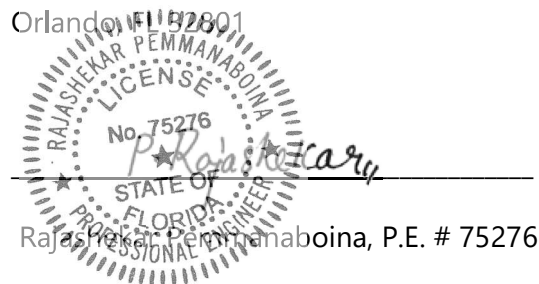
County: Brevard, FL

I, Rajashekar Pemmanaboina, Florida P.E. Number 75276, have prepared and reviewed the Interstate 95/SR 524 Interchange Modification Report (IMR). I have specifically followed the guidelines "Project Traffic Forecasting Handbook (2019)" as adopted by the Florida Department of Transportation, FDOT Policy No 00-525-00-H, and FDOT Procedure No. 525-030-160-I. Based on traffic count information, general data sources, and other pertinent information, the IMR has been prepared using current traffic engineering, transportation planning, and Florida Department of Transportation practices and procedures.

Vanasse Hangen Brustlin, Inc.

225 East Robinson Street, Suite 300,

Orlando, FL 32801



Rajashekar Pemmanaboina, P.E. # 75276

03/07/2022

Date

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# 1 Executive Summary

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## 1.1 Project Background

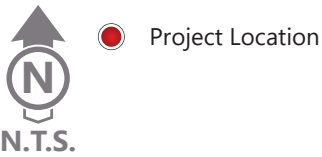
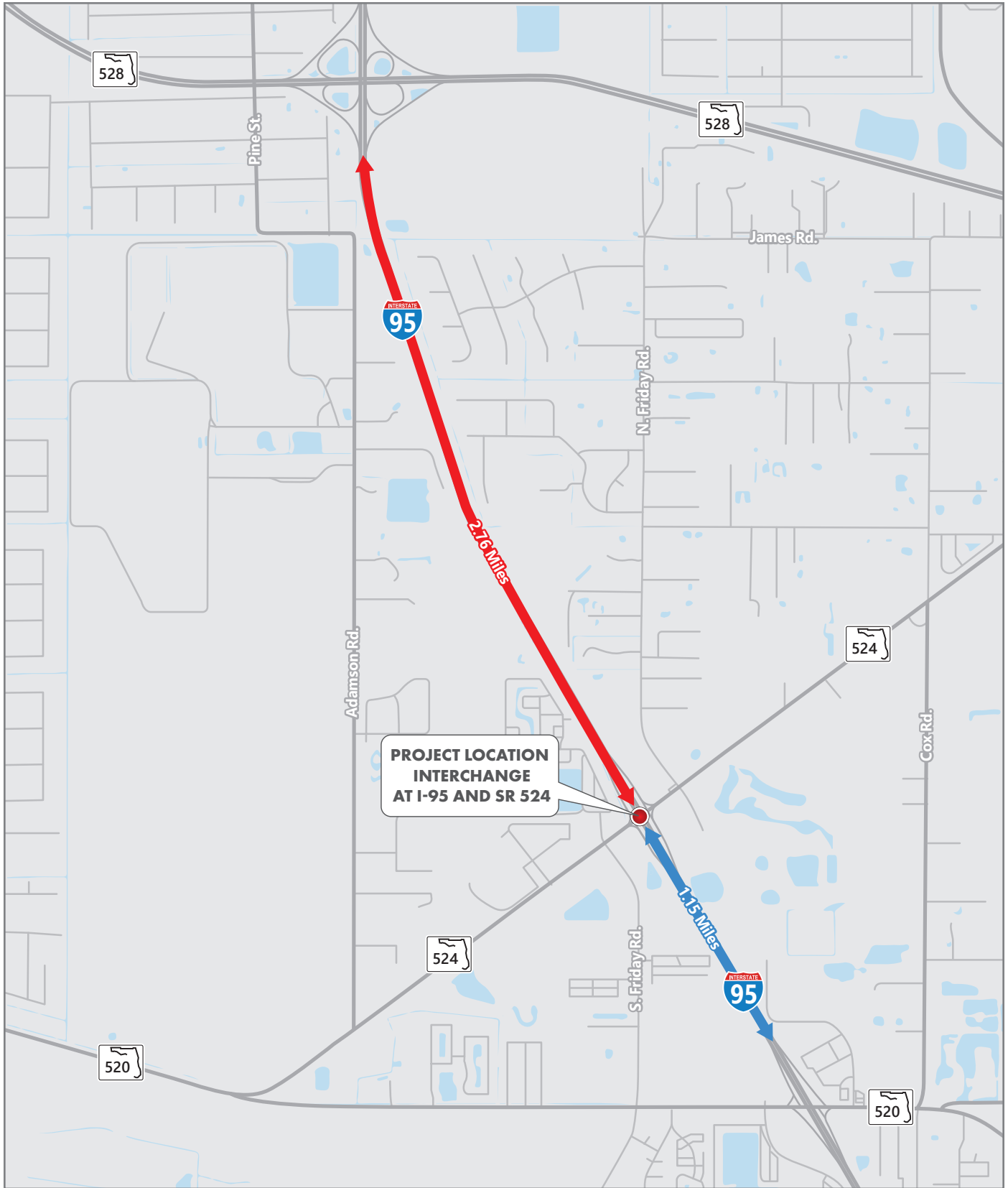
The Florida Department of Transportation (FDOT) District Five is conducting this IMR at the interchange of I-95 and SR 524, State Financial Project Number 437983-1, to evaluate the modification of the existing interchange at I-95 and SR 524, in Brevard County, Florida. This project is being conducted concurrently with the SR 524 Project Development and Environment (PD&E) Study, which evaluates the widening of SR 524 (Roadway ID: 70070000) from S. Friday Road (M.P 1.514) to Industry Road (M.P 4.649) for approximately 3.15 miles from a two-lane roadway to a four-lane divided facility. The purpose of the proposed improvements is to improve mobility in the SR 524 corridor to accommodate future projected traffic demand in the design year (2045) safely and efficiently.

This IMR for the I-95 at SR 524 interchange in Brevard County covers the documentation requirements agreed upon in the approved Methodology Letter of Understanding (MLOU). This report provides existing conditions data, future traffic forecasts, and the operational analysis for the existing (2019), opening year (2025), and design year (2045) conditions. The project location map is shown in **Figure A**.

---

## 1.2 Purpose and Need

The SR 524 widening project has been requested by the Space Coast Transportation Planning Organization (SCTPO) to coordinate the development of a future vision for the SR 524 corridor that establishes a multi-modal approach to providing for future transportation needs. This project is part of an effort to improve the current conditions so that they will meet future targets of Level of Service (LOS), safety, traffic flow, as well as improve accessibility to not only large trucks but pedestrians and bicyclists too at the interchange of I-95 and SR 524. The following bullets explain the details of the purpose and need of this IMR.



**FDOT** **Figure A**  
Project Location Map  
I-95 at SR 524 IMR

- **Accommodate Future Traffic Demand**

- The SR 524 corridor is projected to experience a significant increase in traffic demand because of the proposed developments along the corridor. To accommodate the traffic demand and maintain target LOS in the study area, SR 524 will be widened from 2 lanes to 4 lanes between S. Friday Road and Industry Road, including improvements to the interchange of I-95 at SR 524.
- With the current interchange configuration, both the ramp terminals and adjacent intersections (S. Friday Road and N. Friday Road) are projected to operate below the target LOS D by the design year 2045.

- **Improve Truck Traffic Accessibility**

- Along the southern portion of the corridor are a Flying J and a Walmart distribution center which bring in a heavy flow of truck traffic from I-95. One of the goals identified is to improve the accessibility from the I-95 interchange into these locations.

- **Improve Pedestrian and Bicycle Mobility**

- A major goal of the PD&E study is to create more paths for pedestrians and bicyclists, to increase connectivity safely throughout the SR 524 corridor. The improvements proposed as part of this IMR, will allow pedestrians and bicyclists safe access on SR 524 through the I-95 interchange from the future planned developments east and west of I-95.

- **Enhance Hurricane Evacuation Route Access**

- Both I-95 and SR 528 are categorized as official hurricane evacuation routes and SR 524 is a vital connection between these two roadways. The SR 524 widening and improvements to the interchange at I-95 will provide efficient access to the evacuation routes for all the existing and future residential areas along the corridor.

---

### 1.3 Project Alternatives

A No-Build alternative and a Build alternative are considered as part of this IMR. The No-Build alternative will maintain the existing roadway and intersection configuration within the Area of Influence (AOI). As part of the Build alternative, a Diverging Diamond Interchange (DDI) is evaluated at I-95 and SR 524 along with a four-lane widening of SR 524 within the study limits.

---

### 1.4 Compliance with Federal Highway Administration (FHWA) Policy Points

As demonstrated in the IMR study analysis results, the proposed interchange modification at the interchange of I-95 and SR 524 will efficiently accommodate future traffic demand including the heavy truck demand and provide improved levels of service and safety for all road users, and therefore meets the purpose and need of this IMR study. The two policy points per the FHWA Requirements and Guidelines were examined and addressed in this IMR as stated below:

**Policy Point 1:** *An operational and safety analysis has concluded that the proposed change in access does not have a significant adverse impact on the safety and operation of the Interstate facility (which includes mainline lanes, existing, new, or modified ramps, and ramp intersections with crossroad) or on the local street network based on both the current and the planned future traffic projections. The analysis should, particularly in urbanized areas, include at least the first adjacent existing or proposed interchange on either side of the proposed change in access (Title 23, Code of Federal Regulations (CFR), paragraphs 625.2(a), 655.603(d) and 771.111(f)). The crossroads and the local street network, to at least the first major intersection on either side of the proposed change in access, should be included in this analysis to the extent necessary to fully evaluate the safety and operational impacts that the proposed change in access and other transportation improvements may have on the local street network (23 CFR 625.2(a) and 655.603(d)). Requests for a proposed change in access should include a description and assessment of the impacts and ability of the proposed changes to safely and efficiently collect, distribute, and accommodate traffic on the Interstate facility, ramps, intersection of ramps with crossroad, and local street network (23 CFR 625.2(a) and 655.603(d)). Each request should also include a conceptual plan of the type and location of the signs proposed to support each design alternative (23 U.S.C. 109(d) and 23 CFR 655.603(d)).*

**Response:**

The proposed interchange modification will not adversely impact the safety or operations of the I-95 mainline and is expected to improve safety and operations at the interchange ramp terminal intersections. The following is a summary of the operational analysis that shows the justification for Policy Point 1.

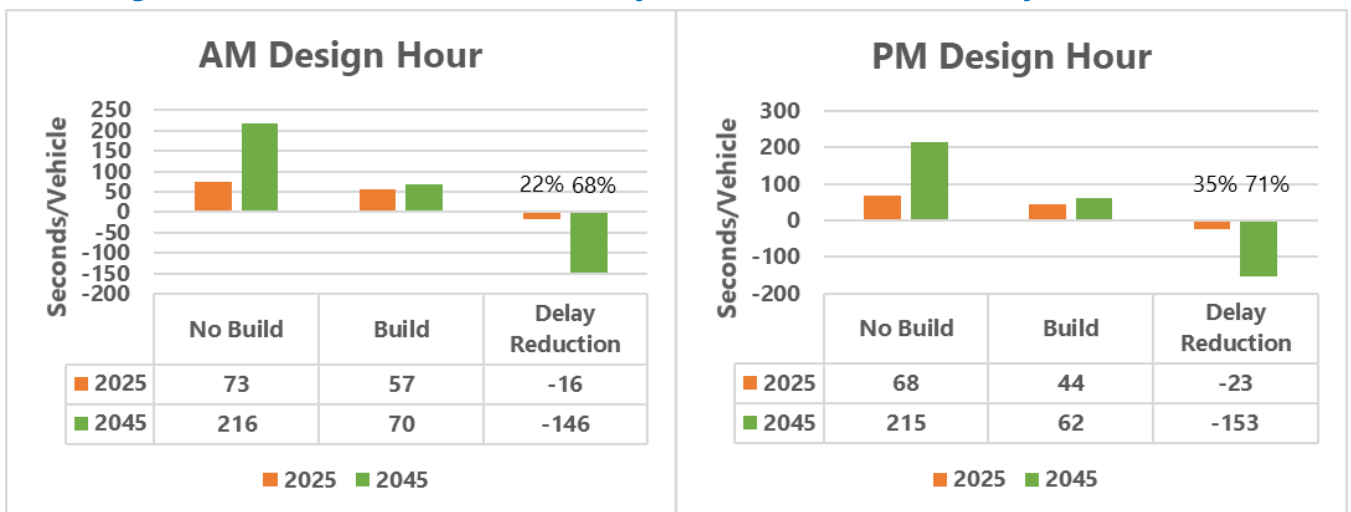
▪ **Freeway Operations**

- The number of lanes along the ramp at the existing gore points, as well as the location of the existing gore points, will not be modified as part of the interchange improvements.
- The I-95 basic, weave, and merge/diverge segments within the AOI are expected to operate within the target LOS D through the design year 2045 under the Build alternative.

▪ **SR 524 Intersection Operations**

- Under the No-Build alternative, all study intersections exceed the target LOS D by the design year 2045.
- Under the Build alternative, all the study intersections are anticipated to operate within the target LOS D through the design year 2045. Cumulative intersection delays (sum of overall study intersection delays) under the Build alternative show around 70% improvement in 2045 (AM and PM design hours) versus the No-Build alternative, which indicates noticeably improved traffic conditions in the Build alternative (see **Figure B**).

**Figure B: Cumulative Intersection Delay (seconds/vehicle) Summary for SR 524**





- **SR 524 Arterial Operations**

- SR 524 study segment within the AOI exceeds the target LOS D in the existing year 2019 except for the eastbound direction in the PM peak hour. Under the No-Build alternative, SR 524 study segment will exceed the target LOS D for both eastbound and westbound directions in both AM and PM design hours.
- Under the Build alternative, SR 524 study segment within the AOI is anticipated to operate within the target LOS D through the design year 2045.

- **Off-Ramp Queues**

- The off-ramp queues at the I-95 and SR 524 interchange reported for the Build alternative are well within the available ramp storage lengths. The proposed off-ramp improvements at both I-95 southbound and northbound ramp terminals will help avoid queue backups from the ramp terminals to the freeway mainline during the peak hours through the design year 2045.

- **Safety Improvement**

- The Build option provides improved safety benefits over the No-Build alternative. Based on predictive safety analysis and information contained in the Crash Modification Factor (CMF) Clearinghouse, the Build alternative is anticipated to:
  - Reduce the number of crashes by approximately 57 over a period of 20 years, and therefore save approximately \$14.3 million in crash costs (fatal, injuries, and property damage only) compared to the No-Build alternative.
  - Reduce interchange related crashes by approximately 14% because of the proposed conversion of the existing diamond configuration to a DDI.
  - A DDI will provide safety benefits to the interchange and adjacent intersections because of lower design speed within the AOI.

- **Conceptual Signing Plan**

- A conceptual signing plan is developed (see **Figure 12** in **Section 10**) for the proposed interchange modification alternative. Modifications to the existing roadway signs were evaluated in conjunction with the proposed modifications to ensure that a proper signing plan is implemented within the study area.

**Policy Point 2:** *The proposed access connects to a public road only and will provide for all traffic movements. Less than "full interchanges" may be considered on a case-by-case basis for applications requiring special access, such as managed lanes (e.g., transit or high occupancy vehicle and high occupancy toll lanes) or park and ride lots. The proposed access will be designed to meet or exceed current standards (23 CFR 625.2(a), 625.4(a)(2), and 655.603(d)). In rare instances where all basic movements are not provided by the proposed design, the report should include a full-interchange option with a comparison of the operational and safety analyses to the partial-interchange option. The report should also include the mitigation proposed to compensate for the missing movements, including wayfinding signage, impacts on local intersections, mitigation of driver expectation leading to wrong-way movements on ramps, etc. The report should describe whether future provision of a full interchange is precluded by the proposed design.*

**Response:**

Full access interchange conditions, as offered by the existing interchange at I-95 and SR 524, will remain with the proposed modification improvements. This project will achieve benefits to the transportation system with no adverse impact to the public. The proposed improvements have been and will continue to be, coordinated with the public and local government agencies. The design of the proposed improvements will follow the applicable FHWA and FDOT design standards.

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## **1.5 Study Recommendation**

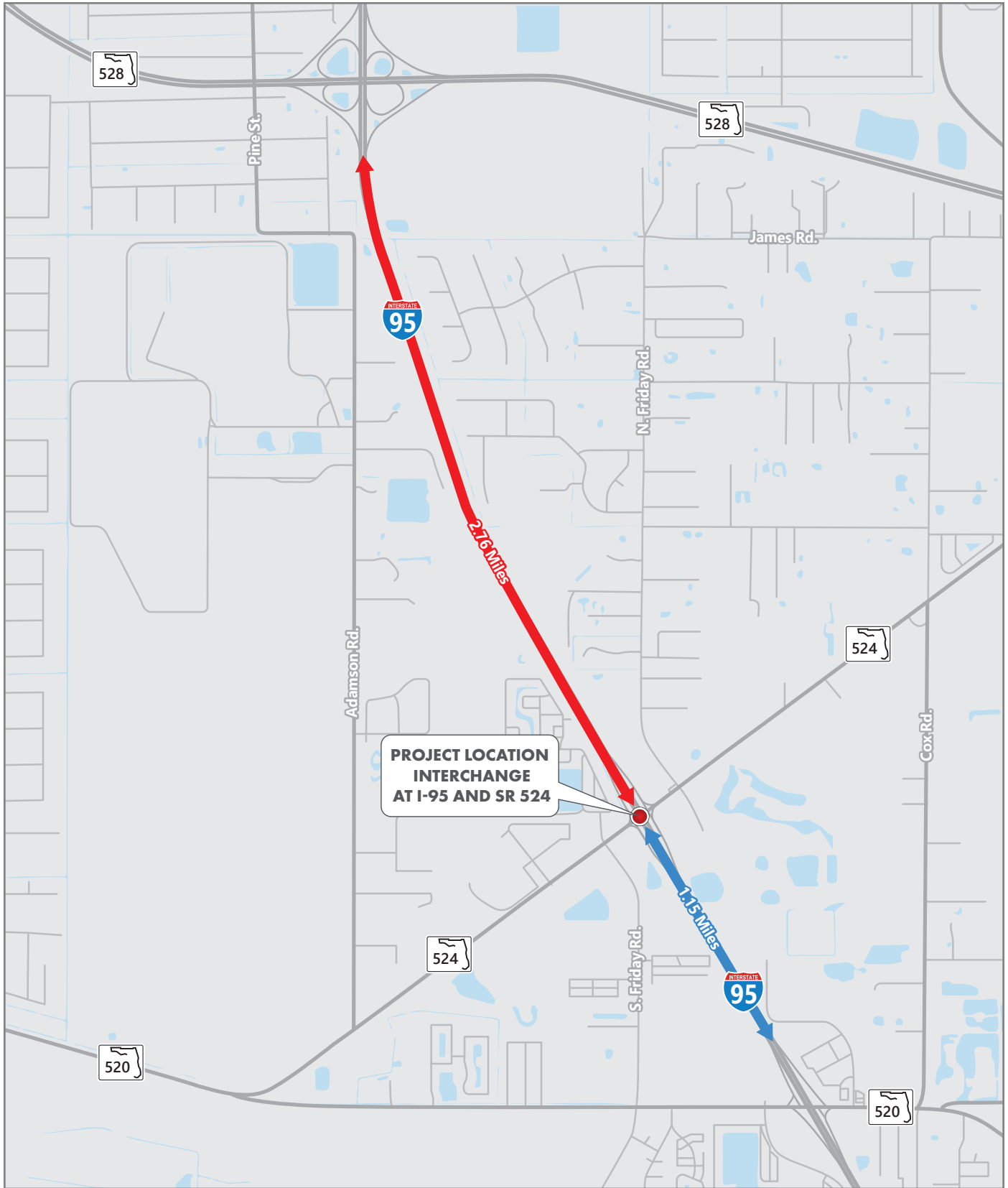
Based on a review of the traffic operational analysis results for the No-Build and Build alternatives, the following study conclusions are developed.

- The existing roadway and interchange configuration (aka No-Build alternative) will neither support the forecasted traffic demand within the AOI nor will satisfy the purpose and need of this project.
- The DDI improvement at the study interchange along with SR 524 widening from two to four lanes will satisfy the purpose and need as outlined in Section 1.2 and satisfies the two FHWA Policy Points. Therefore, the Build alternative improvements are recommended along SR 524 within the AOI.

## 2 Introduction

The Florida Department of Transportation (FDOT) District Five is conducting this IMR at the interchange of I-95 and SR 524, State Financial Project Number 437983-1, to evaluate the modification of the existing interchange at I-95 and SR 524, in Brevard County, Florida. This project is being conducted concurrently with the SR 524 PD&E Study, which evaluates the widening of SR 524 (Roadway ID: 70070000) from S. Friday Road (M.P 1.514) to Industry Road (M.P 4.649) for approximately 3.150 miles from a two-lane roadway to a four-lane divided facility. Within these limits, SR 524 is within the City of Cocoa and has an interchange at I-95. The purpose of the proposed improvements is to improve mobility in the SR 524 corridor to accommodate future projected traffic demand in the design year (2045) safely and efficiently. As part of the SR 524 PD&E Study, a Project Traffic Analysis Report (PTAR), approved in July 2019, analyzed the existing and future conditions and assessed the need for future capacity improvements along the SR 524 study corridor, including the interchange of I-95 at SR 524. This IMR documents the requirements and summarizes the results of the operational evaluations for the study interchange in Brevard County, Florida. An MLOU was prepared and approved in October 2019. Please note that when the MLOU was approved in 2019, the PD&E study description used E. Friday Road and W. Friday Road, which was recently changed to use N. Friday Road and S. Friday Road.

This IMR has been developed following FDOT Policy No. 000-525-015-h: Approval of New or Modified Access to Limited Access Highways on the State Highway System (SHS) and FDOT Procedure No. 525-030-160-i: New or Modified Interchanges. It should be noted that FDOT Procedure No. 525-030-160-i has been recently updated by FDOT Systems Implementation Office (SIO), as of January 2018, to incorporate the recent change in policy by FHWA on access to the Interstate System. The portion of the I-95 mainline included in the project is in Section #70225000, which begins at Milepost 0.0 (Roadway Characteristics Inventory-RCI) to the south of SR 524 interchange and ends at Milepost 31.190 (RCI) to the Volusia County Line. The I-95/SR 524 interchange, Milepost 1.150, of the project is in Brevard County. **Figure 1** depicts and illustrates the project location of the subject interchange.



● Project Location



**Figure 1**

Project Location Map  
I-95 at SR 524 IMR

---

## 2.1 Description of Project

I-95 is a north-south interstate highway spanning approximately 382-miles, from US 1 in Miami to US 17 in Jacksonville. I-95 is a six-lane divided freeway in the vicinity of the study area (between SR 520 and SR 528). Between SR 520 and SR 524, an auxiliary lane is provided on I-95 in both directions. The posted speed is 70 miles per hour (MPH).

The State maintained SR 524 corridor is a southwest-northeast urban minor arterial spanning approximately 4.7 miles from SR 520 in the west to Industry Road/SR 501 in the east. The SR 524 is a two-lane roadway, with four-foot, paved shoulders, and open swale drainage within approximately 200 feet of right-of-way (ROW). SR 524 has two 12-foot lanes within the study corridor. The SR 524 begins as a two-lane divided roadway from S. Friday Road to the east of N. Friday Road where the route bound northeast-southwest, becomes a two-lane undivided roadway from east of N. Friday Road to Industry Road making a 45° curve from west of London Boulevard to the east of Coventry Court. The route has a four-foot paved shoulder and open swale drainage within the ROW. The posted speed limit varies from 55 miles-per-hour (mph) in the western portion to 45 mph in the eastern portion of the project. Limited bicycle and pedestrian features are present within the study limits. The land uses in the study corridor are comprised of a mixture of commercial, vacant, and residential types. Towards the western end of the project limits, SR 524 forms a diamond interchange with I-95.

The widening of the SR 524 corridor from two to four lanes between S. Friday Road (M.P 1.514) to Industry Road (M.P 4.649) is identified in the Cost Feasible Plan section of SCTPO Long Range Transportation Plan [LRTP]. The PD&E phase of the project is included in the latest FDOT Five Year Work Program for FY 2022-2026, as well as in the SCTPO Transportation Improvement Plan (TIP). The PD&E phase of the project will evaluate SR 524 improvements as a means of providing additional capacity and reducing congestion along the corridor, is on-going and included in the latest FDOT Work Program.

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## **2.2 Purpose and Need**

The SR 524 study corridor is a core element of the Space Coast's regional transportation system. The widening project has been requested by the SCTPO to coordinate the development of a future vision for the SR 524 corridor that establishes a multi-modal approach to providing for future transportation needs. This project's purpose is to increase capacity by widening the study segment of SR 524 while improving safety along the corridor for all users. This project is part of an effort to improve the current conditions so that they will meet future targets of Level of Service (LOS), safety, traffic flow, as well as improve accessibility to not only large trucks but pedestrians and cyclists too. Therefore, the study's need is to accommodate future traffic demand (at the interchange and along SR 524), improve truck traffic accessibility, improve pedestrian/bicycle mobility, and enhance hurricane evacuation route access. The following sections further expand on the purpose and need of this IMR.

### ***2.2.1 Improve Truck Traffic Accessibility***

Along the southern portion of the corridor are a Flying J and a Walmart distribution center which bring in a heavy flow of truck traffic from I-95. One of the goals identified is to improve the accessibility from the I-95 interchange into these locations. Truck traffic should be encouraged to drive south when exiting their locations towards the interchange to connect to I-95 as opposed to driving north, through the residential portion of the corridor to enter SR 528.

### ***2.2.2 Accommodate Future Traffic Demand***

The SR 524 corridor is projected to experience a significant increase in traffic demand because of the proposed developments along the corridor. Towards the eastern end of the corridor, there will be an increase of residential traffic heading from new and existing single and multi-family neighborhoods to/from commercial activity centers at Cocoa Commons, London Cove, and Cocoa Landings. Adamson Creek and Emerald Lakes, on the west side of I-95, will also generate additional traffic along the corridor as both neighborhoods continue to develop towards build-out.

The widening of SR 524 from S. Friday Road to Industry Road and improvements to the interchange of I-95 at SR 524 were anticipated to accommodate the traffic demand and maintain the target LOS. Just east of the I-95 and SR 524 interchange, the Annual Average Daily Traffic (AADT) is projected to increase from 18,000 in the existing year (2019) to 39,000 in 2045. By the year 2045, both the ramp terminals and adjacent intersections (S. Friday Road and N. Friday Road) are projected to operate below the target LOS D. The ramp failures will impact the mainline operations with queues spilling back to the I-95 mainline. As such, the existing interchange configuration will not be able to provide a safe and operationally efficient design for the high truck and auto traffic anticipated within the study area.

### **2.2.3 Improve Pedestrian and Bicycle Mobility**

A major goal of the PD&E study is to create more paths for pedestrians and cyclists, to increase connectivity safely throughout the SR 524 corridor. There are no bicycle facilities present apart from the 4' paved shoulder that runs along the corridor. A buffered bicycle lane will be added to both westbound (WB) and eastbound (EB) directions to allow bicyclists access all through the corridor. The only existing pedestrian facility present spans from Cox Road to Coventry Court, on the north side of the corridor. Sidewalks will be added to both sides of the corridor throughout the entire project. The improvements proposed as part of this IMR will allow pedestrians and bicyclists safe access on SR 524 through the I-95 interchange from the future planned developments east and west of I-95.

### **2.2.4 Enhance Hurricane Evacuation Route Access**

Both I-95 and SR 528 are labeled as official hurricane evacuation routes and SR 524 is a vital connection between these two roadways. The SR 524 widening and improvements to the interchange at I-95 at SR 524 were anticipated to provide efficient access to the evacuation routes for all the existing and future residential areas along the corridor.

The primary purpose of the IMR is to document the benefits of the proposed PD&E improvements, facilitate the movement of freight and goods, and maintain safe operating conditions at the study interchange as well as the I-95 mainline near the study area.

The recommended alternative supported by the IMR provides consistency with the goals of providing safe and efficient travel, facilitating interstate and regional commerce, and the movement of people, freight, and goods.

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## 2.3 Methodology

The methodology used for the development of this IMR is based on the MLOU submitted by FDOT District Five to FDOT SIO. The MLOU (dated October 2019) describes the preparation of the IMR for the I-95 at SR 524 interchange in Brevard County and was developed following FDOT Policy No. 000-525-015-h and FDOT Procedure 525-030-160-i. A copy of the approved MLOU document is included in **Appendix A**.

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## 2.4 Area of Influence (AOI)

The AOI as shown in **Figure 2**, includes the following:

### **I- 95 Mainline**

- I-95 between SR 520 and SR 524
- I-95 Freeway between SR 524 and SR 528

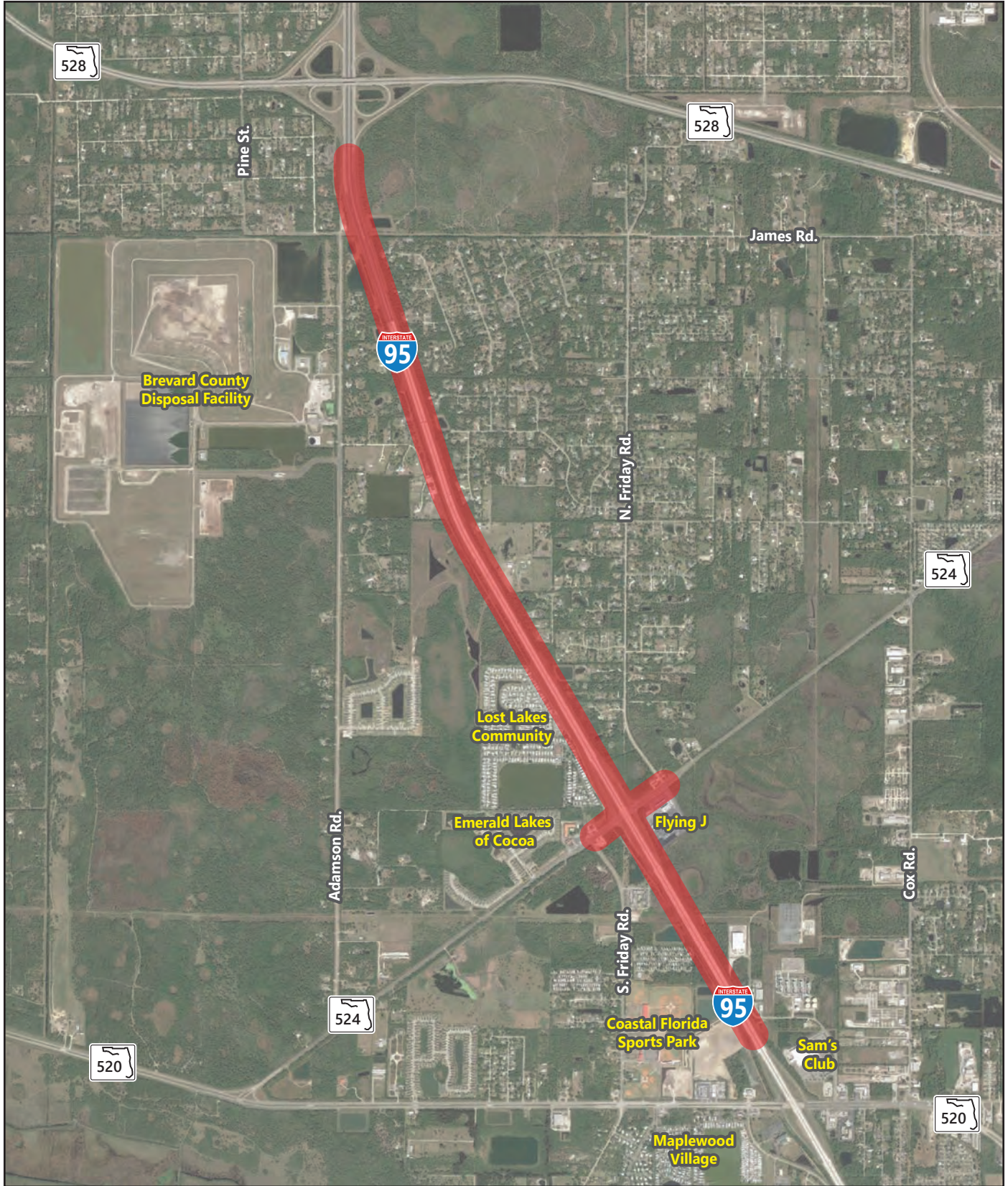
### **I-95 Ramps**


- I-95 Northbound (NB) on-ramp from SR 520
- I-95 Southbound (SB) off-ramp to SR 520
- I-95 NB and SB ramps at SR 524
- I-95 SB On-ramp from SR 528
- I-95 NB Off-ramp to SR 528

### **Intersections along SR 524:**

- S. Friday Road
- I-95 SB Ramps
- I-95 NB Ramps
- N. Friday Road





 Area of Influence



**Figure 2**

Area of Influence  
I-95 at SR 524 IMR

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## **2.5 Analysis Years**

### **Traffic Forecasting**

- Base year 2015
- Horizon year 2045

### **Traffic Operational Analysis**

- Existing year 2019
- Opening year 2025
- Design year 2045

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## **2.6 Level of Service Targets**

Level of Service Targets per the State Highway System, Policy No. 000-525-006c, effective April 19, 2017, and SCTPO – Segments Level of Service are summarized below:

- I-95 and Mainline Ramps: LOS D
- SR 524: LOS D

## 3 Existing Conditions

This section documents the existing (2019) conditions within the study area, including existing traffic volumes, transportation network, and traffic operations for the I-95 mainline, ramps, and SR 524.

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### 3.1 Traffic Count Information

The following traffic count program summarizes the location and type of counts collected as part of PTAR during January/February 2019 and is utilized in this IMR:

- Seventy-two (72) hour vehicle classification counts at the following locations:
  - S. Friday Road, North of SR 524
  - S. Friday Road, South of SR 524
  - SR 524, East of N. Friday Road
  - I-95 NB Off-ramp to SR 524
  - I-95 NB On-ramp from SR 524
  - I-95 SB Off-ramp to SR 524
  - I-95 SB On-ramp from SR 524
  - I-95 SB Off-ramp to SR 520
  - I-95 NB On-ramp from SR 520
- Forty-eight (48) hour bi-directional volume counts at the following locations:
  - SR 524, West of S. Friday Road
  - SR 524, between S. Friday Road & I-95 SB Ramps
  - SR 524, between I-95 NB Ramps & N. Friday Road
  - I-95, North of SR 524
  - I-95, South of SR 524
- Four-hour turning movement counts were conducted between 7-9 AM and 4-6 PM at the following locations:
  - SR 524 & S. Friday Road
  - SR 524 & I-95 SB Ramps

- SR 524 & I-95 NB Ramps
- SR 524 & N. Friday Road
- Florida's Turnpike Enterprise (FTE) provided existing count data for the following locations:
  - I-95 NB Off-ramp to SR 528
  - I-95 SB On-ramp from SR 528
- The travel time data and average speed data was collected for the following segments:
  - I-95 mainline, between SR 528 and SR 520
- Field visits were conducted to collect information on existing geometry, storage lengths, traffic signal heads, and to determine/verify signal phasing information
- The queue data was collected in the field at SR 524 & I-95 ramp terminal intersections

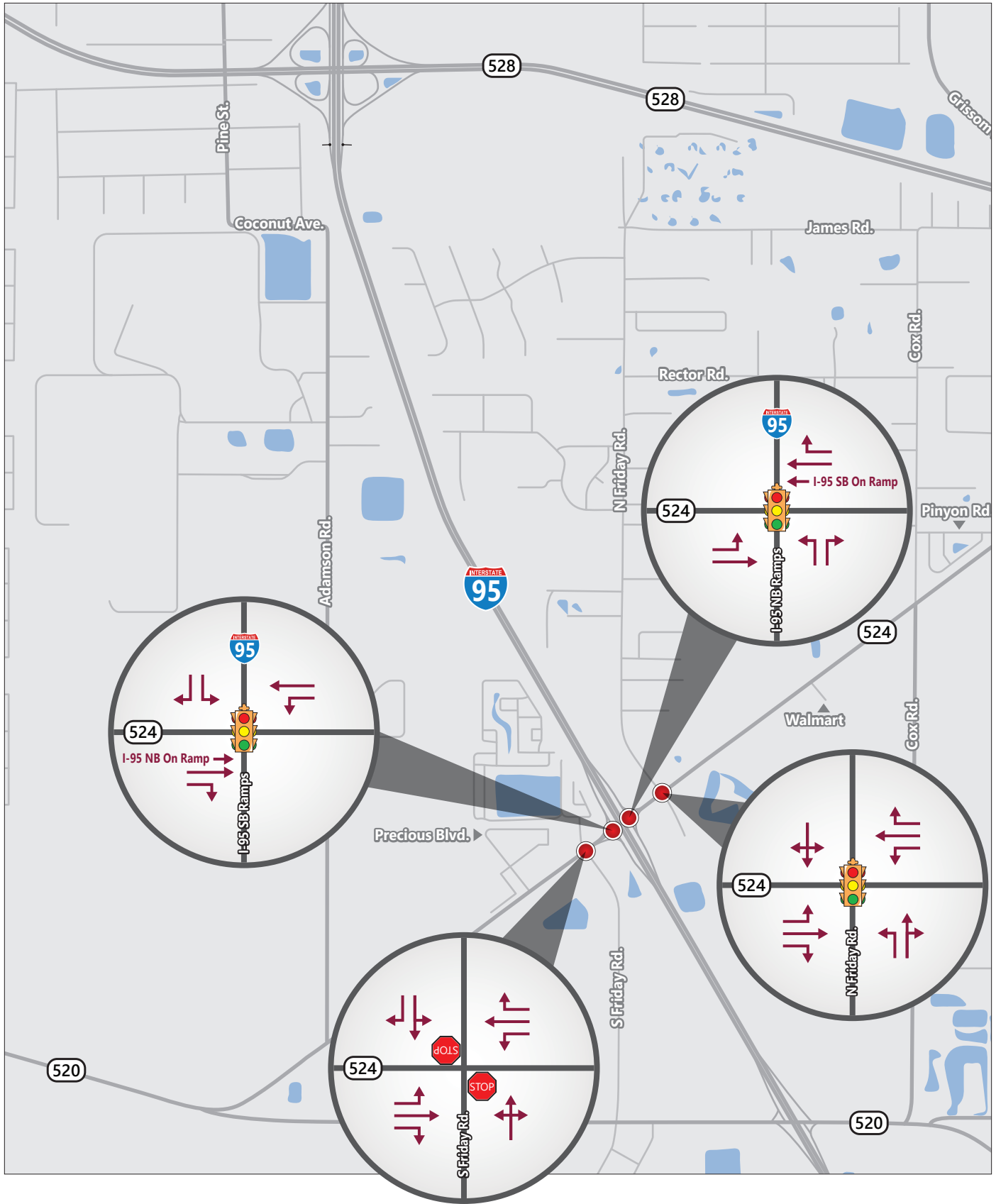
Copies of all traffic count data along with the count location figure (from PTAR), the year 2018 FDOT axle, and seasonal adjustment factors for Brevard County (from PTAR) are provided in **Appendix B**.

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## 3.2 Existing Geometry

**Figure 3** provides the existing intersection geometry for all the freeways, ramps, and intersections evaluated in this study. The year 2019 intersection geometry information was obtained and verified based on field visits and aerial photographs. The study intersections within the AOI were evaluated as part of the existing conditions in this study.

The existing geometry plays a vital role in assessing the intersection LOS. LOS is a qualitative measure of how efficiently a roadway or intersection operates. LOS A represents the highest traffic flow quality, while LOS E represents traffic flow at capacity. LOS F represents forced flow congested conditions. LOS B, C, and D represent a gradual degradation in traffic flow quality before reaching capacity. The existing geometry will be considered as one of the factors in determining potential intersection improvements to accommodate the travel demand.



- Lane Geometry
- Stop-Controlled Intersection
- Signalized Intersection



**Figure 3**

Existing Year 2019 Geometry  
I-95 at SR 524 IMR

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### 3.3 Existing Traffic Volumes and Turning Movement Counts

Traffic count information, 48-hour volume counts, and 72-hour classification counts, as collected, were used to develop existing traffic characteristics for the project corridor and the intersecting side streets. The truck factor for each movement for the peak condition was used in the existing intersection analysis.

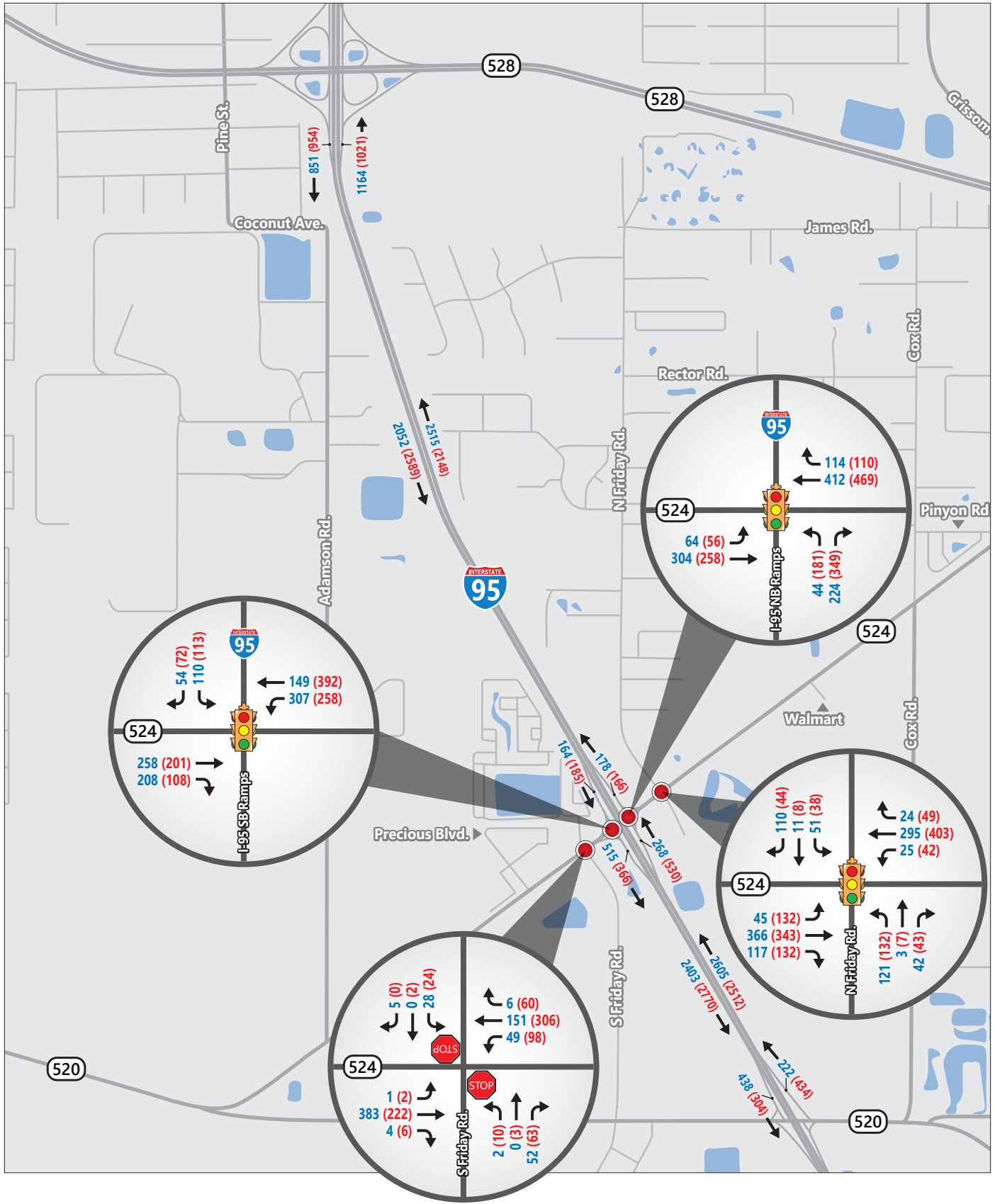
Turning movement counts were collected during the peak periods of 7:00-9:00 AM and 4:00-6:00 PM to capture peak hours for all the study roadways including I-95 mainline and SR 524. Ramp volumes were derived from the turning movement counts conducted at I-95 and SR 524 ramp terminals. The mainline volumes along I-95 were derived from 48-hour volume counts collected in the field. The turning movement counts were checked for reasonableness. Raw data for the 48-hour volume counts, 72-hour classification counts and year 2019 AM and PM peak hour turning movement volumes collected at the study intersections are available in **Appendix B**. The adjusted year 2019 AM and PM peak hour turning movement volumes for the study area are shown in **Figure 4**.

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### 3.4 Year 2019 Traffic Operational Analysis

An existing conditions traffic operational analysis was performed using Synchro 10 and HCS7. The following Measures of Effectiveness (MOEs) were used to assess existing traffic conditions:

- Intersection Evaluation:
  - Synchro based overall intersection delay and LOS
  - Synchro based 95<sup>th</sup> percentile queue lengths
- Arterial LOS: Synchro based average speed and LOS
- Freeway Mainline & Ramp Evaluation: HCS7 based density and LOS



→ Traffic Movement  
 AM (PM) Peak Hour Traffic Volumes



**Figure 4**

Existing Year 2019 Peak Hour  
 Turning Movement Volumes  
 I-95 at SR 524 IMR

### **3.4.1 Existing Field Observations**

As mentioned in the approved MLOU, travel time and average speed data (space mean speed) were collected in the field along I-95 between SR 520 and SR 524 and SR 524 between S. Friday Road and Industry Road. Additionally, queue data at the I-95 and SR 524 ramp terminals were also collected in the field. The freeway space mean speed was used to calibrate the HCS7 freeway model. For this study, queue data at the I-95 and SR 524 ramp terminals were used to calibrate the existing Synchro models. The calibration adjustments were used in the existing analysis and carried over to the future analysis years.

#### **3.4.1.1 I-95 Mainline Calibration**

I-95 mainline, weave and merge/diverge segments were observed to operate without any operational issues under the existing conditions. Based on field measured average speeds, I-95 between SR 520, and SR 524 and between SR 524 and SR 528, has an average speed of approximately 70 MPH. To achieve this average speed along I-95 within the study limits, all adjustment factors including speed, capacity, and demand factors are set to 1.

#### **3.4.1.2 SR 524 at I-95 Ramp Terminals Calibration**

Study intersections along SR 524 were observed to operate without any operational issues under the existing conditions. The Flying J Truck Stop located in the southwest corner of SR 524 and N. Friday Road attracted a significant amount of heavy truck traffic. These heavy trucks typically used I-95 ramps to access the truck stop. The off-ramp queues did not extend to the mainline. To account for the presence of heavy trucks and calibrate the queues within the Synchro models, the following lost time adjustments were used:

- SR 524 and I-95 SB Ramp Terminal
  - +3 seconds for the southbound left turn and westbound left turn movements
- SR 524 and I-95 and NB Ramp Terminal
  - +3 seconds for the eastbound and westbound through movements
  - +2 seconds for the northbound right turn movement
- SR 524 and N. Friday Road
  - +3 seconds for the eastbound right turn movement



### 3.4.2 Existing Intersection Performance Results

The year 2019 AM and PM peak hour turning movement volumes along with the year 2019 intersection geometry were used in the intersection LOS analysis. As shown in **Table 1**, during the year 2019 AM and PM peak hour conditions, the intersections along SR 524 are observed to operate within the target LOS (LOS D). The detailed movement delay and LOS results along with the Synchro intersection analysis outputs and signal timing data are included in **Appendix C**.

Based on the movement delays, the southbound left turn movement at SR 524 and I-95 SB Ramp Terminal is observed to exceed the target LOS D during both AM and PM peak hour conditions. In addition, northbound left turn movement at SR 524 an I-95 NB Ramp Terminal is observed to exceed the target LOS D during PM peak hour.

**Table 1: Existing Year 2019 Synchro Intersection LOS Analysis Summary**

Study Intersections along SR 524	Control Type	AM Peak Hour		PM Peak Hour	
		Delay (s)	LOS	Delay (s)	LOS
S. Friday Road	Stop	18.9/2.4	C/A	20.3/2.8	C/A
I-95 SB Ramps	Signal	20.0	B	17.2	B
I-95 NB Ramps	Signal	12.8	B	18.3	B
N. Friday Road	Signal	25.9	C	23.9	C

Notes:

1. Synchro based outputs are presented in this table for signalized intersections
2. HCM 6<sup>th</sup> Edition based outputs are presented in this table for unsignalized intersections
3. Overall intersection delay and LOS are reported for signalized intersections. Worst case and overall intersection results (delay and LOS) are reported for unsignalized intersections

### 3.4.3 Queue Summary for I-95 Ramp Terminals

The queues from Synchro evaluation are summarized in **Table 2** for both AM and PM peak hours for ramp intersections. Queue results from Synchro are compared with available storage and the queue results indicate that the northbound and southbound off-ramp queues do not exceed available storage. Detailed individual movement queues for all the left turns at the study intersections are summarized in **Appendix B**.

**Table 2: Existing Off-Ramp Queue Summary at I-95 and SR 524 Interchange**

Movement	Ramp Length (feet) <sup>1</sup>	Available Storage (feet) <sup>2</sup>	Synchro Based 95 <sup>th</sup> Percentile Queue (feet) [left turn movement]	
			AM	PM
I-95 SB Off-Ramp	1,350	225	129	139
I-95 NB Off-Ramp	1,350	300	60	188

Notes:

1. Distance measured from freeway gore point to the stop bar for the left-turn movement at the signal
2. Approximate left/right turn lane storage

### 3.4.4 Existing Arterial LOS Results

The arterial segment operating conditions were evaluated using Synchro software. Roadway LOS along SR 524 is LOS D in the existing conditions. The year 2019 AM and PM peak hour Synchro arterial analysis outputs are included in **Appendix C**.

**Table 3: Existing Year 2019 Arterial LOS Analysis Summary**

SR 524 Segment	2019 LOS
<b>AM Peak Hour</b>	
SR 524 EB from S. Friday Road to N. Friday Road	D
SR 524 WB from N. Friday Road to S. Friday Road	D
<b>PM Peak Hour</b>	
SR 524 EB from S. Friday Road to N. Friday Road	D
SR 524 WB from N. Friday Road to S. Friday Road	D

### 3.4.5 Freeway Segments

The evaluation of freeway segments was conducted using HCS7 software (freeway facility module) for the existing peak hour conditions along I-95 is summarized in **Table 4**.

Density and estimated LOS based on HCM metrics are provided for the freeway segment analysis. The analysis indicates that all freeway segments are operating at LOS B or better. The HCS7 freeway analysis reports are provided in **Appendix D**.

**Table 4: Existing Freeway LOS Analysis Summary**

	Segment Limits	Segment Type	AM Peak Hour		PM Peak Hour	
			Density	LOS	Density	LOS
			(pc/mi/ln)		(pc/mi/ln)	
I-95 Southbound	I-95 Btw SR 528 Off-Ramp and SR 528 On-Ramp	Basic	6.4	A	8.7	A
	SR 528 On-ramp	Merge	15.2	B	18.4	B
	I-95 Btw SR 528 On-Ramp and SR 524 Off-Ramp	Basic	11.0	A	13.9	B
	SR 524 Off-ramp	Diverge	9.9	A	13.3	B
	I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	Basic	10.2	A	12.9	B
	I-95 Btw SR 524 On-Ramp and SR 520 Off-Ramp	Weave	10.5	B	12.0	B
	I-95 Btw SR 520 Off-ramp and SR 520 On-Ramp	Basic	10.1	A	12.7	B
I-95 Northbound	I-95 Btw SR 520 Off-ramp and SR 520 On-Ramp	Basic	12.7	B	11.0	A
	I-95 Btw SR 520 On-Ramp and SR 524 Off-Ramp	Weave	11.1	B	11.1	B
	I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	Basic	12.6	B	10.7	A
	SR 524 On-ramp	Merge	11.4	B	9.3	A
	I-95 Btw SR 524 On-Ramp and SR 528 Off-Ramp	Basic	13.5	B	11.5	B
	SR 528 Off-ramp	Diverge	16.4	B	13.8	B
	I-95 Btw SR 528 Off-Ramp and SR 528 On-Ramp	Basic	7.2	A	6.0	A

### 3.4.6 Existing Ramp Capacity Analysis

A ramp capacity analysis for the existing traffic conditions was conducted based on the HCM 6<sup>th</sup> edition methodology (Exhibits 14-12 and 12-25 and Equations 14-1 and 12-10). As shown in **Table 5** all the ramp roadways within the study area are operating with Volume/Capacity (V/C) ratios of less than 1.

**Table 5: Ramp Capacity Analysis – Existing Conditions**

I-95/SR 524 Interchange Ramps	Lanes	Capacity (vph)	Existing Volume		V/C	
			AM	PM	AM	PM
Northbound Off-Ramp	1	1,722	268	530	0.16	0.31
Northbound On-Ramp	1	1,738	178	166	0.10	0.10
Southbound Off-Ramp	1	1,655	164	185	0.10	0.11
Southbound On-Ramp	1	1,809	515	366	0.28	0.20

Notes:

1. A truck% of 9% is used for I-95 NB off-ramp & SB on-ramp
2. A truck% of 17.5% is used for I-95 NB on-ramp & SB off-ramp
3. A ramp free flow speed of 40 MPH and 45 MPH is used for the off- and on-ramps, respectively
4. The capacity of ramp roadways (HCM 6th Edition Exhibit 14-12) is adjusted for truck percentages (converting trucks into equivalent passenger vehicles).

# 4 Traffic Forecasts Development

This section discusses the development of traffic forecasts used in future year operational analyses. The future year volumes were developed using the Central Florida Regional Planning Model (CFRPM) version 6.1. Based on the approved MLOU, future peak hour traffic volumes were developed for the study area in 2025 and 2045.

As part of the effort to develop future volume forecasts to support the future year analysis, the historical traffic growth, population-based growth rates, model-based growth rates, and characteristics of the nearby land uses were reviewed. The model derived growth rates were selected as the basis for projecting the year 2045 daily traffic volumes. Future intersection turning movements were projected using the accepted methodologies from FDOT's 2014 Project Traffic Forecasting Handbook.

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## 4.1 Subarea Model Development

The subarea model developed as part of the PTAR is used in this IMR. The subarea model is based on the CFRPM version 6.1 which has an original base year 2010, horizon year 2040, and beyond the horizon year 2045. The subarea developed for the PTAR was validated to the base year 2015. A future year (2045) subarea model scenario was then developed (based on the validation efforts) for the purpose of developing future traffic forecasts. FDOT's adopted regional planning model, CFRPM version 6.1, includes the improvements identified within the adopted SCTPO LRTP.

Annual model growth rates were derived using the base and horizon year model volumes. Annual model growth rates were compared with historic traffic trends and population forecasts for the project area and an applied annual growth rate was developed. The applied annual growth rate and existing traffic volumes were used to forecast future traffic volumes (AADT). The recommended K and D factors were then applied to the forecast AADTs to derive Directional Design Hour Volumes (DDHVs).

Future AM and PM peak hour turning movement volumes were developed consistent with methodologies in FDOT's 2014 Project Traffic Forecasting Handbook. The subarea validation report and details of this review are provided in **Appendix E**.

## 4.2 Future Traffic Development

### 4.2.1 Recommended Design Traffic Factors

The MLOU defined design traffic factors based on a review of historical data presented in the 2017 Florida Traffic Online and 2018 data from field-collected counts. This study utilized the design traffic factors defined in the MLOU and summarized in **Table 6**. These traffic factors fall within the recommended ranges identified in the Project Traffic Forecasting Handbook and Procedure (525-030-120).

**Table 6: Recommended K, D, T24, and DHT Values**

Roadway	K Factor	D Factor	T Factor	DHT Factor*
I-95	9.00%	55.00%	19.00%	10.00%
I-95 Ramps (NB Off/SB On)	9.00%	55.00%	18.00%	9.00%
I-95 Ramps (NB On/SB Off)	9.00%	55.00%	35.00%	17.50%
SR 524	9.00%	55.00%	18.00%	9.00%
S. Friday Road, N of SR 524	9.00%	Existing	4.40%	2.20%
S. Friday Road, S of SR 524	9.00%	Existing	10.10%	5.00%
N. Friday Road, N of SR 524	9.00%	Existing	7.10%	3.50%
N. Friday Road, S of SR 524	9.00%	Existing	42.50%	21.20%

Source: SR 524 from S. Friday Road to Industry Road – PTAR July 2019 (437983-1).

Note: \* one-half of the T factor.

### 4.2.2 Planned and Programmed Projects

This IMR considered programmed and planned roadway improvements in the vicinity of the study area that are consistent with regional transportation plans including the following:

- FDOT Five Year Work Program
- FDOT Strategic Intermodal System (SIS) plans
- Committed improvements from local and private sources

- Adopted LRTPs and Comprehensive Plans

### **Programmed Projects**

- I-95 & SR 524 Interchange ramps Landscaping (FPID # - 443729-1, FY 2022 – Construction Phase)
- SR 524 from S. Friday Road to Industry Road (FPID # - 437983-1, FY 2022 – PD&E Phase)

### **Planned Projects**

- Six-lane widening of SR 528 from I-95 to West of SR 401 Bridge (SCTPO LRTP & FTE)
- Four-lane widening of SR 501 (Clearlake Road) from Michigan Avenue to Industry Road (SCTPO LRTP)
- Four-lane widening of SR 524 from I-95 to Industry Road (SCTPO LRTP)

## **4.2.3 Traffic Forecasting**

### **Historic Growth Rates**

Historical AADTs were obtained from the 2017 FDOT Florida Traffic Online (FTO). Historic growth rates were evaluated using FDOT standard spreadsheets for linear trend analysis. Evaluations were conducted for all the available FDOT count locations within the study area. **Table 7** shows a summary of the trends analysis along with the linear historical growth rates and respective  $R^2$  values at each station. Generally, only growth rates with an  $R^2$  value greater than or equal to 75 percent should be considered when determining growth factors with historical trends. FDOT Historical AADT reports, and trends analyses for each count station are provided in **Appendix F**.

### **Bureau of Business & Economic Research (BEBR) Growth Rates**

The University of Florida's BEBR projections (Volume 51, Bulletin 180, January 2018) were obtained for Brevard County. The BEBR projections show an estimate for 2017 and projections for 2045. The low, medium, and high projections for 2045 are summarized in **Table 8**. As illustrated in this table, the low, medium, and high population estimates for Brevard County obtained from BEBR reported an annual growth rate of 0.27%, 0.84%, and 1.66% per year, respectively. BEBR population study data is included in **Appendix F**.

**Table 7: Historical AADTs and Historical Growth Rates**

<b>FDOT Station</b>	<b>Location</b>	<b>2017 Trends AADT</b>	<b>2045 Trends AADT</b>	<b>R<sup>2</sup> (%)</b>	<b>Annual Growth Rate (%)</b>
700425	SR 524, West of I -95	5,500	13,100	80.29%	4.94%
700411	SR 524, East of I -95	11,200	20,200	70.14%	2.87%
700426	SR 524, East of Cox Road	17,300	50,700	95.99%	6.90%
700366	I-95, South of SR 524	44,600	107,600	98.88%	5.04%
700368	I-95, North of SR 524	62,100	134,900	58.18%	4.19%
702028	I-95 NB Off-ramp to SR 524	5,000	15,900	98.26%	7.79%
702029	I-95 NB On-ramp from SR 524	1,700	4,500	92.59%	5.88%
702030	I-95 SB Off-ramp to SR 524	2,100	6,000	89.09%	6.63%
702031	I-95 SB On-ramp from SR 524	5,000	13,700	98.06%	6.21%
707037	S. Friday Road, South of SR 524	1,800	6,500	78.53%	9.33%
708006	Cox Road, South of SR 524	4,600	9,000	94.12%	3.42%
700435	Industry Road/SR 524, North of SR 501	27,600	62,600	59.64%	4.53%
702025	I-95 NB On-ramp from SR 520	5,300	11,200	94.23%	3.98%
702026	I-95 SB Off-ramp to SR 520	5,100	12,400	96.57%	5.11%

Note: Historical counts were obtained from FDOT 2017 FTO. Historical data was not available for I-95 SB On-ramp from SR 528 and I-95 NB Off-ramp.

Source: SR 524 from S. Friday Road to Industry Road – PTAR July 2019 (437983-1).

**Table 8: BEBR Population based Growth Rates for Brevard County**

<b>Projection Type</b>	<b>2017 Estimate</b>	<b>2045 Projection</b>	<b>Annual Growth Rate</b>
BEBR Low Projection	575,211	617,900	0.27%
BEBR Medium Projection	575,211	711,100	0.84%
BEBR High Projection	575,211	842,000	1.66%

### **CFRPM based Growth Rates**

The subarea model developed as part of the PTAR was used in this IMR. The travel demand model was run for the design year 2045 with the same network changes as the validation year 2015.

Also, the study team coordinated with the City of Cocoa to obtain information on the latest approved developments near the study corridor. The recently completed and approved studies including the "SR 524 Corridor Planning Study, May 2017" and "I-95 at SR 524 Interchange Operational Analysis Report (IOAR), June 2017" were also reviewed. Based on the information provided by the City and a review of the previous studies, it was determined that the latest version of the 2045 travel demand model reasonably represented the latest approved developments. **Table 9** summarizes the growth rates derived between the base year 2015 and year 2045 model volumes for the No-Build and Build alternatives. The No-Build alternative maintains the existing two-lane roadway configuration along SR 524 within the study limits while retaining the programmed improvements (as shown in the latest adopted SCTPO LRTP). The Build alternative is coded to show the four-lane section along SR 524 within the study limits. Model plots showing the number of lanes and volumes (Peak Season Weekday Average Daily Traffic (PSWADT)) for the No-Build and Build alternatives are provided in **Appendix F**.

**Table 9: Validated CFRPM v6.1 Model Growth Rates**

Roadway / Segment	2015 PSWADT	No-Build		Build	
		2045 PSWADT	Annual Growth Rate (Linear)	2045 PSWADT	Annual Growth Rate (Linear)
<b>SR 524</b>					
S. Friday Rd to I-95 SB Ramps	9,310	29,026	7.06%	34,900	9.16%
I-95 SB Ramps to I-95 NB Ramps	11,508	22,497	3.18%	33,194	6.28%
I-95 NB Ramps to N. Friday Rd	13,683	18,285	1.12%	27,878	3.46%
N. Friday Rd to Walmart	10,101	14,899	1.58%	24,687	4.81%
<b>I-95</b>					
North of SR 524	60,471	93,998	1.85%	91,594	1.72%
South of SR 524	68,066	96,402	1.39%	95,337	1.34%
<b>Other Roadways</b>					
S. Friday Rd, South of SR 524	1,222	4,968	10.22%	8,036	18.59%
N. Friday Rd, North of SR 524	3,634	3,547	-0.08%	3,559	-0.07%
I-95 NB Off-ramp to SR 524	6,152	9,672	1.91%	11,022	2.64%
I-95 NB On-ramp from SR 524	2,494	8,043	7.42%	8,949	8.63%
I-95 SB Off-ramp to SR 524	2,418	9,249	9.42%	9,288	9.47%
I-95 SB On-ramp from SR 524	6,355	10,024	1.92%	10,957	2.41%
I-95 NB On-ramp from SR 520	6,488	4,815	-0.86%	3,898	-1.33%
I-95 SB Off-ramp to SR 520	5,552	5,567	0.01%	4,862	-0.41%
I-95 NB On-ramp from SR 528	6,913	12,952	2.91%	12,349	2.66%
I-95 SB Off-ramp to SR 528	7,312	14,351	3.21%	13,224	2.70%

Source: SR 524 from S. Friday Road to Industry Road – PTAR July 2019 (437983-1)



## **Recommended Growth Rates**

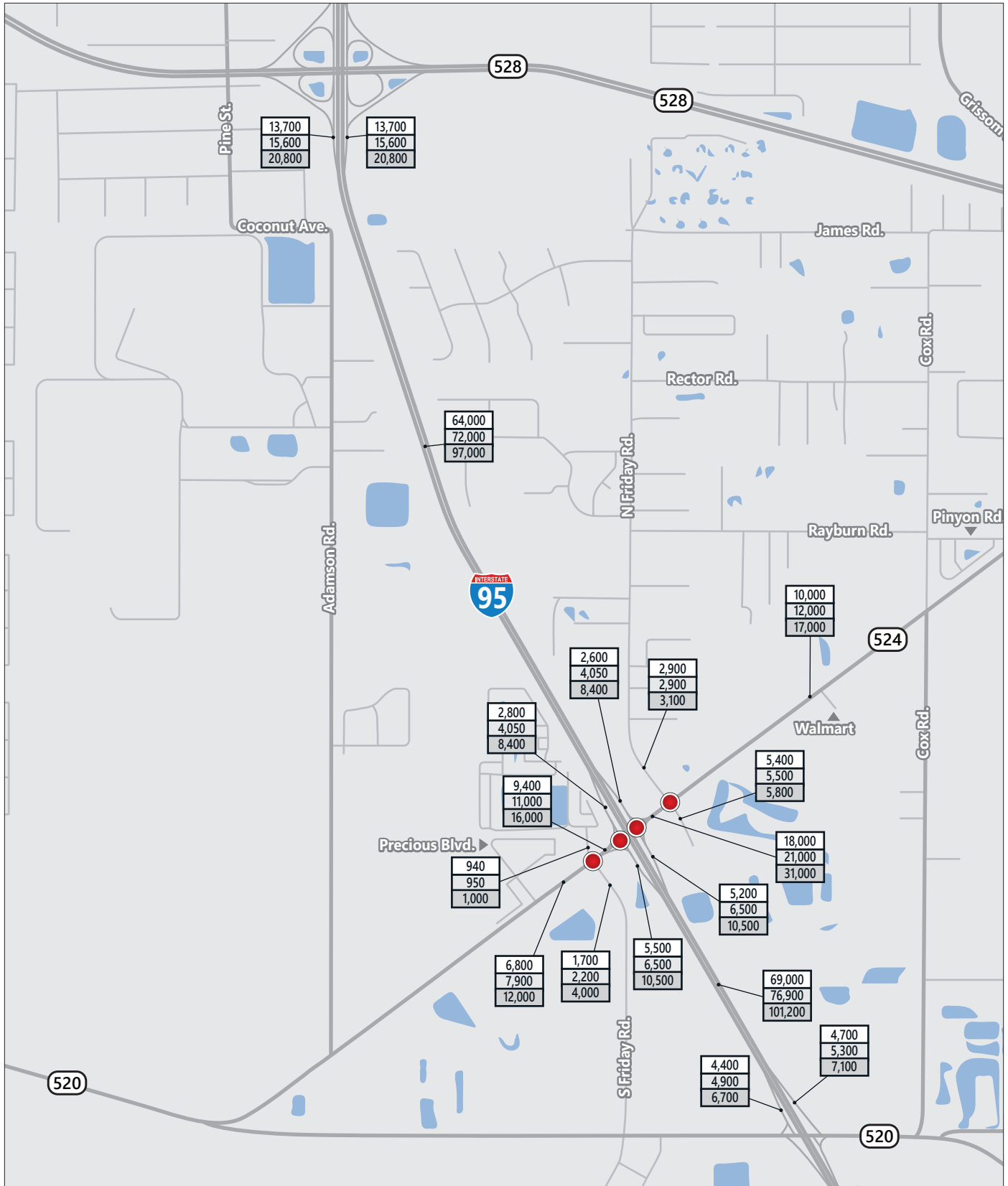
The growth rates obtained from trends analysis, travel demand models, and population estimates were compared to propose the recommended growth rates for the study roadways. It should be noted that these growth rates were approved by FDOT as part of the PTAR. Other factors including regional importance of SR 524, existing high truck percentage, consistency with the Long-Range Transportation Models, and engineering judgment were considered to determine the recommended growth rates for this study. **Table 10** shows the recommended growth rates for the study area roadways including the source (or a combination of sources) used in determining the subject growth rates. It is important to use a combination of sources since some of the study roadways show significant traffic growth based on model volumes. The growth rates for I-95 at SR 528 ramps were recommended based on coordination with FTE.

**Table 10: Recommended Growth Rates**

Roadway / Segment	Recommended Annual Growth Rate		Source
	No-Build	Build	
SR 524 – S. Friday Rd to Cox Rd	2.73%	4.54%	Average of Model growth rate, trends analysis & BEBR low population projection
I-95	2.00%	2.00%	Model growth rate rounded to 2%
SR 524/I-95 Ramps (NB Off & SB On)	3.61%	3.61%	Average of model growth rate & trends analysis
SR 524/I-95 Ramps (SB Off & NB On)	8.12%	8.12%	Average of model growth rate & trends analysis
SR 520/I-95 Ramps (SB Off & NB On)	2.00%	2.00%	BEBR high population projection rounded to 2%
SR 528/I-95 Ramps (SB Off & NB On)	2.00%	2.00%	FTE
S. Friday Rd, North of SR 524	0.27%	0.27%	BEBR low population projection
S. Friday Rd, South of SR 524	5.24%	9.43%	Average of model growth rate & BEBR low population projection
N. Friday Rd, North of SR 524	0.27%	0.27%	BEBR low population projection
N. Friday Rd, South of SR 524	0.27%	0.27%	BEBR low population projection

Source: SR 524 from S. Friday Road to Industry Road – PTAR July 2019 (437983-1)

**Figure 5** illustrates the opening year 2025 and the design year 2045 AADT volumes based on the recommended growth rate for the No-Build alternative. **Figure 6** provides the same for the Build scenario.

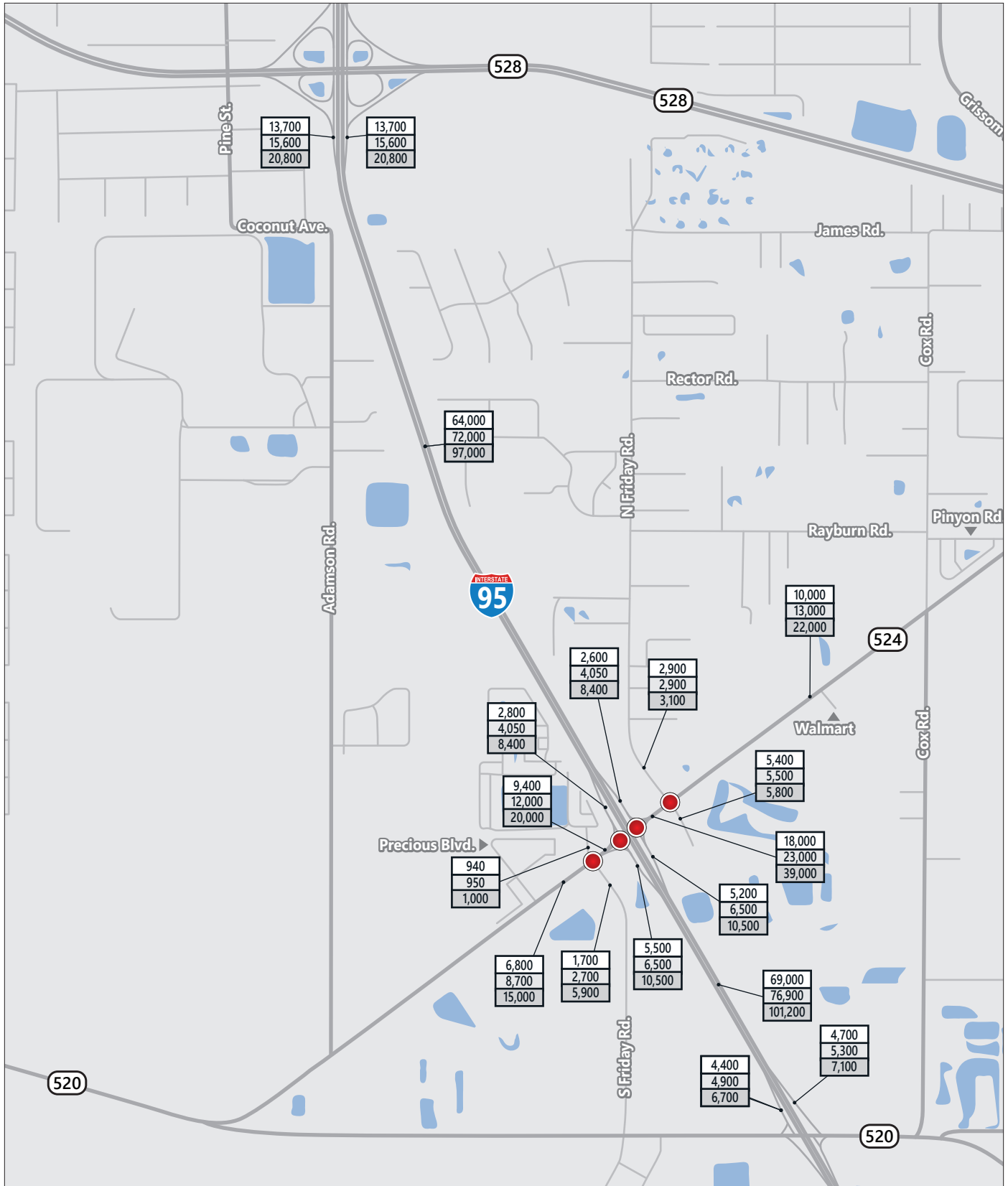


00,000	Existing 2019 AADT
00,000	Future Year 2025 AADT
00,000	Future Year 2045 AADT



**Figure 5**

Existing and Future No Build Annual Average Daily Traffic (AADT) I-95 at SR 524 IMR



00,000	Existing 2019 AADT
00,000	Future Year 2025 AADT
00,000	Future Year 2045 AADT



**Figure 6**

Existing and Future Build Annual Average Daily Traffic (AADT) I-95 at SR 524 IMR

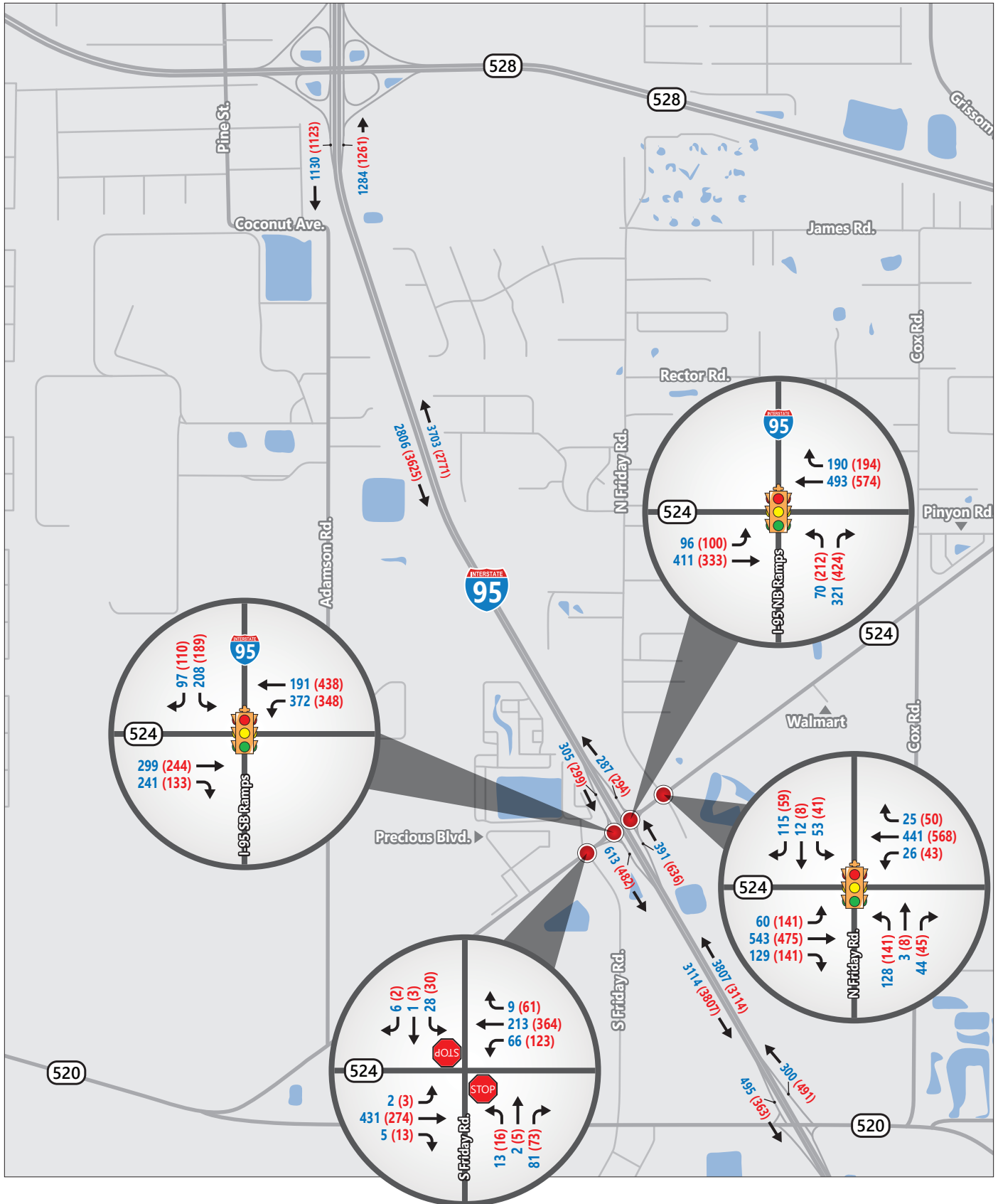
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### 4.3 Development of Future Turning Movement Volumes

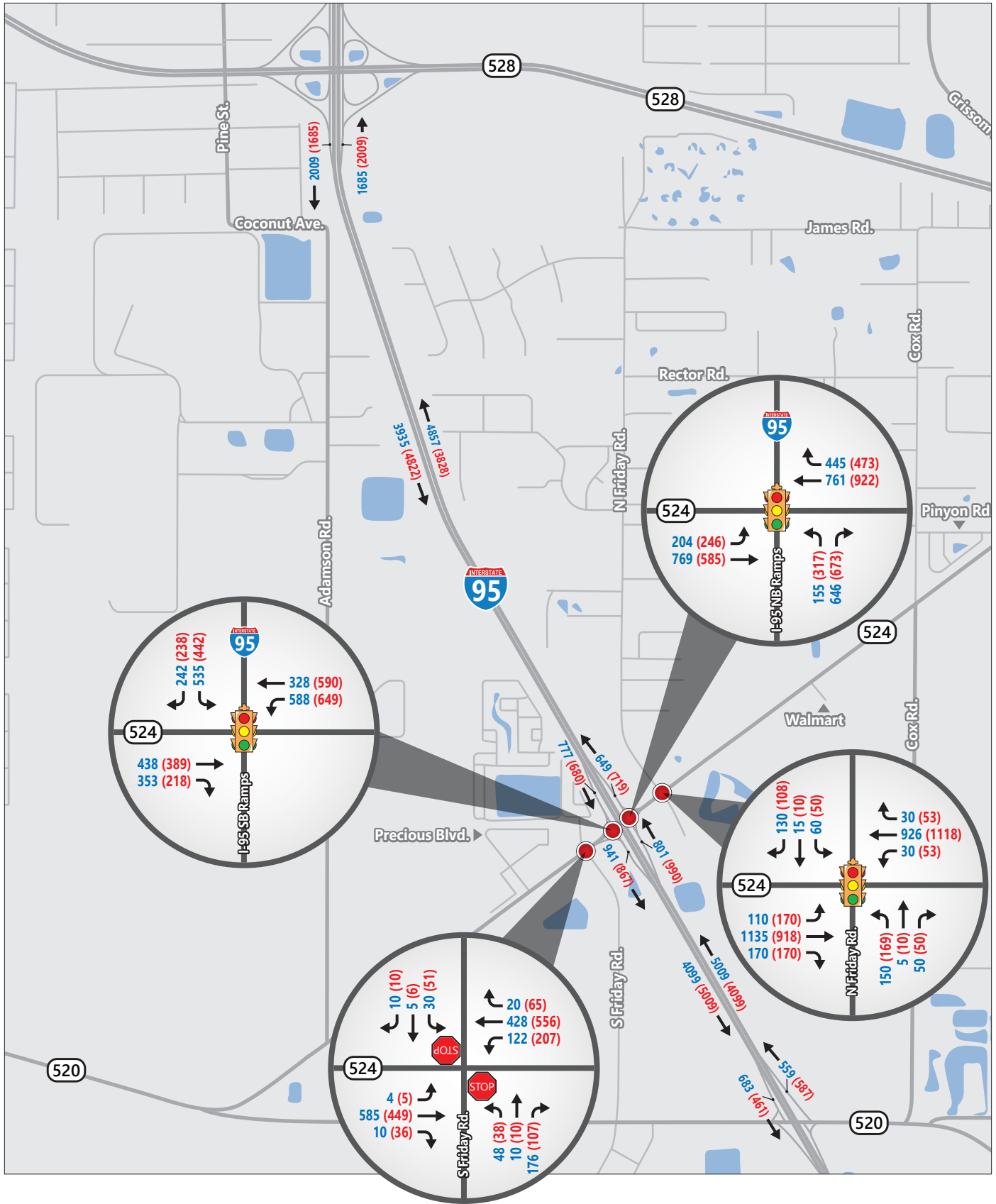
The existing and future year AADT's for the No-Build and Build alternatives along with the recommended traffic characteristics were used to develop the design hour volumes (DHVs) at the study intersections for the opening, mid-design, and design years.

The DHV's for the intersections were developed using the TURNS5 spreadsheet, which balances AADT's and calculates DHV's based on recommended K and D factors used as input into the program. The estimated design hour volumes for the AM and PM design hours from the TURNS5 spreadsheet were assessed for reasonableness. Adjustments were made and are reported in the TURNS5 output sheets included in **Appendix G**. In general, it was made sure that the year 2025 and 2045 design hour volumes were higher than the existing peak hour volumes. These adjustments are necessary because accepting an estimated volume that is unrealistically large may lead to over-design and accepting an estimated volume that is too small may result in an inadequate design.

The future year AM and PM design hour volumes for the No-Build alternative are shown in **Figures 7 and 8** for the years 2025 and 2045, respectively. The future year AM and PM design hour volumes for the Build alternative are shown in **Figures 9 and 10** for years 2025 and 2045, respectively.



**Figure 7**  
 Opening Year (2025) No Build Design  
 Hour Turning Movement Volumes  
 I-95 at SR 524 IMR



→ Traffic Movement

AM (PM) Peak Hour Traffic Volumes

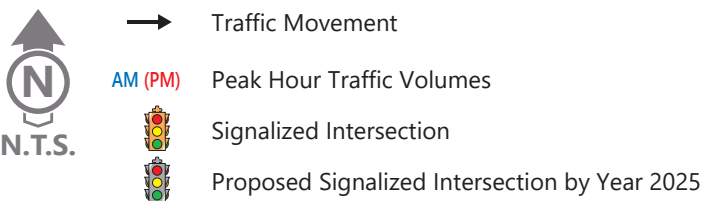
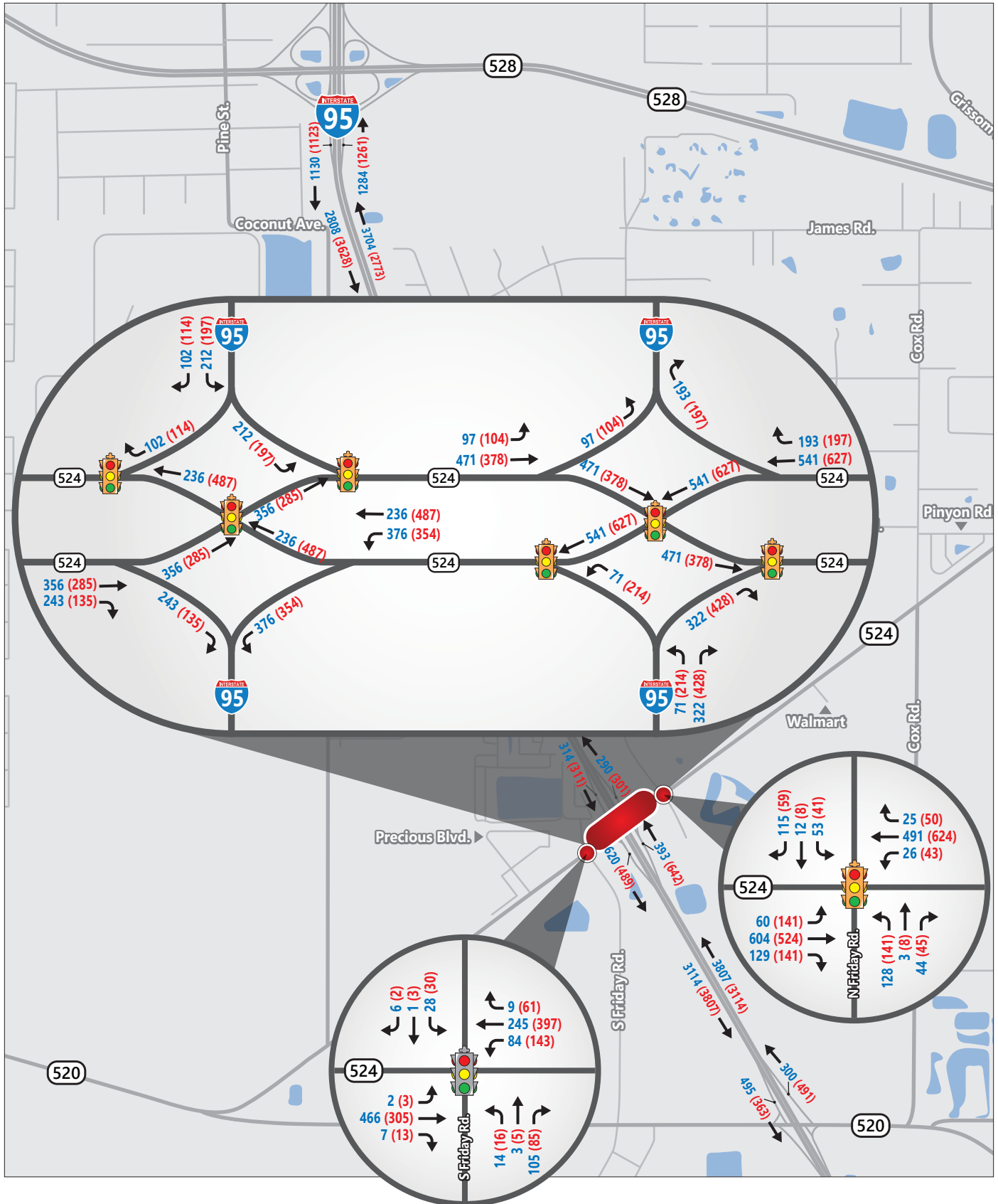
STOP Stop-Controlled Intersection

Signalized Intersection

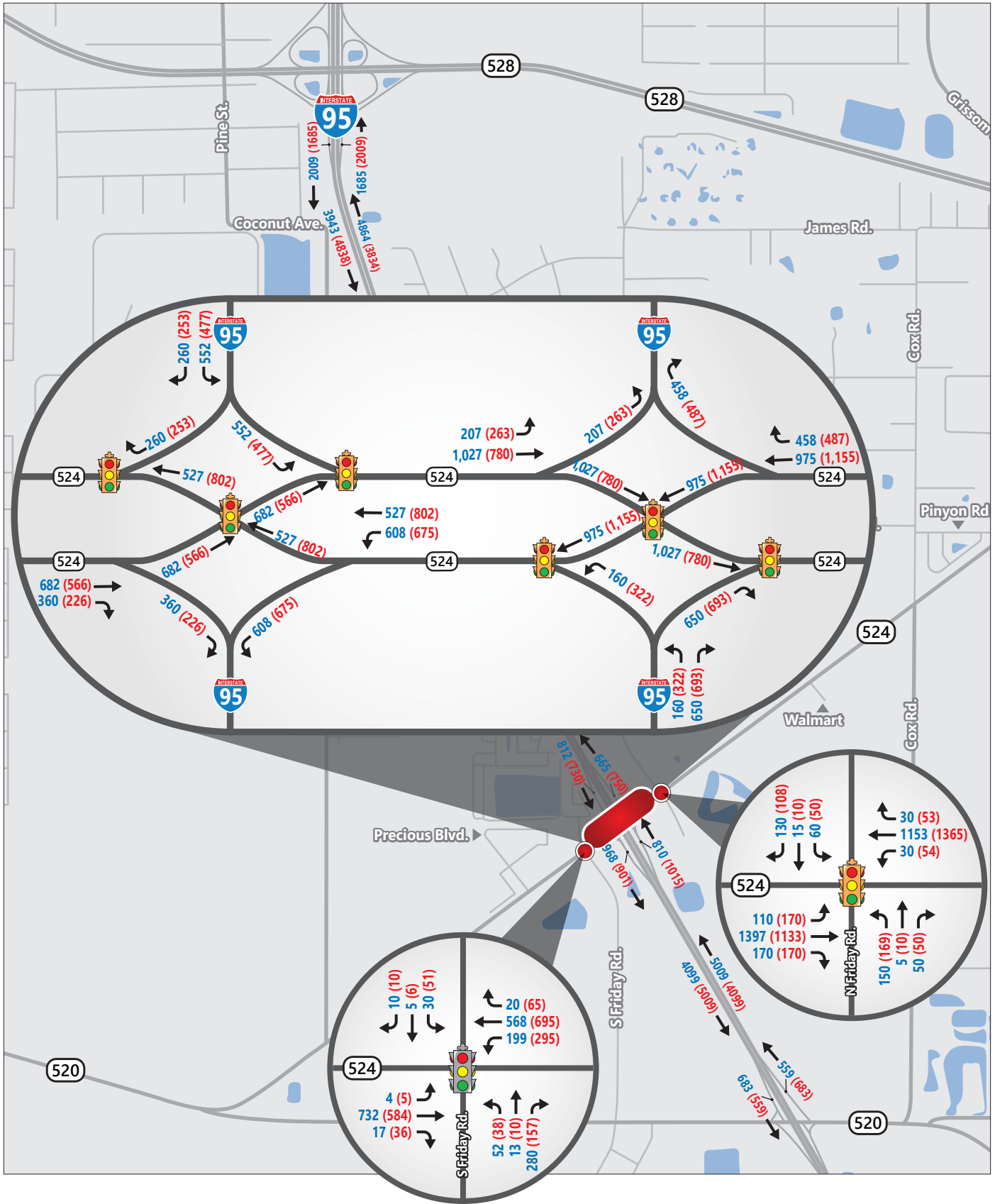


**Figure 8**

Design Year (2045) No Build Design Hour Turning Movement Volumes I-95 at SR 524 IMR



**FDOT** **Figure 9**  
Opening Year (2025) Build Design Hour Turning Movement Volumes I-95 at SR 524 IMR



- Traffic Movement
- AM (PM) Peak Hour Traffic Volumes
- Signalized Intersection
- Proposed Signalized Intersection by Year 2025



**Figure 10**  
 Design Year (2045) Build Design  
 Hour Turning Movement Volumes  
 I-95 at SR 524 IMR



## 5 Considered Alternatives

A No-Build alternative and a Build alternative were considered as part of this IMR. Since there are no committed improvements within the AOI, the No-Build alternative will maintain the existing roadway and intersection configuration. The Build alternative will have an improved interchange configuration at I-95 and SR 524 along with a four-lane widening of SR 524 within the study limits. The process of identifying the improved interchange configuration under the Build alternative is described below.

As part of the initial screening for reasonable Build alternatives at the interchange of I-95 and SR 524, FDOT modified Capacity Analysis at Junctions (CAP-X) tool was used to identify the first set of Build alternatives that can accommodate 2045 Build alternative volumes. The CAP-X analysis results identified the following three viable alternatives for the study interchange:

- Diamond
- Partial Cloverleaf
- Diverging Diamond (or Double Crossover Diamond)

Single Point Urban Interchange (SPUI) was eliminated from further analysis because of the high V/C ratio. Displaced Left Turn (DLT) interchange was eliminated from further analysis because of the large footprint of this interchange type. Dual roundabouts at the ramp terminals were also considered for further analysis because of the volume threshold for 2X2 roundabout and input from FDOT.

In the second step, the above interchange configurations were further evaluated including partial cloverleafs' in the northwest and southwest quadrants, dual roundabouts at the ramp terminals, a modified diamond interchange, and a diverging diamond interchange.

**Partial Cloverleaf Alternative:** Two layouts of partial cloverleaf interchanges were considered – one in the northwest quadrant and one in the southwest quadrant. The northwest layout requires a major ROW acquisition and impacts the surrounding residential neighborhood. The southwest layout also requires a major ROW acquisition and associated potential contamination of the abandoned service station. Since the S. Friday Road is very close to the SR 524 and I-95 SB ramp terminal, there are some safety concerns. This alternative was eliminated due to these issues and was not considered for traffic evaluation.

**Dual Roundabouts:** The roundabouts at both the ramp terminal intersections were considered. Though the roundabouts improve the interchange capacity, the proximity of the intersections at S. Friday Road and N. Friday Road was a concern. There was also a consideration of a potential quad roundabouts system for all study intersections from S. Friday Road to N. Friday Road. There is also a potential need for using concrete pavement within interchange limits due to high truck traffic associated with the Flying J and Walmart Distribution center east of the interchange. Based on preliminary SIDRA roundabout analysis, SR 524 and I-95 SB ramp terminal failed under the 2045 Build condition. Due to the above-mentioned issues, this alternative was eliminated.

**Modified Diamond Interchange:** In this alternative, the existing diamond interchange will be modified with turn lane improvements at the ramp terminal intersections along with the four-lane widening of SR 524 within the study limits based upon the future traffic needs. This alternative was evaluated as part of the SR 524 PTAR that was approved in July 2019. Under this alternative, all the study intersections operate within the target LOS D in 2045. However, based on the CMF Clearinghouse database, the CMF to convert a diamond interchange to a Diverging Diamond Interchange (DDI) is 0.858<sup>1</sup>. As such, a DDI would approximately reduce the estimated number of crashes by 14% compared to a diamond interchange. Furthermore, a DDI would provide improved levels of service for pedestrian and bicycle modes. Therefore, the modified diamond interchange alternative was eliminated from further analysis in this IMR. Relevant pages from the approved SR 524 PTAR that show the analysis results at the I-95 and SR 524 interchange for this alternative are provided in **Appendix H**.

<sup>1</sup>CMF ID 10761 - convert diamond interchange to a DDI, AbdelRahman et al., 2021, cmfclearinghouse.org

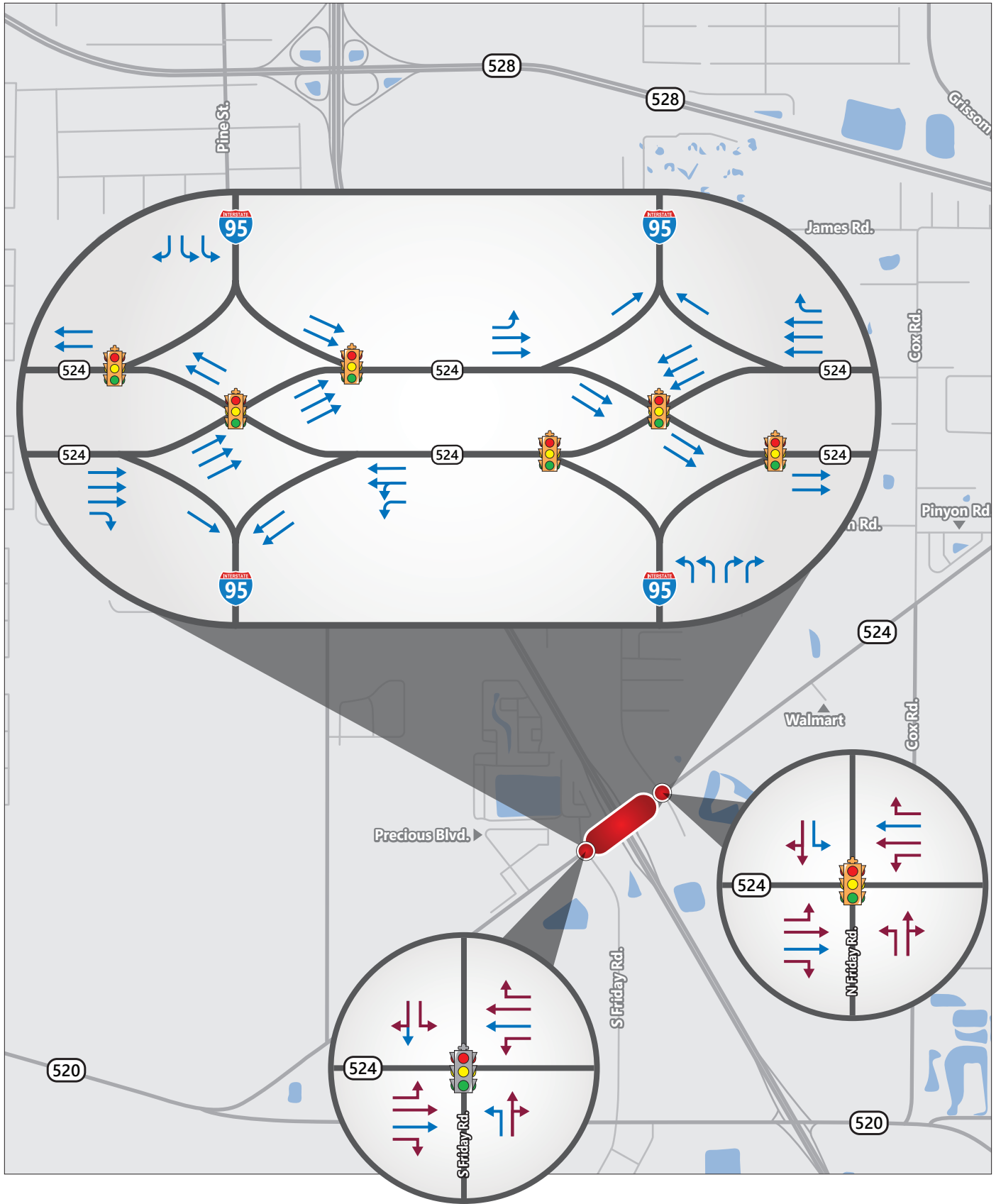
**Diverging Diamond Interchange (DDI):** A 2X2 DDI with turn lane improvements was considered in this IMR. Based on preliminary analysis, a DDI would efficiently accommodate future traffic demand including the heavy truck demand and provide improved levels of service and safety for all road users and therefore meets the purpose and need of this study. DDI will provide safety benefits to the interchange and adjacent intersections because of lower design speed within the AOI and based on available CMF (14% reduction in crashes compared to a diamond interchange).

Based on the above discussion, one Build alternative was evaluated in this IMR. The Build alternative includes the following improvements:

- A DDI at the interchange of I-95 and SR 524,
- Widening of SR 524 from two to four lanes throughout the project study corridor
- Required turn lane improvements at the study intersections including additional off-ramp turn lanes
- Signalize SR 524 and S. Friday Road intersection by the year 2025.

The Build alternative geometry is illustrated in **Figure 11**.

The CAP-X results and SIDRA roundabout results are included in **Appendix H**. The conceptual design layout is provided in **Appendix K**. The next sections provide details of the traffic operational results and safety analyses to justify a DDI at the interchange of SR 524 and I-95.



- Lane Geometry
- Proposed Lane Geometry
- Stop-Controlled Intersection
- Signalized Intersection
- Proposed Signalized Intersection by Year 2025



**Figure 11**

Build Geometry Diverging Diamond Interchange (DDI)  
I-95 at SR 524 IMR

# 6 Future Operational Analysis

This section describes the results of the future traffic operational analysis for the No-Build and Build alternatives. It is to be noted that this IMR evaluated one Build alternative based on the discussion provided in Section 5.

## 6.1 No-Build Alternative

As mentioned in **Section 5**, a No-Build alternative that maintains the existing roadway and intersection configuration within the AOI was evaluated in this study. Please note that there are no committed capacity improvements within the AOI. Based on the approved MLOU, the No-Build analyses were conducted for opening (2025) and design (2045) years using Synchro and HCS7.

### 6.1.1 Intersection Analysis

A summary of the intersection analysis results is provided in **Table 11**, while detailed Synchro output reports are provided in **Appendix I**.

**Table 11: Intersection Analysis Summary for the No-Build Alternative**

Study Intersection	Traffic Control	Year 2025 No-Build		Year 2045 No-Build	
		Delay (s)	LOS	Delay (s)	LOS
<b>AM Design Hour</b>					
SR 524 at S. Friday Road	Stop	23.6/3.0	C/A	126.2/8.9	F/A
SR 524 at I-95 SB Ramps	Signal	26.1	C	65.2	E
SR 524 at I-95 NB Ramps	Signal	13.6	B	73.3	E
SR 524 at N. Friday Road	Signal	30.3	C	68.8	E
<b>PM Design Hour</b>					
SR 524 at S. Friday Road	Stop	28.4/3.4	D/A	262.1/15.8	F/B
SR 524 at I-95 SB Ramps	Signal	21.2	C	58.6	E
SR 524 at I-95 NB Ramps	Signal	19.2	B	62.7	E
SR 524 at N. Friday Road	Signal	24.1	C	77.8	E

Notes:

1. Synchro based outputs are presented in this table for signalized intersections
2. HCM 6<sup>th</sup> Edition based outputs are presented in this table for unsignalized intersections
3. Overall intersection delay and LOS are reported for signalized intersections. Worst case and overall intersection results (delay and LOS) are reported for unsignalized intersections
4. The result shown in color exceeds the target LOS D

The detailed movement delay and LOS results are included in **Appendix I**. Based on these results the following observations are noted:

- All the study intersections are projected to operate within the target LOS D for the year 2025 No-Build conditions with one exception. Based on the movement delays, the southbound left turn movement at SR 524 and I-95 SB Ramp Terminal is observed to exceed the target LOS D during both AM and PM peak hour conditions.
- By the year 2045, all study intersections exceed the target LOS D.
- Several movements are projected to exceed the target LOS under 2045 conditions:
  - SR 524 at S. Friday Road: Northbound left turn and southbound left turn movements during both AM and PM conditions.
  - SR 524 at I-95 SB Ramps: Eastbound through, westbound left turn and southbound left turn movements during both AM and PM conditions.
  - SR 524 at I-95 NB Ramps: Eastbound left turn, westbound through and northbound right turn movements during both AM and PM conditions and eastbound through during AM Conditions.
  - SR 524 at N Friday Road: Northbound left turn and southbound through movements during both AM and PM conditions, eastbound through movement during AM, and eastbound left turn and westbound through movements during PM conditions.

### **6.1.2 Queue Summary for I-95 Ramp Terminals**

The queues from Synchro evaluation are summarized in **Table 12** for both AM and PM peak hours at the ramp intersections. The queue results for the northbound right turn at SR 524 and I-95 NB Ramps indicate that it exceeds the available storage in the year 2045 traffic conditions. Moreover, the 95<sup>th</sup> percentile volume exceeds capacity for the southbound left turn at SR 524 and I-95 SB Ramps and it may extend onto the I-95 mainline, especially with several failing movements at both interchange ramp terminals. The queue results for all the individual movements at each study intersection are provided as part of the Synchro reports (**Appendix I**).

**Table 12: Year 2045 Queue Lengths for the No-Build Alternative at the I-95 and SR 524 Interchange**

Study Intersection	Movement	Available Storage (feet)	95 <sup>th</sup> Percentile Queue Length	
			AM	PM
SR 524 at I-95 SB Ramps	EB Through	-	#336	#355
	EB Right	600	103	79
	WB Left	610	#546	#599
	WB Through	-	120	204
	SB Left	300	#780	#693
	SB Right	300	97	103
SR 524 at I-95 NB Ramps	EB Left	360	#210	#309
	EB Through	-	546	1
	WB Through	-	#615	588
	WB Right	550	49	29
	NB Left	225	160	384
	NB Right	225	#865	#849

Note:

1. 95<sup>th</sup> percentile queues are based on Synchro analysis; 2. #95<sup>th</sup> percentile volume exceeds capacity; queue may be longer

### 6.1.3 Arterial Analysis

A summary of the arterial analysis results is provided in **Table 13**, while detailed Synchro output reports are provided in **Appendix I**. As shown in **Table 13**, arterial LOS along SR 524 is projected to exceed LOS D starting from the year 2025.

**Table 13: Arterial Analysis Summary for the No-Build Alternative**

SR 524 Segment	2025 LOS	2045 LOS
<b>AM Design Hour</b>		
SR 524 EB from S. Friday Road to N. Friday Road	E	F
SR 524 WB from N. Friday Road to S. Friday Road	D	F
<b>PM Design Hour</b>		
SR 524 EB from S. Friday Road to N. Friday Road	D	E
SR 524 WB from N. Friday Road to S. Friday Road	E	F

Notes: 1. The result shown in color exceeds the target LOS D.

#### **6.1.4 Freeway Analysis**

Basic freeway segments, weaving segments, and ramp merge and diverge areas are analyzed utilizing HCS7 for the No-Build conditions. The analysis outputs are provided in **Appendix J**.

The No-Build alternative HCS results are shown in **Table 14**. The results indicate that the freeway facilities along I-95 in the No-Build alternative are anticipated to operate within the target LOS D through the design year 2045.



**Table 14: Freeway Analysis Summary for the No-Build Alternative**

I-95 Southbound Segment	Segment Type	Year 2025		Year 2045		Year 2025		Year 2045	
		Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
		AM Design Hour				PM Design Hour			
I-95 Btw SR 528 Off-Ramp & SR 528 On-Ramp	Basic	9.0	A	10.3	A	13.4	B	16.8	B
SR 528 On-ramp	Merge	20.0	B	28.4	D	24.4	C	32.3	D
I-95 Btw SR 528 On-Ramp & SR 524 Off-Ramp	Basic	15.1	B	21.7	C	19.7	C	28.3	D
SR 524 Off-ramp	Diverge	14.8	B	22.1	C	19.4	B	26.2	C
I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	Basic	13.4	B	17.0	B	18.0	B	23.1	C
I-95 Btw SR 524 On-Ramp & SR 520 Off-Ramp	Weave	14.0	B	19.4	B	17.1	B	24.1	C
I-95 Btw SR 520 Off-ramp and SR 520 On-Ramp	Basic	13.5	B	17.8	B	18	B	24.8	C
I-95 Northbound Segment	Segment Type	AM Design Hour				PM Design Hour			
I-95 Btw SR 520 Off-ramp and SR 520 On-Ramp	Basic	18.8	C	25.2	C	13.9	B	18.3	C
I-95 Btw SR 520 On-Ramp & SR 524 Off-Ramp	Weave	17.0	B	24.3	C	14.1	B	19.8	B
I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	Basic	18.5	C	23.5	C	13.3	B	16.7	B
SR 524 On-ramp	Merge	18.4	B	26.1	C	13.2	B	20.6	C
I-95 Btw SR 524 On-Ramp & SR 528 Off-Ramp	Basic	20.2	C	28.7	D	14.9	B	21.0	C
SR 528 Off-ramp	Diverge	23.2	C	29.8	D	18.2	B	26.0	C
I-95 Btw SR 528 Off-Ramp & SR 528 On-Ramp	Basic	12.9	B	17.0	B	8.1	A	9.7	A

### 6.1.5 No-Build Ramp Capacity Analysis

A ramp capacity analysis was conducted based on the HCM 6<sup>th</sup> edition methodology. As shown in **Table 15** all the ramp roadways within the study area are operating within the available capacity (V/C < 1.0) through the design year 2045 for the No-Build conditions.

**Table 15: Ramp Capacity Analysis – No-Build Conditions**

I-95/SR 524 Interchange Ramps	Lanes	Capacity (vph)	2025 V/C		2045 V/C	
			AM	PM	AM	PM
Northbound off-ramp	1	1,722	0.23	0.37	0.47	0.57
Northbound on-ramp	1	1,738	0.17	0.17	0.37	0.41
Southbound off-ramp	1	1,655	0.18	0.18	0.47	0.41
Southbound on-ramp	1	1,809	0.34	0.27	0.52	0.48

Notes:

1. A truck% of 9% is used for I-95 NB off-ramp & SB on-ramp
2. A truck% of 17.5% is used for I-95 NB on-ramp & SB off-ramp
3. A ramp free flow speed of 40 MPH and 45 MPH is used for the off- and on-ramps, respectively
4. The capacity of ramp roadways (HCM 6th Edition Exhibit 14-12) is adjusted for truck percentages (converting trucks into equivalent passenger vehicles)

## 6.2 Build Alternative (DDI)

The Build alternative includes a DDI at the interchange of I-95 and SR 524 and widening of SR 524 from two to four lanes throughout the project study corridor as well as the required improvements at the study intersections.

Based on the projected westbound left turn volume in 2025 at the intersection of SR 524 and S. Friday Road, the proximity of S. Friday Road to the I-95 SB Ramps, and Warrant 1B of the Manual on Uniform Traffic Control Devices [MUTCD] (which is satisfied based on projected 2025 AADT volumes at the intersection of SR 524 and S. Friday Road), a signal is assumed to be in place at this intersection by 2025 for this study. This assumption was coordinated with the PD&E Team. It should be noted that actual signalization of this location will be based on a signal warrant analysis using observed turning movement counts and other pertinent conditions. The highest eight-hour traffic volumes were derived using 2025 AADT volumes and existing hourly traffic percentages.

### 6.2.1 Intersection Analysis

A summary of the intersection analysis results is provided in **Table 16**, while detailed Synchro output reports are provided in **Appendix L**. As shown in **Table 16**, all the study intersections are projected to operate within the target LOS D.

Please note that the overall intersection delay (and LOS) is calculated to include the delay at the crossover intersection as well as the off-ramp movements for the DDI ramp terminals. Since each crossover intersection of the DDI is coded as three separate nodes in Synchro, the overall ramp terminal delay was calculated based on weighted (by volume) average of the node delays. The overall delay calculations for the DDI ramp terminals are provided in **Appendix L**.

**Table 16: Intersection Analysis Summary for the Build Alternative**

Study Intersection	Traffic Control	Year 2025		Year 2045	
		Delay (sec/veh)	LOS	Delay (sec/veh)	LOS
<b>AM Design Hour</b>					
SR 524 at S. Friday Road	Signal	8.0	A	9.6	A
SR 524 at I-95 SB Ramps*	Signal	16.4	B	18.2	B
SR 524 at I-95 NB Ramps*	Signal	14.4	B	19.1	B
SR 524 at N. Friday Road	Signal	17.8	B	23.0	C
<b>PM Design Hour</b>					
SR 524 at S. Friday Road	Signal	7.6	A	10.0	B
SR 524 at I-95 SB Ramps*	Signal	8.9	A	14.2	B
SR 524 at I-95 NB Ramps*	Signal	12.0	B	12.8	B
SR 524 at N. Friday Road	Signal	15.9	B	24.4	C

Notes:

1. Synchro based outputs are presented in this table for signalized intersections
2. Overall intersection delay and LOS are reported for signalized intersections
3. \*Overall delay is separately calculated for the DDI because of the way it is coded in Synchro

The detailed movement delay and LOS results are included in **Appendix L**. Based on these results, southbound left turn movement at SR 524 and S. Friday Road and northbound left turn movement at SR 524 and N. Friday Road are expected to exceed the target LOS D by the year 2045. However, these movements have a volume/count ratio of less than 1.0 and are not anticipated to impact the SR 524 operations.

## 6.2.2 Queue Summary for the Study Intersections

The queues from Synchro evaluation are summarized in **Table 17** for both AM and PM peak hours at the study intersections.

**Table 17: Year 2045 Queue Lengths for the Build Alternative at the I-95 and SR 524 Interchange**

Study Intersection	Movement	95 <sup>th</sup> Percentile Queue Length (feet)	
		AM	PM
SR 524 at S. Friday Road	EB Left	6	7
	EB Right	0	0
	WB Left	18	115
	WB Through	23	134
	WB Right	0	10
	NB Left	73	59
	SB Left	52	87
SR 524 at I-95 SB Ramps	EB Through	170	134
	EB Right	93	45
	WB Through	258	247
	SB Left	240	183
	SB Right	167	188
SR 524 at I-95 NB Ramps	EB Through	294	233
	WB Through	301	196
	NB Left	57	125
	NB Right	322	317
SR 524 at N. Friday Road	EB Left	69	90
	EB Through	378	359
	EB Right	27	45
	WB Left	26	30
	WB Right	0	0
	NB Left	206	225
	SB Left	74	65

Note:

- 1) 95<sup>th</sup> percentile queues are based on Synchro analysis
- 2) WB left at SR 524/I-95 SB Ramps, and EB left and WB right at I-95/NB Ramps are free movements
- 3) Available storage for a) WB through at SR 524/S. Friday Road is around 450 feet, b) between the crossover ramp terminals is around 500 feet, and c) EB through at SR 524/N. Friday Road is around 550 feet.

The queue results for the off-ramps indicate that they are well within the available off-ramp storage (1,350 feet for both SB and NB off-ramps) in the year 2045 traffic conditions. In addition, based on the 95<sup>th</sup> percentile queue results for the westbound through at SR 524 and S. Friday Road, and eastbound through at SR 524 and N. Friday Road, these movements will not impact the ramp terminal operations.

### **6.2.3 Recommended Storage Lengths for Turn Lanes**

Based on the 95<sup>th</sup> percentile queues as shown in **Table 17**, recommended queue lengths based on the maximum of the AM and PM queue lengths are summarized in **Table 18** at the study intersections for the design year 2045 conditions. Please note that a minimum of 100 feet of queue length is assumed (if the reported queue length is less than 100 feet). The table also shows the proposed storage lengths for each of the turn movements based on the conceptual design. The proposed storage lengths are more than the existing storage lengths as well as the recommended queue lengths based on Synchro 95<sup>th</sup> percentile queue lengths.

**Table 18: Recommended Queue Storage Lengths for Turn Lanes (2045 Design Hour Conditions)**

Study Intersection	Movement	Recommended Queue Length (feet)	Proposed Storage Length (feet)*
SR 524 at S. Friday Road	EB Left	100	245
	EB Right	100	245
	WB Left	125	270
	WB Right	100	270
	NB Left	100	380
	SB Left	100	200
SR 524 at I-95 SB Ramps	EB Right	100	300
	SB Left	250	600
	SB Right	200	650
SR 524 at I-95 NB Ramps	WB Right	100	450
	NB Left	125	625
	NB Right	325	725
SR 524 at N. Friday Road	EB Left	100	375
	EB Right	100	400
	WB Left	100	235
	WB Right	100	235
	NB Left	225	250
	SB Left	100	250

Note:

1. A minimum queue length of 100 feet is used when 95<sup>th</sup> percentile queue (based on Synchro) is less than 100 feet
2. \*Storage length is based on the conceptual design for the proposed improvements
3. Recommended queue lengths are based on the maximum of the 95<sup>th</sup> queue lengths for the 2045 AM and PM design hours

#### 6.2.4 Arterial Analysis

A summary of the arterial analysis results is provided in **Table 19**, while detailed Synchro output reports are provided in **Appendix L**. As shown in **Table 19**, arterial LOS along SR 524 between the ramp terminals is projected to operate within the target LOS D through the design year 2045.

**Table 19: Arterial Analysis Summary for the Build Alternative**

<b>SR 524 Segment</b>	<b>2025 LOS</b>	<b>2045 LOS</b>
<b>AM Design Hour</b>		
SR 524 EB from S. Friday Road to N. Friday Road	C	D
SR 524 WB from N. Friday Road to S. Friday Road	D	D
<b>PM Design Hour</b>		
SR 524 EB from S. Friday Road to N. Friday Road	D	D
SR 524 WB from N. Friday Road to S. Friday Road	C	D

### **6.2.5 Freeway Analysis**

Basic freeway segments, weaving segments, and ramp merge and diverge areas are analyzed utilizing HCS7 for the Build conditions. The analysis outputs are provided in **Appendix M**.

The Build alternative HCS results are shown in **Table 20**. The results indicate that the freeway facilities along I-95 in the Build alternative are anticipated to operate within the target LOS D through the design year 2045. It should be noted that the difference in the freeway results is because of the difference in projected volume between the No-Build and Build alternatives, even though there was no change on the freeway mainline between the two alternatives.

**Table 20: Freeway Analysis Summary for the Build Alternative**

I-95 Southbound Segment	Segment Type	Year 2025		Year 2045		Year 2025		Year 2045	
		Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS	Density (pc/mi/ln)	LOS
		AM Design Hour				PM Design Hour			
I-95 Btw SR 528 Off-Ramp & SR 528 On-Ramp	Basic	9.0	A	10.3	A	13.4	B	16.9	B
SR 528 On-ramp	Merge	20.0	B	28.4	D	24.4	C	32.3	D
I-95 Btw SR 528 On-Ramp & SR 524 Off-Ramp	Basic	15.1	B	21.7	C	19.7	C	28.5	D
SR 524 Off-ramp	Diverge	14.9	B	22.3	C	19.5	B	26.4	C
I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	Basic	13.4	B	16.9	B	17.9	B	22.9	C
I-95 Btw SR 524 On-Ramp & SR 520 Off-Ramp	Weave	14.0	B	19.4	B	17.1	B	24.1	C
I-95 Btw SR 520 Off-ramp and SR 520 On-Ramp	Basic	13.5	B	17.8	B	18.0	B	24.8	C
I-95 Northbound Segment	Segment Type	AM Design Hour				PM Design Hour			
I-95 Btw SR 520 Off-ramp and SR 520 On-Ramp	Basic	18.8	C	25.2	C	13.9	B	18.3	C
I-95 Btw SR 520 On-Ramp & SR 524 Off-Ramp	Weave	17.0	B	24.4	C	14.1	B	19.8	B
I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	Basic	18.5	C	23.5	C	13.3	B	16.6	B
SR 524 On-ramp	Merge	18.4	B	26.2	C	13.3	B	20.8	C
I-95 Btw SR 524 On-Ramp & SR 528 Off-Ramp	Basic	20.2	C	28.7	D	14.9	B	21.0	C
SR 528 Off-ramp	Diverge	23.2	C	29.9	D	18.2	B	26.0	C
I-95 Btw SR 528 Off-Ramp & SR 528 On-Ramp	Basic	12.9	B	17.0	B	8.1	A	9.8	A



### 6.2.6 Build Ramp Capacity Analysis

A ramp capacity analysis was conducted based on the HCM 6<sup>th</sup> edition methodology. As shown in **Table 21** all the ramp roadways within the study area are operating within the available capacity ( $V/C < 1.0$ ) through the design year 2045 for the Build conditions.

**Table 21: Ramp Capacity Analysis – Build Conditions**

I-95/SR 524 Interchange Ramps	Lanes	Capacity (vph)	2025 V/C		2045 V/C	
			AM	PM	AM	PM
Northbound off-ramp	1	1,722	0.23	0.37	0.47	0.59
Northbound on-ramp	1	1,738	0.17	0.17	0.38	0.43
Southbound off-ramp	1	1,655	0.19	0.19	0.49	0.44
Southbound on-ramp	1	1,809	0.34	0.27	0.54	0.50

Notes:

1. A truck% of 9% is used for I-95 NB off-ramp & SB on-ramp
2. A truck% of 17.5% is used for I-95 NB on-ramp & SB off-ramp
3. A ramp free flow speed of 40 MPH and 45 MPH is used for the off- and on-ramps, respectively
4. The capacity of ramp roadways (HCM 6th Edition Exhibit 14-12) is adjusted for truck percentages (converting trucks into equivalent passenger vehicles).

## 6.3 Transportation Systems Management and Operations (TSM&O) Alternative

A TSM&O alternative is not considered in this IMR because of the following reasons. However, TSM&O improvements such as addition of turn lanes and signal coordination are assumed as part of the Build alternative.

- A review of the No-Build alternative analysis results for future years show that the SR 524 study segment between S. Friday Road and N. Friday Road exceeds the target LOS D starting from the year 2019 traffic conditions. Turn lane improvements will not provide a roadway LOS at or above the target LOS D for the study segment.
- TSM&O improvements will not achieve the other vital elements of the purpose and need statement, including providing safety for all road users, improving pedestrian and bicycle safety, and enhancing access to the hurricane evacuation routes.

# 7 Safety Analysis

The proposed improvements are likely to have a positive impact on crash occurrence. As part of this IMR study, a safety analysis was conducted based on the required procedures and methodology for an IMR per the FDOT's Interchange Access Request User's Guide Safety Analysis Guidance (November 2020). The safety analysis is based on the following methodology:

- Existing Safety Analysis
  - Identifying the Crash Type & Crash Severity
  - Calculation of Crash Rates
  - Description of Existing Crash Trends
- Future Safety Analysis
  - Quantitative Safety Analysis using Countermeasure CMF and Highway Safety Manual (HSM) Part C Methodology

The purpose of the future safety analysis was to determine the safety impacts for the proposed improvements within the study's AOI. A combination of countermeasure CMF and HSM Part C methodologies were used to account for the potential safety benefits. The following sections discuss the safety analysis.

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## 7.1 Existing Safety Analysis

### 7.1.1 Existing Crash Data

Crash statistics along I-95 and SR 524 were extracted from FDOT Crash Analysis Reporting (CAR Online) database based on the latest available five years of crash data (from January 1, 2014, to December 31, 2018). The specific segmentation process used for this study is shown in **Table 22**.

**Table 23** summarizes the crashes by severity (and conditions) for the freeway mainline, ramp merge/diverge areas, ramp terminal intersections, and arterial based on the segmentation process utilized for this IMR.

**Table 22: Crash Segmentation for the Study Roadways**

<b>Roadway</b>	<b>Crash Segmentation Definition</b>
SR 524	<ul style="list-style-type: none"> <li>▪ S. Friday Road to N. Friday Road</li> </ul>
I-95 at SR 524 Ramp Terminals	<ul style="list-style-type: none"> <li>▪ SR 524 &amp; I-95 SB Ramps</li> <li>▪ SR 524 &amp; I-95 NB Ramps</li> </ul>
I-95 Southbound	<ul style="list-style-type: none"> <li>▪ I-95 SB between SR 528 &amp; SR 524</li> <li>▪ I-95 SB Diverge at SR 524</li> <li>▪ I-95 SB between SR 524 Ramps</li> <li>▪ I-95 SB Merge at SR 524</li> <li>▪ I-95 SB between SR 524 &amp; SR 520</li> </ul>
I-95 Northbound	<ul style="list-style-type: none"> <li>▪ I-95 NB between SR 524 &amp; SR 528</li> <li>▪ I-95 NB Merge at SR 524</li> <li>▪ I-95 NB between SR 524 Ramps</li> <li>▪ I-95 NB Diverge at SR 524</li> <li>▪ I-95 NB between SR 520 &amp; SR 524</li> </ul>
I-95 Ramp Segments to/from SR 524	<ul style="list-style-type: none"> <li>▪ I-95 NB Off-Ramp to SR 524</li> <li>▪ I-95 NB On-Ramp from SR 524</li> <li>▪ I-95 SB Off-Ramp to SR 524</li> <li>▪ I-95 SB On-Ramp from SR 524</li> </ul>

**Table 23: Crash Summary by Severity & Conditions (Jan 2014-Dec 2018)**

Crash Segment	Crash Severity & Conditions									
	Total	Fatal	Injury	Property Damage Only	Daylight	Dark without Light	Dusk	Dawn	Dry	Wet
SR 524 from S. Friday Road to N. Friday Road <sup>1</sup>	48	2	26	20	38	6	2	0	43	4
SR 524 & I-95 SB Ramp Terminal <sup>1</sup>	18	2	8	8	12	3	0	0	14	3
SR 524 & I-95 NB Ramp Terminal	24	0	14	10	20	2	1	1	21	3
SR 524 & N. Friday Road <sup>1</sup>	21	0	9	12	16	3	1	0	18	2
I-95 SB between SR 528 & SR 524	29	0	11	18	20	9	0	0	10	19
I-95 SB Diverge at SR 524	3	0	0	3	2	1	0	0	2	1
I-95 SB between SR 524 Ramps	8	0	3	5	6	1	0	1	5	3
I-95 SB Merge at SR 524	5	0	3	2	3	1	1	0	4	1
I-95 SB between SR 524 & SR 520	4	0	3	1	1	3	0	0	3	1
I-95 NB between SR 524 & SR 528	35	0	17	18	21	12	2	0	14	21
I-95 NB Merge at SR 524	2	0	0	2	1	1	0	0	2	0
I-95 NB between SR 524 Ramps	10	0	6	4	7	1	1	1	7	3
I-95 NB Diverge at SR 524	10	0	5	5	9	1	0	0	5	5
I-95 NB between SR 520 & SR 524	4	0	0	4	3	1	0	0	2	2
I-95 NB Off-Ramp to SR 524	5	0	0	5	5	0	0	0	1	4
I-95 NB On-Ramp from SR 524	5	0	2	3	4	1	0	0	3	2
I-95 SB Off-Ramp to SR 524	5	0	2	3	4	1	0	0	3	2
I-95 SB On-Ramp from SR 524	4	0	0	4	4	0	0	0	1	3
<b>Total<sup>1,2</sup></b>	<b>192</b>	<b>2</b>	<b>83</b>	<b>107</b>	<b>138</b>	<b>41</b>	<b>6</b>	<b>3</b>	<b>115</b>	<b>75</b>
<b>Percent of Total</b>		<b>1.0%</b>	<b>43.2%</b>	<b>55.7%</b>	<b>71.9%</b>	<b>21.4%</b>	<b>3.1%</b>	<b>1.6%</b>	<b>59.9%</b>	<b>39.1%</b>

Notes: 1) If the sum of crashes under light conditions is not equal to the Total, then the condition for the remaining crashes is unknown; If the sum of crashes under road conditions is not equal to the Total, the Road condition for the remaining crashes is unknown. 2) Total does not include SR 524 between S. Friday Road and N. Friday Rd. 3) Crashes are not reported at the intersection of SR 524 & S. Friday Road in the CAR Online database.

As shown in **Table 23**, a total of 192 crashes occurred during the five (5) year analysis period from January 2014 to December 2018. Out of the 192 total crashes, there were two fatal crashes, 83 injury crashes and 107 property damage only crashes. A total of 138 crashes occurred during the daylight hours and the remaining crashes were reported to have occurred during dark conditions (at night, dawn, and dusk). Also, a total of 115 crashes occurred during dry roadway conditions with the remaining occurring during wet conditions (or other conditions). It is noted that most of the crashes on I-95 (northbound and southbound) between SR 528 and SR 524 have occurred in wet road conditions. This information (about these two segments) will be shared with FDOT so that potential contributing factors and mitigation strategies can be determined.

Over these five years, a total of 18 crashes have occurred at the southbound ramp terminal intersection and 24 crashes have occurred at the northbound ramp terminal intersection. Two fatalities were reported at the southbound ramp terminal intersection during the year 2016. One of the fatal crashes occurred when a vehicle failed to yield to the ROW while making a left turn from the I-95 SB Off-Ramp. The other fatal crash is very similar to the first one, which occurred when a vehicle failed to yield to the ROW while making a left turn from the I-95 SB Off-Ramp. Please note that the I-95 and SR 524 ramp terminals and SR 524 and N. Friday Road intersection were signalized between March and July of 2018 as part of safety improvements at the interchange. This safety issue at the I-95 and SR 524 southbound ramp terminal may have been mitigated by a signal.

### **7.1.2 Crash Summary by Crash Type**

**Table 24** shows the summary of the crashes by crash types. Per the summary, "hit traffic barrier" crashes accounted for the predominant crash type (about 32.3%) within the study area, followed by the angle (17.2%), rear-end (about 12.5%), sideswipe (8.3%), rollover (4.7%), and "fell into ditch" (4.2%) crashes.

Table 24: 5 Year Crash Summary by Type

Crash Segment	Crash Type											Total
	Rear End	Head On	Sideswipe	Rollover	Angle	Ditch	Hit Traffic Barrier	Off-Road	Pedestrian & Bicycle	Animal	Other	
SR 524 b/w S. Friday Road & N. Friday Road	8	3	3	1	23	0	2	0	1	0	7	<b>48</b>
SR 524 & I-95 SB Ramp Terminal	3	2	0	0	7	0	1	0	1	0	4	<b>18</b>
SR 524 & I-95 NB Ramp Terminal	3	2	2	1	10	0	4	0	0	0	2	<b>24</b>
SR 524 & N. Friday Road*	5	1	2	0	9	0	0	0	0	0	4	<b>21</b>
I-95 SB between SR 528 & SR 524	2	0	4	1	1	3	10	1	0	0	7	<b>29</b>
I-95 SB Diverge at SR 524	1	0	0	0	0	0	2	0	0	0	0	<b>3</b>
I-95 SB between SR 524 Ramps	2	0	1	0	2	1	2	0	0	0	0	<b>8</b>
I-95 SB Merge at SR 524	1	0	1	0	0	0	1	0	0	0	2	<b>5</b>
I-95 SB between SR 524 & SR 520	1	0	0	0	0	1	1	0	1	0	0	<b>4</b>
I-95 NB between SR 524 & SR 528	5	1	2	1	4	1	17	1	0	0	3	<b>35</b>
I-95 NB Merge at SR 524	0	0	0	0	0	0	2	0	0	0	0	<b>2</b>
I-95 NB between SR 524 Ramps	1	0	1	1	0	0	5	0	0	0	2	<b>10</b>
I-95 NB Diverge at SR 524	0	0	2	1	0	0	4	0	1	0	2	<b>10</b>
I-95 NB between SR 520 & SR 524	0	0	1	0	0	0	3	0	0	0	0	<b>4</b>
I-95 NB Off-Ramp to SR 524	0	0	0	1	0	0	4	0	0	0	0	<b>5</b>
I-95 NB On-Ramp from SR 524	0	0	0	1	0	1	2	0	0	0	1	<b>5</b>
I-95 SB Off-Ramp to SR 524	0	0	0	1	0	1	2	0	0	0	1	<b>5</b>
I-95 SB On-Ramp from SR 524	0	0	0	1	0	0	3	0	0	0	0	<b>4</b>
<b>Total</b>	<b>24</b>	<b>6</b>	<b>16</b>	<b>9</b>	<b>33</b>	<b>8</b>	<b>63</b>	<b>2</b>	<b>3</b>	<b>0</b>	<b>28</b>	<b>192</b>
<b>Percentage of Total</b>	<b>12.5%</b>	<b>3.1%</b>	<b>8.3%</b>	<b>4.7%</b>	<b>17.2%</b>	<b>4.2%</b>	<b>32.8%</b>	<b>1.0%</b>	<b>1.6%</b>	<b>0.0%</b>	<b>14.6%</b>	<b>100%</b>

## Notes:

- 1) Total does not include SR 524 between S. Friday Road and N. Friday Rd
- 2) Crashes are reported at the intersection of SR 524 & S. Friday Road in the CAR Online database

The most likely reason for the high number of roadway departure crashes (hit traffic barrier) may be the wet road condition during that crash. Based on the crash data, for I-95 southbound between SR 528 and SR 524, eight out of ten "hit traffic barrier" crashes have occurred in wet road conditions. For I-95 northbound between SR 528 and SR 524, 11 out of 17 "hit traffic barrier" crashes have occurred in wet road conditions.

### **7.1.3 Crash Frequency & Crash Rate Development**

Based on the required procedures and methodology for an IMR per FDOT SIO, crash rates and frequencies along the area of influence were developed based on the five (5) year crash information. **Table 25** summarizes the crash frequency and rates for each safety analysis segmentation for the study area. The crash rates for the mainline segments are expressed as the number of crashes per million vehicle-miles traveled (Crashes/MVMT), the crash rates for the intersections are expressed as the number of crashes per million entering vehicles (Crashes/MEV). The following equations were utilized to develop the crash frequency and crash rates for this study:

$$\text{Crash Rate of Segment} = \frac{\text{Total Number of Crashes} \times 1,000,000}{\text{AADT} \times 365 \times \text{Number of Years} \times \text{Length of Roadway Segment}}$$

$$\text{Crash Rate of Intersections} = \frac{\text{Total Number of Crashes} \times 1,000,000}{\text{AADT} \times 365 \times \text{Number of Years}}$$

### **Crash Rate Comparison**

In addition to developing the five-year existing crash rates, a comparison of these actual crash rates with the latest FDOT statewide crash rates was conducted, based on the most current FDOT CAR Online reporting database. Please note that statewide crash rates are not provided for ramp roadways. The following observations were made based on this comparison:

- For I-95, all the freeway segments have lower crash rates compared to FDOT statewide crash rate of 0.92.

- The southbound and northbound ramp terminals, with existing crash rates of 0.65 and 0.81, respectively, have a lower crash rate than FDOT statewide crash rate of 1.18.
- The study intersection at SR 524 and N. Friday Road has a higher crash rate (0.63) compared to FDOT statewide crash rate of 0.56.
- The study segment of SR 524 between S. Friday Road and N. Friday has a lower crash rate (4.57) compared to FDOT statewide crash rate of 6.57.



Table 25: 5 Year Crash Frequency &amp; Rate Summary

Crash Segment	Crash Frequency & Rate					
	Severity	No. of Crashes	Daily Volume	Segment Length (Miles)	Total Crash Frequency	Total Crash Rate <sup>1</sup>
SR 524 between S. Friday Road & N. Friday Road	Total	48	13,700	0.420	9.60	4.57
	FI	28				
	PDO	20				
SR 524 & I-95 SB Ramp Terminal	Total	18	15,100	-	3.60	0.65
	FI	10				
	PDO	8				
SR 524 & I-95 NB Ramp Terminal	Total	24	16,300	-	4.80	0.81
	FI	14				
	PDO	10				
SR 524 & N. Friday Road	Total	21	18,150	-	4.20	0.63
	FI	9				
	PDO	12				
I-95 between SR 528 and SR 524	Total	64	64,000	1.216	12.80	0.45
	FI	28				
	PDO	36				
I-95 SB Diverge at SR 524	Total	3	32,000	0.284	0.60	0.18
	FI	0				
	PDO	3				
I-95 between SR 524 Ramps	Total	18	58,600	0.403	3.60	0.42
	FI	9				
	PDO	9				
I-95 SB Merge at SR 524	Total	5	34,500	0.284	1.00	0.28
	FI	3				
	PDO	2				
I-95 between SR 524 and SR 520	Total	8	69,000	0.365	1.60	0.17
	FI	3				
	PDO	5				
I-95 NB Merge at SR 524	Total	2	32,000	0.284	0.40	0.12
	FI	0				
	PDO	2				
I-95 NB Diverge at SR 524	Total	10	34,500	0.284	2.00	0.56
	FI	5				
	PDO	5				
I-95 NB Off-Ramp to SR 524	Total	5	5,200	0.256	1.00	2.06
	FI	0				
	PDO	5				
I-95 NB On-Ramp from SR 524	Total	5	2,600	0.261	1.00	4.03
	FI	2				
	PDO	3				
I-95 SB Off-Ramp to SR 524	Total	5	2,800	0.256	1.00	3.83
	FI	2				
	PDO	3				
I-95 SB On-Ramp from SR 524	Total	4	5,500	0.241	0.80	1.66
	FI	0				
	PDO	4				

Notes: 1) Crash rate for roadway segments is expressed as Crashes/MVMT; Crash rate for intersections is expressed as Crashes/MEV.

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## 7.2 Future Safety Analysis

Based on the project future safety analysis needs, a combination of HSM Part C methodologies and countermeasure CMF was used to account for the potential safety benefits. As the first step, a predictive method was used for the following facilities within the study's AOI based on the noted geometric differences between No-Build and Build conditions.

- Freeway ramp segments (NB on/off ramps and SB on/off ramps)
- Ramp terminals (I-95 at SR 524 NB and I-95 at SR 524 SB ramp terminals)
- Arterial intersections (SR 524 at S. Friday Road and SR 524 at N. Friday Road)

Since the Build conditions do not involve changes (from the No-Build) to the freeway mainline or the gore areas, only the freeway ramps and ramp terminals were evaluated. For the arterial (SR 524), intersections are evaluated because of the four-lane widening and other improvements. It should be noted that since the combined area of influence approximately covers the SR 524 segments between S. Friday Road and I-95, and I-95 and N. Friday Road, only the study intersections were evaluated. For the predictive method, the Enhanced Interchange Safety Analysis Tool (ISATe) Build 06.10 – Modified was used for the freeway components, whereas HSM Spreadsheets were used for the study intersections.

For this study, the Build alternative includes converting the existing diamond interchange to a DDI along with the widening of SR 524 corridor from two lanes to four lanes. As part of the second step, since the predictive method does not account for the conversion of a diamond interchange to a DDI, a CMF was used to determine the reduction in crashes between a diamond interchange (with four-lane arterial) and a DDI (with a four-lane arterial). ISATe was initially used to evaluate the study ramp terminals with a two-lane SR 524 and a four-lane SR 524.

### 7.2.1 Ramp Segments and Ramp Terminal Results

**Table 26** summarizes the expected crashes for the No-Build and Build alternatives based on ISATe analysis for 20 years (2025-2045). As mentioned in the previous section, the Build improvements include widening of SR 524 to four lanes, addition of turn lanes at the ramp terminals, and

converting the existing diamond interchange to a DDI. This table also shows the expected crash reduction based on the CMF for a diamond interchange to a DDI conversion. Please note that since SR 524 will be widened to a four-lane roadway under the Build alternative, calculating the expected crash frequency by the Empirical Bayes Method is not applicable.

**Table 26: No-Build vs Build Expected Crash Summary (2025-2045) for the Freeway Components**

Alternative & Facility Type	Total Predicted Crashes	K	A	B	C	O
(1A) No-Build (Ramp Segments)	47.4	0.2	1.5	5.1	10.0	30.7
(2A) No-Build (Ramp Terminals)	209.8	1.9	10.5	31.5	47.0	119.0
<b>(3A: 1A+2A) No-Build (Totals)</b>	<b>257.2</b>	<b>2.1</b>	<b>12.0</b>	<b>36.5</b>	<b>56.9</b>	<b>149.6</b>
(1B) Build (Ramp Segments)	36.9	0.1	1.2	3.9	7.7	23.9
(2B) Build (Ramp Terminals)#	189.2	1.5	8.7	26.9	44.3	108.0
(3B = 2B*0.858) Build (Diamond Interchange to DDI-Ramp Terminals)*	162.3	1.3	7.5	23.1	38.0	92.7
<b>(4B: 1B+3B) Build (Totals)</b>	<b>199.2</b>	<b>1.4</b>	<b>8.6</b>	<b>27.0</b>	<b>45.7</b>	<b>116.6</b>
<b>(3A-4B) Crash Reduction</b>	<b>58.0</b>	<b>0.6</b>	<b>3.4</b>	<b>9.5</b>	<b>11.2</b>	<b>33.1</b>

*Notes:*

1. K – Fatality; A - Incapacitating Injury; B – Non-incapacitating Injury; C – Possible Injury; O – Property Damage Only (PDO). Definitions based on FDOT Manual
2. ISATe analysis provides the sum of crashes for the specified time period
2. # - ISATe analysis for a diamond interchange with four-lane SR 524
3. \*CMF is 0.858 for ID 10761 - convert diamond interchange to a DDI, AbdelRahman et al., 2021, cmfclearinghouse.org
4. KABCO crash distribution is from the latest 2022 FDOT Design Manual, Table 122.6.4; No-Build Ramp Terminals: KABCO distribution for 2-lane undivided arterials/intersections; No-Build/Build Ramp Segments: KABCO distribution for freeway ramps; Build Ramp Terminals: KABCO distribution for 4-lane divided arterials/intersections
5. Totals may not exactly match with the sum because of rounding

## 7.2.2 Study Intersection Results

**Table 27** summarizes the expected crashes for the No-Build and Build alternatives based on HSM Spreadsheets for an urban intersection for 20 years (2025-2045). As mentioned in the previous section, the study intersections of SR 524 at S. Friday Road and SR 524 at N. Friday Road include widening of SR 524 to four lanes and turn lane improvements. It is to be noted that since the HSM Spreadsheets allow safety analysis for one year at a time, the analysis was conducted for the years

2025 and 2045. A separate analysis was conducted for the year 2035 and it was found that the expected number of crashes for the interim years (other than 2025 and 2045) closely follow a linear trend. As such, the expected crashes for the interim were interpolated using the calculated expected annual crash data for the years 2025 and 2045.

**Table 27: No-Build vs Build Expected Crash Summary (2025-2045) for the Study Intersections**

Alternative & Facility Type	Total Predicted Crashes	K	A	B	C	O
(1A) No-Build (Study Intersections)	99.3	0.9	5.0	14.9	22.2	56.3
(1B) Build (Study Intersections)	100.1	0.8	4.6	14.2	23.4	57.2
<b>(1A-1B) Crash Reduction</b>	<b>-0.8</b>	<b>0.1</b>	<b>0.4</b>	<b>0.7</b>	<b>-1.2</b>	<b>-0.9</b>

Notes:

1. K – Fatality; A - Incapacitating Injury; B – Non-incapacitating Injury; C – Possible Injury; O – Property Damage Only (PDO). Definitions based on FDOT Manual
2. HSM Spreadsheets were used for this analysis
3. KABCO crash distribution is from the latest 2022 FDOT Design Manual, Table 122.6.4. No-Build: KABCO distribution for 2-lane undivided arterials/intersections; Build: KABCO distribution for 4-lane divided arterials/intersections
4. Totals may not exactly match with the sum because of rounding

It is to be noted that there is slight increase in the expected number of crashes for the Build alternative compared to the No-Build alternative over a 20-year period, most likely because of the four-lane widening and corresponding increase in traffic. However, this increase is observed for the possible injury and PDO crashes and not for the fatal and injury crashes.

### 7.2.3 Crash Reduction Benefit for the Entire Facility

One of the last steps in evaluating whether the improvements provide a safety benefit is developing the crash reduction estimates based on the proposed study area improvements. **Table 28** illustrates the crash reduction estimates for the Build alternative over the No-Build alternative. As noted in **Table 28**, the safety analysis results indicate that the proposed improvements within the AOI are expected to have approximately **57 less crashes and \$14.3 million** in crash cost savings compared to the No-Build alternative over a 20-year period. The crash reduction benefit of the proposed improvements is experienced over all crash severity types including fatal, injury,

and PDO crashes. **Appendix N** contains the crash data utilized and safety analysis conducted for this study.

**Table 28: Crash Reduction Benefit for the Entire Facility (2025-2045)**

Alternative	Total Facility Predicted Crashes	Total Crash Cost Savings	K	A	B	C	O
No-Build (3A from Table 25 plus 1A from Table 26)	356.5		3.0	17.0	51.4	79.2	205.9
Build ((4B from Table 25 plus 1B from Table 26)	299.3		2.2	13.3	41.2	69.2	173.7
<b>(1C) Crash Reduction</b>	<b>57.2</b>		<b>0.7</b>	<b>3.7</b>	<b>10.2</b>	<b>10.0</b>	<b>32.2</b>
(2C) Crash Cost*	-		\$10,890,000	\$888,030	\$180,180	\$103,950	\$7,700
<b>(1C*2C) Crash Cost Savings</b>	-	<b>\$14,324,651</b>	<b>\$7,889,056</b>	<b>\$3,302,632</b>	<b>\$1,841,967</b>	<b>\$1,043,028</b>	<b>\$247,968</b>

Notes:

1. K – Fatality; A - Incapacitating Injury; B – Non-incapacitating Injury; C – Possible Injury; O – Property Damage Only (PDO). Definitions based on FDOT Manual
2. \*KABCO crash costs are from the latest 2022 FDOT Design Manual, Table 122.6.2
3. Totals may not exactly match with the sum because of rounding

## 8 Funding Plan & Schedule

The need for modification of the existing interchange at I-95 and SR 524 is being studied concurrently with the ongoing PD&E Study identified as Financial Project ID # 437983-1: Widening of SR 524 between S. Friday Road and Industry Road. As shown in **Table 29**, this PD&E (ongoing) phase of the study is funded by FDOT. Please note that although the description in the FDOT Work Program mentions SR 524 widening, the funding for the interchange improvements is included within the project costs. There have been discussions (within FDOT) of segmenting the project into different design and construction phases, i.e., I-95 interchange and SR 524 separately, but the final recommendation has yet to be determined. Once the final decision is made regarding segmentation, the work program will be updated accordingly.

Also, please note that when this project started in 2019, SCTPO listed it as one of the top 10 priority projects with a design phase funded for FY 2020. However, this project was moved to rank #23 in the latest TIP. As such, the project funding has yet to be approved for design, construction, and right of way at this time. When funding does become available and segmentation of the corridor established, the project will progress into the design phase.

This widening project is also identified in the Cost Feasible Projects List of the SCTPO 2045 LRTP as shown in **Table 30**. The cost of the proposed improvements recommended as part of the Build alternative (SR 524 widening from S. Friday Road to N. Friday Road & interchange modifications at I-95 & SR 524 interchange) is estimated at \$22 Million. The long-range estimate (LRE) prepared for the entire SR 524 widening project from S. Friday Road to Industry Road including the interchange improvements is provided in **Appendix O**.

**Table 29: FDOT Work Program & SCTPO TIP**

Project Description	Financial ID#	Phase
SR 524 from S. Friday Road to Industry Road including I-95 at SR 524 IMR	437983-1	Highways PD&E Study (ongoing)

Source: FY 2022-26 FDOT Five Year Work Program

**Table 30: 2045 LRTP Cost Feasible Projects List**

Project Description	Phase	Year
SR 524 from S. Friday Road to Industry Road including I-95 at SR 524 Interchange	Preliminary Engineering/Design	FY 2026-30
	ROW	FY 2036-40
	Construction	FY 2041-45

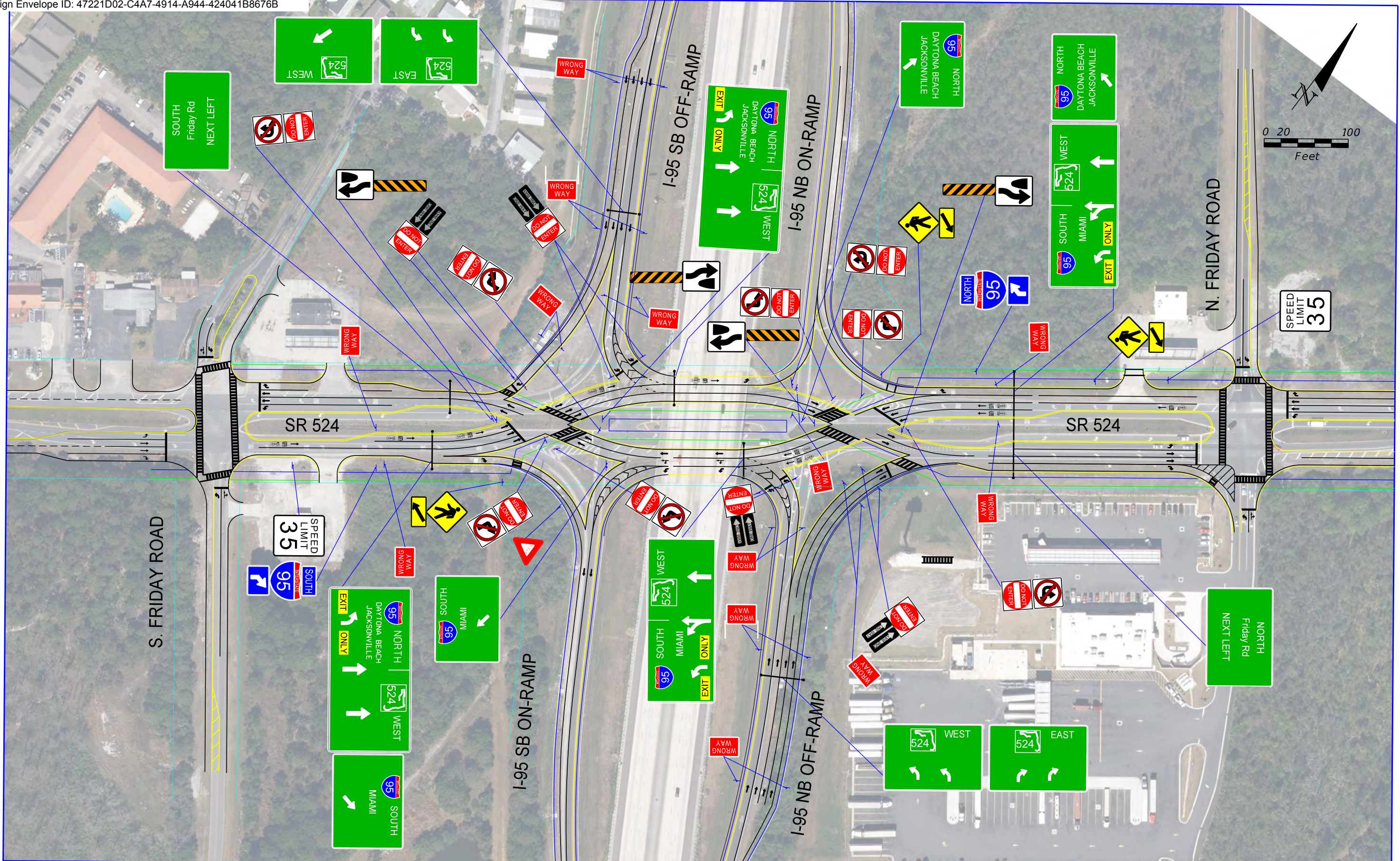
## 9 Environmental Impacts

There are no significant environmental considerations and/or factors located within the anticipated area of influence or impact area of the proposal that could influence the outcome of the selection process in comparing the Build and No-Build alternatives. The implementation of the Build alternative will not result in negative environmental impacts. Any environmental concerns and the permitting process will be documented and handled through the PD&E part of the study.



# 10 Conceptual Signing Plan

The purpose of this section is to provide a preliminary signing plan based on the proposed alternative design modifications. Modifications to the existing roadway signs were evaluated in conjunction with the proposed interchange modifications to ensure that a proper signing plan is implemented at the interchange. A schematic of the proposed concept signing plan showing the locations is provided in **Figure 12** for the proposed interchange modification alternative. Please note that this plan does not include I-95 since changes are not proposed at the ramp gore locations or the I-95 mainline in this IMR. The conceptual signing plan is based on the requirements described in Chapter 2D, and Chapter 2E through section 2H of the 2009 MUTCD.



REVISIONS	
DATE	DESCRIPTION

Vanasse Hangen Brustlin, Inc.  
 Transportation, Land Development,  
 Environmental Services  
 225 E. Robinson St., Suite 300  
 Landmark Center Two  
 Orlando, FL 32801 (407) 839-4006  
 Certificate of Authorization # 3932

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION		
ROAD NO.	COUNTY	FINANCIAL PROJECT ID
SR 524		

**CONCEPTUAL SIGNING PLAN**  
**I-95 AT SR 524**

FIGURE NO.
12

# 11 Access Management Plan & Design Exceptions

The purpose of this section is to state the requirements for an access management plan as part of the proposed I-95 and SR 524 interchange modification under the Build alternative. Based on input from FDOT, the existing access management plan within the study corridor and area of influence will not be changed by the proposed improvements to the interchange. Therefore, there are no impacts to the current SR 524 access management plan.

Please note that design exceptions and variations are not anticipated at this time.

# 12 Qualifying Provisions

FHWA Requirements and Guidelines state that the following two policy points and criteria be examined and addressed in the IMR documentation:

- 1. An operational and safety analysis has concluded that the proposed change in access does not have a significant adverse impact on the safety and operation of the Interstate facility (which includes mainline lanes, existing, new, or modified ramps, and ramp intersections with crossroad) or on the local street network based on both the current and the planned future traffic projections. The analysis should, particularly in urbanized areas, include at least the first adjacent existing or proposed interchange on either side of the proposed change in access (Title 23, Code of Federal Regulations (CFR), paragraphs 625.2(a), 655.603(d) and 771.111(f)). The crossroads and the local street network, to at least the first major intersection on either side of the proposed change in access, should be included in this analysis to the extent necessary to fully evaluate the safety and operational impacts that the proposed change in access and other transportation improvements may have on the local street network (23 CFR 625.2(a) and 655.603(d)). Requests for a proposed change in access should include a description and assessment of the impacts and ability of the proposed changes to safely and efficiently collect, distribute, and accommodate traffic on the Interstate facility, ramps, intersection of ramps with crossroad, and local street network (23 CFR 625.2(a) and 655.603(d)). Each request should also include a conceptual plan of the type and location of the signs proposed to support each design alternative (23 U.S.C. 109(d) and 23 CFR 655.603(d)).*

**Response:**

The proposed interchange modification will not adversely impact the safety or operations of the I-95 mainline and is expected to improve safety and operations at the interchange ramp terminal intersections. The following is a summary of the operational analysis that shows the justification for Policy Point 1.

- **Freeway Operations**

- The number of lanes along the ramp at the existing gore points, as well as the location of the existing gore points, will not be modified as part of the interchange improvements.
- The I-95 basic, weave, and merge/diverge segments within the AOI are expected to operate within the target LOS D through the design year 2045 under the Build alternative.

- **SR 524 Intersection Operations**

- Under the No-Build alternative, all study intersections exceed the target LOS D by the design year 2045.
- Under the Build alternative, all the study intersections are anticipated to operate within the target LOS D through the design year 2045. Cumulative intersection delays (sum of overall study intersection delays) under the Build alternative show around 70% improvement in 2045 (AM and PM design hours) versus the No-Build alternative, which indicates noticeably improved traffic conditions in the Build alternative.

- **SR 524 Arterial Operations**

- SR 524 study segment within the AOI exceeds the target LOS D in the existing year 2019 except for the eastbound direction in the PM peak hour. Under the No-Build alternative, SR 524 study segment will exceed the target LOS D for both eastbound and westbound directions in both AM and PM design hours.
- Under the Build alternative, SR 524 study segment within the AOI is anticipated to operate within the target LOS D through the design year 2045.

- **Off-Ramp Queues**

- The off-ramp queues at the I-95 and SR 524 interchange reported for the Build alternative are well within the available ramp storage lengths. The proposed off-ramp improvements at both I-95 southbound and northbound ramp terminals will help avoid queue backups from the ramp terminals to the freeway mainline during the peak hours through the design year 2045.

- **Safety Improvement**

- The Build option provides improved safety benefits over the No-Build alternative. Based on predictive safety analysis and information contained in the Crash Modification Factor (CMF) Clearinghouse, the Build alternative is anticipated to:
  - Reduce the number of crashes by approximately 57 over a period of 20 years, and therefore save approximately \$14.3 million in crash costs (fatal, injuries, and property damage only) compared to the No-Build alternative.
  - Reduce interchange related crashes by approximately 14% because of the proposed conversion of the existing diamond configuration to a DDI.
  - A DDI will provide safety benefits to the interchange and adjacent intersections because of lower design speed within the AOI.

- **Conceptual Signing Plan**

- A conceptual signing plan is developed (see **Figure 12**) for the proposed interchange modification alternative. Modifications to the existing roadway signs were evaluated in conjunction with the proposed modifications to ensure that a proper signing plan is implemented within the study area.

2. *The proposed access connects to a public road only and will provide for all traffic movements. Less than "full interchanges" may be considered on a case-by-case basis for applications requiring special access, such as managed lanes (e.g., transit or high occupancy vehicle and high occupancy toll lanes) or park and ride lots. The proposed access will be designed to meet or exceed current standards (23 CFR 625.2(a), 625.4(a)(2), and 655.603(d)). In rare instances where all basic movements are not provided by the proposed design, the report should include a full-interchange option with a comparison of the operational and safety analyses to the partial-interchange option. The report should also include the mitigation proposed to compensate for the missing movements, including wayfinding signage, impacts on local intersections, mitigation of driver expectation leading to wrong-way movements on ramps, etc. The report should describe whether future provision of a full interchange is precluded by the proposed design.*

**Response:**

Full access interchange conditions, as offered by the existing interchange at I-95 and SR 524, will remain with the proposed modification improvements. This project will achieve benefits to the transportation system with no adverse impact to the public. The proposed improvements have been and will continue to be, coordinated with the public and local government agencies. The design of the proposed improvements will follow the applicable FHWA and FDOT design standards.

---

## **12.1 Study Recommendation**

Based on a review of the traffic operational analysis results for the No-Build and Build alternatives, the following study conclusions are developed.

- The existing roadway and interchange configuration (aka No-Build alternative) will neither support the forecasted traffic demand within the AOI nor will satisfy the purpose and need of this project.
- The DDI improvement at the study interchange along with SR 524 widening from two to four lanes will satisfy the purpose and need as outlined in Section 1.2 and satisfies the two FHWA Policy Points. Therefore, the Build alternative improvements are recommended along SR 524 within the AOI.

# 13 Appendices

Appendix A: Methodology Letter of Understanding (MLOU)

Appendix B: Existing Traffic Data

Appendix C: Existing Synchro Output & Signal Timings

Appendix D: Existing HCS Output

Appendix E: SubArea Model Validation

Appendix F: Traffic Forecasts – TRENDS, BEBER, and Model Plots & Planning Documents

Appendix G: TURNS5 Sheets

Appendix H: CAP-X & SIDRA outputs

Appendix I: No-Build Synchro Output

Appendix J: No-Build HCS Output

Appendix K: Conceptual Layout

Appendix L: Build Synchro Output

Appendix M: Build HCS Output

Appendix N: Crash Data Information / Safety Analysis Worksheets

Appendix O: Long Range Estimate (LRE)



# **Appendix A**

## Methodology Letter of Understanding (MLOU)

# Methodology Letter of Understanding (MLOU)

## **I-95 at SR 524 Interchange Modification Report (IMR)**

*Brevard County, Florida*

*October, 2019*



# Florida Department of Transportation Methodology Letter of Understanding (MLOU)



## I-95 at SR 524 Interchange Modification Report (IMR) FPID# 437983-1

Type of request:  IJR  SIJR  IMR  SIMR  IOAR  Other

Type of Process  Programmatic  Non-Programmatic

*Coordination of assumptions, procedures, data, networks, and outputs for project traffic review during the access request process will be maintained throughout the evaluation process.*

*Full compliance with all MLOU requirements does not obligate the Acceptance Authorities to accept the Interchange Access Request (IAR).*

*The Requestor shall inform the approval authorities of any changes to the approved methodology in the MLOU and an amendment shall be prepared if determined to be necessary.*

Requestor	<p style="margin: 0;"><small>DocuSigned by:</small> <i>Lorena Cucek</i> <small>7F665A34FA324EF...</small></p> <hr style="border: 0; border-top: 1px solid black;"/> <p style="margin: 0;"><i>Lorena Cucek, FCCM, cpm</i> District Five Project Manager</p>	<p style="margin: 0;">10/28/2019   1:57 PM EDT</p> <hr style="border: 0; border-top: 1px solid black;"/> <p style="margin: 0;"><i>Date</i></p>
Interchange Review Coordinator	<p style="margin: 0;"><small>DocuSigned by:</small> <i>Alison Stettner</i> <small>02BE0E3CD13E45F...</small></p> <hr style="border: 0; border-top: 1px solid black;"/> <p style="margin: 0;"><i>Alison Stettner, AICP</i> District Five Interchange Coordinator</p>	<p style="margin: 0;">10/28/2019   4:53 PM EDT</p> <hr style="border: 0; border-top: 1px solid black;"/> <p style="margin: 0;"><i>Date</i></p>
Systems Management Administrator	<p style="margin: 0;"><small>DocuSigned by:</small> <i>Jenna Bowman</i> <small>4AD03E6A337F4C1...</small></p> <hr style="border: 0; border-top: 1px solid black;"/> <p style="margin: 0;"><i>Jenna Bowman, P.E.</i> Systems Implementation Office – Central Office</p>	<p style="margin: 0;">10/29/2019   6:59 AM EDT</p> <hr style="border: 0; border-top: 1px solid black;"/> <p style="margin: 0;"><i>Date</i></p>

# Florida Department of Transportation

## Methodology Letter of Understanding (MLOU)

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### 1.0 Project Description

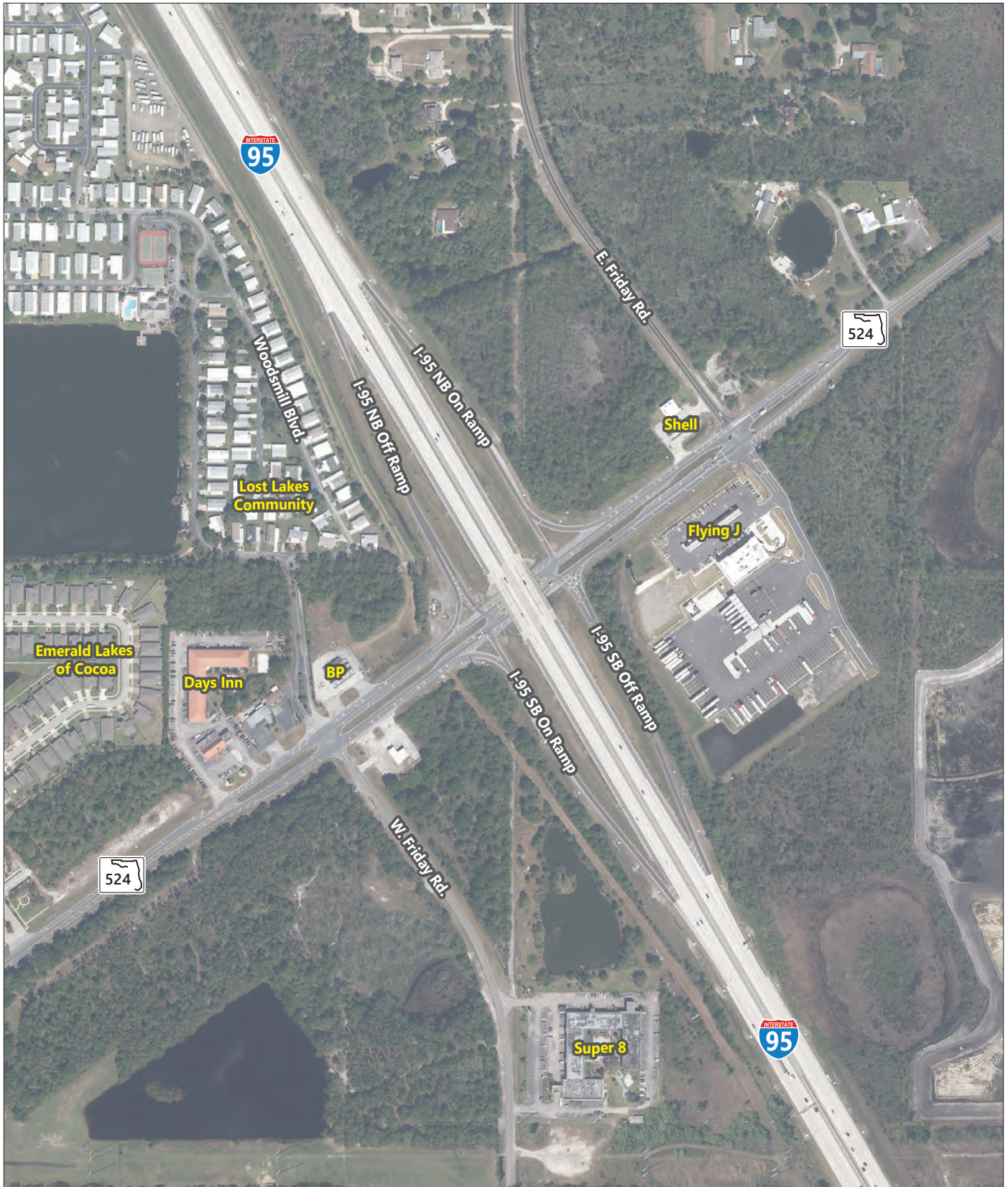
*Provide background or supporting information that explains the basis for the request.*

I-95 is a north-south interstate highway spanning approximately 382 miles within the State of Florida. I-95 has three lanes in each direction near the existing SR 524 interchange. The posted speed is 70 mph. The State maintained SR 524 corridor is a two-lane southwest-northeast urban minor arterial. The western terminus is an intersection with SR 520 and the eastern terminus is an intersection with Industry Road, with a length of 5.0 miles, in Brevard County, Florida.

The need for modification of the existing interchange at I-95 and SR 524 is being studied concurrently with the ongoing Project Development and Environmental (PD&E) study identified as Financial Project ID # 437983-1: Widening of SR 524 between W. Friday Road and Industry Road. The widening of the SR 524 corridor (Roadway ID: 70070000) from 2 lanes to 4 lanes between W. Friday Road (M.P 1.514) to Industry Road (M.P 4.649) is identified in the Cost Feasible Plan section of the Space Coast TPO's (SCTPO) 2040 Long Range Transportation Plan (Amended March 8<sup>th</sup>, 2018) and identified funding for the Preliminary Engineering (PE), Right of Way (ROW) and Construction phases during 2021 – 2025. The PD&E phase of the project is included in the latest FDOT Five Year Work Program for FY 2020-2024, as well as in the SCTPO's Transportation Improvement Plan (TIP).

The SR 524 study corridor is a core element of the Space Coast's regional transportation system. The recently completed new developments (Walmart Distribution Center and the Flying J Travel Center) generate a large amount of truck traffic to the western side of the corridor. Moreover, the SR 524 corridor is projected to experience a significant increase in traffic demand over the next 20-year period because of proposed developments along the corridor. The interchange at I-95 and SR 524 provides a quick access to I-95/SR 528 interchange to the north and I-95/SR 520 interchange to the south and is a critical entry/exit point that facilitates the flow of traffic along SR 524 corridor. As such, providing a safe and operationally efficient interchange at I-95 and SR 524 is critical to the regional and local development of the subject area.

The MLOU is developed in accordance with the FDOT Policy No. 000-525-015, "Approval of New or Modified Access to Limited Access Highways on the State Highway System (SHS)"; FDOT Interchange Access Request User's Guide (IARUG), New or Modified Interchanges FDOT Procedure No. 525-030-160; and the Project Traffic Forecasting FDOT Procedure No. 525-030-120. The I-95 and SR 524 interchange is a traditional diamond interchange, with single lane ramps. Both the ramp terminal intersections are signalized. **Figure 1** provides an aerial image of the study interchange.



**Figure 1**

**Aerial Photograph of Interchange  
I-95 at SR 524 Interchange  
Modification Report**

# Florida Department of Transportation

## Methodology Letter of Understanding (MLOU)

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### A. Purpose and Need Statement

*Provide the Purpose, the Need, and the Goals and Objectives.*

The SR 524 study corridor is a core element of the Space Coast's regional transportation system. The recently completed Walmart Distribution Center and the Flying J Travel Center (truck stop) generate a large amount of truck traffic to the western side of the corridor. Moreover, the SR 524 corridor is projected to experience a significant increase in traffic demand because of the proposed developments along the corridor. Towards the eastern end of the corridor, there will be an increase of residential traffic heading from new and existing single and multi-family neighborhoods to/from commercial activity centers at Cocoa Commons, London Cove, and Cocoa Landings. Adamson Creek and Emerald Lakes, on the west side of I-95, will also generate additional traffic along the corridor as both neighborhoods continue to develop towards build out. To accommodate the traffic growth in the study area, SR 524 will be widened from 2 lanes to 4 lanes between W. Friday Road and Industry Road.

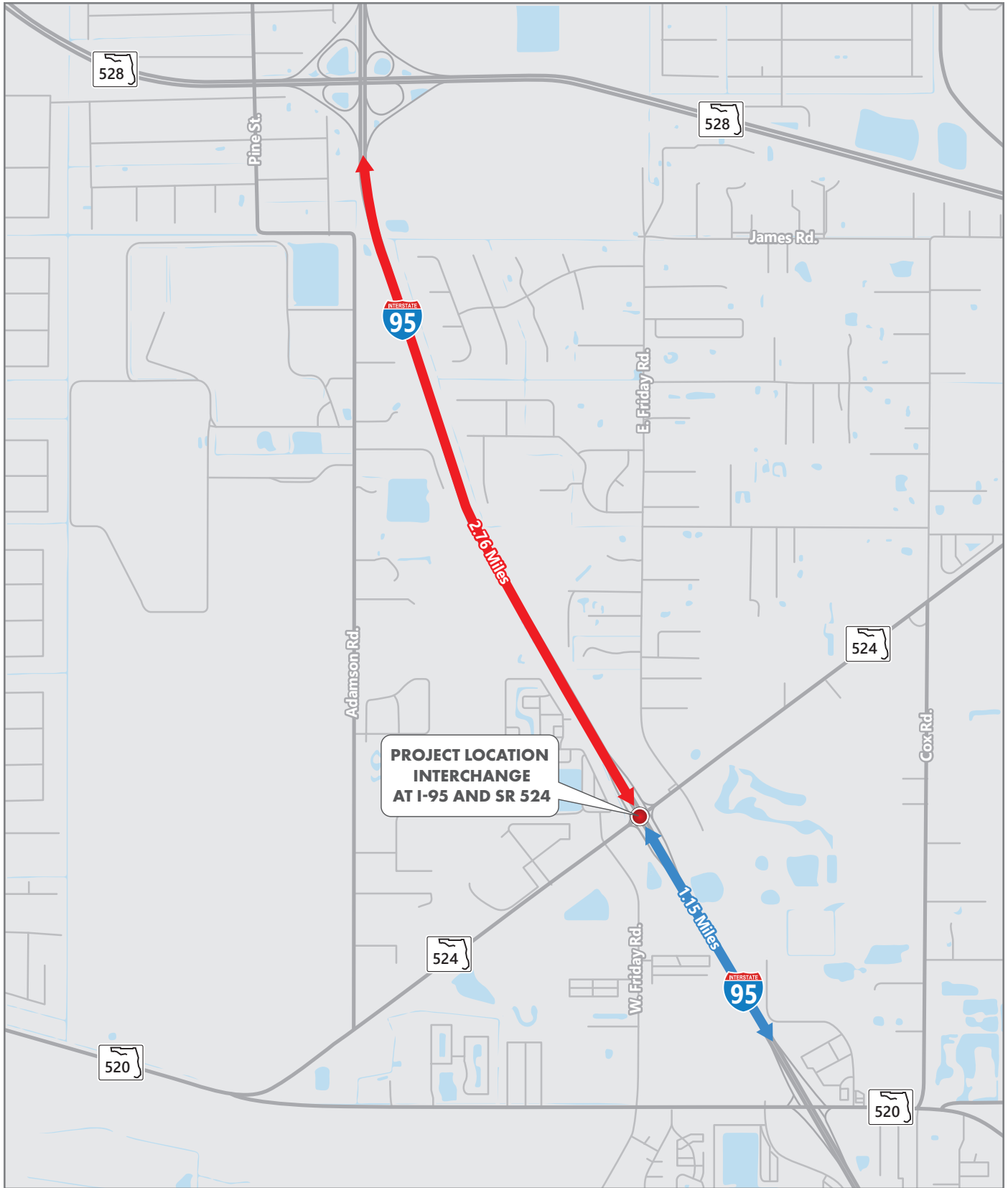
Just east of the I-95 and SR 524 interchange, the Annual Average Daily Traffic (AADT) is projected to increase from 18,000 in the existing year (2019) to 39,000 in 2045. With the current interchange configuration, the ramp terminals are projected to operate below the target level of service (LOS) "D" by year 2035. By 2045, both the ramp terminals and adjacent intersections (W Friday Road and E Friday Road) are projected to fail with LOS F. The ramp failures will consequently impact the mainline operations with queues spilling back to the I-95 mainline. As such, the existing interchange configuration will not be able to provide a safe and operationally efficient design for the high truck and auto traffic anticipated within the study area.

The goal of the subject Interchange Access Request (IAR) is to recommend an interchange configuration that will 1) provide additional vehicular capacity that accommodates existing and anticipated traffic demand at the ramp terminals of I-95/SR 524 interchange, 2) improve safety, and 3) prevent queues from spilling back onto the I-95 mainline. The objectives are to add operational benefits to the I-95 ramps to/from SR 524, facilitate the movement of freight and goods, and maintain safe operating conditions at the interchange, as well as the I-95 mainline between SR 528 and SR 524 and between SR 524 and SR 520.

### B. Project Location

*Provide a description of the IAR study area.*

The I-95/SR 524 interchange is in Brevard County, Florida. Currently, I-95 is a six-lane divided freeway and SR 524 is a two-lane divided arterial facility within the interchange area of influence. The interchange location is illustrated on **Figure 2**.



● Project Location



**Figure 2**

**Project Location Map**  
I-95 at SR 524 Interchange  
Modification Report

# Florida Department of Transportation

## Methodology Letter of Understanding (MLOU)



The portion of I-95 mainline included in the project is in Section #70225000, which begins at Milepost 0.0 (Roadway Characteristics Inventory-RCI) to the south of SR 524 interchange and ends at Milepost 31.190 (RCI) to the Volusia County Line. The I-95/SR 524 interchange, Milepost 1.15, of the project is in Brevard County. **Table 1** shows the current interchange approximate spacing.

**Table 1: Interchange Spacing**

Location/Interchange	Roadway ID	RCI Milepost	Spacing from Proposed Interchange Modification
I-95/SR 528 Interchange	70225000	3.910	2.76 miles
I-95/SR 524 Interchange	70225000	1.150	---
I-95/SR 520 Interchange	70225000/ 70220000	0.000/41.517	1.15 miles

### C. Area of Influence

*Provide a description of the area of influence along the main line and cross street.*

The Area of Influence (AOI) is depicted on **Figure 3** and includes the following:

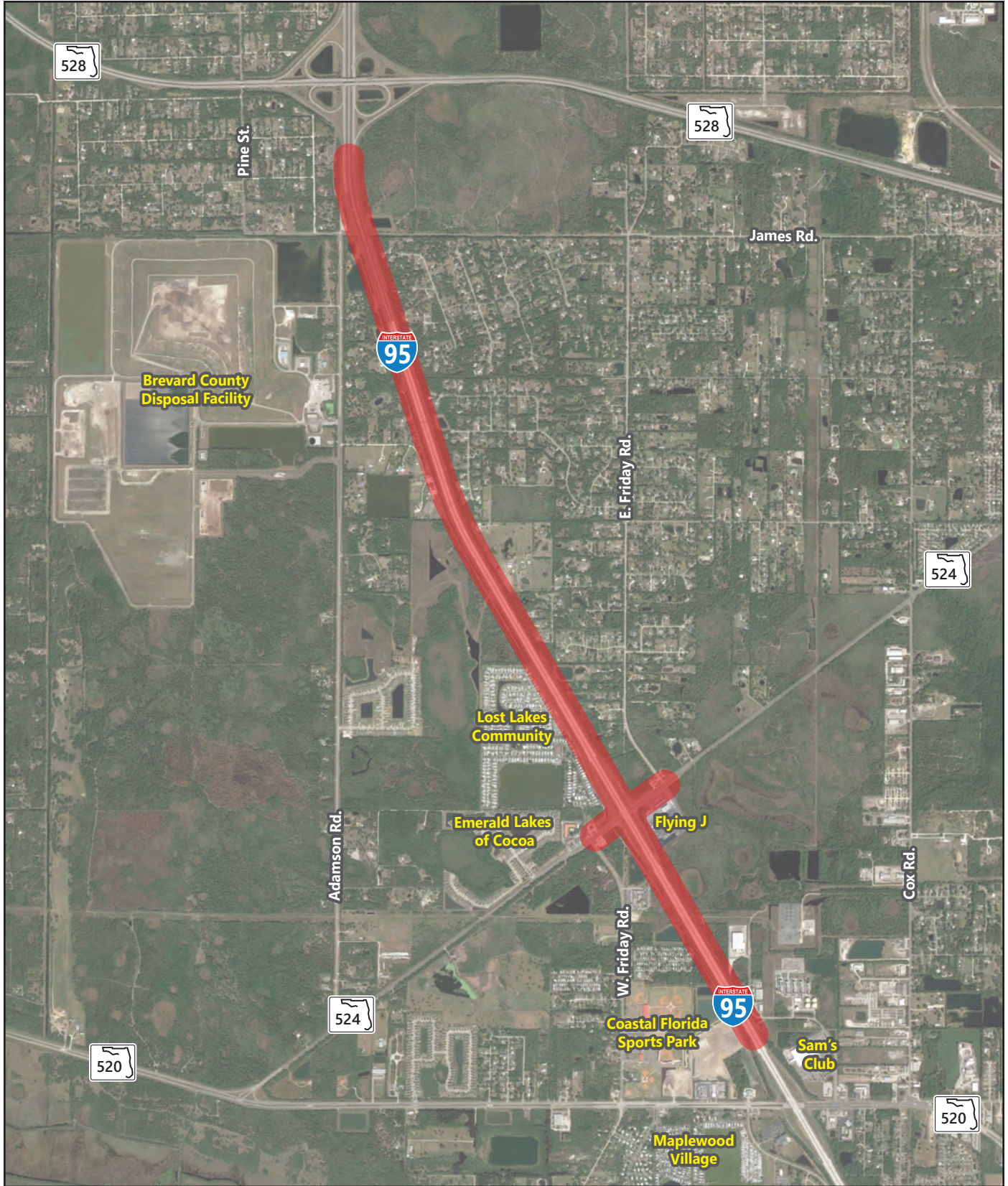
#### **I-95 Mainline:**

- Mainline Freeway between SR 524 and SR 528
- Mainline Freeway between SR 520 and SR 524
- I-95 SB on ramp from SR 528
- I-95 NB off ramp to SR 528
- I-95 NB on ramp from SR 520
- I-95 SB off ramp to SR 520

#### **Intersections along SR 524:**

- W. Friday Road
- I-95 SB Ramps
- I-95 NB Ramps
- E. Friday Road





Area of Influence



Figure 3

Area of Influence  
I-95 at SR 524 Interchange  
Modification Report

# Florida Department of Transportation

## Methodology Letter of Understanding (MLOU)

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### *D. Project Schedule*

*Identify the schedule of production activities consistent with a proposed conceptual funding plan and opening year.*

The need for modification of the existing interchange at I-95 and SR 524 is being studied concurrently with the ongoing Project Development and Environmental (PD&E) study identified as Financial Project ID # 437983-1: Widening of SR 524 between W. Friday Road and Industry Road. This PD&E phase of the study is funded by FDOT. The design phase is funded for year FY 2020. The funding plan for remaining phases has not been identified at this time.

## **2.0 Analysis Years**

### *A. Traffic Forecasting*

- Base year        2015
- Horizon year    2045

### *B. Traffic Operational Analysis*

- Existing year    2019
- Opening year    2025
- Design year     2045

A year of failure analysis will be performed for the preferred alternative, in case a failing LOS is obtained in design year.

## **3.0 Considered Alternatives**

*A. The No-Build and Build alternatives shall be analyzed in the IAR. Details of all reasonable build alternatives considered, including those eliminated from further considerations, shall be documented. The documentation for the alternatives eliminated can be minimal like a summary of what was considered, reasons for elimination etc. Build Alternatives meeting purpose and need of the project shall have a more detailed description and evaluated in the IAR.*

No Build Alternative: The No Build alternative will represent the existing roadway and intersection configuration and any committed improvements within the AOI.

Build Alternatives: Based on preliminary capacity analysis of future conditions and construction feasibility, two (2) Build alternatives (modified diamond interchange & diverging diamond interchange) will be considered in the IAR. Details of these two (2) Build alternatives and other alternatives (that were evaluated and eliminated) will be documented in the IAR.

# Florida Department of Transportation

## Methodology Letter of Understanding (MLOU)

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The No Build and Build alternatives will be evaluated for all the traffic operational analysis years.

*B. The implementation of TSM&O alternative will be considered in the IAR.*

TSM&O improvements such as turn lane additions will be considered and presented in detail in the IAR. The TSM&O alternative will be evaluated for and beyond the opening year 2025 if it provides acceptable operations in the opening year. The year of failure will be identified to understand the useful life of these improvements. Please note that relevant TSM&O alternatives such as traffic signal optimization and additional turn lanes will be considered as part of the Build alternatives.

#### **4.0 Data Collection**

*The type of data that may be used should be identified.*

##### *A. Transportation System Data*

FDOT Straight-Line Diagrams (SLDs), Roadway Characteristic Inventory (RCI) and field observations will be used along with the historical crash data, prior reports, and prior studies.

##### *B. Existing and Historical Traffic Data*

The following data will be utilized to fulfill the requirements of the IMR:

###### 1 – 48-hour Volume Counts:

- SR 524, West of W. Friday Road
- SR 524, between W. Friday Road & I-95 SB Ramps
- SR 524, between I-95 NB Ramps & E. Friday Road
- I-95, North of SR 524
- I-95, South of SR 524

###### 2 – 72-hour Classification Counts:

- W. Friday Road, North of SR 524
- W. Friday Road, South of SR 524
- SR 524, East of E. Friday Road
- I-95 NB off ramp to SR 524
- I-95 NB on ramp from SR 524
- I-95 SB off ramp to SR 524
- I-95 SB on ramp from SR 524

# Florida Department of Transportation

## Methodology Letter of Understanding (MLOU)

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3 – 4-hour Turning Movement Volumes:

- SR 524 & W. Friday Road
- SR 524 & I-95 SB Ramps
- SR 524 & I-95 NB Ramps
- SR 524 & E. Friday Road

4 - Travel time data and average speed data for the following segments:

- I-95 mainline, between SR 528 and SR 520
- SR 524 between W. Friday Road and Industry Road

5 - Queue data at the following intersections:

- SR 524 & I-95 SB Ramps
- SR 524 & I-95 NB Ramps

Field visits will be conducted to collect information on existing geometry, storage lengths, traffic signal heads, and to determine/verify signal phasing information, such as protected/permitted left-turn operation, Right-Turn-On-Red (RTOR) restrictions, phase overlaps, etc. The signal timing plans for signalized intersections will be obtained from the maintaining agencies. Aerial photography will be utilized to establish lane configurations and horizontal curvature.

### *C. Land Use Data*

The current land uses within the AOI will be identified through field reviews and aerial photography. Further, comprehensive plans and future land use maps will be used to verify the proposed land uses in the approved regional planning model.

### *D. Environmental Data*

FDOT District 5 has completed the Efficient Transportation Decision Making (ETDM) Environmental Screening Tool (EST) and identified the natural, social and cultural resources within the AOI. A preliminary discussion will be included in the IMR while a detailed analysis will be completed in the ensuing PD&E study.

### *E. Planned and Programmed Projects*

This study will consider programmed and planned roadway improvements in the area and will be consistent with regional transportation plans including the following:

- FDOT Five Year Work Program
- FDOT Strategic Intermodal System (SIS) plans
- Committed improvements from local and private sources
- Adopted Long Range Transportation Plans (LRTPs) and Comprehensive Plans

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### Programmed Projects

- I-95 & SR 524 Interchange Lighting (FPID # - 435054-1, FY 2020 – Construction Phase)
- I-95 & SR 524 Interchange ramps Landscaping (FPID # - 443729-1, FY 2022 – Construction Phase)
- SR 524 from Friday Road to Industry Road (FPID # - 437983-1, FY 2020 – PD&E Phase, FY 2022 - Design)

### Planned Projects

- Six-laning of SR 528 from I-95 to West of SR 401 Bridge (SCTPO LRTP: Years 2026-2030)
- Four-laning of SR 501 (Clearlake Road) from Michigan Avenue to Industry Road (SCTPO LRTP: Years 2021-2025)
- Four-laning of SR 524 from I-95 to Industry Road (SCTPO LRTP: Years 2021-2025)

## 5.0 Travel Demand Forecasting

### A. Selected Travel Demand Model(s)

A Project Traffic Analysis Report (PTAR) submitted in support of the ongoing PD&E study for SR 524 between W. Friday Road and Industry Road (437983-1) was recently approved in July 2019. The subarea model developed as part of the PTAR will be used in this IAR. The subarea model is based on the Central Florida Regional Planning Model (CFRPM) version 6.1 and has a base year of 2015 and horizon year of 2040. However, Socio-economic data for years 2015 and 2045 were provided by FDOT and were used in the CFRPM version 6.1. The FDOT's adopted regional planning model, CFRPM version 6.1, includes the improvements identified within the SCTPO LRTP.

### B. Project Traffic Forecast Development Methodology

*Describe the methodology and assumptions in developing the future year traffic volumes (AADT and DDHV).*

Annual model growth rates will be derived using the base and horizon year model volumes. Annual model growth rates will be compared with historic traffic trends and population forecasts for the project area and an applied annual growth rate will be developed. The applied growth rate and existing traffic volumes will be used to forecast future traffic volumes (AADT). The recommended K and D factors will then be applied to the forecast AADTs to evaluate DDHVs. Future AM and PM peak hour turning movement volumes will be developed consistent with methodologies in the FDOT's 2014 Project Traffic Forecasting Handbook.

### C. Validation Methodology

*Describe the methodology using current FDOT procedures in data collection procedure Identify how modifications to the travel demand forecasting model will be made, including modifications to the facility type and area type for links, modifications to socio-economic data and all input and output modeling files for review.*

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The subarea model validation will follow the procedures outlined in section 3.8 of FDOT's 2014 Project Traffic Forecasting Handbook and Florida Standard Urban Transportation Model Structure (FSUTMS) Model Calibration and Validation Standards.

2015 traffic volumes, for use in the validation, will be obtained from Florida Traffic Online (FTO) and supplemented with SCTPO count data where available. The base year and future year networks will be reviewed.

Should edits be needed, the base and future year roadway network edits will come from the following sources:

- 2015 CFRPM base year roadway network
- 2015 FTO
- 2015 Google Earth historical imagery
- Existing roadway information
- Programmed roadway projects (i.e. first three years of the FDOT work program or first five years of a local government capital improvements element) and
- Planned roadway projects included in the currently adopted SCTPO LRTP

The base and future year roadway land use and employment data will be reviewed and compared with currently available data. The study team will coordinate with City of Cocoa and FDOT to obtain information on the latest approved developments near the study corridor.

#### *D. Adjustment Procedures*

*Identify the process used to adjust modeled future year traffic to the defined analysis years. Discuss how trends/growth-rates will be factored into this.*

The CFRPM 6.1 will be used to develop the base year (2015) and horizon year (2045) model forecasts. Traffic growth rates will be developed based on the results of the travel demand model and will be compared to historical traffic growth rates and projected population growth rates for reasonableness. Design Year (2045) forecast volumes will be developed using approved FDOT forecasting methods and opening year forecast will be estimated by interpolating between the 2019 and 2045 volumes.

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### E. Traffic Factors

- Utilizing recommended ranges identified in the Project Traffic Forecasting Handbook and Procedure (525-030-120).
- Utilizing other factors, identified below.

Roadway	K Factor	D Factor	T Factor	DHT Factor*
I-95	9.00%	55.00%	19.00%	10.00%
I-95 Ramps (NB Off/SB On)	9.00%	55.00%	18.00%	9.00%
I-95 Ramps (NB On/SB Off)	9.00%	55.00%	35.00%	17.50%
SR 524	9.00%	55.00%	18.00%	9.00%
W. Friday Road, N of SR 524	9.00%	Existing	4.40%	2.20%
W. Friday Road, S of SR 524	9.00%	Existing	10.10%	5.00%
E. Friday Road, N of SR 524	9.00%	Existing	7.10%	3.50%
E. Friday Road, S of SR 524	9.00%	Existing	42.50%	21.20%

Source: SR 524 from W. Friday Road to Industry Road – PTAR July 2019 (437983-1).

Notes:

- \* one-half of the T factor.

## 6.0 Traffic Operational Analysis

The area type, traffic conditions, and analysis tools to be used are summarized in this section.

### A. Existing Area Type/Traffic Conditions

Area Type	Conditions	
	Under-saturated	Saturated
Rural	<input type="checkbox"/>	<input type="checkbox"/>
Urban Areas/Transitioning Urbanized Areas	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Urbanized Areas/Central Business District (CBD)	<input type="checkbox"/>	<input type="checkbox"/>

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### B. Traffic Analysis Software Used

Software		System Component					
		Freeways				Cross Road	
Name	Version	Basic Segment	Weaving	Ramp Merge	Ramp Diverge	Arterials	Intersections
LOSPLAN		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
HCS/HCM	7/6	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Synchro	10.0	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
SimTraffic		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
CORSIM		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
VISSIM		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Other		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

### C. Calibration

- Calibration methodology and parameters utilized will be documented. Any deviations will be justified.

### D. Selection of Measures of Effectiveness (MOE)

- The Level of Service criteria for each roadway classification, including mainline, ramps, ramp terminal intersections and the cross road beyond the interchange ramp terminal intersections are identified below.

Level of Service Targets per the State Highway System, Policy No. 000-525-006c, effective April 19, 2017 and SCTPO – Segments Functional Classification, Maximum Acceptable Volume and Level of Service document are summarized below:

- I-95 Mainline and Ramps: LOS D
- Arterial Facilities: LOS D

Freeway segments (basic, merge/diverge, and weave) and intersections will be evaluated following Highway Capacity Manual (HCM) Level of Service (LOS) guidelines. LOS is based on density and average delay for freeway segments and intersections, respectively. Capacity for ramp roadways will also be evaluated.

- Freeway segments (basic, merge/diverge, and weave) – Density & LOS
- Intersections – Delay, LOS, & 95<sup>th</sup> percentile queue lengths



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- *In addition to the Level of Service criteria, state other operational criteria to be utilized for the evaluation of alternatives.*

### 7.0 Safety Analysis

A. *Detailed crash data within the study area will be analyzed and documented.*

Years: 2014 – 2018  
Source: FDOT Crash Analysis Reporting System (CARS)

B. *Identify the level of safety analysis to be performed, along with any software and tools to be used.*

Highway Safety Manual (HSM) methodologies will be utilized to assess the geometric and traffic control options for the roadway intersection/segments in the study area. The safety analysis will be performed for the most recently FDOT-approved five years of crash data.

Safety analysis will document crash rate, crash patterns, crash types, and their contributing causes for existing conditions and will provide safety impact (positive or negative) of the proposed improvements for the design year. Due to the unique geometric configuration and operational plan being proposed, the application of HSM methodologies is limited. HSM methodologies will be explored for applicability to the proposed alternative.

### 8.0 Consistency with Other Plans/Projects

A. *The request will be reviewed for consistency with facility Master Plans, Actions Plans, SIS Plan, MPO Long Range Transportation Plans, Local Government Comprehensive Plans or development applications, etc.*

The IMR will consider all programmed and planned roadway improvements within the project AOI.

B. *Where the request is inconsistent with any plan, steps to bring the plan into consistency will be developed.*

The IMR will ensure consistency with the transportation plans within the project AOI.

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- C. *The operational relationship of this request to the other interchanges will be reviewed and documented. The following other IARs are located within the area of influence.*

At this point, modifications at the adjacent interchanges are not programmed or planned.

### 9.0 Environmental Considerations

- A. *Status of Environmental Approval and permitting process.*

Environmental approval and permitting process will be documented in the PD&E part of the study.

- B. *Identify the environmental considerations that could influence the outcome of the alternative development and selection process.*

Any adverse effects to archeological or historical resources or endangered species could influence the selection of a preferred alternative as well as the occurrence of contamination in the project area.

