

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION  
**TECHNICAL REPORT COVERSHEET**

650-050-38  
ENVIRONMENTAL  
MANAGEMENT  
08/22

Preliminary Engineering Technical Memorandum

Florida Department of Transportation

District Seven

CR 52/Meridian Avenue/21<sup>st</sup> Street/Suwanee Way/St. Joe Road

Limits of Project: 21<sup>st</sup> Street from Church Avenue to Missouri Avenue, CR 52/Meridian Avenue from 21<sup>st</sup> Street to west of 17<sup>th</sup> Street, and St. Joe Road/Suwanee Way from 22<sup>nd</sup> Street to 21<sup>st</sup> Street

Pasco County, Florida

Work Program Item Segment: 439832-5

ETDM Number: N/A

Date: March 10, 2025

The environmental review, consultation, and other actions required by applicable federal environmental laws for this project are being, or have been, carried out by the Florida Department of Transportation (FDOT) pursuant to 23 U.S.C. § 327 and a Memorandum of Understanding dated May 26, 2022 and executed by the Federal Highway Administration and FDOT.

\_\_\_\_\_  
Authorized Signature

Vincent Shine, P.E.

\_\_\_\_\_  
Print/Type Name

Roadway Engineer

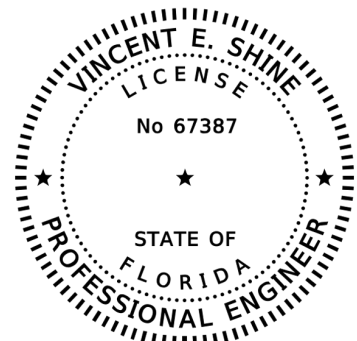
\_\_\_\_\_  
Title

201 N. Franklin Street, Suite 900

\_\_\_\_\_  
Address

Tampa, Florida 33602

\_\_\_\_\_  
Address



\_\_\_\_\_  
Seal

## TABLE OF CONTENTS

|                                                           |   |
|-----------------------------------------------------------|---|
| 1. Project Information .....                              | 1 |
| 1.1 Project Summary .....                                 | 1 |
| 1.2 Purpose and Need .....                                | 1 |
| 2. Existing Conditions.....                               | 2 |
| 3. Design Control and Criteria .....                      | 3 |
| 4. Alternative Analysis.....                              | 4 |
| 5. Public Involvement.....                                | 5 |
| 6. Design Features of the Proposed Alternative .....      | 6 |
| 7. Technical Documents .....                              | 7 |
| <br>Table 1: Future No Build (2050) Level of Service..... | 1 |
| Table 2: Utility Owner List.....                          | 3 |
| Table 3: Design Criteria .....                            | 4 |
| Table 4: Project Cost Estimate.....                       | 6 |
| Table 5: List of Technical Documents.....                 | 7 |

## Appendices

**Appendix A – Typical Section Package**

**Appendix B – Preferred Alternative Concept**

**Appendix C – FDOT’s Long Range Estimate (LRE)**

## 1. Project Information

### 1.1 Project Summary

The Florida Department of Transportation (FDOT) District Seven is conducting a Project Development and Environment (PD&E) Study for the intersection at CR 52/Meridian Avenue/21<sup>st</sup> Street/Suwanee Way/St. Joe Road in Pasco County, Florida. The limits of this PD&E Study extend north along 21<sup>st</sup> Street from Church Avenue to Missouri Avenue, along CR 52/Meridian Avenue from 21<sup>st</sup> Street to approximately 750 feet west of 17th Street, and along St. Joe Road/Suwanee Way from 22<sup>nd</sup> Street to 21<sup>st</sup> Street. CR 52/21<sup>st</sup> Street connects to CR 52/Meridian Avenue at a signalized T-intersection and to Suwanee Way/St. Joe Road as an unsignalized intersection. This Engineering Technical Memorandum has been prepared as a support document for the Focused Type II Categorical Exclusion (CE).

The study is evaluating connecting Meridian Avenue to St. Joe Road at a four-leg intersection, as well as a no-build alternative. The No-Build alternative proposes no capacity or operational improvements to the existing intersection. Only routine roadway maintenance activities would be conducted along the limits of the project.

The No-Build alternative results in zero right-of-way and construction costs along with avoiding environmental impacts. However, it does not satisfy the purpose and need for this project.

### 1.2 Purpose and Need

The purpose of this project is to reduce traffic congestion along CR 52 with improving safety and system linkage for the project. This project is needed to meet current and future traffic demand and to address the safety concerns at the intersection.

#### **Transportation Demand:**

Population and employment annual growth rates were calculated from the Pasco County Metropolitan Planning Organization Long Range Transportation Plan (LRTP). Population and employment annual growth rates for Pasco County were calculated as 2.14% and 2.31%, respectively. The current intersections will function at a level of service D-F in Design Year 2050 (Table 1).

**Table 1: Future No Build (2050) Level of Service**

| Intersection                               | Peak Hour | LOS | Overall Delay (sec/veh) | NB Delay (sec/veh) / LOS | SB Delay (sec/veh) / LOS | EB Delay (sec/veh) / LOS | WB Delay (sec/veh) / LOS |
|--------------------------------------------|-----------|-----|-------------------------|--------------------------|--------------------------|--------------------------|--------------------------|
| CR 52/21 <sup>st</sup> Street Intersection |           |     |                         |                          |                          |                          |                          |
| Suwanee Way / St. Joe Road                 | AM        | F   | 58.6                    | 10.4 / B                 | 8.3 / A                  | 265.3 / F                | 310.7 / F                |
|                                            | PM        | E   | 37.6                    | 9.7 / A                  | 9.0 / A                  | 223.5 / F                | 238.6 / F                |
| CR 52/ Meridian Ave                        | AM        | D   | 50.9                    | 14.4 / B                 | 48.6 / D                 | N/A                      | 108.6 / F                |
|                                            | PM        | F   | 86.7                    | 25.8 / C                 | 81.7 / F                 | N/A                      | 168.8 / F                |

**Safety:**

Crash data has been obtained through the Florida Signal Four Analytic crash database for the past five years. A crash analysis (2018-2023) was conducted at the intersections of CR 52/21<sup>st</sup> Street with CR 52/Meridian Avenue, St. Joe Road/Suwanee Way, and Center Avenue. *There have been 29 crashes reported along CR 52/21<sup>st</sup> Street during the 5-year period. The crash rate was found to be approximately 1.499, nearly two times higher than the statewide average (0.876).* The intersection with the most reported crashes was St. Joe Road/Suwanee Way. Rear-end crashes account for most of the crashes (55.17%), followed by angle (13.79%) and left turn crashes (13.79%). Rear-end crashes are associated with congestion.

**System Linkage:**

Currently, CR 52/ Meridian Avenue intersects US 98 and continues westbound to CR 52/21<sup>st</sup> Street. St. Joe Road/Suwanee Way intersects with I-75 continuing eastbound to 15th Street. There is a need for a direct connection between two major roadways in the state, US 98 and I-75, contributing to the movement of people, goods, and services. The new connection is needed to provide better distribution of traffic on the roadway network.

The project will provide a 6-foot sidewalk and 12-foot sidewalk on CR 52/21<sup>st</sup> Street and 6 to 12-foot sidewalks on CR 52/Meridian Avenue and St. Joe Road/Suwanee Way to connect to the local sidewalk network.

**2. Existing Conditions**

CR 52/21<sup>st</sup> Street is a north-south road, and CR 52/Meridian Avenue is an east-west roadway from 21<sup>st</sup> Street to US Highway (US) 98. Traffic flows east-west along St. Joe Road/Suwanee Way from Interstate (I)-75 to just east of the project limits.

CR 52/21<sup>st</sup> Street consists of a two-lane undivided roadway with two 12-foot travel lanes, paved outside shoulders (four-foot minimum) designated for bicycle use, 5-foot concrete sidewalks and open ditches along the outside. The existing right-of-way width varies, ranging from a minimum of 55 feet to a maximum of 100 feet.

CR 52/Meridian Avenue is a two-lane urban curb and gutter roadway with two 11-foot travel lanes, 5-foot bicycle lanes, and 5-foot concrete sidewalks on both sides of the roadway. The existing right-of-way width varies, ranging from a minimum of 50 feet to a maximum of 84 feet.

Suwanee Way / St. Joe Road is a two-lane undivided roadway with two 13-foot travel lanes and an 8-foot unpaved shoulder. There are no bicycle or pedestrian facilities within this segment. The existing right-of-way width varies, ranging from a minimum of 50 feet to a maximum of 145 feet.

The current daily traffic volume is 10,600 Annual Average Daily Traffic (AADT) along 21<sup>st</sup> Street, 7,600 AADT along CR 52/Meridian Avenue, and 4,000 AADT along St. Joe Road. The Existing Year 2023 stop-controlled intersection Level of Service (LOS) analysis was conducted based on the methodology outlined in the Highway Capacity Manual, 6th Edition using Synchro 11.

The LOS analysis shows that the 21<sup>st</sup> Street and CR 52/Meridian Avenue intersection currently operates at an acceptable LOS B with an average delay of 18.3 seconds per vehicle.

There are 6 utility owners that were identified throughout the study area (**Table 2**). A Utility Assessment Memorandum (August 2024) was prepared under separate cover and located in the project file.

**Table 2: Utility Owner List**

| Utility Owner             | Utility Description      | Utility Contact  | Phone Number |
|---------------------------|--------------------------|------------------|--------------|
| Century Link (Lumen)      | Buried Fiber/Telephone   | Lesli Dingman    | 720-888-1089 |
| City of Dade City         | Water Main, Force Main   | Johnell Kemp     | 352-437-5116 |
| Duke Energy               | Overhead Transmission    | Art Gilmore      | 727-893-9255 |
| Pasco County Traffic Ops. | Signals                  | Venkat Vattikuti | 727-847-8139 |
| Spectrum / Charter        | Buried Fiber             | William Walker   | 813-808-5658 |
| Tampa Electric Company    | Buried/Overhead Electric | Jason Payne      | 813-275-3428 |

### 3. Design Control and Criteria

Within the project limits, CR 52/21<sup>st</sup> Street is primarily a two-lane urban principal arterial under the jurisdiction of Pasco County, with a context classification of C2T. It is also part of the National Highway System and has a design speed of 40 miles per hour (mph) and posted speed of 35 mph. Suwanee Way/St. Joe Road and 21<sup>st</sup> Street are two-lane local facilities under the jurisdiction of Dade City, both have a context classification of C2T, and a design speed of 35 mph and posted speed of 30 mph.

Although the study corridor is a two-lane undivided roadway, the existing access management classification is Access Class 3. For this classification, the State Highway Access Management Classification System and Standards (Rule 14-97) allows for full median openings and signalized intersections spaced at 2,640 feet, directional median openings spaced at 1,320 feet, and driveways spaced at 400 feet.

The design criteria used to establish the proposed improvements for the CR 52 study corridor are listed in **Table 3** and conform to the following governing documents:

- Florida Department of Transportation's (FDOT) 2024-2025 Standard Plans for Road and Bridge Construction
- 2024 FDOT Design Manual (FDM)
- 2018 Manual of Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways (Florida Greenbook - FGB).
- AASHTO's A Policy on Geometric Design of Highways and Streets (2018)

**Table 3: Design Criteria**

| Design Element                             |             | Control Values                                 |                           | Reference          |
|--------------------------------------------|-------------|------------------------------------------------|---------------------------|--------------------|
|                                            |             | CR 52/Meridian Avenue/ 21 <sup>st</sup> Street | Suwanee Way/ St. Joe Road |                    |
| Functional Classification                  |             | Urban Principal Arterial                       | Local                     | FDM Table 200.2.1  |
| Context Classification                     |             | C2T - Rural Town                               | C2T - Rural Town          | FDOT RCI           |
| Design Speed (mph)                         |             | 40                                             | 35                        | FDM Table 201.5.1  |
| Access Management Classification           |             | 3                                              | 3                         | FDM Table 201.4.2  |
| Design Vehicle                             |             | WB-50                                          | WB-50                     | FGB Table 3-2      |
| Typical Section                            |             |                                                |                           |                    |
| Lane Width – Travel (ft)                   |             | 11                                             | 11                        | FDM Table 210.2.1  |
| Clear Zone – Travel (ft)                   |             | 18                                             | 14                        | FDM Table 215.2.1  |
| Cross Slope – Travel Lanes                 |             | 0.02                                           | 0.02                      | FDM Figure 210.2.1 |
| Front Slopes                               |             | 1:6                                            | 1:6                       | FDM Figure 215.2.3 |
| Back Slopes                                |             | 1:4                                            | 1:4                       | FDM Figure 215.2.3 |
| Horizontal Geometry                        |             |                                                |                           |                    |
| Minimum Stopping Sight Distance (ft)       |             | 305                                            | 250                       | FDM Table 210.11.1 |
| Max Curvature (e = NC) [ft]                |             | 1,528                                          | 1,146                     | FDM Table 210.9.2  |
| Curve Radius (Min.) [ft]                   |             | 533                                            | 402                       | FDM Table 210.8.2  |
| Vertical Geometry                          |             |                                                |                           |                    |
| Max Grade (Flat Terrain)                   |             | 7%                                             | 7%                        | FDM Table 210.10.1 |
| Max Change in Grade Without Vertical Curve |             | 0.8%                                           | 0.9%                      | FDM Table 210.10.2 |
| K- Value                                   | Crest Curve | 70                                             | 47                        | FDM Table 210.10.3 |
|                                            | Sag Curve   | 64                                             | 49                        | FDM Table 210.10.3 |
| Length of Curve (ft)                       |             | 120                                            | 105                       | FDM Table 210.10.4 |

#### 4. Alternative Analysis

The No-Build Alternative remains viable throughout the study process. The No-Build alternative proposes no capacity or operational improvements to the existing intersection through the Design Year 2050 with only routine maintenance being performed. A roundabout configuration was considered as part of the alternative analysis. The roundabout analysis is expected to operate at a LOS of D in the Design Year 2050, which is less favorable compared to the signalized alternative, and therefore would not meet the purpose and need of the project.

Below is a summary of the typical sections that will be proposed within the project limits. A detailed depiction of each typical section is provided in the typical section package included in **Appendix A**.

CR 52 / 21<sup>st</sup> Street - From Church Avenue to Suwanee Way

- Design Speed – 40 mph
- 11-foot travel lanes
- No proposed right-of-way required
- 8-foot sidewalk / 12-foot sidewalk
- 100-foot existing right-of-way

CR 52 / Meridian Avenue - From 21<sup>st</sup> Street to West of 17<sup>th</sup> Street

- Design Speed – 40 mph
- 11-foot travel lanes
- 34-foot proposed right-of-way required
- 8-foot sidewalk / 6 to 12-foot sidewalk
- 50-foot existing right-of-way

Suwanee Way / St. Joe Road - From 22<sup>nd</sup> Street to 21<sup>st</sup> Street

- Design Speed – 35 mph
- 11-foot travel lanes
- 95-foot proposed right-of-way required
- 12-foot sidewalk (south)
- 50-foot existing right-of-way

CR 41 / 21<sup>st</sup> Street - From Suwanee Way to Missouri Avenue

- Design Speed – 40 mph
- 11-foot travel lanes
- No proposed right-of-way required
- 6-foot sidewalk (east)
- 74-foot existing right-of-way

The traffic analysis findings conducted during the PD&E study are documented in the *CR 52/Meridian Avenue/21<sup>st</sup> Street/Suwanee Way/St Joe Road Technical Traffic Memorandum (TTM)* (August 2024).

The Design Year 2050 No-Build capacity analysis shows the 21<sup>st</sup> Street/Meridian Avenue intersection is expected to operate at an unacceptable LOS of F with the future traffic demand. The Design Year 2050 Build capacity analysis shows that the intersection is expected to operate at an acceptable LOS C during the AM and PM peak hours.

## 5. Public Involvement

The public meeting was held in-person on Tuesday, July 30, 2024, from 4:30 p.m. to 6:00 p.m. at the Pasco County Fairgrounds, 36722 CR 52, Dade City, FL 33525. Attendees were given the opportunity to view project information, including boards and a video, and submit comments and feedback. Staff was also available to answer questions.

A virtual public meeting via GoTo Webinar was held on Wednesday, July 31, 2024, from 11:00 a.m. to 12:30 p.m. The project video was shown and an opportunity for comments and questions with the project team was provided.

Forty-three attendees were present at the in-person meeting, and eighteen attendees joined via GoTo Webinar. All comments received are documented in the Public Meeting Summary (September 2024). Public comments received during the public meeting comment period were mainly regarding bicycle and pedestrian facilities and safety of its users, traffic operations, and potential impacts to residential properties along the study limits. A majority of the comments received were in support of the project or had no opinion on the project's Preferred Alternative.

6. Design Features of the Preferred Alternative

The additional right of way needed to construct the Preferred Alternative impacts a total of 10 parcels resulting in six residential relocations totaling 1.86 acres of proposed right-of-way.

The alignment for the Preferred Alternative contains two horizontal curves along Meridian Avenue within the study corridor and is illustrated in the Preferred Alternative Concept in **Appendix B**. The horizontal curves have a radius of 1,002 feet with both curves requiring superelevation.

The Preferred Alternative profile elevation of the proposed travel lanes will be increased above the existing profile, as necessary, to meet base clearance requirements. This increase in elevation is accommodated within the proposed right-of-way footprint of the Preferred Alternative.

The Preferred Alternative proposes an eight-foot sidewalk along the north side of CR 52 / Meridian Avenue and a 6-foot to 12-foot sidewalk on the south side. Additionally, CR 41 / 21<sup>st</sup> Street will feature a six-foot sidewalk on the east side, while Suwanee Way/St. Joe Road will include a 12-foot sidewalk on the south side. These sidewalk improvements are designed to accommodate the Orange Belt Trail project currently in design by Pasco County.