### 10.0 Coordination

Yes	No	N/A	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	An appropriate effort of coordination will be made with appropriate proposed developments in the area.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Request will identify and include (if applicable) a commitment to complete the other non-interchange/non-intersection improvements that are necessary for the interchange/intersection to function as proposed.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Request will document whether the project requires financial or infrastructure commitments from other agencies, organizations, or private entities.
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Request will document any pre-condition contingencies required in regards to the timing of other improvements and their inclusion in a TIP/STIP/LRTP prior to the Interstate access acceptance (final approval of NEPA document).
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Request will document the funding and phasing.

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### 11.0 Anticipated Design Exceptions and Variations

- Design exceptions/variations shall be processed as per FHWA and FDOT standards.
- The following exceptions/variations to FDOT, AASHTO or FHWA rules, policies, standards, criteria or procedures have been identified:

### 12.0 Conceptual Signing Plan

A conceptual signing and marking plan shall be prepared and included in the access request.

### 13.0 Access Management Plan

- Access management plan within the area of influence will not be changed by the proposed improvements to the interchange.
- The improvement will affect access management within the area of influence will be changed. An access management plan will be developed within the area of influence to complement the improvements to the interchange.

### 14.0 FHWA Policy Points

Current FHWA policy focuses on SO&E Acceptability of the proposed change, while deferring to the NEPA process to examine and document the potential for impacts to the natural, physical, and social environment. The subject IMR will address FHWA's two policy points as briefly summarized here, and further detailed within the FDOT Interchange Access Requests User's Guide:

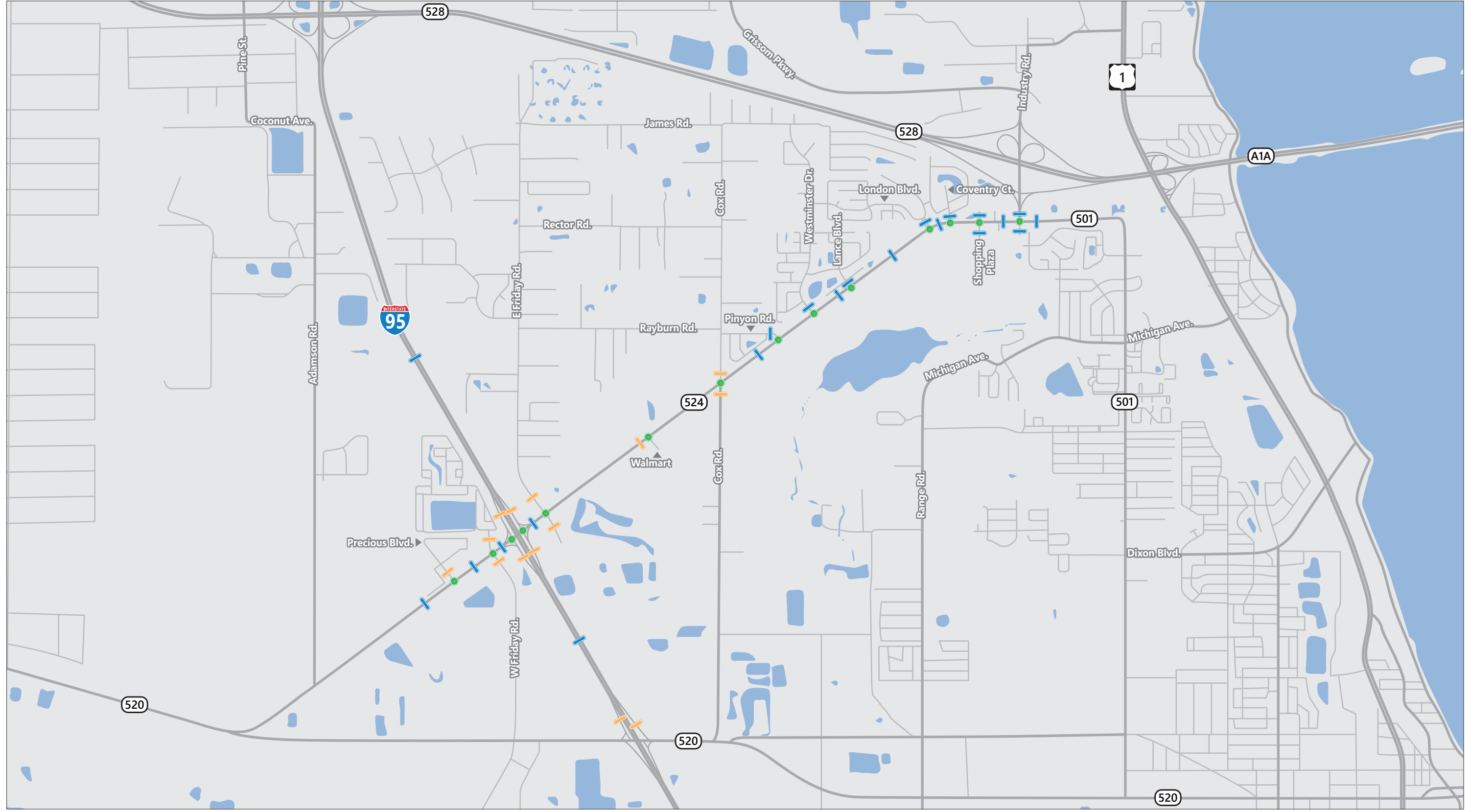
- FHWA Policy Point #1: An operational and safety analysis has concluded the proposed change in access does not have a significant adverse impact on the safety and operation of the Interstate facility, or on the local street network based on both the current and the planned future traffic projections.
- FHWA Policy Point #2: The proposed access connects to a public road only and will provide for all traffic movements.




These FHWA Policy Points serve as the primary decision criteria to be satisfied in justifying the need for a new or modified access to the interstate system. The responses to each of these policy points will demonstrate the viability of the proposed interchange modification with supporting conceptual design, operational, and safety evaluations following the methodologies outlined herein.


# **Appendix B**

## Existing Traffic Data

# Existing Traffic Data



-  6 hour TMC
-  48 Hour Volume Count
-  72 Hour Class Count

 **Figure 3**  
Traffic Count Locations  
SR 524 PTAR

# Traffic Count Data

*Vanasse Hangen Brustlin, Inc.*

PROJECT	SR 524 DTTM
LOCATION CODE	2
COUNT LOCATION	SR 524, b/w Precious Blvd & W. Friday Rd
VHB PROJECT #	62954.32
Equipment ID	90

**TYPE OF COUNT:** 48-Hour APPROACH VOLUME COUNT

**TIME OF COUNT:**

<b>Start Date</b>	January 22, 2019	<b>Start Time</b>	12:00 AM
<b>End Date</b>	January 24, 2019	<b>End Time</b>	12:00 AM

**VOLUME AVERAGES**

	Total	EB	WB
ADT	7,267	3,695	3,572
Peak Hour	3:45 PM	to	4:45 PM
	Peak Hour Total	EB	WB
	634	250	384

**MEASURED TRAVEL CHARACTERISTICS**

\*Peak to Daily Ratio\*

K = 8.72%                      D = 60.6%

# Hourly Distribution of Traffic Volumes

*Vanasse Hangen Brustlin, Inc.*

PROJECT	SR 524 DTTM
LOCATION CODE	2
COUNT LOCATION	SR 524, b/w Precious Blvd & W. Friday Rd
VHB PROJECT #	62954.32
Equipment ID	90

HOUR END AT	HOURLY VOLUME DIRECTION (EB)	HOURLY VOLUME DIRECTION (WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (EB)	DISTRIBUTION PERCENT DIRECTION (WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	14	26	40	0.38%	0.73%	0.55%
2:00 AM	14	12	26	0.38%	0.34%	0.36%
3:00 AM	10	8	18	0.27%	0.22%	0.25%
4:00 AM	18	6	24	0.49%	0.17%	0.33%
5:00 AM	33	15	48	0.89%	0.42%	0.66%
6:00 AM	89	46	135	2.41%	1.29%	1.86%
7:00 AM	220	115	335	5.95%	3.22%	4.61%
8:00 AM	380	135	515	10.28%	3.78%	7.09%
9:00 AM	312	218	530	8.44%	6.10%	7.29%
10:00 AM	252	185	437	6.82%	5.18%	6.01%
11:00 AM	215	180	395	5.82%	5.04%	5.44%
12:00 PM	237	211	448	6.41%	5.91%	6.16%
1:00 PM	234	245	479	6.33%	6.86%	6.59%
2:00 PM	243	232	475	6.58%	6.49%	6.54%
3:00 PM	248	249	497	6.71%	6.97%	6.84%
4:00 PM	267	314	581	7.23%	8.79%	8.00%
5:00 PM	247	370	617	6.68%	10.36%	8.49%
6:00 PM	245	348	593	6.63%	9.74%	8.16%
7:00 PM	163	240	403	4.41%	6.72%	5.55%
8:00 PM	88	153	241	2.38%	4.28%	3.32%
9:00 PM	65	111	176	1.76%	3.11%	2.42%
10:00 PM	50	82	132	1.35%	2.30%	1.82%
11:00 PM	31	38	69	0.84%	1.06%	0.95%
12:00 AM	20	33	53	0.54%	0.92%	0.73%
<b>TOTALS</b>	<b>3,695</b>	<b>3,572</b>	<b>7,267</b>	<b>99.98%</b>	<b>100.00%</b>	<b>100.00%</b>



## Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : January 22, 2019      Start Time      00:00  
 Stop Date : January 22, 2019      Stop Time      24:00  
 County : Brevard  
 Location : SR 524, b/w Precious Blvd & W. Friday Rd

VHB Project #: 62954.32

### 22-Jan-19

#### Eastbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	4	0	1	3	3	12	36	71	93	75	54	73
30	2	3	3	5	4	27	54	93	86	58	49	60
45	0	7	2	6	9	15	59	119	81	52	57	54
00	3	1	2	3	17	35	70	101	55	71	50	73
<b>Hr Total</b>	<b>9</b>	<b>11</b>	<b>8</b>	<b>17</b>	<b>33</b>	<b>89</b>	<b>219</b>	<b>384</b>	<b>315</b>	<b>256</b>	<b>210</b>	<b>260</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	52	58	59	64	67	58	63	33	24	13	13	5
30	62	57	57	63	51	61	37	18	21	11	0	4
45	61	55	61	80	77	74	32	16	8	9	6	6
00	45	47	71	68	64	59	26	24	13	13	9	3
<b>Hr Total</b>	<b>220</b>	<b>217</b>	<b>248</b>	<b>275</b>	<b>259</b>	<b>252</b>	<b>158</b>	<b>91</b>	<b>66</b>	<b>46</b>	<b>28</b>	<b>18</b>

24 Hour Total : 3,689  
 AM Peak Hour begins : 7:15      AM Peak Volume : 406      AM Peak Hour Factor : 0.85  
 PM Peak Hour begins : 14:45      PM Peak Volume : 278      PM Peak Hour Factor : 0.87

### 22-Jan-19

#### Westbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	9	1	0	1	1	9	22	39	63	55	51	44
30	7	1	1	0	3	9	16	26	44	40	38	64
45	3	3	3	4	5	13	41	27	57	45	52	47
00	5	1	4	1	1	15	34	34	51	39	39	56
<b>Hr Total</b>	<b>24</b>	<b>6</b>	<b>8</b>	<b>6</b>	<b>10</b>	<b>46</b>	<b>113</b>	<b>126</b>	<b>215</b>	<b>179</b>	<b>180</b>	<b>211</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	54	61	52	69	93	92	76	49	29	20	11	16
30	54	51	60	71	119	105	75	34	26	27	10	6
45	68	50	59	83	96	78	43	42	30	26	6	7
00	61	61	63	96	82	85	50	34	33	15	9	6
<b>Hr Total</b>	<b>237</b>	<b>223</b>	<b>234</b>	<b>319</b>	<b>390</b>	<b>360</b>	<b>244</b>	<b>159</b>	<b>118</b>	<b>88</b>	<b>36</b>	<b>35</b>

24 Hour Total : 3,567  
 AM Peak Hour begins : 8:00      AM Peak Volume : 215      AM Peak Hour Factor : 0.85  
 PM Peak Hour begins : 15:45      PM Peak Volume : 404      PM Peak Hour Factor : 0.85

### 22-Jan-19

#### Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	13	1	1	4	4	21	58	110	156	130	105	117
30	9	4	4	5	7	36	70	119	130	98	87	124
45	3	10	5	10	14	28	100	146	138	97	109	101
00	8	2	6	4	18	50	104	135	106	110	89	129
<b>Hr Total</b>	<b>33</b>	<b>17</b>	<b>16</b>	<b>23</b>	<b>43</b>	<b>135</b>	<b>332</b>	<b>510</b>	<b>530</b>	<b>435</b>	<b>390</b>	<b>471</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	106	119	111	133	160	150	139	82	53	33	24	21
30	116	108	117	134	170	166	112	52	47	38	10	10
45	129	105	120	163	173	152	75	58	38	35	12	13
00	106	108	134	164	146	144	76	58	46	28	18	9
<b>Hr Total</b>	<b>457</b>	<b>440</b>	<b>482</b>	<b>594</b>	<b>649</b>	<b>612</b>	<b>402</b>	<b>250</b>	<b>184</b>	<b>134</b>	<b>64</b>	<b>53</b>

24 Hour Total : 7,256  
 AM Peak Hour begins : 7:30      AM Peak Volume : 567      AM Peak Hour Factor : 0.91  
 PM Peak Hour begins : 15:45      PM Peak Volume : 667      PM Peak Hour Factor : 0.96

## Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : January 23, 2019      Start Time      00:00  
 Stop Date : January 23, 2019      Stop Time      24:00  
 County : Brevard  
 Location : SR 524, b/w Precious Blvd & W. Friday Rd

VHB Project #: 62954.32

### 24-Jan-19

#### Eastbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	7	5	7	3	6	14	48	73	102	70	48	49
30	3	4	1	7	5	20	55	93	91	59	51	55
45	4	4	3	4	8	21	49	121	67	65	54	48
00	2	1	0	4	11	33	68	89	46	50	65	60
<b>Hr Total</b>	<b>16</b>	<b>14</b>	<b>11</b>	<b>18</b>	<b>30</b>	<b>88</b>	<b>220</b>	<b>376</b>	<b>306</b>	<b>244</b>	<b>218</b>	<b>212</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	78	55	60	74	55	71	55	20	18	12	9	8
30	51	64	32	68	71	44	43	23	14	8	7	3
45	61	75	94	65	60	60	49	22	9	16	6	5
00	57	72	58	49	47	61	20	17	20	14	11	2
<b>Hr Total</b>	<b>247</b>	<b>266</b>	<b>244</b>	<b>256</b>	<b>233</b>	<b>236</b>	<b>167</b>	<b>82</b>	<b>61</b>	<b>50</b>	<b>33</b>	<b>18</b>

24 Hour Total : 3,646  
 AM Peak Hour begins : 7:15      AM Peak Volume : 405      AM Peak Hour Factor : 0.84  
 PM Peak Hour begins : 14:30      PM Peak Volume : 294      PM Peak Hour Factor : 0.78

### 24-Jan-19

#### Westbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	15	3	1	0	2	7	22	33	52	35	44	43
30	4	9	1	0	6	5	20	28	52	45	41	59
45	2	4	4	1	7	17	35	41	48	63	47	64
00	5	0	0	2	3	17	39	42	66	47	45	41
<b>Hr Total</b>	<b>26</b>	<b>16</b>	<b>6</b>	<b>3</b>	<b>18</b>	<b>46</b>	<b>116</b>	<b>144</b>	<b>218</b>	<b>190</b>	<b>177</b>	<b>207</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	78	65	74	74	79	85	75	40	30	18	19	10
30	49	74	59	62	90	86	56	46	29	23	9	4
45	65	48	61	74	97	86	61	28	19	16	7	10
00	59	53	68	96	82	76	42	32	22	18	3	5
<b>Hr Total</b>	<b>251</b>	<b>240</b>	<b>262</b>	<b>306</b>	<b>348</b>	<b>333</b>	<b>234</b>	<b>146</b>	<b>100</b>	<b>75</b>	<b>38</b>	<b>29</b>

24 Hour Total : 3,529  
 AM Peak Hour begins : 8:00      AM Peak Volume : 218      AM Peak Hour Factor : 0.83  
 PM Peak Hour begins : 15:45      PM Peak Volume : 362      PM Peak Hour Factor : 0.93

### 24-Jan-19

#### Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	22	8	8	3	8	21	70	106	154	105	92	92
30	7	13	2	7	11	25	75	121	143	104	92	114
45	6	8	7	5	15	38	84	162	115	128	101	112
00	7	1	0	6	14	50	107	131	112	97	110	101
<b>Hr Total</b>	<b>42</b>	<b>30</b>	<b>17</b>	<b>21</b>	<b>48</b>	<b>134</b>	<b>336</b>	<b>520</b>	<b>524</b>	<b>434</b>	<b>395</b>	<b>419</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	156	120	134	148	134	156	130	60	48	30	28	18
30	100	138	91	130	161	130	99	69	43	31	16	7
45	126	123	155	139	157	146	110	50	28	32	13	15
00	116	125	126	145	129	137	62	49	42	32	14	7
<b>Hr Total</b>	<b>498</b>	<b>506</b>	<b>506</b>	<b>562</b>	<b>581</b>	<b>569</b>	<b>401</b>	<b>228</b>	<b>161</b>	<b>125</b>	<b>71</b>	<b>47</b>

24 Hour Total : 7,175  
 AM Peak Hour begins : 7:30      AM Peak Volume : 590      AM Peak Hour Factor : 0.91  
 PM Peak Hour begins : 16:15      PM Peak Volume : 603      PM Peak Hour Factor : 0.94

# Traffic Count Data

*Vanasse Hangen Brustlin, Inc.*

PROJECT	SR 524 DTTM
LOCATION CODE	3
COUNT LOCATION	SR 524, b/w W. Friday Rd & I-95 SB Ramps
VHB PROJECT #	62954.32
Equipment ID	15

**TYPE OF COUNT:** 48-Hour APPROACH VOLUME COUNT

**TIME OF COUNT:**

<b>Start Date</b>	January 29, 2019	<b>Start Time</b>	12:00 AM
<b>End Date</b>	January 31, 2019	<b>End Time</b>	12:00 AM

**VOLUME AVERAGES**

	<b>Total</b>		<b>EB</b>		<b>WB</b>
ADT	10,088		5,092		4,996
Peak Hour	4:15 PM	to	5:15 PM		
	<b>Peak Hour Total</b>		<b>EB</b>		<b>WB</b>
	911		374		537

**MEASURED TRAVEL CHARACTERISTICS**

\*Peak to Daily Ratio\*

K = 9.03%                      D = 59.0%

# Hourly Distribution of Traffic Volumes

*Vanasse Hangen Brustlin, Inc.*

PROJECT	SR 524 DTTM
LOCATION CODE	3
COUNT LOCATION	SR 524, b/w W. Friday Rd & I-95 SB Ramps
VHB PROJECT #	62954.32
Equipment ID	15

HOURLY END AT	HOURLY VOLUME DIRECTION (EB)	HOURLY VOLUME DIRECTION (WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (EB)	DISTRIBUTION PERCENT DIRECTION (WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	15	30	45	0.29%	0.60%	0.45%
2:00 AM	17	18	35	0.33%	0.36%	0.35%
3:00 AM	17	15	32	0.33%	0.30%	0.32%
4:00 AM	29	15	44	0.57%	0.30%	0.44%
5:00 AM	40	27	67	0.79%	0.54%	0.66%
6:00 AM	134	55	189	2.63%	1.10%	1.87%
7:00 AM	304	121	425	5.97%	2.42%	4.21%
8:00 AM	495	191	686	9.72%	3.82%	6.80%
9:00 AM	412	259	671	8.09%	5.18%	6.65%
10:00 AM	343	222	565	6.74%	4.44%	5.60%
11:00 AM	294	303	597	5.77%	6.06%	5.92%
12:00 PM	315	306	621	6.19%	6.12%	6.16%
1:00 PM	339	329	668	6.66%	6.59%	6.62%
2:00 PM	342	327	669	6.72%	6.55%	6.63%
3:00 PM	329	346	675	6.46%	6.93%	6.69%
4:00 PM	355	422	777	6.97%	8.45%	7.70%
5:00 PM	354	521	875	6.95%	10.43%	8.67%
6:00 PM	365	528	893	7.17%	10.57%	8.85%
7:00 PM	233	338	571	4.58%	6.77%	5.66%
8:00 PM	127	213	340	2.49%	4.26%	3.37%
9:00 PM	87	166	253	1.71%	3.32%	2.51%
10:00 PM	62	112	174	1.22%	2.24%	1.72%
11:00 PM	49	80	129	0.96%	1.60%	1.28%
12:00 AM	35	52	87	0.69%	1.04%	0.86%
<b>TOTALS</b>	<b>5,092</b>	<b>4,996</b>	<b>10,088</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

## Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : January 29, 2019      Start Time      00:00  
 Stop Date : January 29, 2019      Stop Time      24:00  
 County : Brevard  
 Location : SR 524, b/w W. Friday Rd & I-95 SB Ramps

VHB Project #: 62954.32

**29-Jan-19**

**Eastbound Volume for Lane 1**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	5	4	4	7	7	21	49	110	94	91	72	79
30	8	7	2	6	11	31	77	107	115	93	79	90
45	0	6	7	11	5	35	94	129	86	83	82	73
00	1	1	3	4	14	45	90	141	87	90	71	78
<b>Hr Total</b>	<b>14</b>	<b>18</b>	<b>16</b>	<b>28</b>	<b>37</b>	<b>132</b>	<b>310</b>	<b>487</b>	<b>382</b>	<b>357</b>	<b>304</b>	<b>320</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	84	97	86	99	85	99	87	38	20	15	18	11
30	93	99	98	82	95	100	64	28	34	16	7	8
45	79	85	75	79	87	91	45	28	14	14	9	11
00	88	76	89	86	87	68	53	31	13	15	18	5
<b>Hr Total</b>	<b>344</b>	<b>357</b>	<b>348</b>	<b>346</b>	<b>354</b>	<b>358</b>	<b>249</b>	<b>125</b>	<b>81</b>	<b>60</b>	<b>52</b>	<b>35</b>

24 Hour Total : 5,114  
 AM Peak Hour begins : 7:00      AM Peak Volume : 487      AM Peak Hour Factor : 0.86  
 PM Peak Hour begins : 16:45      PM Peak Volume : 377      PM Peak Hour Factor : 0.94

**29-Jan-19**

**Westbound Volume for Lane 2**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	8	4	4	5	3	10	19	48	56	51	69	69
30	6	8	6	2	5	12	21	52	66	46	65	84
45	3	7	4	4	7	21	27	79	69	69	82	73
00	10	4	1	5	9	13	48	62	63	68	87	65
<b>Hr Total</b>	<b>27</b>	<b>23</b>	<b>15</b>	<b>16</b>	<b>24</b>	<b>56</b>	<b>115</b>	<b>189</b>	<b>264</b>	<b>234</b>	<b>303</b>	<b>291</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	78	87	84	89	121	148	93	63	46	38	18	18
30	90	74	86	95	148	124	95	45	42	32	30	14
45	78	92	87	110	126	119	74	43	33	31	23	10
00	89	83	108	136	118	119	72	44	39	22	17	12
<b>Hr Total</b>	<b>335</b>	<b>336</b>	<b>365</b>	<b>430</b>	<b>513</b>	<b>510</b>	<b>334</b>	<b>195</b>	<b>160</b>	<b>123</b>	<b>88</b>	<b>54</b>

24 Hour Total : 5,000  
 AM Peak Hour begins : 10:30      AM Peak Volume : 322      AM Peak Hour Factor : 0.93  
 PM Peak Hour begins : 16:15      PM Peak Volume : 540      PM Peak Hour Factor : 0.91

**29-Jan-19**

**Total Volume for All Lanes**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	13	8	8	12	10	31	68	158	150	142	141	148
30	14	15	8	8	16	43	98	159	181	139	144	174
45	3	13	11	15	12	56	121	156	165	152	164	146
00	11	5	4	9	23	58	138	203	150	158	158	143
<b>Hr Total</b>	<b>41</b>	<b>41</b>	<b>31</b>	<b>44</b>	<b>61</b>	<b>188</b>	<b>425</b>	<b>676</b>	<b>646</b>	<b>591</b>	<b>607</b>	<b>611</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	162	184	170	188	206	247	180	101	66	53	36	29
30	183	173	184	177	243	224	159	73	76	48	37	22
45	157	177	162	189	213	210	119	71	47	45	32	21
00	177	159	197	222	205	187	125	75	52	37	35	17
<b>Hr Total</b>	<b>679</b>	<b>693</b>	<b>713</b>	<b>776</b>	<b>867</b>	<b>868</b>	<b>583</b>	<b>320</b>	<b>241</b>	<b>183</b>	<b>140</b>	<b>89</b>

24 Hour Total : 10,114  
 AM Peak Hour begins : 7:45      AM Peak Volume : 699      AM Peak Hour Factor : 0.86  
 PM Peak Hour begins : 16:15      PM Peak Volume : 908      PM Peak Hour Factor : 0.92

## Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : January 30, 2019      Start Time      00:00  
 Stop Date : January 30, 2019      Stop Time      24:00  
 County : Brevard  
 Location : SR 524, b/w W. Friday Rd & I-95 SB Ramps

VHB Project #: 62954.32

31-Jan-19		Eastbound Volume for Lane 1											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	3	2	7	5	7	22	43	105	122	77	61	73	
30	5	3	5	8	9	34	78	114	107	89	58	80	
45	4	5	3	11	10	33	77	143	114	78	66	77	
00	3	4	1	5	15	44	98	138	98	83	96	80	
<b>Hr Total</b>	<b>15</b>	<b>14</b>	<b>16</b>	<b>29</b>	<b>41</b>	<b>133</b>	<b>296</b>	<b>500</b>	<b>441</b>	<b>327</b>	<b>281</b>	<b>310</b>	

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	83	91	78	103	72	98	52	31	29	20	16	9
30	73	76	74	83	92	101	64	24	18	17	12	11
45	98	79	73	80	101	93	52	41	26	14	9	9
00	77	79	85	96	86	78	47	31	19	10	8	5
<b>Hr Total</b>	<b>331</b>	<b>325</b>	<b>310</b>	<b>362</b>	<b>351</b>	<b>370</b>	<b>215</b>	<b>127</b>	<b>92</b>	<b>61</b>	<b>45</b>	<b>34</b>

24 Hour Total : 5,026  
 AM Peak Hour begins : 7:15      AM Peak Volume : 517      AM Peak Hour Factor : 0.90  
 PM Peak Hour begins : 16:30      PM Peak Volume : 386      PM Peak Hour Factor : 0.96

31-Jan-19		Westbound Volume for Lane 2											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	12	2	2	3	5	12	20	42	62	47	75	71	
30	2	3	10	2	7	11	24	45	68	50	75	90	
45	8	1	1	5	4	12	33	49	66	60	78	82	
00	9	5	1	2	12	16	48	56	57	51	74	76	
<b>Hr Total</b>	<b>31</b>	<b>11</b>	<b>14</b>	<b>12</b>	<b>28</b>	<b>51</b>	<b>125</b>	<b>192</b>	<b>253</b>	<b>208</b>	<b>302</b>	<b>319</b>	

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	79	82	78	87	123	127	94	54	44	33	27	16
30	96	94	87	112	134	143	88	71	49	22	20	15
45	80	63	75	106	151	140	78	55	42	20	8	12
00	67	77	85	108	120	132	79	49	35	23	14	6
<b>Hr Total</b>	<b>322</b>	<b>316</b>	<b>325</b>	<b>413</b>	<b>528</b>	<b>542</b>	<b>339</b>	<b>229</b>	<b>170</b>	<b>98</b>	<b>69</b>	<b>49</b>

24 Hour Total : 4,946  
 AM Peak Hour begins : 11:00      AM Peak Volume : 319      AM Peak Hour Factor : 0.89  
 PM Peak Hour begins : 17:00      PM Peak Volume : 542      PM Peak Hour Factor : 0.95

31-Jan-19		Total Volume for All Lanes											
End Time	00	01	02	03	04	05	06	07	08	09	10	11	
15	15	4	9	8	12	34	63	147	184	124	136	144	
30	7	6	15	10	16	45	102	159	175	139	133	170	
45	12	6	4	16	14	45	110	192	180	138	144	159	
00	12	9	2	7	27	60	146	194	155	134	170	156	
<b>Hr Total</b>	<b>46</b>	<b>25</b>	<b>30</b>	<b>41</b>	<b>69</b>	<b>184</b>	<b>421</b>	<b>692</b>	<b>694</b>	<b>535</b>	<b>583</b>	<b>629</b>	

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	162	173	156	190	195	225	146	85	73	53	43	25
30	169	170	161	195	226	244	152	95	67	39	32	26
45	178	142	148	186	252	233	130	96	68	34	17	21
00	144	156	170	204	206	210	126	80	54	33	22	11
<b>Hr Total</b>	<b>653</b>	<b>641</b>	<b>635</b>	<b>775</b>	<b>879</b>	<b>912</b>	<b>554</b>	<b>356</b>	<b>262</b>	<b>159</b>	<b>114</b>	<b>83</b>

24 Hour Total : 9,972  
 AM Peak Hour begins : 7:30      AM Peak Volume : 745      AM Peak Hour Factor : 0.96  
 PM Peak Hour begins : 16:30      PM Peak Volume : 927      PM Peak Hour Factor : 0.92

# Traffic Count Data

*Vanasse Hangen Brustlin, Inc.*

<b>PROJECT</b>	SR 524 DTTM
<b>LOCATION CODE</b>	4
<b>COUNT LOCATION</b>	SR 524, b/w I-95 NB Ramps & E. Friday Rd
<b>VHB PROJECT #</b>	62954.32
<b>Equipment ID</b>	86

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**TYPE OF COUNT:** 48-Hour APPROACH VOLUME COUNT

**TIME OF COUNT:**

<b>Start Date</b>	January 22, 2019	<b>Start Time</b>	12:00 AM
<b>End Date</b>	January 24, 2019	<b>End Time</b>	12:00 AM

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**VOLUME AVERAGES**

	Total	EB	WB
ADT	18,905	9,496	9,409
Peak Hour	4:45 PM to	5:45 PM	
	<b>Peak Hour Total</b>	<b>EB</b>	<b>WB</b>
	1,450	698	752

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**MEASURED TRAVEL CHARACTERISTICS**

\*Peak to Daily Ratio\*

**K =** 7.67%                      **D =** 51.9%

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# Hourly Distribution of Traffic Volumes

*Vanasse Hangen Brustlin, Inc.*

<b>PROJECT</b>	SR 524 DTTM
<b>LOCATION CODE</b>	4
<b>COUNT LOCATION</b>	SR 524, b/w I-95 NB Ramps & E. Friday Rd
<b>VHB PROJECT #</b>	62954.32
<b>Equipment ID</b>	86

HOUR END AT	HOURLY VOLUME DIRECTION (EB)	HOURLY VOLUME DIRECTION (WB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (EB)	DISTRIBUTION PERCENT DIRECTION (WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	106	122	228	1.12%	1.30%	1.21%
2:00 AM	95	90	185	1.00%	0.96%	0.98%
3:00 AM	107	101	208	1.13%	1.07%	1.10%
4:00 AM	130	67	197	1.37%	0.71%	1.04%
5:00 AM	134	116	250	1.41%	1.23%	1.32%
6:00 AM	260	230	490	2.74%	2.44%	2.59%
7:00 AM	400	387	787	4.21%	4.11%	4.16%
8:00 AM	628	658	1,286	6.61%	6.99%	6.80%
9:00 AM	547	622	1,169	5.76%	6.61%	6.18%
10:00 AM	534	545	1,079	5.62%	5.79%	5.71%
11:00 AM	483	504	987	5.09%	5.36%	5.22%
12:00 PM	581	528	1,109	6.12%	5.61%	5.87%
1:00 PM	610	624	1,234	6.42%	6.63%	6.53%
2:00 PM	548	579	1,127	5.77%	6.15%	5.96%
3:00 PM	616	573	1,189	6.49%	6.09%	6.29%
4:00 PM	649	652	1,301	6.83%	6.93%	6.88%
5:00 PM	699	657	1,356	7.36%	6.98%	7.17%
6:00 PM	667	743	1,410	7.02%	7.90%	7.46%
7:00 PM	508	494	1,002	5.35%	5.25%	5.30%
8:00 PM	395	337	732	4.16%	3.58%	3.87%
9:00 PM	268	285	553	2.82%	3.03%	2.93%
10:00 PM	234	199	433	2.46%	2.11%	2.29%
11:00 PM	165	166	331	1.74%	1.76%	1.75%
12:00 AM	132	130	262	1.39%	1.38%	1.39%
TOTALS	9,496	9,409	18,905	99.99%	100.00%	100.00%



## Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : January 22, 2019      Start Time      00:00  
 Stop Date : January 22, 2019      Stop Time      24:00  
 County : Brevard  
 Location : SR 524, b/w I-95 NB Ramps & E. Friday Rd

VHB Project #: 62954.32

**22-Jan-19**

**Eastbound Volume for Lane 1**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	36	26	30	23	35	53	70	156	139	136	103	155
30	27	13	25	27	31	68	96	152	138	118	111	162
45	24	23	18	39	32	48	97	168	141	129	121	156
00	33	26	27	29	30	84	143	184	124	129	107	136
<b>Hr Total</b>	<b>120</b>	<b>88</b>	<b>100</b>	<b>118</b>	<b>128</b>	<b>253</b>	<b>406</b>	<b>660</b>	<b>542</b>	<b>512</b>	<b>442</b>	<b>609</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	163	119	135	149	199	175	141	125	79	62	62	20
30	140	148	155	146	196	168	114	83	82	44	39	30
45	144	150	174	155	139	163	125	77	55	77	38	44
00	129	131	154	169	191	137	106	93	68	51	40	31
<b>Hr Total</b>	<b>576</b>	<b>548</b>	<b>618</b>	<b>619</b>	<b>725</b>	<b>643</b>	<b>486</b>	<b>378</b>	<b>284</b>	<b>234</b>	<b>179</b>	<b>125</b>

24 Hour Total : 9,393  
 AM Peak Hour begins : 7:00      AM Peak Volume : 660      AM Peak Hour Factor : 0.90  
 PM Peak Hour begins : 16:00      PM Peak Volume : 725      PM Peak Hour Factor : 0.91

**22-Jan-19**

**Westbound Volume for Lane 2**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	30	18	15	16	24	35	53	162	159	151	119	118
30	30	15	25	21	23	53	72	175	177	120	134	147
45	28	24	39	16	28	66	120	197	166	137	122	113
00	41	14	24	13	25	62	112	163	121	132	130	131
<b>Hr Total</b>	<b>129</b>	<b>71</b>	<b>103</b>	<b>66</b>	<b>100</b>	<b>216</b>	<b>357</b>	<b>697</b>	<b>623</b>	<b>540</b>	<b>505</b>	<b>509</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	140	151	133	158	162	195	126	87	71	48	38	40
30	168	127	165	155	176	215	152	80	57	57	56	31
45	140	124	141	172	158	209	89	81	70	48	50	37
00	174	137	151	178	164	142	132	72	77	59	31	30
<b>Hr Total</b>	<b>622</b>	<b>539</b>	<b>590</b>	<b>663</b>	<b>660</b>	<b>761</b>	<b>499</b>	<b>320</b>	<b>275</b>	<b>212</b>	<b>175</b>	<b>138</b>

24 Hour Total : 9,370  
 AM Peak Hour begins : 7:00      AM Peak Volume : 697      AM Peak Hour Factor : 0.89  
 PM Peak Hour begins : 16:45      PM Peak Volume : 783      PM Peak Hour Factor : 0.91

**22-Jan-19**

**Total Volume for All Lanes**

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	66	44	45	39	59	88	123	318	298	287	222	273
30	57	28	50	48	54	121	168	327	315	238	245	309
45	52	47	57	55	60	114	217	365	307	266	243	269
00	74	40	51	42	55	146	255	347	245	261	237	267
<b>Hr Total</b>	<b>249</b>	<b>159</b>	<b>203</b>	<b>184</b>	<b>228</b>	<b>469</b>	<b>763</b>	<b>1,357</b>	<b>1,165</b>	<b>1,052</b>	<b>947</b>	<b>1,118</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	303	270	268	307	361	370	267	212	150	110	100	60
30	308	275	320	301	372	383	266	163	139	101	95	61
45	284	274	315	327	297	372	214	158	125	125	88	81
00	303	268	305	347	355	279	238	165	145	110	71	61
<b>Hr Total</b>	<b>1,198</b>	<b>1,087</b>	<b>1,208</b>	<b>1,282</b>	<b>1,385</b>	<b>1,404</b>	<b>985</b>	<b>698</b>	<b>559</b>	<b>446</b>	<b>354</b>	<b>263</b>

24 Hour Total : 18,763  
 AM Peak Hour begins : 7:00      AM Peak Volume : 1,357      AM Peak Hour Factor : 0.93  
 PM Peak Hour begins : 16:45      PM Peak Volume : 1,480      PM Peak Hour Factor : 0.97

## Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : January 23, 2019      Start Time      00:00  
 Stop Date : January 23, 2019      Stop Time      24:00  
 County : Brevard  
 Location : SR 524, b/w I-95 NB Ramps & E. Friday Rd

VHB Project #: 62954.32

### 24-Jan-19

#### Eastbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	33	26	29	18	30	48	89	134	138	143	124	136
30	15	32	26	33	37	46	94	142	161	141	120	129
45	13	18	32	40	34	67	90	170	120	141	135	128
00	29	24	25	48	38	104	119	149	130	129	143	157
<b>Hr Total</b>	<b>90</b>	<b>100</b>	<b>112</b>	<b>139</b>	<b>139</b>	<b>265</b>	<b>392</b>	<b>595</b>	<b>549</b>	<b>554</b>	<b>522</b>	<b>550</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	170	134	141	143	162	162	138	92	77	64	36	38
30	141	144	147	193	164	159	141	111	76	64	37	36
45	163	119	169	170	158	188	125	88	55	55	42	34
00	166	148	155	171	187	179	123	118	44	50	36	31
<b>Hr Total</b>	<b>640</b>	<b>545</b>	<b>612</b>	<b>677</b>	<b>671</b>	<b>688</b>	<b>527</b>	<b>409</b>	<b>252</b>	<b>233</b>	<b>151</b>	<b>139</b>

24 Hour Total : 9,551  
 AM Peak Hour begins : 7:30      AM Peak Volume : 618      AM Peak Hour Factor : 0.91  
 PM Peak Hour begins : 15:15      PM Peak Volume : 696      PM Peak Hour Factor : 0.90

### 24-Jan-19

#### Westbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	38	23	26	23	29	40	84	142	167	135	122	143
30	19	34	16	15	21	60	81	169	164	146	134	133
45	31	31	25	19	51	79	118	153	178	144	105	146
00	24	18	29	9	28	62	131	155	111	123	140	123
<b>Hr Total</b>	<b>112</b>	<b>106</b>	<b>96</b>	<b>66</b>	<b>129</b>	<b>241</b>	<b>414</b>	<b>619</b>	<b>620</b>	<b>548</b>	<b>501</b>	<b>545</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	141	170	146	147	133	215	140	90	113	57	46	35
30	142	176	138	155	191	172	137	115	66	33	41	26
45	187	143	127	179	147	153	102	83	60	50	34	37
00	153	126	142	157	180	183	107	64	54	44	35	22
<b>Hr Total</b>	<b>623</b>	<b>615</b>	<b>553</b>	<b>638</b>	<b>651</b>	<b>723</b>	<b>486</b>	<b>352</b>	<b>293</b>	<b>184</b>	<b>156</b>	<b>120</b>

24 Hour Total : 9,391  
 AM Peak Hour begins : 7:45      AM Peak Volume : 664      AM Peak Hour Factor : 0.93  
 PM Peak Hour begins : 16:15      PM Peak Volume : 733      PM Peak Hour Factor : 0.85

### 24-Jan-19

#### Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	71	49	55	41	59	88	173	276	305	278	246	279
30	34	66	42	48	58	106	175	311	325	287	254	262
45	44	49	57	59	85	146	208	323	298	285	240	274
00	53	42	54	57	66	166	250	304	241	252	283	280
<b>Hr Total</b>	<b>202</b>	<b>206</b>	<b>208</b>	<b>205</b>	<b>268</b>	<b>506</b>	<b>806</b>	<b>1,214</b>	<b>1,169</b>	<b>1,102</b>	<b>1,023</b>	<b>1,095</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	311	304	287	290	295	377	278	182	190	121	82	73
30	283	320	285	348	355	331	278	226	142	97	78	62
45	350	262	296	349	305	341	227	171	115	105	76	71
00	319	274	297	328	367	362	230	182	98	94	71	53
<b>Hr Total</b>	<b>1,263</b>	<b>1,160</b>	<b>1,165</b>	<b>1,315</b>	<b>1,322</b>	<b>1,411</b>	<b>1,013</b>	<b>761</b>	<b>545</b>	<b>417</b>	<b>307</b>	<b>259</b>

24 Hour Total : 18,942  
 AM Peak Hour begins : 7:30      AM Peak Volume : 1,257      AM Peak Hour Factor : 0.97  
 PM Peak Hour begins : 16:45      PM Peak Volume : 1,416      PM Peak Hour Factor : 0.94

# Traffic Count Data

*Vanasse Hangen Brustlin, Inc.*

<b>PROJECT</b>	SR 524 DTTM
<b>LOCATION CODE</b>	1
<b>COUNT LOCATION</b>	I-95, north of SR 524
<b>VHB PROJECT #</b>	62954.32
<b>Equipment ID</b>	111

**TYPE OF COUNT:** 48-Hour APPROACH VOLUME COUNT

**TIME OF COUNT:**

<b>Start Date</b>	January 29, 2019	<b>Start Time</b>	12:00 AM
<b>End Date</b>	January 31, 2019	<b>End Time</b>	12:00 AM

**VOLUME AVERAGES**

	<b>Total</b>	<b>NB</b>	<b>SB</b>
<b>ADT</b>	73,583	36,511	37,072
<b>Peak Hour</b>	4:30 PM	to	5:30 PM
	<b>Peak Hour Total</b>	<b>NB</b>	<b>SB</b>
	5,651	2,655	2,996

**MEASURED TRAVEL CHARACTERISTICS**

\*Peak to Daily Ratio\*

**K = 7.68%**                      **D = 53.0%**

# Hourly Distribution of Traffic Volumes

*Vanasse Hangen Brustlin, Inc.*

PROJECT	SR 524 DTTM
LOCATION CODE	1
COUNT LOCATION	I-95, north of SR 524
VHB PROJECT #	62954.32
Equipment ID	111

HOUR END AT	HOURLY VOLUME DIRECTION (NB)	HOURLY VOLUME DIRECTION (SB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB)	DISTRIBUTION PERCENT DIRECTION (SB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	337	405	742	0.92%	1.09%	1.01%
2:00 AM	276	311	587	0.76%	0.84%	0.80%
3:00 AM	317	334	651	0.87%	0.90%	0.88%
4:00 AM	442	343	785	1.21%	0.93%	1.07%
5:00 AM	739	536	1,275	2.02%	1.45%	1.73%
6:00 AM	883	983	1,866	2.42%	2.65%	2.54%
7:00 AM	1,943	1,760	3,703	5.32%	4.75%	5.03%
8:00 AM	2,858	2,343	5,201	7.83%	6.32%	7.07%
9:00 AM	2,527	2,272	4,799	6.92%	6.13%	6.52%
10:00 AM	1,804	2,028	3,832	4.94%	5.47%	5.21%
11:00 AM	1,716	2,011	3,727	4.70%	5.42%	5.07%
12:00 PM	1,899	2,121	4,020	5.20%	5.72%	5.46%
1:00 PM	2,270	2,086	4,356	6.22%	5.63%	5.92%
2:00 PM	2,085	2,229	4,314	5.71%	6.01%	5.86%
3:00 PM	2,385	2,332	4,717	6.53%	6.29%	6.41%
4:00 PM	2,364	2,578	4,942	6.47%	6.95%	6.72%
5:00 PM	2,650	2,931	5,581	7.26%	7.91%	7.58%
6:00 PM	2,489	2,983	5,472	6.82%	8.05%	7.44%
7:00 PM	2,035	2,079	4,114	5.57%	5.61%	5.59%
8:00 PM	1,503	1,287	2,790	4.12%	3.47%	3.79%
9:00 PM	1,043	1,183	2,226	2.86%	3.19%	3.03%
10:00 PM	724	817	1,541	1.98%	2.20%	2.09%
11:00 PM	657	636	1,293	1.80%	1.72%	1.76%
12:00 AM	565	484	1,049	1.55%	1.31%	1.43%
<b>TOTALS</b>	<b>36,511</b>	<b>37,072</b>	<b>73,583</b>	<b>100.00%</b>	<b>100.00%</b>	<b>100.00%</b>

## Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : January 29, 2019  
 Stop Date : January 29, 2019  
 County : Brevard  
 Location : I-95, north of SR 524

Start Time : 00:00  
 Stop Time : 24:00

VHB Project #: 62954.32

### 29-Jan-19

#### Northbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	79	72	58	96	165	210	303	597	675	470	410	451
30	74	52	74	89	196	190	470	718	651	462	438	452
45	103	78	89	127	180	210	562	745	608	431	430	472
00	77	70	92	124	193	244	589	768	568	422	419	504
<b>Hr Total</b>	<b>333</b>	<b>272</b>	<b>313</b>	<b>436</b>	<b>734</b>	<b>854</b>	<b>1,924</b>	<b>2,828</b>	<b>2,502</b>	<b>1,785</b>	<b>1,697</b>	<b>1,879</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	531	515	542	536	642	627	548	396	284	202	173	131
30	583	515	576	539	652	671	518	382	270	189	171	163
45	564	515	600	634	636	596	540	369	256	173	144	127
00	568	519	642	629	693	569	407	340	221	152	162	136
<b>Hr Total</b>	<b>2,246</b>	<b>2,064</b>	<b>2,360</b>	<b>2,338</b>	<b>2,623</b>	<b>2,463</b>	<b>2,013</b>	<b>1,487</b>	<b>1,031</b>	<b>716</b>	<b>650</b>	<b>557</b>

24 Hour Total : 36,105  
 AM Peak Hour begins : 7:15  
 PM Peak Hour begins : 16:30

AM Peak Volume : 2,906  
 PM Peak Volume : 2,627  
 AM Peak Hour Factor : 0.95  
 PM Peak Hour Factor : 0.95

### 29-Jan-19

#### Southbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	119	83	93	20	130	183	363	568	614	585	470	511
30	83	85	87	150	116	240	407	573	556	507	471	534
45	69	61	96	43	112	289	468	611	562	470	509	539
00	98	74	77	113	167	311	529	617	594	503	501	575
<b>Hr Total</b>	<b>369</b>	<b>303</b>	<b>353</b>	<b>326</b>	<b>525</b>	<b>1,023</b>	<b>1,767</b>	<b>2,369</b>	<b>2,326</b>	<b>2,065</b>	<b>1,951</b>	<b>2,159</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	503	482	569	604	762	734	615	390	314	215	157	143
30	543	560	544	600	668	784	542	304	411	224	177	129
45	544	557	574	621	715	704	548	222	287	173	164	116
00	511	560	557	711	716	770	433	274	291	170	137	103
<b>Hr Total</b>	<b>2,101</b>	<b>2,159</b>	<b>2,244</b>	<b>2,536</b>	<b>2,861</b>	<b>2,992</b>	<b>2,138</b>	<b>1,190</b>	<b>1,303</b>	<b>782</b>	<b>635</b>	<b>491</b>

24 Hour Total : 36,968  
 AM Peak Hour begins : 7:15  
 PM Peak Hour begins : 17:00

AM Peak Volume : 2,415  
 PM Peak Volume : 2,992  
 AM Peak Hour Factor : 0.98  
 PM Peak Hour Factor : 0.95

### 29-Jan-19

#### Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	198	155	151	116	295	393	666	1,165	1,289	1,055	880	962
30	157	137	161	239	312	430	877	1,291	1,207	969	909	986
45	172	139	185	170	292	499	1,030	1,356	1,170	901	939	1,011
00	175	144	169	237	360	555	1,118	1,385	1,162	925	920	1,079
<b>Hr Total</b>	<b>702</b>	<b>575</b>	<b>666</b>	<b>762</b>	<b>1,259</b>	<b>1,877</b>	<b>3,691</b>	<b>5,197</b>	<b>4,828</b>	<b>3,850</b>	<b>3,648</b>	<b>4,038</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1,034	997	1,111	1,140	1,404	1,361	1,163	786	598	417	330	274
30	1,126	1,075	1,120	1,139	1,320	1,455	1,060	686	681	413	348	292
45	1,108	1,072	1,174	1,255	1,351	1,300	1,088	591	543	346	308	243
00	1,079	1,079	1,199	1,340	1,409	1,339	840	614	512	322	299	239
<b>Hr Total</b>	<b>4,347</b>	<b>4,223</b>	<b>4,604</b>	<b>4,874</b>	<b>5,484</b>	<b>5,455</b>	<b>4,151</b>	<b>2,677</b>	<b>2,334</b>	<b>1,498</b>	<b>1,285</b>	<b>1,048</b>

24 Hour Total : 73,073  
 AM Peak Hour begins : 7:15  
 PM Peak Hour begins : 16:30

AM Peak Volume : 5,321  
 PM Peak Volume : 5,576  
 AM Peak Hour Factor : 0.96  
 PM Peak Hour Factor : 0.96

## Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : January 30, 2019  
 Stop Date : January 30, 2019  
 County : Brevard  
 Location : I-95, north of SR 524

Start Time : 00:00  
 Stop Time : 24:00

VHB Project #: 62954.32

31-Jan-19 Northbound Volume for Lane 1												
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	81	73	59	98	168	192	309	609	689	480	417	460
30	76	53	75	91	200	213	480	733	663	470	447	461
45	105	80	91	130	184	236	572	760	619	440	439	482
00	79	71	94	127	191	269	601	784	580	431	428	514
<b>Hr Total</b>	<b>341</b>	<b>277</b>	<b>319</b>	<b>446</b>	<b>743</b>	<b>910</b>	<b>1,962</b>	<b>2,886</b>	<b>2,551</b>	<b>1,821</b>	<b>1,731</b>	<b>1,917</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	542	525	553	547	655	640	559	404	290	206	177	134
30	595	525	588	550	664	685	529	390	276	193	173	166
45	575	525	612	647	649	608	551	377	261	177	147	130
00	580	530	655	642	707	581	415	347	226	155	165	139
<b>Hr Total</b>	<b>2,292</b>	<b>2,105</b>	<b>2,408</b>	<b>2,386</b>	<b>2,675</b>	<b>2,514</b>	<b>2,054</b>	<b>1,518</b>	<b>1,053</b>	<b>731</b>	<b>662</b>	<b>569</b>

24 Hour Total : 36,871  
 AM Peak Hour begins : 7:15  
 PM Peak Hour begins : 16:30

AM Peak Volume : 2,966  
 PM Peak Volume : 2,681  
 AM Peak Hour Factor : 0.95  
 PM Peak Hour Factor : 0.95

31-Jan-19 Southbound Volume for Lane 2												
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	123	68	89	101	126	176	356	537	580	523	517	513
30	99	65	48	97	115	213	407	595	558	510	491	541
45	113	84	102	75	145	262	502	605	540	496	535	522
00	105	99	75	84	158	288	486	578	540	461	527	505
<b>Hr Total</b>	<b>440</b>	<b>316</b>	<b>314</b>	<b>357</b>	<b>544</b>	<b>939</b>	<b>1,751</b>	<b>2,315</b>	<b>2,218</b>	<b>1,990</b>	<b>2,070</b>	<b>2,081</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	500	540	621	642	727	766	643	392	269	269	186	147
30	522	598	589	642	753	758	497	362	285	222	167	114
45	538	605	608	643	727	776	461	339	254	172	152	106
00	509	556	600	692	792	673	416	289	253	187	130	109
<b>Hr Total</b>	<b>2,069</b>	<b>2,299</b>	<b>2,418</b>	<b>2,619</b>	<b>2,999</b>	<b>2,973</b>	<b>2,017</b>	<b>1,382</b>	<b>1,061</b>	<b>850</b>	<b>635</b>	<b>476</b>

24 Hour Total : 37,133  
 AM Peak Hour begins : 7:15  
 PM Peak Hour begins : 16:45

AM Peak Volume : 2,358  
 PM Peak Volume : 3,092  
 AM Peak Hour Factor : 0.97  
 PM Peak Hour Factor : 0.98

31-Jan-19 Total Volume for All Lanes												
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	204	141	148	199	294	368	665	1,146	1,269	1,003	934	973
30	175	118	123	188	315	426	887	1,328	1,221	980	938	1,002
45	218	164	193	205	329	498	1,074	1,365	1,159	936	974	1,004
00	184	170	169	211	349	557	1,087	1,362	1,120	892	955	1,019
<b>Hr Total</b>	<b>781</b>	<b>593</b>	<b>633</b>	<b>803</b>	<b>1,287</b>	<b>1,849</b>	<b>3,713</b>	<b>5,201</b>	<b>4,769</b>	<b>3,811</b>	<b>3,801</b>	<b>3,998</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1,042	1,065	1,174	1,189	1,382	1,406	1,202	796	559	475	363	281
30	1,117	1,123	1,177	1,192	1,417	1,443	1,026	752	561	415	340	280
45	1,113	1,130	1,220	1,290	1,376	1,384	1,012	716	515	349	299	236
00	1,089	1,086	1,255	1,334	1,499	1,254	831	636	479	342	295	248
<b>Hr Total</b>	<b>4,361</b>	<b>4,404</b>	<b>4,826</b>	<b>5,005</b>	<b>5,674</b>	<b>5,487</b>	<b>4,071</b>	<b>2,900</b>	<b>2,114</b>	<b>1,581</b>	<b>1,297</b>	<b>1,045</b>

24 Hour Total : 74,004  
 AM Peak Hour begins : 7:15  
 PM Peak Hour begins : 16:45

AM Peak Volume : 5,324  
 PM Peak Volume : 5,732  
 AM Peak Hour Factor : 0.98  
 PM Peak Hour Factor : 0.96

# Traffic Count Data

*Vanasse Hangen Brustlin, Inc.*

PROJECT	SR 524 DTTM
LOCATION CODE	1
COUNT LOCATION	I-95, between SR 524 and SR 520
VHB PROJECT #	62954.32
Equipment ID	81

**TYPE OF COUNT:** 48-Hour APPROACH VOLUME COUNT

**TIME OF COUNT:**

<b>Start Date</b>	January 29, 2019	<b>Start Time</b>	12:00 AM
<b>End Date</b>	January 31, 2019	<b>End Time</b>	12:00 AM

**VOLUME AVERAGES**

	<u>Total</u>		<u>NB</u>		<u>SB</u>
ADT	78,677		39,099		39,578
Peak Hour	4:45 PM	to	5:45 PM		
	<u>Peak Hour Total</u>		<u>NB</u>		<u>SB</u>
	6,162		2,966		3,196

**MEASURED TRAVEL CHARACTERISTICS**

\*Peak to Daily Ratio\*

**K = 7.83%**                      **D = 51.9%**

# Hourly Distribution of Traffic Volumes

*Vanasse Hangen Brustlin, Inc.*

PROJECT	SR 524 DTTM
LOCATION CODE	1
COUNT LOCATION	I-95, between SR 524 and SR 520
VHB PROJECT #	62954.32
Equipment ID	81

HOUR END AT	HOURLY VOLUME DIRECTION (NB)	HOURLY VOLUME DIRECTION (SB)	TOTAL VOLUMES BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB)	DISTRIBUTION PERCENT DIRECTION (SB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	346	423	769	0.88%	1.07%	0.98%
2:00 AM	281	313	594	0.72%	0.79%	0.75%
3:00 AM	323	341	664	0.83%	0.86%	0.84%
4:00 AM	474	332	806	1.21%	0.84%	1.02%
5:00 AM	760	557	1,317	1.94%	1.41%	1.67%
6:00 AM	928	1,039	1,967	2.37%	2.63%	2.50%
7:00 AM	2,023	1,976	3,999	5.17%	4.99%	5.08%
8:00 AM	2,952	2,726	5,678	7.55%	6.89%	7.22%
9:00 AM	2,620	2,581	5,201	6.70%	6.52%	6.61%
10:00 AM	1,898	2,208	4,106	4.85%	5.58%	5.22%
11:00 AM	1,810	2,157	3,967	4.63%	5.45%	5.04%
12:00 PM	2,019	2,258	4,277	5.16%	5.71%	5.44%
1:00 PM	2,427	2,233	4,660	6.21%	5.64%	5.92%
2:00 PM	2,202	2,393	4,595	5.63%	6.05%	5.84%
3:00 PM	2,567	2,458	5,025	6.57%	6.21%	6.39%
4:00 PM	2,587	2,700	5,287	6.62%	6.82%	6.72%
5:00 PM	2,928	3,089	6,017	7.49%	7.80%	7.65%
6:00 PM	2,848	3,141	5,989	7.28%	7.94%	7.61%
7:00 PM	2,235	2,174	4,409	5.72%	5.49%	5.60%
8:00 PM	1,631	1,304	2,935	4.17%	3.29%	3.73%
9:00 PM	1,153	1,215	2,368	2.95%	3.07%	3.01%
10:00 PM	807	822	1,629	2.06%	2.08%	2.07%
11:00 PM	696	648	1,344	1.78%	1.64%	1.71%
12:00 AM	584	490	1,074	1.49%	1.24%	1.37%
<b>TOTALS</b>	<b>39,099</b>	<b>39,578</b>	<b>78,677</b>	<b>99.98%</b>	<b>100.00%</b>	<b>100.00%</b>



## Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : January 29, 2019      Start Time      00:00  
 Stop Date : January 29, 2019      Stop Time      24:00  
 County : Brevard  
 Location : I-95, between SR 524 and SR 520

VHB Project #: 62954.32

### 29-Jan-19      Northbound Volume for Lane 1

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	80	78	58	100	171	216	317	624	698	490	427	472
30	85	48	76	92	205	202	488	742	661	481	455	484
45	99	80	85	141	188	219	572	749	625	450	451	511
00	81	73	98	134	193	255	628	810	607	454	441	534
<b>Hr Total</b>	<b>345</b>	<b>279</b>	<b>317</b>	<b>467</b>	<b>757</b>	<b>892</b>	<b>2,005</b>	<b>2,925</b>	<b>2,591</b>	<b>1,875</b>	<b>1,774</b>	<b>2,001</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	583	548	596	573	691	708	622	447	313	228	187	126
30	621	540	603	608	726	773	568	400	298	210	184	170
45	596	549	644	685	726	677	576	400	289	193	155	132
00	602	553	682	702	761	631	443	372	248	169	169	145
<b>Hr Total</b>	<b>2,402</b>	<b>2,190</b>	<b>2,525</b>	<b>2,568</b>	<b>2,904</b>	<b>2,789</b>	<b>2,209</b>	<b>1,619</b>	<b>1,148</b>	<b>800</b>	<b>695</b>	<b>573</b>

24 Hour Total : 38,650  
 AM Peak Hour begins : 7:15      AM Peak Volume : 2,999      AM Peak Hour Factor : 0.93  
 PM Peak Hour begins : 16:30      PM Peak Volume : 2,968      PM Peak Hour Factor : 0.96

### 29-Jan-19      Southbound Volume for Lane 2

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	118	82	90	19	131	192	392	660	694	640	514	551
30	92	89	91	152	120	249	451	687	655	546	513	577
45	70	63	101	33	117	308	529	713	637	504	540	559
00	107	71	81	114	177	328	600	694	660	556	553	628
<b>Hr Total</b>	<b>387</b>	<b>305</b>	<b>363</b>	<b>318</b>	<b>545</b>	<b>1,077</b>	<b>1,972</b>	<b>2,754</b>	<b>2,646</b>	<b>2,246</b>	<b>2,120</b>	<b>2,315</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	521	521	623	632	784	802	655	385	326	218	153	143
30	593	588	574	638	719	798	572	314	412	227	179	130
45	561	596	591	650	730	737	550	226	302	168	167	120
00	568	580	598	746	771	786	448	275	282	173	140	106
<b>Hr Total</b>	<b>2,243</b>	<b>2,285</b>	<b>2,386</b>	<b>2,666</b>	<b>3,004</b>	<b>3,123</b>	<b>2,225</b>	<b>1,200</b>	<b>1,322</b>	<b>786</b>	<b>639</b>	<b>499</b>

24 Hour Total : 39,426  
 AM Peak Hour begins : 7:15      AM Peak Volume : 2,788      AM Peak Hour Factor : 0.98  
 PM Peak Hour begins : 17:00      PM Peak Volume : 3,123      PM Peak Hour Factor : 0.97

### 29-Jan-19      Total Volume for All Lanes

End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	198	160	148	119	302	408	709	1,284	1,392	1,130	941	1,023
30	177	137	167	244	325	451	939	1,429	1,316	1,027	968	1,061
45	169	143	186	174	305	527	1,101	1,462	1,262	954	991	1,070
00	188	144	179	248	370	583	1,228	1,504	1,267	1,010	994	1,162
<b>Hr Total</b>	<b>732</b>	<b>584</b>	<b>680</b>	<b>785</b>	<b>1,302</b>	<b>1,969</b>	<b>3,977</b>	<b>5,679</b>	<b>5,237</b>	<b>4,121</b>	<b>3,894</b>	<b>4,316</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1,104	1,069	1,219	1,205	1,475	1,510	1,277	832	639	446	340	269
30	1,214	1,128	1,177	1,246	1,445	1,571	1,140	714	710	437	363	300
45	1,157	1,145	1,235	1,335	1,456	1,414	1,126	626	591	361	322	252
00	1,170	1,133	1,280	1,448	1,532	1,417	891	647	530	342	309	251
<b>Hr Total</b>	<b>4,645</b>	<b>4,475</b>	<b>4,911</b>	<b>5,234</b>	<b>5,908</b>	<b>5,912</b>	<b>4,434</b>	<b>2,819</b>	<b>2,470</b>	<b>1,586</b>	<b>1,334</b>	<b>1,072</b>

24 Hour Total : 78,076  
 AM Peak Hour begins : 7:15      AM Peak Volume : 5,787      AM Peak Hour Factor : 0.96  
 PM Peak Hour begins : 16:30      PM Peak Volume : 6,069      PM Peak Hour Factor : 0.97

## Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

Start Date : January 30, 2019      Start Time      00:00  
 Stop Date : January 30, 2019      Stop Time      24:00  
 County : Brevard  
 Location : I-95, between SR 524 and SR 520

VHB Project #: 62954.32

31-Jan-19      Northbound Volume for Lane 1												
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	86	75	55	98	169	208	327	624	717	513	438	487
30	81	56	81	97	210	215	495	762	677	490	474	495
45	102	79	94	140	184	240	593	795	638	467	471	509
00	76	71	95	143	198	298	623	798	614	447	460	543
<b>Hr Total</b>	<b>345</b>	<b>281</b>	<b>325</b>	<b>478</b>	<b>761</b>	<b>961</b>	<b>2,038</b>	<b>2,979</b>	<b>2,646</b>	<b>1,917</b>	<b>1,843</b>	<b>2,034</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	592	565	596	586	698	732	620	437	312	225	188	138
30	624	559	639	589	731	780	591	428	313	226	180	176
45	605	533	658	702	736	715	583	389	287	190	152	135
00	628	554	716	725	784	678	464	387	243	170	175	144
<b>Hr Total</b>	<b>2,449</b>	<b>2,211</b>	<b>2,609</b>	<b>2,602</b>	<b>2,949</b>	<b>2,905</b>	<b>2,258</b>	<b>1,641</b>	<b>1,155</b>	<b>811</b>	<b>695</b>	<b>593</b>

24 Hour Total : 39,486  
 AM Peak Hour begins : 7:15      AM Peak Volume : 3,072      AM Peak Hour Factor : 0.96  
 PM Peak Hour begins : 16:30      PM Peak Volume : 3,032      PM Peak Hour Factor : 0.97

31-Jan-19      Southbound Volume for Lane 2												
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	130	69	95	103	127	182	401	608	683	585	548	545
30	106	68	45	95	116	230	456	713	633	561	515	579
45	118	88	97	69	159	281	575	712	624	535	560	539
00	104	93	81	77	166	305	546	663	574	486	570	538
<b>Hr Total</b>	<b>458</b>	<b>318</b>	<b>318</b>	<b>344</b>	<b>568</b>	<b>998</b>	<b>1,978</b>	<b>2,696</b>	<b>2,514</b>	<b>2,167</b>	<b>2,193</b>	<b>2,201</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	526	591	653	677	770	799	684	408	292	276	186	143
30	560	658	608	678	803	791	525	375	291	217	178	121
45	573	645	642	662	754	845	476	343	264	170	151	111
00	562	606	626	716	846	722	435	278	260	194	140	103
<b>Hr Total</b>	<b>2,221</b>	<b>2,500</b>	<b>2,529</b>	<b>2,733</b>	<b>3,173</b>	<b>3,157</b>	<b>2,120</b>	<b>1,404</b>	<b>1,107</b>	<b>857</b>	<b>655</b>	<b>478</b>

24 Hour Total : 39,687  
 AM Peak Hour begins : 7:15      AM Peak Volume : 2,771      AM Peak Hour Factor : 0.97  
 PM Peak Hour begins : 16:45      PM Peak Volume : 3,281      PM Peak Hour Factor : 0.97

31-Jan-19      Total Volume for All Lanes												
End Time	00	01	02	03	04	05	06	07	08	09	10	11
15	216	144	150	201	296	390	728	1,232	1,400	1,098	986	1,032
30	187	124	126	192	326	445	951	1,475	1,310	1,051	989	1,074
45	220	167	191	209	343	521	1,168	1,507	1,262	1,002	1,031	1,048
00	180	164	176	220	364	603	1,169	1,461	1,188	933	1,030	1,081
<b>Hr Total</b>	<b>803</b>	<b>599</b>	<b>643</b>	<b>822</b>	<b>1,329</b>	<b>1,959</b>	<b>4,016</b>	<b>5,675</b>	<b>5,160</b>	<b>4,084</b>	<b>4,036</b>	<b>4,235</b>

End Time	12	13	14	15	16	17	18	19	20	21	22	23
15	1,118	1,156	1,249	1,263	1,468	1,531	1,304	845	604	501	374	281
30	1,184	1,217	1,247	1,267	1,534	1,571	1,116	803	604	443	358	297
45	1,178	1,178	1,300	1,364	1,490	1,560	1,059	732	551	360	303	246
00	1,190	1,160	1,342	1,441	1,630	1,400	899	665	503	364	315	247
<b>Hr Total</b>	<b>4,670</b>	<b>4,711</b>	<b>5,138</b>	<b>5,335</b>	<b>6,122</b>	<b>6,062</b>	<b>4,378</b>	<b>3,045</b>	<b>2,262</b>	<b>1,668</b>	<b>1,350</b>	<b>1,071</b>

24 Hour Total : 79,173  
 AM Peak Hour begins : 7:15      AM Peak Volume : 5,843      AM Peak Hour Factor : 0.97  
 PM Peak Hour begins : 16:45      PM Peak Volume : 6,292      PM Peak Hour Factor : 0.97

# TRAFFIC COUNT DATA

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 2  
 COUNT LOCATION: W. Friday Road, South of SR 524  
 EQUIPMENT ID: 24/24

TYPE OF COUNT: 72 Hour Classification Count

TIME OF COUNT:  
 Start Date: 1/22/2019      Start Time: Midnight  
 End Date: 1/25/2019      End Time: Midnight

VOLUMES:

		Peak Hour Time: 4:45 PM
Average Daily: 1,719		Average Peak Hour: 182
Daily Truck Avg: 174		Max Hour Truck Avg: 20
		Peak Hour Truck Avg: 15

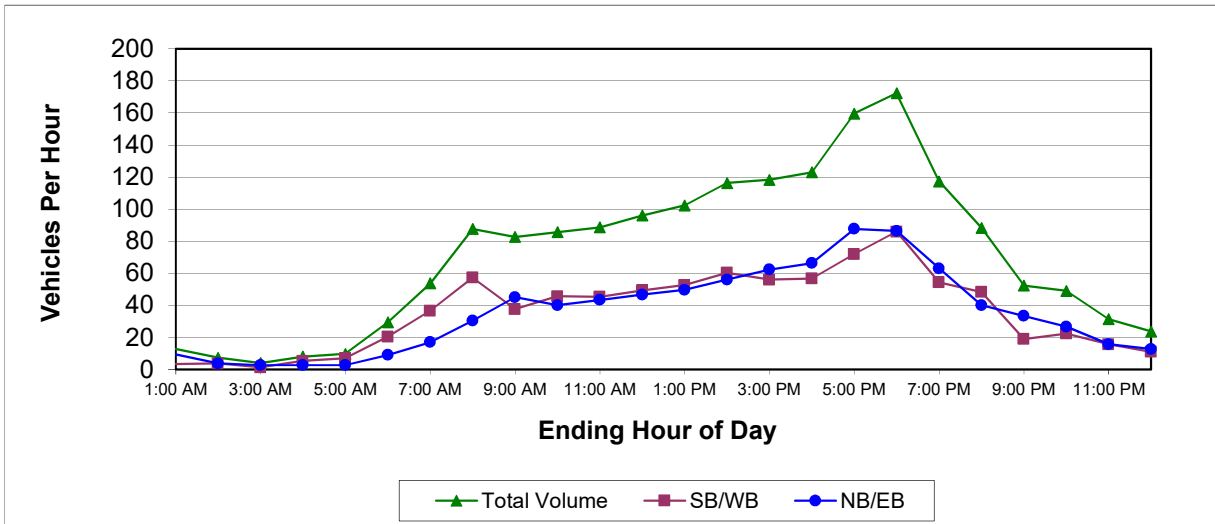
## TRAVEL CHARACTERISTICS:

K MEASURED	D MEASURED
K= 10.6%	D= 53.5%
T Max Hour 11.0%	T daily 10.1%
T med (max) 9.3%	T med Daily 9.4%
T heavy (max) 1.6%	T heavy Daily 0.8%
T Peak Hour 8.1%	
T med Peak Hour 7.7%	Axle Factor 1.00
T heavy Peak Hour 0.4%	

## HOURLY DISTRIBUTIONS OF TRAFFIC VOLUMES

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 2  
 COUNT LOCATION: W. Friday Road, South of SR 524  
 EQUIPMENT ID: 24/24

HOUR ENDING AT	HOURLY VOLUME DIRECTION (NB OR EB)	HOURLY VOLUME DIRECTION (SB OR WB)	TOTAL VOLUME BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB OR EB)	DISTRIBUTION PERCENT DIRECTION (SB OR WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	9	3	13	1.10%	0.38%	0.74%
2:00 AM	4	4	7	0.43%	0.42%	0.43%
3:00 AM	3	1	4	0.31%	0.15%	0.23%
4:00 AM	3	5	8	0.31%	0.61%	0.47%
5:00 AM	3	7	10	0.31%	0.81%	0.56%
6:00 AM	9	20	29	1.06%	2.34%	1.71%
7:00 AM	17	37	54	2.00%	4.23%	3.12%
8:00 AM	30	57	88	3.56%	6.61%	5.10%
9:00 AM	45	38	83	5.28%	4.34%	4.81%
10:00 AM	40	46	86	4.69%	5.27%	4.98%
11:00 AM	43	45	89	5.09%	5.23%	5.16%
12:00 PM	47	49	96	5.48%	5.69%	5.58%
1:00 PM	50	53	102	5.83%	6.07%	5.95%
2:00 PM	56	60	116	6.57%	6.96%	6.77%
3:00 PM	62	56	118	7.32%	6.46%	6.88%
4:00 PM	66	57	123	7.79%	6.53%	7.15%
5:00 PM	88	72	160	10.29%	8.30%	9.29%
6:00 PM	86	86	172	10.13%	9.92%	10.02%
7:00 PM	63	54	117	7.39%	6.26%	6.82%
8:00 PM	40	48	88	4.69%	5.57%	5.14%
9:00 PM	33	19	52	3.91%	2.19%	3.04%
10:00 PM	27	22	49	3.13%	2.57%	2.85%
11:00 PM	16	16	31	1.84%	1.81%	1.82%
12:00 AM	13	11	24	1.49%	1.27%	1.38%
<b>TOTALS</b>	<b>852</b>	<b>867</b>	<b>1,719</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>



## ANNUAL VEHICLE CLASSIFICATION REPORT

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 2  
 COUNT LOCATION: W. Friday Road, South of SR 524  
 EQUIPMENT ID: 24/24

Vehicle Classification	Vehicle Type	Average Daily Statistics	
		Volume	Percentage
Class 1	Motorcycles	4	0.23%
Class 2	Cars	1,260	73.30%
Class 3	Pick-Ups & Vans	281	16.35%
Class 4	Buses	13	0.76%
Class 5	2 Axle, Single Unit Trucks	148	8.61%
Class 6	3 Axle, Single Unit Trucks	5	0.29%
Class 7	4 Axle, Single Unit Trucks	0	0.00%
Class 8	2 Axle Trctr with 1 or 2 Axle Trlr, 3 Axle Trctr with 1 Axle	7	0.41%
Class 9	3 Axle Tractor with 2 Axle Trailer	1	0.06%
Class 10	3 Axle Tractor with 3 Axle Trailer	0	0.00%
Class 11	5 Axle Multi Trailer	0	0.00%
Class 12	6 Axle Multi Trailer	0	0.00%
Class 13	7 or more Axles	0	0.00%
Class 14	Not Used	0	0.00%
Class 15	Other	0	0.00%
<b>TOTALS</b>		<b>1,719</b>	<b>100.00%</b>

# TRAFFIC COUNT DATA

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 3  
 COUNT LOCATION: W. Friday Road, North of SR 524  
 EQUIPMENT ID: 116

TYPE OF COUNT: 72 Hour Classification Count

TIME OF COUNT:  
 Start Date: 1/22/2019      Start Time: Midnight  
 End Date: 1/25/2019      End Time: Midnight

VOLUMES:

		Peak Hour Time: 12:15 PM
Average Daily:	974	Average Peak Hour: 98
Daily Truck Avg:	43	Max Hour Truck Avg: 9
		Peak Hour Truck Avg: 3

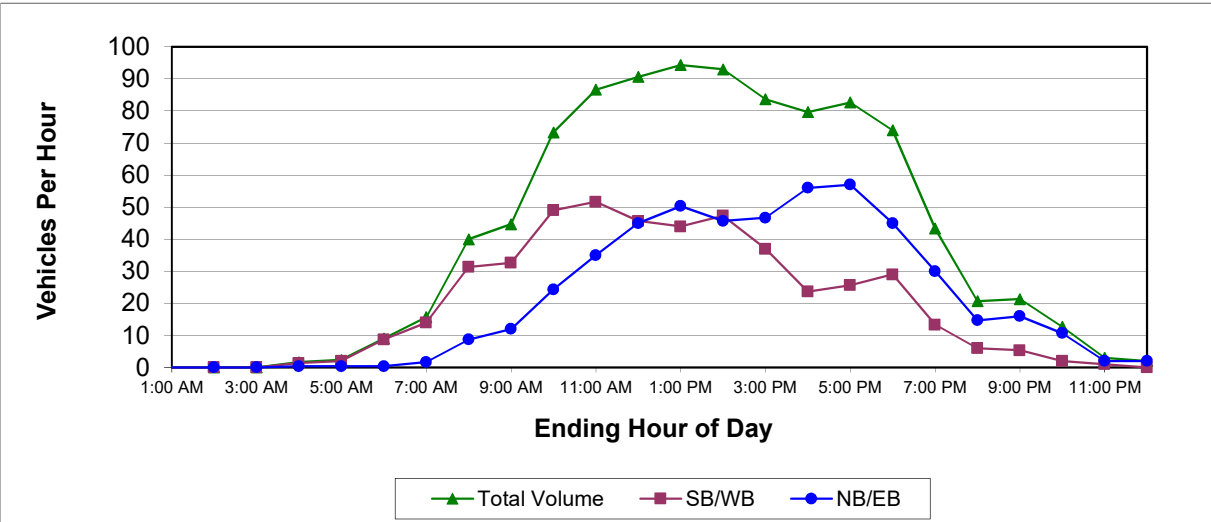
## TRAVEL CHARACTERISTICS:

K MEASURED	D MEASURED
K= 10.0%	D= 50.2%
T Max Hour 8.9%	T daily 4.4%
T med (max) 7.2%	T med Daily 4.0%
T heavy (max) 1.7%	T heavy Daily 0.3%
T Peak Hour 3.1%	
T med Peak Hour 2.7%	Axle Factor 1.00
T heavy Peak Hour 0.3%	

## HOURLY DISTRIBUTIONS OF TRAFFIC VOLUMES

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 3  
 COUNT LOCATION: W. Friday Road, North of SR 524  
 EQUIPMENT ID: 116

HOUR ENDING AT	HOURLY VOLUME DIRECTION (NB OR EB)	HOURLY VOLUME DIRECTION (SB OR WB)	TOTAL VOLUME BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB OR EB)	DISTRIBUTION PERCENT DIRECTION (SB OR WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	0	0	0	0.00%	0.00%	0.00%
2:00 AM	0	0	0	0.00%	0.00%	0.00%
3:00 AM	0	0	0	0.00%	0.00%	0.00%
4:00 AM	0	1	2	0.07%	0.28%	0.17%
5:00 AM	0	2	2	0.07%	0.42%	0.24%
6:00 AM	0	9	9	0.07%	1.84%	0.92%
7:00 AM	2	14	16	0.33%	2.97%	1.61%
8:00 AM	9	31	40	1.72%	6.66%	4.11%
9:00 AM	12	33	45	2.38%	6.94%	4.58%
10:00 AM	24	49	73	4.83%	10.41%	7.53%
11:00 AM	35	52	87	6.95%	10.98%	8.89%
12:00 PM	45	46	91	8.93%	9.70%	9.31%
1:00 PM	50	44	94	9.99%	9.35%	9.68%
2:00 PM	46	47	93	9.07%	10.06%	9.54%
3:00 PM	47	37	84	9.27%	7.86%	8.59%
4:00 PM	56	24	80	11.12%	5.03%	8.18%
5:00 PM	57	26	83	11.32%	5.45%	8.48%
6:00 PM	45	29	74	8.93%	6.16%	7.59%
7:00 PM	30	13	43	5.96%	2.83%	4.45%
8:00 PM	15	6	21	2.91%	1.27%	2.12%
9:00 PM	16	5	21	3.18%	1.13%	2.19%
10:00 PM	11	2	13	2.12%	0.42%	1.30%
11:00 PM	2	1	3	0.40%	0.21%	0.31%
12:00 AM	2	0	2	0.40%	0.00%	0.21%
<b>TOTALS</b>	504	471	974	100.0%	100.0%	100.0%



## ANNUAL VEHICLE CLASSIFICATION REPORT

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 3  
 COUNT LOCATION: W. Friday Road, North of SR 524  
 EQUIPMENT ID: 116

Vehicle Classification	Vehicle Type	Average Daily Statistics	
		Volume	Percentage
Class 1	Motorcycles	3	0.31%
Class 2	Cars	808	83.04%
Class 3	Pick-Ups & Vans	120	12.33%
Class 4	Buses	1	0.10%
Class 5	2 Axle, Single Unit Trucks	38	3.91%
Class 6	3 Axle, Single Unit Trucks	2	0.21%
Class 7	4 Axle, Single Unit Trucks	0	0.00%
Class 8	2 Axle Trctr with 1 or 2 Axle Trlr, 3 Axle Trctr with 1 Axle	1	0.10%
Class 9	3 Axle Tractor with 2 Axle Trailer	0	0.00%
Class 10	3 Axle Tractor with 3 Axle Trailer	0	0.00%
Class 11	5 Axle Multi Trailer	0	0.00%
Class 12	6 Axle Multi Trailer	0	0.00%
Class 13	7 or more Axles	0	0.00%
Class 14	Not Used	0	0.00%
Class 15	Other	0	0.00%
<b>TOTALS</b>		<b>973</b>	<b>100.00%</b>



# TRAFFIC COUNT DATA

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 4  
 COUNT LOCATION: SR 524 b/w E. Friday Rd and Cox Rd  
 EQUIPMENT ID: 60/60

TYPE OF COUNT: 72 Hour Classification Count

TIME OF COUNT:  
 Start Date: 1/22/2019      Start Time: Midnight  
 End Date: 1/25/2019      End Time: Midnight

VOLUMES:

		Peak Hour Time: 4:45 PM
Average Daily:	10,857	Average Peak Hour: 887
Daily Truck Avg:	1,972	Max Hour Truck Avg: 205
		Peak Hour Truck Avg: 112

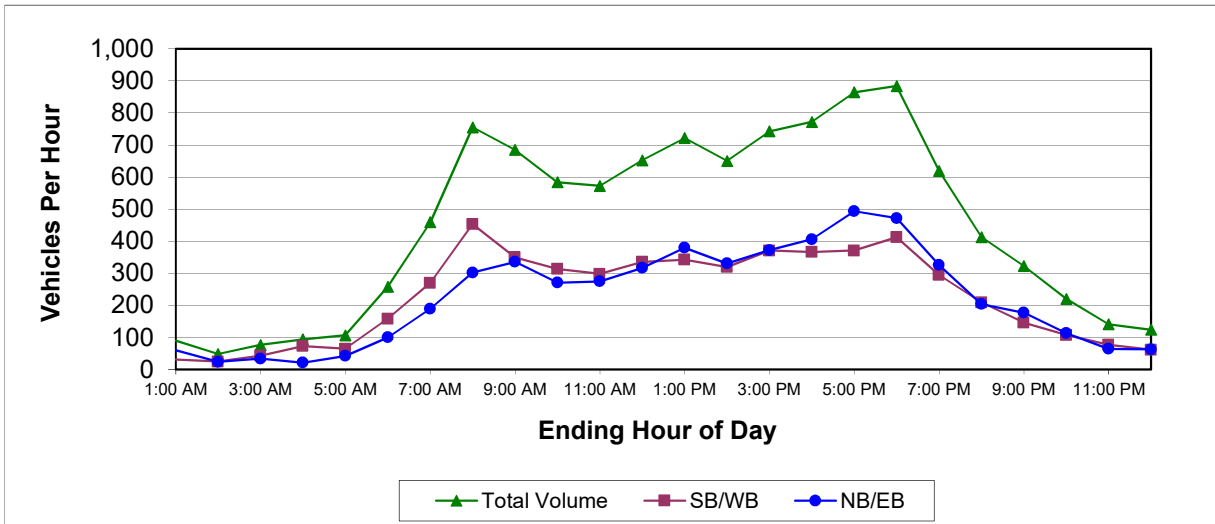
## TRAVEL CHARACTERISTICS:

K MEASURED	D MEASURED
K= 8.2%	D= 53.8%
T Max Hour 23.1%	T daily 18.2%
T med (max) 15.3%	T med Daily 11.3%
T heavy (max) 7.8%	T heavy Daily 6.9%
T Peak Hour 12.7%	
T med Peak Hour 9.4%	Axle Factor 0.96
T heavy Peak Hour 3.3%	

## HOURLY DISTRIBUTIONS OF TRAFFIC VOLUMES

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 4  
 COUNT LOCATION: SR 524 b/w E. Friday Rd and Cox Rd  
 EQUIPMENT ID: 60/60

HOUR ENDING AT	HOURLY VOLUME DIRECTION (NB OR EB)	HOURLY VOLUME DIRECTION (SB OR WB)	TOTAL VOLUME BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB OR EB)	DISTRIBUTION PERCENT DIRECTION (SB OR WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	59	31	90	1.11%	0.56%	0.83%
2:00 AM	24	25	48	0.44%	0.45%	0.45%
3:00 AM	33	43	76	0.62%	0.78%	0.70%
4:00 AM	21	73	94	0.39%	1.32%	0.86%
5:00 AM	42	64	106	0.78%	1.17%	0.98%
6:00 AM	100	158	258	1.86%	2.88%	2.38%
7:00 AM	189	270	459	3.53%	4.92%	4.23%
8:00 AM	302	453	755	5.63%	8.26%	6.96%
9:00 AM	335	349	685	6.25%	6.36%	6.31%
10:00 AM	270	314	584	5.04%	5.71%	5.38%
11:00 AM	274	298	572	5.11%	5.43%	5.27%
12:00 PM	317	336	652	5.90%	6.11%	6.01%
1:00 PM	379	342	722	7.07%	6.23%	6.65%
2:00 PM	331	320	650	6.16%	5.82%	5.99%
3:00 PM	372	371	743	6.93%	6.75%	6.84%
4:00 PM	406	366	772	7.57%	6.67%	7.11%
5:00 PM	493	371	864	9.19%	6.76%	7.96%
6:00 PM	472	412	884	8.79%	7.51%	8.14%
7:00 PM	325	294	620	6.06%	5.36%	5.71%
8:00 PM	204	209	413	3.80%	3.81%	3.80%
9:00 PM	177	146	323	3.29%	2.66%	2.97%
10:00 PM	113	107	220	2.11%	1.95%	2.03%
11:00 PM	64	77	141	1.19%	1.40%	1.30%
12:00 AM	63	61	124	1.17%	1.12%	1.14%
<b>TOTALS</b>	<b>5,366</b>	<b>5,491</b>	<b>10,857</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>



## ANNUAL VEHICLE CLASSIFICATION REPORT

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 4  
 COUNT LOCATION: SR 524 b/w E. Friday Rd and Cox Rd  
 EQUIPMENT ID: 60/60

Vehicle Classification	Vehicle Type	Average Daily Statistics	
		Volume	Percentage
Class 1	Motorcycles	255	2.35%
Class 2	Cars	7,066	65.08%
Class 3	Pick-Ups & Vans	1,564	14.41%
Class 4	Buses	50	0.46%
Class 5	2 Axle, Single Unit Trucks	1,172	10.79%
Class 6	3 Axle, Single Unit Trucks	252	2.32%
Class 7	4 Axle, Single Unit Trucks	44	0.41%
Class 8	2 Axle Trctr with 1 or 2 Axle Trlr, 3 Axle Trctr with 1 Axle	91	0.84%
Class 9	3 Axle Tractor with 2 Axle Trailer	329	3.03%
Class 10	3 Axle Tractor with 3 Axle Trailer	17	0.16%
Class 11	5 Axle Multi Trailer	3	0.03%
Class 12	6 Axle Multi Trailer	8	0.07%
Class 13	7 or more Axles	6	0.06%
Class 14	Not Used	0	0.00%
Class 15	Other	0	0.00%
<b>TOTALS</b>		<b>10,857</b>	<b>100.00%</b>

# TRAFFIC COUNT DATA

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 5  
 COUNT LOCATION: I-95 SB on ramp from SR 524  
 EQUIPMENT ID: 16

TYPE OF COUNT: 72 Hour Classification Count

TIME OF COUNT:  
 Start Date: 1/22/2019      Start Time: Midnight  
 End Date: 1/25/2019      End Time: Midnight

VOLUMES:

		Peak Hour Time: 7:15 AM	
Average Daily:	5,218	Average Peak Hour:	565
Daily Truck Avg:	958	Max Hour Truck Avg:	118
		Peak Hour Truck Avg:	80

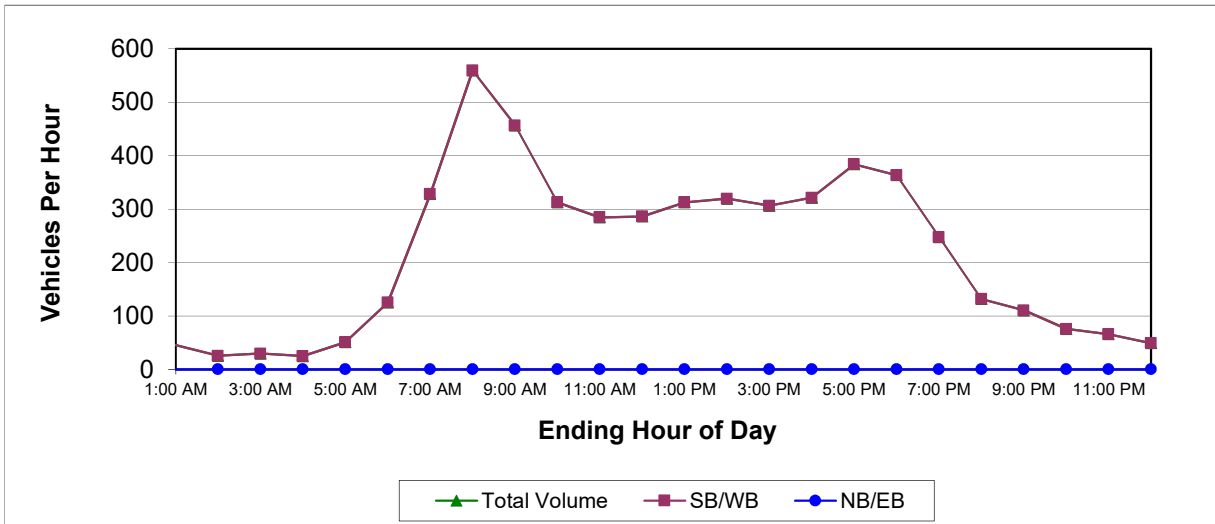
## TRAVEL CHARACTERISTICS:

K MEASURED	D MEASURED
K= 10.8%	D= 100.0%
T Max Hour 20.9%	T daily 18.4%
T med (max) 12.7%	T med Daily 7.1%
T heavy (max) 8.2%	T heavy Daily 11.3%
T Peak Hour 14.2%	
T med Peak Hour 7.0%	Axle Factor 0.94
T heavy Peak Hour 7.2%	

## HOURLY DISTRIBUTIONS OF TRAFFIC VOLUMES

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 5  
 COUNT LOCATION: I-95 SB on ramp from SR 524  
 EQUIPMENT ID: 16

HOUR ENDING AT	HOURLY VOLUME DIRECTION (NB OR EB)	HOURLY VOLUME DIRECTION (SB OR WB)	TOTAL VOLUME BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB OR EB)	DISTRIBUTION PERCENT DIRECTION (SB OR WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	0	45	45	#DIV/0!	0.87%	0.87%
2:00 AM	0	25	25	#DIV/0!	0.49%	0.49%
3:00 AM	0	30	30	#DIV/0!	0.57%	0.57%
4:00 AM	0	25	25	#DIV/0!	0.48%	0.48%
5:00 AM	0	51	51	#DIV/0!	0.98%	0.98%
6:00 AM	0	125	125	#DIV/0!	2.40%	2.40%
7:00 AM	0	328	328	#DIV/0!	6.29%	6.29%
8:00 AM	0	559	559	#DIV/0!	10.72%	10.72%
9:00 AM	0	457	457	#DIV/0!	8.75%	8.75%
10:00 AM	0	313	313	#DIV/0!	5.99%	5.99%
11:00 AM	0	285	285	#DIV/0!	5.46%	5.46%
12:00 PM	0	286	286	#DIV/0!	5.49%	5.49%
1:00 PM	0	313	313	#DIV/0!	5.99%	5.99%
2:00 PM	0	320	320	#DIV/0!	6.13%	6.13%
3:00 PM	0	306	306	#DIV/0!	5.87%	5.87%
4:00 PM	0	321	321	#DIV/0!	6.16%	6.16%
5:00 PM	0	384	384	#DIV/0!	7.36%	7.36%
6:00 PM	0	364	364	#DIV/0!	6.97%	6.97%
7:00 PM	0	248	248	#DIV/0!	4.75%	4.75%
8:00 PM	0	132	132	#DIV/0!	2.52%	2.52%
9:00 PM	0	111	111	#DIV/0!	2.12%	2.12%
10:00 PM	0	76	76	#DIV/0!	1.45%	1.45%
11:00 PM	0	66	66	#DIV/0!	1.26%	1.26%
12:00 AM	0	49	49	#DIV/0!	0.94%	0.94%
<b>TOTALS</b>	0	5,218	5,218	#DIV/0!	100.0%	100.0%



## ANNUAL VEHICLE CLASSIFICATION REPORT

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 5  
 COUNT LOCATION: I-95 SB on ramp from SR 524  
 EQUIPMENT ID: 16

Vehicle Classification	Vehicle Type	Average Daily Statistics	
		Volume	Percentage
Class 1	Motorcycles	10	0.19%
Class 2	Cars	3,513	67.32%
Class 3	Pick-Ups & Vans	737	14.12%
Class 4	Buses	40	0.77%
Class 5	2 Axle, Single Unit Trucks	328	6.29%
Class 6	3 Axle, Single Unit Trucks	121	2.32%
Class 7	4 Axle, Single Unit Trucks	33	0.63%
Class 8	2 Axle Trctr with 1 or 2 Axle Trlr, 3 Axle Trctr with 1 Axle	67	1.28%
Class 9	3 Axle Tractor with 2 Axle Trailer	340	6.52%
Class 10	3 Axle Tractor with 3 Axle Trailer	5	0.10%
Class 11	5 Axle Multi Trailer	4	0.08%
Class 12	6 Axle Multi Trailer	7	0.13%
Class 13	7 or more Axles	13	0.25%
Class 14	Not Used	0	0.00%
Class 15	Other	0	0.00%
<b>TOTALS</b>		<b>5,218</b>	<b>100.00%</b>

# TRAFFIC COUNT DATA

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 6  
 COUNT LOCATION: I-95 SB off ramp to SR 524  
 EQUIPMENT ID: 256

TYPE OF COUNT: 72 Hour Classification Count

TIME OF COUNT:  
 Start Date: 1/22/2019      Start Time: Midnight  
 End Date: 1/25/2019      End Time: Midnight

VOLUMES:

		Peak Hour Time:	3:45 PM
Average Daily:	2,649	Average Peak Hour:	231
Daily Truck Avg:	930	Max Hour Truck Avg:	77
		Peak Hour Truck Avg:	70

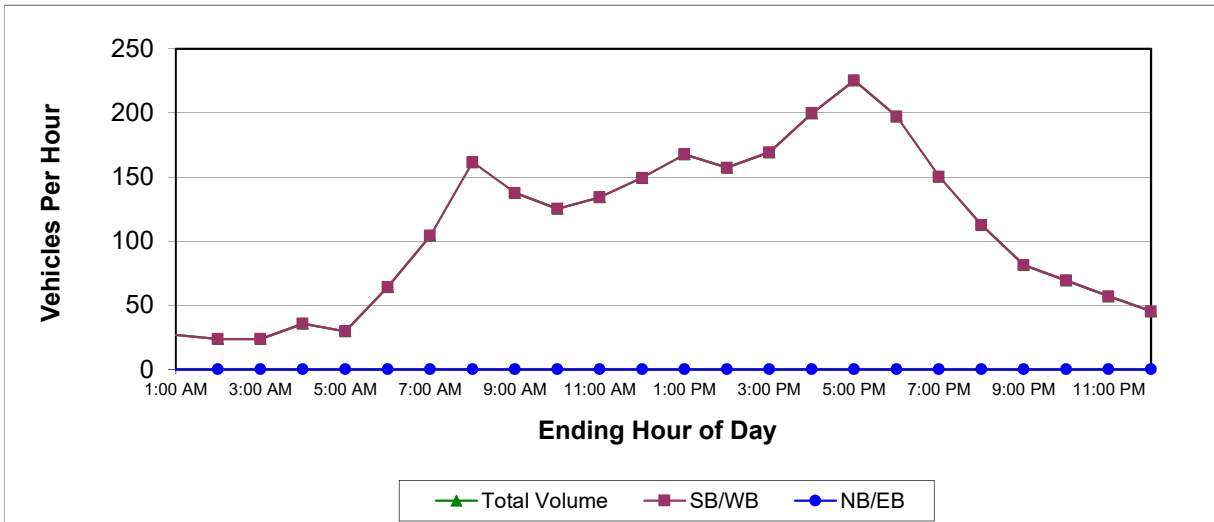
## TRAVEL CHARACTERISTICS:

K MEASURED		D MEASURED	
K=	8.7%	D=	100.0%
T Max Hour	33.2%	T daily	35.1%
T med (max)	20.9%	T med Daily	22.5%
T heavy (max)	12.3%	T heavy Daily	12.6%
T Peak Hour	30.4%		
T med Peak Hour	20.9%	Axle Factor	0.93
T heavy Peak Hour	9.5%		

## HOURLY DISTRIBUTIONS OF TRAFFIC VOLUMES

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 6  
 COUNT LOCATION: I-95 SB off ramp to SR 524  
 EQUIPMENT ID: 256

HOUR ENDING AT	HOURLY VOLUME DIRECTION (NB OR EB)	HOURLY VOLUME DIRECTION (SB OR WB)	TOTAL VOLUME BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB OR EB)	DISTRIBUTION PERCENT DIRECTION (SB OR WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	0	27	27	#DIV/0!	1.02%	1.02%
2:00 AM	0	24	24	#DIV/0!	0.89%	0.89%
3:00 AM	0	24	24	#DIV/0!	0.89%	0.89%
4:00 AM	0	36	36	#DIV/0!	1.35%	1.35%
5:00 AM	0	30	30	#DIV/0!	1.12%	1.12%
6:00 AM	0	64	64	#DIV/0!	2.43%	2.43%
7:00 AM	0	104	104	#DIV/0!	3.94%	3.94%
8:00 AM	0	162	162	#DIV/0!	6.10%	6.10%
9:00 AM	0	138	138	#DIV/0!	5.20%	5.20%
10:00 AM	0	125	125	#DIV/0!	4.73%	4.73%
11:00 AM	0	134	134	#DIV/0!	5.07%	5.07%
12:00 PM	0	149	149	#DIV/0!	5.64%	5.64%
1:00 PM	0	168	168	#DIV/0!	6.33%	6.33%
2:00 PM	0	157	157	#DIV/0!	5.94%	5.94%
3:00 PM	0	169	169	#DIV/0!	6.39%	6.39%
4:00 PM	0	200	200	#DIV/0!	7.54%	7.54%
5:00 PM	0	225	225	#DIV/0!	8.51%	8.51%
6:00 PM	0	197	197	#DIV/0!	7.45%	7.45%
7:00 PM	0	150	150	#DIV/0!	5.67%	5.67%
8:00 PM	0	113	113	#DIV/0!	4.25%	4.25%
9:00 PM	0	81	81	#DIV/0!	3.07%	3.07%
10:00 PM	0	69	69	#DIV/0!	2.62%	2.62%
11:00 PM	0	57	57	#DIV/0!	2.15%	2.15%
12:00 AM	0	45	45	#DIV/0!	1.71%	1.71%
<b>TOTALS</b>	0	2,649	2,649	#DIV/0!	100.0%	100.0%





## ANNUAL VEHICLE CLASSIFICATION REPORT

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 6  
 COUNT LOCATION: I-95 SB off ramp to SR 524  
 EQUIPMENT ID: 256

Vehicle Classification	Vehicle Type	Average Daily Statistics	
		Volume	Percentage
Class 1	Motorcycles	12	0.45%
Class 2	Cars	1,352	51.04%
Class 3	Pick-Ups & Vans	356	13.44%
Class 4	Buses	50	1.89%
Class 5	2 Axle, Single Unit Trucks	545	20.57%
Class 6	3 Axle, Single Unit Trucks	52	1.96%
Class 7	4 Axle, Single Unit Trucks	3	0.11%
Class 8	2 Axle Trctr with 1 or 2 Axle Trlr, 3 Axle Trctr with 1 Axle	91	3.44%
Class 9	3 Axle Tractor with 2 Axle Trailer	184	6.95%
Class 10	3 Axle Tractor with 3 Axle Trailer	1	0.04%
Class 11	5 Axle Multi Trailer	2	0.08%
Class 12	6 Axle Multi Trailer	1	0.04%
Class 13	7 or more Axles	0	0.00%
Class 14	Not Used	0	0.00%
Class 15	Other	0	0.00%
<b>TOTALS</b>		<b>2,649</b>	<b>100.00%</b>

# TRAFFIC COUNT DATA

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 7  
 COUNT LOCATION: I-95 NB on ramp from SR 524  
 EQUIPMENT ID: 38

TYPE OF COUNT: 72 Hour Classification Count

TIME OF COUNT:  
 Start Date: 1/22/2019      Start Time: Midnight  
 End Date: 1/25/2019      End Time: Midnight

VOLUMES:

		Peak Hour Time: 7:30 AM
Average Daily:	2,406	Average Peak Hour: 195
Daily Truck Avg:	817	Max Hour Truck Avg: 63
		Peak Hour Truck Avg: 51

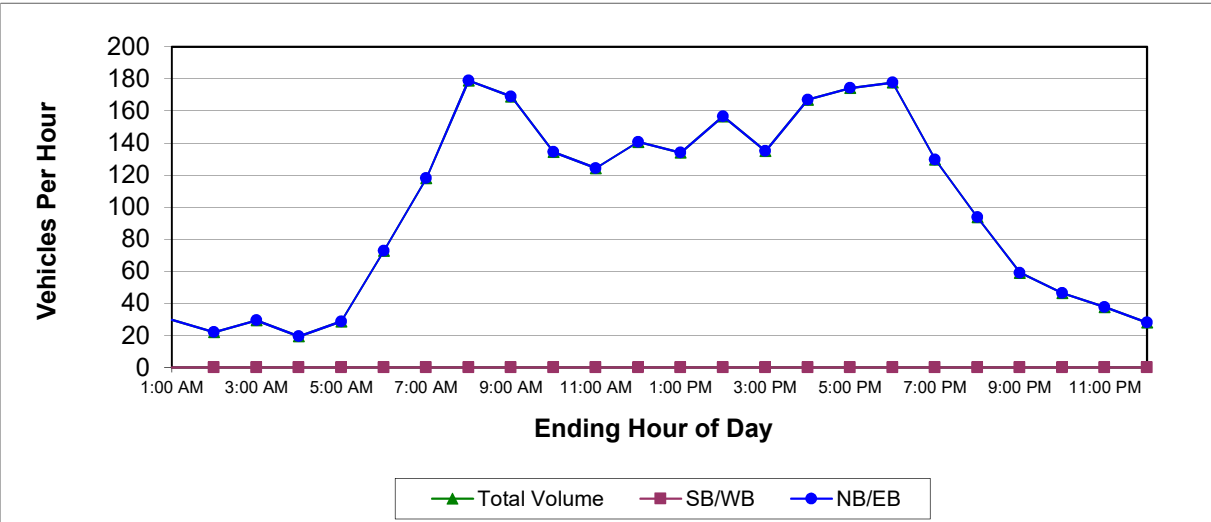
## TRAVEL CHARACTERISTICS:

K MEASURED	D MEASURED
K= 8.1%	D= 100.0%
T Max Hour 32.2%	T daily 34.0%
T med (max) 20.9%	T med Daily 22.6%
T heavy (max) 11.3%	T heavy Daily 11.3%
T Peak Hour 26.4%	
T med Peak Hour 20.4%	Axle Factor 0.94
T heavy Peak Hour 6.0%	

## HOURLY DISTRIBUTIONS OF TRAFFIC VOLUMES

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 7  
 COUNT LOCATION: I-95 NB on ramp from SR 524  
 EQUIPMENT ID: 38

HOUR ENDING AT	HOURLY VOLUME DIRECTION (NB OR EB)	HOURLY VOLUME DIRECTION (SB OR WB)	TOTAL VOLUME BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB OR EB)	DISTRIBUTION PERCENT DIRECTION (SB OR WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	30	0	30	1.23%	#DIV/0!	1.23%
2:00 AM	22	0	22	0.91%	#DIV/0!	0.91%
3:00 AM	29	0	29	1.22%	#DIV/0!	1.22%
4:00 AM	19	0	19	0.80%	#DIV/0!	0.80%
5:00 AM	29	0	29	1.19%	#DIV/0!	1.19%
6:00 AM	73	0	73	3.02%	#DIV/0!	3.02%
7:00 AM	118	0	118	4.90%	#DIV/0!	4.90%
8:00 AM	179	0	179	7.44%	#DIV/0!	7.44%
9:00 AM	169	0	169	7.02%	#DIV/0!	7.02%
10:00 AM	134	0	134	5.58%	#DIV/0!	5.58%
11:00 AM	124	0	124	5.17%	#DIV/0!	5.17%
12:00 PM	141	0	141	5.85%	#DIV/0!	5.85%
1:00 PM	134	0	134	5.57%	#DIV/0!	5.57%
2:00 PM	157	0	157	6.51%	#DIV/0!	6.51%
3:00 PM	135	0	135	5.61%	#DIV/0!	5.61%
4:00 PM	167	0	167	6.94%	#DIV/0!	6.94%
5:00 PM	174	0	174	7.25%	#DIV/0!	7.25%
6:00 PM	178	0	178	7.38%	#DIV/0!	7.38%
7:00 PM	130	0	130	5.39%	#DIV/0!	5.39%
8:00 PM	94	0	94	3.89%	#DIV/0!	3.89%
9:00 PM	59	0	59	2.45%	#DIV/0!	2.45%
10:00 PM	46	0	46	1.93%	#DIV/0!	1.93%
11:00 PM	38	0	38	1.57%	#DIV/0!	1.57%
12:00 AM	28	0	28	1.16%	#DIV/0!	1.16%
<b>TOTALS</b>	2,406	0	2,406	100.0%	#DIV/0!	100.0%



## ANNUAL VEHICLE CLASSIFICATION REPORT

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 7  
 COUNT LOCATION: I-95 NB on ramp from SR 524  
 EQUIPMENT ID: 38

Vehicle Classification	Vehicle Type	Average Daily Statistics	
		Volume	Percentage
Class 1	Motorcycles	34	1.41%
Class 2	Cars	1,224	50.89%
Class 3	Pick-Ups & Vans	331	13.76%
Class 4	Buses	46	1.91%
Class 5	2 Axle, Single Unit Trucks	497	20.67%
Class 6	3 Axle, Single Unit Trucks	8	0.33%
Class 7	4 Axle, Single Unit Trucks	1	0.04%
Class 8	2 Axle Trctr with 1 or 2 Axle Trlr, 3 Axle Trctr with 1 Axle	196	8.15%
Class 9	3 Axle Tractor with 2 Axle Trailer	62	2.58%
Class 10	3 Axle Tractor with 3 Axle Trailer	0	0.00%
Class 11	5 Axle Multi Trailer	2	0.08%
Class 12	6 Axle Multi Trailer	2	0.08%
Class 13	7 or more Axles	2	0.08%
Class 14	Not Used	0	0.00%
Class 15	Other	0	0.00%
<b>TOTALS</b>		<b>2,405</b>	<b>100.00%</b>

# TRAFFIC COUNT DATA

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 8  
 COUNT LOCATION: I-95 NB off ramp to SR 524  
 EQUIPMENT ID: 6

TYPE OF COUNT: 72 Hour Classification Count

TIME OF COUNT:  
 Start Date: 1/22/2019      Start Time: Midnight  
 End Date: 1/25/2019      End Time: Midnight

VOLUMES:

		Peak Hour Time:	5:00 PM
Average Daily:	4,951	Average Peak Hour:	524
Daily Truck Avg:	742	Max Hour Truck Avg:	65
		Peak Hour Truck Avg:	48

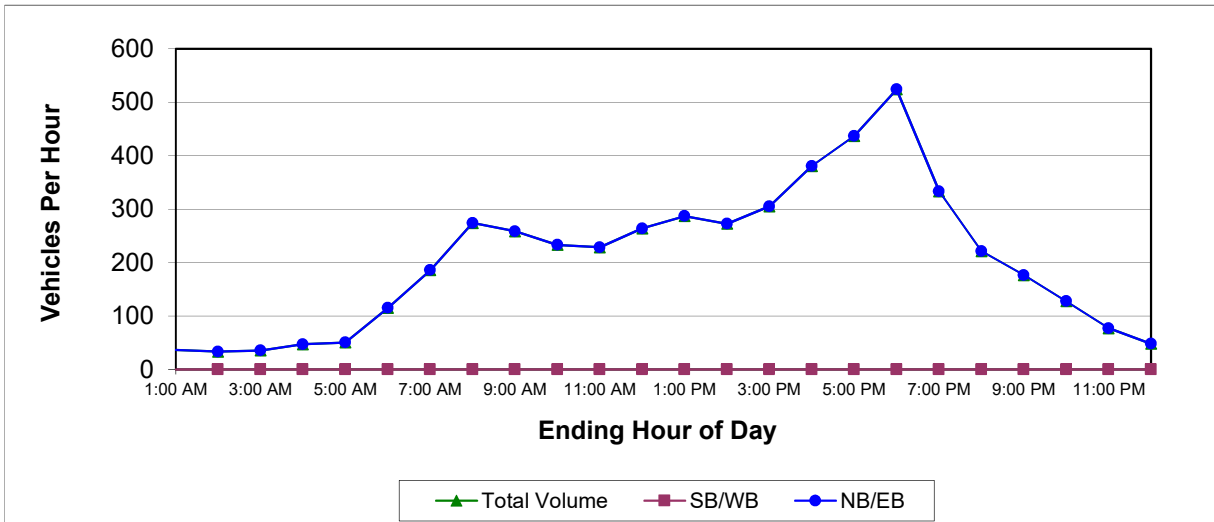
## TRAVEL CHARACTERISTICS:

K MEASURED		D MEASURED	
K=	10.6%	D=	100.0%
T Max Hour	12.4%	T daily	15.0%
T med (max)	5.2%	T med Daily	5.3%
T heavy (max)	7.2%	T heavy Daily	9.7%
T Peak Hour	9.2%		
T med Peak Hour	4.8%	Axle Factor	0.95
T heavy Peak Hour	4.4%		

## HOURLY DISTRIBUTIONS OF TRAFFIC VOLUMES

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 8  
 COUNT LOCATION: I-95 NB off ramp to SR 524  
 EQUIPMENT ID: 6

HOUR ENDING AT	HOURLY VOLUME DIRECTION (NB OR EB)	HOURLY VOLUME DIRECTION (SB OR WB)	TOTAL VOLUME BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB OR EB)	DISTRIBUTION PERCENT DIRECTION (SB OR WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	36	0	36	0.73%	#DIV/0!	0.73%
2:00 AM	33	0	33	0.67%	#DIV/0!	0.67%
3:00 AM	35	0	35	0.71%	#DIV/0!	0.71%
4:00 AM	47	0	47	0.95%	#DIV/0!	0.95%
5:00 AM	50	0	50	1.02%	#DIV/0!	1.02%
6:00 AM	115	0	115	2.32%	#DIV/0!	2.32%
7:00 AM	186	0	186	3.75%	#DIV/0!	3.75%
8:00 AM	274	0	274	5.53%	#DIV/0!	5.53%
9:00 AM	258	0	258	5.22%	#DIV/0!	5.22%
10:00 AM	233	0	233	4.71%	#DIV/0!	4.71%
11:00 AM	229	0	229	4.62%	#DIV/0!	4.62%
12:00 PM	264	0	264	5.33%	#DIV/0!	5.33%
1:00 PM	287	0	287	5.80%	#DIV/0!	5.80%
2:00 PM	273	0	273	5.51%	#DIV/0!	5.51%
3:00 PM	305	0	305	6.17%	#DIV/0!	6.17%
4:00 PM	381	0	381	7.69%	#DIV/0!	7.69%
5:00 PM	437	0	437	8.83%	#DIV/0!	8.83%
6:00 PM	524	0	524	10.58%	#DIV/0!	10.58%
7:00 PM	333	0	333	6.73%	#DIV/0!	6.73%
8:00 PM	221	0	221	4.47%	#DIV/0!	4.47%
9:00 PM	176	0	176	3.56%	#DIV/0!	3.56%
10:00 PM	128	0	128	2.58%	#DIV/0!	2.58%
11:00 PM	77	0	77	1.56%	#DIV/0!	1.56%
12:00 AM	48	0	48	0.97%	#DIV/0!	0.97%
<b>TOTALS</b>	4,951	0	4,951	100.0%	#DIV/0!	100.0%



## ANNUAL VEHICLE CLASSIFICATION REPORT

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 8  
 COUNT LOCATION: I-95 NB off ramp to SR 524  
 EQUIPMENT ID: 6

Vehicle Classification	Vehicle Type	Average Daily Statistics	
		Volume	Percentage
Class 1	Motorcycles	26	0.53%
Class 2	Cars	3,630	73.33%
Class 3	Pick-Ups & Vans	553	11.17%
Class 4	Buses	10	0.20%
Class 5	2 Axle, Single Unit Trucks	249	5.03%
Class 6	3 Axle, Single Unit Trucks	65	1.31%
Class 7	4 Axle, Single Unit Trucks	5	0.10%
Class 8	2 Axle Trctr with 1 or 2 Axle Trlr, 3 Axle Trctr with 1 Axle	199	4.02%
Class 9	3 Axle Tractor with 2 Axle Trailer	199	4.02%
Class 10	3 Axle Tractor with 3 Axle Trailer	3	0.06%
Class 11	5 Axle Multi Trailer	6	0.12%
Class 12	6 Axle Multi Trailer	1	0.02%
Class 13	7 or more Axles	4	0.08%
Class 14	Not Used	0	0.00%
Class 15	Other	0	0.00%
<b>TOTALS</b>		<b>4,950</b>	<b>100.00%</b>

# TRAFFIC COUNT DATA

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 9  
 COUNT LOCATION: I-95 NB on ramp from SR 520  
 EQUIPMENT ID: 64

TYPE OF COUNT: 72 Hour Classification Count

TIME OF COUNT:  
 Start Date: 1/22/2019      Start Time: Midnight  
 End Date: 1/25/2019      End Time: Midnight

VOLUMES:

		Peak Hour Time:	4:45 PM
Average Daily:	4,419	Average Peak Hour:	424
Daily Truck Avg:	460	Max Hour Truck Avg:	41
		Peak Hour Truck Avg:	21

## TRAVEL CHARACTERISTICS:

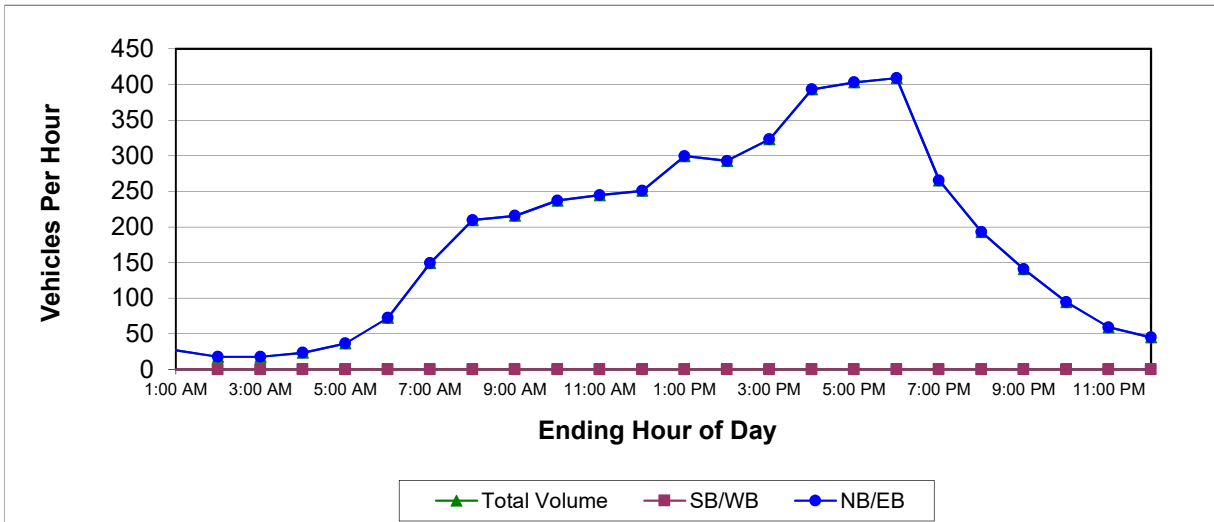
K MEASURED	D MEASURED
K= 9.6%	D= 100.0%
T Max Hour 9.6%	T daily 10.4%
T med (max) 5.7%	T med Daily 5.8%
T heavy (max) 3.9%	T heavy Daily 4.6%
T Peak Hour 5.0%	
T med Peak Hour 3.0%	Axle Factor 0.98
T heavy Peak Hour 2.0%	



## HOURLY DISTRIBUTIONS OF TRAFFIC VOLUMES

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 9  
 COUNT LOCATION: I-95 NB on ramp from SR 520  
 EQUIPMENT ID: 64

HOUR ENDING AT	HOURLY VOLUME DIRECTION (NB OR EB)	HOURLY VOLUME DIRECTION (SB OR WB)	TOTAL VOLUME BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB OR EB)	DISTRIBUTION PERCENT DIRECTION (SB OR WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	27	0	27	0.60%	#DIV/0!	0.60%
2:00 AM	18	0	18	0.40%	#DIV/0!	0.40%
3:00 AM	18	0	18	0.40%	#DIV/0!	0.40%
4:00 AM	23	0	23	0.53%	#DIV/0!	0.53%
5:00 AM	36	0	36	0.82%	#DIV/0!	0.82%
6:00 AM	72	0	72	1.64%	#DIV/0!	1.64%
7:00 AM	149	0	149	3.38%	#DIV/0!	3.38%
8:00 AM	210	0	210	4.75%	#DIV/0!	4.75%
9:00 AM	216	0	216	4.88%	#DIV/0!	4.88%
10:00 AM	237	0	237	5.36%	#DIV/0!	5.36%
11:00 AM	245	0	245	5.54%	#DIV/0!	5.54%
12:00 PM	251	0	251	5.67%	#DIV/0!	5.67%
1:00 PM	299	0	299	6.77%	#DIV/0!	6.77%
2:00 PM	293	0	293	6.62%	#DIV/0!	6.62%
3:00 PM	323	0	323	7.31%	#DIV/0!	7.31%
4:00 PM	393	0	393	8.89%	#DIV/0!	8.89%
5:00 PM	403	0	403	9.12%	#DIV/0!	9.12%
6:00 PM	409	0	409	9.26%	#DIV/0!	9.26%
7:00 PM	265	0	265	6.00%	#DIV/0!	6.00%
8:00 PM	193	0	193	4.37%	#DIV/0!	4.37%
9:00 PM	141	0	141	3.18%	#DIV/0!	3.18%
10:00 PM	95	0	95	2.14%	#DIV/0!	2.14%
11:00 PM	59	0	59	1.34%	#DIV/0!	1.34%
12:00 AM	45	0	45	1.02%	#DIV/0!	1.02%
<b>TOTALS</b>	4,419	0	4,419	100.0%	#DIV/0!	100.0%



## ANNUAL VEHICLE CLASSIFICATION REPORT

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 9  
 COUNT LOCATION: I-95 NB on ramp from SR 520  
 EQUIPMENT ID: 64

Vehicle Classification	Vehicle Type	Average Daily Statistics	
		Volume	Percentage
Class 1	Motorcycles	3	0.07%
Class 2	Cars	3,327	75.31%
Class 3	Pick-Ups & Vans	628	14.21%
Class 4	Buses	21	0.48%
Class 5	2 Axle, Single Unit Trucks	234	5.30%
Class 6	3 Axle, Single Unit Trucks	9	0.20%
Class 7	4 Axle, Single Unit Trucks	1	0.02%
Class 8	2 Axle Trctr with 1 or 2 Axle Trlr, 3 Axle Trctr with 1 Axle	171	3.87%
Class 9	3 Axle Tractor with 2 Axle Trailer	21	0.48%
Class 10	3 Axle Tractor with 3 Axle Trailer	0	0.00%
Class 11	5 Axle Multi Trailer	1	0.02%
Class 12	6 Axle Multi Trailer	0	0.00%
Class 13	7 or more Axles	2	0.05%
Class 14	Not Used	0	0.00%
Class 15	Other	0	0.00%
<b>TOTALS</b>		<b>4,418</b>	<b>100.00%</b>

# TRAFFIC COUNT DATA

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 10  
 COUNT LOCATION: I-95 SB off ramp to SR 520  
 EQUIPMENT ID: 124

TYPE OF COUNT: 72 Hour Classification Count

TIME OF COUNT:  
 Start Date: 1/22/2019      Start Time: Midnight  
 End Date: 1/25/2019      End Time: Midnight

VOLUMES:

		Peak Hour Time:	7:30 AM
Average Daily:	4,184	Average Peak Hour:	413
Daily Truck Avg:	345	Max Hour Truck Avg:	34
		Peak Hour Truck Avg:	22

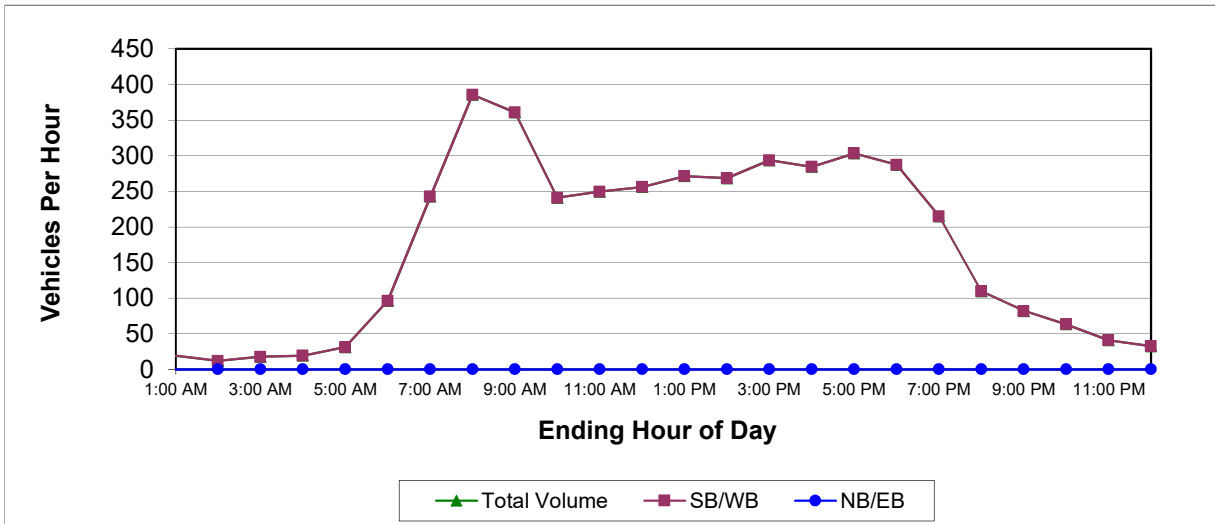
## TRAVEL CHARACTERISTICS:

K MEASURED	D MEASURED
K= 9.9%	D= 100.0%
T Max Hour 8.2%	T daily 8.2%
T med (max) 4.6%	T med Daily 4.5%
T heavy (max) 3.6%	T heavy Daily 3.8%
T Peak Hour 5.2%	
T med Peak Hour 4.0%	Axle Factor 0.98
T heavy Peak Hour 1.2%	

## HOURLY DISTRIBUTIONS OF TRAFFIC VOLUMES

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 10  
 COUNT LOCATION: I-95 SB off ramp to SR 520  
 EQUIPMENT ID: 124

HOUR ENDING AT	HOURLY VOLUME DIRECTION (NB OR EB)	HOURLY VOLUME DIRECTION (SB OR WB)	TOTAL VOLUME BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB OR EB)	DISTRIBUTION PERCENT DIRECTION (SB OR WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	0	19	19	#DIV/0!	0.46%	0.46%
2:00 AM	0	12	12	#DIV/0!	0.29%	0.29%
3:00 AM	0	18	18	#DIV/0!	0.42%	0.42%
4:00 AM	0	19	19	#DIV/0!	0.46%	0.46%
5:00 AM	0	31	31	#DIV/0!	0.75%	0.75%
6:00 AM	0	96	96	#DIV/0!	2.30%	2.30%
7:00 AM	0	243	243	#DIV/0!	5.80%	5.80%
8:00 AM	0	386	386	#DIV/0!	9.22%	9.22%
9:00 AM	0	361	361	#DIV/0!	8.62%	8.62%
10:00 AM	0	241	241	#DIV/0!	5.76%	5.76%
11:00 AM	0	250	250	#DIV/0!	5.97%	5.97%
12:00 PM	0	256	256	#DIV/0!	6.12%	6.12%
1:00 PM	0	271	271	#DIV/0!	6.49%	6.49%
2:00 PM	0	268	268	#DIV/0!	6.41%	6.41%
3:00 PM	0	294	294	#DIV/0!	7.02%	7.02%
4:00 PM	0	284	284	#DIV/0!	6.80%	6.80%
5:00 PM	0	303	303	#DIV/0!	7.25%	7.25%
6:00 PM	0	287	287	#DIV/0!	6.87%	6.87%
7:00 PM	0	215	215	#DIV/0!	5.14%	5.14%
8:00 PM	0	110	110	#DIV/0!	2.62%	2.62%
9:00 PM	0	82	82	#DIV/0!	1.96%	1.96%
10:00 PM	0	63	63	#DIV/0!	1.51%	1.51%
11:00 PM	0	41	41	#DIV/0!	0.98%	0.98%
12:00 AM	0	33	33	#DIV/0!	0.78%	0.78%
<b>TOTALS</b>	0	4,184	4,184	#DIV/0!	100.0%	100.0%



## ANNUAL VEHICLE CLASSIFICATION REPORT

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 10  
 COUNT LOCATION: I-95 SB off ramp to SR 520  
 EQUIPMENT ID: 124

Vehicle Classification	Vehicle Type	Average Daily Statistics	
		Volume	Percentage
Class 1	Motorcycles	13	0.31%
Class 2	Cars	3,341	79.85%
Class 3	Pick-Ups & Vans	485	11.59%
Class 4	Buses	14	0.33%
Class 5	2 Axle, Single Unit Trucks	174	4.16%
Class 6	3 Axle, Single Unit Trucks	40	0.96%
Class 7	4 Axle, Single Unit Trucks	1	0.02%
Class 8	2 Axle Trctr with 1 or 2 Axle Trlr, 3 Axle Trctr with 1 Axle	47	1.12%
Class 9	3 Axle Tractor with 2 Axle Trailer	67	1.60%
Class 10	3 Axle Tractor with 3 Axle Trailer	0	0.00%
Class 11	5 Axle Multi Trailer	1	0.02%
Class 12	6 Axle Multi Trailer	0	0.00%
Class 13	7 or more Axles	1	0.02%
Class 14	Not Used	0	0.00%
Class 15	Other	0	0.00%
<b>TOTALS</b>		<b>4,184</b>	<b>100.00%</b>

# TRAFFIC COUNT DATA

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 11  
 COUNT LOCATION: E. Friday Road, north of SR 524  
 EQUIPMENT ID: 98/98

TYPE OF COUNT: 72 Hour Classification Count

TIME OF COUNT:  
 Start Date: 1/22/2019      Start Time: Midnight  
 End Date: 1/25/2019      End Time: Midnight

VOLUMES:

		Peak Hour Time: 5:15 PM
Average Daily:	3,064	Average Peak Hour: 298
Daily Truck Avg:	216	Max Hour Truck Avg: 30
		Peak Hour Truck Avg: 23

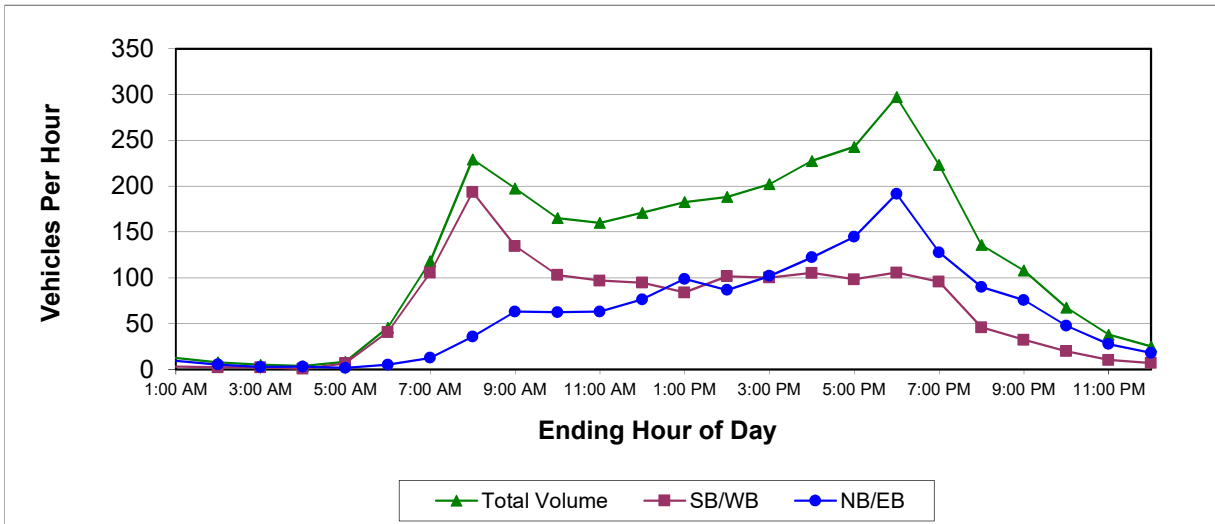
## TRAVEL CHARACTERISTICS:

K MEASURED	D MEASURED
K= 9.7%	D= 62.8%
T Max Hour 10.0%	T daily 7.1%
T med (max) 8.9%	T med Daily 6.3%
T heavy (max) 1.0%	T heavy Daily 0.7%
T Peak Hour 7.6%	
T med Peak Hour 7.2%	Axle Factor 1.00
T heavy Peak Hour 0.4%	

## HOURLY DISTRIBUTIONS OF TRAFFIC VOLUMES

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 11  
 COUNT LOCATION: E. Friday Road, north of SR 524  
 EQUIPMENT ID: 98/98

HOUR ENDING AT	HOURLY VOLUME DIRECTION (NB OR EB)	HOURLY VOLUME DIRECTION (SB OR WB)	TOTAL VOLUME BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB OR EB)	DISTRIBUTION PERCENT DIRECTION (SB OR WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	9	3	12	0.63%	0.19%	0.40%
2:00 AM	5	2	8	0.36%	0.15%	0.25%
3:00 AM	3	2	5	0.18%	0.15%	0.16%
4:00 AM	3	1	4	0.20%	0.04%	0.12%
5:00 AM	2	7	8	0.11%	0.42%	0.27%
6:00 AM	5	41	46	0.34%	2.56%	1.49%
7:00 AM	13	106	118	0.86%	6.64%	3.86%
8:00 AM	36	194	229	2.42%	12.17%	7.49%
9:00 AM	63	135	198	4.28%	8.46%	6.45%
10:00 AM	62	103	165	4.23%	6.47%	5.40%
11:00 AM	63	97	160	4.28%	6.10%	5.22%
12:00 PM	76	95	171	5.18%	5.95%	5.58%
1:00 PM	99	84	183	6.70%	5.28%	5.96%
2:00 PM	87	102	188	5.89%	6.39%	6.15%
3:00 PM	102	100	202	6.93%	6.31%	6.60%
4:00 PM	122	105	228	8.31%	6.62%	7.43%
5:00 PM	145	98	243	9.82%	6.18%	7.93%
6:00 PM	192	106	297	13.01%	6.64%	9.71%
7:00 PM	128	96	223	8.67%	6.01%	7.29%
8:00 PM	90	46	136	6.11%	2.89%	4.44%
9:00 PM	76	32	108	5.14%	2.03%	3.53%
10:00 PM	48	20	68	3.24%	1.26%	2.21%
11:00 PM	28	10	38	1.88%	0.65%	1.24%
12:00 AM	18	7	25	1.22%	0.44%	0.82%
<b>TOTALS</b>	1,473	1,591	3,064	100.0%	100.0%	100.0%



## ANNUAL VEHICLE CLASSIFICATION REPORT

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 11  
 COUNT LOCATION: E. Friday Road, north of SR 524  
 EQUIPMENT ID: 98/98

Vehicle Classification	Vehicle Type	Average Daily Statistics	
		Volume	Percentage
Class 1	Motorcycles	15	0.49%
Class 2	Cars	2,161	70.55%
Class 3	Pick-Ups & Vans	671	21.91%
Class 4	Buses	12	0.39%
Class 5	2 Axle, Single Unit Trucks	182	5.94%
Class 6	3 Axle, Single Unit Trucks	10	0.33%
Class 7	4 Axle, Single Unit Trucks	3	0.10%
Class 8	2 Axle Trctr with 1 or 2 Axle Trlr, 3 Axle Trctr with 1 Axle	8	0.26%
Class 9	3 Axle Tractor with 2 Axle Trailer	1	0.03%
Class 10	3 Axle Tractor with 3 Axle Trailer	0	0.00%
Class 11	5 Axle Multi Trailer	0	0.00%
Class 12	6 Axle Multi Trailer	0	0.00%
Class 13	7 or more Axles	0	0.00%
Class 14	Not Used	0	0.00%
Class 15	Other	0	0.00%
<b>TOTALS</b>		<b>3,063</b>	<b>100.00%</b>



# TRAFFIC COUNT DATA

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 12  
 COUNT LOCATION: E. Friday Road, south of SR 524  
 EQUIPMENT ID: 132

TYPE OF COUNT: 72 Hour Classification Count

TIME OF COUNT:  
 Start Date: 1/22/2019      Start Time: Midnight  
 End Date: 1/25/2019      End Time: Midnight

VOLUMES:

		Peak Hour Time: 11:45 AM
Average Daily:	5,658	Average Peak Hour: 418
Daily Truck Avg:	2,403	Max Hour Truck Avg: 187
		Peak Hour Truck Avg: 174

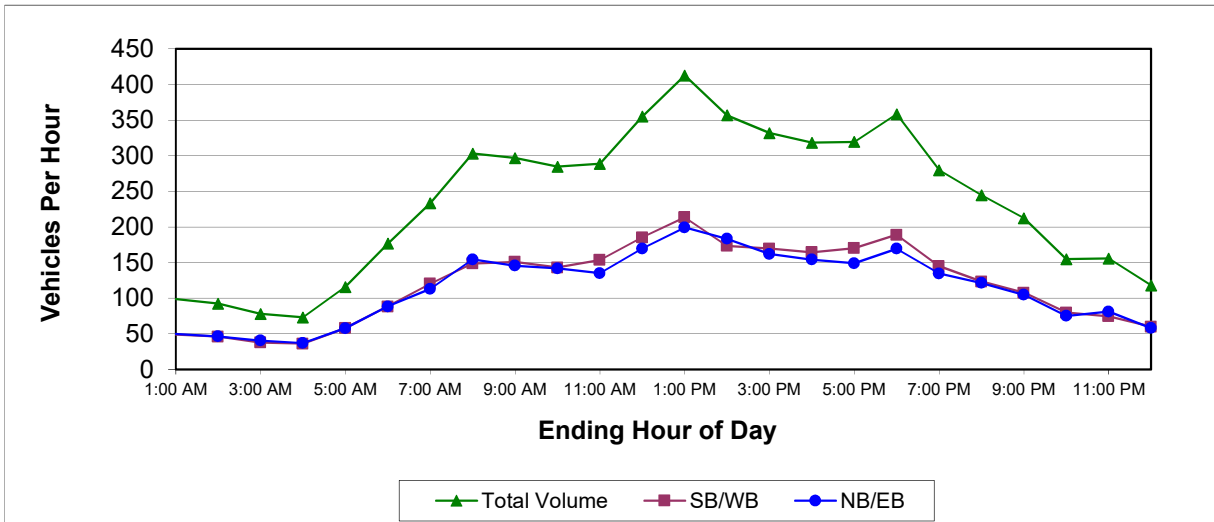
## TRAVEL CHARACTERISTICS:

K MEASURED	D MEASURED
K= 7.4%	D= 53.0%
T Max Hour 44.7%	T daily 42.5%
T med (max) 21.1%	T med Daily 17.6%
T heavy (max) 23.7%	T heavy Daily 24.9%
T Peak Hour 41.6%	
T med Peak Hour 19.3%	Axle Factor 0.86
T heavy Peak Hour 22.3%	

## HOURLY DISTRIBUTIONS OF TRAFFIC VOLUMES

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 12  
 COUNT LOCATION: E. Friday Road, south of SR 524  
 EQUIPMENT ID: 132

HOUR ENDING AT	HOURLY VOLUME DIRECTION (NB OR EB)	HOURLY VOLUME DIRECTION (SB OR WB)	TOTAL VOLUME BOTH DIRECTIONS	DISTRIBUTION PERCENT DIRECTION (NB OR EB)	DISTRIBUTION PERCENT DIRECTION (SB OR WB)	TOTAL PERCENT BOTH DIRECTIONS
1:00 AM	50	49	99	1.79%	1.70%	1.74%
2:00 AM	46	46	92	1.67%	1.59%	1.63%
3:00 AM	40	38	78	1.46%	1.30%	1.38%
4:00 AM	37	36	73	1.34%	1.25%	1.29%
5:00 AM	58	58	116	2.08%	2.01%	2.04%
6:00 AM	88	88	177	3.19%	3.06%	3.12%
7:00 AM	113	120	233	4.08%	4.17%	4.12%
8:00 AM	154	149	303	5.57%	5.15%	5.36%
9:00 AM	146	151	297	5.26%	5.23%	5.24%
10:00 AM	142	143	285	5.11%	4.95%	5.03%
11:00 AM	135	154	289	4.87%	5.32%	5.10%
12:00 PM	170	185	355	6.12%	6.42%	6.27%
1:00 PM	199	213	413	7.20%	7.39%	7.29%
2:00 PM	183	173	357	6.62%	6.00%	6.30%
3:00 PM	162	170	332	5.85%	5.88%	5.86%
4:00 PM	154	164	318	5.56%	5.69%	5.63%
5:00 PM	149	170	319	5.38%	5.90%	5.64%
6:00 PM	169	189	358	6.11%	6.55%	6.33%
7:00 PM	135	145	280	4.86%	5.02%	4.94%
8:00 PM	121	123	245	4.38%	4.27%	4.32%
9:00 PM	105	108	212	3.78%	3.73%	3.75%
10:00 PM	75	80	155	2.71%	2.76%	2.73%
11:00 PM	81	75	156	2.92%	2.59%	2.75%
12:00 AM	58	60	118	2.09%	2.08%	2.09%
<b>TOTALS</b>	<b>2,770</b>	<b>2,887</b>	<b>5,658</b>	<b>100.0%</b>	<b>100.0%</b>	<b>100.0%</b>



## ANNUAL VEHICLE CLASSIFICATION REPORT

VHB PROJECT NO: 62954.32  
 LOCATION CODE: 12  
 COUNT LOCATION: E. Friday Road, south of SR 524  
 EQUIPMENT ID: 132

Vehicle Classification	Vehicle Type	Average Daily Statistics	
		Volume	Percentage
Class 1	Motorcycles	201	3.55%
Class 2	Cars	2,280	40.29%
Class 3	Pick-Ups & Vans	774	13.68%
Class 4	Buses	129	2.28%
Class 5	2 Axle, Single Unit Trucks	866	15.30%
Class 6	3 Axle, Single Unit Trucks	243	4.29%
Class 7	4 Axle, Single Unit Trucks	18	0.32%
Class 8	2 Axle Trctr with 1 or 2 Axle Trlr, 3 Axle Trctr with 1 Axle	304	5.37%
Class 9	3 Axle Tractor with 2 Axle Trailer	772	13.64%
Class 10	3 Axle Tractor with 3 Axle Trailer	5	0.09%
Class 11	5 Axle Multi Trailer	12	0.21%
Class 12	6 Axle Multi Trailer	17	0.30%
Class 13	7 or more Axles	38	0.67%
Class 14	Not Used	0	0.00%
Class 15	Other	0	0.00%
<b>TOTALS</b>		<b>5,659</b>	<b>100.00%</b>

# Roadway Count Summary

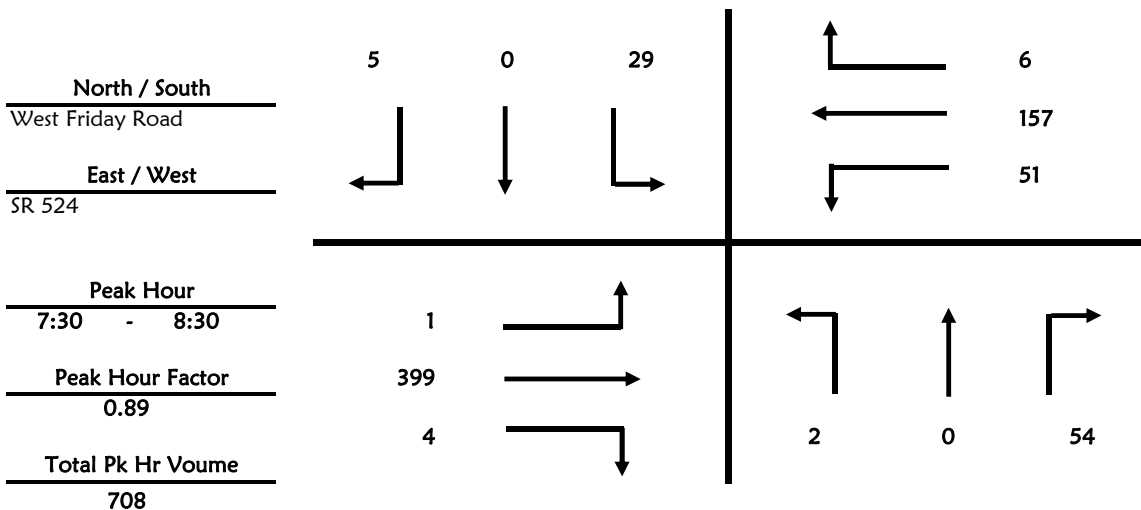
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**              West Friday Road                                      & SR 524  
**Date**                              Wednesday, January 23, 2019                                      **All Vehicles**  
**Time Period**                      7:00                      to                      9:00

VHB Project #:      62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	1	0	10	4	0	0
7:15 - 7:30	1	0	14	6	0	0
7:30 - 7:45	0	0	28	4	0	0
7:45 - 8:00	0	0	11	9	0	2
8:00 - 8:15	1	0	3	10	0	1
8:15 - 8:30	1	0	12	6	0	2
8:30 - 8:45	1	0	8	7	0	1
8:45 - 9:00	3	0	7	12	2	2
	8	0	93	58	2	8

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	76	1	12	27	0
7:15 - 7:30	0	84	0	14	28	1
7:30 - 7:45	1	119	2	9	33	3
7:45 - 8:00	0	103	0	11	37	0
8:00 - 8:15	0	93	2	14	40	3
8:15 - 8:30	0	84	0	17	47	0
8:30 - 8:45	1	63	4	10	43	1
8:45 - 9:00	0	44	2	15	44	3
	2	666	11	102	299	11



# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

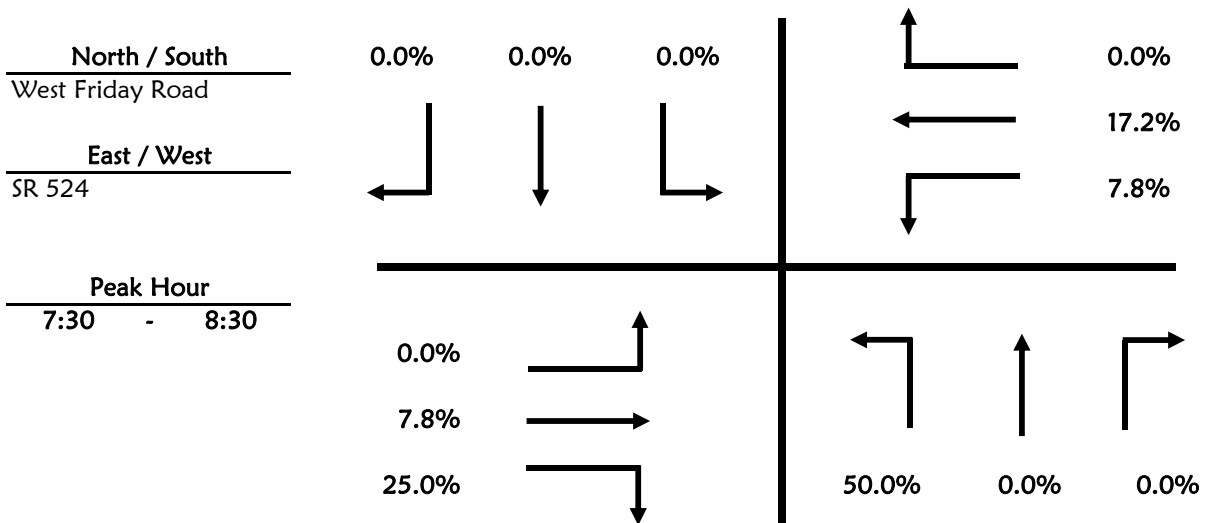
**County** Brevard **City** Cocoa  
**Intersection** West Friday Road & SR 524  
**Date** Wednesday, January 23, 2019  
**Time Period** 7:00 to 9:00

**Trucks**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	1	0	1	0	0	0
7:15 - 7:30	1	0	3	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	1	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	3	0
7:15 - 7:30	0	1	0	1	2	0
7:30 - 7:45	0	5	0	1	6	0
7:45 - 8:00	0	5	0	2	7	0
8:00 - 8:15	0	12	1	1	7	0
8:15 - 8:30	0	9	0	0	7	0
8:30 - 8:45	0	4	0	1	7	0
8:45 - 9:00	0	5	1	0	11	0



# Roadway Count Summary

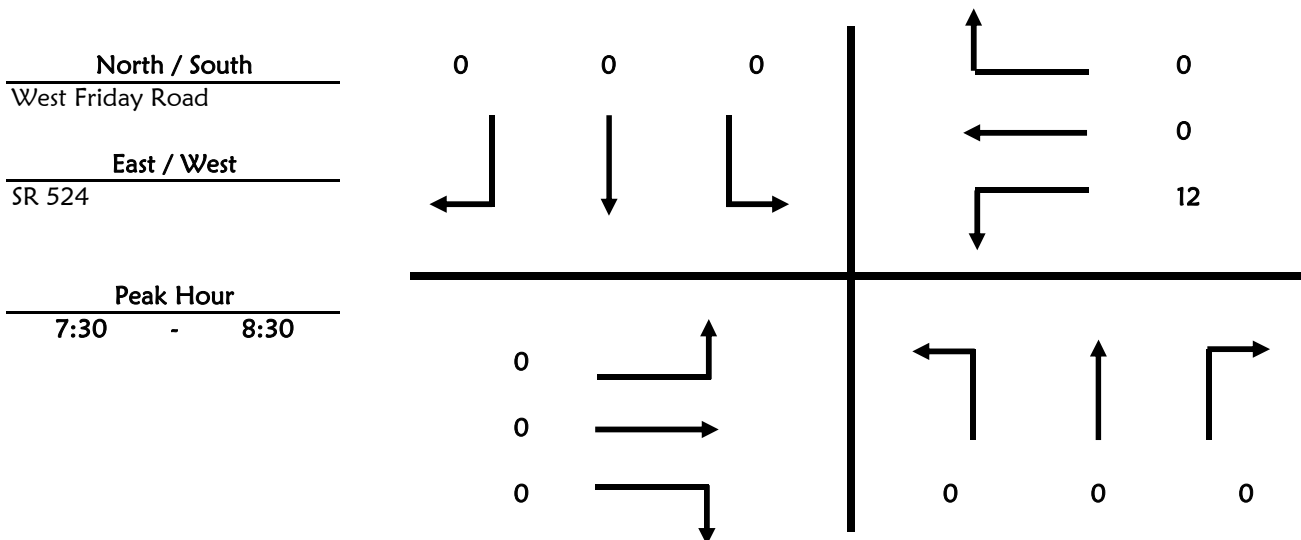
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**                West Friday Road                                      &   SR 524  
**Date**                                Wednesday, January 23, 2019  
**Time Period**                      7:00                      to                      9:00                                      **U-Turn & RTOR**

VHB Project #:    62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	7	0	0
7:15 - 7:30	0	0	0	3	0	0
7:30 - 7:45	0	0	0	2	0	0
7:45 - 8:00	0	0	0	3	0	0
8:00 - 8:15	0	0	0	2	0	0
8:15 - 8:30	0	0	0	5	0	0
8:30 - 8:45	0	0	0	6	0	0
8:45 - 9:00	0	0	0	7	0	0



# Roadway Count Summary

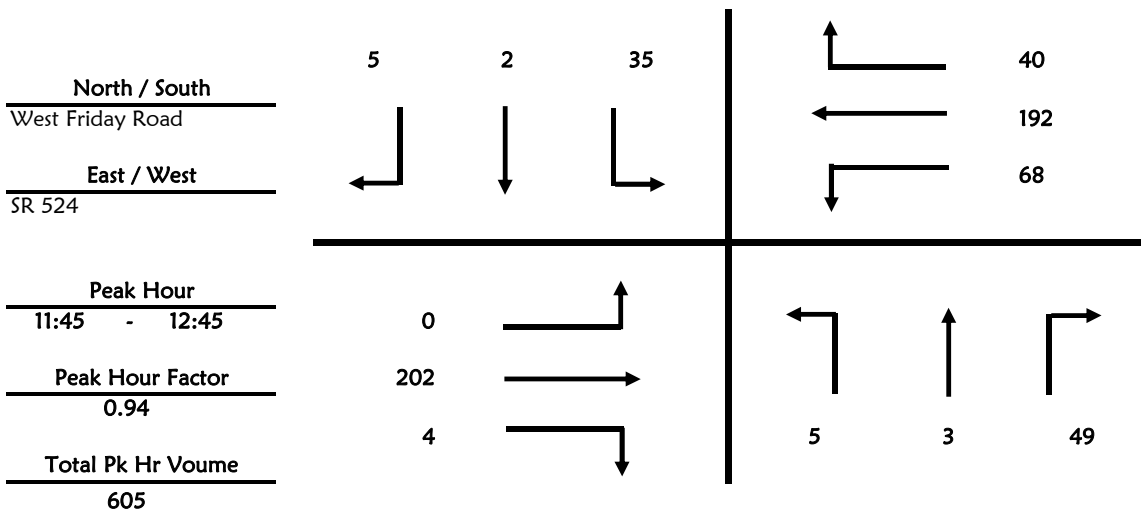
*Vanasse Hangen Brustlin, Inc.*

**County** Brevard **City** Cocoa  
**Intersection** West Friday Road & SR 524  
**Date** Wednesday, January 23, 2019 **All Vehicles**  
**Time Period** 11:00 to 13:00

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	2	4	3	7	3	0
11:15 - 11:30	0	1	11	10	2	1
11:30 - 11:45	2	2	6	8	0	1
11:45 - 12:00	1	0	15	7	0	1
12:00 - 12:15	1	0	8	7	0	3
12:15 - 12:30	3	1	12	8	1	0
12:30 - 12:45	0	2	14	13	1	1
12:45 - 13:00	2	0	8	6	0	0
	11	10	77	66	7	7

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	1	42	2	13	30	11
11:15 - 11:30	0	46	2	17	57	10
11:30 - 11:45	1	41	2	14	45	6
11:45 - 12:00	0	53	0	26	36	12
12:00 - 12:15	0	57	1	16	59	9
12:15 - 12:30	0	46	2	15	41	11
12:30 - 12:45	0	46	1	11	56	8
12:45 - 13:00	0	50	2	19	50	8
	2	381	12	131	374	75



# Roadway Count Summary

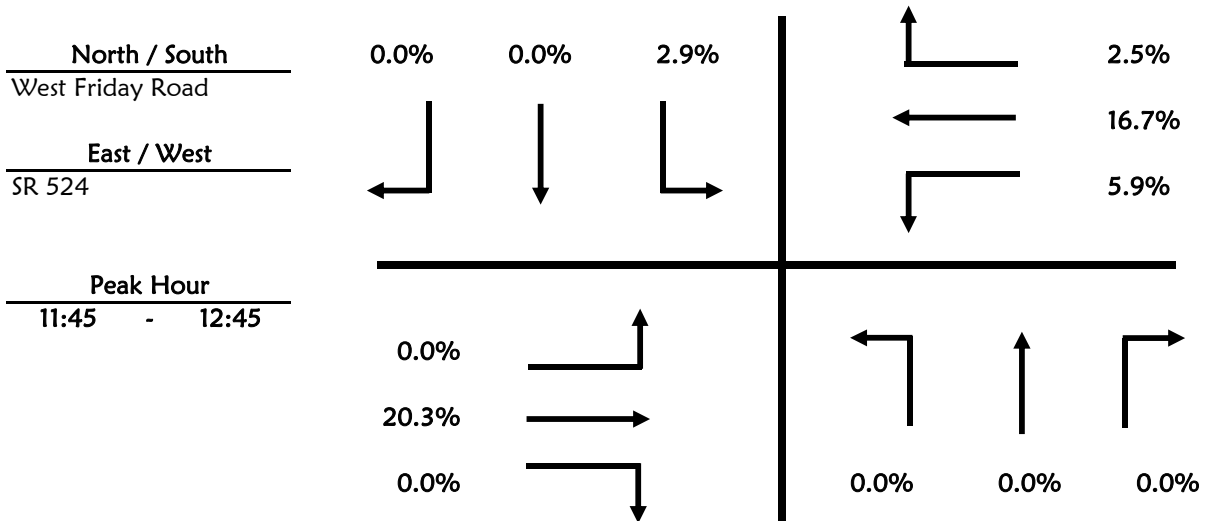
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**                West Friday Road                                      &   SR 524  
**Date**                                Wednesday, January 23, 2019  
**Time Period**                    11:00                      to                      13:00                                      **Trucks**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0
11:30 - 11:45	0	0	1	1	0	0
11:45 - 12:00	0	0	0	0	0	0
12:00 - 12:15	0	0	0	1	0	0
12:15 - 12:30	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0
12:45 - 13:00	0	0	0	1	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	0	8	0	0	6	0
11:15 - 11:30	0	4	1	0	10	1
11:30 - 11:45	0	5	0	0	11	0
11:45 - 12:00	0	10	0	1	7	0
12:00 - 12:15	0	16	0	0	9	1
12:15 - 12:30	0	10	0	3	7	0
12:30 - 12:45	0	5	0	0	9	0
12:45 - 13:00	0	10	0	0	8	0





# Roadway Count Summary

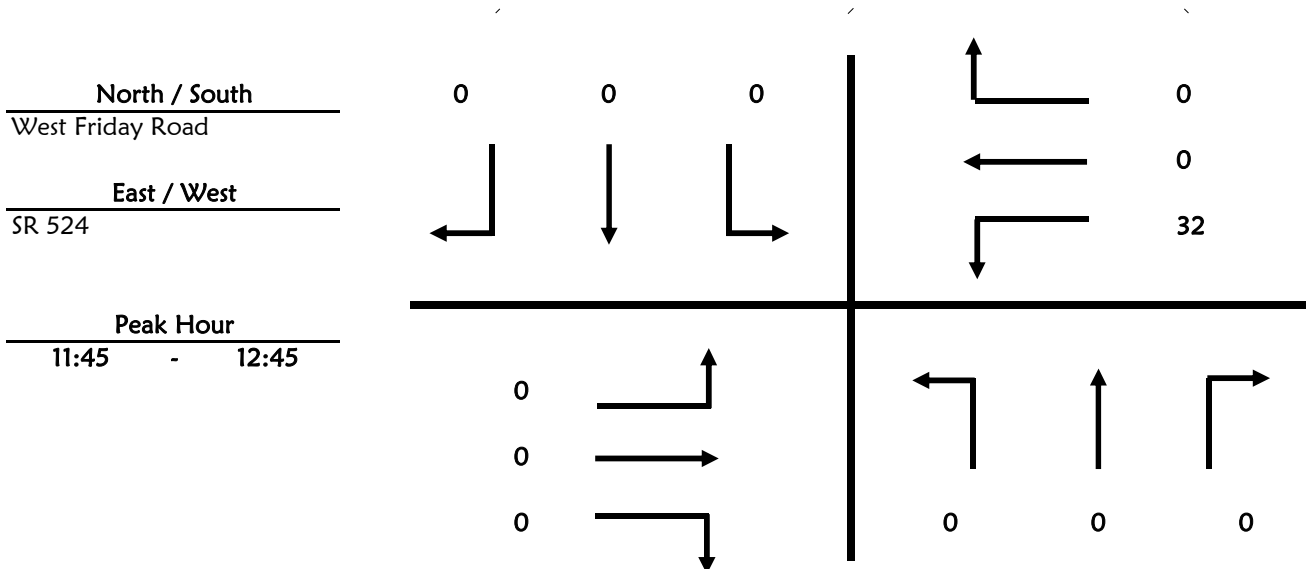
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**                West Friday Road                                      &   SR 524  
**Date**                                Wednesday, January 23, 2019  
**Time Period**                    11:00                      to                      13:00                                      **U-Turn & RTOR**

VHB Project #:    62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	0	0	0	5	0	0
11:15 - 11:30	0	0	0	8	0	0
11:30 - 11:45	0	0	0	2	0	0
11:45 - 12:00	0	0	0	9	0	0
12:00 - 12:15	0	0	0	9	0	0
12:15 - 12:30	0	0	0	7	0	0
12:30 - 12:45	0	0	0	7	0	0
12:45 - 13:00	0	0	0	8	0	0



# Roadway Count Summary

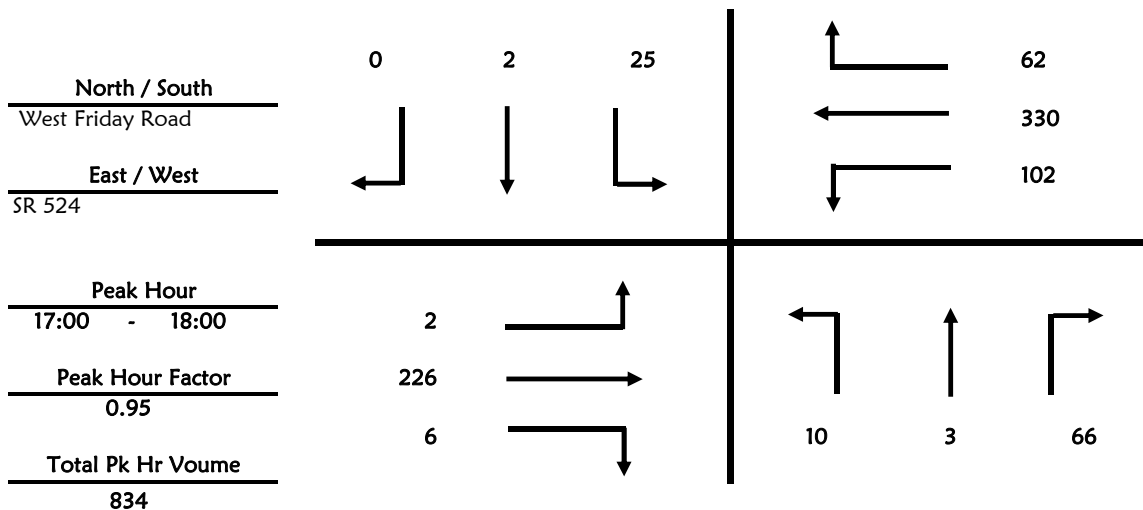
## Vanasse Hangen Brustlin, Inc.

<b>County</b>	Brevard	<b>City</b>	Cocoa
<b>Intersection</b>	West Friday Road	& SR 524	
<b>Date</b>	Wednesday, January 23, 2019		<b>All Vehicles</b>
<b>Time Period</b>	16:00	to	18:00

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	11	9	2	0
16:15 - 16:30	2	1	6	11	0	0
16:30 - 16:45	0	0	16	2	0	0
16:45 - 17:00	3	0	14	10	1	0
17:00 - 17:15	4	0	23	3	0	0
17:15 - 17:30	2	0	18	3	0	0
17:30 - 17:45	1	3	14	14	2	0
17:45 - 18:00	3	0	11	5	0	0
	15	4	113	57	5	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	2	41	2	25	67	11
16:15 - 16:30	0	61	0	25	75	8
16:30 - 16:45	0	51	4	17	83	11
16:45 - 17:00	1	43	0	13	77	11
17:00 - 17:15	0	65	1	25	76	23
17:15 - 17:30	0	43	2	33	89	10
17:30 - 17:45	1	58	1	15	81	18
17:45 - 18:00	1	60	2	29	84	11
	5	422	12	182	632	103



# Roadway Count Summary

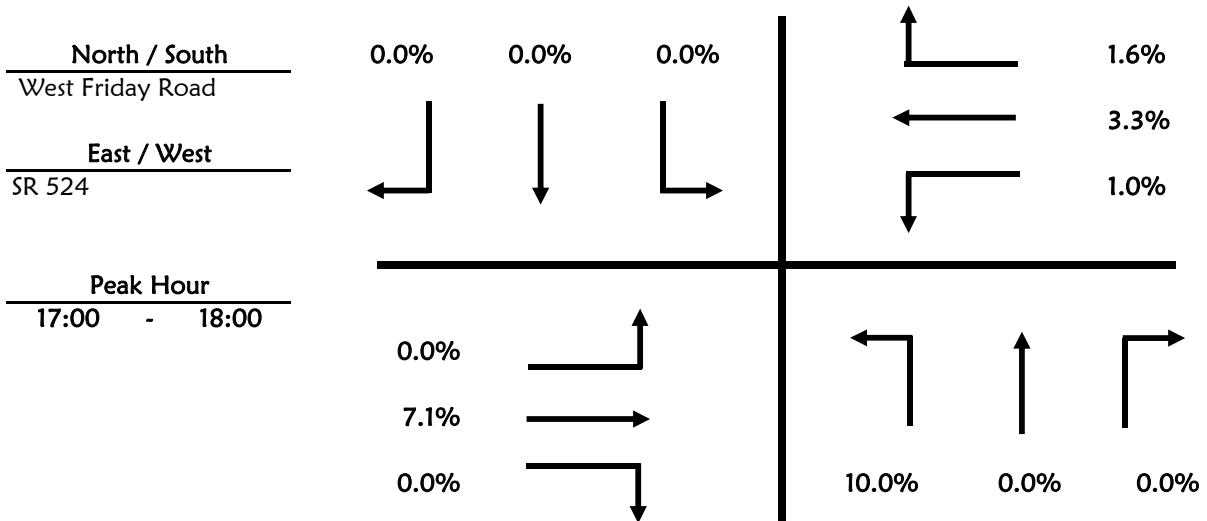
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**        Cocoa  
**Intersection**               West Friday Road                                      &    SR 524  
**Date**                                Wednesday, January 23, 2019  
**Time Period**                    16:00            to            18:00                                      **Trucks**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	1	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	1	0	0	0
16:45 - 17:00	0	0	1	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	1	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	1	5	1	0	3	1
16:15 - 16:30	0	7	0	1	5	0
16:30 - 16:45	0	6	2	0	7	0
16:45 - 17:00	0	2	0	0	3	0
17:00 - 17:15	0	7	0	1	3	0
17:15 - 17:30	0	2	0	0	3	0
17:30 - 17:45	0	6	0	0	2	1
17:45 - 18:00	0	1	0	0	3	0



# Roadway Count Summary

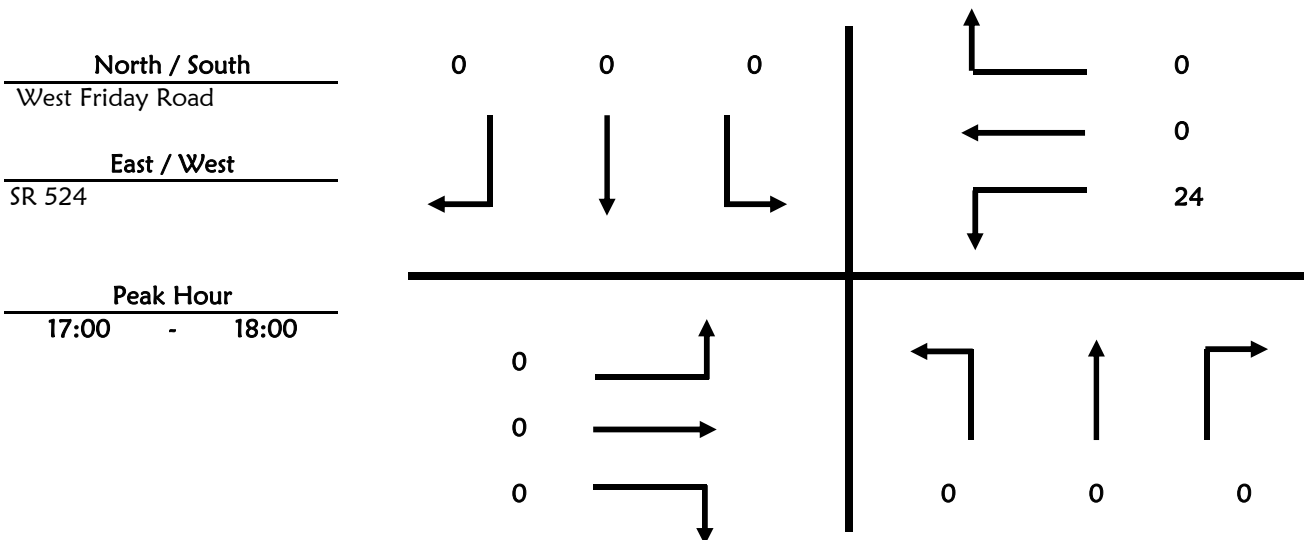
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**                West Friday Road                                      &   SR 524  
**Date**                                Wednesday, January 23, 2019  
**Time Period**                    16:00                      to                      18:00                                      **U-Turn & RTOR**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	2	0	0
16:15 - 16:30	0	0	0	3	0	0
16:30 - 16:45	0	0	0	5	0	0
16:45 - 17:00	0	0	0	1	0	0
17:00 - 17:15	0	0	0	5	0	0
17:15 - 17:30	0	0	0	7	0	0
17:30 - 17:45	0	0	0	3	0	0
17:45 - 18:00	0	0	0	9	0	0



# Roadway Count Summary

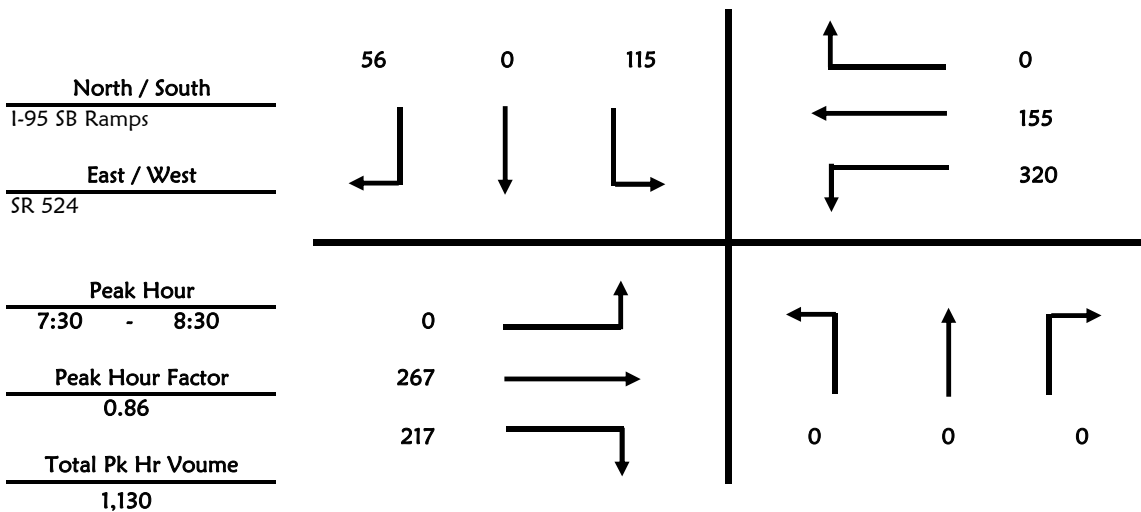
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**              I-95 SB Ramps                                      & SR 524  
**Date**                              Wednesday, January 23, 2019                                      **All Vehicles**  
**Time Period**                      7:00                      to                      9:00

VHB Project #:    62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	32	0	14
7:15 - 7:30	0	0	0	29	0	5
7:30 - 7:45	0	0	0	36	0	18
7:45 - 8:00	0	0	0	33	0	13
8:00 - 8:15	0	0	0	17	0	9
8:15 - 8:30	0	0	0	29	0	16
8:30 - 8:45	0	0	0	14	0	13
8:45 - 9:00	0	0	0	25	0	13
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>215</b>	<b>0</b>	<b>101</b>

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	51	47	83	25	0
7:15 - 7:30	0	55	60	91	28	0
7:30 - 7:45	0	85	69	87	33	0
7:45 - 8:00	0	58	53	75	32	0
8:00 - 8:15	0	57	53	84	46	0
8:15 - 8:30	0	67	42	74	44	0
8:30 - 8:45	0	46	40	76	42	0
8:45 - 9:00	0	42	29	47	46	0
<b>Total</b>	<b>0</b>	<b>461</b>	<b>393</b>	<b>617</b>	<b>296</b>	<b>0</b>



# Roadway Count Summary

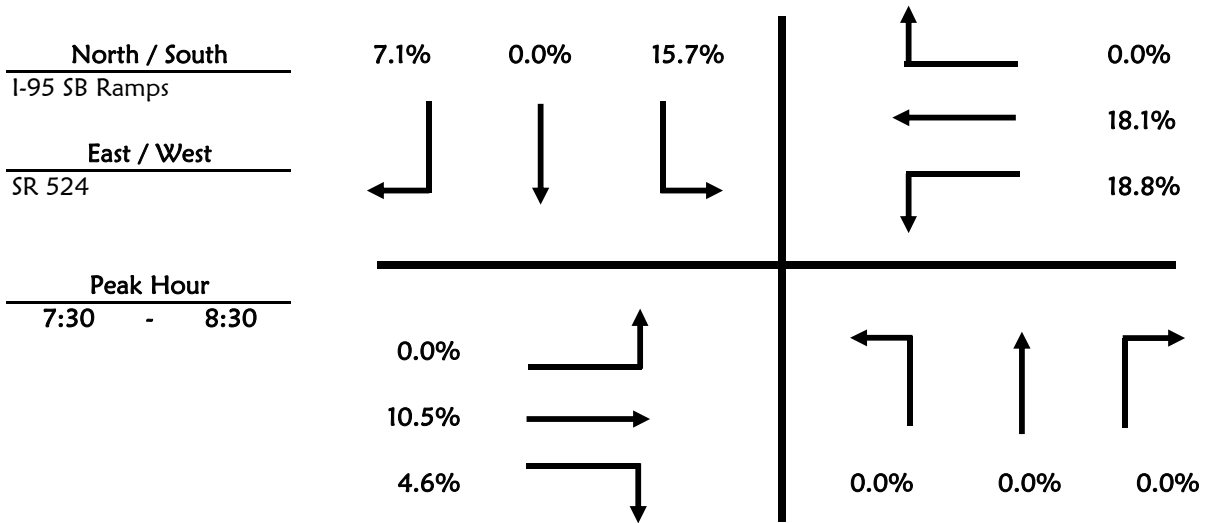
*Vanasse Hangen Brustlin, Inc.*

<b>County</b>	Brevard	<b>City</b>	Cocoa
<b>Intersection</b>	I-95 SB Ramps	&	SR 524
<b>Date</b>	Wednesday, January 23, 2019		
<b>Time Period</b>	7:00	to	9:00

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	8	0	0
7:15 - 7:30	0	0	0	5	0	0
7:30 - 7:45	0	0	0	4	0	1
7:45 - 8:00	0	0	0	4	0	1
8:00 - 8:15	0	0	0	4	0	1
8:15 - 8:30	0	0	0	6	0	1
8:30 - 8:45	0	0	0	7	0	4
8:45 - 9:00	0	0	0	10	0	1

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	1	2	13	3	0
7:15 - 7:30	0	3	2	13	1	0
7:30 - 7:45	0	4	1	5	8	0
7:45 - 8:00	0	5	3	15	8	0
8:00 - 8:15	0	12	2	18	4	0
8:15 - 8:30	0	7	4	22	8	0
8:30 - 8:45	0	7	1	27	6	0
8:45 - 9:00	0	3	2	13	9	0



# Roadway Count Summary

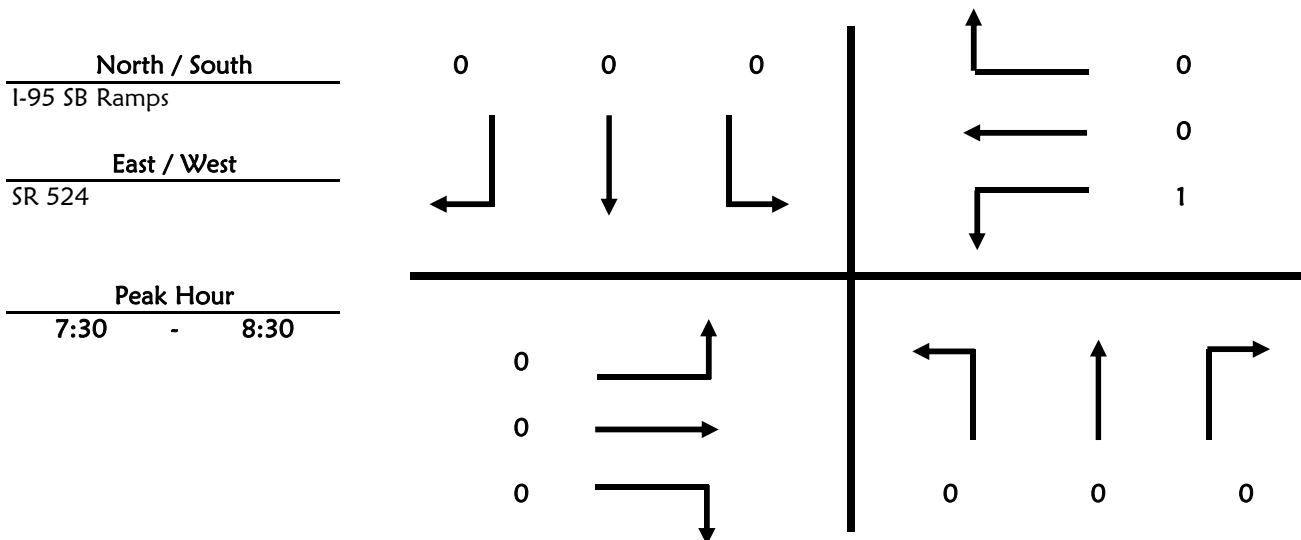
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**                I-95 SB Ramps                                      & SR 524  
**Date**                                Wednesday, January 23, 2019  
**Time Period**                      7:00                      to                      9:00                                      **U-Turn & RTOR**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	1	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0



# Roadway Count Summary

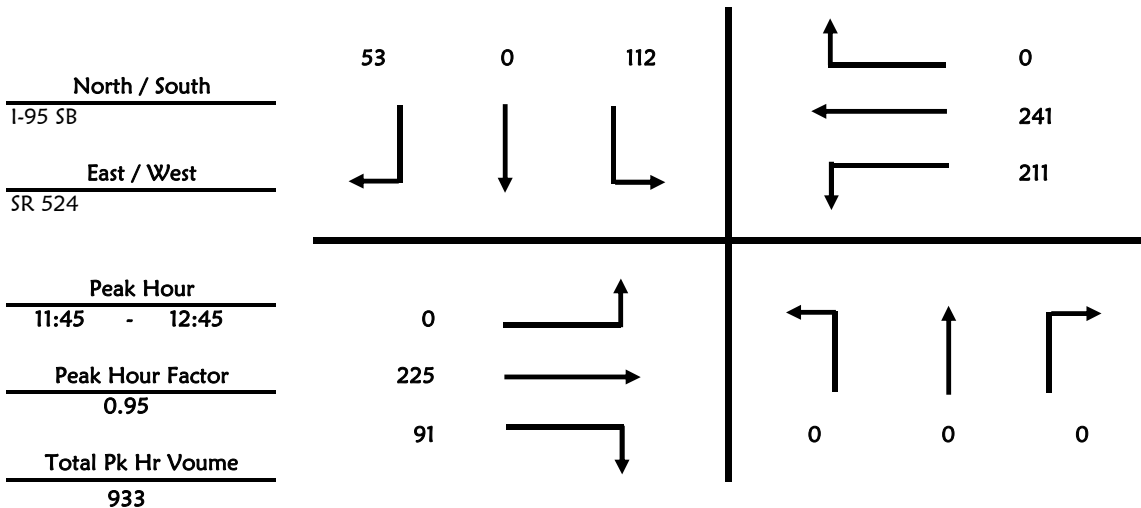
## Vanasse Hangen Brustlin, Inc.