The stormwater runoff with the study corridor will be collected and conveyed in curb inlets and roadside ditches to the existing offsite wet detention and dry retention stormwater management facilities. The stormwater management facilities will discharge at or near the same cross drains that carry the roadway runoff in the existing condition. The Preferred Alternative will not impact any floodplains or wetlands.

To evaluate potential surface and subsurface conflicts associated with the Preferred Alternative, the utility owners were contacted to verify ownership and operation of utilities along with identifying existing and proposed utility locations in relation to the proposed roadway improvements. As a result, depending on the location and the depth of utilities, construction of the proposed project will likely require adjustments or relocation of some facilities. The Preferred Alternative is anticipated to impact Charter Communications (Spectrum), Pasco County Traffic Operations, City of Dade City, and Century Link (Lumen).

The project costs estimated for the Preferred Alternative are summarized in **Table 4**. Construction costs were prepared using the FDOT’s Long Range Estimate (LRE) program in March 2024, and the cost estimates are included in **Appendix C**.

Table 4: Project Cost Estimate

| Project Phases                                                             | Cost               |
|----------------------------------------------------------------------------|--------------------|
| Design                                                                     | \$935,000          |
| Right-of-Way Cost <sup>1</sup>                                             | \$2,502,000        |
| Construction Cost                                                          | \$4,500,000        |
| Construction Engineering & Inspection (10% of the total construction cost) | \$450,000          |
| <b>Preliminary Estimate of Total Project Cost</b>                          | <b>\$8,387,000</b> |

1. Right-of-Way cost estimate were prepared in April 2024.

## 7. Technical Documents

The purpose of the PD&E study is to evaluate engineering and environmental data and record information that will help the FDOT Office of Environmental Management (OEM) in determining the type, preliminary design, and location of the proposed improvements. The study was conducted to meet requirements of the National Environmental Policy Act (NEPA) and other related federal and state laws, rules, and regulations. The technical reports that have been completed during this study can be found below in **Table 5**.

**Table 5: List of Technical Documents**

| Technical Documents                                     | Date          |
|---------------------------------------------------------|---------------|
| Cultural Resources Assessment Survey (CRAS)             | June 2024     |
| Water Quality Impact Evaluation (WQIE)                  | August 2024   |
| Natural Resources Evaluation (NRE) Technical Memorandum | November 2024 |
| Contamination Screening Evaluation Report (CSER)        | January 2025  |
| Utilities Assessment Package                            | August 2024   |
| Traffic Technical Memorandum                            | August 2024   |

# **APPENDIX A**

## **TYPICAL SECTION PACKAGE**

---

**APPENDIX B**  
**PREFERRED ALTERNATIVE CONCEPT**

---

## **APPENDIX C**

### **LONG RANGE ESTIMATE (LRE)**

---

# **APPENDIX A**

## **TYPICAL SECTION PACKAGE**

---

STATE OF FLORIDA  
DEPARTMENT OF TRANSPORTATION

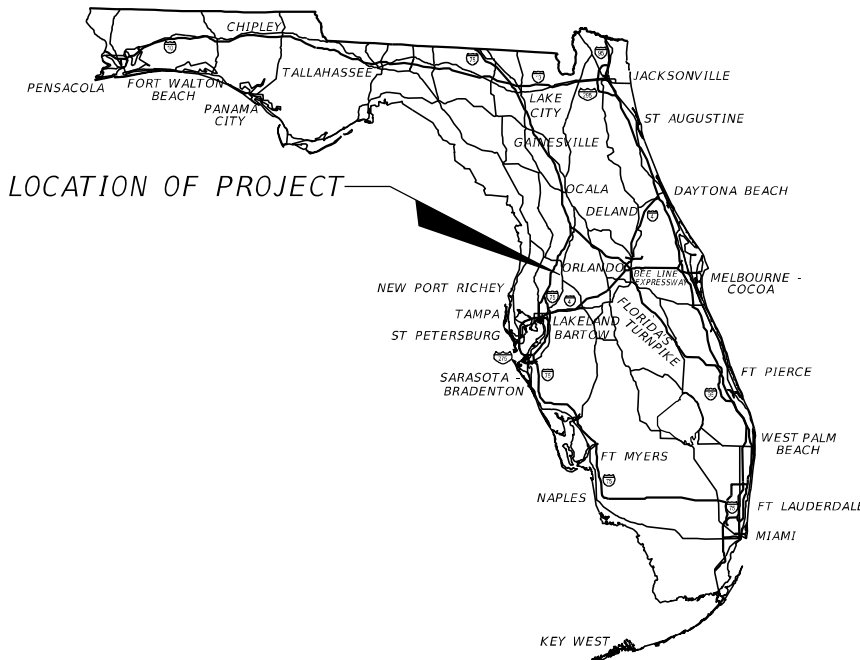
TYPICAL SECTION PACKAGE

FINANCIAL PROJECT ID 439832-5-52-01

PASCO COUNTY (14120)

COUNTY ROAD NO. 52

CR 52/MERIDIAN AVENUE/21ST STREET/SUWANNEE WAY/ST. JOE ROAD  
ADD LANES AND RECONSTRUCT FROM CHURCH AVENUE TO SUWANNEE WAY



FDOT DISTRICT DESIGN ENGINEER

Digitally signed by: Allan J  
Urbonas

Date: 2024.12.05 08:25:35 -  
05'00'

CONCURRING WITH:  
TYPICAL SECTION ELEMENTS  
TARGET SPEED  
DESIGN & POSTED SPEEDS

FDOT DISTRICT TRAFFIC OPERATIONS  
ENGINEER

JoEllyn M Guthrie

CONCURRING WITH:  
TARGET SPEED  
DESIGN & POSTED SPEEDS

PROJECT LOCATION URL: <https://tinyurl.com/5n8p9ha4>

PROJECT LIMITS: BEGIN MP 32.128 TO END MP 32.290

EXCEPTIONS: NONE

BRIDGE LIMITS: NONE

RAILROAD CROSSING: NONE

FDOT DISTRICT INTERMODAL SYSTEMS  
DEVELOPMENT MANAGER

Digitally signed by: Elizabeth  
Winters  
DN: CN = Elizabeth Winters email  
= elizabeth.winters@dot.state.fl,  
us O = US O = FDOT OU =  
FDOT,  
Date: 2024.12.05 08:03:01 -05'00'

CONCURRING WITH:  
CONTEXT CLASSIFICATION  
TARGET SPEED

FDOT DISTRICT STRUCTURES  
DESIGN ENGINEER

CONCURRING WITH:  
TYPICAL SECTION ELEMENTS

FHWA TRANSPORTATION ENGINEER

LOCAL TRANSPORTATION ENGINEER

  
12/4/2024

CONCURRING WITH:  
TYPICAL SECTION ELEMENTS

CONCURRING WITH:  
TYPICAL SECTION ELEMENTS

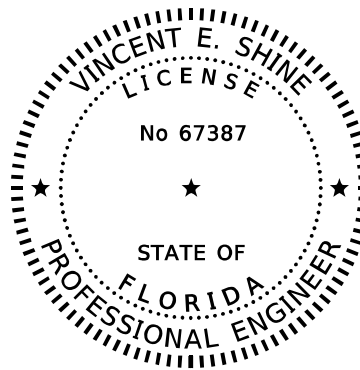
NOT USED

NOT USED

CONCURRING WITH:

CONCURRING WITH:

APPROVED BY:



THIS ITEM HAS BEEN DIGITALLY  
SIGNED AND SEALED BY:

Vincent  
Shine

Digitally signed by  
Vincent Shine  
Date: 2024.12.04  
16:31:00 -05'00'

ON THE DATE ADJACENT TO THE SEAL

PRINTED COPIES OF THIS DOCUMENT ARE  
NOT CONSIDERED SIGNED AND SEALED  
AND THE SIGNATURE MUST BE VERIFIED  
ON ANY ELECTRONIC COPIES.

KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET, SUITE 900  
TAMPA, FLORIDA 33602  
CERTIFICATE OF AUTHORIZATION 02317  
VINCENT E. SHINE, P.E. NO. 67387

THE ABOVE NAMED PROFESSIONAL ENGINEER SHALL BE RESPONSIBLE FOR THE  
FOLLOWING SHEETS IN ACCORDANCE WITH RULE 61G15-23.004, F.A.C.