**County** Brevard **City** cocoa  
**Intersection** I-95 SB **& SR 524**  
**Date** Wednesday, January 23, 2019 **All Vehicles**  
**Time Period** 11:00 to 13:00

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	0	0	0	27	0	12
11:15 - 11:30	0	0	0	14	0	16
11:30 - 11:45	0	0	0	30	0	10
11:45 - 12:00	0	0	0	31	0	14
12:00 - 12:15	0	0	0	27	0	13
12:15 - 12:30	0	0	0	25	0	10
12:30 - 12:45	0	0	0	29	0	16
12:45 - 13:00	0	0	0	23	0	8
<b>Total</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>206</b>	<b>0</b>	<b>99</b>

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	0	42	18	49	49	0
11:15 - 11:30	0	50	25	45	61	0
11:30 - 11:45	0	36	20	42	55	0
11:45 - 12:00	0	62	24	54	60	0
12:00 - 12:15	0	63	18	50	73	0
12:15 - 12:30	0	45	29	49	53	0
12:30 - 12:45	0	55	20	58	55	0
12:45 - 13:00	0	52	23	61	67	0
<b>Total</b>	<b>0</b>	<b>405</b>	<b>177</b>	<b>408</b>	<b>473</b>	<b>0</b>





# Roadway Count Summary

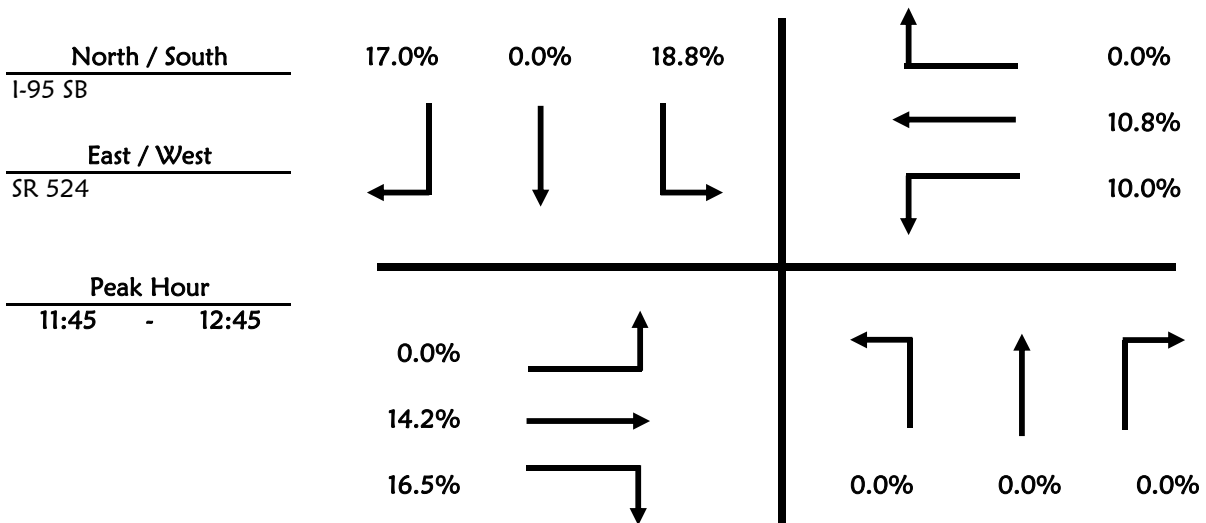
*Vanasse Hangen Brustlin, Inc.*

**County** Brevard **City** cocoa  
**Intersection** I-95 SB & SR 524  
**Date** Wednesday, January 23, 2019  
**Time Period** 11:00 to 13:00 **Trucks**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	0	0	0	8	0	2
11:15 - 11:30	0	0	0	2	0	4
11:30 - 11:45	0	0	0	12	0	2
11:45 - 12:00	0	0	0	5	0	4
12:00 - 12:15	0	0	0	7	0	0
12:15 - 12:30	0	0	0	5	0	2
12:30 - 12:45	0	0	0	4	0	3
12:45 - 13:00	0	0	0	8	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	0	4	4	7	4	0
11:15 - 11:30	0	3	0	12	12	0
11:30 - 11:45	0	3	3	4	8	0
11:45 - 12:00	0	4	6	5	5	0
12:00 - 12:15	0	12	5	4	9	0
12:15 - 12:30	0	9	4	3	6	0
12:30 - 12:45	0	7	0	9	6	0
12:45 - 13:00	0	6	5	14	9	0



# Roadway Count Summary

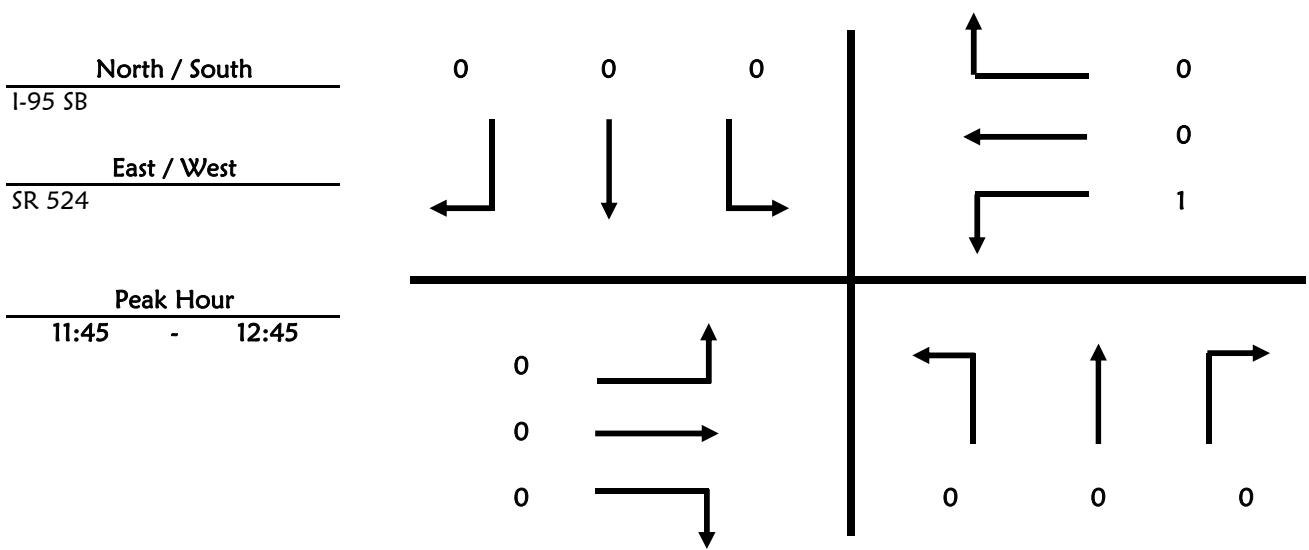
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      cocoa  
**Intersection**                I-95 SB                                      &   SR 524  
**Date**                                Wednesday, January 23, 2019  
**Time Period**                    11:00                      to                      13:00                                      **U-Turn & RTOR**

VHB Project #:    62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0
11:45 - 12:00	0	0	0	1	0	0
12:00 - 12:15	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0



# Roadway Count Summary

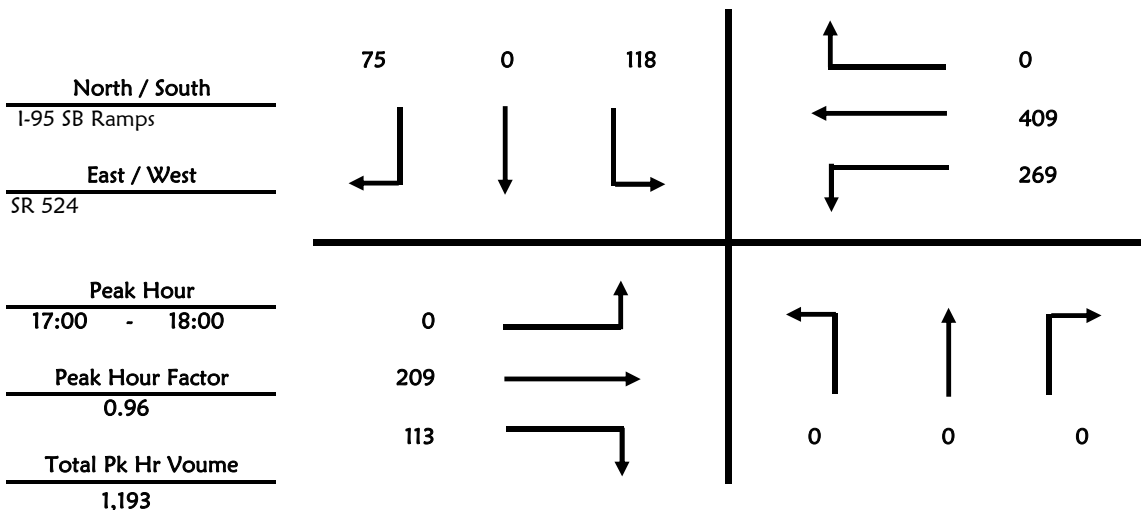
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**                I-95 SB Ramps                                      & SR 524  
**Date**                                Wednesday, January 23, 2019                                      **All Vehicles**  
**Time Period**                      16:00                      to                      18:00

VHB Project #:    62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	31	0	27
16:15 - 16:30	0	0	0	30	0	19
16:30 - 16:45	0	0	0	29	0	32
16:45 - 17:00	0	0	0	19	0	22
17:00 - 17:15	0	0	0	33	0	19
17:15 - 17:30	0	0	0	31	0	24
17:30 - 17:45	0	0	0	20	0	15
17:45 - 18:00	0	0	0	34	0	17
	0	0	0	227	0	175

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	48	27	73	93	0
16:15 - 16:30	0	57	34	71	104	0
16:30 - 16:45	0	60	32	54	97	0
16:45 - 17:00	0	50	25	62	86	0
17:00 - 17:15	0	70	26	57	104	0
17:15 - 17:30	0	51	22	73	110	0
17:30 - 17:45	0	42	29	72	90	0
17:45 - 18:00	0	46	36	67	105	0
	0	424	231	529	789	0



# Roadway Count Summary

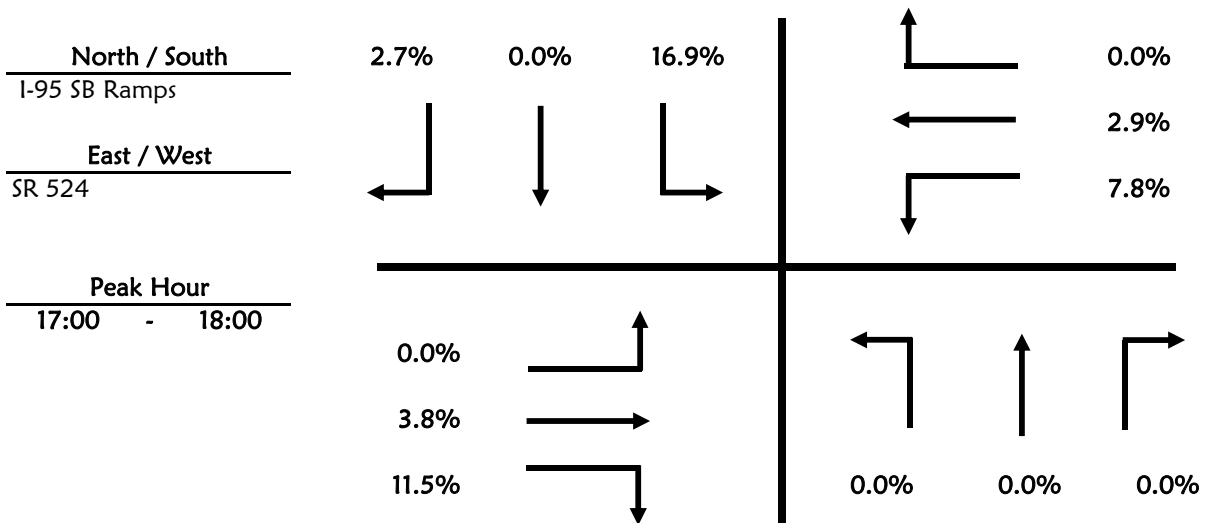
*Vanasse Hangen Brustlin, Inc.*

County Brevard City Cocoa  
 Intersection I-95 SB Ramps & SR 524  
 Date Wednesday, January 23, 2019  
 Time Period 16:00 to 18:00 Trucks

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	9	0	4
16:15 - 16:30	0	0	0	7	0	1
16:30 - 16:45	0	0	0	8	0	1
16:45 - 17:00	0	0	0	2	0	1
17:00 - 17:15	0	0	0	5	0	0
17:15 - 17:30	0	0	0	4	0	1
17:30 - 17:45	0	0	0	5	0	0
17:45 - 18:00	0	0	0	6	0	1

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	1	5	5	3	0
16:15 - 16:30	0	4	4	6	4	0
16:30 - 16:45	0	3	4	3	7	0
16:45 - 17:00	0	2	0	3	2	0
17:00 - 17:15	0	3	5	2	4	0
17:15 - 17:30	0	2	1	4	2	0
17:30 - 17:45	0	3	5	9	3	0
17:45 - 18:00	0	0	2	6	3	0



# Roadway Count Summary

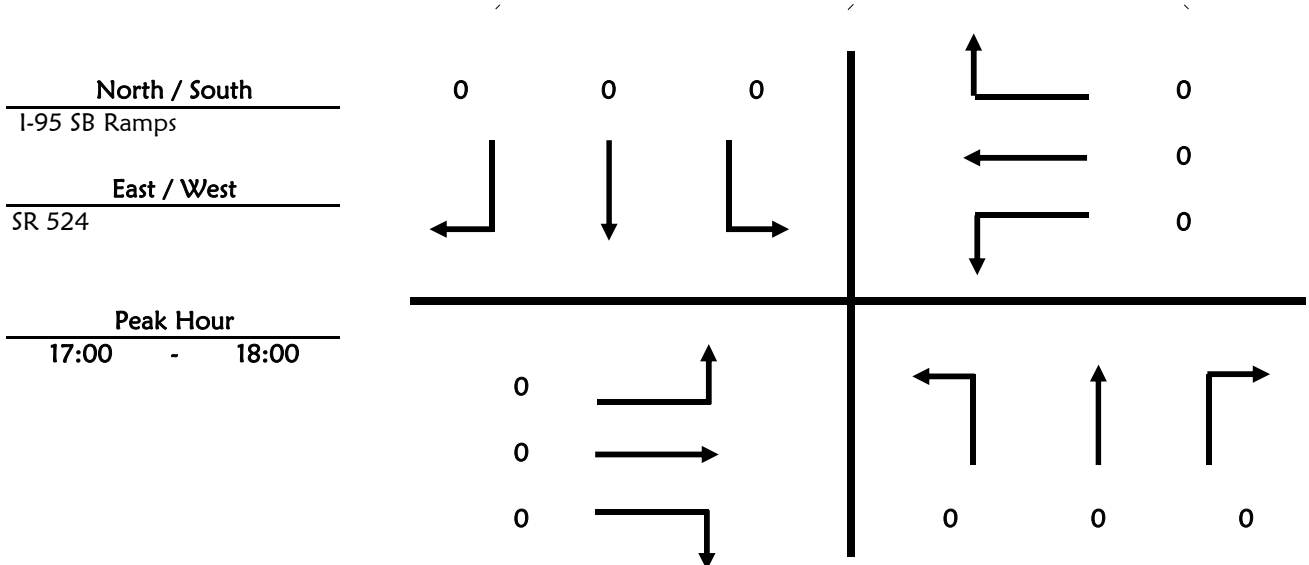
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**                I-95 SB Ramps                                      & SR 524  
**Date**                                Wednesday, January 23, 2019  
**Time Period**                    16:00                      to                      18:00                                      **U-Turn & RTOR**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0



# Roadway Count Summary

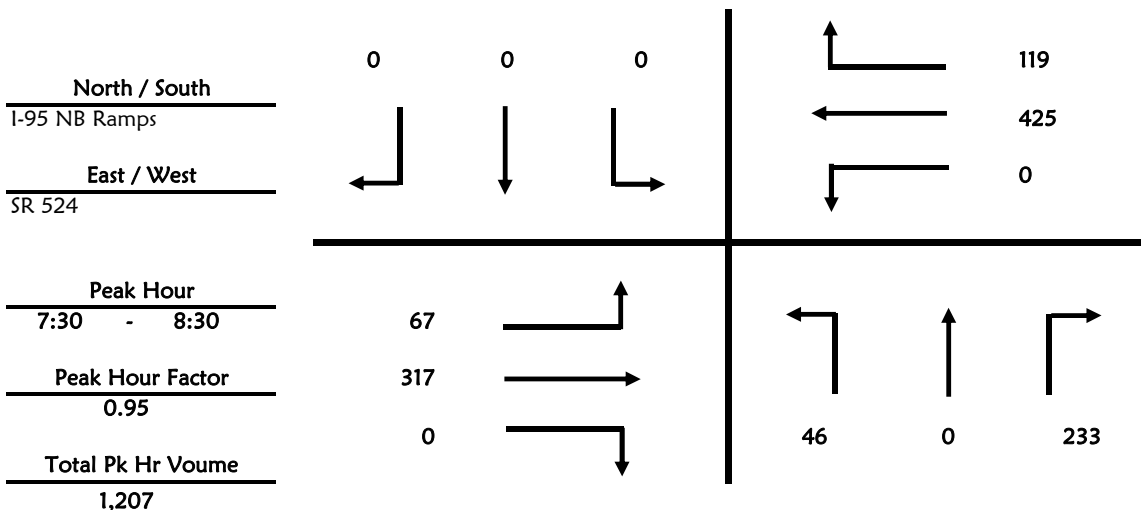
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**              I-95 NB Ramps                                      & SR 524  
**Date**                              Wednesday, January 23, 2019                                      **All Vehicles**  
**Time Period**                      7:00                      to                      9:00

VHB Project #:      62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	7	0	44	0	0	0
7:15 - 7:30	10	0	58	0	0	0
7:30 - 7:45	12	0	64	0	0	0
7:45 - 8:00	9	0	52	0	0	0
8:00 - 8:15	14	0	60	0	0	0
8:15 - 8:30	11	0	57	0	0	0
8:30 - 8:45	14	0	54	0	0	0
8:45 - 9:00	14	0	54	0	0	0
<b>Total</b>	<b>91</b>	<b>0</b>	<b>443</b>	<b>0</b>	<b>0</b>	<b>0</b>

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	14	70	0	0	103	21
7:15 - 7:30	18	65	0	0	116	25
7:30 - 7:45	21	94	0	0	106	22
7:45 - 8:00	13	79	0	0	107	31
8:00 - 8:15	16	69	0	0	109	27
8:15 - 8:30	17	75	0	0	103	39
8:30 - 8:45	14	41	0	0	109	35
8:45 - 9:00	15	53	0	0	74	19
<b>Total</b>	<b>128</b>	<b>546</b>	<b>0</b>	<b>0</b>	<b>827</b>	<b>219</b>



# Roadway Count Summary

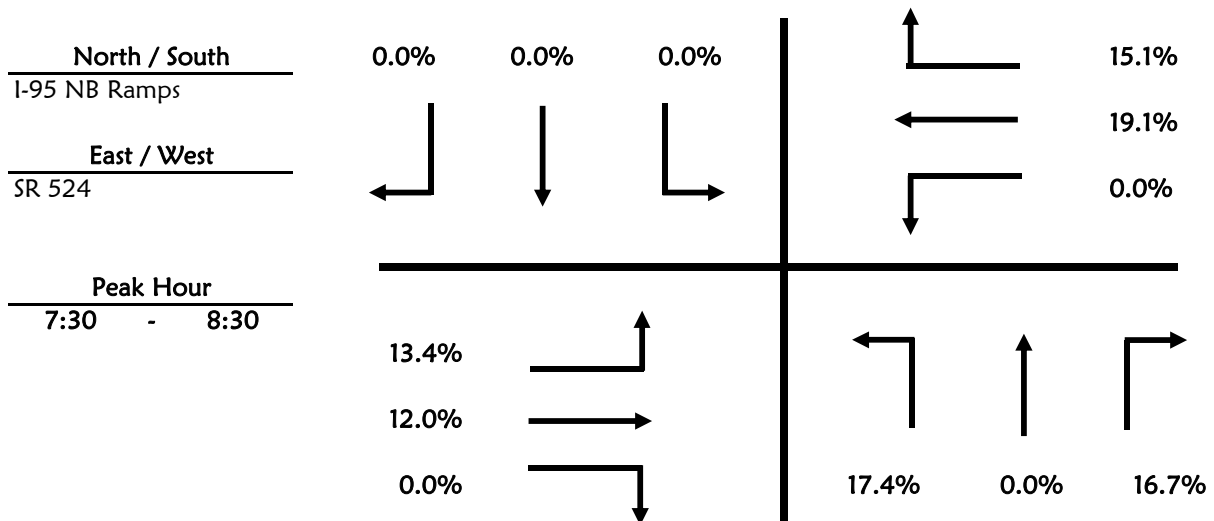
*Vanasse Hangen Brustlin, Inc.*

**County** Brevard **City** Cocoa  
**Intersection** I-95 NB Ramps & SR 524  
**Date** Wednesday, January 23, 2019  
**Time Period** 7:00 to 9:00 **Trucks**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	2	0	6	0	0	0
7:15 - 7:30	1	0	6	0	0	0
7:30 - 7:45	4	0	9	0	0	0
7:45 - 8:00	1	0	6	0	0	0
8:00 - 8:15	1	0	8	0	0	0
8:15 - 8:30	2	0	16	0	0	0
8:30 - 8:45	4	0	13	0	0	0
8:45 - 9:00	1	0	13	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	9	0	0	13	4
7:15 - 7:30	1	5	0	0	15	7
7:30 - 7:45	0	8	0	0	8	5
7:45 - 8:00	1	9	0	0	23	4
8:00 - 8:15	7	9	0	0	20	4
8:15 - 8:30	1	12	0	0	30	5
8:30 - 8:45	1	9	0	0	30	11
8:45 - 9:00	2	11	0	0	19	4



# Roadway Count Summary

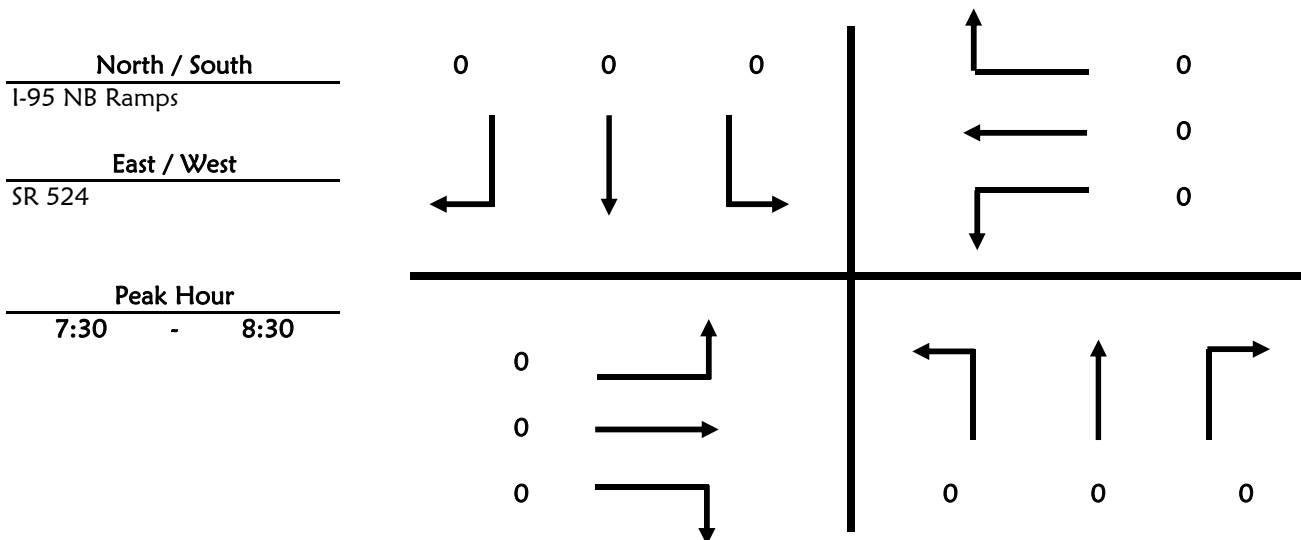
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**                I-95 NB Ramps                                      & SR 524  
**Date**                                Wednesday, January 23, 2019  
**Time Period**                      7:00                      to                      9:00                                      **U-Turn & RTOR**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	0	0	0	0
7:15 - 7:30	0	0	0	0	0	0
7:30 - 7:45	0	0	0	0	0	0
7:45 - 8:00	0	0	0	0	0	0
8:00 - 8:15	0	0	0	0	0	0
8:15 - 8:30	0	0	0	0	0	0
8:30 - 8:45	0	0	0	0	0	0
8:45 - 9:00	0	0	0	0	0	0





# Roadway Count Summary

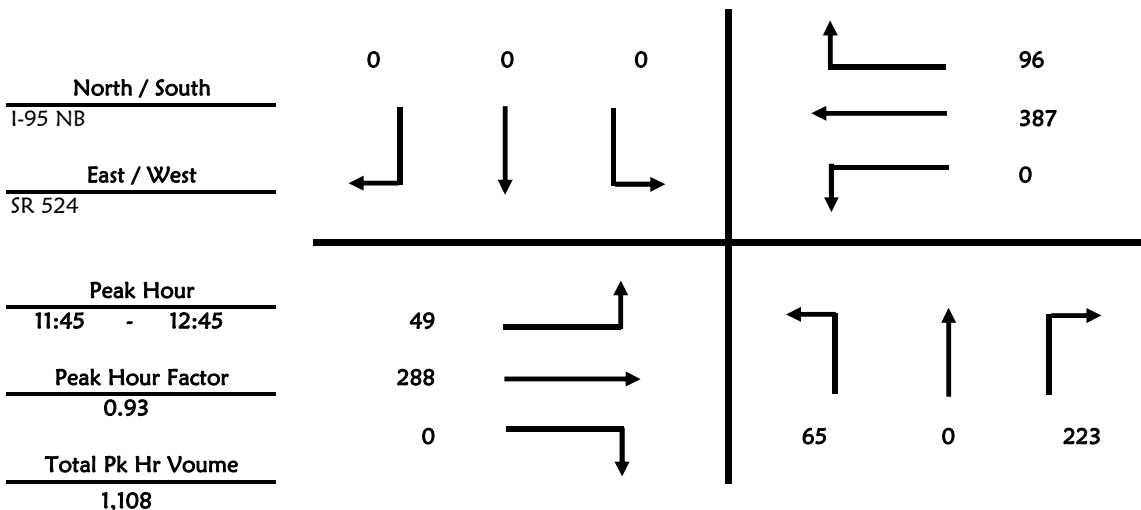
*Vanasse Hangen Brustlin, Inc.*

**County** Brevard **City** cocoa  
**Intersection** I-95 NB & SR 524  
**Date** Wednesday, January 23, 2019 **All Vehicles**  
**Time Period** 11:00 to 13:00

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	14	0	50	0	0	0
11:15 - 11:30	20	0	42	0	0	0
11:30 - 11:45	18	0	41	0	0	0
11:45 - 12:00	17	0	55	0	0	0
12:00 - 12:15	21	0	55	0	0	0
12:15 - 12:30	11	0	53	0	0	0
12:30 - 12:45	16	0	60	0	0	0
12:45 - 13:00	22	0	66	0	0	0
<b>TOTAL</b>	<b>139</b>	<b>0</b>	<b>422</b>	<b>0</b>	<b>0</b>	<b>0</b>

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	10	56	0	0	87	26
11:15 - 11:30	7	59	0	0	79	21
11:30 - 11:45	7	59	0	0	86	29
11:45 - 12:00	17	75	0	0	93	22
12:00 - 12:15	12	78	0	0	98	14
12:15 - 12:30	7	57	0	0	98	26
12:30 - 12:45	13	78	0	0	98	34
12:45 - 13:00	15	57	0	0	96	21
<b>TOTAL</b>	<b>88</b>	<b>519</b>	<b>0</b>	<b>0</b>	<b>735</b>	<b>193</b>



# Roadway Count Summary

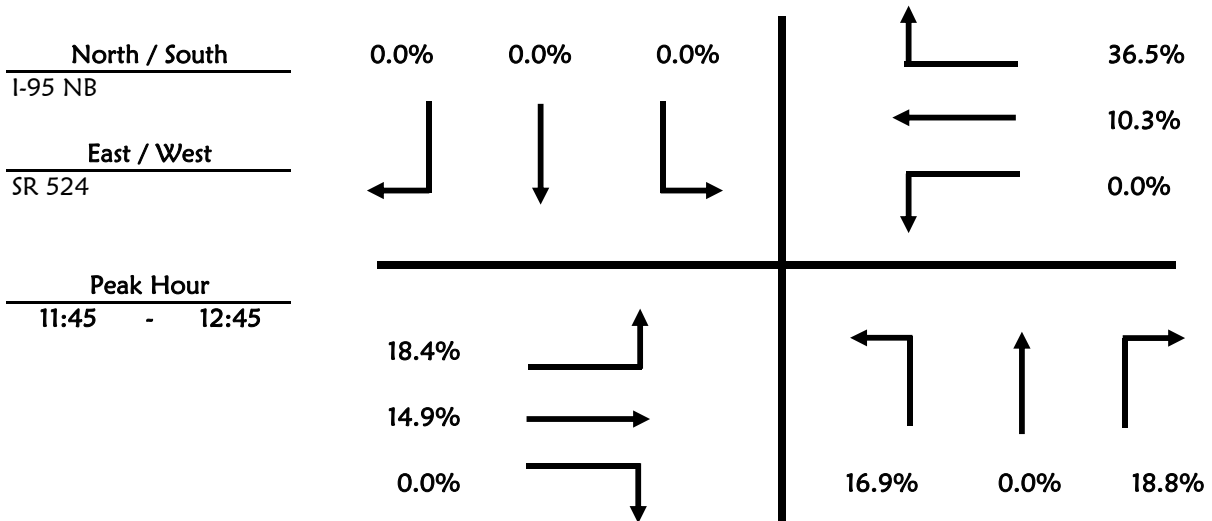
## *Vanasse Hangen Brustlin, Inc.*

**County** Brevard **City** cocoa  
**Intersection** I-95 NB & SR 524  
**Date** Wednesday, January 23, 2019  
**Time Period** 11:00 to 13:00 **Trucks**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	1	0	11	0	0	0
11:15 - 11:30	2	0	10	0	0	0
11:30 - 11:45	4	0	14	0	0	0
11:45 - 12:00	3	0	10	0	0	0
12:00 - 12:15	4	0	9	0	0	0
12:15 - 12:30	3	0	14	0	0	0
12:30 - 12:45	1	0	9	0	0	0
12:45 - 13:00	2	0	12	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	2	9	0	0	12	10
11:15 - 11:30	1	5	0	0	20	8
11:30 - 11:45	1	14	0	0	6	11
11:45 - 12:00	1	9	0	0	8	4
12:00 - 12:15	3	16	0	0	9	6
12:15 - 12:30	1	10	0	0	6	11
12:30 - 12:45	4	8	0	0	17	14
12:45 - 13:00	2	12	0	0	20	5



# Roadway Count Summary

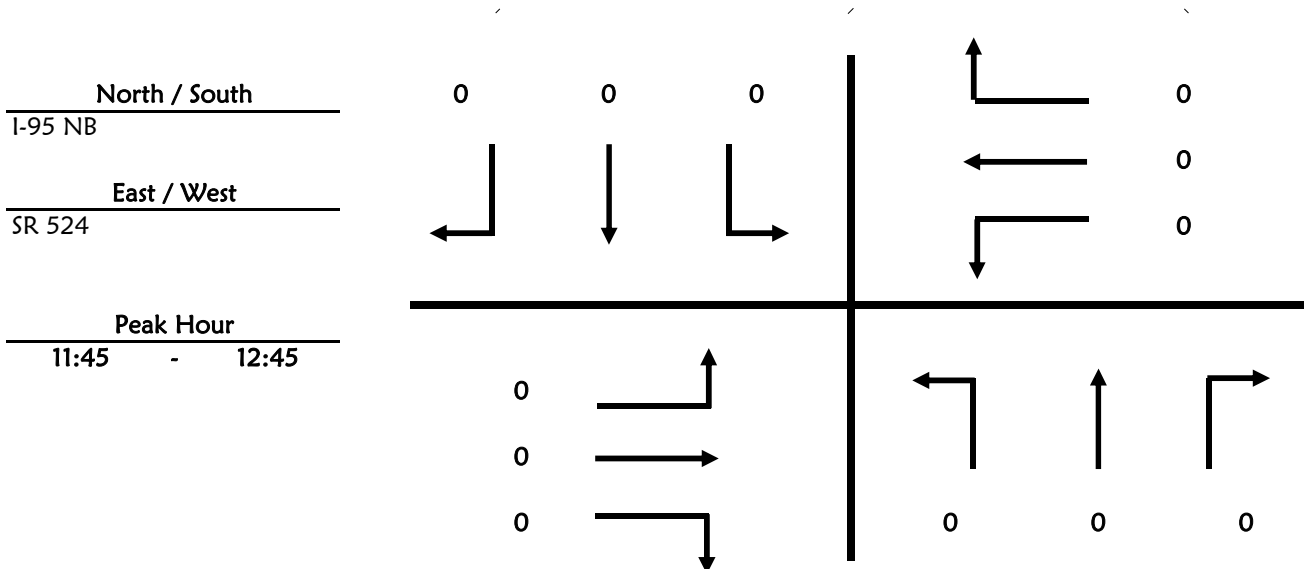
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      cocoa  
**Intersection**                I-95 NB                                      &   SR 524  
**Date**                                Wednesday, January 23, 2019  
**Time Period**                    11:00                      to                      13:00                                      **U-Turn & RTOR**

VHB Project #:    62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	0	0	0	0	0	0
11:15 - 11:30	0	0	0	0	0	0
11:30 - 11:45	0	0	0	0	0	0
11:45 - 12:00	0	0	0	0	0	0
12:00 - 12:15	0	0	0	0	0	0
12:15 - 12:30	0	0	0	0	0	0
12:30 - 12:45	0	0	0	0	0	0
12:45 - 13:00	0	0	0	0	0	0



# Roadway Count Summary

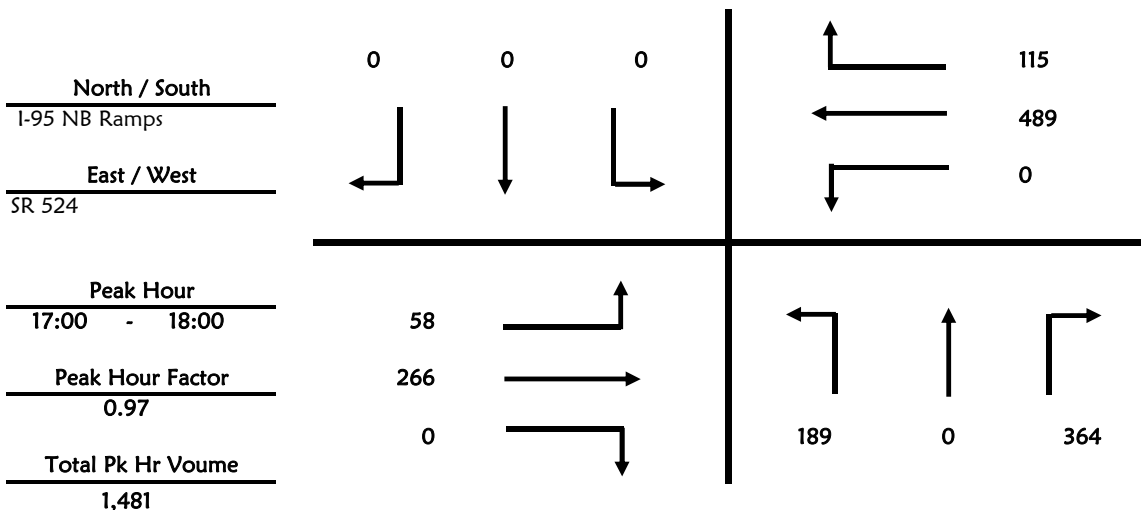
*Vanasse Hangen Brustlin, Inc.*

**County** Brevard **City** Cocoa  
**Intersection** I-95 NB Ramps & SR 524  
**Date** Wednesday, January 23, 2019 **All Vehicles**  
**Time Period** 16:00 to 18:00

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	25	0	66	0	0	0
16:15 - 16:30	48	0	67	0	0	0
16:30 - 16:45	36	0	78	0	0	0
16:45 - 17:00	43	0	75	0	0	0
17:00 - 17:15	53	0	81	0	0	0
17:15 - 17:30	50	0	91	0	0	0
17:30 - 17:45	41	0	101	0	0	0
17:45 - 18:00	45	0	91	0	0	0
<b>Total</b>	<b>341</b>	<b>0</b>	<b>650</b>	<b>0</b>	<b>0</b>	<b>0</b>

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	8	69	0	0	142	48
16:15 - 16:30	14	75	0	0	121	26
16:30 - 16:45	11	75	0	0	116	24
16:45 - 17:00	13	57	0	0	113	28
17:00 - 17:15	24	75	0	0	110	28
17:15 - 17:30	16	69	0	0	124	33
17:30 - 17:45	10	51	0	0	131	24
17:45 - 18:00	8	71	0	0	124	30
<b>Total</b>	<b>104</b>	<b>542</b>	<b>0</b>	<b>0</b>	<b>981</b>	<b>241</b>



# Roadway Count Summary

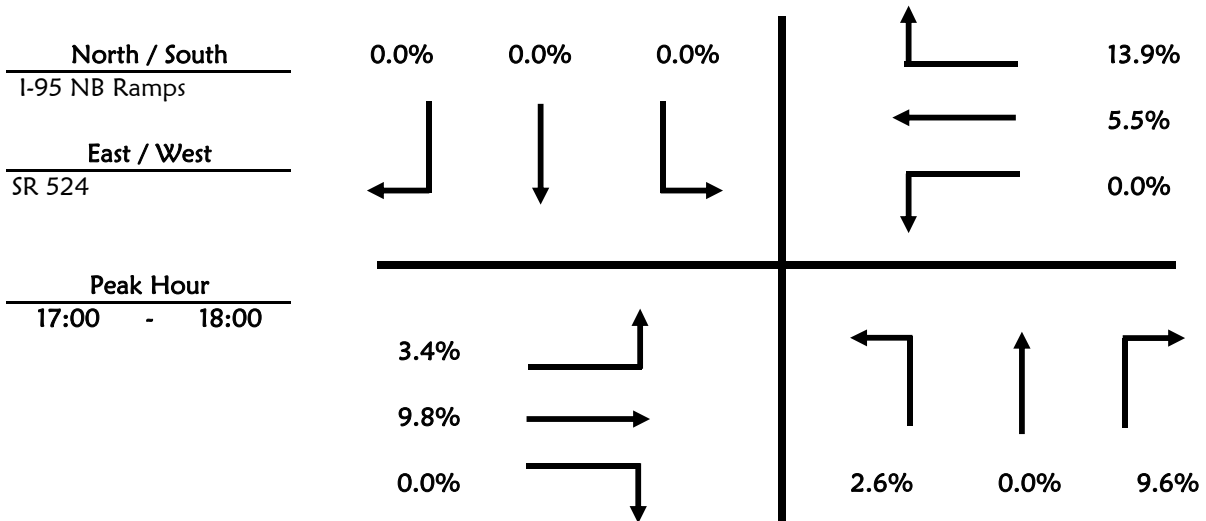
*Vanasse Hangen Brustlin, Inc.*

**County** Brevard **City** Cocoa  
**Intersection** I-95 NB Ramps & SR 524  
**Date** Wednesday, January 23, 2019  
**Time Period** 16:00 to 18:00 **Trucks**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	12	0	0	0
16:15 - 16:30	3	0	7	0	0	0
16:30 - 16:45	2	0	18	0	0	0
16:45 - 17:00	2	0	8	0	0	0
17:00 - 17:15	2	0	9	0	0	0
17:15 - 17:30	1	0	9	0	0	0
17:30 - 17:45	1	0	11	0	0	0
17:45 - 18:00	1	0	6	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	10	0	0	6	8
16:15 - 16:30	1	10	0	0	8	5
16:30 - 16:45	0	11	0	0	7	6
16:45 - 17:00	1	3	0	0	3	10
17:00 - 17:15	1	5	0	0	5	3
17:15 - 17:30	0	8	0	0	4	6
17:30 - 17:45	1	6	0	0	11	3
17:45 - 18:00	0	7	0	0	7	4



# Roadway Count Summary

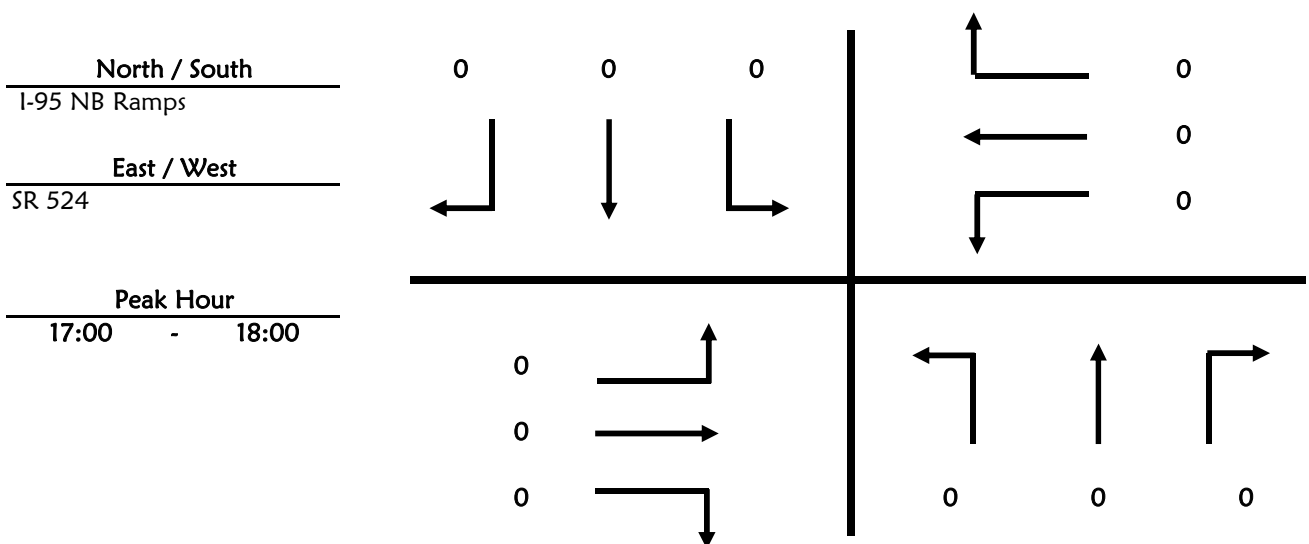
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**              I-95 NB Ramps                                      & SR 524  
**Date**                              Wednesday, January 23, 2019  
**Time Period**                      16:00              to              18:00                                      **U-Turn & RTOR**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	0	0	0	0
16:15 - 16:30	0	0	0	0	0	0
16:30 - 16:45	0	0	0	0	0	0
16:45 - 17:00	0	0	0	0	0	0
17:00 - 17:15	0	0	0	0	0	0
17:15 - 17:30	0	0	0	0	0	0
17:30 - 17:45	0	0	0	0	0	0
17:45 - 18:00	0	0	0	0	0	0



# Roadway Count Summary

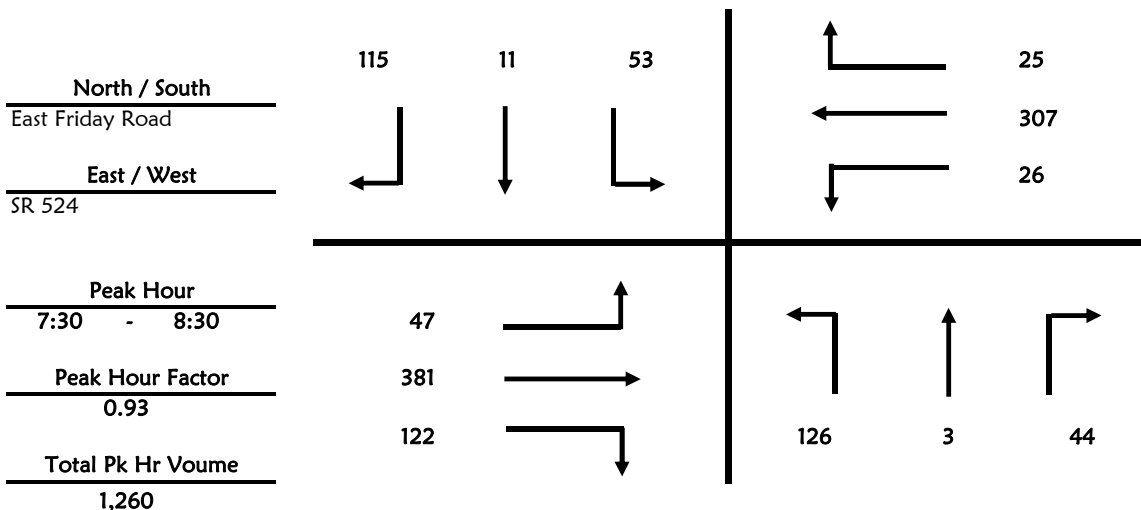
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**              East Friday Road                                      & SR 524  
**Date**                              Wednesday, January 23, 2019                                      **All Vehicles**  
**Time Period**                      7:00                      to                      9:00

VHB Project #:      62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	34	0	12	8	2	30
7:15 - 7:30	30	0	15	13	1	32
7:30 - 7:45	30	0	20	11	5	34
7:45 - 8:00	31	0	7	13	0	29
8:00 - 8:15	32	0	8	17	2	24
8:15 - 8:30	33	3	9	12	4	28
8:30 - 8:45	32	0	7	6	2	14
8:45 - 9:00	16	0	16	4	3	19
	238	3	94	84	19	210

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	6	68	41	5	58	2
7:15 - 7:30	4	92	35	3	71	4
7:30 - 7:45	8	114	29	4	76	7
7:45 - 8:00	16	114	29	9	75	5
8:00 - 8:15	11	77	32	2	73	8
8:15 - 8:30	12	76	32	11	83	5
8:30 - 8:45	13	68	27	9	83	9
8:45 - 9:00	13	63	30	7	62	11
	83	672	255	50	581	51



# Roadway Count Summary

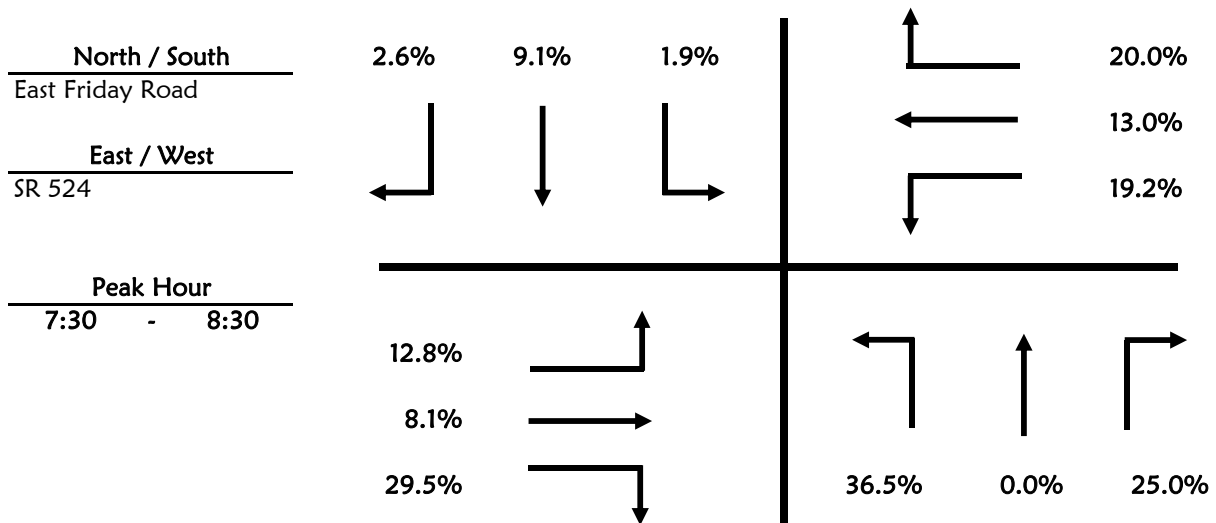
*Vanasse Hangen Brustlin, Inc.*

**County** Brevard **City** Cocoa  
**Intersection** East Friday Road & SR 524  
**Date** Wednesday, January 23, 2019  
**Time Period** 7:00 to 9:00 **Trucks**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	16	0	7	0	0	0
7:15 - 7:30	9	0	2	0	0	0
7:30 - 7:45	15	0	4	0	0	1
7:45 - 8:00	12	0	2	1	0	1
8:00 - 8:15	6	0	2	0	1	0
8:15 - 8:30	13	0	3	0	0	1
8:30 - 8:45	15	0	2	0	0	1
8:45 - 9:00	8	0	8	1	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	1	8	17	0	7	0
7:15 - 7:30	0	5	9	0	8	1
7:30 - 7:45	1	4	8	0	6	3
7:45 - 8:00	4	15	7	2	6	2
8:00 - 8:15	1	5	8	0	11	0
8:15 - 8:30	0	7	13	3	17	0
8:30 - 8:45	1	8	13	7	29	1
8:45 - 9:00	0	7	14	4	15	1





# Roadway Count Summary

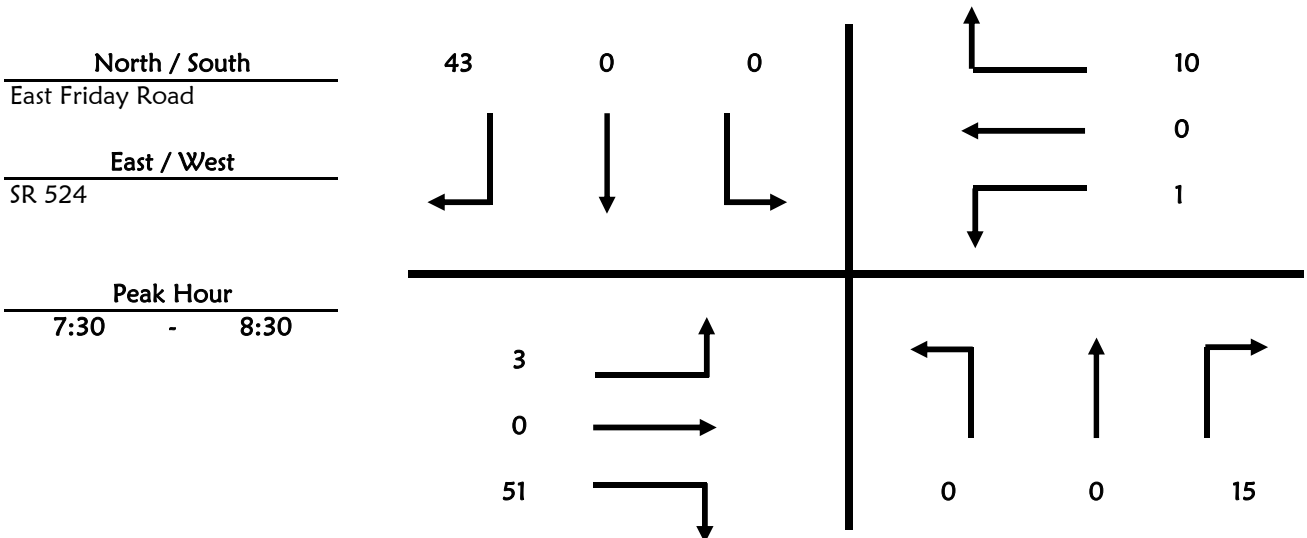
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**              East Friday Road                                      & SR 524  
**Date**                              Wednesday, January 23, 2019  
**Time Period**                      7:00                      to                      9:00                                      **U-Turn & RTOR**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	4	0	0	21
7:15 - 7:30	0	0	6	0	0	16
7:30 - 7:45	0	0	7	0	0	17
7:45 - 8:00	0	0	2	0	0	13
8:00 - 8:15	0	0	5	0	0	9
8:15 - 8:30	0	0	1	0	0	4
8:30 - 8:45	0	0	2	0	0	1
8:45 - 9:00	0	0	6	0	0	5

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
7:00 - 7:15	0	0	12	0	0	1
7:15 - 7:30	0	0	18	0	0	2
7:30 - 7:45	1	0	11	0	0	5
7:45 - 8:00	1	0	10	0	0	2
8:00 - 8:15	1	0	17	0	0	2
8:15 - 8:30	0	0	13	1	0	1
8:30 - 8:45	0	0	7	0	0	6
8:45 - 9:00	2	0	11	0	0	4



# Roadway Count Summary

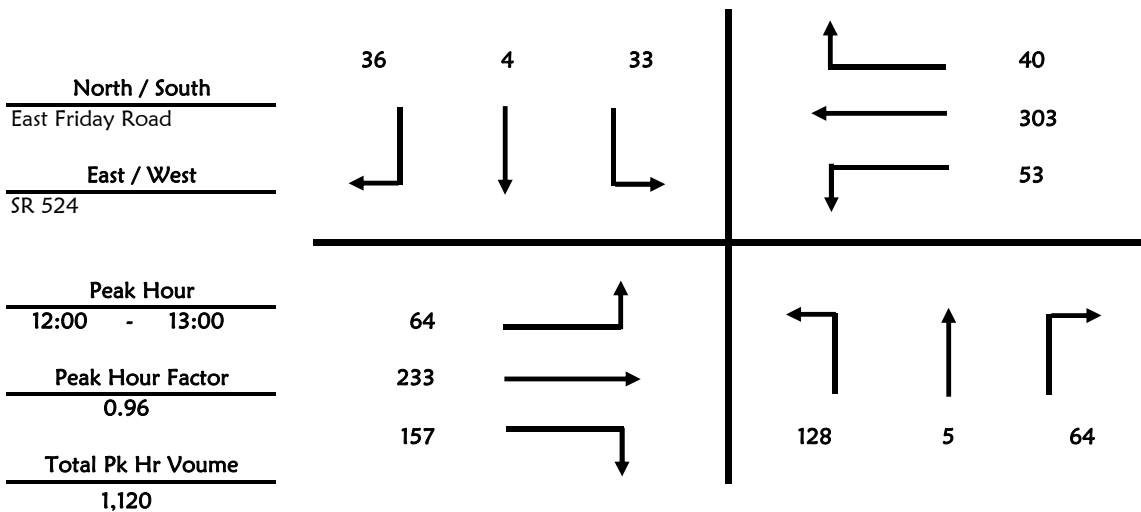
*Vanasse Hangen Brustlin, Inc.*

**County** Brevard **City** cocoa  
**Intersection** East Friday Road & SR 524  
**Date** Tuesday, January 22, 2019 **All Vehicles**  
**Time Period** 11:00 to 13:00

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	24	0	8	12	1	14
11:15 - 11:30	31	3	15	7	0	17
11:30 - 11:45	18	2	11	15	2	9
11:45 - 12:00	31	6	10	12	2	11
12:00 - 12:15	32	1	16	8	2	12
12:15 - 12:30	40	3	16	9	1	8
12:30 - 12:45	25	0	14	8	0	4
12:45 - 13:00	31	1	18	8	1	12
	232	16	108	79	9	87

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	14	73	33	7	54	13
11:15 - 11:30	14	71	32	14	67	5
11:30 - 11:45	9	77	36	15	59	10
11:45 - 12:00	18	61	35	9	56	6
12:00 - 12:15	18	55	50	23	64	11
12:15 - 12:30	15	52	35	9	76	11
12:30 - 12:45	18	67	42	9	87	6
12:45 - 13:00	13	59	30	12	76	12
	119	515	293	98	539	74





# Roadway Count Summary

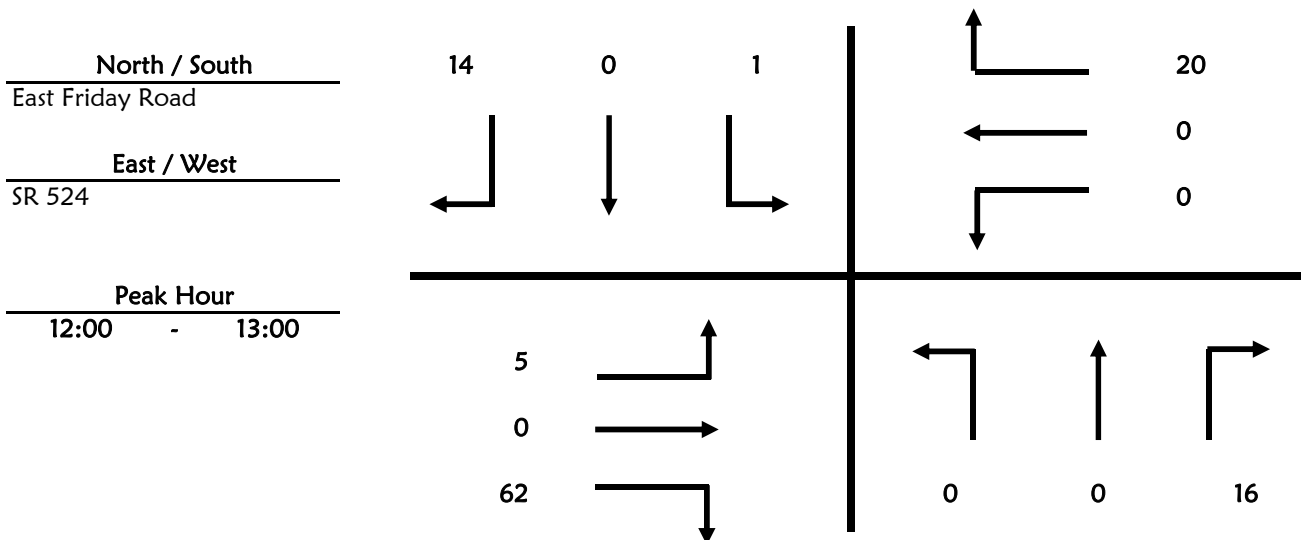
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      cocoa  
**Intersection**              East Friday Road                                      & SR 524  
**Date**                              Tuesday, January 22, 2019  
**Time Period**                      11:00              to              13:00                                      **U-Turn & RTOR**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	0	0	3	0	0	7
11:15 - 11:30	0	0	8	0	0	14
11:30 - 11:45	0	0	5	0	0	4
11:45 - 12:00	0	0	6	0	0	7
12:00 - 12:15	0	0	7	1	0	6
12:15 - 12:30	0	0	2	0	0	2
12:30 - 12:45	0	0	4	0	0	1
12:45 - 13:00	0	0	3	0	0	5

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
11:00 - 11:15	4	0	12	0	0	5
11:15 - 11:30	1	0	15	0	0	0
11:30 - 11:45	0	0	22	0	0	1
11:45 - 12:00	2	0	7	0	0	4
12:00 - 12:15	4	0	18	0	0	8
12:15 - 12:30	0	0	17	0	0	4
12:30 - 12:45	1	0	11	0	0	4
12:45 - 13:00	0	0	16	0	0	4



# Roadway Count Summary

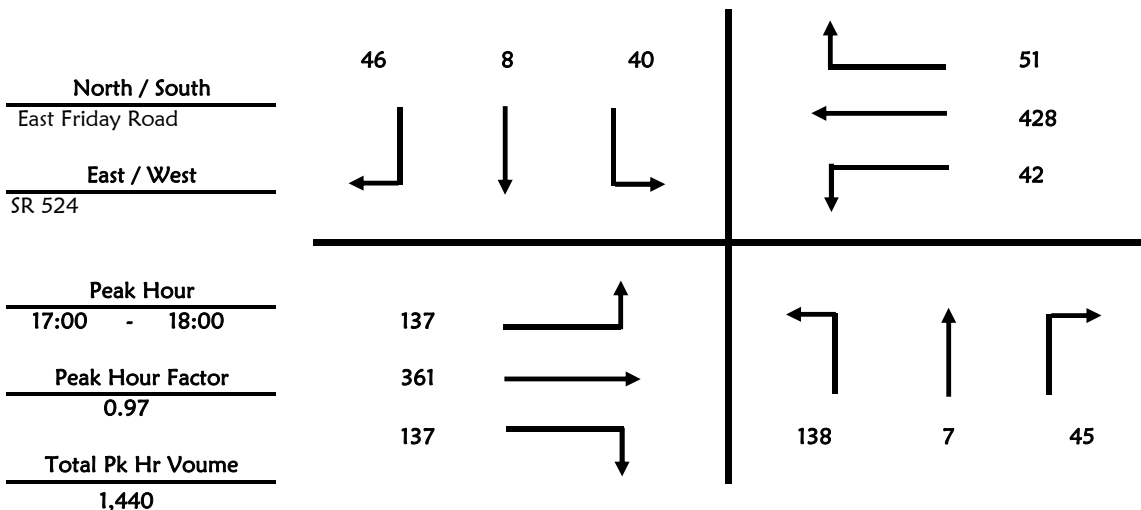
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**              East Friday Road                                      & SR 524  
**Date**                              Wednesday, January 23, 2019                                      **All Vehicles**  
**Time Period**                      16:00                      to                      18:00

VHB Project #:      62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	37	0	10	4	1	12
16:15 - 16:30	33	3	12	6	1	17
16:30 - 16:45	28	1	4	7	2	11
16:45 - 17:00	34	2	11	10	0	15
17:00 - 17:15	31	1	8	11	2	15
17:15 - 17:30	35	3	13	10	1	10
17:30 - 17:45	38	2	14	7	3	11
17:45 - 18:00	34	1	10	12	2	10
	270	13	82	67	12	101

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	25	78	33	13	121	18
16:15 - 16:30	21	87	46	5	114	12
16:30 - 16:45	30	84	29	7	81	11
16:45 - 17:00	42	65	21	10	75	19
17:00 - 17:15	33	86	35	10	115	12
17:15 - 17:30	35	91	40	10	106	17
17:30 - 17:45	34	106	32	9	97	12
17:45 - 18:00	35	78	30	13	110	10
	255	675	266	77	819	111



# Roadway Count Summary

*Vanasse Hangen Brustlin, Inc.*

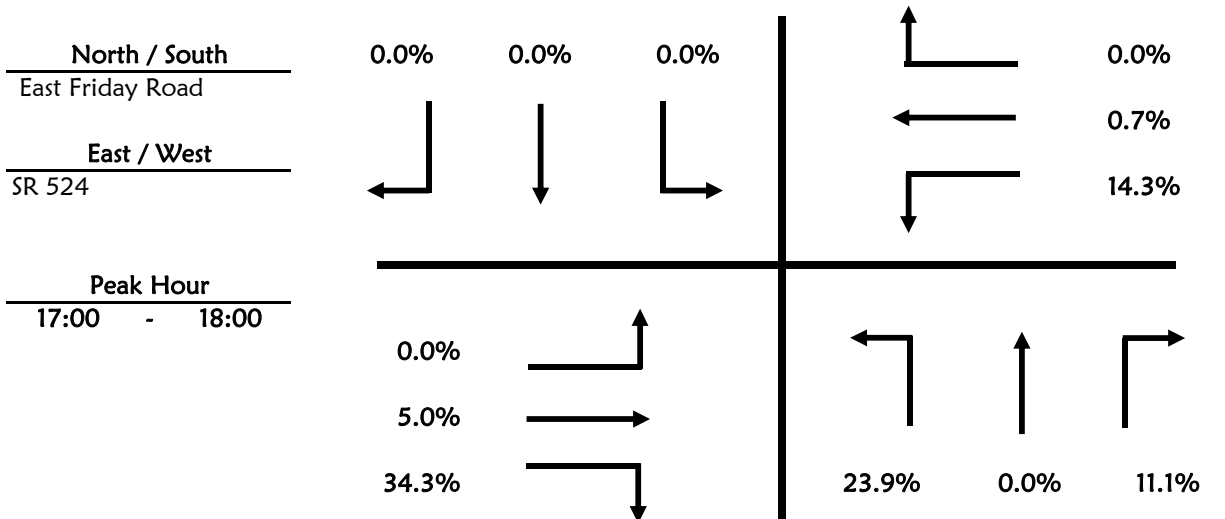
<b>County</b>	Brevard	<b>City</b>	Cocoa
<b>Intersection</b>	East Friday Road	&	SR 524
<b>Date</b>	Wednesday, January 23, 2019		
<b>Time Period</b>	16:00	to	18:00

**Trucks**

VHB Project #: 62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	12	0	2	0	0	1
16:15 - 16:30	11	0	4	0	0	3
16:30 - 16:45	4	0	0	1	0	1
16:45 - 17:00	13	0	3	0	0	0
17:00 - 17:15	6	0	0	0	0	0
17:15 - 17:30	6	0	2	0	0	0
17:30 - 17:45	10	0	1	0	0	0
17:45 - 18:00	11	0	2	0	0	0

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	1	5	11	1	2	0
16:15 - 16:30	0	12	14	1	7	1
16:30 - 16:45	2	6	7	1	6	0
16:45 - 17:00	1	4	8	2	3	0
17:00 - 17:15	0	7	11	2	1	0
17:15 - 17:30	0	2	17	1	0	0
17:30 - 17:45	0	7	11	1	2	0
17:45 - 18:00	0	2	8	2	0	0



# Roadway Count Summary

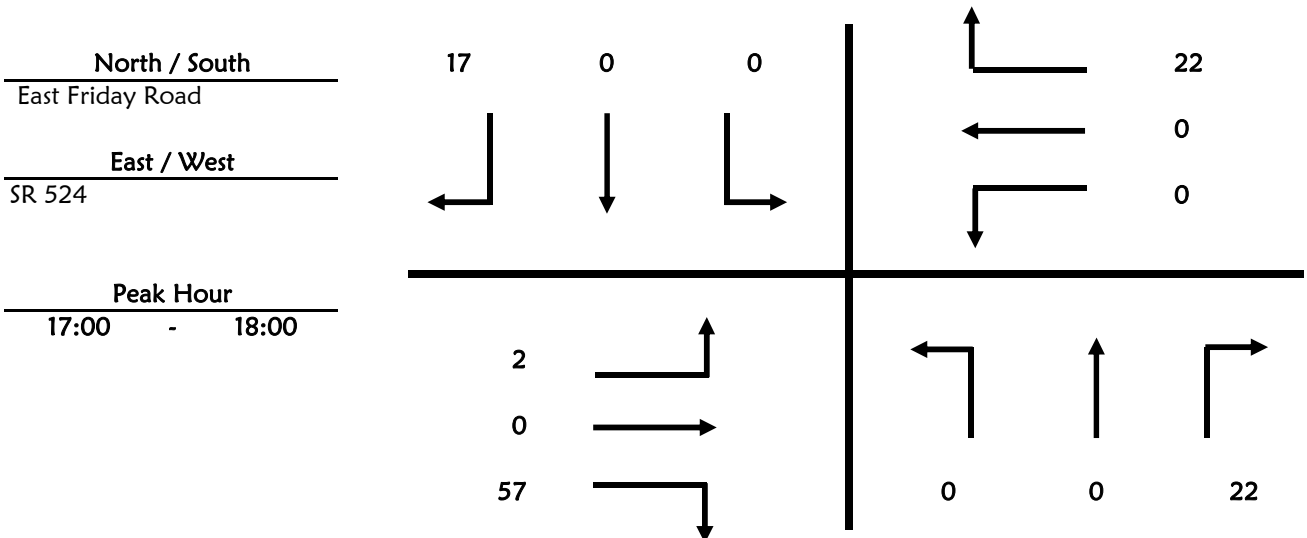
*Vanasse Hangen Brustlin, Inc.*

**County**                      Brevard                                      **City**      Cocoa  
**Intersection**              East Friday Road                                      &   SR 524  
**Date**                              Wednesday, January 23, 2019  
**Time Period**                      16:00                      to                      18:00                                      **U-Turn & RTOR**

VHB Project #:    62954.32

Time Period	Northbound			Southbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	0	0	4	0	0	7
16:15 - 16:30	0	0	6	0	0	7
16:30 - 16:45	0	0	2	0	0	5
16:45 - 17:00	0	0	6	0	0	4
17:00 - 17:15	0	0	5	0	0	2
17:15 - 17:30	0	0	6	0	0	6
17:30 - 17:45	0	0	7	0	0	4
17:45 - 18:00	0	0	4	0	0	5

Time Period	Eastbound			Westbound		
	Left	Through	Right	Left	Through	Right
16:00 - 16:15	1	0	8	0	0	3
16:15 - 16:30	1	0	18	0	0	9
16:30 - 16:45	0	0	9	0	0	0
16:45 - 17:00	0	0	8	0	0	7
17:00 - 17:15	0	0	20	0	0	4
17:15 - 17:30	1	0	15	0	0	8
17:30 - 17:45	1	0	12	0	0	7
17:45 - 18:00	0	0	10	0	0	3



Peggy Malone and Associates

WEEKLY SUMMARY FOR LANE 1  
Starting: 3/25/2019

Page: 1

Station #: R7  
Site ID: 000000010766  
Loc: R7: Beachline WB to I-95 SB  
Direction: WEST

File: R7\_2019.prn  
Info: 19-037 JG Max  
GPS: 28.41177, -80.82243

TIME	MON 25		TUE 26		WED 27		THU 28		FRI 29		SAT 30		SUN 31		WK TOT		WK AVG	
	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Lane 1																		
00:15	0	45	2	41	1	45	2	54	2	20	1	68	3	36	11	309	2	44
00:30	1	38	1	51	4	36	1	63	5	19	6	45	7	45	25	297	4	42
00:45	7	47	4	51	2	53	2	50	3	19	5	50	6	43	29	313	4	45
01:00	7	51	8	45	7	47	5	45	10	25	4	39	4	40	45	292	6	42
01:15	5	40	1	40	5	43	5	39	3	42	1	43	3	37	23	284	3	41
01:30	4	61	4	49	6	41	3	46	4	40	4	41	3	32	28	310	4	44
01:45	0	48	0	60	0	49	0	60	10	42	13	34	11	35	34	328	5	47
02:00	1	51	1	61	3	44	5	34	1	44	14	32	30	38	55	304	8	43
02:15	0	50	6	55	4	51	2	53	2	47	2	39	5	35	21	330	3	47
02:30	0	71	2	85	1	49	9	62	1	48	2	59	3	43	18	417	3	60
02:45	3	65	7	74	6	74	3	72	9	51	3	54	5	50	36	440	5	63
03:00	2	69	10	78	6	65	7	64	6	58	10	55	5	45	46	434	7	62
03:15	6	67	1	64	8	63	3	76	3	57	7	36	7	42	99	405	14	58
03:30	7	99	2	106	1	87	4	75	5	62	89	57	5	48	113	534	16	76
03:45	2	85	2	85	2	70	1	78	2	73	47	48	1	43	57	482	8	69
04:00	1	106	6	144	0	94	4	107	2	100	17	38	2	31	32	620	5	89
04:15	1	108	3	128	6	103	5	94	1	107	11	42	2	42	29	624	4	89
04:30	6	91	1	144	4	117	6	90	10	81	12	45	0	33	39	601	6	86
04:45	3	92	5	119	2	114	3	92	6	57	2	56	0	28	21	558	3	80
05:00	7	91	7	141	8	140	5	87	2	68	0	51	7	23	36	601	5	86
05:15	1	144	5	142	4	91	8	107	10	54	3	45	2	26	33	609	5	87
05:30	11	128	16	138	12	114	8	106	10	67	10	34	4	24	71	611	10	87
05:45	13	88	14	107	17	85	16	108	16	66	12	37	7	30	95	521	14	74
06:00	19	68	12	68	4	64	10	73	10	55	7	35	7	16	69	379	10	54
06:15	26	54	6	66	15	66	19	55	9	65	15	43	8	29	98	378	14	54
06:30	37	61	40	60	34	52	44	54	40	36	15	30	8	36	218	329	31	47
06:45	57	49	37	52	41	34	54	54	43	43	25	18	10	35	267	285	38	41
07:00	53	27	48	47	62	22	46	46	46	24	12	30	13	33	280	229	40	33
07:15	61	34	51	46	54	20	74	36	48	27	17	17	14	23	319	203	46	29
07:30	82	31	65	28	65	33	75	29	67	17	24	20	15	19	393	177	56	25
07:45	79	16	67	31	83	21	79	35	59	18	16	23	21	8	404	152	58	22
08:00	85	22	58	14	57	16	66	18	52	19	33	17	22	22	373	128	53	18
08:15	73	14	76	12	69	16	62	24	67	10	26	16	34	15	407	107	58	15
08:30	77	9	61	15	80	21	69	18	65	12	42	9	34	16	428	100	61	14
08:45	74	9	64	15	52	20	59	14	61	20	53	11	33	7	396	96	57	14
09:00	60	8	53	19	62	13	73	17	48	21	48	15	40	8	384	101	55	14
09:15	71	8	57	16	47	11	68	13	8	21	46	9	41	11	338	89	48	13
09:30	48	13	56	9	39	7	54	9	57	15	51	15	32	11	337	79	48	11
09:45	59	10	51	3	33	8	56	5	63	11	47	15	29	6	338	58	48	8
10:00	39	13	50	20	41	14	35	8	48	9	46	13	34	10	293	87	42	12
10:15	59	3	51	9	35	5	47	9	42	11	52	20	43	10	329	67	47	10
10:30	57	7	46	14	33	9	63	4	66	10	54	27	39	8	358	79	51	11
10:45	33	5	53	11	45	4	55	10	38	6	56	6	39	5	319	47	46	7
11:00	45	5	42	9	39	14	57	10	57	7	45	10	46	2	331	57	47	8
11:15	44	10	47	8	31	5	47	8	38	5	46	11	39	1	292	48	42	7
11:30	42	2	45	0	33	9	57	5	40	7	38	10	48	4	303	37	43	5
11:45	55	6	33	6	49	2	61	3	51	3	63	3	41	1	353	24	50	3
12:00	42	6	34	3	37	5	44	3	44	5	54	4	34	6	289	32	41	5

TOTALS	3690	3900	3415	3703	3014	2745	2037	22504	3215
AM Times	07:30	07:30	07:45	07:15	07:30	03:15	11:00	08:15	07:45
AM Peaks	319	266	289	294	245	224	174	1615	229
AM PHF	0.94	0.88	0.87	0.93	0.91	0.63	0.91	0.94	0.94
PM Times	16:45	16:30	16:15	17:00	15:45	14:15	14:45	16:00	16:00
PM Peaks	455	546	474	408	361	207	185	2403	341
PM PHF	0.79	0.95	0.85	0.94	0.84	0.88	0.93	0.96	0.96



Peggy Malone and Associates

WEEKLY SUMMARY FOR LANE 1  
Starting: 2/25/2019

Page: 1

Station #: R9  
Site ID: 000000010753  
Loc: R9: I-95 NB to Beachline Wb  
Direction: NORTHFile: R9\_2019.prn  
Info: 19-037 JG Max  
GPS: 28.41185, -80.81893

TIME	MON 4/25		TUE 26		WED 27		THU 28		FRI 1		SAT 2		SUN 3		WK TOT		WK AVG	
	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm	am	pm
Lane 1																		
00:15	36	195	16	149	17	194	20	186	21	0	40	216	30	235	180	1175	26	168
00:30	26	191	10	162	15	166	21	210	25	0	39	236	28	220	164	1185	23	169
00:45	26	165	14	202	14	162	21	203	33	0	19	221	18	212	145	1165	21	166
01:00	16	172	17	168	12	173	15	183	11	0	31	244	18	206	120	1146	17	164
01:15	10	171	16	212	11	148	7	209	10	0	25	232	23	211	102	1183	15	169
01:30	19	194	8	162	9	163	15	185	19	0	17	188	15	208	102	1100	15	157
01:45	10	201	14	176	10	186	7	191	15	217	29	241	20	208	105	1420	15	203
02:00	10	163	10	148	11	173	18	183	16	189	18	209	23	224	106	1289	15	184
02:15	15	194	5	136	10	178	14	201	20	229	20	191	20	194	104	1323	15	189
02:30	17	145	6	192	9	232	14	209	20	217	24	198	21	206	111	1399	16	200
02:45	21	189	20	163	13	190	27	191	20	230	15	224	13	182	129	1369	18	196
03:00	32	161	17	269	13	209	20	173	13	216	16	204	10	217	121	1449	17	207
03:15	37	184	13	208	26	185	23	169	27	272	27	219	22	201	175	1438	25	205
03:30	38	194	17	186	28	180	25	209	24	271	27	192	23	205	182	1437	26	205
03:45	29	192	26	170	32	192	33	210	25	263	33	216	16	199	194	1442	28	206
04:00	51	174	29	214	41	198	31	245	41	276	33	234	29	207	255	1548	36	221
04:15	64	180	45	208	48	222	57	239	55	247	46	251	38	224	353	1571	50	224
04:30	75	193	50	210	48	211	49	237	61	317	51	237	21	250	355	1655	51	236
04:45	67	199	50	208	60	157	68	254	58	275	41	229	46	240	390	1562	56	223
05:00	76	202	61	187	58	237	51	218	79	279	64	261	51	232	440	1616	63	231
05:15	125	187	72	223	56	237	97	223	72	261	70	269	46	245	538	1645	77	235
05:30	140	209	97	164	91	210	101	240	81	267	60	212	42	258	612	1560	87	223
05:45	130	226	130	196	121	226	91	233	114	265	74	240	53	199	713	1585	102	226
06:00	156	226	111	211	138	211	119	237	121	250	90	273	54	229	789	1637	113	234
06:15	158	157	138	197	171	186	138	175	120	250	99	189	52	228	876	1382	125	197
06:30	169	142	164	159	147	156	153	198	159	238	116	180	52	177	960	1250	137	179
06:45	156	163	173	103	187	160	169	186	150	212	95	179	69	207	999	1210	143	173
07:00	200	143	191	112	169	162	169	151	134	198	112	179	78	187	1053	1132	150	162
07:15	204	111	200	118	213	120	212	140	177	183	116	152	66	176	1188	1000	170	143
07:30	222	112	184	93	181	127	203	138	186	196	147	176	90	187	1213	1029	173	147
07:45	212	98	201	103	215	102	202	116	189	153	125	118	96	172	1240	862	177	123
08:00	201	97	199	83	204	97	211	111	190	133	157	142	107	145	1269	808	181	115
08:15	224	76	191	64	215	87	187	111	171	145	193	119	121	131	1302	733	186	105
08:30	190	61	191	68	186	87	208	89	205	133	186	142	109	115	1275	695	182	99
08:45	207	60	191	57	210	65	190	86	171	124	177	113	141	116	1287	621	184	89
09:00	182	52	160	72	197	71	185	74	179	129	193	114	145	125	1241	637	177	91
09:15	178	74	192	49	207	68	172	94	0	115	211	96	152	101	1112	597	159	85
09:30	161	48	191	62	194	79	213	73	0	108	215	87	182	103	1156	560	165	80
09:45	201	44	217	64	229	52	172	71	0	96	195	86	198	85	1212	498	173	71
10:00	173	42	162	67	211	37	169	56	0	83	199	93	182	88	1096	466	157	67
10:15	190	54	168	66	204	56	178	60	0	79	233	82	180	80	1153	477	165	68
10:30	190	44	179	43	172	41	186	50	0	69	241	67	177	65	1145	379	164	54
10:45	165	40	185	56	194	39	180	47	0	85	245	75	164	54	1133	396	162	57
11:00	196	25	148	28	153	31	188	47	0	60	235	53	221	63	1141	307	163	44
11:15	199	22	169	33	185	36	195	41	0	64	233	55	212	60	1193	311	170	44
11:30	157	25	154	22	172	28	180	38	0	66	225	50	201	43	1089	272	156	39
11:45	189	31	199	29	185	30	202	33	0	51	250	47	210	31	1235	252	176	36
12:00	182	31	136	17	165	22	185	22	0	52	244	30	214	28	1126	202	161	29
TOTALS	11991		11426		12036		12636		10575		13412		12078		84154		12021	
AM Times	07:30		07:15		09:15		07:15		07:45		10:15		11:00		08:00		08:00	
AM Peaks	859		784		841		828		755		954		844		5133		732	
AM PHF	0.96		0.98		0.92		0.98		0.92		0.97		0.95		0.99		0.98	
PM Times	17:15		16:00		17:00		16:00		16:30		16:30		16:45		16:30		16:30	
PM Peaks	848		840		910		975		1132		996		975		6478		924	
PM PHF	0.94		0.98		0.96		0.96		0.89		0.93		0.94		0.98		0.98	

### Travel Time & Delay Study - January 29, 2019 (7:00 - 9:00 AM & 4:00 - 6:00 PM)

Run #	I-95 SB: SR 528 - SR 520			Run #	I-95 NB: SR 520 - SR 528		
	Distance (Ft)	Travel Time (Sec)	Average Speed (MPH)		Distance (Ft)	Travel Time (Sec)	Average Speed (MPH)
<b>AM Peak</b>							
1	18480	173.0	72.8	2	18480	173.7	72.5
3	18480	173.0	72.8	4	18480	173.3	72.7
5	18480	184.3	68.4	6	18480	177.8	70.9
7	18480	176.0	71.6	8	18480	175.1	72.0
9	18480	173.4	72.7	10	18480	168.5	74.8
11	18480	172.0	73.3	12	18480	170.9	73.7
<b>Total</b>	<b>18480</b>	<b>175.3</b>	<b>71.9</b>	<b>Total</b>	<b>18480</b>	<b>173.2</b>	<b>72.7</b>
<b>PM Peak</b>							
13	18480	166.8	75.5	14	18480	180.3	69.9
15	18480	169.8	74.2	16	18480	179.4	70.2
17	18480	193.8	65.0	18	18480	179.1	70.3
19	18480	173.5	72.6	20	18480	178.0	70.8
21	18480	176.4	71.4	22	18480	177.3	71.1
23	18480	172.5	73.0	24	18480	183.0	68.9
<b>Total</b>	<b>18480</b>	<b>175.5</b>	<b>71.8</b>	<b>Total</b>	<b>18480</b>	<b>179.5</b>	<b>70.2</b>

**Study****I-95 at SR 524 IMR****Type****Field Observed Queue Lengths****Date of Observation****1/29/2019**

Intersection Movement	Max Queue (Feet/lane)	
	2019 AM	2019 PM
<b>SR 524 &amp; I-95 SB Ramps</b>		
WB Left	250	125
SB Left	150	100
<b>SR 524 &amp; I-95 NB Ramps</b>		
EB Left	50	50
NB Left	75	125
NB Right	75	75

# FDOT Counts and Seasonal & Axle Factors

FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION STATISTICS OFFICE  
 2017 HISTORICAL AADT REPORT

COUNTY: 70 - BREVARD

SITE: 0366 - ON I-95, 0.588 MI. S OF SR-524 (ITS)

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2017	45000	F	N 23000		S 22000	9.00	53.10	18.80
2016	42000	C	N 21500		S 20500	9.00	53.20	19.40
2015	40000	S	N 15500		S 24500	9.00	51.50	13.90
2014	37500	F	N 14500		S 23000	9.00	51.20	12.00
2013	36000	C	N 14000		S 22000	9.00	51.30	13.30
2012	37500	C	N 20000		S 17500	9.00	52.80	19.20
2011	57500	C	N 31000		S 26500	9.00	53.70	18.00
2010	39500	C	N 21500		S 18000	11.32	53.54	18.70
2009	61400	E	N 31400		S 30000	11.81	53.26	13.60
2008	63000	S	N 32000		S 31000	11.50	55.11	17.40
2007	65000	F	N 33000		S 32000	10.60	57.53	19.90
2006	65000	C	N 33000		S 32000	10.30	56.47	18.20
2005	84000	C	N 43500		S 40500	10.50	53.60	22.60
2004	68500	C	N 35000		S 33500	10.70	57.10	17.20
2003	64500	C	N 32500		S 32000	11.40	53.70	15.90
2002	54500	C	N 28000		S 26500	11.30	54.10	18.00

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: 70  
 STATION: 0368  
 DESCRIPTION: ON I-95, 0.917 MI. N OF SR-524 (RVL)  
 START DATE: 10/25/2017  
 START TIME: 0000

TIME	DIRECTION: N					DIRECTION: S					COMBINED TOTAL	
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL		
0000	103	80	94	86	363	82	72	79	54	287	650	
0100	66	81	88	67	302	46	44	62	62	214	516	
0200	63	58	58	74	253	45	50	57	61	213	466	
0300	73	61	72	61	267	66	68	67	59	260	527	
0400	66	76	78	131	351	76	95	141	115	427	778	
0500	134	174	194	249	751	163	228	259	279	929	1680	
0600	318	446	523	502	1789	355	386	449	462	1652	3441	
0700	583	649	691	718	2641	509	588	644	580	2321	4962	
0800	625	595	545	516	2281	532	488	516	419	1955	4236	
0900	477	404	450	454	1785	484	471	438	427	1820	3605	
1000	454	505	473	501	1933	408	437	429	437	1711	3644	
1100	472	448	455	443	1818	450	451	422	446	1769	3587	
1200	457	467	468	436	1828	475	433	513	471	1892	3720	
1300	463	444	436	492	1835	465	495	503	528	1991	3826	
1400	444	529	492	495	1960	540	541	532	561	2174	4134	
1500	475	527	543	641	2186	602	604	705	631	2542	4728	
1600	637	666	614	682	2599	721	681	732	744	2878	5477	
1700	649	636	611	550	2446	852	805	700	668	3025	5471	
1800	512	510	447	371	1840	571	514	464	372	1921	3761	
1900	350	305	277	262	1194	393	346	297	291	1327	2521	
2000	289	237	230	255	1011	288	248	263	222	1021	2032	
2100	249	225	215	170	859	224	248	169	193	834	1693	
2200	184	155	157	145	641	186	146	151	120	603	1244	
2300	131	110	109	107	457	109	117	100	92	418	875	
24-HOUR TOTALS:					33390						34184	67574

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	715	2683	715	2344	715	5027
P.M.	1615	2611	1630	3133	1630	5714
DAILY	715	2683	1630	3133	1630	5714

COUNTY: 70  
 STATION: 0368  
 DESCRIPTION: ON I-95, 0.917 MI. N OF SR-524 (RVL)  
 START DATE: 10/26/2017  
 START TIME: 0000

TIME	DIRECTION: N					DIRECTION: S					COMBINED TOTAL
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	
0000	86	105	98	95	384	73	72	75	58	278	662
0100	70	75	81	71	297	52	50	51	47	200	497
0200	65	79	69	56	269	58	45	41	52	196	465
0300	70	63	65	62	260	64	56	55	86	261	521
0400	63	60	87	108	318	88	103	128	128	447	765
0500	146	147	171	274	738	193	218	279	292	982	1720
0600	343	427	542	534	1846	335	410	469	510	1724	3570
0700	568	712	728	661	2669	534	593	620	625	2372	5041
0800	571	613	562	494	2240	595	504	532	494	2125	4365
0900	488	480	492	471	1931	507	497	490	460	1954	3885
1000	467	515	472	522	1976	429	453	437	479	1798	3774
1100	450	490	472	484	1896	465	455	498	484	1902	3798
1200	369	512	512	485	1878	485	564	489	522	2060	3938
1300	376	479	475	506	1836	487	560	554	514	2115	3951
1400	480	543	562	512	2097	567	578	650	594	2389	4486
1500	538	580	605	662	2385	665	584	657	661	2567	4952
1600	649	662	675	778	2764	704	722	785	803	3014	5778
1700	688	695	641	538	2562	869	816	810	718	3213	5775
1800	538	472	467	471	1948	618	557	501	427	2103	4051
1900	382	370	317	320	1389	376	414	370	362	1522	2911
2000	316	283	244	274	1117	330	321	301	281	1233	2350
2100	236	236	199	199	870	260	231	228	221	940	1810
2200	203	177	215	140	735	181	162	135	129	607	1342
2300	158	144	130	143	575	149	128	135	123	535	1110
24-HOUR TOTALS:	34980					36537					71517

	DIRECTION: N		DIRECTION: S		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	715	2672	715	2433	715	5105
P.M.	1630	2836	1645	3298	1630	6109
DAILY	1630	2836	1645	3298	1630	6109

FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION STATISTICS OFFICE  
 2017 HISTORICAL AADT REPORT

COUNTY: 70 - BREVARD

SITE: 0368 - ON I-95, 0.917 MI. N OF SR-524 (RVL) PIEZO NW

YEAR	AADT		DIRECTION 1		DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
----	-----		-----		-----	-----	-----	-----
2017	58000	C	N 28500		S 29500	9.00	53.10	15.70
2016	65000	C	N 32000		S 33000	9.00	53.20	15.70
2015	57000	F	N 28500		S 28500	9.00	51.50	14.60
2014	54000	C	N 27000		S 27000	9.00	51.20	14.60
2013	50500	C	N 25500		S 25000	9.00	51.30	15.90
2012	53000	C	N 27000		S 26000	9.00	52.80	19.20
2011	52000	C	N 26500		S 25500	9.00	53.70	18.00
2010	39000	C	N 18500		S 20500	11.32	53.54	18.70
2009	54500	S	N 29500		S 25000	11.81	53.26	13.60
2008	55500	F	N 30000		S 25500	11.50	55.11	17.40
2007	57500	C	N 31000		S 26500	10.60	57.53	19.90
2006	63000	C	N 31500		S 31500	10.30	56.47	18.20
2005	62500	C	N 33500		S 29000	10.50	53.60	22.60
2004	57500	C	N 28500		S 29000	10.70	57.10	17.20
2003	57500	C	N 28000		S 29500	11.40	53.70	15.90
2002	52000	C	N 26000		S 26000	11.30	54.10	18.00

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: 70  
 STATION: 0411  
 DESCRIPTION: ON SR-524, 0.195 MI. E OF I-95 (RCLP)  
 START DATE: 10/04/2017  
 START TIME: 0000

TIME	DIRECTION: E					DIRECTION: W					COMBINED TOTAL	
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL		
0000	5	5	5	15	30	5	4	3	7	19	49	
0100	11	8	12	17	48	7	5	6	9	27	75	
0200	26	29	37	55	147	22	18	24	25	89	236	
0300	60	84	84	114	342	49	44	51	67	211	553	
0400	108	116	156	144	524	57	98	87	70	312	836	
0500	100	117	108	77	402	95	90	90	89	364	766	
0600	87	68	87	90	332	70	85	84	62	301	633	
0700	74	77	70	94	315	70	93	81	65	309	624	
0800	70	64	96	78	308	74	77	94	75	320	628	
0900	84	78	85	84	331	94	102	88	74	358	689	
1000	75	66	61	69	271	81	76	75	92	324	595	
1100	70	70	89	82	311	74	89	91	84	338	649	
1200	80	89	71	65	305	105	85	110	125	425	730	
1300	73	78	76	83	310	153	126	127	138	544	854	
1400	95	112	114	84	405	143	107	126	125	501	906	
1500	63	66	67	46	242	101	98	78	59	336	578	
1600	53	56	43	38	190	73	71	75	54	273	463	
1700	28	30	34	27	119	66	47	43	40	196	315	
1800	9	15	0	14	38	31	32	22	33	118	156	
1900	11	13	8	7	39	17	22	16	16	71	110	
2000	20	9	6	3	38	16	26	8	7	57	95	
2100	1	5	0	4	10	30	8	3	12	53	63	
2200	2	10	4	9	25	9	7	4	5	25	50	
2300	10	0	7	3	20	5	3	3	7	18	38	
24-HOUR TOTALS:					5102						5589	10691

PEAK VOLUME INFORMATION

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	830	336	830	365	830	701
P.M.	1400	405	1300	544	1345	918
DAILY	400	524	1300	544	1345	918

TRUCK PERCENTAGE 21.05 21.88 21.49

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
E	20	3257	751	28	719	148	5	51	121	2	0	0	0	0	0	1074	5102
W	32	3488	846	34	931	108	36	43	59	10	1	0	1	0	0	1223	5589

COUNTY: 70  
 STATION: 0411  
 DESCRIPTION: ON SR-524, 0.195 MI. E OF I-95 (RCLP)  
 START DATE: 10/05/2017  
 START TIME: 0000

TIME	DIRECTION: E					DIRECTION: W					COMBINED TOTAL	
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL		
0000	3	6	2	9	20	5	5	13	11	34	54	
0100	11	9	13	7	40	14	15	7	12	48	88	
0200	18	28	40	68	154	16	23	21	29	89	243	
0300	53	94	67	95	309	45	52	55	61	213	522	
0400	84	80	101	131	396	71	76	78	59	284	680	
0500	121	114	98	77	410	84	84	88	80	336	746	
0600	64	73	74	73	284	69	76	55	59	259	543	
0700	104	64	67	82	317	72	71	81	82	306	623	
0800	57	73	80	79	289	86	75	68	68	297	586	
0900	92	66	65	98	321	84	74	74	75	307	628	
1000	72	71	76	68	287	87	73	92	72	324	611	
1100	73	79	89	78	319	83	83	87	106	359	678	
1200	70	84	75	77	306	99	91	114	126	430	736	
1300	86	104	95	94	379	164	114	123	112	513	892	
1400	103	113	102	87	405	149	123	105	116	493	898	
1500	63	92	77	57	289	105	85	83	74	347	636	
1600	43	42	50	46	181	61	61	60	43	225	406	
1700	42	30	32	26	130	43	48	34	33	158	288	
1800	21	32	33	22	108	27	23	28	30	108	216	
1900	30	18	11	8	67	25	21	8	16	70	137	
2000	20	10	10	12	52	10	17	10	10	47	99	
2100	9	7	7	10	33	18	17	10	3	48	81	
2200	8	5	3	10	26	5	6	2	7	20	46	
2300	7	2	6	7	22	4	7	5	9	25	47	
24-HOUR TOTALS:					5144						5340	10484

PEAK VOLUME INFORMATION

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	815	324	730	324	700	623
P.M.	1345	412	1245	527	1330	912
DAILY	430	467	1245	527	1330	912

TRUCK PERCENTAGE 22.59 19.81 21.18

CLASSIFICATION SUMMARY DATABASE

DIR	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	TOTTRK	TOTVOL
E	12	3218	752	29	801	116	8	48	150	9	1	0	0	0	0	1162	5144
W	24	3429	829	31	775	83	35	35	64	31	1	2	1	0	0	1058	5340

FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION STATISTICS OFFICE  
 2017 HISTORICAL AADT REPORT

COUNTY: 70 - BREVARD

SITE: 0411 - ON SR-524, 0.195 MI. E OF I-95 (RCLP)

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
----	-----	-----	-----	-----	-----	-----	-----	-----
2017	11600 C	E	5600	W	6000	9.00	54.30	21.30
2016	11400 C	E	5800	W	5600	9.00	53.40	8.60
2015	10700 C	E	5500	W	5200	9.00	53.80	8.00
2014	10200 C	E	5300	W	4900	9.00	53.80	8.80
2013	10100 C	E	5200	W	4900	9.00	54.20	14.50
2012	9700 C	E	5000	W	4700	9.00	53.60	9.50
2011	9900 C	E	5100	W	4800	9.00	54.30	9.20
2010	10400 C	E	5400	W	5000	10.91	56.02	9.50
2009	10600 C	E	5400	W	5200	11.80	61.02	9.50
2008	9600 C	E	4800	W	4800	11.37	57.79	9.30
2007	10700 C	E	5200	W	5500	10.03	55.54	9.40
2006	11200 C	E	5700	W	5500	11.35	57.22	15.90
2005	12300 C	E	6800	W	5500	11.30	53.80	7.60
2004	10900 C	E	5700	W	5200	10.10	56.80	3.90
2003	10600 C	E	5800	W	4800	9.80	53.10	3.10
2002	10900 C	E	5600	W	5300	9.90	53.90	5.30

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: 70  
 STATION: 0425  
 DESCRIPTION: ON SR-524, 0.595 MI. W OF I-95 (RVL)  
 START DATE: 08/23/2017  
 START TIME: 0000

TIME	DIRECTION: E					DIRECTION: W					COMBINED TOTAL
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	
0000	3	3	4	1	11	4	7	4	5	20	31
0100	1	2	5	1	9	4	3	2	1	10	19
0200	2	1	2	2	7	0	3	2	3	8	15
0300	1	1	5	3	10	3	1	2	3	9	19
0400	6	3	5	6	20	4	3	4	6	17	37
0500	11	14	19	26	70	3	7	11	12	33	103
0600	23	43	42	51	159	17	15	21	36	89	248
0700	51	68	83	70	272	37	34	28	37	136	408
0800	62	67	54	41	224	29	39	48	37	153	377
0900	46	48	36	33	163	41	34	25	38	138	301
1000	38	42	48	39	167	35	23	36	42	136	303
1100	43	47	33	43	166	47	31	37	32	147	313
1200	47	51	30	51	179	39	44	38	47	168	347
1300	46	37	49	40	172	39	34	44	41	158	330
1400	43	44	41	39	167	38	38	55	39	170	337
1500	54	39	54	48	195	48	41	64	53	206	401
1600	46	62	58	52	218	59	66	74	62	261	479
1700	47	42	49	31	169	59	72	55	81	267	436
1800	38	39	41	26	144	55	63	52	34	204	348
1900	32	26	23	16	97	28	35	33	30	126	223
2000	16	26	13	14	69	20	32	27	17	96	165
2100	9	12	8	8	37	20	18	22	14	74	111
2200	12	2	2	2	18	12	12	13	14	51	69
2300	7	2	3	6	18	13	8	7	4	32	50
24-HOUR TOTALS:	2761					2709					5470

## PEAK VOLUME INFORMATION

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	715	283	815	165	730	415
P.M.	1615	219	1630	267	1615	480
DAILY	715	283	1630	267	1615	480

COUNTY: 70  
 STATION: 0425  
 DESCRIPTION: ON SR-524, 0.595 MI. W OF I-95 (RVL)  
 START DATE: 08/24/2017  
 START TIME: 0000

TIME	DIRECTION: E					DIRECTION: W					COMBINED TOTAL
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	
0000	3	3	2	2	10	4	2	5	3	14	24
0100	3	3	0	4	10	8	7	1	0	16	26
0200	1	2	0	0	3	1	3	0	2	6	9
0300	1	3	0	3	7	3	3	1	6	13	20
0400	7	7	11	7	32	2	4	7	2	15	47
0500	9	17	25	28	79	11	11	9	12	43	122
0600	26	55	47	44	172	22	20	25	22	89	261
0700	53	72	79	80	284	53	32	27	27	139	423
0800	70	54	46	42	212	25	39	27	26	117	329
0900	36	46	41	36	159	32	26	18	33	109	268
1000	48	37	30	28	143	37	28	27	33	125	268
1100	48	38	39	20	145	37	36	38	31	142	287
1200	57	43	36	50	186	44	44	23	51	162	348
1300	39	38	37	46	160	44	25	28	34	131	291
1400	42	27	36	36	141	33	33	33	47	146	287
1500	51	42	42	45	180	29	44	43	63	179	359
1600	41	50	49	50	190	77	66	56	67	266	456
1700	41	47	60	39	187	63	67	78	74	282	469
1800	45	27	35	17	124	55	39	31	47	172	296
1900	29	17	21	20	87	48	38	32	26	144	231
2000	22	17	9	14	62	29	27	39	31	126	188
2100	13	10	8	9	40	13	15	14	8	50	90
2200	13	6	3	8	30	14	13	11	7	45	75
2300	5	5	5	3	18	13	9	7	8	37	55
24-HOUR TOTALS:	2661					2568					5229

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	715	301	700	139	700	423
P.M.	1645	198	1700	282	1645	473
DAILY	715	301	1700	282	1645	473

FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION STATISTICS OFFICE  
 2017 HISTORICAL AADT REPORT

COUNTY: 70 - BREVARD

SITE: 0425 - ON SR-524, 0.595 MI. W OF I-95 (RVL)

YEAR	AADT	DIRECTION 1		DIRECTION 2		*K FACTOR	D FACTOR	T FACTOR
----	-----	-----	-----	-----	-----	-----	-----	-----
2017	5700 C	E	2900	W	2800	9.00	54.30	10.60
2016	5200 C	E	2700	W	2500	9.00	53.40	6.50
2015	4800 C	E	2400	W	2400	9.00	53.80	6.40
2014	4500 C	E	2200	W	2300	9.00	53.80	7.10
2013	4700 C	E	2300	W	2400	9.00	54.20	8.90
2012	4500 C	E	2300	W	2200	9.00	53.60	6.80
2011	4200 C	E	2100	W	2100	9.00	54.30	7.20
2010	4600 C	E	2400	W	2200	10.91	56.02	5.70
2009	5600 C	E	2600	W	3000	11.80	61.02	7.40
2008	6500 C	E	3200	W	3300	11.37	57.79	6.70
2007	4200 C	E	2100	W	2100	10.03	55.54	6.00
2006	6500 C	E	3300	W	3200	11.35	57.22	7.80
2005	6100 C	E	3000	W	3100	11.30	53.80	7.60
2004	5000 F	E	2500	W	2500	10.10	56.80	3.90
2003	4800 C	E	2400	W	2400	9.80	53.10	3.10
2002	4000 C	E	2000	W	2000	9.90	53.90	5.30

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: 70  
 STATION: 0426  
 DESCRIPTION: ON SR-524, 0.664 MI. W OF SR-501 (UVL)  
 START DATE: 08/24/2017  
 START TIME: 0000

TIME	DIRECTION: E					DIRECTION: W					COMBINED TOTAL
	1ST	2ND	3RD	4TH	TOTAL	1ST	2ND	3RD	4TH	TOTAL	
0000	20	18	9	8	55	16	13	5	10	44	99
0100	13	7	3	6	29	7	7	6	7	27	56
0200	8	8	12	7	35	6	3	5	7	21	56
0300	5	8	7	14	34	11	5	2	5	23	57
0400	16	14	29	31	90	10	5	14	11	40	130
0500	36	67	64	78	245	15	23	32	28	98	343
0600	91	111	130	120	452	46	53	57	86	242	694
0700	147	165	187	160	659	70	115	101	114	400	1059
0800	149	161	148	134	592	101	116	94	95	406	998
0900	126	114	123	135	498	87	111	109	89	396	894
1000	114	123	115	121	473	102	74	93	97	366	839
1100	96	109	126	110	441	114	105	108	123	450	891
1200	145	125	135	118	523	141	141	136	141	559	1082
1300	116	111	117	112	456	107	101	132	134	474	930
1400	106	124	113	134	477	112	123	116	146	497	974
1500	106	126	109	124	465	169	127	183	222	701	1166
1600	177	123	138	149	587	180	180	192	173	725	1312
1700	156	161	161	149	627	189	187	177	150	703	1330
1800	120	97	104	85	406	146	116	120	120	502	908
1900	81	72	82	75	310	95	99	93	103	390	700
2000	66	63	43	35	207	100	93	81	70	344	551
2100	36	39	27	31	133	56	52	41	47	196	329
2200	32	29	23	25	109	36	40	32	26	134	243
2300	14	16	15	8	53	22	26	24	19	91	144
24-HOUR TOTALS:	7956					7829					15785

	DIRECTION: E		DIRECTION: W		COMBINED DIRECTIONS	
	HOUR	VOLUME	HOUR	VOLUME	HOUR	VOLUME
A.M.	715	661	730	432	715	1092
P.M.	1645	627	1545	774	1645	1353
DAILY	715	661	1545	774	1645	1353

FLORIDA DEPARTMENT OF TRANSPORTATION  
 TRANSPORTATION STATISTICS OFFICE  
 2017 HISTORICAL AADT REPORT

COUNTY: 70 - BREVARD

SITE: 0426 - ON SR-524, 0.664 MI. W OF SR-501 (UVL)

YEAR	AADT	DIRECTION 1	DIRECTION 2	*K FACTOR	D FACTOR	T FACTOR
2017	17100 C	E 8600	W 8500	9.00	54.30	10.60
2016	16100 C	E 8100	W 8000	9.00	53.40	6.50
2015	15300 C	E 7600	W 7700	9.00	53.80	6.40
2014	14200 C	E 7200	W 7000	9.00	53.80	7.10
2013	12100 C	E 5400	W 6700	9.00	54.20	8.90
2012	13400 C	E 6700	W 6700	9.00	53.60	6.80
2011	14500 C	E 7300	W 7200	9.00	54.30	7.20
2010	15000 C	E 7400	W 7600	10.91	56.02	5.70
2009	15000 C	E 7400	W 7600	11.80	61.02	7.40
2008	15200 C	E 7800	W 7400	11.37	57.79	6.70
2007	15800 C	E 7900	W 7900	10.03	55.54	6.00
2006	15000 C	E 7500	W 7500	11.35	57.22	7.80
2005	16700 C	E 8300	W 8400	11.30	53.80	7.60
2004	14400 C	E 7200	W 7200	10.10	56.80	3.90
2003	14800 C	E 7400	W 7400	9.80	53.10	3.10
2002	14600 C	E 7300	W 7300	9.90	53.90	5.30

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



## 2017 WEEKLY AXLE FACTOR CATEGORY REPORT - REPORT TYPE: ALL

COUNTY: 70 - BREVARD

WEEK	DATES	7001 BREVARD COUNTYWIDE	7002 I95, SR520 - SR-44	7003 SR514	7004 SR46
1	01/01/2017 - 01/07/2017	0.98	0.83	0.97	0.95
2	01/08/2017 - 01/14/2017	0.99	0.83	0.97	0.95
3	01/15/2017 - 01/21/2017	0.99	0.83	0.97	0.95
4	01/22/2017 - 01/28/2017	0.99	0.83	0.97	0.95
5	01/29/2017 - 02/04/2017	0.99	0.83	0.97	0.95
6	02/05/2017 - 02/11/2017	0.99	0.84	0.97	0.95
7	02/12/2017 - 02/18/2017	0.99	0.84	0.97	0.95
8	02/19/2017 - 02/25/2017	0.99	0.84	0.97	0.95
9	02/26/2017 - 03/04/2017	0.99	0.84	0.97	0.95
10	03/05/2017 - 03/11/2017	0.98	0.84	0.97	0.95
11	03/12/2017 - 03/18/2017	0.98	0.84	0.97	0.95
12	03/19/2017 - 03/25/2017	0.98	0.84	0.97	0.95
13	03/26/2017 - 04/01/2017	0.98	0.84	0.97	0.95
14	04/02/2017 - 04/08/2017	0.98	0.84	0.97	0.95
15	04/09/2017 - 04/15/2017	0.98	0.84	0.97	0.95
16	04/16/2017 - 04/22/2017	0.98	0.84	0.97	0.95
17	04/23/2017 - 04/29/2017	0.98	0.84	0.97	0.95
18	04/30/2017 - 05/06/2017	0.98	0.83	0.97	0.95
19	05/07/2017 - 05/13/2017	0.98	0.83	0.97	0.95
20	05/14/2017 - 05/20/2017	0.98	0.83	0.97	0.95
21	05/21/2017 - 05/27/2017	0.98	0.83	0.97	0.95
22	05/28/2017 - 06/03/2017	0.98	0.83	0.97	0.95
23	06/04/2017 - 06/10/2017	0.98	0.83	0.97	0.95
24	06/11/2017 - 06/17/2017	0.98	0.83	0.97	0.95
25	06/18/2017 - 06/24/2017	0.98	0.83	0.97	0.95
26	06/25/2017 - 07/01/2017	0.98	0.84	0.97	0.95
27	07/02/2017 - 07/08/2017	0.98	0.84	0.97	0.95
28	07/09/2017 - 07/15/2017	0.98	0.84	0.97	0.95
29	07/16/2017 - 07/22/2017	0.98	0.84	0.97	0.95
30	07/23/2017 - 07/29/2017	0.98	0.83	0.97	0.95
31	07/30/2017 - 08/05/2017	0.98	0.83	0.97	0.95
32	08/06/2017 - 08/12/2017	0.98	0.82	0.97	0.95
33	08/13/2017 - 08/19/2017	0.98	0.82	0.97	0.95
34	08/20/2017 - 08/26/2017	0.98	0.83	0.97	0.95
35	08/27/2017 - 09/02/2017	0.98	0.83	0.97	0.95
36	09/03/2017 - 09/09/2017	0.98	0.84	0.97	0.95
37	09/10/2017 - 09/16/2017	0.98	0.84	0.97	0.95
38	09/17/2017 - 09/23/2017	0.98	0.83	0.97	0.95
39	09/24/2017 - 09/30/2017	0.98	0.82	0.97	0.95
40	10/01/2017 - 10/07/2017	0.98	0.82	0.97	0.95
41	10/08/2017 - 10/14/2017	0.98	0.81	0.97	0.95
42	10/15/2017 - 10/21/2017	0.98	0.80	0.97	0.95
43	10/22/2017 - 10/28/2017	0.98	0.81	0.97	0.95
44	10/29/2017 - 11/04/2017	0.98	0.81	0.97	0.95
45	11/05/2017 - 11/11/2017	0.98	0.82	0.97	0.95
46	11/12/2017 - 11/18/2017	0.98	0.82	0.97	0.95
47	11/19/2017 - 11/25/2017	0.98	0.82	0.97	0.95
48	11/26/2017 - 12/02/2017	0.98	0.83	0.97	0.95
49	12/03/2017 - 12/09/2017	0.98	0.83	0.97	0.95
50	12/10/2017 - 12/16/2017	0.98	0.83	0.97	0.95
51	12/17/2017 - 12/23/2017	0.98	0.83	0.97	0.95
52	12/24/2017 - 12/30/2017	0.99	0.83	0.97	0.95
53	12/31/2017 - 12/31/2017	0.99	0.83	0.97	0.95

## 2017 WEEKLY AXLE FACTOR CATEGORY REPORT - REPORT TYPE: ALL

COUNTY: 70 - BREVARD

WEEK	DATES	7005 SR405,SR50 NE TO SR5	7006 SR507 & SR519	7007 SR50,ORANGE CO-I95	7008 SR524, SR-501
1	01/01/2017 - 01/07/2017	0.99	0.99	0.99	0.97
2	01/08/2017 - 01/14/2017	0.99	0.99	0.99	0.97
3	01/15/2017 - 01/21/2017	0.99	0.99	0.99	0.97
4	01/22/2017 - 01/28/2017	0.99	0.99	0.99	0.97
5	01/29/2017 - 02/04/2017	0.99	0.99	0.99	0.97
6	02/05/2017 - 02/11/2017	0.99	0.99	0.99	0.97
7	02/12/2017 - 02/18/2017	0.99	0.99	0.99	0.97
8	02/19/2017 - 02/25/2017	0.99	0.99	0.99	0.97
9	02/26/2017 - 03/04/2017	0.99	0.99	0.99	0.97
10	03/05/2017 - 03/11/2017	0.99	0.99	0.99	0.97
11	03/12/2017 - 03/18/2017	0.99	0.99	0.99	0.97
12	03/19/2017 - 03/25/2017	0.99	0.99	0.99	0.97
13	03/26/2017 - 04/01/2017	0.99	0.99	0.99	0.97
14	04/02/2017 - 04/08/2017	0.99	0.99	0.99	0.97
15	04/09/2017 - 04/15/2017	0.99	0.99	0.99	0.97
16	04/16/2017 - 04/22/2017	0.99	0.99	0.99	0.97
17	04/23/2017 - 04/29/2017	0.99	0.99	0.99	0.97
18	04/30/2017 - 05/06/2017	0.99	0.99	0.99	0.97
19	05/07/2017 - 05/13/2017	0.99	0.99	0.99	0.97
20	05/14/2017 - 05/20/2017	0.99	0.99	0.99	0.97
21	05/21/2017 - 05/27/2017	0.99	0.99	0.99	0.97
22	05/28/2017 - 06/03/2017	0.99	0.99	0.99	0.97
23	06/04/2017 - 06/10/2017	0.99	0.99	0.99	0.97
24	06/11/2017 - 06/17/2017	0.99	0.99	0.99	0.97
25	06/18/2017 - 06/24/2017	0.99	0.99	0.99	0.97
26	06/25/2017 - 07/01/2017	0.99	0.99	0.99	0.97
27	07/02/2017 - 07/08/2017	0.99	0.99	0.99	0.97
28	07/09/2017 - 07/15/2017	0.99	0.99	0.99	0.97
29	07/16/2017 - 07/22/2017	0.99	0.99	0.99	0.97
30	07/23/2017 - 07/29/2017	0.99	0.99	0.99	0.97
31	07/30/2017 - 08/05/2017	0.99	0.99	0.99	0.97
32	08/06/2017 - 08/12/2017	0.99	0.99	0.99	0.97
33	08/13/2017 - 08/19/2017	0.99	0.99	0.99	0.97
34	08/20/2017 - 08/26/2017	0.99	0.99	0.99	0.97
35	08/27/2017 - 09/02/2017	0.99	0.99	0.99	0.97
36	09/03/2017 - 09/09/2017	0.99	0.99	0.99	0.97
37	09/10/2017 - 09/16/2017	0.99	0.99	0.99	0.97
38	09/17/2017 - 09/23/2017	0.99	0.99	0.99	0.97
39	09/24/2017 - 09/30/2017	0.99	0.99	0.99	0.97
40	10/01/2017 - 10/07/2017	0.99	0.99	0.99	0.97
41	10/08/2017 - 10/14/2017	0.99	0.99	0.99	0.97
42	10/15/2017 - 10/21/2017	0.99	0.99	0.99	0.97
43	10/22/2017 - 10/28/2017	0.99	0.99	0.99	0.97
44	10/29/2017 - 11/04/2017	0.99	0.99	0.99	0.97
45	11/05/2017 - 11/11/2017	0.99	0.99	0.99	0.97
46	11/12/2017 - 11/18/2017	0.99	0.99	0.99	0.97
47	11/19/2017 - 11/25/2017	0.99	0.99	0.99	0.97
48	11/26/2017 - 12/02/2017	0.99	0.99	0.99	0.97
49	12/03/2017 - 12/09/2017	0.99	0.99	0.99	0.97
50	12/10/2017 - 12/16/2017	0.99	0.99	0.99	0.97
51	12/17/2017 - 12/23/2017	0.99	0.99	0.99	0.97
52	12/24/2017 - 12/30/2017	0.99	0.99	0.99	0.97
53	12/31/2017 - 12/31/2017	0.99	0.99	0.99	0.97

2017 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL  
 CATEGORY: 7000 BREVARD COUNTYWIDE

WEEK	DATES	SF	MOCF: 0.92 PSCF
1	01/01/2017 - 01/07/2017	1.00	1.09
2	01/08/2017 - 01/14/2017	0.99	1.08
3	01/15/2017 - 01/21/2017	0.98	1.07
4	01/22/2017 - 01/28/2017	0.96	1.04
* 5	01/29/2017 - 02/04/2017	0.95	1.03
* 6	02/05/2017 - 02/11/2017	0.93	1.01
* 7	02/12/2017 - 02/18/2017	0.92	1.00
* 8	02/19/2017 - 02/25/2017	0.91	0.99
* 9	02/26/2017 - 03/04/2017	0.90	0.98
*10	03/05/2017 - 03/11/2017	0.89	0.97
*11	03/12/2017 - 03/18/2017	0.88	0.96
*12	03/19/2017 - 03/25/2017	0.89	0.97
*13	03/26/2017 - 04/01/2017	0.91	0.99
*14	04/02/2017 - 04/08/2017	0.92	1.00
*15	04/09/2017 - 04/15/2017	0.94	1.02
*16	04/16/2017 - 04/22/2017	0.95	1.03
*17	04/23/2017 - 04/29/2017	0.96	1.04
18	04/30/2017 - 05/06/2017	0.97	1.05
19	05/07/2017 - 05/13/2017	0.98	1.07
20	05/14/2017 - 05/20/2017	0.99	1.08
21	05/21/2017 - 05/27/2017	1.00	1.09
22	05/28/2017 - 06/03/2017	1.02	1.11
23	06/04/2017 - 06/10/2017	1.03	1.12
24	06/11/2017 - 06/17/2017	1.04	1.13
25	06/18/2017 - 06/24/2017	1.04	1.13
26	06/25/2017 - 07/01/2017	1.03	1.12
27	07/02/2017 - 07/08/2017	1.03	1.12
28	07/09/2017 - 07/15/2017	1.02	1.11
29	07/16/2017 - 07/22/2017	1.03	1.12
30	07/23/2017 - 07/29/2017	1.03	1.12
31	07/30/2017 - 08/05/2017	1.04	1.13
32	08/06/2017 - 08/12/2017	1.04	1.13
33	08/13/2017 - 08/19/2017	1.05	1.14
34	08/20/2017 - 08/26/2017	1.08	1.17
35	08/27/2017 - 09/02/2017	1.12	1.22
36	09/03/2017 - 09/09/2017	1.15	1.25
37	09/10/2017 - 09/16/2017	1.19	1.29
38	09/17/2017 - 09/23/2017	1.16	1.26
39	09/24/2017 - 09/30/2017	1.13	1.23
40	10/01/2017 - 10/07/2017	1.10	1.20
41	10/08/2017 - 10/14/2017	1.08	1.17
42	10/15/2017 - 10/21/2017	1.05	1.14
43	10/22/2017 - 10/28/2017	1.04	1.13
44	10/29/2017 - 11/04/2017	1.03	1.12
45	11/05/2017 - 11/11/2017	1.02	1.11
46	11/12/2017 - 11/18/2017	1.02	1.11
47	11/19/2017 - 11/25/2017	1.01	1.10
48	11/26/2017 - 12/02/2017	1.01	1.10
49	12/03/2017 - 12/09/2017	1.01	1.10
50	12/10/2017 - 12/16/2017	1.00	1.09
51	12/17/2017 - 12/23/2017	0.99	1.08
52	12/24/2017 - 12/30/2017	0.98	1.07
53	12/31/2017 - 12/31/2017	0.98	1.07

\* PEAK SEASON

02-MAR-2018 15:35:06

830UPD

5\_7000\_PKSEASON.TXT

2017 PEAK SEASON FACTOR CATEGORY REPORT - REPORT TYPE: ALL  
 CATEGORY: 7095 BREVARD I95

WEEK	DATES	SF	MOCF: 0.97 PSCF
1	01/01/2017 - 01/07/2017	0.95	0.98
2	01/08/2017 - 01/14/2017	1.01	1.04
3	01/15/2017 - 01/21/2017	1.07	1.10
4	01/22/2017 - 01/28/2017	1.06	1.09
5	01/29/2017 - 02/04/2017	1.05	1.08
6	02/05/2017 - 02/11/2017	1.04	1.07
7	02/12/2017 - 02/18/2017	1.03	1.06
* 8	02/19/2017 - 02/25/2017	1.01	1.04
* 9	02/26/2017 - 03/04/2017	0.99	1.02
*10	03/05/2017 - 03/11/2017	0.96	0.99
*11	03/12/2017 - 03/18/2017	0.94	0.97
*12	03/19/2017 - 03/25/2017	0.94	0.97
*13	03/26/2017 - 04/01/2017	0.95	0.98
*14	04/02/2017 - 04/08/2017	0.95	0.98
*15	04/09/2017 - 04/15/2017	0.95	0.98
*16	04/16/2017 - 04/22/2017	0.96	0.99
*17	04/23/2017 - 04/29/2017	0.98	1.01
*18	04/30/2017 - 05/06/2017	0.99	1.02
*19	05/07/2017 - 05/13/2017	1.00	1.03
*20	05/14/2017 - 05/20/2017	1.02	1.05
21	05/21/2017 - 05/27/2017	1.02	1.05
22	05/28/2017 - 06/03/2017	1.02	1.05
23	06/04/2017 - 06/10/2017	1.03	1.06
24	06/11/2017 - 06/17/2017	1.03	1.06
25	06/18/2017 - 06/24/2017	1.02	1.05
26	06/25/2017 - 07/01/2017	1.01	1.04
27	07/02/2017 - 07/08/2017	1.00	1.03
28	07/09/2017 - 07/15/2017	0.99	1.02
29	07/16/2017 - 07/22/2017	1.00	1.03
30	07/23/2017 - 07/29/2017	1.01	1.04
31	07/30/2017 - 08/05/2017	1.02	1.05
32	08/06/2017 - 08/12/2017	1.03	1.06
33	08/13/2017 - 08/19/2017	1.04	1.07
34	08/20/2017 - 08/26/2017	1.04	1.07
35	08/27/2017 - 09/02/2017	1.04	1.07
36	09/03/2017 - 09/09/2017	1.04	1.07
37	09/10/2017 - 09/16/2017	1.04	1.07
38	09/17/2017 - 09/23/2017	1.04	1.07
39	09/24/2017 - 09/30/2017	1.05	1.08
40	10/01/2017 - 10/07/2017	1.05	1.08
41	10/08/2017 - 10/14/2017	1.05	1.08
42	10/15/2017 - 10/21/2017	1.06	1.09
43	10/22/2017 - 10/28/2017	1.03	1.06
44	10/29/2017 - 11/04/2017	1.00	1.03
45	11/05/2017 - 11/11/2017	0.98	1.01
46	11/12/2017 - 11/18/2017	0.95	0.98
47	11/19/2017 - 11/25/2017	0.95	0.98
48	11/26/2017 - 12/02/2017	0.95	0.98
49	12/03/2017 - 12/09/2017	0.95	0.98
50	12/10/2017 - 12/16/2017	0.95	0.98
51	12/17/2017 - 12/23/2017	0.99	1.02
52	12/24/2017 - 12/30/2017	1.03	1.06
53	12/31/2017 - 12/31/2017	1.07	1.10

\* PEAK SEASON

02-MAR-2018 15:35:06

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# **Appendix C**

## Existing Synchro Output & Signal Timings

Study Intersection	Movement	Existing Year 2019			
		AM Peak Hour		PM Peak Hour	
		Delay (s)	LOS	Delay (s)	LOS
SR 524 at S. Friday Road	EB Left	7.6	A	8.0	A
	EB Through	-	-	-	-
	EB Right	-	-	-	-
	WB Left	8.5	A	7.9	A
	WB Through	-	-	-	-
	WB Right	-	-	-	-
	NB Left	11.7	B	11.8	B
	NB Through	-	-	-	-
	NB Right	-	-	-	-
	SB Left/Through	18.9	C	20.3	C
	SB Through	-	-	-	-
	SB Right	9.1	A	0.0	A
SR 524 at I-95 SB Ramps	EB Left	0.0	0.0	0.0	0.0
	EB Through	19.5	B	13.5	B
	EB Right	4.0	A	2.5	A
	WB Left	22.6	C	15.3	B
	WB Through	4.5	A	8.2	A
	WB Right	0.0	0.0	0.0	0.0
	NB Left	0.0	0.0	0.0	0.0
	NB Through	0.0	0.0	0.0	0.0
	NB Right	0.0	0.0	0.0	0.0
	SB Left	74.1	E	81.1	F
	SB Through	0.0	0.0	0.0	0.0
	SB Right	1.5	A	4.6	A
SR 524 at I-95 NB Ramps	EB Left	0.7	A	0.4	A
	EB Through	7.6	A	13.4	B
	EB Right	0.0	0.0	0.0	0.0
	WB Left	0.0	0.0	0.0	0.0
	WB Through	13.5	B	16.1	B
	WB Right	3.8	A	5.8	A
	NB Left	46.5	D	55.8	E
	NB Through	0.0	0.0	0.0	0.0
	NB Right	19.8	B	12.2	B
	SB Left	0.0	0.0	0.0	0.0
	SB Through	0.0	0.0	0.0	0.0
	SB Right	0.0	0.0	0.0	0.0
SR 524 at N. Friday Road	EB Left	13.8	B	15.2	B
	EB Through	28.0	C	25.6	C
	EB Right	2.4	A	5.1	A
	WB Left	14.1	B	12.8	B
	WB Through	25.5	C	27.0	C
	WB Right	0.1	A	0.1	A
	NB Left	40.7	D	42.9	D
	NB Through/R	7.6	A	10.0	B
	SB L/T/R	41.1	D	42.5	D

# HCM 6th TWSC

## 2: S Friday Road & SR 524

Existing 2019 AM

03/09/2021

### Intersection

Int Delay, s/veh 2.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↗	↘	↗	↗		↔			↗	↗
Traffic Vol, veh/h	1	383	4	49	151	6	2	0	52	28	0	5
Future Vol, veh/h	1	383	4	49	151	6	2	0	52	28	0	5
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	260	350	-	0	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	89	89	89	89	89	89	89	89	89	89	89	89
Heavy Vehicles, %	0	8	25	8	17	0	50	0	0	0	0	0
Mvmt Flow	1	430	4	55	170	7	2	0	58	31	0	6

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	177	0	0	434	0	0	719	719	430	743	716	170
Stage 1	-	-	-	-	-	-	432	432	-	280	280	-
Stage 2	-	-	-	-	-	-	287	287	-	463	436	-
Critical Hdwy	4.1	-	-	4.18	-	-	7.6	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.6	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.6	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.272	-	-	3.95	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1411	-	-	1094	-	-	289	357	629	334	358	879
Stage 1	-	-	-	-	-	-	518	586	-	731	683	-
Stage 2	-	-	-	-	-	-	628	678	-	583	583	-
Platoon blocked, %		-	-	-	-	-						
Mov Cap-1 Maneuver	1411	-	-	1094	-	-	276	339	629	291	340	879
Mov Cap-2 Maneuver	-	-	-	-	-	-	276	339	-	291	340	-
Stage 1	-	-	-	-	-	-	517	585	-	730	649	-
Stage 2	-	-	-	-	-	-	593	644	-	528	582	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0			2			11.7			17.4		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	601	1411	-	-	1094	-	-	291	879
HCM Lane V/C Ratio	0.101	0.001	-	-	0.05	-	-	0.108	0.006
HCM Control Delay (s)	11.7	7.6	-	-	8.5	-	-	18.9	9.1
HCM Lane LOS	B	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.3	0	-	-	0.2	-	-	0.4	0

Lanes, Volumes, Timings  
3: I-95 SB Ramps & SR 524

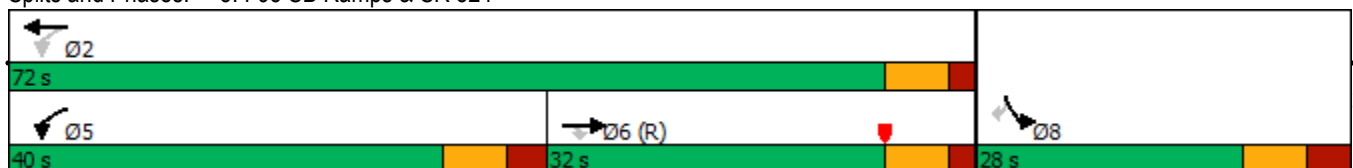
Existing 2019 AM  
01/11/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑					↖		↗
Traffic Volume (vph)	0	258	208	307	149	0	0	0	0	110	0	54
Future Volume (vph)	0	258	208	307	149	0	0	0	0	110	0	54
Lane Util. Factor	*0.66	*0.66	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	2259	1538	1517	1597	0	0	0	0	1556	0	1509
Flt Permitted				0.396						0.950		
Satd. Flow (perm)	0	2259	1538	632	1597	0	0	0	0	1556	0	1509
Satd. Flow (RTOR)			242							128		63
Adj. Flow (vph)	0	300	242	357	173	0	0	0	0	128	0	63
Lane Group Flow (vph)	0	300	242	357	173	0	0	0	0	128	0	63
Turn Type		NA	Perm	pm+pt	NA					Prot		Perm
Protected Phases		6		5	2					8		
Permitted Phases			6	2								8
Total Split (s)		32.0	32.0	40.0	72.0					28.0		28.0
Total Lost Time (s)		6.8	6.8	10.7	6.8					11.2		8.2
Act Effct Green (s)		47.2	47.2	67.6	71.5					10.5		13.5
Actuated g/C Ratio		0.47	0.47	0.68	0.72					0.10		0.14
v/c Ratio		0.28	0.28	0.65	0.15					0.79		0.20
Control Delay		19.5	4.0	22.3	4.5					74.1		1.5
Queue Delay		0.0	0.0	0.3	0.0					0.0		0.0
Total Delay		19.5	4.0	22.6	4.5					74.1		1.5
LOS		B	A	C	A					E		A
Approach Delay		12.6			16.7						50.1	
Approach LOS		B			B						D	
Queue Length 50th (ft)		83	0	66	23					81		0
Queue Length 95th (ft)		161	46	126	64					129		0
Internal Link Dist (ft)		548			234			533			512	
Turn Bay Length (ft)										300		
Base Capacity (vph)		1067	854	686	1142					261		399
Starvation Cap Reductn		0	0	62	0					0		0
Spillback Cap Reductn		0	0	0	0					0		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.28	0.28	0.57	0.15					0.49		0.16

**Intersection Summary**

Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 32 (32%), Referenced to phase 6:EBT, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.79  
 Intersection Signal Delay: 20.0      Intersection LOS: B  
 Intersection Capacity Utilization 59.9%      ICU Level of Service B  
 Analysis Period (min) 15  
 \* User Entered Value

Splits and Phases: 3: I-95 SB Ramps & SR 524























# Lanes, Volumes, Timings

## 4: I-95 NB Ramps & SR 524

Existing 2019 AM

01/11/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	64	304	0	0	412	114	44	0	224	0	0	0
Future Volume (vph)	64	304	0	0	412	114	44	0	224	0	0	0
Lane Util. Factor	1.00	1.00	1.00	*0.67	*0.67	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1597	1696	0	0	2139	1404	1543	0	1380	0	0	0
Flt Permitted	0.375						0.950					
Satd. Flow (perm)	631	1696	0	0	2139	1404	1543	0	1380	0	0	0
Satd. Flow (RTOR)						120			236			
Adj. Flow (vph)	67	320	0	0	434	120	46	0	236	0	0	0
Lane Group Flow (vph)	67	320	0	0	434	120	46	0	236	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Prot		Perm			
Protected Phases	1	6			2		4					
Permitted Phases	6					2			4			
Total Split (s)	24.0	74.0			50.0	50.0	26.0		26.0			
Total Lost Time (s)	7.4	10.4			9.7	6.7	6.3		8.3			
Act Effct Green (s)	76.8	73.8			63.1	66.1	9.5		7.5			
Actuated g/C Ratio	0.77	0.74			0.63	0.66	0.10		0.08			
v/c Ratio	0.12	0.26			0.32	0.12	0.31		0.73			
Control Delay	0.7	7.3			13.5	3.8	46.5		19.8			
Queue Delay	0.0	0.3			0.0	0.0	0.0		0.0			
Total Delay	0.7	7.6			13.5	3.8	46.5		19.8			
LOS	A	A			B	A	D		B			
Approach Delay		6.4			11.4			24.1				
Approach LOS		A			B			C				
Queue Length 50th (ft)	0	42			108	0	28		0			
Queue Length 95th (ft)	5	95			208	m22	60		71			
Internal Link Dist (ft)		234			604			541			669	
Turn Bay Length (ft)						500			200			
Base Capacity (vph)	644	1251			1349	968	303		438			
Starvation Cap Reductn	0	468			0	0	0		0			
Spillback Cap Reductn	0	0			0	0	0		0			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	0.10	0.41			0.32	0.12	0.15		0.54			

### Intersection Summary

Cycle Length: 100

Actuated Cycle Length: 100

Offset: 66 (66%), Referenced to phase 6:EBTL, Start of Yellow

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.73

Intersection Signal Delay: 12.8

Intersection LOS: B

Intersection Capacity Utilization 59.9%

ICU Level of Service B

Analysis Period (min) 15

\* User Entered Value

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
 4: I-95 NB Ramps & SR 524

Existing 2019 AM  
 01/11/2022

Splits and Phases: 4: I-95 NB Ramps & SR 524



Lanes, Volumes, Timings  
5: N Friday Rd/N Friday Road & SR 524

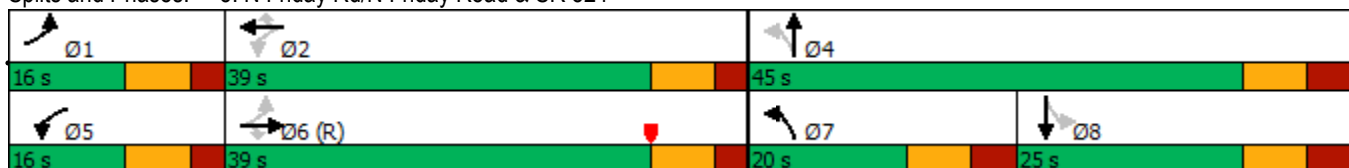
Existing 2019 AM  
01/11/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	45	366	117	25	295	24	121	3	42	51	11	110
Future Volume (vph)	45	366	117	25	295	24	121	3	42	51	11	110
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.859			0.914	
Flt Protected	0.950			0.950			0.950				0.985	
Satd. Flow (prot)	1597	1759	1242	1517	1681	1346	1318	1322	0	0	1659	0
Flt Permitted	0.487			0.416			0.355				0.883	
Satd. Flow (perm)	819	1759	1242	664	1681	1346	492	1322	0	0	1487	0
Satd. Flow (RTOR)			226			226		45			76	
Adj. Flow (vph)	48	394	126	27	317	26	130	3	45	55	12	118
Lane Group Flow (vph)	48	394	126	27	317	26	130	48	0	0	185	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases	1	6		5	2		7	4				8
Permitted Phases	6		6	2		2	4			8		
Total Split (s)	16.0	39.0	39.0	16.0	39.0	39.0	20.0	45.0		25.0	25.0	
Total Lost Time (s)	7.3	7.3	10.3	7.3	7.3	7.3	11.2	8.2			8.2	
Act Effct Green (s)	48.7	44.0	41.0	47.7	43.5	43.5	28.9	31.9			12.5	
Actuated g/C Ratio	0.49	0.44	0.41	0.48	0.44	0.44	0.29	0.32			0.12	
v/c Ratio	0.11	0.51	0.20	0.07	0.43	0.04	0.62	0.11			0.73	
Control Delay	13.8	28.0	2.4	14.1	25.5	0.1	40.7	7.6			41.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay	13.8	28.0	2.4	14.1	25.5	0.1	40.7	7.6			41.1	
LOS	B	C	A	B	C	A	D	A			D	
Approach Delay		21.1			22.9			31.8			41.1	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	18	208	3	8	154	0	64	1			66	
Queue Length 95th (ft)	m32	349	6	24	261	0	110	25			136	
Internal Link Dist (ft)		604			1646			769			785	
Turn Bay Length (ft)	315		500	380		330						
Base Capacity (vph)	470	773	642	397	731	713	214	514			313	
Starvation Cap Reductn	0	0	0	0	0	0	0	0			0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0			0	
Storage Cap Reductn	0	0	0	0	0	0	0	0			0	
Reduced v/c Ratio	0.10	0.51	0.20	0.07	0.43	0.04	0.61	0.09			0.59	

Intersection Summary

Cycle Length: 100  
 Actuated Cycle Length: 100  
 Offset: 54 (54%), Referenced to phase 6:EBTL, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 25.9  
 Intersection LOS: C  
 Intersection Capacity Utilization 60.9%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 5: N Friday Rd/N Friday Road & SR 524



## Arterial Level of Service

Existing 2019 AM

03/09/2021

## Arterial Level of Service: EB SR 524

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-95 SB Ramps	II	45	40.8	19.5	60.3	0.45	26.8	C
I-95 NB Ramps	II	45	6.5	7.3	13.8	0.06	15.5	E
N Friday Rd	II	45	14.1	28.0	42.1	0.13	11.1	F
Total	II		61.4	54.8	116.2	0.64	19.8	D

## Arterial Level of Service: WB SR 524

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Friday Road	II	45	31.4	25.5	56.9	0.33	20.7	D
I-95 NB Ramps	II	45	14.1	13.5	27.6	0.13	16.9	E
I-95 SB Ramps	II	45	6.5	4.5	11.0	0.06	19.5	D
Total	II		52.0	43.5	95.5	0.52	19.4	D

# HCM 6th TWSC

## 2: S Friday Road & SR 524

Existing 2019 PM

03/09/2021

### Intersection

Int Delay, s/veh 2.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↖	↖	↗	↖		↔			↖	↗
Traffic Vol, veh/h	2	222	6	98	306	60	10	3	63	24	2	0
Future Vol, veh/h	2	222	6	98	306	60	10	3	63	24	2	0
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	260	350	-	0	-	-	-	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	0	7	0	1	3	2	10	0	0	0	0	0
Mvmt Flow	2	234	6	103	322	63	11	3	66	25	2	0

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	385	0	0	240	0	0	799	829	234	804	772	322
Stage 1	-	-	-	-	-	-	238	238	-	528	528	-
Stage 2	-	-	-	-	-	-	561	591	-	276	244	-
Critical Hdwy	4.1	-	-	4.11	-	-	7.2	6.5	6.2	7.1	6.5	6.2
Critical Hdwy Stg 1	-	-	-	-	-	-	6.2	5.5	-	6.1	5.5	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.2	5.5	-	6.1	5.5	-
Follow-up Hdwy	2.2	-	-	2.209	-	-	3.59	4	3.3	3.5	4	3.3
Pot Cap-1 Maneuver	1185	-	-	1333	-	-	294	308	810	304	333	724
Stage 1	-	-	-	-	-	-	748	712	-	538	531	-
Stage 2	-	-	-	-	-	-	498	498	-	735	708	-
Platoon blocked, %	-	-	-	-	-	-	-	-	-	-	-	-
Mov Cap-1 Maneuver	1185	-	-	1333	-	-	275	284	810	260	307	724
Mov Cap-2 Maneuver	-	-	-	-	-	-	275	284	-	260	307	-
Stage 1	-	-	-	-	-	-	747	711	-	537	490	-
Stage 2	-	-	-	-	-	-	458	460	-	671	707	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			1.7			11.8			20.3		
HCM LOS							B			C		

Minor Lane/Major Mvmt	NBLn1	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	609	1185	-	-	1333	-	-	263	-
HCM Lane V/C Ratio	0.131	0.002	-	-	0.077	-	-	0.104	-
HCM Control Delay (s)	11.8	8	-	-	7.9	-	-	20.3	0
HCM Lane LOS	B	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.5	0	-	-	0.3	-	-	0.3	-

## Lanes, Volumes, Timings

### 3: I-95 SB Ramps & SR 524

Existing 2019 PM

01/11/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑					↘		↖
Traffic Volume (vph)	0	201	108	258	392	0	0	0	0	113	0	72
Future Volume (vph)	0	201	108	258	392	0	0	0	0	113	0	72
Lane Util. Factor	*0.69	*0.69	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850									0.850
Flt Protected				0.950						0.950		
Satd. Flow (prot)	0	2521	1442	1671	1845	0	0	0	0	1543	0	1568
Flt Permitted				0.487						0.950		
Satd. Flow (perm)	0	2521	1442	857	1845	0	0	0	0	1543	0	1568
Satd. Flow (RTOR)			128									114
Adj. Flow (vph)	0	209	113	269	408	0	0	0	0	118	0	75
Lane Group Flow (vph)	0	209	113	269	408	0	0	0	0	118	0	75
Turn Type		NA	Perm	pm+pt	NA					Prot		Perm
Protected Phases		6		5	2					8		
Permitted Phases			6	2								8
Total Split (s)		40.0	40.0	40.0	80.0					30.0		30.0
Total Lost Time (s)		6.8	6.8	10.7	6.8					11.2		8.2
Act Effct Green (s)		61.5	61.5	77.4	81.3					10.7		13.7
Actuated g/C Ratio		0.56	0.56	0.70	0.74					0.10		0.12
v/c Ratio		0.15	0.13	0.40	0.30					0.79		0.26
Control Delay		13.5	2.5	15.1	6.9					81.1		4.6
Queue Delay		0.0	0.0	0.2	1.3					0.0		0.0
Total Delay		13.5	2.5	15.3	8.2					81.1		4.6
LOS		B	A	B	A					F		A
Approach Delay		9.7			11.0						51.4	
Approach LOS		A			B						D	
Queue Length 50th (ft)		48	0	89	209					83		0
Queue Length 95th (ft)		94	25	111	142					139		16
Internal Link Dist (ft)		548			234			533			512	
Turn Bay Length (ft)										300		
Base Capacity (vph)		1410	863	819	1364					263		402
Starvation Cap Reductn		0	0	146	721					0		0
Spillback Cap Reductn		0	0	0	0					0		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.15	0.13	0.40	0.63					0.45		0.19

**Intersection Summary**

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 69 (63%), Referenced to phase 6:EBT, Start of Yellow

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.79

Intersection Signal Delay: 17.2

Intersection LOS: B

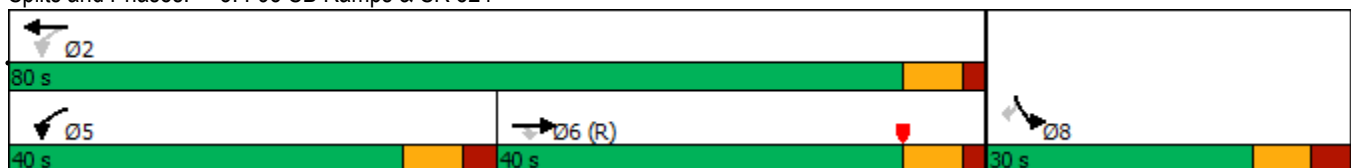
Intersection Capacity Utilization 54.5%

ICU Level of Service A

Analysis Period (min) 15

\* User Entered Value

## Splits and Phases: 3: I-95 SB Ramps &amp; SR 524



Lanes, Volumes, Timings  
4: I-95 NB Ramps & SR 524

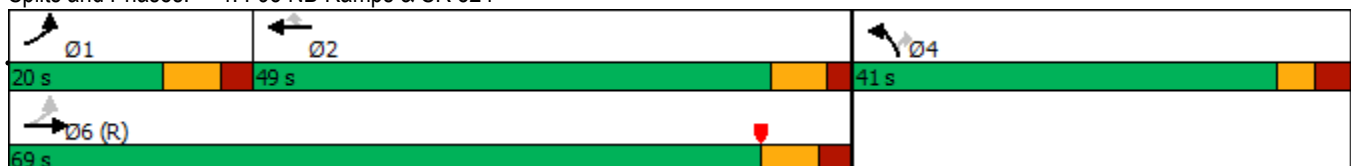
Existing 2019 PM  
01/11/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	56	258	0	0	469	110	181	0	349	0	0	0
Future Volume (vph)	56	258	0	0	469	110	181	0	349	0	0	0
Lane Util. Factor	1.00	1.00	1.00	*0.91	*0.91	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850			0.850			
Flt Protected	0.950						0.950					
Satd. Flow (prot)	1752	1727	0	0	3262	1417	1752	0	1468	0	0	0
Flt Permitted	0.419						0.950					
Satd. Flow (perm)	773	1727	0	0	3262	1417	1752	0	1468	0	0	0
Satd. Flow (RTOR)						113			360			
Adj. Flow (vph)	58	266	0	0	484	113	187	0	360	0	0	0
Lane Group Flow (vph)	58	266	0	0	484	113	187	0	360	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Prot		Perm			
Protected Phases	1	6			2		4					
Permitted Phases	6					2			4			
Total Split (s)	20.0	69.0			49.0	49.0	41.0		41.0			
Total Lost Time (s)	7.4	10.4			9.7	6.7	6.3		8.3			
Act Effct Green (s)	79.0	76.0			65.3	68.3	17.3		15.3			
Actuated g/C Ratio	0.72	0.69			0.59	0.62	0.16		0.14			
v/c Ratio	0.09	0.22			0.25	0.12	0.68		0.70			
Control Delay	0.4	12.8			16.1	5.8	55.8		12.2			
Queue Delay	0.0	0.6			0.0	0.0	0.0		0.0			
Total Delay	0.4	13.4			16.1	5.8	55.8		12.2			
LOS	A	B			B	A	E		B			
Approach Delay		11.1			14.2			27.1				
Approach LOS		B			B			C				
Queue Length 50th (ft)	0	85			94	3	126		0			
Queue Length 95th (ft)	1	81			182	44	188		84			
Internal Link Dist (ft)		234			604			541			669	
Turn Bay Length (ft)						500	250		200			
Base Capacity (vph)	667	1193			1936	922	552		689			
Starvation Cap Reductn	0	605			0	0	0		0			
Spillback Cap Reductn	0	0			0	0	13		0			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	0.09	0.45			0.25	0.12	0.35		0.52			

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 91 (83%), Referenced to phase 6:EBTL, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 18.3  
 Intersection Capacity Utilization 54.5%  
 Analysis Period (min) 15  
 \* User Entered Value

Splits and Phases: 4: I-95 NB Ramps & SR 524



Lanes, Volumes, Timings  
5: N Friday Rd/N Friday Road & SR 524

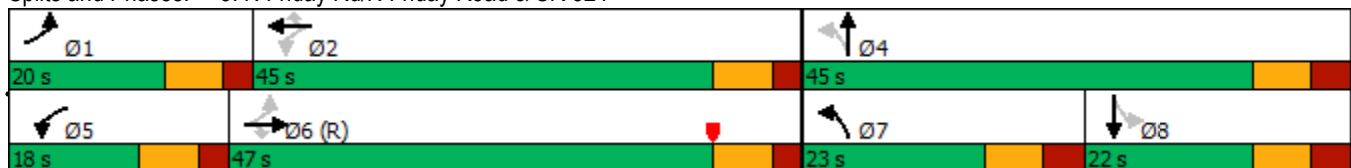
Existing 2019 PM  
01/11/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	132	343	132	42	403	49	132	7	43	38	8	44
Future Volume (vph)	132	343	132	42	403	49	132	7	43	38	8	44
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850			0.850		0.871			0.934	
Flt Protected	0.950			0.950			0.950				0.979	
Satd. Flow (prot)	1805	1810	1205	1583	1881	1615	1456	1511	0	0	1737	0
Flt Permitted	0.360			0.527			0.494				0.839	
Satd. Flow (perm)	684	1810	1205	878	1881	1615	757	1511	0	0	1489	0
Satd. Flow (RTOR)			205			205		44			36	
Adj. Flow (vph)	136	354	136	43	415	51	136	7	44	39	8	45
Lane Group Flow (vph)	136	354	136	43	415	51	136	51	0	0	92	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases	1	6		5	2		7	4				8
Permitted Phases	6		6	2		2	4			8		
Total Split (s)	20.0	47.0	47.0	18.0	45.0	45.0	23.0	45.0		22.0	22.0	
Total Lost Time (s)	7.3	7.3	10.3	7.3	7.3	7.3	11.2	8.2			8.2	
Act Effct Green (s)	63.7	57.2	54.2	56.3	49.4	49.4	25.4	28.4			9.9	
Actuated g/C Ratio	0.58	0.52	0.49	0.51	0.45	0.45	0.23	0.26			0.09	
v/c Ratio	0.28	0.38	0.20	0.09	0.49	0.06	0.57	0.12			0.55	
Control Delay	15.2	25.6	5.1	12.8	27.0	0.1	42.9	10.0			42.5	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay	15.2	25.6	5.1	12.8	27.0	0.1	42.9	10.0			42.5	
LOS	B	C	A	B	C	A	D	B			D	
Approach Delay		18.9			23.1			33.9			42.5	
Approach LOS		B			C			C			D	
Queue Length 50th (ft)	58	204	2	13	217	0	77	4			38	
Queue Length 95th (ft)	108	303	31	33	354	0	127	30			88	
Internal Link Dist (ft)		604			1646			769			785	
Turn Bay Length (ft)	315		500	380		330						
Base Capacity (vph)	532	940	697	548	844	838	257	534			218	
Starvation Cap Reductn	0	0	0	0	0	0	0	0			0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0			0	
Storage Cap Reductn	0	0	0	0	0	0	0	0			0	
Reduced v/c Ratio	0.26	0.38	0.20	0.08	0.49	0.06	0.53	0.10			0.42	

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 80 (73%), Referenced to phase 6:EBTL, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.57  
 Intersection Signal Delay: 23.9  
 Intersection Capacity Utilization 61.5%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service B

Splits and Phases: 5: N Friday Rd/N Friday Road & SR 524





## Arterial Level of Service

Existing 2019 PM

03/09/2021

## Arterial Level of Service: EB SR 524

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-95 SB Ramps	II	45	40.8	13.5	54.3	0.45	29.8	B
I-95 NB Ramps	II	45	6.5	12.8	19.3	0.06	11.1	F
N Friday Rd	II	45	14.1	25.6	39.7	0.13	11.7	F
Total	II		61.4	51.9	113.3	0.64	20.3	D

## Arterial Level of Service: WB SR 524

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Friday Road	II	45	31.4	27.0	58.4	0.33	20.2	D
I-95 NB Ramps	II	45	14.1	16.1	30.2	0.13	15.4	E
I-95 SB Ramps	II	45	6.5	6.9	13.4	0.06	16.0	E
Total	II		52.0	50.0	102.0	0.52	18.2	D

**Florida Department of Transportation  
District Five  
SR 524 - I95 to Friday Road**

<b>Maj. Street</b>	SR 524	<b>Date:</b>	9/10/2019	<b>Node</b>	1036
<b>Min. Street</b>	I-95 SB Ramps	<b>Controller</b>	Naztec 900 -TS2	<b>Address</b>	
Designed By					

**Pedestrians**

**Controller Timings (seconds)**

Phase	1	2	3	4	5	6	7	8
<b>Direction</b>		<i>WB</i>			<i>WBL</i>	<i>EB</i>		<i>WB</i>
<b>Min Green</b>		12			5	12		7
<b>Veh Gap</b>		3.0			3.0	3.0		3.0
<b>Yellow</b>		4.8			4.8	4.8		4.8
<b>All Red</b>		2.0			2.9	2.0		3.4
<b>Max I</b>		45			15	45		30
<b>Max II</b>		45			45	45		45
<b>Walk</b>								
<b>Flashing Don't Walk</b>								
<b>Min Splits</b>		19.0			13.0	19.0		16.0
<b>Recall/Memory</b>		<i>LK</i>				<i>LK</i>		
<b>Detector Switching</b>								
<b>Recall</b>		<i>Min</i>				<i>Min</i>		
<b>Coord Phase</b>						YES		

**Coordination Timings (seconds)**

Plan	Pattern	1	2	3	4	5	6	7	8
<i>AM</i>	1	-	72	-	-	40	32	-	28
<i>MIDDAY</i>	2	-	77	-	-	36	41	-	33
<i>PM</i>	3	-	80	-	-	40	40	-	30

Plan	Pattern	Cycle Length	Offset
<i>AM</i>	1	100	32
<i>MIDDAY</i>	2	110	0
<i>PM</i>	3	110	69

*TIME OF DAY - Weekdays*

TIME	PATTERN	TIME	PATTERN
0:00	Free	18:00	Free
6:00	1		
9:00	2		
14:00	3		

**Notes**

- 1 Offset referenced to end of mainstreet green
- 2 Phase 5 lags during all plans

*TIME OF DAY - Weekend*

TIME	PATTERN	TIME	PATTERN
0:00	Free		
9:00	2		
18:00	Free		

All Plans

Ring-1	2		
Ring-2	5	6	8

**Florida Department of Transportation  
District Five  
SR 524 - I95 to Friday Road**

<b>Maj. Street</b>	SR 524	<b>Date:</b>	9/10/2019	<b>Node</b>	1037
<b>Min. Street</b>	I-95 NB Ramps	<b>Controller</b>	Naztec 900 -TS2	<b>Address</b>	
Designed By					

Controller Timings (seconds)								
Phase	1	2	3	4	5	6	7	8
<b>Direction</b>	<i>EBL</i>	<i>WB</i>		<i>NB</i>		<i>EB</i>		
<b>Min Green</b>	5	12		7		12		
<b>Veh Gap</b>	3.0	3.0		3.0		3.0		
<b>Yellow</b>	4.7	4.7		3.2		4.7		
<b>All Red</b>	2.7	2.0		3.1		2.7		
<b>Max I</b>	15	45		30		45		
<b>Max II</b>	45	45		45		45		
<b>Walk</b>								
<b>Flashing Don't Walk</b>								
<b>Min Splits</b>	13.0	19.0		30.0		20.0		
<b>Recall/Memory</b>		<i>LK</i>				<i>LK</i>		
<b>Detector Switching</b>								
<b>Recall</b>		<i>Min</i>				<i>Min</i>		
<b>Coord Phase</b>						YES		

Coordination Timings (seconds)									
Plan	Pattern	1	2	3	4	5	6	7	8
<i>AM</i>	1	24	50	-	26	-	74	-	-
<i>MIDDAY</i>	2	20	50	-	40	-	70	-	-
<i>PM</i>	3	20	49	-	41	-	69	-	-

TIME OF DAY - Weekdays

Plan	Pattern	Cycle Length	Offset
<i>AM</i>	1	100	66
<i>MIDDAY</i>	2	110	21
<i>PM</i>	3	110	91

TIME	PATTERN	TIME	PATTERN
0:00	Free	18:00	Free
6:00	1		
9:00	2		
14:00	3		

**Notes**

1 Offset referenced to end of mainstreet green

TIME OF DAY - Weekend

TIME	PATTERN	TIME	PATTERN
0:00	Free		
9:00	2		
18:00	Free		

All Plans			
Ring-1	1	2	4
Ring-2		6	

**Florida Department of Transportation  
District Five  
SR 524 - I95 to Friday Road**

<b>Maj. Street</b>	SR 524	<b>Date:</b>	9/10/2019	<b>Node</b>	1035
<b>Min. Street</b>	Friday Road	<b>Controller</b>	Naztec 900 -TS2	<b>Address</b>	
Designed By					

<b>Controller Timings (seconds)</b>								
Phase	1	2	3	4	5	6	7	8
<b>Direction</b>	<i>EBL</i>	<i>WB</i>		<i>NB</i>	<i>WBL</i>	<i>EB</i>	<i>NBL</i>	<i>SB</i>
<b>Min Green</b>	5	12		7	5	12	5	7
<b>Veh Gap</b>	3.0	3.0		3.0	3.0	3.0	3.0	3.0
<b>Yellow</b>	4.8	4.8		4.8	4.8	4.8	4.8	4.8
<b>All Red</b>	2.5	2.5		3.4	2.5	2.5	3.4	3.4
<b>Max I</b>		50		30				30
<b>Max II</b>								
<b>Walk</b>								
<b>Flashing Don't Walk</b>								
<b>Min Splits</b>	13.0	20.0		16.0	13.0	20.0	14.0	16.0
<b>Recall/Memory</b>		<i>LK</i>				<i>LK</i>		
<b>Detector Switching</b>								
<b>Recall</b>		<i>Min</i>				<i>Min</i>		
<b>Coord Phase</b>						YES		

<b>Coordination Timings (seconds)</b>									
Plan	Pattern	1	2	3	4	5	6	7	8
<i>AM</i>	1	16	39	-	45	16	39	20	25
<i>MIDDAY</i>	2	18	44	-	48	18	44	26	22
<i>PM</i>	3	20	45	-	45	18	47	23	22

*TIME OF DAY - Weekdays*

Plan	Pattern	Cycle Length	Offset
<i>AM</i>	1	100	54
<i>MIDDAY</i>	2	110	14
<i>PM</i>	3	110	80

TIME	PATTERN	TIME	PATTERN
0:00	Free	18:00	Free
6:00	1		
9:00	2		
14:00	3		

**Notes**

1 Offset referenced to end of mainstreet green

*TIME OF DAY - Weekend*

TIME	PATTERN	TIME	PATTERN
0:00	Free		
9:00	2		
18:00	Free		

All Plans

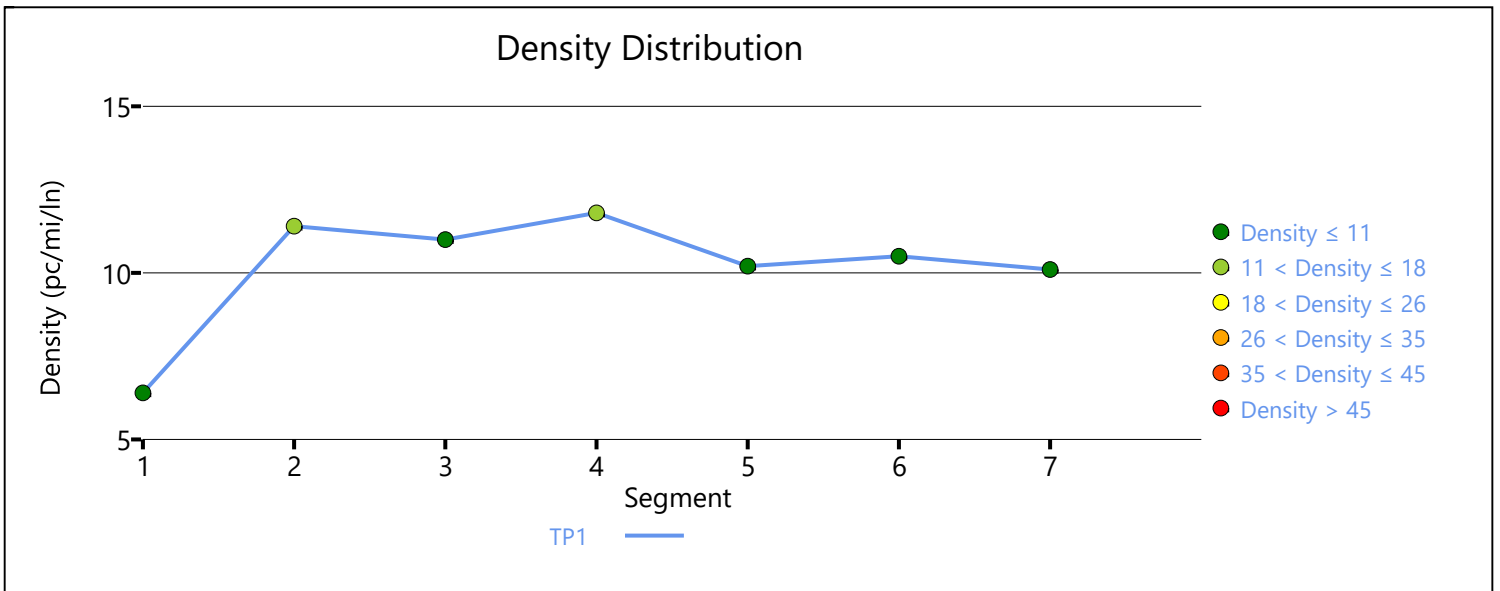
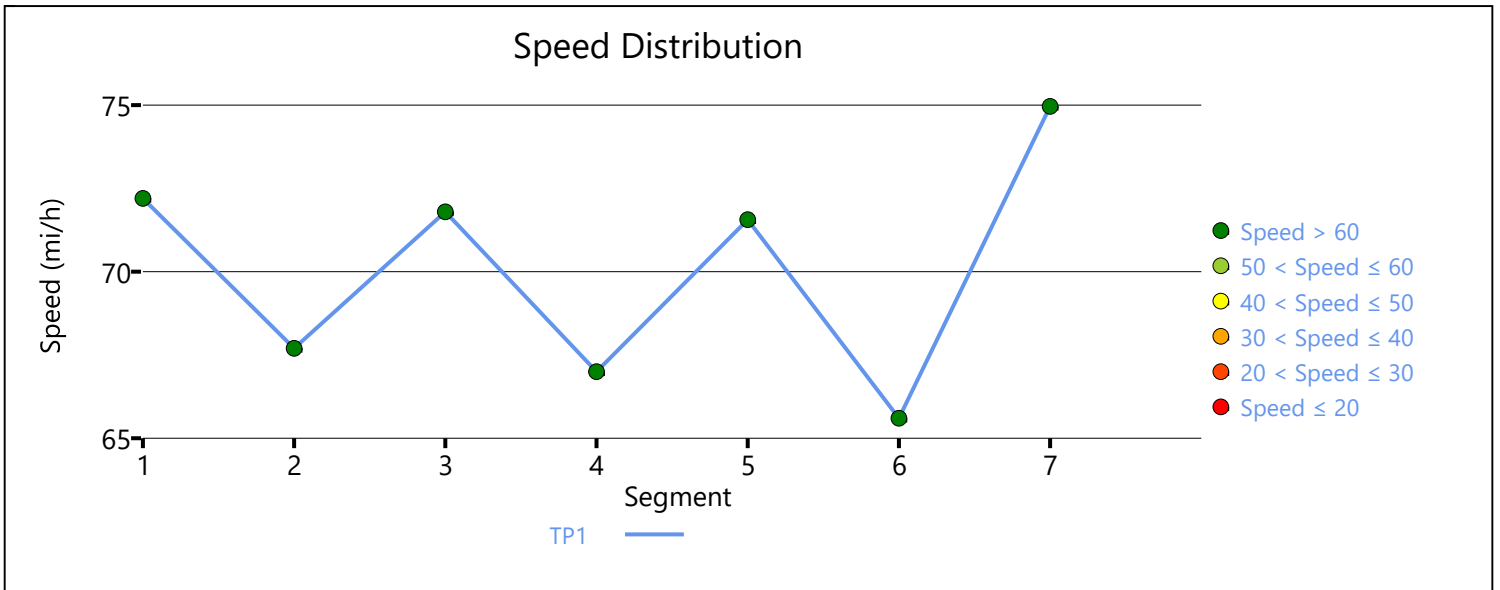
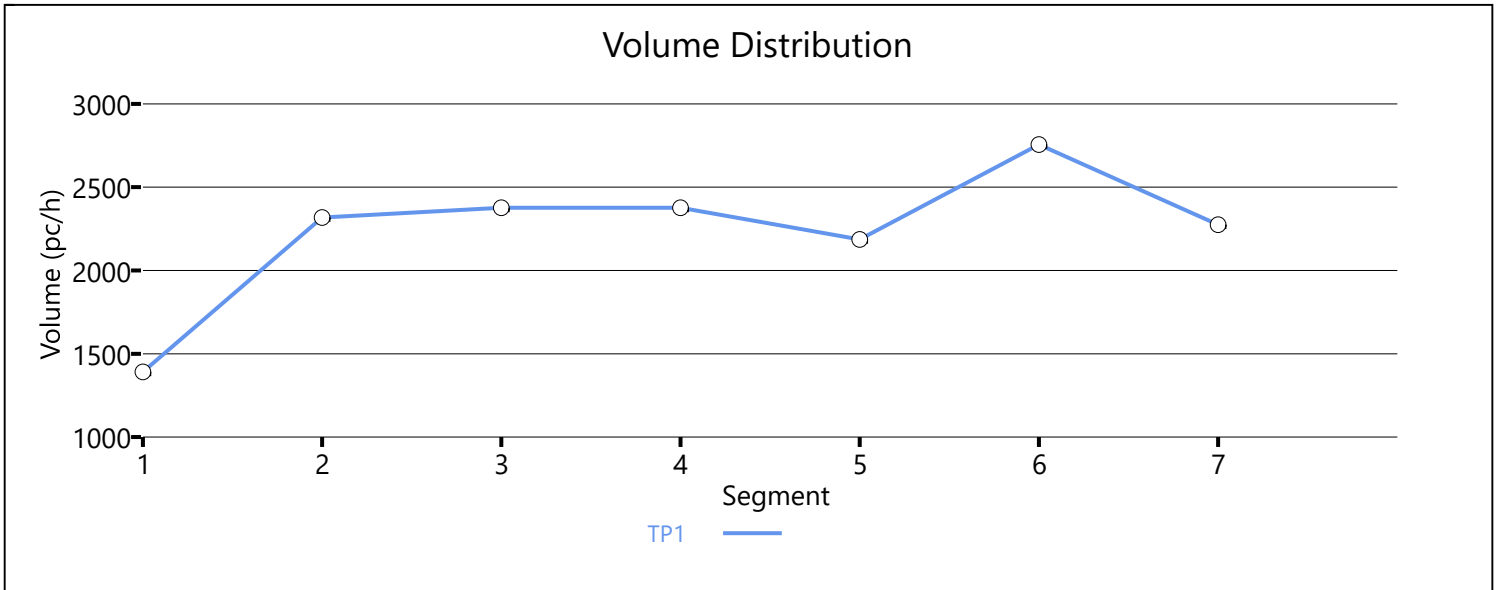
Ring-1	1	2	4
Ring-2	5	6	7 8

# **Appendix D**

## Existing HCS Output



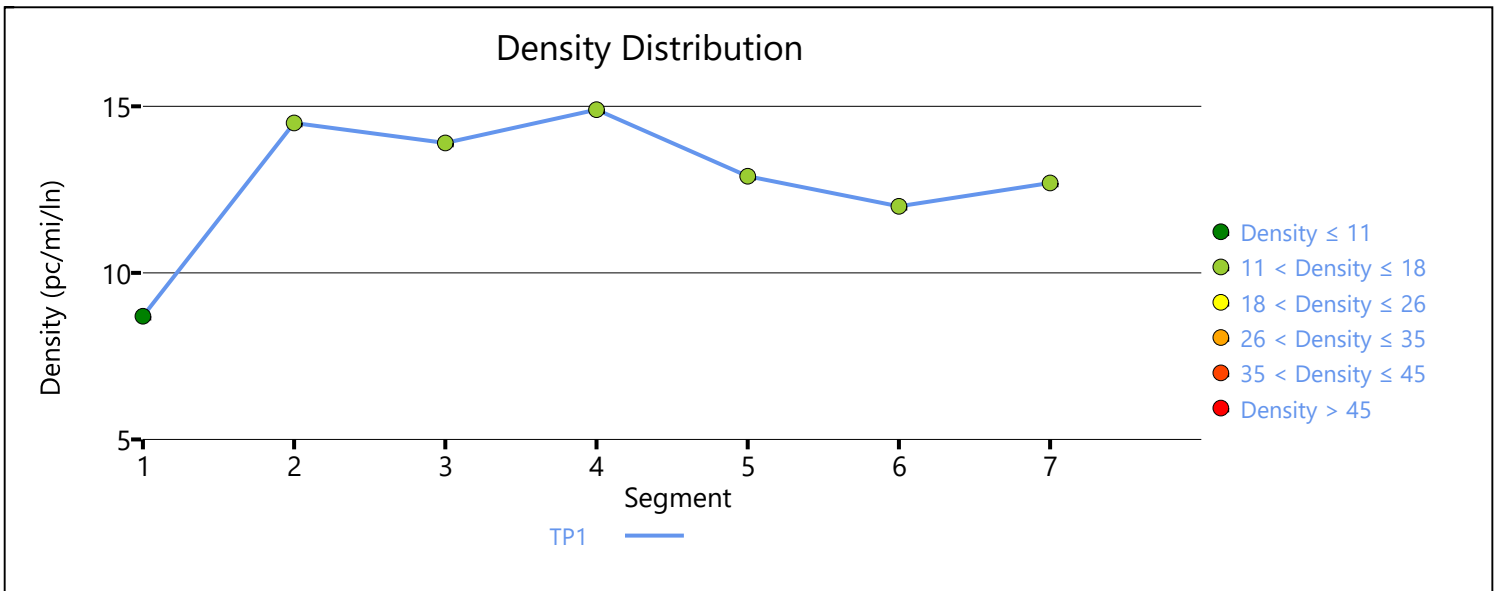
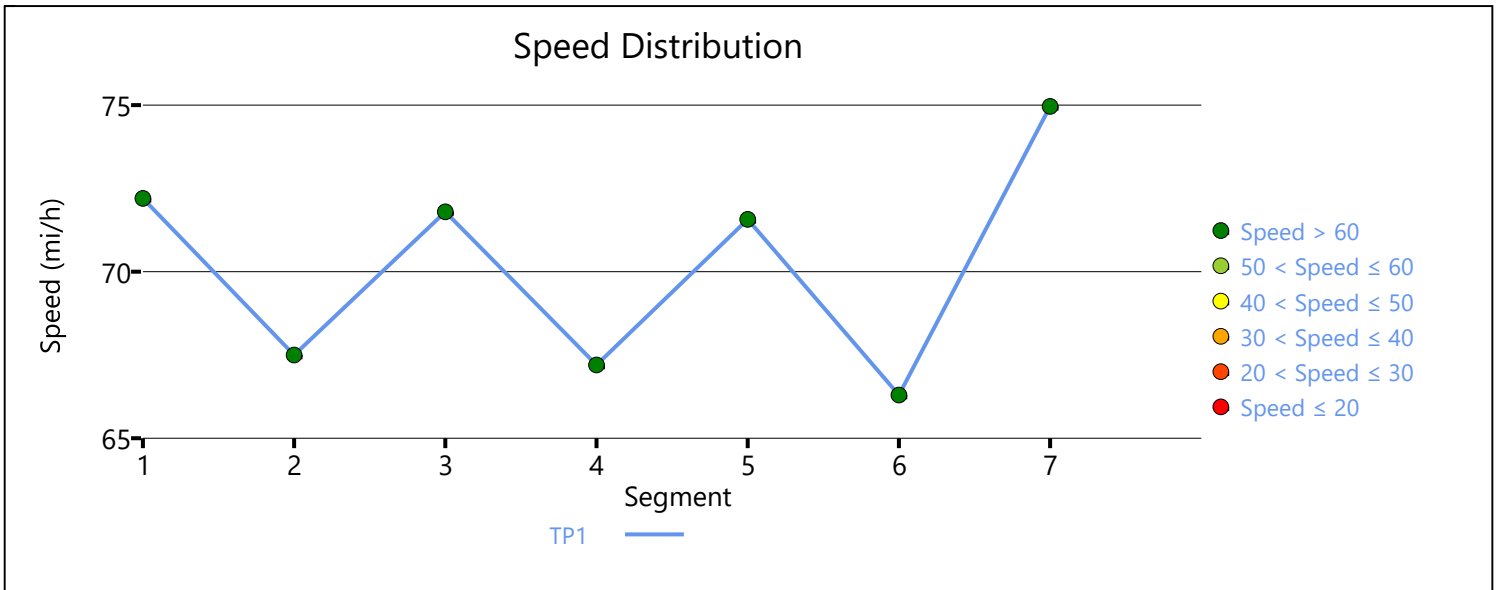
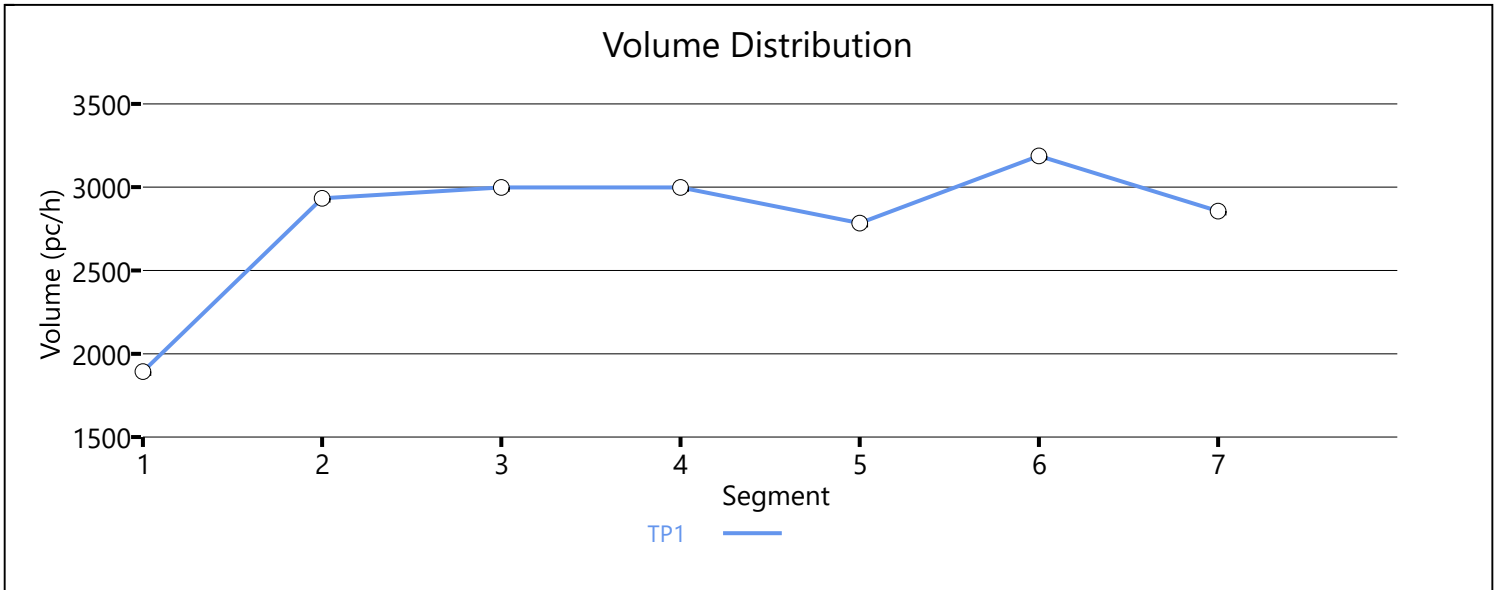
1	0.95	0.95	0.909	0.851	2376	203	7200	2000	0.33	0.10	67.0	62.4	11.8	9.9	A	
<b>Segment 5: Basic</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	2186	7200	0.30	71.6	10.2	A								
<b>Segment 6: Weaving</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	2756	8000	0.34	65.6	10.5	B								
<b>Segment 7: Basic</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	2275	7200	0.32	75.0	10.1	A								
<b>Facility Time Period Results</b>																
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS											
1	70.0	9.8	8.8	4.10	A											
<b>Facility Overall Results</b>																
Space Mean Speed, mi/h				70.0	Density, veh/mi/ln				8.8							
Average Travel Time, min				4.10	Density, pc/mi/ln				9.8							
<b>Messages</b>																
INFORMATION 1				Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 2				Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 3				Trucks for segment 6 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 4				Density for segment 3 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.												
INFORMATION 5				Density for segment 4 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.												
INFORMATION 6				Density for segment 6 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.												
<b>Comments</b>																







1	0.95	0.95	0.909	0.851	2998	229	7200	2000	0.42	0.11	67.2	62.3	14.9	13.3	B	
Segment 5: Basic																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	2784	7200	0.39	71.6	12.9	B								
Segment 6: Weaving																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	3188	9272	0.34	66.3	12.0	B								
Segment 7: Basic																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	2856	7200	0.40	75.0	12.7	B								
Facility Time Period Results																
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS											
1	70.3	12.2	11.0	4.00	B											
Facility Overall Results																
Space Mean Speed, mi/h				70.3	Density, veh/mi/ln				11.0							
Average Travel Time, min				4.00	Density, pc/mi/ln				12.2							
Messages																
INFORMATION 1				Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 2				Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 3				Trucks for segment 6 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
Comments																



# HCS7 Freeway Facilities Report

## Project Information

Analyst	SK	Date	9/5/2019
Agency	FDOT D-5	Analysis Year	2019 Existing
Jurisdiction	Brevard County	Time Period Analyzed	AM Peak Hour_NB
Project Description	I-95/SR 524 IMR		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	4.92		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-95 Btw SR 520 Off-Ramp & SR 520 On-Ramp	2200	3
2	Weaving	Weaving	I-95 Btw SR 520 On-Ramp & SR 524 Off-Ramp	4500	4
3	Basic	Basic	I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	2200	3
4	Merge	Merge	SR 524 On-ramp	1500	3
5	Basic	Basic	I-95 Btw SR 524 On-Ramp & SR 528 Off-Ramp	8800	3
6	Diverge	Diverge	SR 528 Off-ramp	1500	3
7	Basic	Basic	I-95 Btw SR 528 Off-Ramp & SR 528 On-Ramp	5280	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	2760	7200	0.38	72.7	12.7	B

### Segment 2: Weaving

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	3003	9376	0.32	67.4	11.1	B

### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	2706	7200	0.38	71.8	12.6	B

### Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.851	2926	220	7200	2000	0.41	0.11	69.2	67.2	14.1	11.4	B

**Segment 5: Basic**

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	2912	7200	0.40	71.8	13.5	B

**Segment 6: Diverge**

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.966	2912	1268	7200	2200	0.40	0.58	68.6	65.7	14.1	16.4	B

**Segment 7: Basic**

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	1564	7200	0.22	72.2	7.2	A

**Facility Time Period Results**

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	70.6	11.7	10.5	4.20	B

**Facility Overall Results**

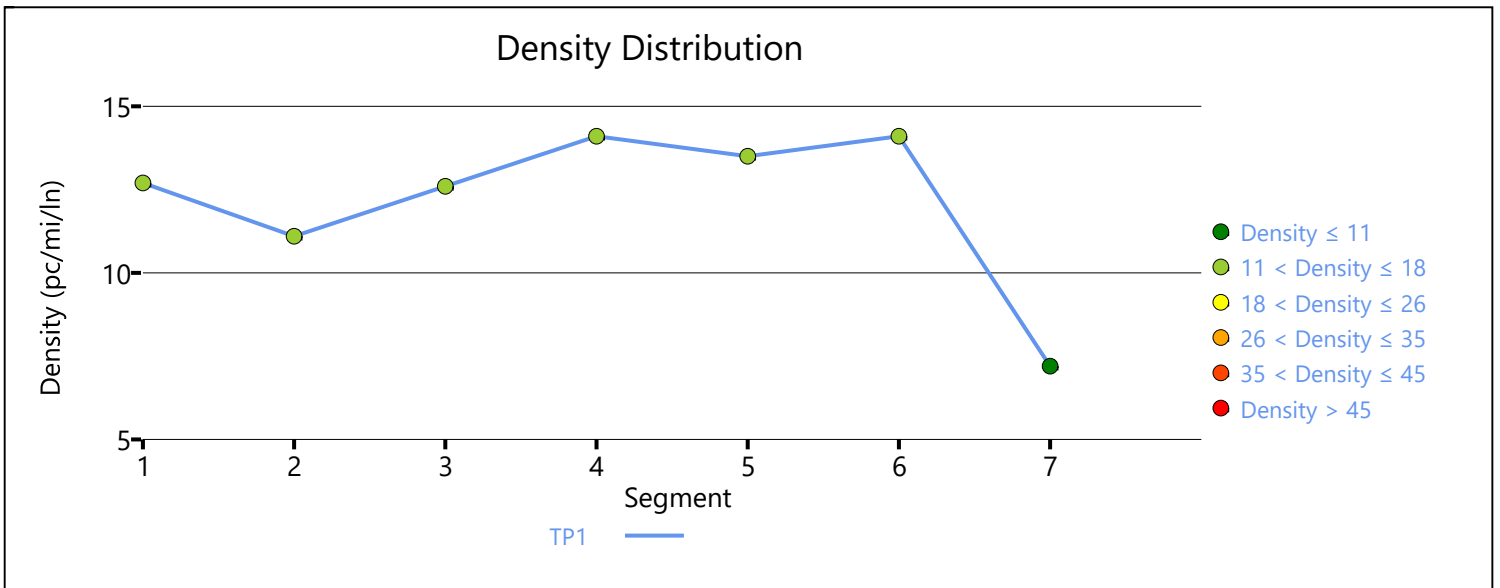
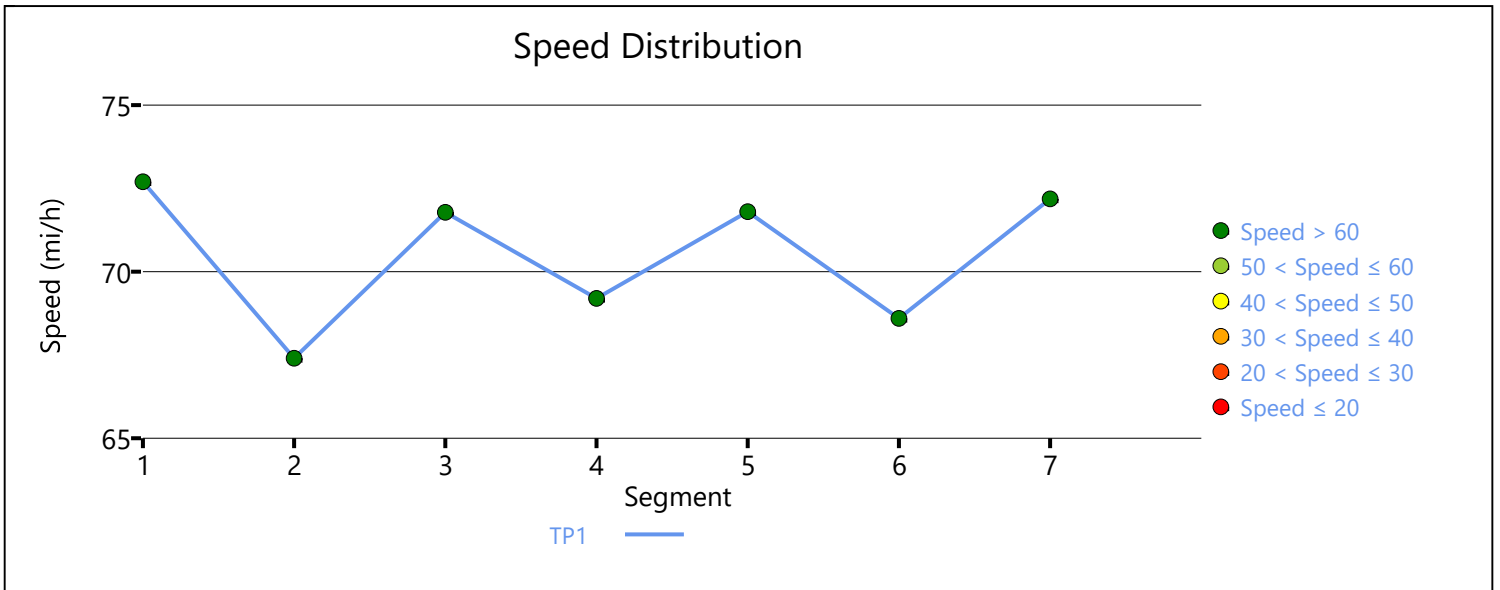
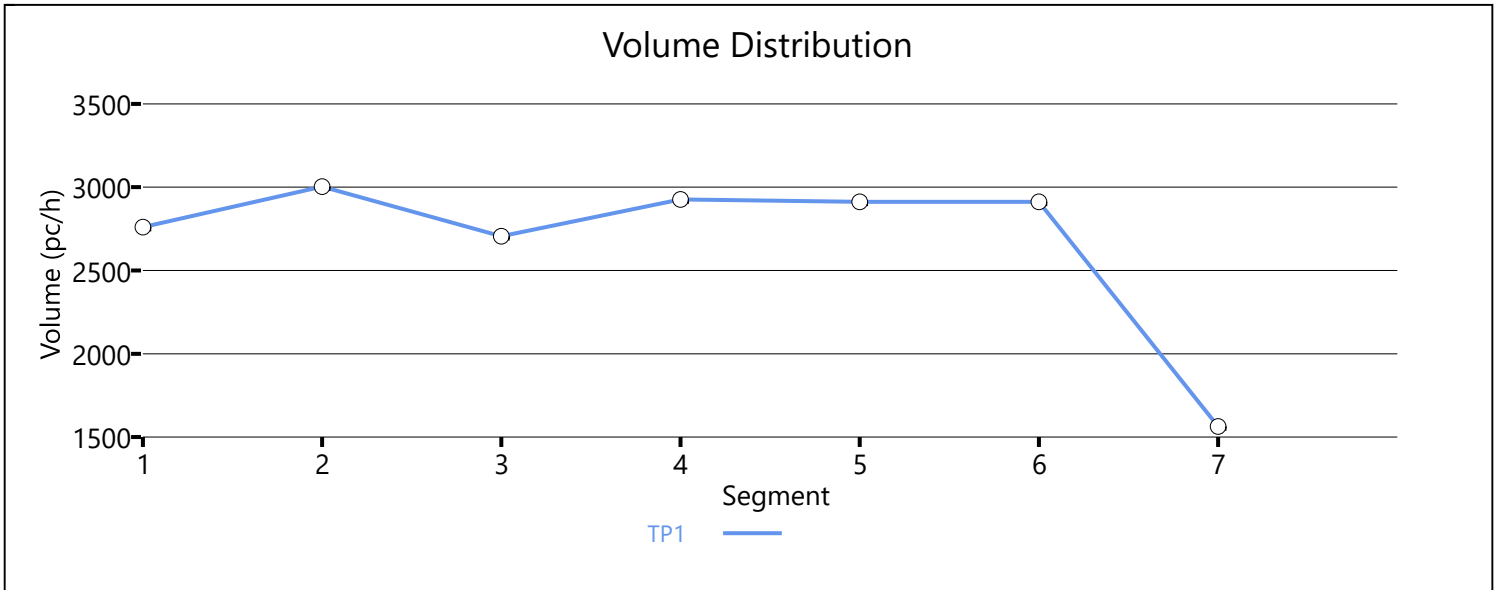
Space Mean Speed, mi/h	70.6	Density, veh/mi/ln	10.5
Average Travel Time, min	4.20	Density, pc/mi/ln	11.7

**Messages**

INFORMATION 1	Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.
INFORMATION 2	Trucks for segment 7 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.

**Comments**

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# HCS7 Freeway Facilities Report

## Project Information

Analyst	SK	Date	9/5/2019
Agency	FDOT D-5	Analysis Year	2019 Existing
Jurisdiction	Brevard County	Time Period Analyzed	PM Peak Hour_NB
Project Description	I-95/SR 524 IMR		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	4.92		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-95 Btw SR 520 Off-Ramp & SR 520 On-Ramp	2200	3
2	Weaving	Weaving	I-95 Btw SR 520 On-Ramp & SR 524 Off-Ramp	4500	4
3	Basic	Basic	I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	2200	3
4	Merge	Merge	SR 524 On-ramp	1500	3
5	Basic	Basic	I-95 Btw SR 524 On-Ramp & SR 528 Off-Ramp	8800	3
6	Diverge	Diverge	SR 528 Off-ramp	1500	3
7	Basic	Basic	I-95 Btw SR 528 Off-Ramp & SR 528 On-Ramp	5280	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	2406	7200	0.33	72.7	11.0	A

### Segment 2: Weaving

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	2881	7523	0.38	65.0	11.1	B

### Segment 3: Basic

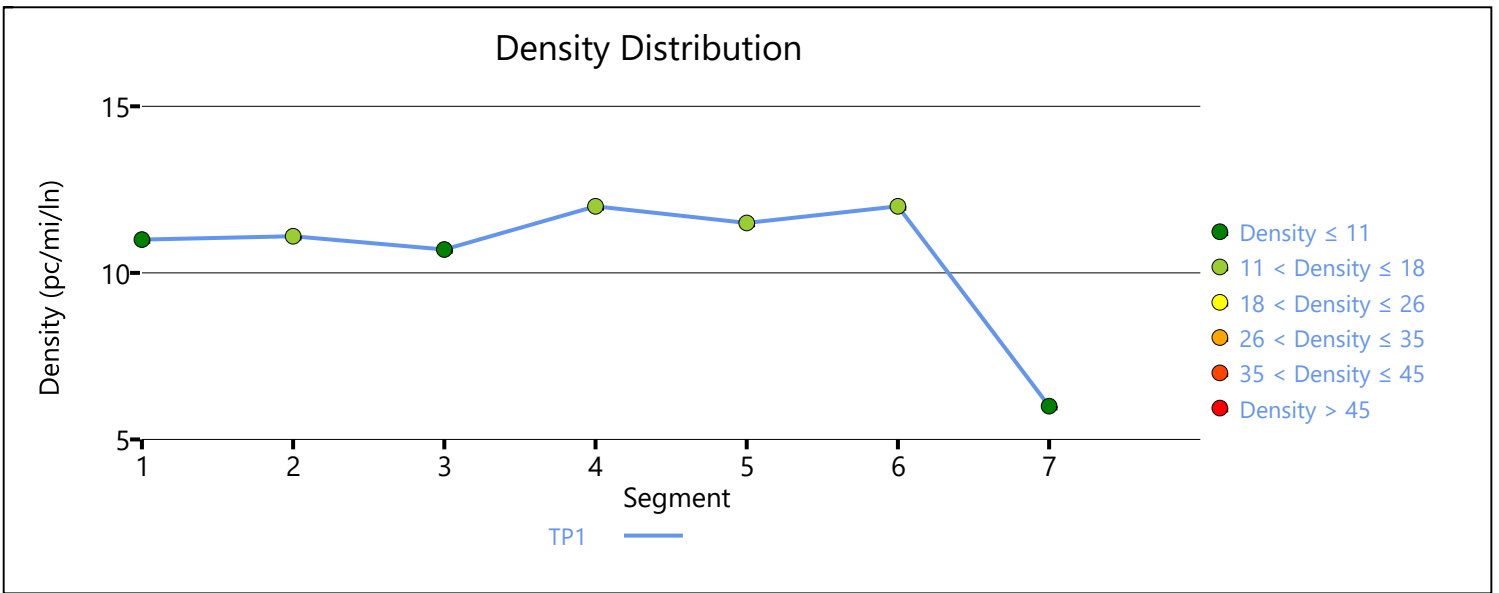
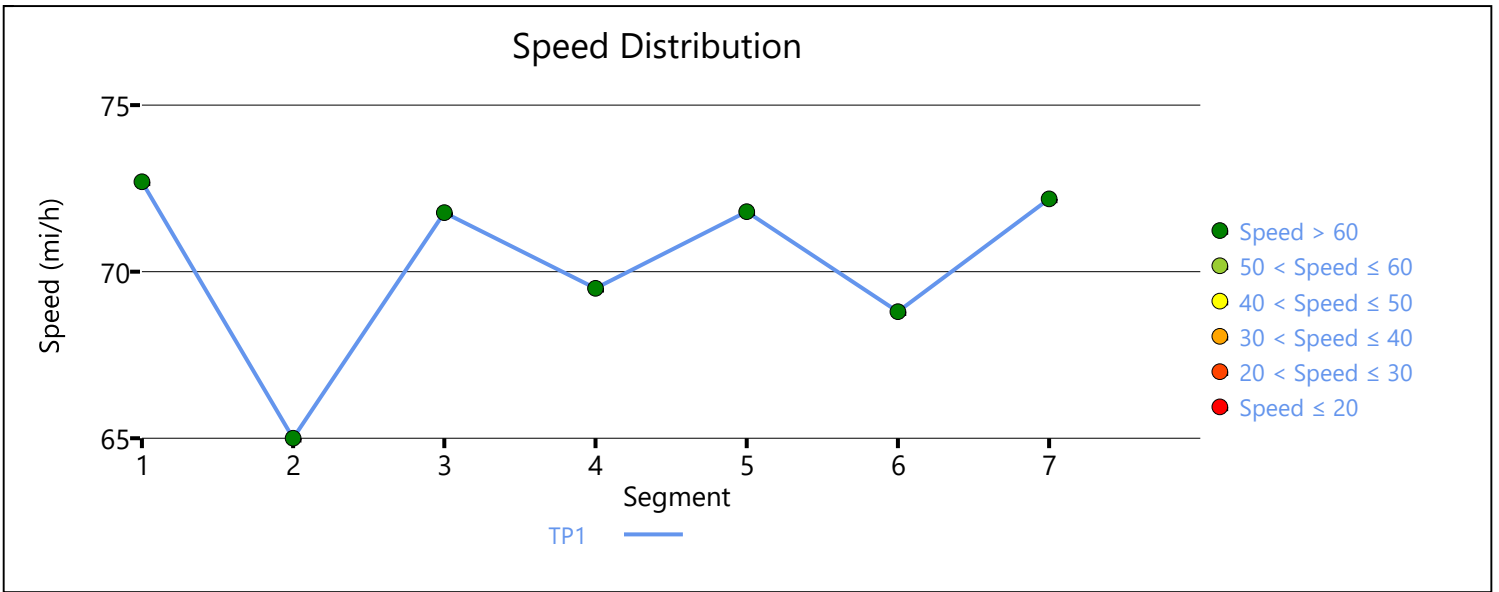
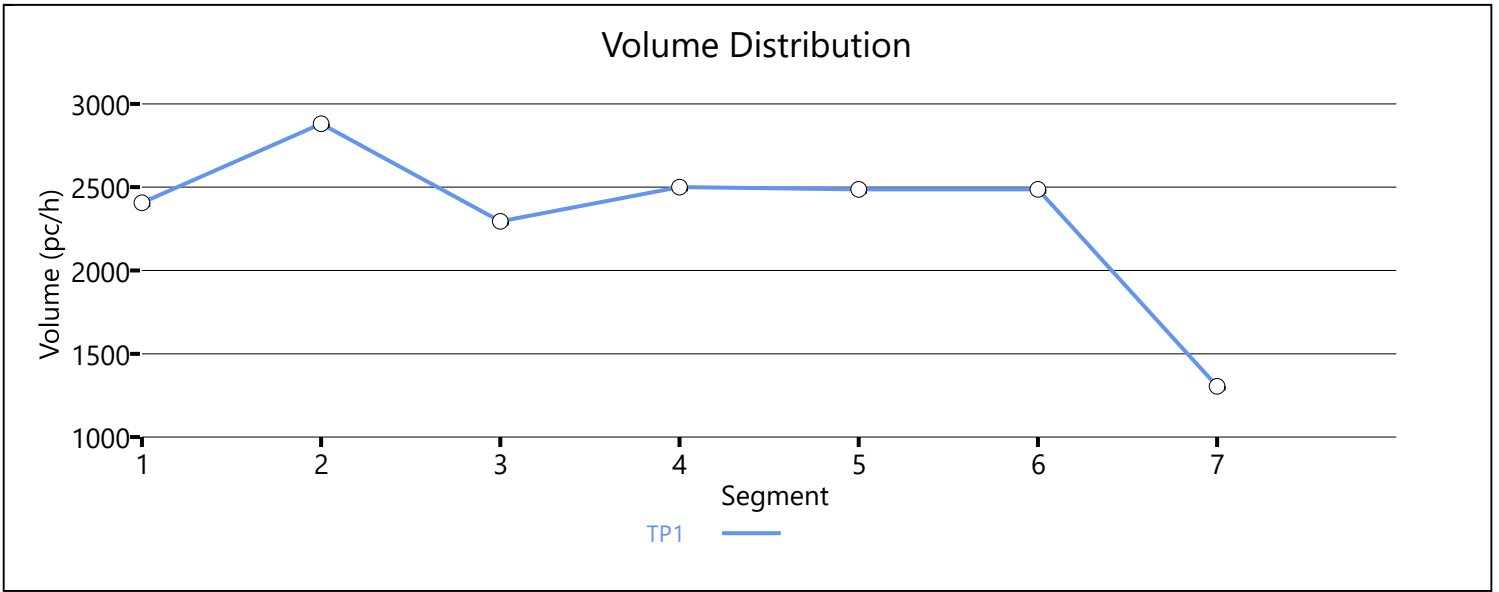
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	2295	7200	0.32	71.8	10.7	A

### Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.851	2500	205	7200	2000	0.35	0.10	69.5	67.4	12.0	9.3	A

Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.909		2487		7200		0.35		71.8		11.5		B
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.966	2487	1113	7200	2200	0.35	0.51	68.8	66.2	12.0	13.8	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.909		1305		7200		0.18		72.2		6.0		A
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	70.0			10.3			9.3			4.20			A		
Facility Overall Results															
Space Mean Speed, mi/h				70.0				Density, veh/mi/ln				9.3			
Average Travel Time, min				4.20				Density, pc/mi/ln				10.3			
Messages															
INFORMATION 1				Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 2				Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 3				Trucks for segment 7 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 4				Density for segment 1 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.											
INFORMATION 5				Density for segment 3 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.											
INFORMATION 6				Density for segment 5 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.											
Comments															





# **Appendix E**

## Sub-Area Model Validation

SR 524 From W Friday Rd to Industry Rd  
Design Traffic Technical Memorandum  
Financial Project ID: 437983-1



To: Jason Learned

Date: March 11, 2019

Memorandum

From: Hong Ji  
Rajashekar Pemmanaboina

Project #: 62954.32

Re: SR 524 DTTM: Sub-area Model Validation

---

## Introduction

The purpose of this memorandum is to present the findings of the subarea travel demand model validation task completed to support the traffic forecasting for the SR 524 DTTM. The latest adopted Central Florida Regional Planning Model (CFRPM) version 6.1 developed by FDOT District Five was used as the travel demand model which reflects the transportation improvements identified within the adopted Space Coast Transportation Planning Organization Long Range Transportation Plan (LRTP).

A subarea model for base year 2015 of the CFRPM v6.1 was created and calibrated in support of the traffic forecasting effort. The subarea model calibration and validation followed the procedures outlined in FDOT's 2014 Project Traffic Forecasting Handbook and Florida Standard Urban Transportation Model Structure (FSUTMS) Model Calibration and Validation Standards. A future year (2045) subarea model scenario was then developed based on the calibration efforts to obtain future year volume forecasts.

This report summarizes the data collection efforts, subarea model calibration, subarea model validation results, and future year scenario development. The study area is bounded by I-95 to the west, US 1 to the east, SR 528 to the north and SR 520 to the south. The study subarea boundary is shown in **Figure 1**.

## Data Collection

To support the subarea model validation, year 2015 Annual Average Daily Traffic (AADT) counts for individual roadway segments were obtained from Space Coast Transportation Planning Organization (SCTPO), and Florida Transportation Information 2015 (FTI 2015). The Peak Season Weekly Average Daily Traffic (PSWADT) obtained from CFRPM6.1 was converted to AADT using the 2015 Model Output Conversion Factor MOCF (FTI 2015) of 0.97 for I-95 and 0.94 for all other roadways. The 2015 traffic counts from SCTPO are provided in **Appendix A1**.

225 East Robinson Street, Suite 300  
Landmark Center Two  
Orlando, FL 32801  
P 407.965.0500

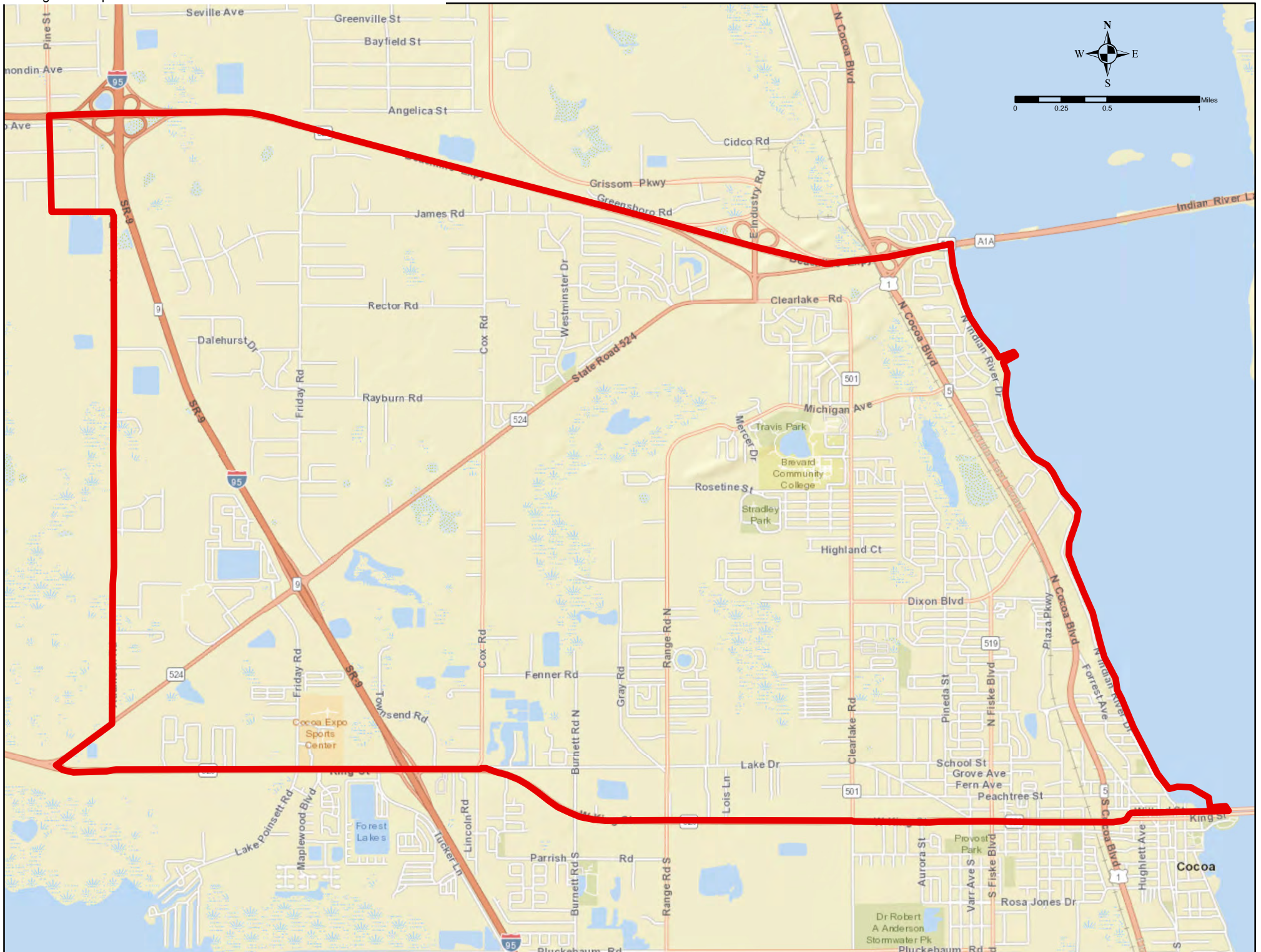


Figure 1: Study Subarea Boundary

Ref: 62954.32

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## Sub Area Model Development

### Calibration

The base year 2015 Socio-Economic (SE) data that was developed for the upcoming CFRPM v7 was provided by FDOT District Five. Since the current study uses CFRPM v6.1, the Traffic Analysis Zone (TAZ) structure is different between v6.1 and v7. As such, based on the area coverage of each TAZ within the subarea boundary, 2015 SE data was adjusted appropriately to fit the v6.1 TAZ structure. The TAZ boundary comparison figure and land use changes are provided in **Appendix B1**.

The following steps were completed as part of the network adjustment process:

- Based on the existing roadway network, the following centroid connections were adjusted for TAZ numbers: 3031, 3032, 3037, 3045, 3053, 3060, 3062, 3066, 3067, 3068, 3072, and 3073.
- The following study networks adjustments to reflect the base year roadway conditions:
  - SR 524 from SR 520 to Friday Rd: speed limit was changed to 45 mph
  - Grissom Pkwy from Kings Hwy to Industry Rd: facility type was changed from 32 to 31
  - I-95 from Brevard/Volusia County line to US 192: speed limit was changed to 60 mph
  - Clearlake Rd from Industry Rd to Michigan Ave: facility type was changed from 32 to 31; speed limit was changed to 45 mph
  - Clearlake Rd from SR 520 to Pluckebaum Rd: facility type was changed from 43 to 41; speed limit was changed to 35 mph
  - Adamson Rd from SR 520 to Grissom Pkwy: facility type was changed from 43 to 41
  - Michigan Ave from Clearlake Rd to US 1: facility type was changed from 23 to 26, speed limit was changed to 40 mph
  - Dixon Blvd from Clearlake Rd to US 1: speed limit was changed to 45 mph

### Validation

The validation of a traffic model involves verifying various statistics, most of which are related to actual ground counts that have been taken on various links throughout the highway network. Two measures of effectiveness including the ratio of assigned volume to count volume on links, and Percent Root Mean Square Error (RMSE) have been used in this study to evaluate whether the base year 2015 model has been validated within the allowable limits.

The overall volume-to-count (V/C) ratios by facility type and volume group were evaluated for the original and the calibrated subarea models. The comparison results of the V/C ratio evaluation (percent error) are summarized in **Tables 1 and 2**. The percent deviation is defined as  $((\text{Year 2015 model assignment in AADT} - \text{Year 2015 actual count in AADT}) / (\text{Year 2015 actual count in AADT}))$ . **Table 2** shows the percent deviation error by volume group.

As shown in **Tables 1 and 2**, the calibrated subarea model statistics meet the criteria set forth by FDOT. The relevant model outputs are provided in **Appendices C1 and D1**. The V/C ratios for individual roadway links are provided in **Appendix E1**.

Ref: 62954.32

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**Table 1: Volume-Over-Count Ratio by Facility Type and Percent Error**

Facility Type	Criteria	Original Model	Calibrated Model
Freeway (FT1X, FT8X, FT9X)	+/- 7%	3.38%	-3.60%
Divided Arterial (FT2X)	+/- 15%	-9.70%	-9.58%
Undivided Arterial (FT3X)	+/- 15%	-22.53%	-9.99%
Collector (FT 4X)	+/- 25%	-33.62%	-18.43%
One-Way (FT6X)	+/- 25%	N/A	N/A

**Table 2: Volume-Over-Count Ratio by Volume Group and Percent Error**

Volume Group	Criteria	Original Model	Calibrated Model
LT 10,000 Volume	50%	0.38%	3.60%
10,000-30,000	30%	-14.83%	-12.20%
30,000-50,000	25%	-7.06%	-11.10%
50,000-65,000	20%	9.72%	4.25%
65,000-75,000	15%	5.53%	-0.88%
GT 75,000	10%	N/A	N/A

The percent RMSE (Root Mean Square Error) for the study area is another aggregate measure of how well the model has been validated against the actual counts. The RMSE for the study area comprising 30 roadway links is 2.96% and usually can be +/-35% to 45%. The RMSE evaluation results are shown in **Table 3**.

**Table 3: RMSE% by Volume Group of the Calibrated Subarea Model**

Volume Group	% RMSE	Acceptable % RMSE	Preferable % RMSE
1-5,000:	9.89%	100%	45%
5,000-10,000:	26.11%	45%	35%
10,000-15,000:	16.09%	35%	27%
15,000- 20,000:	10.68%	30%	25%
20,000- 30,000:	7.79%	27%	15%
30,000- 50,000:	5.65%	25%	15%
50,000- 60,000:	2.91%	20%	10%
60,000+:	3.64%	19%	10%
<b>Areawide</b>	<b>2.96%</b>	<b>45%</b>	<b>35%</b>

Ref: 62954.32

Page 5

## **Conclusion**

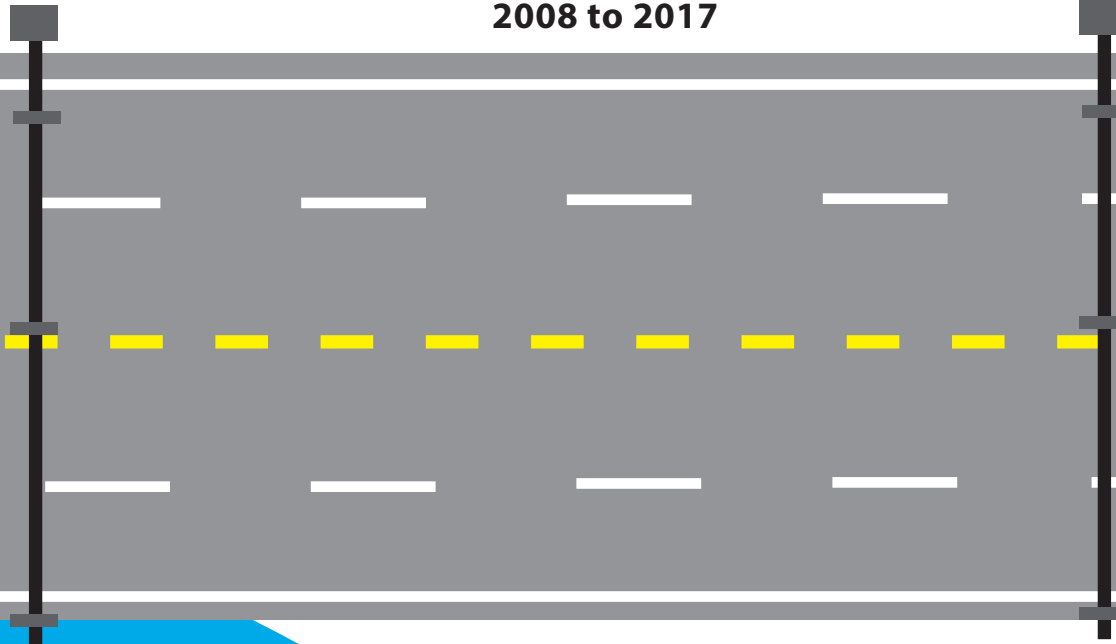
As summarized in this memorandum, the subarea meets the RMSE and VC ratio criteria and therefore, is considered acceptable to estimate future travel demand (2045) within the study area.

## **Appendix A1**



# SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS

Historical Counts from  
2008 to 2017



2725 Judge Fran Jamieson Way  
Melbourne, FL 32940  
P: 321-690-6890  
F: 321-690-6827  
[www.spacecoasttpo.com](http://www.spacecoasttpo.com)  
[laura.carter@brevardfl.gov](mailto:laura.carter@brevardfl.gov)

Interactive On-Line Counts:  
[http://brevard.ms2soft.com/tcds/tsearch.  
asp?loc=Brevard&mod=](http://brevard.ms2soft.com/tcds/tsearch.asp?loc=Brevard&mod=)

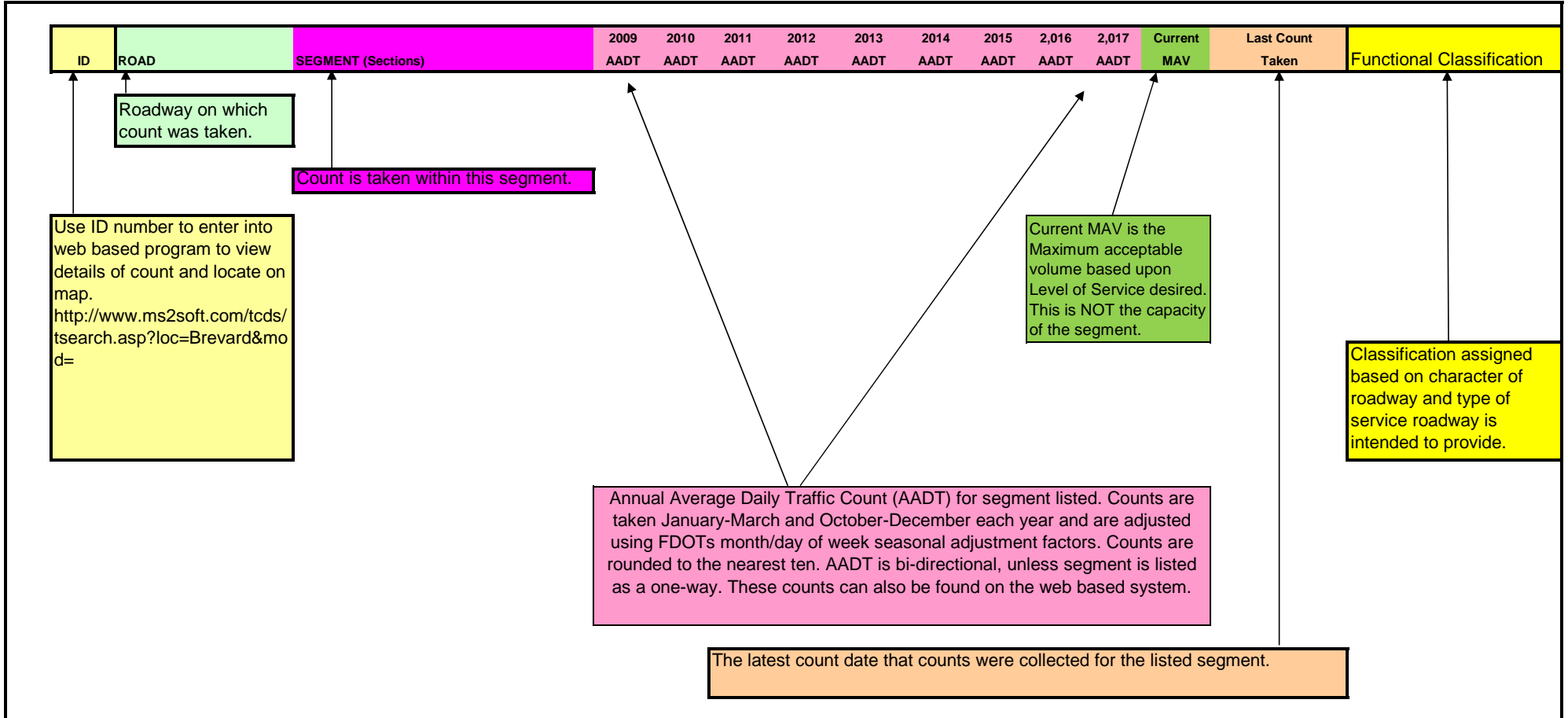
May 10, 2018

## SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS

**Questions? Please contact TPO staff at 321-690-6890**

The Space Coast Transportation Planning Organization annually collects traffic counts that are used for a variety of transportation monitoring programs, local government concurrency management systems, the Florida Department of Transportation, private citizens and local businesses. The TPO's consultant collects forty-eight (48) hour directional traffic counts by fifteen (15) minute intervals at specified locations. All counts are taken during the weekday period from 12:01 AM , Monday through 12:00 Noon Friday.

*Explanation of header information:*



\*AADTs: Counts are calculated based on FDOT seasonal factors. It should also be noted that a reduced seasonal adjustment is applied on lower level roads (local and collectors) that experience less seasonal fluctuation in traffic.

## SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2008 - 2017

ID	ROAD	SEGMENT (Sections)	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2,017 AADT	Current MAV	Last Count Taken	Functional Classification
<b>AREA: NORTH</b>															
206	BARNA	SR 405-SR 50	5,430	5,740	5,470	5,200	4,770	4,770	4,930	5,160	5,540	5,920	15,600	12/12/2017	Urban Major Collector
521	CAMP	GRISSOM-US 1	2,820	2,920	2,800	2,650	2,450	2,290	2,370	2,150	2,670	2,730	15,600	12/13/2017	Urban Major Collector
	CANAVERAL GROVES	PINE-US 1	5,990	4,815	7,310	4,640	7,020	4,365	6,760	4,360	7,290	4,620			
522	CITRUS	PINE-LEE	NC	3,950	NC	3,710	NC	3,550	NC	3,380	NC	3,830	15,600	11/8/2017	Urban Major Collector
212	CANAVERAL GROVES	LEE-GRISSOM	NC	NC	7,310	NC	7,020	NC	6,760	NC	7,290	NC	15,600	12/6/2016	Urban Major Collector
213	CANAVERAL GROVES	GRISSOM-US 1	5,990	5,680	NC	5,570	NC	5,180	NC	5,340	NC	5,410	15,600	11/8/2017	Urban Major Collector
	CARPENTER	FOX LAKE-SR 46	4,637	4,763	4,637	4,687	4,377	4,483	4,390	4,455	4,557	4,437			
188	CARPENTER	FOX LAKE-GARDEN	3,630	3,770	3,740	3,800	3,450	3,560	3,540	3,520	3,480	3,690	15,600	11/8/2017	Urban Major Collector
184	CARPENTER	GARDEN-DAIRY	5,130	5,330	5,220	5,230	4,890	4,970	4,960	5,390	5,390	5,410	15,600	11/29/2017	Urban Major Collector
183	CARPENTER	DAIRY-SR 46	5,150	5,190	4,950	5,030	4,790	4,920	4,670	NC	4,800	4,210	15,600	11/7/2017	Urban Major Collector
	DAIRY	CARPENTER-US 1	6,475	6,090	5,925	5,900	5,850	5,660	5,795	5,475	7,760	6,060			
185	DAIRY	CARPENTER-HOLDER	NC	5,290	NC	5,300	NC	5,100	NC	4,820	NC	5,030	15,600	11/29/2017	Urban Major Collector
523	DAIRY	HOLDER-SINGLETON	6,760	NC	6,280	NC	6,180	NC	6,070	NC	7,760	NC	15,600	11/9/2016	Urban Major Collector
186	DAIRY	SINGLETON-OLD DIXIE	NC	6,890	NC	6,500	NC	6,220	NC	6,130	NC	6,930	15,600	11/8/2017	Urban Major Collector
187	DAIRY	OLD DIXIE-US 1	6,190	NC	5,570	NC	5,520	NC	5,520	NC	NC	6,220	15,600	11/19/2014	Urban Major Collector
596	DEERING PARKWAY	I-95-US 1							1,870	1,720	2,090	2,470	14,200	12/13/2017	Rural Major Collector
	FAY	GOLFVIEW-GRISSOM	9,203	7,023	6,543	6,400	8,065	5,800	7,805	5,825	8,765	6,275			
549	FAY	GOLFVIEW-HOMESTEAD	2,580	2,770	2,660	2,740	NC	2,680	NC	2,880	NC	3,160	15,600	11/15/2017	Urban Major Collector
207	FAY	HOMESTEAD-DEER	7,490	7,900	7,250	6,990	6,780	NC	6,460	NC	6,640	NC	15,600	11/2/2016	Urban Major Collector
229	FAY	DEER-GRISSOM	17,540	10,400	9,720	9,470	9,350	8,920	9,150	8,770	10,890	9,390	15,600	12/6/2017	Urban Major Collector
	FAY	GRISSOM-US 1	13,380	15,595	14,555	14,965	13,975	13,730	13,670	13,590	14,465	14,280			
208	FAY	GRISSOM-AREQUIPPA	13,380	NC	12,830	NC	12,380	NC	12,830	13,400	13,590	NC	33,800	11/2/2016	Urban Major Collector
209	FAY	AREQUIPPA-CAROLE	NC	13,880	NC	13,410	NC	12,230	NC	12,350	NC	12,860	33,800	12/6/2017	Urban Major Collector
210	FAY	CAROLE-US 1	NC	17,310	16,280	16,520	15,570	15,230	14,510	15,020	15,340	15,700	17,700	11/8/2017	Urban Major Collector
235	FOX LAKE	CARPENTER-SOUTH	NC	NC	4,250	NC	3,870	NC	NC	3,920	NC	NC	17,700	11/18/2015	Urban Major Collector
	GRISSOM	INDUSTRY-PORT ST. JOHN PARKWAY	10,940	10,803	10,053	10,633	9,930	9,753	10,223	10,213	10,033	10,357			
197	GRISSOM	INDUSTRY-CANAVERAL GRVS	11,760	11,980	11,060	11,820	10,870	10,680	11,540	11,720	11,300	11,160	15,600	11/8/2017	Urban Minor Arterial
196	GRISSOM	CANAVERAL GRVS-CAMP	9,620	9,710	8,940	9,320	8,980	8,960	9,010	9,490	8,660	9,360	17,700	11/8/2017	Urban Minor Arterial
195	GRISSOM	CAMP-PORT ST. JOHN PARKWAY	11,440	10,720	10,160	10,760	9,940	9,620	10,120	9,430	10,140	10,550	17,700	11/8/2017	Urban Minor Arterial
	GRISSOM	PORT ST. JOHN PARKWAY-KINGS HWY	11,903	11,977	11,863	12,123	11,687	11,573	12,220	11,170	14,117	11,890			
194	GRISSOM	PORT ST. JOHN PARKWAY-BRIDGE	12,360	13,050	12,890	13,680	12,670	12,720	13,840	NC	14,940	13,920	17,700	11/15/2017	Urban Minor Arterial
193	GRISSOM	BRIDGE-FAY	11,390	11,800	11,290	11,750	11,380	12,130	12,390	12,740	13,700	12,070	17,700	11/15/2017	Urban Minor Arterial
192	GRISSOM	FAY-CURTIS	NC	11,080	NC	10,940	NC	9,870	NC	9,600	NC	9,680	15,600	11/15/2017	Urban Minor Arterial
191	GRISSOM	CURTIS-KINGS HIGHWAY	11,960	NC	11,410	NC	11,010	NC	10,430	NC	13,710	NC	15,600	11/2/2016	Urban Minor Arterial
	GRISSOM	KINGS HIGHWAY-SR 405		10,340	9,690	9,655	8,980	8,970	9,310	9,320	8,660	10,080			
190	GRISSOM	KINGS HIGHWAY-SHEPARD	UC	10,480	10,010	9,890	NC	8,970	NC	9,320	NC	10,080	30,400	11/28/2017	Rural Minor Arterial
189	GRISSOM	SHEPARD-SR 405	UC	10,200	9,370	9,420	8,980	NC	9,310	NC	8,620	NC	39,800	11/1/2016	Urban Major Collector
524	GOLFVIEW	PORT ST. JOHN PKWY-FAY	4,550	NC	4,640	NC	4,610	NC	4,830	NC	NC	5,570	15,600	11/15/2017	Urban Major Collector
526	HOLDER	DAIRY-SR 46	NC	2,550	NC	2,720	NC	2,670	NC	NC	NC	2,840	17,700	12/19/2017	Urban Major Collector
	HOPKINS	SR 50-GRACE					9,670	7,640	8,390	6,770	8,995	7,765			
583	HOPKINS	SR 50-KNOX MCRAE						6,970	7,130	NC	7,190	NC	15,600	11/9/2016	Urban Minor Arterial
584	HOPKINS	KNOX MCRAE-COUNTRY CLUB DR						9,640	NC	9,090	NC	10,710	15,600	11/29/2017	Urban Minor Arterial
577	HOPKINS	COUNTRY CLUB DR-HARRISON					9,670	9,400	9,650	NC	10,800	NC	15,600	11/9/2016	Urban Minor Arterial
586	HOPKINS	HARRISON-GRACE						4,550	NC	4,450	NC	4,820	15,600	11/29/2017	Urban Minor Arterial
198	INDUSTRY	SR 524-GRISSOM	17,790	16,840	15,940	16,170	15,900	16,040	18,530	18,030	18,430	17,560	41,790	12/13/2017	Urban Minor Arterial
594	INDUSTRY	GRISSOM-CIDCO RD						4,360	NC	4,700	4,590	15,600	11/8/2017	Urban Local	
245	KINGS HWY	GRISSOM-US 1	NC	4,940	NC	4,710	NC	4,300	NC	4,060	NC	5,060	15,600	11/28/2017	Urban Major Collector
223	NASA CSWY	US 1-SPACE COMMERCE WAY	15,710	15,790	13,870	12,060	11,200	10,520	11,110	10,170	12,070	12,260	30,400	11/28/2017	Rural Principal Arterial Other

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NC=Not Counted; UC=Under Construction

## SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2008 - 2017

ID	ROAD	SEGMENT (Sections)	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2,017 AADT	Current MAV	Last Count Taken	Functional Classification
<b>AREA: NORTH</b>															
239	OLD DIXIE	GARDEN-DAIRY	1,380	NC	1,200	NC	1,320	NC	1,190	NC	NC	NC	15,600	12/9/2014	Urban Major Collector
240	OLD DIXIE	DAIRY-PARKER	NC	930	NC	960	NC	910	NC	860	NC	940	15,600	11/8/2017	Urban Major Collector
	PARRISH	HOLDER-US 1	700	1,290	600	1,320	690	1,340	780	1,240	850	1,210			
242	PARRISH	HOLDER-SINGLETON	700	NC	600	NC	690	NC	780	NC	840	NC	15,600	11/9/2016	Urban Major Collector
241	PARRISH	SINGLETON-US 1	NC	1,290	NC	1,320	NC	1,340	NC	1,240	NC	1,210	15,600	12/13/2017	Urban Major Collector
211	PT ST JOHN PKWY	I-95-GRISSOM	7,910	8,440	8,410	8,570	8,210	8,890	9,960	10,550	10,370	10,990	39,800	11/8/2017	Urban Minor Arterial
	SINGLETON	SR 405 (SOUTH ST)-SR 46	4,965	8,430	4,705	7,830	4,270	7,730	1,680				8,180		
578	SINGLETON	SR 405 (SOUTH ST)-GARDEN					6,970	NC	NC	NC	NC	7,570	17,700	11/8/2017	Urban Major Collector
238	SINGLETON	GARDEN-DAIRY	8,260	8,430	7,970	7,830	NC	7,730	NC	NC	NC	8,790	15,600	11/8/2017	Urban Major Collector
547	SINGLETON	DAIRY-SR 46	1,670	NC	1,440	NC	1,570	NC	1,680	NC	NC	NC	15,600	12/16/2014	Urban Major Collector
	SISSON	SR 405-SR 50	6,125	6,770	6,200	6,365	6,025	6,150	6,770	6,825	7,500	7,905			
234	SISSON	SR 405-SAN MATEO BLVD	5,590	6,170	5,520	5,650	5,340	5,300	5,870	5,980	6,450	6,980	15,600	12/12/2017	Urban Major Collector
550	SISSON	SAN MATEO BLVD-SR 50	6,660	7,370	6,880	7,080	6,710	7,000	7,670	7,670	8,550	8,830	15,600	11/29/2017	Urban Major Collector
201	SR 46	VOLUSIA CO-FAWN LAKE	5,420	5,500	5,520	5,760	5,640	5,750	5,970	5,680	7,230	7,070	8,400	12/13/2017	Rural Principal Arterial Other
	SR 46	FAWN LAKE-US 1	9,380	9,280	9,230	9,420	9,140	9,325	9,605	11,000	10,755	11,040			
200	SR 46	FAWN LAKE-I-95	8,820	8,730	8,590	8,960	8,580	8,970	9,080	NC	9,930	10,360	14,160	11/29/2017	Urban Principal Arterial-Other
199	SR 46	I-95-US 1	9,940	9,830	9,870	9,880	9,700	9,680	10,130	11,000	11,580	11,720	14,160	11/7/2017	Urban Principal Arterial-Other
231	SR 50	ORANGE CO-I-95	11,070	11,540	10,760	10,290	UC	9,160	10,190	10,270	10,470	11,500	40,300	11/28/2017	Rural Principal Arterial Other
	SR 50	I 95-US 1	20,628	21,476	20,018	20,004	UC	18,923	18,487	21,715	20,268	21,568			
232	SR 50	I-95-SR 405	26,010	26,710	26,290	25,080	UC	24,260	UC	27,980	23,810	30,320	41,790	11/8/2017	Urban Principal Arterial-Other
164	SR 50	SR 405-BARNA	20,690	21,560	20,260	20,580	UC	19,220	NC	24,080	NC	23,350	41,790	12/13/2017	Urban Minor Arterial
163	SR 50	BARNA-SISSON	20,370	21,880	20,230	20,280	UC	NC	20,800	NC	21,360	NC	41,790	11/8/2016	Urban Minor Arterial
162	SR 50	SISSON-HOPKINS	20,710	21,400	18,940	19,680	UC	18,620	20,460	20,240	20,900	16,660	34,020	11/29/2017	Urban Minor Arterial
161	SR 50	HOPKINS-US 1	15,360	15,830	14,370	14,400	UC	13,590	14,200	14,560	15,000	15,940	34,020	12/12/2017	Urban Minor Arterial
	SR 405 (COLUMBIA)	SR 50-US 1	19,416	19,668	17,762	17,338	16,786	16,330	16,710	17,004	17,604	18,292			
218	SR 405 (COLUMBIA)	SR 50-BARNA	20,780	20,010	18,580	18,920	18,510	17,090	19,070	19,500	19,110	20,210	41,790	11/28/2017	Urban Principal Arterial-Other
219	SR 405 (COLUMBIA)	BARNA-SR 407	20,200	20,970	19,030	18,820	18,350	17,220	16,850	17,740	17,950	18,510	41,790	11/28/2017	Urban Principal Arterial-Other
220	SR 405 (COLUMBIA)	SR 407-GRISSOM	22,350	23,210	20,900	20,110	19,550	19,660	19,730	20,020	21,110	21,370	41,790	11/28/2017	Urban Principal Arterial-Other
221	SR 405 (COLUMBIA)	GRISSOM-SISSON	18,050	18,320	16,280	15,880	15,060	15,200	16,080	15,730	17,140	17,060	41,790	11/28/2017	Urban Principal Arterial-Other
222	SR 405 (COLUMBIA)	SISSON-US 1	15,700	15,830	14,020	12,960	12,460	12,480	11,820	12,030	12,710	14,310	41,790	12/12/2017	Urban Principal Arterial-Other
	SR 405 (SOUTH)	SR 50-SINGLETON(END 2L)	15,520	15,780	15,180	15,750	15,040	14,605	15,095	14,265	15,690	16,130			
217	SR 405 (SOUTH)	SR 50-FOX LAKE	18,180	18,210	17,510	18,440	17,550	16,940	17,720	16,910	18,210	18,840	18,590	11/8/2017	Urban Minor Arterial
216	SR 405 (SOUTH)	FOX LAKE-SINGLETON	12,860	13,350	12,850	13,060	12,530	12,270	12,470	11,620	13,170	13,420	17,700	11/8/2017	Urban Minor Arterial
	SR 405 (SOUTH)	SINGLETON(END 2L)-US 1	7,005	6,565	6,185	6,245	5,830	6,480	6,070	6,930	6,480	6,630			
215	SR 405 (SOUTH)	SINGLETON-PARK	7,480	7,160	6,870	6,910	6,440	6,480	6,660	6,930	6,960	6,630	37,810	12/13/2017	Urban Minor Arterial
214	SR 405 (SOUTH)	PARK-US 1	6,530	5,970	5,500	5,580	5,220	NC	5,290	NC	5,520	NC	34,020	11/9/2016	Urban Minor Arterial
595	SR 406 (GARDEN)	CARPENTER-I-95							6,260	NC	6,960	NC	15,600	11/9/2016	Urban Major Collector
	SR 406 (GARDEN)	I-95-WASHINGTON	13,125	13,030	12,038	11,920	11,698	11,345	11,890	12,833	13,613	13,243			
202	SR 406 (GARDEN)	I-95-SINGLETON	13,440	13,810	13,940	12,960	12,530	11,670	12,800	13,850	14,510	14,730	41,790	12/13/2017	Urban Principal Arterial-Other
203	SR 406 (GARDEN)	SINGLETON-PARK	16,850	16,250	15,470	15,700	15,410	14,980	15,690	18,060	16,180	16,930	39,800	11/29/2017	Urban Principal Arterial-Other
204	SR 406 (GARDEN)	PARK-HOPKINS	12,400	11,740	10,000	10,510	10,480	10,080	10,960	10,940	13,780	10,930	39,800	12/13/2017	Urban Principal Arterial-Other
205	SR 406 (GARDEN)	HOPKINS-WASHINGTON	9,810	10,320	8,740	8,510	8,370	8,650	8,110	8,480	9,980	10,380	32,400	11/29/2017	Urban Principal Arterial-Other
233	SR 406 (GARDEN)	WASHINGTON-BLACK POINT RD.	5,350	5,210	5,560	4,370	4,800	4,510	4,030	4,900	5,960	5,290	14,800	12/13/2017	Urban Principal Arterial-Other
	SR 407	SR 528-SR 405	6,463	6,487	6,413	6,380	6,070	5,867	6,833	7,210	8,550	8,693			
225	SR 407	SR 528-I-95	6,930	6,360	6,660	6,990	6,340	6,140	6,830	7,220	8,750	9,150	8,820	12/13/2017	Rural Principal Arterial - Freeways & Expressways
548	SR 407	I-95-SHEPARD DR	6,710	7,060	6,630	6,500	6,320	6,290	7,460	7,660	9,190	8,980	24,200	12/12/2017	Urban Principal Arterial - Freeways & Expressways
224	SR 407	SHEPARD DR-SR 405	5,750	6,040	5,950	5,650	5,550	5,170	6,210	6,750	7,710	7,950	24,200	11/28/2017	Urban Principal Arterial - Freeways & Expressways

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## SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2008 - 2017

ID	ROAD	SEGMENT (Sections)	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2,017 AADT	Current MAV	Last Count Taken	Functional Classification
<b>AREA: NORTH</b>															
US 1 SR 528-SR 405 25,120 25,157 23,583 23,388 22,780 25,634 24,064 24,543 22,713 22,772															
226	US 1	SR 528-CANAVERAL GROVES BLVD.	33,950	33,910	31,520	31,410	30,780	UC	UC	NC	29,100	31,820	41,790	12/19/2017	Urban Principal Arterial-Other
159	US 1	CANAVERAL GROVES BLVD.-CAMP	30,510	30,820	29,690	30,220	28,790	27,210	25,690	NC	28,610	25,590	41,790	12/13/2017	Urban Principal Arterial-Other
160	US 1	CAMP-BROADWAY BLVD.	30,230	31,400	29,310	28,210	27,760	27,080	24,890	24,300	28,130	29,170	41,790	11/8/2017	Urban Principal Arterial-Other
227	US 1	BROADWAY BLVD.-FAY	30,920	31,190	29,750	30,660	28,620	27,830	25,530	27,110	27,820	29,560	41,790	11/8/2017	Urban Principal Arterial-Other
228	US 1	FAY-KINGS HIGHWAY	29,310	29,920	27,480	26,860	26,580	25,320	23,960	25,870	27,610	27,240	41,790	12/13/2017	Urban Principal Arterial-Other
230	US 1	KINGS-SR 405	26,720	24,890	23,500	23,630	22,770	20,730	20,250	20,890	22,830	22,810	41,790	11/28/2017	Urban Principal Arterial-Other
US 1 SR 405-GRACE 26,364 26,442 23,844 24,482 23,654 22,714 23,092 24,818 24,770 24,682															
169	US 1	SR 405-SR 50	26,210	25,340	22,540	22,460	21,610	19,400	19,670	20,130	21,390	20,310	41,790	11/29/2017	Urban Principal Arterial-Other
170	US 1	SR 50-KNOX MCRAE	25,990	25,880	23,500	23,950	23,710	22,550	23,660	26,210	25,030	25,130	41,790	11/29/2017	Urban Principal Arterial-Other
172	US 1	KNOX MCRAE-COUNTRY CLUB DRIVE	26,130	27,670	24,780	25,710	24,570	24,100	23,980	26,150	26,640	27,580	41,790	11/29/2017	Urban Principal Arterial-Other
173	US 1	COUNTRY CLUB DRIVE-HARRISON	27,690	28,030	25,920	26,490	25,150	24,210	24,930	26,420	26,680	26,700	41,790	11/29/2017	Urban Principal Arterial-Other
174	US 1	HARRISON-GRACE	25,800	25,290	22,480	23,800	23,230	23,310	23,220	25,180	24,110	23,690	41,790	11/29/2017	Urban Principal Arterial-Other
US 1 (NB) GRACE-GARDEN (NB - WASHINGTON) 13,443 12,977 UC 12,130 11,820 11,570 11,457 11,100 12,477 12,230															
182	US 1	GRACE-SOUTH	14,410	13,930	UC	12,940	12,600	12,380	12,300	NC	13,780	13,230	23,880	11/29/2017	Urban Principal Arterial-Other
181	US 1	SOUTH-MAIN	13,160	12,900	UC	12,150	11,810	NC	11,480	NC	12,310	NC	19,440	11/9/2016	Urban Principal Arterial-Other
179	US 1	MAIN-GARDEN	12,760	12,100	UC	11,300	11,050	10,760	10,590	11,100	11,340	11,230	19,440	11/29/2017	Urban Principal Arterial-Other
US 1 (SB) GARDEN-GRACE (SB - HOPKINS) 13,460 13,210 UC 11,943 11,820 11,630 11,183 10,925 12,040 12,740															
178	US 1	Garden-Main	12,280	UC	UC	11,200	11,010	10,780	9,870	8,900	11,110	11,970	19,440	11/29/2017	Urban Principal Arterial-Other
176	US 1	Main-South	13,230	12,180	UC	11,470	11,530	NC	11,060	NC	11,600	NC	23,880	11/9/2016	Urban Principal Arterial-Other
175	US 1	South-Grace	14,870	14,240	UC	13,160	12,920	12,480	12,620	12,950	13,410	13,510	23,880	11/29/2017	Urban Principal Arterial-Other
US 1 GARDEN-SR 46 20,890 21,565 19,455 19,990 19,255 18,505 18,010 19,300 17,930															
165	US 1	Garden-Dairy	24,380	25,370	22,500	23,360	22,450	22,630	21,900	NC	22,490	20,270	41,790	11/8/2017	Urban Principal Arterial-Other
166	US 1	Dairy-SR46	17,400	17,760	16,410	16,620	16,060	14,380	14,120	NC	16,110	15,590	41,790	12/13/2017	Urban Principal Arterial-Other
US 1 SR 46-VOLUSIA CO. 8,243 8,350 8,067 7,810 7,797 7,507 7,583 8,010 8,123															
167	US 1	SR 46-Lionel	11,090	11,070	10,530	10,420	10,240	9,670	10,030	NC	10,370	10,310	41,790	12/13/2017	Urban Principal Arterial-Other
168	US 1	Lionel-Burkholm	9,870	10,010	9,590	9,420	9,260	9,320	9,040	NC	9,810	10,220	40,300	11/7/2017	Urban Principal Arterial-Other
527	US 1	BURKHOLM-VOLUSIA CO.	3,770	3,970	4,080	3,590	3,890	3,530	3,680	NC	3,850	3,840	40,300	11/7/2017	Rural Principal Arterial Other
<b>AREA: MERRITT ISLAND</b>															
CONE S TROPICAL-PLUMOSA 4,277 4,107 4,157 4,073 4,060 3,990 4,180 4,127 4,363															
117	CONE	S Tropical-S Courtenay	4,740	4,560	4,560	4,420	4,390	4,440	NC	4,710	4,570	4,810	15,600	1/25/2017	Urban Minor Collector
115	CONE	S Courtenay-Plumosa	6,080	5,830	5,900	5,830	5,900	5,730	UC	5,880	5,840	6,180	15,600	1/25/2017	Urban Minor Collector
137	CROCKETT	N TROPICAL-N COURTENAY	2,010	1,930	2,010	1,970	1,890	1,800	1,880	1,950	1,970	2,100	15,600	1/18/2017	Urban Minor Collector
FORTENBERRY S COURTENAY- SYKES CREEK 5,745 5,175 4,950 4,780 4,535 4,490 4,705 4,730 4,840															
119	FORTENBERRY	S Courtenay-Plumosa	5,290	4,910	4,660	4,430	4,000	4,150	UC	4,460	4,590	4,610	15,600	1/25/2017	Urban Major Collector
154	FORTENBERRY	Plumosa-Sykes Ck Pkwy	6,200	5,440	5,240	5,130	5,070	4,830	UC	4,950	4,870	5,070	15,600	1/11/2017	Urban Major Collector
158	HALL	N COURTENAY-N TROPICAL	2,960	2,900	2,690	3,040	2,890	2,960	UC	2,950	3,080	3,270	15,600	1/18/2017	Urban Major Collector
138	LUCAS	N TROPICAL-N COURTENAY	2,980	3,020	2,840	2,820	2,720	2,970	2,740	3,020	3,180	3,570	15,600	1/18/2017	Urban Major Collector
153	MERRITT AVE	N TROPICAL-N COURTENAY	2,790	2,590	2,630	2,700	2,690	2,720	3,140	3,280	3,240	3,330	15,600	1/11/2017	Urban Major Collector
MERRITT AVE N COURTENAY - SYKES CREEK 15,120 14,730 14,750 14,220 14,005 13,790 14,855 15,090 15,970 15,910															
103	MERRITT AVE	N Courtenay-Plumosa	14,630	14,340	14,490	13,880	13,310	13,170	14,080	14,550	NC	14,210	33,800	1/25/2017	Urban Major Collector
110	MERRITT AVE	Plumosa-Sykes Ck Pkwy	15,610	15,120	15,010	14,560	14,700	14,410	15,630	15,630	15,970	15,600	33,800	1/25/2017	Urban Major Collector
104	NEWFOUND HARB.	END-SR 520	7,210	6,760	7,060	6,830	6,610	6,700	6,900	6,950	6,820	7,030	15,600	1/11/2017	Urban Minor Collector

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<b>AREA: MERRITT ISLAND</b>															
	N. BANANA RVR	SR 520-SR 528	10,343	10,340	10,153	9,993	9,683	9,763	9,737	10,070	10,078	10,850			
109	N. BANANA RVR	SR 520-SYKES CREEK	7,140	6,970	7,110	7,030	6,910	6,960	6,630	6,670	6,600	7,040	15,600	2/8/2017	Urban Minor Arterial
107	N. BANANA RVR	Sykes Creek-Central	12,790	13,100	12,650	12,460	12,240	12,110	12,400	12,900	12,040	13,600	15,600	2/8/2017	Urban Minor Arterial
102	N. BANANA RVR	Central-Martin Blvd.	11,100	10,950	10,700	10,490	9,900	10,220	10,180	10,640	10,770	11,410	15,600	2/8/2017	Urban Minor Arterial
602	N. BANANA RVR	Martin Blvd.-SR 528								10,550	10,900	11,350	15,600	2/8/2017	Urban Minor Arterial
613	N. BANANA RVR	SR 528-Sea Ray Drive										4,360	15,600	1/18/2017	Urban Local
	N. COURTENAY	SR 520-SR 528	32,974	32,551	33,357	29,430	30,461	30,734	31,339	33,350	31,930	32,329			
130	N. COURTENAY	SR 520-Merritt	27,130	26,390	27,570	27,140	25,380	25,430	26,500	27,810	27,300	28,270	41,790	1/18/2017	Urban Principal Arterial-Other
131	N. COURTENAY	Merritt-Needle	37,250	36,090	37,640	36,970	34,780	34,880	35,440	37,970	35,290	34,940	41,790	1/25/2017	Urban Principal Arterial-Other
133	N. COURTENAY	Needle-Lucas	35,820	35,310	36,320	30,890	33,210	33,180	34,540	36,350	35,520	33,120	41,790	1/25/2017	Urban Principal Arterial-Other
135	N. COURTENAY	Lucas-Crockett	34,720	34,190	35,550	29,930	32,420	32,870	33,160	35,460	33,490	33,740	41,790	1/18/2017	Urban Principal Arterial-Other
136	N. COURTENAY	Crockett-Pioneer	32,180	32,100	32,580	27,390	29,970	30,080	30,230	32,920	30,870	31,730	41,790	1/18/2017	Urban Principal Arterial-Other
152	N. COURTENAY	Pioneer-S Ramps SR 528	33,040	32,820	33,250	27,900	30,120	30,850	30,540	33,730	32,850	32,310	41,790	1/18/2017	Urban Principal Arterial-Other
155	N. COURTENAY	S Ramps-N Ramps SR 528	30,680	30,960	30,590	25,790	27,350	27,850	28,960	29,210	28,190	32,190	41,790	1/18/2017	Urban Principal Arterial-Other
	N. COURTENAY	SR 528-SPACE COMMERCE WAY	17,893	18,930	18,477	16,933	14,103	14,213	14,017	15,580	14,573	15,963			
140	N. COURTENAY	N Ramps-Hall	24,280	25,070	24,530	23,740	20,900	20,420	19,090	22,300	21,170	22,960	41,790	1/18/2017	Urban Principal Arterial-Other
157	N. COURTENAY	Hall-N Tropical	17,330	18,160	17,820	16,550	13,040	13,570	14,270	15,090	13,490	15,220	41,790	1/18/2017	Urban Principal Arterial-Other
141	N. COURTENAY	N. Tropical-Space Commerce Way	12,070	13,560	13,080	10,510	8,370	8,650	8,690	9,350	9,060	9,710	40,300	1/18/2017	Rural Principal Arterial Other
	N. TROPICAL TR	SR 520-PIONEER	5,113	5,095	4,733	4,948	4,620	4,665	4,658	5,233	5,388	6,620			
147	N. TROPICAL TR	SR 520-Merritt	7,760	7,850	7,210	7,510	7,200	7,440	7,420	8,170	8,260	8,840	15,600	1/11/2017	Urban Major Collector
146	N. TROPICAL TR	Merritt-Lucas	6,140	6,080	5,740	5,920	5,600	5,660	5,550	6,190	6,320	6,380	15,600	2/8/2017	Urban Major Collector
145	N. TROPICAL TR	Lucas-Crockett	4,350	4,310	3,940	4,200	3,790	3,700	3,790	4,370	4,640	4,640	15,600	1/18/2017	Urban Major Collector
156	N. TROPICAL TR	Crockett-Pioneer	2,200	2,140	2,040	2,160	1,890	1,860	1,870	2,200	2,330	NC	15,600	2/23/2016	Urban Major Collector
	N. TROPICAL TR	GRANT-N COURTENAY	1,453	1,760	1,320	1,725	1,020	1,515	1,455	1,565	1,273	1,800			
144	N. TROPICAL TR	Grant-Hall	750	NC	630	NC	580	NC	UC	NC	660	NC	15,600	2/24/2016	Urban Major Collector
143	N. TROPICAL TR	Hall-Crisafulli	1,900	1,810	1,680	1,870	NC	1,670	1,530	1,640	1,720	1,800	15,600	1/18/2017	Urban Major Collector
142	N. TROPICAL TR	Crisafulli-N Courtenay	1,710	1,710	1,650	1,580	1,460	1,360	1,380	1,490	1,440	1,800	15,600	1/18/2017	Urban Major Collector
	PLUMOSA	CONE-MERRITT AVE	5,960	5,950	5,870	5,660	5,600	5,475		5,710	5,705	6,280			
116	PLUMOSA	Cone-Fortenberry	5,830	NC	5,440	NC	5,630	NC	NC	NC	5,010	NC	15,600	2/9/2016	Urban Minor Collector
120	PLUMOSA	Fortenberry-SR 520	5,840	5,840	NC	5,430	NC	5,240	NC	5,190	NC	NC	15,600	1/14/2015	Urban Minor Collector
106	PLUMOSA	SR 520-Merritt Ave	6,210	6,060	6,300	5,890	5,570	5,710	NC	6,230	6,400	6,280	15,600	1/11/2017	Urban Minor Collector
105	S. BANANA DR.	END-SR 520	2,470	2,130	2,200	2,260	1,930	2,230	1,920	2,200	2,120	2,390	12,480	2/8/2017	Urban Major Collector
	S. COURTENAY	PINEDA-FORTENBERRY	11,745	11,608	11,910	11,525	10,998	10,983	9,437	11,240	10,605	10,868			
112	S. TROPICAL TR	PINEDA-S COURTENAY	8,020	7,760	8,160	7,660	7,270	7,170	7,320	7,520	7,390	7,400	12,480	2/8/2017	Urban Minor Arterial
113	S. COURTENAY	S. Tropical Tr-Banana	9,880	9,930	10,210	9,780	9,370	9,140	9,160	9,340	8,820	9,500	15,600	1/10/2017	Urban Minor Arterial
114	S. COURTENAY	Banana-Cone	12,480	12,400	12,730	12,280	11,850	11,910	11,830	12,030	10,890	10,860	15,600	2/8/2017	Urban Minor Arterial
118	S. COURTENAY	Cone-Fortenberry	16,600	16,340	16,540	16,380	15,500	15,710	NC	16,070	15,320	15,710	15,600	1/25/2017	Urban Minor Arterial
	S. COURTENAY	Fortenberry-SR 520	13,530	13,127	13,290	13,250	12,587	12,400		13,097	12,103	13,100			
122	S. COURTENAY	Fortenberry-Magnolia	18,240	17,960	18,050	18,030	16,990	16,600	NC	18,570	17,500	17,210	33,800	1/11/2017	Urban Minor Arterial
139	S. COURTENAY	Magnolia-SR 520	20,980	20,070	20,440	20,260	19,410	19,300	UC	19,320	17,330	20,550	33,800	2/8/2017	Urban Minor Arterial
111	S. TROPICAL TR	S PATRICK-PINEDA	1,370	1,350	1,380	1,460	1,360	1,300	1,340	1,400	1,480	1,540	12,480	1/11/2017	Urban Major Collector
	S. TROPICAL TR	S COURTENAY-SR 520	4,630	4,700	4,557	4,343	4,097	4,283	4,353	4,510	4,377	4,610			
125	S. TROPICAL TR	S Courtenay-Plantation	1,280	1,290	1,270	1,190	1,150	1,260	1,160	1,210	1,270	1,220	12,480	2/8/2017	Urban Major Collector
126	S. TROPICAL TR	Plantation-Cone	7,290	7,440	7,130	6,970	6,670	6,760	6,780	7,030	6,780	7,090	12,480	1/25/2017	Urban Major Collector
124	S. TROPICAL TR	Cone-SR 520	5,320	5,370	5,270	4,870	4,470	4,830	5,120	5,290	5,080	5,520	12,480	1/25/2017	Urban Major Collector

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<b>AREA: MERRITT ISLAND</b>															
603	SPACE COMMERCE WAY	SR 3-NASA CAUSEWAY								3,090	3,040	3,780	12,900	1/18/2017	Rural Principal Arterial Other
	SR 520	HUMPHREY BR-S. BANANA	33,766	33,433	34,103	33,698	30,878	32,220	33,311	34,200	32,467	30,929			
101	SR 520	Bridge-N.Tropical	46,840	46,790	46,750	46,850	NC	44,390	46,090	48,440	44,400	44,820	59,900	1/11/2017	Urban Principal Arterial-Other
148	SR 520	N.Tropical-SR 3	39,110	38,520	38,370	38,460	37,670	37,240	34,900	39,820	37,210	36,850	59,900	1/11/2017	Urban Principal Arterial-Other
97	SR 520	SR 3-Plaza ent	33,870	33,560	34,550	33,760	33,430	31,820	34,410	33,630	32,070	29,870	62,900	1/11/2017	Urban Principal Arterial-Other
98	SR 520	Plaza ent-Plumosa	33,660	33,650	34,430	33,940	30,530	31,860	34,130	33,790	31,800	29,940	62,900	1/11/2017	Urban Principal Arterial-Other
99	SR 520	Plumosa-Mall ent	33,380	34,710	33,970	32,810	32,560	30,560	32,780	32,140	31,640	28,750	62,900	1/11/2017	Urban Principal Arterial-Other
100	SR 520	Mall ent-SykesCrkPkw	27,460	25,800	27,500	25,620	26,270	26,010	28,740	27,140	24,810	23,660	62,900	1/25/2017	Urban Principal Arterial-Other
149	SR 520	Sykes-Newfound HrbDr	33,690	33,190	34,630	34,170	32,270	32,520	33,160	34,480	35,170	30,740	62,900	1/11/2017	Urban Principal Arterial-Other
150	SR 520	Newfound Hbr-N Banana	28,280	28,470	28,560	27,750	27,330	27,290	28,940	29,920	28,670	26,820	62,900	1/18/2017	Urban Principal Arterial-Other
151	SR 520	N Banana-S Banana	27,600	26,210	28,170	29,920	26,960	28,290	26,650	28,440	26,430	26,910	62,900	1/18/2017	Urban Principal Arterial-Other
	SR 528	US 1-SR 401	35,850	36,067	36,903	36,847	35,343	37,053	37,850	39,243	37,940	39,587			
128	SR 528	US 1-N COURTENAY	45,660	44,240	45,990	46,150	43,000	44,700	45,760	49,740	48,660	48,600	74,400	1/17/2017	Urban Principal Arterial-Other
129	SR 528	N Crtny-N Banana Rv Dr	32,750	32,710	33,710	33,920	32,770	33,630	36,360	32,570	31,070	36,810	74,400	1/17/2017	Urban Principal Arterial-Other
127	SR 528	N Banana Rv Dr-SR 401	29,140	31,250	31,010	30,470	30,260	32,830	31,430	35,420	34,090	33,350	74,400	1/17/2017	Urban Principal Arterial-Other
123	SYKES CREEK	FORTENBERRY-SR 520	6,650	5,980	5,630	5,530	5,490	5,610	NC	5,610	5,390	5,440	33,800	1/11/2017	Urban Major Collector
121	SYKES CREEK	SR 520-MERRITT	12,900	12,430	12,460	11,970	12,010	11,770	12,210	12,640	12,680	12,070	39,800	1/18/2017	Urban Major Collector
108	SYKES CREEK	MERRITT-N BANANA	10,180	10,040	9,880	9,670	9,700	9,890	NC	10,610	11,080	10,970	17,700	1/11/2017	Urban Major Collector
<b>AREA: CENTRAL</b>															
75	ADAMSON	PINE-SR 524	4,570	4,590	4,360	5,220	4,720	4,880	4,700	5,210	5,380	5,340	17,700	2/1/2017	Urban Minor Collector
	BARNES	FISKE-MURRELL	14,610	15,260	16,580	16,410	15,420	15,060	15,460	15,895	13,145				
77	BARNES	FISKE-THREE MEADOWS DRIVE	14,610	15,260	16,580	16,410	15,420	15,060	15,460	15,940	UC	13,440	17,700	2/1/2017	Urban Principal Arterial-Other
604	BARNES	THREE MEADOWS DRIVE-MURRELL								15,850	UC	12,850	17,700	2/1/2017	Urban Principal Arterial-Other
72	BARNES	MURRELL-US 1	10,370	10,890	10,930	NC	9,560	NC	9,720	9,910	8,800	9,560	17,700	2/1/2017	Urban Principal Arterial-Other
49	CLEARLAKE	PLUCKEBAUM-SR 520	5,480	5,940	6,380	5,640	5,130	5,400	4,800	5,050	4,590	4,750	15,600	2/1/2017	Urban Major Collector
	CLEARLAKE	SR 520-MICHIGAN	18,970	19,720	20,650	18,265	17,620	15,747	15,933	18,307	18,030	16,990			
29	CLEARLAKE	SR 520-Lake	13,220	13,770	16,580	13,250	12,650	11,550	11,640	14,160	13,400	12,810	39,800	2/15/2017	Urban Minor Arterial
30	CLEARLAKE	Lake-Dixon	18,230	19,300	19,470	17,740	17,010	16,010	16,210	19,620	19,120	18,200	39,800	2/8/2017	Urban Minor Arterial
31	CLEARLAKE	Dixon-Rosetine	22,440	22,940	23,220	20,620	20,250	NC	19,950	NC	21,570	NC	39,800	2/3/2016	Urban Minor Arterial
32	CLEARLAKE	Rosetine-Michigan	21,990	22,870	23,330	21,450	20,570	19,680	NC	21,140	NC	19,960	39,800	2/8/2017	Urban Minor Arterial
	CLEARLAKE	MICHIGAN-SR 524	19,927	20,200	20,023	19,460	18,100	17,233	17,727	19,817	19,927	18,193			
39	CLEARLAKE	Michigan-Otterbein	21,950	22,240	22,180	21,620	20,360	18,910	18,410	21,290	21,320	19,970	39,800	2/15/2017	Urban Minor Arterial
50	CLEARLAKE	Otterbein-N. Wal-Mart Ent.	17,170	17,360	17,100	16,580	14,920	14,120	15,520	16,960	16,090	14,810	41,790	2/1/2017	Urban Minor Arterial
95	CLEARLAKE	WAL-MART-SR 524	20,660	21,000	20,790	20,180	19,020	18,670	19,250	21,200	22,370	19,800	41,790	2/1/2017	Urban Minor Arterial
61	COX	SR 520-SR 524	4,850	4,780	4,400	4,180	3,210	4,260	4,100	4,560	4,810	4,240	17,700	2/1/2017	Urban Major Collector
69	COX	SR 524-JAMES	2,730	2,680	2,670	2,520	2,550	2,580	2,490	2,760	2,690	2,600	17,700	2/1/2017	Urban Major Collector
	DIXON	CLEARLAKE-US 1	12,493	12,095	12,173	11,320	10,970	9,855	9,630	10,160	10,415	10,303			
47	DIXON	Clearlake-Pineda St	13,320	12,920	12,740	11,740	11,490	10,280	10,320	11,360	11,290	10,920	39,800	2/8/2017	Urban Minor Arterial
51	DIXON	Pineda St-Fiske	12,480	12,080	11,820	11,250	10,760	9,590	9,420	10,260	10,130	10,240	39,800	2/8/2017	Urban Minor Arterial
46	DIXON	Fiske-Byrd Plaza ent	12,440	12,100	12,640	11,430	NC	10,140	9,800	10,220	10,760	10,560	39,800	2/8/2017	Urban Minor Arterial
45	DIXON	Byrd Plaza Ent-US 1	11,730	11,280	11,490	10,860	10,660	9,410	8,980	8,800	9,480	9,490	39,800	2/22/2017	Urban Minor Arterial
	FISKE	I-95-BARTON	20,580	21,855	23,645	21,390	20,990	21,360	21,805	23,125	23,310	22,190			
44	FISKE	I-95/Barnes-Eyster	19,570	20,480	23,210	21,050	21,060	21,880	22,160	24,690	25,080	24,190	41,790	2/1/2017	Urban Principal Arterial-Other
96	FISKE	Eyster-Barton	21,590	23,230	24,080	21,730	20,920	20,840	21,450	21,560	21,540	20,190	41,790	2/8/2017	Urban Principal Arterial-Other

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<b>AREA: CENTRAL</b>															
	FISKE	BARTON-SR 520	22,520	23,975	24,613	22,435	20,600	20,578	20,465	21,915	20,000	20,118			
42	FISKE	Barton-St Andrews	25,370	27,300	27,910	25,190	23,480	23,250	24,240	24,150	24,200	22,660	41,790	2/8/2017	Urban Principal Arterial-Other
41	FISKE	St Andrews-Pluckebaum	26,100	27,410	28,010	25,980	23,650	23,370	22,620	25,300	23,490	23,080	41,790	2/1/2017	Urban Principal Arterial-Other
40	FISKE	Pluckebaum-Rosa Jones	20,030	21,340	21,950	20,030	18,360	18,700	18,130	19,860	18,210	18,920	41,790	2/27/2017	Urban Principal Arterial-Other
38	FISKE	Rosa Jones-SR 520	18,580	19,850	20,580	18,540	16,910	16,990	16,870	18,350	14,100	15,810	41,790	2/1/2017	Urban Principal Arterial-Other
37	FISKE	SR 520-DIXON	9,220	9,350	9,240	8,440	8,010	7,490	7,270	8,020	8,220	7,390	15,600	1/24/2017	Urban Minor Arterial
	FLORIDA	US 1-SR 520		10,785	10,990	8,200	8,400	7,125	6,665	7,025	6,710	6,910			
55	FLORIDA	US 1-Rosa Jones		11,930	11,680	9,750	8,400	8,140	7,580	7,980	7,330	6,910	15,600	1/24/2017	Urban Minor Arterial
54	FLORIDA	Rosa Jones-SR 520		9,640	10,300	6,650	NC	6,110	5,750	6,070	6,090	UC	15,600	2/2/2016	Urban Minor Arterial
	FORREST	SR 520-US1		10,525	11,380	10,490	9,890	11,090	9,240	8,630	7,880	8,585			
52	FORREST	SR 520-Peachtree		10,360	11,220	10,290	9,890	12,580	10,170	9,890	8,700	8,930	15,600	2/8/2017	Urban Minor Arterial
53	FORREST	Peachtree-US 1		10,690	11,540	10,690	NC	9,600	8,310	7,370	7,060	8,240	15,600	2/15/2017	Urban Minor Arterial
67	FRIDAY	SR 520-SR 524	1,710	1,680	1,480	1,220	1,170	1,150	1,220	1,530	1,390	1,500	15,600	2/1/2017	Urban Major Collector
64	FRIDAY	SR 524-JAMES	3,080	3,190	3,180	3,230	3,080	3,020	NC	3,290	NC	3,210	17,700	2/1/2017	Urban Local
593	JDG F JAMIESON	TAVISTOCK DRIVE-STADIUM							4,400	4,480	4,650	5,040	17,700	1/25/2017	Urban Local
	JDG F JAMIESON	STADIUM-LAKE ANDREW	12,695	13,665	14,180	14,310	14,385	14,760	15,795	15,785	16,295	16,400			
80	JDG F JAMIESON	Stadium-Gov't Ctr./Sch. Bd. Main Entrance	12,460	13,310	13,660	13,800	13,810	14,310	14,780	15,380	15,970	16,190	39,800	1/25/2017	Urban Minor Arterial
78	JDG F JAMIESON	Gov't Ctr./Sch. Bd. Entrance-Lake Andrew	12,930	14,020	14,700	14,820	14,960	15,210	16,810	16,190	16,620	16,610	39,800	1/25/2017	Urban Minor Arterial
	LAKE	COX-SR 520	4,243	4,270	4,460	3,797	3,287	3,190	3,133	3,767	4,033	3,870			
85	LAKE	Cox-Range	3,610	3,680	NC	3,180	2,290	2,120	2,150	2,630	2,790	2,890	17,700	2/1/2017	Urban Major Collector
62	LAKE	Range-Clearlake	4,610	4,340	4,010	3,820	3,500	3,470	3,260	3,860	3,750	4,040	15,600	2/1/2017	Urban Major Collector
68	LAKE	Clearlake-SR 520	4,510	4,790	4,910	4,390	4,070	3,980	3,990	4,810	5,560	4,680	15,600	1/24/2017	Urban Major Collector
	LAKE ANDREW	WICKHAM-JAMIESON	14,985	15,540	16,395	16,445	16,625	16,555	17,085	17,900	17,350	17,130			
81	LAKE ANDREW	Wickham-The Avenue Main Ent.	16,480	17,650	17,950	18,070	18,220	18,320	18,810	19,940	18,480	18,990	39,800	2/15/2017	Urban Minor Arterial
82	LAKE ANDREW	The Avenue Main Ent.-Jamieson	13,490	13,430	14,840	14,820	15,030	14,790	15,360	15,860	16,220	15,270	39,800	2/1/2017	Urban Minor Arterial
86	MICHIGAN	RANGE-CLEARLAKE	4,370	NC	5,170	NC	4,180	NC	3,930	NC	4,180	NC	15,600	2/24/2016	Urban Major Collector
48	MICHIGAN	CLEARLAKE-US 1	12,530	12,790	12,940	12,630	11,990	12,070	10,280	8,420	9,940	10,820	39,800	2/8/2017	Urban Minor Arterial
	MURRELL	WICKHAM-BARNES	17,298	17,913	17,863	17,495	17,275	16,630	16,070	17,400	16,978	16,493			
528	MURRELL	Wickham-Spyglass	17,600	18,610	18,470	17,880	17,810	17,800	17,120	18,160	17,710	16,870	33,800	2/1/2017	Urban Minor Arterial
59	MURRELL	Spyglass-Viera	17,100	17,250	17,420	17,470	16,970	16,840	16,230	16,810	17,230	16,910	39,800	2/1/2017	Urban Minor Arterial
529	MURRELL	Viera-Club House Drive	18,430	19,140	19,250	18,370	18,210	16,830	16,310	18,310	17,430	16,510	39,800	2/1/2017	Urban Minor Arterial
57	MURRELL	Club House Drive-Barnes	16,060	16,650	16,310	16,260	16,110	15,050	14,620	16,320	15,540	15,680	39,800	2/1/2017	Urban Minor Arterial
592	PEACHTREE	Lake Dr-Fiske						3,010	2,910	NC	NC	NC	15,600	1/8/2014	Urban Major Collector
	PINEHURST/HOLIDAY SPRINGS	WICKHAM-VIERA BLVD	4,623	4,593	4,720	4,685	4,590	4,543	4,458	4,808	4,928	5,088			
17	PINEHURST	Wickham-Spyglass Hill	6,880	6,660	6,960	6,980	6,670	6,490	6,270	6,810	7,100	7,320	15,600	2/1/2017	Urban Minor Collector
530	PINEHURST	Spyglass Hill-Fargo	5,210	5,140	5,250	5,090	5,130	5,140	5,040	5,340	5,350	5,430	15,600	2/1/2017	Urban Minor Collector
16	PINEHURST	Fargo-Holiday Springs	3,000	2,950	3,090	3,050	3,040	3,000	2,950	3,190	3,340	3,380	15,600	2/1/2017	Urban Minor Collector
94	HOLIDAY SPRINGS	PINEHURST-VIERA BLVD.	3,400	3,620	3,580	3,620	3,520	3,540	3,570	3,890	3,920	4,220	15,600	2/15/2017	Urban Minor Collector
568	PLUCKEBAUM	Clearlake-Fiske		7,560	7,470	7,400	6,540	5,970	6,240	7,030	6,490	6,560	15,600	2/27/2017	Urban Major Collector
	RANGE	SR 520-MICHIGAN	4,415	3,440	UC	4,340	5,150	4,330	5,140	4,760	5,860	4,740			
531	RANGE	SR 520-Lake	3,350	3,440	UC	3,260	NC	4,330	NC	4,760	NC	4,740	15,600	2/1/2017	Urban Major Collector
532	RANGE	Lake-Michigan	5,480	NC	UC	5,420	5,150	NC	5,140	NC	5,860	NC	15,600	2/1/2017	Urban Major Collector
74	ROSETINE	RANGE-CLEARLAKE			NC	2,850	2,680	NC	2,730	NC	NC	NC	15,600	2/1/2017	Urban Minor Collector

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ID	ROAD	SEGMENT (Sections)	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2,017 AADT	Current MAV	Last Count Taken	Functional Classification
<b>AREA: CENTRAL</b>															
18	SPYGLASS HILL	MURRELL-PINEHURST	4,100	3,970	4,320	4,250	3,980	3,880	3,780	3,960	4,240	4,720	15,600	2/8/2017	Urban Minor Collector
	SR 520	ORANGE CO.-I-95	12,297	15,050	14,937	16,157	14,740	15,090	15,167	17,220	16,670	16,637			
534	SR 520	ORANGE CO-SR 524	10,300	12,750	12,790	14,750	13,480	13,140	12,760	15,950	15,170	15,750	40,300	2/27/2017	Rural Principal Arterial Other
1	SR 520	SR 524-Friday	11,560	14,340	14,110	15,180	13,290	14,050	13,990	15,720	14,880	14,320	41,790	2/15/2017	Urban Principal Arterial-Other
84	SR 520	Friday-I-95	15,030	18,060	17,910	18,540	17,450	18,080	18,750	19,990	19,960	19,840	41,790	2/27/2017	Urban Principal Arterial-Other
	SR 520	I-95-CLEARLAKE	19,497	20,377	21,343	19,957	19,850	20,367	20,583	23,857	22,600	21,240			
2	SR 520	I-95-Burnett	18,700	19,820	20,710	19,420	19,910	20,200	21,440	24,190	22,190	21,780	41,790	2/1/2017	Urban Principal Arterial-Other
3	SR 520	Burnett-Range	18,990	20,190	21,640	20,040	20,350	19,980	19,680	24,180	22,970	21,040	41,790	2/1/2017	Urban Principal Arterial-Other
14	SR 520	Range-Clearlake	20,800	21,120	21,680	20,410	19,290	20,920	20,630	23,200	22,640	20,900	41,790	2/1/2017	Urban Principal Arterial-Other
	SR 520	CLEARLAKE-FISKE	22,345	23,020	22,115	21,390	20,045	20,815	21,385	24,880	24,575	22,915			
4	SR 520	Clearlake-Lake	20,770	20,710	19,950	19,630	18,380	19,160	19,560	22,860	22,870	20,200	39,800	2/8/2017	Urban Principal Arterial-Other
5	SR 520	Lake-Fiske	23,920	25,330	24,280	23,150	21,710	22,470	23,210	26,900	26,280	25,630	39,800	1/18/2017	Urban Principal Arterial-Other
	SR 520	FISKE-US 1	24,905	25,100	25,505	25,210	23,390	23,775	25,160	28,120	28,250	26,600			
6	SR 520	Fiske-Blake	25,080	25,320	25,490	25,310	23,390	23,820	25,090	28,270	28,430	26,540	41,790	1/18/2017	Urban Principal Arterial-Other
7	SR 520	Blake-US 1	24,730	24,880	25,520	25,110	NC	23,730	25,230	27,970	28,070	26,660	41,790	1/18/2017	Urban Principal Arterial-Other
	SR 520 (Eastbound)	US 1-CAUSEWAY (EB)	20,580	19,853	19,695	20,125	19,215	19,838	19,020	21,483	18,600	20,718			
8	SR 520	US 1-Forrest	15,360	13,920	13,790	15,200	14,530	15,570	17,090	18,210	13,820	16,750	19,440	2/15/2017	Urban Principal Arterial-Other
9	SR 520	Forrest-Brevard	21,570	21,190	21,780	21,710	20,280	21,020	19,560	21,850	19,620	22,460	19,440	2/15/2017	Urban Principal Arterial-Other
10	SR 520	Brevard-Delannoy	22,190	21,790	20,970	21,450	20,280	20,900	19,450	22,930	22,010	21,670	19,440	1/18/2017	Urban Principal Arterial-Other
11	SR 520	Delannoy-Rivereedge	23,200	22,510	22,240	22,140	21,770	21,860	19,980	22,940	18,950	21,990	19,440	1/18/2017	Urban Principal Arterial-Other
	SR 520 (Westbound)	CAUSEWAY-US 1 (WB)	20,193	21,385	20,790	21,085	20,205	20,770	20,643	21,703	20,098	21,220			
12	SR 520	Causeway-Delannoy	22,270	22,960	22,570	23,220	21,860	22,160	21,250	23,700	23,050	21,130	19,440	2/15/2017	Urban Principal Arterial-Other
13	SR 520	Delannoy-Brevard	23,610	24,920	24,230	24,360	23,150	23,970	23,100	23,460	21,900	24,290	19,440	1/18/2017	Urban Principal Arterial-Other
15	SR 520	Brevard-Forrest	20,770	22,980	21,710	21,530	21,080	21,220	21,560	22,400	18,690	21,810	19,440	1/11/2017	Urban Principal Arterial-Other
87	SR 520	Forrest-US 1	14,120	14,680	14,650	15,230	14,730	15,730	16,660	17,250	16,750	17,650	19,440	1/18/2017	Urban Principal Arterial-Other
66	SR 524	SR 520-I-95	4,140	4,090	4,680	4,650	4,400	4,670	4,530	5,690	5,300	5,890	24,200	2/1/2017	Urban Minor Arterial
	SR 524	I-95-INDUSTRY RD	10,495	11,125	11,490	11,180	10,795	11,220	10,880	12,765	12,605	11,710			
73	SR 524	I-95-Cox	9,230	9,510	10,050	9,810	9,610	9,780	9,670	11,440	11,170	10,460	18,590	2/1/2017	Urban Minor Arterial
76	SR 524	Cox-Industry Rd	11,760	12,740	12,930	12,550	11,980	12,660	12,090	14,090	14,040	12,960	19,470	2/1/2017	Urban Minor Arterial
	SR 528	ORANGE CO.-I-95	28,520	27,170	26,750	28,240	26,205	27,835	28,320	34,205	31,740	33,780			
91	SR 528	ORANGE CO-SR 407	29,290	29,280	29,770	31,790	28,950	30,820	30,220	37,830	35,120	37,330	43,000	2/27/2017	Rural Principal Arterial - Freeways & Expressways
90	SR 528	SR 407-I-95	27,750	25,060	23,730	24,690	23,460	24,850	26,420	30,580	28,360	30,230	43,000	2/27/2017	Rural Principal Arterial - Freeways & Expressways
	SR 528	I-95-US 1	26,985	26,120	25,550	25,950	24,945	25,860	25,315	30,165	27,775	28,340			
93	SR 528	I-95-INDUSTRY RD	22,500	22,730	20,820	21,360	20,720	21,000	23,050	23,030	22,810	23,290	74,400	2/27/2017	Urban Principal Arterial - Freeways & Expressways
92	SR 528	INDUSTRY RD-US 1	31,470	29,510	30,280	30,540	29,170	30,720	27,580	37,300	32,740	33,390	74,400	2/27/2017	Urban Principal Arterial - Freeways & Expressways
25	STADIUM PKWY	WICKHAM-JAMIESON	3,710	4,310	4,890	5,090	5,910	6,550	6,890	7,810	8,480	9,150	17,700	2/1/2017	Urban Minor Arterial
	STADIUM PKWY	JAMIESON-I-95	12,395	14,340	15,500	15,880	15,585	16,515	16,965	17,965	18,505	19,665			
26	STADIUM PKWY	Jamieson-Viera Blvd	13,190	15,380	16,570	17,350	17,250	18,270	18,910	19,950	20,890	22,170	39,800	2/15/2017	Urban Minor Arterial
535	STADIUM PKWY	VIERA BLVD.-ROSEMOUNT DR	11,600	13,300	14,430	14,410	13,920	14,760	15,020	15,980	16,120	17,160	39,800	2/1/2017	Urban Minor Arterial
606	STADIUM PKWY	ROSEMOUNT DRIVE-I-95/FISKE								17,190	17,510	18,680	17,700	2/1/2017	Urban Minor Arterial
607	TAVISTOCK	JAMIESON-VIERA BLVD								3,300	3,680	3,720	15,600	1/25/2017	Urban Local
608	TAVISTOCK	VIERA BLVD-STADIUM PARKWAY								2,890	2,680	2,650	15,600	2/1/2017	Urban Local
	US 1	PINEDA-BARNES	33,395	32,957	32,480	33,950	27,120	29,530	31,853	32,577	32,687	30,737			
89	US 1	Pineda-Suntree Blvd	38,020	38,440	39,470	42,600	NC	33,100	37,580	37,310	38,750	34,340	41,790	2/22/2017	Urban Principal Arterial-Other
567	US 1	Suntree Blvd-Viera Blvd		32,170	30,740	31,160	28,680	28,770	31,450	32,650	31,520	30,670	41,790	2/1/2017	Urban Principal Arterial-Other
36	US 1	Viera Blvd-Barnes	28,770	28,260	27,230	28,090	25,560	26,720	26,430	27,770	27,790	27,200	41,790	2/1/2017	Urban Principal Arterial-Other
70	US 1	BARNES-EYSTER	27,480	27,810	24,700	25,800	23,920	26,150	25,690	25,980	26,300	25,060	41,790	2/22/2017	Urban Principal Arterial-Other

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<b>AREA: CENTRAL</b>															
	US 1	EYSTER-ROSA JONES	37,540	36,867	UC	34,867	34,703	34,977	35,303	36,267	35,167	34,170			
34	US 1	Eyster-Barton	35,330	35,040	UC	32,330	32,860	33,220	32,820	34,440	33,650	32,520	62,900	2/15/2017	Urban Principal Arterial-Other
33	US 1	Barton-Florida	43,050	42,760	UC	39,440	38,510	38,070	40,180	40,480	39,840	36,860	62,900	2/22/2017	Urban Principal Arterial-Other
88	US 1	Florida-Rosa Jones (Poinsett)	34,240	32,800	UC	32,830	32,740	33,640	32,910	33,880	32,010	33,130	62,900	2/27/2017	Urban Principal Arterial-Other
	US 1	ROSA JONES-PEACHTREE	28,765	22,700	UC	26,940	26,360	26,795	25,375	33,480	30,220	26,885			
24	US 1	Rosa Jones (Poinsett)-SR 520	34,010	UC	UC	32,590	32,430	32,840	32,890	33,480	30,220	33,500	62,900	2/27/2017	Urban Principal Arterial-Other
23	US 1	SR 520-Peachtree	23,520	22,700	UC	21,290	20,290	20,750	17,860	UC	UC	20,270	62,900	2/22/2017	Urban Principal Arterial-Other
	US 1	PEACHTREE-SR 528	29,778	30,400	27,443	28,365	27,363	27,025				26,600			
22	US 1	Peachtree-Forrest	23,590	22,470	18,880	21,080	20,330	20,560	UC	UC	UC	21,290	41,790	2/8/2017	Urban Principal Arterial-Other
21	US 1	Forrest-Dixon	33,250	32,260	29,770	30,260	29,860	29,460	UC	UC	UC	28,620	41,790	2/27/2017	Urban Principal Arterial-Other
20	US 1	Dixon-Michigan	29,730	31,070	28,860	31,080	28,020	28,510	UC	UC	UC	25,890	41,790	2/22/2017	Urban Principal Arterial-Other
19	US 1	Michigan-SR 528	32,540	35,800	32,260	31,040	31,240	29,570	UC	UC	UC	30,600	41,790	2/8/2017	Urban Principal Arterial-Other
572	VIERA BLVD	Tavistock-Stadium						7,070	7,160	NC	8,190	NC	39,800	1/26/2016	Urban Local
	VIERA BLVD	STADIUM-HOLIDAY SPRINGS	10,055	12,245	12,880	13,820	13,240	13,930	14,490	15,950	16,780	17,445			
536	VIERA BLVD	STADIUM-MURRELL	8,030	10,740	12,010	12,790	12,650	13,760	14,600	15,980	17,450	18,130	39,800	2/1/2017	Urban Minor Arterial
58	VIERA BLVD	Murrell-Holiday Springs	12,080	13,750	13,750	14,850	13,830	14,100	14,380	15,920	16,110	16,760	41,790	2/1/2017	Urban Minor Arterial
537	VIERA BLVD	Holiday Springs-US 1	10,550	11,420	11,960	12,830	11,850	12,130	12,190	13,280	13,930	14,800	41,790	2/1/2017	Urban Minor Arterial
<b>AREA: SOUTH</b>															
	AIRPORT	US 192-APOLLO	11,177	10,597	10,990	10,390	10,657	10,570	11,747	11,100	11,993	13,980			
503	AIRPORT	US 192-HIBISCUS	10,670	9,720	9,620	9,590	10,080	9,760	11,200	9,720	10,060	15,100	32,400	11/15/2017	Urban Minor Arterial
502	AIRPORT	HIBISCUS-NASA	9,740	9,450	9,760	9,250	9,500	9,350	10,570	NC	10,900	11,280	39,800	10/17/2017	Urban Minor Arterial
501	AIRPORT	NASA-APOLLO	13,120	12,620	13,590	12,330	12,390	12,600	13,470	12,480	15,020	15,560	39,800	10/17/2017	Urban Minor Arterial
	APOLLO	AIRPORT-SARNO	20,040	20,490	20,370	19,120	19,020	19,350	19,020		22,120	23,430			
510	APOLLO	Airport-St. Michaels	20,040	NC	20,370	NC	19,020	NC	19,020	NC	21,980	NC	41,790	11/28/2016	Urban Minor Arterial
538	APOLLO	St. Michaels - Sarno	NC	20,490	NC	19,120	NC	19,350	NC	NC	22,260	23,430	41,790	10/18/2017	Urban Minor Arterial
571	APOLLO	Sarno - Eau Gallie Blvd					2,330	2,160	UC	UC	10,200	10,890	33,800	10/18/2017	Urban Minor Arterial
	AURORA	JOHN RODES-WICKHAM	8,955	8,395	8,265	7,670	7,670	7,765	6,865	6,845	6,540	7,460			
507	AURORA	J Rodes-Turtlemound	10,900	9,910	9,820	9,040	9,020	8,800	7,800	7,430	7,490	8,650	15,600	10/18/2017	Urban Major Collector
514	AURORA	Turtlemound-Wickham	7,010	6,880	6,710	6,300	6,320	6,730	5,930	6,260	5,590	6,270	17,700	12/6/2017	Urban Major Collector
	AURORA	WICKHAM-US 1	11,297	11,353	10,947	10,857	10,730	11,023	10,713	10,780	11,080	10,963			
515	AURORA	WICKHAM-CROTON	11,710	11,750	11,380	11,370	11,320	11,600	10,840	11,600	11,160	11,360	39,800	10/24/2017	Urban Minor Arterial
366	AURORA	Croton-Stewart	11,630	11,560	11,080	11,010	10,800	11,150	11,140	10,910	11,750	12,490	39,800	10/24/2017	Urban Minor Arterial
376	AURORA	Stewart-US 1	10,550	10,750	10,380	10,190	10,070	10,320	10,160	9,830	10,330	9,040	39,800	11/15/2017	Urban Minor Arterial
	BABCOCK	IND RVR CO-GRANT	2,625	2,745	2,560	2,570	2,500	2,615	2,720	2,375	3,160	3,360			
446	BABCOCK	Indian Rv Co-Micco	1,950	2,280	1,930	1,800	1,780	1,870	1,980	1,920	2,300	2,430	14,200	10/3/2017	Rural Major Collector
370	BABCOCK	Micco-Grant	3,300	3,210	3,190	3,340	3,220	3,360	3,460	2,830	4,020	4,290	14,200	10/3/2017	Rural Major Collector
	BABCOCK	GRANT-MALABAR	18,490	14,807	14,307	14,570	14,077	14,117	13,678	13,213	15,268	15,833			
447	BABCOCK	Grant-Valkaria		7,360	6,950	7,250	7,010	7,060	7,140	7,200	7,820	8,410	17,700	10/3/2017	Urban Major Collector
597	BABCOCK	VALKARIA-WACO							11,720	11,580	13,630	13,290	17,700	10/3/2017	Urban Minor Arterial
448	BABCOCK	WACO-FOUNDATION PK	16,580	16,550	16,100	16,150	15,720	15,560	16,110	15,500	17,700	18,490	17,700	10/3/2017	Urban Minor Arterial
449	BABCOCK	FOUNDATION PK-MALABAR	20,400	20,510	19,870	20,310	19,500	19,730	19,740	18,570	21,920	23,140	17,700	10/3/2017	Urban Minor Arterial
	BABCOCK	MALABAR-PALM BAY RD	30,810	33,610	32,865	33,630	33,235	32,880	31,985	34,340	31,825	34,340			
369	BABCOCK	Malabar-Charles	33,600	NC	34,300	NC	34,850	NC	31,920	NC	29,850	NC	41,790	10/4/2016	Urban Principal Arterial-Other
368	BABCOCK	Charles-Pt Malabar	NC	35,710	NC	35,500	NC	33,510	NC	36,180	NC	37,540	41,790	10/3/2017	Urban Principal Arterial-Other
443	BABCOCK	Pt Malabar-Palm Bay	28,020	31,510	31,430	31,740	31,620	32,260	32,050	32,500	33,800	33,710	41,790	10/3/2017	Urban Principal Arterial-Other

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## SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2008 - 2017

ID	ROAD	SEGMENT (Sections)	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2,017 AADT	Current MAV	Last Count Taken	Functional Classification
<b>AREA: SOUTH</b>															
	BABCOCK	PALM BAY-US 192	29,996	31,910	31,686	31,888	31,360	30,644	29,686	31,670	33,796	34,614			
444	BABCOCK	Palm Bay-Eber	27,870	31,380	30,550	30,460	30,000	29,660	29,670	29,380	32,700	33,140	41,790	10/10/2017	Urban Principal Arterial-Other
367	BABCOCK	Eber-Florida	30,490	33,270	32,330	32,640	31,820	31,280	31,250	34,150	36,120	35,860	41,790	10/10/2017	Urban Principal Arterial-Other
445	BABCOCK	Florida-University	32,860	34,170	34,950	34,950	34,180	33,830	33,650	35,680	36,270	37,700	41,790	10/10/2017	Urban Principal Arterial-Other
459	BABCOCK	University-Melbourne	31,410	32,250	31,360	32,280	31,380	30,610	28,580	31,980	33,840	34,590	41,790	10/17/2017	Urban Principal Arterial-Other
460	BABCOCK	Melbourne-US 192	27,350	28,480	29,240	29,110	29,420	27,840	25,280	27,160	30,050	31,780	41,790	10/11/2017	Urban Principal Arterial-Other
	BABCOCK	US 192-APOLLO	23,958	24,090	24,287	24,000	23,560	23,303	21,585	24,850	24,850	25,707			
461	BABCOCK	US 192-FEE	24,540	26,850	NC	26,030	NC	25,200	NC	27,340	NC	30,320	33,800	10/11/2017	Urban Minor Arterial
462	BABCOCK	Fee-Hibiscus	25,790	NC	27,130	NC	25,600	NC	UC	NC	27,650	NC	33,800	10/17/2016	Urban Minor Arterial
463	BABCOCK	Hibiscus-Sheridan	24,020	24,280	NC	24,410	NC	23,760	NC	25,380	NC	25,000	33,800	10/17/2017	Urban Minor Arterial
375	BABCOCK	Sheridan-NASA	24,450	NC	24,380	NC	24,220	NC	23,030	NC	24,740	NC	33,800	10/17/2016	Urban Minor Arterial
464	BABCOCK	NASA-APOLLO	20,990	21,140	21,350	21,560	20,860	20,950	20,140	21,830	22,160	21,800	33,800	10/17/2017	Urban Minor Arterial
	CROTON	SARNO-LAKE WASHINGTON	14,457	13,840	13,713	13,080	13,100	12,755	13,377	1,235	14,000	11,847			
335	CROTON	SARNO-EAU GALLIE	15,180	14,850	14,610	14,170	13,960	13,920	14,250	13,710	15,870	11,410	33,800	10/18/2017	Urban Minor Arterial
334	CROTON	EAU GALLIE-AURORA	15,360	14,590	14,280	13,970	14,060	NC	14,080	14,690	13,560	11,690	33,800	11/15/2017	Urban Minor Arterial
333	CROTON	AURORA-LK WASHINGTON	12,830	12,080	12,250	11,100	11,280	11,590	11,800	NC	12,570	12,440	33,800	12/6/2017	Urban Minor Arterial
	CROTON	LAKE WASHINGTON-POST	9,140	7,060	8,290	6,450	8,180	6,840	8,690	7,190	9,670	8,450			
332	CROTON	Lk Washington-Parkway	9,140	NC	8,290	NC	8,180	NC	8,690	NC	9,670	NC	15,600	10/25/2016	Urban Major Collector
377	CROTON	Parkway-Post	NC	7,060	NC	6,450	NC	6,840	NC	7,190	NC	8,450	15,600	10/24/2017	Urban Major Collector
	DAIRY	PALM BAY-US 192	21,450	19,180	20,268	21,435	20,535	21,240	25,308	24,835	22,998	21,573			
472	DAIRY	Palm Bay-Eber	19,040	15,160	17,350	18,610	18,350	19,110	20,920	20,380	20,620	19,100	39,800	10/4/2017	Urban Minor Arterial
473	DAIRY	Eber-Florida	22,390	19,750	20,870	22,130	21,350	22,390	25,670	NC	25,480	23,280	39,800	10/4/2017	Urban Minor Arterial
474	DAIRY	Florida-Edgewood	21,460	19,870	20,730	21,830	21,080	21,730	28,120	NC	20,660	22,500	39,800	10/24/2017	Urban Minor Arterial
356	DAIRY	Edgewood-US 192	22,910	21,940	22,120	23,170	21,360	21,730	26,520	29,290	25,230	21,410	39,800	10/17/2017	Urban Minor Arterial
355	DAIRY	US 192-HIBISCUS	10,560	10,180	10,420	10,750	10,210	10,660	12,690	12,490	13,300	NC	15,600	12/6/2016	Urban Major Collector
	EAU GALLIE	I-95-WICKHAM	23,730	25,317	23,903	23,133	23,067	23,950	24,737	26,023	28,647	29,677			
438	EAU GALLIE	I-95-John Rodes	30,840	34,670	31,120	30,760	30,940	31,910	31,780	33,550	37,940	40,550	41,790	10/18/2017	Urban Principal Arterial-Other
439	EAU GALLIE	John Rodes-Sarno	26,350	26,530	25,990	24,990	24,710	25,240	26,650	27,910	30,750	30,540	41,790	10/18/2017	Urban Principal Arterial-Other
440	EAU GALLIE	Sarno-Wickham	14,000	14,750	14,600	13,650	13,550	14,700	15,780	16,610	17,250	17,940	41,790	11/15/2017	Urban Principal Arterial-Other
	EAU GALLIE	WICKHAM-US 1	20,595	21,933	20,227	20,763	20,167	19,943	18,893	19,523	20,063	21,220			
359	EAU GALLIE	WICKHAM-CROTON	22,260	23,130	20,850	21,400	20,790	20,760	19,310	18,990	22,690	22,000	41,790	10/24/2017	Urban Principal Arterial-Other
441	EAU GALLIE	Croton-Commodore	22,000	22,870	21,530	22,080	21,760	21,410	20,530	19,240	21,430	22,890	41,790	10/24/2017	Urban Principal Arterial-Other
360	EAU GALLIE	Commodore-Stewart Av	19,660	19,800	NC	18,810	NC	17,660	NC	20,340	NC	18,770	41,790	10/24/2017	Urban Principal Arterial-Other
455	EAU GALLIE	Stewart Av-US 1	18,460	NC	18,300	NC	17,950	NC	16,840	NC	16,070	NC	41,790	11/28/2016	Urban Principal Arterial-Other
	EAU GALLIE (EASTBOUND)	US 1-CAUSEWAY (EB)	16,777	18,115	17,610	17,075	17,745	17,105	17,020	16,580	17,250	17,885			
361	EAU GALLIE	US 1-Highland	16,380	17,440	NC	16,320	NC	16,340	NC	15,410	NC	17,010	19,440	10/24/2017	Urban Principal Arterial-Other
382	EAU GALLIE	Highland-Pineapple	16,340	NC	16,800	NC	16,870	NC	16,310	NC	16,620	NC	19,440	11/1/2016	Urban Principal Arterial-Other
457	EAU GALLIE	Pineapple-Causeway	17,610	18,790	18,420	17,830	18,620	17,870	17,730	17,750	17,880	18,760	19,440	10/24/2017	Urban Principal Arterial-Other
	EAU GALLIE (WESTBOUND)	CAUSEWAY-US 1 (WB)	16,000	17,455	17,375	16,430	18,010	16,700	16,525	16,095	17,035	16,535			
456	EAU GALLIE	Causeway-Pineapple	17,470	18,710	17,820	17,680	19,050	18,070	17,620	18,950	18,520	18,080	19,440	10/24/2017	Urban Principal Arterial-Other
380	EAU GALLIE	Pineapple-Highland	15,340	16,200	NC	15,180	NC	15,330	NC	13,240	NC	14,990	19,440	11/15/2017	Urban Principal Arterial-Other
458	EAU GALLIE	Highland-US 1	15,190	NC	16,930	NC	16,970	NC	15,430	NC	15,550	NC	19,440	11/1/2016	Urban Principal Arterial-Other
	EBER	MINTON-DAIRY	12,120	12,280	9,945	10,175	8,450	9,280	10,055	10,530	11,545	11,210			
484	EBER	Minton-Hollywood	9,940	11,000	9,030	9,500	7,560	NC	9,560	NC	10,730	10,260	15,600	10/4/2017	Urban Major Collector
485	EBER	Hollywood-Dairy	14,300	13,560	10,860	10,850	9,340	9,280	10,550	10,530	12,360	12,160	15,600	10/4/2017	Urban Major Collector
	ELLIS	J RODES-WICKHAM	8,775	10,340	UC	10,695	NC	11,640	10,930	12,290	12,760	15,660			
322	ELLIS	John Rodes-East Dr	7,410	NC	UC	9,490	NC	10,770	10,930	NC	12,760	NC	15,600	10/24/2016	Urban Minor Arterial
321	ELLIS	East Dr-Wickham	10,140	10,340	UC	11,900	NC	12,510	NC	12,290	NC	15,660	15,600	10/18/2017	Urban Minor Arterial

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<b>AREA: SOUTH</b>															
	EMERSON	BAYSIDE LAKES BLVD-MALABAR										15,677			
614	EMERSON	Bayside Lakes Blvd-Waco										15,610	39,800	10/3/2017	Urban Major Collector
615	EMERSON	Waco-Jupiter										16,260	39,800	10/3/2017	Urban Major Collector
551	EMERSON	Jupiter-Malabar	11,550	11,860	11,830	12,090	12,150	12,410	12,670	13,670	12,700	15,160	39,800	10/3/2017	Urban Minor Arterial
	EMERSON	MALABAR-MINTON	8,307	8,107	7,653	7,763	7,517	7,433	7,760	9,415	8,903	8,817			
552	EMERSON	Malabar-Americana Blvd	9,510	9,620	9,060	9,250	9,100	9,040	9,360	9,300	10,990	10,830	17,700	10/3/2017	Urban Minor Arterial
553	EMERSON	Americana Blvd-Culver	9,090	9,000	8,920	9,170	8,860	8,830	9,170	9,530	10,440	10,690	17,700	10/3/2017	Urban Minor Arterial
554	EMERSON	Culver-Minton	6,320	5,700	4,980	4,870	4,590	4,430	4,750	NC	5,280	4,930	17,700	10/10/2017	Urban Minor Arterial
555	EMERSON	Minton-Jupiter	25,360	25,220	25,160	25,580	24,980	24,800	25,720	27,480	28,150	29,460	39,800	10/4/2017	Urban Minor Arterial
616	EMERSON	Jupiter-St. Johns Heritage Parkway										14,570	17,700	10/4/2017	Urban Major Collector
	EVANS	US 192-NASA	17,705	17,980	17,130	18,535	18,630	19,055	18,385	16,510	19,905	20,800			
315	EVANS	US 192-Hibiscus	19,270	19,890	19,650	20,580	20,260	21,000	19,520	NC	20,990	NC	39,800	10/18/2016	Urban Minor Arterial
319	EVANS	Hibiscus-NASA	16,140	16,070	14,610	16,490	17,000	17,110	17,250	16,510	18,820	20,800	39,800	10/17/2017	Urban Minor Arterial
556	FLEMING GRANT	KIWI DR-MICCO	1,570	NC	1,490	NC	1,330	NC	1,360	NC	1,720	NC	14,200	10/31/2016	Urban Minor Arterial
579	GATEWAY DRIVE	HIBISCUS-NASA					3,450	3,550	NC	NC	NC	3,590	33,800	10/17/2017	#N/A
558	GRANT	BABCOCK-OLD DIXIE	2,240	NC	NC	2,130	NC	2,260	NC	NC	2,590	NC	14,200	11/29/2016	Urban Major Collector
566	HARLOCK	AURORA-LK WASHINGTON	2,020	NC	NC	2,480	NC	2,150	NC	NC	NC	NC	15,600	10/9/2013	Urban Major Collector
	HENRY	MINTON-DAIRY						7,265	7,060	7,890	7,460	10,280			
585	HENRY	Minton Rd-Hollywood						8,120	NC	7,890	NC	10,280	15,600	10/11/2017	#N/A
591	HENRY	Hollywood-Dairy						6,410	7,060	NC	7,460	NC	15,600	10/18/2016	Urban Minor Arterial
	HIBISCUS BLVD	EVANS-APOLLO	16,860	16,563	16,230	16,887	16,137	16,910	16,997	17,800	20,327	17,953			
559	HIBISCUS BLVD	EVANS-DAIRY	16,620	16,340	16,470	17,160	16,100	17,130	17,010	17,320	21,120	17,940	39,800	10/17/2017	Urban Minor Arterial
560	HIBISCUS BLVD	DAIRY-BABCOCK	17,140	16,880	16,840	17,400	16,120	17,360	17,310	18,680	21,730	18,630	33,800	10/17/2017	Urban Minor Arterial
561	HIBISCUS BLVD	BABCOCK-APOLLO	16,820	16,470	15,380	16,100	16,190	16,240	16,670	17,400	18,130	17,290	33,800	10/17/2017	Urban Minor Arterial
	HICKORY	US 192-NASA					6,230	3,363	2,400	3,735	NC	3,243			
587	HICKORY	US 192-Fee						1,860	NC	1,710	NC	1,650	15,600	10/11/2017	Urban Major Collector
588	HICKORY	Fee-Hibiscus						2,350	2,400	NC	NC	2,130	15,600	11/19/2014	Urban Major Collector
580	HICKORY	Hibiscus-NASA					6,230	5,880	NC	5,760	NC	5,950	15,600	10/17/2017	Urban Major Collector
	HOLLYWOOD	PALM BAY RD-US 192	12,755	12,605	12,708	13,875	13,055	13,045		13,230	15,195	15,783			
318	HOLLYWOOD	PALM BAY RD-EBER	13,710	13,880	13,840	14,670	13,570	12,560	UC	15,060	16,900	16,440	17,700	10/4/2017	Urban Minor Arterial
317	HOLLYWOOD	Eber-Florida/Wingate	12,890	12,600	12,910	14,170	13,300	13,080	UC	13,190	14,820	15,040	17,700	10/4/2017	Urban Minor Arterial
374	HOLLYWOOD	Florida/Wingate-Henry	13,310	12,940	13,160	13,440	13,710	14,240	UC	12,960	15,220	16,530	17,700	10/11/2017	Urban Minor Arterial
316	HOLLYWOOD	Henry-US 192	11,110	11,000	10,920	13,220	11,640	12,300	UC	11,710	13,840	15,120	15,600	10/11/2017	Urban Minor Arterial
	INTERLACHEN	ST. ANDREWS-WICKHAM	7,600	4,960	7,550	5,050	6,760	4,420	6,770	4,340	7,730				
354	INTERLACHEN	St. Andrews-Baytree	NC	4,960	NC	5,050	NC	4,420	NC	4,340	NC	NC	15,600	12/2/2015	Urban Minor Collector
353	INTERLACHEN	Baytree-Wickham	7,600	NC	7,550	NC	6,760	NC	6,770	NC	7,730	NC	15,600	10/3/2016	Urban Minor Collector
	JOHN RODES	US 192-EAU GALLIE	11,047	UC	11,450	11,790	12,025	12,145	11,850	12,215	12,540	12,940			
511	JOHN RODES	US 192-Sheridan	10,340	UC	10,420	10,690	10,830	NC	10,620	NC	11,520	NC	17,700	10/24/2016	Urban Minor Arterial
504	JOHN RODES	Sheridan-Ellis	10,720	UC	NC	10,940	NC	11,040	NC	10,990	NC	12,010	17,700	10/18/2017	Urban Minor Arterial
505	JOHN RODES	Ellis-Eau Gallie	12,080	UC	12,480	13,740	13,220	13,250	13,080	13,440	13,560	13,870	17,700	12/13/2017	Urban Minor Arterial
506	JOHN RODES	EAU GALLIE-AURORA	12,060	11,670	11,760	10,830	10,750	10,120	9,220	8,950	9,570	11,000	15,600	10/18/2017	Urban Major Collector
323	JORDAN BLASS	ST ANDREWS (J BLASS) - WICKHAM	7,060	6,700	6,620	6,630	5,480	6,310	5,900	5,810	6,150	NC	15,600	10/3/2016	Urban Minor Collector
	JUPITER BLVD	SAN FILLIPPO-MALABAR										10,533			
617	JUPITER BLVD	San Filippo-Emerson										12,150	15,600	10/3/2017	Urban Minor Arterial
618	JUPITER BLVD	Emerson-Eldron Blvd.										10,650	17,700	10/3/2017	Urban Minor Arterial
619	JUPITER BLVD	Eldron Blvd.-Degroot										12,280	17,700	10/3/2017	Urban Minor Arterial
573	JUPITER BLVD	DEGROODT-MALABAR					6,210	6,120	6,260	6,220	6,630	7,050	17,700	10/4/2017	Urban Minor Arterial
	JUPITER BLVD	MALABAR-EMERSON									11,580	11,980			
620	JUPITER BLVD	MALABAR-AMERICANA										NC	17,700		Urban Minor Arterial
574	JUPITER BLVD	AMERICANA-PACE					12,090	12,060	12,350	NC	11,580	12,010	17,700	10/4/2017	Urban Minor Arterial
621	JUPITER BLVD	PACE-EMERSON										11,950	17,700	10/4/2017	Urban Minor Arterial

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<b>AREA: SOUTH</b>															
	LAKE ANDREW	TRAFFORD-WICKHAM	3,230	5,570	5,860	6,320	6,670	6,520		5,295	6,670	7,105			
612	LAKE ANDREW	STROM PARK-TRAFFORD									3,620	3,600	15,600	11/1/2017	Urban Local
605	LAKE ANDREW	TRAFFORD-IVANHOE								3,390	5,540	5,130	39,800	11/15/2017	Urban Local
79	LAKE ANDREW	IVANHOE DR-WICKHAM	3,230	5,570	5,860	6,320	6,670	6,520	6,270	7,200	7,800	9,080	39,800	11/1/2017	Urban Major Collector
	LAKE WASHINGTON	THE LAKE-WICKHAM	6,310	5,535	5,720	5,765	5,650	5,770	5,910	6,000	6,435	7,215			
351	LAKE WASHINGTON	WEST OF HARLOCK	NC	2,440	NC	3,660	NC	3,580	NC	4,240	NC	5,260	17,700	10/18/2017	Urban Minor Collector
344	LAKE WASHINGTON	HARLOCK-TURTLEMOUND	3,720	NC	3,340	NC	3,250	NC	3,440	NC	4,180	NC	17,700	10/25/2016	Urban Minor Collector
338	LAKE WASHINGTON	TURTLEMOUND-WICKHAM	8,900	8,630	8,100	7,870	8,050	7,960	8,380	7,760	8,690	9,170	17,700	10/24/2017	Urban Major Collector
557	MAIN	CENTRAL-US 1 (MAIN)	1,430	1,850	NC	2,120	NC	1,970	NC	1,960	2,560	2,260	15,600	10/3/2017	Urban Major Collector
	MALABAR	SJHP-MINTON	20,050	20,050	19,520	20,560	20,900	15,570	16,455	15,950	15,675	15,800			
589	MALABAR	SJHP-Jupiter						11,310	11,900	10,950	12,310	11,370	17,700	10/24/2017	Urban Minor Arterial
371	MALABAR	JUPITER-MINTON	20,050	20,050	19,520	20,560	20,900	19,830	21,010	20,950	19,040	20,230	17,700	10/3/2017	Urban Principal Arterial-Other
491	MALABAR	Minton-Emerson	23,460	23,370	22,080	22,500	22,190	21,500	22,420	22,560	24,510	23,810	39,800	10/3/2017	Urban Principal Arterial-Other
513	MALABAR	Emerson-San Fillippo	35,970	35,710	34,110	34,240	34,560	33,710	34,330	36,050	37,860	37,680	50,900	10/3/2017	Urban Principal Arterial-Other
492	MALABAR	SAN FILLIPPO-I-95	48,870	46,540	45,490	46,620	46,600	46,320	48,840	46,420	52,940	53,630	50,900	10/3/2017	Urban Principal Arterial-Other
493	MALABAR	I-95-BABCOCK	38,080	37,390	35,830	37,330	35,840	36,400	38,620	NC	39,270	43,170	59,900	10/3/2017	Urban Principal Arterial-Other
	MALABAR	BABCOCK-US 1	13,780	14,370	11,450	13,470	10,790	12,840	12,430	14,930	14,090	15,950			
494	MALABAR	Babcock-Corey	14,150	14,370	NC	13,470	NC	12,840	NC	14,930	NC	15,950	24,200	10/10/2017	Urban Minor Arterial
516	MALABAR	Corey-US 1	13,410	NC	11,450	NC	10,790	NC	12,430	NC	14,090	NC	14,800	10/11/2016	Urban Minor Arterial
598	MELBOURNE AVE	US 1 OVERPASS-FRONT STREET							4,110	NC	NC	NC	15,600	12/3/2014	Urban Minor Collector
	MICCO	BABCOCK-US 1	1,240	4,127	4,007	4,023	3,790	3,963	4,033	4,553	4,850	4,640			
519	MICCO	Babcock-Dottie Ln	1,240	1,740	1,320	1,380	1,330	1,440	1,470	1,440	1,800	1,750	14,200	10/3/2017	Rural Major Collector
520	MICCO	Dottie Ln-Fleming Grant	UC	3,080	3,130	3,100	2,840	3,090	3,220	3,460	3,740	3,880	17,700	10/3/2017	Urban Major Collector
518	MICCO	FLEMMING GRANT-US 1	UC	7,560	7,570	7,590	7,200	7,360	7,410	8,760	9,010	8,290	17,700	10/3/2017	Urban Major Collector
	MINTON	MALABAR-PALM BAY RD	29,440	28,570	29,133	29,903	28,923	27,917	29,260	22,645	29,183				
490	MINTON	Malabar-Americana	19,670	18,590	18,970	19,010	18,750	17,890	18,820	20,030	21,090	21,600	39,800	10/10/2017	Urban Principal Arterial-Other
489	MINTON	Americana-Emerson	24,370	22,250	22,710	23,130	22,880	22,390	22,780	25,260	25,730	26,290	39,800	10/10/2017	Urban Principal Arterial-Other
488	MINTON	EMERSON-PALM BAY	44,280	44,870	45,720	47,570	45,140	43,470	46,180	NC	40,730	50,720	33,800	10/10/2017	Urban Principal Arterial-Other
	MINTON	PALM BAY-US 192	31,842	32,092	31,212	28,410	28,926	27,334	33,058	30,676	32,255	31,248			
487	MINTON	Palm Bay-Hield	30,190	29,300	NC	24,790	NC	23,890	NC	27,650	NC	26,640	33,800	10/10/2017	Urban Principal Arterial-Other
486	MINTON	Hield-Eber	30,920	NC	30,560	NC	28,290	NC	30,970	NC	32,910	NC	39,800	10/11/2016	Urban Principal Arterial-Other
372	MINTON	Eber-Wingate	30,600	31,200	30,100	25,550	28,330	27,960	31,750	29,920	31,890	31,260	39,800	11/15/2017	Urban Principal Arterial-Other
483	MINTON	Wingate-Milwaukee	33,900	33,910	32,310	31,080	30,370	28,470	35,690	32,990	NC	34,420	39,800	12/8/2015	Urban Principal Arterial-Other
482	MINTON	Milwaukee-Henry	34,530	34,160	32,710	31,160	29,770	29,490	35,790	32,650	33,410	34,090	39,800	10/11/2017	Urban Principal Arterial-Other
481	MINTON	Henry-US 192	30,910	31,890	30,380	29,470	27,870	26,860	31,090	30,170	30,810	29,830	39,800	11/15/2017	Urban Principal Arterial-Other
	NASA	WICKHAM-EDDIE ALLEN					18,670	18,930	15,010	25,420		21,660			
575	NASA	Wickham-Evans					22,430	22,950	NC	25,420	NC	26,860	39,800	10/17/2017	Urban Principal Arterial-Other
576	NASA	Evans-Eddie Allen					14,910	14,910	15,010	NC	UC	16,460	39,800	10/17/2017	Urban Principal Arterial-Other
	NASA	EDDIE ALLEN-US 1	14,237	14,097	14,440	13,907	14,247	13,687	14,720	14,763		13,810			
346	NASA	Eddie Allen-Airport	16,200	16,510	17,120	17,300	17,050	16,930	17,000	17,050	UC	18,200	32,400	10/17/2017	Urban Principal Arterial-Other
345	NASA	Airport-Babcock	12,300	NC	12,550	NC	12,450	NC	12,810	NC	UC	12,680	32,400	10/17/2017	Urban Principal Arterial-Other
349	NASA	Babcock-Apollo	NC	12,290	NC	11,560	NC	11,130	NC	12,530	UC	10,800	32,400	10/17/2017	Urban Principal Arterial-Other
342	NASA	Apollo-US 1	14,210	13,490	13,650	12,860	13,240	13,000	14,350	14,710	UC	13,560	32,400	10/17/2017	Urban Principal Arterial-Other
600	NORFOLK PARKWAY	PALM BAY ROAD-TARGET SIGNAL							13,460	15,120	15,740	16,670	33,800	10/10/2017	Urban Major Collector
	PALM BAY	MINTON-HOLLYWOOD	UC	UC	37,100	40,623	39,310	39,947	37,998	31,890	44,303	42,950			
478	PALM BAY	MINTON-ATHENS	UC	UC					26,820	27,710	NC	31,800	59,900	10/12/2015	Urban Principal Arterial-Other
479	PALM BAY	ATHENS-CULVER	UC	UC	27,260	28,840	28,680	28,750	28,040	36,070	31,750	34,510	59,900	10/10/2017	Urban Principal Arterial-Other
465	PALM BAY	Culver-I-95 E Ramp	UC	UC	39,460	44,290	42,480	41,900	47,320	NC	44,300	46,710	59,900	10/10/2017	Urban Principal Arterial-Other
466	PALM BAY	I-95 E Ramp-Hollywood	UC	UC	44,580	48,740	46,770	49,190	49,810	NC	56,860	58,780	59,900	10/10/2017	Urban Principal Arterial-Other

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NC=Not Counted; UC=Under Construction

## SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2008 - 2017

ID	ROAD	SEGMENT (Sections)	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2,017 AADT	Current MAV	Last Count Taken	Functional Classification
<b>AREA: SOUTH</b>															
	PALM BAY	HOLLYWOOD-BABCOCK	UC	UC	31,654	33,160	33,443	37,220	36,140	39,880	37,913	40,840			
467	PALM BAY	Hollywood-Dairy	UC	UC	36,800	40,070	40,830	41,820	42,180	NC	46,190	47,350	59,900	10/10/2017	Urban Principal Arterial-Other
468	PALM BAY	Dairy-Port Malabar	UC	UC	35,310	NC	NC	38,460	37,600	NC	42,080	41,430	59,900	10/10/2017	Urban Principal Arterial-Other
469	PALM BAY	Port Malabar-Stack	UC	UC	28,100	28,840	29,690	NC	31,870	NC	27,450	NC	59,900	10/31/2016	Urban Principal Arterial-Other
477	PALM BAY	Stack-Riviera	UC	UC	29,090	NC	NC	31,380	NC	39,880	NC	33,740	59,900	10/11/2017	Urban Principal Arterial-Other
470	PALM BAY	Riviera-Babcock	UC	UC	28,970	30,570	29,810	NC	32,910	NC	35,930	NC	59,900	10/31/2016	Urban Principal Arterial-Other
	PALM BAY	BABCOCK-ROBT CONLAN	UC	UC	22,853	22,663	23,360	26,953	22,710	27,120	24,287	27,757			
480	PALM BAY	Babcock-Knect	UC	UC	28,840	29,820	31,130	33,120	31,190	32,740	34,250	33,620	59,900	10/11/2017	Urban Principal Arterial-Other
475	PALM BAY	Knect-Lipscomb	UC	UC	26,120	NC	NC	29,370	NC	30,910	NC	33,190	59,900	10/11/2017	Urban Principal Arterial-Other
476	PALM BAY	Lipscomb-Troutman	UC	UC	19,480	20,460	20,170	NC	19,610	NC	19,530	NC	59,900	10/11/2016	Urban Principal Arterial-Other
471	PALM BAY	Troutman-R Conlan	UC	UC	16,970	17,710	18,780	18,370	17,330	17,710	19,080	16,460	59,900	10/17/2017	Urban Principal Arterial-Other
330	PARKWAY	TURTLEMOUND-WICKHAM	5,570	5,200	5,110	4,880	5,020	4,840	4,810	4,960	5,460	5,250	17,700	10/24/2017	Urban Major Collector
601	PINEAPPLE	EAU GALLIE BLVD-AURORA							5,610	NC	6,100	NC	15,600	11/28/2016	Urban Major Collector
	PINEDA CSWY	I-95-US 1	UC	12,655	13,010	21,530	23,120	24,193	25,537	27,623	28,127	32,010			
570	PINEDA CSWY	I-95-ST ANDREWS				18,340	19,900	21,650	23,780	27,070	27,640	31,050	41,790	10/25/2017	Urban Minor Arterial
328	PINEDA CSWY	ST ANDREWS-WICKHAM	UC	5,470	5,510	18,910	21,330	23,210	24,860	25,360	28,950	31,860	41,790	10/25/2017	Urban Minor Arterial
327	PINEDA CSWY	WICKHAM-US 1	UC	19,840	20,510	27,340	28,130	27,720	27,970	30,440	27,790	33,120	41,790	11/15/2017	Urban Principal Arterial-Other
352	PINEHURST	WICKHAM-ST. ANDREWS	2,410	2,350	2,360	2,380	2,520	2,310	2,240	2,220	2,540	2,450	15,600	10/25/2017	Urban Minor Collector
	PORT MALABAR	BABCOCK-US 1	19,280	11,870	16,210	11,340	15,820	10,810	15,820	14,590	17,160	12,300			
339	PORT MALABAR	BABCOCK-TROUTMAN	19,280	NC	16,210	NC	15,820	NC	15,820	NC	17,160	NC	17,700	10/11/2016	Urban Minor Arterial
340	PORT MALABAR	TROUTMAN-US 1		11,870	NC	11,340	NC	10,810	NC	14,590	NC	12,300	17,700	10/17/2017	Urban Minor Arterial
329	POST	PINECONE-WICKHAM	10,330	9,650	9,580	8,790	8,840	8,560	9,030	8,890	9,660	9,240	15,600	11/15/2017	Urban Major Collector
	RJ CONLAN	PALM BAY RD-US 1	11,545	9,925	10,500	11,135	10,570	10,270	10,640	10,225	11,300	11,515			
562	RJ CONLAN	PALM BAY RD-COMMERCE	11,330	9,310	10,440	11,340	10,870	10,410	10,550	9,720	11,250	11,490	39,800	10/17/2017	Urban Principal Arterial-Other
563	RJ CONLAN	COMMERCE-US 1	11,760	10,540	10,560	10,930	10,270	10,130	10,730	10,730	11,350	11,540	39,800	10/17/2017	Urban Principal Arterial-Other
495	SARNO	EAU GALLIE-WICKHAM	15,110	15,440	15,110	14,180	14,080	14,530	15,050	14,390	16,870	17,060	41,790	10/18/2017	Urban Minor Arterial
	SARNO	WICKHAM-US 1	21,428	21,818	21,470	19,663	19,263	19,797	20,840	19,577	19,688	18,960			
358	SARNO	WICKHAM-CROTON	20,480	21,360	20,660	20,640	20,200	20,370	20,490	21,240	21,610	22,410	41,790	10/18/2017	Urban Minor Arterial
496	SARNO	Croton-Garfield	24,150	24,300	23,910	23,030	22,340	NC	23,580	23,110	20,210	20,280	41,790	10/18/2017	Urban Minor Arterial
498	SARNO	Garfield-Apollo	25,550	25,540	25,220	NC	NC	23,960	23,800	NC	21,710	18,140	41,790	11/15/2017	Urban Minor Arterial
499	SARNO	APOLLO-US 1	15,530	16,070	16,090	15,320	15,250	15,060	15,490	14,380	15,220	15,010	33,800	10/18/2017	Urban Minor Arterial
581	SHERIDAN	JOHN RODES-WICKHAM					2,870	NC	NC	NC	NC	4,430	15,600	10/18/2017	Urban Minor Collector
	ST ANDREWS	PINEDA CSWY -WICKHAM	4,560	4,710	5,490	4,570	3,815	3,390	3,417	3,335	3,240	3,950			
381	ST ANDREWS	Pineda Causeway-Interlachen		4,710	NC	4,570	3,450	3,390	4,080	4,460	NC	5,570	15,600	10/25/2017	Urban Minor Collector
325	ST ANDREWS	Interlachen-Pinehurst	5,740		5,490	NC	4,180	NC	3,990	NC	4,480	NC	15,600	10/3/2016	Urban Minor Collector
326	ST ANDREWS	PINEHURST-WICKHAM	3,380						2,180	2,210	2,000	2,330	15,600	10/25/2017	Urban Minor Collector
	ST JOHNS HERITAGE PKWY	MALABAR-EMERSON									1,905	3,310			
609	ST JOHNS HERITAGE PKWY	MALABAR-PACE									2,210	2,050		10/4/2017	Urban Minor Arterial
610	ST JOHNS HERITAGE PKWY	PACE-EMERSON									1,600	4,570		11/15/2017	Urban Minor Arterial
564	SAN FILLIPPO	JUPITER-MALABAR	18,640	17,440	17,190	17,390	18,180	18,690	18,990	NC	21,400	22,850	17,700	10/3/2017	Urban Minor Arterial
324	SUNTREE	WICKHAM-US 1	16,060	17,240	17,660	15,370	15,350	15,250	16,500	18,040	16,140	17,350	19,451	10/31/2017	Urban Minor Collector
	TURTLEMOUND	EAU GALLIE BLVD-PINE CONE RD	7,295	6,820	6,660	5,890	5,835	5,907	6,630	5,480	6,743	6,300			
611	TURTLEMOUND	EAU GALLIE-AURORA								4,590	4,750	5,280	15,600	10/18/2017	Urban Major Collector
379	TURTLEMOUND	AURORA-LAKE WASHINGTON	8,840		8,220	NC	7,200	7,290	8,370	NC	10,070	NC	15,600	10/25/2016	Urban Major Collector
331	TURTLEMOUND	Lk Washington-Parkway		6,820	NC	5,890	NC	5,890	NC	6,370	NC	7,320	15,600	10/18/2017	Urban Major Collector
378	TURTLEMOUND	Parkway-Pine Cone Rd	5,750		5,100	NC	4,470	4,540	4,890	NC	5,410	NC	15,600	10/25/2016	Urban Major Collector
569	UNIVERSITY	BABCOCK-US 1		7,980	NC	7,340	NC	7,880	NC	7,840	NC	9,040	33,800	10/17/2017	Urban Major Collector

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## SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2008 - 2017

ID	ROAD	SEGMENT (Sections)	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2,017 AADT	Current MAV	Last Count Taken	Functional Classification
<b>AREA: SOUTH</b>															
<b>US 1</b>															
		IND RVR CO-MALABAR	14,903	15,463	15,480	15,648	15,355	16,008	16,195	17,135	17,723	18,190			
416	US 1	Ind Rvr CL-Micco	18,440	19,180	19,040	19,500	19,610	20,140	21,130	21,610	22,840	22,750	41,790	10/24/2017	Urban Principal Arterial-Other
417	US 1	Micco-First St	13,020	13,470	13,620	13,750	13,210	14,120	13,930	15,650	15,920	15,570	41,790	10/3/2017	Urban Principal Arterial-Other
565	US 1	First St-Valkaria	12,680	13,000	13,140	12,930	12,900	13,740	13,530	14,030	14,010	15,180	41,790	10/3/2017	Urban Principal Arterial-Other
418	US 1	VALKARIA-MALABAR	15,470	16,200	16,120	16,410	15,700	16,030	16,190	17,250	18,120	19,260	41,790	11/15/2017	Urban Principal Arterial-Other
<b>US 1</b>															
		MALABAR-RJ CONLAN	22,253	22,323	21,480	21,237	21,120	20,817	21,903	23,505	23,853	23,710			
419	US 1	Malabar-Port Malabar	20,280	20,620	19,830	20,140	UC	19,100	19,520	21,820	22,130	22,050	41,790	10/10/2017	Urban Principal Arterial-Other
420	US 1	Port Malabar-Palm Bay	23,550	24,060	23,170	22,610	22,230	22,680	24,320	25,190	25,990	26,750	39,800	10/10/2017	Urban Principal Arterial-Other
539	US 1	Palm Bay-RJ Conlan	22,930	22,290	21,440	20,960	20,010	20,670	21,870	NC	23,440	22,330	39,800	10/10/2017	Urban Principal Arterial-Other
<b>US 1</b>															
		RJ CONLAN-STRAWBRIDGE	32,303	32,243	30,950	31,067	31,380	29,260	32,567	30,600	33,773	35,157			
343	US 1	RJ CONLAN-UNIVERSITY	31,240	30,330	29,940	29,570	28,310	29,260	30,750	30,770	32,480	33,750	59,900	10/10/2017	Urban Principal Arterial-Other
348	US 1	University-New Haven	36,620	37,560	35,020	35,820	34,450	UC	38,210	NC	39,310	41,070	59,900	10/11/2017	Urban Principal Arterial-Other
384	US 1	New Haven-Strawbridge	29,050	28,840	27,890	27,810	UC	UC	28,740	30,430	29,530	30,650	59,900	10/11/2017	Urban Principal Arterial-Other
<b>US 1</b>															
		STRAWBRIDGE-SARNO	36,426	36,830	35,562	36,258	UC	UC	37,888	37,934	36,606	39,012			
385	US 1	Strawbridge-Hibiscus	36,710	40,590	38,170	38,860	UC	UC	41,310	40,480	40,730	42,040	59,900	10/11/2017	Urban Principal Arterial-Other
431	US 1	Hibiscus-NASA	32,880	33,750	32,260	33,800	UC	UC	35,120	34,430	32,230	36,710	59,900	10/17/2017	Urban Principal Arterial-Other
432	US 1	NASA-Cherry	35,890	34,550	32,260	32,740	UC	UC	35,480	34,840	32,700	34,500	59,900	12/13/2017	Urban Principal Arterial-Other
433	US 1	Cherry-Ballard	31,970	28,170	30,990	32,310	UC	UC	33,640	32,920	31,240	34,860	59,900	10/24/2017	Urban Principal Arterial-Other
434	US 1	Ballard-Sarno	44,680	47,090	44,130	43,580	UC	UC	43,890	47,000	46,130	46,950	59,900	11/15/2017	Urban Principal Arterial-Other
<b>US 1</b>															
		SARNO-PINEDA	40,673	39,695	39,327	39,238	35,453	35,315	40,158	42,062	40,128	43,850			
435	US 1	Sarno-Eau Gallie	50,000	49,740	52,210	52,110	UC	UC	52,660	52,460	36,440	49,690	59,900	10/24/2017	Urban Principal Arterial-Other
442	US 1	EAU GALLIE-AURORA	42,720	40,480	38,570	37,960	UC	UC	38,490	40,440	41,280	41,980	59,900	10/24/2017	Urban Principal Arterial-Other
450	US 1	Aurora-LkWashington	39,190	38,050	36,920	36,940	UC	36,260	37,200	38,610	37,060	41,210	59,900	10/24/2017	Urban Principal Arterial-Other
436	US 1	LkWashington-Parkway	36,400	36,490	35,720	35,820	34,570	32,620	35,870	37,300	43,400	41,240	59,900	10/24/2017	Urban Principal Arterial-Other
437	US 1	Parkway-Post	37,160	37,230	36,550	36,160	34,790	36,230	36,570	37,880	40,260	42,960	59,900	10/24/2017	Urban Principal Arterial-Other
415	US 1	POST-PINEDA	38,570	36,180	35,990	36,440	37,000	36,150	NC	45,680	42,330	46,020	59,900	10/25/2017	Urban Principal Arterial-Other
<b>US 192</b>															
		OSCEOLA CO-I-95	7,310	7,690	7,510	7,490	7,370	7,300	7,710	8,745	8,755	9,655			
590	US 192	OSCEOLA CO-SIMON RD						7,390	7,700	8,390	7,930	9,090	49,600	10/11/2017	Rural Principal Arterial Other
362	US 192	SIMON RD-I-95	7,310	7,690	7,510	7,490	7,370	7,210	7,720	9,100	9,580	10,220	41,790	10/11/2017	Urban Principal Arterial-Other
<b>US 192</b>															
		I-95-WICKHAM	25,735	24,300	24,105	25,050	25,580	25,410	26,890	29,090	30,030	31,495			
421	US 192	I-95-John Rodes	24,050	22,740	22,140	23,860	24,880	24,800	26,690	29,320	30,180	32,640	39,800	10/11/2017	Urban Principal Arterial-Other
422	US 192	John Rodes-Wickham	27,420	25,860	26,070	26,240	26,280	26,020	27,090	28,860	29,880	30,350	39,800	10/11/2017	Urban Principal Arterial-Other
<b>US 192</b>															
		WICKHAM-BABCOCK	34,743	34,597	33,600	33,137	32,157	31,103	32,006	32,833	32,717	32,619			
424	US 192	Wickham-Dayton	37,380	36,150	35,680	36,260	33,300	32,410	35,650	35,700	35,340	35,330	39,800	10/11/2017	Urban Principal Arterial-Other
388	US 192	Dayton-Windover Sq ent	40,640	40,160	38,270	40,280	37,650	36,980	38,730	38,270	37,160	37,430	39,800	10/11/2017	Urban Principal Arterial-Other
425	US 192	Windover Sq-Hollywood	37,460	36,750	36,100	37,800	34,680	34,200	34,650	35,740	33,970	35,990	39,800	12/13/2017	Urban Principal Arterial-Other
363	US 192	Hollywood-McClain (W Mall ent)	33,190	NC	32,820	33,360	30,450	NC	29,620	NC	31,390	NC	39,800	10/19/2016	Urban Principal Arterial-Other
426	US 192	McClain (W Mall ent)-Sunset (E Mall ent)		32,360	NC	32,010	NC	27,570	NC	28,680	NC	30,740	39,800	10/11/2017	Urban Principal Arterial-Other
427	US 192	Sunset (E Mall ent)-Dairy	35,480	34,670	32,970	34,510	31,750	30,910	33,680	33,320	32,590	31,140	39,800	12/13/2017	Urban Principal Arterial-Other
428	US 192	Dairy-Airport	32,480	31,230	32,830	30,650	31,750	30,250	29,400	30,670	31,680	29,240	39,800	10/11/2017	Urban Principal Arterial-Other
373	US 192	Airport-Country Club		30,860	NC	27,480	NC	25,400	NC	27,450	NC	28,460	39,800	10/11/2017	Urban Principal Arterial-Other
429	US 192	Country Club-Babcock	26,570	NC	26,530	25,880	25,520	NC	22,310	NC	26,890	NC	39,800	10/17/2016	Urban Principal Arterial-Other
<b>US 192</b>															
		BABCOCK-NEW HAVEN	19,245	18,548	19,080	18,444	18,198	17,722	17,828	20,058	20,585	19,678			
430	US 192	Babcock-New Haven	22,020	22,670	21,920	20,660	21,450	20,630	19,680	20,430	22,190	22,740	32,400	10/11/2017	Urban Principal Arterial-Other
451	US 192	New Haven-Pine		16,120	NC	18,920	NC	16,360	NC	20,670	NC	17,840	32,400	11/15/2017	Urban Principal Arterial-Other
452	US 192	Pine-Hickory	16,840	NC	16,500	NC	16,370	NC	15,450	NC	19,640	NC	32,400	10/12/2016	Urban Principal Arterial-Other
453	US 192	Hickory-Livingston		14,750	NC	15,950	NC	15,390	NC	16,350	NC	17,100	32,400	10/24/2017	Urban Principal Arterial-Other
454	US 192	Livingston-Waverly	16,420	NC	16,570	NC	15,890	NC	15,090	NC	17,160	NC	32,400	10/31/2016	Urban Principal Arterial-Other
508	US 192	Waverly-US 1		17,030	NC	16,330	NC	15,560	NC	NC	NC	17,380	32,400	10/11/2017	Urban Principal Arterial-Other
509	US 192	US 1-NEW HAVEN	21,700	22,170	21,330	20,360	19,080	20,670	21,090	22,780	23,350	23,330	32,400	10/11/2017	Urban Principal Arterial-Other

\*Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.  
NC=Not Counted; UC=Under Construction

## SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2008 - 2017

ID	ROAD	SEGMENT (Sections)	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2,017 AADT	Current MAV	Last Count Taken	Functional Classification
<b>AREA: SOUTH</b>															
	VALKARIA	BABCOCK-US 1	2,835	3,530	2,100	3,250	1,940	3,440	2,270	3,600	2,520	3,250			
517	VALKARIA	Babcock-Corey	3,430	3,530	NC	3,250	NC	3,440	NC	3,600	NC	3,250	14,200	10/3/2017	Rural Major Collector
512	VALKARIA	Corey-US 1	2,240	NC	2,100	NC	1,940	NC	2,270	NC	2,520	NC	14,200	11/29/2016	Rural Major Collector
	WICKHAM	US 192-NASA	27,713	30,230	25,793	26,080	UC	UC	23,790	25,907	24,643	25,880			
404	WICKHAM	US 192-Sheridan	26,930	31,100	25,810	26,050	UC	UC	23,730	25,700	22,840	26,160	39,800	11/15/2017	Urban Principal Arterial-Other
405	WICKHAM	Sheridan-Greenboro	28,370	29,880	25,970	26,030	UC	UC	23,500	25,880	24,650	25,750	39,800	12/6/2017	Urban Principal Arterial-Other
406	WICKHAM	Greenboro-NASA	27,840	29,710	25,600	26,160	UC	UC	24,140	26,140	26,440	25,730	39,800	12/6/2017	Urban Principal Arterial-Other
	WICKHAM	NASA-SARNO	38,375	38,498	35,935	37,368	35,233	33,435	35,715	36,240	33,643	38,620			
407	WICKHAM	NASA-Harper	38,020	37,320	34,810	36,270	34,170	32,900	35,200	NC	37,660	39,450	39,800	10/18/2017	Urban Principal Arterial-Other
408	WICKHAM	Harper-Wright	37,080	36,990	34,960	36,640	34,270	NC	34,370	NC	33,360	NC	39,800	10/24/2016	Urban Principal Arterial-Other
365	WICKHAM	Wright-Fountainhead	39,050	39,820	36,440	37,950	35,360	33,970	35,770	36,240	29,510	37,790	39,800	10/18/2017	Urban Principal Arterial-Other
350	WICKHAM	Fountainhead-Sarno	39,350	39,860	37,530	38,610	37,130	NC	37,520	NC	38,060	NC	33,800	10/24/2016	Urban Principal Arterial-Other
	WICKHAM	SARNO-PARKWAY	36,423	38,168	35,463	35,788	34,593	33,193	32,853	35,965	34,953	34,770			
409	WICKHAM	Sarno-Eau Gallie	38,680	38,970	36,750	38,000	36,970	34,630	34,420	36,290	36,870	34,900	33,800	10/18/2017	Urban Principal Arterial-Other
410	WICKHAM	Eau Gallie-Aurora	37,210	39,700	37,260	36,980	35,820	34,290	33,200	43,090	33,020	38,530	33,800	11/15/2017	Urban Principal Arterial-Other
411	WICKHAM	Aurora-Lake Washington	36,670	38,500	35,650	35,920	34,520	33,290	33,340	34,210	35,880	33,880	33,800	11/15/2017	Urban Principal Arterial-Other
412	WICKHAM	LkWashington-Parkway	33,130	35,500	32,190	32,250	31,060	30,560	30,450	30,270	34,040	31,770	39,800	10/24/2017	Urban Principal Arterial-Other
	WICKHAM	PARKWAY-PINEDA CSWY	35,678	36,276	34,152	36,006	34,832	33,928	34,016	34,962	35,882	36,038			
413	WICKHAM	Parkway-Post	33,540	36,160	31,910	33,800	32,200	31,000	31,750	32,140	34,330	33,360	39,800	10/25/2017	Urban Principal Arterial-Other
414	WICKHAM	Post-Kensington	38,330	37,430	35,380	36,870	35,540	34,320	34,850	36,000	34,510	38,560	39,800	11/15/2017	Urban Principal Arterial-Other
389	WICKHAM	Kensington-Mariah Dr	35,890	37,290	34,710	37,020	35,010	34,230	33,960	34,880	34,240	35,530	39,800	12/6/2017	Urban Principal Arterial-Other
540	WICKHAM	Mariah Dr-Business Ctr.	35,250	35,320	34,530	36,530	35,240	34,740	34,380	35,170	36,870	35,720	39,800	12/6/2017	Urban Principal Arterial-Other
364	WICKHAM	Businees Ctr.-Pineda Cswy.	35,380	35,180	34,230	35,810	36,170	35,350	35,140	36,620	39,460	37,020	39,800	12/6/2017	Urban Principal Arterial-Other
	WICKHAM	PINEDA CSWY-SUNTREE BLVD	31,133	30,863	29,323	26,927	24,910	24,243	23,790	23,733	27,197	26,330			
403	WICKHAM	Pineda Cswy.-Jordan Blass	33,850	33,490	32,200	30,490	27,700	26,570	25,620	26,540	29,660	28,380	39,800	10/25/2017	Urban Principal Arterial-Other
402	WICKHAM	Jordan Blass-St Andrews	29,420	29,600	27,460	24,640	22,950	22,200	21,940	20,720	25,370	24,830	39,800	10/25/2017	Urban Principal Arterial-Other
401	WICKHAM	St. Andrews-Suntree	30,130	29,500	28,310	25,650	24,080	23,960	23,810	23,940	26,560	25,780	39,800	12/13/2017	Urban Principal Arterial-Other
	WICKHAM	SUNTREE-MURRELL	36,338	37,315	36,650	31,480	29,190	29,028	29,358	29,620	31,723	31,280			
400	WICKHAM	Suntree-Pinehurst (N)	38,680	37,660	37,030	31,720	29,670	29,070	29,980	30,300	32,590	31,800	39,800	11/15/2017	Urban Principal Arterial-Other
399	WICKHAM	Pinehurst (N)-Interlachen	34,480	35,550	35,020	29,950	27,850	28,010	28,810	28,360	30,710	30,550	39,800	11/15/2017	Urban Principal Arterial-Other
397	WICKHAM	Interlachen-Baytree	36,940	38,570	37,900	32,650	30,160	29,960	29,400	30,220	32,870	31,370	39,800	11/1/2017	Urban Principal Arterial-Other
396	WICKHAM	Baytree-Murrell	35,250	37,480	36,650	31,600	29,080	29,070	29,240	29,600	30,720	31,400	39,800	11/15/2017	Urban Principal Arterial-Other
	WICKHAM	MURRELL-LAKE ANDREW	31,110	34,030	34,133	34,253	33,680	34,143	34,713			38,635			
395	WICKHAM	MURRELL-I-95	38,740	42,690	41,410	37,960	34,390	34,220	34,400	UC	UC	33,420	39,800	11/1/2017	Urban Principal Arterial-Other
394	WICKHAM	I-95-Wal-Mart/Target Ent. (signal)	32,650	35,500	35,780	37,570	38,640	39,240	39,960	UC	UC	43,850	39,800	11/1/17	Urban Principal Arterial-Other
393	WICKHAM	Wal-Mart/Target Ent.-Lake Andrew	21,940	23,900	25,210	27,230	28,010	28,970	29,780	UC	UC	NC	39,800	10/22/2014	Urban Minor Arterial
	WICKHAM	LAKE ANDREW-LEGACY	5,435	8,270	4,150	8,900	4,150	9,970	5,010	11,320	NC	8,403			
392	WICKHAM	Lake Andrew-Stadium	7,090	8,270	NC	8,900	NC	9,970	NC	11,320	NC	13,980	17,700	11/1/2017	Urban Local
391	WICKHAM	Stadium-Legacy	3,780	NC	4,150	NC	4,150	NC	5,010	NC	NC	8,470	17,700	11/1/2017	Urban Local
582	WOODY BURKE	Hibiscus-NASA					4,370	NC	NC	NC	NC	2,760	15,600	10/17/2017	Urban Major Collector

**AREA: BEACHES - NOTE: No counts were taken in 2015.**

622	BANANA RVR DRIVE	MATHERS BRIDGE-S PATRICK										3,180	15,600	12/6/2017	Urban Major Collector
	BANANA RVR DRIVE	S PATRICK-SR A1A										6,344			
623	BANANA RVR DRIVE	S PATRICK-WIMICO DR										4,350	15,600	12/6/2017	Urban Major Collector
624	BANANA RVR DRIVE	WIMICO DR-PINE TREE/OSCEOLOA										3,920	15,600	12/6/2017	Urban Major Collector
625	B RVR DR/PINE TREE DR	PINE TREE/OSCEOLA-SCHOOL RD										6,280	15,600	12/6/2017	Urban Major Collector
626	B RVR DR/PINE TREE DR	SCHOOL RD-PALM SPRINGS										5,630	15,600	12/6/2017	Urban Major Collector
627	B RVR DR/PINE TREE DR	PALM SPRINGS-SR A1A										11,540	15,600	12/13/2017	Urban Major Collector



## SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2008 - 2017

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<b>AREA: BEACHES - NOTE: No counts were taken in 2015.</b>															
	CENTRAL	SR A1A-RIDGEWOOD	4,540	2,670	4,320	2,510	4,100	2,660	4,300		3,945	3,050			
303	CENTRAL	SR A1A-N Atlantic	4,540	NC	4,320	NC	4,100	NC	4,300		5,290	NC	15,600	11/12/2014	Urban Minor Collector
301	CENTRAL	N Atlantic-Ridgewood		2,670	NC	2,510	NC	2,660	NC		2,600	3,050	15,600	11/29/2017	Urban Minor Collector
	EAU GALLIE	CAUSEWAY-SR A1A	32,465	31,180	30,685	31,370	30,790	29,930	30,830		31,215	31,040			
312	EAU GALLIE	CAUSEWAY	38,430	36,980	36,540	37,120	36,810	35,670	36,000		38,280	37,320	41,790	12/6/2017	Urban Principal Arterial-Other
293	EAU GALLIE	S PATRICK-SR A1A	26,500	25,380	24,830	25,620	24,770	24,190	25,660		24,150	24,760	41,790	12/6/2017	Urban Principal Arterial-Other
310	GEORGE KING	DAVE NISBET-N ATLANTIC	8,600	NC	7,920	NC	7,190	NC	7,480		NC	9,850	33,800	12/9/2014	Urban Minor Collector
	N. ATLANTIC	SR A1A-GEORGE KING	7,640	6,020	6,770	5,990	6,710	6,045	7,255		5,975	5,890			
298	N. ATLANTIC	SR A1A-Canaveral Bch	8,950	NC	8,330	NC	8,120	NC	8,580		NC	NC	15,600	11/12/2014	Urban Minor Collector
299	N. ATLANTIC	Canaveral Bch-Central		6,650	NC	6,600	NC	6,570	NC		6,000	6,310	15,600	12/19/2017	Urban Minor Collector
300	N. ATLANTIC	Central-George King	6,330	5,390	5,210	5,380	5,300	5,520	5,930		5,950	5,470	15,600	11/29/2017	Urban Minor Collector
	OAK ST.	SR A1A-OCEAN	3,510	4,100	3,285	4,060	3,175	4,190	3,035		3,270	4,005			
314	OAK ST.	SR A1A-Bonita	1,990	NC	1,830	NC	1,870	NC	1,660		1,840	NC	15,600	12/9/2014	Urban Major Collector
306	OAK ST.	Bonita-Surf		3,510	NC	3,430	NC	3,390	NC		3,190	3,350	15,600	11/29/2017	Urban Major Collector
305	OAK ST.	Surf-SR A1A/Ocean	5,030	4,690	4,740	4,690	4,480	4,990	4,410		4,780	4,660	15,600	11/29/2017	Urban Major Collector
307	OCEAN BEACH	VOLUSIA LN-YOUNG	3,770	3,460	UC	3,350	3,240	3,510	3,670		4,210	4,050	15,600	12/5/2017	Urban Minor Collector
	PINEDA CSWY	US 1-SR A1A	30,140	30,120	29,227	31,240	31,060	31,430	32,730		33,680	32,970			
267	PINEDA CSWY	US 1-S TROPICAL	38,680	38,130	36,740	38,590	38,760	39,870	41,210		42,750	43,050	65,600	12/6/2017	Urban Principal Arterial-Other
266	PINEDA CSWY	S TROPICAL-S PATRICK	33,960	34,240	33,890	36,770	36,480	35,960	37,510		37,930	34,570	65,600	12/6/2017	Urban Principal Arterial-Other
268	PINEDA CSWY	S PATRICK-SR A1A	17,780	17,990	17,050	18,360	17,940	18,460	19,470		20,360	21,290	41,790	12/6/2017	Urban Principal Arterial-Other
302	RIDGEWOOD	YOUNG-CENTRAL	2,180	NC	UC	NC	1,930	NC	2,000		2,360	NC	15,600	11/12/2014	Urban Minor Collector
	RIVERSIDE	US 192-EAU GALLIE	10,107	9,865	9,610	9,740	9,380	9,780	7,575		10,323	11,545			
292	RIVERSIDE	US 192-Riviera	9,920	9,520	NC	9,270	NC	9,260	NC		9,380	11,090	15,600	12/13/2017	Urban Minor Arterial
286	RIVERSIDE	Riviera-Paradise	9,710	NC	9,220	NC	8,940	NC	7,700		10,230	NC	15,600	12/9/2014	Urban Minor Arterial
313	RIVERSIDE	Paradise-Eau Gallie	10,690	10,210	10,000	10,210	9,820	10,300	7,450		11,360	12,000	15,600	11/29/2017	Urban Minor Arterial
	S. PATRICK	EAU GALLIE-BANANA RVR	24,545	21,400	23,840	22,350	24,130	21,440	22,660		22,960	21,770			
251	S. PATRICK	Eau Gallie-Yacht Club	25,710	NC	23,840	NC	24,130	NC	22,660		24,030	NC	41,790	11/19/2014	Urban Minor Arterial
253	S. PATRICK	Yacht Club-Banana Rvr Dr	23,380	21,400	NC	22,350	NC	21,440	NC		21,890	21,770	41,790	12/6/2017	Urban Minor Arterial
	S. PATRICK	BANANA RVR-PINEDA	15,903	14,663	15,908	15,807	16,375	14,953	15,790		15,361	15,823			
541	S. PATRICK	BANANA RVR DR-DESOTO		NC	19,340	NC	19,680	NC	18,320		18,670	NC	19,470	11/19/2014	Urban Minor Arterial
259	S. PATRICK	DESOTO-JACKSON	17,720	15,430	NC	17,400	NC	16,510	NC		15,230	16,700	18,590	12/6/2017	Urban Minor Arterial
262	S. PATRICK	Jackson-Titan	15,940	NC	15,340	NC	15,560	NC	14,980		15,530	NC	19,470	11/19/2014	Urban Minor Arterial
263	S. PATRICK	Titan-Shearwater Pkwy		14,180	NC	15,050	NC	14,240	NC		13,790	15,370	19,470	12/6/2017	Urban Minor Arterial
264	S. PATRICK	Shearwater Pkwy-Berkeley	14,750	NC	14,330	NC	15,030	NC	14,530		14,990	NC	19,470	11/19/2014	Urban Minor Arterial
265	S. PATRICK	Berkeley-Ocean		14,380	NC	14,970	NC	14,110	NC		13,540	15,400	18,590	12/6/2017	Urban Minor Arterial
287	S. PATRICK	Ocean-Pineda S Ramps	15,200	NC	14,620	NC	15,230	NC	15,330		15,780	NC	18,590	11/19/2014	Urban Minor Arterial
	SR AIA	INDIAN RVR CO-US 192	10,926	10,486	10,386	10,517	10,934	10,720	10,773		11,487	11,471			
295	SR AIA	Ind Rvr Co-Strawberry Ln.	2,700	2,350	2,640	2,450	2,550	2,580	2,460		3,000	2,790	24,200	11/29/2017	Urban Minor Arterial
249	SR AIA	Strawberry Ln.-Heron Dr.	4,630	4,320	4,450	4,450	4,390	4,550	4,570		4,920	4,790	24,200	11/29/2017	Urban Minor Arterial
542	SR AIA	HERON-MARLEN	8,530	8,400	8,260	8,350	8,280	8,310	8,210		9,350	8,640	24,200	11/29/2017	Urban Minor Arterial
296	SR AIA	MarLen Dr-Oak	13,560	12,780	12,670	12,870	13,080	12,690	12,870		14,410	14,310	24,200	12/6/2017	Urban Minor Arterial
260	SR AIA	Oak-Ocean	12,130	11,490	11,400	11,490	11,940	11,440	11,660		13,180	11,870	17,700	11/29/2017	Urban Minor Arterial
248	SR AIA	Ocean-Miami	16,750	16,240	16,010	16,170	17,010	16,620	16,400		16,830	17,770	17,700	12/6/2017	Urban Minor Arterial
383	SR AIA	Miami-US192	18,180	17,820	17,270	17,840	19,290	18,850	19,240		18,720	20,130	17,700	11/29/2017	Urban Minor Arterial
	SR AIA	US 192-EAU GALLIE	26,070	25,450	25,560	25,555	25,455	25,060	26,425		25,550	24,050			
250	SR AIA	US 192-Paradise	25,420	25,070	25,000	25,200	24,840	25,150	25,480		24,280	24,720	41,790	12/13/2017	Urban Principal Arterial-Other
294	SR AIA	Paradise-Eau Gallie	26,720	25,830	26,120	25,910	26,070	24,970	27,370		26,820	23,380	41,790	11/29/2017	Urban Principal Arterial-Other

\*Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.  
NC=Not Counted; UC=Under Construction

## SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2008 - 2017

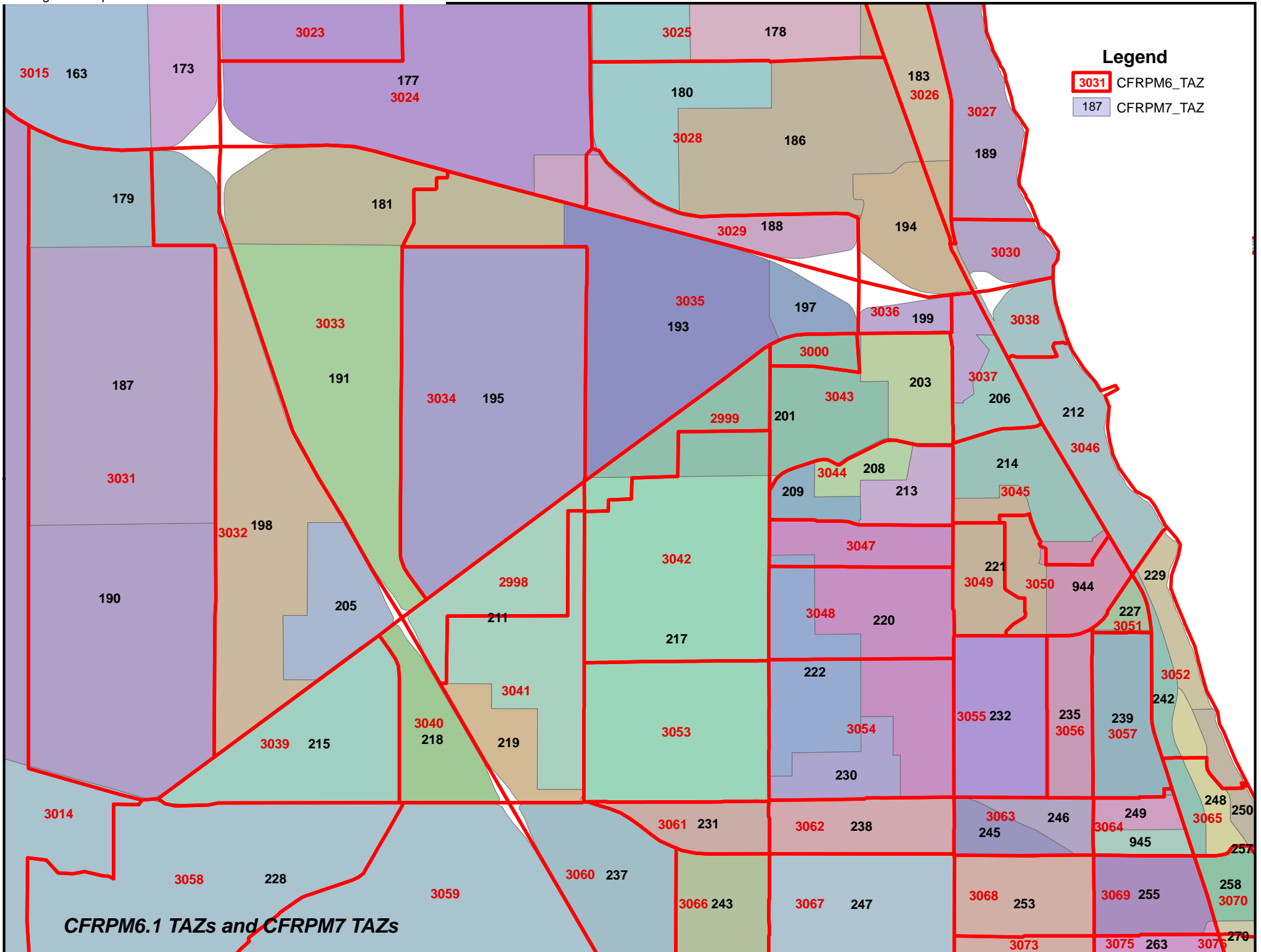
ID	ROAD	SEGMENT (Sections)	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2,017 AADT	Current MAV	Last Count Taken	Functional Classification
<b>AREA: BEACHES - NOTE: No counts were taken in 2015.</b>															
	SR AIA	EAU GALLIE-PINEDA	23,320	24,358	22,803	23,446	23,505	22,344	22,863		24,300	23,280			
252	SR AIA	Eau Gallie-Palm Springs	NC	27,430	NC	27,410	NC	25,640	NC		27,350	26,950	41,790	12/13/2017	Urban Principal Arterial-Other
254	SR AIA	Palm Springs-Pine Tree	25,940	NC	25,480	NC	26,600	NC	25,540		UC	NC	41,790	11/18/2014	Urban Principal Arterial-Other
255	SR AIA	Pine Tree-DeSoto	NC	27,610	NC	26,950	NC	25,160	NC		26,770	25,900	41,790	12/6/2017	Urban Principal Arterial-Other
256	SR AIA	DeSoto-Cassia	23,810	NC	23,830	NC	24,350	NC	23,630		UC	NC	41,790	11/18/2014	Urban Principal Arterial-Other
257	SR AIA	Cassia-Jackson	NC	25,490	NC	24,400	NC	22,810	NC		24,160	20,110	41,790	12/6/2017	Urban Principal Arterial-Other
543	SR AIA	Jackson-Patrick	22,630	NC	21,850	NC	22,580	NC	22,120		UC	NC	41,790	11/18/2014	Urban Principal Arterial-Other
258	SR AIA	Patrick-Berkeley	NC	22,410	NC	21,610	NC	20,510	NC		23,320	24,170	41,790	12/13/2017	Urban Principal Arterial-Other
544	SR AIA	Berkeley-Ocean	20,900	NC	20,050	NC	20,490	NC	20,160		UC	NC	41,790	11/18/2014	Urban Principal Arterial-Other
545	SR AIA	Ocean-Pineda	NC	18,850	NC	16,860	NC	17,600	NC		19,900	19,270	41,790	12/6/2017	Urban Principal Arterial-Other
	SR AIA	PINEDA-S END ONE-WAY	18,480	18,115	17,850	17,950	17,595	17,095	17,560		18,455	18,850			
261	SR AIA	Pineda-Main Gate	19,360	19,050	19,040	18,780	18,440	17,840	18,490		20,170	19,770	41,790	12/6/2017	Urban Principal Arterial-Other
387	SR AIA	Main Gate-S End One Way	17,600	17,180	16,660	17,120	16,750	16,350	16,630		16,740	17,930	41,790	12/6/2017	Urban Principal Arterial-Other
	SR AIA (NORTHBOUND)	ONE WAY NORTH	14,225	12,370	12,005	12,270	11,675	11,945	11,465		12,030	11,745			
269	SR AIA	S End-Minutemen Cswy	12,660	11,250	10,880	11,100	10,620	10,860	10,530		10,530	10,790	19,440	12/6/2017	Urban Principal Arterial-Other
272	SR AIA	Minutemen-N End One Way	15,790	13,490	13,130	13,440	12,730	13,030	12,400		13,530	12,700	19,440	12/13/2017	Urban Principal Arterial-Other
	SR AIA (SOUTHBOUND)	ONE WAY SOUTH	12,135	12,700	12,210	11,730	12,240	12,000	11,675		11,935	11,960			
270	SR AIA	N End One Way-Minutemen	14,690	13,980	13,550	12,990	13,510	13,090	12,690		12,690	13,450	19,440	12/5/2017	Urban Principal Arterial-Other
546	SR AIA	Minutemen-S End One Way	9,580	11,420	10,870	10,470	10,970	10,910	10,660		11,180	10,470	19,440	12/6/2017	Urban Principal Arterial-Other
	SR AIA	N END ONE WAY-SR 520	35,452	34,076	32,090		32,452	31,816	30,930		33,743	33,197			
273	SR AIA	Cocoa Isles-Tulip	33,960	32,600	30,130	UC	31,730	30,660	29,760		31,270	30,860	34,020	12/5/2017	Urban Principal Arterial-Other
274	SR AIA	Tulip-Bahama Blvd	34,880	33,290	31,580	UC	31,840	31,620	30,210		35,710	31,750	34,020	12/13/2017	Urban Principal Arterial-Other
275	SR AIA	Bahama Blvd-S Banana	34,920	NC	32,310	UC	32,390	NC	30,890		NC	32,510	34,020	11/18/2014	Urban Principal Arterial-Other
276	SR AIA	S Banana-Fisher Park	NC	34,260	NC	UC	NC	33,150	NC		34,830	34,020	34,020	12/13/2017	Urban Principal Arterial-Other
277	SR AIA	Fisher Park-St Lucie	37,490	36,070	33,780	UC	33,730	32,470	32,670		34,880	35,590	34,020	12/5/2017	Urban Principal Arterial-Other
278	SR AIA	St Lucie-Marion	36,010	NC	32,650	UC	32,570	NC	31,120		31,900	NC	34,020	11/18/2014	Urban Principal Arterial-Other
279	SR AIA	Marion-SR 520	NC	34,160	NC	UC	NC	31,180	NC		33,870	34,450	34,020	12/5/2017	Urban Principal Arterial-Other
	SR AIA	SR 520-N ATLANTIC	34,145	31,793	30,758	29,325	29,905	29,350	30,078		30,070	29,823			
280	SR AIA	SR 520-Osceola	34,750	30,910	29,880	26,330	28,370	28,300	28,450		27,780	29,510	39,800	12/5/2017	Urban Principal Arterial-Other
281	SR AIA	Osceola-Shepard	32,520	30,120	28,920	28,480	28,210	28,110	28,360		28,390	28,520	39,800	12/13/2017	Urban Principal Arterial-Other
282	SR AIA	Shepard-McKinley	35,020	NC	32,450	NC	32,460	NC	32,150		30,790	NC	39,800	11/12/2014	Urban Principal Arterial-Other
297	SR AIA	McKinley-Buchanan	NC	33,310	NC	31,510	NC	30,620	NC		32,990	32,960	39,800	12/5/2017	Urban Principal Arterial-Other
283	SR AIA	Buchanan-N Atlantic	34,290	32,830	31,780	30,980	30,580	30,370	31,350		30,400	28,300	39,800	12/13/2017	Urban Principal Arterial-Other
	SR AIA	N ATLANTIC-SR 401	30,835	29,305	28,310	26,900	26,840	28,310	28,550		28,205	26,760			
285	SR AIA	N Atlantic-Central	27,810	26,590	25,210	24,470	23,920	24,840	24,680		25,490	26,760	41,790	12/5/2017	Urban Principal Arterial-Other
284	SR AIA	Central-SR 401	33,860	32,020	31,410	29,330	29,760	31,780	32,420		30,920	NC	39,800	3/1/2016	Urban Principal Arterial-Other
309	SR 401	SR 528-CCAFS	10,720	11,840	12,660	11,190	10,830	11,860	12,110		12,860	11,430	39,800	11/29/2017	Urban Minor Arterial
	SR 520	W M.I. CAUSEWAY-SR A1A	26,580	26,225	24,975	25,055	24,000	24,130	24,685		24,925	24,575			
288	SR 520	CAUSEWAY	27,180	27,200	25,720	25,570	24,180	24,610	25,520		25,640	25,190	39,800	12/5/2017	Urban Principal Arterial-Other
311	SR 520	E END CSWY-SR A1A	25,980	25,250	24,230	24,540	23,820	23,650	23,850		24,210	23,960	34,020	12/13/2017	Urban Principal Arterial-Other
	US 192	CAUSEWAY-SR A1A	29,560	28,540	27,415	29,230	26,290	27,680	28,385		29,195	29,500			
289	US 192	CAUSEWAY	35,690	34,180	32,600	35,030	31,270	33,360	34,140		35,000	35,640	41,790	12/6/2017	Urban Principal Arterial-Other
290	US 192	RIVERSIDE-SR A1A	23,430	22,900	22,230	23,430	21,310	22,000	22,630		23,390	23,360	34,020	11/29/2017	Urban Principal Arterial-Other

\*Note: 2016 AADT's Beaches area were counted twice in 2016 and the AADT listed is the average of the two counts.  
NC=Not Counted; UC=Under Construction

## SPACE COAST TRANSPORTATION PLANNING ORGANIZATION TRAFFIC COUNTS: 2008 - 2017

ID	ROAD	SEGMENT (Sections)	2008 AADT	2009 AADT	2010 AADT	2011 AADT	2012 AADT	2013 AADT	2014 AADT	2015 AADT	2016 AADT	2,017 AADT	Current MAV	Last Count Taken	Functional Classification
<b>INTERSTATE 95 - COUNTS PROVIDED BY FLORIDA DEPARTMENT OF TRANSPORTATION</b>															
70-0134	INTERSTATE 95	INDIAN RIVER COUNTY - MALABAR (SR 514	33,390	35,648	35,519	34,330	35,277	35,000	39,614	40,650	42,760	45,330	64,000		Rural Principal Arterial-Interstate
70-0428	INTERSTATE 95	MALABAR (SR 514) - PALM BAY	77,500	49,500	48,500	48,500	48,500	31,500	55,000	59,500	64,500	61,500	111,800		Urban Principal Arterial-Interstate
70-0371	INTERSTATE 95	PALM BAY - US 192	80,000	78,000	77,000	68,000	68,000	65,000	67,500	72,000	81,500	78,000	111,800		Urban Principal Arterial-Interstate
70-0372	INTERSTATE 95	US 192 - EAU GALLIE (SR 518)	81,500	79,500	78,000	68,000	68,000		41,000	43,500	68,500	72,500	111,800		Urban Principal Arterial-Interstate
70-0415	INTERSTATE 95	EAU GALLIE (SR 518)-WICKHAM	83,000	69,500	68,500	68,500	69,500	76,000	76,500	81,000	82,500	87,500	111,800		Urban Principal Arterial-Interstate
70-0388	INTERSTATE 95	WICKHAM-FISKE	77,000	70,000	69,000	55,000	57,500	55,000	57,000	60,500	68,000	72,500	111,800		Urban Principal Arterial-Interstate
70-9919	INTERSTATE 95	FISKE-SR 520	39,500	63,609	63,600	63,291	64,312	67,139	71,181	77,120	81,760	85,450	111,800		Urban Principal Arterial-Interstate
70-0366	INTERSTATE 95	SR 520-SR 524	63,000	61,400	61,400	61,400	61,400		37,500	40,000	42,000	45,000	111,800		Urban Principal Arterial-Interstate
70-0368	INTERSTATE 95	SR 524-SR 528	55,500	54,500	54,500	52,000	53,000	50,500	54,000	57,000	65,000	58,000	111,800		Urban Principal Arterial-Interstate
70-0439	INTERSTATE 95	SR 528-PORT ST. JOHNS	48,500	45,500	36,500	36,500	36,500	21,900	23,000	24,500	84,500	90,000	111,800		Urban Principal Arterial-Interstate
70-0401	INTERSTATE 95	PORT ST. JOHN CONNECTOR-SR 407	41,000	38,500	39,000	53,500	53,500	37,000	38,500	42,000	45,000	52,500	111,800		Urban Principal Arterial-Interstate
70-0402	INTERSTATE 95	SR 407-SR 50	39,500	39,000	39,000	39,000	39,000	23,400	24,200	25,700	36,500	38,500	111,800		Urban Principal Arterial-Interstate
70-0364	INTERSTATE 95	SR 50-SR 406	42,500	39,500	39,500	52,500	52,500	36,000	37,500	39,500	26,500	28,500	111,800		Urban Principal Arterial-Interstate
70-0363	INTERSTATE 95	SR 406-SR 46	33,000	34,500	31,000	31,500	29,500	38,500	40,000	34,000	39,500	43,500	111,800		Urban Principal Arterial-Interstate
70-0322	INTERSTATE 95	SR 46-DEERING PARKWAY	27,122	27,654	27,800	26,524	26,283	26,000	25,000	25,500	32,680	34,750	64,000		Rural Principal Arterial-Interstate
70-0436	INTERSTATE 95	DEERING PARKWAY-VOLUSIA CO.	24500	26000	24,500	30,500	30,000	26,500	27,500	36,000	29,000	29,000	64,000		Rural Principal Arterial-Interstate

## **Appendix B1**



SR 524 DTTM Study - Year 2015 Land Use Changes

CFRPM6.1 Year 2015												CFRPM7 Year 2015												CFRPM6.1 Year 2015 Model Changed													
Zones	SF	MF	HOTEL	IND	COM	SER	TOTAL	SCHOLL	Zones	SF	MF	HOTEL	IND	COM	SER	TOTAL	SCHOLL	Zones	SF	MF	HOTEL	IND	COM	SER	TOTAL	SCHOLL											
3031	128	310	4	10	0	0	5	0	101	106	0	179	160	360	0	0	0	0	2	0	9	11	0	3031	332	766	0	0	0	0	20	3	103	126	0		
												187	0	0	0	0	0	11	0	88	99	0															
3014	48	112	138	317	0	0	7	18	6	31	0	190	172	406	0	0	0	0	7	3	6	16	0	3014	48	112	138	317	0	0	7	18	6	31	0		
3032	185	347	255	462	216	370	17	24	30	71	0	198	198	363	0	0	0	0	15	7	23	45	0	3032	609	1118	0	0	121	242	17	24	30	71	0		
												205	411	755	0	0	121	242	0	0	5	5	0														
3033	339	820	3	7	0	0	26	12	19	57	0	181	60	141	0	0	0	0	3	8	0	11	0	3033	339	820	3	7	0	0	26	55	42	123	0		
3034	394	964	8	19	0	0	12	22	64	98	0	191	331	804	0	0	0	0	30	13	44	87	0	3034	394	964	8	19	0	0	12	65	87	164	0		
3035	1276	2970	0	0	0	0	85	78	52	215	0	193	1041	2433	0	0	0	27	31	60	118	0	3035	1276	2970	0	0	0	0	85	121	75	281	0			
												195	392	963	8	19	0	0	13	8	42	63	0														
												197	167	390	0	0	0	0	0	181	56	237	0														
3036	0	0	0	0	0	0	0	5	116	121	0	199	0	0	58	61	0	0	0	0	94	94	0	3036	0	0	0	0	0	0	0	5	116	121	0		
3037	0	0	130	138	0	0	5	444	202	651	0	206	0	0	37	61	0	0	0	447	221	668	0	3037	0	0	130	138	0	0	5	444	202	651	0		
3038	168	347	3	6	0	0	0	0	0	0	0	212	478	933	85	161	0	0	49	56	164	269	0	3038	168	347	3	6	0	0	0	0	0	0	0		
3046	309	584	83	154	0	0	32	97	162	291	0	3046	309	584	83	154	0	0	32	97	162	291	0	3046	309	584	83	154	0	0	32	97	162	291	0		
3039	258	552	45	95	0	0	3	51	48	102	0	215	369	788	0	0	0	0	11	11	32	54	89	3039	368	788	45	95	0	0	3	51	48	102	89		
2998	0	0	0	0	0	0	53	35	21	109	0	211	0	0	0	0	0	253	40	35	328	0	2998	0	0	0	0	0	0	253	40	35	328	0			
3040	10	24	12	20	177	398	3	33	101	137	0	218	80	176	1	2	152	304	3	3	62	68	0	3040	80	176	12	20	177	398	3	33	101	137	0		
3041	0	0	0	0	150	257	375	327	125	827	0	219	0	0	0	0	84	168	118	374	44	536	0	3041	0	0	0	0	150	257	375	327	125	827	0		
2999	16	40	0	0	0	0	1	0	7	8	0	201	37	78	0	0	0	0	3	215	194	412	0	2999	16	40	0	0	0	0	1	0	7	8	0		
3042	83	174	63	130	0	0	15	47	39	101	15	203	236	499	296	625	0	0	3	0	7	10	0	3042	83	174	63	130	0	0	15	47	39	101	15		
3053	407	1046	62	157	0	0	13	21	22	56	0	217	546	1366	43	100	0	0	44	26	77	147	36	3053	407	1046	62	157	0	0	13	21	22	56	0		
3000	46	114	13	25	0	0	5	26	21	52	0														3000	46	114	13	25	0	0	5	26	21	52	0	
3043	437	920	292	610	0	0	3	116	93	212	0														3043	437	920	292	610	0	0	3	116	93	212	0	
3044	122	292	2	5	0	0	1	15	2236	2252	1040	208	113	273	0	0	0	0	0	1	1	0		3044	122	292	2	5	0	0	7	15	2533	2555	7671		
												209	0	0	0	0	0	0	0	30	30	1498															
												213	5	13	0	0	0	0	7	13	2502	2522	6173														
3047	106	208	30	58	0	0	0	37	173	210	0	220	855	1790	502	1075	0	0	136	121	118	375	200	3047	346	679	30	58	0	0	0	37	173	210	0		
3048	343	706	321	645	0	0	14	114	101	229	427	222	397	911	0	0	0	0	3	9	128	140	785	3048	583	1200	321	645	0	0	3	90	101	194	427		
3054	433	1001	288	656	0	0	159	83	140	382	862	230	109	254	0	0	0	0	0	0	0	0	0	3054	433	1001	288	656	0	0	145	83	140	368	862		
3045	165	304	426	780	0	0	5	28	96	129	703	214	0	0	414	766	0	0	2	7	113	122	0	3045	0	0	414	766	0	0	2	7	113	122	0		
3049	192	305	93	145	0	0	3	124	155	282	75	221	701	1375	145	250	0	0	15	83	184	282	720	3049	701	1375	145	250	0	0	15	83	184	282	720		
3050	488	1048	61	129	0	0	29	120	119	268	64	944	252	494	52	89	0	0	0	21	80	101	0	3050	252	494	52	89	0	0	0	21	80	101	0		
3051	0	0	0	0	0	0	3	95	153	251	0	227	0	0	0	0	0	0	0	40	158	198	0	3051	0	0	0	0	0	0	0	40	158	198	0		
3055	260	523	203	403	0	0	31	45	153	229	821	232	458	922	66	132	0	0	32	132	213	377	836	3055	458	922	203	403	0	0	31	132	213	376	836		
3056	514	1227	0	0	0	0	11	4	21	36	0	235	514	1232	0	0	0	0	6	33	39	0	0	3056	514	1227	0	0	0	0	11	4	21	36	0		
3057	194	381	359	696	0	0	128	73	140	341	0	239	226	445	390	765	0	0	113	46	31	190	0	3057	226	445	390	765	0	0	113	46	31	190	0		
3052	150	252	108	177	73	125	1	155	546	702	42	229	81	135	0	0	18	36	10	44	97	151	0	3052	150	252	108	177	41	82	33	168	264	465	42		
3065	13	19	301	436	82	220	150	183	1128	1461	0	242	26	43	0	0	23	46	23	124	167	314	0	3065	165	271	301	436	46	92	134	75	919	1128	0		
												248	76	126	16	26	46	92	78	48	674	800	16														
												250	132	214	202	305	0	0	56	27	245	328	20														
3061	14	40	8	23	0	0	123	201	244	568	0	231	15	43	0	0	0	0	86	194	351	631	0	3061	14	40	8	23	0	0	123	201	351	675	0		
3062	64	123	26	49	0	0	51	111	89	251	0	238	104	196	0	0	0	0	57	40	137	234	0	3062	64	123	26	49	0	0	51	111	89	251	0		
3063	70	151	149	319	0	0	192	138	325	655	31	245	0	0	56	124	0	0	41	158	188	387	0	3063	140	307	149	319	0	0	192	238	325	755	31		
												246	140	307	25	54	0	0	108	80	70	258	14														
3064	71	146	154	309	0	0	32	82	141	255	0	249	101	206	86	175	0	0	14	0	22	36	0	3064	161	329	154	309	0	0	32	82	141	255	0		
												945	60	123	50	101	0	0	27	70	127	224															
3058	40	64	11	16	0	0	15	1	39	55	86	228	893	1358	1	2	75	150	10	9	290	309	0	3058	40	64	11	16	0	0	15	1	39	55	86		
3059	175	284	552	829	134	229	5	68	126	199	0														3059	853	1294	552	829	134	229	5	68	251	324	0	

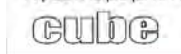
## **Appendix C1**

### Year 2040 CF CFRPM61\_DAILY - Total Traffic Volumes (PSWADT) - Before Validation



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- NUM\_LANES=2
- NUM\_LANES=3
- NUM\_LANES=4
- NUM\_LANES>4
- FACILITY=51

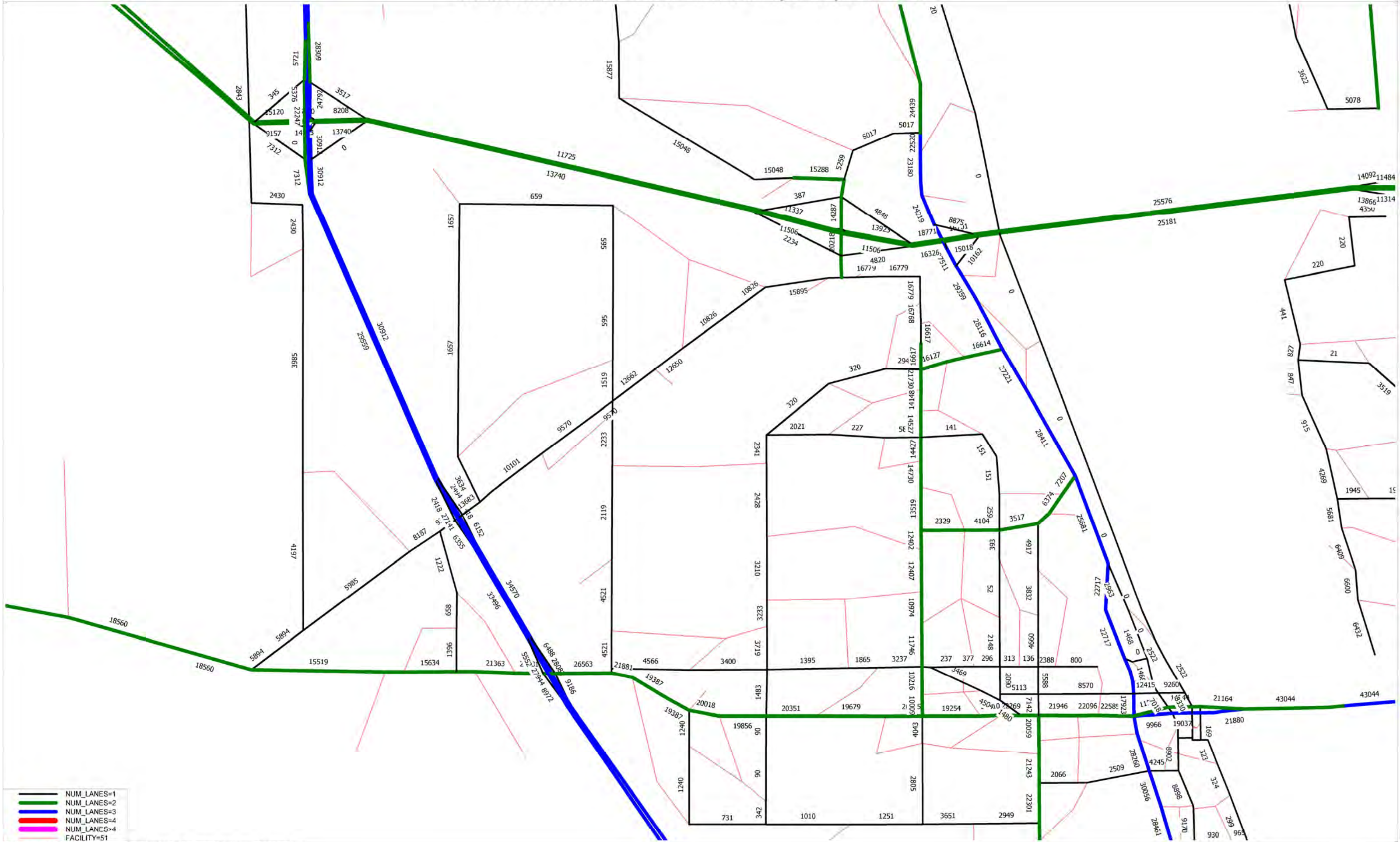
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## **Appendix D1**

### Year 2040 CF CFRPM61\_DAILY - Total Traffic Volumes (PSWADT) - After Validation



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- NUM\_LANES=3
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## **Appendix E1**

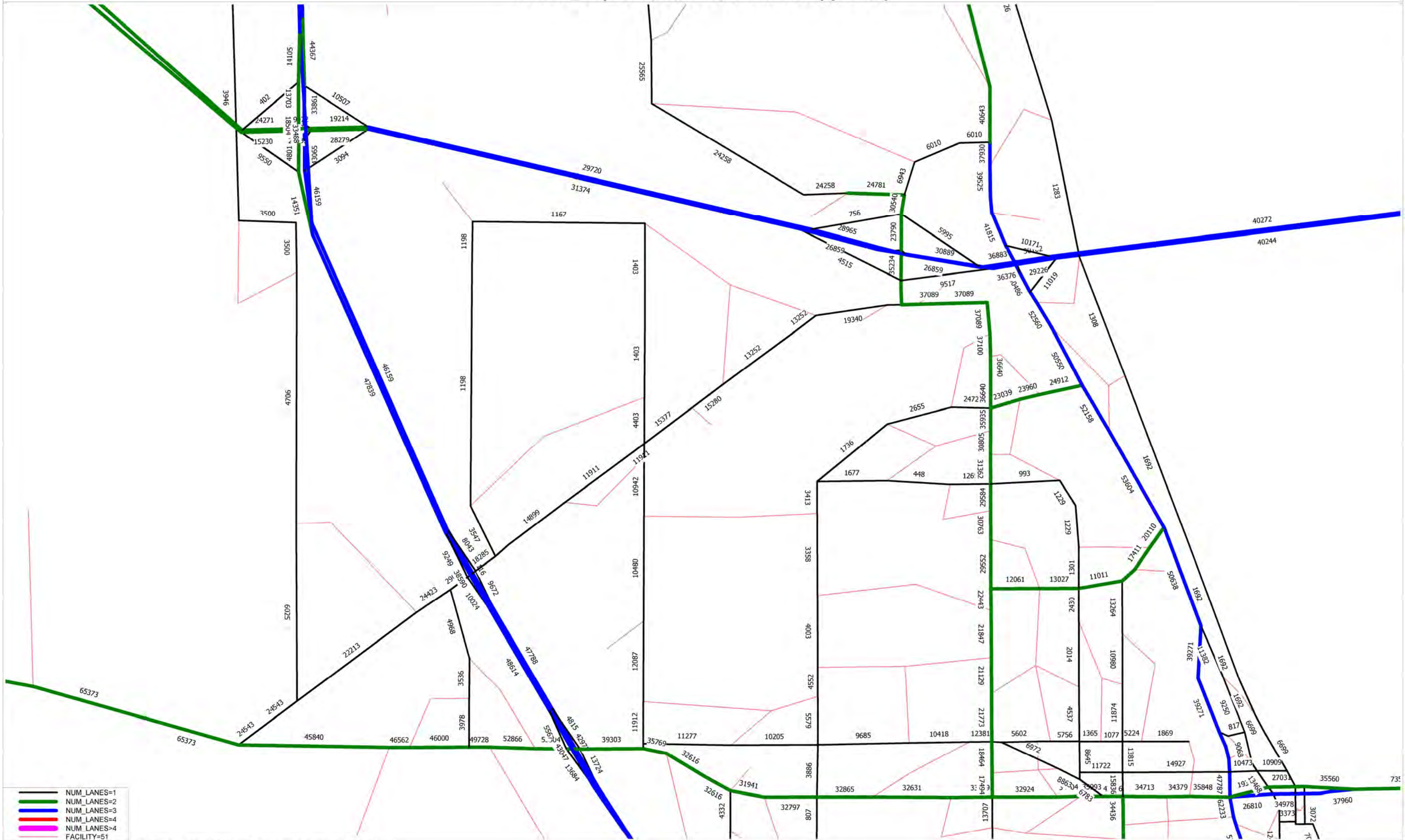


SR 524 From W Friday Rd to Industry Rd  
Design Traffic Technical Memorandum  
Financial Project ID: 437983-1

# Appendix H

## Model Plots

CFRPM61\_Daily - Year 2045 CF - SR 524 DTTM Study (No Build)



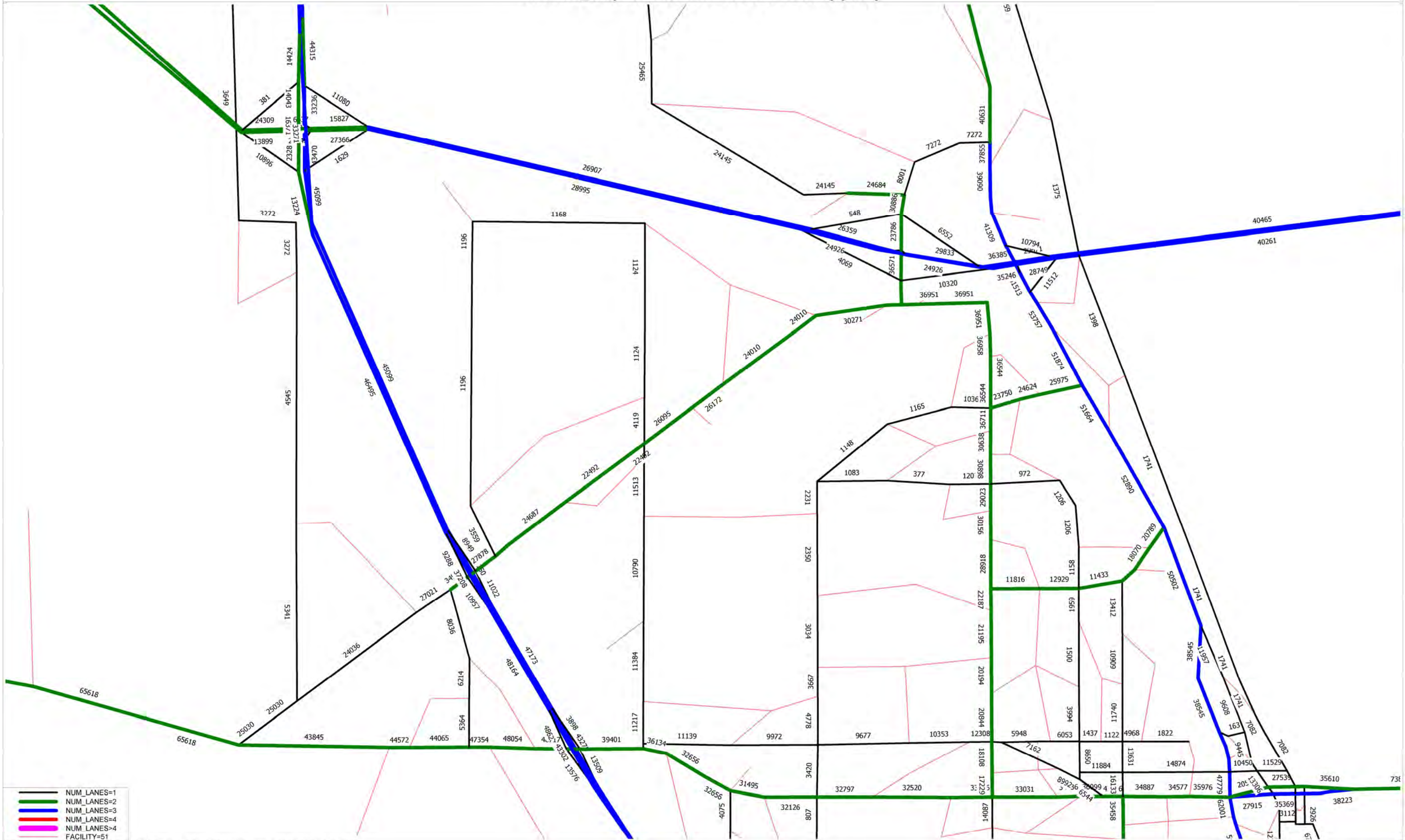
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(Licensed to Vanasse Hangen Brustlin Inc)

### CFRPM61\_Daily - Year 2045 CF - SR 524 DTTM Study (Build)



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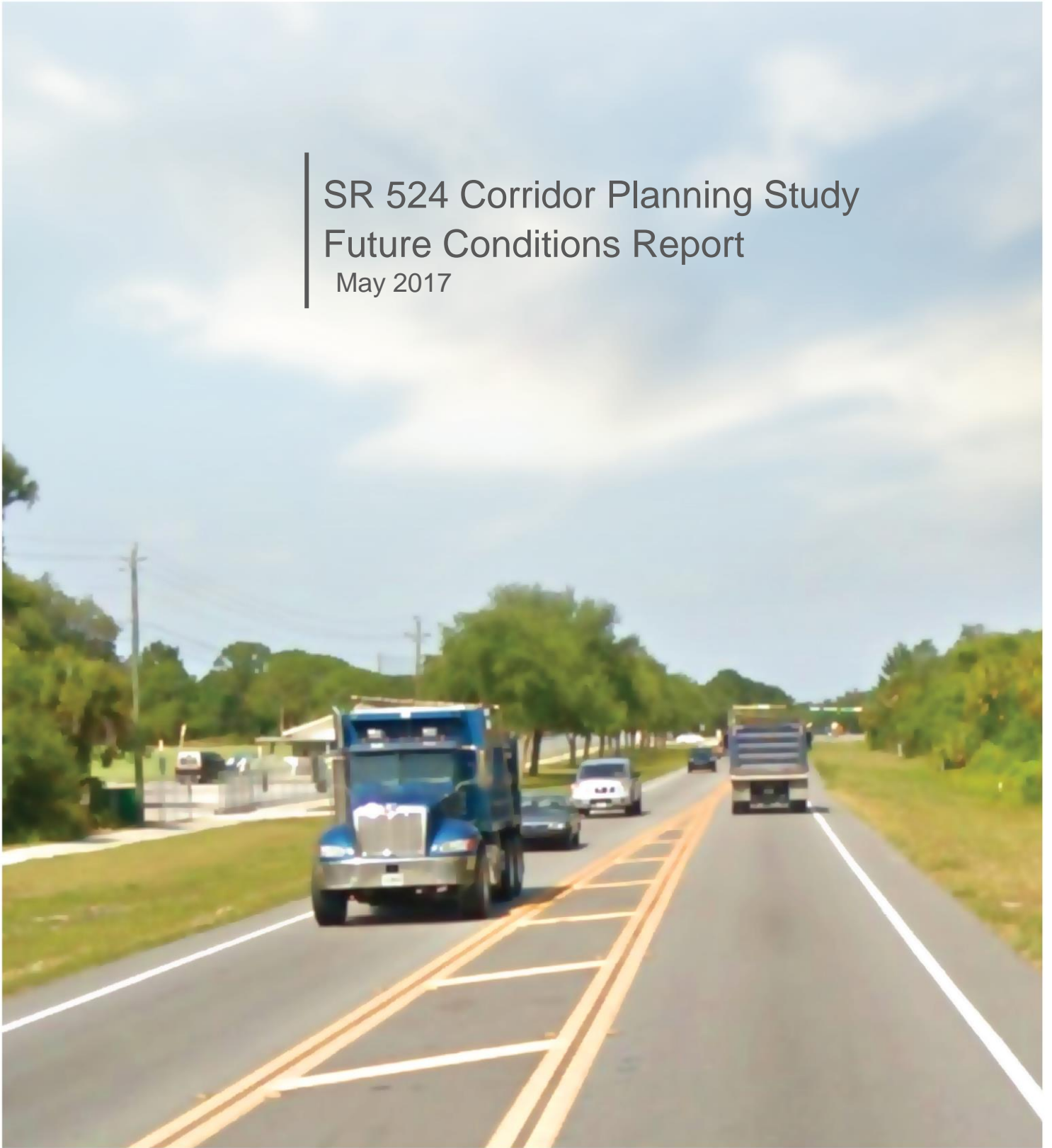
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# **Appendix H**

## Previous Reports



SR 524 Corridor Planning Study  
Future Conditions Report  
May 2017



### 3.0 Future Traffic Conditions

#### 3.1 Methodology

This section provides an overview of the traffic forecasting methodology and revision process used for this study. The methodology followed is consistent with the *Project Traffic Forecasting Procedure* (Topic No. 525-030-120-h) adopted by FDOT in April 2012, and the 2014 *Project Traffic Forecasting Handbook*. Operational analyses were conducted in accordance with the *Traffic Analysis Handbook: A Reference for Planning and Operations* – also published by FDOT in 2014.

In **October 2016**, socioeconomic (SE) model data from 2010 and 2040 was acquired from FDOT District 5. Upon analysis of the SE data, the study team determined several of the now known future developments were not accounted for, because the model had been developed several years prior and they had not yet been planned. These include the proposed Walmart Distribution Center, Flying J Travel Center, and residential development between Cox Road and Industry Road. In **December 2016**, the study team met with FDOT, SCTPO, and the City of Cocoa to obtain feedback on the modeling methodology and determine which updates should be made to the SE data to reflect newly proposed development along the Corridor. SCTPO and the City of Cocoa made changes to 7 of the 29 TAZs - the revised SE data is listed by TAZ in Table 3.1 and illustrated in Figure 3.1.

In **January 2017**, FDOT used the revised SE data in a sub-area model to produce 2040 segment volumes for the SR 524 Corridor Study. Separately, in February 2017, as part of the SR 524/I-95 IOAR study, year 2038 turning movement projections were developed for the interchange ramp terminals, adjacent Friday Road North and South, and new Walmart Distribution Center intersections.

To estimate turning movement projections for the three remaining signalized intersections along the SR 524 Corridor (Cox Road, London Boulevard, and Industry Road), the study team used the following methodology:

1. Calculated existing turning ratios at each intersection using AM and PM counts.
2. Multiplied the 2040 AADT model link approach volumes by .09 to replicate a peak hour approach volume at Cox and Industry.
3. Applied the existing turning ratios to the “calculated” peak hour intersection approach volumes.
4. Compared the calculated turning movements to current volumes. In some cases the calculated 2040 turning volumes were lower than current counts (NB Cox, SB Cox, SB London), and NB Industry is not reflected in the model at all as it is just a shopping center exit. In these cases, the current turning volume was multiplied by 1.1 (professional judgment). The resultant volumes though developed for 2040 were considered representative of 2038 conditions.

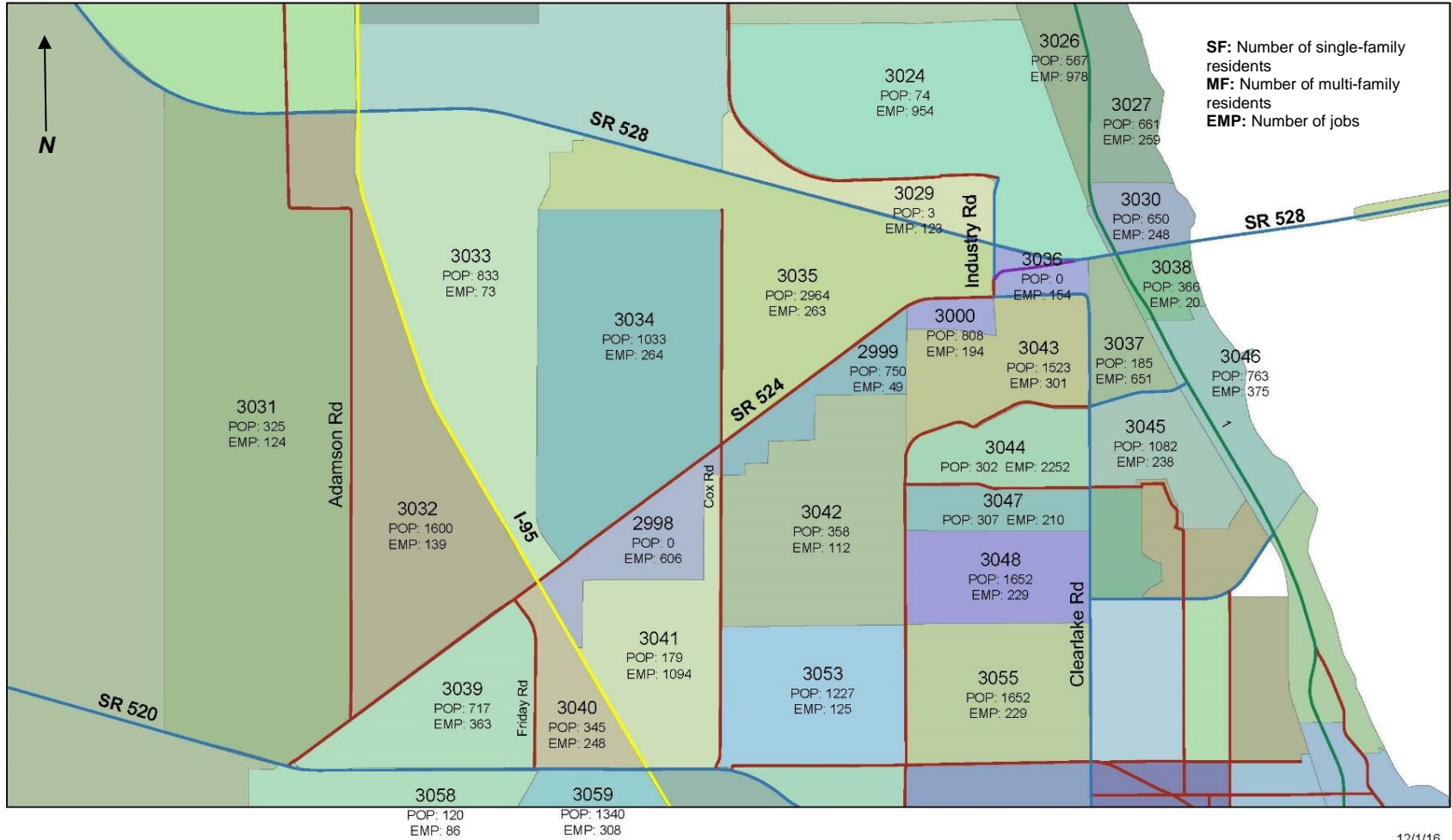
Once the study team had revised 2038 turning movement volumes for all eight future intersections along the Corridor, a future traffic analysis was conducted using HCM 2010 and Synchro, summarized in the following sections.

**Table 3.1: Socioeconomic Projections by TAZ (2010 and 2040)**

TAZ	Population			Employment		
	2010	2040	% Growth	2010	2040	% Growth
2998	0	0	N/A	9	606	6,633%
2999	0	750	100%	0	49	100%
3000	0	808	100%	24	194	708%
3026	567	567	0%	788	978	24%
3027	599	661	10%	213	259	22%
3028	68	74	9%	785	954	22%
3029	0	3	100%	91	123	35%
3030	623	650	4%	192	248	29%
3031	316	325	3%	103	124	20%
3032	1,027	1,600	56%	58	139	140%
3033	818	833	2%	54	73	35%
3034	964	1,033	7%	65	264	306%
3035	2,945	2,964	1%	205	263	28%
3036	0	0	0%	114	154	35%
3037	130	185	42%	651	651	0%
3038	347	366	5%	0	20	100%
3039	627	717	14%	49	363	641%
3040	345	345	0%	115	248	116%
3041	179	179	0%	773	1,094	42%
3042	291	358	23%	99	112	13%
3043	1,523	1,523	0%	194	301	55%
3044	293	302	3%	2,252	2,252	0%
3045	1,082	1,082	0%	107	238	122%
3046	765	763	0%	274	375	37%
3047	255	307	20%	210	210	0%
3048	1,283	1,652	29%	229	229	0%
3053	1,189	1,227	3%	42	125	198%
3057	71	120	69%	48	86	79%
3058	1,221	1,340	10%	176	308	75%
<b>Total</b>	<b>17,528</b>	<b>20,723</b>		<b>7,920</b>	<b>11,040</b>	

Source: Space Coast TPO.

**Figure 3.1: Socioeconomic Projections by TAZ (2040)**



Source: Space Coast TPO.

12/1/16

# **Appendix H**

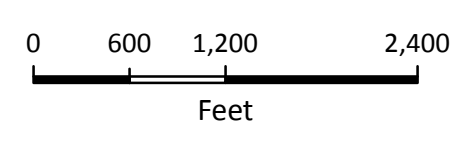
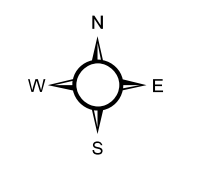
## **Emails from City of Cocoa**

# City of Cocoa City-Wide Development Projects

## Development Project Names

- 2 Grissom Parkway Industrial Park
- 4 Adamson Creek
- 5 Emerald Lakes
- 7 Future WalMart Distribution Center/Industrial Park
- 10 The Preserve
- 11 Future Fire Station
- 12 London Cove Commercial
- 13 London Cove Residential
- 14 Flying J Travel Center
- 15 GeNO, LLC Expansion
- 16 Diamondback Expansion
- 17 The Net House
- 18 Kel-Tec Expansion
- 19 Erdman Nissan & Toyota
- 20 Cross-Brands Manufacturing
- 21 Future Large-Scale Commercial
- 22 Wawa
- 23 Cumberland Farms
- 24 Domino's

- Parcels
- City Boundary

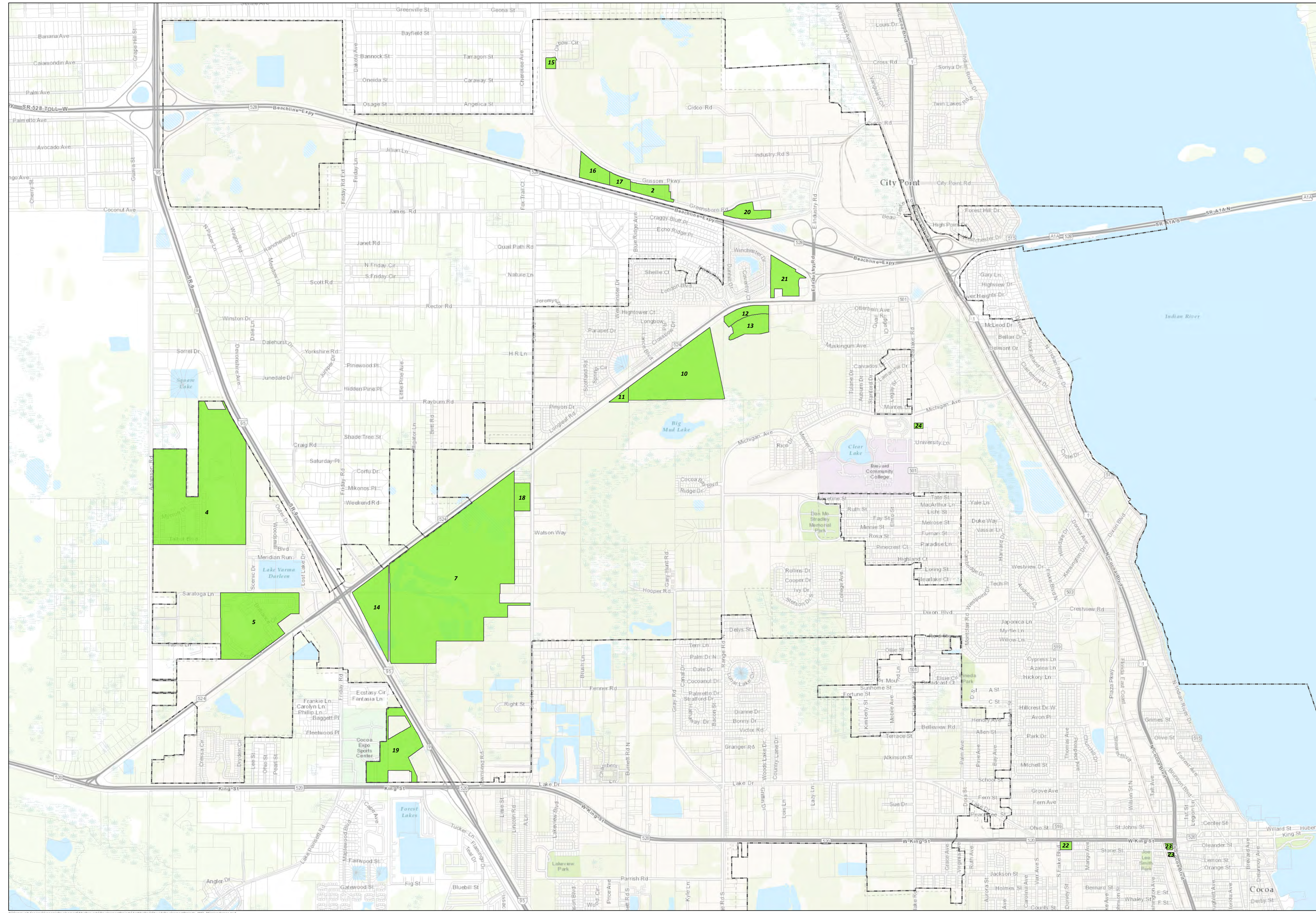


Map Date: 9/8/2016



**City of Cocoa**  
65 Stone St.  
Cocoa, FL 32922  
[www.cocofl.org](http://www.cocofl.org)

Map Disclaimer:  
The map is created from the City of Cocoa's GIS database. The City of Cocoa makes no claims, no representations, and no warranties, express or implied, concerning the validity (express or implied), the reliability or the accuracy of the GIS data and GIS data products furnished by the City, including the implied validity of any uses of such data.



## Kandala, Srinivas

---

**From:** Charlene Neuterman <cneuterman@cocoafl.org>  
**Sent:** Tuesday, April 09, 2019 7:51 AM  
**To:** Pemmanaboina, Rajashekar; Samia Singleton  
**Cc:** Ambikapathy, Babuji; Kandala, Srinivas  
**Subject:** RE: [External] RE: City of Cocoa - Development Projects

Cocoa Landings is not an active development site.

### Charlene Neuterman

**Community Services  
Deputy Director**  
65 Stone Street, Cocoa, FL 32922  
Office: (321) 433-8509  
Mobile: (321) 313-0393  
[cneuterman@cocoafl.org](mailto:cneuterman@cocoafl.org)

---

**From:** Pemmanaboina, Rajashekar <RPemmanaboina@VHB.com>  
**Sent:** Monday, April 8, 2019 10:06 PM  
**To:** Charlene Neuterman <cneuterman@cocoafl.org>; Samia Singleton <ssingleton@cocoafl.org>  
**Cc:** Ambikapathy, Babuji <BAmbikapathy@VHB.com>; Kandala, Srinivas <SKandala@VHB.com>  
**Subject:** RE: [External] RE: City of Cocoa - Development Projects

Hi Charlene,

I forgot to ask about Cocoa Landings, which is proposed at the SE corner of SR 524/Cox Rd. The development map that is provided in the website does not show Cocoa Landings, however, it was mentioned in one of the previous studies. So, I was wondering if you can share any information regarding this development. I just wanted to make sure that this development is still active.

Regards,

### Raj Pemmanaboina

P 407.965.0572  
[www.vhb.com](http://www.vhb.com)

---

**From:** Pemmanaboina, Rajashekar  
**Sent:** Monday, April 8, 2019 5:21 PM  
**To:** Charlene Neuterman <[cneuterman@cocoafl.org](mailto:cneuterman@cocoafl.org)>; Samia Singleton <[ssingleton@cocoafl.org](mailto:ssingleton@cocoafl.org)>  
**Cc:** Ambikapathy, Babuji <[BAmbikapathy@VHB.com](mailto:BAmbikapathy@VHB.com)>; Kandala, Srinivas <[SKandala@VHB.com](mailto:SKandala@VHB.com)>  
**Subject:** RE: [External] RE: City of Cocoa - Development Projects

Hi Charlene,

Thanks for the reply. Just one last question. Can we assume (for our study purpose) that this development will be opened by 2025?