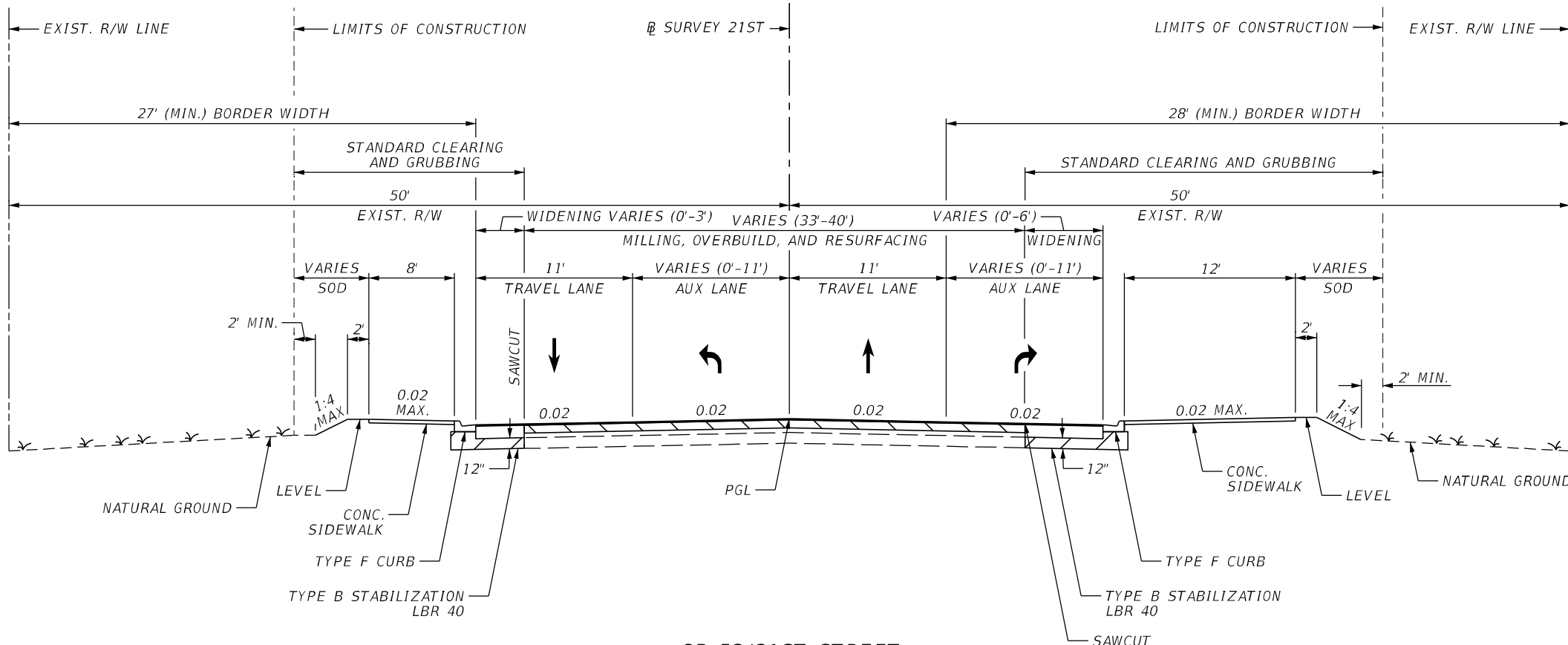
INDEX OF SHEETS

| SHEET NO | SHEET DESCRIPTION     |
|----------|-----------------------|
| 1        | COVER SHEET           |
| 2        | TYPICAL SECTION No. 1 |
| 3        | TYPICAL SECTION No. 2 |
| 4        | TYPICAL SECTION No. 3 |
| 5        | TYPICAL SECTION No. 4 |

SHEET  
NO.

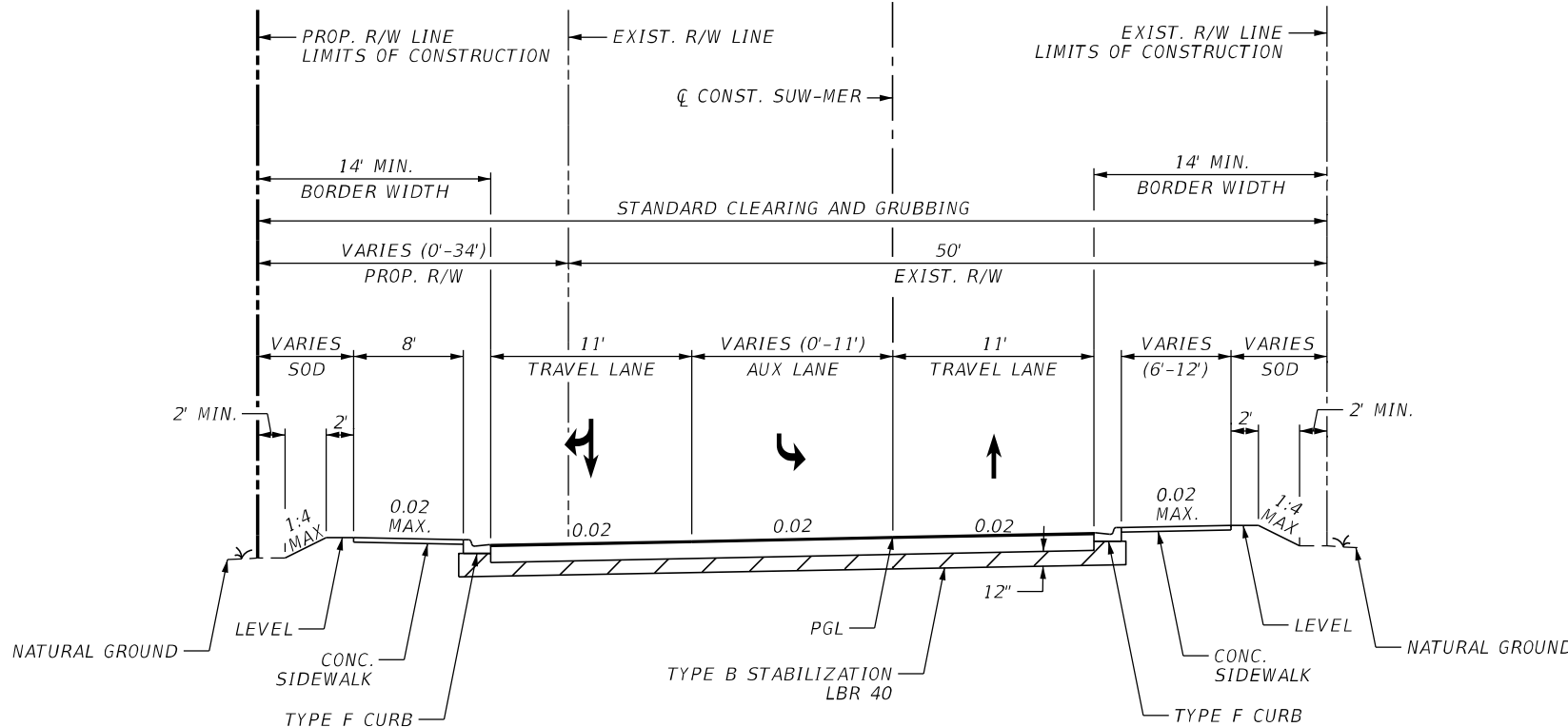
1

12/2/2024 11:23:30 AM c:\pwworkingdir\kca-pw-bentley.com\kca-pw-01\vincent.shine\dms77475\TYPRD001.dgn vshine

| PROJECT CONTROLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           | TYPICAL SECTION No. 1                                                                                                              |  |                      |           |                |   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|------------------------------------------------------------------------------------------------------------------------------------|--|----------------------|-----------|----------------|---|
| <div>CONTEXT CLASSIFICATION</div> <div><div><div><div></div><div>C1 : NATURAL</div></div><div><div></div><div>C2 : RURAL</div></div><div><div>X</div><div>C2T : RURAL TOWN</div></div><div><div></div><div>C3R : SUBURBAN RES.</div></div><div><div></div><div>N/A : L.A. FACILITY</div></div></div><div><div><div></div><div>C3C : SUBURBAN COMM.</div></div><div><div></div><div>C4 : URBAN GENERAL</div></div><div><div></div><div>C5 : URBAN CENTER</div></div><div><div></div><div>C6 : URBAN CORE</div></div></div></div>                  |           |                                                 |  |                      |           |                |   |
| <div>FUNCTIONAL CLASSIFICATION</div> <div><div><div><div></div><div>INTERSTATE</div></div><div><div></div><div>FREEWAY/EXPWY.</div></div><div><div>X</div><div>PRINCIPAL ARTERIAL</div></div><div><div></div><div>MINOR ARTERIAL</div></div></div><div><div><div></div><div>MAJOR COLLECTOR</div></div><div><div></div><div>MINOR COLLECTOR</div></div><div><div></div><div>LOCAL</div></div></div></div>                                                                                                                                        |           |                                                                                                                                    |  |                      |           |                |   |
| <div>HIGHWAY SYSTEM</div> <div><div><div><div>X</div><div>NATIONAL HIGHWAY SYSTEM</div></div><div><div></div><div>STRATEGIC INTERMODAL SYSTEM</div></div><div><div></div><div>STATE HIGHWAY SYSTEM</div></div><div><div>X</div><div>OFF-STATE HIGHWAY SYSTEM</div></div></div></div>                                                                                                                                                                                                                                                             |           |                                                                                                                                    |  |                      |           |                |   |
| <div>ACCESS CLASSIFICATION</div> <div><div><div><div></div><div>1 - FREEWAY</div></div><div><div></div><div>2 - RESTRICTIVE w/Service Roads</div></div><div><div>X</div><div>3 - RESTRICTIVE w/660 ft. Connection Spacing</div></div><div><div></div><div>4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing</div></div><div><div></div><div>5 - RESTRICTIVE w/440 ft. Connection Spacing</div></div><div><div></div><div>6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing</div></div><div><div></div><div>7 - BOTH MEDIAN TYPES</div></div></div></div> |           |                                                                                                                                    |  |                      |           |                |   |
| <div>CRITERIA</div> <div><div><div><div>X</div><div>NEW CONSTRUCTION / RECONSTRUCTION</div></div><div><div></div><div>RESURFACING (LA FACILITIES)</div></div><div><div></div><div>RRR (ARTERIALS &amp; COLLECTORS)</div></div></div></div>                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                    |  |                      |           |                |   |
| <div>POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                    |  |                      |           |                |   |
| <div>TRAFFIC DATA</div> <div><div>CURRENT YEAR</div><div>= 2023 AADT = 10,600</div><div>ESTIMATED OPENING YEAR = 2030 AADT = 12,000</div><div>ESTIMATED DESIGN YEAR = 2050 AADT = 16,300</div><div>K = 9.0% D = 56.7% T = 8.9% (24 HOUR)</div><div>DESIGN HOUR T = 4.45%</div><div>TARGET SPEED = 35 MPH</div><div>DESIGN SPEED = 40 MPH</div><div>POSTED SPEED = 35 MPH</div></div>                                                                                                                                                             |           | <div>CR 52/21ST STREET</div> <div>MP 32.128 TO MP 32.227</div> <div>STA. 531+15.95 TO STA. 536+50.84</div> <div>NOT TO SCALE</div> |  |                      |           |                |   |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |           | <table><tr><td>FINANCIAL PROJECT ID</td><td>SHEET NO.</td></tr><tr><td>439832-5-52-01</td><td>2</td></tr></table>                  |  | FINANCIAL PROJECT ID | SHEET NO. | 439832-5-52-01 | 2 |
| FINANCIAL PROJECT ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SHEET NO. |                                                                                                                                    |  |                      |           |                |   |
| 439832-5-52-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 2         |                                                                                                                                    |  |                      |           |                |   |

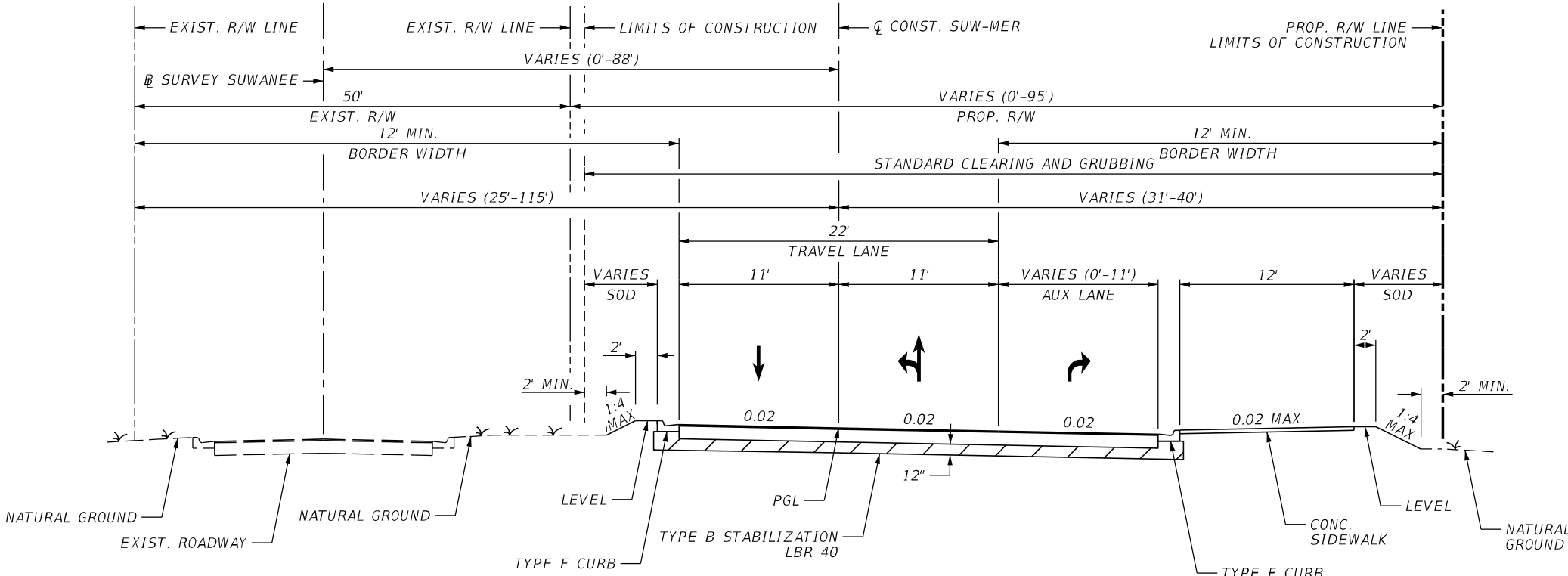
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

12/2/2024 11:23:31 AM c:\pwworkingdir\kca-pw-bentley.com\kca-pw-01\vincent.shine\dms77475\TYPRD001.dgn vshine

| PROJECT CONTROLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | TYPICAL SECTION No. 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                      |           |                |   |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------|-----------|----------------|---|
| <div>CONTEXT CLASSIFICATION</div> <div><div><div><div><div></div><div>C1 : NATURAL</div></div><div><div></div><div>C2 : RURAL</div></div><div><div>X</div><div>C2T : RURAL TOWN</div></div><div><div></div><div>C3R : SUBURBAN RES.</div></div><div><div></div><div>N/A : L.A. FACILITY</div></div></div><div><div><div></div><div>C3C : SUBURBAN COMM.</div></div><div><div></div><div>C4 : URBAN GENERAL</div></div><div><div></div><div>C5 : URBAN CENTER</div></div><div><div></div><div>C6 : URBAN CORE</div></div></div></div></div>                  | <div><p>The diagram illustrates a typical cross-section of a road. It shows a central travel area with two travel lanes (11' each) and an auxiliary lane (VARIES 0'-11'). The total existing right-of-way (EXIST. R/W) is 50'. The proposed right-of-way (PROP. R/W) varies from 0' to 34'. The diagram also shows border widths (14' MIN.), standard clearing and grubbing, and various clearances (2' MIN., 12"). The road is shown with a centerline (CL CONST. SUW-MER) and a proposed grade line (PGL). The existing ground is shown as NATURAL GROUND. The road is labeled CR 52/MERIDIAN AVENUE, MP 32.227 TO MP 32.290, STA. 106+72.55 TO STA. 114+06.08.</p></div> |                      |           |                |   |
| <div>FUNCTIONAL CLASSIFICATION</div> <div><div><div><div><div></div><div>INTERSTATE</div></div><div><div></div><div>FREEWAY/EXPWY.</div></div><div><div>X</div><div>PRINCIPAL ARTERIAL</div></div><div><div></div><div>MINOR ARTERIAL</div></div></div><div><div><div></div><div>MAJOR COLLECTOR</div></div><div><div></div><div>MINOR COLLECTOR</div></div><div><div></div><div>LOCAL</div></div></div></div></div>                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |           |                |   |
| <div>HIGHWAY SYSTEM</div> <div><div><div><div>X</div><div>NATIONAL HIGHWAY SYSTEM</div></div><div><div></div><div>STRATEGIC INTERMODAL SYSTEM</div></div><div><div></div><div>STATE HIGHWAY SYSTEM</div></div><div><div>X</div><div>OFF-STATE HIGHWAY SYSTEM</div></div></div></div>                                                                                                                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |           |                |   |
| <div>ACCESS CLASSIFICATION</div> <div><div><div><div><div></div><div>1 - FREEWAY</div></div><div><div></div><div>2 - RESTRICTIVE w/Service Roads</div></div><div><div></div><div>3 - RESTRICTIVE w/660 ft. Connection Spacing</div></div><div><div></div><div>4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing</div></div><div><div></div><div>5 - RESTRICTIVE w/440 ft. Connection Spacing</div></div><div><div></div><div>6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing</div></div><div><div>X</div><div>7 - BOTH MEDIAN TYPES</div></div></div></div></div> |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |           |                |   |
| <div>CRITERIA</div> <div><div><div><div>X</div><div>NEW CONSTRUCTION / RECONSTRUCTION</div></div><div><div></div><div>RESURFACING (LA FACILITIES)</div></div><div><div></div><div>RRR (ARTERIALS &amp; COLLECTORS)</div></div></div></div>                                                                                                                                                                                                                                                                                                                  |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                      |           |                |   |
| <div>POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <div>TRAFFIC DATA</div> <div><div>CURRENT YEAR = 2023 AADT = 7,600</div><div>ESTIMATED OPENING YEAR = 2030 AADT = 8,600</div><div>ESTIMATED DESIGN YEAR = 2050 AADT = 11,700</div><div>K = 9.0% D = 60.46% T = 4.8% (24 HOUR)</div><div>DESIGN HOUR T = 2.40%</div><div>TARGET SPEED = 35 MPH</div><div>DESIGN SPEED = 40 MPH</div><div>POSTED SPEED = 35 MPH</div></div> <div>NOT TO SCALE</div> <div><table><tr><td>FINANCIAL PROJECT ID</td><td>SHEET NO.</td></tr><tr><td>439832-5-52-01</td><td>3</td></tr></table></div>                                                                                                                                                                                                                                  | FINANCIAL PROJECT ID | SHEET NO. | 439832-5-52-01 | 3 |
| FINANCIAL PROJECT ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | SHEET NO.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                      |           |                |   |
| 439832-5-52-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                      |           |                |   |