Regards,

## Raj Pemmanaboina

P 407.965.0572  
[www.vhb.com](http://www.vhb.com)

---

**From:** Charlene Neuterman <[cneuterman@cocoafl.org](mailto:cneuterman@cocoafl.org)>  
**Sent:** Monday, April 8, 2019 5:10 PM  
**To:** Pemmanaboina, Rajashekar <[RPemmanaboina@VHB.com](mailto:RPemmanaboina@VHB.com)>; Samia Singleton <[ssingleton@cocoafl.org](mailto:ssingleton@cocoafl.org)>  
**Cc:** Ambikapathy, Babuji <[BAmbikapathy@VHB.com](mailto:BAmbikapathy@VHB.com)>; Kandala, Srinivas <[SKandala@VHB.com](mailto:SKandala@VHB.com)>  
**Subject:** RE: [External] RE: City of Cocoa - Development Projects

I have no date for the opening of either development. It could be a few years away.

## Charlene Neuterman

**Community Services  
Deputy Director**  
65 Stone Street, Cocoa, FL 32922  
Office: (321) 433-8509  
Mobile: (321) 313-0393  
[cneuterman@cocoafl.org](mailto:cneuterman@cocoafl.org)

---

**From:** Pemmanaboina, Rajashekar <[RPemmanaboina@VHB.com](mailto:RPemmanaboina@VHB.com)>  
**Sent:** Monday, April 8, 2019 5:08 PM  
**To:** Charlene Neuterman <[cneuterman@cocoafl.org](mailto:cneuterman@cocoafl.org)>; Samia Singleton <[ssingleton@cocoafl.org](mailto:ssingleton@cocoafl.org)>  
**Cc:** Ambikapathy, Babuji <[BAmbikapathy@VHB.com](mailto:BAmbikapathy@VHB.com)>; Kandala, Srinivas <[SKandala@VHB.com](mailto:SKandala@VHB.com)>  
**Subject:** RE: [External] RE: City of Cocoa - Development Projects

Charlene,

Thanks for providing us the below information. I was wondering if you have information on the opening date for London Cove Commercial/Residential development (#12 & #13) in the list below?

Thanks again for the help.

Regards,

## Raj Pemmanaboina

P 407.965.0572  
[www.vhb.com](http://www.vhb.com)

---

**From:** Charlene Neuterman <[cneuterman@cocoafl.org](mailto:cneuterman@cocoafl.org)>  
**Sent:** Monday, April 8, 2019 3:55 PM  
**To:** Kandala, Srinivas <[SKandala@VHB.com](mailto:SKandala@VHB.com)>; Samia Singleton <[ssingleton@cocoafl.org](mailto:ssingleton@cocoafl.org)>  
**Cc:** Ambikapathy, Babuji <[BAmbikapathy@VHB.com](mailto:BAmbikapathy@VHB.com)>; Pemmanaboina, Rajashekar <[RPemmanaboina@VHB.com](mailto:RPemmanaboina@VHB.com)>  
**Subject:** [External] RE: City of Cocoa - Development Projects

Good afternoon,  
Here are the site plans we have on file.

1. Development 21 – Future Large Scale Commercial – No site plans, no date for development
2. Development 10 – The Preserve – site plans submitted in 2016 but no plans to develop at this time
3. Development 11 – Future Fire Station – Opened in 2018



4. Development 12 – London Cove Commercial – site plans submitted but not developed
5. Development 13 - London Cove Residential – site plans submitted but not developed
6. Development 5 – Emerald Lakes – subdivision opened in 2012 (approx.)

Please let me know if you have any questions.

## **Charlene Neuterman**

**Community Services**

**Deputy Director**

65 Stone Street, Cocoa, FL 32922

Office: (321) 433-8509

Mobile: (321) 313-0393

[cneuterman@cocoafl.org](mailto:cneuterman@cocoafl.org)

---

**From:** Kandala, Srinivas <[SKandala@VHB.com](mailto:SKandala@VHB.com)>

**Sent:** Monday, April 8, 2019 11:14 AM

**To:** Samia Singleton <[ssingleton@cocoafl.org](mailto:ssingleton@cocoafl.org)>; Charlene Neuterman <[cneuterman@cocoafl.org](mailto:cneuterman@cocoafl.org)>

**Cc:** Ambikapathy, Babuji <[BAmbikapathy@VHB.com](mailto:BAmbikapathy@VHB.com)>; Pemmanaboina, Rajashekar <[RPemmanaboina@VHB.com](mailto:RPemmanaboina@VHB.com)>

**Subject:** City of Cocoa - Development Projects

Hi,

We are working with FDOT District 5 on a widening project on SR 524 from W. Friday Rd to Industry Rd.

We need your help in getting latest information (like site plans, opening years etc) regarding the following developments along SR 524 based on the enclosed City of Cocoa City-Wide Development projects map created during 2016.

1. Development 21 – Future Large Scale Commercial
2. Development 10 – The Preserve
3. Development 11 – Future Fire Station
4. Development 12 – London Cove Commercial
5. Development 13 - London Cove Residential
6. Development 5 – Emerald Lakes

Thanks,

**Srinivas Kandala, PE**

Transportation Engineer



225 E. Robinson Street, Suite 300

Landmark Center Two

Orlando, FL 32801-4326

**P** 407.965.0554 | **M** 813.407.0879 | **F** 407.839.4008

[skandala@vhb.com](mailto:skandala@vhb.com)

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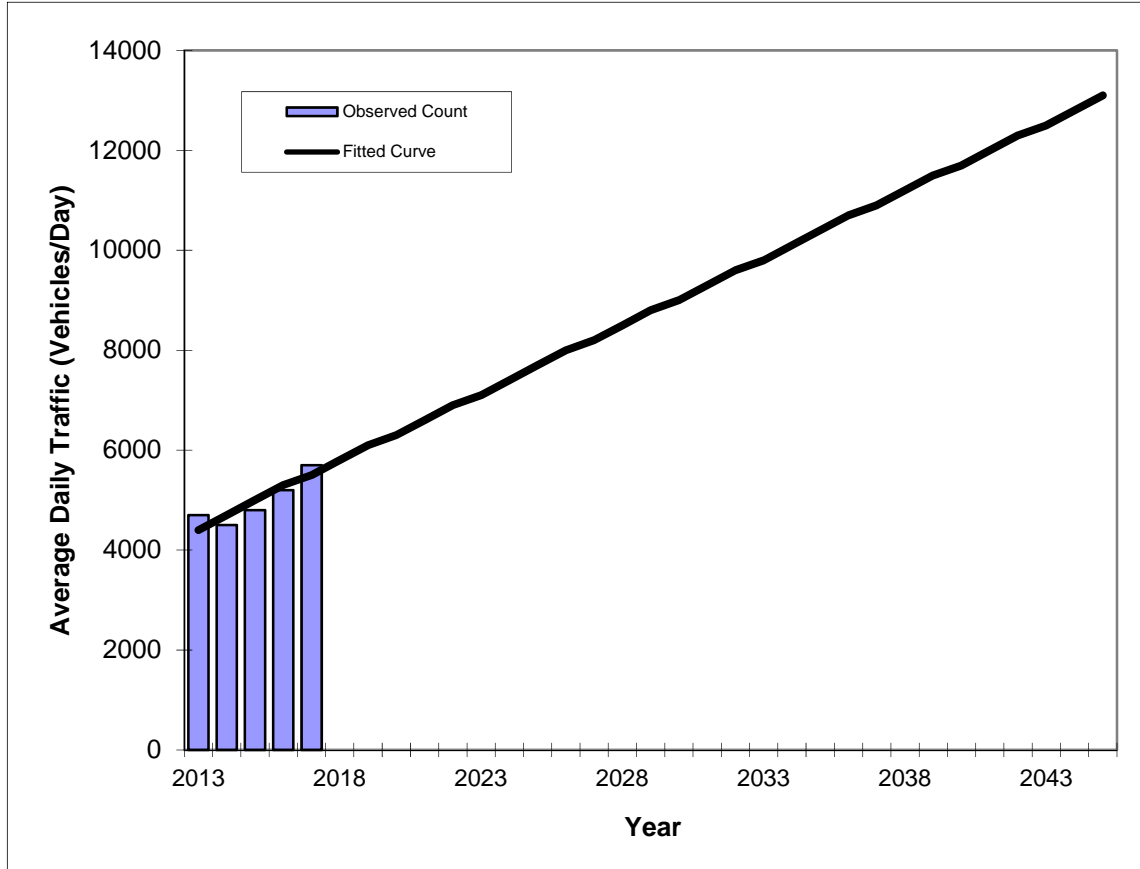
# **Appendix F**

## Traffic Forecasts – TRENDS, BEBR, and Model Plots & Planning Documents

## Traffic Trends - V3.0 West of I-95

FIN#	0
Location	1

County:	Brevard (70)
Station #:	700425
Highway:	SR 524



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2013	4700	4400
2014	4500	4700
2015	4800	5000
2016	5200	5300
2017	5700	5500
<b>2025 Opening Year Trend</b>		
2025	N/A	7700
<b>2035 Mid-Year Trend</b>		
2035	N/A	10400
<b>2045 Design Year Trend</b>		
2045	N/A	13100
<b>TRANPLAN Forecasts/Trends</b>		

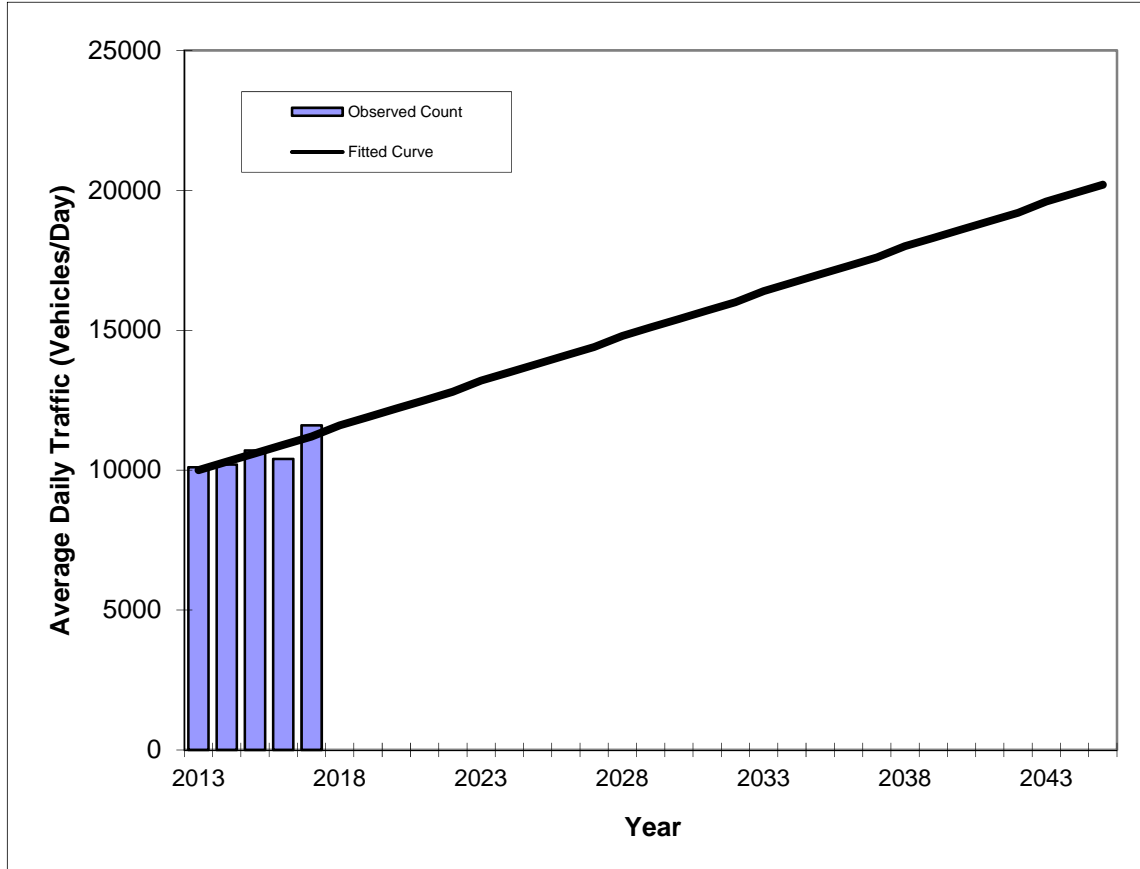
** Annual Trend Increase:	270
Trend R-squared:	80.29%
Trend Annual Historic Growth Rate:	6.25%
Trend Growth Rate (2017 to Design Year):	4.94%
Printed:	7-Mar-19
<b>Straight Line Growth Option</b>	

\*Axle-Adjusted

## Traffic Trends - V3.0 East of I-95

FIN#	0
Location	2

County:	Brevard (70)
Station #:	700411
Highway:	SR 524



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2013	10100	10000
2014	10200	10300
2015	10700	10600
2016	10400	10900
2017	11600	11200

2025 Opening Year Trend		
2025	N/A	13800
2035 Mid-Year Trend		
2035	N/A	17000
2045 Design Year Trend		
2045	N/A	20200
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	320
Trend R-squared:	70.14%
Trend Annual Historic Growth Rate:	3.00%
Trend Growth Rate (2017 to Design Year):	2.87%
Printed:	7-Mar-19
<b>Straight Line Growth Option</b>	

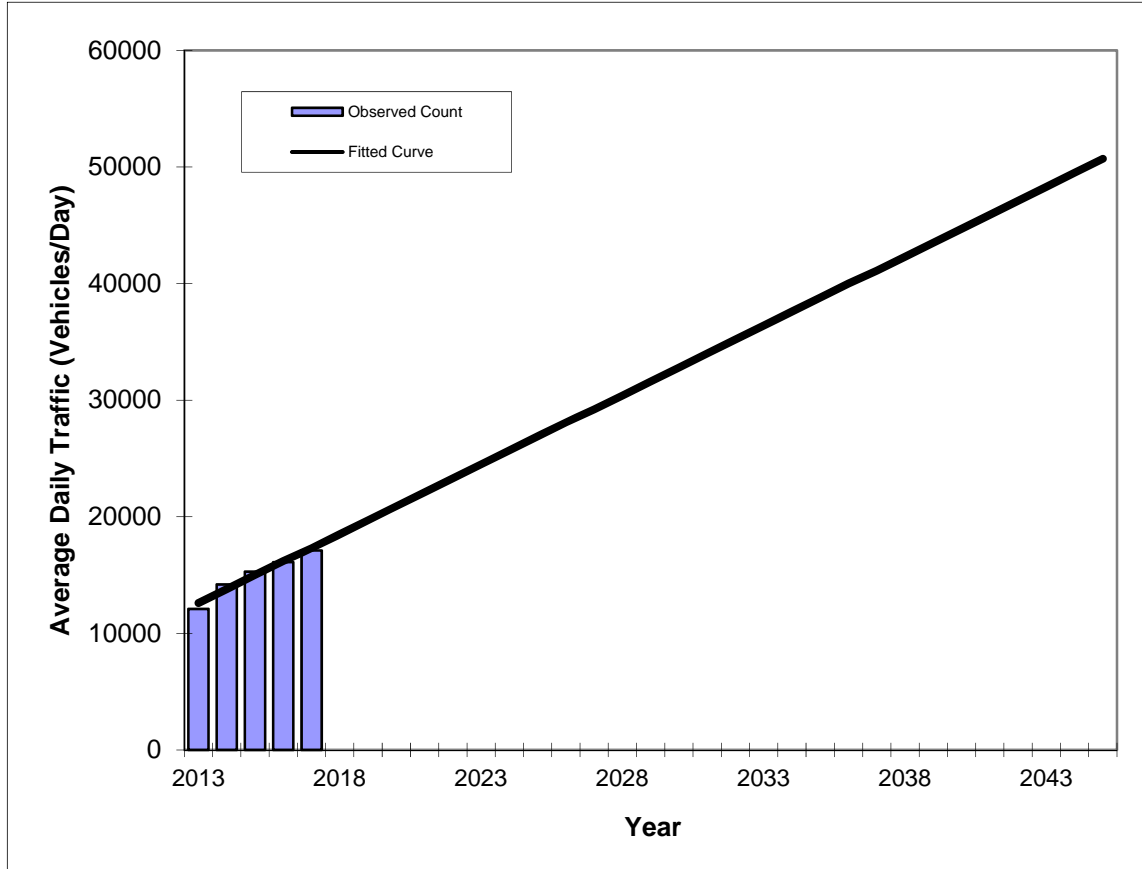
\*Axle-Adjusted

## Traffic Trends - V3.0

### SR 524, East of Cox Rd.

FIN#	0
Location	3

County:	Brevard (70)
Station #:	700426
Highway:	SR 524



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2013	12100	12600
2014	14200	13800
2015	15300	15000
2016	16100	16200
2017	17100	17300
<b>2025 Opening Year Trend</b>		
2025	N/A	26900
<b>2035 Mid-Year Trend</b>		
2035	N/A	38800
<b>2045 Design Year Trend</b>		
2045	N/A	50700
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	1,190
Trend R-squared:	95.99%
Trend Annual Historic Growth Rate:	9.33%
Trend Growth Rate (2017 to Design Year):	6.90%
Printed:	7-Mar-19
<b>Straight Line Growth Option</b>	

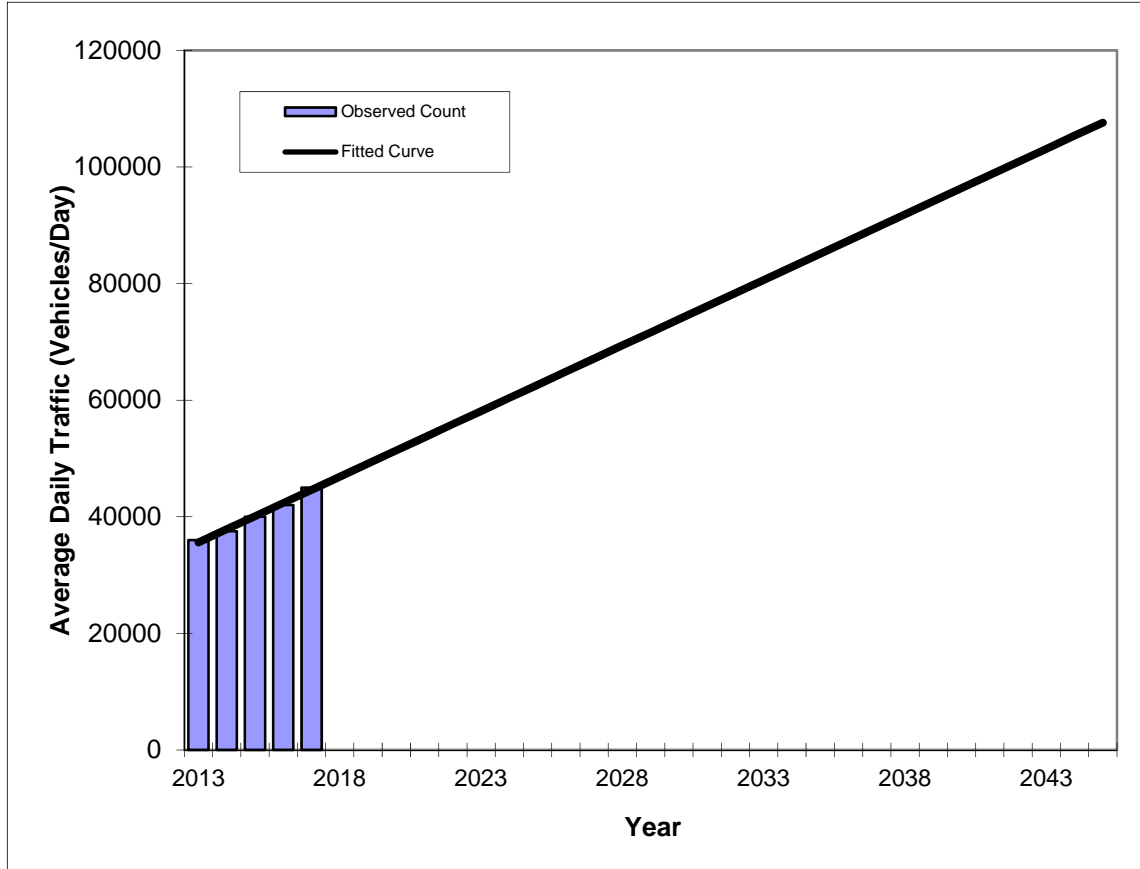
\*Axle-Adjusted

## Traffic Trends - V3.0

### I-95 S. of SR 524

FIN#	0
Location	4

County:	Brevard (70)
Station #:	700366
Highway:	I-95



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2013	36000	35600
2014	37500	37900
2015	40000	40100
2016	42000	42400
2017	45000	44600
<b>2025 Opening Year Trend</b>		
2025	N/A	62600
<b>2035 Mid-Year Trend</b>		
2035	N/A	85100
<b>2045 Design Year Trend</b>		
2045	N/A	107600
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	2,250
Trend R-squared:	98.88%
Trend Annual Historic Growth Rate:	6.32%
Trend Growth Rate (2017 to Design Year):	5.04%
Printed:	7-Mar-19
<b>Straight Line Growth Option</b>	

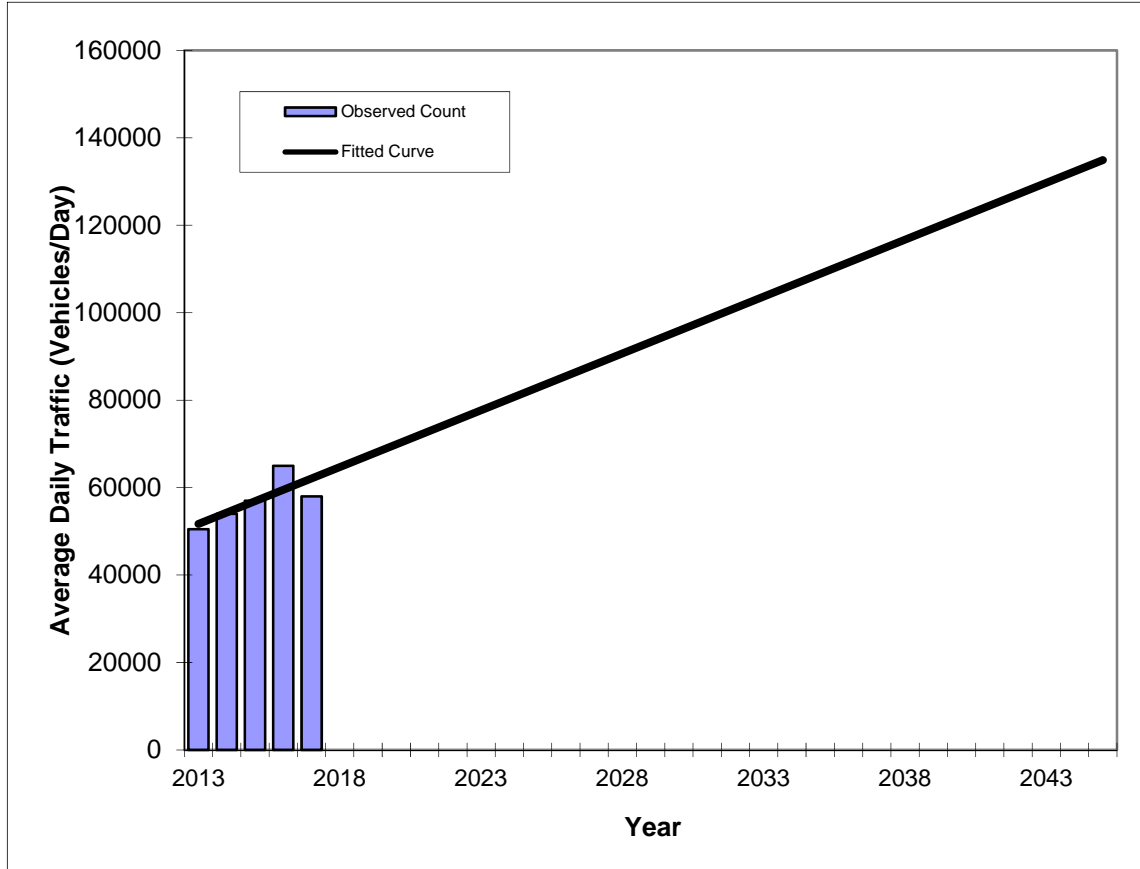
\*Axle-Adjusted

## Traffic Trends - V3.0

### I-95 N. of SR 524

FIN#	0
Location	5

County:	Brevard (70)
Station #:	700368
Highway:	I-95



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2013	50500	51700
2014	54000	54300
2015	57000	56900
2016	65000	59500
2017	58000	62100
<b>2025 Opening Year Trend</b>		
2025	N/A	82900
<b>2035 Mid-Year Trend</b>		
2035	N/A	108900
<b>2045 Design Year Trend</b>		
2045	N/A	134900
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	2,600
Trend R-squared:	58.18%
Trend Annual Historic Growth Rate:	5.03%
Trend Growth Rate (2017 to Design Year):	4.19%
Printed:	7-Mar-19
<b>Straight Line Growth Option</b>	

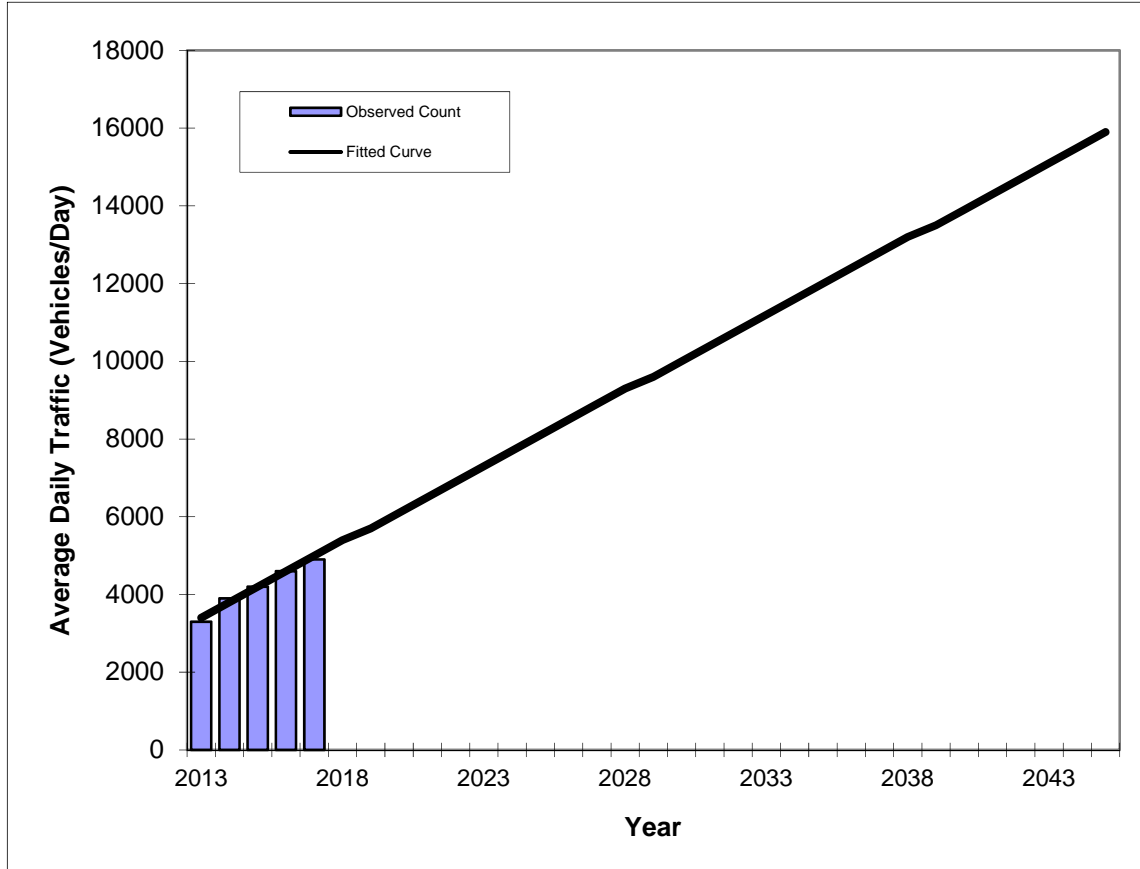
\*Axle-Adjusted

## Traffic Trends - V3.0

### I-95 NB Off Ramp to SR 524

FIN#	0
Location	4

County:	Brevard (70)
Station #:	702028
Highway:	I-95



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2013	3300	3400
2014	3900	3800
2015	4200	4200
2016	4600	4600
2017	4900	5000
<b>2025 Opening Year Trend</b>		
2025	N/A	8100
<b>2035 Mid-Year Trend</b>		
2035	N/A	12000
<b>2045 Design Year Trend</b>		
2045	N/A	15900
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	390
Trend R-squared:	98.26%
Trend Annual Historic Growth Rate:	11.76%
Trend Growth Rate (2017 to Design Year):	7.79%
Printed:	7-Mar-19
<b>Straight Line Growth Option</b>	

\*Axle-Adjusted

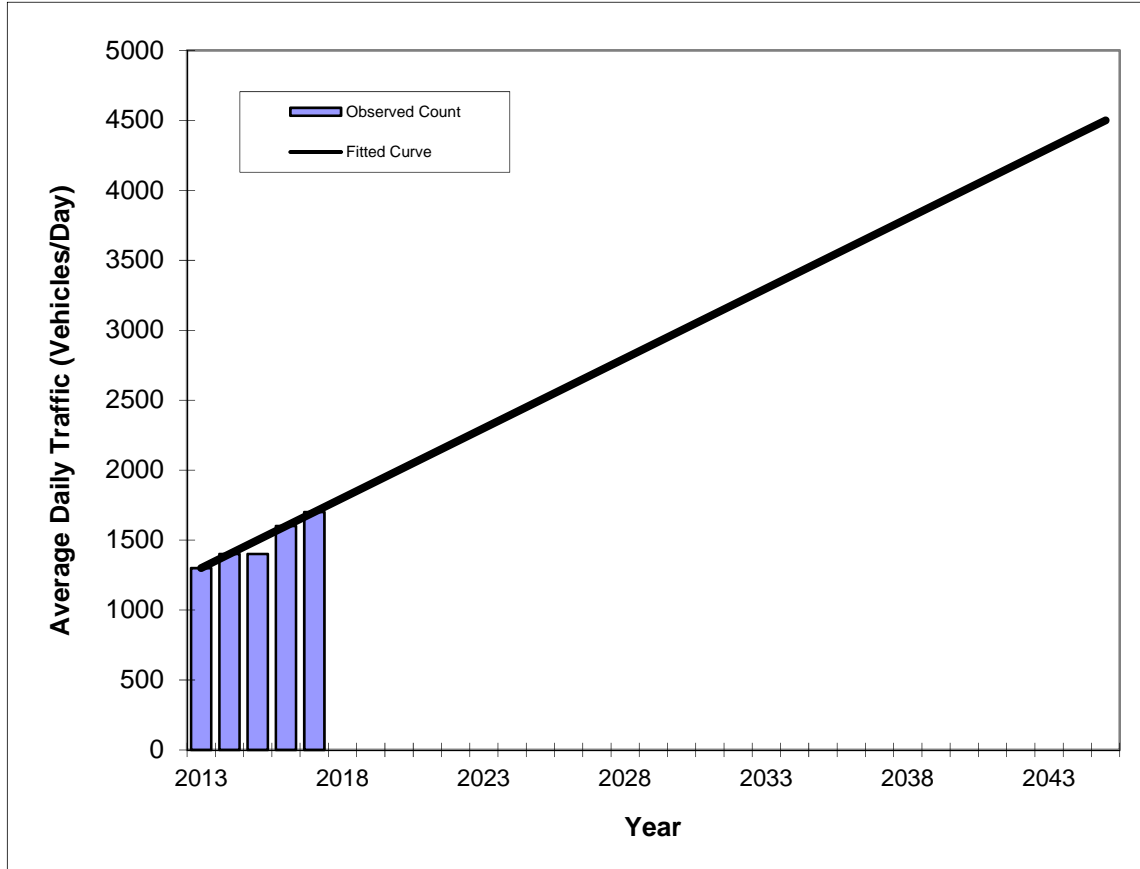


## Traffic Trends - V3.0

### I-95 NB On Ramp from SR 524

FIN#	0
Location	4

County:	Brevard (70)
Station #:	702029
Highway:	I-95



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2013	1300	1300
2014	1400	1400
2015	1400	1500
2016	1600	1600
2017	1700	1700
<b>2025 Opening Year Trend</b>		
2025	N/A	2500
<b>2035 Mid-Year Trend</b>		
2035	N/A	3500
<b>2045 Design Year Trend</b>		
2045	N/A	4500
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	100
Trend R-squared:	92.59%
Trend Annual Historic Growth Rate:	7.69%
Trend Growth Rate (2017 to Design Year):	5.88%
Printed:	7-Mar-19
<b>Straight Line Growth Option</b>	

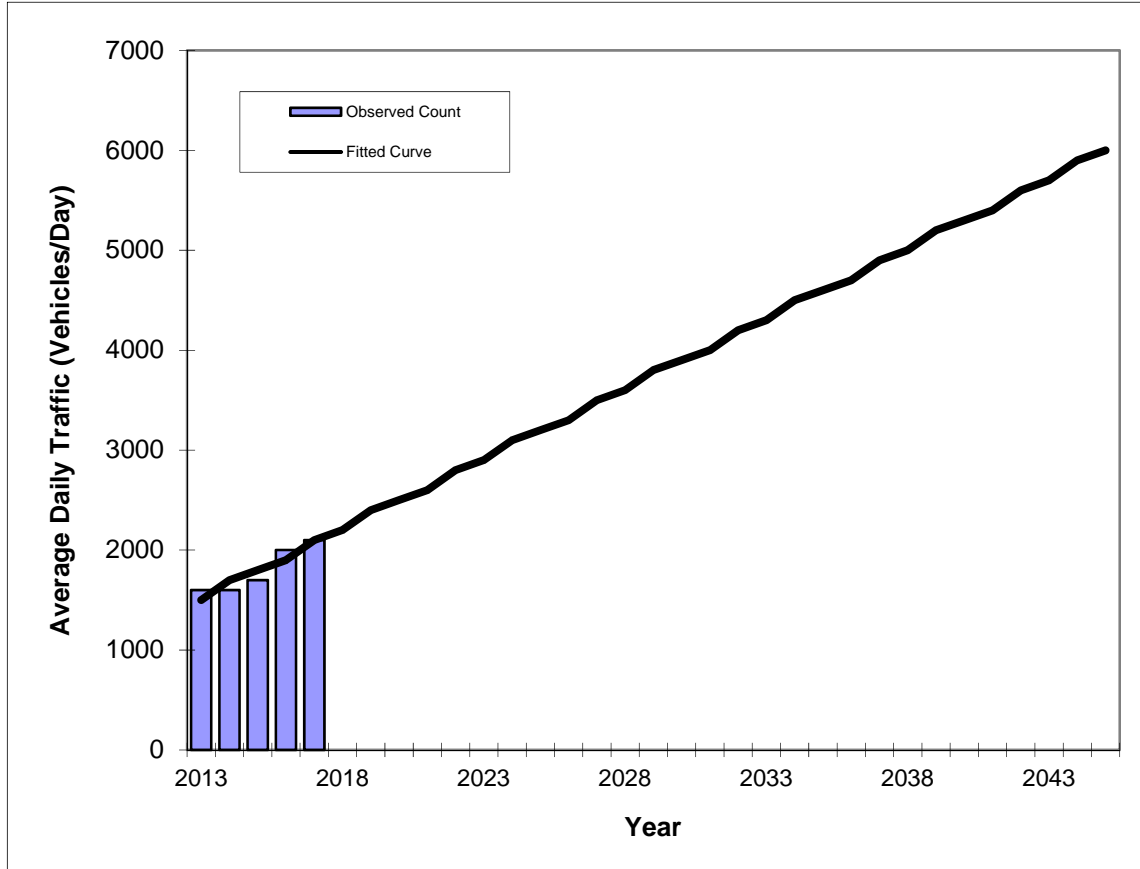
\*Axle-Adjusted

## Traffic Trends - V3.0

### I-95 SB Off Ramp to SR 524

FIN#	0
Location	4

County:	Brevard (70)
Station #:	702030
Highway:	I-95



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2013	1600	1500
2014	1600	1700
2015	1700	1800
2016	2000	1900
2017	2100	2100
<b>2025 Opening Year Trend</b>		
2025	N/A	3200
<b>2035 Mid-Year Trend</b>		
2035	N/A	4600
<b>2045 Design Year Trend</b>		
2045	N/A	6000
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	140
Trend R-squared:	89.09%
Trend Annual Historic Growth Rate:	10.00%
Trend Growth Rate (2017 to Design Year):	6.63%
Printed:	7-Mar-19
<b>Straight Line Growth Option</b>	

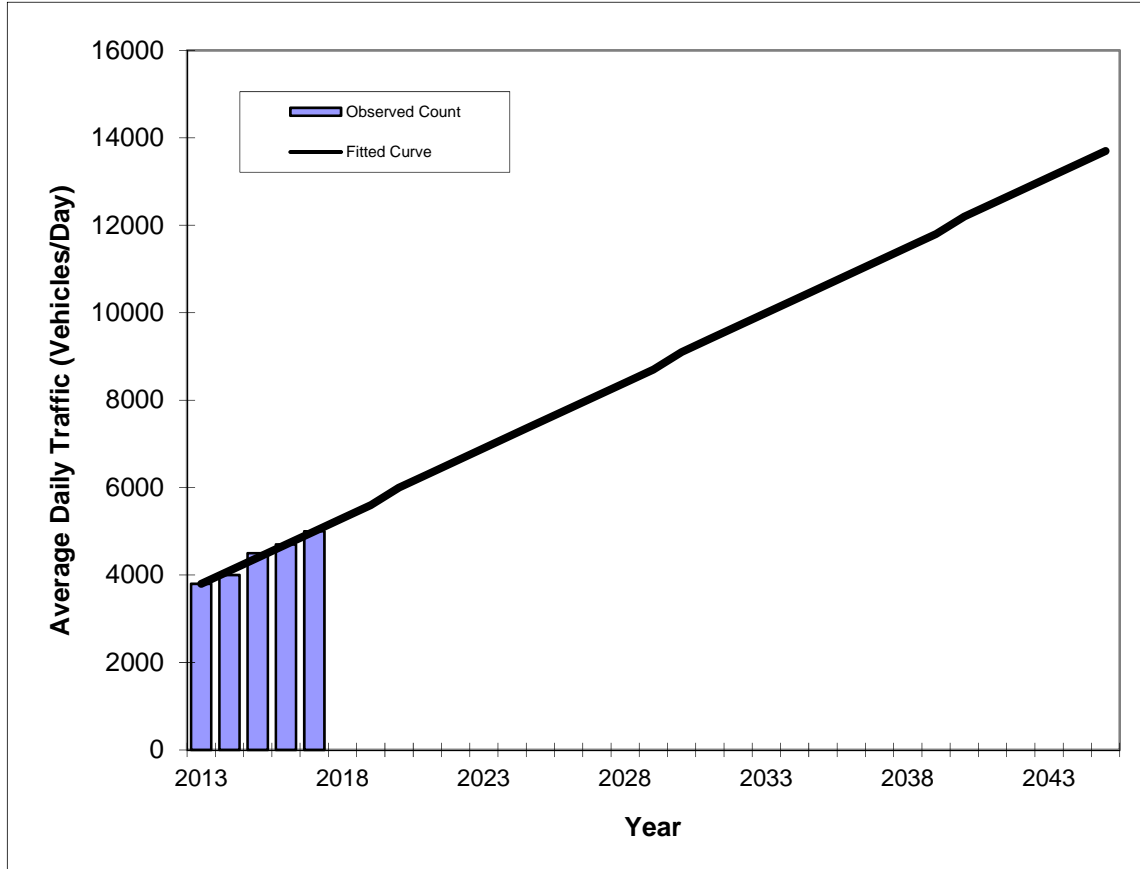
\*Axle-Adjusted

## Traffic Trends - V3.0

### I-95 SB On Ramp from SR 524

FIN#	0
Location	4

County:	Brevard (70)
Station #:	702031
Highway:	I-95



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2013	3800	3800
2014	4000	4100
2015	4500	4400
2016	4700	4700
2017	5000	5000

2025 Opening Year Trend		
2025	N/A	7500
2035 Mid-Year Trend		
2035	N/A	10600
2045 Design Year Trend		
2045	N/A	13700
TRANPLAN Forecasts/Trends		

** Annual Trend Increase:	310
Trend R-squared:	98.06%
Trend Annual Historic Growth Rate:	7.89%
Trend Growth Rate (2017 to Design Year):	6.21%
Printed:	7-Mar-19
<b>Straight Line Growth Option</b>	

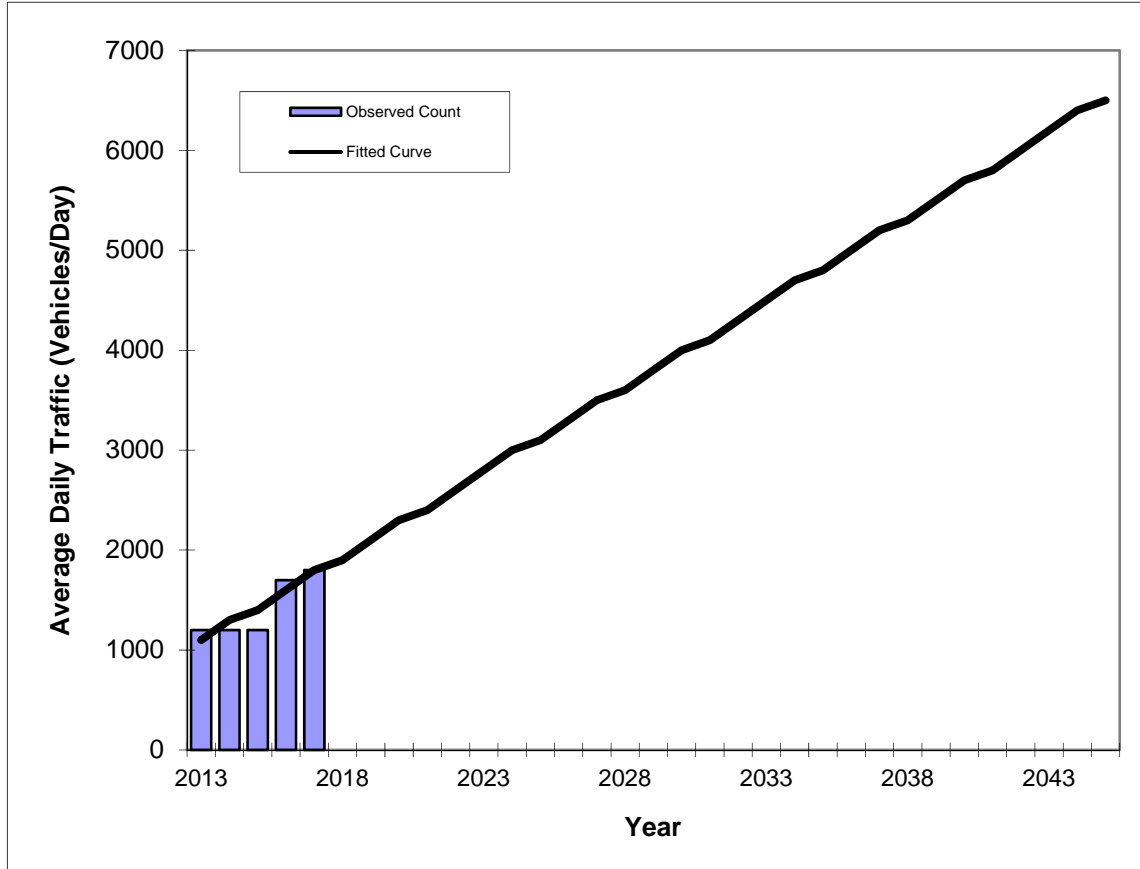
\*Axle-Adjusted

## Traffic Trends - V3.0

### W. Friday - south of SR 524

FIN#	0
Location	4

County:	Brevard (70)
Station #:	707037
Highway:	W. Friday



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2013	1200	1100
2014	1200	1300
2015	1200	1400
2016	1700	1600
2017	1800	1800
<b>2025 Opening Year Trend</b>		
2025	N/A	3100
<b>2035 Mid-Year Trend</b>		
2035	N/A	4800
<b>2045 Design Year Trend</b>		
2045	N/A	6500
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	170
Trend R-squared:	78.53%
Trend Annual Historic Growth Rate:	15.91%
Trend Growth Rate (2017 to Design Year):	9.33%
Printed:	7-Mar-19
<b>Straight Line Growth Option</b>	

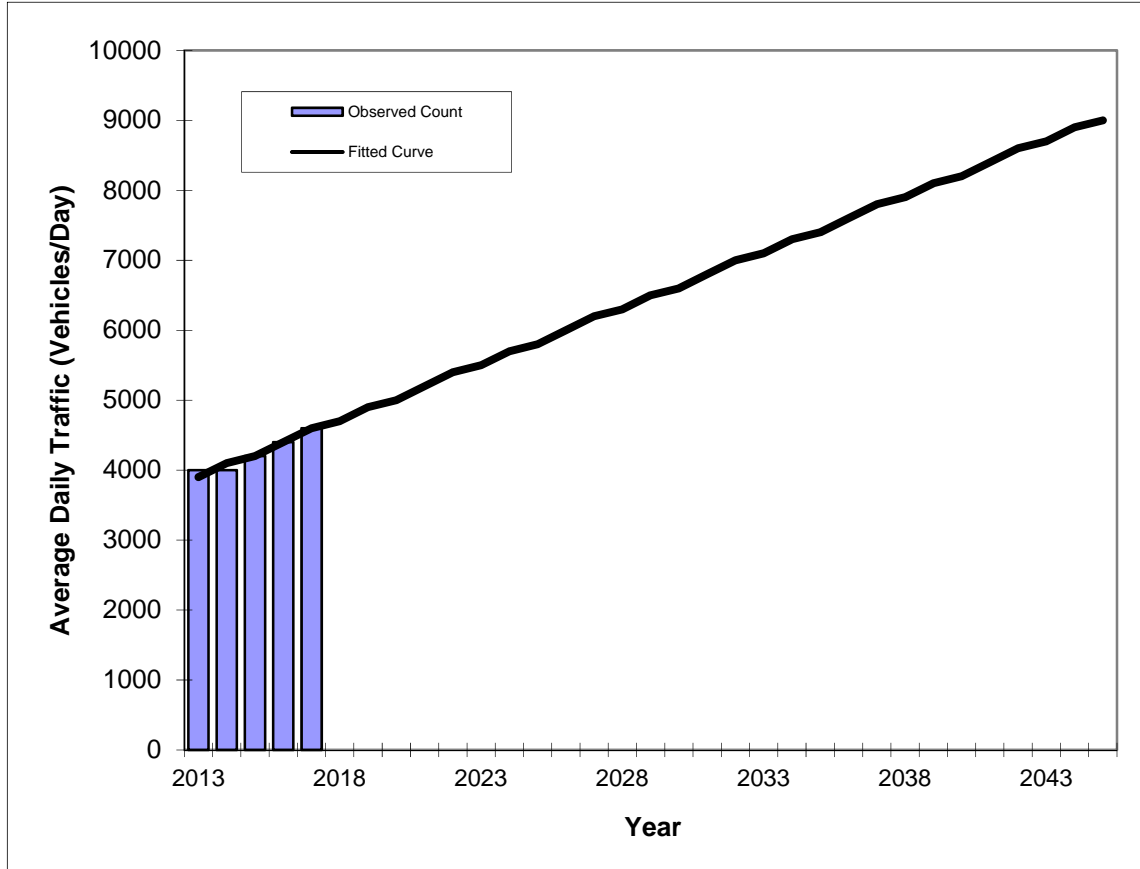
\*Axle-Adjusted

## Traffic Trends - V3.0

### Cox Rd. North and South of SR 524

FIN#	0
Location	6

County:	Brevard (70)
Station #:	708006
Highway:	COX ROAD



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2013	4000	3900
2014	4000	4100
2015	4200	4200
2016	4400	4400
2017	4600	4600
<b>2025 Opening Year Trend</b>		
2025	N/A	5800
<b>2035 Mid-Year Trend</b>		
2035	N/A	7400
<b>2045 Design Year Trend</b>		
2045	N/A	9000
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	160
Trend R-squared:	94.12%
Trend Annual Historic Growth Rate:	4.49%
Trend Growth Rate (2017 to Design Year):	3.42%
Printed:	7-Mar-19
<b>Straight Line Growth Option</b>	

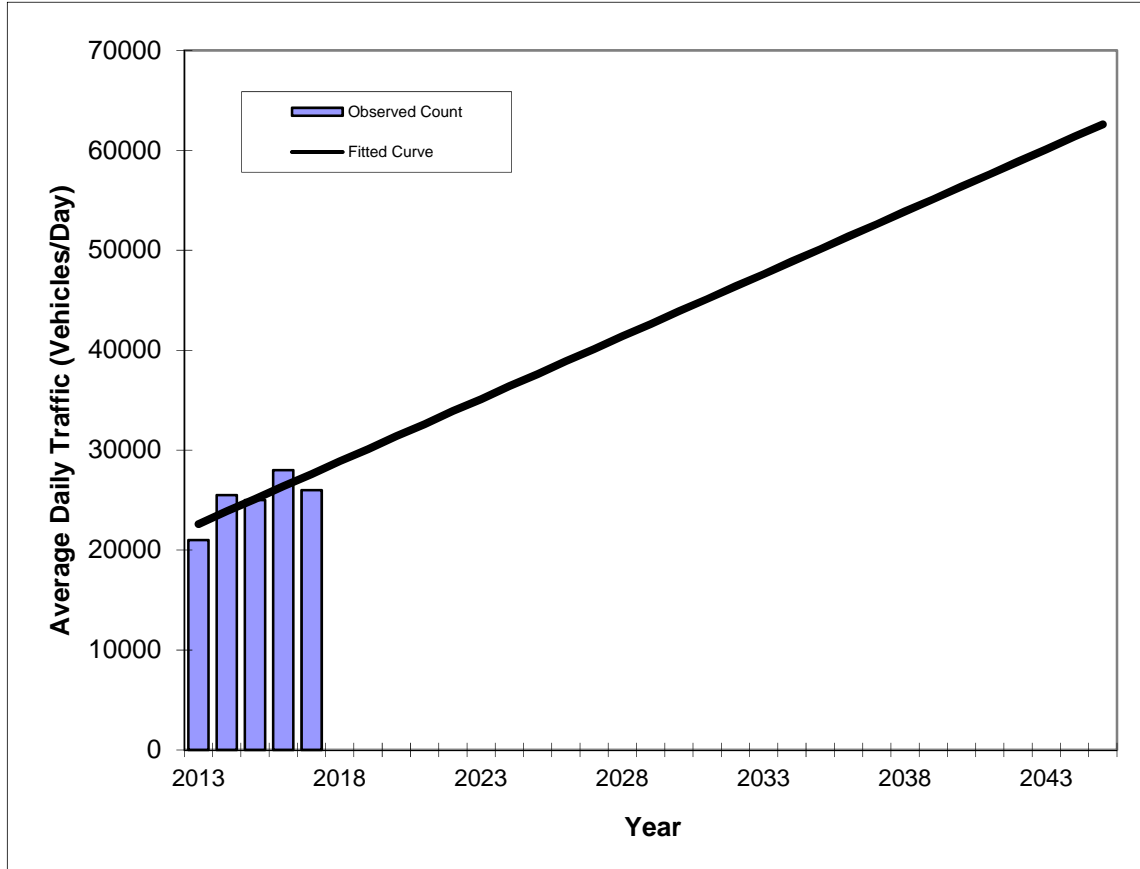
\*Axle-Adjusted

## Traffic Trends - V3.0

### Industry Rd./SR 524, N. of SR 501

FIN#	0
Location	8

County:	Brevard (70)
Station #:	700435
Highway:	INDUSTRY RD/SR 524



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2013	21000	22600
2014	25500	23900
2015	25000	25100
2016	28000	26400
2017	26000	27600
<b>2025 Opening Year Trend</b>		
2025	N/A	37600
<b>2035 Mid-Year Trend</b>		
2035	N/A	50100
<b>2045 Design Year Trend</b>		
2045	N/A	62600
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	1,250
Trend R-squared:	59.64%
Trend Annual Historic Growth Rate:	5.53%
Trend Growth Rate (2017 to Design Year):	4.53%
Printed:	7-Mar-19
<b>Straight Line Growth Option</b>	

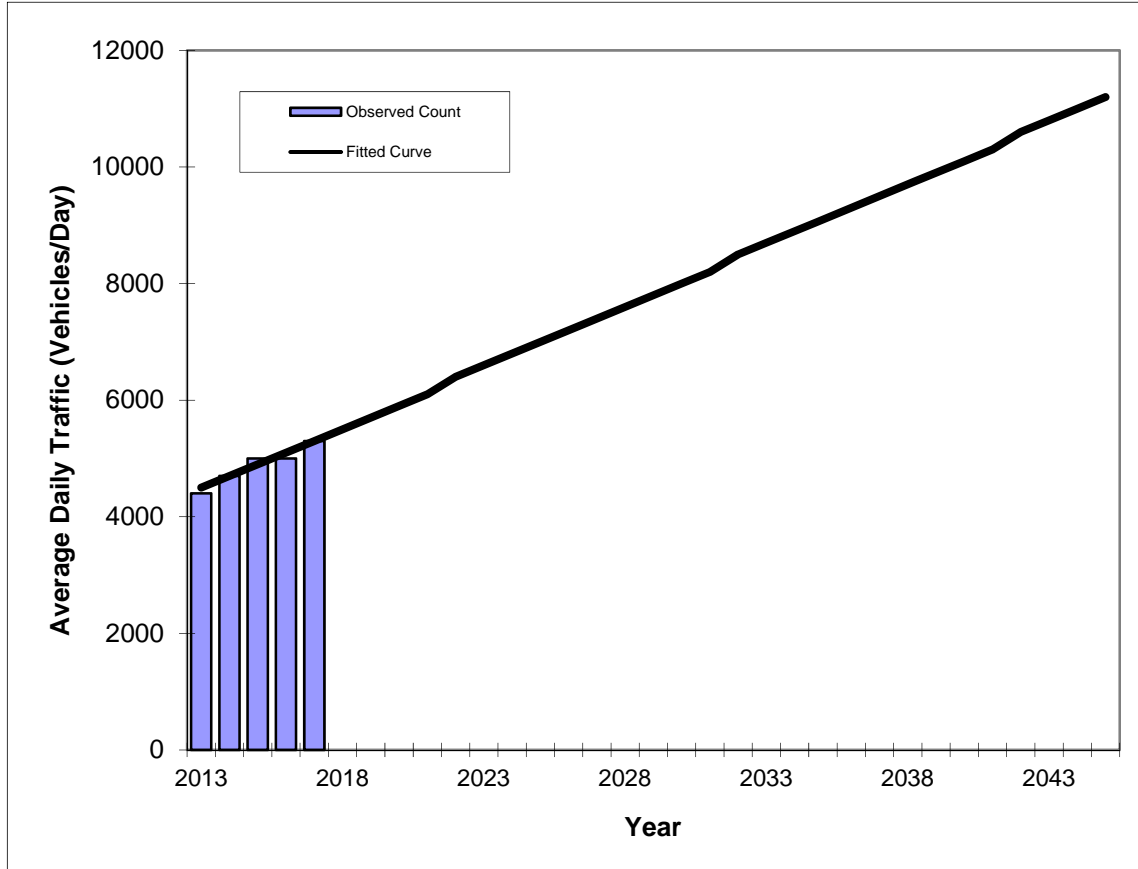
\*Axle-Adjusted

## Traffic Trends - V3.0

### I-95 NB On Ramp from SR 520

FIN#	0
Location	4

County:	Brevard (70)
Station #:	702025
Highway:	I-95



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2013	4400	4500
2014	4700	4700
2015	5000	4900
2016	5000	5100
2017	5300	5300
<b>2025 Opening Year Trend</b>		
2025	N/A	7000
<b>2035 Mid-Year Trend</b>		
2035	N/A	9100
<b>2045 Design Year Trend</b>		
2045	N/A	11200
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	210
Trend R-squared:	94.23%
Trend Annual Historic Growth Rate:	4.44%
Trend Growth Rate (2017 to Design Year):	3.98%
Printed:	7-Mar-19
<b>Straight Line Growth Option</b>	

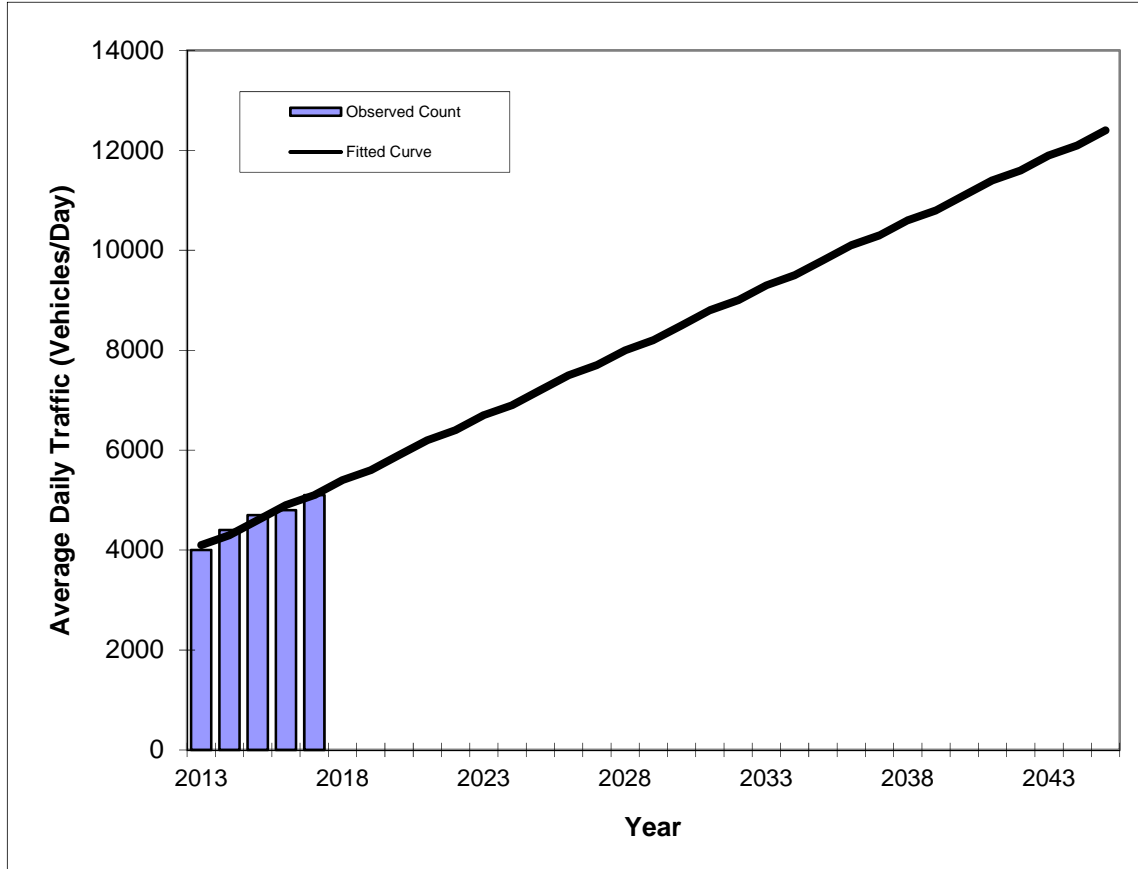
\*Axle-Adjusted

## Traffic Trends - V3.0

### I-95 SB Off Ramp to SR 520

FIN#	0
Location	4

County:	Brevard (70)
Station #:	702026
Highway:	I-95



Year	Traffic (ADT/AADT)	
	Count*	Trend**
2013	4000	4100
2014	4400	4300
2015	4700	4600
2016	4800	4900
2017	5100	5100
<b>2025 Opening Year Trend</b>		
2025	N/A	7200
<b>2035 Mid-Year Trend</b>		
2035	N/A	9800
<b>2045 Design Year Trend</b>		
2045	N/A	12400
<b>TRANPLAN Forecasts/Trends</b>		

** Annual Trend Increase:	260
Trend R-squared:	96.57%
Trend Annual Historic Growth Rate:	6.10%
Trend Growth Rate (2017 to Design Year):	5.11%
Printed:	7-Mar-19
<b>Straight Line Growth Option</b>	

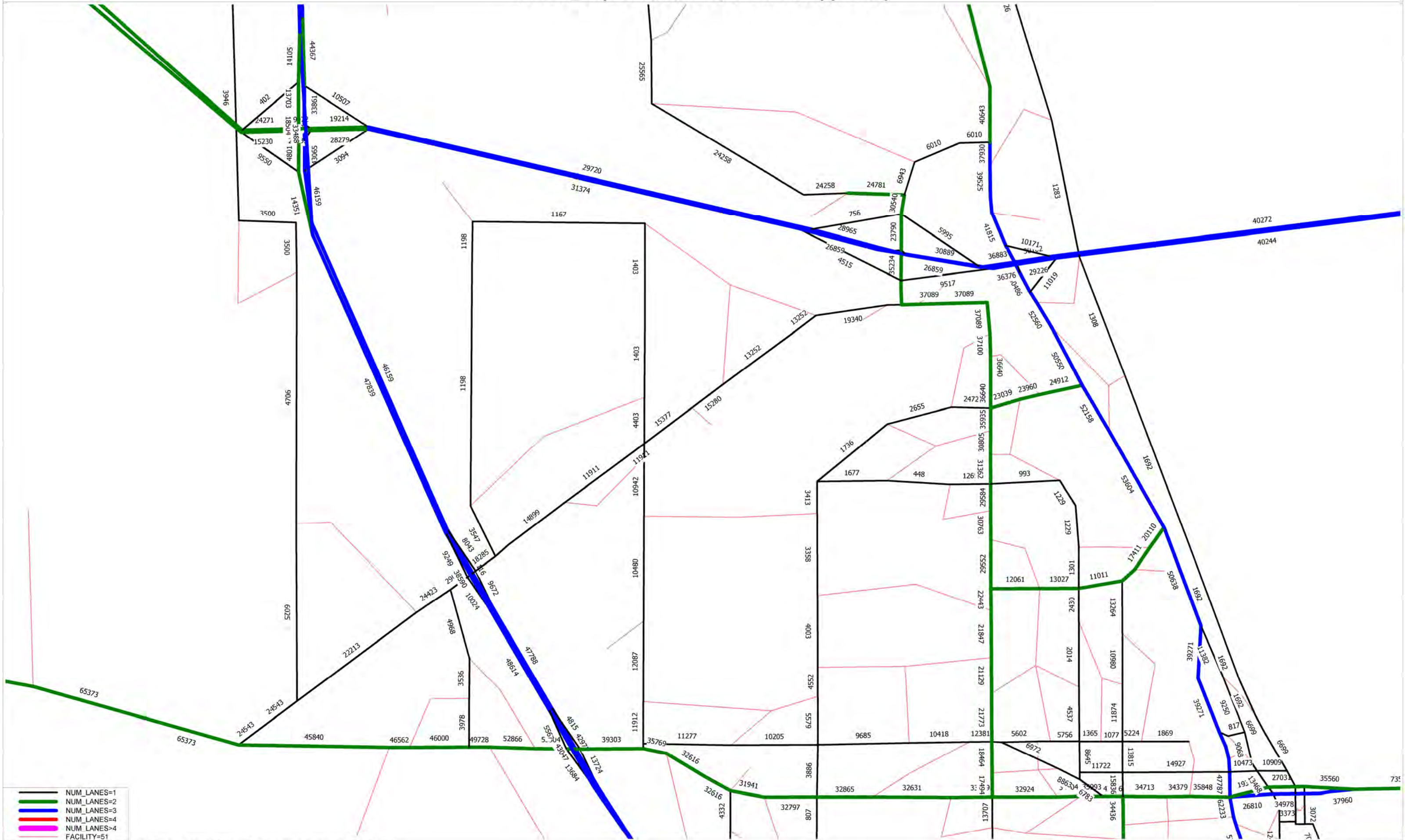
\*Axle-Adjusted



## Projections of Florida Population by County, 2020–2045, with Estimates for 2017

County and State	Estimates April 1, 2017	Projections, April 1					
		2020	2025	2030	2035	2040	2045
ALACHUA	260,003						
Low		255,500	257,400	259,400	260,000	259,100	257,300
Medium		268,000	279,700	289,900	298,800	306,300	313,100
High		280,900	300,900	320,600	339,300	357,100	374,800
BAKER	27,191						
Low		26,200	26,100	26,100	26,000	25,800	25,600
Medium		27,800	28,800	29,700	30,500	31,300	32,100
High		29,400	31,500	33,600	35,700	38,000	40,300
BAY	178,820						
Low		175,400	177,600	179,200	179,800	179,200	177,600
Medium		186,000	196,200	204,800	212,600	219,200	225,100
High		196,700	213,900	230,700	246,900	262,800	278,400
BRADFORD	27,642						
Low		27,100	26,600	26,100	25,500	24,900	24,300
Medium		28,700	29,300	29,700	30,000	30,400	30,700
High		30,500	32,000	33,500	35,000	36,600	38,200
BREVARD	575,211						
Low		574,200	588,000	600,200	608,500	614,100	617,900
Medium		596,100	627,600	653,200	674,900	693,700	711,100
High		618,800	666,900	712,700	756,400	799,100	842,000
BROWARD	1,873,970						
Low		1,852,800	1,882,100	1,903,100	1,909,300	1,903,000	1,888,100
Medium		1,943,800	2,045,800	2,126,900	2,193,900	2,249,300	2,298,200
High		2,037,100	2,199,600	2,352,200	2,491,400	2,622,900	2,750,600
CALHOUN	15,001						
Low		14,500	14,400	14,300	14,200	13,900	13,700
Medium		15,400	15,900	16,300	16,700	17,000	17,300
High		16,300	17,400	18,400	19,500	20,500	21,600
CHARLOTTE	172,720						
Low		169,200	171,200	173,000	174,100	174,200	173,700
Medium		179,300	189,200	197,800	205,700	212,800	219,600
High		189,700	206,200	222,700	239,100	255,500	272,300
CITRUS	143,801						
Low		140,700	141,200	141,800	141,500	140,600	139,400
Medium		147,600	153,000	157,700	161,600	164,900	168,000
High		154,700	165,000	175,200	184,900	194,500	204,000
CLAY	208,549						
Low		210,500	220,400	230,500	239,500	245,900	250,900
Medium		221,000	239,900	257,400	273,900	288,000	301,000
High		231,400	257,600	284,800	312,500	338,900	365,400
COLLIER	357,470						
Low		361,700	380,100	397,100	411,800	423,300	430,600
Medium		379,900	413,700	443,600	471,100	495,600	517,100
High		397,700	444,200	490,900	537,400	583,400	627,300
COLUMBIA	68,943						
Low		67,300	67,300	67,400	66,900	66,300	65,500
Medium		70,500	73,000	75,000	76,500	77,800	79,100
High		74,000	78,700	83,300	87,500	91,700	95,900
DESOTO	35,621						
Low		34,200	33,900	33,700	33,500	33,200	32,700
Medium		35,800	36,700	37,500	38,300	38,900	39,500
High		37,600	39,600	41,700	43,800	45,900	47,900
DIXIE	16,726						
Low		16,100	15,800	15,600	15,300	14,900	14,500
Medium		17,000	17,400	17,700	18,000	18,200	18,300
High		18,000	19,100	20,100	21,000	21,900	22,800

CFRPM61\_Daily - Year 2045 CF - SR 524 DTTM Study (No Build)



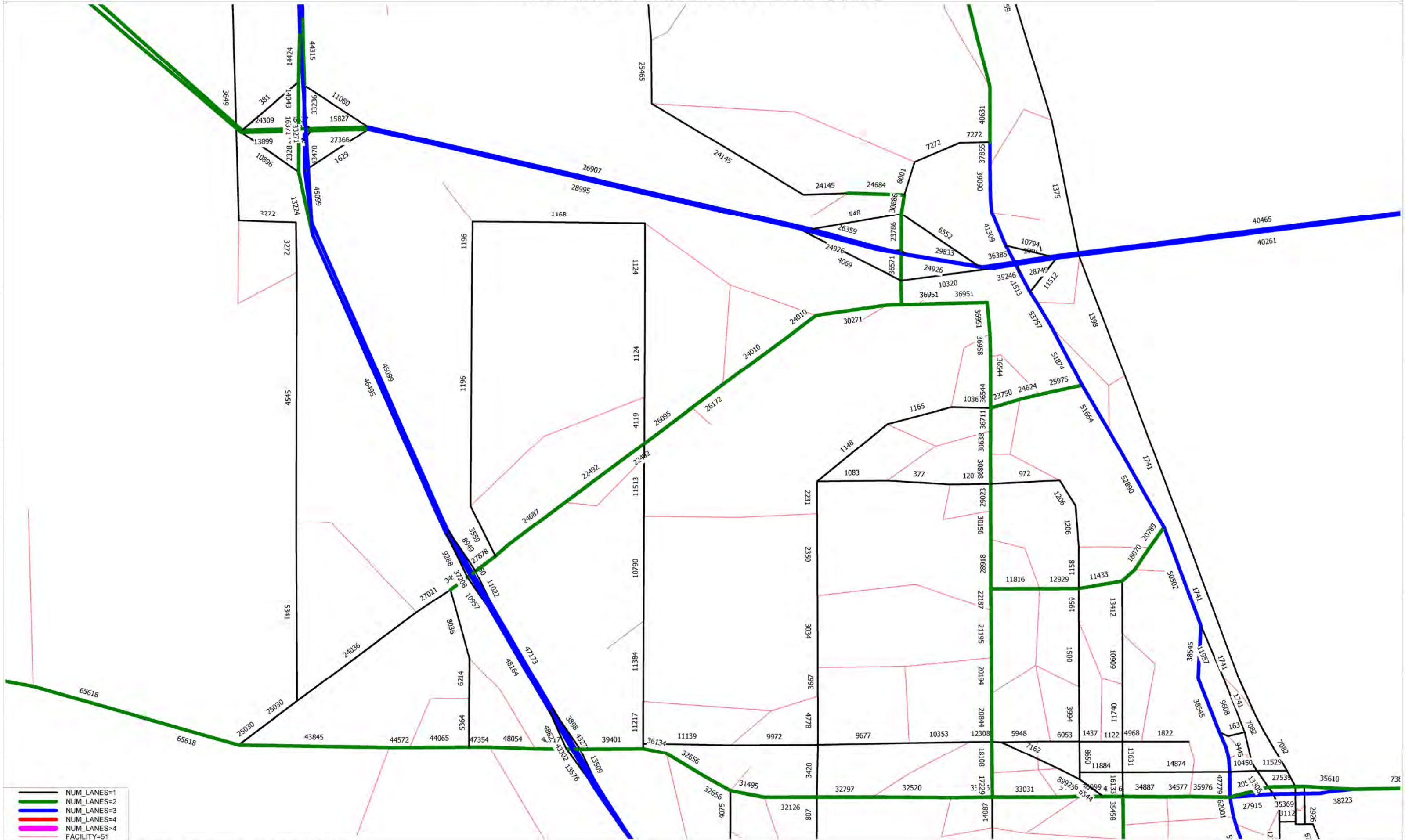
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### CFRPM61\_Daily - Year 2045 CF - SR 524 DTTM Study (Build)



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**SPACE COAST TRANSPORTATION PLANNING ORGANIZATION**  
**SIS / REGIONALLY SIGNIFICANT LIST OF PRIORITY PROJECTS FY 2022 - FY 2026** *(adopted July 9, 2020)*

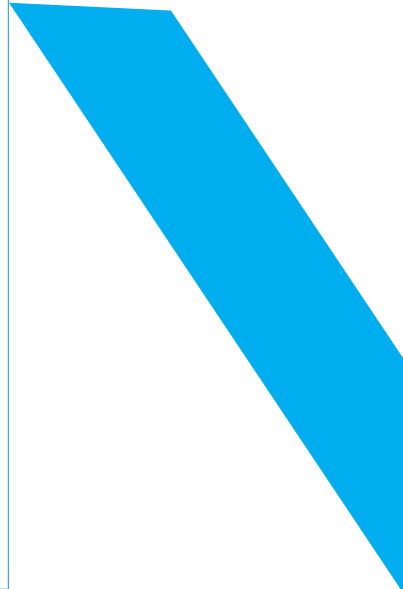
Rank	FM #	Project Name	Project Limits	Description	Project Type*	Primary Performance Measure*	Secondary Performance Measure(s)-If Applicable	Proposed Phase*	FY	Cost**	Programmed Phase*	Programmed Phase FY	Programmed Phase Cost**	Additional Programmed Phase*-If Applicable	Additional Programmed Phase FY	Additional Programmed Phase Cost**	Unfunded Phase(s)*	Unfunded Phase Cost**	Additional Unfunded Phase* -If Applicable	Additional Unfunded Phase Cost**
1	4269054 SIS	Ellis Road	I-95/John Rhodes to Wickham	Widening	Capacity	System Performance		CST	2026	\$27,600,000	ROW	2021-2025	\$23,097,350				ROW	\$10,000,000		
2	4404241 SIS	405 NASA Cswy/Indian River Bridge	West Roadway Approach to East Approach	Bridge Replacement	Preservation	System Performance		Fully Funded (INFRA)												
3	SIS	SIS: Space Commerce Way	405 to Kennedy Parkway	Widening	Capacity	System Performance		Fully Funded (INFRA)												
4	SIS	SIS: Spaceport ITS	SR 405 @ US 1 to SR 3	ITS Infrastructure	Operations	System Performance		CST	2022	\$6,300,000										
5	NEW	US 1 (Phase I)	Crane Creek Bridge to WH Jackson St	Multi-modal	Bike/Ped	Safety		CST	2022	\$2,300,000										
6	4074023 SIS	SR 528	Industry Road to SR 3	Widening	Capacity	System Performance		CST	2026	\$222,000,000	ROW	2024	\$10,000,000							
7	4074024 SIS	SR 528	SR 3 to SR 401 (Port)	Widening	Capacity	System Performance		CST	2026	\$264,000,000	ROW	2024	\$10,000,000							
8	4458721	NASA Blvd	Eddie Allen to Evans	Sidewalk	Bike/Ped	Safety		CST	2023	\$608,000	Design	2021	\$110,000							
9	SIS	I-95 Interchanges / SOAR Improvements	Improvements and SIS Connector Studies	As needed	Capacity	System Performance		CST	As Needed											
10	4302025	SR A1A	International Dr to Long Point Rd	Intersection / Sidewalk	Bike/Ped	Safety		ROW	2021	\$2,600,000	Design	2019	\$1,500,000				CST	\$3,600,000		
11	NEW	SR 501 (Clearlake Rd)	SR 520 to Michigan Avenue	Access Management / Sidewalks	Bike/Ped	Safety		Planning	2022	\$400,000							Design	\$5,960,000		
12	4302028	SR A1A	Long Point Rd to George King	Curb & Gutter / Median	Bike/Ped	Safety		ROW	2022		Design	2019	\$2,000,000				CST	\$8,300,000		
13	4372101	Malabar Rd	SJHP to Minton	Widening	Capacity	System Performance		Design	2022	\$2,200,000	PD&E	2020	\$1,000,000				ROW			
14	4466001	SR 519 (Fiske Blvd)	@ Roy Wall Blvd	Intersection	Capacity	System Performance		Design	2022	\$204,000							CST	\$1,700,000		
15	4356312	SR 3 (Courtenay Pkwy)	Catalina Isle to Venetian Way	Access Management / Sidewalks	Bike/Ped	Safety		Design	2022		Drainage Analysis	2020	\$225,000							
16		Babcock St	Valkaria Rd to Convair St.	Widening	Capacity	System Performance		Design			PD&E	2019	\$1,900,000							
17	4301361	SR 514 (Malabar Rd)	SR 507 (Babcock St) to US 1	Widening	Capacity	System Performance		Design	2022	\$4,000,000							ROW	\$27,000,000		
18	NEW	US 1 (Phase II)	WH Jackson St to University Blvd	Multi-modal	Bike/Ped	Safety		Design	2022	\$180,000							CST	\$2,300,000		
19	NEW	SR 518 (Eau Gallie Blvd)	@ SR 5054 (Sarno Road)	Intersection	Capacity	System Performance		Design		\$500,000							CST	\$7,000,000		
20	4471511	SR A1A	Grosse Pointe Ave to Flug Ave	Multi-modal	Bike/Ped	Safety		Design	2022	\$100,000							CST	\$550,000		
21		Babcock St	Convair St. to Malabar	Intersection Improv	Capacity	System Performance		Design												
22		SR 405 (South St)	SR 50 to Singleton	Widening	Capacity	System Performance		PD&E	2022	\$1,900,000										
23		Babcock St	Maraloma Blvd. to Valkaria Rd	Widening	Capacity	System Performance		Design												
24	4379831	SR 524	S Friday Rd to Industry Rd	Widening	Capacity	System Performance		Design	2022		PD&E	2019	\$1,763,000							

# TABLE 11.2: Other Arterial (State + Federal Funds) Projects

TABLE 11.2: OTHER ARTERIAL (STATE/FEDERAL FUNDS) PROJECTS in millions YOE \$s																					
Table ID	FACILITY	FROM	TO	PROJECT	SOURCE	2021-2025			2026-2030			2031-2035			2036-2040			2041-2045			2021-2045 TOTAL
						PD&E	PE	ROW	CST	PD&E	PE	ROW	CST	PD&E	PE	ROW	CST	PD&E	PE	ROW	
T2.1	SR 46	I-95	US 1	Widen to 4 Lanes	Other Arterial																\$ 3.35
T2.2	SR 406 (Garden St.) at Singleton Ave.	N/A	N/A	Operational Analysis	Other Arterial																\$ 7.31
T2.3	Space Coast Trail	MINWR Park Entrance	Playalinda Parking Lot	Bike Path/Trail	DDR, DIH, TALT																\$ 6.84
T2.4	FL Coast to Coast Parrish Park Trailhead	N/A	N/A	Bike Path/Trail	DIH, PLH																\$ 1.86
T2.5	SR 405 (South St.)	SR 50	Rock Pit Rd.	Widen to 4 Lanes	Other Arterial																\$ 2.02
T2.6	SR 524	S Friday Rd.	Industry Rd.	Widen to 4 Lanes	Other Arterial																\$ 122.53
T2.7	SR 501 (Clearlake Rd.)	Michigan Ave.	Industry Rd.	Widen to 4 Lanes	Other Arterial																\$ 91.24
T2.8	SR 520	Orange County Line	West of SR 524	Resurfacing	DDR, DIH, DS																\$ 49.47
T2.9	SR 520	Aurora Rd.	Hubert Humphrey Cswy.	Resurfacing	DDR, DIH, TMA (SU)			\$ 1.55													\$ 4.81
T2.10	SR 520	Lake Dr.	Varr Ave.	Safety Project	ACSS, DDR			\$ 1.08													\$ 8.87
T2.11	SR 520	E of Millford Point Dr.	E of Cape Canaveral Hospital	Resurfacing	DDR, DIH																\$ 1.78
T2.12	SR 519/Fiske Blvd.	Prosperity Pl.	I-95 NB Ramps/Barnes Blvd.	Add Left Turn Lane(s)	ACFP																\$ 5.68
T2.13	SR 519/Fiske Blvd.	I-95	SR 520	Resurfacing	DDR, DIH, DS																\$ 3.95
T2.14	SR 3/N Courtenay Pkwy. at Mustang Way	N/A	N/A	Misc. Construction	ACSS, DDR			\$ 0.77													\$ 9.27
T2.15	SR 3/N Courtenay Pkwy.	SR 528	Kennedy Space Center Gate	Resurfacing	DDR, DIH, SA																\$ 8.60
T2.16	SR A1A at N Atlantic Ave./International Dr.	International Dr.	Long Point Rd.	Misc. Construction Intersection Realignment/New 2 Lane Road	TMA (SU) Other Arterial			\$ 2.64													\$ 1.61
T2.17	SR A1A	Long Point Rd.	Just S. of the George King Blvd. On/Off Ramps	Roadway Improvements (Adding Curb/Gutter)	Other Arterial																\$ 9.11
T2.18	SR A1A	Cocoa Isle Blvd.	St. Lucie Ln.	Safety Project	ACSS																\$ 2.64
T2.19	NB & SB SR A1A	Crescent Beach Dr.	Just S. of Minuteman Cswy.	Safety Project	ACSS			\$ 0.21													\$ 5.40
T2.20	SR A1A	N 2nd St.	Sunflower St.	Roadway Improvements (Adding Curb/Gutter)	Other Arterial																\$ 18.00
T2.21	SR A1A	SR 518	Volunteer Way	Sidewalk	TMA (SU) TALU			\$ 0.81													\$ 12.45
T2.22	SR A1A at SR 518/East Eau Gallie Boulevard	N/A	N/A	Traffic Signals	ACSS			\$ 0.26													\$ 0.55
T2.23	John Rodes Blvd.	Eau Gallie Blvd.	Aurora Rd.	Sidewalk	TMA (SU)																\$ 1.48
T2.24	SR 518/West Eau Gallie Blvd.	East of I-95 NB Off Ramps Rd.	West of Intersection at Sarno Rd.	Traffic Ops Improvement	ACNP																\$ 0.52
T2.25	SR 518/West Eau Gallie Blvd.	Jones Rd.	200' East of I-95 Interchange Ramps	Traffic Ops Improvement	ACNP, DDR																\$ 2.83
T2.26	SR 5054 (Sarno Rd.) at SR 518 (Eau Gallie Blvd.)	N/A	N/A	Operational Improvements	Other Arterial																\$ 4.95
T2.27	SR 5054 at Wickham Rd.	N/A	N/A	Traffic Signal Update	DDR, DIH																\$ 13.58
T2.28	SR 518/Eau Gallie Blvd. at Turtle Mound Rd.	N/A	N/A	Traffic Signals	DIH, DS																\$ 0.54



December 2020

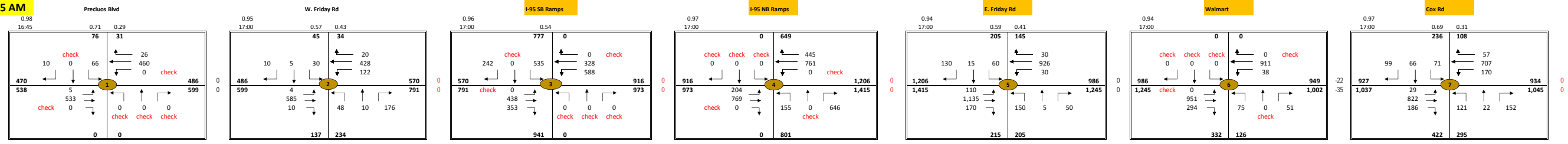


# **Appendix G**

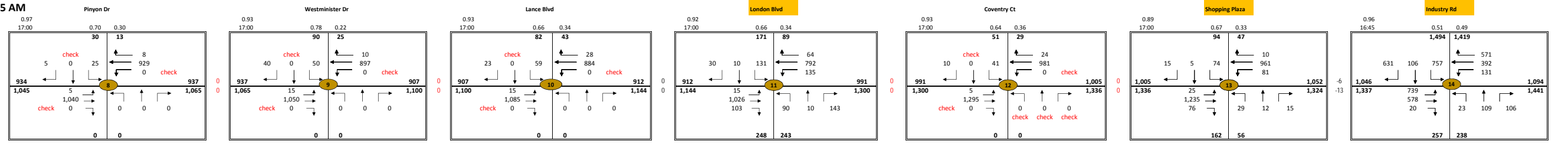
## TURNS 5 Sheets

No Build

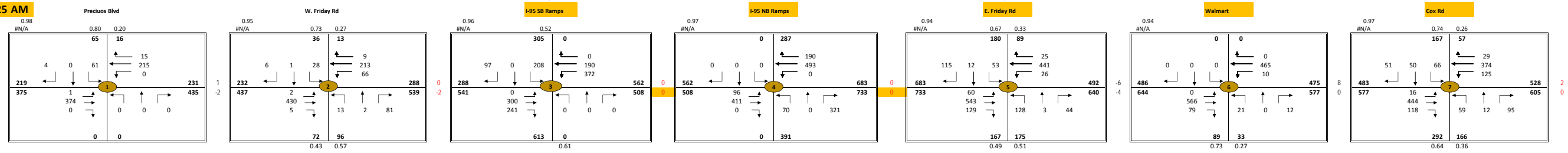
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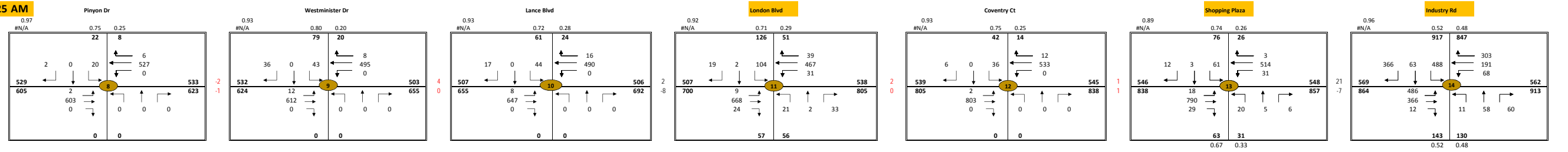
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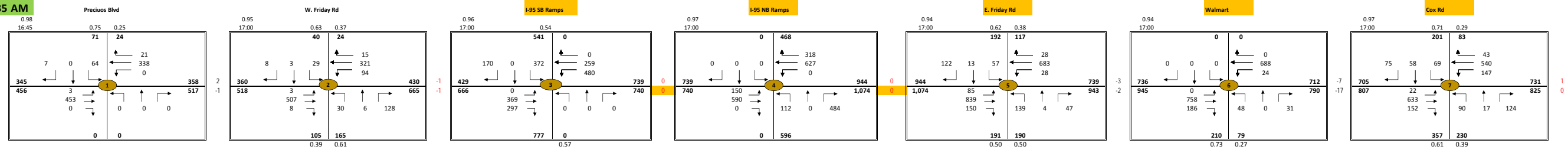
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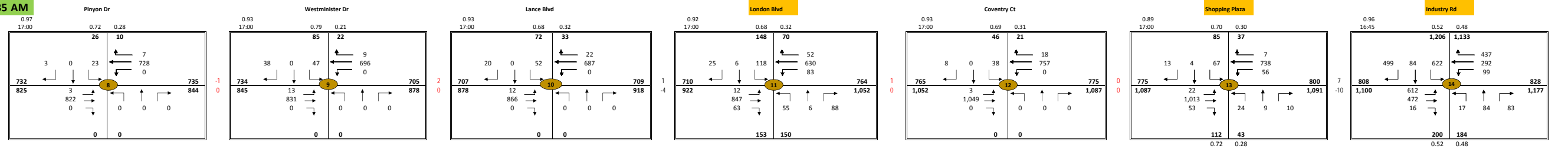
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2035 AM

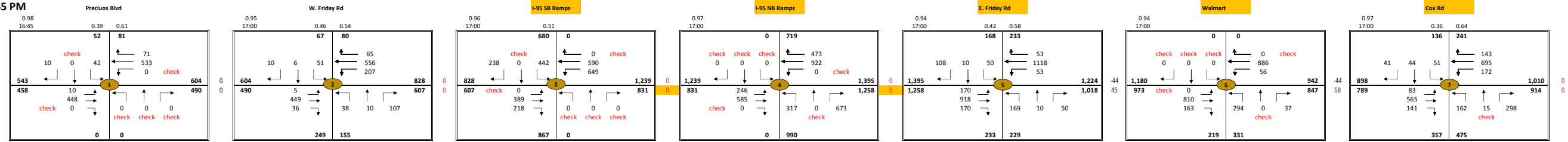


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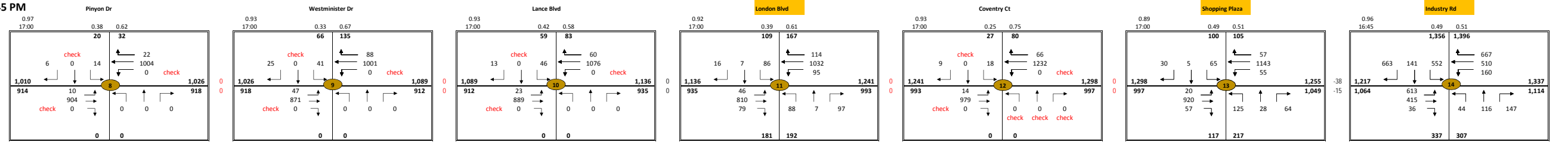


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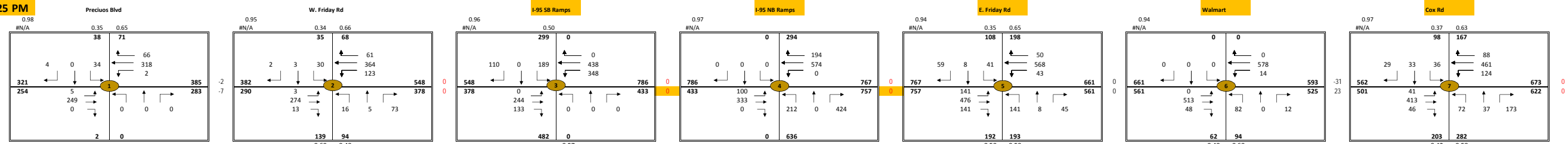
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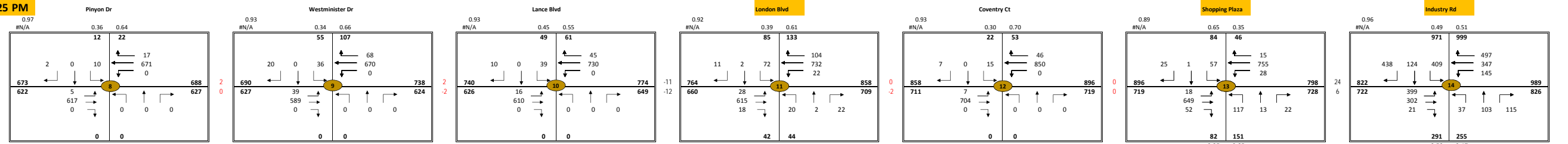
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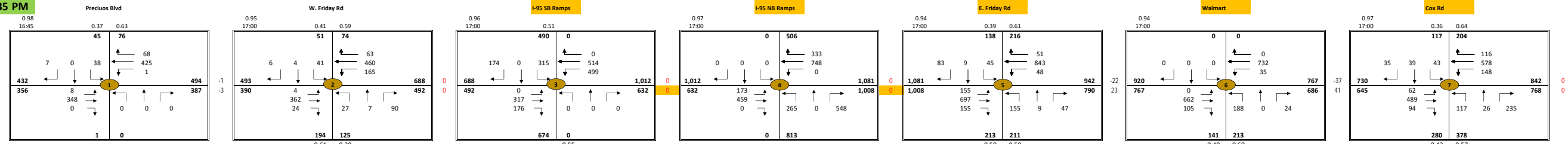
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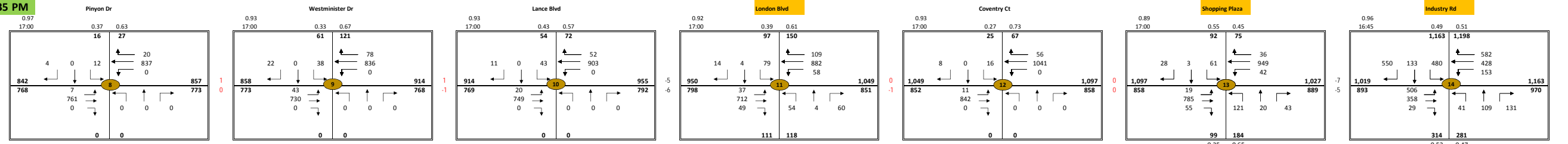
2025 PM



2025 PM



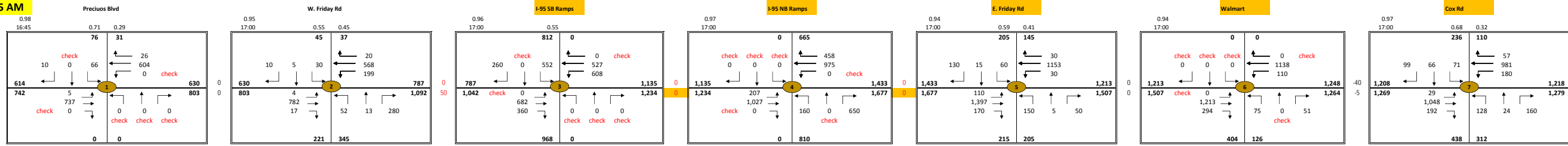
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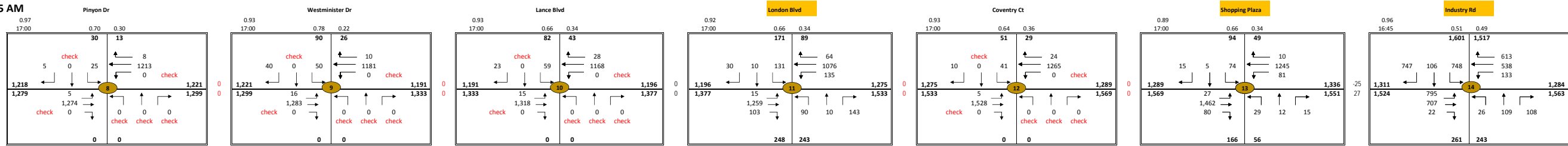


Build

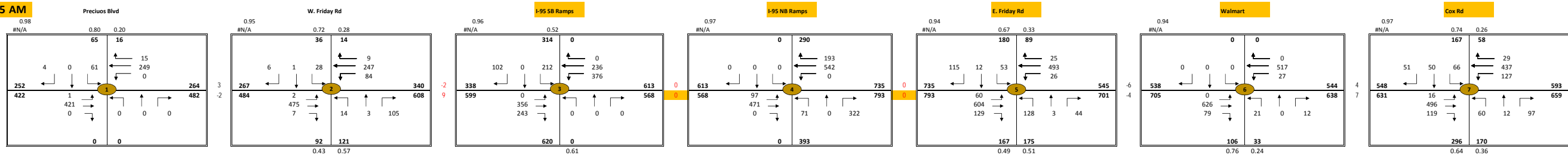
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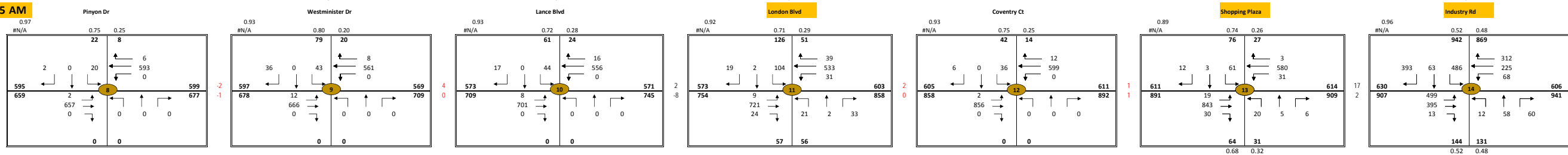
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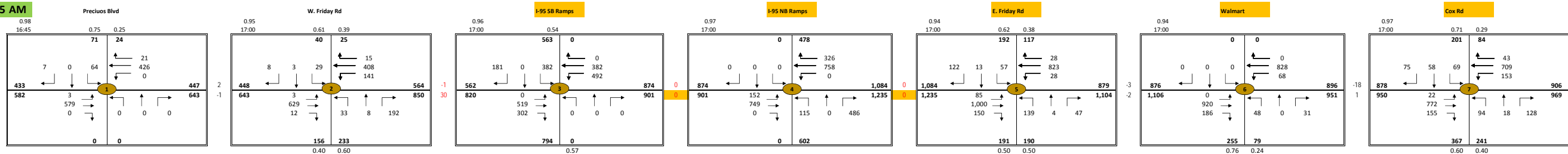
2025 AM



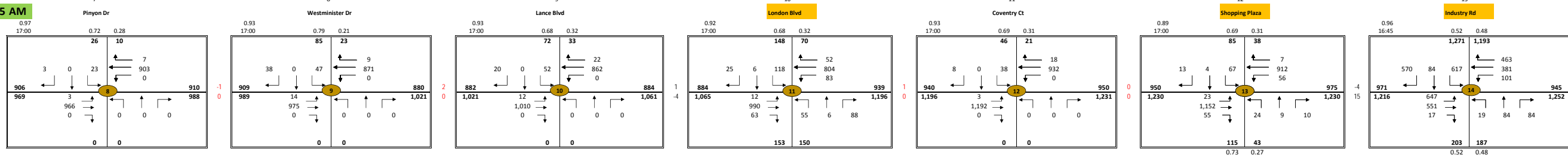
2025 AM



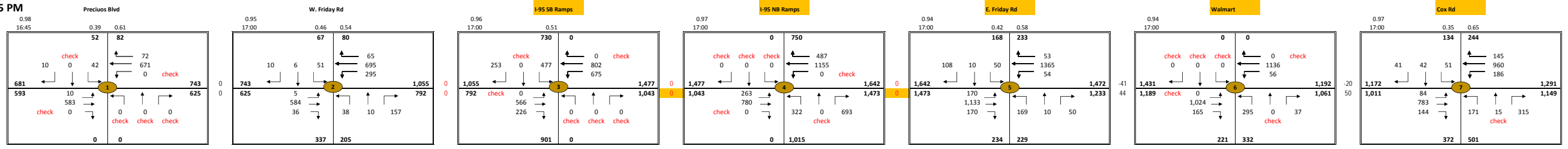
2025 AM



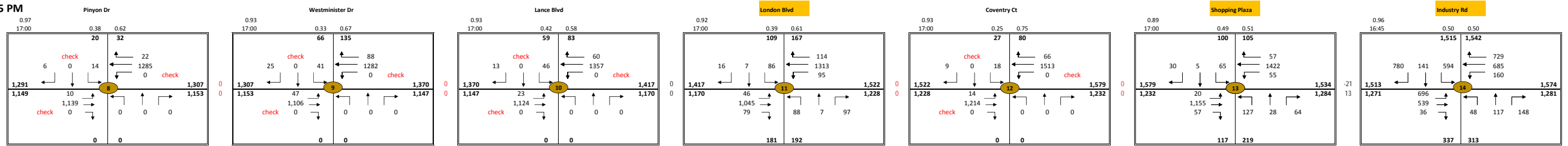
2025 AM



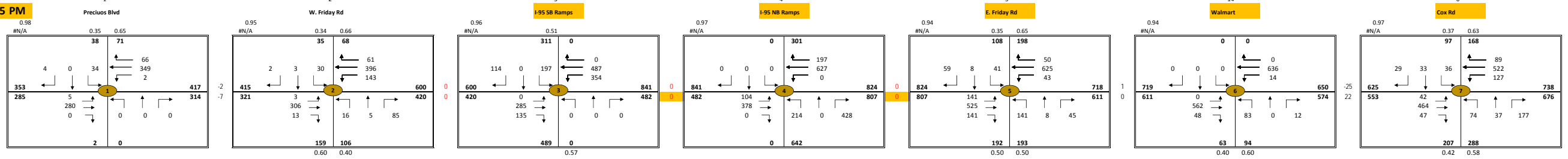
2045 PM



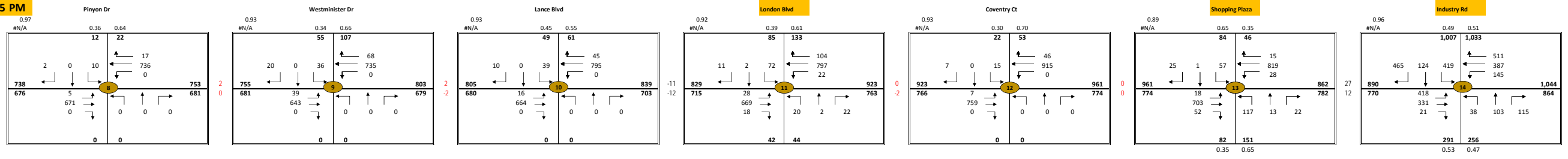
2045 PM



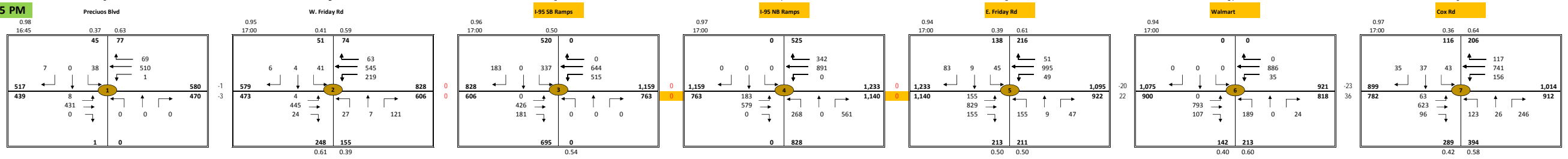
2025 PM



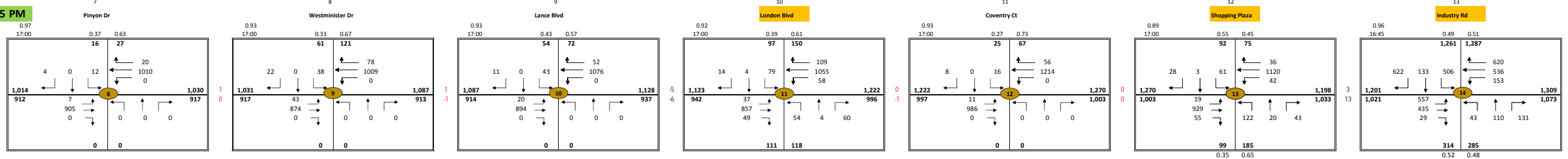
2025 PM



2035 PM



2035 PM



### TURNS5 ANALYSIS SHEET - INPUT

Analyst:

Date: 24-Apr-19

Highway: SR 524

Intersection: W. Friday Rd - No Build AM

Project: SR 524 DTTM

County: Brevard

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

EB, WB, and SB

EB, WB, and NB

EB, SB, and NB

WB, SB, and NB

Is the Mainline Oriented North/South?

Enter Yes or No

Yes

No

K Factors	Mainline	D Factors	Mainline
	9.00%	Westbound (WB)	45.0%
	Side street	Eastbound (EB)	55.0%
	9.00%		Side street
		Northbound (NB)	65.0%
		Southbound (SB)	35.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

Yes

No

If "Yes" go to cell C47

If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Year	Rate (1.0% = 0.01)	
	Mainline	Side Street
Base 2016		
Opening 2023		
Mid 2033	4.00%	4.00%
Design 2043		

Mainline Growth Function

Linear

Exponential

Decaying

Side Street Growth Function

Linear

Exponential

Decaying

Enter Base Year AADTs for Volume Comparison:  
(growth rates are used to calculate other project years)

From West:	From East:	From North:	From South:	TOTAL
EB Approach	WB Approach	SB Approach	NB Approach	
22000	15000	6600	10000	53600

Enter Project and Model Years

Year
Base 2019
Opening 2025
Mid 2035
Design 2045
Model 2045

Enter Base and Model Year AADTs for Volume Comparison:  
(volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	TOTAL
	EB Approach	WB Approach	SB Approach	NB Approach	
2019	6800	9400	940	1700	18840
2045	12000	16000	1000	4000	33000

#### 1st Guess Actual/Counted Turning %'s for Traffic AADT Balancing for 2019

(EB LT)	West-to-North	0.3%	1
(EB THRU)	West-to-East	98.7%	383
(EB RT)	West-to-South	1.0%	4
(WB LT)	East-to-South	23.8%	49
(WB THRU)	East-to-West	73.3%	151
(WB RT)	East-to-North	2.9%	6
(SB LT)	North-to-East	82.4%	28
(SB THRU)	North-to-South	2.9%	1
(SB RT)	North-to-West	14.7%	5
(NB LT)	South-to-West	3.6%	2
(NB THRU)	South-to-North	1.9%	1
(NB RT)	South-to-East	94.5%	52

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

Desired Closure: 1.00

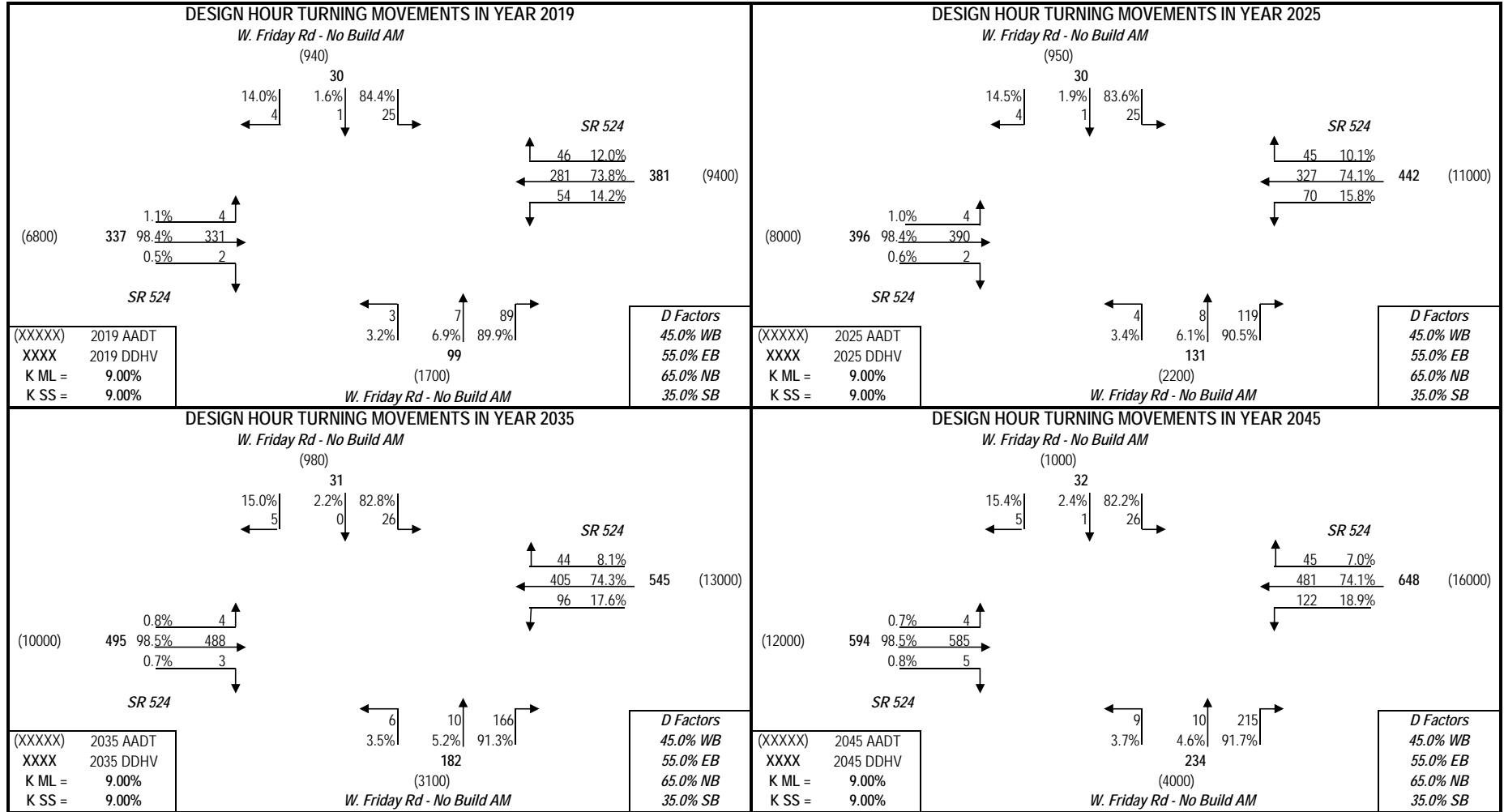
#### First Guess Turning % Option Used Existing Turning Movement Counts

Only the existing year total departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the actual distribution of turning volumes entered. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

### PROJECT TRAFFIC FOR SR 524 AT W. Friday Rd - No Build AM



### TURNS5 ANALYSIS SHEET - INPUT

Analyst:

Date: 24-Apr-19

Highway: SR 524

Intersection: I-95 - No Build AM

Project: SR 524 DTTM

County: Brevard

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

EB, WB, and SB

EB, WB, and NB

EB, SB, and NB

WB, SB, and NB

Is the Mainline Oriented North/South?

Enter Yes or No

Yes

No

K Factors		D Factors	
	Mainline		Mainline
	9.00%	Westbound (WB)	45.0%
	Side street	Eastbound (EB)	55.0%
	9.00%		Side street
		Northbound (NB)	45.0%
		Southbound (SB)	55.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

Yes

No

If "Yes" go to cell C47

If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Base	Year	Rate (1.0% = 0.01)	
		Mainline	Side Street
Opening	2016		
Mid	2033	4.00%	4.00%
Design	2043		

Mainline Growth Function

Linear

Exponential

Decaying

Side Street Growth Function

Linear

Exponential

Decaying

Enter Base Year AADTs for Volume Comparison:  
(growth rates are used to calculate other project years)

From West:	From East:	From North:	From South:	TOTAL
EB Approach	WB Approach	SB Approach	NB Approach	
22000	15000	6600	10000	53600

Enter Project and Model Years

	Year
Base	2019
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:  
(volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	TOTAL
	EB Approach	WB Approach	SB Approach	NB Approach	
2019	9400	18000	5400	10700	43500
2045	16000	31000	16800	21000	84800

#### 1st Guess Actual/Counted Turning %'s for Traffic AADT Balancing for 2019

		1st Guess	Actual/Counted
(EB LT)	West-to-North	13.7%	64
(EB THRU)	West-to-East	41.7%	194
(EB RT)	West-to-South	44.6%	208
(WB LT)	East-to-South	58.4%	307
(WB THRU)	East-to-West	19.9%	105
(WB RT)	East-to-North	21.7%	114
(SB LT)	North-to-East	67.1%	110
(SB THRU)	North-to-South	0.0%	0
(SB RT)	North-to-West	32.9%	54
(NB LT)	South-to-West	16.4%	44
(NB THRU)	South-to-North	0.0%	0
(NB RT)	South-to-East	83.6%	224

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

First Guess Turning % Option Used Existing Turning Movement Counts

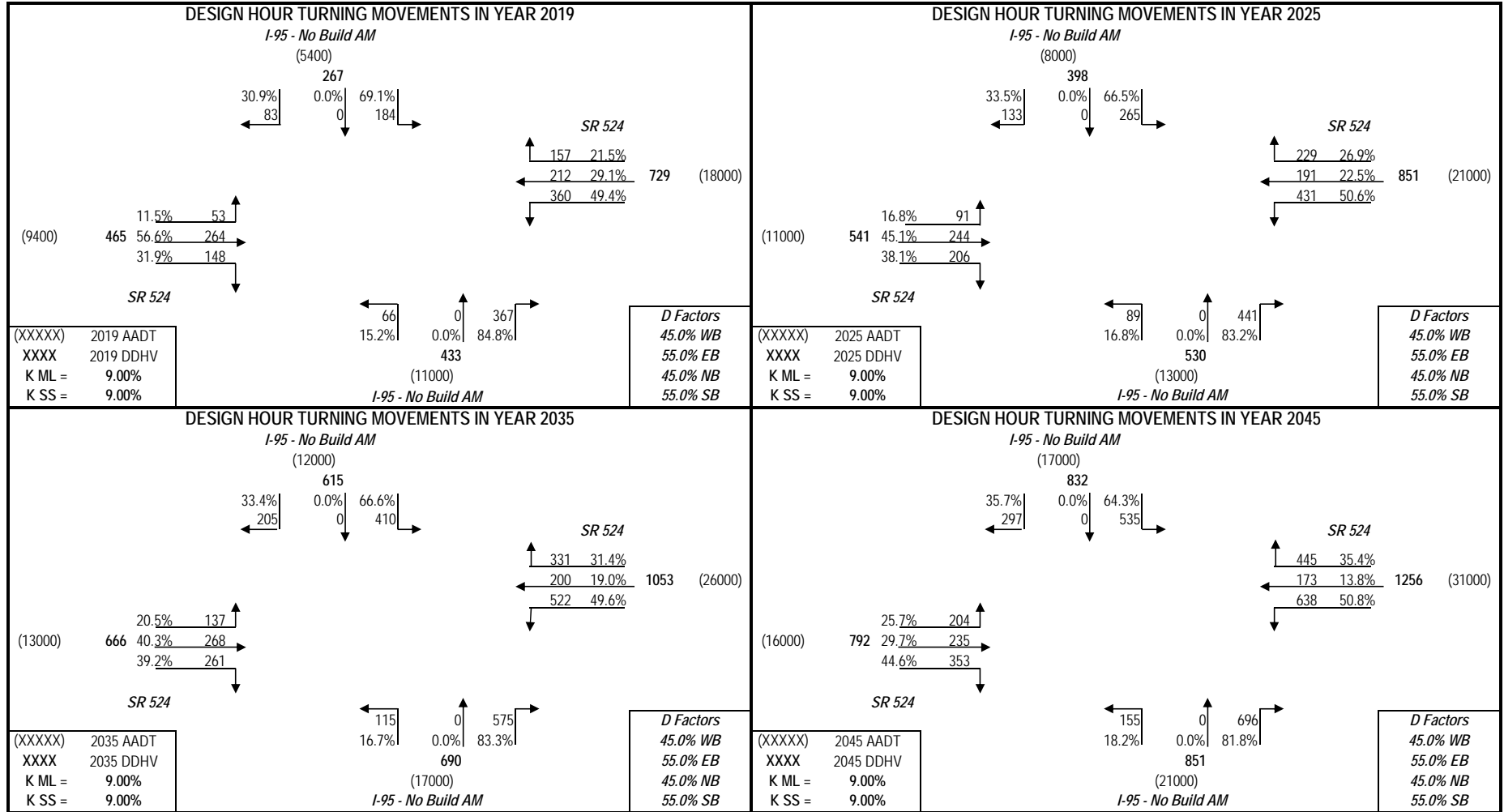
Only the existing year total departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the **actual distribution of turning volumes entered**. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

Desired Closure: 1.00

### PROJECT TRAFFIC FOR SR 524 AT I-95 - No Build AM



### TURNS5 ANALYSIS SHEET - INPUT

Analyst:

Date: 24-Apr-19

Highway: SR 524

Intersection: E. Friday Rd - No Build AM

Project: SR 524 DTTM

County: Brevard

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

EB, WB, and SB

EB, WB, and NB

EB, SB, and NB

WB, SB, and NB

Is the Mainline Oriented North/South?

Enter Yes or No

Yes

No

K Factors		D Factors	
	Mainline		Mainline
	9.00%	Westbound (WB)	45.0%
		Eastbound (EB)	55.0%
	Side street		Side street
	9.00%	Northbound (NB)	40.0%
		Southbound (SB)	60.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

Yes

No

If "Yes" go to cell C47

If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Year	Rate (1.0% = 0.01)	
	Mainline	Side Street
Base 2016		
Opening 2023		
Mid 2033	4.00%	4.00%
Design 2043		

Mainline Growth Function

Linear

Exponential

Decaying

Side Street Growth Function

Linear

Exponential

Decaying

Enter Base Year AADTs for Volume Comparison:  
(growth rates are used to calculate other project years)

From West:	From East:	From North:	From South:	TOTAL
EB Approach	WB Approach	SB Approach	NB Approach	
22000	15000	6600	10000	53600

Enter Project and Model Years

Year
Base 2019
Opening 2025
Mid 2035
Design 2045
Model 2045

Enter Base and Model Year AADTs for Volume Comparison:  
(volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	TOTAL
	EB Approach	WB Approach	SB Approach	NB Approach	
2019	18000	10000	2900	5400	36300
2045	25800	17000	3100	5800	51700

#### 1st Guess Actual/Counted Turning %'s for Traffic AADT Balancing for 2019

Direction	Turning %	Actual/Counted
(EB LT) West-to-North	8.5%	45
(EB THRU) West-to-East	69.3%	366
(EB RT) West-to-South	22.2%	117
(WB LT) East-to-South	7.3%	25
(WB THRU) East-to-West	85.7%	295
(WB RT) East-to-North	7.0%	24
(SB LT) North-to-East	29.7%	51
(SB THRU) North-to-South	6.3%	11
(SB RT) North-to-West	64.0%	110
(NB LT) South-to-West	72.9%	121
(NB THRU) South-to-North	1.8%	3
(NB RT) South-to-East	25.3%	42

Desired Closure: 1.00

First Guess Turning % Option Used  
Existing Turning Movement Counts

Existing Year AADTs

Only the existing year total departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

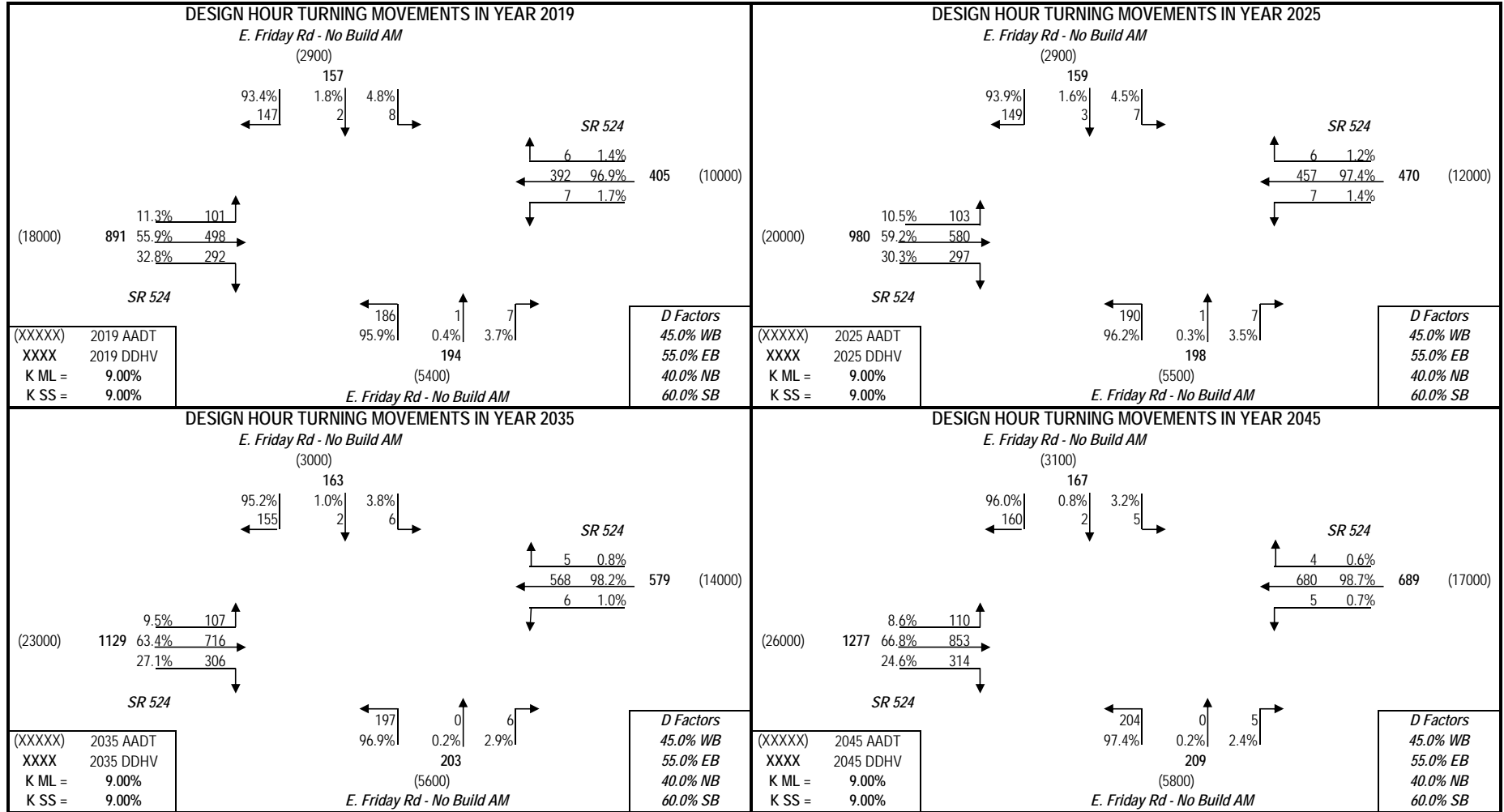
Existing Turning Movement Counts

The turning percentages first guess is the same as the **actual distribution of turning volumes entered**. No balancing technique is used.

FSUTMS Model Year AADTs

Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

### PROJECT TRAFFIC FOR SR 524 AT E. Friday Rd - No Build AM





### TURNS5 ANALYSIS SHEET - INPUT

Analyst:

Date: 24-Apr-19

Highway: SR 524

Intersection: W. Friday Rd - No Build PM

Project: SR 524 DTTM

County: Brevard

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

EB, WB, and SB

EB, WB, and NB

EB, SB, and NB

WB, SB, and NB

Is the Mainline Oriented North/South?

Enter Yes or No

Yes

No

K Factors	Mainline	D Factors	Mainline
	9.00%	Westbound (WB)	55.0%
	Side street	Eastbound (EB)	45.0%
	9.00%		Side street
		Northbound (NB)	35.0%
		Southbound (SB)	65.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

Yes

No

If "Yes" go to cell C47

If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Base	Year	Rate (1.0% = 0.01)	
		Mainline	Side Street
Opening	2016		
Mid	2033	4.00%	4.00%
Design	2043		

Mainline Growth Function

Linear

Exponential

Decaying

Side Street Growth Function

Linear

Exponential

Decaying

Enter Base Year AADTs for Volume Comparison:  
(growth rates are used to calculate other project years)

From West:	From East:	From North:	From South:	TOTAL
EB Approach	WB Approach	SB Approach	NB Approach	
22000	15000	6600	10000	53600

Enter Project and Model Years

	Year
Base	2019
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:  
(volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	TOTAL
	EB Approach	WB Approach	SB Approach	NB Approach	
2019	6800	9400	940	1700	18840
2045	12000	16000	1000	4000	33000

#### 1st Guess Actual/Counted Turning %'s for Traffic AADT Balancing for 2019

		1st Guess	Actual/Counted
(EB LT)	West-to-North	0.9%	2
(EB THRU)	West-to-East	96.5%	222
(EB RT)	West-to-South	2.6%	6
(WB LT)	East-to-South	21.1%	98
(WB THRU)	East-to-West	66.0%	306
(WB RT)	East-to-North	12.9%	60
(SB LT)	North-to-East	88.9%	24
(SB THRU)	North-to-South	7.4%	2
(SB RT)	North-to-West	3.7%	1
(NB LT)	South-to-West	13.2%	10
(NB THRU)	South-to-North	3.9%	3
(NB RT)	South-to-East	82.9%	63

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

Desired Closure: 1.00

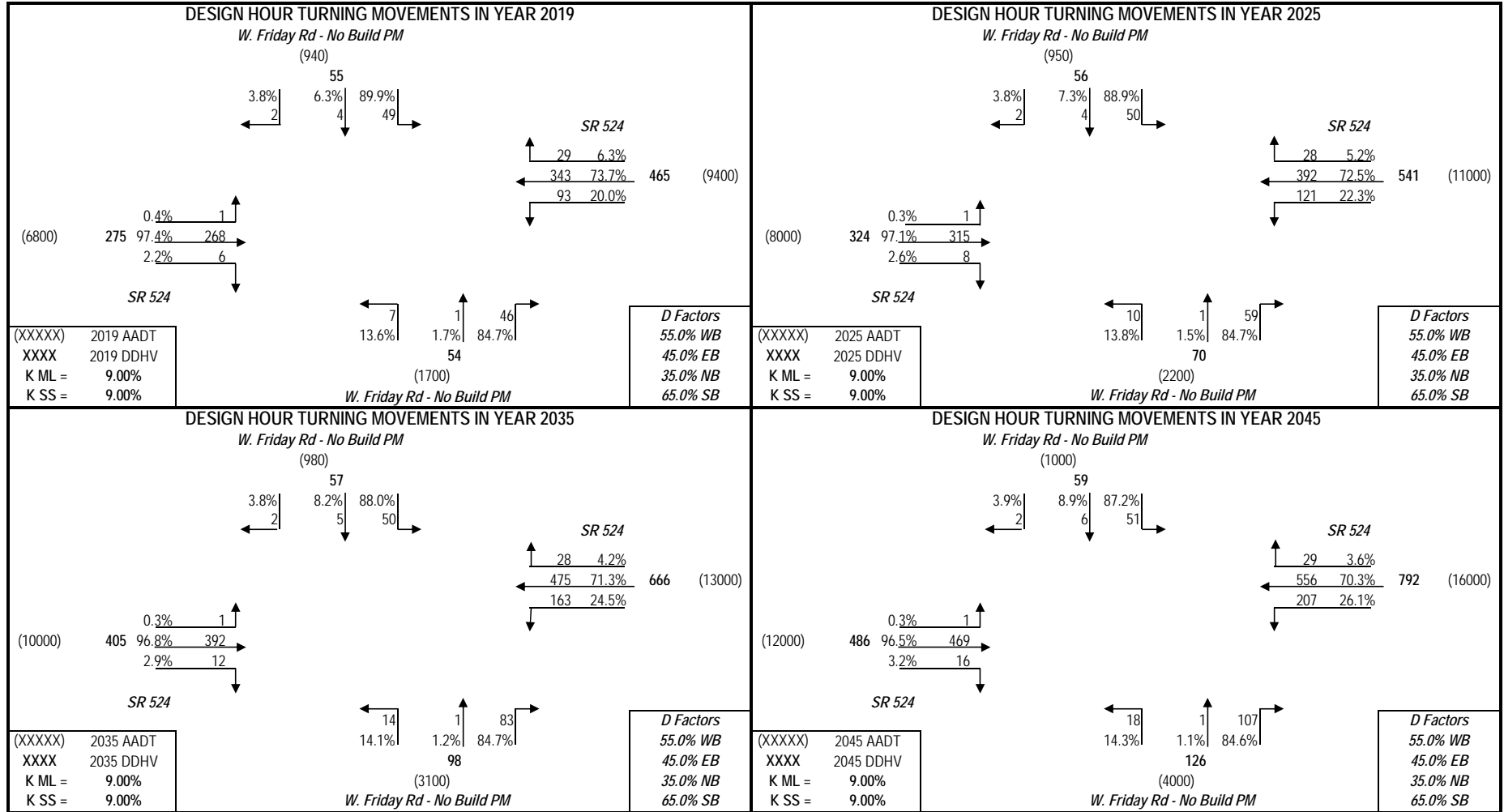
#### First Guess Turning % Option Used Existing Turning Movement Counts

Only the existing year total departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the **actual distribution of turning volumes entered**. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

### PROJECT TRAFFIC FOR SR 524 AT W. Friday Rd - No Build PM



### TURNS5 ANALYSIS SHEET - INPUT

Analyst:

Date: 24-Apr-19

Highway: SR 524

Intersection: I-95 - No Build PM

Project: SR 524 DTTM

County: Brevard

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

EB, WB, and SB

EB, WB, and NB

EB, SB, and NB

WB, SB, and NB

Is the Mainline Oriented North/South?

Enter Yes or No

Yes

No

K Factors		D Factors	
	Mainline		Mainline
	9.00%	Westbound (WB)	55.0%
	Side street	Eastbound (EB)	45.0%
	9.00%		Side street
		Northbound (NB)	55.0%
		Southbound (SB)	45.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

Yes

No

If "Yes" go to cell C47

If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Base	Year	Rate (1.0% = 0.01)	
		Mainline	Side Street
Opening	2016		
Mid	2033	4.00%	4.00%
Design	2043		

Mainline Growth Function

Linear

Exponential

Decaying

Side Street Growth Function

Linear

Exponential

Decaying

Enter Base Year AADTs for Volume Comparison:  
(growth rates are used to calculate other project years)

From West:	From East:	From North:	From South:	TOTAL
EB Approach	WB Approach	SB Approach	NB Approach	
22000	15000	6600	10000	53600

Enter Project and Model Years

	Year
Base	2019
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:  
(volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	TOTAL
	EB Approach	WB Approach	SB Approach	NB Approach	
2019	9400	18000	5400	10700	43500
2045	16000	31000	16800	21000	84800

#### 1st Guess Actual/Counted Turning %'s for Traffic AADT Balancing for 2019

		1st Guess	Actual/Counted
(EB LT)	West-to-North	18.1%	56
(EB THRU)	West-to-East	46.9%	145
(EB RT)	West-to-South	35.0%	108
(WB LT)	East-to-South	44.6%	258
(WB THRU)	East-to-West	36.4%	211
(WB RT)	East-to-North	19.0%	110
(SB LT)	North-to-East	61.1%	113
(SB THRU)	North-to-South	0.0%	0
(SB RT)	North-to-West	38.9%	72
(NB LT)	South-to-West	34.2%	181
(NB THRU)	South-to-North	0.0%	0
(NB RT)	South-to-East	65.8%	349

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

First Guess Turning % Option Used Existing Turning Movement Counts

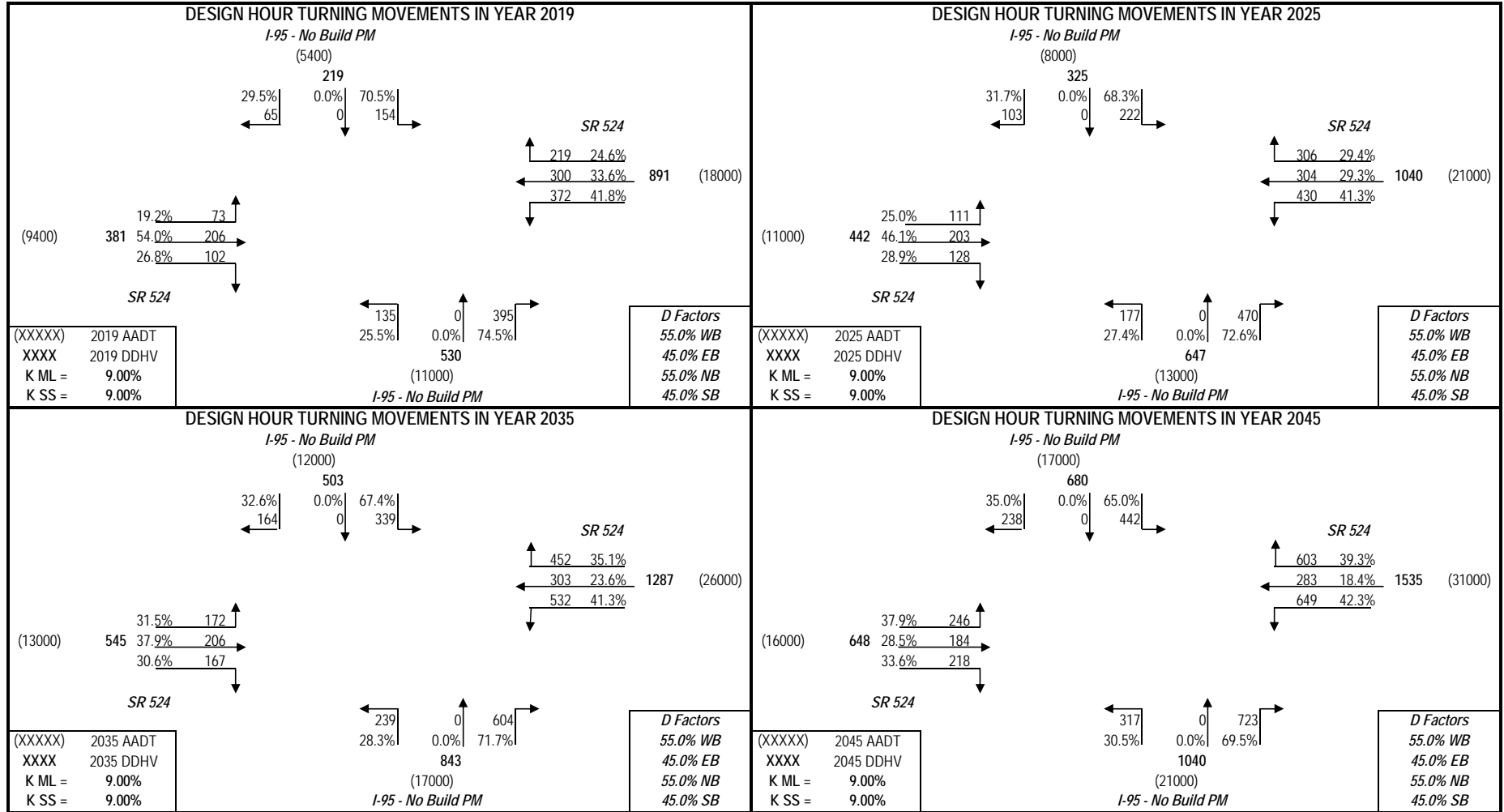
Only the existing year total departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the **actual distribution of turning volumes entered**. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

Desired Closure: 1.00

### PROJECT TRAFFIC FOR SR 524 AT I-95 - No Build PM



### TURNS5 ANALYSIS SHEET - INPUT

Analyst:

Date: 24-Apr-19

Highway: SR 524

Intersection: E. Friday Rd - No Build AM

Project: SR 524 DTTM

County: Brevard

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

EB, WB, and SB

EB, WB, and NB

EB, SB, and NB

WB, SB, and NB

Is the Mainline Oriented North/South?

Enter Yes or No

Yes

No

K Factors	Mainline	D Factors	Mainline
	9.00%	Westbound (WB)	55.0%
	Side street	Eastbound (EB)	45.0%
	9.00%		Side street
		Northbound (NB)	60.0%
		Southbound (SB)	40.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

Yes

No

If "Yes" go to cell C47

If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Base	Year	Rate (1.0% = 0.01)	
		Mainline	Side Street
Opening	2016		
Mid	2033	4.00%	4.00%
Design	2043		

Mainline Growth Function

Linear

Exponential

Decaying

Side Street Growth Function

Linear

Exponential

Decaying

Enter Base Year AADTs for Volume Comparison:  
(growth rates are used to calculate other project years)

From West:	From East:	From North:	From South:	TOTAL
EB Approach	WB Approach	SB Approach	NB Approach	
22000	15000	6600	10000	53600

Enter Project and Model Years

	Year
Base	2019
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:  
(volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	TOTAL
	EB Approach	WB Approach	SB Approach	NB Approach	
2019	18000	10000	2900	5400	36300
2045	25800	17000	3100	5800	51700

#### 1st Guess Actual/Counted Turning %'s for Traffic AADT Balancing for 2019

(EB LT)	West-to-North	21.7%	132
(EB THRU)	West-to-East	56.6%	343
(EB RT)	West-to-South	21.7%	132
(WB LT)	East-to-South	8.5%	42
(WB THRU)	East-to-West	81.6%	403
(WB RT)	East-to-North	9.9%	49
(SB LT)	North-to-East	42.2%	38
(SB THRU)	North-to-South	8.9%	8
(SB RT)	North-to-West	48.9%	44
(NB LT)	South-to-West	72.5%	132
(NB THRU)	South-to-North	3.9%	7
(NB RT)	South-to-East	23.6%	43

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

Desired Closure: 1.00

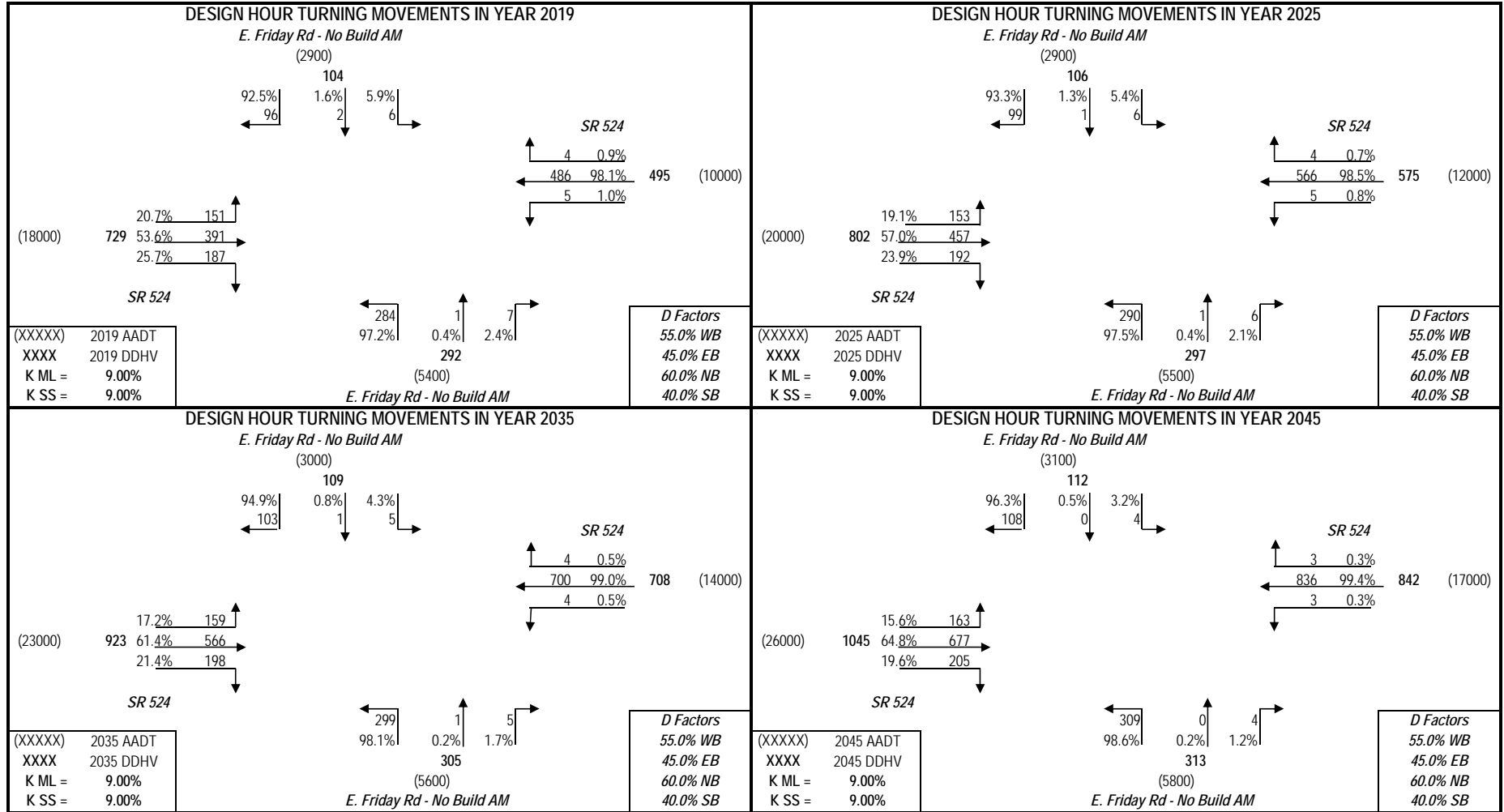
#### First Guess Turning % Option Used Existing Turning Movement Counts

Only the existing year total departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the **actual distribution of turning volumes entered**. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

### PROJECT TRAFFIC FOR SR 524 AT E. Friday Rd - No Build AM



### TURNS5 ANALYSIS SHEET - INPUT

Analyst:

Date: 24-Apr-19

Highway: SR 524

Intersection: W. Friday Rd - Build AM

Project: SR 524 DTTM

County: Brevard

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

EB, WB, and SB

EB, WB, and NB

EB, SB, and NB

WB, SB, and NB

Is the Mainline Oriented North/South?

Enter Yes or No

Yes

No

K Factors	Mainline	D Factors	Mainline
	9.00%	Westbound (WB)	45.0%
	Side street	Eastbound (EB)	55.0%
	9.00%		Side street
		Northbound (NB)	65.0%
		Southbound (SB)	35.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

Yes

No

If "Yes" go to cell C47

If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Base	Year	Rate (1.0% = 0.01)	
		Mainline	Side Street
Opening	2016	4.00%	4.00%
Mid	2033		
Design	2043		
	2043		

Mainline Growth Function

Linear

Exponential

Decaying

Side Street Growth Function

Linear

Exponential

Decaying

Enter Base Year AADTs for Volume Comparison:

(growth rates are used to calculate other project years)

From West:	From East:	From North:	From South:	TOTAL
EB Approach	WB Approach	SB Approach	NB Approach	
22000	15000	6600	10000	53600

Enter Project and Model Years

	Year
Base	2019
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:

(volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	TOTAL
	EB Approach	WB Approach	SB Approach	NB Approach	
2019	6800	9400	940	1700	18840
2045	15000	20000	1000	5900	41900

#### 1st Guess Actual/Counted Turning %'s for Traffic AADT Balancing for 2019

(EB LT)	West-to-North	0.3%	1
(EB THRU)	West-to-East	98.7%	383
(EB RT)	West-to-South	1.0%	4
(WB LT)	East-to-South	23.8%	49
(WB THRU)	East-to-West	73.3%	151
(WB RT)	East-to-North	2.9%	6
(SB LT)	North-to-East	82.4%	28
(SB THRU)	North-to-South	2.9%	1
(SB RT)	North-to-West	14.7%	5
(NB LT)	South-to-West	3.6%	2
(NB THRU)	South-to-North	1.9%	1
(NB RT)	South-to-East	94.5%	52

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

Desired Closure: 1.00

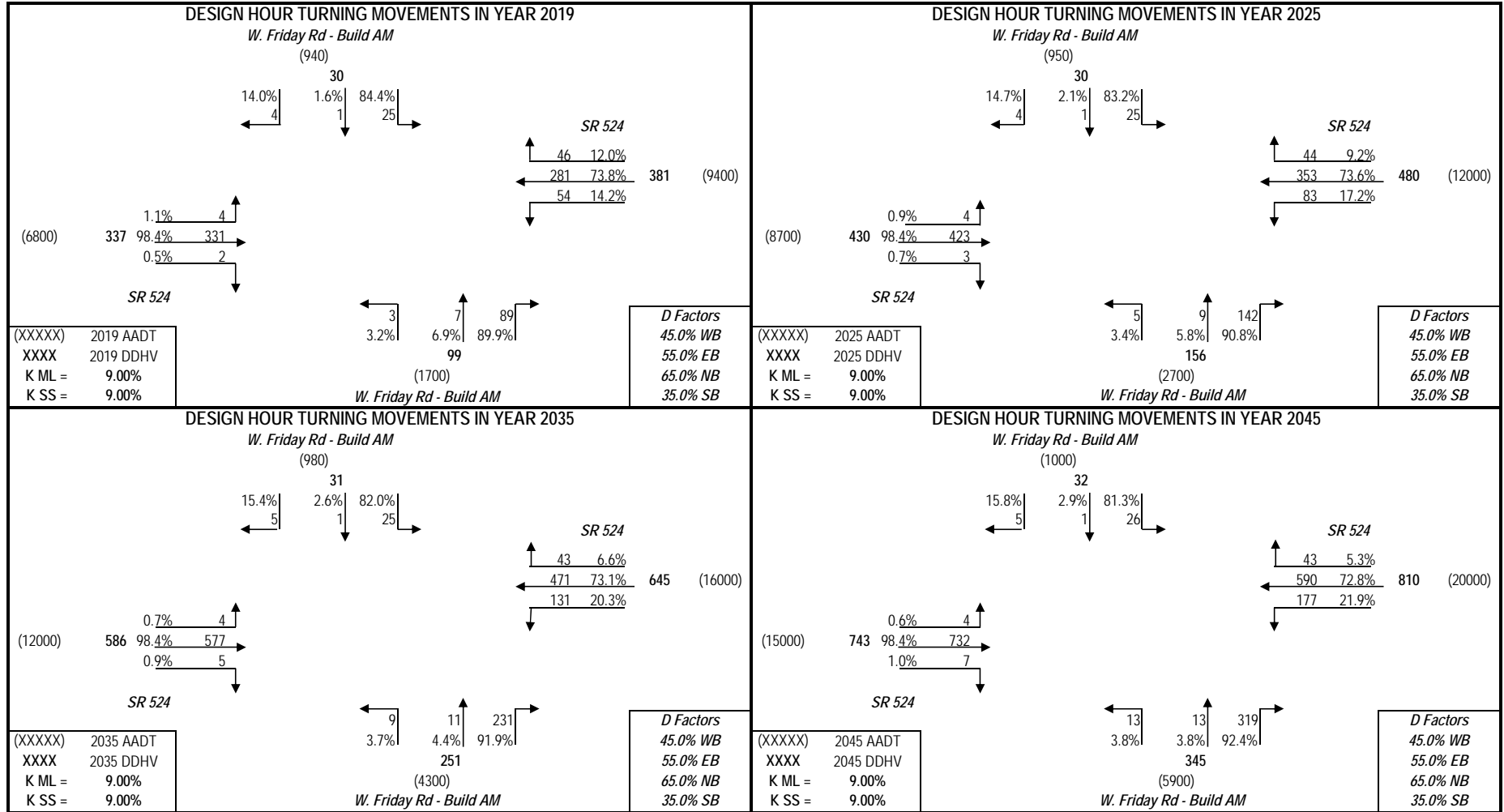
#### First Guess Turning % Option Used Existing Turning Movement Counts

Only the existing year total departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the **actual distribution of turning volumes entered**. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

### PROJECT TRAFFIC FOR SR 524 AT W. Friday Rd - Build AM





### TURNS5 ANALYSIS SHEET - INPUT

Analyst:

Date: 24-Apr-19

Highway: SR 524

Intersection: I-95 - Build AM

Project: SR 524 DTTM

County: Brevard

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

EB, WB, and SB

EB, WB, and NB

EB, SB, and NB

WB, SB, and NB

Is the Mainline Oriented North/South?

Enter Yes or No

Yes

No

K Factors		D Factors	
	Mainline		Mainline
	9.00%	Westbound (WB)	45.0%
		Eastbound (EB)	55.0%
	Side street		Side street
	9.00%	Northbound (NB)	45.0%
		Southbound (SB)	55.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

Yes

No

If "Yes" go to cell C47

If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Base	Year	Rate (1.0% = 0.01)	
		Mainline	Side Street
Opening	2016		
Mid	2033	4.00%	4.00%
Design	2043		

Mainline Growth Function

Linear

Exponential

Decaying

Side Street Growth Function

Linear

Exponential

Decaying

Enter Base Year AADTs for Volume Comparison:  
(growth rates are used to calculate other project years)

From West:	From East:	From North:	From South:	TOTAL
EB Approach	WB Approach	SB Approach	NB Approach	
22000	15000	6600	10000	53600

Enter Project and Model Years

	Year
Base	2019
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:  
(volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	TOTAL
	EB Approach	WB Approach	SB Approach	NB Approach	
2019	9400	18000	5400	10700	43500
2045	20000	39000	16800	21000	96800

#### 1st Guess Actual/Counted Turning %'s for Traffic AADT Balancing for 2019

		1st Guess	Actual/Counted
(EB LT)	West-to-North	13.7%	64
(EB THRU)	West-to-East	41.7%	194
(EB RT)	West-to-South	44.6%	208
(WB LT)	East-to-South	58.4%	307
(WB THRU)	East-to-West	19.9%	105
(WB RT)	East-to-North	21.7%	114
(SB LT)	North-to-East	67.1%	110
(SB THRU)	North-to-South	0.0%	0
(SB RT)	North-to-West	32.9%	54
(NB LT)	South-to-West	16.4%	44
(NB THRU)	South-to-North	0.0%	0
(NB RT)	South-to-East	83.6%	224

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

First Guess Turning % Option Used Existing Turning Movement Counts

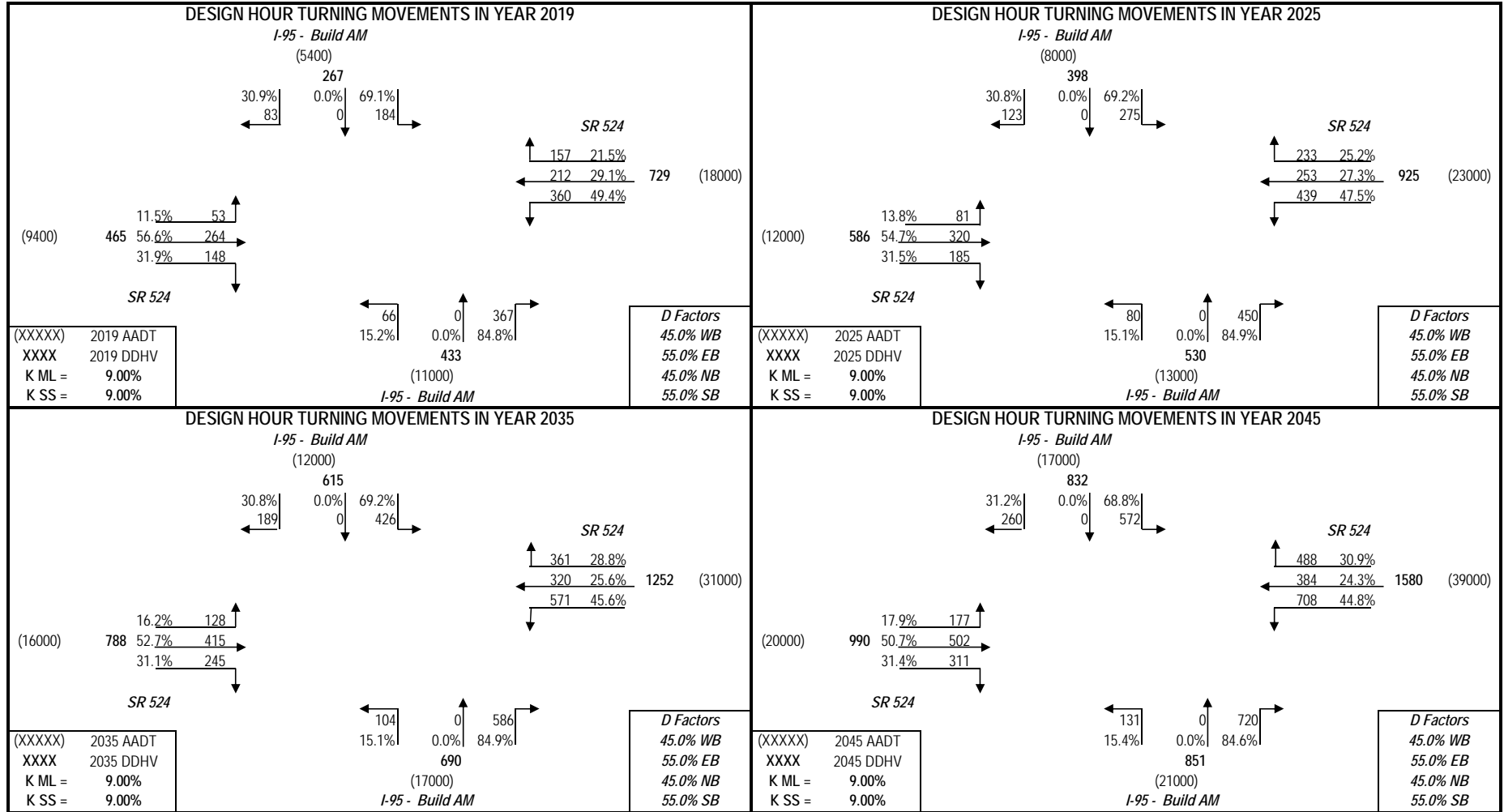
Only the existing year total departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the **actual distribution of turning volumes entered**. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

Desired Closure: 1.00

### PROJECT TRAFFIC FOR SR 524 AT I-95 - Build AM



### TURNS5 ANALYSIS SHEET - INPUT

Analyst:

Date: 24-Apr-19

Highway: SR 524

Intersection: E. Friday Rd - Build AM

Project: SR 524 DTTM

County: Brevard

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

EB, WB, and SB

EB, WB, and NB

EB, SB, and NB

WB, SB, and NB

Is the Mainline Oriented North/South?

Enter Yes or No

Yes

No

K Factors		D Factors	
	Mainline		Mainline
	9.00%	Westbound (WB)	45.0%
	Side street	Eastbound (EB)	55.0%
	9.00%		Side street
		Northbound (NB)	40.0%
		Southbound (SB)	60.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

Yes

No

If "Yes" go to cell C47

If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Year	Rate (1.0% = 0.01)	
	Mainline	Side Street
Base 2016		
Opening 2023		
Mid 2033	4.00%	4.00%
Design 2043		

Mainline Growth Function

Linear

Exponential

Decaying

Side Street Growth Function

Linear

Exponential

Decaying

Enter Base Year AADTs for Volume Comparison:

(growth rates are used to calculate other project years)

From West:	From East:	From North:	From South:	TOTAL
EB Approach	WB Approach	SB Approach	NB Approach	
22000	15000	6600	10000	53600

Enter Project and Model Years

Year
Base 2019
Opening 2025
Mid 2035
Design 2045
Model 2045

Enter Base and Model Year AADTs for Volume Comparison:

(volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	TOTAL
	EB Approach	WB Approach	SB Approach	NB Approach	
2019	18000	10000	2900	5400	36300
2045	30800	22000	3100	5800	61700

#### 1st Guess Actual/Counted Turning %'s for Traffic AADT Balancing for 2019

Approach	Direction	1st Guess	Actual/Counted
(EB LT)	West-to-North	8.5%	45
	(EB THRU)	West-to-East	69.3% 366
	(EB RT)	West-to-South	22.2% 117
(WB LT)	East-to-South	7.3%	25
	(WB THRU)	East-to-West	85.7% 295
	(WB RT)	East-to-North	7.0% 24
(SB LT)	North-to-East	29.7%	51
	(SB THRU)	North-to-South	6.3% 11
	(SB RT)	North-to-West	64.0% 110
(NB LT)	South-to-West	72.9%	121
	(NB THRU)	South-to-North	1.8% 3
	(NB RT)	South-to-East	25.3% 42

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

First Guess Turning % Option Used Existing Turning Movement Counts

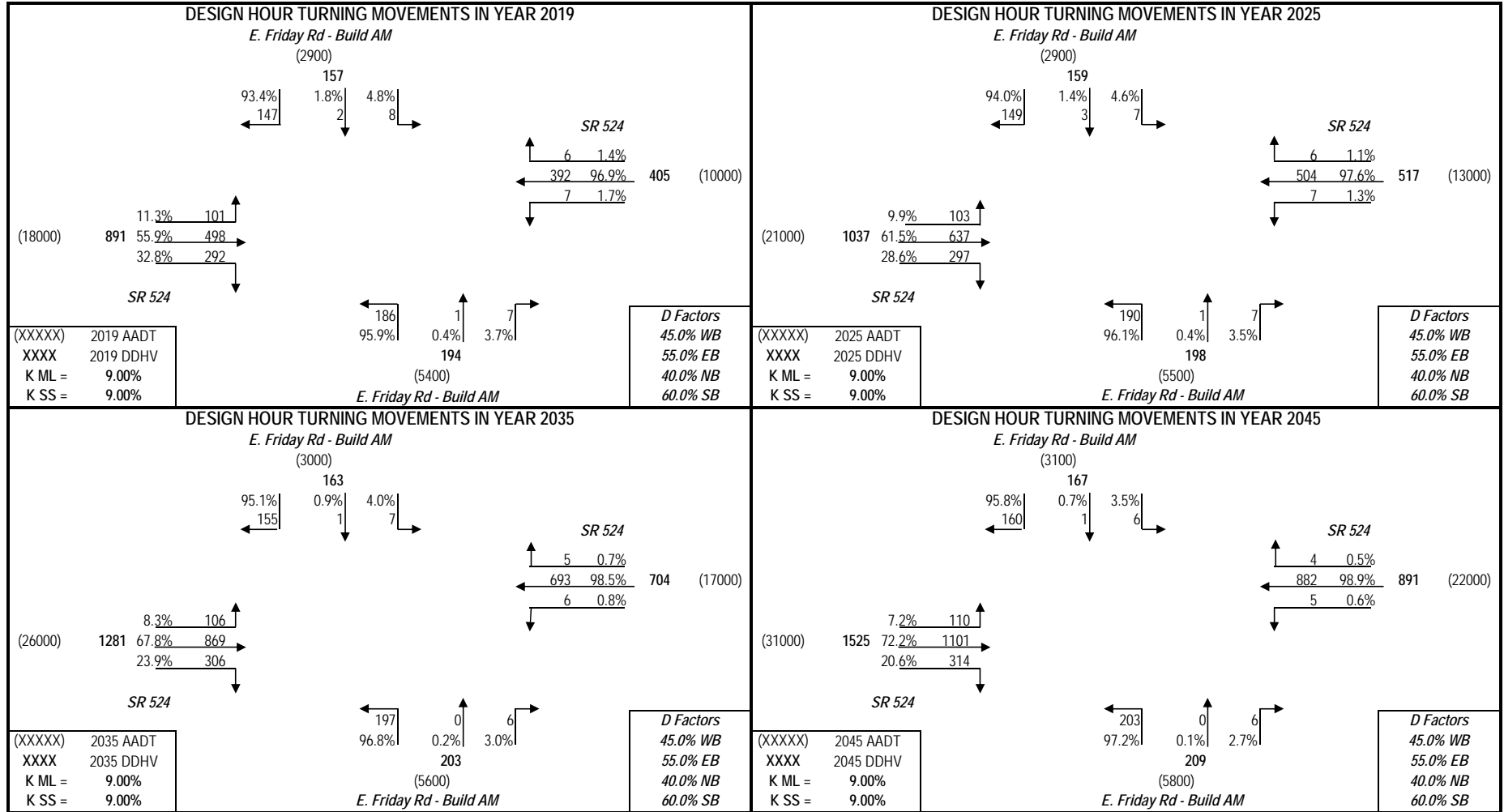
Only the existing year total departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the **actual distribution of turning volumes entered**. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

Desired Closure: 1.00

### PROJECT TRAFFIC FOR SR 524 AT E. Friday Rd - Build AM



### TURNS5 ANALYSIS SHEET - INPUT

Analyst:

Date: 24-Apr-19

Highway: SR 524

Intersection: W. Friday Rd - Build PM

Project: SR 524 DTTM

County: Brevard

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

EB, WB, and SB

EB, WB, and NB

EB, SB, and NB

WB, SB, and NB

Is the Mainline Oriented North/South?

Enter Yes or No

Yes

No

K Factors	Mainline	D Factors	Mainline
	9.00%	Westbound (WB)	55.0%
	Side street	Eastbound (EB)	45.0%
	9.00%		Side street
		Northbound (NB)	35.0%
		Southbound (SB)	65.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

Yes

No

If "Yes" go to cell C47

If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Base	Year	Rate (1.0% = 0.01)	
		Mainline	Side Street
Opening	2016		
Mid	2033	4.00%	4.00%
Design	2043		

Mainline Growth Function

Linear

Exponential

Decaying

Side Street Growth Function

Linear

Exponential

Decaying

Enter Base Year AADTs for Volume Comparison:  
(growth rates are used to calculate other project years)

From West:	From East:	From North:	From South:	TOTAL
EB Approach	WB Approach	SB Approach	NB Approach	
22000	15000	6600	10000	53600

Enter Project and Model Years

	Year
Base	2019
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:  
(volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	TOTAL
	EB Approach	WB Approach	SB Approach	NB Approach	
2019	6800	9400	940	1700	18840
2045	15000	20000	1000	5900	41900

#### 1st Guess Actual/Counted Turning %'s for Traffic AADT Balancing for 2019

		1st Guess	Actual/Counted
(EB LT)	West-to-North	0.9%	2
(EB THRU)	West-to-East	96.5%	222
(EB RT)	West-to-South	2.6%	6
(WB LT)	East-to-South	21.1%	98
(WB THRU)	East-to-West	66.0%	306
(WB RT)	East-to-North	12.9%	60
(SB LT)	North-to-East	88.9%	24
(SB THRU)	North-to-South	7.4%	2
(SB RT)	North-to-West	3.7%	1
(NB LT)	South-to-West	13.2%	10
(NB THRU)	South-to-North	3.9%	3
(NB RT)	South-to-East	82.9%	63

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

Desired Closure: 1.00

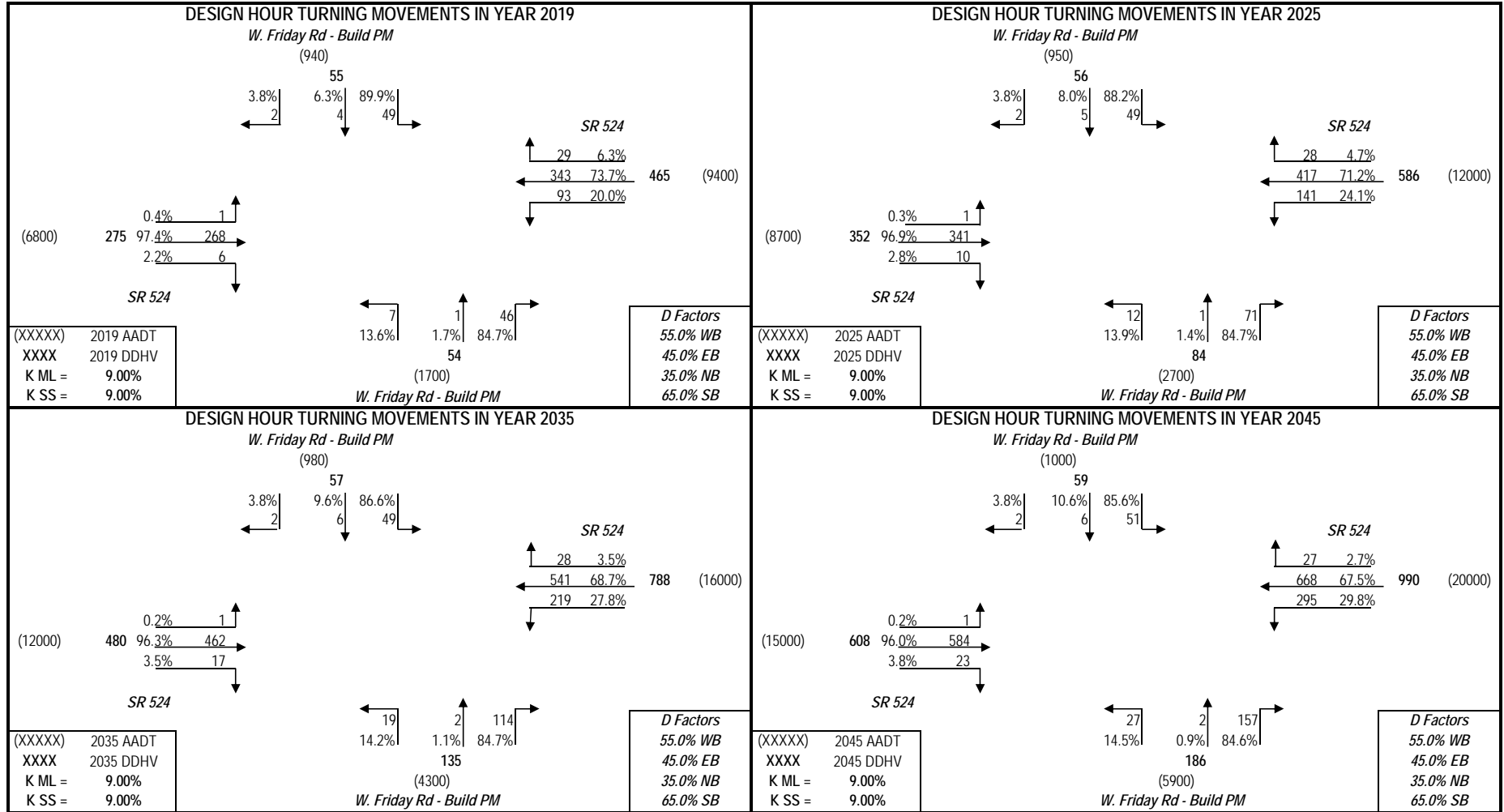
#### First Guess Turning % Option Used Existing Turning Movement Counts

Only the existing year total departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the **actual distribution of turning volumes entered**. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

### PROJECT TRAFFIC FOR SR 524 AT W. Friday Rd - Build PM



### TURNS5 ANALYSIS SHEET - INPUT

Analyst:

Date: 24-Apr-19

Highway: SR 524

Intersection: I-95 - Build PM

Project: SR 524 DTTM

County: Brevard

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

EB, WB, and SB

EB, WB, and NB

EB, SB, and NB

WB, SB, and NB

Is the Mainline Oriented North/South?

Enter Yes or No

Yes

No

K Factors		D Factors	
	Mainline		Mainline
	9.00%	Westbound (WB)	55.0%
	Side street	Eastbound (EB)	45.0%
	9.00%		Side street
		Northbound (NB)	55.0%
		Southbound (SB)	45.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

Yes

No

If "Yes" go to cell C47

If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

Base	Year	Rate (1.0% = 0.01)	
		Mainline	Side Street
Opening	2016		
Mid	2033	4.00%	4.00%
Design	2043		

Mainline Growth Function

Linear

Exponential

Decaying

Side Street Growth Function

Linear

Exponential

Decaying

Enter Base Year AADTs for Volume Comparison:  
(growth rates are used to calculate other project years)

From West:	From East:	From North:	From South:	TOTAL
EB Approach	WB Approach	SB Approach	NB Approach	
22000	15000	6600	10000	53600

Enter Project and Model Years

	Year
Base	2019
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:  
(volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	TOTAL
	EB Approach	WB Approach	SB Approach	NB Approach	
2019	9400	18000	5400	10700	43500
2045	20000	39000	16800	21000	96800

#### 1st Guess Actual/Counted Turning %'s for Traffic AADT Balancing for 2019

		1st Guess	Actual/Counted
(EB LT)	West-to-North	18.1%	56
(EB THRU)	West-to-East	46.9%	145
(EB RT)	West-to-South	35.0%	108
(WB LT)	East-to-South	44.6%	258
(WB THRU)	East-to-West	36.4%	211
(WB RT)	East-to-North	19.0%	110
(SB LT)	North-to-East	61.1%	113
(SB THRU)	North-to-South	0.0%	0
(SB RT)	North-to-West	38.9%	72
(NB LT)	South-to-West	34.2%	181
(NB THRU)	South-to-North	0.0%	0
(NB RT)	South-to-East	65.8%	349

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

First Guess Turning % Option Used  
Existing Turning Movement Counts

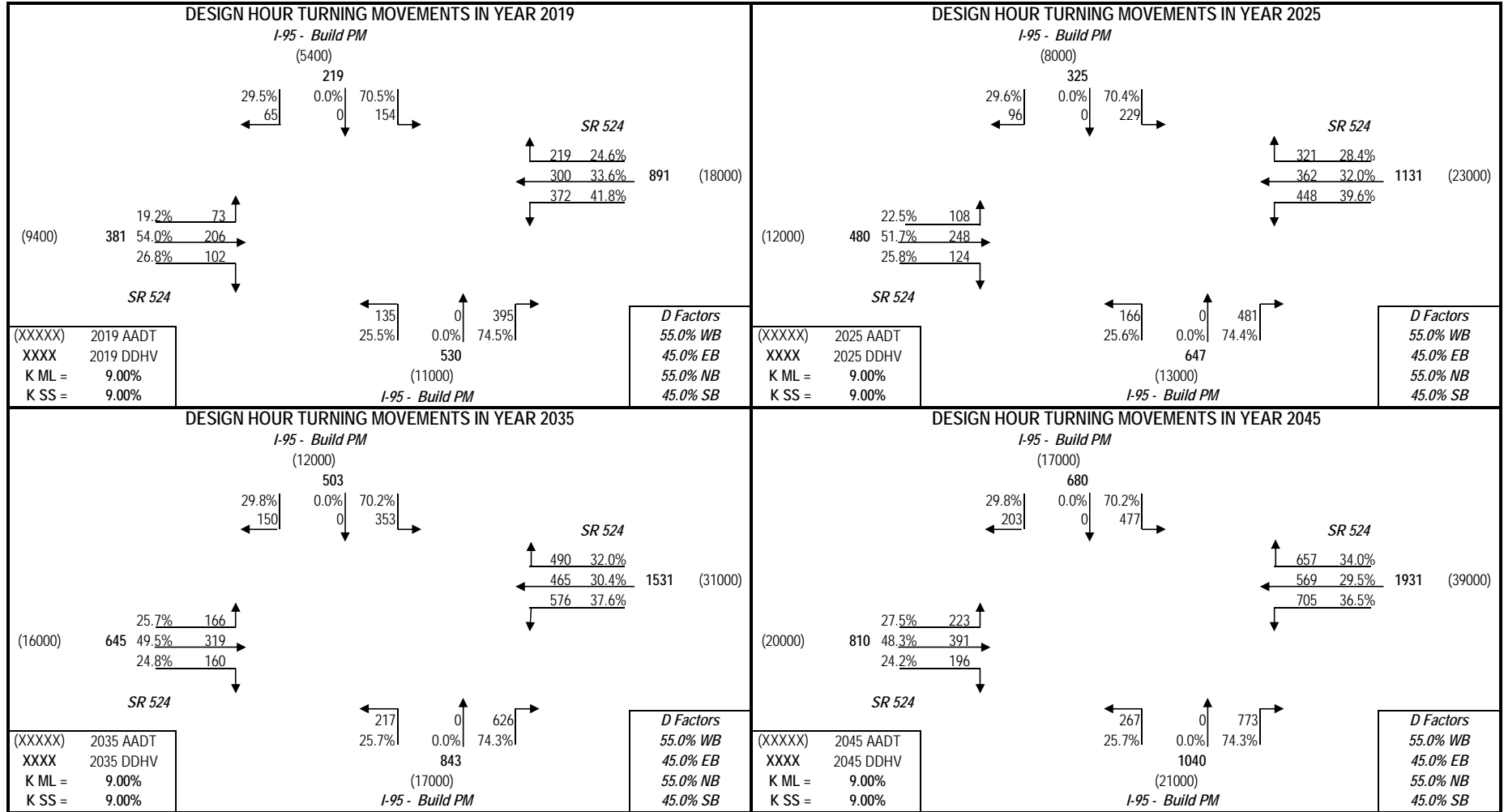
Only the existing year total departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the **actual distribution of turning volumes entered**. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

Desired Closure: 1.00

### PROJECT TRAFFIC FOR SR 524 AT I-95 - Build PM





### TURNS5 ANALYSIS SHEET - INPUT

Analyst:

Date: 24-Apr-19

Highway: SR 524

Intersection: E. Friday Rd - Build PM

Project: SR 524 DTTM

County: Brevard

Is this a 4 way intersection?

Yes, my intersection has four approaches

If not, which 3 approaches exist in the intersection?

EB, WB, and SB

EB, WB, and NB

EB, SB, and NB

WB, SB, and NB

Is the Mainline Oriented North/South?

Enter Yes or No

Yes

No

K Factors	Mainline	D Factors	Mainline
	9.00%	Westbound (WB)	55.0%
	Side street	Eastbound (EB)	45.0%
	9.00%		Side street
		Northbound (NB)	60.0%
		Southbound (SB)	40.0%

Do you have FTSUTMS Model Year traffic from which you would like to interpolate/extrapolate for project years? (Y/N)

Enter Yes or No

Yes

No

If "Yes" go to cell C47

If "No" go to cell C31

Enter Year and Growth Rates from Base Year:

	Year	Rate (1.0% = 0.01)	
		Mainline	Side Street
Base	2016		
Opening	2023		
Mid	2033	4.00%	4.00%
Design	2043		

Mainline Growth Function

Linear

Exponential

Decaying

Side Street Growth Function

Linear

Exponential

Decaying

Enter Base Year AADTs for Volume Comparison:  
(growth rates are used to calculate other project years)

From West:	From East:	From North:	From South:	TOTAL
EB Approach	WB Approach	SB Approach	NB Approach	
22000	15000	6600	10000	53600

Enter Project and Model Years

	Year
Base	2019
Opening	2025
Mid	2035
Design	2045
Model	2045

Enter Base and Model Year AADTs for Volume Comparison:  
(volumes for other project years are calculated by interpolation)

	From West:	From East:	From North:	From South:	TOTAL
	EB Approach	WB Approach	SB Approach	NB Approach	
2019	18000	10000	2900	5400	36300
2045	30800	22000	3100	5800	61700

#### 1st Guess Actual/Counted Turning %'s for Traffic AADT Balancing for 2019

		1st Guess	Actual/Counted
(EB LT)	West-to-North	21.7%	132
(EB THRU)	West-to-East	56.6%	343
(EB RT)	West-to-South	21.7%	132
(WB LT)	East-to-South	8.5%	42
(WB THRU)	East-to-West	81.6%	403
(WB RT)	East-to-North	9.9%	49
(SB LT)	North-to-East	42.2%	38
(SB THRU)	North-to-South	8.9%	8
(SB RT)	North-to-West	48.9%	44
(NB LT)	South-to-West	72.5%	132
(NB THRU)	South-to-North	3.9%	7
(NB RT)	South-to-East	23.6%	43

Existing Year AADTs

Existing Turning Movement Counts

FSUTMS Model Year AADTs

Desired Closure: 1.00

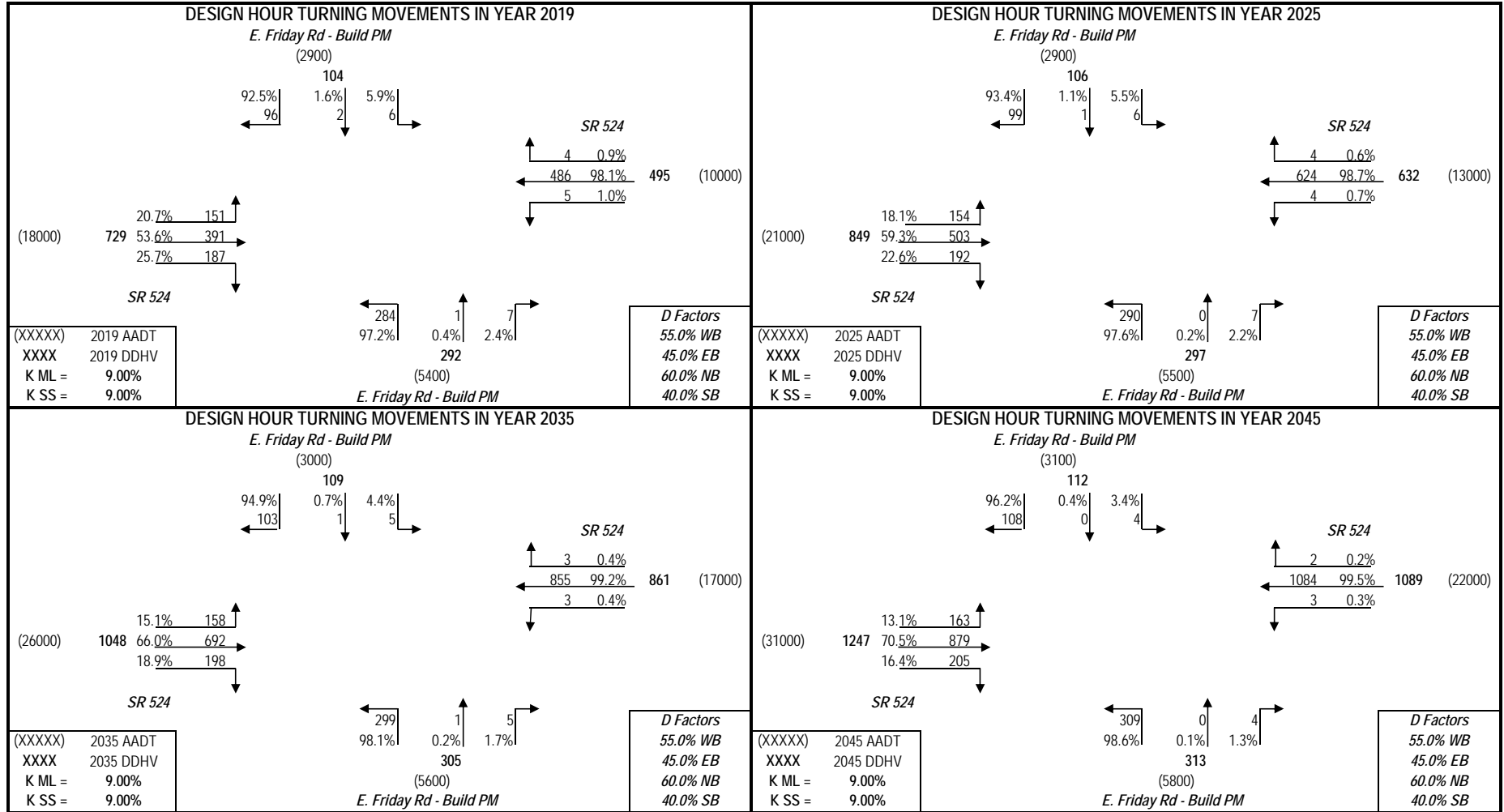
#### First Guess Turning % Option Used Existing Turning Movement Counts

Only the existing year total departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

The turning percentages first guess is the same as the **actual distribution of turning volumes entered**. No balancing technique is used.

Only the FSUTMS model year departure volumes [AADT\*K\*(1-D)] will be used to calculate the turning percentages first guess.

### PROJECT TRAFFIC FOR SR 524 AT E. Friday Rd - Build PM



# **Appendix H**





## CAP-X & SIDRA Output

# Capacity Analysis for Planning of Junctions





## Input Worksheet

Project Name:	I-95/SR 524 IMR
Project Number:	437983-1
Location	I-95/SR 524 Interchange - Brevard County
Date	2045 AM Design Hour

## Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn 	Left 	Thru 	Right 	Truck	Volume Growth
Eastbound	0	207	475	360	10.00%	0.00%
Westbound	0	608	367	458	10.00%	0.00%
Southbound	0	552	0	260	15.00%	0.00%
Northbound	0	160	0	650	15.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	<b>0.80</b>	<b>0.95</b>		<b>0.85</b>		
Truck to PCE Factor				<b>Suggested = 2.00</b>	2.00	
Critical Lane Volume				1819		

## Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn 	Left 	Thru 	Right 
Eastbound	0	228	523	396
Westbound	0	669	404	504
Southbound	0	635	0	299
Northbound	0	184	0	748

### Notes:

Left-Turn Adjustment Factor	Conversion of left-turning vehicles to equivalent through vehicles
Right-turn Adjustment Factor	Conversion of right-turning vehicles to equivalent through vehicles
U-turn Adjustment Factor	Conversion of U-turning vehicles to equivalent through vehicles
Truck to PCE Factor	1 truck = X Passenger Car Equivalents
Critical Lane Volume Sum Limit	Saturation Value for Critical Lane Volume Sum at an intersection

# Capacity Analysis for Planning of Junctions

## Input Worksheet

Project Name:	I-95/SR 524 IMR	<b>Critical Lane Volume Sum</b>			
Project Number:	437983-1	<b>Acceptable Configurations</b>			
Location	I-95/SR 524 Interchange - Brevard County	< 1364.25	1364 - 1591	1592 - 1818	≥ 1819
Date	2045 AM Design Hour	<b>9</b>	<b>6</b>	<b>3</b>	<b>14</b>

### Results for Intersections

#	TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Ranking
			CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
1	Conventional	<a href="#">FULL</a>	/	/	/	/	/	/	/	/	1064	<u>0.58</u>	0.58	2
2	Conventional Shared RT LN	<a href="#">CSRL</a>	/	/	/	/	/	/	/	/	2597	<u>1.43</u>	1.43	12
3.1	Quadrant Roadway	<a href="#">S-W</a>	/	/	1760	<u>0.97</u>	/	/	1438	<u>0.79</u>	1473	<u>0.81</u>	0.97	7
3.2		<a href="#">N-E</a>	1373	<u>0.75</u>	/	/	1939	<u>1.07</u>	/	/	1346	<u>0.74</u>	1.07	9
3.3		<a href="#">S-E</a>	/	/	1765	<u>0.97</u>	1765	<u>0.97</u>	/	/	945	<u>0.52</u>	0.97	8
3.4		<a href="#">N-W</a>	1115	<u>0.61</u>	/	/	/	/	1128	<u>0.62</u>	1473	<u>0.81</u>	0.81	5
4.1	Partial Displaced Left Turn	<a href="#">N-S</a>	782	<u>0.43</u>	528	<u>0.29</u>	/	/	/	/	1384	<u>0.76</u>	0.76	4
4.2		<a href="#">E-W</a>	/	/	/	/	738	<u>0.41</u>	316	<u>0.17</u>	1549	<u>0.85</u>	0.85	6
5	Displaced Left Turn	<a href="#">FULL</a>	782	<u>0.43</u>	528	<u>0.29</u>	738	<u>0.41</u>	316	<u>0.17</u>	1021	<u>0.56</u>	0.56	1
6.1	Restricted Crossing U-Turn	<a href="#">N-S</a>	1138	<u>0.63</u>	935	<u>0.51</u>	2423	<u>1.33</u>	1502	<u>0.83</u>	/	/	1.33	11
6.2		<a href="#">E-W</a>	1015	<u>0.56</u>	1127	<u>0.62</u>	904	<u>0.50</u>	970	<u>0.53</u>	/	/	0.62	3
7.1	Median U-Turn	<a href="#">N-S</a>	1000	<u>0.55</u>	1005	<u>0.55</u>	/	/	/	/	3007	<u>1.65</u>	1.65	15
7.2		<a href="#">E-W</a>	/	/	/	/	1046	<u>0.58</u>	1389	<u>0.76</u>	2352	<u>1.29</u>	1.29	10
8.1	Partial Median U-Turn	<a href="#">N-S</a>	697	<u>0.38</u>	1260	<u>0.69</u>	/	/	/	/	2607	<u>1.43</u>	1.43	13
8.2		<a href="#">E-W</a>	/	/	/	/	931	<u>0.51</u>	992	<u>0.55</u>	2607	<u>1.43</u>	1.43	13

# Capacity Analysis for Planning of Junctions

## Input Worksheet

### Results for Roundabouts

#	TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Ranking
		Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3		
9.1	<a href="#">50 ICD</a>	<u>-5.10</u>			<u>-5.97</u>			<u>-3.29</u>			<u>2.31</u>			2.31	5
9.2	<a href="#">75 ICD</a>	<u>-13.03</u>			<u>-11.89</u>			<u>-5.79</u>			<u>2.15</u>			2.15	3
9.3	<a href="#">1 X 1</a>	<u>2.91</u>			<u>3.74</u>			<u>3.30</u>			<u>2.11</u>			3.74	7
9.4	<a href="#">1 X 2</a>	<u>1.99</u>			<u>1.60</u>	<u>2.14</u>		<u>2.18</u>			<u>1.16</u>	<u>0.94</u>		2.18	4
9.5	<a href="#">2 X 1</a>	<u>1.98</u>	<u>0.93</u>		<u>2.53</u>			<u>0.65</u>	<u>2.65</u>		<u>1.86</u>			2.65	5
9.6	<a href="#">2 X 2</a>	<u>1.44</u>	<u>0.64</u>		<u>1.05</u>	<u>0.83</u>		<u>0.46</u>	<u>1.75</u>		<u>1.15</u>	<u>1.45</u>		1.75	2
9.7	<a href="#">3 X 3</a>	<u>1.07</u>	<u>0.89</u>	<u>0.64</u>	<u>0.42</u>	<u>1.05</u>	<u>1.31</u>	<u>0.35</u>	<u>0.29</u>	<u>1.57</u>	<u>0.45</u>	<u>0.66</u>	<u>0.74</u>	1.57	1

### Results for Interchanges





#	TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Ranking
			CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
10.1	Diamond	<a href="#">N-S</a>					1533	<u>0.84</u>	1457	<u>0.80</u>					0.96	9
10.2		<a href="#">E-W</a>					796	<u>0.44</u>	1062	<u>0.58</u>					0.66	3
11.1	Partial Cloverleaf	<a href="#">N-S</a>					511	<u>0.28</u>	760	<u>0.42</u>					0.48	1
11.2		<a href="#">E-W</a>					1194	<u>0.75</u>	777	<u>0.43</u>					0.75	4
13.1	Displaced Left Turn	<a href="#">N-S</a>	782	<u>0.43</u>			1337	<u>0.74</u>	563	<u>0.31</u>			751	<u>0.41</u>	0.84	5
13.2		<a href="#">E-W</a>	609	<u>0.33</u>			962	<u>0.53</u>	898	<u>0.49</u>			1366	<u>0.75</u>	0.85	7
14.1	Double Crossover Diamond	<a href="#">N-S</a>	759	<u>0.42</u>	1339	<u>0.74</u>	863	<u>0.47</u>	853	<u>0.47</u>	424	<u>0.23</u>	1086	<u>0.60</u>	0.84	6
14.2		<a href="#">E-W</a>	548	<u>0.30</u>	572	<u>0.31</u>	710	<u>0.39</u>	455	<u>0.25</u>	937	<u>0.51</u>	1019	<u>0.56</u>	0.64	2
15.1	Single Point	<a href="#">N-S</a>	821	<u>0.45</u>			1373	<u>0.75</u>					1135	<u>0.62</u>	0.86	8
15.2		<a href="#">E-W</a>	940	<u>0.52</u>			948	<u>0.52</u>					1598	<u>0.88</u>	1.00	10

# Capacity Analysis for Planning of Junctions





## Input Worksheet

Project Name:	I-95/SR 524 IMR
Project Number:	437983-1
Location	I-95/SR 524 Interchange - Brevard County
Date	2045 PM Design Hour

## Traffic Volume Demand

	Volume (Veh/hr)				Percent (%)	
	U-Turn 	Left 	Thru 	Right 	Truck	Volume Growth
Eastbound	0	263	303	226	10.00%	0.00%
Westbound	0	675	480	487	10.00%	0.00%
Southbound	0	477	0	253	15.00%	0.00%
Northbound	0	322	0	693	15.00%	0.00%
Adjustment Factor	0.80	0.95		0.85		
Suggested	<b>0.80</b>	<b>0.95</b>		<b>0.85</b>		
Truck to PCE Factor				<b>Suggested = 2.00</b>	2.00	
Critical Lane Volume				1819		

## Equivalent Passenger Car Volume

	Volume (Veh/hr)			
	U-Turn 	Left 	Thru 	Right 
Eastbound	0	289	333	249
Westbound	0	743	528	536
Southbound	0	549	0	291
Northbound	0	370	0	797

### NOTES:

Left-Turn Adjustment Factor	Conversion of left-turning vehicles to equivalent through vehicles
Right-turn Adjustment Factor	Conversion of right-turning vehicles to equivalent through vehicles
U-turn Adjustment Factor	Conversion of U-turning vehicles to equivalent through vehicles
Truck to PCE Factor	1 truck = X Passenger Car Equivalents
Critical Lane Volume Sum Limit	Saturation Value for Critical Lane Volume Sum at an intersection

# Capacity Analysis for Planning of Junctions

## Input Worksheet

Project Name:	I-95/SR 524 IMR	<b>Critical Lane Volume Sum</b>			
Project Number:	437983-1	<b>Acceptable Configurations</b>			
Location	I-95/SR 524 Interchange - Brevard County	< 1364.25	1364 - 1591	1592 - 1818	≥ 1819
Date	2045 PM Design Hour	13	3	2	14

## Results for Intersections

#	TYPE OF INTERSECTION	Sheet	Zone 1 (North)		Zone 2 (South)		Zone 3 (East)		Zone 4 (West)		Zone 5 (Center)		Overall v/c Ratio	Ranking
			CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
1	Conventional	<u>FULL</u>	/	/	/	/	/	/	/	/	1094	<u>0.60</u>	0.60	2
2	Conventional Shared RT LN	<u>CSRL</u>	/	/	/	/	/	/	/	/	2755	<u>1.51</u>	1.51	14
3.1	Quadrant Roadway	<u>S-W</u>	/	/	1509	<u>0.83</u>	/	/	1415	<u>0.78</u>	1573	<u>0.86</u>	0.86	7
3.2		<u>N-E</u>	1360	<u>0.75</u>	/	/	1809	<u>0.99</u>	/	/	1387	<u>0.76</u>	0.99	8
3.3		<u>S-E</u>	/	/	1951	<u>1.07</u>	1951	<u>1.07</u>	/	/	973	<u>0.53</u>	1.07	9
3.4		<u>N-W</u>	1347	<u>0.74</u>	/	/	/	/	1146	<u>0.63</u>	1573	<u>0.86</u>	0.86	6
4.1	Partial Displaced Left Turn	<u>N-S</u>	722	<u>0.40</u>	761	<u>0.42</u>	/	/	/	/	1288	<u>0.71</u>	0.71	4
4.2		<u>E-W</u>	/	/	/	/	685	<u>0.38</u>	451	<u>0.25</u>	1516	<u>0.83</u>	0.83	5
5	Displaced Left Turn	<u>FULL</u>	722	<u>0.40</u>	761	<u>0.42</u>	685	<u>0.38</u>	451	<u>0.25</u>	969	<u>0.53</u>	0.53	1
6.1	Restricted Crossing U-Turn	<u>N-S</u>	1214	<u>0.67</u>	972	<u>0.53</u>	2392	<u>1.32</u>	1476	<u>0.81</u>	/	/	1.32	12
6.2		<u>E-W</u>	943	<u>0.52</u>	1127	<u>0.62</u>	1135	<u>0.62</u>	779	<u>0.43</u>	/	/	0.62	3
7.1	Median U-Turn	<u>N-S</u>	1116	<u>0.61</u>	1107	<u>0.61</u>	/	/	/	/	3088	<u>1.70</u>	1.70	15
7.2		<u>E-W</u>	/	/	/	/	1315	<u>0.72</u>	1243	<u>0.68</u>	2540	<u>1.40</u>	1.40	13
8.1	Partial Median U-Turn	<u>N-S</u>	883	<u>0.49</u>	1270	<u>0.70</u>	/	/	/	/	2294	<u>1.26</u>	1.26	10
8.2		<u>E-W</u>	/	/	/	/	1084	<u>0.60</u>	900	<u>0.49</u>	2294	<u>1.26</u>	1.26	10



# Capacity Analysis for Planning of Junctions

## Input Worksheet

### Results for Roundabouts

#	TYPE OF ROUNDABOUT	Zone 1 (North)			Zone 3 (East)			Zone 2 (South)			Zone 4 (West)			Overall v/c Ratio	Ranking
		Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3	Lane 1	Lane 2	Lane 3		
9.1	<a href="#">50 ICD</a>	-1.43			-4.77			-20.04			4.13			4.13	6
9.2	<a href="#">75 ICD</a>	-1.90			-9.91			25.06			3.57			25.06	7
9.3	<a href="#">1 X 1</a>	3.84			2.81			3.33			3.09			3.84	5
9.4	<a href="#">1 X 2</a>	2.34			1.47	1.34		2.34			1.72	1.37		2.34	3
9.5	<a href="#">2 X 1</a>	2.51	1.33		1.90			1.06	2.27		2.54			2.54	4
9.6	<a href="#">2 X 2</a>	1.66	0.81		1.46	1.12		0.79	1.60		1.06	0.91		1.66	2
9.7	<a href="#">3 X 3</a>	1.40	1.11	0.84	0.53	0.86	0.83	0.57	0.48	1.42	0.66	0.98	1.01	1.42	1

### Results for Interchanges

#	TYPE OF INTERCHANGE	Sheet	Zone 1 (Rt Mrg)		Zone 2 (Lt Mrg)		Zone 3 (Ctr. 1)		Zone 4 (Ctr. 2)		Zone 5 (Lt Mrg)		Zone 6 (Rt Mrg)		Overall v/c Ratio	Ranking
			CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C	CLV	V/C		
10.1	Diamond	<a href="#">N-S</a>					1721	0.95	1473	0.81					1.08	10
10.2		<a href="#">E-W</a>					982	0.54	1129	0.62					0.71	3
11.1	Partial Cloverleaf	<a href="#">N-S</a>					664	0.37	763	0.42					0.48	1
11.2		<a href="#">E-W</a>					1238	0.75	940	0.52					0.77	4
13.1	Displaced Left Turn	<a href="#">N-S</a>	722	0.40			1321	0.73	678	0.37			761	0.42	0.83	6
13.2		<a href="#">E-W</a>	755	0.42			1027	0.56	1172	0.64			1280	0.70	0.80	5
14.1	Double Crossover Diamond	<a href="#">N-S</a>	853	0.47	1331	0.73	838	0.46	1113	0.61	674	0.37	1005	0.55	0.83	7
14.2		<a href="#">E-W</a>	642	0.35	610	0.34	600	0.33	618	0.34	865	0.48	910	0.50	0.57	2
15.1	Single Point	<a href="#">N-S</a>	920	0.51			1360	0.75					1036	0.57	0.85	9
15.2		<a href="#">E-W</a>	1240	0.68			1045	0.57					1351	0.74	0.84	8

## MOVEMENT SUMMARY

 Site: 102 [I-95 NB and SR 524 PM]

New Site  
Site Category: (None)  
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	of Queue Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: I-95 NB Off Ramp												
3	L2	339	3.0	0.390	8.7	LOS A	2.0	50.7	0.67	0.72	0.81	20.9
8	T1	1	0.0	0.390	8.5	LOS A	2.0	50.7	0.67	0.72	0.81	18.4
18	R2	729	10.0	0.498	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	32.0
Approach		1069	7.8	0.498	2.8	LOS A	2.0	50.7	0.21	0.23	0.26	28.3
East: SR 524												
6	T1	1216	9.0	0.712	17.5	LOS C	11.1	298.2	0.96	1.19	1.57	19.0
16	R2	513	14.0	0.363	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	32.0
Approach		1728	10.5	0.712	12.3	LOS B	11.1	298.2	0.68	0.84	1.10	22.5
West: SR 524												
5	L2	277	3.0	0.412	6.6	LOS A	0.0	0.0	0.00	0.00	0.00	15.0
2	T1	821	9.0	0.412	6.7	LOS A	0.0	0.0	0.00	0.00	0.00	15.0
Approach		1098	7.5	0.412	6.6	LOS A	0.0	0.0	0.00	0.00	0.00	15.0
All Vehicles		3896	8.9	0.712	8.1	LOS A	11.1	298.2	0.36	0.43	0.56	21.3

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## MOVEMENT SUMMARY

 Site: 102 [I-95 NB and SR 524 AM]

New Site  
Site Category: (None)  
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
South: I-95 NB Off Ramp												
3	L2	168	17.0	0.254	8.5	LOS A	1.0	29.4	0.67	0.67	0.67	21.0
8	T1	1	0.0	0.254	7.3	LOS A	1.0	29.4	0.67	0.67	0.67	18.5
18	R2	684	17.0	0.497	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	31.9
Approach		854	17.0	0.497	1.8	LOS A	1.0	29.4	0.13	0.13	0.13	29.6
East: SR 524												
6	T1	1026	9.0	0.505	9.6	LOS A	4.3	114.7	0.74	0.65	0.79	21.1
16	R2	482	15.0	0.344	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	31.9
Approach		1508	10.9	0.505	6.6	LOS A	4.3	114.7	0.51	0.44	0.54	24.5
West: SR 524												
5	L2	218	13.0	0.499	8.2	LOS A	0.0	0.0	0.00	0.00	0.00	15.0
2	T1	1081	9.0	0.499	7.9	LOS A	0.0	0.0	0.00	0.00	0.00	15.0
Approach		1299	9.7	0.499	8.0	LOS A	0.0	0.0	0.00	0.00	0.00	15.0
All Vehicles		3661	11.9	0.505	5.9	LOS A	4.3	114.7	0.24	0.21	0.25	21.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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## MOVEMENT SUMMARY

 Site: 101 [I-95 SB and SR 524 PM]

New Site  
Site Category: (None)  
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
East: SR 524												
1	L2	711	8.0	0.582	9.4	LOS A	0.0	0.0	0.00	0.00	0.00	26.5
6	T1	844	9.0	0.582	9.2	LOS A	0.0	0.0	0.00	0.00	0.00	26.4
Approach		1555	8.5	0.582	9.3	LOS A	0.0	0.0	0.00	0.00	0.00	26.4
North: I-95 SB Ramp												
7	L2	502	17.0	0.781	26.5	LOS D	7.5	212.7	0.88	1.28	1.99	16.9
4	T1	1	2.0	0.781	25.4	LOS D	7.5	212.7	0.88	1.28	1.99	16.2
14	R2	266	3.0	0.170	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	32.2
Approach		769	12.1	0.781	17.3	LOS C	7.5	212.7	0.58	0.84	1.30	21.2
West: SR 524												
2	T1	596	9.0	0.856	53.0	LOS F	15.1	403.6	1.00	1.51	2.21	13.1
12	R2	238	12.0	0.165	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	32.0
Approach		834	9.9	0.856	37.9	LOS E	15.1	403.6	0.71	1.08	1.58	16.8
All Vehicles		3158	9.8	0.856	18.8	LOS C	15.1	403.6	0.33	0.49	0.73	21.6

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Project: Not Saved

## MOVEMENT SUMMARY

 Site: 101 [I-95 SB and SR 524 AM]

New Site  
Site Category: (None)  
Roundabout

Movement Performance - Vehicles												
Mov ID	Turn	Demand Total veh/h	Flows HV %	Deg. Satn v/c	Average Delay sec	Level of Service	95% Back of Queue Vehicles veh	Distance ft	Prop. Queued	Effective Stop Rate	Aver. No. Cycles	Average Speed mph
East: SR 524												
1	L2	640	19.0	0.515	8.5	LOS A	0.0	0.0	0.00	0.00	0.00	26.3
6	T1	555	9.0	0.434	7.1	LOS A	0.0	0.0	0.00	0.00	0.00	26.4
Approach		1195	14.4	0.515	7.9	LOS A	0.0	0.0	0.00	0.00	0.00	26.3
North: I-95 SB Ramp												
7	L2	581	16.0	0.831	29.3	LOS D	10.0	281.8	0.89	1.39	2.25	16.4
4	T1	1	2.0	0.831	28.3	LOS D	10.0	281.8	0.89	1.39	2.25	15.9
14	R2	274	7.0	0.182	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	32.1
Approach		856	13.1	0.831	19.9	LOS C	10.0	281.8	0.60	0.95	1.53	20.4
West: SR 524												
2	T1	718	9.0	1.262	179.8	LOS F	48.4	1296.0	1.00	2.38	4.27	6.2
12	R2	379	5.0	0.247	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	32.1
Approach		1097	7.6	1.262	117.7	LOS F	48.4	1296.0	0.65	1.56	2.79	9.6
All Vehicles		3147	11.7	1.262	49.4	LOS E	48.4	1296.0	0.39	0.80	1.39	15.4

Site Level of Service (LOS) Method: Delay & v/c (HCM 6). Site LOS Method is specified in the Parameter Settings dialog (Site tab).

Roundabout LOS Method: Same as Sign Control.

Vehicle movement LOS values are based on average delay and v/c ratio (degree of saturation) per movement.

LOS F will result if v/c > 1 irrespective of movement delay value (does not apply for approaches and intersection).

Intersection and Approach LOS values are based on average delay for all movements (v/c not used as specified in HCM 6).

Roundabout Capacity Model: SIDRA Standard.

HCM Delay Formula option is used. Control Delay does not include Geometric Delay since Exclude Geometric Delay option applies.

Gap-Acceptance Capacity: SIDRA Standard (Akçelik M3D).

HV (%) values are calculated for All Movement Classes of All Heavy Vehicle Model Designation.

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Organisation: VANASSE HANGEN BRUSTLIN INC. | Processed: Friday, June 26, 2020 10:50:55 AM

Project: Not Saved

# **Appendix I**

## No-Build Synchro Output

Study Intersection	Movement	Year 2025 No Build				Year 2045 No Build			
		AM Peak Hour		PM Peak Hour		AM Peak Hour		PM Peak Hour	
		Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS	Delay (s)	LOS
SR 524 at S. Friday Road	EB Left	7.8	A	8.4	A	8.4	A	9.0	A
	EB Through	-	-	-	-	-	-	-	-
	EB Right	-	-	-	-	-	-	-	-
	WB Left	8.6	A	8.3	A	9.5	A	9.5	A
	WB Through	-	-	-	-	-	-	-	-
	WB Right	-	-	-	-	-	-	-	-
	NB Left/Through	19.1	C	24.2	C	72.5	F	123.8	F
	NB Right	12.0	B	10.4	B	16.9	C	12.6	B
	SB Left/Through	23.6	C	28.4	D	126.2	F	262.1	F
	SB Right	9.5	A	10.4	B	11.0	B	12.2	B
SR 524 at I-95 SB Ramps	EB Left	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	EB Through	32.4	C	23.8	C	86.8	F	97.7	F
	EB Right	6.2	A	5.4	A	12.3	B	11.1	B
	WB Left	18.3	B	10.0	B	87.6	F	88.7	F
	WB Through	11.7	B	12.7	B	11.7	B	10.9	B
	WB Right	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	NB Left	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	NB Through	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	NB Right	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SB Left	76.2	E	76.0	E	116.1	F	93.6	F
	SB Through	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SB Right	7.1	A	9.2	A	8.9	A	10.1	B
SR 524 at I-95 NB Ramps	EB Left	4.7	A	1.6	A	141.4	F	149.3	F
	EB Through	18.4	B	20.9	C	57.5	E	9.2	A
	EB Right	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	WB Left	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	WB Through	7.6	A	19.1	B	91.6	F	83.5	F
	WB Right	0.6	A	5.1	A	6.2	A	5.2	A
	NB Left	53.2	D	54.8	D	31.6	C	47.7	D
	NB Through	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	NB Right	18.1	B	10.7	B	105.1	F	96.8	F
	SB Left	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SB Through	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
	SB Right	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
SR 524 at N. Friday Road	EB Left	21.1	C	13.3	B	10.2	B	195.2	F
	EB Through	35.4	D	19.5	B	67.7	E	19.3	B
	EB Right	5.7	A	3.9	A	2.3	A	0.6	A
	WB Left	12.3	B	11.9	B	12.6	B	8.7	A
	WB Through	24.3	C	30.8	C	36.2	D	75.7	E
	WB Right	0.1	A	0.2	A	0.1	A	0.1	A
	NB Left	40.9	D	39.9	D	207.8	F	212.8	F
	NB Through/Right	9.8	A	11.5	B	16.0	B	19.6	B
SB L/T/R	54.6	D	51.2	D	239.3	F	300.0	F	

# HCM 6th TWSC

## 2: S Friday Road & SR 524

2025 No Build AM

01/11/2022

**Intersection**

Int Delay, s/veh 3

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↗	↘	↗	↗		↘	↗		↘	↗
Traffic Vol, veh/h	2	431	5	66	213	9	13	2	81	28	1	6
Future Vol, veh/h	2	431	5	66	213	9	13	2	81	28	1	6
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	260	350	-	0	-	-	250	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	5	5	5	2	2	2
Mvmt Flow	2	454	5	69	224	9	14	2	85	29	1	6

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	233	0	0	459
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.19	-	-	4.19
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.281	-	-	2.281
Pot Cap-1 Maneuver	1294	-	-	1066
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1294	-	-	1066
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0	2	13.1	21.2
HCM LOS			B	C

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	271	600	1294	-	-	1066	-	-	224	815
HCM Lane V/C Ratio	0.058	0.142	0.002	-	-	0.065	-	-	0.136	0.008
HCM Control Delay (s)	19.1	12	7.8	-	-	8.6	-	-	23.6	9.5
HCM Lane LOS	C	B	A	-	-	A	-	-	C	A
HCM 95th %tile Q(veh)	0.2	0.5	0	-	-	0.2	-	-	0.5	0



Lanes, Volumes, Timings  
3: I-95 SB Ramps & SR 524

2025 No Build AM  
01/12/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑					↑		↑
Traffic Volume (vph)	0	299	241	372	191	0	0	0	0	208	0	97
Future Volume (vph)	0	299	241	372	191	0	0	0	0	208	0	97
Satd. Flow (prot)	0	2580	1482	1656	1743	0	0	0	0	1530	0	1369
Flt Permitted				0.480						0.950		
Satd. Flow (perm)	0	2580	1482	837	1743	0	0	0	0	1530	0	1369
Satd. Flow (RTOR)			254									114
Adj. Flow (vph)	0	315	254	392	201	0	0	0	0	219	0	102
Lane Group Flow (vph)	0	315	254	392	201	0	0	0	0	219	0	102
Turn Type		NA	Perm	pm+pt	NA					Prot		Perm
Protected Phases		6		5	2					8		
Permitted Phases			6	2								8
Total Split (s)		32.0	32.0	39.0	71.0					39.0		39.0
Total Lost Time (s)		6.8	6.8	10.7	6.8					11.2		8.2
Act Effct Green (s)		36.9	36.9	70.1	74.0					18.0		21.0
Actuated g/C Ratio		0.34	0.34	0.64	0.67					0.16		0.19
v/c Ratio		0.36	0.38	0.54	0.17					0.88		0.29
Control Delay		32.2	6.2	18.0	11.2					76.1		7.1
Queue Delay		0.2	0.0	0.3	0.5					0.1		0.0
Total Delay		32.4	6.2	18.3	11.7					76.2		7.1
LOS		C	A	B	B					E		A
Approach Delay		20.7			16.0							54.3
Approach LOS		C			B							D
Queue Length 50th (ft)		116	0	118	87					152		0
Queue Length 95th (ft)		192	66	115	119					222		35
Internal Link Dist (ft)		548			234			533			512	
Turn Bay Length (ft)										300		
Base Capacity (vph)		865	666	779	1172					386		465
Starvation Cap Reductn		0	0	80	623					0		0
Spillback Cap Reductn		112	0	0	0					7		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.42	0.38	0.56	0.37					0.58		0.22

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 93.6 (85%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.88  
 Intersection Signal Delay: 26.1  
 Intersection LOS: C  
 Intersection Capacity Utilization 82.0%  
 ICU Level of Service D  
 Analysis Period (min) 15

Splits and Phases: 3: I-95 SB Ramps & SR 524



**Lanes, Volumes, Timings**  
**4: I-95 NB Ramps & SR 524**

2025 No Build AM  
 01/12/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	96	411	0	0	493	190	70	0	321	0	0	0
Future Volume (vph)	96	411	0	0	493	190	70	0	321	0	0	0
Satd. Flow (prot)	1530	1743	0	0	2301	1369	1656	0	1482	0	0	0
Flt Permitted	0.323						0.950					
Satd. Flow (perm)	520	1743	0	0	2301	1369	1656	0	1482	0	0	0
Satd. Flow (RTOR)						200			338			
Adj. Flow (vph)	101	433	0	0	519	200	74	0	338	0	0	0
Lane Group Flow (vph)	101	433	0	0	519	200	74	0	338	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Prot		Perm			
Protected Phases	1	6			2		4					
Permitted Phases	6					2			4			
Total Split (s)	15.0	76.0			61.0	61.0	34.0		34.0			
Total Lost Time (s)	7.4	10.4			9.7	6.7	6.3		8.3			
Act Effct Green (s)	85.1	82.1			68.0	71.0	11.2		9.2			
Actuated g/C Ratio	0.77	0.75			0.62	0.65	0.10		0.08			
v/c Ratio	0.22	0.33			0.37	0.21	0.44		0.78			
Control Delay	4.7	15.6			7.6	0.6	53.2		18.1			
Queue Delay	0.0	2.8			0.0	0.0	0.0		0.0			
Total Delay	4.7	18.4			7.6	0.6	53.2		18.1			
LOS	A	B			A	A	D		B			
Approach Delay		15.8			5.7			24.4				
Approach LOS		B			A			C				
Queue Length 50th (ft)	8	300			62	0	50		0			
Queue Length 95th (ft)	35	435			114	m4	91		87			
Internal Link Dist (ft)		234			604			541			669	
Turn Bay Length (ft)						500	250		200			
Base Capacity (vph)	476	1300			1421	954	417		605			
Starvation Cap Reductn	0	732			0	0	0		0			
Spillback Cap Reductn	0	0			0	0	0		0			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	0.21	0.76			0.37	0.21	0.18		0.56			

**Intersection Summary**

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 59.6 (54%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.78  
 Intersection Signal Delay: 13.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 82.0%  
 ICU Level of Service D  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 4: I-95 NB Ramps & SR 524

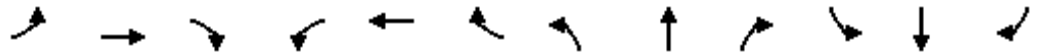


# Lanes, Volumes, Timings

## 5: N Friday Rd/N Friday Road & SR 524

2025 No Build AM

01/12/2022

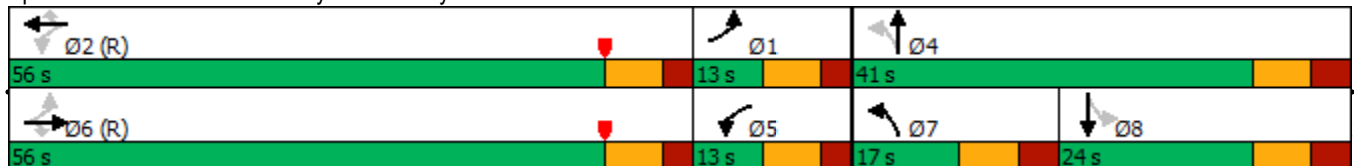


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘		↕	
Traffic Volume (vph)	60	543	129	26	441	25	128	3	44	53	12	114
Future Volume (vph)	60	543	129	26	441	25	128	3	44	53	12	114
Satd. Flow (prot)	1736	1743	1335	1656	1743	1482	1492	1349	0	0	1645	0
Flt Permitted	0.373			0.281			0.391				0.883	
Satd. Flow (perm)	681	1743	1335	490	1743	1482	614	1349	0	0	1474	0
Satd. Flow (RTOR)			205			205		46			66	
Adj. Flow (vph)	63	572	136	27	464	26	135	3	46	56	13	120
Lane Group Flow (vph)	63	572	136	27	464	26	135	49	0	0	189	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases	1	6		5	2		7	4				8
Permitted Phases	6		6	2		2	4			8		
Total Split (s)	13.0	56.0	56.0	13.0	56.0	56.0	17.0	41.0		24.0	24.0	
Total Lost Time (s)	7.3	7.3	10.3	7.3	7.3	7.3	8.2	8.2			8.2	
Act Effct Green (s)	60.8	56.3	53.3	59.4	53.7	53.7	30.4	30.4			13.3	
Actuated g/C Ratio	0.55	0.51	0.48	0.54	0.49	0.49	0.28	0.28			0.12	
v/c Ratio	0.15	0.64	0.18	0.08	0.55	0.03	0.56	0.12			0.80	
Control Delay	21.1	35.4	5.7	12.3	24.3	0.1	40.9	9.8			54.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay	21.1	35.4	5.7	12.3	24.3	0.1	40.9	9.8			54.6	
LOS	C	D	A	B	C	A	D	A			D	
Approach Delay		29.0			22.5			32.6			54.6	
Approach LOS		C			C			C			D	
Queue Length 50th (ft)	36	398	25	8	240	0	74	2			84	
Queue Length 95th (ft)	m54	531	35	21	351	0	128	30			#181	
Internal Link Dist (ft)		604			1646			769			785	
Turn Bay Length (ft)	315		500	380		330						
Base Capacity (vph)	431	892	752	325	851	828	240	434			268	
Starvation Cap Reductn	0	0	0	0	0	0	0	0			0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0			0	
Storage Cap Reductn	0	0	0	0	0	0	0	0			0	
Reduced v/c Ratio	0.15	0.64	0.18	0.08	0.55	0.03	0.56	0.11			0.71	

### Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 38.7 (35%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 30.3  
 Intersection LOS: C  
 Intersection Capacity Utilization 71.3%  
 ICU Level of Service C  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 5: N Friday Rd/N Friday Road & SR 524



## Arterial Level of Service

2025 No Build AM

03/09/2021

## Arterial Level of Service: EB SR 524

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-95 SB Ramps	II	45	40.8	32.2	73.0	0.45	22.1	C
I-95 NB Ramps	II	45	6.5	15.6	22.1	0.06	9.7	F
N Friday Rd	II	45	14.1	35.4	49.5	0.13	9.4	F
Total	II		61.4	83.2	144.6	0.64	15.9	E

## Arterial Level of Service: WB SR 524

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Friday Road	II	45	31.4	24.3	55.7	0.33	21.1	D
I-95 NB Ramps	II	45	14.1	7.6	21.7	0.13	21.5	D
I-95 SB Ramps	II	45	6.5	11.2	17.7	0.06	12.1	F
Total	II		52.0	43.1	95.1	0.52	19.5	D

# HCM 6th TWSC

## 2: S Friday Road & SR 524

2025 No Build PM

01/11/2022

**Intersection**

Int Delay, s/veh 3.4

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↗	↘	↗	↗		↗	↗		↗	↗
Traffic Vol, veh/h	3	274	13	123	364	61	16	5	73	30	3	2
Future Vol, veh/h	3	274	13	123	364	61	16	5	73	30	3	2
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	260	350	-	0	-	-	250	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	5	5	5	2	2	2
Mvmt Flow	3	288	14	129	383	64	17	5	77	32	3	2

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	447	0	0	302
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.19	-	-	4.19
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.281	-	-	2.281
Pot Cap-1 Maneuver	1077	-	-	1220
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1077	-	-	1220
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	1.9	13.5	27.4
HCM LOS			B	D

Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	210	744	1077	-	-	1220	-	-	188	664
HCM Lane V/C Ratio	0.105	0.103	0.003	-	-	0.106	-	-	0.185	0.003
HCM Control Delay (s)	24.2	10.4	8.4	-	-	8.3	-	-	28.4	10.4
HCM Lane LOS	C	B	A	-	-	A	-	-	D	B
HCM 95th %tile Q(veh)	0.3	0.3	0	-	-	0.4	-	-	0.7	0









## Arterial Level of Service

2025 No Build PM

03/09/2021

## Arterial Level of Service: EB SR 524

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-95 SB Ramps	II	45	40.8	23.8	64.6	0.45	25.0	C
I-95 NB Ramps	II	45	6.5	18.9	25.4	0.06	8.4	F
N Friday Rd	II	45	14.1	19.5	33.6	0.13	13.9	E
Total	II		61.4	62.2	123.6	0.64	18.6	D

## Arterial Level of Service: WB SR 524

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Friday Road	II	45	31.4	30.8	62.2	0.33	18.9	D
I-95 NB Ramps	II	45	14.1	19.1	33.2	0.13	14.0	E
I-95 SB Ramps	II	45	6.5	12.0	18.5	0.06	11.6	F
Total	II		52.0	61.9	113.9	0.52	16.3	E

# HCM 6th TWSC

## 2: S Friday Road & SR 524

2045 No Build AM

01/11/2022

**Intersection**

Int Delay, s/veh 8.9

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘		↖	↗		↖	↗
Traffic Vol, veh/h	4	585	10	122	428	20	48	10	176	30	5	10
Future Vol, veh/h	4	585	10	122	428	20	48	10	176	30	5	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	260	350	-	0	-	-	250	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	5	5	5	2	2	2
Mvmt Flow	4	616	11	128	451	21	51	11	185	32	5	11

Major/Minor	Major1	Major2	Minor1	Minor2
Conflicting Flow All	472	0	0	627
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Critical Hdwy	4.19	-	-	4.19
Critical Hdwy Stg 1	-	-	-	-
Critical Hdwy Stg 2	-	-	-	-
Follow-up Hdwy	2.281	-	-	2.281
Pot Cap-1 Maneuver	1054	-	-	922
Stage 1	-	-	-	-
Stage 2	-	-	-	-
Platoon blocked, %	-	-	-	-
Mov Cap-1 Maneuver	1054	-	-	922
Mov Cap-2 Maneuver	-	-	-	-
Stage 1	-	-	-	-
Stage 2	-	-	-	-

Approach	EB	WB	NB	SB
HCM Control Delay, s	0.1	2	30.7	100.6
HCM LOS			D	F













Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	110	485	1054	-	-	922	-	-	62	608
HCM Lane V/C Ratio	0.555	0.382	0.004	-	-	0.139	-	-	0.594	0.017
HCM Control Delay (s)	72.5	16.9	8.4	-	-	9.5	-	-	126.2	11
HCM Lane LOS	F	C	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	2.6	1.8	0	-	-	0.5	-	-	2.5	0.1

### Lanes, Volumes, Timings

#### 3: I-95 SB Ramps & SR 524

2045 No Build AM

01/12/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑					↘		↗
Traffic Volume (vph)	0	438	353	588	328	0	0	0	0	535	0	242
Future Volume (vph)	0	438	353	588	328	0	0	0	0	535	0	242
Satd. Flow (prot)	0	3242	1482	1656	1743	0	0	0	0	1530	0	1369
Flt Permitted				0.279						0.950		
Satd. Flow (perm)	0	3242	1482	486	1743	0	0	0	0	1530	0	1369
Satd. Flow (RTOR)			372									206
Adj. Flow (vph)	0	461	372	619	345	0	0	0	0	563	0	255
Lane Group Flow (vph)	0	461	372	619	345	0	0	0	0	563	0	255
Turn Type		NA	Perm	pm+pt	NA					Prot		Perm
Protected Phases		6		5	2					8		
Permitted Phases			6	2								8
Total Split (s)		28.0	28.0	51.0	79.0					61.0		61.0
Total Lost Time (s)		6.8	6.8	10.7	6.8					11.2		8.2
Act Effct Green (s)		21.2	21.2	68.3	72.2					49.8		52.8
Actuated g/C Ratio		0.15	0.15	0.49	0.52					0.36		0.38
v/c Ratio		0.94	0.69	1.08	0.38					1.03		0.40
Control Delay		86.8	12.3	79.7	8.7					91.8		8.9
Queue Delay		0.0	0.0	7.9	2.9					24.3		0.0
Total Delay		86.8	12.3	87.6	11.7					116.1		8.9
LOS		F	B	F	B					F		A
Approach Delay		53.5			60.4							82.7
Approach LOS		D			E							F
Queue Length 50th (ft)		226	0	~548	98					~550		29
Queue Length 95th (ft)		#336	103	m#546	m120					#780		97
Internal Link Dist (ft)		548			234			533			512	
Turn Bay Length (ft)										300		
Base Capacity (vph)		490	540	573	898					544		644
Starvation Cap Reductn		0	0	18	435					0		0
Spillback Cap Reductn		0	0	0	0					63		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.94	0.69	1.12	0.75					1.17		0.40

#### Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 40.2 (29%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 65.2

Intersection LOS: E

Intersection Capacity Utilization 138.6%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

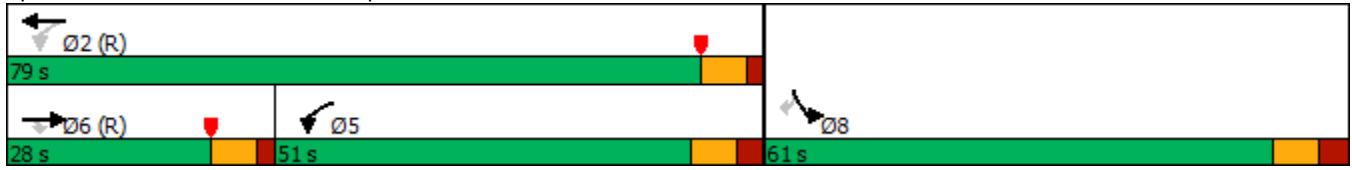
Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

### Lanes, Volumes, Timings 3: I-95 SB Ramps & SR 524

2045 No Build AM  
01/12/2022

Splits and Phases: 3: I-95 SB Ramps & SR 524



# Lanes, Volumes, Timings

## 4: I-95 NB Ramps & SR 524

2045 No Build AM

01/12/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	204	769	0	0	761	445	155	0	646	0	0	0
Future Volume (vph)	204	769	0	0	761	445	155	0	646	0	0	0
Satd. Flow (prot)	1530	1743	0	0	2231	1369	1656	0	1482	0	0	0
Flt Permitted	0.067						0.950					
Satd. Flow (perm)	108	1743	0	0	2231	1369	1656	0	1482	0	0	0
Satd. Flow (RTOR)						468			131			
Adj. Flow (vph)	215	809	0	0	801	468	163	0	680	0	0	0
Lane Group Flow (vph)	215	809	0	0	801	468	163	0	680	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Prot		Perm			
Protected Phases	1	6			2		4					
Permitted Phases	6					2			4			
Total Split (s)	21.0	81.0			60.0	60.0	59.0		59.0			
Total Lost Time (s)	7.4	10.4			9.7	6.7	6.3		8.3			
Act Effct Green (s)	73.6	70.6			50.3	53.3	52.7		50.7			
Actuated g/C Ratio	0.53	0.50			0.36	0.38	0.38		0.36			
v/c Ratio	1.11	0.92			1.00	0.58	0.26		1.10			
Control Delay	141.4	11.3			55.7	5.9	31.6		99.4			
Queue Delay	0.0	46.2			35.9	0.3	0.0		5.6			
Total Delay	141.4	57.5			91.6	6.2	31.6		105.1			
LOS	F	E			F	A	C		F			
Approach Delay		75.1			60.1			90.9				
Approach LOS		E			E			F				
Queue Length 50th (ft)	~211	548			~570	73	102		~619			
Queue Length 95th (ft)	m#210	m546			m#615	m49	160		#865			
Internal Link Dist (ft)		234			604			541			669	
Turn Bay Length (ft)						500	250		200			
Base Capacity (vph)	194	878			801	811	623		620			
Starvation Cap Reductn	0	184			0	70	0		0			
Spillback Cap Reductn	0	2			202	0	0		247			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	1.11	1.17			1.34	0.63	0.26		1.82			

### Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 48.6 (35%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.11

Intersection Signal Delay: 73.3

Intersection LOS: E

Intersection Capacity Utilization 138.6%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

# Lanes, Volumes, Timings

## 4: I-95 NB Ramps & SR 524

2045 No Build AM  
01/12/2022

Splits and Phases: 4: I-95 NB Ramps & SR 524



# Lanes, Volumes, Timings

## 5: N Friday Rd/N Friday Road & SR 524

2045 No Build AM

01/12/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	110	1135	170	30	926	30	150	5	50	60	15	130
Future Volume (vph)	110	1135	170	30	926	30	150	5	50	60	15	130
Satd. Flow (prot)	1736	1743	1335	1656	1743	1482	1492	1355	0	0	1646	0
Flt Permitted	0.107			0.046			0.303				0.881	
Satd. Flow (perm)	195	1743	1335	80	1743	1482	476	1355	0	0	1471	0
Satd. Flow (RTOR)			179			161		53			48	
Adj. Flow (vph)	116	1195	179	32	975	32	158	5	53	63	16	137
Lane Group Flow (vph)	116	1195	179	32	975	32	158	58	0	0	216	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases	1	6		5	2		7	4			8	
Permitted Phases	6		6	2		2	4			8		
Total Split (s)	13.0	94.0	94.0	13.0	94.0	94.0	14.0	33.0		19.0	19.0	
Total Lost Time (s)	7.3	7.3	10.3	7.3	7.3	7.3	8.2	8.2			8.2	
Act Effct Green (s)	95.3	91.9	88.9	92.4	86.7	86.7	24.8	24.8			10.8	
Actuated g/C Ratio	0.68	0.66	0.64	0.66	0.62	0.62	0.18	0.18			0.08	
v/c Ratio	0.59	1.04	0.20	0.28	0.90	0.03	1.25	0.20			1.38	
Control Delay	10.2	45.8	2.3	12.6	36.2	0.1	207.8	16.0			239.3	
Queue Delay	0.0	22.0	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay	10.2	67.7	2.3	12.6	36.2	0.1	207.8	16.0			239.3	
LOS	B	E	A	B	D	A	F	B			F	
Approach Delay		55.4			34.4			156.3			239.3	
Approach LOS		E			C			F			F	
Queue Length 50th (ft)	29	~1235	5	8	727	0	~167	4			~218	
Queue Length 95th (ft)	m32	m#1253	m7	18	#1081	0	#328	45			#388	
Internal Link Dist (ft)		604			1646			769			785	
Turn Bay Length (ft)	315		500	380		330						
Base Capacity (vph)	195	1144	913	116	1079	979	126	283			157	
Starvation Cap Reductn	0	67	0	0	0	0	0	0			0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0			0	
Storage Cap Reductn	0	0	0	0	0	0	0	0			0	
Reduced v/c Ratio	0.59	1.11	0.20	0.28	0.90	0.03	1.25	0.20			1.38	

### Intersection Summary

Cycle Length: 140

Actuated Cycle Length: 140

Offset: 22.7 (16%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.38

Intersection Signal Delay: 68.8

Intersection LOS: E

Intersection Capacity Utilization 106.0%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
 5: N Friday Rd/N Friday Road & SR 524

2045 No Build AM  
 01/12/2022

Splits and Phases: 5: N Friday Rd/N Friday Road & SR 524





## Arterial Level of Service

2045 No Build AM

03/09/2021

## Arterial Level of Service: EB SR 524

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-95 SB Ramps	II	45	40.8	86.8	127.6	0.45	12.7	F
I-95 NB Ramps	II	45	6.5	11.3	17.8	0.06	12.0	F
N Friday Rd	II	45	14.1	45.8	59.9	0.13	7.8	F
Total	II		61.4	143.9	205.3	0.64	11.2	F

## Arterial Level of Service: WB SR 524

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Friday Road	II	45	31.4	36.2	67.6	0.33	17.4	D
I-95 NB Ramps	II	45	14.1	55.7	69.8	0.13	6.7	F
I-95 SB Ramps	II	45	6.5	8.7	15.2	0.06	14.1	E
Total	II		52.0	100.6	152.6	0.52	12.2	F

# HCM 6th TWSC

## 2: S Friday Road & SR 524

2045 No Build PM

01/11/2022

**Intersection**

Int Delay, s/veh 15.8

Movement	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↗	↗	↘	↗	↗		↘	↗		↘	↗
Traffic Vol, veh/h	5	449	36	207	556	65	38	10	107	51	6	10
Future Vol, veh/h	5	449	36	207	556	65	38	10	107	51	6	10
Conflicting Peds, #/hr	0	0	0	0	0	0	0	0	0	0	0	0
Sign Control	Free	Free	Free	Free	Free	Free	Stop	Stop	Stop	Stop	Stop	Stop
RT Channelized	-	-	None	-	-	None	-	-	None	-	-	None
Storage Length	125	-	260	350	-	0	-	-	0	-	-	0
Veh in Median Storage, #	-	0	-	-	0	-	-	0	-	-	0	-
Grade, %	-	0	-	-	0	-	-	0	-	-	0	-
Peak Hour Factor	95	95	95	95	95	95	95	95	95	95	95	95
Heavy Vehicles, %	9	9	9	9	9	9	5	5	5	2	2	2
Mvmt Flow	5	473	38	218	585	68	40	11	113	54	6	11

Major/Minor	Major1			Major2			Minor1			Minor2		
Conflicting Flow All	653	0	0	511	0	0	1547	1572	473	1585	1542	585
Stage 1	-	-	-	-	-	-	483	483	-	1021	1021	-
Stage 2	-	-	-	-	-	-	1064	1089	-	564	521	-
Critical Hdwy	4.19	-	-	4.19	-	-	7.15	6.55	6.25	7.12	6.52	6.22
Critical Hdwy Stg 1	-	-	-	-	-	-	6.15	5.55	-	6.12	5.52	-
Critical Hdwy Stg 2	-	-	-	-	-	-	6.15	5.55	-	6.12	5.52	-
Follow-up Hdwy	2.281	-	-	2.281	-	-	3.545	4.045	3.345	3.518	4.018	3.318
Pot Cap-1 Maneuver	901	-	-	1019	-	-	92	109	585	88	115	511
Stage 1	-	-	-	-	-	-	559	548	-	285	314	-
Stage 2	-	-	-	-	-	-	266	288	-	510	532	-
Platoon blocked, %		-	-		-	-						
Mov Cap-1 Maneuver	901	-	-	1019	-	-	71	85	585	54	90	511
Mov Cap-2 Maneuver	-	-	-	-	-	-	71	85	-	54	90	-
Stage 1	-	-	-	-	-	-	556	545	-	283	247	-
Stage 2	-	-	-	-	-	-	200	226	-	402	529	-

Approach	EB			WB			NB			SB		
HCM Control Delay, s	0.1			2.4			47			224.8		
HCM LOS							E			F		













Minor Lane/Major Mvmt	NBLn1	NBLn2	EBL	EBT	EBR	WBL	WBT	WBR	SBLn1	SBLn2
Capacity (veh/h)	74	585	901	-	-	1019	-	-	56	511
HCM Lane V/C Ratio	0.683	0.193	0.006	-	-	0.214	-	-	1.071	0.021
HCM Control Delay (s)	123.8	12.6	9	-	-	9.5	-	-	262.1	12.2
HCM Lane LOS	F	B	A	-	-	A	-	-	F	B
HCM 95th %tile Q(veh)	3.1	0.7	0	-	-	0.8	-	-	5	0.1

### Lanes, Volumes, Timings

#### 3: I-95 SB Ramps & SR 524

2045 No Build PM

01/12/2022

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↗	↖	↑					↘		↗
Traffic Volume (vph)	0	389	218	649	590	0	0	0	0	442	0	238
Future Volume (vph)	0	389	218	649	590	0	0	0	0	442	0	238
Satd. Flow (prot)	0	2789	1482	1656	1743	0	0	0	0	1530	0	1369
Flt Permitted				0.269						0.950		
Satd. Flow (perm)	0	2789	1482	469	1743	0	0	0	0	1530	0	1369
Satd. Flow (RTOR)			229									211
Adj. Flow (vph)	0	409	229	683	621	0	0	0	0	465	0	251
Lane Group Flow (vph)	0	409	229	683	621	0	0	0	0	465	0	251
Turn Type		NA	Perm	pm+pt	NA					Prot		Perm
Protected Phases		6		5	2					8		
Permitted Phases			6	2								8
Total Split (s)		32.0	32.0	61.0	93.0					57.0		57.0
Total Lost Time (s)		6.8	6.8	10.7	6.8					11.2		8.2
Act Effct Green (s)		24.5	24.5	82.3	86.2					45.8		48.8
Actuated g/C Ratio		0.16	0.16	0.55	0.57					0.31		0.33
v/c Ratio		0.90	0.53	1.03	0.62					1.00		0.43
Control Delay		84.8	11.1	62.5	7.8					92.0		10.1
Queue Delay		12.9	0.0	26.1	3.1					1.6		0.0
Total Delay		97.7	11.1	88.7	10.9					93.6		10.1
LOS		F	B	F	B					F		B
Approach Delay		66.6			51.6							64.3
Approach LOS		E			D							E
Queue Length 50th (ft)		247	0	~637	174					456		27
Queue Length 95th (ft)		#355	79	m#599	m204					#693		103
Internal Link Dist (ft)		548			234			533			512	
Turn Bay Length (ft)										300		
Base Capacity (vph)		468	439	661	1001					467		587
Starvation Cap Reductn		0	0	145	270					0		0
Spillback Cap Reductn		51	0	0	0					3		0
Storage Cap Reductn		0	0	0	0					0		0
Reduced v/c Ratio		0.98	0.52	1.32	0.85					1.00		0.43

#### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 106.2 (71%), Referenced to phase 2:WBTL and 6:EBT, Start of Yellow

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.03

Intersection Signal Delay: 58.6

Intersection LOS: E

Intersection Capacity Utilization 128.4%

ICU Level of Service H

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

### Lanes, Volumes, Timings 3: I-95 SB Ramps & SR 524

2045 No Build PM  
01/12/2022

Splits and Phases: 3: I-95 SB Ramps & SR 524



Lanes, Volumes, Timings  
4: I-95 NB Ramps & SR 524

2045 No Build PM  
01/12/2022

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↘	↑			↑↑	↗	↘		↗			
Traffic Volume (vph)	246	585	0	0	922	473	317	0	673	0	0	0
Future Volume (vph)	246	585	0	0	922	473	317	0	673	0	0	0
Satd. Flow (prot)	1530	1743	0	0	2475	1369	1656	0	1482	0	0	0
Flt Permitted	0.060						0.950					
Satd. Flow (perm)	97	1743	0	0	2475	1369	1656	0	1482	0	0	0
Satd. Flow (RTOR)						498			258			
Adj. Flow (vph)	259	616	0	0	971	498	334	0	708	0	0	0
Lane Group Flow (vph)	259	616	0	0	971	498	334	0	708	0	0	0
Turn Type	pm+pt	NA			NA	Perm	Prot		Perm			
Protected Phases	1	6			2		4					
Permitted Phases	6					2			4			
Total Split (s)	27.0	94.0			67.0	67.0	56.0		56.0			
Total Lost Time (s)	7.4	10.4			9.7	6.7	6.3		8.3			
Act Effct Green (s)	86.6	83.6			57.3	60.3	49.7		47.7			
Actuated g/C Ratio	0.58	0.56			0.38	0.40	0.33		0.32			
v/c Ratio	1.07	0.63			1.03	0.59	0.61		1.09			
Control Delay	135.8	1.4			54.5	4.8	47.7		94.1			
Queue Delay	13.5	7.7			28.9	0.4	0.0		2.7			
Total Delay	149.3	9.2			83.5	5.2	47.7		96.8			
LOS	F	A			F	A	D		F			
Approach Delay		50.6			56.9			81.1				
Approach LOS		D			E			F				
Queue Length 50th (ft)	~263	0			~709	56	274		~598			
Queue Length 95th (ft)	m#309	m0			m588	m29	384		#849			
Internal Link Dist (ft)		234			604			541			669	
Turn Bay Length (ft)						500	250		200			
Base Capacity (vph)	243	971			945	848	548		647			
Starvation Cap Reductn	26	310			0	82	0		0			
Spillback Cap Reductn	0	0			268	0	0		43			
Storage Cap Reductn	0	0			0	0	0		0			
Reduced v/c Ratio	1.19	0.93			1.43	0.65	0.61		1.17			

Intersection Summary

Cycle Length: 150  
 Actuated Cycle Length: 150  
 Offset: 115.6 (77%), Referenced to phase 2:WBT and 6:EBTL, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 1.09  
 Intersection Signal Delay: 62.7      Intersection LOS: E  
 Intersection Capacity Utilization 128.4%      ICU Level of Service H  
 Analysis Period (min) 15  
 ~ Volume exceeds capacity, queue is theoretically infinite.  
 Queue shown is maximum after two cycles.  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.

# Lanes, Volumes, Timings

## 4: I-95 NB Ramps & SR 524

2045 No Build PM  
01/12/2022

Splits and Phases: 4: I-95 NB Ramps & SR 524

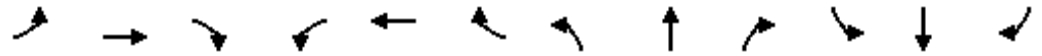


# Lanes, Volumes, Timings

## 5: N Friday Rd/N Friday Road & SR 524

2045 No Build PM

01/12/2022



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	170	918	170	53	1118	53	169	10	50	50	10	108
Future Volume (vph)	170	918	170	53	1118	53	169	10	50	50	10	108
Satd. Flow (prot)	1736	1743	1335	1656	1743	1482	1492	1376	0	0	1645	0
Flt Permitted	0.041			0.147			0.316				0.877	
Satd. Flow (perm)	75	1743	1335	256	1743	1482	496	1376	0	0	1464	0
Satd. Flow (RTOR)			179			151		53			45	
Adj. Flow (vph)	179	966	179	56	1177	56	178	11	53	53	11	114
Lane Group Flow (vph)	179	966	179	56	1177	56	178	64	0	0	178	0
Turn Type	pm+pt	NA	Perm	pm+pt	NA	Perm	pm+pt	NA		Perm	NA	
Protected Phases	1	6		5	2		7	4				8
Permitted Phases	6		6	2		2	4			8		
Total Split (s)	15.0	104.0	104.0	13.0	102.0	102.0	17.0	33.0		16.0	16.0	
Total Lost Time (s)	7.3	7.3	10.3	7.3	7.3	7.3	8.2	8.2			8.2	
Act Effct Green (s)	105.5	99.3	96.3	100.4	94.7	94.7	24.8	24.8			7.8	
Actuated g/C Ratio	0.70	0.66	0.64	0.67	0.63	0.63	0.17	0.17			0.05	
v/c Ratio	1.30	0.84	0.19	0.25	1.07	0.06	1.27	0.24			1.51	
Control Delay	195.2	16.9	0.6	8.7	75.7	0.1	212.8	19.6			300.0	
Queue Delay	0.0	2.4	0.0	0.0	0.0	0.0	0.0	0.0			0.0	
Total Delay	195.2	19.3	0.6	8.7	75.7	0.1	212.8	19.6			300.0	
LOS	F	B	A	A	E	A	F	B			F	
Approach Delay		40.6			69.5			161.7			300.0	
Approach LOS		D			E			F			F	
Queue Length 50th (ft)	~177	575	0	14	~1271	0	~164	9			~198	
Queue Length 95th (ft)	m#236	m608	m1	26	#1537	0	#324	54			#360	
Internal Link Dist (ft)		604			1646			769			785	
Turn Bay Length (ft)	315		500	380		330						
Base Capacity (vph)	138	1153	921	224	1100	991	140	271			118	
Starvation Cap Reductn	0	95	0	0	0	0	0	0			0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0			0	
Storage Cap Reductn	0	0	0	0	0	0	0	0			0	
Reduced v/c Ratio	1.30	0.91	0.19	0.25	1.07	0.06	1.27	0.24			1.51	

### Intersection Summary

Cycle Length: 150

Actuated Cycle Length: 150

Offset: 86.7 (58%), Referenced to phase 2:WBTL and 6:EBTL, Start of Yellow

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 1.51

Intersection Signal Delay: 77.8

Intersection LOS: E

Intersection Capacity Utilization 103.9%

ICU Level of Service G

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Lanes, Volumes, Timings  
 5: N Friday Rd/N Friday Road & SR 524

2045 No Build PM  
 01/12/2022

Splits and Phases: 5: N Friday Rd/N Friday Road & SR 524

 Ø1	 Ø2 (R)	 Ø4
15 s	102 s	33 s
 Ø5	 Ø6 (R)	 Ø7
13 s	104 s	17 s
		 Ø8
		16 s



## Arterial Level of Service

2045 No Build PM

03/09/2021

## Arterial Level of Service: EB SR 524

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
I-95 SB Ramps	II	45	40.8	84.8	125.6	0.45	12.9	F
I-95 NB Ramps	II	45	6.5	1.4	7.9	0.06	27.1	C
N Friday Rd	II	45	14.1	16.9	31.0	0.13	15.0	E
Total	II		61.4	103.1	164.5	0.64	14.0	E

## Arterial Level of Service: WB SR 524

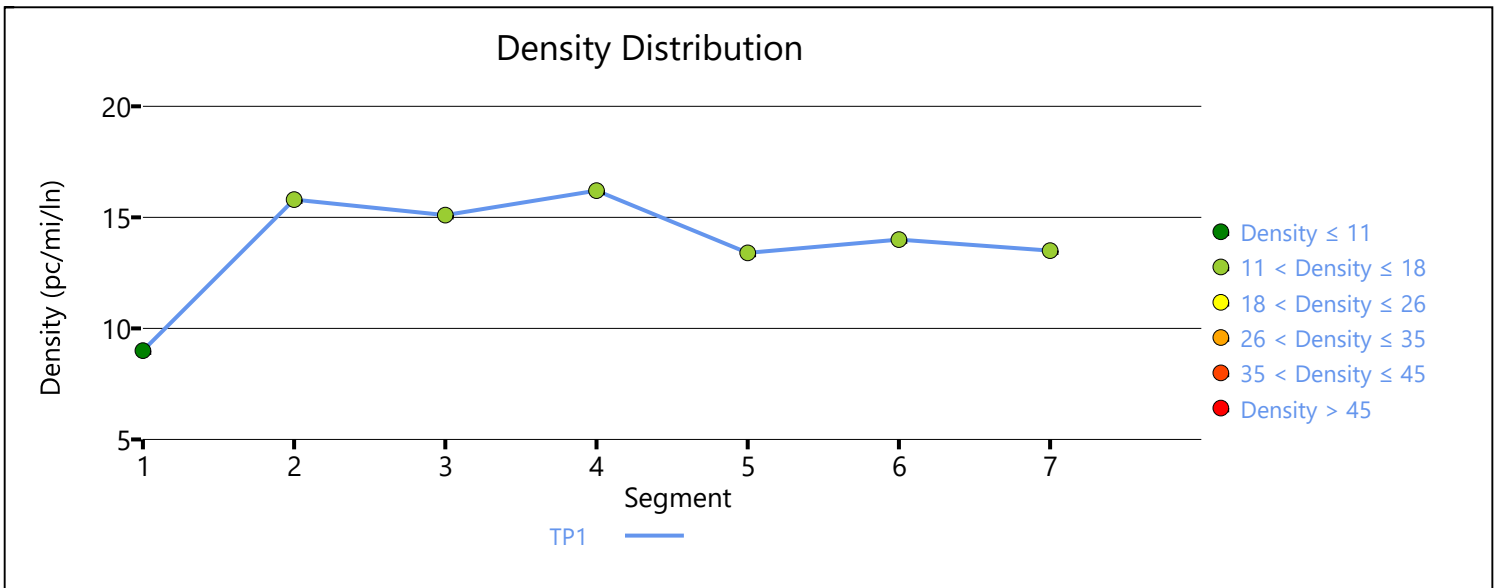
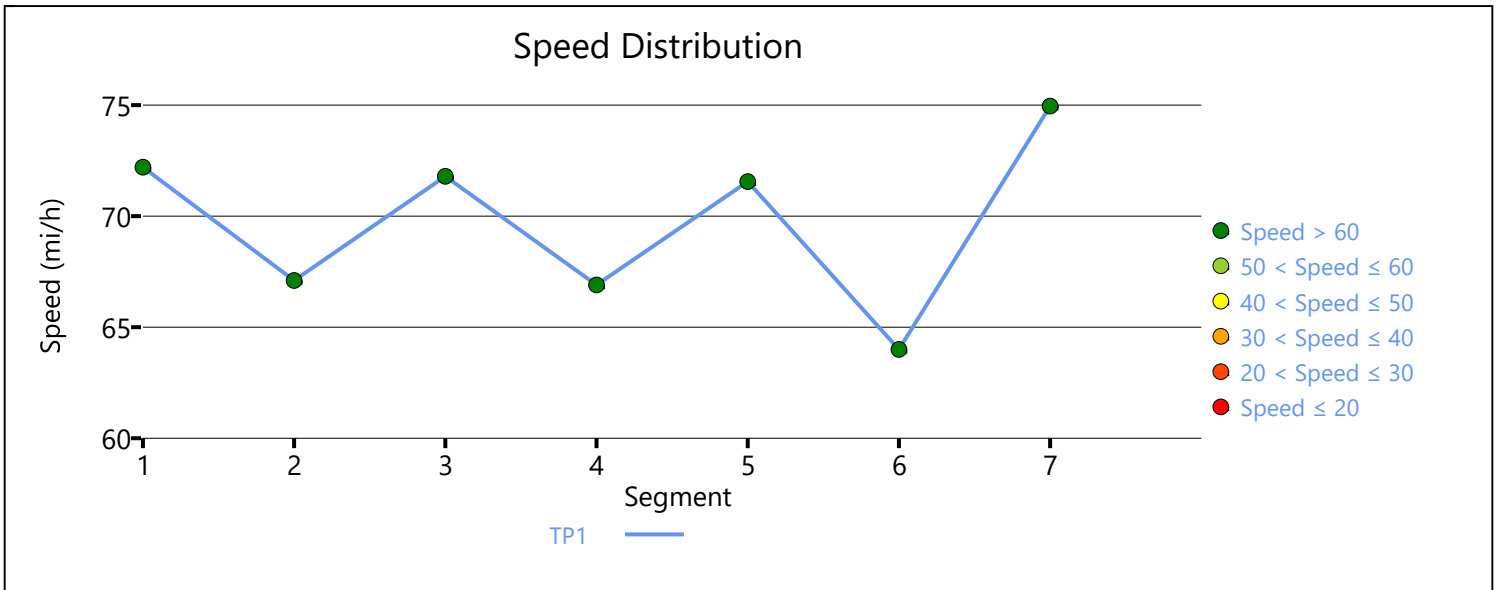
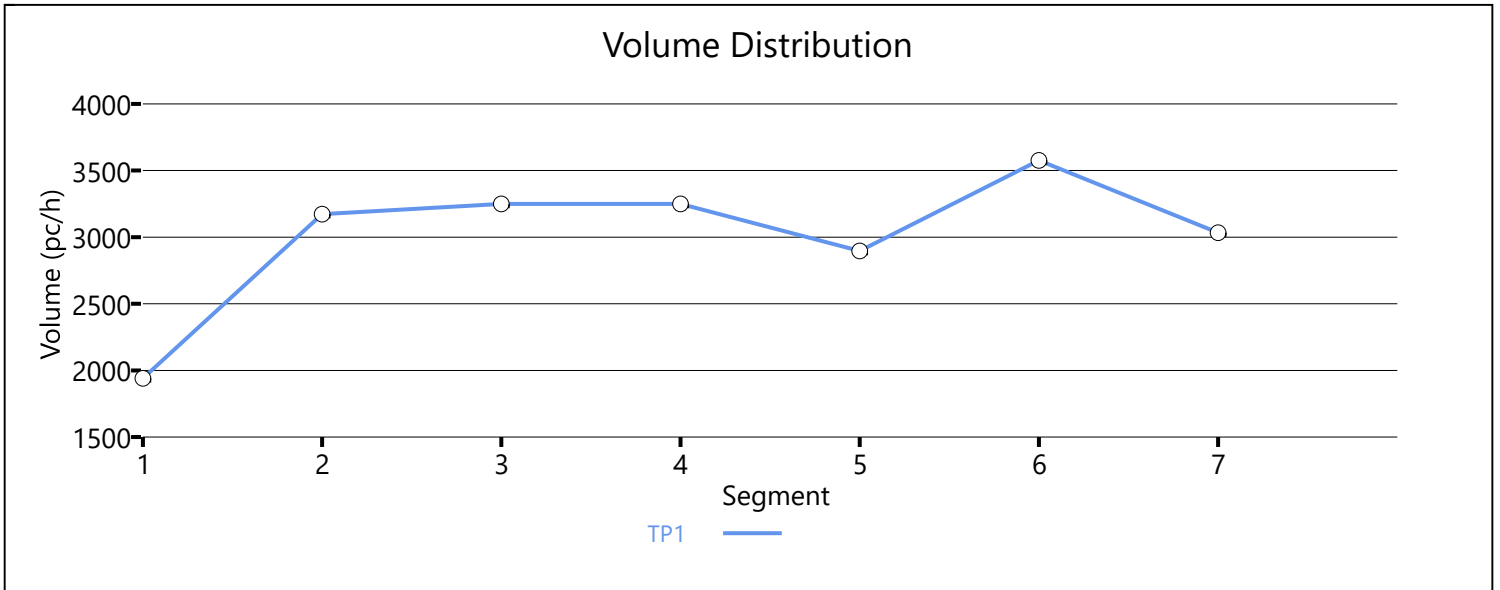
Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Friday Road	II	45	31.4	75.7	107.1	0.33	11.0	F
I-95 NB Ramps	II	45	14.1	54.5	68.6	0.13	6.8	F
I-95 SB Ramps	II	45	6.5	7.8	14.3	0.06	15.0	E
Total	II		52.0	138.0	190.0	0.52	9.8	F

# **Appendix J**

## No-Build HCS Output

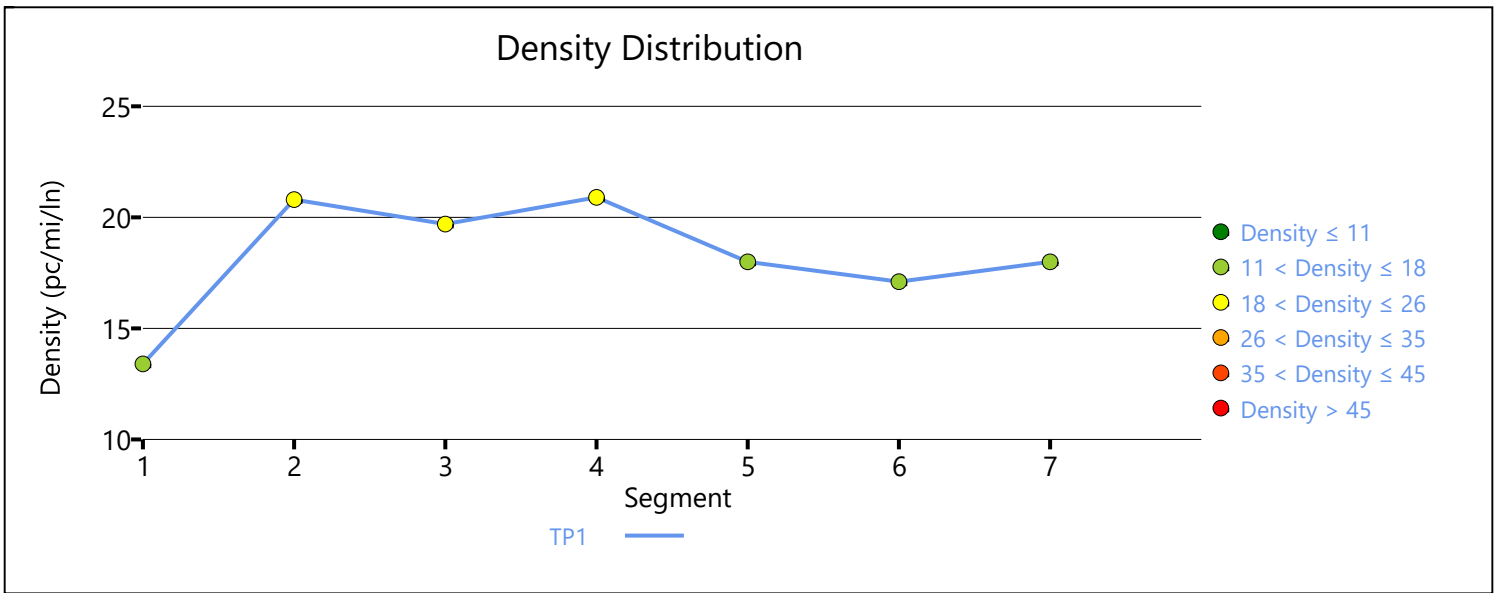
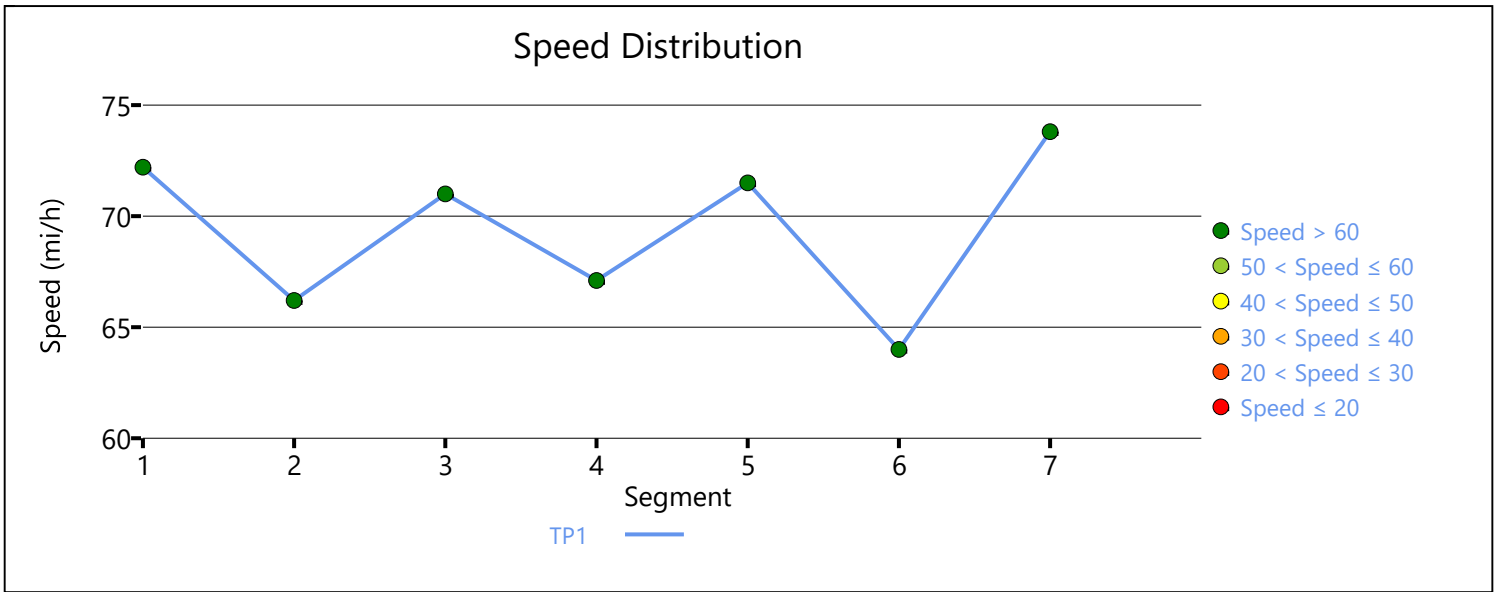
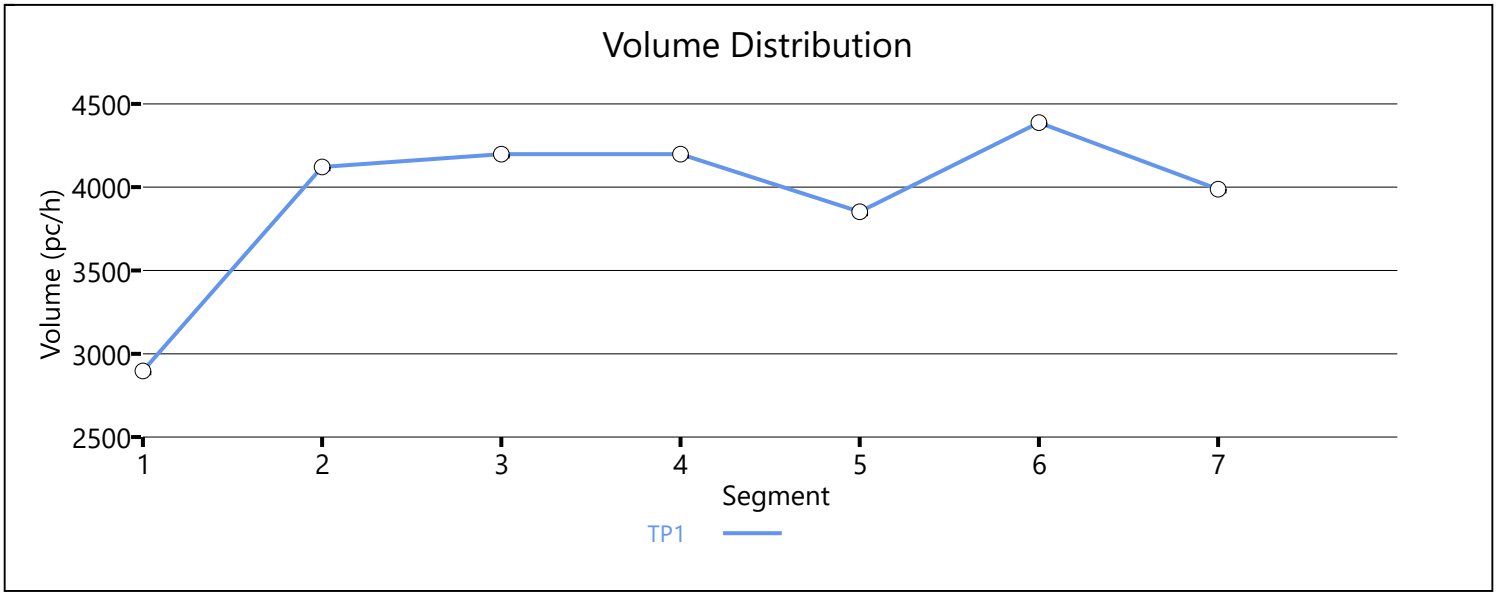


1	0.95	0.95	0.909	0.851	3249	377	7200	2000	0.45	0.19	66.9	61.9	16.2	14.8	B
Segment 5: Basic															
Time Period	PHF	fHV	Flow Rate (pc/h)			Capacity (pc/h)		d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)			LOS		
1	0.95	0.909	2896			7200		0.40	71.6	13.4			B		
Segment 6: Weaving															
Time Period	PHF	fHV	Flow Rate (pc/h)			Capacity (pc/h)		d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)			LOS		
1	0.95	0.909	3576			8759		0.41	64.0	14.0			B		
Segment 7: Basic															
Time Period	PHF	fHV	Flow Rate (pc/h)			Capacity (pc/h)		d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)			LOS		
1	0.95	0.909	3033			7200		0.42	75.0	13.5			B		
Facility Time Period Results															
T	Speed, mi/h		Density, pc/mi/ln			Density, veh/mi/ln		Travel Time, min			LOS				
1	69.6		13.3			12.0		4.10			B				
Facility Overall Results															
Space Mean Speed, mi/h				69.6				Density, veh/mi/ln				12.0			
Average Travel Time, min				4.10				Density, pc/mi/ln				13.3			
Messages															
INFORMATION 1				Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 2				Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 3				Trucks for segment 6 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 4				Density for segment 2 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.											
Comments															





1	0.95	0.95	0.909	0.851	4198	370	7200	2000	0.58	0.19	67.1	61.9	20.9	19.4	B	
<b>Segment 5: Basic</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	3852	7200	0.54	71.5	18.0	B								
<b>Segment 6: Weaving</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	4387	9328	0.47	64.0	17.1	B								
<b>Segment 7: Basic</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	3988	7200	0.55	73.8	18.0	B								
<b>Facility Time Period Results</b>																
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS											
1	69.4	17.6	15.8	4.10	B											
<b>Facility Overall Results</b>																
Space Mean Speed, mi/h				69.4	Density, veh/mi/ln				15.8							
Average Travel Time, min				4.10	Density, pc/mi/ln				17.6							
<b>Messages</b>																
INFORMATION 1				Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 2				Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 3				Density for segment 5 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.												
INFORMATION 4				Density for segment 7 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.												
<b>Comments</b>																





# HCS7 Freeway Facilities Report

## Project Information

Analyst	SK	Date	9/5/2019
Agency	FDOT D-5	Analysis Year	2025 No Build
Jurisdiction	Brevard County	Time Period Analyzed	AM Peak Hour_NB
Project Description	I-95/SR 524 IMR		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	4.92		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-95 Btw SR 520 Off-Ramp & SR 520 On-Ramp	2200	3
2	Weaving	Weaving	I-95 Btw SR 520 On-Ramp & SR 524 Off-Ramp	4500	4
3	Basic	Basic	I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	2200	3
4	Merge	Merge	SR 524 On-ramp	1500	3
5	Basic	Basic	I-95 Btw SR 524 On-Ramp & SR 528 Off-Ramp	8800	3
6	Diverge	Diverge	SR 528 Off-ramp	1500	3
7	Basic	Basic	I-95 Btw SR 528 Off-Ramp & SR 528 On-Ramp	5280	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	4061	7200	0.56	71.9	18.8	C

### Segment 2: Weaving

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	4389	9392	0.47	64.6	17.0	B

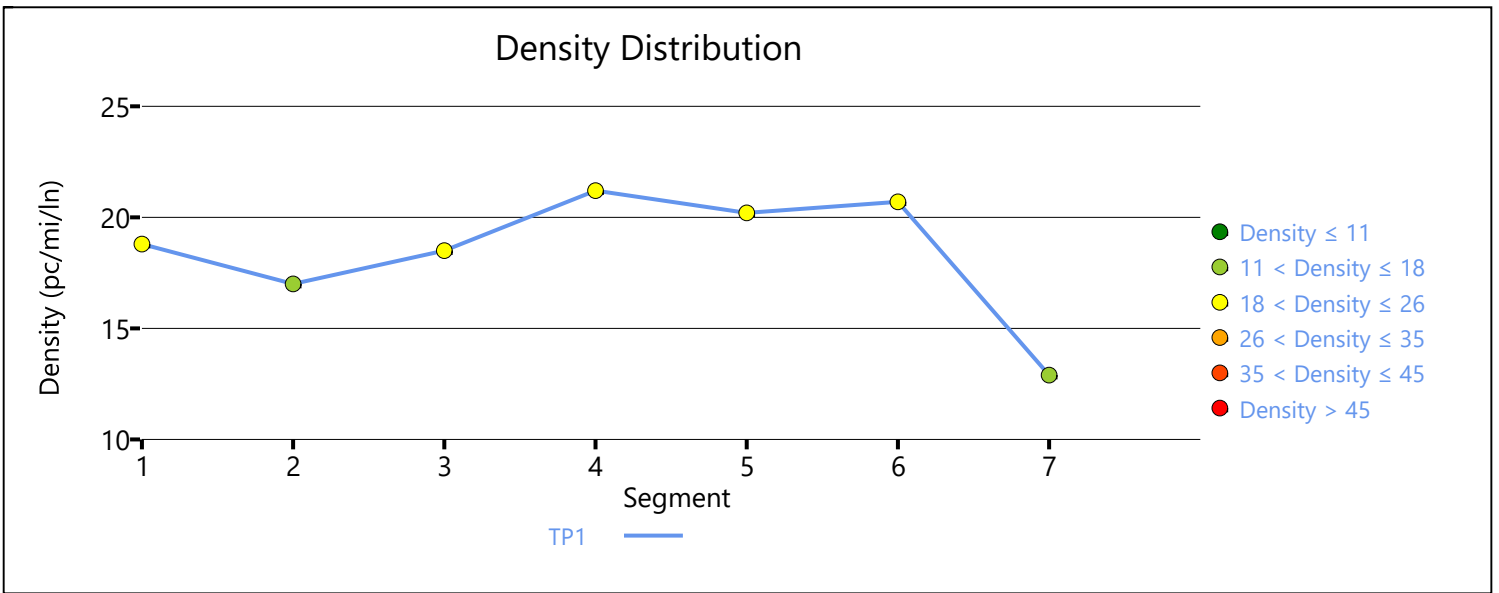
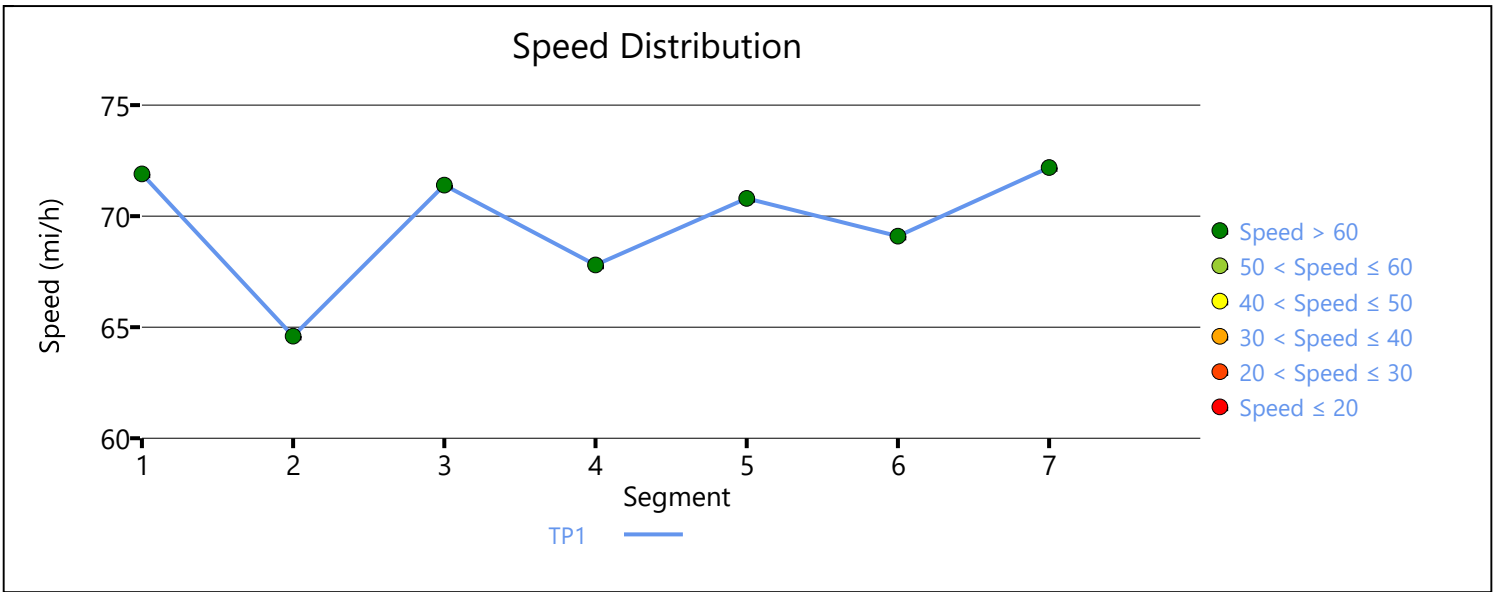
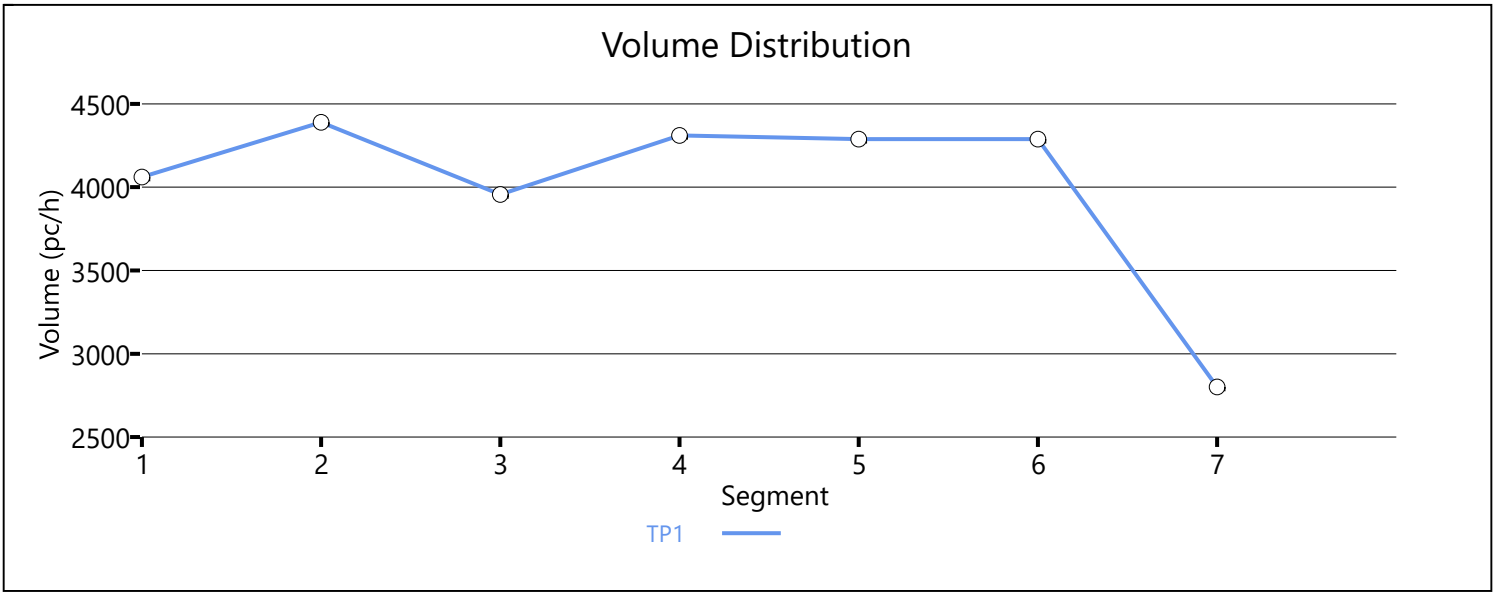
### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	3956	7200	0.55	71.4	18.5	C

### Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.851	4311	355	7200	2000	0.60	0.18	67.8	66.0	21.2	18.4	B

Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.909		4288		7200		0.60		70.8		20.2		C
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.966	4288	1399	7200	2200	0.60	0.64	69.1	65.3	20.7	23.2	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.909		2801		7200		0.39		72.2		12.9		B
Facility Time Period Results															
T	Speed, mi/h				Density, pc/mi/ln				Density, veh/mi/ln				Travel Time, min		LOS
1	69.6				17.9				16.1				4.20		B
Facility Overall Results															
Space Mean Speed, mi/h					69.6				Density, veh/mi/ln				16.1		
Average Travel Time, min					4.20				Density, pc/mi/ln				17.9		
Messages															
INFORMATION 1					Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.										
INFORMATION 2					Trucks for segment 7 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.										
INFORMATION 3					Density for segment 3 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.										
Comments															



# HCS7 Freeway Facilities Report

## Project Information

Analyst	SK	Date	9/5/2019
Agency	FDOT D-5	Analysis Year	2025 No Build
Jurisdiction	Brevard County	Time Period Analyzed	PM Peak Hour_NB
Project Description	I-95/SR 524 IMR		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	4.92		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-95 Btw SR 520 Off-Ramp & SR 520 On-Ramp	2200	3
2	Weaving	Weaving	I-95 Btw SR 520 On-Ramp & SR 524 Off-Ramp	4500	4
3	Basic	Basic	I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	2200	3
4	Merge	Merge	SR 524 On-ramp	1500	3
5	Basic	Basic	I-95 Btw SR 524 On-Ramp & SR 528 Off-Ramp	8800	3
6	Diverge	Diverge	SR 528 Off-ramp	1500	3
7	Basic	Basic	I-95 Btw SR 528 Off-Ramp & SR 528 On-Ramp	5280	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	3037	7200	0.42	72.7	13.9	B

### Segment 2: Weaving

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	3575	7792	0.46	63.3	14.1	B

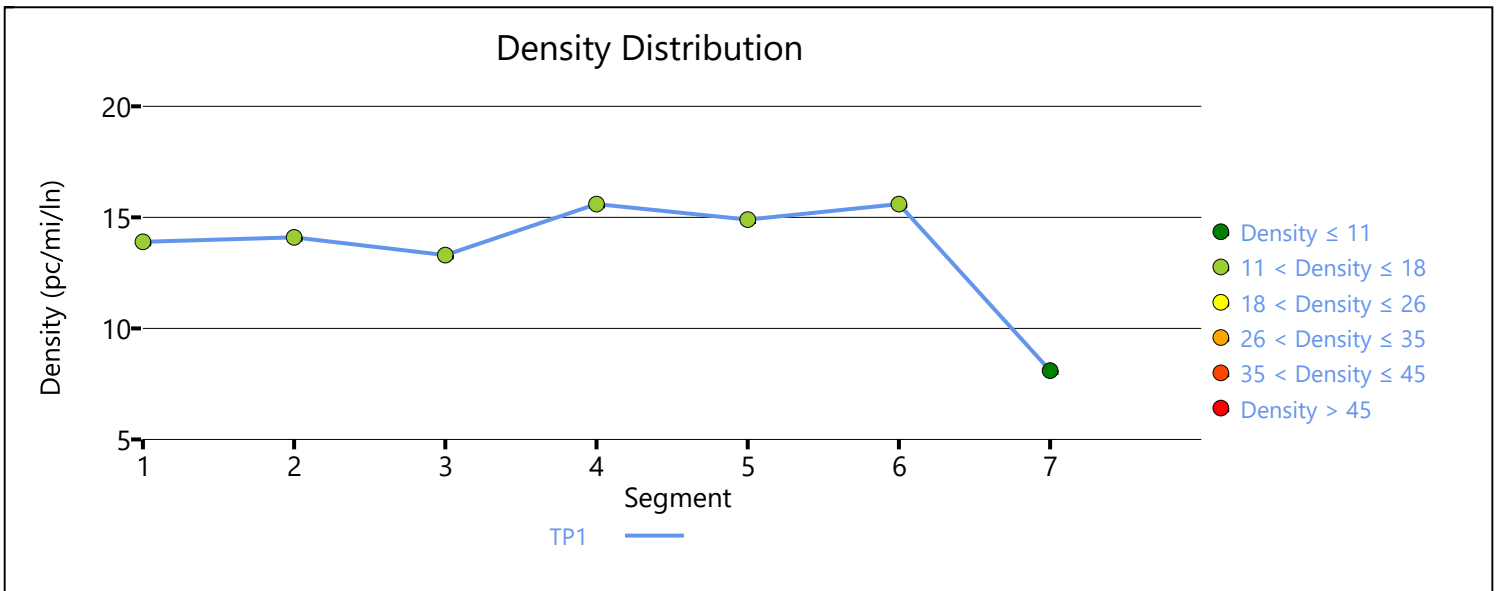
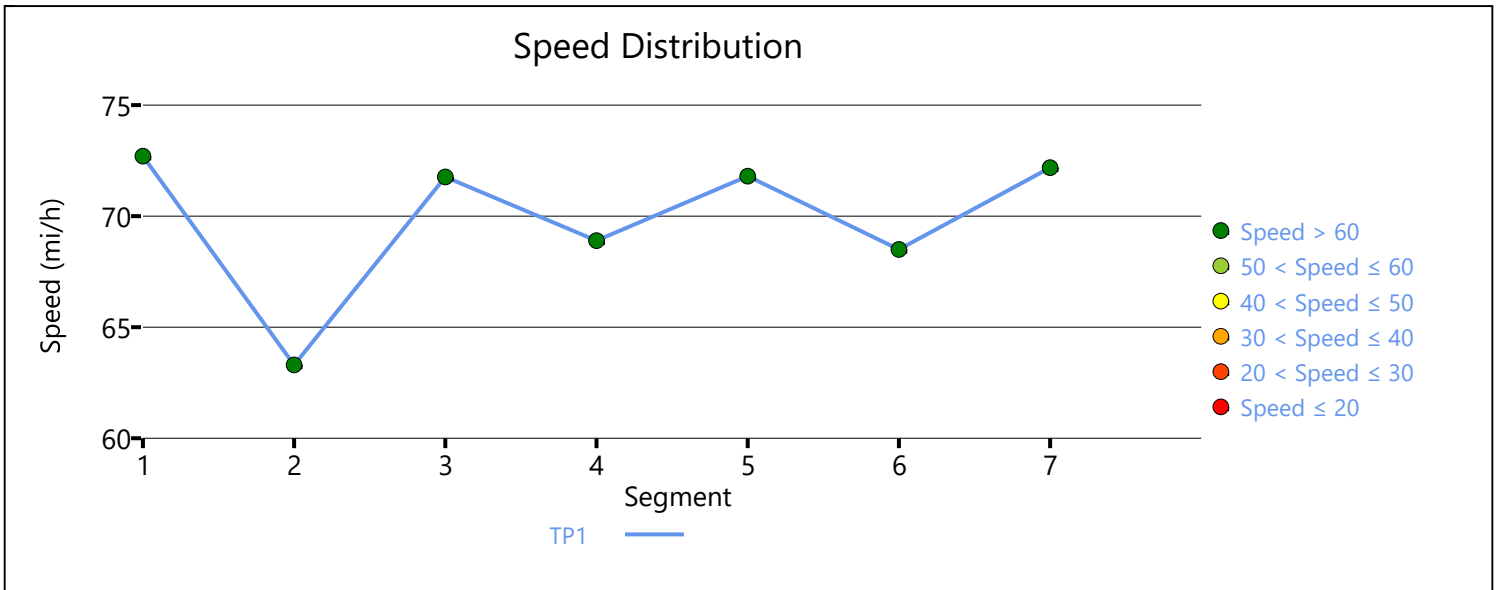
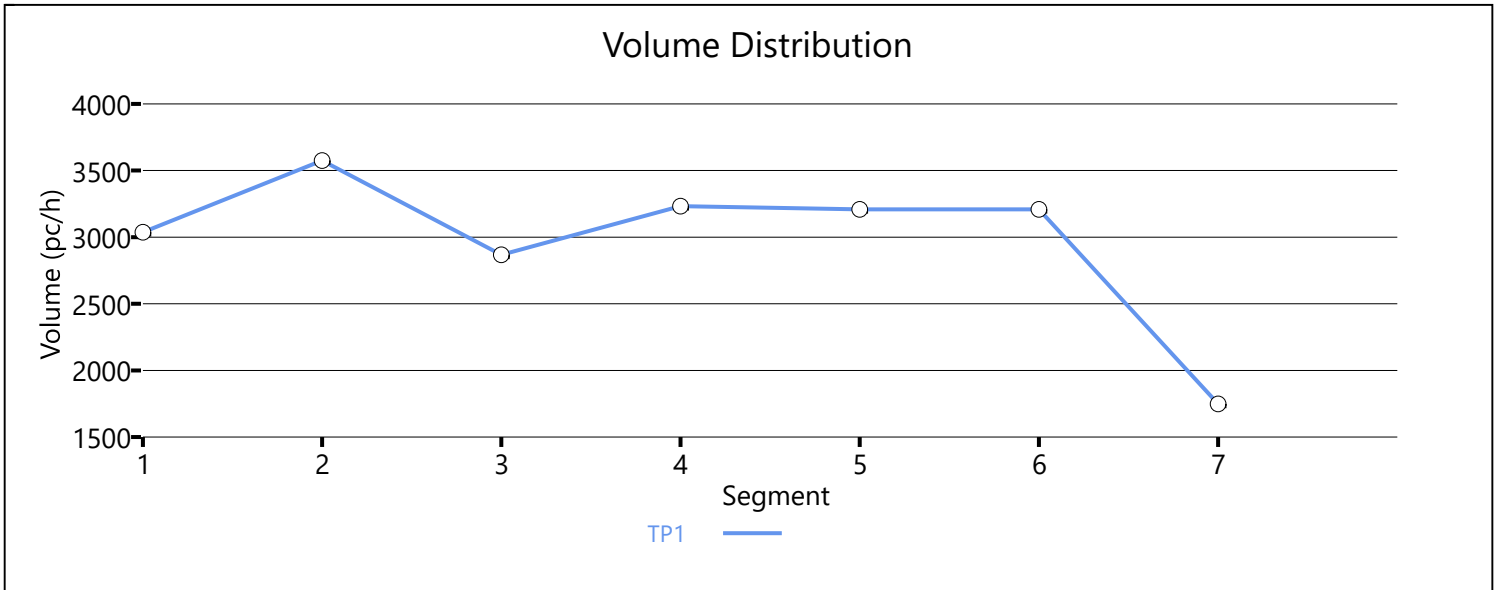
### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	2868	7200	0.40	71.8	13.3	B

### Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.851	3232	364	7200	2000	0.45	0.18	68.9	67.0	15.6	13.2	B

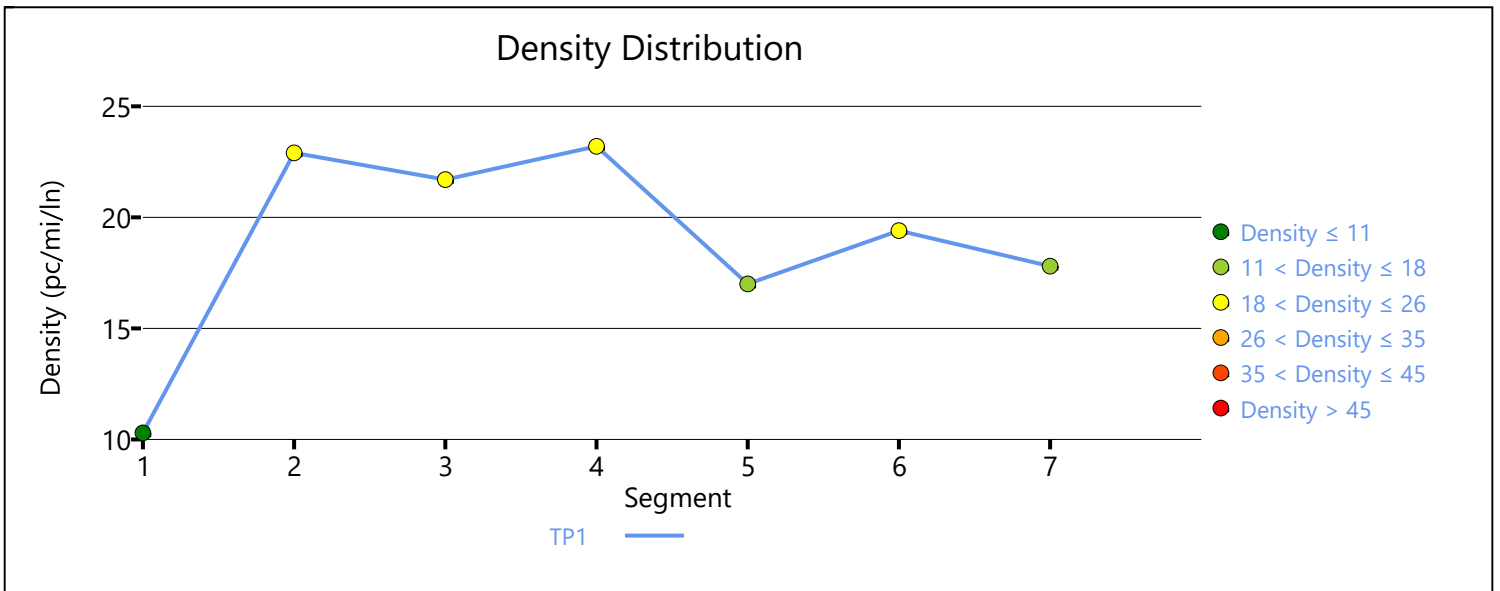
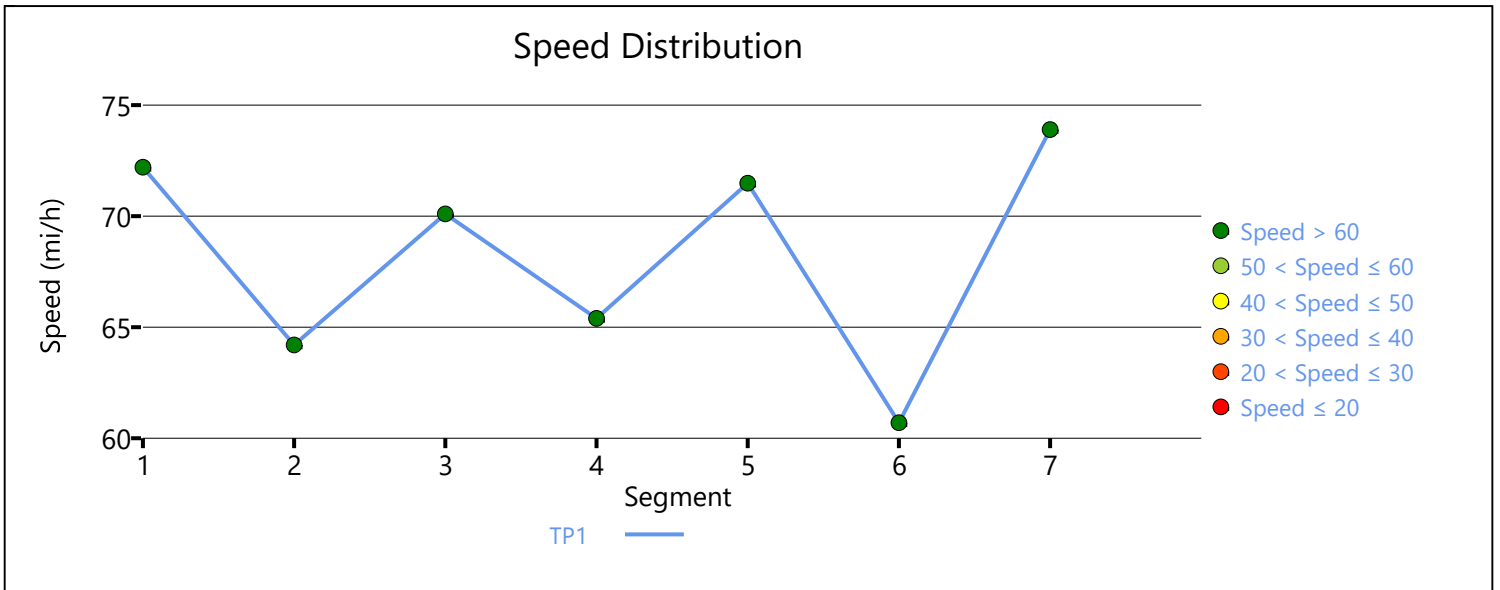
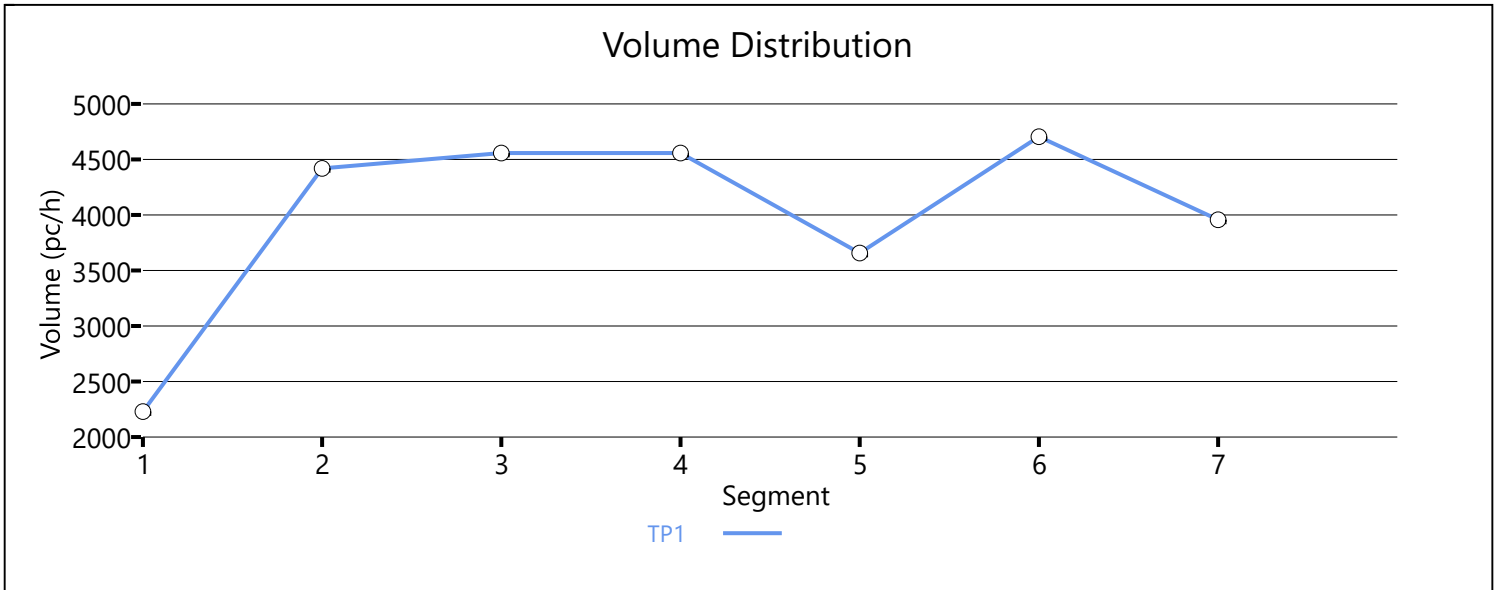
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.909		3209		7200		0.45		71.8		14.9		B
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.966	3209	1374	7200	2200	0.45	0.62	68.5	65.4	15.6	18.2	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.909		1749		7200		0.24		72.2		8.1		A
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	69.5			13.3			11.9			4.20			B		
Facility Overall Results															
Space Mean Speed, mi/h				69.5				Density, veh/mi/ln				11.9			
Average Travel Time, min				4.20				Density, pc/mi/ln				13.3			
Messages															
INFORMATION 1				Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 2				Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 3				Trucks for segment 7 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
Comments															





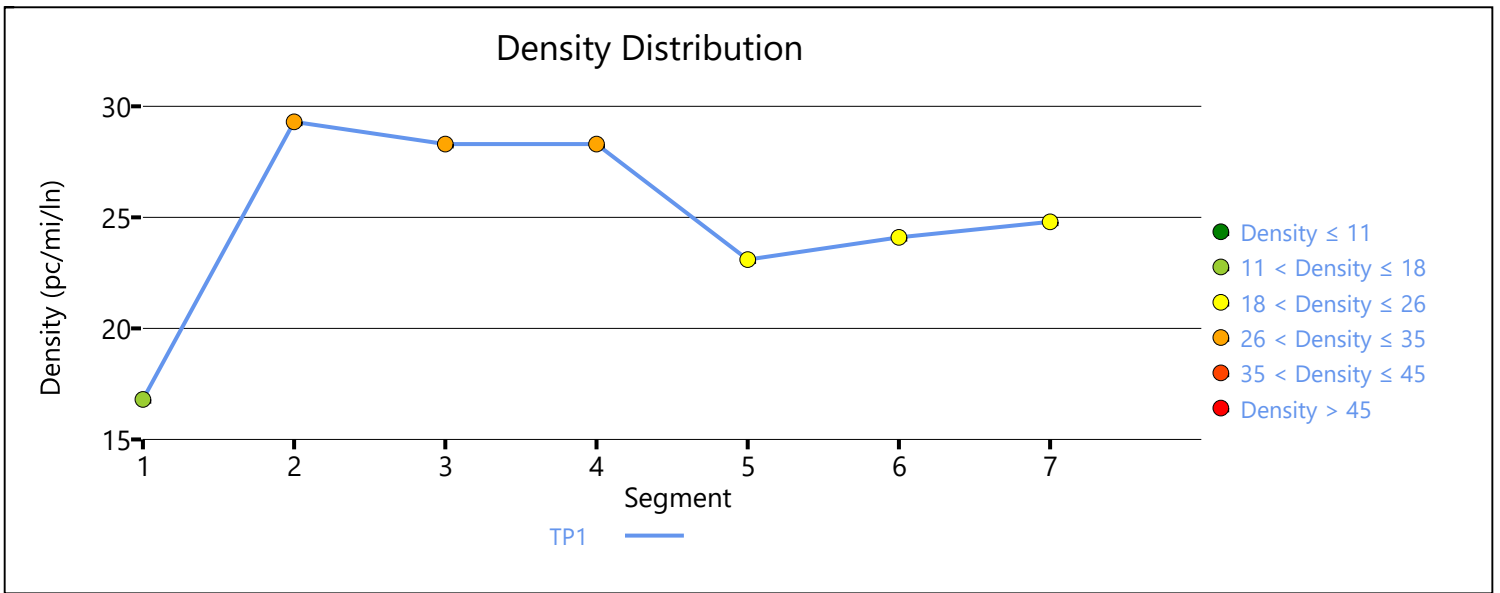
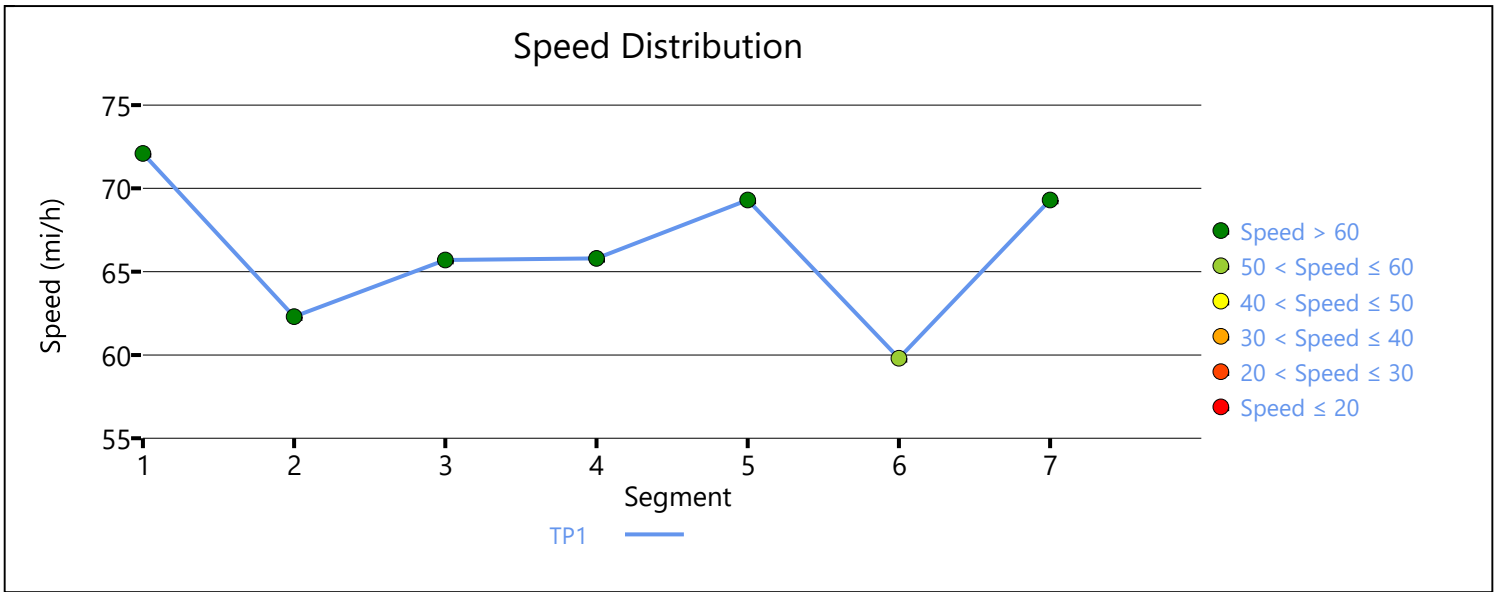
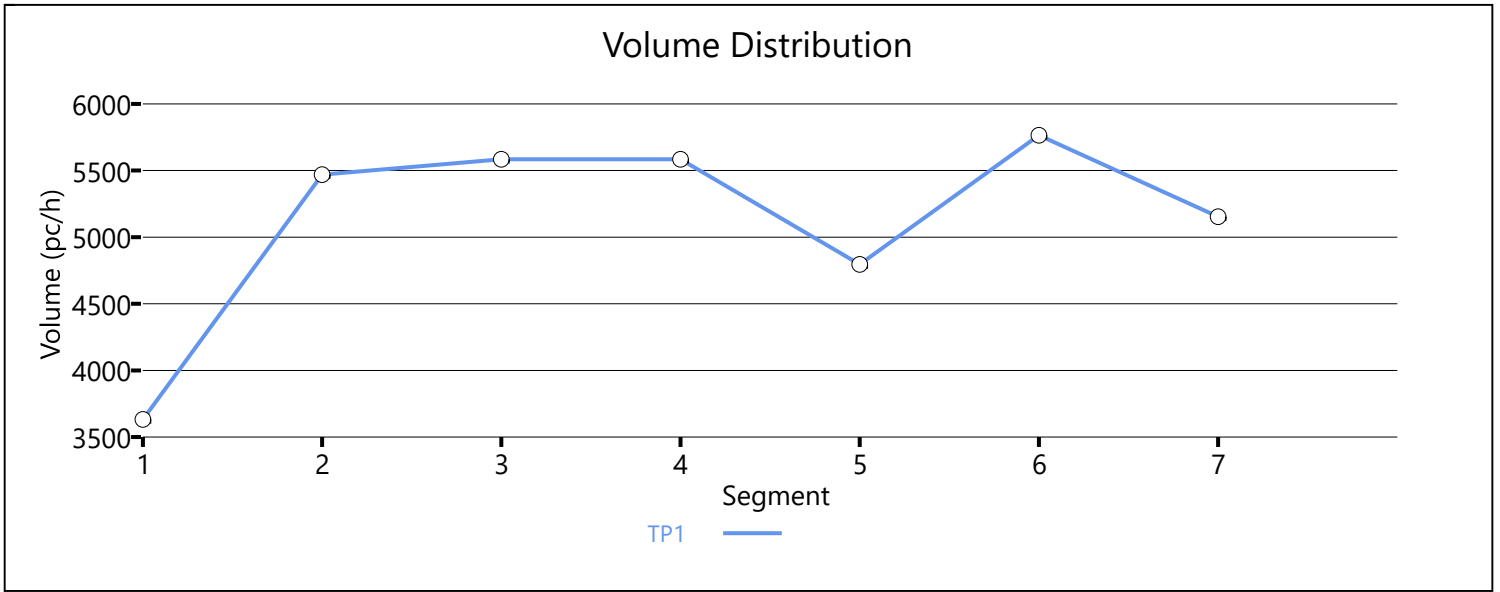
1	0.95	0.95	0.909	0.851	4557	961	7200	2000	0.63	0.48	65.4	60.2	23.2	22.1	C	
<b>Segment 5: Basic</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	3657	7200	0.51	71.5	17.0	B								
<b>Segment 6: Weaving</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	4704	8363	0.56	60.7	19.4	B								
<b>Segment 7: Basic</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	3956	7200	0.55	73.9	17.8	B								
<b>Facility Time Period Results</b>																
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS											
1	67.7	18.1	16.3	4.20	C											
<b>Facility Overall Results</b>																
Space Mean Speed, mi/h				67.7	Density, veh/mi/ln				16.3							
Average Travel Time, min				4.20	Density, pc/mi/ln				18.1							
<b>Messages</b>																
INFORMATION 1				Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 2				Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 3				Trucks for segment 6 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 4				Density for segment 2 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.												
INFORMATION 5				Density for segment 7 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.												
<b>Comments</b>																







1	0.95	0.95	0.909	0.851	5584	841	7200	2000	0.78	0.42	65.8	60.5	28.3	26.2	C	
Segment 5: Basic																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	4796	7200	0.67	69.3	23.1	C								
Segment 6: Weaving																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	5765	9216	0.63	59.8	24.1	C								
Segment 7: Basic																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	5153	7200	0.72	69.3	24.8	C								
Facility Time Period Results																
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS											
1	65.7	24.2	21.7	4.30	C											
Facility Overall Results																
Space Mean Speed, mi/h				65.7	Density, veh/mi/ln				21.7							
Average Travel Time, min				4.30	Density, pc/mi/ln				24.2							
Messages																
INFORMATION 1				Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 2				Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
Comments																



# HCS7 Freeway Facilities Report

## Project Information

Analyst	SK	Date	9/5/2019
Agency	FDOT D-5	Analysis Year	2045 No Build
Jurisdiction	Brevard County	Time Period Analyzed	AM Peak Hour_NB
Project Description	I-95/SR 524 IMR		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	4.92		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-95 Btw SR 520 Off-Ramp & SR 520 On-Ramp	2200	3
2	Weaving	Weaving	I-95 Btw SR 520 On-Ramp & SR 524 Off-Ramp	4500	4
3	Basic	Basic	I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	2200	3
4	Merge	Merge	SR 524 On-ramp	1500	3
5	Basic	Basic	I-95 Btw SR 524 On-Ramp & SR 528 Off-Ramp	8800	3
6	Diverge	Diverge	SR 528 Off-ramp	1500	3
7	Basic	Basic	I-95 Btw SR 528 Off-Ramp & SR 528 On-Ramp	5280	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	5153	7200	0.72	68.3	25.2	C

### Segment 2: Weaving

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	5764	9148	0.63	59.2	24.3	C

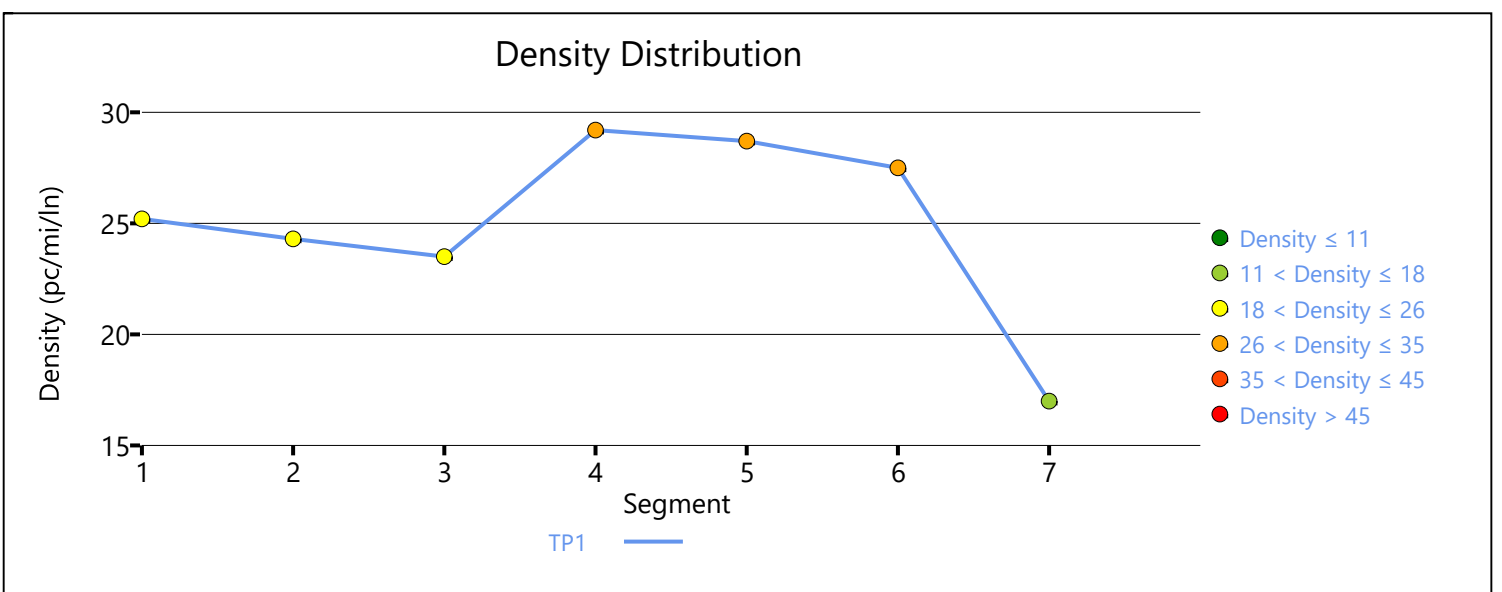
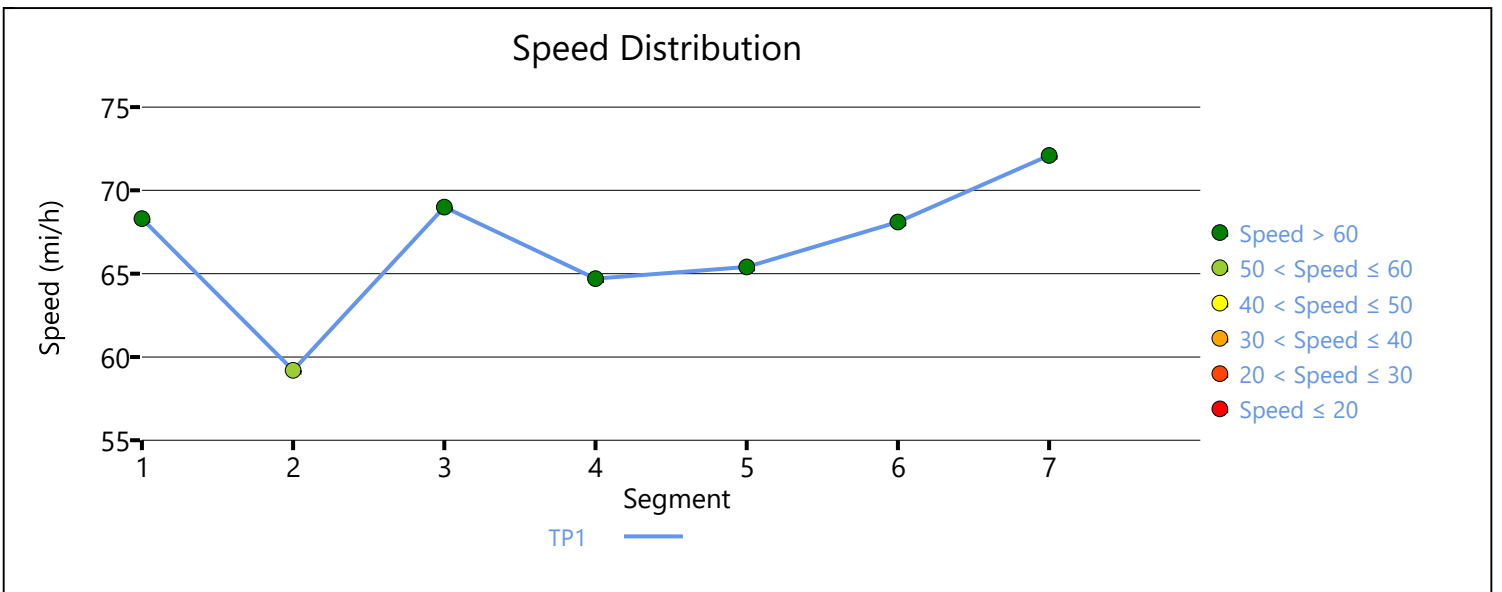
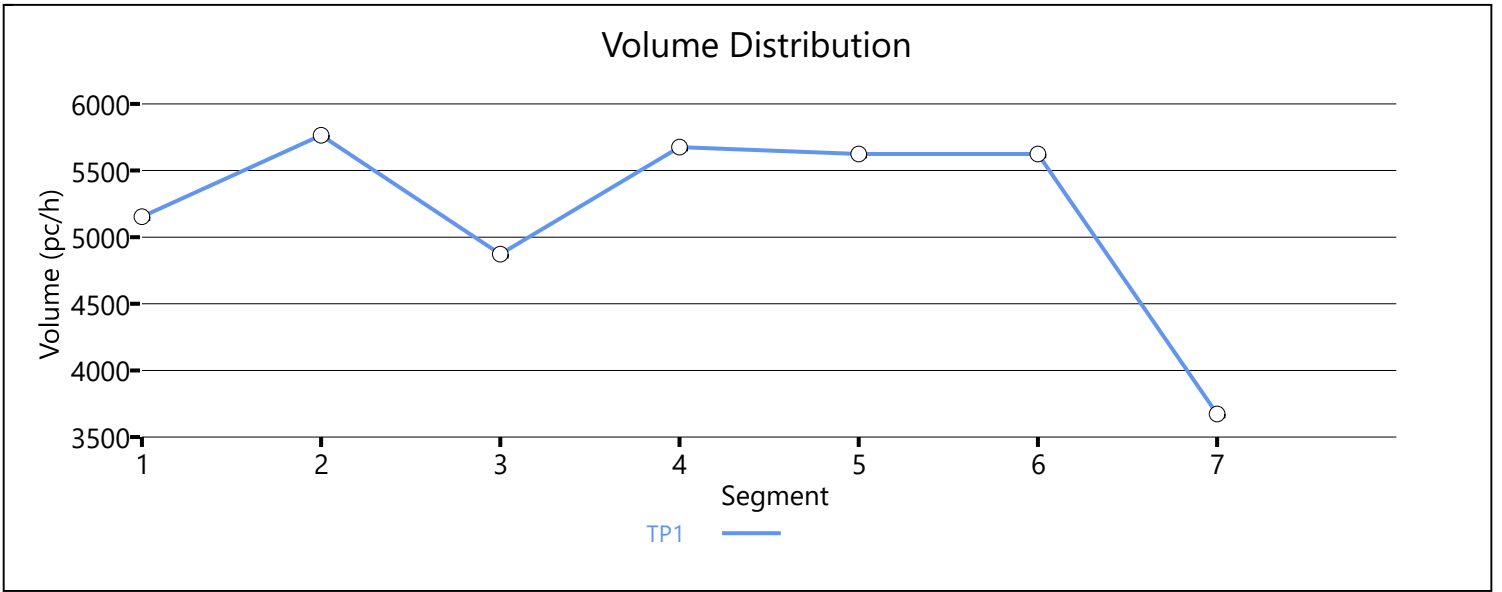
### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	4873	7200	0.68	69.0	23.5	C

### Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.851	5676	803	7200	2000	0.79	0.40	64.7	62.3	29.2	26.1	C

Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.909		5624		7200		0.78		65.4		28.7		D
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.966	5624	1836	7200	2200	0.78	0.83	68.1	64.0	27.5	29.8	D
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.909		3673		7200		0.51		72.1		17.0		B
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	65.6			24.8			22.3			4.50			C		
Facility Overall Results															
Space Mean Speed, mi/h				65.6				Density, veh/mi/ln				22.3			
Average Travel Time, min				4.50				Density, pc/mi/ln				24.8			
Messages															
INFORMATION 1				Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 2				Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 3				Trucks for segment 7 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
Comments															



# HCS7 Freeway Facilities Report

## Project Information

Analyst	SK	Date	9/5/2019
Agency	FDOT D-5	Analysis Year	2045 No Build
Jurisdiction	Brevard County	Time Period Analyzed	PM Peak Hour_NB
Project Description	I-95/SR 524 IMR		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	4.92		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-95 Btw SR 520 Off-Ramp & SR 520 On-Ramp	2200	3
2	Weaving	Weaving	I-95 Btw SR 520 On-Ramp & SR 524 Off-Ramp	4500	4
3	Basic	Basic	I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	2200	3
4	Merge	Merge	SR 524 On-ramp	1500	3
5	Basic	Basic	I-95 Btw SR 524 On-Ramp & SR 528 Off-Ramp	8800	3
6	Diverge	Diverge	SR 528 Off-ramp	1500	3
7	Basic	Basic	I-95 Btw SR 528 Off-Ramp & SR 528 On-Ramp	5280	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	3956	7200	0.55	72.1	18.3	C

### Segment 2: Weaving

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	4703	6896	0.68	59.5	19.8	B

### Segment 3: Basic

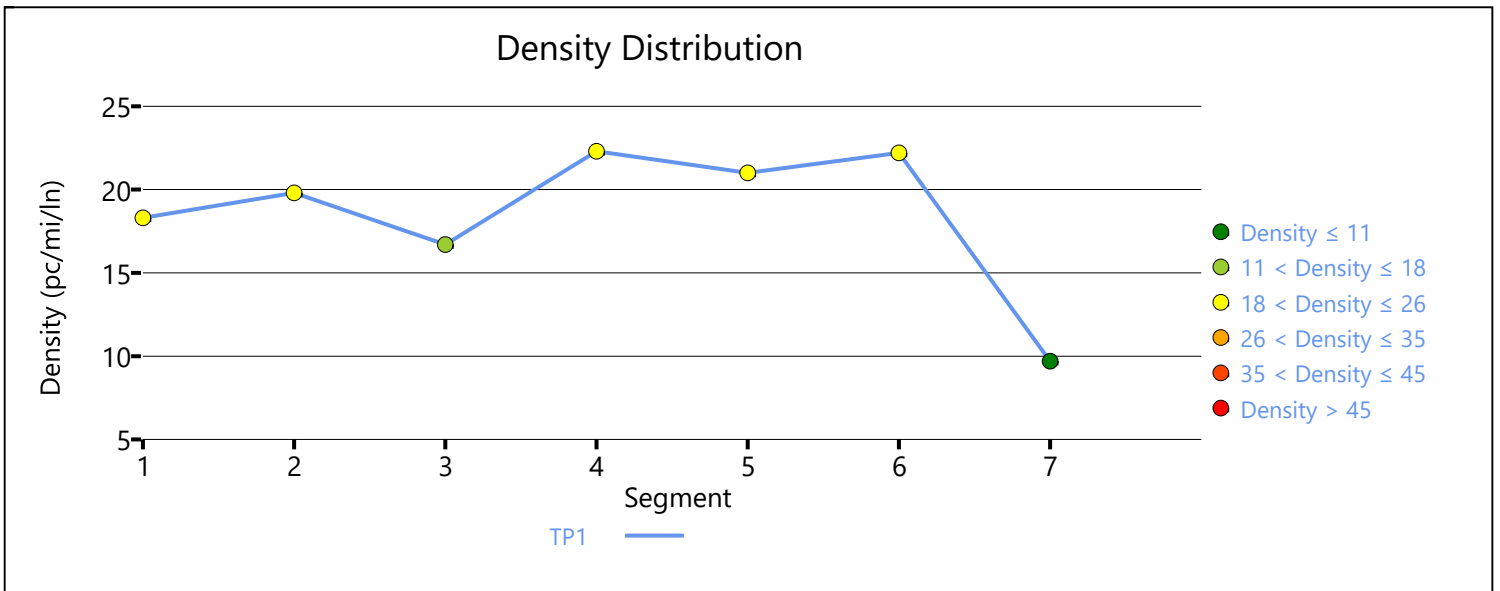
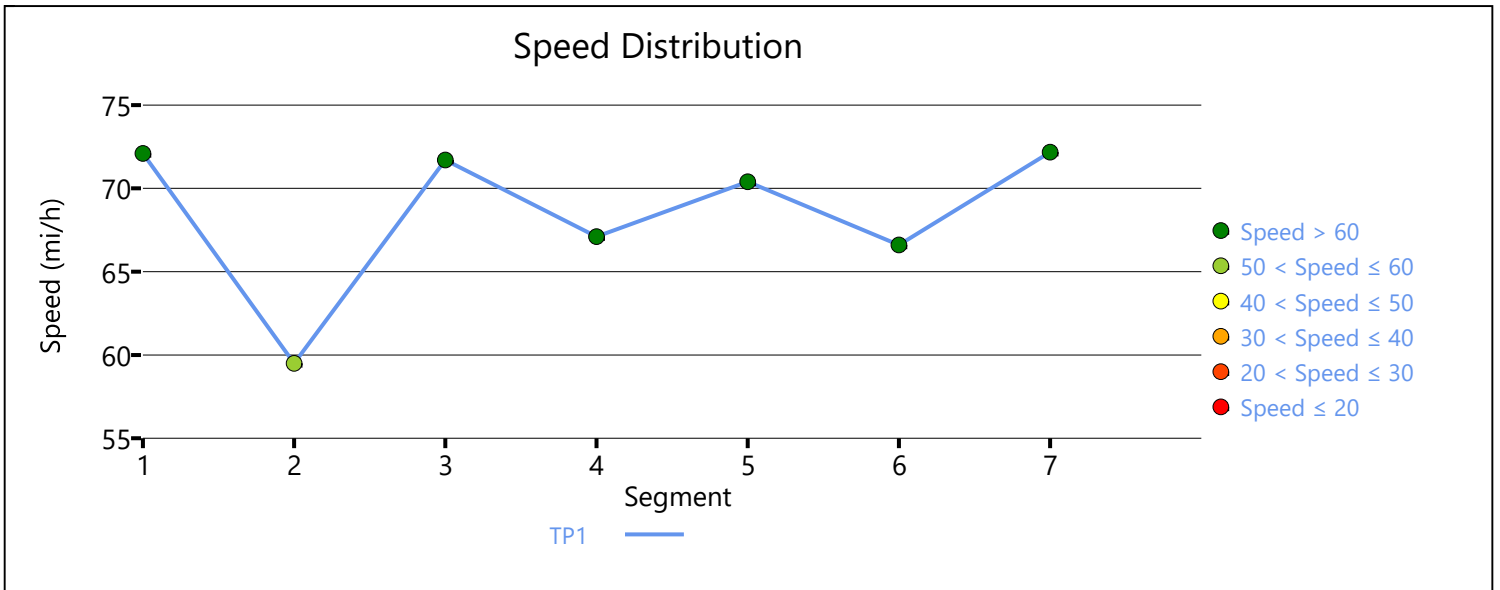
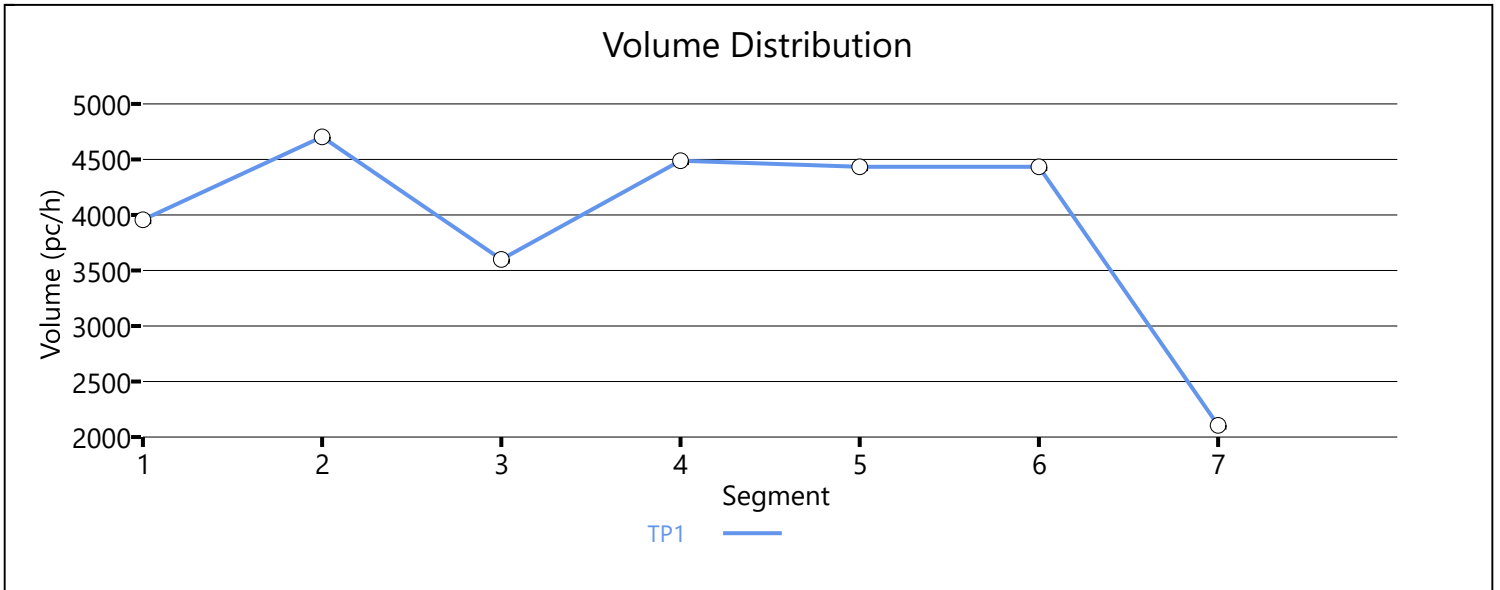
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	3600	7200	0.50	71.7	16.7	B

### Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.851	4489	889	7200	2000	0.62	0.44	67.1	65.2	22.3	20.6	C

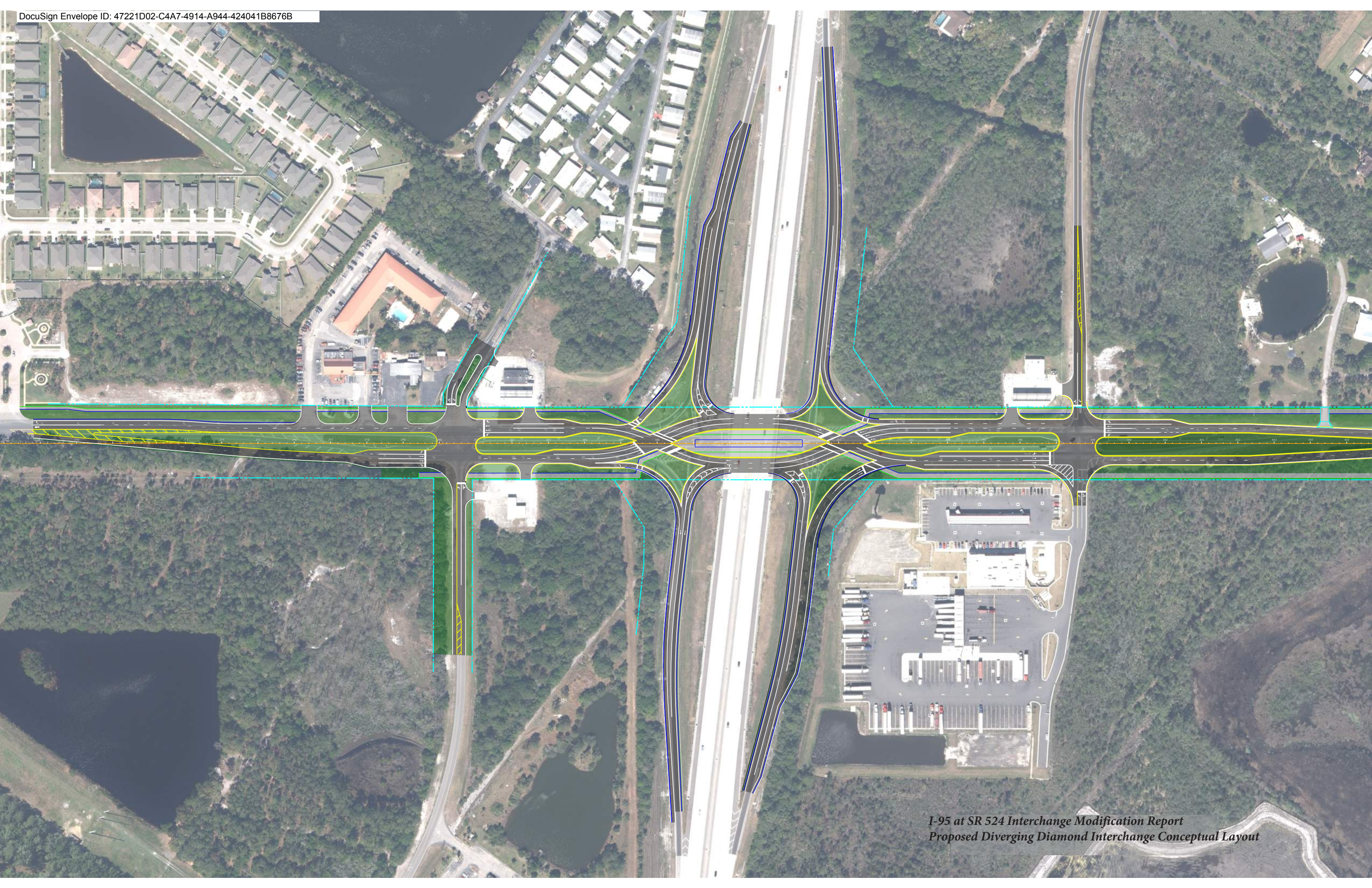


Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.909		4433		7200		0.62		70.4		21.0		C
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.966	4433	2189	7200	2200	0.62	1.00	66.6	63.0	22.2	26.0	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.909		2106		7200		0.29		72.2		9.7		A
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	67.7			18.1			16.3			4.40			C		
Facility Overall Results															
Space Mean Speed, mi/h				67.7				Density, veh/mi/ln				16.3			
Average Travel Time, min				4.40				Density, pc/mi/ln				18.1			
Messages															
INFORMATION 1				Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 2				Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 3				Trucks for segment 7 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 4				Density for segment 1 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.											
INFORMATION 5				Density for segment 2 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.											
Comments															



# **Appendix K**

## Conceptual Layout



*I-95 at SR 524 Interchange Modification Report  
Proposed Diverging Diamond Interchange Conceptual Layout*

# **Appendix L**

## Build Synchro Output

### Overall Intersection Delay Calculations for the DDI at I-95 and SR 524

**2025 AM**

	Node	Delay	Traffic		
SR 524 at I-95 SB Ramps	2	19.0	592	11248	
	7	1.3	338	439.4	
	27	22.8	568	12950.4	
			<b>1498</b>	<b>24637.8</b>	<b>16.4</b>
SR 524 at I-95 NB Ramps	Node	Delay	Traffic		
	3	23.3	1012	23579.6	
	14	12.6	793	9991.8	
	17	2.2	612	1346.4	
			<b>2417</b>	<b>34917.8</b>	<b>14.4</b>

**2025 PM**

	Node	Delay	Traffic		
SR 524 at I-95 SB Ramps	2	13.3	772	10267.6	
	7	2.7	601	1622.7	
	27	9.7	482	4675.4	
			<b>1855</b>	<b>16565.7</b>	<b>8.9</b>
SR 524 at I-95 NB Ramps	Node	Delay	Traffic		
	3	17.0	1005	17085	
	14	6.5	806	5239	
	17	11.4	841	9587.4	
			<b>2652</b>	<b>31911.4</b>	<b>12.0</b>

**2045 AM**

	Node	Delay	Traffic		
SR 524 at I-95 SB Ramps	2	22.9	1209	27686.1	
	7	4.9	787	3856.3	
	27	22.0	1234	27148	
			<b>3230</b>	<b>58690.4</b>	<b>18.2</b>
SR 524 at I-95 NB Ramps	Node	Delay	Traffic		
	3	31.5	2002	63063	
	14	15.2	1677	25490.4	
	17	2.8	1135	3178	
			<b>4814</b>	<b>91731.4</b>	<b>19.1</b>

**2045 PM**

	Node	Delay	Traffic		
SR 524 at I-95 SB Ramps	2	21.9	1368	29959.2	
	7	5.8	1055	6119	
	27	12.6	1043	13141.8	
			<b>3466</b>	<b>49220</b>	<b>14.2</b>
SR 524 at I-95 NB Ramps	Node	Delay	Traffic		
	3	17.7	1935	34249.5	
	14	12.3	1473	18117.9	
	17	6.9	1477	10191.3	
			<b>4885</b>	<b>62558.7</b>	<b>12.8</b>

Study Intersection	Movement	Year 2025 Build			
		AM Peak Hour		PM Peak Hour	
		Delay (s)	LOS	Delay (s)	LOS
SR 524 at S. Friday Road	EB Left	6.0	A	6.3	A
	EB Through	0.0	0.0	0.0	0.0
	EB Right	6.1	A	6.1	A
	WB Left	1.5	A	3.3	A
	WB Through	1.3	A	3.0	A
	WB Right	0.2	A	2.0	A
	NB Left	49.7	D	50.0	D
	NB Through/Right	18.1	B	18.7	B
		0.0	0.0	0.0	0.0
	SB Left	59.1	E	56.5	E
	SB Through/Right	29.1	C	38.6	D
		0.0	0.0	0.0	0.0
SR 524 at I-95 SB Ramps	EB Left	DDI			
	EB Through				
	EB Right				
	WB Left				
	WB Through				
	WB Right				
	NB Left				
	NB Through				
	NB Right				
	SB Left				
	SB Through				
	SB Right				
SR 524 at I-95 NB Ramps	EB Left	DDI			
	EB Through				
	EB Right				
	WB Left				
	WB Through				
	WB Right				
	NB Left				
	NB Through				
	NB Right				
	SB Left				
	SB Through				
	SB Right				
SR 524 at N. Friday Road	EB Left	13.2	B	7.2	A
	EB Through	15.6	B	12.1	B
	EB Right	3.8	A	1.6	A
	WB Left	15.8	B	12.3	B
	WB Through	17.8	B	20.4	C
	WB Right	0.1	A	0.1	A
	NB Left	54.1	D	41.5	D
	NB Through/Right	17.7	B	16.9	B
		0.0	0.0	0.0	0.0
	SB Left	40.0	D	32.8	C
	SB Through/Right	3.1	A	1.2	A
		0.0	0.0	0.0	0.0

Year 2045 Build			
AM Peak Hour		PM Peak Hour	
Delay (s)	LOS	Delay (s)	LOS
9.5	A	10.4	B
0.0	0.0	0.0	0.0
10.1	B	10.8	B
1.2	A	2.7	A
1.1	A	2.7	A
0.1	A	0.8	A
53.5	D	49.7	D
17.0	B	15.6	B
0.0	0.0	0.0	0.0
67.4	E	108.7	F
25.6	C	26.6	C
0.0	0.0	0.0	0.0
DDI			
12.5	B	8.6	A
20.6	C	18.7	B
3.4	A	4.0	A
19.9	B	14.5	B
22.4	C	28.0	C
0.1	A	0.2	A
97.7	F	89.9	F
20.8	C	22.8	C
0.0	0.0	0.0	0.0
40.1	D	38.1	D
3.8	A	5.6	A
0.0	0.0	0.0	0.0

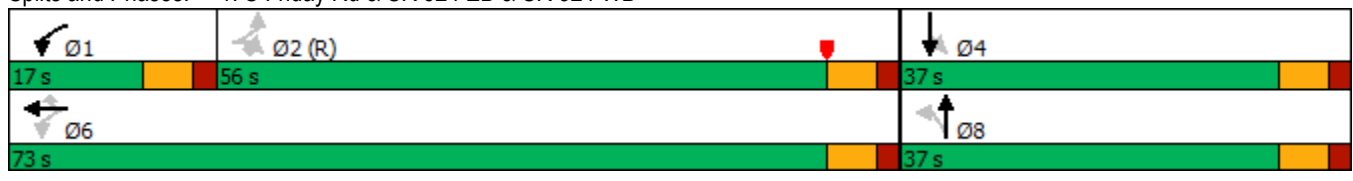
Lanes, Volumes, Timings  
 1: S Friday Rd & SR 524 EB & SR 524 WB

2025 DDI AM  
 01/12/2022

Lane Group	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	2	466	7	84	245	9	14	3	105	28	1	6
Future Volume (vph)	2	466	7	84	245	9	14	3	105	28	1	6
Satd. Flow (prot)	1656	3068	1482	1656	3312	1482	1719	1620	0	1770	1622	0
Flt Permitted	0.592			0.950			0.753			0.608		
Satd. Flow (perm)	1032	3068	1482	1656	3312	1482	1363	1620	0	1133	1622	0
Satd. Flow (RTOR)			89			30		111			6	
Adj. Flow (vph)	2	491	7	88	258	9	15	3	111	29	1	6
Lane Group Flow (vph)	2	491	7	88	258	9	15	114	0	29	7	0
Turn Type	Perm	Perm	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases				1	6			8				4
Permitted Phases	2	2	2	6		6	8			4		
Total Split (s)	56.0	56.0	56.0	17.0	73.0	73.0	37.0	37.0		37.0	37.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	79.6	79.6	79.6	89.9	89.9	89.9	8.1	8.1		8.1	8.1	
Actuated g/C Ratio	0.72	0.72	0.72	0.82	0.82	0.82	0.07	0.07		0.07	0.07	
v/c Ratio	0.00	0.22	0.01	0.07	0.10	0.01	0.15	0.51		0.35	0.06	
Control Delay	6.0	6.1	0.0	1.5	1.3	0.2	49.7	18.1		59.1	29.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.0	6.1	0.0	1.5	1.3	0.2	49.7	18.1		59.1	29.1	
LOS	A	A	A	A	A	A	D	B		E	C	
Approach Delay					1.3			21.7				53.3
Approach LOS					A			C				D
Queue Length 50th (ft)	0	61	0	3	5	0	10	2		20	1	
Queue Length 95th (ft)	3	97	0	15	18	0	31	56		50	15	
Internal Link Dist (ft)					403			334				427
Turn Bay Length (ft)	200	200	200	200		200	200			200		
Base Capacity (vph)	746	2218	1096	1353	2706	1216	384	536		319	461	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.00	0.22	0.01	0.07	0.10	0.01	0.04	0.21		0.09	0.02	

**Intersection Summary**  
 Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 74 (67%), Referenced to phase 2:EBL, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.51  
 Intersection Signal Delay: 8.0  
 Intersection LOS: A  
 Intersection Capacity Utilization 44.2%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 1: S Friday Rd & SR 524 EB & SR 524 WB







## Lanes, Volumes, Timings

### 2: SR 524 EB & SR 524 WB

2025 DDI AM

01/12/2022

Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Adj. Flow (vph)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Total Split (s)	10.0	50.0
Total Lost Time (s)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		



## Lanes, Volumes, Timings

### 3: SR 524 WB & SR 524 EB

2025 DDI AM  
01/12/2022

Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Adj. Flow (vph)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Total Split (s)	12.0	54.0
Total Lost Time (s)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

# Lanes, Volumes, Timings

## 4: N Friday Rd & SR 524 EB & SR 524 WB

2025 DDI AM  
01/12/2022

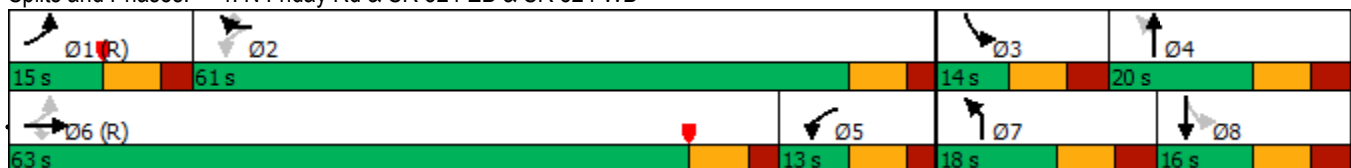


Lane Group	EBL	EBT	EBR	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations												
Traffic Volume (vph)	60	604	129	26	491	25	128	3	44	53	12	115
Future Volume (vph)	60	604	129	26	491	25	128	3	44	53	12	115
Satd. Flow (prot)	1736	3312	1335	1656	3312	1482	1492	1349	0	1736	1580	0
Flt Permitted	0.950			0.410			0.421			0.725		
Satd. Flow (perm)	1736	3312	1335	715	3312	1482	661	1349	0	1325	1580	0
Satd. Flow (RTOR)			205			205		46			269	
Adj. Flow (vph)	63	636	136	27	517	26	135	3	46	56	13	121
Lane Group Flow (vph)	63	636	136	27	517	26	135	49	0	56	134	0
Turn Type	pm+pt	NA	Perm	pm+pt	Prot	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4			8		
Total Split (s)	15.0	63.0	63.0	13.0	61.0	61.0	18.0	20.0		14.0	16.0	
Total Lost Time (s)	7.3	7.3	10.3	7.3	7.3	7.3	8.2	8.2		8.2	8.2	
Act Effct Green (s)	61.8	61.8	58.8	53.7	53.7	53.7	21.5	13.7		12.7	7.0	
Actuated g/C Ratio	0.56	0.56	0.53	0.49	0.49	0.49	0.20	0.12		0.12	0.06	
v/c Ratio	0.06	0.34	0.17	0.07	0.32	0.03	0.67	0.24		0.32	0.38	
Control Delay	13.2	15.6	3.8	15.8	17.8	0.1	54.1	17.7		40.0	3.1	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	13.2	15.6	3.8	15.8	17.8	0.1	54.1	17.7		40.0	3.1	
LOS	B	B	A	B	B	A	D	B		D	A	
Approach Delay		13.5						44.4			14.0	
Approach LOS		B						D			B	
Queue Length 50th (ft)	24	134	10	10	112	0	81	2		32	0	
Queue Length 95th (ft)	47	168	28	25	151	0	#159	39		66	0	
Internal Link Dist (ft)		494						519			632	
Turn Bay Length (ft)	300		300	365	330	330						
Base Capacity (vph)	975	1860	809	397	1616	828	203	215		175	361	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.06	0.34	0.17	0.07	0.32	0.03	0.67	0.23		0.32	0.37	

### Intersection Summary

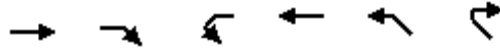
Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 40 (36%), Referenced to phase 1:EBL and 6:EBTL, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 17.8  
 Intersection LOS: B  
 Intersection Capacity Utilization 62.0%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

### Splits and Phases: 4: N Friday Rd & SR 524 EB & SR 524 WB



Lanes, Volumes, Timings  
5: SR 524 EB

2025 DDI AM  
01/12/2022



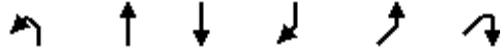
Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑↑	↑				
Traffic Volume (vph)	356	243	0	0	0	0
Future Volume (vph)	356	243	0	0	0	0
Satd. Flow (prot)	4759	1482	0	0	0	0
Flt Permitted						
Satd. Flow (perm)	4759	1482	0	0	0	0
Adj. Flow (vph)	375	256	0	0	0	0
Lane Group Flow (vph)	375	256	0	0	0	0
Sign Control	Free			Free	Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 31.7%	ICU Level of Service A
Analysis Period (min) 15	



Lanes, Volumes, Timings  
8: I-95 SB Off Ramp

2025 DDI AM  
01/12/2022



Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations			↑↑			
Traffic Volume (vph)	0	0	212	102	0	0
Future Volume (vph)	0	0	212	102	0	0
Satd. Flow (prot)	0	0	2934	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	0	2934	0	0	0
Adj. Flow (vph)	0	0	223	107	0	0
Lane Group Flow (vph)	0	0	330	0	0	0
Sign Control		Free	Free		Free	

Intersection Summary

Control Type: Unsignalized









Intersection Capacity Utilization 26.0% ICU Level of Service A

Analysis Period (min) 15



Lanes, Volumes, Timings  
 10: I-95 SB On Ramp

2025 DDI AM  
 01/12/2022

						
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	0	0	376	0	0	243
Future Volume (vph)	0	0	376	0	0	243
Satd. Flow (prot)	0	0	3312	0	0	1508
Flt Permitted						
Satd. Flow (perm)	0	0	3312	0	0	1508
Adj. Flow (vph)	0	0	396	0	0	256
Lane Group Flow (vph)	0	0	396	0	0	256
Sign Control		Free	Free		Yield	

Intersection Summary

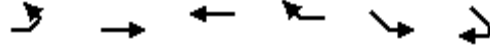
Control Type: Unsignalized

Intersection Capacity Utilization 33.3% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings  
12: SR 524 WB

2025 DDI AM  
01/12/2022



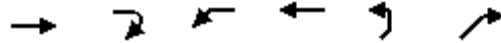
Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations			↑↑↑	↑		
Traffic Volume (vph)	0	0	541	193	0	0
Future Volume (vph)	0	0	541	193	0	0
Satd. Flow (prot)	0	0	4759	1369	0	0
Flt Permitted						
Satd. Flow (perm)	0	0	4759	1369	0	0
Adj. Flow (vph)	0	0	569	203	0	0
Lane Group Flow (vph)	0	0	569	203	0	0
Sign Control		Free	Free		Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 36.3%	ICU Level of Service A
Analysis Period (min) 15	

# Lanes, Volumes, Timings

## 14: SR 524 EB

2025 DDI AM  
01/12/2022

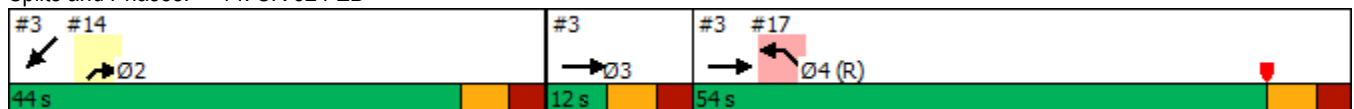


Lane Group	EBT	EBR	WBL	WBT	NEL	NER	Ø3	Ø4
Lane Configurations	↑↑					↑↑		
Traffic Volume (vph)	471	0	0	0	0	322		
Future Volume (vph)	471	0	0	0	0	322		
Satd. Flow (prot)	3399	0	0	0	0	2676		
Flt Permitted								
Satd. Flow (perm)	3399	0	0	0	0	2676		
Satd. Flow (RTOR)								
Adj. Flow (vph)	496	0	0	0	0	339		
Lane Group Flow (vph)	496	0	0	0	0	339		
Turn Type	NA					Prot		
Protected Phases	Free!					2!	3	4
Permitted Phases								
Total Split (s)						44.0	12.0	54.0
Total Lost Time (s)						9.0		
Act Effct Green (s)	110.0					35.0		
Actuated g/C Ratio	1.00					0.32		
v/c Ratio	0.15					0.40		
Control Delay	0.1					31.0		
Queue Delay	0.0					0.0		
Total Delay	0.1					31.0		
LOS	A					C		
Approach Delay	0.1				31.0			
Approach LOS	A				C			
Queue Length 50th (ft)	0					105		
Queue Length 95th (ft)	0					151		
Internal Link Dist (ft)	13			494	186			
Turn Bay Length (ft)								
Base Capacity (vph)	3399					851		
Starvation Cap Reductn	0					0		
Spillback Cap Reductn	0					0		
Storage Cap Reductn	0					0		
Reduced v/c Ratio	0.15					0.40		

### Intersection Summary









Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 98 (89%), Referenced to phase 4:EBT, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.40  
 Intersection Signal Delay: 12.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 39.5%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.

### Splits and Phases: 14: SR 524 EB



Lanes, Volumes, Timings  
 15: I-95 Nb On Ramp

2025 DDI AM  
 01/12/2022

						
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	97	0	0	0	0	193
Future Volume (vph)	97	0	0	0	0	193
Satd. Flow (prot)	1624	0	0	0	0	1405
Flt Permitted						
Satd. Flow (perm)	1624	0	0	0	0	1405
Adj. Flow (vph)	102	0	0	0	0	203
Lane Group Flow (vph)	102	0	0	0	0	203
Sign Control	Free			Free	Free	

Intersection Summary

Control Type: Unsignalized

Intersection Capacity Utilization 31.6% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings  
16: SR 524 EB

2025 DDI AM  
01/12/2022



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	97	471	0	0	0	0
Future Volume (vph)	97	471	0	0	0	0
Satd. Flow (prot)	1530	3312	0	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1530	3312	0	0	0	0
Adj. Flow (vph)	102	496	0	0	0	0
Lane Group Flow (vph)	102	496	0	0	0	0
Sign Control		Free	Free		Free	

Intersection Summary

Control Type: Unsignalized

Intersection Capacity Utilization 31.6% ICU Level of Service A

Analysis Period (min) 15



Lanes, Volumes, Timings  
 18: I-95 NB Off Ramp

2025 DDI AM  
 01/12/2022

	↑	↗	↘	↓	↙	↖
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↑↑	↗↗				
Traffic Volume (vph)	71	322	0	0	0	0
Future Volume (vph)	71	322	0	0	0	0
Satd. Flow (prot)	3312	2608	0	0	0	0
Flt Permitted						
Satd. Flow (perm)	3312	2608	0	0	0	0
Adj. Flow (vph)	75	339	0	0	0	0
Lane Group Flow (vph)	75	339	0	0	0	0
Sign Control	Free			Free	Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 28.1%	ICU Level of Service A
Analysis Period (min) 15	

Lanes, Volumes, Timings  
 22: SR 524 WB

2025 DDI AM  
 01/12/2022



Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	0	0	376	236	0	0
Future Volume (vph)	0	0	376	236	0	0
Satd. Flow (prot)	0	0	1507	3106	0	0
Flt Permitted			0.950	0.979		
Satd. Flow (perm)	0	0	1507	3106	0	0
Adj. Flow (vph)	0	0	396	248	0	0
Lane Group Flow (vph)	0	0	210	434	0	0
Sign Control	Free			Free	Free	

Intersection Summary

Control Type: Unsignalized

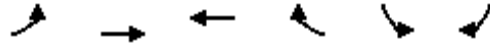
Intersection Capacity Utilization 36.0% ICU Level of Service A

Analysis Period (min) 15



Lanes, Volumes, Timings  
27: SR 524 EB

2025 DDI AM  
01/12/2022

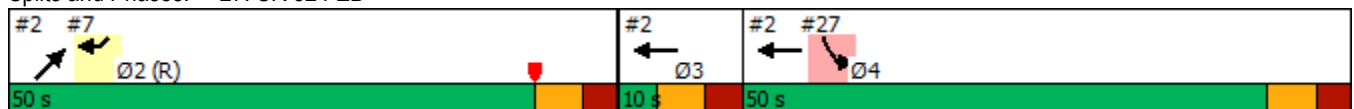


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3
Lane Configurations		↑↑↑			↗↘			
Traffic Volume (vph)	0	356	0	0	212	0		
Future Volume (vph)	0	356	0	0	212	0		
Satd. Flow (prot)	0	4884	0	0	3046	0		
Flt Permitted					0.950			
Satd. Flow (perm)	0	4884	0	0	3046	0		
Satd. Flow (RTOR)								
Adj. Flow (vph)	0	375	0	0	223	0		
Lane Group Flow (vph)	0	375	0	0	223	0		
Turn Type		NA			Prot			
Protected Phases		Free!			4!		2	3
Permitted Phases								
Total Split (s)					50.0		50.0	10.0
Total Lost Time (s)					10.0			
Act Effct Green (s)		110.0			11.2			
Actuated g/C Ratio		1.00			0.10			
v/c Ratio		0.08			0.72			
Control Delay		0.0			61.2			
Queue Delay		0.0			0.0			
Total Delay		0.0			61.2			
LOS		A			E			
Approach Delay					61.2			
Approach LOS					E			
Queue Length 50th (ft)		0			80			
Queue Length 95th (ft)		0			116			
Internal Link Dist (ft)		78	130		334			
Turn Bay Length (ft)								
Base Capacity (vph)		4884			1107			
Starvation Cap Reductn		0			0			
Spillback Cap Reductn		0			0			
Storage Cap Reductn		0			0			
Reduced v/c Ratio		0.08			0.20			

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 46 (42%), Referenced to phase 2:NET, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 22.8  
 Intersection LOS: C  
 Intersection Capacity Utilization 28.4%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.

Splits and Phases: 27: SR 524 EB



## Arterial Level of Service

2025 DDI AM

01/12/2022

## Arterial Level of Service: EB SR 524 EB

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
S Friday Rd	IV	35	20.3	6.1	26.4	0.15	19.8	B
SR 524 WB	IV	35	17.9	6.9	24.8	0.11	15.7	C
	IV	35	4.9	0.0	4.9	0.03	22.0	B
SR 524 WB	IV	35	11.6	15.8	27.4	0.07	9.2	D
	IV	35	2.9	0.1	3.0	0.02	21.1	B
N Friday Rd	IV	35	17.9	15.6	33.5	0.11	11.7	D
Total	IV		75.5	44.5	120.0	0.48	14.4	C

## Arterial Level of Service: WB SR 524 WB

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Friday Rd	IV	35	17.9	17.8	35.7	0.11	10.9	D
SR 524 EB	IV	35	17.8	29.7	47.5	0.13	9.6	D
	IV	35	4.7	0.1	4.8	0.03	21.2	B
SR 524 EB	IV	35	11.6	37.2	48.8	0.07	5.2	F
	IV	35	2.7	0.1	2.8	0.02	20.9	B
S Friday Rd	IV	35	15.1	1.3	16.4	0.09	20.1	B
Total	IV		69.8	86.2	156.0	0.44	10.2	D

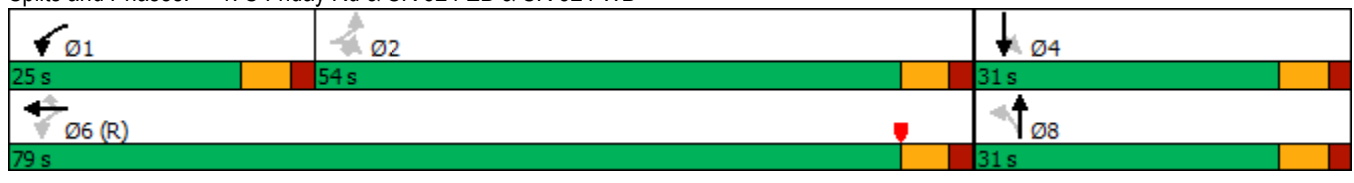
Lanes, Volumes, Timings  
 1: S Friday Rd & SR 524 EB & SR 524 WB

2025 DDI PM  
 01/12/2022

Lane Group	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	3	305	13	143	397	61	16	5	85	30	3	2
Future Volume (vph)	3	305	13	143	397	61	16	5	85	30	3	2
Satd. Flow (prot)	1656	3068	1482	1656	3312	1482	1719	1626	0	1770	1751	0
Flt Permitted	0.507			0.950			0.754			0.696		
Satd. Flow (perm)	884	3068	1482	1656	3312	1482	1364	1626	0	1296	1751	0
Satd. Flow (RTOR)			89			64		89			2	
Adj. Flow (vph)	3	321	14	151	418	64	17	5	89	32	3	2
Lane Group Flow (vph)	3	321	14	151	418	64	17	94	0	32	5	0
Turn Type	Perm	Perm	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases				1	6			8				4
Permitted Phases	2	2	2	6		6	8			4		
Total Split (s)	54.0	54.0	54.0	25.0	79.0	79.0	31.0	31.0		31.0	31.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	78.5	78.5	78.5	93.2	93.2	93.2	8.3	8.3		8.3	8.3	
Actuated g/C Ratio	0.71	0.71	0.71	0.85	0.85	0.85	0.08	0.08		0.08	0.08	
v/c Ratio	0.00	0.15	0.01	0.11	0.15	0.05	0.17	0.46		0.33	0.04	
Control Delay	6.3	6.1	0.0	3.3	3.0	2.0	50.0	18.7		56.5	38.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	6.3	6.1	0.0	3.3	3.0	2.0	50.0	18.7		56.5	38.6	
LOS	A	A	A	A	A	A	D	B		E	D	
Approach Delay					3.0			23.5				54.1
Approach LOS					A			C				D
Queue Length 50th (ft)	1	39	0	11	15	1	11	3		22	2	
Queue Length 95th (ft)	4	67	0	55	67	19	33	53		53	14	
Internal Link Dist (ft)					403			334				427
Turn Bay Length (ft)	200	200	200	200		200	200			200		
Base Capacity (vph)	630	2189	1083	1403	2807	1265	310	438		294	399	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.00	0.15	0.01	0.11	0.15	0.05	0.05	0.21		0.11	0.01	

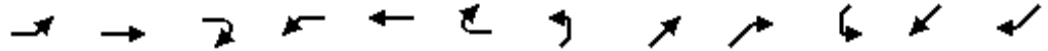
**Intersection Summary**  
 Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 85 (77%), Referenced to phase 6:WBTL, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.46  
 Intersection Signal Delay: 7.6  
 Intersection LOS: A  
 Intersection Capacity Utilization 41.9%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 1: S Friday Rd & SR 524 EB & SR 524 WB



Lanes, Volumes, Timings  
2: SR 524 EB & SR 524 WB

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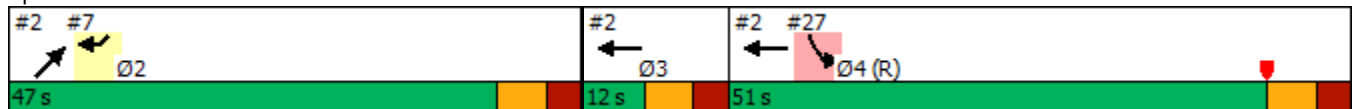


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations					↑↑			↑↑↑				
Traffic Volume (vph)	0	0	0	0	487	0	0	285	0	0	0	0
Future Volume (vph)	0	0	0	0	487	0	0	285	0	0	0	0
Satd. Flow (prot)	0	0	0	0	3399	0	0	4884	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	3399	0	0	4884	0	0	0	0
Satd. Flow (RTOR)												
Adj. Flow (vph)	0	0	0	0	513	0	0	300	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	513	0	0	300	0	0	0	0
Turn Type					NA			NA				
Protected Phases					4			2				
Permitted Phases												
Total Split (s)								47.0				
Total Lost Time (s)								7.0				
Act Effct Green (s)					56.0			40.0				
Actuated g/C Ratio					0.51			0.36				
v/c Ratio					0.30			0.17				
Control Delay					8.0			21.2				
Queue Delay					0.7			0.0				
Total Delay					8.7			21.2				
LOS					A			C				
Approach Delay					8.7			21.2				
Approach LOS					A			C				
Queue Length 50th (ft)					95			43				
Queue Length 95th (ft)					117			63				
Internal Link Dist (ft)		6			85			44			78	
Turn Bay Length (ft)												
Base Capacity (vph)					1730			1776				
Starvation Cap Reductn					837			0				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.57			0.17				

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 2 (2%), Referenced to phase 4:WBT, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.30  
 Intersection Signal Delay: 13.3  
 Intersection LOS: B  
 Intersection Capacity Utilization 34.8%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 2: SR 524 EB & SR 524 WB



## Lanes, Volumes, Timings

### 2: SR 524 EB & SR 524 WB

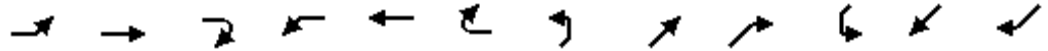
2025 DDI PM

01/12/2022

Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Adj. Flow (vph)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Total Split (s)	12.0	51.0
Total Lost Time (s)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings  
3: SR 524 WB & SR 524 EB

2025 DDI PM  
01/12/2022

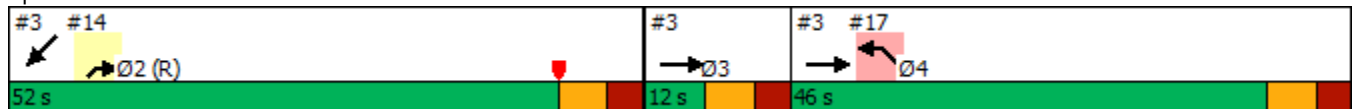


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations		↑↑									↑↑↑	
Traffic Volume (vph)	0	378	0	0	0	0	0	0	0	0	627	0
Future Volume (vph)	0	378	0	0	0	0	0	0	0	0	627	0
Satd. Flow (prot)	0	3399	0	0	0	0	0	0	0	0	4884	0
Flt Permitted												
Satd. Flow (perm)	0	3399	0	0	0	0	0	0	0	0	4884	0
Satd. Flow (RTOR)												
Adj. Flow (vph)	0	398	0	0	0	0	0	0	0	0	660	0
Lane Group Flow (vph)	0	398	0	0	0	0	0	0	0	0	660	0
Turn Type		NA									NA	
Protected Phases		4 3									2	
Permitted Phases												
Total Split (s)											52.0	
Total Lost Time (s)											10.0	
Act Effct Green (s)		25.8									64.2	
Actuated g/C Ratio		0.23									0.58	
v/c Ratio		0.50									0.23	
Control Delay		30.3									9.0	
Queue Delay		0.0									0.0	
Total Delay		30.3									9.0	
LOS		C									A	
Approach Delay		30.3									9.0	
Approach LOS		C									A	
Queue Length 50th (ft)		124									36	
Queue Length 95th (ft)		162									61	
Internal Link Dist (ft)		81			13			69			53	
Turn Bay Length (ft)												
Base Capacity (vph)		1483									2850	
Starvation Cap Reductn		0									0	
Spillback Cap Reductn		0									0	
Storage Cap Reductn		0									0	
Reduced v/c Ratio		0.27									0.23	

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 15 (14%), Referenced to phase 2:SWT, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.50  
 Intersection Signal Delay: 17.0  
 Intersection LOS: B  
 Intersection Capacity Utilization 38.4%  
 ICU Level of Service A  
 Analysis Period (min) 15

Splits and Phases: 3: SR 524 WB & SR 524 EB



## Lanes, Volumes, Timings

### 3: SR 524 WB & SR 524 EB

2025 DDI PM

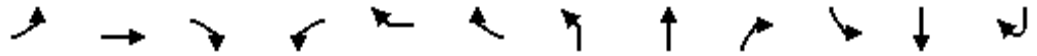
01/12/2022

Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Adj. Flow (vph)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Total Split (s)	12.0	46.0
Total Lost Time (s)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

# Lanes, Volumes, Timings

## 4: N Friday Rd & SR 524 EB & SR 524 WB

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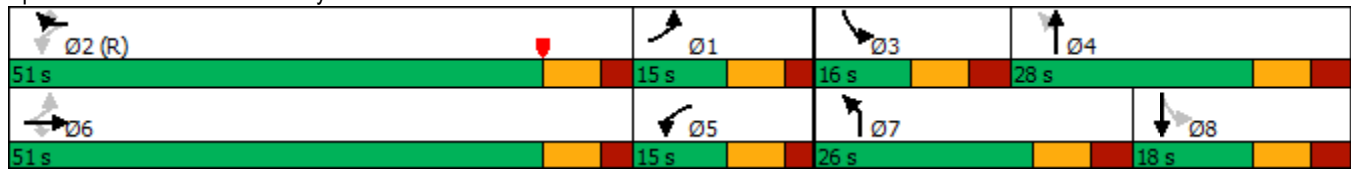


Lane Group	EBL	EBT	EBR	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations												
Traffic Volume (vph)	141	524	141	43	624	50	141	8	45	41	8	59
Future Volume (vph)	141	524	141	43	624	50	141	8	45	41	8	59
Satd. Flow (prot)	1736	3312	1335	1656	3312	1482	1492	1369	0	1736	1584	0
Flt Permitted	0.950			0.410			0.335			0.721		
Satd. Flow (perm)	1736	3312	1335	715	3312	1482	526	1369	0	1317	1584	0
Satd. Flow (RTOR)			287			287		47			278	
Adj. Flow (vph)	148	552	148	45	657	53	148	8	47	43	8	62
Lane Group Flow (vph)	148	552	148	45	657	53	148	55	0	43	70	0
Turn Type	pm+pt	NA	Perm	pm+pt	Prot	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4			8		
Total Split (s)	15.0	51.0	51.0	15.0	51.0	51.0	26.0	28.0		16.0	18.0	
Total Lost Time (s)	7.3	7.3	10.3	7.3	7.3	7.3	8.2	8.2		8.2	8.2	
Act Effct Green (s)	67.4	56.5	53.5	60.1	54.0	54.0	27.0	17.3		13.0	7.0	
Actuated g/C Ratio	0.61	0.51	0.49	0.55	0.49	0.49	0.25	0.16		0.12	0.06	
v/c Ratio	0.14	0.32	0.19	0.10	0.40	0.06	0.57	0.22		0.23	0.19	
Control Delay	7.2	12.1	1.6	12.3	20.4	0.1	41.5	16.9		32.8	1.2	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	7.2	12.1	1.6	12.3	20.4	0.1	41.5	16.9		32.8	1.2	
LOS	A	B	A	B	C	A	D	B		C	A	
Approach Delay		9.4						34.8			13.2	
Approach LOS		A						C			B	
Queue Length 50th (ft)	31	141	4	13	159	0	84	5		23	0	
Queue Length 95th (ft)	84	179	23	31	224	0	136	42		49	0	
Internal Link Dist (ft)		494						519			632	
Turn Bay Length (ft)	300		300	365	330	330						
Base Capacity (vph)	1088	1702	797	466	1625	873	296	306		195	394	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.14	0.32	0.19	0.10	0.40	0.06	0.50	0.18		0.22	0.18	

### Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 93 (85%), Referenced to phase 2:WBL, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.57  
 Intersection Signal Delay: 15.9  
 Intersection LOS: B  
 Intersection Capacity Utilization 63.1%  
 ICU Level of Service B  
 Analysis Period (min) 15

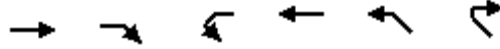
### Splits and Phases: 4: N Friday Rd & SR 524 EB & SR 524 WB





Lanes, Volumes, Timings  
5: SR 524 EB

2025 DDI PM  
01/12/2022



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑↑	↑				
Traffic Volume (vph)	285	135	0	0	0	0
Future Volume (vph)	285	135	0	0	0	0
Satd. Flow (prot)	4759	1482	0	0	0	0
Flt Permitted						
Satd. Flow (perm)	4759	1482	0	0	0	0
Adj. Flow (vph)	300	142	0	0	0	0
Lane Group Flow (vph)	300	142	0	0	0	0
Sign Control	Free			Free	Free	

Intersection Summary

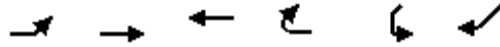
Control Type: Unsignalized

Intersection Capacity Utilization 30.6% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings  
7: SR 524 WB

2025 DDI PM  
01/12/2022



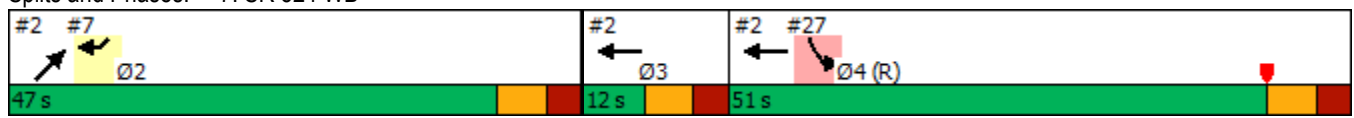
Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø3	Ø4
Lane Configurations			↑↑			↗		
Traffic Volume (vph)	0	0	487	0	0	114		
Future Volume (vph)	0	0	487	0	0	114		
Satd. Flow (prot)	0	0	3399	0	0	1442		
Flt Permitted								
Satd. Flow (perm)	0	0	3399	0	0	1442		
Satd. Flow (RTOR)						*60		
Adj. Flow (vph)	0	0	513	0	0	120		
Lane Group Flow (vph)	0	0	513	0	0	120		
Turn Type			NA			Prot		
Protected Phases			Free!			2!	3	4
Permitted Phases								
Total Split (s)						47.0	12.0	51.0
Total Lost Time (s)						7.0		
Act Effct Green (s)			110.0			40.0		
Actuated g/C Ratio			1.00			0.36		
v/c Ratio			0.15			0.21		
Control Delay			0.1			13.7		
Queue Delay			0.0			0.0		
Total Delay			0.1			13.7		
LOS			A			B		
Approach Delay			0.1		13.7			
Approach LOS			A		B			
Queue Length 50th (ft)			0			28		
Queue Length 95th (ft)			0			70		
Internal Link Dist (ft)		403	6		437			
Turn Bay Length (ft)								
Base Capacity (vph)			3399			562		
Starvation Cap Reductn			0			0		
Spillback Cap Reductn			0			0		
Storage Cap Reductn			0			0		
Reduced v/c Ratio			0.15			0.21		

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 2 (2%), Referenced to phase 4:WBT, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.30  
 Intersection Signal Delay: 2.7  
 Intersection LOS: A  
 Intersection Capacity Utilization 34.8%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 \* User Entered Value

! Phase conflict between lane groups.

Splits and Phases: 7: SR 524 WB



Lanes, Volumes, Timings  
8: I-95 SB Off Ramp

2025 DDI PM  
01/12/2022



Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations			↑↑			
Traffic Volume (vph)	0	0	197	114	0	0
Future Volume (vph)	0	0	197	114	0	0
Satd. Flow (prot)	0	0	2916	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	0	2916	0	0	0
Adj. Flow (vph)	0	0	207	120	0	0
Lane Group Flow (vph)	0	0	327	0	0	0
Sign Control		Free	Free		Free	

Intersection Summary









Control Type: Unsignalized

Intersection Capacity Utilization 25.9% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings  
 10: I-95 SB On Ramp

2025 DDI PM  
 01/12/2022

						
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	0	0	354	0	0	135
Future Volume (vph)	0	0	354	0	0	135
Satd. Flow (prot)	0	0	3312	0	0	1508
Flt Permitted						
Satd. Flow (perm)	0	0	3312	0	0	1508
Adj. Flow (vph)	0	0	373	0	0	142
Lane Group Flow (vph)	0	0	373	0	0	142
Sign Control		Free	Free		Yield	

Intersection Summary

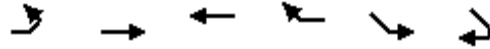
Control Type: Unsignalized

Intersection Capacity Utilization 30.9% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings  
12: SR 524 WB

2025 DDI PM  
01/12/2022



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations			↑↑↑	↑		
Traffic Volume (vph)	0	0	627	197	0	0
Future Volume (vph)	0	0	627	197	0	0
Satd. Flow (prot)	0	0	4759	1482	0	0
Flt Permitted						
Satd. Flow (perm)	0	0	4759	1482	0	0
Adj. Flow (vph)	0	0	660	207	0	0
Lane Group Flow (vph)	0	0	660	207	0	0
Sign Control		Free	Free		Free	

Intersection Summary

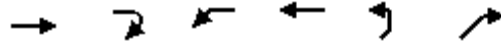
Control Type: Unsignalized

Intersection Capacity Utilization 34.0% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings  
14: SR 524 EB

2025 DDI PM  
01/12/2022

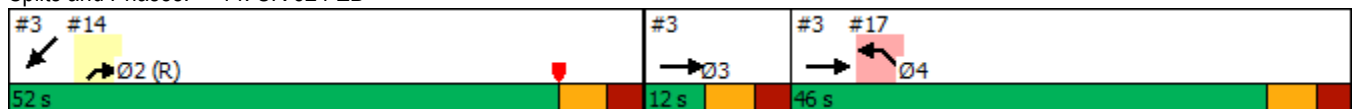


Lane Group	EBT	EBR	WBL	WBT	NEL	NER	Ø3	Ø4
Lane Configurations	↑↑					↑↑		
Traffic Volume (vph)	378	0	0	0	0	428		
Future Volume (vph)	378	0	0	0	0	428		
Satd. Flow (prot)	3399	0	0	0	0	2676		
Flt Permitted								
Satd. Flow (perm)	3399	0	0	0	0	2676		
Satd. Flow (RTOR)								
Adj. Flow (vph)	398	0	0	0	0	451		
Lane Group Flow (vph)	398	0	0	0	0	451		
Turn Type	NA					Prot		
Protected Phases	Free!					2!	3	4
Permitted Phases								
Total Split (s)						52.0	12.0	46.0
Total Lost Time (s)						9.0		
Act Effct Green (s)	110.0					65.2		
Actuated g/C Ratio	1.00					0.59		
v/c Ratio	0.12					0.28		
Control Delay	0.1					12.1		
Queue Delay	0.0					0.0		
Total Delay	0.1					12.1		
LOS	A					B		
Approach Delay	0.1				12.1			
Approach LOS	A				B			
Queue Length 50th (ft)	0					82		
Queue Length 95th (ft)	0					130		
Internal Link Dist (ft)	13			494	186			
Turn Bay Length (ft)								
Base Capacity (vph)	3399					1585		
Starvation Cap Reductn	0					0		
Spillback Cap Reductn	0					0		
Storage Cap Reductn	0					0		
Reduced v/c Ratio	0.12					0.28		

Intersection Summary









Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 15 (14%), Referenced to phase 2:SWT, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.50  
 Intersection Signal Delay: 6.5  
 Intersection LOS: A  
 Intersection Capacity Utilization 38.7%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.

Splits and Phases: 14: SR 524 EB



Lanes, Volumes, Timings  
 15: I-95 Nb On Ramp

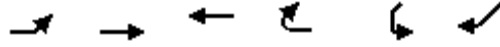
2025 DDI PM  
 01/12/2022

						
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	104	0	0	0	0	197
Future Volume (vph)	104	0	0	0	0	197
Satd. Flow (prot)	1624	0	0	0	0	1405
Flt Permitted						
Satd. Flow (perm)	1624	0	0	0	0	1405
Adj. Flow (vph)	109	0	0	0	0	207
Lane Group Flow (vph)	109	0	0	0	0	207
Sign Control	Free			Free	Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 29.3%	ICU Level of Service A
Analysis Period (min) 15	

Lanes, Volumes, Timings  
16: SR 524 EB

2025 DDI PM  
01/12/2022



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	104	378	0	0	0	0
Future Volume (vph)	104	378	0	0	0	0
Satd. Flow (prot)	1656	3312	0	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1656	3312	0	0	0	0
Adj. Flow (vph)	109	398	0	0	0	0
Lane Group Flow (vph)	109	398	0	0	0	0
Sign Control		Free	Free		Free	

Intersection Summary

Control Type: Unsignalized

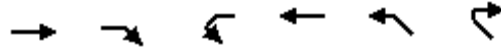
Intersection Capacity Utilization 29.3% ICU Level of Service A

Analysis Period (min) 15



Lanes, Volumes, Timings  
17: SR 524 WB

2025 DDI PM  
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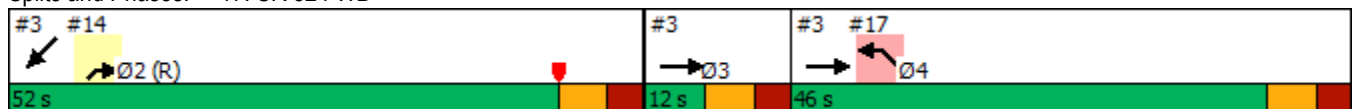


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR	Ø2	Ø3
Lane Configurations				↑↑↑	↑↑			
Traffic Volume (vph)	0	0	0	627	214	0		
Future Volume (vph)	0	0	0	627	214	0		
Satd. Flow (prot)	0	0	0	4884	3297	0		
Flt Permitted					0.950			
Satd. Flow (perm)	0	0	0	4884	3297	0		
Satd. Flow (RTOR)								
Adj. Flow (vph)	0	0	0	660	225	0		
Lane Group Flow (vph)	0	0	0	660	225	0		
Turn Type				NA	Prot			
Protected Phases				Free!	4!		2	3
Permitted Phases								
Total Split (s)					46.0		52.0	12.0
Total Lost Time (s)					7.0			
Act Effct Green (s)				110.0	16.8			
Actuated g/C Ratio				1.00	0.15			
v/c Ratio				0.14	0.45			
Control Delay				0.1	44.5			
Queue Delay				0.0	0.0			
Total Delay				0.1	44.5			
LOS				A	D			
Approach Delay				0.1	44.5			
Approach LOS				A	D			
Queue Length 50th (ft)				0	75			
Queue Length 95th (ft)				0	107			
Internal Link Dist (ft)	126			69	102			
Turn Bay Length (ft)								
Base Capacity (vph)				4884	1168			
Starvation Cap Reductn				0	0			
Spillback Cap Reductn				0	0			
Storage Cap Reductn				0	0			
Reduced v/c Ratio				0.14	0.19			

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 15 (14%), Referenced to phase 2:SWT, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.50  
 Intersection Signal Delay: 11.4      Intersection LOS: B  
 Intersection Capacity Utilization 31.0%      ICU Level of Service A  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.

Splits and Phases: 17: SR 524 WB



Lanes, Volumes, Timings  
 18: I-95 NB Off Ramp

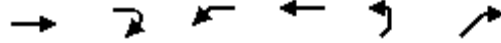
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	↑	↗	↘	↓	↙	↖
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↑↑	↗↗				
Traffic Volume (vph)	214	428	0	0	0	0
Future Volume (vph)	214	428	0	0	0	0
Satd. Flow (prot)	3312	2608	0	0	0	0
Flt Permitted						
Satd. Flow (perm)	3312	2608	0	0	0	0
Adj. Flow (vph)	225	451	0	0	0	0
Lane Group Flow (vph)	225	451	0	0	0	0
Sign Control	Free			Free	Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 31.0%	ICU Level of Service A
Analysis Period (min) 15	

Lanes, Volumes, Timings  
 22: SR 524 WB

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Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	0	0	354	487	0	0
Future Volume (vph)	0	0	354	487	0	0
Satd. Flow (prot)	0	0	1507	3150	0	0
Flt Permitted			0.950	0.993		
Satd. Flow (perm)	0	0	1507	3150	0	0
Adj. Flow (vph)	0	0	373	513	0	0
Lane Group Flow (vph)	0	0	287	599	0	0
Sign Control	Free			Free	Free	

Intersection Summary

Control Type: Unsignalized

Intersection Capacity Utilization 37.6% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings  
27: SR 524 EB

2025 DDI PM  
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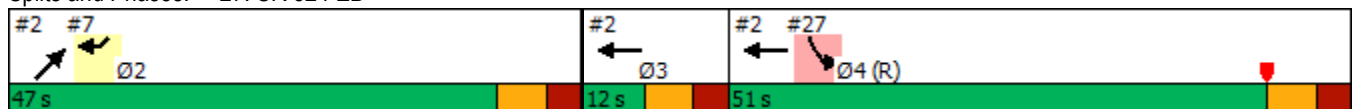


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3
Lane Configurations		↑↑↑			↑↑			
Traffic Volume (vph)	0	285	0	0	197	0		
Future Volume (vph)	0	285	0	0	197	0		
Satd. Flow (prot)	0	4884	0	0	3072	0		
Flt Permitted					0.950			
Satd. Flow (perm)	0	4884	0	0	3072	0		
Satd. Flow (RTOR)								
Adj. Flow (vph)	0	300	0	0	207	0		
Lane Group Flow (vph)	0	300	0	0	207	0		
Turn Type		NA			Prot			
Protected Phases		Free!			4!		2	3
Permitted Phases								
Total Split (s)					51.0		47.0	12.0
Total Lost Time (s)					10.0			
Act Effct Green (s)		110.0			41.0			
Actuated g/C Ratio		1.00			0.37			
v/c Ratio		0.06			0.18			
Control Delay		0.0			23.8			
Queue Delay		0.0			0.0			
Total Delay		0.0			23.8			
LOS		A			C			
Approach Delay					23.8			
Approach LOS					C			
Queue Length 50th (ft)		0			50			
Queue Length 95th (ft)		0			77			
Internal Link Dist (ft)		78	130		334			
Turn Bay Length (ft)								
Base Capacity (vph)		4884			1145			
Starvation Cap Reductn		0			0			
Spillback Cap Reductn		0			0			
Storage Cap Reductn		0			0			
Reduced v/c Ratio		0.06			0.18			

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 2 (2%), Referenced to phase 4:WBT, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.30  
 Intersection Signal Delay: 9.7  
 Intersection LOS: A  
 Intersection Capacity Utilization 27.0%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.

Splits and Phases: 27: SR 524 EB



## Arterial Level of Service

2025 DDI PM

01/12/2022

## Arterial Level of Service: EB SR 524 EB

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
S Friday Rd	IV	35	20.3	6.1	26.4	0.15	19.8	B
SR 524 WB	IV	35	17.9	21.2	39.1	0.11	10.0	D
	IV	35	4.9	0.0	4.9	0.03	22.0	B
SR 524 WB	IV	35	11.6	30.3	41.9	0.07	6.0	F
	IV	35	2.9	0.1	3.0	0.02	21.1	B
N Friday Rd	IV	35	17.9	12.1	30.0	0.11	13.0	C
Total	IV		75.5	69.8	145.3	0.48	11.9	D

## Arterial Level of Service: WB SR 524 WB

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Friday Rd	IV	35	17.9	20.4	38.3	0.11	10.2	D
SR 524 EB	IV	35	17.8	9.0	26.8	0.13	17.1	C
	IV	35	4.7	0.1	4.8	0.03	21.2	B
SR 524 EB	IV	35	11.6	8.0	19.6	0.07	12.9	D
	IV	35	2.7	0.1	2.8	0.02	20.9	B
S Friday Rd	IV	35	15.1	3.0	18.1	0.09	18.2	C
Total	IV		69.8	40.6	110.4	0.44	14.4	C

# Lanes, Volumes, Timings

## 1: S Friday Rd & SR 524 EB & SR 524 WB

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Lane Group	EBL	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR2	SBL	SBT	SBR
Lane Configurations												
Traffic Volume (vph)	4	732	17	199	568	20	52	13	280	30	5	10
Future Volume (vph)	4	732	17	199	568	20	52	13	280	30	5	10
Satd. Flow (prot)	1656	3312	1482	1656	3312	1482	1719	1625	0	1770	1671	0
Flt Permitted	0.426			0.950			0.747			0.364		
Satd. Flow (perm)	743	3312	1482	1656	3312	1482	1352	1625	0	678	1671	0
Satd. Flow (RTOR)			89			30		292			11	
Adj. Flow (vph)	4	771	18	209	598	21	55	14	295	32	5	11
Lane Group Flow (vph)	4	771	18	209	598	21	55	309	0	32	16	0
Turn Type	Perm	Perm	Perm	pm+pt	NA	Perm	Perm	NA		Perm	NA	
Protected Phases				1	6			8				4
Permitted Phases	2	2	2	6		6	8			4		
Total Split (s)	56.0	56.0	56.0	17.0	73.0	73.0	37.0	37.0		37.0	37.0	
Total Lost Time (s)	6.0	6.0	6.0	6.0	6.0	6.0	6.0	6.0		6.0	6.0	
Act Effct Green (s)	71.9	71.9	71.9	87.0	87.0	87.0	11.0	11.0		11.0	11.0	
Actuated g/C Ratio	0.65	0.65	0.65	0.79	0.79	0.79	0.10	0.10		0.10	0.10	
v/c Ratio	0.01	0.36	0.02	0.16	0.23	0.02	0.41	0.73		0.48	0.09	
Control Delay	9.5	10.1	0.1	1.2	1.1	0.1	53.5	17.0		67.4	25.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	9.5	10.1	0.1	1.2	1.1	0.1	53.5	17.0		67.4	25.6	
LOS	A	B	A	A	A	A	D	B		E	C	
Approach Delay					1.1			22.5				53.5
Approach LOS					A			C				D
Queue Length 50th (ft)	1	114	0	8	12	0	37	11		22	3	
Queue Length 95th (ft)	6	202	0	18	23	0	73	93		52	23	
Internal Link Dist (ft)					403			334				427
Turn Bay Length (ft)	200	200	200	200		200	200			200		
Base Capacity (vph)	485	2164	999	1309	2618	1178	381	667		191	478	
Starvation Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.01	0.36	0.02	0.16	0.23	0.02	0.14	0.46		0.17	0.03	

### Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 51 (46%), Referenced to phase 2:EBL, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.73  
 Intersection Signal Delay: 9.6  
 Intersection LOS: A  
 Intersection Capacity Utilization 76.6%  
 ICU Level of Service D  
 Analysis Period (min) 15

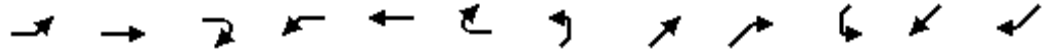
Splits and Phases: 1: S Friday Rd & SR 524 EB & SR 524 WB



# Lanes, Volumes, Timings

## 2: SR 524 EB & SR 524 WB

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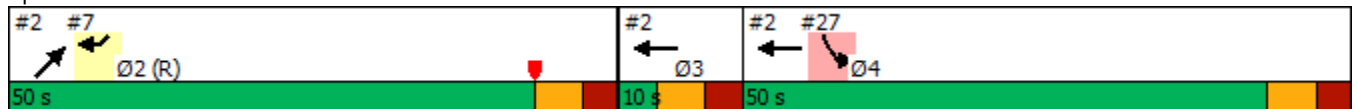


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations					↑↑			↑↑↑				
Traffic Volume (vph)	0	0	0	0	527	0	0	682	0	0	0	0
Future Volume (vph)	0	0	0	0	527	0	0	682	0	0	0	0
Satd. Flow (prot)	0	0	0	0	3399	0	0	4884	0	0	0	0
Flt Permitted												
Satd. Flow (perm)	0	0	0	0	3399	0	0	4884	0	0	0	0
Satd. Flow (RTOR)												
Adj. Flow (vph)	0	0	0	0	555	0	0	718	0	0	0	0
Lane Group Flow (vph)	0	0	0	0	555	0	0	718	0	0	0	0
Turn Type					NA			NA				
Protected Phases					4 3			2				
Permitted Phases												
Total Split (s)								50.0				
Total Lost Time (s)								7.0				
Act Effct Green (s)					38.8			57.2				
Actuated g/C Ratio					0.35			0.52				
v/c Ratio					0.46			0.28				
Control Delay					34.3			13.9				
Queue Delay					0.1			0.0				
Total Delay					34.4			13.9				
LOS					C			B				
Approach Delay					34.4			13.9				
Approach LOS					C			B				
Queue Length 50th (ft)					206			113				
Queue Length 95th (ft)					258			170				
Internal Link Dist (ft)		6			85			44			78	
Turn Bay Length (ft)												
Base Capacity (vph)					1637			2538				
Starvation Cap Reductn					310			0				
Spillback Cap Reductn					0			0				
Storage Cap Reductn					0			0				
Reduced v/c Ratio					0.42			0.28				

### Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 67 (61%), Referenced to phase 2:NET, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 22.9      Intersection LOS: C  
 Intersection Capacity Utilization 39.0%      ICU Level of Service A  
 Analysis Period (min) 15

### Splits and Phases: 2: SR 524 EB & SR 524 WB



## Lanes, Volumes, Timings

### 2: SR 524 EB & SR 524 WB

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Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Adj. Flow (vph)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Total Split (s)	10.0	50.0
Total Lost Time (s)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		





## Lanes, Volumes, Timings

### 3: SR 524 WB & SR 524 EB

2045 DDI AM

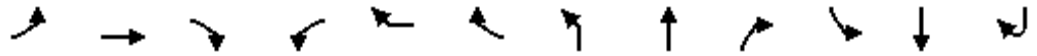
01/12/2022

Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Adj. Flow (vph)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Total Split (s)	10.0	54.0
Total Lost Time (s)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

# Timings

## 4: N Friday Rd & SR 524 EB & SR 524 WB

01/27/2022



Lane Group	EBL	EBT	EBR	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations												
Traffic Volume (vph)	110	1397	170	30	1153	30	150	5	50	60	15	130
Future Volume (vph)	110	1397	170	30	1153	30	150	5	50	60	15	130
Satd. Flow (prot)	1736	3312	1335	1656	3312	1482	1492	1355	0	1736	1582	0
Flt Permitted	0.950			0.109			0.487			0.719		
Satd. Flow (perm)	1736	3312	1335	190	3312	1482	765	1355	0	1314	1582	0
Satd. Flow (RTOR)			205			205		53			269	
Lane Group Flow (vph)	116	1471	179	32	1214	32	158	58	0	63	153	0
Turn Type	pm+pt	NA	Perm	pm+pt	Prot	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4			8		
Total Split (s)	13.0	65.0	65.0	13.0	65.0	65.0	16.0	16.0		16.0	16.0	
Total Lost Time (s)	7.3	7.3	10.3	7.3	7.3	7.3	8.2	8.2		8.2	8.2	
Act Effct Green (s)	63.4	63.4	60.4	57.7	57.7	57.7	16.8	10.6		14.6	7.3	
Actuated g/C Ratio	0.58	0.58	0.55	0.52	0.52	0.52	0.15	0.10		0.13	0.07	
v/c Ratio	0.12	0.77	0.22	0.18	0.70	0.04	0.94	0.33		0.31	0.43	
Control Delay	12.5	19.3	3.4	19.9	22.4	0.1	97.7	20.8		40.1	3.8	
Queue Delay	0.0	1.3	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	12.5	20.6	3.4	19.9	22.4	0.1	97.7	20.8		40.1	3.8	
LOS	B	C	A	B	C	A	F	C		D	A	
Approach Delay		18.4						77.0			14.4	
Approach LOS		B						E			B	
Queue Length 50th (ft)	42	299	9	11	324	0	~102	3		37	0	
Queue Length 95th (ft)	m69	378	m27	26	404	0	#206	45		74	0	
Internal Link Dist (ft)		494						519			632	
Turn Bay Length (ft)	300		300	365	330	330						
Base Capacity (vph)	1000	1908	825	175	1737	874	168	181		210	362	
Starvation Cap Reductn	0	234	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.12	0.88	0.22	0.18	0.70	0.04	0.94	0.32		0.30	0.42	

### Intersection Summary

Cycle Length: 110

Actuated Cycle Length: 110

Offset: 64 (58%), Referenced to phase 1:EBL and 6:EBTL, Start of Yellow

Control Type: Actuated-Coordinated

Maximum v/c Ratio: 0.94

Intersection Signal Delay: 23.0

Intersection LOS: C

Intersection Capacity Utilization 89.4%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

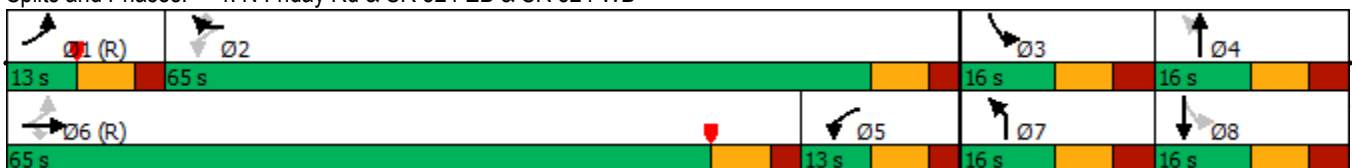
Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

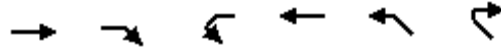
m Volume for 95th percentile queue is metered by upstream signal.