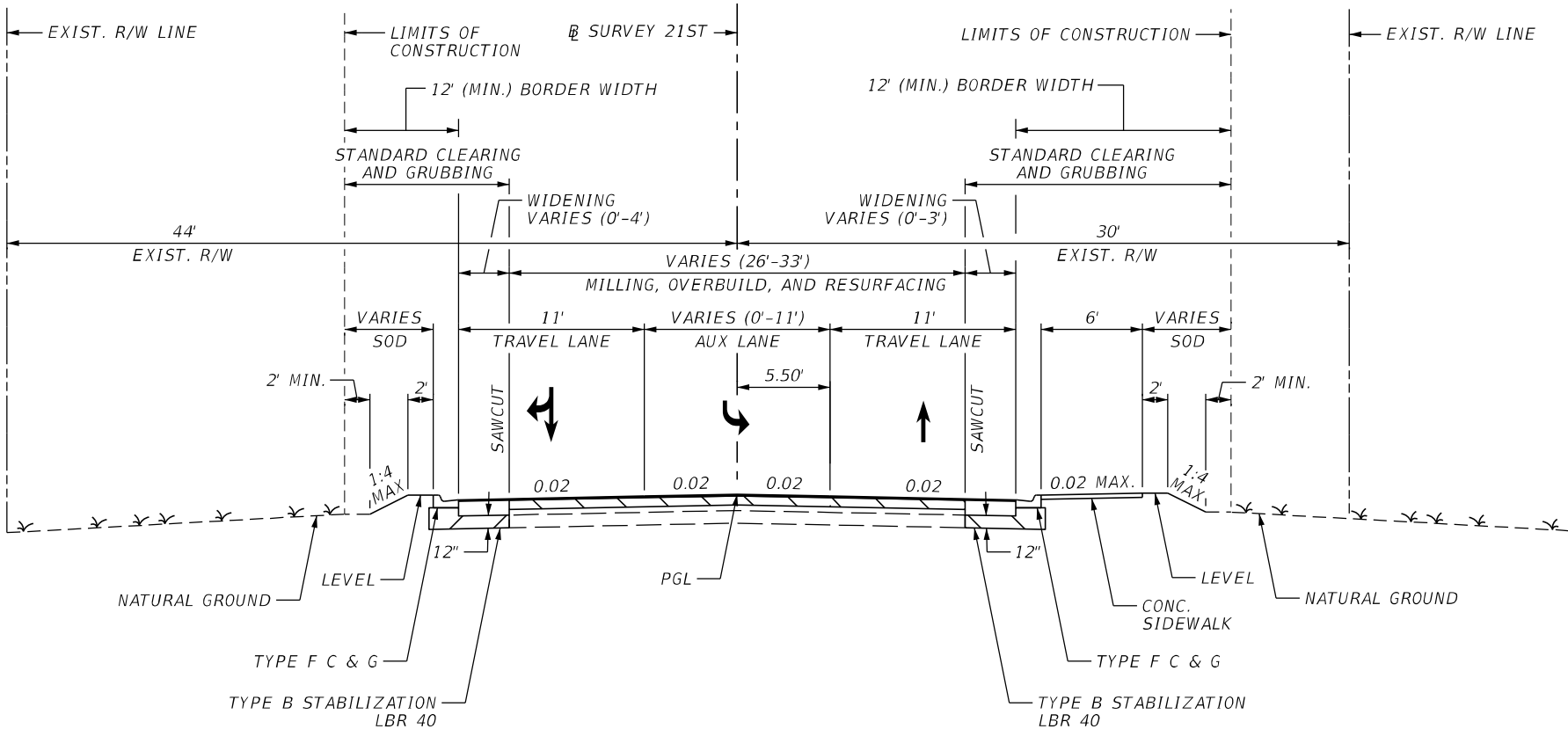
NOTICE: THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

12/2/2024 11:23:31 AM c:\pwworkingdr\kca-pw\ben\ley.com\kca-pw-01\vincent\_shine\dms77475\TYPRD001.dgn vshine

| PROJECT CONTROLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| <div>CONTEXT CLASSIFICATION</div> <div><div><div><div><div></div><div>C1 : NATURAL</div></div><div><div></div><div>C2 : RURAL</div></div><div><div>X</div><div>C2T : RURAL TOWN</div></div><div><div></div><div>C3R : SUBURBAN RES.</div></div><div><div></div><div>N/A : L.A. FACILITY</div></div></div><div><div><div></div><div>C3C : SUBURBAN COMM.</div></div><div><div></div><div>C4 : URBAN GENERAL</div></div><div><div></div><div>C5 : URBAN CENTER</div></div><div><div></div><div>C6 : URBAN CORE</div></div></div></div></div>      |  |
| <div>FUNCTIONAL CLASSIFICATION</div> <div><div><div><div></div><div>INTERSTATE</div></div><div><div></div><div>FREEWAY/EXPWY.</div></div><div><div></div><div>PRINCIPAL ARTERIAL</div></div><div><div></div><div>MINOR ARTERIAL</div></div></div><div><div><div></div><div>MAJOR COLLECTOR</div></div><div><div></div><div>MINOR COLLECTOR</div></div><div><div>X</div><div>LOCAL</div></div></div></div>                                                                                                                                       |  |
| <div>HIGHWAY SYSTEM</div> <div><div><div></div><div>NATIONAL HIGHWAY SYSTEM</div></div><div><div></div><div>STRATEGIC INTERMODAL SYSTEM</div></div><div><div></div><div>STATE HIGHWAY SYSTEM</div></div><div><div>X</div><div>OFF-STATE HIGHWAY SYSTEM</div></div></div>                                                                                                                                                                                                                                                                        |  |
| <div>ACCESS CLASSIFICATION</div> <div><div><div><div></div><div>1 - FREEWAY</div></div><div><div></div><div>2 - RESTRICTIVE w/Service Roads</div></div><div><div></div><div>3 - RESTRICTIVE w/660 ft. Connection Spacing</div></div><div><div></div><div>4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing</div></div><div><div></div><div>5 - RESTRICTIVE w/440 ft. Connection Spacing</div></div><div><div></div><div>6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing</div></div><div><div></div><div>7 - BOTH MEDIAN TYPES</div></div></div></div> |  |
| <div>CRITERIA</div> <div><div><div><div></div><div>NEW CONSTRUCTION / RECONSTRUCTION</div></div><div><div></div><div>RESURFACING (LA FACILITIES)</div></div><div><div></div><div>RRR (ARTERIALS &amp; COLLECTORS)</div></div></div></div>                                                                                                                                                                                                                                                                                                       |  |
| <div>POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |  |
| <div><div>TYPICAL SECTION No. 3</div><div><div>SUWANEE WAY/ST JOE ROAD<br/>STA. 100+96.60 TO STA. 106+72.55</div></div></div>                                                                                                                                                                                                                                                                                                                                |  |
| <div><div>TRAFFIC DATA</div><div><div>CURRENT YEAR = 2023 AADT = 4,000</div><div>ESTIMATED OPENING YEAR = 2030 AADT = 4,500</div><div>ESTIMATED DESIGN YEAR = 2050 AADT = 6,100</div><div>K = 9.0% D = 57.7% T = 8.9% (24 HOUR)</div><div>DESIGN HOUR T = 4.45%</div><div>TARGET SPEED = 30 MPH</div><div>DESIGN SPEED = 35 MPH</div><div>POSTED SPEED = 30 MPH</div></div></div>                                                                                                                                                               |  |
| <div>NOT TO SCALE</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |
| <div><div><div>FINANCIAL PROJECT ID</div><div>439832-5-52-01</div></div><div><div>SHEET NO.</div><div>4</div></div></div>                                                                                                                                                                                                                                                                                                                                                                                                                       |  |

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

12/2/2024 11:23:32 AM c:\pwworkingdir\kca-pw-bentley.com\kca-pw-01\vincent.shine\dms77475\TYPRD001.dgn vshine

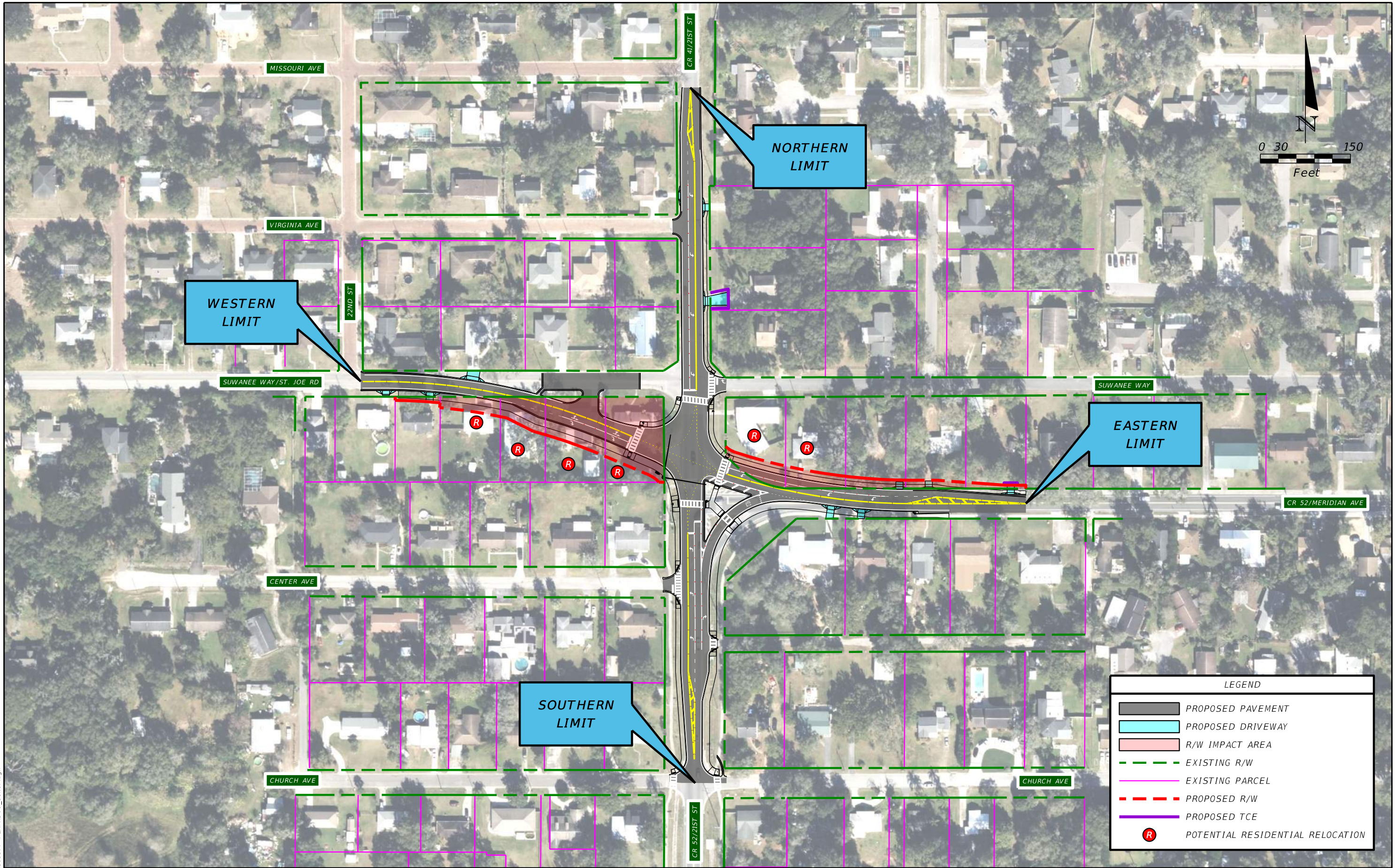
| PROJECT CONTROLS                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |           | TYPICAL SECTION No. 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |                      |           |                |   |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------|-----------|----------------|---|
| <div>CONTEXT CLASSIFICATION</div> <div><div><div><div></div><div>C1 : NATURAL</div></div><div><div></div><div>C2 : RURAL</div></div><div><div>X</div><div>C2T : RURAL TOWN</div></div><div><div></div><div>C3R : SUBURBAN RES.</div></div><div><div></div><div>N/A : L.A. FACILITY</div></div></div><div><div><div></div><div>C3C : SUBURBAN COMM.</div></div><div><div></div><div>C4 : URBAN GENERAL</div></div><div><div></div><div>C5 : URBAN CENTER</div></div><div><div></div><div>C6 : URBAN CORE</div></div></div></div>                  |           |  <p>CR 41/21ST STREET<br/>STA. 536+50.84 TO STA. 542+74.52</p>                                                                                                                                                                                                                                                                                                                                                                 |  |                      |           |                |   |
| <div>FUNCTIONAL CLASSIFICATION</div> <div><div><div><div></div><div>INTERSTATE</div></div><div><div></div><div>FREEWAY/EXPWY.</div></div><div><div></div><div>PRINCIPAL ARTERIAL</div></div><div><div></div><div>MINOR ARTERIAL</div></div></div><div><div><div></div><div>MAJOR COLLECTOR</div></div><div><div></div><div>MINOR COLLECTOR</div></div><div><div>X</div><div>LOCAL</div></div></div></div>                                                                                                                                        |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                      |           |                |   |
| <div>HIGHWAY SYSTEM</div> <div><div><div></div><div>NATIONAL HIGHWAY SYSTEM</div></div><div><div></div><div>STRATEGIC INTERMODAL SYSTEM</div></div><div><div></div><div>STATE HIGHWAY SYSTEM</div></div><div><div>X</div><div>OFF-STATE HIGHWAY SYSTEM</div></div></div>                                                                                                                                                                                                                                                                         |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                      |           |                |   |
| <div>ACCESS CLASSIFICATION</div> <div><div><div><div></div><div>1 - FREEWAY</div></div><div><div></div><div>2 - RESTRICTIVE w/Service Roads</div></div><div><div>X</div><div>3 - RESTRICTIVE w/660 ft. Connection Spacing</div></div><div><div></div><div>4 - NON-RESTRICTIVE w/2640 ft. Signal Spacing</div></div><div><div></div><div>5 - RESTRICTIVE w/440 ft. Connection Spacing</div></div><div><div></div><div>6 - NON-RESTRICTIVE w/1320 ft. Signal Spacing</div></div><div><div></div><div>7 - BOTH MEDIAN TYPES</div></div></div></div> |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                      |           |                |   |
| <div>CRITERIA</div> <div><div><div><div>X</div><div>NEW CONSTRUCTION / RECONSTRUCTION</div></div><div><div></div><div>RESURFACING (LA FACILITIES)</div></div><div><div></div><div>RRR (ARTERIALS &amp; COLLECTORS)</div></div></div></div>                                                                                                                                                                                                                                                                                                       |           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                      |           |                |   |
| <div>POTENTIAL EXCEPTIONS AND VARIATIONS RELATED TO TYPICAL SECTION:</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |           | <div>TRAFFIC DATA</div> <div><div>CURRENT YEAR = 2023 AADT = 7,600</div><div>ESTIMATED OPENING YEAR = 2030 AADT = 8,600</div><div>ESTIMATED DESIGN YEAR = 2050 AADT = 11,700</div><div>K = 9.0% D = 56.7% T = 8.9% (24 HOUR)</div><div>DESIGN HOUR T = 4.45%</div><div>TARGET SPEED = 35 MPH</div><div>DESIGN SPEED = 40 MPH</div><div>POSTED SPEED = 35 MPH</div></div> <div>NOT TO SCALE</div> <table><tr><td>FINANCIAL PROJECT ID</td><td>SHEET NO.</td></tr><tr><td>439832-5-52-01</td><td>5</td></tr></table> |  | FINANCIAL PROJECT ID | SHEET NO. | 439832-5-52-01 | 5 |
| FINANCIAL PROJECT ID                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | SHEET NO. |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                      |           |                |   |
| 439832-5-52-01                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | 5         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |  |                      |           |                |   |

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

**APPENDIX B**  
**PREFERRED ALTERNATIVE CONCEPT**

---

10/24/2024 4:23:11 PM sagostino  
c:\pwworkspace\proj\dms6377\PLAYRDO1\_11x17.dgn



| REVISIONS |             |      |             | ENGINEER OF RECORD | STATE OF FLORIDA<br>DEPARTMENT OF TRANSPORTATION |        |                      | PLAN SHEET EXHIBIT | SHEET NO. |
|-----------|-------------|------|-------------|--------------------|--------------------------------------------------|--------|----------------------|--------------------|-----------|
| DATE      | DESCRIPTION | DATE | DESCRIPTION |                    | ROAD NO.                                         | COUNTY | FINANCIAL PROJECT ID |                    |           |
|           |             |      |             |                    | CR 52                                            | PASCO  | 439832-5-52-01       |                    |           |

KISINGER CAMPO & ASSOCIATES CORP.  
201 N. FRANKLIN STREET, SUITE 400  
TAMPA, FL 33602

## **APPENDIX C**

### **LONG RANGE ESTIMATE (LRE)**

---

# FDOT Long Range Estimating System - Production

## R3: Project Details by Sequence Report

Project: 439832-5-52-01

Letting Date: 12/2027

Description: CR 52/MERIDIAN AVENUE/21ST STREET/SUWANNEE WAY/ST. JOE ROAD

District: 07

County: 14 PASCO

Market Area: 07

Units: English

Contract Class: 7 Lump Sum Project: N

Design/Build: N

Project Length: 0.160 MI

Project Manager: CHARLIE XIE

Version 2 Project Grand Total

\$4,500,207.74

Description: 2024 WPUC

Sequence: 1 MIS - Miscellaneous Construction

Net Length: 0.162 MI  
855 LF

Description: Signalized intersection construction at the intersection of CR 52/Meridian Ave and N 21st St/CR 41.