### Splits and Phases: 4: N Friday Rd & SR 524 EB & SR 524 WB



Lanes, Volumes, Timings  
5: SR 524 EB

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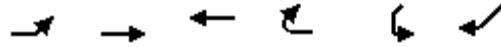


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑↑	↑				
Traffic Volume (vph)	682	360	0	0	0	0
Future Volume (vph)	682	360	0	0	0	0
Satd. Flow (prot)	4759	1482	0	0	0	0
Flt Permitted						
Satd. Flow (perm)	4759	1482	0	0	0	0
Adj. Flow (vph)	718	379	0	0	0	0
Lane Group Flow (vph)	718	379	0	0	0	0
Sign Control	Free			Free	Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 38.7%	ICU Level of Service A
Analysis Period (min) 15	

Lanes, Volumes, Timings  
7: SR 524 WB

2045 DDI AM  
01/12/2022



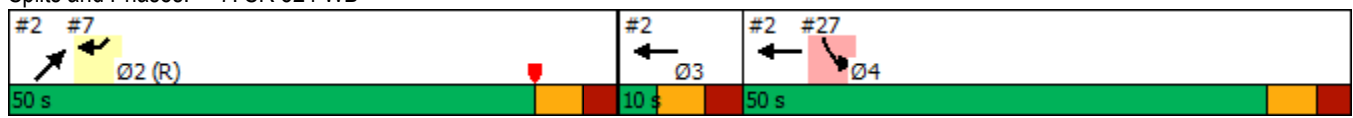
Lane Group	EBL	EBT	WBT	WBR	SWL	SWR	Ø3	Ø4
Lane Configurations			↑↑			↗		
Traffic Volume (vph)	0	0	527	0	0	260		
Future Volume (vph)	0	0	527	0	0	260		
Satd. Flow (prot)	0	0	3399	0	0	1429		
Flt Permitted								
Satd. Flow (perm)	0	0	3399	0	0	1429		
Satd. Flow (RTOR)						*60		
Adj. Flow (vph)	0	0	555	0	0	274		
Lane Group Flow (vph)	0	0	555	0	0	274		
Turn Type			NA			Prot		
Protected Phases			Free!			2!	3	4
Permitted Phases								
Total Split (s)						50.0	10.0	50.0
Total Lost Time (s)						7.0		
Act Effct Green (s)			110.0			57.2		
Actuated g/C Ratio			1.00			0.52		
v/c Ratio			0.16			0.36		
Control Delay			0.1			14.6		
Queue Delay			0.0			0.0		
Total Delay			0.1			14.6		
LOS			A			B		
Approach Delay			0.1		14.6			
Approach LOS			A		B			
Queue Length 50th (ft)			0			84		
Queue Length 95th (ft)			0			167		
Internal Link Dist (ft)		403	6		437			
Turn Bay Length (ft)								
Base Capacity (vph)			3399			771		
Starvation Cap Reductn			0			0		
Spillback Cap Reductn			0			0		
Storage Cap Reductn			0			0		
Reduced v/c Ratio			0.16			0.36		

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 67 (61%), Referenced to phase 2:NET, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 4.9  
 Intersection LOS: A  
 Intersection Capacity Utilization 39.0%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 \* User Entered Value

! Phase conflict between lane groups.

Splits and Phases: 7: SR 524 WB



Lanes, Volumes, Timings  
8: I-95 SB Off Ramp

2045 DDI AM  
01/12/2022











Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations			↑↑			
Traffic Volume (vph)	0	0	552	260	0	0
Future Volume (vph)	0	0	552	260	0	0
Satd. Flow (prot)	0	0	2912	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	0	2912	0	0	0
Adj. Flow (vph)	0	0	581	274	0	0
Lane Group Flow (vph)	0	0	855	0	0	0
Sign Control		Free	Free		Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 39.8%	ICU Level of Service A
Analysis Period (min) 15	

Lanes, Volumes, Timings  
 10: I-95 SB On Ramp

2045 DDI AM  
 01/12/2022

						
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	0	0	608	0	0	360
Future Volume (vph)	0	0	608	0	0	360
Satd. Flow (prot)	0	0	3312	0	0	1508
Flt Permitted						
Satd. Flow (perm)	0	0	3312	0	0	1508
Adj. Flow (vph)	0	0	640	0	0	379
Lane Group Flow (vph)	0	0	640	0	0	379
Sign Control		Free	Free		Yield	

Intersection Summary

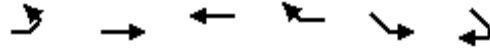
Control Type: Unsignalized

Intersection Capacity Utilization 50.4% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings  
12: SR 524 WB

2045 DDI AM  
01/12/2022



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations			↑↑↑	↑		
Traffic Volume (vph)	0	0	975	458	0	0
Future Volume (vph)	0	0	975	458	0	0
Satd. Flow (prot)	0	0	4759	1369	0	0
Flt Permitted						
Satd. Flow (perm)	0	0	4759	1369	0	0
Adj. Flow (vph)	0	0	1026	482	0	0
Lane Group Flow (vph)	0	0	1026	482	0	0
Sign Control		Free	Free		Free	

Intersection Summary

Control Type: Unsignalized

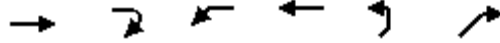
Intersection Capacity Utilization 62.7% ICU Level of Service B

Analysis Period (min) 15



Lanes, Volumes, Timings  
14: SR 524 EB

2045 DDI AM  
01/12/2022

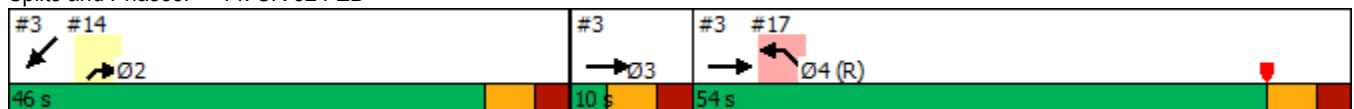


Lane Group	EBT	EBR	WBL	WBT	NEL	NER	Ø3	Ø4
Lane Configurations	↑↑					↑↑		
Traffic Volume (vph)	1027	0	0	0	0	650		
Future Volume (vph)	1027	0	0	0	0	650		
Satd. Flow (prot)	3399	0	0	0	0	2676		
Flt Permitted								
Satd. Flow (perm)	3399	0	0	0	0	2676		
Satd. Flow (RTOR)								
Adj. Flow (vph)	1081	0	0	0	0	684		
Lane Group Flow (vph)	1081	0	0	0	0	684		
Turn Type	NA					Prot		
Protected Phases	Free!					2!	3	4
Permitted Phases								
Total Split (s)						46.0	10.0	54.0
Total Lost Time (s)						9.0		
Act Effct Green (s)	110.0					37.0		
Actuated g/C Ratio	1.00					0.34		
v/c Ratio	0.32					0.76		
Control Delay	0.1					39.1		
Queue Delay	0.0					0.0		
Total Delay	0.1					39.1		
LOS	A					D		
Approach Delay	0.1				39.1			
Approach LOS	A				D			
Queue Length 50th (ft)	0					243		
Queue Length 95th (ft)	0					322		
Internal Link Dist (ft)	13			494	186			
Turn Bay Length (ft)								
Base Capacity (vph)	3399					900		
Starvation Cap Reductn	0					0		
Spillback Cap Reductn	19					0		
Storage Cap Reductn	0					0		
Reduced v/c Ratio	0.32					0.76		

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 10 (9%), Referenced to phase 4:EBT, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 15.2  
 Intersection LOS: B  
 Intersection Capacity Utilization 62.7%  
 ICU Level of Service B  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.

Splits and Phases: 14: SR 524 EB



Lanes, Volumes, Timings  
 15: I-95 NB On Ramp

2045 DDI AM  
 01/12/2022

	↑	↖	↙	↓	↘	↗
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations	↑					↗
Traffic Volume (vph)	207	0	0	0	0	458
Future Volume (vph)	207	0	0	0	0	458
Satd. Flow (prot)	1610	0	0	0	0	1393
Flt Permitted						
Satd. Flow (perm)	1610	0	0	0	0	1393
Adj. Flow (vph)	218	0	0	0	0	482
Lane Group Flow (vph)	218	0	0	0	0	482
Sign Control	Free			Free	Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 63.4%	ICU Level of Service B
Analysis Period (min) 15	

Lanes, Volumes, Timings  
 16: SR 524 EB

2045 DDI AM  
 01/12/2022



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	207	1027	0	0	0	0
Future Volume (vph)	207	1027	0	0	0	0
Satd. Flow (prot)	1530	3312	0	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1530	3312	0	0	0	0
Adj. Flow (vph)	218	1081	0	0	0	0
Lane Group Flow (vph)	218	1081	0	0	0	0
Sign Control		Free	Free		Free	

Intersection Summary

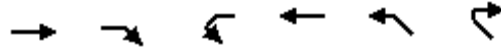
Control Type: Unsignalized

Intersection Capacity Utilization 63.4% ICU Level of Service B

Analysis Period (min) 15

Lanes, Volumes, Timings  
17: SR 524 WB

2045 DDI AM  
01/12/2022

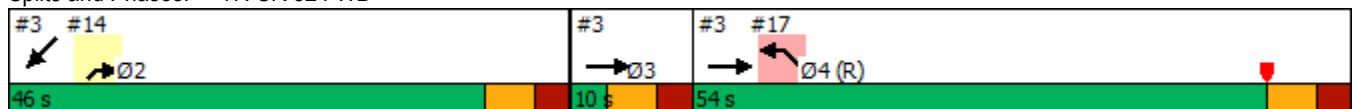


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR	Ø2	Ø3
Lane Configurations				↑↑↑	↑↑			
Traffic Volume (vph)	0	0	0	975	160	0		
Future Volume (vph)	0	0	0	975	160	0		
Satd. Flow (prot)	0	0	0	4884	3297	0		
Flt Permitted					0.950			
Satd. Flow (perm)	0	0	0	4884	3297	0		
Satd. Flow (RTOR)								
Adj. Flow (vph)	0	0	0	1026	168	0		
Lane Group Flow (vph)	0	0	0	1026	168	0		
Turn Type				NA	Prot			
Protected Phases				Free!	4!		2	3
Permitted Phases								
Total Split (s)					54.0		46.0	10.0
Total Lost Time (s)					7.0			
Act Effct Green (s)				110.0	47.0			
Actuated g/C Ratio				1.00	0.43			
v/c Ratio				0.21	0.12			
Control Delay				0.1	19.3			
Queue Delay				0.0	0.0			
Total Delay				0.1	19.3			
LOS				A	B			
Approach Delay				0.1	19.3			
Approach LOS				A	B			
Queue Length 50th (ft)				0	36			
Queue Length 95th (ft)				0	57			
Internal Link Dist (ft)	126			69	102			
Turn Bay Length (ft)								
Base Capacity (vph)				4884	1408			
Starvation Cap Reductn				0	0			
Spillback Cap Reductn				0	0			
Storage Cap Reductn				0	0			
Reduced v/c Ratio				0.21	0.12			

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 10 (9%), Referenced to phase 4:EBT, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.80  
 Intersection Signal Delay: 2.8                      Intersection LOS: A  
 Intersection Capacity Utilization 37.5%                      ICU Level of Service A  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.

Splits and Phases: 17: SR 524 WB



Lanes, Volumes, Timings  
 18: I-95 NB Off Ramp

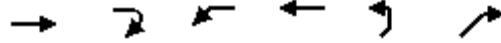
2045 DDI AM  
 01/12/2022

	↑	↗	↘	↓	↙	↖
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↑↑	↑↑				
Traffic Volume (vph)	160	650	0	0	0	0
Future Volume (vph)	160	650	0	0	0	0
Satd. Flow (prot)	3312	2608	0	0	0	0
Flt Permitted						
Satd. Flow (perm)	3312	2608	0	0	0	0
Adj. Flow (vph)	168	684	0	0	0	0
Lane Group Flow (vph)	168	684	0	0	0	0
Sign Control	Free			Free	Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 37.5%	ICU Level of Service A
Analysis Period (min) 15	

Lanes, Volumes, Timings  
22: SR 524 WB

2045 DDI AM  
01/12/2022



Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	0	0	608	527	0	0
Future Volume (vph)	0	0	608	527	0	0
Satd. Flow (prot)	0	0	1507	3125	0	0
Flt Permitted			0.950	0.985		
Satd. Flow (perm)	0	0	1507	3125	0	0
Adj. Flow (vph)	0	0	640	555	0	0
Lane Group Flow (vph)	0	0	390	805	0	0
Sign Control	Free			Free	Free	

Intersection Summary

Control Type: Unsignalized

Intersection Capacity Utilization 44.2% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings  
27: SR 524 EB

2045 DDI AM  
01/12/2022

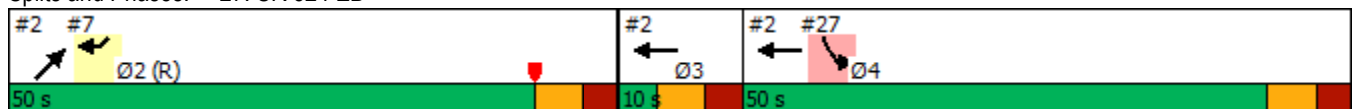


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3
Lane Configurations		↑↑↑			↑↑			
Traffic Volume (vph)	0	682	0	0	552	0		
Future Volume (vph)	0	682	0	0	552	0		
Satd. Flow (prot)	0	4884	0	0	3046	0		
Flt Permitted					0.950			
Satd. Flow (perm)	0	4884	0	0	3046	0		
Satd. Flow (RTOR)								
Adj. Flow (vph)	0	718	0	0	581	0		
Lane Group Flow (vph)	0	718	0	0	581	0		
Turn Type		NA			Prot			
Protected Phases		Free!			4!		2	3
Permitted Phases								
Total Split (s)					50.0		50.0	10.0
Total Lost Time (s)					10.0			
Act Effct Green (s)		110.0			25.8			
Actuated g/C Ratio		1.00			0.23			
v/c Ratio		0.15			0.81			
Control Delay		0.1			49.0			
Queue Delay		0.0			0.1			
Total Delay		0.1			49.1			
LOS		A			D			
Approach Delay		0.1			49.1			
Approach LOS		A			D			
Queue Length 50th (ft)		0			200			
Queue Length 95th (ft)		0			240			
Internal Link Dist (ft)		78	130		334			
Turn Bay Length (ft)								
Base Capacity (vph)		4884			1107			
Starvation Cap Reductn		0			0			
Spillback Cap Reductn		475			47			
Storage Cap Reductn		0			0			
Reduced v/c Ratio		0.16			0.55			

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 67 (61%), Referenced to phase 2:NET, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.81  
 Intersection Signal Delay: 22.0  
 Intersection LOS: C  
 Intersection Capacity Utilization 39.8%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.

Splits and Phases: 27: SR 524 EB



## Arterial Level of Service

2045 DDI AM

01/12/2022

## Arterial Level of Service: EB SR 524 EB

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
S Friday Rd	IV	35	20.3	10.1	30.4	0.15	17.2	C
SR 524 WB	IV	35	17.9	13.9	31.8	0.11	12.3	D
	IV	35	4.9	0.1	5.0	0.03	21.5	B
SR 524 WB	IV	35	11.6	31.9	43.5	0.07	5.8	F
	IV	35	2.9	0.1	3.0	0.02	21.1	B
N Friday Rd	IV	35	17.9	17.4	35.3	0.11	11.1	D
Total	IV		75.5	73.5	149.0	0.48	11.6	D

## Arterial Level of Service: WB SR 524 WB

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Friday Rd	IV	35	17.9	20.6	38.5	0.11	10.1	D
SR 524 EB	IV	35	17.8	31.6	49.4	0.13	9.3	D
	IV	35	4.7	0.1	4.8	0.03	21.2	B
SR 524 EB	IV	35	11.6	34.3	45.9	0.07	5.5	F
	IV	35	2.7	0.1	2.8	0.02	20.9	B
S Friday Rd	IV	35	15.1	1.1	16.2	0.09	20.3	B
Total	IV		69.8	87.8	157.6	0.44	10.1	D







## Lanes, Volumes, Timings

### 2: SR 524 EB & SR 524 WB

2045 DDI PM

01/12/2022

Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Adj. Flow (vph)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Total Split (s)	12.0	51.0
Total Lost Time (s)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		



## Lanes, Volumes, Timings

### 3: SR 524 WB & SR 524 EB

2045 DDI PM

01/12/2022

Lane Group	Ø3	Ø4
Lane Configurations		
Traffic Volume (vph)		
Future Volume (vph)		
Satd. Flow (prot)		
Flt Permitted		
Satd. Flow (perm)		
Satd. Flow (RTOR)		
Adj. Flow (vph)		
Lane Group Flow (vph)		
Turn Type		
Protected Phases	3	4
Permitted Phases		
Total Split (s)	12.0	46.0
Total Lost Time (s)		
Act Effct Green (s)		
Actuated g/C Ratio		
v/c Ratio		
Control Delay		
Queue Delay		
Total Delay		
LOS		
Approach Delay		
Approach LOS		
Queue Length 50th (ft)		
Queue Length 95th (ft)		
Internal Link Dist (ft)		
Turn Bay Length (ft)		
Base Capacity (vph)		
Starvation Cap Reductn		
Spillback Cap Reductn		
Storage Cap Reductn		
Reduced v/c Ratio		
Intersection Summary		

Lanes, Volumes, Timings  
 4: N Friday Rd & SR 524 EB & SR 524 WB

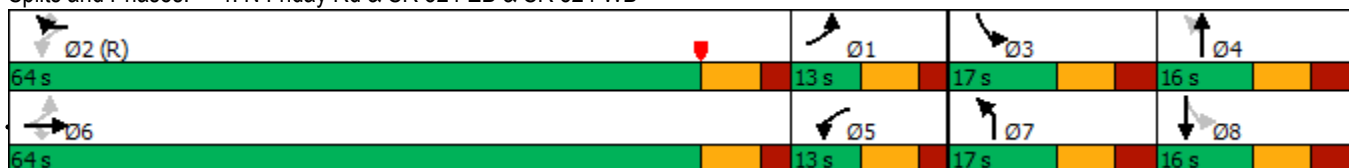
2045 DDI PM  
 01/12/2022

Lane Group	EBL	EBT	EBR	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR2
Lane Configurations												
Traffic Volume (vph)	170	1133	170	54	1365	53	169	10	50	50	10	108
Future Volume (vph)	170	1133	170	54	1365	53	169	10	50	50	10	108
Satd. Flow (prot)	1736	3312	1335	1656	3312	1482	1492	1376	0	1736	1577	0
Flt Permitted	0.950			0.143			0.544			0.715		
Satd. Flow (perm)	1736	3312	1335	249	3312	1482	854	1376	0	1306	1577	0
Satd. Flow (RTOR)			205			205		53			196	
Adj. Flow (vph)	179	1193	179	57	1437	56	178	11	53	53	11	114
Lane Group Flow (vph)	179	1193	179	57	1437	56	178	64	0	53	125	0
Turn Type	pm+pt	NA	Perm	pm+pt	Prot	Perm	pm+pt	NA		pm+pt	NA	
Protected Phases	1	6		5	2		7	4		3	8	
Permitted Phases	6		6	2		2	4			8		
Total Split (s)	13.0	64.0	64.0	13.0	64.0	64.0	17.0	16.0		17.0	16.0	
Total Lost Time (s)	7.3	7.3	10.3	7.3	7.3	7.3	8.2	8.2		8.2	8.2	
Act Effct Green (s)	70.1	59.7	56.7	62.8	57.2	57.2	18.3	11.2		15.0	7.3	
Actuated g/C Ratio	0.64	0.54	0.52	0.57	0.52	0.52	0.17	0.10		0.14	0.07	
v/c Ratio	0.16	0.66	0.23	0.27	0.83	0.06	0.92	0.34		0.26	0.44	
Control Delay	8.6	18.7	4.0	14.5	28.0	0.2	89.9	22.8		38.1	5.6	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0		0.0	0.0	
Total Delay	8.6	18.7	4.0	14.5	28.0	0.2	89.9	22.8		38.1	5.6	
LOS	A	B	A	B	C	A	F	C		D	A	
Approach Delay		15.8						72.2			15.3	
Approach LOS		B						E			B	
Queue Length 50th (ft)	59	285	16	14	432	0	112	7		30	0	
Queue Length 95th (ft)	90	359	45	30	545	0	#225	51		65	7	
Internal Link Dist (ft)		494						519			632	
Turn Bay Length (ft)	300		300	365	330	330						
Base Capacity (vph)	1107	1798	787	215	1721	868	193	188		225	293	
Starvation Cap Reductn	0	6	0	0	0	0	0	0		0	0	
Spillback Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Storage Cap Reductn	0	0	0	0	0	0	0	0		0	0	
Reduced v/c Ratio	0.16	0.67	0.23	0.27	0.83	0.06	0.92	0.34		0.24	0.43	

Intersection Summary

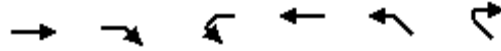
Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 101 (92%), Referenced to phase 2:WBL, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.92  
 Intersection Signal Delay: 24.4  
 Intersection LOS: C  
 Intersection Capacity Utilization 92.2%  
 ICU Level of Service F  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Splits and Phases: 4: N Friday Rd & SR 524 EB & SR 524 WB



Lanes, Volumes, Timings  
5: SR 524 EB

2045 DDI PM  
01/12/2022



Lane Group	EBT	EBR	WBL	WBT	NWL	NWR
Lane Configurations	↑↑↑	↑				
Traffic Volume (vph)	566	226	0	0	0	0
Future Volume (vph)	566	226	0	0	0	0
Satd. Flow (prot)	4759	1482	0	0	0	0
Flt Permitted						
Satd. Flow (perm)	4759	1482	0	0	0	0
Adj. Flow (vph)	596	238	0	0	0	0
Lane Group Flow (vph)	596	238	0	0	0	0
Sign Control	Free			Free	Free	

Intersection Summary

Control Type: Unsignalized

Intersection Capacity Utilization 43.9% ICU Level of Service A

Analysis Period (min) 15





Lanes, Volumes, Timings  
 8: I-95 SB Off Ramp

2045 DDI PM  
 01/12/2022











Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations			↑↑			
Traffic Volume (vph)	0	0	477	253	0	0
Future Volume (vph)	0	0	477	253	0	0
Satd. Flow (prot)	0	0	2925	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	0	2925	0	0	0
Adj. Flow (vph)	0	0	502	266	0	0
Lane Group Flow (vph)	0	0	768	0	0	0
Sign Control		Free	Free		Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 35.6%	ICU Level of Service A
Analysis Period (min) 15	

Lanes, Volumes, Timings  
 10: I-95 SB On Ramp

2045 DDI PM  
 01/12/2022

						
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Traffic Volume (vph)	0	0	675	0	0	226
Future Volume (vph)	0	0	675	0	0	226
Satd. Flow (prot)	0	0	3312	0	0	1508
Flt Permitted						
Satd. Flow (perm)	0	0	3312	0	0	1508
Adj. Flow (vph)	0	0	711	0	0	238
Lane Group Flow (vph)	0	0	711	0	0	238
Sign Control		Free	Free		Yield	

Intersection Summary

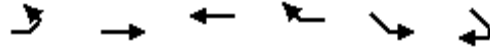
Control Type: Unsignalized

Intersection Capacity Utilization 48.5% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings  
12: SR 524 WB

2045 DDI PM  
01/12/2022



Lane Group	EBL	EBT	WBT	WBR	SEL	SER
Lane Configurations			↑↑↑↑	↑		
Traffic Volume (vph)	0	0	1155	487	0	0
Future Volume (vph)	0	0	1155	487	0	0
Satd. Flow (prot)	0	0	4759	1369	0	0
Flt Permitted						
Satd. Flow (perm)	0	0	4759	1369	0	0
Adj. Flow (vph)	0	0	1216	513	0	0
Lane Group Flow (vph)	0	0	1216	513	0	0
Sign Control		Free	Free		Free	

Intersection Summary

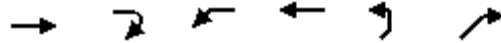
Control Type: Unsignalized

Intersection Capacity Utilization 59.4% ICU Level of Service B

Analysis Period (min) 15

Lanes, Volumes, Timings  
14: SR 524 EB

2045 DDI PM  
01/12/2022

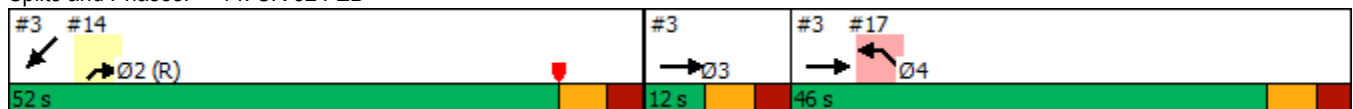


Lane Group	EBT	EBR	WBL	WBT	NEL	NER	Ø3	Ø4
Lane Configurations	↑↑					↑↑		
Traffic Volume (vph)	780	0	0	0	0	693		
Future Volume (vph)	780	0	0	0	0	693		
Satd. Flow (prot)	3399	0	0	0	0	2676		
Flt Permitted								
Satd. Flow (perm)	3399	0	0	0	0	2676		
Satd. Flow (RTOR)								
Adj. Flow (vph)	821	0	0	0	0	729		
Lane Group Flow (vph)	821	0	0	0	0	729		
Turn Type	NA					Prot		
Protected Phases	Free!					2!	3	4
Permitted Phases								
Total Split (s)						52.0	12.0	46.0
Total Lost Time (s)						9.0		
Act Effct Green (s)	110.0					50.3		
Actuated g/C Ratio	1.00					0.46		
v/c Ratio	0.24					0.60		
Control Delay	0.1					25.9		
Queue Delay	0.0					0.0		
Total Delay	0.1					25.9		
LOS	A					C		
Approach Delay	0.1				25.9			
Approach LOS	A				C			
Queue Length 50th (ft)	0					212		
Queue Length 95th (ft)	0					317		
Internal Link Dist (ft)	13			494	186			
Turn Bay Length (ft)								
Base Capacity (vph)	3399					1223		
Starvation Cap Reductn	0					0		
Spillback Cap Reductn	0					0		
Storage Cap Reductn	0					0		
Reduced v/c Ratio	0.24					0.60		

Intersection Summary









Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 107 (97%), Referenced to phase 2:SWT, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.65  
 Intersection Signal Delay: 12.3      Intersection LOS: B  
 Intersection Capacity Utilization 59.4%      ICU Level of Service B  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.

Splits and Phases: 14: SR 524 EB



Lanes, Volumes, Timings  
 15: I-95 Nb On Ramp

2045 DDI PM  
 01/12/2022

						
Lane Group	NBT	NBR	SBL	SBT	NWL	NWR
Lane Configurations						
Traffic Volume (vph)	263	0	0	0	0	487
Future Volume (vph)	263	0	0	0	0	487
Satd. Flow (prot)	1624	0	0	0	0	1405
Flt Permitted						
Satd. Flow (perm)	1624	0	0	0	0	1405
Adj. Flow (vph)	277	0	0	0	0	513
Lane Group Flow (vph)	277	0	0	0	0	513
Sign Control	Free			Free	Free	

Intersection Summary

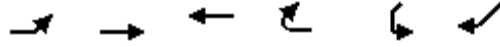
Control Type: Unsignalized

Intersection Capacity Utilization 58.4% ICU Level of Service B

Analysis Period (min) 15

Lanes, Volumes, Timings  
 16: SR 524 EB

2045 DDI PM  
 01/12/2022



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Traffic Volume (vph)	263	780	0	0	0	0
Future Volume (vph)	263	780	0	0	0	0
Satd. Flow (prot)	1530	3312	0	0	0	0
Flt Permitted	0.950					
Satd. Flow (perm)	1530	3312	0	0	0	0
Adj. Flow (vph)	277	821	0	0	0	0
Lane Group Flow (vph)	277	821	0	0	0	0
Sign Control		Free	Free		Free	

Intersection Summary

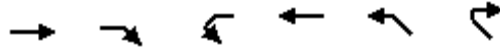
Control Type: Unsignalized

Intersection Capacity Utilization 58.4% ICU Level of Service B

Analysis Period (min) 15

Lanes, Volumes, Timings  
17: SR 524 WB

2045 DDI PM  
01/12/2022

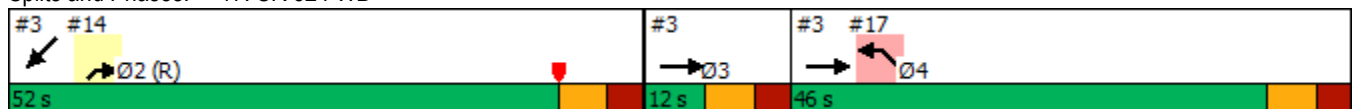


Lane Group	EBT	EBR	WBL	WBT	NWL	NWR	Ø2	Ø3
Lane Configurations				↑↑↑	↑↑			
Traffic Volume (vph)	0	0	0	1155	322	0		
Future Volume (vph)	0	0	0	1155	322	0		
Satd. Flow (prot)	0	0	0	4884	3297	0		
Flt Permitted					0.950			
Satd. Flow (perm)	0	0	0	4884	3297	0		
Satd. Flow (RTOR)								
Adj. Flow (vph)	0	0	0	1216	339	0		
Lane Group Flow (vph)	0	0	0	1216	339	0		
Turn Type				NA	Prot			
Protected Phases				Free!	4!		2	3
Permitted Phases								
Total Split (s)					46.0		52.0	12.0
Total Lost Time (s)					7.0			
Act Effct Green (s)				110.0	31.7			
Actuated g/C Ratio				1.00	0.29			
v/c Ratio				0.25	0.36			
Control Delay				0.1	31.3			
Queue Delay				0.0	0.0			
Total Delay				0.1	31.3			
LOS				A	C			
Approach Delay				0.1	31.3			
Approach LOS				A	C			
Queue Length 50th (ft)				0	97			
Queue Length 95th (ft)				0	125			
Internal Link Dist (ft)	126			69	102			
Turn Bay Length (ft)								
Base Capacity (vph)				4884	1168			
Starvation Cap Reductn				0	0			
Spillback Cap Reductn				5	3			
Storage Cap Reductn				0	0			
Reduced v/c Ratio				0.25	0.29			

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 107 (97%), Referenced to phase 2:SWT, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.65  
 Intersection Signal Delay: 6.9      Intersection LOS: A  
 Intersection Capacity Utilization 40.9%      ICU Level of Service A  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.

Splits and Phases: 17: SR 524 WB



Lanes, Volumes, Timings  
18: I-95 NB Off Ramp

2045 DDI PM  
01/12/2022

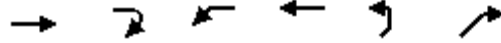
	↑	↗	↘	↓	↙	↖
Lane Group	NBT	NBR	SBL	SBT	SWL	SWR
Lane Configurations	↑↑	↗↗				
Traffic Volume (vph)	322	693	0	0	0	0
Future Volume (vph)	322	693	0	0	0	0
Satd. Flow (prot)	3312	2608	0	0	0	0
Flt Permitted						
Satd. Flow (perm)	3312	2608	0	0	0	0
Adj. Flow (vph)	339	729	0	0	0	0
Lane Group Flow (vph)	339	729	0	0	0	0
Sign Control	Free			Free	Free	

Intersection Summary	
Control Type: Unsignalized	
Intersection Capacity Utilization 40.9%	ICU Level of Service A
Analysis Period (min) 15	



Lanes, Volumes, Timings  
22: SR 524 WB

2045 DDI PM  
01/12/2022



Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations						
Traffic Volume (vph)	0	0	675	802	0	0
Future Volume (vph)	0	0	675	802	0	0
Satd. Flow (prot)	0	0	1507	3141	0	0
Flt Permitted			0.950	0.990		
Satd. Flow (perm)	0	0	1507	3141	0	0
Adj. Flow (vph)	0	0	711	844	0	0
Lane Group Flow (vph)	0	0	505	1050	0	0
Sign Control	Free			Free	Free	

Intersection Summary

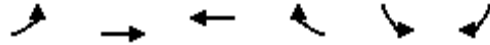
Control Type: Unsignalized

Intersection Capacity Utilization 47.6% ICU Level of Service A

Analysis Period (min) 15

Lanes, Volumes, Timings  
27: SR 524 EB

2045 DDI PM  
01/12/2022

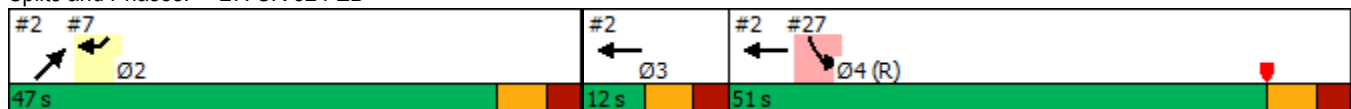


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR	Ø2	Ø3
Lane Configurations		↑↑↑			↑↑			
Traffic Volume (vph)	0	566	0	0	477	0		
Future Volume (vph)	0	566	0	0	477	0		
Satd. Flow (prot)	0	4884	0	0	3046	0		
Flt Permitted					0.950			
Satd. Flow (perm)	0	4884	0	0	3046	0		
Satd. Flow (RTOR)								
Adj. Flow (vph)	0	596	0	0	502	0		
Lane Group Flow (vph)	0	596	0	0	502	0		
Turn Type		NA			Prot			
Protected Phases		Free!			4!		2	3
Permitted Phases								
Total Split (s)					51.0		47.0	12.0
Total Lost Time (s)					10.0			
Act Effct Green (s)		110.0			41.0			
Actuated g/C Ratio		1.00			0.37			
v/c Ratio		0.12			0.44			
Control Delay		0.1			27.5			
Queue Delay		0.0			0.0			
Total Delay		0.1			27.5			
LOS		A			C			
Approach Delay		0.1			27.5			
Approach LOS		A			C			
Queue Length 50th (ft)		0			135			
Queue Length 95th (ft)		0			183			
Internal Link Dist (ft)		78	130		334			
Turn Bay Length (ft)								
Base Capacity (vph)		4884			1135			
Starvation Cap Reductn		0			0			
Spillback Cap Reductn		0			0			
Storage Cap Reductn		0			0			
Reduced v/c Ratio		0.12			0.44			

Intersection Summary

Cycle Length: 110  
 Actuated Cycle Length: 110  
 Offset: 59 (54%), Referenced to phase 4:WBT, Start of Yellow  
 Control Type: Actuated-Coordinated  
 Maximum v/c Ratio: 0.49  
 Intersection Signal Delay: 12.6  
 Intersection LOS: B  
 Intersection Capacity Utilization 35.6%  
 ICU Level of Service A  
 Analysis Period (min) 15  
 ! Phase conflict between lane groups.

Splits and Phases: 27: SR 524 EB



## Arterial Level of Service

2045 DDI PM

01/12/2022

## Arterial Level of Service: EB SR 524 EB

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
S Friday Rd	IV	35	20.3	10.8	31.1	0.15	16.8	C
SR 524 WB	IV	35	17.9	21.0	38.9	0.11	10.0	D
	IV	35	4.9	0.1	5.0	0.03	21.5	B
SR 524 WB	IV	35	11.6	27.1	38.7	0.07	6.5	F
	IV	35	2.9	0.1	3.0	0.02	21.1	B
N Friday Rd	IV	35	17.9	18.7	36.6	0.11	10.7	D
Total	IV		75.5	77.8	153.3	0.48	11.3	D

## Arterial Level of Service: WB SR 524 WB

Cross Street	Arterial Class	Flow Speed	Running Time	Signal Delay	Travel Time (s)	Dist (mi)	Arterial Speed	Arterial LOS
N Friday Rd	IV	35	17.9	28.0	45.9	0.11	8.5	E
SR 524 EB	IV	35	17.8	11.2	29.0	0.13	15.8	C
	IV	35	4.7	0.1	4.8	0.03	21.2	B
SR 524 EB	IV	35	11.6	22.5	34.1	0.07	7.4	E
	IV	35	2.7	0.2	2.9	0.02	20.2	B
S Friday Rd	IV	35	15.1	2.7	17.8	0.09	18.5	C
Total	IV		69.8	64.7	134.5	0.44	11.8	D

# TRAFFIC SIGNAL WARRANT SUMMARY

City: NA  
 County: Brevard

Engineer: VHB  
 Date: December 18, 2020

Major Street: SR 524  
 Minor Street: S Friday Road  
Opening Year 2025 - Build

Lanes: 2 Critical Approach Speed: 45  
 Lanes: 1

**Volume Level Criteria**

1. Is the critical speed of major street traffic > 70 km/h (40 mph) ?  Yes  No  
 2. Is the intersection in a built-up area of isolated community of <10,000 population?  Yes  No
- If Question 1 or 2 above is answered "Yes", then use "70%" volume level  70%  100%

**WARRANT 1 - EIGHT-HOUR VEHICULAR VOLUME**

Applicable:  Yes  No  
 Satisfied:  Yes  No

*Warrant 1 is satisfied if Condition A or Condition B is "100%" satisfied.  
 Warrant is also satisfied if both Condition A and Condition B are "80%" satisfied for major streets 40 mph or less, or "56%" satisfied for major streets greater than 40 mph.*

**Condition A - Minimum Vehicular Volume\*** 100% (70%) Satisfied:  Yes  No  
56% or 80% Satisfied:  Yes  No

(volumes in veh/hr)	Minimum Requirements (80% Shown in Brackets)				Eight Highest Hours							
					1		2 or more		4-5 PM	5-6 PM	3-4 PM	6-7 PM
	100%	70%	100%	70%								
Both Approaches on Major Street	500 (400) [280]	350	600 (480) [336]	420	916	923	821	598	707	679	671	647
Highest Approach on Minor Street	150 (120) [84]	105	200 (160) [112]	140	139	137	105	100	99	89	79	74

*Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if (parenthetical) volumes are met for eight hours. Condition is 56% satisfied if [bracketed] volumes are met for eight hours.*

**Condition B - Interruption of Continuous Traffic**

*Condition B is intended for application where the traffic volume is so heavy that traffic on the minor street suffers excessive delay.*

Applicable:  Yes  No  
 Excessive Delay:  Yes  No  
 100% (70%) Satisfied:  Yes  No  
 56% or 80% Satisfied:  Yes  No

(volumes in veh/hr)	Minimum Requirements (80% Shown in Brackets)				Eight Highest Hours							
					1		2 or more		4-5 PM	5-6 PM	3-4 PM	6-7 PM
	100%	70%	100%	70%								
Both Approaches on Major Street	750 (600) [420]	525	900 (720) [504]	630	916	923	821	598	707	679	671	647
Highest Approach on Minor Street	75 (60) [42]	53	100 (80) [56]	70	139	137	105	100	99	89	79	74

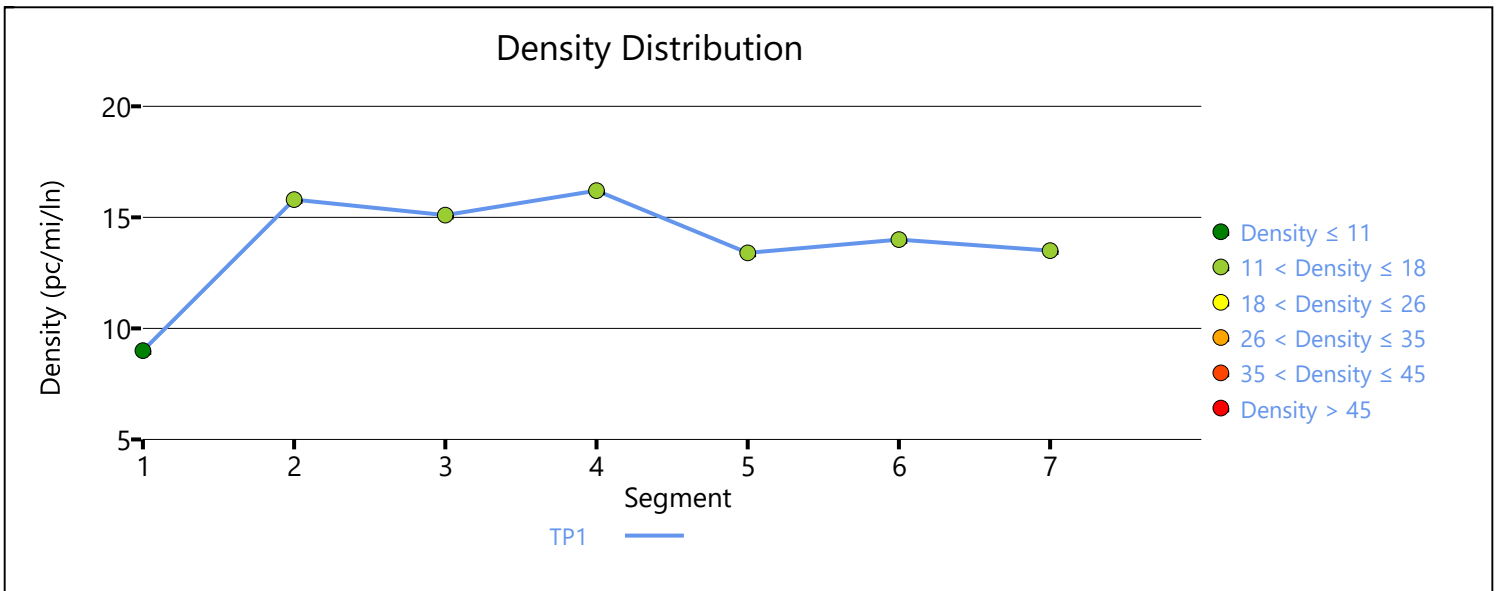
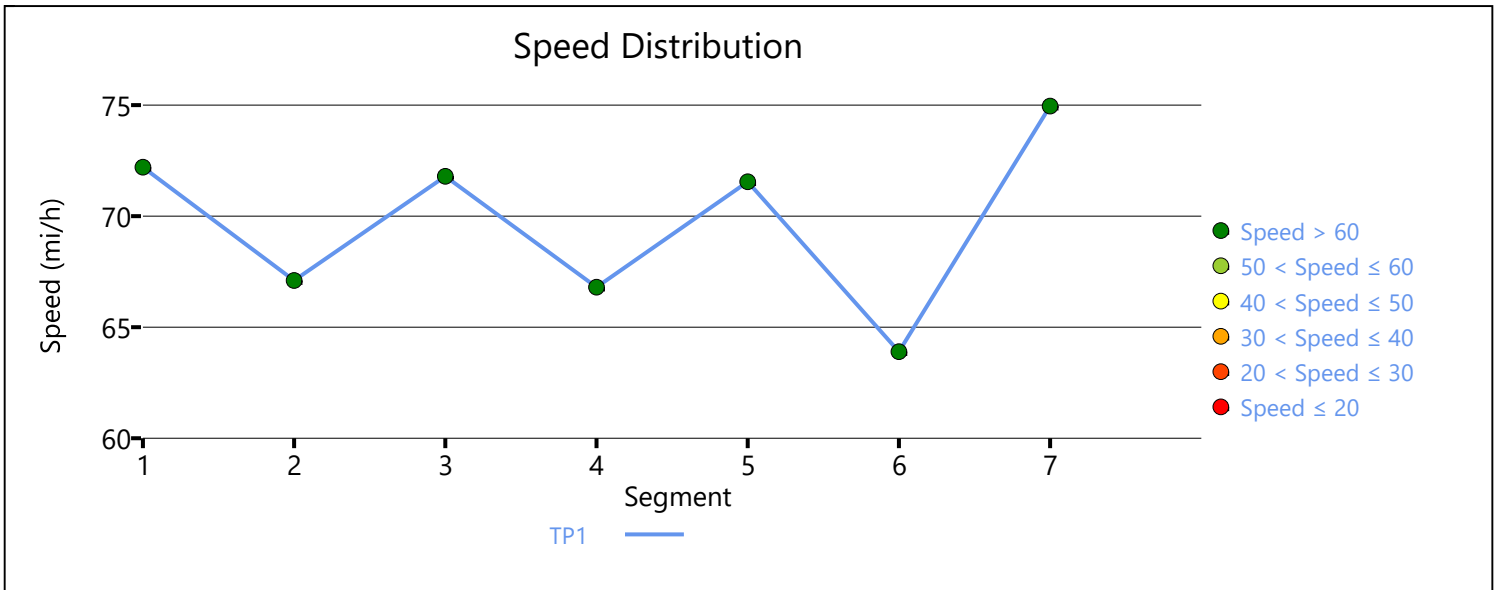
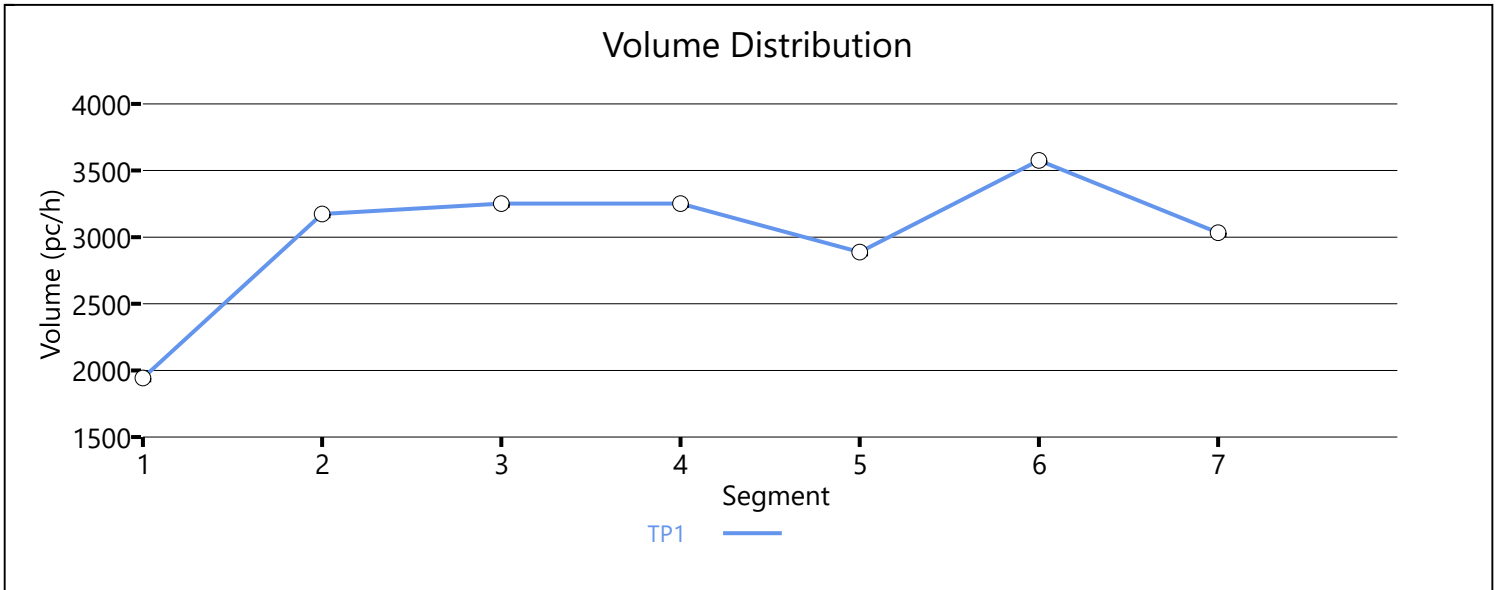
*Record 8 highest hours and the corresponding volumes in boxes provided. Condition is 100% satisfied if the minimum volumes are met for eight hours. Condition is 80% satisfied if (parenthetical) volumes are met for eight hours. Condition is 56% satisfied if [bracketed] volumes are met for eight hours.*

# **Appendix M**

## Build HCS Output



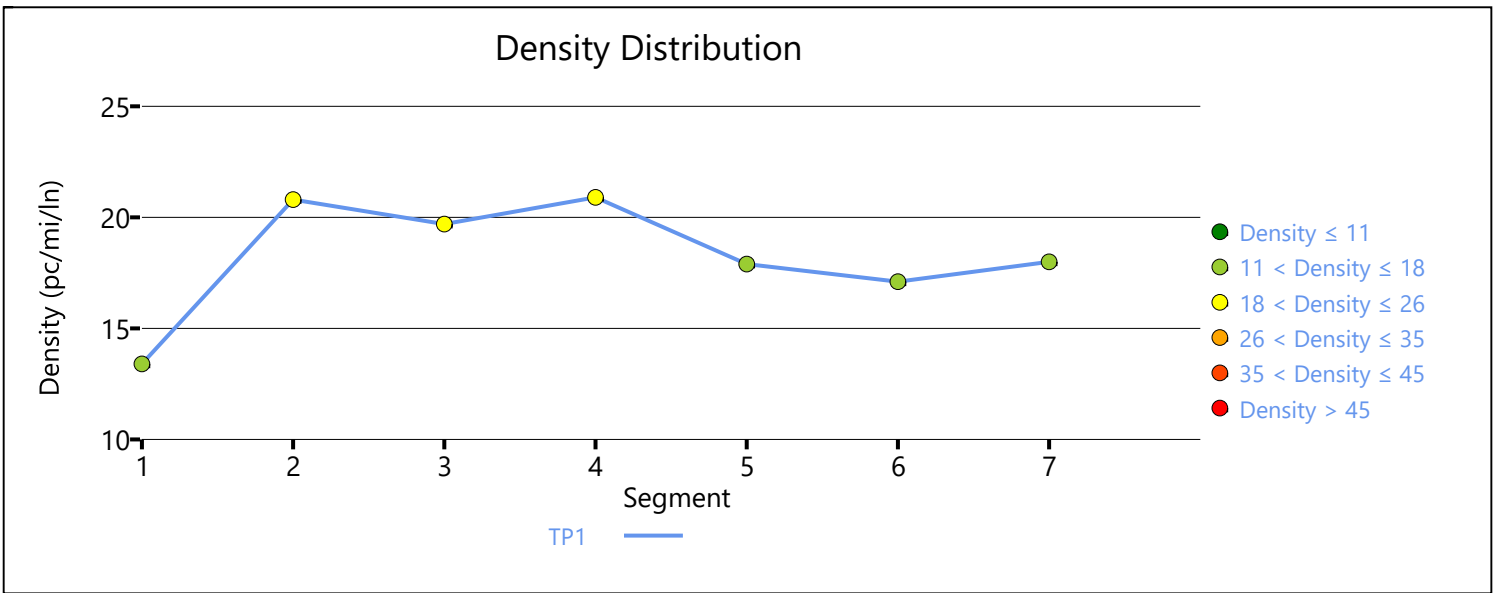
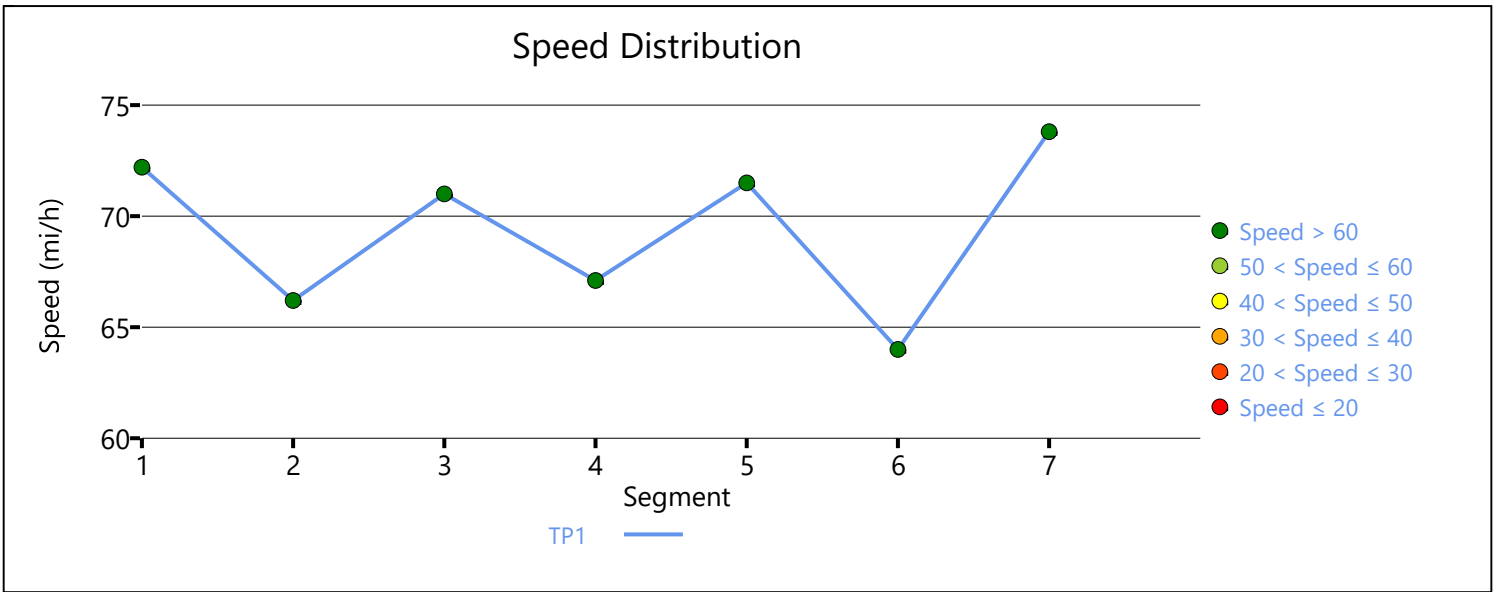
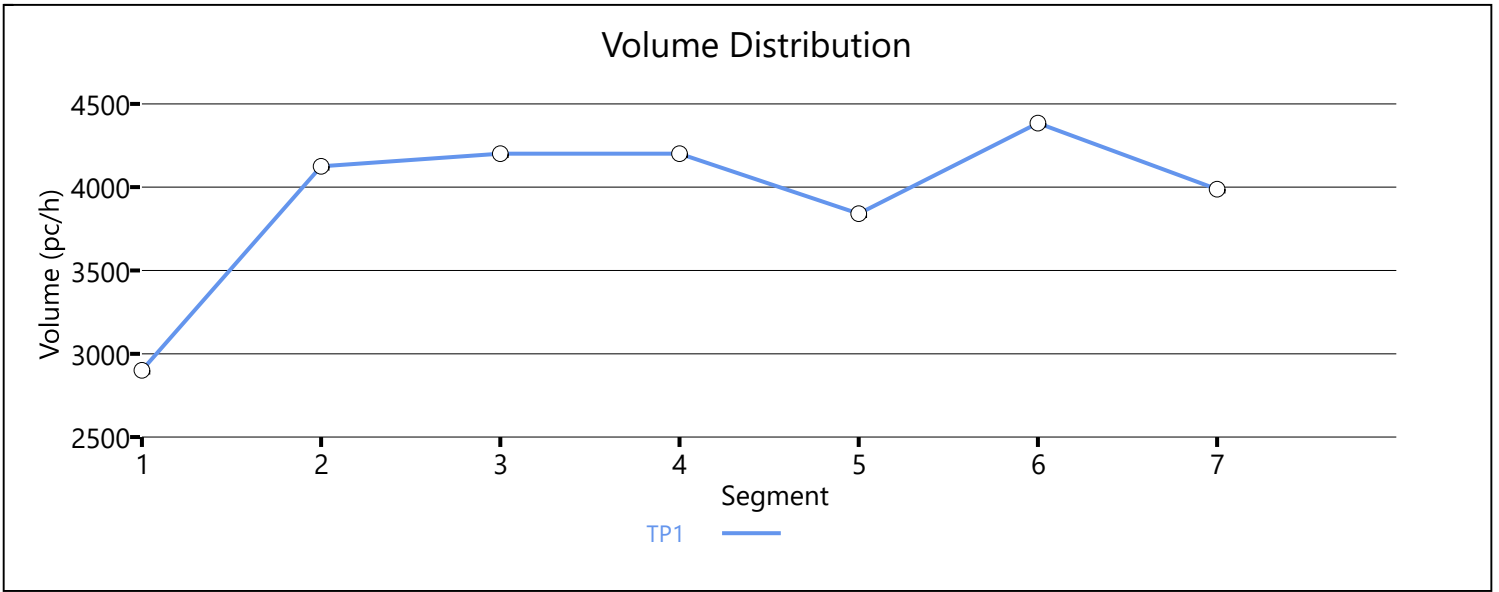
1	0.95	0.95	0.909	0.851	3252	388	7200	2000	0.45	0.19	66.8	61.9	16.2	14.9	B	
<b>Segment 5: Basic</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	2888	7200	0.40	71.6	13.4	B								
<b>Segment 6: Weaving</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	3576	8727	0.41	63.9	14.0	B								
<b>Segment 7: Basic</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	3033	7200	0.42	75.0	13.5	B								
<b>Facility Time Period Results</b>																
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS											
1	69.6	13.3	12.0	4.10	B											
<b>Facility Overall Results</b>																
Space Mean Speed, mi/h				69.6	Density, veh/mi/ln				12.0							
Average Travel Time, min				4.10	Density, pc/mi/ln				13.3							
<b>Messages</b>																
INFORMATION 1				Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 2				Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 3				Trucks for segment 6 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 4				Density for segment 2 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.												
<b>Comments</b>																







1	0.95	0.95	0.909	0.851	4201	385	7200	2000	0.58	0.19	67.1	61.9	20.9	19.5	B
<b>Segment 5: Basic</b>															
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	0.95	0.909	3841	7200	0.53	71.5	17.9	B							
<b>Segment 6: Weaving</b>															
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	0.95	0.909	4385	9324	0.47	64.0	17.1	B							
<b>Segment 7: Basic</b>															
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS							
1	0.95	0.909	3988	7200	0.55	73.8	18.0	B							
<b>Facility Time Period Results</b>															
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS										
1	69.4	17.6	15.8	4.10	B										
<b>Facility Overall Results</b>															
Space Mean Speed, mi/h		69.4		Density, veh/mi/ln		15.8									
Average Travel Time, min		4.10		Density, pc/mi/ln		17.6									
<b>Messages</b>															
INFORMATION 1			Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 2			Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 3			Density for segment 4 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.												
INFORMATION 4			Density for segment 5 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.												
INFORMATION 5			Density for segment 7 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.												
<b>Comments</b>															



# HCS7 Freeway Facilities Report

## Project Information

Analyst	SK	Date	9/5/2019
Agency	FDOT D-5	Analysis Year	2025 Build
Jurisdiction	Brevard County	Time Period Analyzed	AM Peak Hour_NB
Project Description	I-95/SR 524 IMR		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	4.92		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-95 Btw SR 520 Off-Ramp & SR 520 On-Ramp	2200	3
2	Weaving	Weaving	I-95 Btw SR 520 On-Ramp & SR 524 Off-Ramp	4500	4
3	Basic	Basic	I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	2200	3
4	Merge	Merge	SR 524 On-ramp	1500	3
5	Basic	Basic	I-95 Btw SR 524 On-Ramp & SR 528 Off-Ramp	8800	3
6	Diverge	Diverge	SR 528 Off-ramp	1500	3
7	Basic	Basic	I-95 Btw SR 528 Off-Ramp & SR 528 On-Ramp	5280	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	4061	7200	0.56	71.9	18.8	C

### Segment 2: Weaving

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	4390	9388	0.47	64.6	17.0	B

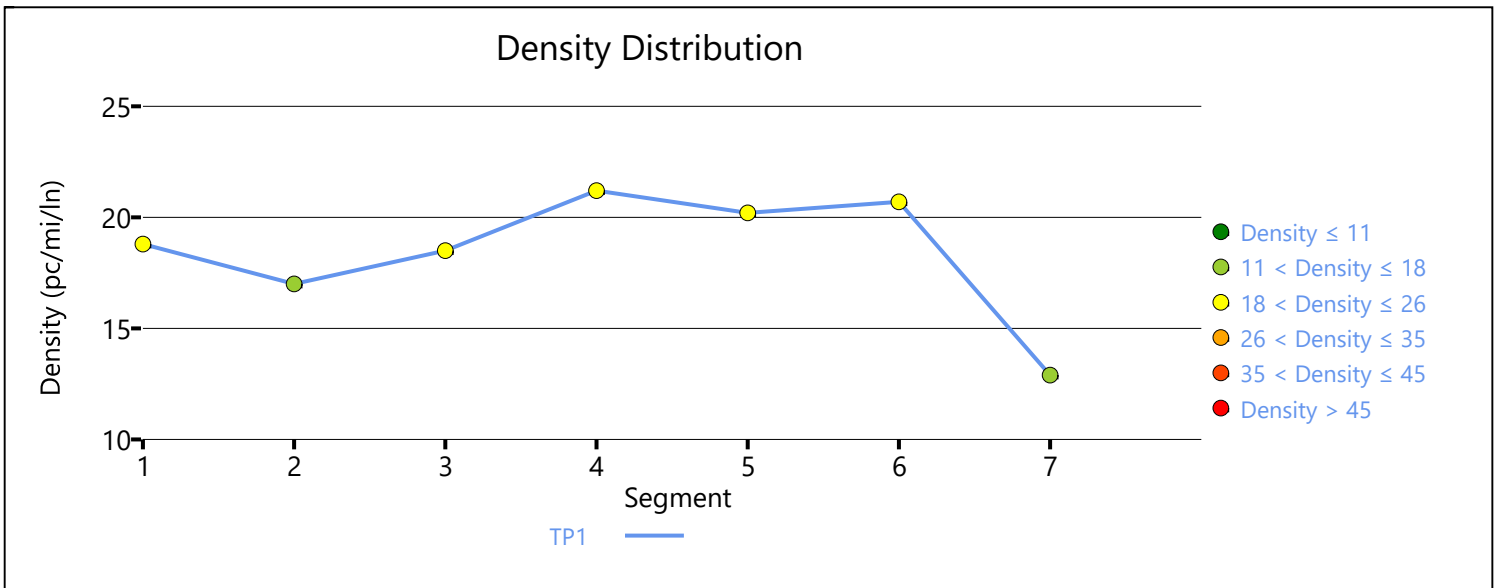
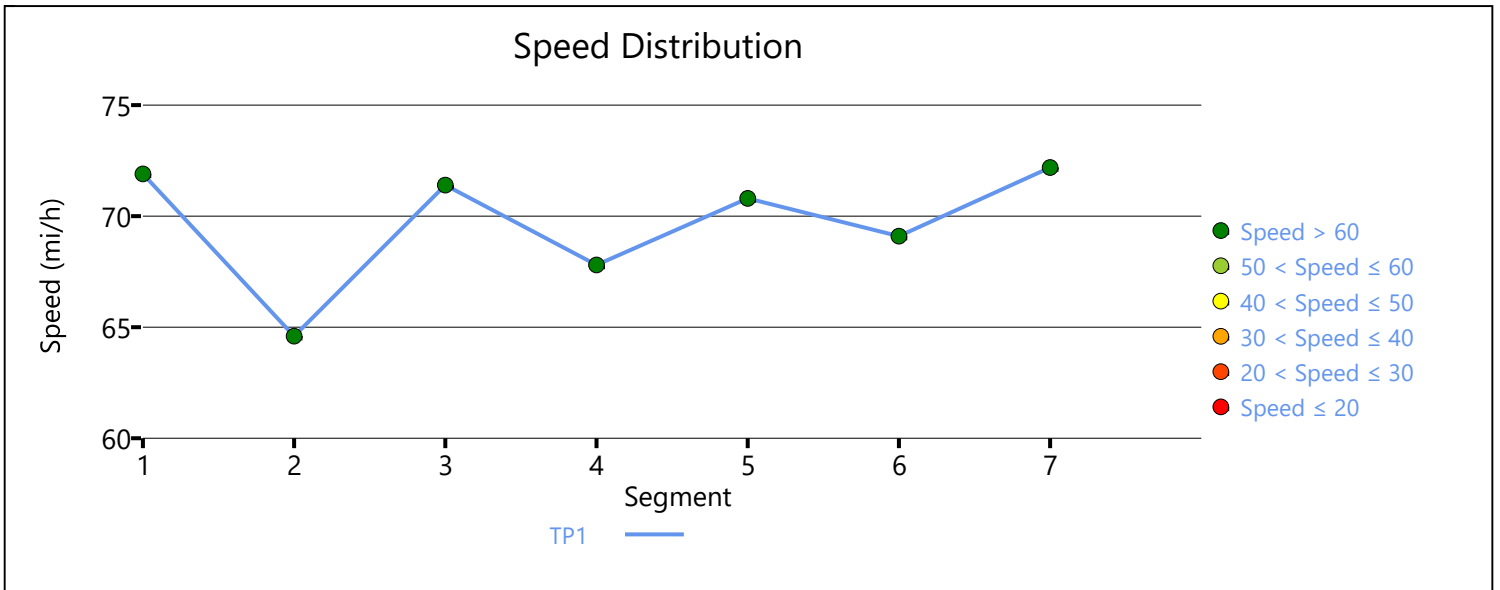
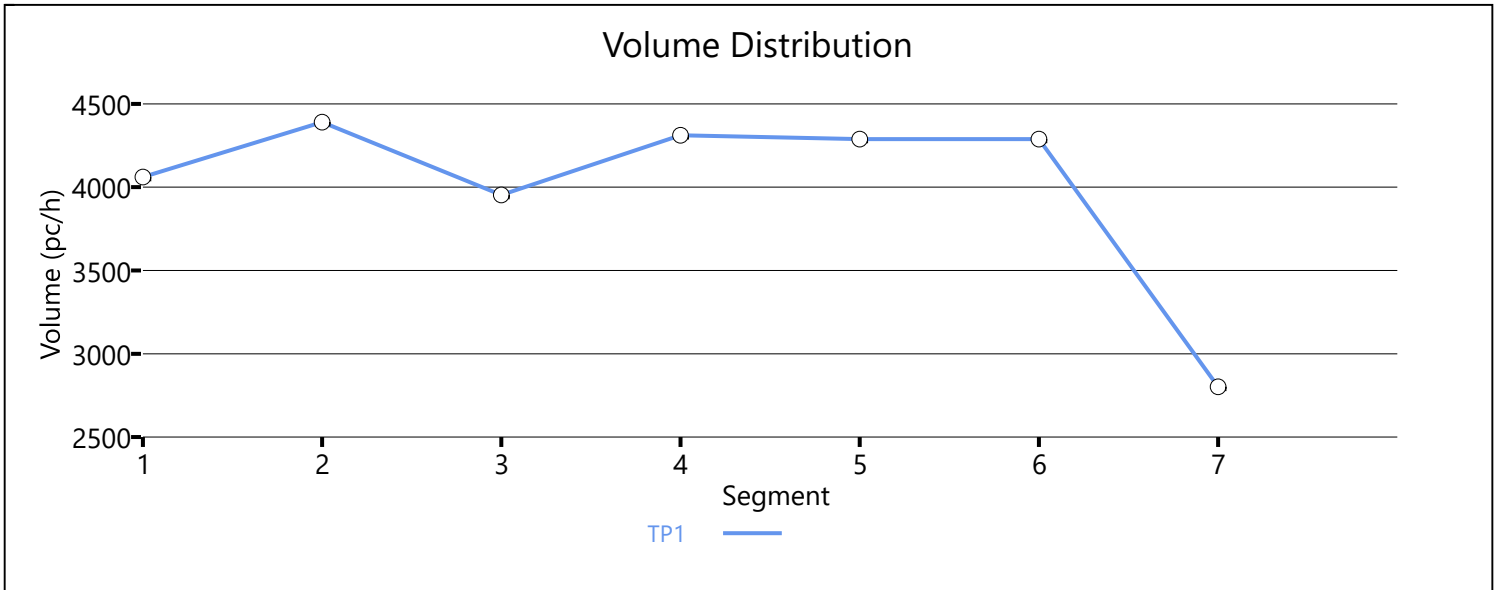
### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	3953	7200	0.55	71.4	18.5	C

### Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.851	4312	359	7200	2000	0.60	0.18	67.8	66.0	21.2	18.4	B

Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.909		4289		7200		0.60		70.8		20.2		C
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.966	4289	1399	7200	2200	0.60	0.64	69.1	65.3	20.7	23.2	C
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.909		2802		7200		0.39		72.2		12.9		B
Facility Time Period Results															
T	Speed, mi/h				Density, pc/mi/ln				Density, veh/mi/ln				Travel Time, min		LOS
1	69.6				17.9				16.1				4.20		B
Facility Overall Results															
Space Mean Speed, mi/h					69.6				Density, veh/mi/ln				16.1		
Average Travel Time, min					4.20				Density, pc/mi/ln				17.9		
Messages															
INFORMATION 1					Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.										
INFORMATION 2					Trucks for segment 7 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.										
INFORMATION 3					Density for segment 3 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.										
Comments															



# HCS7 Freeway Facilities Report

## Project Information

Analyst	SK	Date	9/5/2019
Agency	FDOT D-5	Analysis Year	2025 Build
Jurisdiction	Brevard County	Time Period Analyzed	PM Peak Hour_NB
Project Description	I-95/SR 524 IMR		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	4.92		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-95 Btw SR 520 Off-Ramp & SR 520 On-Ramp	2200	3
2	Weaving	Weaving	I-95 Btw SR 520 On-Ramp & SR 524 Off-Ramp	4500	4
3	Basic	Basic	I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	2200	3
4	Merge	Merge	SR 524 On-ramp	1500	3
5	Basic	Basic	I-95 Btw SR 524 On-Ramp & SR 528 Off-Ramp	8800	3
6	Diverge	Diverge	SR 528 Off-ramp	1500	3
7	Basic	Basic	I-95 Btw SR 528 Off-Ramp & SR 528 On-Ramp	5280	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	3037	7200	0.42	72.7	13.9	B

### Segment 2: Weaving

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	3575	7742	0.46	63.3	14.1	B

### Segment 3: Basic

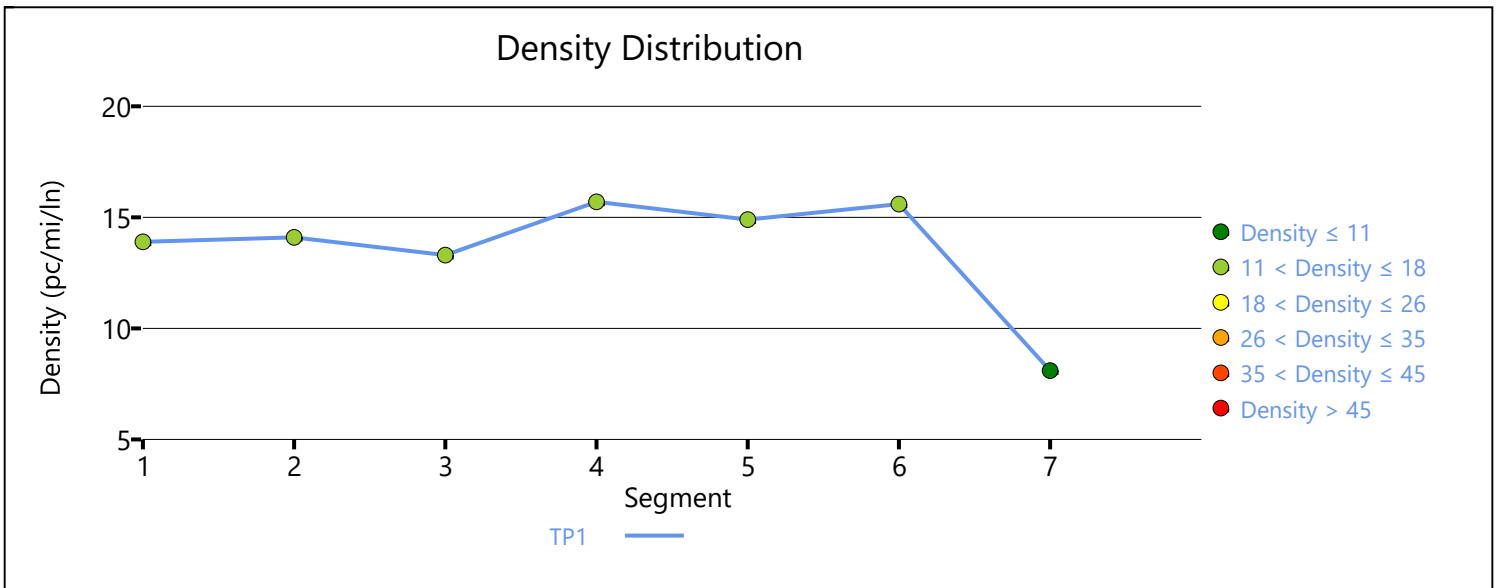
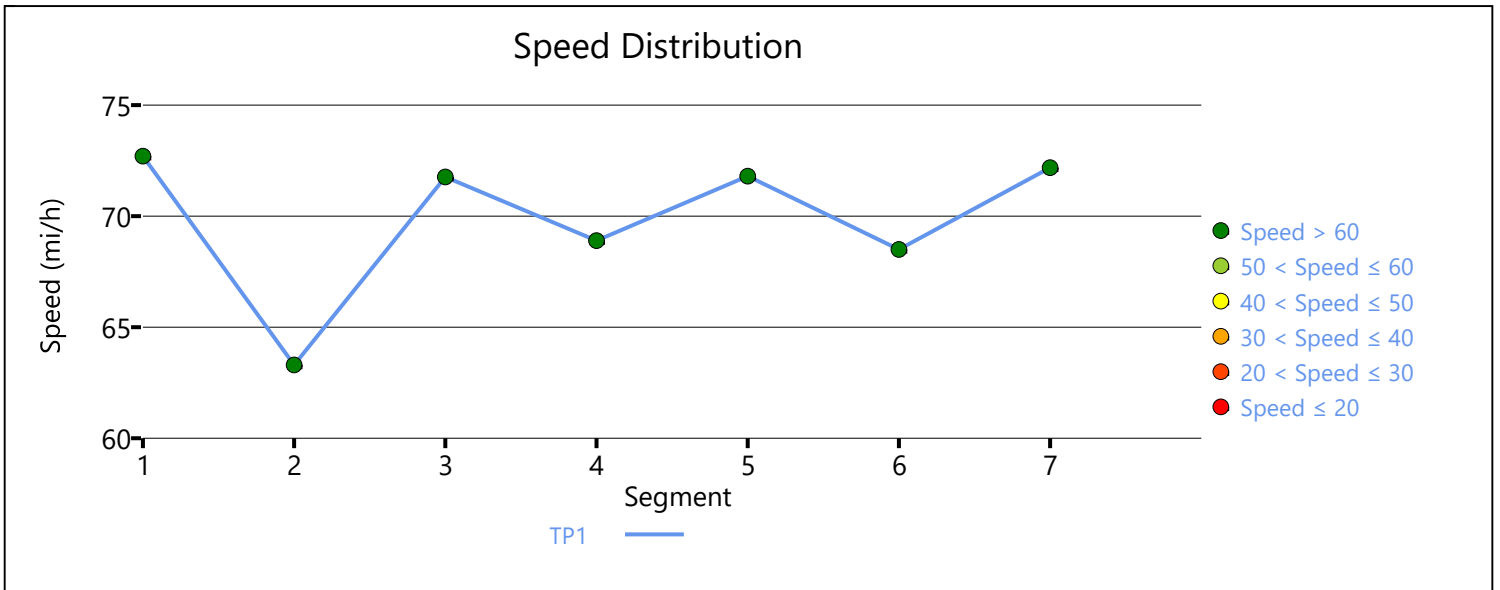
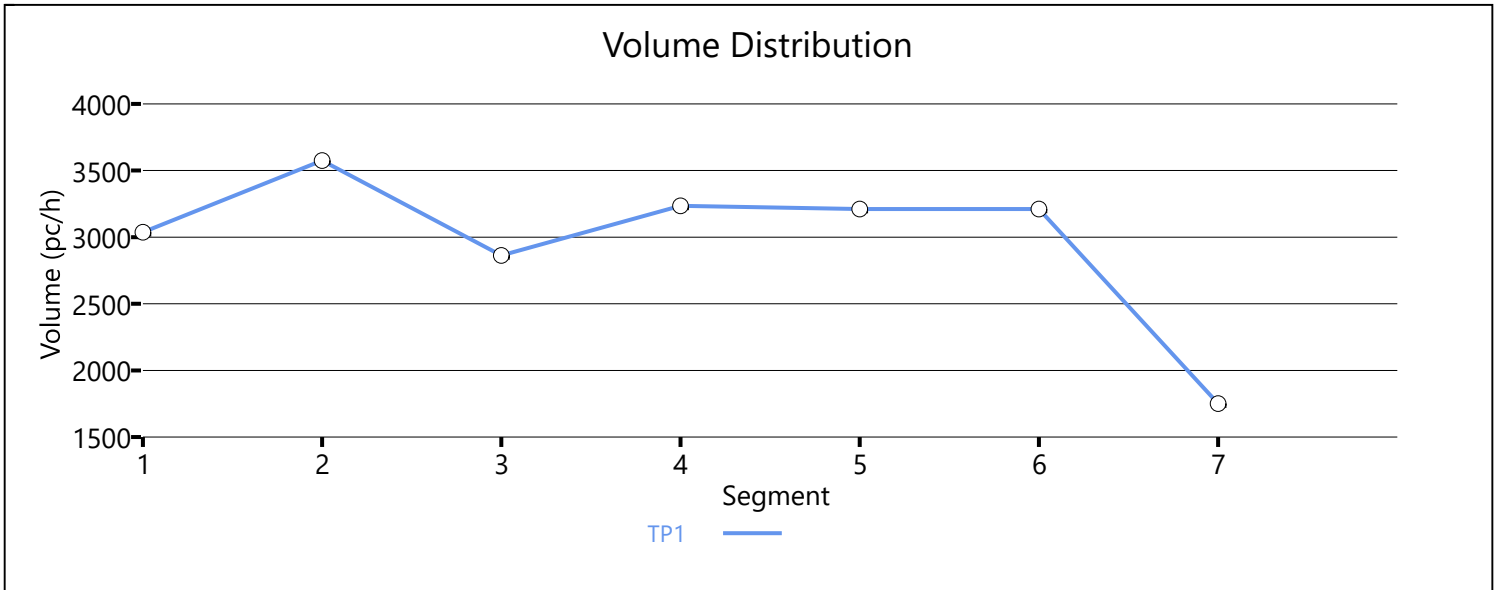
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	2863	7200	0.40	71.8	13.3	B

### Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.851	3235	372	7200	2000	0.45	0.19	68.9	67.0	15.7	13.3	B

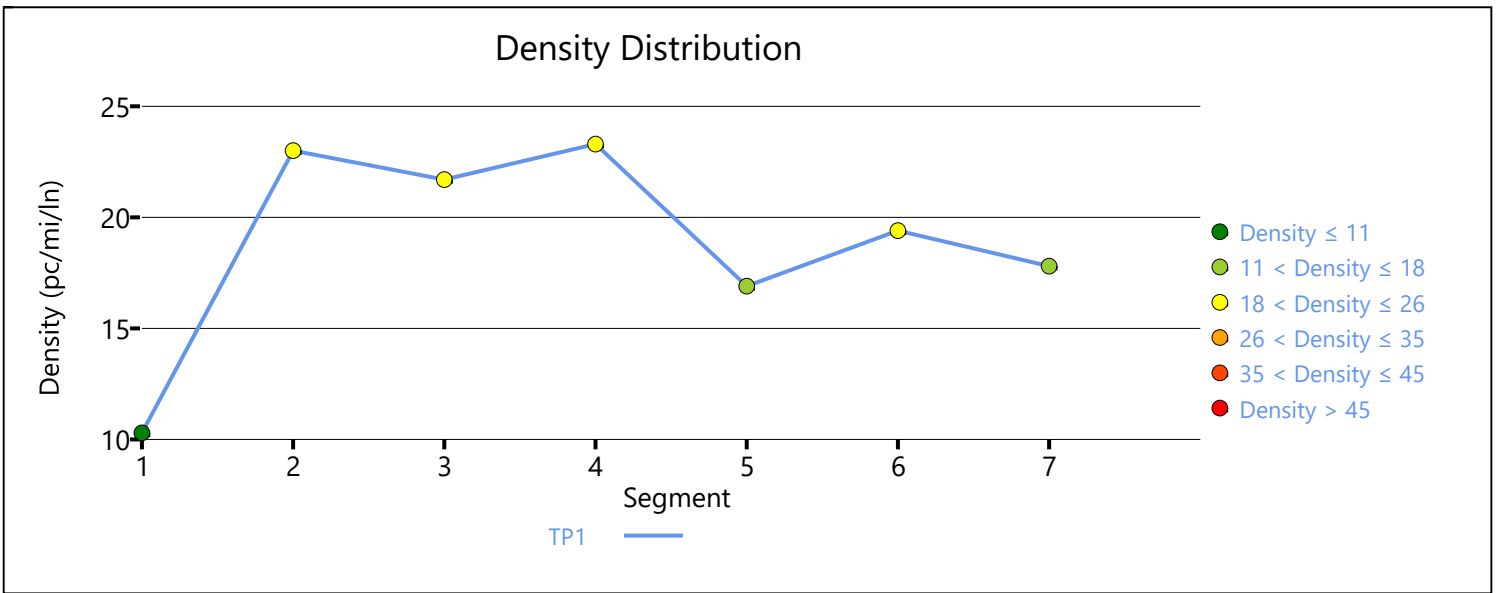
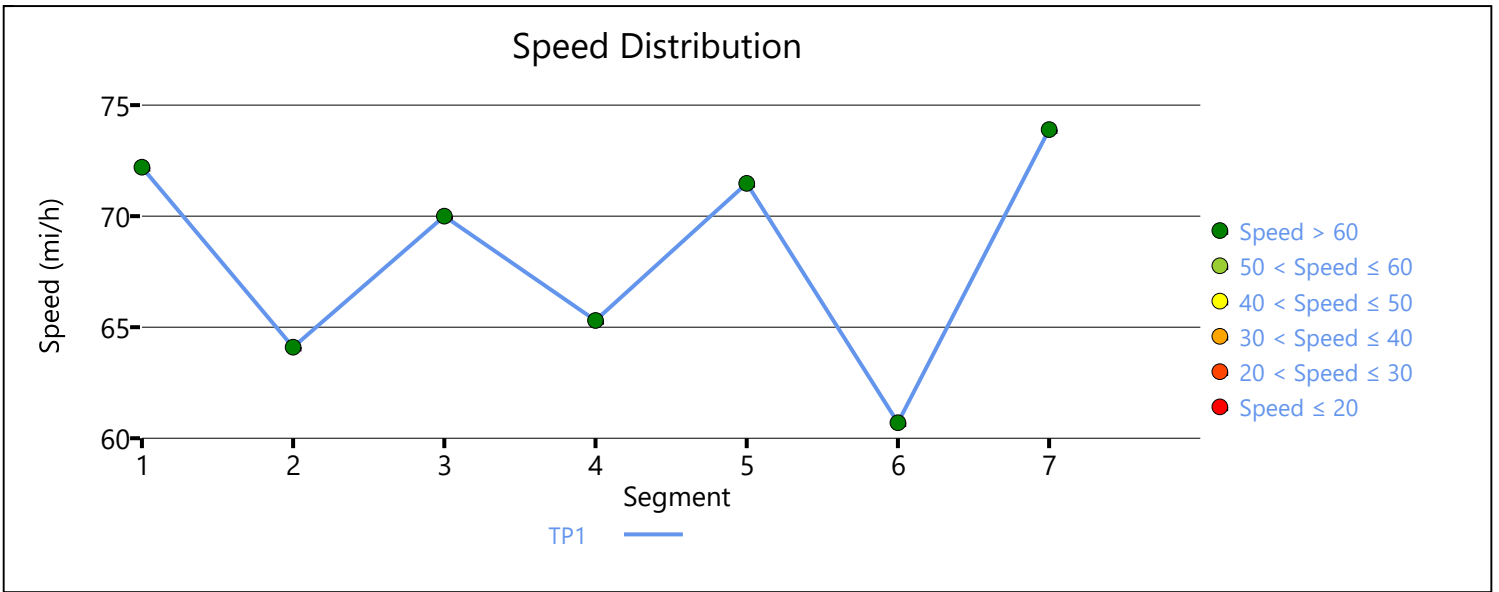
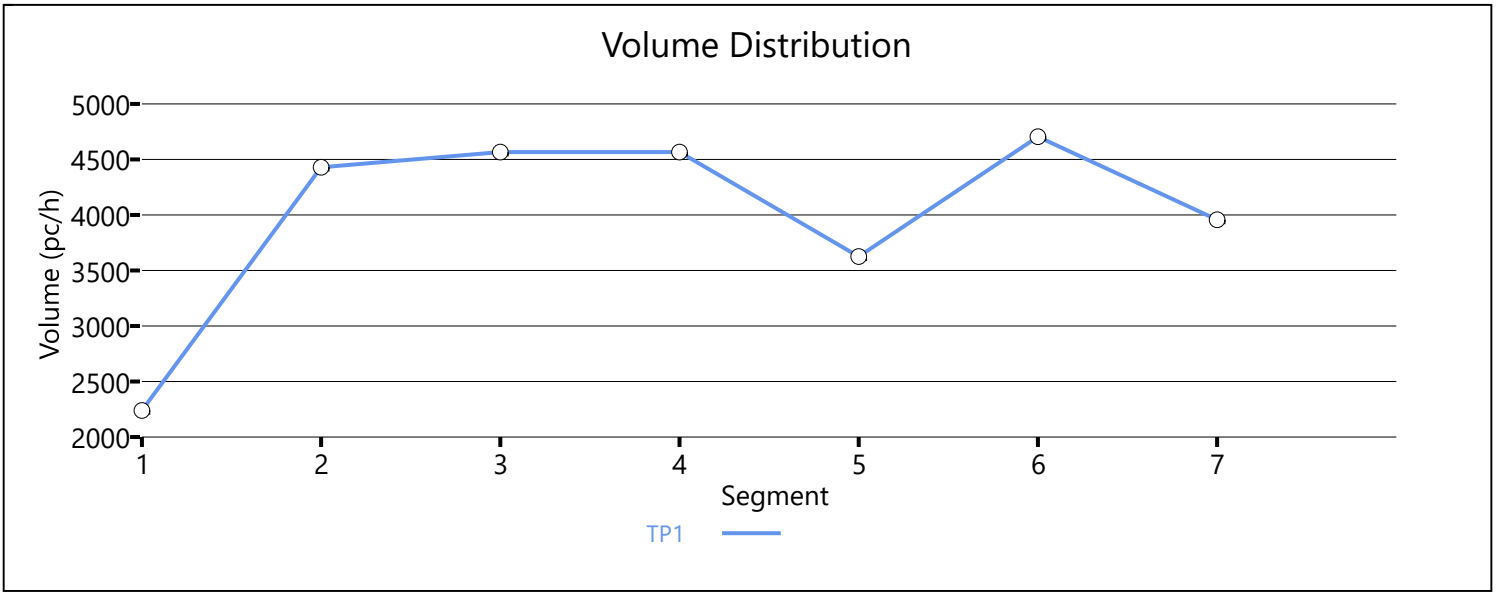
Segment 5: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.909		3211		7200		0.45		71.8		14.9		B
Segment 6: Diverge															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.966	3211	1374	7200	2200	0.45	0.62	68.5	65.4	15.6	18.2	B
Segment 7: Basic															
Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
1	0.95		0.909		1751		7200		0.24		72.2		8.1		A
Facility Time Period Results															
T	Speed, mi/h			Density, pc/mi/ln			Density, veh/mi/ln			Travel Time, min			LOS		
1	69.5			13.3			11.9			4.20			B		
Facility Overall Results															
Space Mean Speed, mi/h				69.5				Density, veh/mi/ln				11.9			
Average Travel Time, min				4.20				Density, pc/mi/ln				13.3			
Messages															
INFORMATION 1				Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 2				Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 3				Trucks for segment 7 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
Comments															





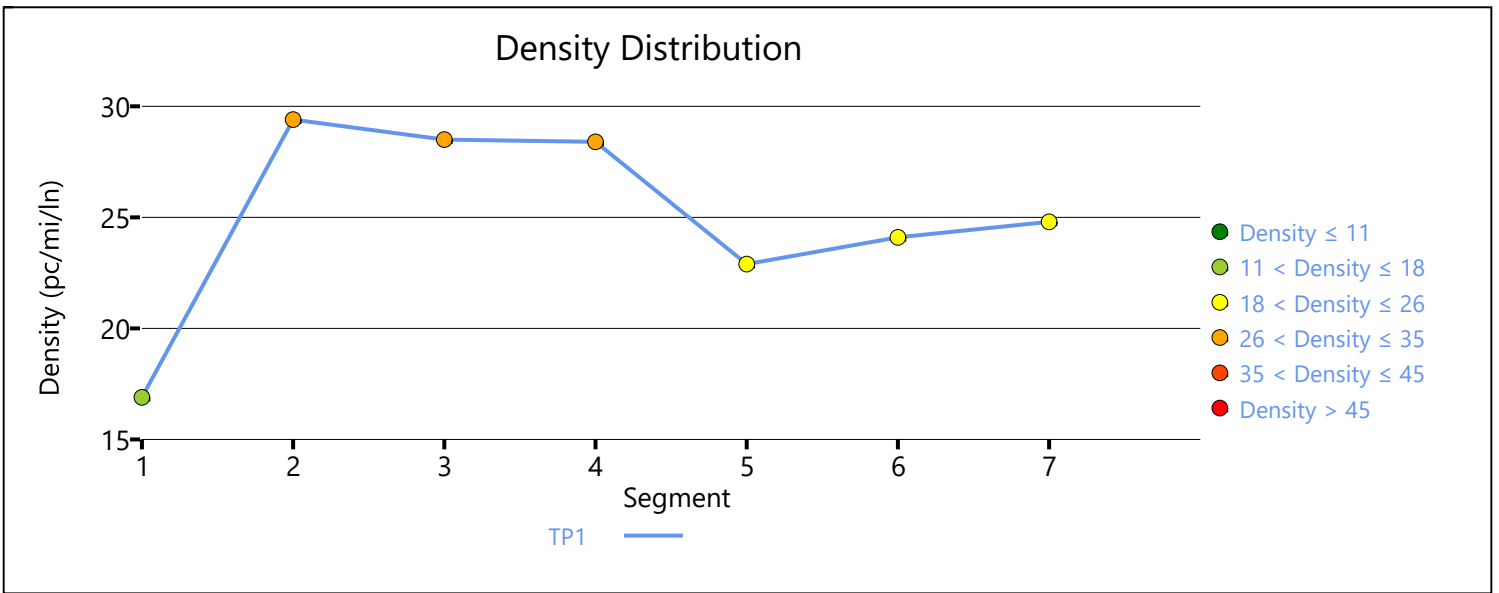
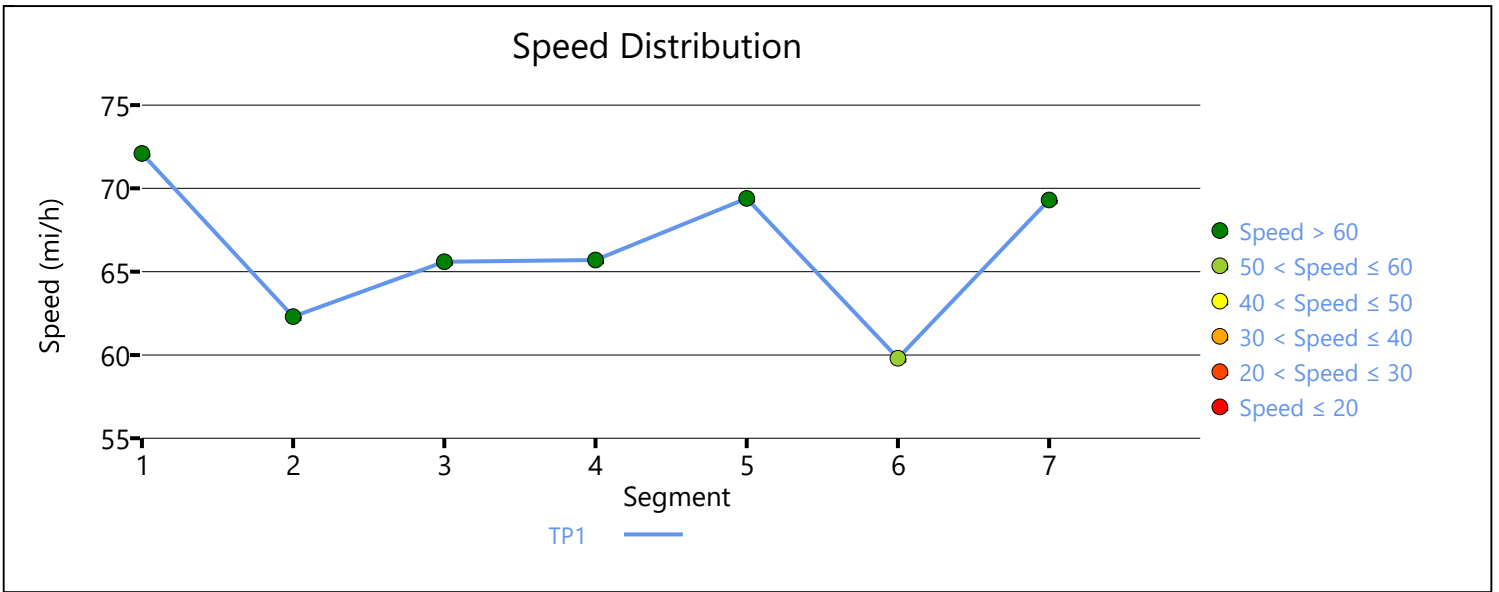
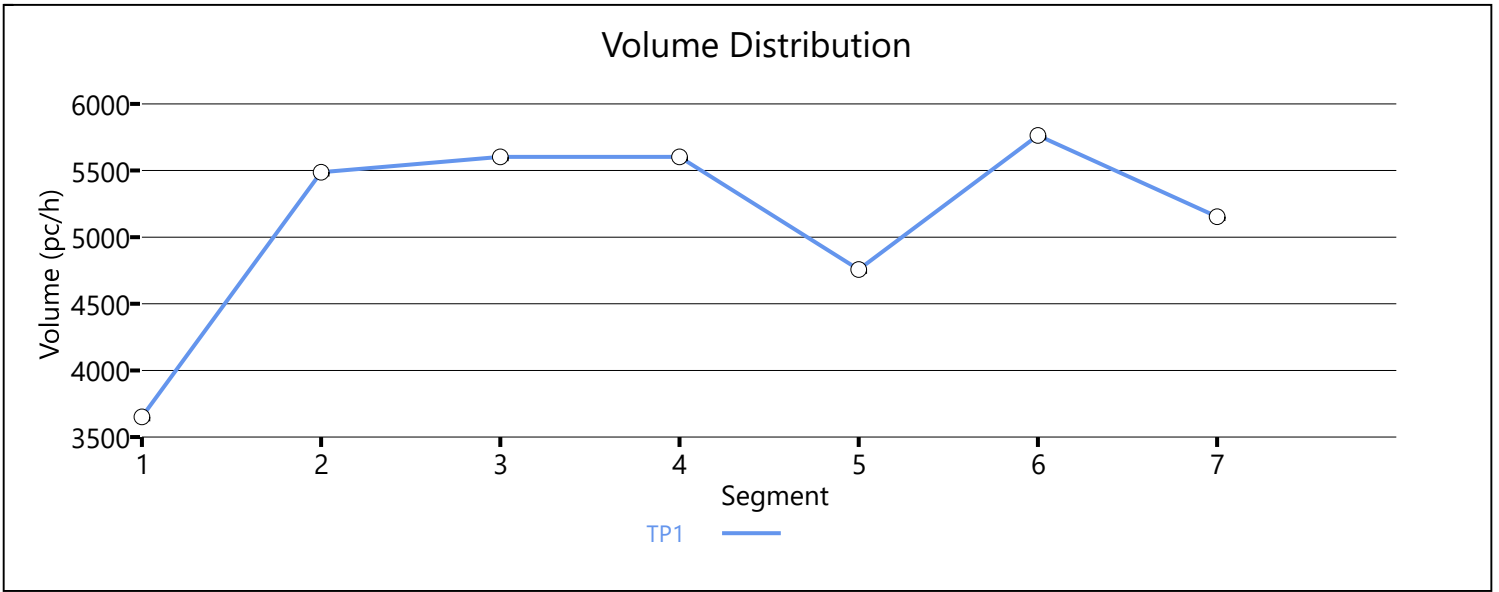


1	0.95	0.95	0.909	0.851	4566	1004	7200	2000	0.63	0.50	65.3	60.1	23.3	22.3	C	
<b>Segment 5: Basic</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	3626	7200	0.50	71.5	16.9	B								
<b>Segment 6: Weaving</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	4704	8362	0.56	60.7	19.4	B								
<b>Segment 7: Basic</b>																
Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS								
1	0.95	0.909	3956	7200	0.55	73.9	17.8	B								
<b>Facility Time Period Results</b>																
T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS											
1	67.7	18.1	16.3	4.20	C											
<b>Facility Overall Results</b>																
Space Mean Speed, mi/h				67.7	Density, veh/mi/ln				16.3							
Average Travel Time, min				4.20	Density, pc/mi/ln				18.1							
<b>Messages</b>																
INFORMATION 1				Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 2				Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 3				Trucks for segment 6 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.												
INFORMATION 4				Density for segment 2 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.												
INFORMATION 5				Density for segment 7 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.												
<b>Comments</b>																





1	0.95	0.95	0.909	0.851	5602	903	7200	2000	0.78	0.45	65.7	60.3	28.4	26.4	C
Segment 5: Basic															
Time Period	PHF	fHV	Flow Rate (pc/h)			Capacity (pc/h)		d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)			LOS		
1	0.95	0.909	4757			7200		0.66	69.4	22.9			C		
Segment 6: Weaving															
Time Period	PHF	fHV	Flow Rate (pc/h)			Capacity (pc/h)		d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)			LOS		
1	0.95	0.909	5763			9212		0.63	59.8	24.1			C		
Segment 7: Basic															
Time Period	PHF	fHV	Flow Rate (pc/h)			Capacity (pc/h)		d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)			LOS		
1	0.95	0.909	5153			7200		0.72	69.3	24.8			C		
Facility Time Period Results															
T	Speed, mi/h		Density, pc/mi/ln			Density, veh/mi/ln		Travel Time, min			LOS				
1	65.7		24.2			21.8		4.30			C				
Facility Overall Results															
Space Mean Speed, mi/h				65.7				Density, veh/mi/ln				21.8			
Average Travel Time, min				4.30				Density, pc/mi/ln				24.2			
Messages															
INFORMATION 1				Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
INFORMATION 2				Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.											
Comments															



# HCS7 Freeway Facilities Report

## Project Information

Analyst	SK	Date	9/5/2019
Agency	FDOT D-5	Analysis Year	2045 Build
Jurisdiction	Brevard County	Time Period Analyzed	AM Peak Hour_NB
Project Description	I-95/SR 524 IMR		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	4.92		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-95 Btw SR 520 Off-Ramp & SR 520 On-Ramp	2200	3
2	Weaving	Weaving	I-95 Btw SR 520 On-Ramp & SR 524 Off-Ramp	4500	4
3	Basic	Basic	I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	2200	3
4	Merge	Merge	SR 524 On-ramp	1500	3
5	Basic	Basic	I-95 Btw SR 524 On-Ramp & SR 528 Off-Ramp	8800	3
6	Diverge	Diverge	SR 528 Off-ramp	1500	3
7	Basic	Basic	I-95 Btw SR 528 Off-Ramp & SR 528 On-Ramp	5280	3

## Facility Segment Data

### Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	5153	7200	0.72	68.3	25.2	C

### Segment 2: Weaving

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	5765	9144	0.63	59.1	24.4	C

### Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	4862	7200	0.68	69.0	23.5	C

### Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.851	5685	823	7200	2000	0.79	0.41	64.6	62.2	29.3	26.2	C



### Segment 5: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	5633	7200	0.78	65.4	28.7	D

### Segment 6: Diverge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.966	5633	1836	7200	2200	0.78	0.83	68.1	64.0	27.6	29.9	D

### Segment 7: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	3681	7200	0.51	72.0	17.0	B

### Facility Time Period Results

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	65.5	24.8	22.3	4.50	C

### Facility Overall Results

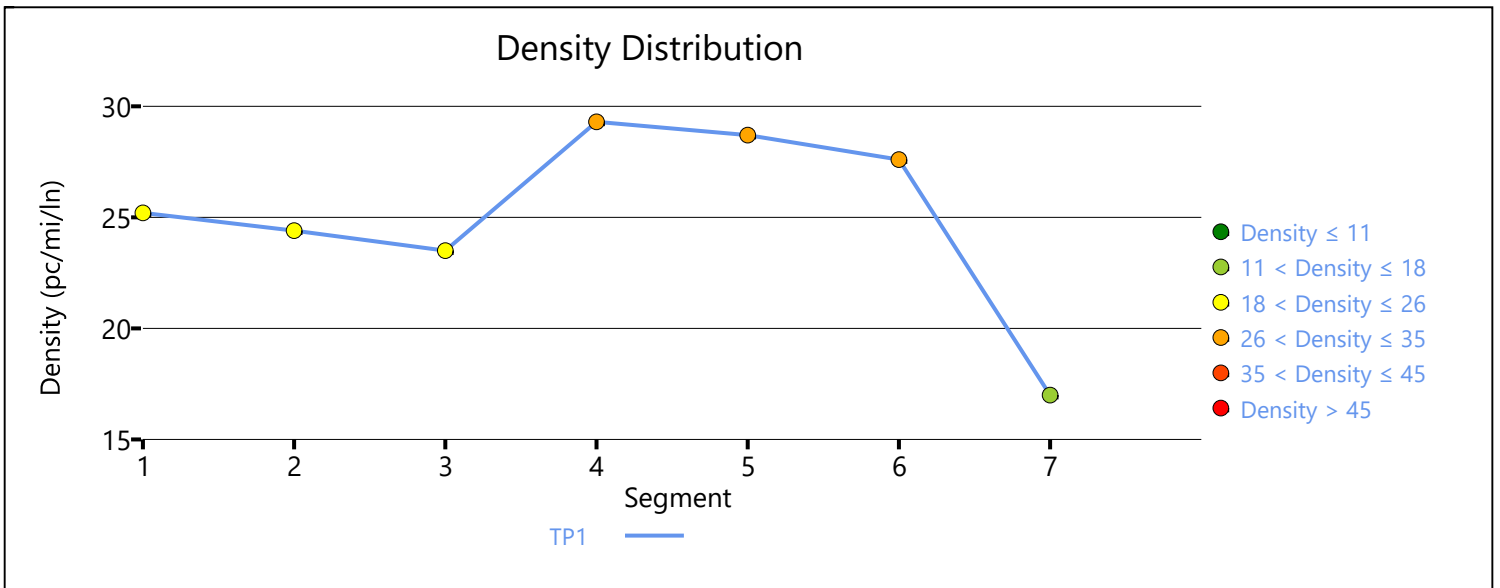
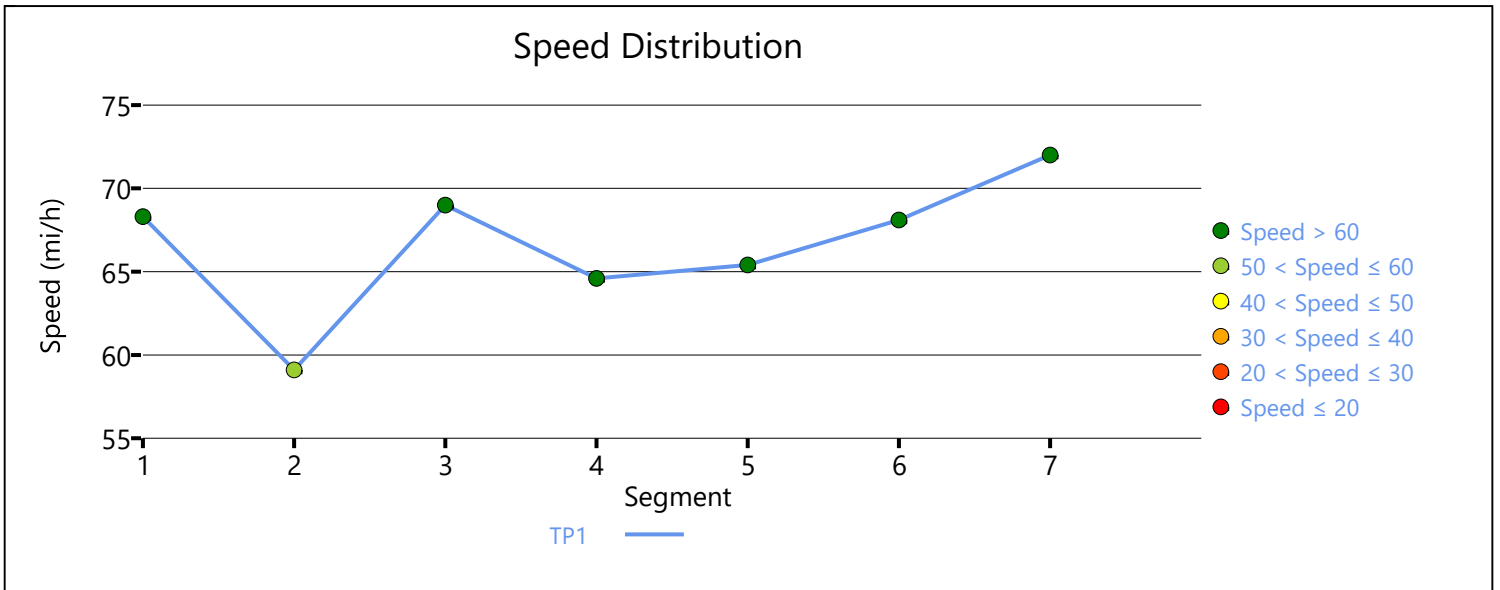
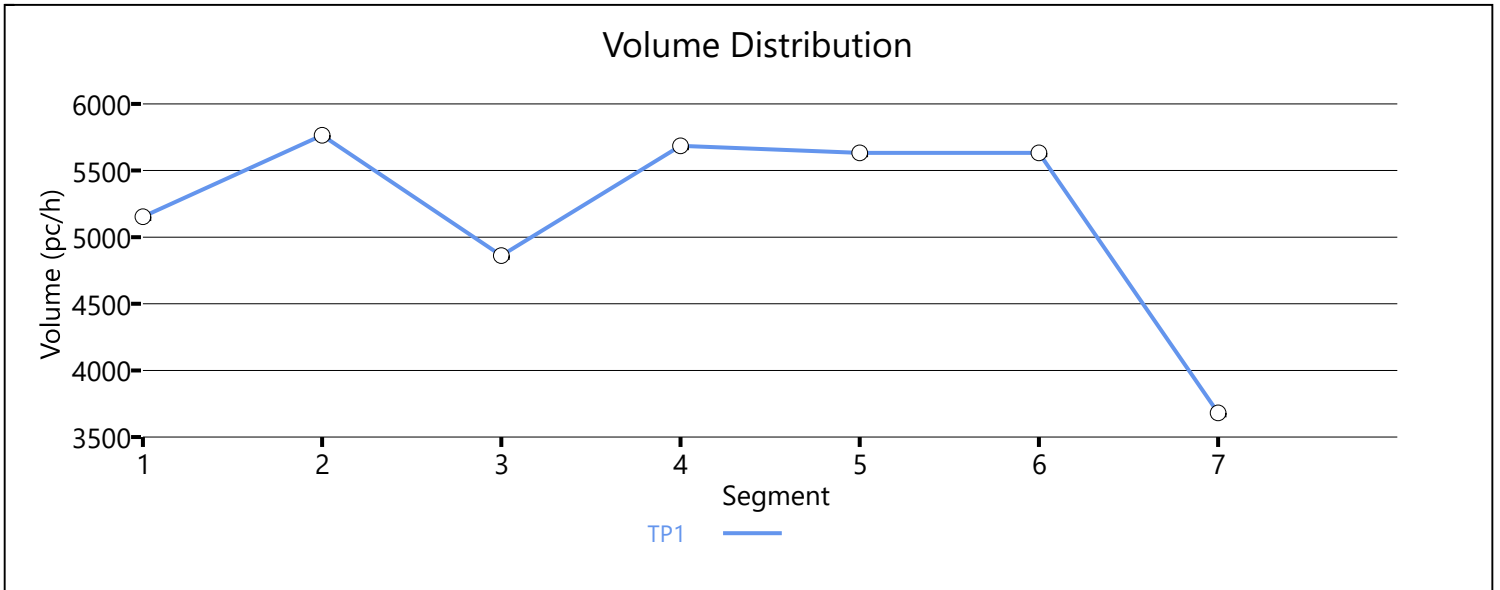
Space Mean Speed, mi/h	65.5	Density, veh/mi/ln	22.3
Average Travel Time, min	4.50	Density, pc/mi/ln	24.8

### Messages

INFORMATION 1	Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.
INFORMATION 2	Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.
INFORMATION 3	Trucks for segment 7 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.

### Comments

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## HCS7 Freeway Facilities Report

## Project Information

Analyst	SK	Date	9/5/2019
Agency	FDOT D-5	Analysis Year	2045 Build
Jurisdiction	Brevard County	Time Period Analyzed	PM Peak Hour_NB
Project Description	I-95/SR 524 IMR		

## Facility Global Input

Jam Density, pc/mi/ln	190.0	Density at Capacity, pc/mi/ln	45.0
Queue Discharge Capacity Drop, %	7	Total Segments	7
Total Time Periods	1	Time Period Duration, min	15
Facility Length, mi	4.92		

## Facility Segment Data

No.	Coded	Analyzed	Name	Length, ft	Lanes
1	Basic	Basic	I-95 Btw SR 520 Off-Ramp & SR 520 On-Ramp	2200	3
2	Weaving	Weaving	I-95 Btw SR 520 On-Ramp & SR 524 Off-Ramp	4500	4
3	Basic	Basic	I-95 Btw SR 524 Off-ramp and SR 524 On-Ramp	2200	3
4	Merge	Merge	SR 524 On-ramp	1500	3
5	Basic	Basic	I-95 Btw SR 524 On-Ramp & SR 528 Off-Ramp	8800	3
6	Diverge	Diverge	SR 528 Off-ramp	1500	3
7	Basic	Basic	I-95 Btw SR 528 Off-Ramp & SR 528 On-Ramp	5280	3

## Facility Segment Data

## Segment 1: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	3956	7200	0.55	72.1	18.3	C

## Segment 2: Weaving

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	4702	6779	0.69	59.3	19.8	B

## Segment 3: Basic

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	3571	7200	0.50	71.7	16.6	B

## Segment 4: Merge

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.851	4499	928	7200	2000	0.62	0.46	67.1	65.2	22.3	20.8	C

**Segment 5: Basic**

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	4440	7200	0.62	70.4	21.0	C

**Segment 6: Diverge**

Time Period	PHF		fHV		Flow Rate (pc/h)		Capacity (pc/h)		d/c Ratio		Speed (mi/h)		Density (pc/mi/ln)		LOS
	F	R	F	R	Freeway	Ramp	Freeway	Ramp	F	R	F	R	Freeway	Ramp	
1	0.95	0.95	0.909	0.966	4440	2189	7200	2200	0.62	1.00	66.6	63.0	22.2	26.0	C

**Segment 7: Basic**

Time Period	PHF	fHV	Flow Rate (pc/h)	Capacity (pc/h)	d/c Ratio	Speed (mi/h)	Density (pc/mi/ln)	LOS
1	0.95	0.909	2113	7200	0.29	72.2	9.8	A

**Facility Time Period Results**

T	Speed, mi/h	Density, pc/mi/ln	Density, veh/mi/ln	Travel Time, min	LOS
1	67.7	18.2	16.3	4.40	C

**Facility Overall Results**

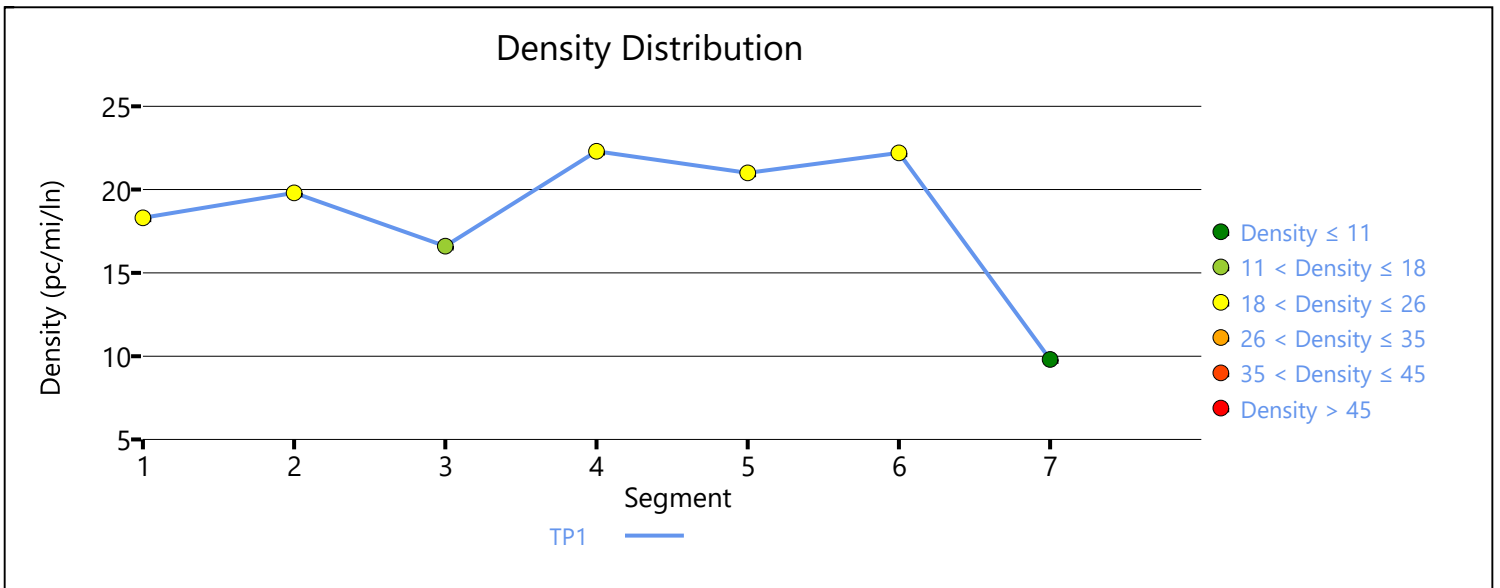
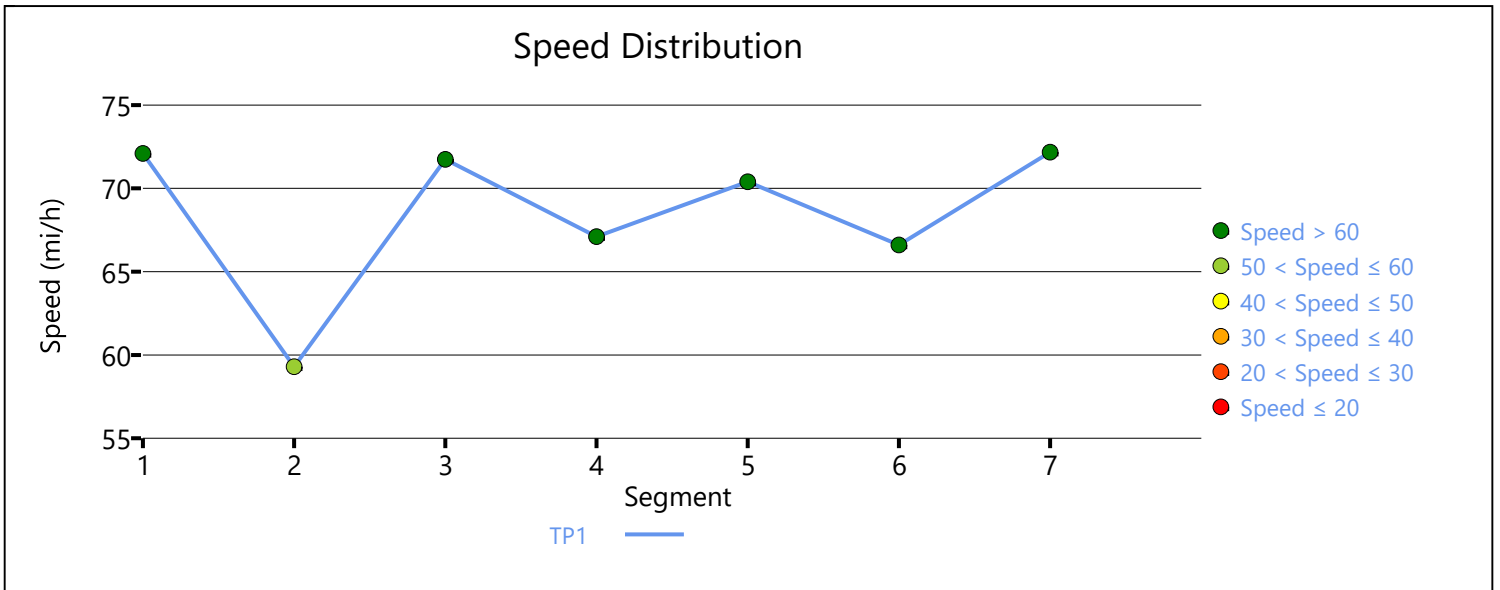
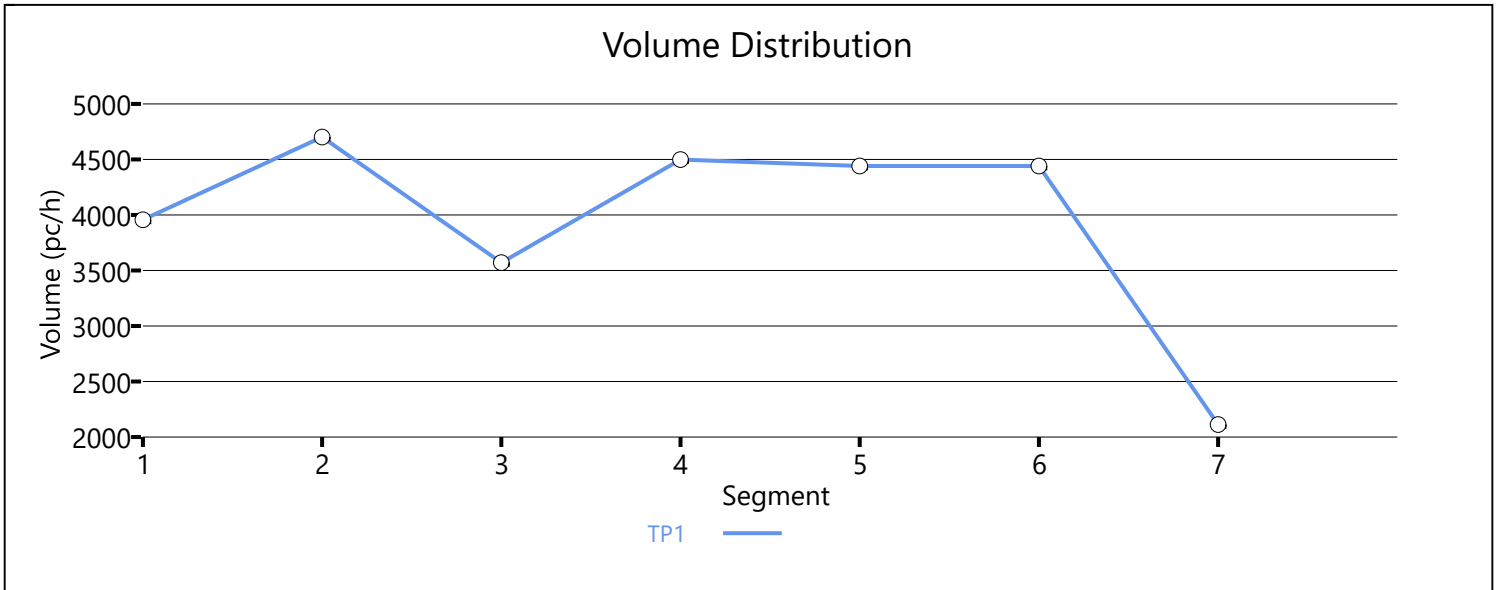
Space Mean Speed, mi/h	67.7	Density, veh/mi/ln	16.3
Average Travel Time, min	4.40	Density, pc/mi/ln	18.2

**Messages**

INFORMATION 1	Trucks for segment 3 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.
INFORMATION 2	Trucks for segment 5 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.
INFORMATION 3	Trucks for segment 7 in time period 1 larger/smaller than the number of trucks upstream. Please verify truck percentages.
INFORMATION 4	Density for segment 1 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.
INFORMATION 5	Density for segment 2 in time period 1 is within 0.5 pc/mi/ln of LOS boundary. Be cautious when comparing LOS results.

**Comments**

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# **Appendix N**

Crash Data Information

Safety Analysis Worksheets

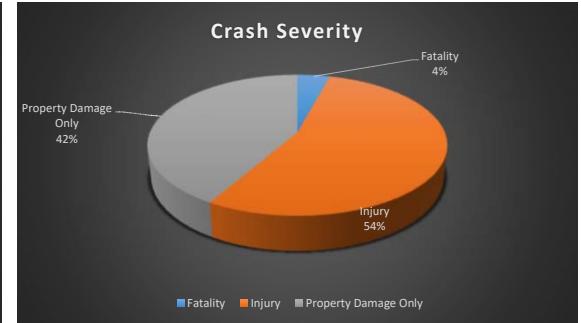
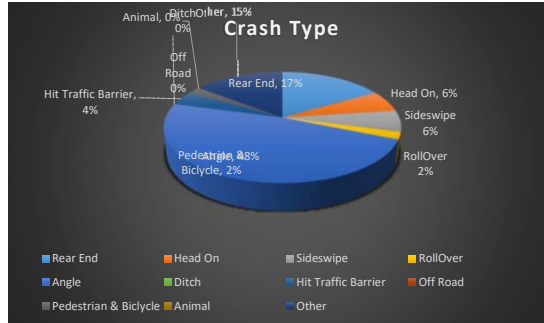
### Crash Data Summary - SR 524 b/w S. Friday Rd & N. Friday Rd

No.	Crash ID	Date	Day	Year	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	831386090	2/13/2014	Friday	2014	Other	Injury	0	2	\$0	Unknown	Dry
2	831393670	9/11/2014	Saturday	2014	Unknown	Injury	0	1	\$0	Unknown	Unknown
3	831396280	11/27/2014	Sunday	2014	Angle	Injury	0	1	\$0	Daylight	Dry
4	831398710	2/13/2015	Monday	2015	Other	Property Damage Only	0	0	\$0	Dark-Not Lighted	Dry
5	831410840	1/6/2016	Tuesday	2016	Angle	Injury	0	2	\$0	Daylight	Wet
6	864149960	4/27/2016	Wednesday	2016	Angle	Fatality	1	1	\$500	Daylight	Dry
7	864151290	6/1/2016	Thursday	2016	Head on	Property Damage Only	0	0	\$0	Daylight	Dry
8	864154110	7/27/2016	Friday	2016	Angle	Fatality	1	2	\$0	Daylight	Dry
9	864158430	11/8/2016	Saturday	2016	Angle	Injury	0	2	\$0	Daylight	Dry
10	867989510	9/23/2017	Sunday	2017	Angle	Injury	0	2	\$0	Daylight	Wet
11	886431260	9/11/2018	Monday	2018	Head on	Property Damage Only	0	0	\$0	Daylight	Dry
12	831406590	9/30/2015	Friday	2015	Angle	Property Damage Only	0	0	\$0	Daylight	Dry
13	864151450	6/2/2016	Sunday	2016	Pedestrian	Injury	0	1	\$200	Dark-Not Lighted	Dry
14	871717720	1/28/2018	Monday	2018	Rear End	Property Damage Only	0	0	\$500	Daylight	Dry
15	831399130	3/2/2015	Wednesday	2015	Angle	Injury	0	2	\$0	Daylight	Dry
16	831405750	9/11/2015	Thursday	2015	Angle	Property Damage Only	0	0	\$0	Daylight	Dry
17	867769100	11/25/2016	Friday	2016	Sideswipe	Injury	0	2	\$0	Daylight	Dry
18	867983610	3/30/2017	Saturday	2017	Angle	Injury	0	3	\$0	Daylight	Dry
19	844943180	10/28/2014	Sunday	2014	Hit Traffic Barrier	Property Damage Only	0	0	\$100	Daylight	Dry
20	864149260	4/5/2016	Monday	2016	Rear End	Injury	0	1	\$0	Daylight	Dry
21	864152920	6/27/2016	Tuesday	2016	Sideswipe	Injury	0	1	\$0	Daylight	Dry
22	831391850	7/20/2014	Wednesday	2014	Angle	Property Damage Only	0	0	\$0	Daylight	Dry
23	844330990	12/15/2015	Thursday	2015	Other	Property Damage Only	0	0	\$400	Dusk	Dry
24	864151100	5/25/2016	Friday	2016	Angle	Injury	0	1	\$0	Daylight	Dry
25	867985080	5/8/2017	Saturday	2017	Angle	Property Damage Only	0	0	\$0	Daylight	Dry
26	867990440	10/17/2017	Sunday	2017	Angle	Injury	0	3	\$0	Daylight	Dry
27	867990590	10/22/2017	Monday	2017	Angle	Property Damage Only	0	0	\$0	Dark-Lighted	Dry
28	831407610	10/22/2015	Thursday	2015	Rear End	Injury	0	1	\$0	Daylight	Dry
29	880204300	11/5/2018	Wednesday	2018	RollOver	Injury	0	1	\$0	Daylight	Dry
30	831398510	2/6/2015	Thursday	2015	Hit Traffic Barrier	Injury	0	1	\$500	Daylight	Dry
31	831400580	4/15/2015	Friday	2015	Angle	Property Damage Only	0	0	\$0	Dusk	Dry
32	831395370	10/25/2014	Saturday	2014	Other	Injury	0	1	\$100	Daylight	Dry
33	886431980	10/3/2018	Sunday	2018	Rear End	Injury	0	1	\$500	Daylight	Wet
34	886429490	7/30/2018	Monday	2018	Rear End	Injury	0	1	\$0	Daylight	Wet
35	831386310	2/18/2014	Tuesday	2014	Angle	Property Damage Only	0	0	\$500	Daylight	Dry
36	831390490	6/6/2014	Wednesday	2014	Angle	Property Damage Only	0	0	\$0	Dark-Not Lighted	Dry
37	831399350	3/9/2015	Friday	2015	Rear End	Property Damage Only	0	0	\$500	Daylight	Dry
38	831404310	7/30/2015	Saturday	2015	Other	Injury	0	2	\$0	Daylight	Dry
39	831406180	9/20/2015	Sunday	2015	Angle	Injury	0	1	\$0	Daylight	Dry
40	867981800	2/3/2017	Tuesday	2017	Angle	Injury	0	1	\$0	Daylight	Dry
41	867990230	10/9/2017	Thursday	2017	Angle	Injury	0	1	\$0	Daylight	Dry
42	875908780	2/20/2018	Friday	2018	Other	Injury	0	1	\$0	Daylight	Dry
43	875914080	7/6/2018	Saturday	2018	Rear End	Property Damage Only	0	0	\$0	Daylight	Dry
44	875908420	2/15/2018	Sunday	2018	Head on	Injury	0	1	\$1	Dark-Lighted	Dry
45	831395510	10/29/2014	Monday	2014	Angle	Property Damage Only	0	0	\$0	Daylight	Dry
46	886432460	10/8/2018	Tuesday	2018	Sideswipe	Property Damage Only	0	0	\$500	Daylight	Dry
47	854259650	11/20/2016	Wednesday	2016	Rear End	Property Damage Only	0	0	\$500	Dark-Not Lighted	Dry
48	855241130	5/14/2017	Thursday	2017	Angle	Property Damage Only	0	0	\$500	Daylight	Dry

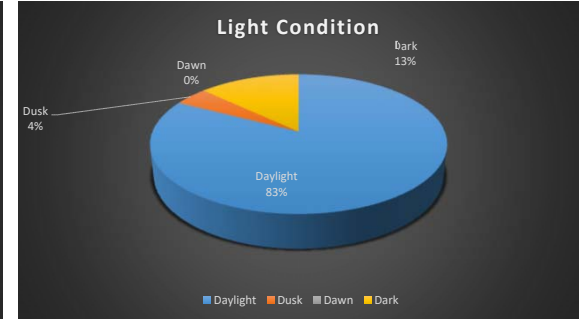
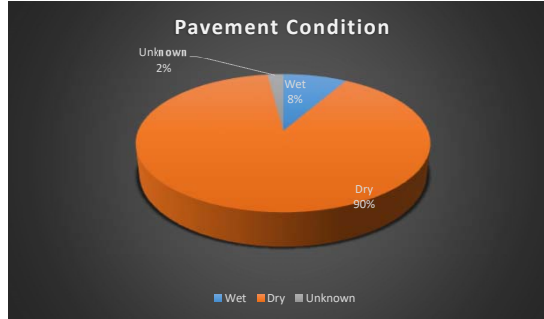
# Crash Data Summary - SR 524 b/w S. Friday Rd & N. Friday Rd

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	2	2	0	4	8	17%
Head On	0	0	1	0	2	3	6%
Sideswipe	0	0	2	0	1	3	6%
RollOver	0	0	0	0	1	1	2%
Angle	5	5	5	8	0	23	48%
Ditch	0	0	0	0	0	0	0%
Hit Traffic Barrier	1	1	0	0	0	2	4%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	1	0	0	1	2%
Animal	0	0	0	0	0	0	0%
Other	3	3	0	0	1	7	15%
<b>Total</b>	<b>9</b>	<b>11</b>	<b>11</b>	<b>8</b>	<b>9</b>	<b>48</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	2	0	0	2	4%
Injury	4	5	7	5	5	26	54%
Property Damage Only	5	6	2	3	4	20	42%
<b>Total</b>	<b>9</b>	<b>11</b>	<b>11</b>	<b>8</b>	<b>9</b>	<b>48</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	0	0	1	1	2	4	8%
Dry	8	11	10	7	7	43	90%
Unknown	1	0	0	0	0	1	2%
<b>Total</b>	<b>9</b>	<b>11</b>	<b>11</b>	<b>8</b>	<b>9</b>	<b>48</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	6	8	9	7	8	38	79%
Dusk	0	2	0	0	0	2	4%
Dawn	0	0	0	0	0	0	0%
Dark	1	1	2	1	1	6	13%
<b>Total</b>	<b>7</b>	<b>11</b>	<b>11</b>	<b>8</b>	<b>9</b>	<b>46</b>	<b>96%</b>



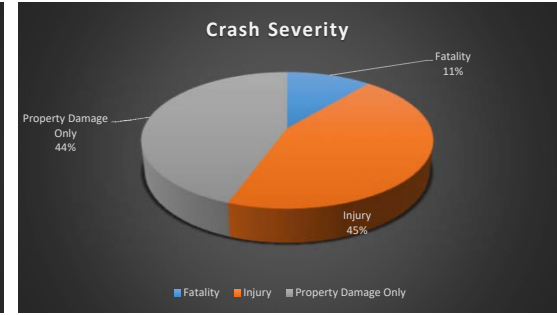
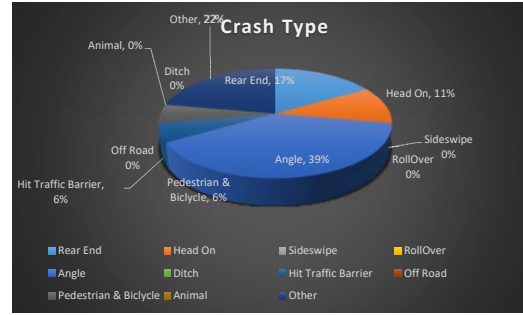
## Crash Data Summary - SR 524 & I-95 SB Ramp Terminal

No.	Crash ID	Date	Day	Year	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	831386090	2/13/2014	Friday	2014	Other	Injury	0	2	\$0	Unknown	Dry
2	831393670	9/11/2014	Saturday	2014	Unknown	Injury	0	1	\$0	Unknown	Unknown
3	831396280	11/27/2014	Sunday	2014	Angle	Injury	0	1	\$0	Daylight	Dry
4	831398710	2/13/2015	Monday	2015	Other	Property Damage Only	0	0	\$0	Dark-Not Lighted	Dry
5	831410840	1/6/2016	Tuesday	2016	Angle	Injury	0	2	\$0	Daylight	Wet
6	864149960	4/27/2016	Wednesday	2016	Angle	Fatality	1	1	\$500	Daylight	Dry
7	864151290	6/1/2016	Thursday	2016	Head on	Property Damage Only	0	0	\$0	Daylight	Dry
8	864154110	7/27/2016	Friday	2016	Angle	Fatality	1	2	\$0	Daylight	Dry
9	864158430	11/8/2016	Saturday	2016	Angle	Injury	0	2	\$0	Daylight	Dry
10	867989510	9/23/2017	Sunday	2017	Angle	Injury	0	2	\$0	Daylight	Wet
11	886431260	9/11/2018	Monday	2018	Head on	Property Damage Only	0	0	\$0	Daylight	Dry
12	871674630	7/11/2018	Tuesday	2018	Rear End	Injury	0	1	\$0	Daylight	Dry
13	867769000	11/21/2016	Wednesday	2016	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Dark-Not Lighted	Dry
14	867769040	11/23/2016	Thursday	2016	Rear End	Property Damage Only	0	0	\$800	Daylight	Dry
15	831406590	9/30/2015	Friday	2015	Angle	Property Damage Only	0	0	\$0	Daylight	Dry
16	864151970	6/18/2016	Saturday	2016	Other	Property Damage Only	0	0	\$2	er (Explain In Narr	Wet
17	864151450	6/2/2016	Sunday	2016	Pedestrian	Injury	0	1	\$200	Dark-Not Lighted	Dry
18	871717720	1/28/2018	Monday	2018	Rear End	Property Damage Only	0	0	\$500	Daylight	Dry

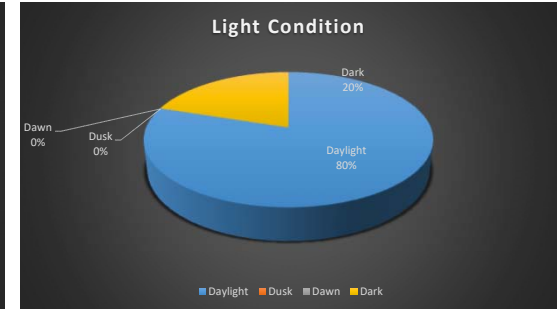
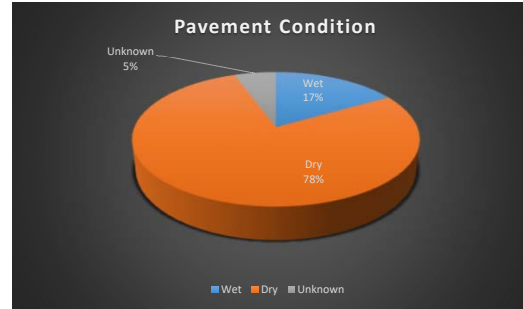
# Crash Data Summary - SR 524 & I-95 SB Ramp Terminal

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	0	1	0	2	3	17%
Head On	0	0	1	0	1	2	11%
Sideswipe	0	0	0	0	0	0	0%
RollOver	0	0	0	0	0	0	0%
Angle	1	1	4	1	0	7	39%
Ditch	0	0	0	0	0	0	0%
Hit Traffic Barrier	0	0	1	0	0	1	6%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	1	0	0	1	6%
Animal	0	0	0	0	0	0	0%
Other	2	1	1	0	0	4	22%
<b>Total</b>	<b>3</b>	<b>2</b>	<b>9</b>	<b>1</b>	<b>3</b>	<b>18</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	2	0	0	2	11%
Injury	3	0	3	1	1	8	44%
Property Damage Only	0	2	4	0	2	8	44%
<b>Total</b>	<b>3</b>	<b>2</b>	<b>9</b>	<b>1</b>	<b>3</b>	<b>18</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	0	0	2	1	0	3	17%
Dry	2	2	7	0	3	14	78%
Unknown	1	0	0	0	0	1	6%
<b>Total</b>	<b>3</b>	<b>2</b>	<b>9</b>	<b>1</b>	<b>3</b>	<b>18</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	1	1	6	1	3	12	67%
Dusk	0	0	0	0	0	0	0%
Dawn	0	0	0	0	0	0	0%
Dark	0	1	2	0	0	3	17%
<b>Total</b>	<b>1</b>	<b>2</b>	<b>8</b>	<b>1</b>	<b>3</b>	<b>15</b>	<b>83%</b>

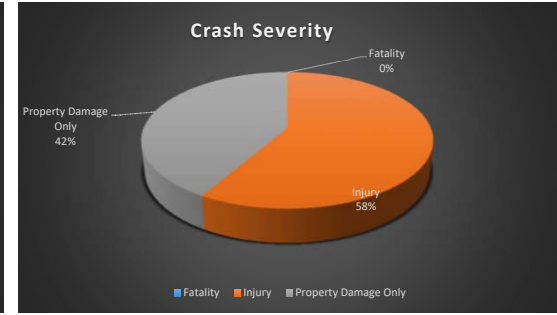
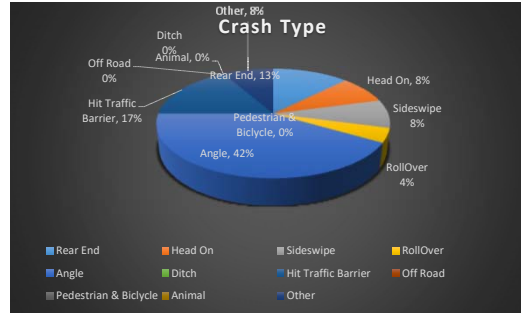
## Crash Data Summary - SR 524 & I-95 NB Ramp Terminal

No.	Crash ID	Date	Day	Year	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	837291980	2/6/2014	Friday	2014	Hit Traffic Barrier	Injury	0	1	\$0	Dark-Not Lighted	Dry
2	831399130	3/2/2015	Saturday	2015	Angle	Injury	0	2	\$0	Daylight	Dry
3	831405750	9/11/2015	Sunday	2015	Angle	Property Damage Only	0	0	\$0	Daylight	Dry
4	867769100	11/25/2016	Monday	2016	Sideswipe	Injury	0	2	\$0	Daylight	Dry
5	867983610	3/30/2017	Tuesday	2017	Angle	Injury	0	3	\$0	Daylight	Dry
6	844943180	10/28/2014	Wednesday	2014	Hit Traffic Barrier	Property Damage Only	0	0	\$100	Daylight	Dry
7	864149260	4/5/2016	Thursday	2016	Rear End	Injury	0	1	\$0	Daylight	Dry
8	864152920	6/27/2016	Friday	2016	Sideswipe	Injury	0	1	\$0	Daylight	Dry
9	831391850	7/20/2014	Saturday	2014	Angle	Property Damage Only	0	0	\$0	Daylight	Dry
10	844330990	12/15/2015	Sunday	2015	Other	Property Damage Only	0	0	\$400	Dusk	Dry
11	864151100	5/25/2016	Monday	2016	Angle	Injury	0	1	\$0	Daylight	Dry
12	867985080	5/8/2017	Tuesday	2017	Angle	Property Damage Only	0	0	\$0	Daylight	Dry
13	867990440	10/17/2017	Wednesday	2017	Angle	Injury	0	3	\$0	Daylight	Dry
14	867990590	10/22/2017	Thursday	2017	Angle	Property Damage Only	0	0	\$0	Dark-Lighted	Dry
15	845391290	12/8/2014	Friday	2014	Hit Traffic Barrier	Property Damage Only	0	0	\$110	Daylight	Wet
16	867769290	12/1/2016	Saturday	2016	Angle	Injury	0	1	\$0	Daylight	Dry
17	831407610	10/22/2015	Sunday	2015	Rear End	Injury	0	1	\$0	Daylight	Dry
18	831413710	3/17/2016	Monday	2016	Head on	Property Damage Only	0	0	\$0	Daylight	Dry
19	864151600	6/7/2016	Tuesday	2016	Angle	Property Damage Only	0	0	\$0	Dawn	Wet
20	854690650	4/6/2017	Wednesday	2017	Other	Property Damage Only	0	0	\$0	Daylight	Wet
21	867770490	1/3/2017	Thursday	2017	Rear End	Injury	0	1	\$0	Daylight	Dry
22	867990130	10/10/2017	Friday	2017	Head on	Injury	0	1	\$0	Daylight	Dry
23	880204300	11/5/2018	Saturday	2018	RollOver	Injury	0	1	\$0	Daylight	Dry
24	831398510	2/6/2015	Sunday	2015	Hit Traffic Barrier	Injury	0	1	\$500	Daylight	Dry

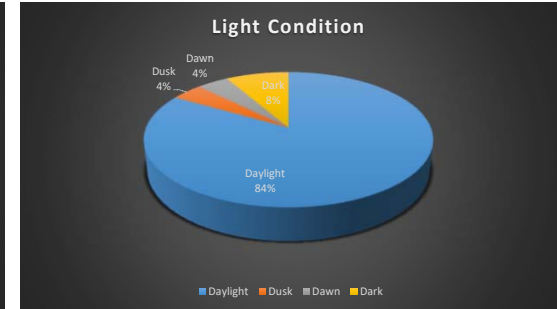
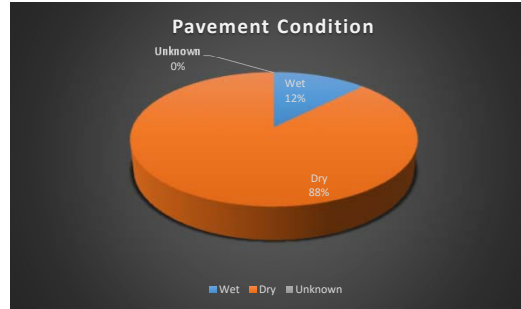
# Crash Data Summary - SR 524 & I-95 NB Ramp Terminal

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	1	1	1	0	3	13%
Head On	0	0	1	1	0	2	8%
Sideswipe	0	0	2	0	0	2	8%
RollOver	0	0	0	0	1	1	4%
Angle	1	2	3	4	0	10	42%
Ditch	0	0	0	0	0	0	0%
Hit Traffic Barrier	3	1	0	0	0	4	17%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	0	0	0	0	0%
Animal	0	0	0	0	0	0	0%
Other	0	1	0	1	0	2	8%
<b>Total</b>	<b>4</b>	<b>5</b>	<b>7</b>	<b>7</b>	<b>1</b>	<b>24</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	1	3	5	4	1	14	58%
Property Damage Only	3	2	2	3	0	10	42%
<b>Total</b>	<b>4</b>	<b>5</b>	<b>7</b>	<b>7</b>	<b>1</b>	<b>24</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	1	0	1	1	0	3	13%
Dry	3	5	6	6	1	21	88%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>4</b>	<b>5</b>	<b>7</b>	<b>7</b>	<b>1</b>	<b>24</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	3	4	6	6	1	20	83%
Dusk	0	1	0	0	0	1	4%
Dawn	0	0	1	0	0	1	4%
Dark	1	0	0	1	0	2	8%
<b>Total</b>	<b>4</b>	<b>5</b>	<b>7</b>	<b>7</b>	<b>1</b>	<b>24</b>	<b>100%</b>

**Crash Data Summary - N. Friday Road**

No.	Crash ID	Date	Day	Year	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	831400580	4/15/2015	Friday	2015	Angle	Property Damage Only	0	0	\$0	Dusk	Dry
2	831395370	10/25/2014	Saturday	2014	Other	Injury	0	1	\$100	Daylight	Dry
3	886431980	10/3/2018	Sunday	2018	Rear End	Injury	0	1	\$500	Daylight	Wet
4	886429490	7/30/2018	Monday	2018	Rear End	Injury	0	1	\$0	Daylight	Wet
5	831386310	2/18/2014	Tuesday	2014	Angle	Property Damage Only	0	0	\$500	Daylight	Dry
6	831390490	6/6/2014	Wednesday	2014	Angle	Property Damage Only	0	0	\$0	Dark-Not Lighted	Dry
7	831394950	10/17/2014	Thursday	2014	Other	Property Damage Only	0	0	\$0	Unknown	Unknown
8	831399350	3/9/2015	Friday	2015	Rear End	Property Damage Only	0	0	\$500	Daylight	Dry
9	831404310	7/30/2015	Saturday	2015	Other	Injury	0	2	\$0	Daylight	Dry
10	831406180	9/20/2015	Sunday	2015	Angle	Injury	0	1	\$0	Daylight	Dry
11	855058720	4/27/2017	Monday	2017	Sideswipe	Property Damage Only	0	0	\$300	Daylight	Dry
12	867981800	2/3/2017	Tuesday	2017	Angle	Injury	0	1	\$0	Daylight	Dry
13	867984140	4/12/2017	Wednesday	2017	Angle	Property Damage Only	0	0	\$0	Daylight	Dry
14	867990230	10/9/2017	Thursday	2017	Angle	Injury	0	1	\$0	Daylight	Dry
15	875908780	2/20/2018	Friday	2018	Other	Injury	0	1	\$0	Daylight	Dry
16	875914080	7/6/2018	Saturday	2018	Rear End	Property Damage Only	0	0	\$0	Daylight	Dry
17	875908420	2/15/2018	Sunday	2018	Head on	Injury	0	1	\$1	Dark-Lighted	Dry
18	831395510	10/29/2014	Monday	2014	Angle	Property Damage Only	0	0	\$0	Daylight	Dry
19	886432460	10/8/2018	Tuesday	2018	Sideswipe	Property Damage Only	0	0	\$500	Daylight	Dry
20	854259650	11/20/2016	Wednesday	2016	Rear End	Property Damage Only	0	0	\$500	Dark-Not Lighted	Dry
21	855241130	5/14/2017	Thursday	2017	Angle	Property Damage Only	0	0	\$500	Daylight	Dry

# Crash Data Summary - N. Friday Road

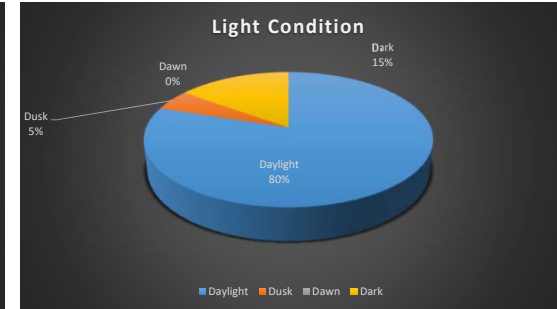
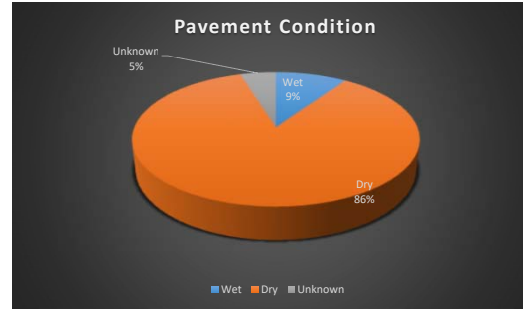
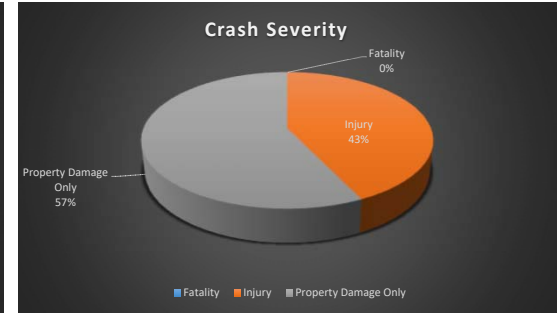
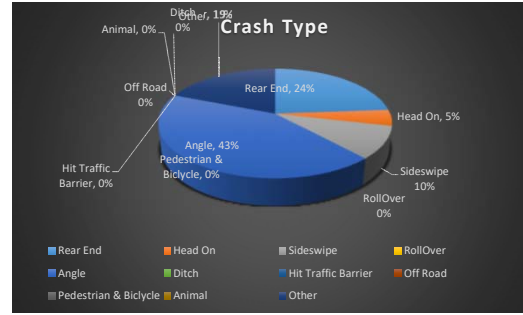
From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	1	1	0	3	5	24%
Head On	0	0	0	0	1	1	5%
Sideswipe	0	0	0	1	1	2	10%
RollOver	0	0	0	0	0	0	0%
Angle	3	2	0	4	0	9	43%
Ditch	0	0	0	0	0	0	0%
Hit Traffic Barrier	0	0	0	0	0	0	0%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	0	0	0	0	0%
Animal	0	0	0	0	0	0	0%
Other	2	1	0	0	1	4	19%
<b>Total</b>	<b>5</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>6</b>	<b>21</b>	<b>100%</b>

Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	1	2	0	2	4	9	43%
Property Damage Only	4	2	1	3	2	12	57%
<b>Total</b>	<b>5</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>6</b>	<b>21</b>	<b>100%</b>

Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	0	0	0	0	2	2	10%
Dry	4	4	1	5	4	18	86%
Unknown	1	0	0	0	0	1	5%
<b>Total</b>	<b>5</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>6</b>	<b>21</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	3	3	0	5	5	16	76%
Dusk	0	1	0	0	0	1	5%
Dawn	0	0	0	0	0	0	0%
Dark	1	0	1	0	1	3	14%
<b>Total</b>	<b>4</b>	<b>4</b>	<b>1</b>	<b>5</b>	<b>6</b>	<b>20</b>	<b>95%</b>



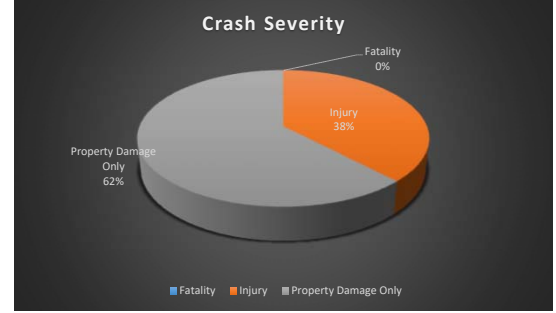
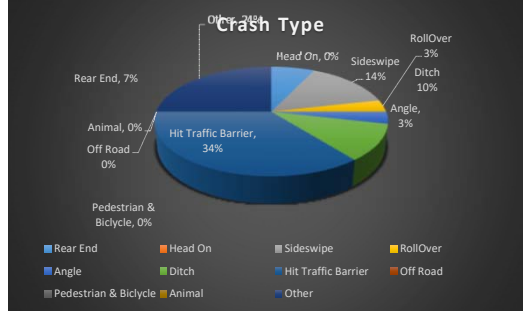
## Crash Data Summary - I-95 SB b/w SR 528 & SR 524

No.	Crash ID	Date	Day	Year	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	853031760	7/21/2016	Friday	2016	Hit Traffic Barrier	Injury	0	1	\$500	Daylight	Dry
2	853303070	6/30/2016	Saturday	2016	Other	Property Damage Only	0	0	\$500	Daylight	Wet
3	837101810	5/30/2017	Sunday	2017	Hit Traffic Barrier	Injury	0	1	\$0	Daylight	Wet
4	844853410	11/26/2014	Monday	2014	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Dark-Not Lighted	Wet
5	851875520	4/15/2016	Tuesday	2016	RollOver	Injury	0	1	\$0	Dark-Not Lighted	Wet
6	855528060	8/27/2017	Wednesday	2017	Other	Injury	0	2	\$0	Daylight	Wet
7	848914240	10/4/2015	Thursday	2015	Sideswipe	Property Damage Only	0	0	\$0	Daylight	Dry
8	848914420	11/21/2015	Friday	2015	Hit Traffic Barrier	Property Damage Only	0	0	\$500	Daylight	Wet
9	853112010	5/22/2016	Saturday	2016	Sideswipe	Property Damage Only	0	0	\$500	Daylight	Dry
10	855690660	7/22/2017	Sunday	2017	Ditch	Property Damage Only	0	0	\$0	Daylight	Wet
11	872448530	7/22/2018	Monday	2018	Unknown	Property Damage Only	0	0	\$200	Daylight	Wet
12	856022690	11/18/2017	Tuesday	2017	Hit Traffic Barrier	Property Damage Only	0	0	\$500	Dark-Lighted	Dry
13	838023600	6/17/2014	Wednesday	2014	Other	Injury	0	1	\$500	Daylight	Dry
14	838056710	7/6/2014	Thursday	2014	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Daylight	Wet
15	851339930	8/9/2015	Friday	2015	Hit Traffic Barrier	Injury	0	1	\$0	Daylight	Wet
16	851555890	9/6/2015	Saturday	2015	Other	Property Damage Only	0	0	\$100	Daylight	Wet
17	851660710	8/30/2015	Sunday	2015	Hit Traffic Barrier	Property Damage Only	0	0	\$20	Daylight	Wet
18	852242000	11/21/2015	Monday	2015	Ditch	Injury	0	3	\$0	Dark-Lighted	Wet
19	852610330	1/28/2016	Tuesday	2016	Ditch	Property Damage Only	0	0	\$0	Dark-Not Lighted	Wet
20	852903040	3/25/2016	Wednesday	2016	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Daylight	Wet
21	853644100	10/17/2016	Thursday	2016	Rear End	Property Damage Only	0	0	\$0	Daylight	Dry
22	872224390	6/19/2018	Friday	2018	Sideswipe	Property Damage Only	0	0	\$500	Dark-Lighted	Dry
23	872640830	7/18/2018	Saturday	2018	Other	Property Damage Only	0	0	\$0	Daylight	Wet
24	872640930	7/22/2018	Sunday	2018	Off Road	Injury	0	1	\$0	Daylight	Wet
25	872728020	10/1/2018	Monday	2018	Other	Property Damage Only	0	0	\$0	Dark-Lighted	Wet
26	852385910	12/18/2015	Tuesday	2015	Rear End	Injury	0	1	\$0	Dark-Not Lighted	Dry
27	855528050	8/26/2017	Wednesday	2017	Angle	Injury	0	1	\$500	Daylight	Dry
28	871297870	12/17/2017	Thursday	2017	Sideswipe	Injury	0	3	\$0	Dark-Not Lighted	Dry
29	872259720	7/22/2018	Friday	2018	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Daylight	Wet

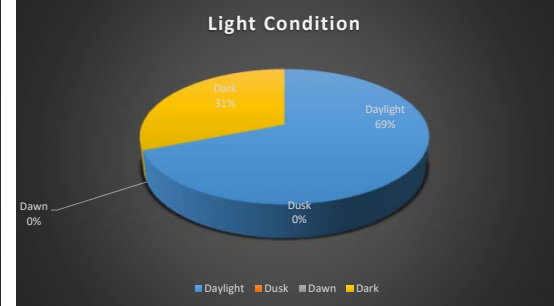
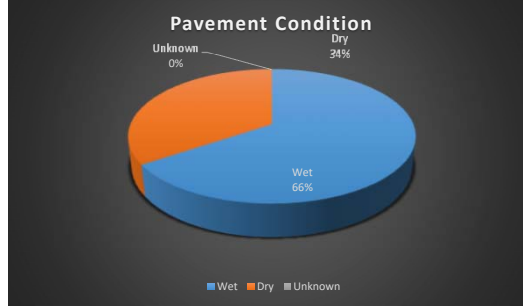
# Crash Data Summary - I-95 SB b/w SR 528 & SR 524

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	1	1	0	0	2	7%
Head On	0	0	0	0	0	0	0%
Sideswipe	0	1	1	1	1	4	14%
RollOver	0	0	1	0	0	1	3%
Angle	0	0	0	1	0	1	3%
Ditch	0	1	1	1	0	3	10%
Hit Traffic Barrier	2	3	2	2	1	10	34%
Off Road	0	0	0	0	1	1	3%
Pedestrian & Bicycle	0	0	0	0	0	0	0%
Animal	0	0	0	0	0	0	0%
Other	1	1	1	1	3	7	24%
<b>Total</b>	<b>3</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>29</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	1	3	2	4	1	11	38%
Property Damage Only	2	4	5	2	5	18	62%
<b>Total</b>	<b>3</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>29</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	2	5	4	3	5	19	66%
Dry	1	2	3	3	1	10	34%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>3</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>29</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	2	5	5	4	4	20	69%
Dusk	0	0	0	0	0	0	0%
Dawn	0	0	0	0	0	0	0%
Dark	1	2	2	2	2	9	31%
<b>Total</b>	<b>3</b>	<b>7</b>	<b>7</b>	<b>6</b>	<b>6</b>	<b>29</b>	<b>100%</b>



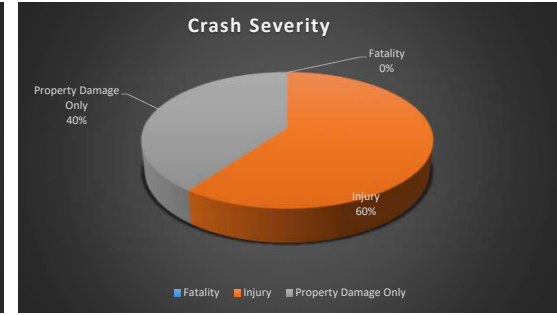
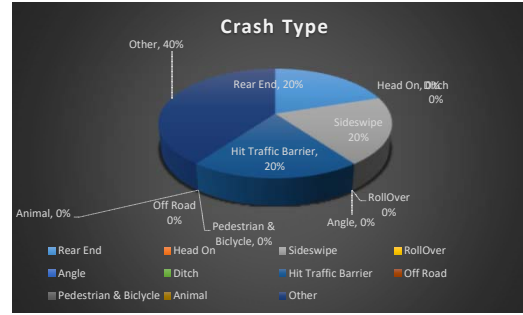
**Crash Data Summary - I-95 SB Diverge at SR 524**

<b>No.</b>	<b>Crash ID</b>	<b>Date</b>	<b>Day</b>	<b>Year</b>	<b>Crash Type</b>	<b>Crash Severity</b>	<b>Fatalities</b>	<b>Injuries</b>	<b>Property Damage</b>	<b>Day/Night</b>	<b>Wet/Dry</b>
1	845349430	1/1/2015	Friday	2015	Hit Traffic Barrier	Property Damage Only	0	0	\$100	Daylight	Wet
2	851501910	11/13/2015	Saturday	2015	Hit Traffic Barrier	Property Damage Only	0	0	\$500	Daylight	Dry
3	845628260	4/9/2015	Sunday	2015	Rear End	Property Damage Only	0	0	\$0	Dark-Not Lighted	Dry

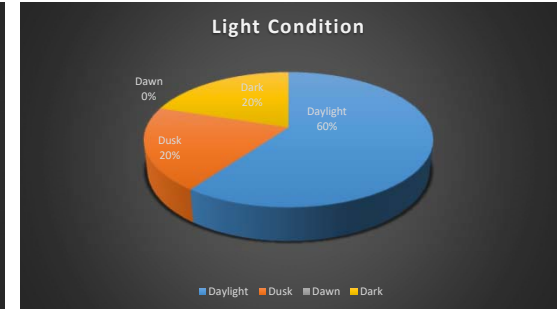
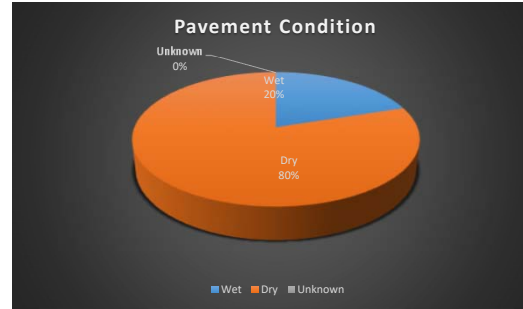
# Crash Data Summary - I-95 SB Merge at SR 524

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	0	0	1	0	1	20%
Head On	0	0	0	0	0	0	0%
Sideswipe	0	0	0	1	0	1	20%
RollOver	0	0	0	0	0	0	0%
Angle	0	0	0	0	0	0	0%
Ditch	0	0	0	0	0	0	0%
Hit Traffic Barrier	0	0	1	0	0	1	20%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	0	0	0	0	0%
Animal	0	0	0	0	0	0	0%
Other	0	0	0	0	2	2	40%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	0	0	1	1	1	3	60%
Property Damage Only	0	0	0	1	1	2	40%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	0	0	1	0	0	1	20%
Dry	0	0	0	2	2	4	80%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	0	0	0	1	2	3	60%
Dusk	0	0	1	0	0	1	20%
Dawn	0	0	0	0	0	0	0%
Dark	0	0	0	1	0	1	20%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>100%</b>

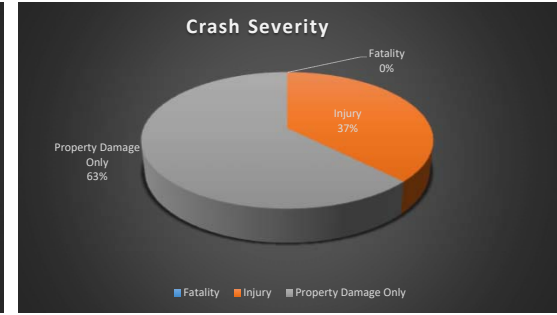
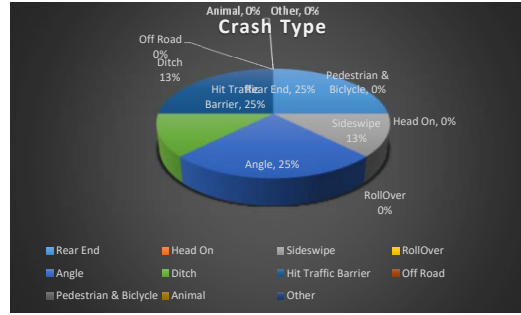
### Crash Data Summary - I-95 SB b/w SR 524 Ramps

No.	Crash ID	Date	Day	Year	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	872331100	7/20/2018	Friday	2018	Hit Traffic Barrier	Property Damage Only	0	0	\$500	Daylight	Wet
2	872932210	10/15/2018	Saturday	2018	Angle	Property Damage Only	0	0	\$0	Daylight	Dry
3	871450120	1/19/2018	Sunday	2018	Rear End	Injury	0	1	\$800	Daylight	Dry
4	871718090	3/14/2018	Monday	2018	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Dawn	Dry
5	855786680	11/18/2017	Tuesday	2017	Rear End	Injury	0	1	\$500	Dark-Not Lighted	Dry
6	848668150	3/29/2015	Wednesday	2015	Sideswipe	Injury	0	5	\$250	Daylight	Dry
7	855760920	8/26/2017	Thursday	2017	Angle	Property Damage Only	0	0	\$850	Daylight	Wet
8	844960020	9/16/2014	Friday	2014	Ditch	Property Damage Only	0	0	\$0	Daylight	Wet

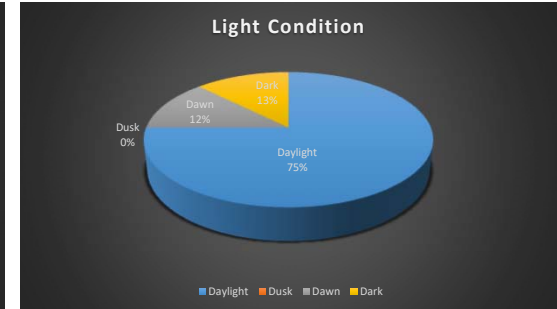
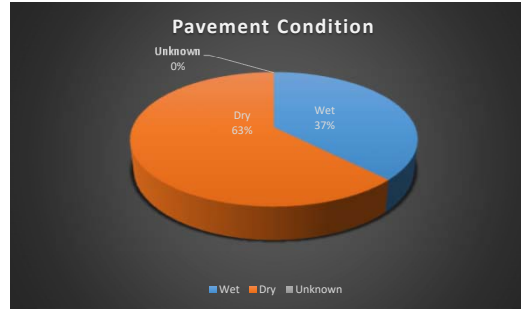
# Crash Data Summary - I-95 SB b/w SR 524 Ramps

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	0	0	1	1	2	25%
Head On	0	0	0	0	0	0	0%
Sideswipe	0	1	0	0	0	1	13%
RollOver	0	0	0	0	0	0	0%
Angle	0	0	0	1	1	2	25%
Ditch	1	0	0	0	0	1	13%
Hit Traffic Barrier	0	0	0	0	2	2	25%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	0	0	0	0	0%
Animal	0	0	0	0	0	0	0%
Other	0	0	0	0	0	0	0%
<b>Total</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>8</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	0	1	0	1	1	3	38%
Property Damage Only	1	0	0	1	3	5	63%
<b>Total</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>8</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	1	0	0	1	1	3	38%
Dry	0	1	0	1	3	5	63%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>8</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	1	1	0	1	3	6	75%
Dusk	0	0	0	0	0	0	0%
Dawn	0	0	0	0	1	1	13%
Dark	0	0	0	1	0	1	13%
<b>Total</b>	<b>1</b>	<b>1</b>	<b>0</b>	<b>2</b>	<b>4</b>	<b>8</b>	<b>100%</b>

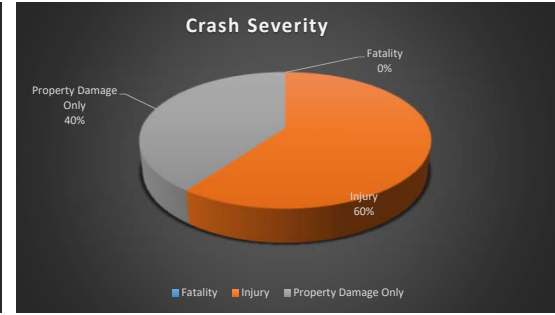
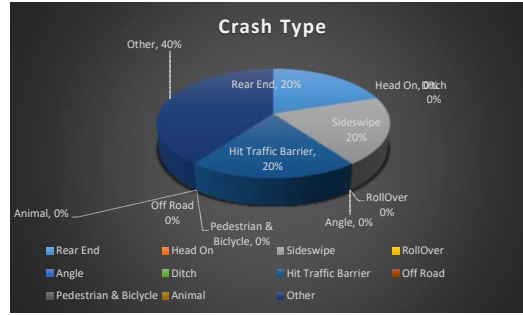
### Crash Data Summary - I-95 SB Merge at SR 524

No.	Crash ID	Date	Day	Year	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	852818600	3/25/2016	Friday	2016	Hit Traffic Barrier	Injury	0	1	\$0	Dusk	Wet
2	853518630	3/18/2017	Saturday	2017	Rear End	Injury	0	1	\$0	Dark-Not Lighted	Dry
3	855339220	5/26/2017	Sunday	2017	Sideswipe	Property Damage Only	0	0	\$0	Daylight	Dry
4	880069070	10/6/2018	Monday	2018	Other	Injury	0	1	\$0	Daylight	Dry
5	872739340	8/5/2018	Tuesday	2018	Other	Property Damage Only	0	0	\$500	Daylight	Dry

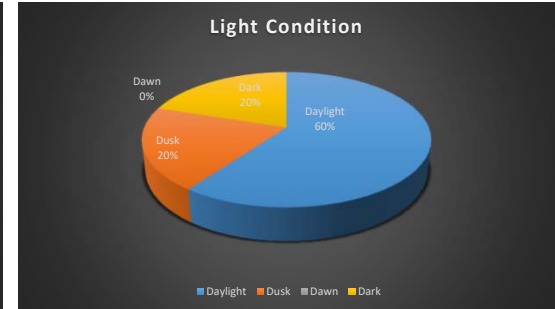
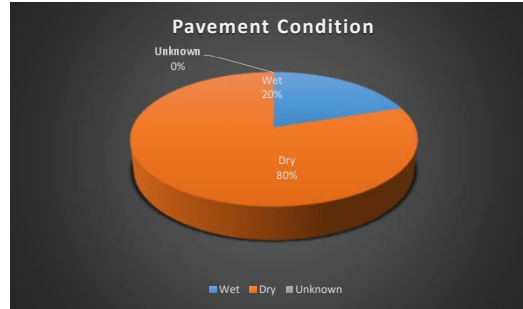
# Crash Data Summary - I-95 SB Merge at SR 524

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	0	0	1	0	1	20%
Head On	0	0	0	0	0	0	0%
Sideswipe	0	0	0	1	0	1	20%
RollOver	0	0	0	0	0	0	0%
Angle	0	0	0	0	0	0	0%
Ditch	0	0	0	0	0	0	0%
Hit Traffic Barrier	0	0	1	0	0	1	20%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	0	0	0	0	0%
Animal	0	0	0	0	0	0	0%
Other	0	0	0	0	2	2	40%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	0	0	1	1	1	3	60%
Property Damage Only	0	0	0	1	1	2	40%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	0	0	1	0	0	1	20%
Dry	0	0	0	2	2	4	80%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	0	0	0	1	2	3	60%
Dusk	0	0	1	0	0	1	20%
Dawn	0	0	0	0	0	0	0%
Dark	0	0	0	1	0	1	20%
<b>Total</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>2</b>	<b>2</b>	<b>5</b>	<b>100%</b>

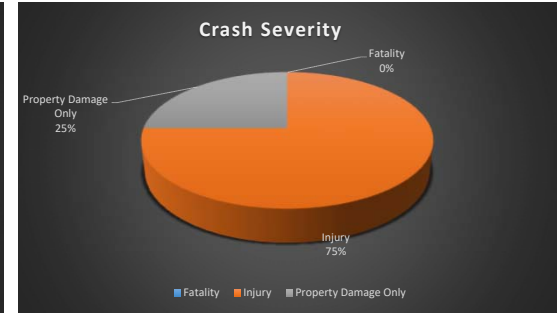
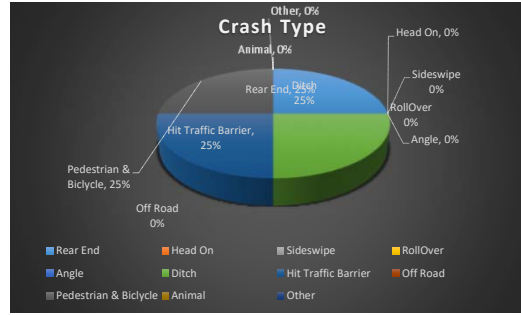
**Crash Data Summary - I-95 SB b/w SR 524 & SR 520**

<b>No.</b>	<b>Crash ID</b>	<b>Date</b>	<b>Day</b>	<b>Year</b>	<b>Crash Type</b>	<b>Crash Severity</b>	<b>Fatalities</b>	<b>Injuries</b>	<b>Property Damage</b>	<b>Day/Night</b>	<b>Wet/Dry</b>
1	856077680	11/12/2017	Friday	2017	Hit Traffic Barrier	Injury	0	1	\$0	Dark-Not Lighted	Dry
2	845702320	2/13/2015	Saturday	2015	Pedestrian	Injury	0	1	\$0	Dark-Not Lighted	Dry
3	848942830	5/31/2015	Sunday	2015	Ditch	Injury	0	1	\$0	Dark-Not Lighted	Wet
4	854690260	2/18/2017	Monday	2017	Rear End	Property Damage Only	0	0	\$0	Daylight	Dry

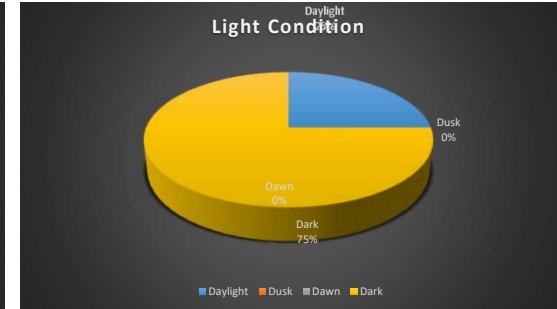
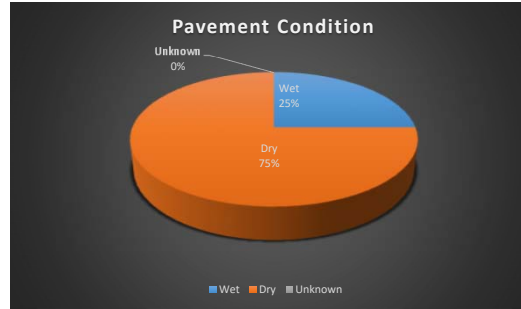
# Crash Data Summary - I-95 SB b/w SR 524 & SR 520

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	0	0	1	0	1	25%
Head On	0	0	0	0	0	0	0%
Sideswipe	0	0	0	0	0	0	0%
RollOver	0	0	0	0	0	0	0%
Angle	0	0	0	0	0	0	0%
Ditch	0	1	0	0	0	1	25%
Hit Traffic Barrier	0	0	0	1	0	1	25%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	1	0	0	0	1	25%
Animal	0	0	0	0	0	0	0%
Other	0	0	0	0	0	0	0%
<b>Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	0	2	0	1	0	3	75%
Property Damage Only	0	0	0	1	0	1	25%
<b>Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	0	1	0	0	0	1	25%
Dry	0	1	0	2	0	3	75%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	0	0	0	1	0	1	25%
Dusk	0	0	0	0	0	0	0%
Dawn	0	0	0	0	0	0	0%
Dark	0	2	0	1	0	3	75%
<b>Total</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>2</b>	<b>0</b>	<b>4</b>	<b>100%</b>



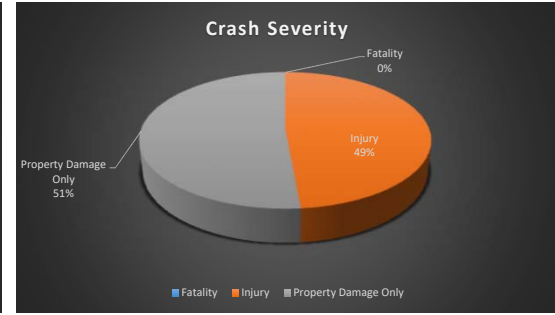
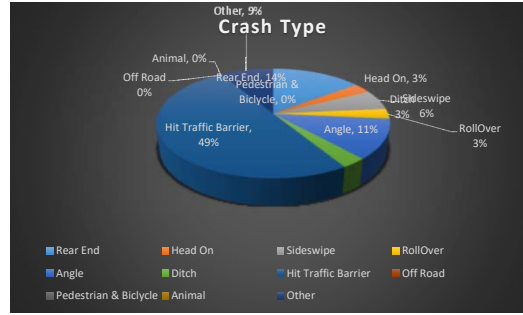
### Crash Data Summary - I-95 NB b/w SR 528 & SR 524

No.	Crash ID	Date	Day	Year	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	853111950	5/17/2016	Friday	2016	Sideswipe	Property Damage Only	0	0	\$0	Daylight	Wet
2	854294890	11/25/2016	Saturday	2016	Other	Property Damage Only	0	0	\$0	Dark-Not Lighted	Dry
3	854378160	3/14/2017	Sunday	2017	Hit Traffic Barrier	Injury	0	1	\$0	Daylight	Dry
4	854378380	7/17/2017	Monday	2017	Angle	Injury	0	1	\$0	Daylight	Wet
5	837123380	1/10/2014	Tuesday	2014	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Dark-Not Lighted	Wet
6	851495450	3/21/2016	Wednesday	2016	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Dark-Not Lighted	Dry
7	852068590	5/19/2016	Thursday	2016	Head on	Property Damage Only	0	0	\$0	Dark-Not Lighted	Wet
8	855647630	7/14/2017	Friday	2017	RollOver	Injury	0	1	\$0	Daylight	Dry
9	855824920	8/27/2017	Saturday	2017	Hit Traffic Barrier	Injury	0	3	\$0	Daylight	Wet
10	880068920	10/1/2018	Sunday	2018	Hit Traffic Barrier	Injury	0	1	\$0	Dark-Lighted	Wet
11	880649140	12/25/2018	Monday	2018	Hit Traffic Barrier	Injury	0	3	\$0	Daylight	Dry
12	838359660	9/5/2014	Tuesday	2014	Hit Traffic Barrier	Injury	0	1	\$0	Daylight	Wet
13	844942960	10/14/2014	Wednesday	2014	Hit Traffic Barrier	Property Damage Only	0	0	\$100	Daylight	Wet
14	849032290	7/22/2015	Thursday	2015	Hit Traffic Barrier	Property Damage Only	0	0	\$10	Daylight	Wet
15	851229830	9/6/2015	Friday	2015	Angle	Injury	0	1	\$0	Daylight	Wet
16	852456510	1/9/2016	Saturday	2016	Rear End	Property Damage Only	0	0	\$0	Dark-Not Lighted	Wet
17	853630150	9/30/2016	Sunday	2016	Rear End	Injury	0	2	\$0	Dark-Not Lighted	Dry
18	854958480	4/1/2017	Monday	2017	Angle	Injury	0	2	\$0	Dark-Not Lighted	Dry
19	853428790	6/13/2016	Tuesday	2016	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Daylight	Wet
20	872224380	6/15/2018	Wednesday	2018	Rear End	Injury	0	3	\$500	Daylight	Wet
21	855528000	8/17/2017	Thursday	2017	Hit Traffic Barrier	Property Damage Only	0	0	\$500	Daylight	Wet
22	845521680	3/1/2015	Friday	2015	Ditch	Property Damage Only	0	0	\$0	Dark-Not Lighted	Dry
23	852471520	2/13/2016	Saturday	2016	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Daylight	Dry
24	852901970	5/17/2016	Sunday	2016	Rear End	Injury	0	1	\$0	Dusk	Wet
25	855479960	7/8/2017	Monday	2017	Off Road	Property Damage Only	0	0	\$0	Daylight	Wet
26	856089560	1/14/2018	Tuesday	2018	Rear End	Property Damage Only	0	0	\$500	Daylight	Dry
27	872166770	6/8/2018	Wednesday	2018	Sideswipe	Property Damage Only	0	0	\$0	Dark-Not Lighted	Wet
28	872269890	5/14/2018	Thursday	2018	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Daylight	Wet
29	856077480	10/31/2017	Friday	2017	Other	Injury	0	1	\$0	Dark-Not Lighted	Dry
30	855633550	8/14/2017	Saturday	2017	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Dark-Lighted	Dry
31	852818790	4/24/2016	Sunday	2016	Hit Traffic Barrier	Injury	0	1	\$0	Daylight	Dry
32	855398740	10/4/2017	Monday	2017	Hit Traffic Barrier	Injury	0	2	\$100	Daylight	Wet
33	855398600	8/3/2017	Tuesday	2017	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Daylight	Wet
34	855480060	7/11/2017	Wednesday	2017	Angle	Injury	0	2	\$0	Daylight	Dry
35	855933110	10/17/2017	Thursday	2017	Other	Injury	0	2	\$0	Dusk	Wet

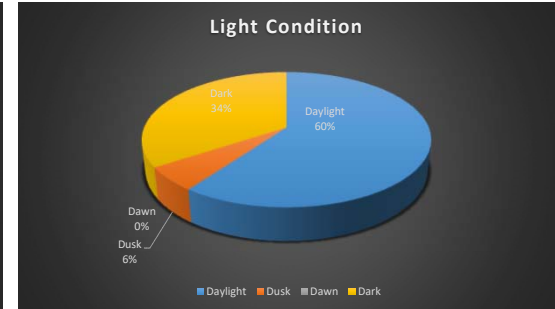
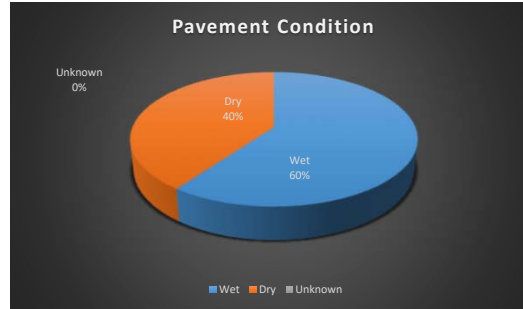
# Crash Data Summary - I-95 NB b/w SR 528 & SR 524

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	0	3	0	2	5	14%
Head On	0	0	1	0	0	1	3%
Sideswipe	0	0	1	0	1	2	6%
RollOver	0	0	0	1	0	1	3%
Angle	0	1	0	3	0	4	11%
Ditch	0	1	0	0	0	1	3%
Hit Traffic Barrier	3	1	4	6	3	17	49%
Off Road	0	0	0	1	0	1	3%
Pedestrian & Bicycle	0	0	0	0	0	0	0%
Animal	0	0	0	0	0	0	0%
Other	0	0	1	2	0	3	9%
<b>Total</b>	<b>3</b>	<b>3</b>	<b>10</b>	<b>13</b>	<b>6</b>	<b>35</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	1	1	3	9	3	17	49%
Property Damage Only	2	2	7	4	3	18	51%
<b>Total</b>	<b>3</b>	<b>3</b>	<b>10</b>	<b>13</b>	<b>6</b>	<b>35</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	3	2	5	7	4	21	60%
Dry	0	1	5	6	2	14	40%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>3</b>	<b>3</b>	<b>10</b>	<b>13</b>	<b>6</b>	<b>35</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	2	2	4	9	4	21	60%
Dusk	0	0	1	1	0	2	6%
Dawn	0	0	0	0	0	0	0%
Dark	1	1	5	3	2	12	34%
<b>Total</b>	<b>3</b>	<b>3</b>	<b>10</b>	<b>13</b>	<b>6</b>	<b>35</b>	<b>100%</b>

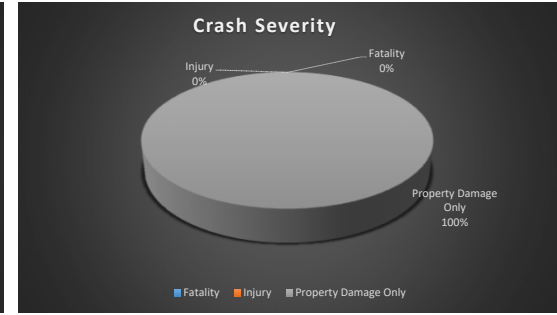
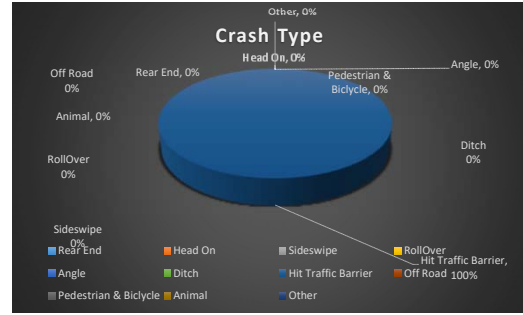
**Crash Data Summary - I-95 NB Merge at SR 524**

No.	Crash ID	Date	Day	Year	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	845021380	9/13/2014	Friday	2014	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Dark-Not Lighted	Dry
2	844960440	11/6/2014	Saturday	2014	Hit Traffic Barrier	Property Damage Only	0	0	\$300	Daylight	Dry

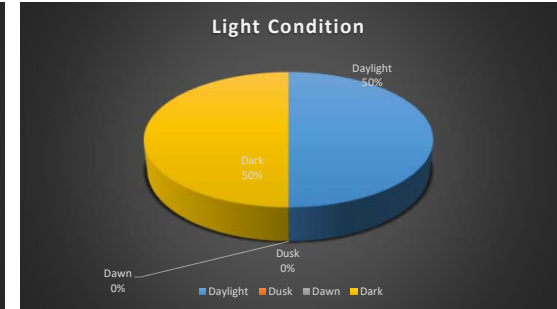
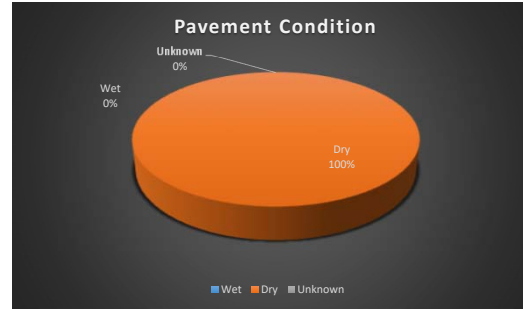
# Crash Data Summary - I-95 NB Merge at SR 524

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	0	0	0	0	0	0%
Head On	0	0	0	0	0	0	0%
Sideswipe	0	0	0	0	0	0	0%
RollOver	0	0	0	0	0	0	0%
Angle	0	0	0	0	0	0	0%
Ditch	0	0	0	0	0	0	0%
Hit Traffic Barrier	2	0	0	0	0	2	100%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	0	0	0	0	0%
Animal	0	0	0	0	0	0	0%
Other	0	0	0	0	0	0	0%
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	0	0	0	0	0	0	0%
Property Damage Only	2	0	0	0	0	2	100%
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	0	0	0	0	0	0	0%
Dry	2	0	0	0	0	2	100%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	1	0	0	0	0	1	50%
Dusk	0	0	0	0	0	0	0%
Dawn	0	0	0	0	0	0	0%
Dark	1	0	0	0	0	1	50%
<b>Total</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>100%</b>

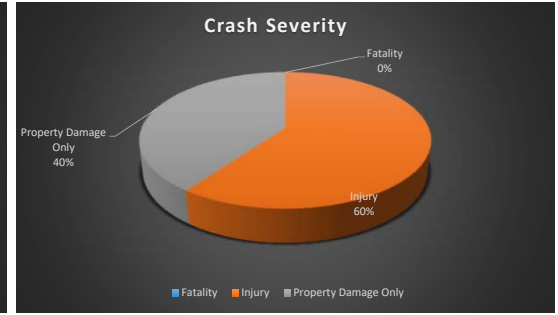
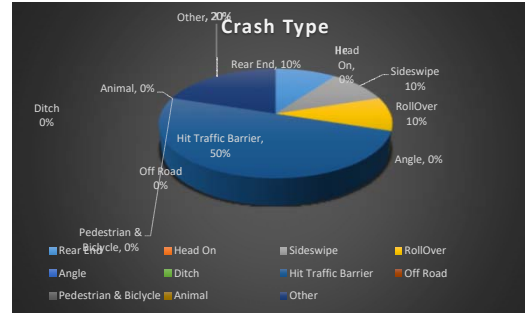
## Crash Data Summary - I-95 NB b/w SR 524 Ramps

No.	Crash ID	Date	Day	Year	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	852824470	7/3/2016	Friday	2016	Hit Traffic Barrier	Property Damage Only	0	0	\$700	Daylight	Wet
2	844960130	9/29/2014	Saturday	2014	Other	Property Damage Only	0	0	\$0	Daylight	Dry
3	837554620	3/24/2014	Sunday	2014	Hit Traffic Barrier	Injury	0	2	\$500	Daylight	Dry
4	853181130	5/2/2016	Monday	2016	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Dawn	Dry
5	854748130	5/12/2017	Tuesday	2017	Sideswipe	Injury	0	2	\$0	Daylight	Dry
6	853813070	10/3/2016	Wednesday	2016	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Dark-Not Lighted	Wet
7	872447900	6/9/2018	Thursday	2018	Unknown	Injury	0	2	\$0	Dusk	Wet
8	854304830	1/4/2017	Friday	2017	Rear End	Injury	0	1	\$0	Daylight	Dry
9	851166130	6/14/2015	Saturday	2015	RollOver	Injury	0	1	\$0	Daylight	Dry
10	871191710	7/8/2018	Sunday	2018	Hit Traffic Barrier	Injury	0	1	\$0	Daylight	Dry

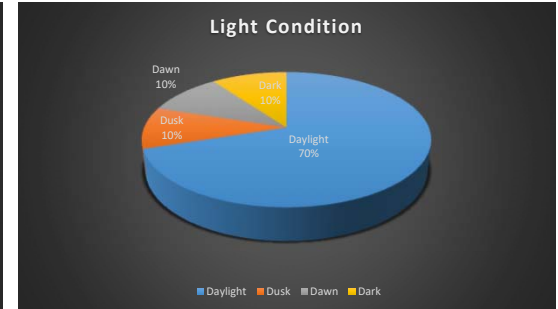
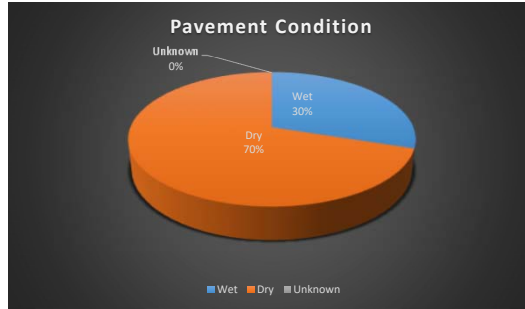
# Crash Data Summary - I-95 NB b/w SR 524 Ramps

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	0	0	1	0	1	10%
Head On	0	0	0	0	0	0	0%
Sideswipe	0	0	0	1	0	1	10%
RollOver	0	1	0	0	0	1	10%
Angle	0	0	0	0	0	0	0%
Ditch	0	0	0	0	0	0	0%
Hit Traffic Barrier	1	0	3	0	1	5	50%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	0	0	0	0	0%
Animal	0	0	0	0	0	0	0%
Other	1	0	0	0	1	2	20%
<b>Total</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>10</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	1	1	0	2	2	6	60%
Property Damage Only	1	0	3	0	0	4	40%
<b>Total</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>10</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	0	0	2	0	1	3	30%
Dry	2	1	1	2	1	7	70%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>10</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	2	1	1	2	1	7	70%
Dusk	0	0	0	0	1	1	10%
Dawn	0	0	1	0	0	1	10%
Dark	0	0	1	0	0	1	10%
<b>Total</b>	<b>2</b>	<b>1</b>	<b>3</b>	<b>2</b>	<b>2</b>	<b>10</b>	<b>100%</b>

### Crash Data Summary - I-95 NB Diverge at SR 524

No.	Crash ID	Date	Day	Year	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	856077400	10/14/2017	Friday	2017	Other	Property Damage Only	0	0	\$0	Dark-Not Lighted	Wet
2	836956920	1/27/2014	Saturday	2014	Other	Injury	0	1	\$0	Daylight	Dry
3	852818650	4/3/2016	Sunday	2016	Sideswipe	Property Damage Only	0	0	\$105	Daylight	Dry
4	853181260	7/3/2016	Monday	2016	Hit Traffic Barrier	Injury	0	1	\$0	Daylight	Wet
5	872256970	5/30/2018	Tuesday	2018	Pedestrian	Injury	0	1	\$0	Daylight	Dry
6	880268820	11/9/2018	Wednesday	2018	Sideswipe	Injury	0	1	\$500	Daylight	Dry
7	853466320	9/29/2016	Thursday	2016	Hit Traffic Barrier	Injury	0	1	\$0	Daylight	Wet
8	852115670	1/15/2016	Friday	2016	Hit Traffic Barrier	Property Damage Only	0	0	\$200	Daylight	Wet
9	845410170	1/27/2015	Saturday	2015	RollOver	Property Damage Only	0	0	\$0	Daylight	Dry
10	848860350	6/2/2015	Sunday	2015	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Daylight	Wet

# Crash Data Summary - I-95 NB Diverge at SR 524

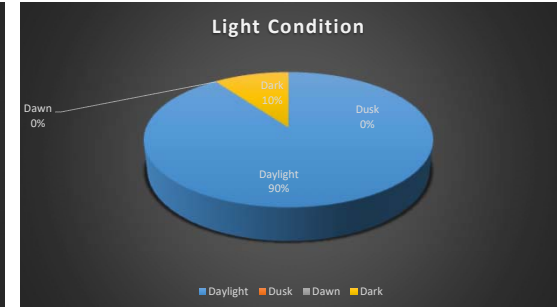
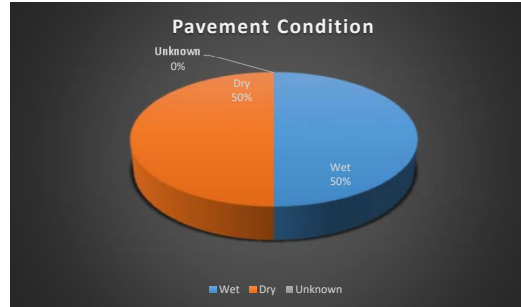
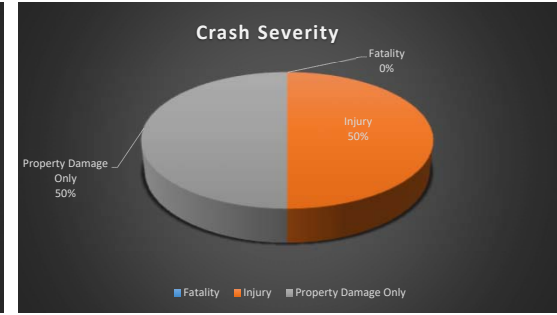
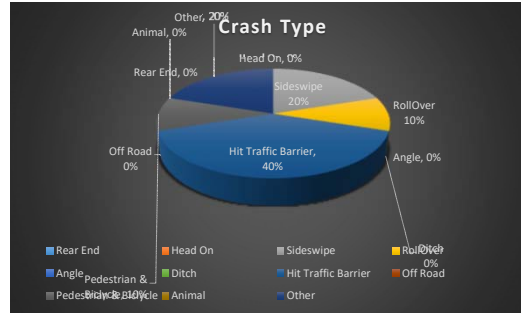
From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	0	0	0	0	0	0%
Head On	0	0	0	0	0	0	0%
Sideswipe	0	0	1	0	1	2	20%
RollOver	0	1	0	0	0	1	10%
Angle	0	0	0	0	0	0	0%
Ditch	0	0	0	0	0	0	0%
Hit Traffic Barrier	0	1	3	0	0	4	40%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	0	0	1	1	10%
Animal	0	0	0	0	0	0	0%
Other	1	0	0	1	0	2	20%
<b>Total</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>10</b>	<b>100%</b>

Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	1	0	2	0	2	5	50%
Property Damage Only	0	2	2	1	0	5	50%
<b>Total</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>10</b>	<b>100%</b>

Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	0	1	3	1	0	5	50%
Dry	1	1	1	0	2	5	50%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>10</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	1	2	4	0	2	9	90%
Dusk	0	0	0	0	0	0	0%
Dawn	0	0	0	0	0	0	0%
Dark	0	0	0	1	0	1	10%
<b>Total</b>	<b>1</b>	<b>2</b>	<b>4</b>	<b>1</b>	<b>2</b>	<b>10</b>	<b>100%</b>





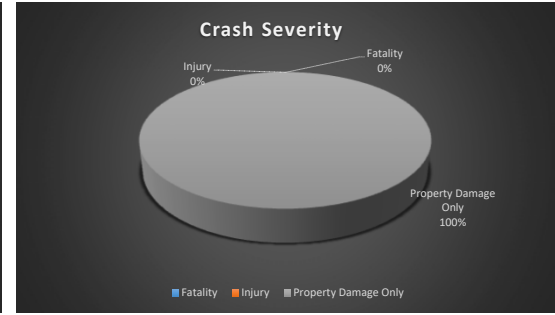
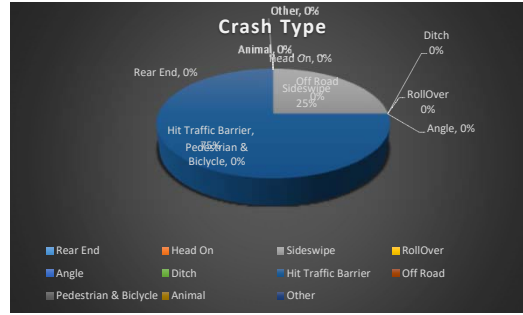
**Crash Data Summary - I-95 NB b/w SR 524 & SR 520**

<b>No.</b>	<b>Crash ID</b>	<b>Date</b>	<b>Day</b>	<b>Year</b>	<b>Crash Type</b>	<b>Crash Severity</b>	<b>Fatalities</b>	<b>Injuries</b>	<b>Property Damage</b>	<b>Day/Night</b>	<b>Wet/Dry</b>
1	851199730	7/4/2015	Friday	2015	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Daylight	Wet
2	871945960	6/16/2018	Saturday	2018	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Daylight	Wet
3	872322670	7/10/2018	Sunday	2018	Hit Traffic Barrier	Property Damage Only	0	0	\$250	Daylight	Dry
4	872257430	7/9/2018	Monday	2018	Sideswipe	Property Damage Only	0	0	\$0	Dark-Not Lighted	Dry

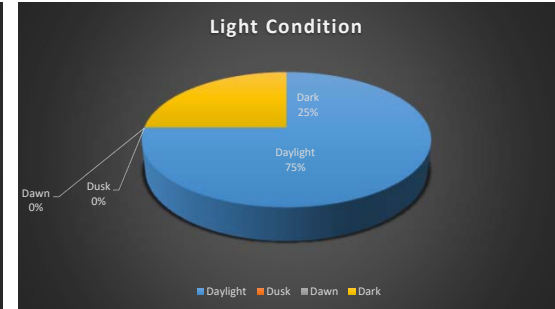
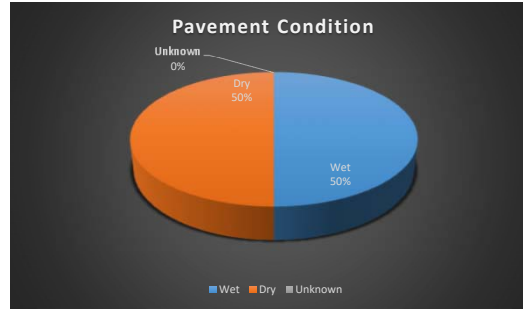
# Crash Data Summary - I-95 NB b/w SR 524 & SR 520

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	0	0	0	0	0	0%
Head On	0	0	0	0	0	0	0%
Sideswipe	0	0	0	0	1	1	25%
RollOver	0	0	0	0	0	0	0%
Angle	0	0	0	0	0	0	0%
Ditch	0	0	0	0	0	0	0%
Hit Traffic Barrier	0	1	0	0	2	3	75%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	0	0	0	0	0%
Animal	0	0	0	0	0	0	0%
Other	0	0	0	0	0	0	0%
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	0	0	0	0	0	0	0%
Property Damage Only	0	1	0	0	3	4	100%
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	0	1	0	0	1	2	50%
Dry	0	0	0	0	2	2	50%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	0	1	0	0	2	3	75%
Dusk	0	0	0	0	0	0	0%
Dawn	0	0	0	0	0	0	0%
Dark	0	0	0	0	1	1	25%
<b>Total</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>3</b>	<b>4</b>	<b>100%</b>

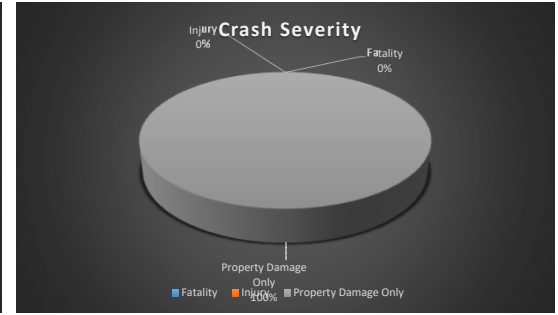
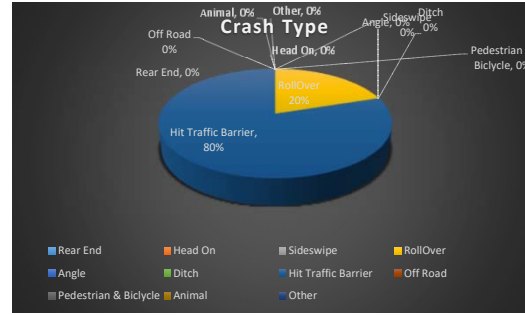
**Crash Data Summary - I-95 NB Off Ramp to SR 524**

<b>No.</b>	<b>Crash ID</b>	<b>Date</b>	<b>Day</b>	<b>Year</b>	<b>Crash Type</b>	<b>Crash Severity</b>	<b>Fatalities</b>	<b>Injuries</b>	<b>Property Damage</b>	<b>Day/Night</b>	<b>Wet/Dry</b>
1	852115670	1/15/2016	Friday	2016	Hit Traffic Barrier	Property Damage Only	0	0	\$200	Daylight	Wet
2	845410170	1/27/2015	Saturday	2015	Rollover	Property Damage Only	0	0	\$0	Daylight	Dry
3	848860350	6/2/2015	Sunday	2015	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Daylight	Wet
4	872331100	7/20/2018	Monday	2018	Hit Traffic Barrier	Property Damage Only	0	0	\$500	Daylight	Wet
5	852824470	7/3/2016	Tuesday	2016	Hit Traffic Barrier	Property Damage Only	0	0	\$700	Daylight	Wet

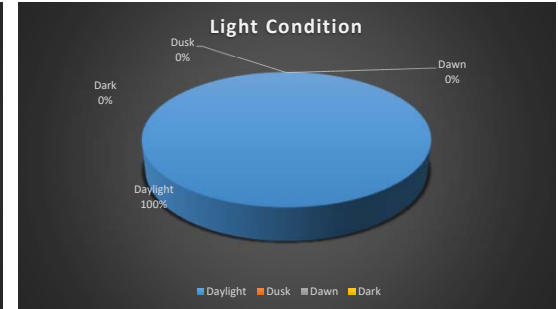
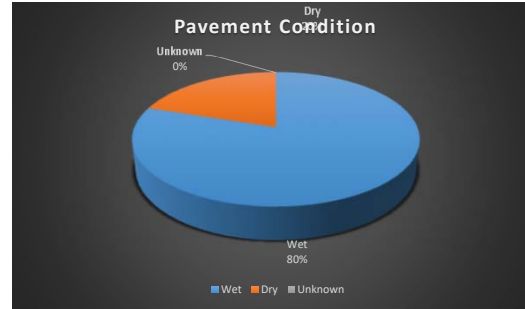
# Crash Data Summary - I-95 NB Off Ramp to SR 524

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	0	0	0	0	0	0%
Head On	0	0	0	0	0	0	0%
Sideswipe	0	0	0	0	0	0	0%
RollOver	0	1	0	0	0	1	20%
Angle	0	0	0	0	0	0	0%
Ditch	0	0	0	0	0	0	0%
Hit Traffic Barrier	0	1	2	0	1	4	80%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	0	0	0	0	0%
Animal	0	0	0	0	0	0	0%
Other	0	0	0	0	0	0	0%
<b>Total</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	0	0	0	0	0	0	0%
Property Damage Only	0	2	2	0	1	5	100%
<b>Total</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	0	1	2	0	1	4	80%
Dry	0	1	0	0	0	1	20%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	0	2	2	0	1	5	100%
Dusk	0	0	0	0	0	0	0%
Dawn	0	0	0	0	0	0	0%
Dark	0	0	0	0	0	0	0%
<b>Total</b>	<b>0</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>100%</b>

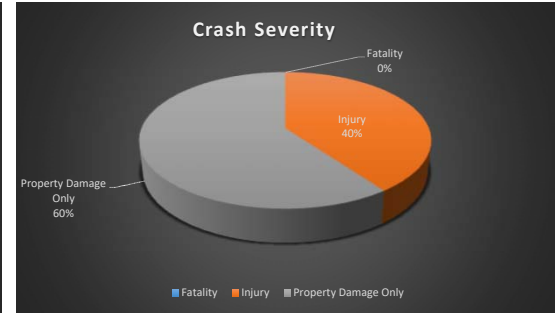
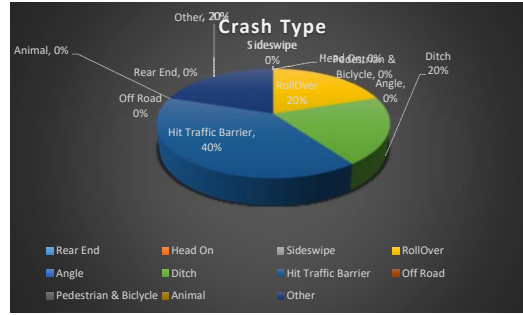
### Crash Data Summary - I-95 NB On Ramp from SR 524

No.	Crash ID	Date	Day	Year	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	844960020	9/16/2014	Sunday	2014	Ditch	Property Damage Only	0	0	\$0	Daylight	Wet
2	845349430	1/1/2015	Monday	2015	Hit Traffic Barrier	Property Damage Only	0	0	\$100	Daylight	Wet
3	851166130	6/14/2015	Tuesday	2015	Rollover	Injury	0	1	\$0	Daylight	Dry
4	871191710	7/8/2018	Wednesday	2018	Hit Traffic Barrier	Injury	0	1	\$0	Daylight	Dry
5	845021380	9/13/2014	Thursday	2014	Other	Property Damage Only	0	0	\$0	Dark-Not Lighted	Dry

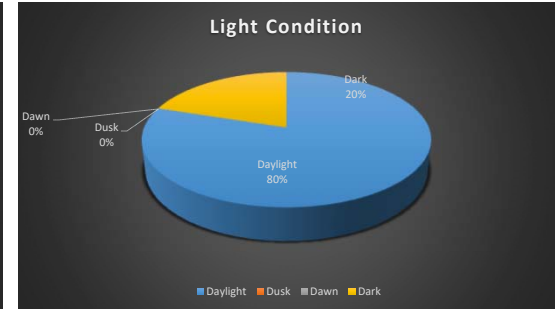
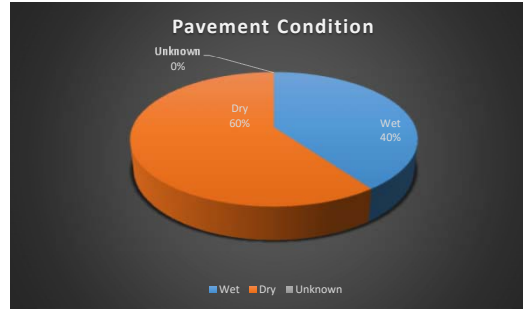
# Crash Data Summary - I-95 NB On Ramp from SR 524

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	0	0	0	0	0	0%
Head On	0	0	0	0	0	0	0%
Sideswipe	0	0	0	0	0	0	0%
RollOver	0	1	0	0	0	1	20%
Angle	0	0	0	0	0	0	0%
Ditch	1	0	0	0	0	1	20%
Hit Traffic Barrier	0	1	0	0	1	2	40%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	0	0	0	0	0%
Animal	0	0	0	0	0	0	0%
Other	1	0	0	0	0	1	20%
<b>Total</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	0	1	0	0	1	2	40%
Property Damage Only	2	1	0	0	0	3	60%
<b>Total</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	1	1	0	0	0	2	40%
Dry	1	1	0	0	1	3	60%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	1	2	0	0	1	4	80%
Dusk	0	0	0	0	0	0	0%
Dawn	0	0	0	0	0	0	0%
Dark	1	0	0	0	0	1	20%
<b>Total</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>100%</b>

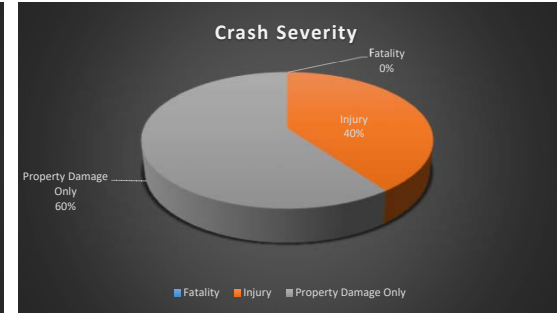
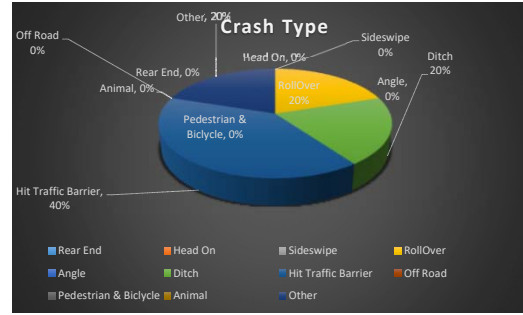
### Crash Data Summary - I-95 SB Off Ramp to SR 524

No.	Crash ID	Date	Day	Year	Crash Type	Crash Severity	Fatalities	Injuries	Property Damage	Day/Night	Wet/Dry
1	844960020	9/16/2014	Friday	2014	Ditch	Property Damage Only	0	0	\$0	Daylight	Wet
2	845349430	1/1/2015	Saturday	2015	Hit Traffic Barrier	Property Damage Only	0	0	\$100	Daylight	Wet
3	851166130	6/14/2015	Sunday	2015	Rollover	Injury	0	1	\$0	Daylight	Dry
4	871191710	7/8/2018	Monday	2018	Hit Traffic Barrier	Injury	0	1	\$0	Daylight	Dry
5	845021380	9/13/2014	Tuesday	2014	Other	Property Damage Only	0	0	\$0	Dark-Not Lighted	Dry

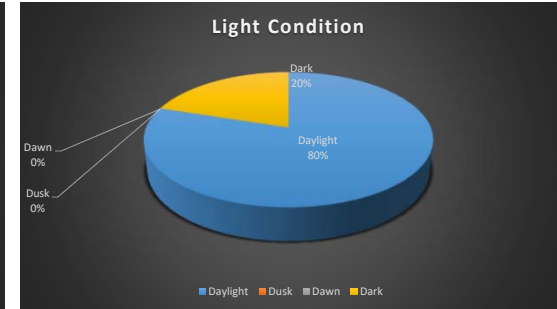
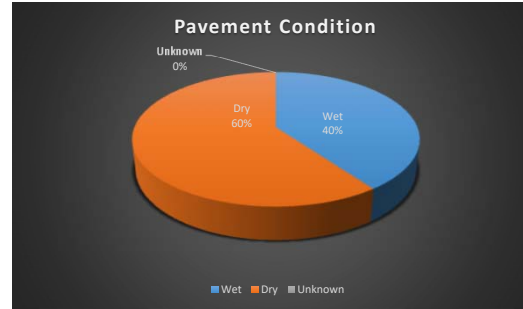
# Crash Data Summary - I-95 SB Off Ramp to SR 524

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	0	0	0	0	0	0%
Head On	0	0	0	0	0	0	0%
Sideswipe	0	0	0	0	0	0	0%
RollOver	0	1	0	0	0	1	20%
Angle	0	0	0	0	0	0	0%
Ditch	1	0	0	0	0	1	20%
Hit Traffic Barrier	0	1	0	0	1	2	40%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	0	0	0	0	0%
Animal	0	0	0	0	0	0	0%
Other	1	0	0	0	0	1	20%
<b>Total</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	0	1	0	0	1	2	40%
Property Damage Only	2	1	0	0	0	3	60%
<b>Total</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	1	1	0	0	0	2	40%
Dry	1	1	0	0	1	3	60%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	1	2	0	0	1	4	80%
Dusk	0	0	0	0	0	0	0%
Dawn	0	0	0	0	0	0	0%
Dark	1	0	0	0	0	1	20%
<b>Total</b>	<b>2</b>	<b>2</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>5</b>	<b>100%</b>



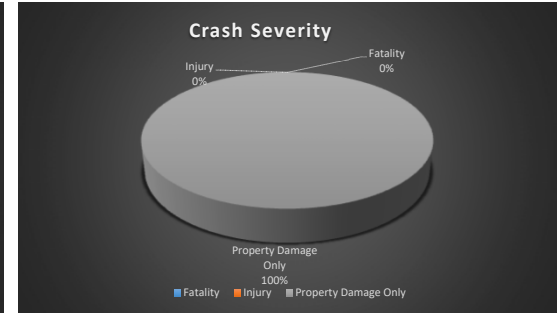
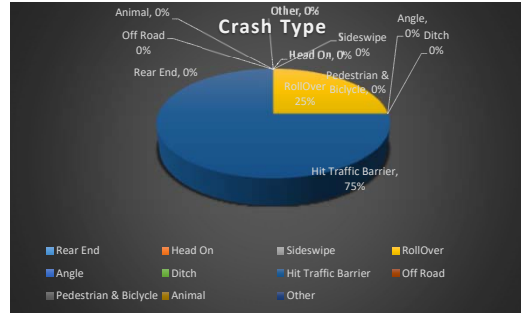
**Crash Data Summary - I-95 SB On Ramp from SR 524**

<b>No.</b>	<b>Crash ID</b>	<b>Date</b>	<b>Day</b>	<b>Year</b>	<b>Crash Type</b>	<b>Crash Severity</b>	<b>Fatalities</b>	<b>Injuries</b>	<b>Property Damage</b>	<b>Day/Night</b>	<b>Wet/Dry</b>
1	852115670	1/15/2016	Saturday	2016	Hit Traffic Barrier	Property Damage Only	0	0	\$200	Daylight	Wet
2	845410170	1/27/2015	Sunday	2015	Rollover	Property Damage Only	0	0	\$0	Daylight	Dry
3	848860350	6/2/2015	Monday	2015	Hit Traffic Barrier	Property Damage Only	0	0	\$0	Daylight	Wet
4	872331100	7/20/2018	Tuesday	2018	Hit Traffic Barrier	Property Damage Only	0	0	\$500	Daylight	Wet

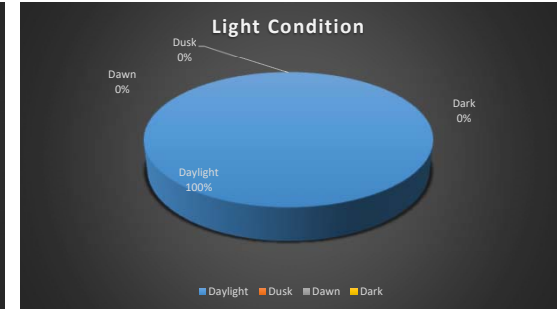
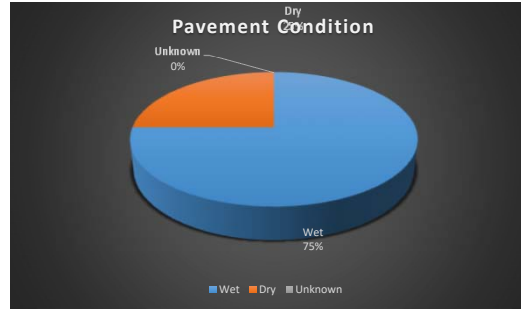
# Crash Data Summary - I-95 SB On Ramp from SR 524

From: 1/1/2014 to 12/31/2018

Crash Type	2014	2015	2016	2017	2018	Total	Proportion
Rear End	0	0	0	0	0	0	0%
Head On	0	0	0	0	0	0	0%
Sideswipe	0	0	0	0	0	0	0%
RollOver	0	1	0	0	0	1	25%
Angle	0	0	0	0	0	0	0%
Ditch	0	0	0	0	0	0	0%
Hit Traffic Barrier	0	1	1	0	1	3	75%
Off Road	0	0	0	0	0	0	0%
Pedestrian & Bicycle	0	0	0	0	0	0	0%
Animal	0	0	0	0	0	0	0%
Other	0	0	0	0	0	0	0%
<b>Total</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>100%</b>



Crash Severity	2014	2015	2016	2017	2018	Total	Proportion
Fatality	0	0	0	0	0	0	0%
Injury	0	0	0	0	0	0	0%
Property Damage Only	0	2	1	0	1	4	100%
<b>Total</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>100%</b>



Pavement Condition	2014	2015	2016	2017	2018	Total	Proportion
Wet	0	1	1	0	1	3	75%
Dry	0	1	0	0	0	1	25%
Unknown	0	0	0	0	0	0	0%
<b>Total</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>100%</b>

Light Condition	2014	2015	2016	2017	2018	Total	Proportion
Daylight	0	2	1	0	1	4	100%
Dusk	0	0	0	0	0	0	0%
Dawn	0	0	0	0	0	0	0%
Dark	0	0	0	0	0	0	0%
<b>Total</b>	<b>0</b>	<b>2</b>	<b>1</b>	<b>0</b>	<b>1</b>	<b>4</b>	<b>100%</b>

# Statewide Roadway Crash Rates

District	County	Crash Rate Category	Average Crash Rate	Influence Area Crashes	Crash Count	Millions Entering Vehicles	Total Centerline Miles	Average Economic Loss Per Crash	Average Economic Loss Per Injury	Total Property Damage Only Crashes	Total Crashes With Highest Injury Possible	Total Crashes With Highest Injury Non Incapacitating	Total Crashes With Highest Injury Incapacitating	Total Crashes Involving Traffic Fatality	Total Crashes With Only Injury Non Traffic Fatality	Total Non Injured Persons	Total Persons With Possible Injury	Total Persons With Non Incapacitating Injury	Total Persons With Incapacitating Injury	Total Traffic Fatalities	Total Non Traffic Fatalities
Statewide		Interstate Urban	0.92433	933	127812	139285	4051	147656	153130	80781	26956	15171	4971	801	65	257080	48773	21511	6641	920	77
Statewide		Interstate Rural	0.4385	27	19491	44511	3426	291943	327385	11986	3108	2744	1329	341	10	36239	6566	4434	1960	414	15
Statewide		Toll Road Urban	0.73693	690	36546	50528	2379	124478	125353	24425	7217	4314	1083	186	11	69864	12596	5999	1394	210	12
Statewide		Toll Road Rural	0.41288	12	3716	9029	900	234676	265763	2222	691	575	185	49	6	6834	1466	994	285	58	7
Statewide		Urban Other Limited Access	1.93587	3737	22553	13580	634	98117	95129	18002	5362	2235	586	91	14	55067	9400	3076	748	95	17
Statewide		Rural Other Limited Access	0.76086	19	15	45	23	354448	336989	25	3	5	0	1	0	76	4	6	1	1	0
Statewide		Ramp Urban	0	59159	16960	4081	1101	104847	100770	50560	15567	7619	2094	261	18	147957	25637	10079	2580	286	22
Statewide		Ramp Rural	0	55982	37574	9391	4367	124874	125929	59103	20100	10608	3269	446	30	187187	33994	14422	4081	485	37
Statewide		Urban 2-3Ln 2WY Divd Rasd	6.57533	2398	2777	787	194	100581	96464	3173	1204	624	163	11	0	11151	2025	828	206	11	0
Statewide		Urban 2-3Ln 2WY Divd Pavd	5.39119	3731	10394	2620	621	116888	111860	8712	3143	1755	459	51	5	30511	5192	2346	558	54	6
Statewide		Urban 2-3Ln 2WY Undivd	3.33058	2047	5563	2285	899	133909	124618	4635	1572	1071	294	35	3	15954	2569	1392	344	36	3
Statewide		Suburban 2-3Ln 2WY Divd Rasd	3.30867	928	2258	963	233	180256	191853	1855	724	402	180	24	1	6812	1374	602	241	28	1
Statewide		Suburban 2-3Ln 2WY Divd Pavd	2.58255	4208	19118	9032	2023	194171	202843	12772	5506	3609	10230	201	8	49145	10602	5260	1659	223	9
Statewide		Suburban 2-3Ln 2WY Undivd	1.11885	1861	17278	17106	5841	261176	267397	10231	4191	3192	1251	265	9	37656	7875	4764	1725	285	13
Statewide		Rural 2-3Ln 2WY Divd Rasd	1.1717	171	593	652	166	298403	289961	433	136	125	57	13	0	1575	268	175	79	13	0
Statewide		Rural 2-3Ln 2WY Divd Pavd	1.7799	734	4222	2784	998	324115	365237	2520	1069	885	387	92	3	9296	2237	1395	564	112	6
Statewide		Rural 2-3Ln 2WY Undivd	0.73644	1456	18624	27266	18643	466638	523727	10211	3619	3653	1971	614	12	30679	7170	5646	3019	745	16
Statewide		Urban 4-5Ln 2WY Divd Rasd	3.41251	21009	102269	36125	4360	141191	135600	73552	28232	16162	4641	654	37	269804	47810	22012	5673	678	50
Statewide		Urban 4-5Ln 2WY Divd Pavd	5.60009	21830	89497	19879	2414	114791	109900	72630	22764	12103	3366	446	18	248787	38506	16157	4079	475	30
Statewide		Urban 4-5Ln 2WY Undivd	6.31988	2357	2723	458	458	120946	112896	11367	3292	1889	578	76	6	38631	5385	2535	679	79	8
Statewide		Suburban 4-5Ln 2WY Divd Rasd	1.66973	5300	75759	48546	5536	228544	232326	43034	19548	12757	4775	912	33	166842	35989	18597	6461	975	43
Statewide		Suburban 4-5Ln 2WY Divd Pavd	2.30454	1027	9533	4582	474	177660	171500	6392	2331	1332	407	93	5	23380	4022	1830	536	95	7
Statewide		Suburban 4-5Ln 2WY Undivd	1.62206	52	314	226	44	207971	190276	187	80	71	25	3	0	861	137	95	27	3	0
Statewide		Rural 4-5Ln 2WY Divd Rasd	0.68389	393	11866	17925	4511	436565	472365	6102	2400	2298	1098	346	15	19518	4799	3710	1586	401	20
Statewide		Rural 4-5Ln 2WY Divd Pavd	0.51745	6	414	812	237	489042	509661	219	78	69	39	14	1	628	134	88	56	16	1
Statewide		Rural 4-5Ln 2WY Undivd	0	0	0	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Statewide		Urban 6+Ln 2WY Divd Rasd	4.4316	44348	274909	72041	4663	126043	121685	201100	70417	35511	10700	1471	58	712797	118337	48785	13352	1544	81
Statewide		Urban 6+Ln 2WY Divd Pavd	5.02607	3317	19224	4485	321	155217	150677	13689	4941	2740	1029	140	2	50727	8803	3800	1307	143	3
Statewide		Urban 6+Ln 2WY Undivd	58.78478	33	324	6	2	54906	41650	283	36	28	10	0	0	813	49	30	11	0	0
Statewide		Suburban 6+Ln 2WY Divd Rasd	2.58627	5433	64170	26912	1651	163982	166384	39220	17854	8648	3419	443	19	153959	31662	12300	4538	479	34
Statewide		Suburban 6+Ln 2WY Divd Pavd	1.08671	118	1865	1825	78	169146	161853	1255	396	233	83	16	0	4165	649	306	103	17	0
Statewide		Suburban 6+Ln 2WY Undivd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Statewide		Rural 6+Ln 2WY Divd Rasd	1.01472	10	250	256	54	273276	452956	127	61	55	13	4	0	589	135	86	14	9	0
Statewide		Rural 6+Ln 2WY Divd Pavd	0.06096	0	1	16	6	106215	70810	0	1	0	0	0	0	0	1	0	0	0	0
Statewide		Rural 6+Ln 2WY Undivd	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Statewide		Urban One Way	10.20245	9952	28212	3741	959	87706	78848	27386	6410	3339	913	101	15	87519	10145	4432	1055	102	23
Statewide		Suburban One Way	2.31175	1823	4821	2874	501	129530	118448	4524	1216	693	171	40	0	14872	2003	893	205	40	1
Statewide		Rural One Way	4.54199	621	371	218	126	108071	98212	623	218	116	31	3	1	2023	342	149	36	3	2
Statewide		Undefined	0	11462	3774	0	0	113883	112397	9883	3195	1629	466	59	4	31831	5494	2231	573	66	6
Statewide		Not Coded	1.86459	28217	1047918	577140	72897	159091	159400	657152	233594	133530	44042	7466	351	2266520	407086	186972	57244	8171	470

# Statewide Intersection Crash Rates

District	County	Crash Rate Category	4 Legs Rate	4 Legs # Crashes	4 Legs Millions Vehicles	4 Legs # Fatalities	4 Legs # Injuries	4 Legs # Non-Injured	4 Legs # Intersections
Statewide		Interstate Urban	0.130903169	1045	7983	6	554	704	36
Statewide		Interstate Rural	0.064676617	91	1407		56	59	16
Statewide		Toll Road Urban	0.10952381	184	1680	1	110	103	18
Statewide		Toll Road Rural	0.061889251	19	307		12	8	9
Statewide		Urban Other Limited Access	1.563497128	2450	1567	7	1056	1813	35
Statewide		Rural Other Limited Access	0.209302326	9	43		2	7	4
Statewide		Ramp Urban	1.185714286	83	70		30	67	3
Statewide		Ramp Rural	2.44045677	1496	613	7	755	1003	72
Statewide		Urban 2-3Ln 2Wwy Divd Rasd	0.561625034	2046	3643	3	1165	1237	171
Statewide		Urban 2-3Ln 2Wwy Divd Pavd	0.623289913	9522	15277	30	5297	5995	695
Statewide		Urban 2-3Ln 2Wwy Undivd	0.315381069	4105	13016	16	2367	2467	915
Statewide		Suburban 2-3Ln 2Wwy Divd Rasd	0.598328201	1360	2273	9	942	809	87
Statewide		Suburban 2-3Ln 2Wwy Divd Pavd	0.504014225	9354	18559	78	6958	5153	722
Statewide		Suburban 2-3Ln 2Wwy Undivd	0.282620466	4698	16623	32	3221	2710	1136
Statewide		Rural 2-3Ln 2Wwy Divd Rasd	0.216049383	70	324	2	58	37	19
Statewide		Rural 2-3Ln 2Wwy Divd Pavd	0.339097541	1255	3701	31	1141	634	175
Statewide		Rural 2-3Ln 2Wwy Undivd	0.235399108	2374	10085	70	2131	1198	1131
Statewide		Urban 4-5Ln 2Wwy Divd Rasd	0.586675882	73849	125877	362	44734	44387	2633
Statewide		Urban 4-5Ln 2Wwy Divd Pavd	0.721511963	68908	95505	273	35257	45723	2148
Statewide		Urban 4-5Ln 2Wwy Undivd	0.738177835	12129	16431	47	5989	8103	530
Statewide		Suburban 4-5Ln 2Wwy Divd Rasd	0.496756494	34766	69986	294	26276	18731	1416
Statewide		Suburban 4-5Ln 2Wwy Divd Pavd	0.56744068	4472	7881	22	2650	2774	168
Statewide		Suburban 4-5Ln 2Wwy Undivd	0.175204918	171	976	1	107	87	36
Statewide		Rural 4-5Ln 2Wwy Divd Rasd	0.217290071	2893	13314	58	2497	1500	451
Statewide		Rural 4-5Ln 2Wwy Divd Pavd	0.078571429	11	140		8	4	4
Statewide		Rural 4-5Ln 2Wwy Undivd							
Statewide		Urban 6+Ln 2Wwy Divd Rasd	0.826125703	207650	251354	814	115348	132221	3089
Statewide		Urban 6+Ln 2Wwy Divd Pavd	0.667638157	11912	17842	77	7663	6959	252
Statewide		Urban 6+Ln 2Wwy Undivd	4.179856115	581	139		188	438	6
Statewide		Suburban 6+Ln 2Wwy Divd Rasd	0.71847647	39236	54610	223	27736	22030	635
Statewide		Suburban 6+Ln 2Wwy Divd Pavd	0.425369333	835	1963	5	331	608	21
Statewide		Suburban 6+Ln 2Wwy Undivd							
Statewide		Rural 6+Ln 2Wwy Divd Rasd	0.123411978	68	551		79	31	19
Statewide		Rural 6+Ln 2Wwy Divd Pavd							
Statewide		Rural 6+Ln 2Wwy Undivd							
Statewide		Urban One Way	0.988298717	23649	23929	61	9352	17202	1039
Statewide		Suburban One Way	0.79544264	3037	3818	11	1270	2193	130
Statewide		Rural One Way	1.541666667	37	24		23	23	24
Statewide		Undefined	0.045144276	291	6446	2	153	189	683

Output Summary							
<b>General Information</b>							
Project description: I-95 & SR 524 IMR - No Build (2 Lanes SR 524 with Diamond Interchange)							
Analyst: VHB		Date: 1/12/2022		Area type: Urban			
First year of analysis: 2025							
Last year of analysis: 2045							
<b>Crash Data Description</b>							
Freeway segments	Segment crash data available?	No	First year of crash data:				
	Project-level crash data available?	No	Last year of crash data:				
Ramp segments	Segment crash data available?	No	First year of crash data:				
	Project-level crash data available?	No	Last year of crash data:				
Ramp terminals	Segment crash data available?	No	First year of crash data:				
	Project-level crash data available?	No	Last year of crash data:				
<b>Estimated Crash Statistics</b>							
<b>Crashes for Entire Facility</b>		<b>Total</b>	<b>K</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>PDO</b>
Estimated number of crashes during Study Period, crashes:		257.2	0.7	3.6	19.4	59.5	174.1
Estimated average crash freq. during Study Period, crashes/yr:		12.2	0.0	0.2	0.9	2.8	8.3
<b>Crashes by Facility Component</b>		<b>Nbr. Sites</b>	<b>Total</b>	<b>K</b>	<b>A</b>	<b>B</b>	<b>C</b>
Freeway segments, crashes:		0	0.0	0.0	0.0	0.0	0.0
Ramp segments, crashes:		6	47.4	0.6	1.8	8.8	11.4
Crossroad ramp terminals, crashes:		2	209.8	0.1	1.8	10.6	48.1
<b>Crashes for Entire Facility by Year</b>		<b>Year</b>	<b>Total</b>	<b>K</b>	<b>A</b>	<b>B</b>	<b>C</b>
Estimated number of crashes during the Study Period, crashes:		2025	8.6	0.0	0.1	0.7	2.0
		2026	8.9	0.0	0.1	0.7	2.1
		2027	9.3	0.0	0.1	0.7	2.2
		2028	9.6	0.0	0.1	0.8	2.3
		2029	10.0	0.0	0.1	0.8	2.3
		2030	10.4	0.0	0.1	0.8	2.4
		2031	10.7	0.0	0.2	0.8	2.5
		2032	11.1	0.0	0.2	0.8	2.6
		2033	11.5	0.0	0.2	0.9	2.6
		2034	11.8	0.0	0.2	0.9	2.7
		2035	12.2	0.0	0.2	0.9	2.8
		2036	12.6	0.0	0.2	0.9	2.9
		2037	13.0	0.0	0.2	1.0	3.0
		2038	13.4	0.0	0.2	1.0	3.1
		2039	13.7	0.0	0.2	1.0	3.2
		2040	14.1	0.0	0.2	1.0	3.2
		2041	14.5	0.0	0.2	1.1	3.3
		2042	14.9	0.0	0.2	1.1	3.4
		2043	15.3	0.0	0.2	1.1	3.5
		2044	15.7	0.0	0.2	1.2	3.6
		2045	16.0	0.0	0.2	1.2	3.7
		2046					
		2047					
		2048					
<b>Distribution of Crashes for Entire Facility</b>							
Crash Type	Crash Type Category	Estimated Number of Crashes During the Study Period					
		Total	K	A	B	C	PDO
Multiple vehicle	Head-on crashes:	1.8	0.0	0.0	0.1	0.5	1.1
	Right-angle crashes:	48.6	0.0	0.5	2.8	12.5	32.9
	Rear-end crashes:	123.4	0.1	1.2	7.4	31.0	83.7
	Sideswipe crashes:	26.7	0.0	0.1	0.6	2.2	23.9
	Other multiple-vehicle crashes:	4.4	0.0	0.0	0.2	0.6	3.5
	Total multiple-vehicle crashes:	204.9	0.1	1.9	11.1	46.8	145.0
Single vehicle	Crashes with animal:	0.2	0.0	0.0	0.0	0.0	0.1
	Crashes with fixed object:	40.5	0.4	1.2	5.9	8.8	24.1
	Crashes with other object:	1.1	0.0	0.0	0.1	0.2	0.8
	Crashes with parked vehicle:	0.8	0.0	0.0	0.1	0.2	0.5
	Other single-vehicle crashes:	9.7	0.1	0.4	2.1	3.4	3.6
	Total single-vehicle crashes:	52.3	0.5	1.7	8.3	12.6	29.1
Total crashes:		257.2	0.7	3.6	19.4	59.5	174.1

Evaluation Site Summary				
<b>General Information</b>				
Project description: I-95 & SR 524 IMR - No Build (2 Lanes SR 524 with Diamond Interchange)				
Analyst: VHB		Date: 1/12/2022		Area type: Urban
First year of analysis: 2025		Total length of freeway segments for Study Period (mi) 0.000		
Last year of analysis: 2045				
<b>Site Description</b>				
<b>Freeway Segments</b>				
Number	Lanes	Study Period Length (mi)	Study Period Description	
1	0	0.000	0	
2	0	0.000	0	
3	0	0.000	0	
4	0	0.000	0	
5	0	0.000	0	
6	0	0.000	0	
7	0	0.000	0	
8	0	0.000	0	
9	0	0.000	0	
10	0	0.000	0	
11	0	0.000	0	
12	0	0.000	0	
13	0	0.000	0	
14	0	0.000	0	
15	0	0.000	0	
16	0	0.000	0	
17	0	0.000	0	
18	0	0.000	0	
19	0	0.000	0	
20	0	0.000	0	
<b>Ramp Segments</b>				
Number	Study Period Description	Number	Study Period Description	
1	NB Off Ramp -1	21	0	
2	NB Off Ramp -2	22	0	
3	NB On Ramp	23	0	
4	SB Off Ramp-1	24	0	
5	SB Off Ramp-2	25	0	
6	SB On Ramp	26	0	
7	0	27	0	
8	0	28	0	
9	0	29	0	
10	0	30	0	
11	0	31	0	
12	0	32	0	
13	0	33	0	
14	0	34	0	
15	0	35	0	
16	0	36	0	
17	0	37	0	
18	0	38	0	
19	0	39	0	
20	0	40	0	
<b>Crossroad Ramp Terminals</b>				
Number	Config.	Control	Study Period Description	
1	D4	Signal	NB Ramps	
2	D4	Signal	SB Ramps	
3	0	0	0	
4	0	0	0	
5	0	0	0	
6	0	0	0	

Output Summary							
<b>General Information</b>							
Project description: I-95 & SR 524 IMR - Build (4 Lanes SR 524 with Diamond Interchange)							
Analyst: VHB		Date: 1/10/2022		Area type: Urban			
First year of analysis: 2025							
Last year of analysis: 2045							
<b>Crash Data Description</b>							
Freeway segments	Segment crash data available?	No	First year of crash data:				
	Project-level crash data available?	No	Last year of crash data:				
Ramp segments	Segment crash data available?	No	First year of crash data:				
	Project-level crash data available?	No	Last year of crash data:				
Ramp terminals	Segment crash data available?	No	First year of crash data:				
	Project-level crash data available?	No	Last year of crash data:				
<b>Estimated Crash Statistics</b>							
<b>Crashes for Entire Facility</b>		<b>Total</b>	<b>K</b>	<b>A</b>	<b>B</b>	<b>C</b>	<b>PDO</b>
Estimated number of crashes during Study Period, crashes:		226.2	0.4	2.5	14.3	58.0	150.9
Estimated average crash freq. during Study Period, crashes/yr:		10.8	0.0	0.1	0.7	2.8	7.2
<b>Crashes by Facility Component</b>		<b>Nbr. Sites</b>	<b>Total</b>	<b>K</b>	<b>A</b>	<b>B</b>	<b>C</b>
Freeway segments, crashes:		0	0.0	0.0	0.0	0.0	0.0
Ramp segments, crashes:		8	36.9	0.4	1.1	5.1	22.7
Crossroad ramp terminals, crashes:		2	189.2	0.1	1.4	9.2	128.2
<b>Crashes for Entire Facility by Year</b>		<b>Year</b>	<b>Total</b>	<b>K</b>	<b>A</b>	<b>B</b>	<b>C</b>
Estimated number of crashes during the Study Period, crashes:		2025	7.1	0.0	0.1	0.5	1.8
		2026	7.5	0.0	0.1	0.5	1.9
		2027	7.8	0.0	0.1	0.5	2.0
		2028	8.2	0.0	0.1	0.5	2.1
		2029	8.5	0.0	0.1	0.5	2.2
		2030	8.9	0.0	0.1	0.6	2.3
		2031	9.3	0.0	0.1	0.6	2.4
		2032	9.7	0.0	0.1	0.6	2.5
		2033	10.0	0.0	0.1	0.6	2.5
		2034	10.4	0.0	0.1	0.7	2.6
		2035	10.8	0.0	0.1	0.7	2.7
		2036	11.1	0.0	0.1	0.7	2.8
		2037	11.5	0.0	0.1	0.7	2.9
		2038	11.9	0.0	0.1	0.7	3.0
		2039	12.2	0.0	0.1	0.8	3.1
		2040	12.6	0.0	0.1	0.8	3.3
		2041	13.0	0.0	0.1	0.8	3.4
		2042	13.4	0.0	0.1	0.8	3.5
		2043	13.7	0.0	0.1	0.9	3.6
		2044	14.1	0.0	0.2	0.9	3.7
		2045	14.5	0.0	0.2	0.9	3.8
		2046					
		2047					
		2048					
<b>Distribution of Crashes for Entire Facility</b>							
Crash Type	Crash Type Category	Estimated Number of Crashes During the Study Period					
		Total	K	A	B	C	PDO
Multiple vehicle	Head-on crashes:	1.6	0.0	0.0	0.1	0.6	0.9
	Right-angle crashes:	44.1	0.0	0.4	2.4	13.1	28.2
	Rear-end crashes:	112.3	0.1	1.0	6.2	32.3	72.7
	Sideswipe crashes:	23.8	0.0	0.1	0.5	2.3	21.0
	Other multiple-vehicle crashes:	4.0	0.0	0.0	0.2	0.6	3.1
	Total multiple-vehicle crashes:	185.8	0.1	1.5	9.4	48.9	125.9
Single vehicle	Crashes with animal:	0.1	0.0	0.0	0.0	0.0	0.1
	Crashes with fixed object:	31.5	0.2	0.7	3.4	6.3	20.8
	Crashes with other object:	0.9	0.0	0.0	0.1	0.1	0.7
	Crashes with parked vehicle:	0.7	0.0	0.0	0.1	0.1	0.5
	Other single-vehicle crashes:	7.2	0.1	0.3	1.3	2.5	3.1
	Total single-vehicle crashes:	40.4	0.3	1.0	4.8	9.2	25.0
Total crashes:		226.2	0.4	2.5	14.3	58.0	150.9

Evaluation Site Summary					
<b>General Information</b>					
Project description: I-95 & SR 524 IMR - Build (4 Lanes SR 524 with Diamond Interchange)					
Analyst: VHB		Date: 1/10/2022		Area type: Urban	
First year of analysis: 2025		Total length of freeway segments for Study Period (mi)			0.000
Last year of analysis: 2045					
<b>Site Description</b>					
<b>Freeway Segments</b>					
Number	Lanes	Study Period Length (mi)	Study Period Description		
1	0	0.000	0		
2	0	0.000	0		
3	0	0.000	0		
4	0	0.000	0		
5	0	0.000	0		
6	0	0.000	0		
7	0	0.000	0		
8	0	0.000	0		
9	0	0.000	0		
10	0	0.000	0		
11	0	0.000	0		
12	0	0.000	0		
13	0	0.000	0		
14	0	0.000	0		
15	0	0.000	0		
16	0	0.000	0		
17	0	0.000	0		
18	0	0.000	0		
19	0	0.000	0		
20	0	0.000	0		
<b>Ramp Segments</b>					
Number	Study Period Description	Number	Study Period Description		
1	NB Off Ramp -1	21	0		
2	NB Off Ramp -2	22	0		
3	NB On Ramp-1	23	0		
4	NB On Ramp-2	24	0		
5	SB Off Ramp-1	25	0		
6	SB Off Ramp-2	26	0		
7	SB On Ramp-1	27	0		
8	SB On Ramp-2	28	0		
9		29	0		
10		30	0		
11		31	0		
12		32	0		
13		33	0		
14		34	0		
15		35	0		
16		36	0		
17		37	0		
18		38	0		
19		39	0		
20		40	0		
<b>Crossroad Ramp Terminals</b>					
Number	Config.	Control	Study Period Description		
1	D4	Signal	NB Ramps		
2	D4	Signal	SB Ramps		
3	0	0	0		
4	0	0	0		
5	0	0	0		
6	0	0	0		



## CMF / CRF Details

**CMF ID: 10761**

**Convert diamond interchange to Diverging Diamond Interchange (DDI) or Double Crossover Diamond (DCD)**

**Description: Convert a diamond interchange to a Diverging Diamond Interchange (DDI) or a Double Crossover Diamond (DCD)**

**Prior Condition: *No Prior Condition(s)***

**Category: Interchange design**

**Study: [Systematic Safety Evaluation of Diverging Diamond Interchanges Based on Nationwide Implementation Data, Abdelrahman et al., 2021](#)**

**Star Quality Rating:**



### Crash Modification Factor (CMF)

**Value:** 0.858

**Adjusted Standard Error:**

**Unadjusted Standard Error:**

### Crash Reduction Factor (CRF)

**Value:** 14.2 (This value indicates a **decrease** in crashes)

**Adjusted Standard Error:****Unadjusted Standard Error:****Applicability****Crash Type:**

All

**Crash Severity:**

All

**Roadway Types:**

Not specified

**Number of Lanes:****Road Division Type:**

Divided by Median

**Speed Limit:****Area Type:**

Urban and suburban

**Traffic Volume:**1295 to 76100 *Annual Average Daily Traffic (AADT)***Time of Day:**

All

***If countermeasure is intersection-based*****Intersection Type:****Intersection Geometry:****Traffic Control:****Major Road Traffic Volume:****Minor Road Traffic Volume:****Development Details****Date Range of Data Used:****Municipality:**



<b>State:</b>	CO, FL, GA, ID, IN, IA, KS, KY, MI, MN, MO, NV, NM, NY, NC, OH, OR, PA, TN, TX, UT, VA, WI, WY
<b>Country:</b>	
<b>Type of Methodology Used:</b>	2
<b>Sample Size Used:</b>	

<b>Other Details</b>	
<b>Included in Highway Safety Manual?</b>	No
<b>Date Added to Clearinghouse:</b>	Jul-01-2021
<b>Comments:</b>	The AADT values mentioned are for the Arterials.

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*The information contained in the Crash Modification Factors (CMF) Clearinghouse is disseminated under the sponsorship of the U.S. Department of Transportation in the interest of information exchange. The U.S. Government assumes no liability for the use of the information contained in the CMF Clearinghouse. The information contained in the CMF Clearinghouse does not constitute a standard, specification, or regulation, nor is it a substitute for sound engineering judgment.*

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		Location Information	
Analyst	ME	Roadway	SR 524 NO BUILD
Agency or Company	VHB	Intersection	N Friday Road
Date Performed	01/17/22	Jurisdiction	FDOT
		Analysis Year	2025
Input Data		Base Conditions	Site Conditions
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT <sub>major</sub> (veh/day)	AADT <sub>MAX</sub> = 67,700 (veh/day)	--	16,500
AADT <sub>minor</sub> (veh/day)	AADT <sub>MAX</sub> = 33,400 (veh/day)	--	4,200
Intersection lighting (present/not present)		Not Present	Not Present
Calibration factor, C <sub>i</sub>		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	3
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	2
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	3
Type of left-turn signal phasing for Leg #1		Permissive	Protected / Permissive
Type of left-turn signal phasing for Leg #2		--	Protected / Permissive
Type of left-turn signal phasing for Leg #3		--	Protected / Permissive
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Permissive
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			1
Maximum number of lanes crossed by a pedestrian (n <sub>lanesx</sub> )		--	4
Number of bus stops within 300 m (1,000 ft) of the intersection		0	0
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Not Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	2

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF <sub>1i</sub>	CMF <sub>2i</sub>	CMF <sub>3i</sub>	CMF <sub>4i</sub>	CMF <sub>5i</sub>	CMF <sub>6i</sub>	CMF <sub>COMB</sub>
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.73	0.97	0.92	1.00	1.00	1.00	0.65

**Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections**

(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bimv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bimv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bimv}$
	from Table 12-10			from Table 12-10	from Equation 12-21		(4) <sub>TOTAL</sub> *(5)	(7) from Worksheet 2B	1.00	(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	3.742	1.000	3.742	0.65	1.00	2.443
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	1.167	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.325	1.215	0.65	1.00	0.793
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	2.429	$(5)_{TOTAL}-(5)_{FI}$ 0.675	2.528	0.65	1.00	1.650

**Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections**

(1) Collision Type	(2) Proportion of Collision Type <sub>(FI)</sub>	(3) Predicted $N_{bimv}$ (FI) (crashes/year)	(4) Proportion of Collision Type (PDO)	(5) Predicted $N_{bimv}$ (PDO) (crashes/year)	(6) Predicted $N_{bimv}$ (TOTAL) (crashes/year)
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	0.793	1.000	1.650	2.443
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	$(3)+(5)$
Rear-end collision	0.450	0.357	0.483	0.797	1.154
Head-on collision	0.049	0.039	0.030	0.050	0.088
Angle collision	0.347	0.275	0.244	0.403	0.678
Sideswipe	0.099	0.078	0.032	0.053	0.131
Other multiple-vehicle collision	0.055	0.044	0.211	0.348	0.392

**Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections**

(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bisv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bisv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bisv}$
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		(4) <sub>TOTAL</sub> *(5)	(7) from Worksheet 2B	1.00	(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.258	1.000	0.258	0.65	1.00	0.169
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.070	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.274	0.071	0.65	1.00	0.046
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.186	$(5)_{TOTAL}-(5)_{FI}$ 0.726	0.188	0.65	1.00	0.122

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	Proportion of Collision Type <sup>(FI)</sup>	Predicted N <sub>bisv (FI)</sub> (crashes/year)	Proportion of Collision Type <sup>(PDO)</sup>	Predicted N <sub>bisv (PDO)</sub> (crashes/year)	Predicted N <sub>bisv (TOTAL)</sub> (crashes/year)
	from Table 12-13	(9) <sub>FI</sub> from Worksheet 2E	from Table 12-13	(9) <sub>PDO</sub> from Worksheet 2E	(9) <sub>PDO</sub> from Worksheet 2E
Total	1.000	0.046	1.000	0.122	0.169
		(2) <sup>*</sup> (3) <sub>FI</sub>		(4) <sup>*</sup> (5) <sub>PDO</sub>	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.000
Collision with fixed object	0.744	0.034	0.870	0.106	0.141
Collision with other object	0.072	0.003	0.070	0.009	0.012
Other single-vehicle collision	0.040	0.002	0.023	0.003	0.005
Single-vehicle noncollision	0.141	0.007	0.034	0.004	0.011

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections					
(1)	(2)	(3)	(4)	(5)	(7) <sup>*</sup>
Crash Severity Level	Predicted N <sub>bimv</sub>	Predicted N <sub>bisv</sub>	Predicted N <sub>bi</sub>	f <sub>pedi</sub>	Predicted N <sub>pedi</sub>
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4) <sup>*</sup> (5)
Total	--	--	--	--	--
Fatal and injury (FI)	--	--	--	--	--

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF <sub>1p</sub>	CMF <sub>2p</sub>	CMF <sub>3p</sub>	
from Table 12-28	from Table 12-29	from Table 12-30	(1) <sup>*</sup> (2) <sup>*</sup> (3)
1.00	1.00	1.12	1.12

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections												
(1)	(2)					(3)	(4)	(5)	(6)	(7)		
Crash Severity Level	SPF Coefficients					Overdispersion Parameter, k	N <sub>pedbase</sub>	Combined CMF	Calibration factor, C <sub>i</sub>	Predicted N <sub>pedi</sub>		
	from Table 12-14									from Equation 12-29	(4) from Worksheet 2H	(4) <sup>*</sup> (5) <sup>*</sup> (6)
	a	b	c	d	e							
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.003	1.12	1.00	0.004		
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.004		

<b>Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections</b>					
(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	Predicted $N_{bimv}$	Predicted $N_{bisv}$	Predicted $N_{bi}$	$f_{bikei}$	Predicted $N_{bikei}$
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	2.443	0.169	2.612	0.015	0.039
Fatal and injury (FI)	--	--	--	--	0.039

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

<b>Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections</b>			
(1)	(2)	(3)	(4)
Collision type	Fatal and injury (FI)	Property damage only (PDO)	Total
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
<b>MULTIPLE-VEHICLE</b>			
Rear-end collisions (from Worksheet 2D)	0.357	0.797	1.154
Head-on collisions (from Worksheet 2D)	0.039	0.050	0.088
Angle collisions (from Worksheet 2D)	0.275	0.403	0.678
Sideswipe (from Worksheet 2D)	0.078	0.053	0.131
Other multiple-vehicle collision (from Worksheet 2D)	0.044	0.348	0.392
Subtotal	0.793	1.650	2.443
<b>SINGLE-VEHICLE</b>			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.000
Collision with fixed object (from Worksheet 2F)	0.034	0.106	0.141
Collision with other object (from Worksheet 2F)	0.003	0.009	0.012
Other single-vehicle collision (from Worksheet 2F)	0.002	0.003	0.005
Single-vehicle noncollision (from Worksheet 2F)	0.007	0.004	0.011
Collision with pedestrian (from Worksheet 2G or 2I)	0.004	0.000	0.004
Collision with bicycle (from Worksheet 2J)	0.039	0.000	0.039
Subtotal	0.089	0.122	0.211
Total	0.882	1.773	2.654

<b>Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections</b>	
(1)	(2)
Crash severity level	Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)
	(Total) from Worksheet 2K
Total	2.7
Fatal and injury (FI)	0.9
Property damage only (PDO)	1.8

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		Location Information	
Analyst	ME	Roadway	SR 524 NO BUILD
Agency or Company	VHB	Intersection	N Friday Road
Date Performed	01/17/22	Jurisdiction	FDOT
		Analysis Year	2045
Input Data		Base Conditions	Site Conditions
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT <sub>major</sub> (veh/day)	AADT <sub>MAX</sub> = 67,700 (veh/day)	--	24,000
AADT <sub>minor</sub> (veh/day)	AADT <sub>MAX</sub> = 33,400 (veh/day)	--	4,450
Intersection lighting (present/not present)		Not Present	Not Present
Calibration factor, C <sub>i</sub>		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	3
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	2
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	3
Type of left-turn signal phasing for Leg #1		Permissive	Protected / Permissive
Type of left-turn signal phasing for Leg #2		--	Protected / Permissive
Type of left-turn signal phasing for Leg #3		--	Protected / Permissive
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Permissive
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			1
Maximum number of lanes crossed by a pedestrian (n <sub>lanesx</sub> )		--	4
Number of bus stops within 300 m (1,000 ft) of the intersection		0	0
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Not Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	2

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF <sub>1i</sub>	CMF <sub>2i</sub>	CMF <sub>3i</sub>	CMF <sub>4i</sub>	CMF <sub>5i</sub>	CMF <sub>6i</sub>	CMF <sub>COMB</sub>
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.73	0.97	0.92	1.00	1.00	1.00	0.65

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bimv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bimv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bimv}$
	from Table 12-10			from Table 12-10	from Equation 12-21		(4) <sub>TOTAL</sub> *(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	5.663	1.000	5.663	0.65	1.00	3.697
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	1.839	(4) <sub>FI</sub> /((4) <sub>FI</sub> +(4) <sub>PDO</sub> ) 0.338	1.912	0.65	1.00	1.248
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	3.610	(5) <sub>TOTAL</sub> -(5) <sub>FI</sub> 0.662	3.752	0.65	1.00	2.449

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1) Collision Type	(2) Proportion of Collision Type <sub>(FI)</sub>	(3) Predicted $N_{bimv}$ (FI) (crashes/year)	(4) Proportion of Collision Type (PDO)	(5) Predicted $N_{bimv}$ (PDO) (crashes/year)	(6) Predicted $N_{bimv}$ (TOTAL) (crashes/year)
	from Table 12-11	(9) <sub>FI</sub> from Worksheet 2C	from Table 12-11	(9) <sub>PDO</sub> from Worksheet 2C	(9) <sub>PDO</sub> from Worksheet 2C
Total	1.000	1.248	1.000	2.449	3.697
		(2)*(3) <sub>FI</sub>		(4)*(5) <sub>PDO</sub>	(3)+(5)
Rear-end collision	0.450	0.562	0.483	1.183	1.744
Head-on collision	0.049	0.061	0.030	0.073	0.135
Angle collision	0.347	0.433	0.244	0.598	1.031
Sideswipe	0.099	0.124	0.032	0.078	0.202
Other multiple-vehicle collision	0.055	0.069	0.211	0.517	0.585

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bisv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bisv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bisv}$
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		(4) <sub>TOTAL</sub> *(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.338	1.000	0.338	0.65	1.00	0.221
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.084	(4) <sub>FI</sub> /((4) <sub>FI</sub> +(4) <sub>PDO</sub> ) 0.249	0.084	0.65	1.00	0.055
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.253	(5) <sub>TOTAL</sub> -(5) <sub>FI</sub> 0.751	0.254	0.65	1.00	0.166

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	Proportion of Collision Type <sup>(FI)</sup>	Predicted N <sub>bisv (FI)</sub> (crashes/year)	Proportion of Collision Type (PDO)	Predicted N <sub>bisv (PDO)</sub> (crashes/year)	Predicted N <sub>bisv (TOTAL)</sub> (crashes/year)
	from Table 12-13	(9) <sub>FI</sub> from Worksheet 2E	from Table 12-13	(9) <sub>PDO</sub> from Worksheet 2E	(9) <sub>PDO</sub> from Worksheet 2E
Total	1.000	0.055	1.000	0.166	0.221
		(2) <sup>*</sup> (3) <sub>FI</sub>		(4) <sup>*</sup> (5) <sub>PDO</sub>	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.000
Collision with fixed object	0.744	0.041	0.870	0.144	0.185
Collision with other object	0.072	0.004	0.070	0.012	0.016
Other single-vehicle collision	0.040	0.002	0.023	0.004	0.006
Single-vehicle noncollision	0.141	0.008	0.034	0.006	0.013

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections					
(1)	(2)	(3)	(4)	(5)	(7) <sup>*</sup>
Crash Severity Level	Predicted N <sub>bimv</sub>	Predicted N <sub>bisv</sub>	Predicted N <sub>bi</sub>	f <sub>pedi</sub>	Predicted N <sub>pedi</sub>
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4) <sup>*</sup> (5)
Total	--	--	--	--	--
Fatal and injury (FI)	--	--	--	--	--

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF <sub>1p</sub>	CMF <sub>2p</sub>	CMF <sub>3p</sub>	
from Table 12-28	from Table 12-29	from Table 12-30	(1) <sup>*</sup> (2) <sup>*</sup> (3)
1.00	1.00	1.12	1.12

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections												
(1)	(2)					(3)	(4)	(5)	(6)	(7)		
Crash Severity Level	SPF Coefficients					Overdispersion Parameter, k	N <sub>pedbase</sub>	Combined CMF	Calibration factor, C <sub>i</sub>	Predicted N <sub>pedi</sub>		
	from Table 12-14									from Equation 12-29	(4) from Worksheet 2H	(4) <sup>*</sup> (5) <sup>*</sup> (6)
	a	b	c	d	e							
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.003	1.12	1.00	0.004		
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.004		



<b>Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections</b>					
(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	Predicted $N_{bimv}$	Predicted $N_{bisv}$	Predicted $N_{bi}$	$f_{bikei}$	Predicted $N_{bikei}$
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	3.697	0.221	3.918	0.015	0.059
Fatal and injury (FI)	--	--	--	--	0.059

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

<b>Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections</b>			
(1)	(2)	(3)	(4)
Collision type	Fatal and injury (FI)	Property damage only (PDO)	Total
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
<b>MULTIPLE-VEHICLE</b>			
Rear-end collisions (from Worksheet 2D)	0.562	1.183	1.744
Head-on collisions (from Worksheet 2D)	0.061	0.073	0.135
Angle collisions (from Worksheet 2D)	0.433	0.598	1.031
Sideswipe (from Worksheet 2D)	0.124	0.078	0.202
Other multiple-vehicle collision (from Worksheet 2D)	0.069	0.517	0.585
Subtotal	1.248	2.449	3.697
<b>SINGLE-VEHICLE</b>			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.000
Collision with fixed object (from Worksheet 2F)	0.041	0.144	0.185
Collision with other object (from Worksheet 2F)	0.004	0.012	0.016
Other single-vehicle collision (from Worksheet 2F)	0.002	0.004	0.006
Single-vehicle noncollision (from Worksheet 2F)	0.008	0.006	0.013
Collision with pedestrian (from Worksheet 2G or 2I)	0.004	0.000	0.004
Collision with bicycle (from Worksheet 2J)	0.059	0.000	0.059
Subtotal	0.117	0.166	0.283
Total	1.365	2.615	3.980

<b>Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections</b>	
(1)	(2)
Crash severity level	Predicted average crash frequency, $N_{predicted int}$ (crashes/year)
	(Total) from Worksheet 2K
Total	4.0
Fatal and injury (FI)	1.4
Property damage only (PDO)	2.6

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		Location Information	
Analyst	ME	Roadway	SR 524 NO BUILD (Interpolation Check)
Agency or Company	VHB	Intersection	N Friday Road
Date Performed	01/17/22	Jurisdiction	FDOT
		Analysis Year	2035
Input Data		Base Conditions	Site Conditions
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT <sub>major</sub> (veh/day)	AADT <sub>MAX</sub> = 67,700 (veh/day)	--	20,250
AADT <sub>minor</sub> (veh/day)	AADT <sub>MAX</sub> = 33,400 (veh/day)	--	4,325
Intersection lighting (present/not present)		Not Present	Not Present
Calibration factor, C <sub>i</sub>		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	3
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	2
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	3
Type of left-turn signal phasing for Leg #1		Permissive	Protected / Permissive
Type of left-turn signal phasing for Leg #2		--	Protected / Permissive
Type of left-turn signal phasing for Leg #3		--	Protected / Permissive
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Permissive
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			1
Maximum number of lanes crossed by a pedestrian (n <sub>lanesx</sub> )		--	4
Number of bus stops within 300 m (1,000 ft) of the intersection		0	0
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Not Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	2

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF <sub>1i</sub>	CMF <sub>2i</sub>	CMF <sub>3i</sub>	CMF <sub>4i</sub>	CMF <sub>5i</sub>	CMF <sub>6i</sub>	CMF <sub>COMB</sub>
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.73	0.97	0.92	1.00	1.00	1.00	0.65

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bimv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bimv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bimv}$
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL} * (5)$	(7) from Worksheet 2B		$(6) * (7) * (8)$
	a	b	c							
Total	-10.99	1.07	0.23	0.39	4.691	1.000	4.691	0.65	1.00	3.062
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	1.496	$(4)_{FI} / ((4)_{FI} + (4)_{PDO})$ 0.332	1.556	0.65	1.00	1.015
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	3.015	$(5)_{TOTAL} - (5)_{FI}$ 0.668	3.135	0.65	1.00	2.047

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1) Collision Type	(2) Proportion of Collision Type <sub>(FI)</sub>	(3) Predicted $N_{bimv (FI)}$ (crashes/year)	(4) Proportion of Collision Type <sub>(PDO)</sub>	(5) Predicted $N_{bimv (PDO)}$ (crashes/year)	(6) Predicted $N_{bimv (TOTAL)}$ (crashes/year)
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	1.015	1.000	2.047	3.062
		$(2) * (3)_{FI}$		$(4) * (5)_{PDO}$	$(3) + (5)$
Rear-end collision	0.450	0.457	0.483	0.989	1.446
Head-on collision	0.049	0.050	0.030	0.061	0.111
Angle collision	0.347	0.352	0.244	0.499	0.852
Sideswipe	0.099	0.101	0.032	0.065	0.166
Other multiple-vehicle collision	0.055	0.056	0.211	0.432	0.488

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bisv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bisv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bisv}$
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL} * (5)$	(7) from Worksheet 2B		$(6) * (7) * (8)$
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.299	1.000	0.299	0.65	1.00	0.195
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.077	$(4)_{FI} / ((4)_{FI} + (4)_{PDO})$ 0.260	0.078	0.65	1.00	0.051
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.220	$(5)_{TOTAL} - (5)_{FI}$ 0.740	0.221	0.65	1.00	0.145

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	Proportion of Collision Type <sup>(FI)</sup>	Predicted N <sub>bisv (FI)</sub> (crashes/year)	Proportion of Collision Type (PDO)	Predicted N <sub>bisv (PDO)</sub> (crashes/year)	Predicted N <sub>bisv (TOTAL)</sub> (crashes/year)
	from Table 12-13	(9) <sub>FI</sub> from Worksheet 2E	from Table 12-13	(9) <sub>PDO</sub> from Worksheet 2E	(9) <sub>PDO</sub> from Worksheet 2E
Total	1.000	0.051	1.000	0.145	0.195
		(2)* <sup>(3)</sup> <sub>FI</sub>		(4)* <sup>(5)</sup> <sub>PDO</sub>	(3)+ <sup>(5)</sup>
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.000
Collision with fixed object	0.744	0.038	0.870	0.126	0.164
Collision with other object	0.072	0.004	0.070	0.010	0.014
Other single-vehicle collision	0.040	0.002	0.023	0.003	0.005
Single-vehicle noncollision	0.141	0.007	0.034	0.005	0.012

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections					
(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	Predicted N <sub>bimv</sub>	Predicted N <sub>bisv</sub>	Predicted N <sub>bi</sub>	f <sub>pedi</sub>	Predicted N <sub>pedi</sub>
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4)* <sup>(5)</sup>
Total	--	--	--	--	--
Fatal and injury (FI)	--	--	--	--	--

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF <sub>1p</sub>	CMF <sub>2p</sub>	CMF <sub>3p</sub>	
from Table 12-28	from Table 12-29	from Table 12-30	(1)* <sup>(2)</sup> * <sup>(3)</sup>
1.00	1.00	1.12	1.12

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections												
(1)	(2)					(3)	(4)	(5)	(6)	(7)		
Crash Severity Level	SPF Coefficients					Overdispersion Parameter, k	N <sub>pedbase</sub>	Combined CMF	Calibration factor, C <sub>i</sub>	Predicted N <sub>pedi</sub>		
	from Table 12-14									from Equation 12-29	(4) from Worksheet 2H	(4)* <sup>(5)</sup> * <sup>(6)</sup>
	a	b	c	d	e							
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.003	1.12	1.00	0.004		
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.004		

<b>Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections</b>					
(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	Predicted $N_{bimv}$	Predicted $N_{bisv}$	Predicted $N_{bi}$	$f_{bikei}$	Predicted $N_{bikei}$
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	3.062	0.195	3.257	0.015	0.049
Fatal and injury (FI)	--	--	--	--	0.049

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

<b>Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections</b>			
(1)	(2)	(3)	(4)
Collision type	Fatal and injury (FI)	Property damage only (PDO)	Total
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
<b>MULTIPLE-VEHICLE</b>			
Rear-end collisions (from Worksheet 2D)	0.457	0.989	1.446
Head-on collisions (from Worksheet 2D)	0.050	0.061	0.111
Angle collisions (from Worksheet 2D)	0.352	0.499	0.852
Sideswipe (from Worksheet 2D)	0.101	0.065	0.166
Other multiple-vehicle collision (from Worksheet 2D)	0.056	0.432	0.488
Subtotal	1.015	2.047	3.062
<b>SINGLE-VEHICLE</b>			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.000
Collision with fixed object (from Worksheet 2F)	0.038	0.126	0.164
Collision with other object (from Worksheet 2F)	0.004	0.010	0.014
Other single-vehicle collision (from Worksheet 2F)	0.002	0.003	0.005
Single-vehicle noncollision (from Worksheet 2F)	0.007	0.005	0.012
Collision with pedestrian (from Worksheet 2G or 2I)	0.004	0.000	0.004
Collision with bicycle (from Worksheet 2J)	0.049	0.000	0.049
Subtotal	0.103	0.145	0.248
Total	1.119	2.191	3.310

<b>Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections</b>	
(1)	(2)
Crash severity level	Predicted average crash frequency, $N_{predicted\ int}$ (crashes/year)
	(Total) from Worksheet 2K
Total	3.3
Fatal and injury (FI)	1.1
Property damage only (PDO)	2.2

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		Location Information	
Analyst	ME	Roadway	SR 524 BUILD
Agency or Company	VHB	Intersection	N Friday Road
Date Performed	01/17/22	Jurisdiction	FDOT
		Analysis Year	2025
Input Data		Base Conditions	Site Conditions
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT <sub>major</sub> (veh/day)	AADT <sub>MAX</sub> = 67,700 (veh/day)	--	18,000
AADT <sub>minor</sub> (veh/day)	AADT <sub>MAX</sub> = 33,400 (veh/day)	--	4,200
Intersection lighting (present/not present)		Not Present	Present
Calibration factor, C <sub>i</sub>		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	4
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	2
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	4
Type of left-turn signal phasing for Leg #1		Permissive	Protected / Permissive
Type of left-turn signal phasing for Leg #2		--	Protected / Permissive
Type of left-turn signal phasing for Leg #3		--	Protected / Permissive
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Protected / Permissive
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			1
Maximum number of lanes crossed by a pedestrian (n <sub>lanesx</sub> )		--	6
Number of bus stops within 300 m (1,000 ft) of the intersection		0	0
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Not Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	2

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF <sub>1i</sub>	CMF <sub>2i</sub>	CMF <sub>3i</sub>	CMF <sub>4i</sub>	CMF <sub>5i</sub>	CMF <sub>6i</sub>	CMF <sub>COMB</sub>
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.66	0.96	0.92	1.00	0.91	1.00	0.53

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bimv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bimv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bimv}$
	from Table 12-10			from Table 12-10	from Equation 12-21		(4) <sub>TOTAL</sub> *(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	4.108	1.000	4.108	0.53	1.00	2.186
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	1.293	(4) <sub>FI</sub> /((4) <sub>FI</sub> +(4) <sub>PDO</sub> ) 0.328	1.346	0.53	1.00	0.716
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	2.655	(5) <sub>TOTAL</sub> -(5) <sub>FI</sub> 0.672	2.762	0.53	1.00	1.470

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1) Collision Type	(2) Proportion of Collision Type <sub>(FI)</sub>	(3) Predicted $N_{bimv}$ (FI) (crashes/year)	(4) Proportion of Collision Type (PDO)	(5) Predicted $N_{bimv}$ (PDO) (crashes/year)	(6) Predicted $N_{bimv}$ (TOTAL) (crashes/year)
	from Table 12-11	(9) <sub>FI</sub> from Worksheet 2C	from Table 12-11	(9) <sub>PDO</sub> from Worksheet 2C	(9) <sub>PDO</sub> from Worksheet 2C
Total	1.000	0.716	1.000	1.470	2.186
		(2)*(3) <sub>FI</sub>		(4)*(5) <sub>PDO</sub>	(3)+(5)
Rear-end collision	0.450	0.322	0.483	0.710	1.032
Head-on collision	0.049	0.035	0.030	0.044	0.079
Angle collision	0.347	0.248	0.244	0.359	0.607
Sideswipe	0.099	0.071	0.032	0.047	0.118
Other multiple-vehicle collision	0.055	0.039	0.211	0.310	0.349

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bisv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bisv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bisv}$
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		(4) <sub>TOTAL</sub> *(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.274	1.000	0.274	0.53	1.00	0.146
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.073	(4) <sub>FI</sub> /((4) <sub>FI</sub> +(4) <sub>PDO</sub> ) 0.268	0.073	0.53	1.00	0.039
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.200	(5) <sub>TOTAL</sub> -(5) <sub>FI</sub> 0.732	0.201	0.53	1.00	0.107

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	Proportion of Collision Type <sup>(FI)</sup>	Predicted N <sub>bisv (FI)</sub> (crashes/year)	Proportion of Collision Type (PDO)	Predicted N <sub>bisv (PDO)</sub> (crashes/year)	Predicted N <sub>bisv (TOTAL)</sub> (crashes/year)
	from Table 12-13	(9) <sub>FI</sub> from Worksheet 2E	from Table 12-13	(9) <sub>PDO</sub> from Worksheet 2E	(9) <sub>PDO</sub> from Worksheet 2E
Total	1.000	0.039	1.000	0.107	0.146
		(2)* <sup>(3)</sup> <sub>FI</sub>		(4)* <sup>(5)</sup> <sub>PDO</sub>	(3)+ <sup>(5)</sup>
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.000
Collision with fixed object	0.744	0.029	0.870	0.093	0.122
Collision with other object	0.072	0.003	0.070	0.007	0.010
Other single-vehicle collision	0.040	0.002	0.023	0.002	0.004
Single-vehicle noncollision	0.141	0.006	0.034	0.004	0.009

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections					
(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	Predicted N <sub>bimv</sub>	Predicted N <sub>bisv</sub>	Predicted N <sub>bi</sub>	f <sub>pedi</sub>	Predicted N <sub>pedi</sub>
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4)* <sup>(5)</sup>
Total	--	--	--	--	--
Fatal and injury (FI)	--	--	--	--	--

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF <sub>1p</sub>	CMF <sub>2p</sub>	CMF <sub>3p</sub>	
from Table 12-28	from Table 12-29	from Table 12-30	(1)* <sup>(2)</sup> * <sup>(3)</sup>
1.00	1.00	1.12	1.12

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections												
(1)	(2)					(3)	(4)	(5)	(6)	(7)		
Crash Severity Level	SPF Coefficients					Overdispersion Parameter, k	N <sub>pedbase</sub>	Combined CMF	Calibration factor, C <sub>i</sub>	Predicted N <sub>pedi</sub>		
	from Table 12-14									from Equation 12-29	(4) from Worksheet 2H	(4)* <sup>(5)</sup> * <sup>(6)</sup>
	a	b	c	d	e							
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.003	1.12	1.00	0.004		
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.004		



<b>Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections</b>					
(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	Predicted $N_{bimv}$	Predicted $N_{bisv}$	Predicted $N_{bi}$	$f_{bikei}$	Predicted $N_{bikei}$
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	2.186	0.146	2.332	0.015	0.035
Fatal and injury (FI)	--	--	--	--	0.035

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

<b>Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections</b>			
(1)	(2)	(3)	(4)
Collision type	Fatal and injury (FI)	Property damage only (PDO)	Total
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
<b>MULTIPLE-VEHICLE</b>			
Rear-end collisions (from Worksheet 2D)	0.322	0.710	1.032
Head-on collisions (from Worksheet 2D)	0.035	0.044	0.079
Angle collisions (from Worksheet 2D)	0.248	0.359	0.607
Sideswipe (from Worksheet 2D)	0.071	0.047	0.118
Other multiple-vehicle collision (from Worksheet 2D)	0.039	0.310	0.349
Subtotal	0.716	1.470	2.186
<b>SINGLE-VEHICLE</b>			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.000
Collision with fixed object (from Worksheet 2F)	0.029	0.093	0.122
Collision with other object (from Worksheet 2F)	0.003	0.007	0.010
Other single-vehicle collision (from Worksheet 2F)	0.002	0.002	0.004
Single-vehicle noncollision (from Worksheet 2F)	0.006	0.004	0.009
Collision with pedestrian (from Worksheet 2G or 2I)	0.004	0.000	0.004
Collision with bicycle (from Worksheet 2J)	0.035	0.000	0.035
Subtotal	0.078	0.107	0.185
Total	0.794	1.576	2.370

<b>Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections</b>	
(1)	(2)
Crash severity level	Predicted average crash frequency, $N_{predicted int}$ (crashes/year)
	(Total) from Worksheet 2K
Total	2.4
Fatal and injury (FI)	0.8
Property damage only (PDO)	1.6

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		Location Information	
Analyst	ME	Roadway	SR 524 BUILD
Agency or Company	VHB	Intersection	N Friday Road
Date Performed	01/17/22	Jurisdiction	FDOT
		Analysis Year	2045
Input Data		Base Conditions	Site Conditions
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT <sub>major</sub> (veh/day)	AADT <sub>MAX</sub> = 67,700 (veh/day)	--	30,500
AADT <sub>minor</sub> (veh/day)	AADT <sub>MAX</sub> = 33,400 (veh/day)	--	4,450
Intersection lighting (present/not present)		Not Present	Present
Calibration factor, C <sub>i</sub>		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	4
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	2
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	4
Type of left-turn signal phasing for Leg #1		Permissive	Protected / Permissive
Type of left-turn signal phasing for Leg #2		--	Protected / Permissive
Type of left-turn signal phasing for Leg #3		--	Protected / Permissive
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Protected / Permissive
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			1
Maximum number of lanes crossed by a pedestrian (n <sub>lanesx</sub> )		--	6
Number of bus stops within 300 m (1,000 ft) of the intersection		0	0
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Not Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	2

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF <sub>1i</sub>	CMF <sub>2i</sub>	CMF <sub>3i</sub>	CMF <sub>4i</sub>	CMF <sub>5i</sub>	CMF <sub>6i</sub>	CMF <sub>COMB</sub>
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.66	0.96	0.92	1.00	0.91	1.00	0.53

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bimv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bimv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bimv}$
	from Table 12-10			from Table 12-10	from Equation 12-21		(4) <sub>TOTAL</sub> *(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	7.319	1.000	7.319	0.53	1.00	3.894
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	2.441	(4) <sub>FI</sub> /((4) <sub>FI</sub> +(4) <sub>PDO</sub> ) 0.346	2.533	0.53	1.00	1.348
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	4.610	(5) <sub>TOTAL</sub> -(5) <sub>FI</sub> 0.654	4.785	0.53	1.00	2.546

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1) Collision Type	(2) Proportion of Collision Type <sub>(FI)</sub>	(3) Predicted $N_{bimv}$ (FI) (crashes/year)	(4) Proportion of Collision Type (PDO)	(5) Predicted $N_{bimv}$ (PDO) (crashes/year)	(6) Predicted $N_{bimv}$ (TOTAL) (crashes/year)
	from Table 12-11	(9) <sub>FI</sub> from Worksheet 2C	from Table 12-11	(9) <sub>PDO</sub> from Worksheet 2C	(9) <sub>PDO</sub> from Worksheet 2C
Total	1.000	1.348	1.000	2.546	3.894
		(2)*(3) <sub>FI</sub>		(4)*(5) <sub>PDO</sub>	(3)+(5)
Rear-end collision	0.450	0.607	0.483	1.230	1.836
Head-on collision	0.049	0.066	0.030	0.076	0.142
Angle collision	0.347	0.468	0.244	0.621	1.089
Sideswipe	0.099	0.133	0.032	0.081	0.215
Other multiple-vehicle collision	0.055	0.074	0.211	0.537	0.611

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bisv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bisv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bisv}$
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		(4) <sub>TOTAL</sub> *(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.398	1.000	0.398	0.53	1.00	0.212
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.093	(4) <sub>FI</sub> /((4) <sub>FI</sub> +(4) <sub>PDO</sub> ) 0.234	0.093	0.53	1.00	0.050
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.305	(5) <sub>TOTAL</sub> -(5) <sub>FI</sub> 0.766	0.305	0.53	1.00	0.162

<b>Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections</b>					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	Proportion of Collision Type <sup>(FI)</sup>	Predicted N <sub>bisv (FI)</sub> (crashes/year)	Proportion of Collision Type (PDO)	Predicted N <sub>bisv (PDO)</sub> (crashes/year)	Predicted N <sub>bisv (TOTAL)</sub> (crashes/year)
	from Table 12-13	(9) <sub>FI</sub> from Worksheet 2E	from Table 12-13	(9) <sub>PDO</sub> from Worksheet 2E	(9) <sub>PDO</sub> from Worksheet 2E
Total	1.000	0.050	1.000	0.162	0.212
		(2)* <sup>(3)</sup> <sub>FI</sub>		(4)* <sup>(5)</sup> <sub>PDO</sub>	(3)+ <sup>(5)</sup>
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.000
Collision with fixed object	0.744	0.037	0.870	0.141	0.178
Collision with other object	0.072	0.004	0.070	0.011	0.015
Other single-vehicle collision	0.040	0.002	0.023	0.004	0.006
Single-vehicle noncollision	0.141	0.007	0.034	0.006	0.013

<b>Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections</b>					
(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	Predicted N <sub>bimv</sub>	Predicted N <sub>bisv</sub>	Predicted N <sub>bi</sub>	f <sub>pedi</sub>	Predicted N <sub>pedi</sub>
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4)* <sup>(5)</sup>
Total	--	--	--	--	--
Fatal and injury (FI)	--	--	--	--	--

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

<b>Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections</b>			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF <sub>1p</sub>	CMF <sub>2p</sub>	CMF <sub>3p</sub>	
from Table 12-28	from Table 12-29	from Table 12-30	(1)* <sup>(2)</sup> * <sup>(3)</sup>
1.00	1.00	1.12	1.12

<b>Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections</b>												
(1)	(2)					(3)	(4)	(5)	(6)	(7)		
Crash Severity Level	SPF Coefficients					Overdispersion Parameter, k	N <sub>pedbase</sub>	Combined CMF	Calibration factor, C <sub>i</sub>	Predicted N <sub>pedi</sub>		
	from Table 12-14									from Equation 12-29	(4) from Worksheet 2H	(4)* <sup>(5)</sup> * <sup>(6)</sup>
	a	b	c	d	e							
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.004	1.12	1.00	0.004		
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.004		

<b>Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections</b>					
(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	Predicted $N_{bimv}$	Predicted $N_{bisv}$	Predicted $N_{bi}$	$f_{bikei}$	Predicted $N_{bikei}$
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	3.894	0.212	4.106	0.015	0.062
Fatal and injury (FI)	--	--	--	--	0.062

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

<b>Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections</b>			
(1)	(2)	(3)	(4)
Collision type	Fatal and injury (FI)	Property damage only (PDO)	Total
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
<b>MULTIPLE-VEHICLE</b>			
Rear-end collisions (from Worksheet 2D)	0.607	1.230	1.836
Head-on collisions (from Worksheet 2D)	0.066	0.076	0.142
Angle collisions (from Worksheet 2D)	0.468	0.621	1.089
Sideswipe (from Worksheet 2D)	0.133	0.081	0.215
Other multiple-vehicle collision (from Worksheet 2D)	0.074	0.537	0.611
Subtotal	1.348	2.546	3.894
<b>SINGLE-VEHICLE</b>			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.000
Collision with fixed object (from Worksheet 2F)	0.037	0.141	0.178
Collision with other object (from Worksheet 2F)	0.004	0.011	0.015
Other single-vehicle collision (from Worksheet 2F)	0.002	0.004	0.006
Single-vehicle noncollision (from Worksheet 2F)	0.007	0.006	0.013
Collision with pedestrian (from Worksheet 2G or 2I)	0.004	0.000	0.004
Collision with bicycle (from Worksheet 2J)	0.062	0.000	0.062
Subtotal	0.115	0.162	0.278
Total	1.463	2.709	4.172

<b>Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections</b>	
(1)	(2)
Crash severity level	Predicted average crash frequency, $N_{predicted int}$ (crashes/year)
	(Total) from Worksheet 2K
Total	4.2
Fatal and injury (FI)	1.5
Property damage only (PDO)	2.7

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		Location Information	
Analyst	ME	Roadway	SR 524 NO BUILD
Agency or Company	VHB	Intersection	S Friday Road
Date Performed	01/17/22	Jurisdiction	FDOT
		Analysis Year	2025
Input Data		Base Conditions	Site Conditions
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4ST
AADT <sub>major</sub> (veh/day)	AADT <sub>MAX</sub> = 46,800 (veh/day)	--	9,450
AADT <sub>minor</sub> (veh/day)	AADT <sub>MAX</sub> = 5,900 (veh/day)	--	1,575
Intersection lighting (present/not present)		Not Present	Not Present
Calibration factor, C <sub>i</sub>		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	2
Number of major-road approaches with right-turn lanes (0,1,2)		0	2
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	0
Type of left-turn signal phasing for Leg #1		Permissive	Not Applicable
Type of left-turn signal phasing for Leg #2		--	Not Applicable
Type of left-turn signal phasing for Leg #3		--	Not Applicable
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Not Applicable
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			0
Maximum number of lanes crossed by a pedestrian (n <sub>lanesx</sub> )		--	0
Number of bus stops within 300 m (1,000 ft) of the intersection		0	0
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Not Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	1

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF <sub>1i</sub>	CMF <sub>2i</sub>	CMF <sub>3i</sub>	CMF <sub>4i</sub>	CMF <sub>5i</sub>	CMF <sub>6i</sub>	CMF <sub>COMB</sub>
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.53	1.00	0.74	1.00	1.00	1.00	0.39

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bimv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bimv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bimv}$
	from Table 12-10			from Table 12-10	from Equation 12-21		(4) <sub>TOTAL</sub> *(5)	(7) from Worksheet 2B	1.00	(6)*(7)*(8)
	a	b	c							
Total	-8.90	0.82	0.25	0.40	1.563	1.000	1.563	0.39	1.00	0.613
Fatal and Injury (FI)	-11.13	0.93	0.28	0.48	0.574	(4) <sub>FI</sub> /((4) <sub>FI</sub> +(4) <sub>PDO</sub> ) 0.364	0.569	0.39	1.00	0.223
Property Damage Only (PDO)	-8.74	0.77	0.23	0.40	1.002	(5) <sub>TOTAL</sub> -(5) <sub>FI</sub> 0.636	0.994	0.39	1.00	0.390

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1) Collision Type	(2) Proportion of Collision Type <sub>(FI)</sub>	(3) Predicted $N_{bimv}$ (FI) (crashes/year)	(4) Proportion of Collision Type (PDO)	(5) Predicted $N_{bimv}$ (PDO) (crashes/year)	(6) Predicted $N_{bimv}$ (TOTAL) (crashes/year)
	from Table 12-11	(9) <sub>FI</sub> from Worksheet 2C	from Table 12-11	(9) <sub>PDO</sub> from Worksheet 2C	(9) <sub>PDO</sub> from Worksheet 2C
Total	1.000	0.223	1.000	0.390	0.613
		(2)*(3) <sub>FI</sub>		(4)*(5) <sub>PDO</sub>	(3)+(5)
Rear-end collision	0.338	0.075	0.374	0.146	0.221
Head-on collision	0.041	0.009	0.030	0.012	0.021
Angle collision	0.440	0.098	0.335	0.130	0.229
Sideswipe	0.121	0.027	0.044	0.017	0.044
Other multiple-vehicle collision	0.060	0.013	0.217	0.085	0.098

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bisv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bisv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bisv}$
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		(4) <sub>TOTAL</sub> *(5)	(7) from Worksheet 2B	1.00	(6)*(7)*(8)
	a	b	c							
Total	-5.33	0.33	0.12	0.65	0.240	1.000	0.240	0.39	1.00	0.094
Fatal and Injury (FI)	--	--	--	--	0.067	(4) <sub>FI</sub> /((4) <sub>FI</sub> +(4) <sub>PDO</sub> ) 0.311	0.075	0.39	1.00	0.029
Property Damage Only (PDO)	-7.04	0.36	0.25	0.54	0.149	(5) <sub>TOTAL</sub> -(5) <sub>FI</sub> 0.689	0.166	0.39	1.00	0.065

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	Proportion of Collision Type <sup>(FI)</sup>	Predicted N <sub>bisv (FI)</sub> (crashes/year)	Proportion of Collision Type (PDO)	Predicted N <sub>bisv (PDO)</sub> (crashes/year)	Predicted N <sub>bisv (TOTAL)</sub> (crashes/year)
	from Table 12-13	(9) <sub>FI</sub> from Worksheet 2E	from Table 12-13	(9) <sub>PDO</sub> from Worksheet 2E	(9) <sub>PDO</sub> from Worksheet 2E
Total	1.000	0.029	1.000	0.065	0.094
		(2)* <sup>(3)</sup> <sub>FI</sub>		(4)* <sup>(5)</sup> <sub>PDO</sub>	(3)+ <sup>(5)</sup>
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.001	0.000	0.026	0.002	0.002
Collision with fixed object	0.679	0.020	0.847	0.055	0.075
Collision with other object	0.089	0.003	0.070	0.005	0.007
Other single-vehicle collision	0.051	0.001	0.007	0.000	0.002
Single-vehicle noncollision	0.179	0.005	0.049	0.003	0.008

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections					
(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	Predicted N <sub>bimv</sub>	Predicted N <sub>bisv</sub>	Predicted N <sub>bi</sub>	f <sub>pedi</sub>	Predicted N <sub>pedi</sub>
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4)* <sup>(5)</sup>
Total	0.613	0.094	0.707	0.022	0.016
Fatal and injury (FI)	--	--	--	--	0.016

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF <sub>1p</sub>	CMF <sub>2p</sub>	CMF <sub>3p</sub>	
from Table 12-28	from Table 12-29	from Table 12-30	(1)* <sup>(2)</sup> * <sup>(3)</sup>
--	--	--	--

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections												
(1)	(2)					(3)	(4)	(5)	(6)	(7)		
Crash Severity Level	SPF Coefficients					Overdispersion Parameter, k	N <sub>pedbase</sub>	Combined CMF	Calibration factor, C <sub>i</sub>	Predicted N <sub>pedi</sub>		
	from Table 12-14									from Equation 12-29	(4) from Worksheet 2H	(4)* <sup>(5)</sup> * <sup>(6)</sup>
	a	b	c	d	e							
Total	--	--	--	--	--	--	--	--	1.00	--		
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	--		



<b>Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections</b>					
(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	Predicted $N_{bimv}$	Predicted $N_{bisv}$	Predicted $N_{bi}$	$f_{bikei}$	Predicted $N_{bikei}$
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	0.613	0.094	0.707	0.018	0.013
Fatal and injury (FI)	--	--	--	--	0.013

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

<b>Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections</b>			
(1)	(2)	(3)	(4)
Collision type	Fatal and injury (FI)	Property damage only (PDO)	Total
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
<b>MULTIPLE-VEHICLE</b>			
Rear-end collisions (from Worksheet 2D)	0.075	0.146	0.221
Head-on collisions (from Worksheet 2D)	0.009	0.012	0.021
Angle collisions (from Worksheet 2D)	0.098	0.130	0.229
Sideswipe (from Worksheet 2D)	0.027	0.017	0.044
Other multiple-vehicle collision (from Worksheet 2D)	0.013	0.085	0.098
Subtotal	0.223	0.390	0.613
<b>SINGLE-VEHICLE</b>			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.002	0.002
Collision with fixed object (from Worksheet 2F)	0.020	0.055	0.075
Collision with other object (from Worksheet 2F)	0.003	0.005	0.007
Other single-vehicle collision (from Worksheet 2F)	0.001	0.000	0.002
Single-vehicle noncollision (from Worksheet 2F)	0.005	0.003	0.008
Collision with pedestrian (from Worksheet 2G or 2I)	0.016	0.000	0.016
Collision with bicycle (from Worksheet 2J)	0.013	0.000	0.013
Subtotal	0.058	0.065	0.122
Total	0.281	0.454	0.735

<b>Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections</b>	
(1)	(2)
Crash severity level	Predicted average crash frequency, $N_{predicted int}$ (crashes/year)
	(Total) from Worksheet 2K
Total	0.7
Fatal and injury (FI)	0.3
Property damage only (PDO)	0.5

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		Location Information	
Analyst	ME	Roadway	SR 524 NO BUILD
Agency or Company	VHB	Intersection	S Friday Road
Date Performed	01/17/22	Jurisdiction	FDOT
		Analysis Year	2045
Input Data		Base Conditions	Site Conditions
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT <sub>major</sub> (veh/day)	AADT <sub>MAX</sub> = 67,700 (veh/day)	--	14,000
AADT <sub>minor</sub> (veh/day)	AADT <sub>MAX</sub> = 33,400 (veh/day)	--	2,500
Intersection lighting (present/not present)		Not Present	Not Present
Calibration factor, C <sub>i</sub>		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	2
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	4
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	1
Type of left-turn signal phasing for Leg #1		Permissive	Permissive
Type of left-turn signal phasing for Leg #2		--	Permissive
Type of left-turn signal phasing for Leg #3		--	Permissive
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Permissive
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			1
Maximum number of lanes crossed by a pedestrian (n <sub>lanesx</sub> )		--	4
Number of bus stops within 300 m (1,000 ft) of the intersection		0	0
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Not Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	1

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF <sub>1i</sub>	CMF <sub>2i</sub>	CMF <sub>3i</sub>	CMF <sub>4i</sub>	CMF <sub>5i</sub>	CMF <sub>6i</sub>	CMF <sub>COMB</sub>
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.81	1.00	0.85	1.00	1.00	1.00	0.69

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bimv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bimv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bimv}$
	from Table 12-10			from Table 12-10	from Equation 12-21		(4) <sub>TOTAL</sub> *(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.99	1.07	0.23	0.39	2.786	1.000	2.786	0.69	1.00	1.917
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	0.858	(4) <sub>FI</sub> /((4) <sub>FI</sub> +(4) <sub>PDO</sub> ) 0.321	0.894	0.69	1.00	0.615
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	1.814	(5) <sub>TOTAL</sub> -(5) <sub>FI</sub> 0.679	1.892	0.69	1.00	1.301

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1) Collision Type	(2) Proportion of Collision Type <sub>(FI)</sub>	(3) Predicted $N_{bimv}$ (FI) (crashes/year)	(4) Proportion of Collision Type (PDO)	(5) Predicted $N_{bimv}$ (PDO) (crashes/year)	(6) Predicted $N_{bimv}$ (TOTAL) (crashes/year)
	from Table 12-11	(9) <sub>FI</sub> from Worksheet 2C	from Table 12-11	(9) <sub>PDO</sub> from Worksheet 2C	(9) <sub>PDO</sub> from Worksheet 2C
Total	1.000	0.615	1.000	1.301	1.917
		(2)*(3) <sub>FI</sub>		(4)*(5) <sub>PDO</sub>	(3)+(5)
Rear-end collision	0.450	0.277	0.483	0.629	0.905
Head-on collision	0.049	0.030	0.030	0.039	0.069
Angle collision	0.347	0.214	0.244	0.318	0.531
Sideswipe	0.099	0.061	0.032	0.042	0.103
Other multiple-vehicle collision	0.055	0.034	0.211	0.275	0.308

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bisv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bisv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bisv}$
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		(4) <sub>TOTAL</sub> *(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.201	1.000	0.201	0.69	1.00	0.138
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.056	(4) <sub>FI</sub> /((4) <sub>FI</sub> +(4) <sub>PDO</sub> ) 0.281	0.056	0.69	1.00	0.039
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.144	(5) <sub>TOTAL</sub> -(5) <sub>FI</sub> 0.719	0.144	0.69	1.00	0.099

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	Proportion of Collision Type <sup>(FI)</sup>	Predicted N <sub>bisv (FI)</sub> (crashes/year)	Proportion of Collision Type <sup>(PDO)</sup>	Predicted N <sub>bisv (PDO)</sub> (crashes/year)	Predicted N <sub>bisv (TOTAL)</sub> (crashes/year)
	from Table 12-13	(9) <sub>FI</sub> from Worksheet 2E	from Table 12-13	(9) <sub>PDO</sub> from Worksheet 2E	(9) <sub>PDO</sub> from Worksheet 2E
Total	1.000	0.039	1.000	0.099	0.138
		(2) <sup>*</sup> (3) <sub>FI</sub>		(4) <sup>*</sup> (5) <sub>PDO</sub>	(3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.000
Collision with fixed object	0.744	0.029	0.870	0.086	0.115
Collision with other object	0.072	0.003	0.070	0.007	0.010
Other single-vehicle collision	0.040	0.002	0.023	0.002	0.004
Single-vehicle noncollision	0.141	0.005	0.034	0.003	0.009

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections					
(1)	(2)	(3)	(4)	(5)	(7) <sup>*</sup>
Crash Severity Level	Predicted N <sub>bimv</sub>	Predicted N <sub>bisv</sub>	Predicted N <sub>bi</sub>	f <sub>pedi</sub>	Predicted N <sub>pedi</sub>
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4) <sup>*</sup> (5)
Total	--	--	--	--	--
Fatal and injury (FI)	--	--	--	--	--

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF <sub>1p</sub>	CMF <sub>2p</sub>	CMF <sub>3p</sub>	
from Table 12-28	from Table 12-29	from Table 12-30	(1) <sup>*</sup> (2) <sup>*</sup> (3)
1.00	1.00	1.12	1.12

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections												
(1)	(2)					(3)	(4)	(5)	(6)	(7)		
Crash Severity Level	SPF Coefficients					Overdispersion Parameter, k	N <sub>pedbase</sub>	Combined CMF	Calibration factor, C <sub>i</sub>	Predicted N <sub>pedi</sub>		
	from Table 12-14									from Equation 12-29	(4) from Worksheet 2H	(4) <sup>*</sup> (5) <sup>*</sup> (6)
	a	b	c	d	e							
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.003	1.12	1.00	0.003		
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.003		

<b>Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections</b>					
(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	Predicted $N_{bimv}$	Predicted $N_{bisv}$	Predicted $N_{bi}$	$f_{bikei}$	Predicted $N_{bikei}$
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	1.917	0.138	2.055	0.015	0.031
Fatal and injury (FI)	--	--	--	--	0.031

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

<b>Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections</b>			
(1)	(2)	(3)	(4)
Collision type	Fatal and injury (FI)	Property damage only (PDO)	Total
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
<b>MULTIPLE-VEHICLE</b>			
Rear-end collisions (from Worksheet 2D)	0.277	0.629	0.905
Head-on collisions (from Worksheet 2D)	0.030	0.039	0.069
Angle collisions (from Worksheet 2D)	0.214	0.318	0.531
Sideswipe (from Worksheet 2D)	0.061	0.042	0.103
Other multiple-vehicle collision (from Worksheet 2D)	0.034	0.275	0.308
Subtotal	0.615	1.301	1.917
<b>SINGLE-VEHICLE</b>			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.000
Collision with fixed object (from Worksheet 2F)	0.029	0.086	0.115
Collision with other object (from Worksheet 2F)	0.003	0.007	0.010
Other single-vehicle collision (from Worksheet 2F)	0.002	0.002	0.004
Single-vehicle noncollision (from Worksheet 2F)	0.005	0.003	0.009
Collision with pedestrian (from Worksheet 2G or 2I)	0.003	0.000	0.003
Collision with bicycle (from Worksheet 2J)	0.031	0.000	0.031
Subtotal	0.073	0.099	0.172
Total	0.688	1.401	2.089

<b>Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections</b>	
(1)	(2)
Crash severity level	Predicted average crash frequency, $N_{predicted int}$ (crashes/year)
	(Total) from Worksheet 2K
Total	2.1
Fatal and injury (FI)	0.7
Property damage only (PDO)	1.4

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		Location Information	
Analyst	ME	Roadway	SR 524 BUILD
Agency or Company	VHB	Intersection	S Friday Road
Date Performed	01/17/22	Jurisdiction	FDOT
		Analysis Year	2025
Input Data		Base Conditions	Site Conditions
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4ST
AADT <sub>major</sub> (veh/day)	AADT <sub>MAX</sub> = 46,800 (veh/day)	--	10,350
AADT <sub>minor</sub> (veh/day)	AADT <sub>MAX</sub> = 5,900 (veh/day)	--	1,825
Intersection lighting (present/not present)		Not Present	Present
Calibration factor, C <sub>i</sub>		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	2
Number of major-road approaches with right-turn lanes (0,1,2)		0	2
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	0
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	0
Type of left-turn signal phasing for Leg #1		Permissive	Not Applicable
Type of left-turn signal phasing for Leg #2		--	Not Applicable
Type of left-turn signal phasing for Leg #3		--	Not Applicable
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Not Applicable
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			0
Maximum number of lanes crossed by a pedestrian (n <sub>lanesx</sub> )		--	0
Number of bus stops within 300 m (1,000 ft) of the intersection		0	0
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Not Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	1

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF <sub>1i</sub>	CMF <sub>2i</sub>	CMF <sub>3i</sub>	CMF <sub>4i</sub>	CMF <sub>5i</sub>	CMF <sub>6i</sub>	CMF <sub>COMB</sub>
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.53	1.00	0.74	1.00	0.91	1.00	0.36

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bimv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bimv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bimv}$
	from Table 12-10			from Table 12-10	from Equation 12-21		(4) <sub>TOTAL</sub> *(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-8.90	0.82	0.25	0.40	1.747	1.000	1.747	0.36	1.00	0.625
Fatal and Injury (FI)	-11.13	0.93	0.28	0.48	0.651	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.369	0.645	0.36	1.00	0.231
Property Damage Only (PDO)	-8.74	0.77	0.23	0.40	1.111	$(5)_{TOTAL}-(5)_{FI}$ 0.631	1.102	0.36	1.00	0.394

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1) Collision Type	(2) Proportion of Collision Type <sub>(FI)</sub>	(3) Predicted $N_{bimv (FI)}$ (crashes/year)	(4) Proportion of Collision Type (PDO)	(5) Predicted $N_{bimv (PDO)}$ (crashes/year)	(6) Predicted $N_{bimv (TOTAL)}$ (crashes/year)
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	0.231	1.000	0.394	0.625
		$(2)*(3)_{FI}$		$(4)*(5)_{PDO}$	$(3)+(5)$
Rear-end collision	0.338	0.078	0.374	0.148	0.226
Head-on collision	0.041	0.009	0.030	0.012	0.021
Angle collision	0.440	0.102	0.335	0.132	0.234
Sideswipe	0.121	0.028	0.044	0.017	0.045
Other multiple-vehicle collision	0.060	0.014	0.217	0.086	0.099

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bisv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bisv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bisv}$
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		(4) <sub>TOTAL</sub> *(5)	(7) from Worksheet 2B		(6)*(7)*(8)
	a	b	c							
Total	-5.33	0.33	0.12	0.65	0.252	1.000	0.252	0.36	1.00	0.090
Fatal and Injury (FI)	--	--	--	--	0.071	$(4)_{FI}/((4)_{FI}+(4)_{PDO})$ 0.307	0.077	0.36	1.00	0.028
Property Damage Only (PDO)	-7.04	0.36	0.25	0.54	0.160	$(5)_{TOTAL}-(5)_{FI}$ 0.693	0.175	0.36	1.00	0.063

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	Proportion of Collision Type <sup>(FI)</sup>	Predicted N <sub>bisv (FI)</sub> (crashes/year)	Proportion of Collision Type (PDO)	Predicted N <sub>bisv (PDO)</sub> (crashes/year)	Predicted N <sub>bisv (TOTAL)</sub> (crashes/year)
	from Table 12-13	(9) <sub>FI</sub> from Worksheet 2E	from Table 12-13	(9) <sub>PDO</sub> from Worksheet 2E	(9) <sub>PDO</sub> from Worksheet 2E
Total	1.000	0.028	1.000	0.063	0.090
		(2)* <sup>(3)</sup> <sub>FI</sub>		(4)* <sup>(5)</sup> <sub>PDO</sub>	(3)+ <sup>(5)</sup>
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.001	0.000	0.026	0.002	0.002
Collision with fixed object	0.679	0.019	0.847	0.053	0.072
Collision with other object	0.089	0.002	0.070	0.004	0.007
Other single-vehicle collision	0.051	0.001	0.007	0.000	0.002
Single-vehicle noncollision	0.179	0.005	0.049	0.003	0.008

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections					
(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	Predicted N <sub>bimv</sub>	Predicted N <sub>bisv</sub>	Predicted N <sub>bi</sub>	f <sub>pedi</sub>	Predicted N <sub>pedi</sub>
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4)* <sup>(5)</sup>
Total	0.625	0.090	0.715	0.022	0.016
Fatal and injury (FI)	--	--	--	--	0.016

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF <sub>1p</sub>	CMF <sub>2p</sub>	CMF <sub>3p</sub>	
from Table 12-28	from Table 12-29	from Table 12-30	(1)* <sup>(2)</sup> * <sup>(3)</sup>
--	--	--	--

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections												
(1)	(2)					(3)	(4)	(5)	(6)	(7)		
Crash Severity Level	SPF Coefficients					Overdispersion Parameter, k	N <sub>pedbase</sub>	Combined CMF	Calibration factor, C <sub>i</sub>	Predicted N <sub>pedi</sub>		
	from Table 12-14									from Equation 12-29	(4) from Worksheet 2H	(4)* <sup>(5)</sup> * <sup>(6)</sup>
	a	b	c	d	e							
Total	--	--	--	--	--	--	--	--	1.00	--		
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	--		



<b>Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections</b>					
(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	Predicted $N_{bimv}$	Predicted $N_{bisv}$	Predicted $N_{bi}$	$f_{bikei}$	Predicted $N_{bikei}$
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	0.625	0.090	0.715	0.018	0.013
Fatal and injury (FI)	--	--	--	--	0.013

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

<b>Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections</b>			
(1)	(2)	(3)	(4)
Collision type	Fatal and injury (FI)	Property damage only (PDO)	Total
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
<b>MULTIPLE-VEHICLE</b>			
Rear-end collisions (from Worksheet 2D)	0.078	0.148	0.226
Head-on collisions (from Worksheet 2D)	0.009	0.012	0.021
Angle collisions (from Worksheet 2D)	0.102	0.132	0.234
Sideswipe (from Worksheet 2D)	0.028	0.017	0.045
Other multiple-vehicle collision (from Worksheet 2D)	0.014	0.086	0.099
Subtotal	0.231	0.394	0.625
<b>SINGLE-VEHICLE</b>			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.002	0.002
Collision with fixed object (from Worksheet 2F)	0.019	0.053	0.072
Collision with other object (from Worksheet 2F)	0.002	0.004	0.007
Other single-vehicle collision (from Worksheet 2F)	0.001	0.000	0.002
Single-vehicle noncollision (from Worksheet 2F)	0.005	0.003	0.008
Collision with pedestrian (from Worksheet 2G or 2I)	0.016	0.000	0.016
Collision with bicycle (from Worksheet 2J)	0.013	0.000	0.013
Subtotal	0.056	0.063	0.119
Total	0.287	0.457	0.744

<b>Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections</b>	
(1)	(2)
Crash severity level	Predicted average crash frequency, $N_{predicted int}$ (crashes/year)
	(Total) from Worksheet 2K
Total	0.7
Fatal and injury (FI)	0.3
Property damage only (PDO)	0.5

Worksheet 2A -- General Information and Input Data for Urban and Suburban Arterial Intersections			
General Information		Location Information	
Analyst	ME	Roadway	SR 524 BUILD
Agency or Company	VHB	Intersection	S Friday Road
Date Performed	01/17/22	Jurisdiction	FDOT
		Analysis Year	2045
Input Data		Base Conditions	Site Conditions
Intersection type (3ST, 3SG, 4ST, 4SG)		--	4SG
AADT <sub>major</sub> (veh/day)	AADT <sub>MAX</sub> = 67,700 (veh/day)	--	17,500
AADT <sub>minor</sub> (veh/day)	AADT <sub>MAX</sub> = 33,400 (veh/day)	--	3,450
Intersection lighting (present/not present)		Not Present	Present
Calibration factor, C <sub>i</sub>		1.00	1.00
Data for unsignalized intersections only:		--	--
Number of major-road approaches with left-turn lanes (0,1,2)		0	0
Number of major-road approaches with right-turn lanes (0,1,2)		0	0
Data for signalized intersections only:		--	--
Number of approaches with left-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	4
Number of approaches with right-turn lanes (0,1,2,3,4) [for 3SG, use maximum value of 3]		0	2
Number of approaches with left-turn signal phasing [for 3SG, use maximum value of 3]		--	1
Type of left-turn signal phasing for Leg #1		Permissive	Protected / Permissive
Type of left-turn signal phasing for Leg #2		--	Protected / Permissive
Type of left-turn signal phasing for Leg #3		--	Protected / Permissive
Type of left-turn signal phasing for Leg #4 (if applicable)		--	Protected / Permissive
Number of approaches with right-turn-on-red prohibited [for 3SG, use maximum value of 3]		0	0
Intersection red light cameras (present/not present)		Not Present	Not Present
Sum of all pedestrian crossing volumes (PedVol) -- Signalized intersections only			1
Maximum number of lanes crossed by a pedestrian (n <sub>lanesx</sub> )		--	6
Number of bus stops within 300 m (1,000 ft) of the intersection		0	0
Schools within 300 m (1,000 ft) of the intersection (present/not present)		Not Present	Not Present
Number of alcohol sales establishments within 300 m (1,000 ft) of the intersection		0	1

Worksheet 2B -- Crash Modification Factors for Urban and Suburban Arterial Intersections						
(1)	(2)	(3)	(4)	(5)	(6)	(7)
CMF for Left-Turn Lanes	CMF for Left-Turn Signal Phasing	CMF for Right-Turn Lanes	CMF for Right Turn on Red	CMF for Lighting	CMF for Red Light Cameras	Combined CMF
CMF <sub>1i</sub>	CMF <sub>2i</sub>	CMF <sub>3i</sub>	CMF <sub>4i</sub>	CMF <sub>5i</sub>	CMF <sub>6i</sub>	CMF <sub>COMB</sub>
from Table 12-24	from Table 12-25	from Table 12-26	from Equation 12-35	from Equation 12-36	from Equation 12-37	(1)*(2)*(3)*(4)*(5)*(6)
0.66	0.98	0.92	1.00	0.91	1.00	0.54

Worksheet 2C -- Multiple-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bimv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bimv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bimv}$
	from Table 12-10			from Table 12-10	from Equation 12-21		$(4)_{TOTAL} * (5)$	(7) from Worksheet 2B		$(6) * (7) * (8)$
	a	b	c							
Total	-10.99	1.07	0.23	0.39	3.809	1.000	3.809	0.54	1.00	2.068
Fatal and Injury (FI)	-13.14	1.18	0.22	0.33	1.198	$(4)_{FI} / ((4)_{FI} + (4)_{PDO})$ 0.327	1.247	0.54	1.00	0.677
Property Damage Only (PDO)	-11.02	1.02	0.24	0.44	2.461	$(5)_{TOTAL} - (5)_{FI}$ 0.673	2.562	0.54	1.00	1.391

Worksheet 2D -- Multiple-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1) Collision Type	(2) Proportion of Collision Type <sub>(FI)</sub>	(3) Predicted $N_{bimv (FI)}$ (crashes/year)	(4) Proportion of Collision Type <sub>(PDO)</sub>	(5) Predicted $N_{bimv (PDO)}$ (crashes/year)	(6) Predicted $N_{bimv (TOTAL)}$ (crashes/year)
	from Table 12-11	$(9)_{FI}$ from Worksheet 2C	from Table 12-11	$(9)_{PDO}$ from Worksheet 2C	$(9)_{PDO}$ from Worksheet 2C
Total	1.000	0.677	1.000	1.391	2.068
		$(2) * (3)_{FI}$		$(4) * (5)_{PDO}$	$(3) + (5)$
Rear-end collision	0.450	0.305	0.483	0.672	0.977
Head-on collision	0.049	0.033	0.030	0.042	0.075
Angle collision	0.347	0.235	0.244	0.339	0.574
Sideswipe	0.099	0.067	0.032	0.045	0.112
Other multiple-vehicle collision	0.055	0.037	0.211	0.293	0.331

Worksheet 2E -- Single-Vehicle Collisions by Severity Level for Urban and Suburban Arterial Intersections										
(1) Crash Severity Level	(2) SPF Coefficients			(3) Overdispersion Parameter, k	(4) Initial $N_{bisv}$	(5) Proportion of Total Crashes	(6) Adjusted $N_{bisv}$	(7) Combined CMFs	(8) Calibration Factor, $C_i$	(9) Predicted $N_{bisv}$
	from Table 12-12			from Table 12-12	from Eqn. 12-24; (FI) from Eqn. 12-24 or 12-27		$(4)_{TOTAL} * (5)$	(7) from Worksheet 2B		$(6) * (7) * (8)$
	a	b	c							
Total	-10.21	0.68	0.27	0.36	0.255	1.000	0.255	0.54	1.00	0.138
Fatal and Injury (FI)	-9.25	0.43	0.29	0.09	0.068	$(4)_{FI} / ((4)_{FI} + (4)_{PDO})$ 0.268	0.068	0.54	1.00	0.037
Property Damage Only (PDO)	-11.34	0.78	0.25	0.44	0.186	$(5)_{TOTAL} - (5)_{FI}$ 0.732	0.187	0.54	1.00	0.101

Worksheet 2F -- Single-Vehicle Collisions by Collision Type for Urban and Suburban Arterial Intersections					
(1)	(2)	(3)	(4)	(5)	(6)
Collision Type	Proportion of Collision Type <sup>(FI)</sup>	Predicted N <sub>bisv (FI)</sub> (crashes/year)	Proportion of Collision Type (PDO)	Predicted N <sub>bisv (PDO)</sub> (crashes/year)	Predicted N <sub>bisv (TOTAL)</sub> (crashes/year)
	from Table 12-13	(9) <sub>FI</sub> from Worksheet 2E	from Table 12-13	(9) <sub>PDO</sub> from Worksheet 2E	(9) <sub>PDO</sub> from Worksheet 2E
Total	1.000	0.037 (2) <sup>*</sup> (3) <sub>FI</sub>	1.000	0.101 (4) <sup>*</sup> (5) <sub>PDO</sub>	0.138 (3)+(5)
Collision with parked vehicle	0.001	0.000	0.001	0.000	0.000
Collision with animal	0.002	0.000	0.002	0.000	0.000
Collision with fixed object	0.744	0.028	0.870	0.088	0.116
Collision with other object	0.072	0.003	0.070	0.007	0.010
Other single-vehicle collision	0.040	0.001	0.023	0.002	0.004
Single-vehicle noncollision	0.141	0.005	0.034	0.003	0.009

Worksheet 2G -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Stop-Controlled Intersections					
(1)	(2)	(3)	(4)	(5)	(7) <sup>*</sup>
Crash Severity Level	Predicted N <sub>bimv</sub>	Predicted N <sub>bisv</sub>	Predicted N <sub>bi</sub>	f <sub>pedi</sub>	Predicted N <sub>pedi</sub>
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-16	(4) <sup>*</sup> (5)
Total	--	--	--	--	--
Fatal and injury (FI)	--	--	--	--	--

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-30

Worksheet 2H -- Crash Modification Factors for Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections			
(1)	(2)	(3)	(4)
CMF for Bus Stops	CMF for Schools	CMF for Alcohol Sales Establishments	Combined CMF
CMF <sub>1p</sub>	CMF <sub>2p</sub>	CMF <sub>3p</sub>	
from Table 12-28	from Table 12-29	from Table 12-30	(1) <sup>*</sup> (2) <sup>*</sup> (3)
1.00	1.00	1.12	1.12

Worksheet 2I -- Vehicle-Pedestrian Collisions for Urban and Suburban Arterial Signalized Intersections												
(1)	(2)					(3)	(4)	(5)	(6)	(7)		
Crash Severity Level	SPF Coefficients					Overdispersion Parameter, k	N <sub>pedbase</sub>	Combined CMF	Calibration factor, C <sub>i</sub>	Predicted N <sub>pedi</sub>		
	from Table 12-14									from Equation 12-29	(4) from Worksheet 2H	(4) <sup>*</sup> (5) <sup>*</sup> (6)
	a	b	c	d	e							
Total	-9.53	0.40	0.26	0.45	0.04	0.24	0.003	1.12	1.00	0.004		
Fatal and Injury (FI)	--	--	--	--	--	--	--	--	1.00	0.004		

<b>Worksheet 2J -- Vehicle-Bicycle Collisions for Urban and Suburban Arterial Intersections</b>					
(1)	(2)	(3)	(4)	(5)	(7)*
Crash Severity Level	Predicted $N_{bimv}$	Predicted $N_{bisv}$	Predicted $N_{bi}$	$f_{bikei}$	Predicted $N_{bikei}$
	(9) from Worksheet 2C	(9) from Worksheet 2E	(2) + (3)	from Table 12-17	(4)*(5)
Total	2.068	0.138	2.207	0.015	0.033
Fatal and injury (FI)	--	--	--	--	0.033

\* Column 6 has been removed due to redundant application of calibration factors and inconsistency with HSM Equation 12-31

<b>Worksheet 2K -- Crash Severity Distribution for Urban and Suburban Arterial Intersections</b>			
(1)	(2)	(3)	(4)
Collision type	Fatal and injury (FI)	Property damage only (PDO)	Total
	(3) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J	(5) from Worksheet 2D and 2F	(6) from Worksheet 2D and 2F; (7) from 2G or 2I and 2J
<b>MULTIPLE-VEHICLE</b>			
Rear-end collisions (from Worksheet 2D)	0.305	0.672	0.977
Head-on collisions (from Worksheet 2D)	0.033	0.042	0.075
Angle collisions (from Worksheet 2D)	0.235	0.339	0.574
Sideswipe (from Worksheet 2D)	0.067	0.045	0.112
Other multiple-vehicle collision (from Worksheet 2D)	0.037	0.293	0.331
Subtotal	0.677	1.391	2.068
<b>SINGLE-VEHICLE</b>			
Collision with parked vehicle (from Worksheet 2F)	0.000	0.000	0.000
Collision with animal (from Worksheet 2F)	0.000	0.000	0.000
Collision with fixed object (from Worksheet 2F)	0.028	0.088	0.116
Collision with other object (from Worksheet 2F)	0.003	0.007	0.010
Other single-vehicle collision (from Worksheet 2F)	0.001	0.002	0.004
Single-vehicle noncollision (from Worksheet 2F)	0.005	0.003	0.009
Collision with pedestrian (from Worksheet 2G or 2I)	0.004	0.000	0.004
Collision with bicycle (from Worksheet 2J)	0.033	0.000	0.033
Subtotal	0.074	0.101	0.175
Total	0.751	1.492	2.243

<b>Worksheet 2L -- Summary Results for Urban and Suburban Arterial Intersections</b>	
(1)	(2)
Crash severity level	Predicted average crash frequency, $N_{predicted int}$ (crashes/year)
	(Total) from Worksheet 2K
Total	2.2
Fatal and injury (FI)	0.8
Property damage only (PDO)	1.5

### HSM Spreadsheets Analysis Summary for Study Intersections

Alternative	No Build		Build	
Year	No-Build (N Friday Rd)	No-Build (S Friday Rd)	Build (N Friday Rd)	Build (S Friday Rd)
2025	2.7	0.7	2.4	0.7
2026	2.7	0.8	2.5	0.8
2027	2.8	0.9	2.6	0.9
2028	2.9	0.9	2.6	1.0
2029	2.9	1.0	2.7	1.0
2030	3.0	1.1	2.8	1.1
2031	3.1	1.1	2.9	1.2
2032	3.1	1.2	3.0	1.3
2033	3.2	1.3	3.1	1.3
2034	3.3	1.3	3.2	1.4
2035	3.3	1.4	3.3	1.5
2036	3.4	1.5	3.4	1.6
2037	3.4	1.5	3.5	1.6
2038	3.5	1.6	3.5	1.7
2039	3.6	1.7	3.6	1.8
2040	3.6	1.8	3.7	1.9
2041	3.7	1.8	3.8	1.9
2042	3.8	1.9	3.9	2.0
2043	3.8	2.0	4.0	2.1
2044	3.9	2.0	4.1	2.2
2045	4.0	2.1	4.2	2.2
<b>Sub-Total</b>	<b>69.7</b>	<b>29.6</b>	<b>68.7</b>	<b>31.4</b>
<b>Total</b>	<b>99.3</b>		<b>100.1</b>	

Note: Year 2035 was used as a check if the HSM analysis produces similar number of predicted crashes compared to interpolation

## FDM 2022

**Table 122.6.4 HSM Crash Distribution for Florida**

Type Facility	Abbreviation	K	A	B	C	O	
Rural Roadways	2-lane Undivided	R2U	0.028	0.094	0.181	0.187	0.509
	4-lane Undivided	R4U	0.033	0.093	0.164	0.186	0.524
	4-lane Divided	R4D	0.028	0.090	0.187	0.196	0.499
Urban & Suburban Arterials	2-lane Undivided	U2U	0.009	0.050	0.150	0.224	0.567
	3-lane TWLTL	U32LT	N/A				
	4-lane Undivided	U4U	0.004	0.031	0.110	0.204	0.650
	4-lane Divided	U4D	0.008	0.046	0.142	0.234	0.571
	5-lane TWLTL	U52LT	N/A				
Freeways	Rural		0.017	0.065	0.143	0.163	0.612
	Urban		0.006	0.035	0.113	0.206	0.641
	Ramps		0.004	0.032	0.107	0.210	0.647
All	All Roadways and Ramps		0.007	0.041	0.124	0.217	0.611
<b>Notes:</b>		A - Incapacitating Injury	C - Possible (or minor) Injury				
		K - Fatality	B - Non-incapacitating Injury		O - Property Damage Only		
Data Source: Florida Department of Transportation, State Safety Office's Crash Analysis Reporting (CAR) database, analysis years 2014 through 2018. Publishing by FDOT State Safety Office on 11/5/2020.							

**Table 122.6.2 FDOT KABCO Crash Costs**

Crash Severity	Comprehensive Crash Cost
Fatal (K)	\$10,890,000
Severe Injury (A)	\$888,030
Moderate Injury (B)	\$180,180
Minor Injury (C)	\$103,950
Property Damage Only (O)	\$7,700
<b>Note:</b>	
(1) Source: Florida Department of Transportation State Safety Office's Crash Analysis Reporting (CAR) System, analysis years 2014 through 2018. Published by FDOT State Safety Office on 11/5/2020.	

# **Appendix O**

## Long Range Estimate (LRE)



Date: 2/8/2022 1:46:34 PM

# FDOT Long Range Estimating System - Production

## R3: Project Details by Sequence Report

Project: 437983-1-52-01

Letting Date: 01/2099

Description: SR 524 FROM FRIDAY ROAD TO INDUSTRY ROAD

District: 05 County: 70 BREVARD Market Area: 08 Units: English

Contract Class: 1 Lump Sum Project: N Design/Build: N Project Length: 2.809 MI

Project Manager: LFC-AAA

Version 10 Project Grand Total

\$55,301,057.26

Description: Preferred Alt: 4-Lane curbed

Sequence: 5 NDU - New Construction, Divided, Urban

Net Length: 0.473 MI  
2,497 LF

Description: Diverging Diamond Interchange

### EARTHWORK COMPONENT

#### User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	105.00 / 105.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.473
Top of Structural Course For Begin Section	26.94
Top of Structural Course For End Section	27.99
Horizontal Elevation For Begin Section	26.94
Horizontal Elevation For End Section	27.31
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

#### Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	12.04	AC	\$32,209.41	\$387,801.30
120-6	EMBANKMENT	14,566.55	CY	\$22.74	\$331,243.35
<b>Earthwork Component Total</b>					<b>\$719,044.65</b>

### ROADWAY COMPONENT

#### User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	77.75 / 77.75
Structural Spread Rate	165
Friction Course Spread Rate	165

#### Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	46,013.94	SY	\$13.99	\$643,735.02
285-709	OPTIONAL BASE,BASE GROUP 09	43,150.21	SY	\$29.51	\$1,273,362.70

334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	3,559.89 TN	\$119.38	\$424,979.67
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	3,559.89 TN	\$144.66	\$514,973.69

**Pavement Marking Subcomponent**

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	2

**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	192.00 EA	\$4.88	\$936.96
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	1.89 GM	\$1,091.63	\$2,063.18
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.95 GM	\$466.10	\$442.80
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	1.89 GM	\$4,256.71	\$8,045.18
711-16-131	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"	0.95 GM	\$1,525.51	\$1,449.23
711-16-201	THERMOPLASTIC, STD- OTH,YELLOW, SOLID, 6"	1.89 GM	\$4,289.40	\$8,106.97

**Roadway Component Total**

\$2,878,095.40

**SHOULDER COMPONENT****User Input Data**

Description	Value
Total Outside Shoulder Width L/R	16.25 / 16.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	14.00 / 14.00

**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	2,497.44 LF	\$32.98	\$82,365.57
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,497.44 LF	\$34.09	\$85,137.73
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	7,769.81 SY	\$46.91	\$364,481.79

**Erosion Control****Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	4,994.88 LF	\$1.80	\$8,990.78
104-11	FLOATING TURBIDITY BARRIER	118.25 LF	\$10.72	\$1,267.64
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	118.25 LF	\$4.36	\$515.57
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,957.12	\$2,957.12
104-18	INLET PROTECTION SYSTEM	25.00 EA	\$109.92	\$2,748.00

107-1	LITTER REMOVAL	12.04 AC	\$32.24	\$388.17
107-2	MOWING	12.04 AC	\$70.21	\$845.33
<b>Shoulder Component Total</b>				<b>\$549,697.70</b>

**MEDIAN COMPONENT****User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	5.34

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	4,994.88	LF	\$32.98	\$164,731.14
570-1-1	PERFORMANCE TURF	1,481.81	SY	\$2.14	\$3,171.07
<b>Median Component Total</b>					<b>\$167,902.21</b>

**DRAINAGE COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	8.51	CY	\$1,509.72	\$12,847.72
425-1-351	INLETS, CURB, TYPE P-5, <10'	18.00	EA	\$5,783.47	\$104,102.46
425-1-451	INLETS, CURB, TYPE J-5, <10'	5.00	EA	\$9,473.36	\$47,366.80
425-1-521	INLETS, DT BOT, TYPE C, <10'	3.00	EA	\$4,052.53	\$12,157.59
425-2-41	MANHOLES, P-7, <10'	3.00	EA	\$5,292.65	\$15,877.95
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,256.00	LF	\$132.86	\$166,872.16
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	112.00	LF	\$172.07	\$19,271.84
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	2,368.00	LF	\$249.66	\$591,194.88
570-1-1	PERFORMANCE TURF	143.79	SY	\$2.14	\$307.71
<b>Drainage Component Total</b>					<b>\$969,999.11</b>

**INTERSECTIONS COMPONENT****Intersection 1**

Description	Value
Mainline No. of Left Turn Lanes	2
Mainline No. of Right Turn Lanes	2
Mainline Design Speed	50
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	2
Cross Street No. of Right Turn Lanes	0
Cross Street Design Speed	35
T-Intersection?	N
Multiplier	1
Description	West Friday Road

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.36	AC	\$32,209.41	\$76,014.21
120-1	REGULAR EXCAVATION	1,256.59	CY	\$18.02	\$22,643.75
160-4	TYPE B STABILIZATION	3,034.03	SY	\$13.99	\$42,446.08
160-4	TYPE B STABILIZATION	2,329.22	SY	\$13.99	\$32,585.79
285-709	OPTIONAL BASE,BASE GROUP 09	3,034.03	SY	\$29.51	\$89,534.23
285-711	OPTIONAL BASE,BASE GROUP 11	2,329.22	SY	\$33.31	\$77,586.32
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	500.61	TN	\$119.38	\$59,762.82
334-1-14	SUPERPAVE ASPHALTIC CONC, TRAFFIC D	512.43	TN	\$108.77	\$55,737.01
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	192.16	TN	\$144.66	\$27,797.87
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	250.31	TN	\$144.66	\$36,209.84
520-1-7	CONCRETE CURB & GUTTER, TYPE E	202.84	LF	\$32.98	\$6,689.66
520-1-10	CONCRETE CURB & GUTTER, TYPE F	946.00	LF	\$34.09	\$32,249.14
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	390.00	LF	\$52.98	\$20,662.20
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	780.00	LF	\$52.98	\$41,324.40
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	525.56	SY	\$46.91	\$24,654.02
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	173.89	SY	\$69.48	\$12,081.88
570-1-1	PERFORMANCE TURF	525.56	SY	\$2.14	\$1,124.70

**Intersection 2**

Description	Value
Mainline No. of Left Turn Lanes	2
Mainline No. of Right Turn Lanes	2
Mainline Design Speed	50
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	2
Cross Street No. of Right Turn Lanes	0
Cross Street Design Speed	50
T-Intersection?	Y
Multiplier	1
Description	SB I-75

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.64	AC	\$32,209.41	\$52,823.43
120-1	REGULAR EXCAVATION	953.10	CY	\$18.02	\$17,174.86
160-4	TYPE B STABILIZATION	2,301.24	SY	\$13.99	\$32,194.35
160-4	TYPE B STABILIZATION	2,329.22	SY	\$13.99	\$32,585.79
285-709	OPTIONAL BASE,BASE GROUP 09	2,301.24	SY	\$29.51	\$67,909.59
285-711	OPTIONAL BASE,BASE GROUP 11	2,329.22	SY	\$33.31	\$77,586.32
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	379.70	TN	\$119.38	\$45,328.59
334-1-14	SUPERPAVE ASPHALTIC CONC, TRAFFIC D	512.43	TN	\$108.77	\$55,737.01
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	189.85	TN	\$144.66	\$27,463.70
337-7-85	ASPH CONC FC,TRAFFIC D,FC- 12.5,PG 76-22	192.16	TN	\$134.79	\$25,901.25
520-1-7	CONCRETE CURB & GUTTER, TYPE E	202.84	LF	\$32.98	\$6,689.66

520-1-10	CONCRETE CURB & GUTTER, TYPE F	663.00 LF	\$34.09	\$22,601.67
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	780.00 LF	\$52.98	\$41,324.40
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	240.00 LF	\$52.98	\$12,715.20
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	368.33 SY	\$46.91	\$17,278.36
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	\$69.48	\$6,040.59
570-1-1	PERFORMANCE TURF	368.33 SY	\$2.14	\$788.23

**Intersection 3**

Description	Value
Mainline No. of Left Turn Lanes	2
Mainline No. of Right Turn Lanes	2
Mainline Design Speed	50
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	2
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	50
T-Intersection?	N
Multiplier	1
Description	I 75 NB

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.28	AC	\$32,209.41	\$105,646.86
120-1	REGULAR EXCAVATION	1,861.09	CY	\$18.02	\$33,536.84
160-4	TYPE B STABILIZATION	4,493.58	SY	\$13.99	\$62,865.18
160-4	TYPE B STABILIZATION	2,329.22	SY	\$13.99	\$32,585.79
285-709	OPTIONAL BASE,BASE GROUP 09	4,493.58	SY	\$29.51	\$132,605.55
285-711	OPTIONAL BASE,BASE GROUP 11	2,329.22	SY	\$33.31	\$77,586.32
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	741.44	TN	\$119.38	\$88,513.11
334-1-14	SUPERPAVE ASPHALTIC CONC, TRAFFIC D	512.43	TN	\$108.77	\$55,737.01
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	370.72	TN	\$144.66	\$53,628.36
337-7-85	ASPH CONC FC,TRAFFIC D,FC- 12.5,PG 76-22	192.16	TN	\$134.79	\$25,901.25
520-1-7	CONCRETE CURB & GUTTER, TYPE E	202.84	LF	\$32.98	\$6,689.66
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,326.00	LF	\$34.09	\$45,203.34
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	580.00	LF	\$52.98	\$30,728.40
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	780.00	LF	\$52.98	\$41,324.40
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	736.67	SY	\$46.91	\$34,557.19
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	173.89	SY	\$69.48	\$12,081.88
570-1-1	PERFORMANCE TURF	736.67	SY	\$2.14	\$1,576.47

**Intersection 4**

Description	Value
Mainline No. of Left Turn Lanes	2
Mainline No. of Right Turn Lanes	2
Mainline Design Speed	50
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	2

Cross Street No. of Right Turn Lanes	0
Cross Street Design Speed	35
T-Intersection?	N
Multiplier	1
Description	East Friday Road

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.36	AC	\$32,209.41	\$76,014.21
120-1	REGULAR EXCAVATION	1,256.59	CY	\$18.02	\$22,643.75
160-4	TYPE B STABILIZATION	2,329.22	SY	\$13.99	\$32,585.79
160-4	TYPE B STABILIZATION	3,034.03	SY	\$13.99	\$42,446.08
285-709	OPTIONAL BASE,BASE GROUP 09	3,034.03	SY	\$29.51	\$89,534.23
285-711	OPTIONAL BASE,BASE GROUP 11	2,329.22	SY	\$33.31	\$77,586.32
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	500.61	TN	\$119.38	\$59,762.82
334-1-14	SUPERPAVE ASPHALTIC CONC, TRAFFIC D	512.43	TN	\$108.77	\$55,737.01
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	250.31	TN	\$144.66	\$36,209.84
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	192.16	TN	\$144.66	\$27,797.87
520-1-7	CONCRETE CURB & GUTTER, TYPE E	202.84	LF	\$32.98	\$6,689.66
520-1-10	CONCRETE CURB & GUTTER, TYPE F	946.00	LF	\$34.09	\$32,249.14
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	390.00	LF	\$52.98	\$20,662.20
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	780.00	LF	\$52.98	\$41,324.40
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	525.56	SY	\$46.91	\$24,654.02
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	173.89	SY	\$69.48	\$12,081.88
570-1-1	PERFORMANCE TURF	525.56	SY	\$2.14	\$1,124.70
<b>Intersections Component Total</b>					<b>\$2,701,118.45</b>

**SIGNING COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	12.00	AS	\$427.33	\$5,127.96
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,429.93	\$1,429.93
700-2-15	MULTI- POST SIGN, F&I GM, 51- 100 SF	1.00	AS	\$5,841.85	\$5,841.85
700-2-16	MULTI- POST SIGN, F&I GM, 101- 200 SF	1.00	AS	\$11,165.70	\$11,165.70
<b>Signing Component Total</b>					<b>\$23,565.44</b>

**SIGNALIZATIONS COMPONENT****Signalization 1**

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	West Friday

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	\$12.22	\$9,165.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	\$25.66	\$6,415.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$6,653.46	\$6,653.46
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	\$793.00	\$12,688.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$3,131.25	\$3,131.25
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	\$5.85	\$351.00
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	4.00	EA	\$50,624.92	\$202,499.68
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00	AS	\$993.50	\$11,922.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	\$644.49	\$5,155.92
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	\$318.00	\$3,816.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	\$942.98	\$11,315.76
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	\$244.43	\$1,955.44
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	\$31,084.97	\$31,084.97
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	\$221.45	\$885.80

**Signalization 2**

Description	Value
Type	6 Lane Mast Arm
Multiplier	1
Description	SB I 75

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00	LF	\$12.22	\$8,554.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00	LF	\$25.66	\$7,698.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$6,653.46	\$6,653.46
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00	EA	\$793.00	\$17,446.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$3,131.25	\$3,131.25
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	\$5.85	\$351.00
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00	EA	\$1,429.72	\$1,429.72
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00	EA	\$59,310.43	\$355,862.58
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00	AS	\$993.50	\$19,870.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	\$644.49	\$5,155.92
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00	EA	\$318.00	\$6,360.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00	AS	\$942.98	\$18,859.60
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	\$244.43	\$1,955.44
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1	1.00	AS	\$31,084.97	\$31,084.97

	PREEMPT			
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$221.45	\$885.80

**Signalization 3**

<b>Description</b>	<b>Value</b>
Type	6 Lane Mast Arm
Multiplier	1
Description	NB I 75

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	700.00	LF	\$12.22	\$8,554.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	300.00	LF	\$25.66	\$7,698.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$6,653.46	\$6,653.46
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	22.00	EA	\$793.00	\$17,446.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$3,131.25	\$3,131.25
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	\$5.85	\$351.00
641-2-11	PREST CNC POLE,F&I,TYP P-II,PEDESTAL	1.00	EA	\$1,429.72	\$1,429.72
649-21-21	STEEL MAST ARM ASSEMBLY, F&I, 78'	6.00	EA	\$59,310.43	\$355,862.58
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	20.00	AS	\$993.50	\$19,870.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	\$644.49	\$5,155.92
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	20.00	EA	\$318.00	\$6,360.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	20.00	AS	\$942.98	\$18,859.60
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	\$244.43	\$1,955.44
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	\$31,084.97	\$31,084.97
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	\$221.45	\$885.80

**Signalization 4**

<b>Description</b>	<b>Value</b>
Type	4 Lane Mast Arm
Multiplier	1
Description	East Friday

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	\$12.22	\$9,165.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	\$25.66	\$6,415.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$6,653.46	\$6,653.46
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	\$793.00	\$12,688.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$3,131.25	\$3,131.25
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	\$5.85	\$351.00
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	4.00	EA	\$50,624.92	\$202,499.68
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00	AS	\$993.50	\$11,922.00



653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$644.49	\$5,155.92
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00 EA	\$318.00	\$3,816.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00 AS	\$942.98	\$11,315.76
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$244.43	\$1,955.44
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$31,084.97	\$31,084.97
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$221.45	\$885.80
<b>Signalizations Component Total</b>				<b>\$1,584,674.04</b>

### LIGHTING COMPONENT

#### Conventional Lighting Subcomponent

Description		Value		
Spacing		MIN		
Pay Items				
Pay item	Description	Quantity	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,497.44	LF \$12.22	\$30,518.72
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	495.70	LF \$25.66	\$12,719.66
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	17.00	EA \$793.00	\$13,481.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	9,121.33	LF \$2.33	\$21,252.70
715-4-13	LIGHT POLE COMPLETE, F&I- STD, 40'	17.00	EA \$6,437.36	\$109,435.12
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	17.00	EA \$568.62	\$9,666.54
<b>Subcomponent Total</b>				<b>\$197,073.74</b>
<b>Lighting Component Total</b>				<b>\$197,073.74</b>

### RETAINING WALLS COMPONENT

#### Retaining Wall 1

Description	Value			
Length	400.00			
Begin height	12.00			
End Height	12.00			
Multiplier	1			
Pay Items				
Pay item	Description	Quantity	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	4,800.00	SF \$36.17	\$173,616.00
<b>Retaining Walls Component Total</b>				<b>\$173,616.00</b>

**Sequence 5 Total** **\$9,964,786.74**

**Sequence:** 6 NDU - New Construction, Divided, Urban

**Net Length:** 1.080 MI  
5,702 LF

**Description:** Segment 2

**EARTHWORK COMPONENT****User Input Data**

<b>Description</b>	<b>Value</b>
Standard Clearing and Grubbing Limits L/R	105.00 / 105.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.050
Top of Structural Course For Begin Section	27.99
Top of Structural Course For End Section	28.80
Horizontal Elevation For Begin Section	27.31
Horizontal Elevation For End Section	25.71
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

**Pay Items**

<b>Pay item</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Extended Amount</b>
110-1-1	CLEARING & GRUBBING	27.49	AC	\$32,209.41	\$885,436.68
120-6	EMBANKMENT	37,360.40	CY	\$22.74	\$849,575.50
<b>Earthwork Component Total</b>					<b>\$1,735,012.18</b>

**ROADWAY COMPONENT****User Input Data**

<b>Description</b>	<b>Value</b>
Number of Lanes	4
Roadway Pavement Width L/R	23.00 / 23.00
Structural Spread Rate	165
Friction Course Spread Rate	165

**Pay Items**

<b>Pay item</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Extended Amount</b>
160-4	TYPE B STABILIZATION	35,684.35	SY	\$13.99	\$499,224.06
285-709	OPTIONAL BASE,BASE GROUP 09	29,145.60	SY	\$29.51	\$860,086.66
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	2,404.51	TN	\$119.38	\$287,050.40
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	2,404.51	TN	\$144.66	\$347,836.42

**Pavement Marking Subcomponent**

<b>Description</b>	<b>Value</b>
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	2

**Pay Items**

<b>Pay item</b>	<b>Description</b>	<b>Quantity</b>	<b>Unit</b>	<b>Unit Price</b>	<b>Extended Amount</b>
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	437.00	EA	\$4.88	\$2,132.56
710-11-101	PAINTED PAVT	2.16	GM	\$1,091.63	\$2,357.92

	MARK,STD,WHITE,SOLID,6"				
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP,6"	2.16	GM	\$466.10	\$1,006.78
711-15-201	THERMOPLASTIC, STD- OP,YELLOW, SOLID, 6"	2.16	GM	\$4,885.94	\$10,553.63
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	2.16	GM	\$4,256.71	\$9,194.49
711-16-131	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"	2.16	GM	\$1,525.51	\$3,295.10
<b>Roadway Component Total</b>					<b>\$2,022,738.02</b>

### SHOULDER COMPONENT

#### User Input Data

Description	Value
Total Outside Shoulder Width L/R	16.25 / 16.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	14.00 / 14.00

#### Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	5,702.40	LF	\$34.09	\$194,394.82
520-1-10	CONCRETE CURB & GUTTER, TYPE F	5,702.40	LF	\$34.09	\$194,394.82
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	17,740.80	SY	\$46.91	\$832,220.93

#### Erosion Control

#### Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	11,404.80	LF	\$1.80	\$20,528.64
104-11	FLOATING TURBIDITY BARRIER	270.00	LF	\$10.72	\$2,894.40
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	270.00	LF	\$4.36	\$1,177.20
104-15	SOIL TRACKING PREVENTION DEVICE	2.00	EA	\$2,957.12	\$5,914.24
104-18	INLET PROTECTION SYSTEM	56.00	EA	\$109.92	\$6,155.52
107-1	LITTER REMOVAL	27.49	AC	\$32.24	\$886.28
107-2	MOWING	27.49	AC	\$70.21	\$1,930.07

**Shoulder Component Total** **\$1,260,496.92**

### MEDIAN COMPONENT

#### User Input Data

Description	Value
Total Median Width	22.00
Performance Turf Width	5.34

#### Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	11,404.80	LF	\$32.98	\$376,130.30
570-1-1	PERFORMANCE TURF	3,383.42	SY	\$2.14	\$7,240.52

**Median Component Total**

\$383,370.82

**DRAINAGE COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-351	INLETS, CURB, TYPE P-5, <10'	39.00	EA	\$5,783.47	\$225,555.33
425-1-451	INLETS, CURB, TYPE J-5, <10'	11.00	EA	\$9,473.36	\$104,206.96
425-1-521	INLETS, DT BOT, TYPE C, <10'	6.00	EA	\$4,052.53	\$24,315.18
425-2-41	MANHOLES, P-7, <10'	6.00	EA	\$5,292.65	\$31,755.90
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	2,864.00	LF	\$132.86	\$380,511.04
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	256.00	LF	\$172.07	\$44,049.92
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	5,400.00	LF	\$249.66	\$1,348,164.00
570-1-1	PERFORMANCE TURF	328.32	SY	\$2.14	\$702.60
<b>Drainage Component Total</b>					<b>\$2,159,260.93</b>

**INTERSECTIONS COMPONENT****Intersection 1**

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	0
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Walmart

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18	AC	\$32,209.41	\$38,007.10
120-1	REGULAR EXCAVATION	483.89	CY	\$18.02	\$8,719.70
160-4	TYPE B STABILIZATION	1,168.35	SY	\$13.99	\$16,345.22
160-4	TYPE B STABILIZATION	1,209.22	SY	\$13.99	\$16,916.99
285-709	OPTIONAL BASE,BASE GROUP 09	1,209.22	SY	\$29.51	\$35,684.08
285-709	OPTIONAL BASE,BASE GROUP 09	1,168.35	SY	\$29.51	\$34,478.01
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	192.78	TN	\$119.38	\$23,014.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	99.76	TN	\$119.38	\$11,909.35
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	99.76	TN	\$144.66	\$14,431.28
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	96.39	TN	\$144.66	\$13,943.78
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	\$32.98	\$3,344.83
520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00	LF	\$34.09	\$16,124.57
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00	LF	\$52.98	\$10,331.10

520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00 LF	\$52.98	\$17,748.30
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78 SY	\$46.91	\$12,327.01
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	\$69.48	\$6,040.59
570-1-1	PERFORMANCE TURF	262.78 SY	\$2.14	\$562.35

**Intersection 2**

Description	Value
Mainline No. of Left Turn Lanes	2
Mainline No. of Right Turn Lanes	2
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	1
Cross Street Design Speed	45
T-Intersection?	N
Multiplier	1
Description	Cox

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.75	AC	\$32,209.41	\$88,575.88
120-1	REGULAR EXCAVATION	1,418.58	CY	\$18.02	\$25,562.81
160-4	TYPE B STABILIZATION	2,035.89	SY	\$13.99	\$28,482.10
160-4	TYPE B STABILIZATION	3,425.14	SY	\$13.99	\$47,917.71
285-709	OPTIONAL BASE,BASE GROUP 09	3,425.14	SY	\$29.51	\$101,075.88
285-709	OPTIONAL BASE,BASE GROUP 09	2,035.89	SY	\$29.51	\$60,079.11
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	167.96	TN	\$119.38	\$20,051.06
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	565.15	TN	\$119.38	\$67,467.61
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	167.96	TN	\$144.66	\$24,297.09
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	282.57	TN	\$144.66	\$40,876.58
520-1-7	CONCRETE CURB & GUTTER, TYPE E	202.84	LF	\$32.98	\$6,689.66
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,106.00	LF	\$34.09	\$37,703.54
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	235.00	LF	\$52.98	\$12,450.30
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	670.00	LF	\$52.98	\$35,496.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	614.44	SY	\$46.91	\$28,823.38
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	173.89	SY	\$69.48	\$12,081.88
570-1-1	PERFORMANCE TURF	614.44	SY	\$2.14	\$1,314.90
<b>Intersections Component Total</b>					<b>\$918,874.43</b>

**SIGNING COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	26.00	AS	\$427.33	\$11,110.58
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00	AS	\$1,429.93	\$4,289.79

700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	3.00 AS	\$5,841.85	\$17,525.55
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	3.00 AS	\$11,165.70	\$33,497.10
<b>Signing Component Total</b>				<b>\$66,423.02</b>

**SIGNALIZATIONS COMPONENT****Signalization 3**

<b>Description</b>	<b>Value</b>
Type	4 Lane Mast Arm
Multiplier	1
Description	London

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	\$12.22	\$9,165.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	\$25.66	\$6,415.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$6,653.46	\$6,653.46
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	\$793.00	\$12,688.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$3,131.25	\$3,131.25
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	\$5.85	\$351.00
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	4.00	EA	\$50,624.92	\$202,499.68
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00	AS	\$993.50	\$11,922.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	\$644.49	\$5,155.92
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	\$318.00	\$3,816.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	\$942.98	\$11,315.76
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	\$244.43	\$1,955.44
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	\$31,084.97	\$31,084.97
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	\$221.45	\$885.80

**Signalization 4**

<b>Description</b>	<b>Value</b>
Type	4 Lane Mast Arm
Multiplier	1
Description	Shopping Center

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	\$12.22	\$9,165.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	\$25.66	\$6,415.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$6,653.46	\$6,653.46
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	\$793.00	\$12,688.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$3,131.25	\$3,131.25
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	\$5.85	\$351.00

649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	4.00 EA	\$50,624.92	\$202,499.68
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00 AS	\$993.50	\$11,922.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$644.49	\$5,155.92
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00 EA	\$318.00	\$3,816.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00 AS	\$942.98	\$11,315.76
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$244.43	\$1,955.44
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$31,084.97	\$31,084.97
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$221.45	\$885.80
<b>Signalizations Component Total</b>				<b>\$614,078.56</b>

### LIGHTING COMPONENT

#### Conventional Lighting Subcomponent

Description		Value		
Spacing		MIN		
Pay Items		Extended Amount		
Pay item	Description	Quantity	Unit	Unit Price
630-2-11	CONDUIT, F& I, OPEN TRENCH	5,702.40	LF	\$12.22
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,131.84	LF	\$25.66
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	38.00	EA	\$793.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	20,826.72	LF	\$2.33
715-4-13	LIGHT POLE COMPLETE, F&I- STD, 40'	38.00	EA	\$6,437.36
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	38.00	EA	\$568.62
<b>Subcomponent Total</b>				<b>\$443,613.84</b>
<b>Lighting Component Total</b>				<b>\$443,613.84</b>

**Sequence 6 Total** \$9,603,868.72

**Sequence:** 7 NDR - New Construction, Divided, Rural **Net Length:** 0.379 MI  
2,000 LF  
**Description:** I 95 Reconstruction

### EARTHWORK COMPONENT

#### User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	100.00 / 100.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.379
Top of Structural Course For Begin Section	105.00
Top of Structural Course For End Section	105.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1

Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	9.19 AC	\$32,209.41	\$296,004.48
120-6	EMBANKMENT	42,391.13 CY	\$22.74	\$963,974.30
<b>Earthwork Component Total</b>				<b>\$1,259,978.78</b>

**ROADWAY COMPONENT****User Input Data**

Description	Value
Number of Lanes	6
Roadway Pavement Width L/R	36.00 / 36.00
Structural Spread Rate	330
Friction Course Spread Rate	80

**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	24,000.77 SY	\$13.99	\$335,770.77
285-709	OPTIONAL BASE,BASE GROUP 09	16,293.85 SY	\$29.51	\$480,831.51
350-3-13	PLAIN CEMENT CONC PAVT, 12"	16,000.51 SY	\$93.45	\$1,495,247.66

**Pavement Marking Subcomponent**

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Concrete
Solid Stripe No. of Paint Applications	0
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	0
Skip Stripe No. of Stripes	4

**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	256.00 EA	\$4.88	\$1,249.28
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	1.52 GM	\$5,218.52	\$7,932.15
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	1.52 GM	\$1,534.67	\$2,332.70
711-16-201	THERMOPLASTIC, STD- OTH,YELLOW, SOLID, 6"	1.52 GM	\$4,289.40	\$6,519.89
<b>Roadway Component Total</b>				<b>\$2,329,883.96</b>

**SHOULDER COMPONENT****User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110



Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2No. of Sides	0

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
285-704	OPTIONAL BASE,BASE GROUP 04	2,368.96	SY	\$25.15	\$59,579.34
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	122.23	TN	\$119.38	\$14,591.82
337-7-25	ASPH CONC FC,INC BIT,FC- 5,PG76-22	88.89	TN	\$169.39	\$15,057.08
570-1-1	PERFORMANCE TURF	1,186.70	SY	\$2.14	\$2,539.54

**Erosion Control****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	5,200.17	LF	\$1.80	\$9,360.31
104-11	FLOATING TURBIDITY BARRIER	94.70	LF	\$10.72	\$1,015.18
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	94.70	LF	\$4.36	\$412.89
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$2,957.12	\$2,957.12
104-18	INLET PROTECTION SYSTEM	3.00	EA	\$109.92	\$329.76
107-1	LITTER REMOVAL	9.18	AC	\$32.24	\$295.96
107-2	MOWING	9.18	AC	\$70.21	\$644.53

**Shoulder Component Total**

\$106,783.53

**MEDIAN COMPONENT****User Input Data**

Description	Value
Total Median Width	40.00
Performance Turf Width	5.34
Total Median Shoulder Width L/R	8.00 / 8.00
Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2No. of Sides	0

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
570-1-1	PERFORMANCE TURF	1,186.70	SY	\$2.14	\$2,539.54

**Median Component Total**

\$2,539.54

**DRAINAGE COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	3.00	EA	\$5,075.41	\$15,226.23
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	304.00	LF	\$114.25	\$34,732.00
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	136.00	LF	\$132.86	\$18,068.96

430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	120.00 LF	\$172.07	\$20,648.40
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	16.00 EA	\$1,986.18	\$31,778.88
524-1-1	CONCRETE DITCH PAVT, NR, 3"	757.60 SY	\$68.35	\$51,781.96
570-1-1	PERFORMANCE TURF	266.68 SY	\$2.14	\$570.70
<b>Drainage Component Total</b>				<b>\$172,807.13</b>

**SIGNING COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00	AS	\$427.33	\$427.33
700-1-12	SINGLE POST SIGN, F&I GM, 12- 20 SF	10.00	AS	\$1,429.93	\$14,299.30
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00	AS	\$5,020.69	\$5,020.69
700-2-15	MULTI- POST SIGN, F&I GM, 51- 100 SF	3.00	AS	\$5,841.85	\$17,525.55
<b>Signing Component Total</b>					<b>\$37,272.87</b>

**BRIDGES COMPONENT****Bridge 1**

Description	Value
Estimate Type	SF Estimate
Primary Estimate	YES
Length (LF)	196.00
Width (LF)	126.00
Type	Overpass Bridge
Cost Factor	1.00
Structure No.	
Removal of Existing Structures area	32,106.00
Default Cost per SF	\$120.00
Factored Cost per SF	\$120.00
<b>Final Cost per SF</b>	<b>\$133.88</b>
<b>Basic Bridge Cost</b>	<b>\$2,963,520.00</b>
Description	

**Bridge Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	32,106.00	SF	\$33.97	\$1,090,640.82
400-2-10	CONC CLASS II, APPROACH SLABS	280.00	CY	\$1,012.06	\$283,376.80
415-1-9	REINF STEEL- APPROACH SLABS	49,000.00	LB	\$1.21	\$59,290.00
<b>Bridge 1 Total</b>					<b>\$4,396,827.62</b>
<b>Bridges Component Total</b>					<b>\$4,396,827.62</b>

**Sequence 7 Total** **\$8,306,093.43**

**Sequence:** 8 NDU - New Construction, Divided, Urban**Net Length:** 1.278 MI  
6,748 LF**Description:** Segment 3**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	105.00 / 105.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	1.278
Top of Structural Course For Begin Section	28.80
Top of Structural Course For End Section	28.30
Horizontal Elevation For Begin Section	25.71
Horizontal Elevation For End Section	25.79
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	32.53	AC	\$32,209.41	\$1,047,772.11
120-6	EMBANKMENT	73,369.01	CY	\$22.74	\$1,668,411.29
<b>Earthwork Component Total</b>					<b>\$2,716,183.40</b>

**ROADWAY COMPONENT****User Input Data**

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	22.00 / 22.00
Structural Spread Rate	165
Friction Course Spread Rate	165

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	40,726.96	SY	\$13.99	\$569,770.17
285-709	OPTIONAL BASE,BASE GROUP 09	32,989.44	SY	\$29.51	\$973,518.37
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	2,721.63	TN	\$119.38	\$324,908.19
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	2,721.63	TN	\$144.66	\$393,711.00

**Pavement Marking Subcomponent**

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	2

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	518.00 EA	\$4.88	\$2,527.84
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	2.56 GM	\$1,091.63	\$2,794.57
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	2.56 GM	\$466.10	\$1,193.22
711-15-201	THERMOPLASTIC, STD- OP,YELLOW, SOLID, 6"	2.56 GM	\$4,885.94	\$12,508.01
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	2.56 GM	\$4,256.71	\$10,897.18
711-16-131	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"	2.56 GM	\$1,525.51	\$3,905.31
<b>Roadway Component Total</b>				<b>\$2,295,733.86</b>

### SHOULDER COMPONENT

#### User Input Data

Description	Value
Total Outside Shoulder Width L/R	16.25 / 16.25
Total Outside Shoulder Perf. Turf Width L/R	0.00 / 0.00
Sidewalk Width L/R	14.00 / 14.00

#### Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	6,747.84 LF	\$34.09	\$230,033.87
520-1-10	CONCRETE CURB & GUTTER, TYPE F	6,747.84 LF	\$34.09	\$230,033.87
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	20,993.28 SY	\$46.91	\$984,794.76

#### Erosion Control

#### Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	13,495.68 LF	\$1.80	\$24,292.22
104-11	FLOATING TURBIDITY BARRIER	319.50 LF	\$10.72	\$3,425.04
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	319.50 LF	\$4.36	\$1,393.02
104-15	SOIL TRACKING PREVENTION DEVICE	2.00 EA	\$2,957.12	\$5,914.24
104-18	INLET PROTECTION SYSTEM	66.00 EA	\$109.92	\$7,254.72
107-1	LITTER REMOVAL	32.53 AC	\$32.24	\$1,048.77
107-2	MOWING	32.53 AC	\$70.21	\$2,283.93

**Shoulder Component Total** **\$1,490,474.44**

### MEDIAN COMPONENT

#### User Input Data

Description	Value
Total Median Width	22.00
Performance Turf Width	5.34

#### Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER,	13,495.68 LF	\$32.98	\$445,087.53

	TYPE E			
570-1-1	PERFORMANCE TURF	4,003.72 SY	\$2.14	\$8,567.96
<b>Median Component Total</b>				<b>\$453,655.49</b>

**DRAINAGE COMPONENT****Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
425-1-351	INLETS, CURB, TYPE P-5, <10'	47.00 EA	\$5,783.47	\$271,823.09
425-1-451	INLETS, CURB, TYPE J-5, <10'	13.00 EA	\$9,473.36	\$123,153.68
425-1-521	INLETS, DT BOT, TYPE C, <10'	7.00 EA	\$4,052.53	\$28,367.71
425-2-41	MANHOLES, P-7, <10'	7.00 EA	\$5,292.65	\$37,048.55
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	3,384.00 LF	\$132.86	\$449,598.24
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	304.00 LF	\$172.07	\$52,309.28
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	6,392.00 LF	\$249.66	\$1,595,826.72
570-1-1	PERFORMANCE TURF	388.51 SY	\$2.14	\$831.41
<b>Drainage Component Total</b>				<b>\$2,558,958.68</b>

**INTERSECTIONS COMPONENT****Intersection 3**

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	1
Cross Street No. of Right Turn Lanes	0
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Pinyon

**Pay Items**

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	1.18 AC	\$32,209.41	\$38,007.10
120-1	REGULAR EXCAVATION	483.89 CY	\$18.02	\$8,719.70
160-4	TYPE B STABILIZATION	1,209.22 SY	\$13.99	\$16,916.99
160-4	TYPE B STABILIZATION	1,168.35 SY	\$13.99	\$16,345.22
285-709	OPTIONAL BASE,BASE GROUP 09	1,168.35 SY	\$29.51	\$34,478.01
285-709	OPTIONAL BASE,BASE GROUP 09	1,209.22 SY	\$29.51	\$35,684.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	192.78 TN	\$119.38	\$23,014.08
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	99.76 TN	\$119.38	\$11,909.35
337-7-83	ASPH CONC FC, TRAFFIC C, FC-12.5, PG 76-22	96.39 TN	\$144.66	\$13,943.78
337-7-83	ASPH CONC FC, TRAFFIC C, FC-12.5, PG 76-22	99.76 TN	\$144.66	\$14,431.28
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42 LF	\$32.98	\$3,344.83

520-1-10	CONCRETE CURB & GUTTER, TYPE F	473.00 LF	\$34.09	\$16,124.57
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	195.00 LF	\$52.98	\$10,331.10
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00 LF	\$52.98	\$17,748.30
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	262.78 SY	\$46.91	\$12,327.01
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94 SY	\$69.48	\$6,040.59
570-1-1	PERFORMANCE TURF	262.78 SY	\$2.14	\$562.35

**Intersection 4**

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	0
Cross Street No. of Right Turn Lanes	0
Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Westminster

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.70	AC	\$32,209.41	\$22,546.59
120-1	REGULAR EXCAVATION	247.45	CY	\$18.02	\$4,459.05
160-4	TYPE B STABILIZATION	1,179.89	SY	\$13.99	\$16,506.66
160-4	TYPE B STABILIZATION	597.46	SY	\$13.99	\$8,358.47
285-709	OPTIONAL BASE,BASE GROUP 09	597.46	SY	\$29.51	\$17,631.04
285-709	OPTIONAL BASE,BASE GROUP 09	1,179.89	SY	\$29.51	\$34,818.55
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	98.58	TN	\$119.38	\$11,768.48
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	97.34	TN	\$119.38	\$11,620.45
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	97.34	TN	\$144.66	\$14,081.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	49.29	TN	\$144.66	\$7,130.29
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	\$32.98	\$3,344.83
520-1-10	CONCRETE CURB & GUTTER, TYPE F	273.00	LF	\$34.09	\$9,306.57
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	\$52.98	\$17,748.30
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	151.67	SY	\$46.91	\$7,114.84
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	\$69.48	\$6,040.59
570-1-1	PERFORMANCE TURF	151.67	SY	\$2.14	\$324.57

**Intersection 5**

Description	Value
Mainline No. of Left Turn Lanes	1
Mainline No. of Right Turn Lanes	1
Mainline Design Speed	45
Cross Street Thru Lanes	1
Cross Street No. of Left Turn Lanes	0
Cross Street No. of Right Turn Lanes	0

Cross Street Design Speed	35
T-Intersection?	Y
Multiplier	1
Description	Lance

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.70	AC	\$32,209.41	\$22,546.59
120-1	REGULAR EXCAVATION	247.45	CY	\$18.02	\$4,459.05
160-4	TYPE B STABILIZATION	1,179.89	SY	\$13.99	\$16,506.66
160-4	TYPE B STABILIZATION	597.46	SY	\$13.99	\$8,358.47
285-709	OPTIONAL BASE,BASE GROUP 09	1,179.89	SY	\$29.51	\$34,818.55
285-709	OPTIONAL BASE,BASE GROUP 09	597.46	SY	\$29.51	\$17,631.04
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	98.58	TN	\$119.38	\$11,768.48
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	97.34	TN	\$119.38	\$11,620.45
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	97.34	TN	\$144.66	\$14,081.20
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	49.29	TN	\$144.66	\$7,130.29
520-1-7	CONCRETE CURB & GUTTER, TYPE E	101.42	LF	\$32.98	\$3,344.83
520-1-10	CONCRETE CURB & GUTTER, TYPE F	273.00	LF	\$34.09	\$9,306.57
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	335.00	LF	\$52.98	\$17,748.30
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	151.67	SY	\$46.91	\$7,114.84
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	86.94	SY	\$69.48	\$6,040.59
570-1-1	PERFORMANCE TURF	151.67	SY	\$2.14	\$324.57

**Intersection 6**

Description	Value
Mainline No. of Left Turn Lanes	2
Mainline No. of Right Turn Lanes	2
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	2
Cross Street No. of Right Turn Lanes	0
Cross Street Design Speed	35
T-Intersection?	N
Multiplier	1
Description	London

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.36	AC	\$32,209.41	\$76,014.21
120-1	REGULAR EXCAVATION	1,256.59	CY	\$18.02	\$22,643.75
160-4	TYPE B STABILIZATION	3,034.03	SY	\$13.99	\$42,446.08
160-4	TYPE B STABILIZATION	2,035.89	SY	\$13.99	\$28,482.10
285-709	OPTIONAL BASE,BASE GROUP 09	3,034.03	SY	\$29.51	\$89,534.23
285-709	OPTIONAL BASE,BASE GROUP 09	2,035.89	SY	\$29.51	\$60,079.11
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	500.61	TN	\$119.38	\$59,762.82
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	167.96	TN	\$119.38	\$20,051.06
337-7-83	ASPH CONC FC,TRAFFIC C,FC-	167.96	TN	\$144.66	\$24,297.09

	12.5,PG 76-22			
337-7-83	ASPH CONC FC,TRAFFIC C,FC-12.5,PG 76-22	250.31 TN	\$144.66	\$36,209.84
520-1-7	CONCRETE CURB & GUTTER, TYPE E	202.84 LF	\$32.98	\$6,689.66
520-1-10	CONCRETE CURB & GUTTER, TYPE F	946.00 LF	\$34.09	\$32,249.14
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	390.00 LF	\$52.98	\$20,662.20
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	670.00 LF	\$52.98	\$35,496.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	525.56 SY	\$46.91	\$24,654.02
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	173.89 SY	\$69.48	\$12,081.88
570-1-1	PERFORMANCE TURF	525.56 SY	\$2.14	\$1,124.70
<b>Intersections Component Total</b>				<b>\$1,258,007.79</b>

**SIGNING COMPONENT**

<b>Pay Items</b>				
<b>Pay item</b>	<b>Description</b>	<b>Quantity Unit</b>	<b>Unit Price</b>	<b>Extended Amount</b>
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	31.00 AS	\$427.33	\$13,247.23
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	3.00 AS	\$1,429.93	\$4,289.79
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	3.00 AS	\$5,841.85	\$17,525.55
700-2-16	MULTI- POST SIGN, F&I GM, 101-200 SF	3.00 AS	\$11,165.70	\$33,497.10
<b>Signing Component Total</b>				<b>\$68,559.67</b>

**SIGNALIZATIONS COMPONENT****Signalization 4**

<b>Description</b>	<b>Value</b>
Type	4 Lane Mast Arm
Multiplier	1
Description	Shopping Center

<b>Pay Items</b>				
<b>Pay item</b>	<b>Description</b>	<b>Quantity Unit</b>	<b>Unit Price</b>	<b>Extended Amount</b>
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00 LF	\$12.22	\$9,165.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00 LF	\$25.66	\$6,415.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$6,653.46	\$6,653.46
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00 EA	\$793.00	\$12,688.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$3,131.25	\$3,131.25
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	\$5.85	\$351.00
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	4.00 EA	\$50,624.92	\$202,499.68
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00 AS	\$993.50	\$11,922.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$644.49	\$5,155.92
660-1-102	LOOP DETECTOR INDUCTIVE,	12.00 EA	\$318.00	\$3,816.00



	F&I, TYPE 2			
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00 AS	\$942.98	\$11,315.76
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$244.43	\$1,955.44
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$31,084.97	\$31,084.97
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$221.45	\$885.80
<b>Signalizations Component Total</b>				<b>\$307,039.28</b>

### LIGHTING COMPONENT

#### Conventional Lighting Subcomponent

Description				Value
Spacing				MIN
Pay Items				
Pay item	Description	Quantity	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	6,747.84 LF	\$12.22	\$82,458.60
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	1,339.34 LF	\$25.66	\$34,367.46
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	45.00 EA	\$793.00	\$35,685.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	24,644.95 LF	\$2.33	\$57,422.73
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	45.00 EA	\$6,437.36	\$289,681.20
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	45.00 EA	\$568.62	\$25,587.90
<b>Subcomponent Total</b>				<b>\$525,202.90</b>
<b>Lighting Component Total</b>				<b>\$525,202.89</b>

**Sequence 8 Total** \$11,673,815.50

**Sequence:** 9 NDU - New Construction, Divided, Urban **Net Length:** 0.455 MI  
2,402 LF

**Description:** Segment 4

### EARTHWORK COMPONENT

#### User Input Data

Description	Value
Standard Clearing and Grubbing Limits L/R	105.00 / 105.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.455
Top of Structural Course For Begin Section	28.30
Top of Structural Course For End Section	32.58
Horizontal Elevation For Begin Section	25.79
Horizontal Elevation For End Section	32.58
Front Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	4.00 % / 4.00 %
Outside Shoulder Cross Slope L/R	2.00 % / 2.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

#### Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	11.58	AC	\$32,209.41	\$372,984.97
120-1	REGULAR EXCAVATION	14,671.55	CY	\$18.02	\$264,381.33
<b>Earthwork Component Total</b>					<b>\$637,366.30</b>

### ROADWAY COMPONENT

#### User Input Data

Description	Value
Number of Lanes	4
Roadway Pavement Width L/R	22.00 / 22.00
Structural Spread Rate	165
Friction Course Spread Rate	165

#### Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	14,499.82	SY	\$13.99	\$202,852.48
285-709	OPTIONAL BASE,BASE GROUP 09	11,745.07	SY	\$29.51	\$346,597.02
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	968.97	TN	\$119.38	\$115,675.64
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	968.97	TN	\$144.66	\$140,171.20

#### Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	2
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	2

#### Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
706-1-1	RAISED PAVMT MARK, TYPE B W/O FINAL SURF	184.00	EA	\$4.88	\$897.92
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.91	GM	\$1,091.63	\$993.38
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.91	GM	\$466.10	\$424.15
711-15-201	THERMOPLASTIC, STD- OP,YELLOW, SOLID, 6"	0.91	GM	\$4,885.94	\$4,446.21
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	0.91	GM	\$4,256.71	\$3,873.61
711-16-131	THERMOPLASTIC, STD-OTH, WHITE, SKIP, 6"	0.91	GM	\$1,525.51	\$1,388.21
<b>Roadway Component Total</b>					<b>\$817,319.82</b>

### SHOULDER COMPONENT

#### User Input Data

Description	Value
Total Outside Shoulder Width L/R	21.25 / 21.25
Total Outside Shoulder Perf. Turf Width L/R	5.00 / 5.00
Sidewalk Width L/R	14.00 / 14.00

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,402.40	LF	\$34.09	\$81,897.82
520-1-10	CONCRETE CURB & GUTTER, TYPE F	2,402.40	LF	\$34.09	\$81,897.82
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	7,474.13	SY	\$46.91	\$350,611.44
570-1-1	PERFORMANCE TURF	2,669.33	SY	\$2.14	\$5,712.37

**Erosion Control****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	4,804.80	LF	\$1.80	\$8,648.64
104-11	FLOATING TURBIDITY BARRIER	113.75	LF	\$10.72	\$1,219.40
104-12	STAKED TURBIDITY BARRIER-NYL REINF PVC	113.75	LF	\$4.36	\$495.95
104-15	SOIL TRACKING PREVENTION DEVICE	1.00	EA	\$2,957.12	\$2,957.12
104-18	INLET PROTECTION SYSTEM	24.00	EA	\$109.92	\$2,638.08
107-1	LITTER REMOVAL	11.58	AC	\$32.24	\$373.34
107-2	MOWING	11.58	AC	\$70.21	\$813.03

**Shoulder Component Total**

\$537,265.01

**MEDIAN COMPONENT****User Input Data**

Description	Value
Total Median Width	22.00
Performance Turf Width	5.34

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
520-1-7	CONCRETE CURB & GUTTER, TYPE E	4,804.80	LF	\$32.98	\$158,462.30
570-1-1	PERFORMANCE TURF	1,425.42	SY	\$2.14	\$3,050.40

**Median Component Total**

\$161,512.70

**DRAINAGE COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-351	INLETS, CURB, TYPE P-5, <10'	17.00	EA	\$5,783.47	\$98,318.99
425-1-451	INLETS, CURB, TYPE J-5, <10'	5.00	EA	\$9,473.36	\$47,366.80
425-1-521	INLETS, DT BOT, TYPE C, <10'	3.00	EA	\$4,052.53	\$12,157.59
425-2-41	MANHOLES, P-7, <10'	3.00	EA	\$5,292.65	\$15,877.95
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	1,208.00	LF	\$132.86	\$160,494.88
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	112.00	LF	\$172.07	\$19,271.84
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	2,280.00	LF	\$249.66	\$569,224.80
570-1-1	PERFORMANCE TURF	138.32	SY	\$2.14	\$296.00

**Drainage Component Total**

\$923,008.85

**INTERSECTIONS COMPONENT****Intersection 7**

Description	Value
Mainline No. of Left Turn Lanes	2
Mainline No. of Right Turn Lanes	2
Mainline Design Speed	45
Cross Street Thru Lanes	2
Cross Street No. of Left Turn Lanes	2
Cross Street No. of Right Turn Lanes	0
Cross Street Design Speed	35
T-Intersection?	N
Multiplier	1
Description	Shopping Center

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.36	AC	\$32,209.41	\$76,014.21
120-1	REGULAR EXCAVATION	1,256.59	CY	\$18.02	\$22,643.75
160-4	TYPE B STABILIZATION	3,034.03	SY	\$13.99	\$42,446.08
160-4	TYPE B STABILIZATION	2,035.89	SY	\$13.99	\$28,482.10
285-709	OPTIONAL BASE,BASE GROUP 09	2,035.89	SY	\$29.51	\$60,079.11
285-709	OPTIONAL BASE,BASE GROUP 09	3,034.03	SY	\$29.51	\$89,534.23
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	500.61	TN	\$119.38	\$59,762.82
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	167.96	TN	\$119.38	\$20,051.06
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	167.96	TN	\$144.66	\$24,297.09
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	250.31	TN	\$144.66	\$36,209.84
520-1-7	CONCRETE CURB & GUTTER, TYPE E	202.84	LF	\$32.98	\$6,689.66
520-1-10	CONCRETE CURB & GUTTER, TYPE F	946.00	LF	\$34.09	\$32,249.14
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	390.00	LF	\$52.98	\$20,662.20
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	670.00	LF	\$52.98	\$35,496.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	525.56	SY	\$46.91	\$24,654.02
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	173.89	SY	\$69.48	\$12,081.88
570-1-1	PERFORMANCE TURF	525.56	SY	\$2.14	\$1,124.70

**Intersection 8**

Description	Value
Mainline No. of Left Turn Lanes	3
Mainline No. of Right Turn Lanes	2
Mainline Design Speed	45
Cross Street Thru Lanes	3
Cross Street No. of Left Turn Lanes	3
Cross Street No. of Right Turn Lanes	3
Cross Street Design Speed	45
T-Intersection?	N
Multiplier	1

Description Industry

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.75	AC	\$32,209.41	\$88,575.88
120-1	REGULAR EXCAVATION	2,261.08	CY	\$18.02	\$40,744.66
160-4	TYPE B STABILIZATION	2,618.97	SY	\$13.99	\$36,639.39
160-4	TYPE B STABILIZATION	5,459.36	SY	\$13.99	\$76,376.45
285-709	OPTIONAL BASE,BASE GROUP 09	5,459.36	SY	\$29.51	\$161,105.71
285-709	OPTIONAL BASE,BASE GROUP 09	2,618.97	SY	\$29.51	\$77,285.80
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	216.07	TN	\$119.38	\$25,794.44
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	900.79	TN	\$119.38	\$107,536.31
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	216.07	TN	\$144.66	\$31,256.69
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	450.40	TN	\$144.66	\$65,154.86
520-1-7	CONCRETE CURB & GUTTER, TYPE E	405.68	LF	\$32.98	\$13,379.33
520-1-10	CONCRETE CURB & GUTTER, TYPE F	1,106.00	LF	\$34.09	\$37,703.54
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	420.00	LF	\$52.98	\$22,251.60
520-5-11	TRAF SEP CONC-TYPE I, 4' WIDE	620.00	LF	\$52.98	\$32,847.60
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	614.44	SY	\$46.91	\$28,823.38
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	173.89	SY	\$69.48	\$12,081.88
570-1-1	PERFORMANCE TURF	614.44	SY	\$2.14	\$1,314.90
<b>Intersections Component Total</b>					<b>\$1,451,350.91</b>

**SIGNING COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	11.00	AS	\$427.33	\$4,700.63
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	1.00	AS	\$1,429.93	\$1,429.93
700-2-15	MULTI- POST SIGN, F&I GM, 51- 100 SF	1.00	AS	\$5,841.85	\$5,841.85
700-2-16	MULTI- POST SIGN, F&I GM, 101- 200 SF	1.00	AS	\$11,165.70	\$11,165.70
<b>Signing Component Total</b>					<b>\$23,138.11</b>

**SIGNALIZATIONS COMPONENT****Signalization 4**

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	Shopping Center

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00 LF	\$12.22	\$9,165.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00 LF	\$25.66	\$6,415.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$6,653.46	\$6,653.46
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00 EA	\$793.00	\$12,688.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$3,131.25	\$3,131.25
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	\$5.85	\$351.00
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	4.00 EA	\$50,624.92	\$202,499.68
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00 AS	\$993.50	\$11,922.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$644.49	\$5,155.92
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00 EA	\$318.00	\$3,816.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00 AS	\$942.98	\$11,315.76
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$244.43	\$1,955.44
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$31,084.97	\$31,084.97
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$221.45	\$885.80

**Signalization 5****Description**

Type

Multiplier

Description

Industry

**Value**

4 Lane Mast Arm

1

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00	LF	\$12.22	\$9,165.00
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00	LF	\$25.66	\$6,415.00
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00	PI	\$6,653.46	\$6,653.46
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	\$793.00	\$12,688.00
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00	AS	\$3,131.25	\$3,131.25
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00	LF	\$5.85	\$351.00
649-21-10	STEEL MAST ARM ASSEMBLY, F&I, 60'	4.00	EA	\$50,624.92	\$202,499.68
650-1-14	VEH TRAF SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00	AS	\$993.50	\$11,922.00
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00	AS	\$644.49	\$5,155.92
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00	EA	\$318.00	\$3,816.00
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00	AS	\$942.98	\$11,315.76
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00	EA	\$244.43	\$1,955.44
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00	AS	\$31,084.97	\$31,084.97
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00	EA	\$221.45	\$885.80

**Signalizations Component Total**

\$614,078.56

**LIGHTING COMPONENT****Conventional Lighting Subcomponent**

Description		Value			
Spacing		MIN			
Pay Items					
Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	2,402.40	LF	\$12.22	\$29,357.33
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	476.84	LF	\$25.66	\$12,235.71
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00	EA	\$793.00	\$12,688.00
715-1-13	LIGHTING CONDUCTORS, F&I, INSUL, NO.4-2	8,774.22	LF	\$2.33	\$20,443.93
715-4-13	LIGHT POLE COMPLETE, F&I-STD, 40'	16.00	EA	\$6,437.36	\$102,997.76
715-500-1	POLE CABLE DIST SYS, CONVENTIONAL	16.00	EA	\$568.62	\$9,097.92
<b>Subcomponent Total</b>					<b>\$186,820.66</b>
<b>Lighting Component Total</b>					<b>\$186,820.65</b>

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**Sequence 9 Total** \$5,351,860.91

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**Sequence:** 11 NDR - New Construction, Divided, Rural

**Net Length:** 0.077 MI  
408 LF

**Description:** Cox Roundabout

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**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.50
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	100.00
Top of Structural Course For End Section	100.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	\$32,209.41	\$16,104.70

**X-Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION <b>Comment:</b> 26000 ft x 0.5 ft deep / 27 = 481 CY use 480 CY	480.00	CY	\$18.02	\$8,649.60
120-6	EMBANKMENT <b>Comment:</b> 26000 ft x 0.5 ft deep / 27 = 481 CY use 480	480.00	CY	\$22.74	\$10,915.20

CY

**Earthwork Component Total**

\$35,669.51

**ROADWAY COMPONENT****User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	18.00 / 15.00
Structural Spread Rate	165
Friction Course Spread Rate	80

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,403.51	SY	\$13.99	\$33,625.10
285-709	OPTIONAL BASE,BASE GROUP 09	1,556.39	SY	\$29.51	\$45,929.07
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	123.46	TN	\$119.38	\$14,738.65
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	59.86	TN	\$144.66	\$8,659.35

**Pavement Marking Subcomponent**

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	0

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.31	GM	\$1,091.63	\$338.41
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	0.31	GM	\$4,256.71	\$1,319.58
711-16-201	THERMOPLASTIC, STD- OTH,YELLOW, SOLID, 6"	0.31	GM	\$4,289.40	\$1,329.71

**Roadway Component Total**

\$105,939.87

**SHOULDER COMPONENT****User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

**Erosion Control****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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104-10-3	SEDIMENT BARRIER	1,061.17 LF	\$1.80	\$1,910.11
104-11	FLOATING TURBIDITY BARRIER	19.32 LF	\$10.72	\$207.11
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	19.32 LF	\$4.36	\$84.24
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,957.12	\$2,957.12
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$109.92	\$109.92
107-1	LITTER REMOVAL	1.87 AC	\$32.24	\$60.29
107-2	MOWING	1.87 AC	\$70.21	\$131.29
<b>Shoulder Component Total</b>				<b>\$5,460.08</b>

### MEDIAN COMPONENT

#### User Input Data

Description	Value
Total Median Width	0.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	0.00 / 0.00
Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

#### X-Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
350-30-13	CONC PAVEMENT FOR ROUNDAABOUT APRON, 12"	480.00	SY	\$165.28	\$79,334.40
520-2-4	CONCRETE CURB, TYPE D	295.00	LF	\$29.77	\$8,782.15
520-2-8	CONCRETE CURB, TYPE RA	370.00	LF	\$31.86	\$11,788.20
570-1-2	PERFORMANCE TURF, SOD	700.00	SY	\$4.26	\$2,982.00
<b>Median Component Total</b>					<b>\$102,886.75</b>

### DRAINAGE COMPONENT

#### Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$5,075.41	\$5,075.41
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	64.00	LF	\$114.25	\$7,312.00
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	32.00	LF	\$132.86	\$4,251.52
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	24.00	LF	\$172.07	\$4,129.68
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	4.00	EA	\$1,986.18	\$7,944.72
524-1-1	CONCRETE DITCH PAVT, NR, 3"	154.60	SY	\$68.35	\$10,566.91
570-1-1	PERFORMANCE TURF	54.42	SY	\$2.14	\$116.46
<b>Drainage Component Total</b>					<b>\$39,396.70</b>

### SIGNING COMPONENT

#### Pay Items

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00 AS	\$427.33	\$427.33
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00 AS	\$1,429.93	\$2,859.86
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$5,020.69	\$5,020.69
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	\$5,841.85	\$5,841.85
<b>Signing Component Total</b>				<b>\$14,149.73</b>

**LANDSCAPING COMPONENT****User Input Data**

Description	Value
Lump Sum	40,000.00
Cost %	0.00
Component Detail	N

**Landscaping Component Total** **\$40,000.00**

**Sequence 11 Total** **\$343,502.64**

**Sequence:** 12 NDR - New Construction, Divided, Rural **Net Length:** 0.077 MI  
408 LF  
**Description:** London Roundabout

**EARTHWORK COMPONENT****User Input Data**

Description	Value
Standard Clearing and Grubbing Limits L/R	0.00 / 0.00
Incidental Clearing and Grubbing Area	0.50
Alignment Number	1
Distance	0.057
Top of Structural Course For Begin Section	100.00
Top of Structural Course For End Section	100.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Front Slope L/R	6 to 1 / 6 to 1
Median Slope L/R	6 to 1 / 6 to 1
Median Shoulder Cross Slope L/R	5.00 % / 5.00 %
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.50	AC	\$32,209.41	\$16,104.70

**X-Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
120-1	REGULAR EXCAVATION <b>Comment:</b> 26000 ft x 0.5 ft deep / 27 = 481 CY use 480 CY	480.00	CY	\$18.02	\$8,649.60
120-6	EMBANKMENT <b>Comment:</b> 26000 ft x 0.5 ft deep / 27 = 481 CY use 480	480.00	CY	\$22.74	\$10,915.20

CY

**Earthwork Component Total**

\$35,669.51

**ROADWAY COMPONENT****User Input Data**

Description	Value
Number of Lanes	2
Roadway Pavement Width L/R	15.00 / 15.00
Structural Spread Rate	165
Friction Course Spread Rate	80

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	2,267.47	SY	\$13.99	\$31,721.91
285-709	OPTIONAL BASE,BASE GROUP 09	1,420.34	SY	\$29.51	\$41,914.23
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	112.24	TN	\$119.38	\$13,399.21
337-7-83	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	54.42	TN	\$144.66	\$7,872.40

**Pavement Marking Subcomponent**

Description	Value
Include Thermo/Tape/Other	Y
Pavement Type	Asphalt
Solid Stripe No. of Paint Applications	1
Solid Stripe No. of Stripes	4
Skip Stripe No. of Paint Applications	1
Skip Stripe No. of Stripes	0

**Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.31	GM	\$1,091.63	\$338.41
711-16-101	THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"	0.31	GM	\$4,256.71	\$1,319.58
711-16-201	THERMOPLASTIC, STD- OTH,YELLOW, SOLID, 6"	0.31	GM	\$4,289.40	\$1,329.71

**Roadway Component Total**

\$97,895.45

**SHOULDER COMPONENT****User Input Data**

Description	Value
Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	2.67 / 2.67
Paved Outside Shoulder Width L/R	5.00 / 5.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips 1/2 No. of Sides	0

**Erosion Control****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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104-10-3	SEDIMENT BARRIER	1,061.17 LF	\$1.80	\$1,910.11
104-11	FLOATING TURBIDITY BARRIER	19.32 LF	\$10.72	\$207.11
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	19.32 LF	\$4.36	\$84.24
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,957.12	\$2,957.12
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$109.92	\$109.92
107-1	LITTER REMOVAL	1.87 AC	\$32.24	\$60.29
107-2	MOWING	1.87 AC	\$70.21	\$131.29
<b>Shoulder Component Total</b>				<b>\$5,460.08</b>

**MEDIAN COMPONENT****User Input Data**

Description	Value
Total Median Width	0.00
Performance Turf Width	0.00
Total Median Shoulder Width L/R	0.00 / 0.00
Paved Median Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	T
Rumble Strips $\frac{1}{2}$ No. of Sides	0

**X-Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
350-30-13	CONC PAVEMENT FOR ROUNDAABOUT APRON, 12"	480.00	SY	\$165.28	\$79,334.40
520-2-4	CONCRETE CURB, TYPE D	295.00	LF	\$29.77	\$8,782.15
520-2-8	CONCRETE CURB, TYPE RA	370.00	LF	\$31.86	\$11,788.20
570-1-2	PERFORMANCE TURF, SOD	700.00	SY	\$4.26	\$2,982.00
<b>Median Component Total</b>					<b>\$102,886.75</b>

**DRAINAGE COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
425-1-551	INLETS, DT BOT, TYPE E, <10'	1.00	EA	\$5,075.41	\$5,075.41
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	64.00	LF	\$114.25	\$7,312.00
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	32.00	LF	\$132.86	\$4,251.52
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	24.00	LF	\$172.07	\$4,129.68
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	4.00	EA	\$1,986.18	\$7,944.72
524-1-1	CONCRETE DITCH PAVT, NR, 3"	154.60	SY	\$68.35	\$10,566.91
570-1-1	PERFORMANCE TURF	54.42	SY	\$2.14	\$116.46
<b>Drainage Component Total</b>					<b>\$39,396.70</b>

**SIGNING COMPONENT****Pay Items**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
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700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	1.00 AS	\$427.33	\$427.33
700-1-12	SINGLE POST SIGN, F&I GM, 12-20 SF	2.00 AS	\$1,429.93	\$2,859.86
700-2-14	MULTI- POST SIGN, F&I GM, 31-50 SF	1.00 AS	\$5,020.69	\$5,020.69
700-2-15	MULTI- POST SIGN, F&I GM, 51-100 SF	1.00 AS	\$5,841.85	\$5,841.85
<b>Signing Component Total</b>				<b>\$14,149.73</b>

**LANDSCAPING COMPONENT**

**User Input Data**

Description	Value
Lump Sum	40,000.00
Cost %	0.00
Component Detail	N

**Landscaping Component Total** **\$40,000.00**

**Sequence 12 Total** **\$335,458.22**

Date: 2/8/2022 1:46:37 PM

## FDOT Long Range Estimating System - Production

### R3: Project Details by Sequence Report

**Project:** 437983-1-52-01 **Letting Date:** 01/2099

**Description:** SR 524 FROM FRIDAY ROAD TO INDUSTRY ROAD

**District:** 05      **County:** 70 BREVARD      **Market Area:** 08      **Units:** English  
**Contract Class:** 1      **Lump Sum Project:** N      **Design/Build:** N      **Project Length:** 2.809 MI

**Project Manager:** LFC-AAA

**Version 10 Project Grand Total** **\$55,301,057.26**

**Description:** Preferred Alt: 4-Lane curbed

**Project Sequences Subtotal** **\$45,579,386.16**

102-1	Maintenance of Traffic	10.00 %	\$4,557,938.62
101-1	Mobilization	10.00 %	\$5,013,732.48

**Project Sequences Total** **\$55,151,057.26**

Project Unknowns	0.00 %	\$0.00
Design/Build	0.00 %	\$0.00

**Non-Bid Components:**

Pay item	Description	Quantity	Unit	Unit Price	Extended Amount
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)		LS	\$150,000.00	\$150,000.00

**Project Non-Bid Subtotal** **\$150,000.00**

**Version 10 Project Grand Total**

**\$55,301,057.26**