Special Conditions: Proposed Typical: Signalized intersection with two 11' lanes, left turn lanes, and one free flow right turn lanes with center islands. This LRE was developed for the design utilizing the WB-40 design vehicle.

### EARTHWORK COMPONENT

#### User Input Data

| Description                               | Value       |
|-------------------------------------------|-------------|
| Standard Clearing and Grubbing Limits L/R | 0.00 / 0.00 |
| Incidental Clearing and Grubbing Area     | 0.00        |

#### X-Items

| Pay item                         | Description                                                                                                                                                                                                                                                    | Quantity | Unit | Unit Price | Extended Amount    |
|----------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------|------------|--------------------|
| 120-1                            | REGULAR EXCAVATION                                                                                                                                                                                                                                             | 316.67   | CY   | \$21.77    | \$6,893.91         |
|                                  | <b>Comment:</b> Project Length: 0.162 miles. Assume 10' wide and 1' deep. $(855' \times 10' \times 1') / 27 = 158 \text{ CY}$                                                                                                                                  |          |      |            |                    |
| 120-6                            | EMBANKMENT                                                                                                                                                                                                                                                     | 770.00   | CY   | \$31.79    | \$24,478.30        |
|                                  | <b>Comment:</b> Project Length: 0.162 miles. Assume 10' wide and 3' deep ditches to be filled $(855' \times 10' \times 3') / 27 = 475 \text{ CY}$<br>Circulatory embankment = $3.14 \times 37 \times 2 \times 1.85 / 27 = 295 \text{ CY}$<br>CY + 475 CY = 770 |          |      |            |                    |
| <b>Earthwork Component Total</b> |                                                                                                                                                                                                                                                                |          |      |            | <b>\$31,372.21</b> |

### ROADWAY COMPONENT

#### X-Items

| Pay item  | Description                              | Quantity | Unit | Unit Price | Extended Amount |
|-----------|------------------------------------------|----------|------|------------|-----------------|
| 102-2-200 | SPECIAL DETOUR- TEMPORARY PAVEMENT       | 5,600.00 | SY   | \$25.14    | \$140,784.00    |
| 102-2-300 | SPECIAL DETOUR- TEMPORARY EARTHWORK/BASE | 2,100.00 | CY   | \$48.68    | \$102,228.00    |
| 102-60    | WORK ZONE SIGN                           | 1,350.00 | ED   | \$0.22     | \$297.00        |
| 102-71-15 | TEMPORARY BARRIER, F&I, ANCHORED         | 275.00   | LF   | \$35.03    | \$9,633.25      |
| 102-71-25 | TEMPORARY BARRIER, REL, ANCHORED         | 262.50   | LF   | \$12.74    | \$3,344.25      |
| 102-74-1  | CHANNEL DEVICE-TYPS I,II,DI,VP, DRUM, LC | 1,000.00 | ED   | \$0.11     | \$110.00        |

|            |                                                                         |             |             |              |
|------------|-------------------------------------------------------------------------|-------------|-------------|--------------|
| 102-89-1   | TEMPORARY CRASH CUSHION,<br>RED OPT                                     | 2.00 LO     | \$1,042.36  | \$2,084.72   |
| 102-99     | PORTABLE CHANGEABLE<br>MESSAGE SIGN,TEMP                                | 80.00 ED    | \$10.49     | \$839.20     |
| 102-104    | TEMPORARY SIGNALIZATION AND<br>MAINT, INTER                             | 240.00 ED   | \$26.67     | \$6,400.80   |
| 102-107-1  | TEMP TRAFFIC DETECTION &<br>MAINTEN, INTER                              | 240.00 ED   | \$19.62     | \$4,708.80   |
| 102-115    | TYPE III BARRICADE                                                      | 120.00 ED   | \$0.29      | \$34.80      |
| 110-1-1    | CLEARING & GRUBBING                                                     | 3.70 AC     | \$51,313.41 | \$189,859.62 |
| 110-4-10   | REMOVAL OF EXIST CONC                                                   | 475.00 SY   | \$35.81     | \$17,009.75  |
|            | <b>Comment:</b> Project length: 0.162 miles.                            |             |             |              |
| 160-4      | TYPE B STABILIZATION                                                    | 6,273.58 SY | \$15.59     | \$97,805.11  |
|            | <b>Comment:</b> 1.2*Optional Base (to include stabilization under curb) |             |             |              |
| 285-709    | OPTIONAL BASE,BASE GROUP 09                                             | 5,296.02 SY | \$41.44     | \$219,467.07 |
| 327-70-2   | MILLING EXIST ASPH PAVT,3 1/2"<br>AVG DEPTH                             | 4,566.72 SY | \$4.18      | \$19,088.89  |
| 334-1-13   | SUPERPAVE ASPHALTIC CONC,<br>TRAFFIC C                                  | 1,490.46 TN | \$147.26    | \$219,485.14 |
|            | <b>Comment:</b> Assumed 2" Superpave                                    |             |             |              |
| 337-7-83   | ASPH CONC FC,TRAFFIC C,FC-<br>12.5,PG 76-22                             | 800.23 TN   | \$180.87    | \$144,737.60 |
|            | <b>Comment:</b> Assumed 1.5" Friction Course                            |             |             |              |
| 706-1-3    | RAISED PAVMT MARK, TYPE B                                               | 240.00 EA   | \$4.27      | \$1,024.80   |
| 710-11-101 | PAINTED PAVT<br>MARK,STD,WHITE,SOLID,6"                                 | 0.35 GM     | \$1,185.72  | \$415.00     |
| 710-11-123 | PAINTED PAVT<br>MARK,STD,WHITE,SOLID, 12"                               | 269.40 LF   | \$1.02      | \$274.79     |
| 710-11-125 | PAINTED PAVT<br>MARK,STD,WHITE,SOLID,24"                                | 270.60 LF   | \$1.77      | \$478.96     |
| 710-11-141 | PAINTED PAVT MARK,STD,WH,DOT<br>GUIDE, 6"                               | 0.17 GM     | \$723.98    | \$123.08     |
| 710-11-144 | PAINTED PAVEMENT MARKINGS,<br>STANDARD, WHI                             | 0.12 GM     | \$2,012.00  | \$241.44     |
| 710-11-160 | PAINTED PAVT MARK,STD,WHITE,<br>MESSAGE                                 | 7.00 EA     | \$51.10     | \$357.70     |
| 710-11-170 | PAINTED PAVT MARK,STD,WHITE,<br>ARROWS                                  | 5.00 EA     | \$35.26     | \$176.30     |
| 710-11-201 | PAINTED PAVT<br>MARK,STD,YELLOW,SOLID,6"                                | 0.93 GM     | \$1,174.52  | \$1,092.30   |
| 710-11-224 | PAINTED PAVT<br>MARK,STD,YELLOW,SOLID,18"                               | 245.90 LF   | \$1.40      | \$344.26     |
| 710-11-241 | PAINTED PAVT<br>MARK,STD,YELLOW,DOT,6"                                  | 0.08 GM     | \$704.70    | \$56.38      |
| 710-11-290 | PAINTED PAVT<br>MARK,STD,YELLOW,ISLAND NOSE                             | 5.00 SF     | \$3.01      | \$15.05      |
| 710-90     | PAINTED PAVEMENT MARKINGS,<br>FINAL SURFACE                             | 1.00 LS     | \$27,543.46 | \$27,543.46  |
| 711-11-123 | THERMOPLASTIC, STD, WHITE,<br>SOLID, 12"                                | 269.40 LF   | \$3.41      | \$918.65     |
| 711-11-125 | THERMOPLASTIC, STD, WHITE,<br>SOLID, 24"                                | 270.60 LF   | \$6.40      | \$1,731.84   |
| 711-11-141 | THERMOPLASTIC, STD, WHITE, DOT<br>GUIDE, 6"                             | 0.17 GM     | \$2,576.54  | \$438.01     |
| 711-11-144 | THERMO, STD, WHITE, 2-2 DOT<br>EXT,12"                                  | 0.12 GM     | \$3,751.51  | \$450.18     |
| 711-11-160 | THERMOPLASTIC, STD, WHITE,<br>MESSAGE                                   | 7.00 EA     | \$180.65    | \$1,264.55   |

|            |                                                                                             |           |            |            |
|------------|---------------------------------------------------------------------------------------------|-----------|------------|------------|
| 711-11-170 | THERMOPLASTIC, STD, WHITE, ARROW                                                            | 5.00 EA   | \$74.20    | \$371.00   |
| 711-11-224 | THERMOPLASTIC, STD, YELLOW, SOLID, 18"                                                      | 245.90 LF | \$4.84     | \$1,190.16 |
| 711-11-241 | THERMOPLASTIC, STD, YELLOW, DOT / GUIDE, 6"                                                 | 0.09 GM   | \$2,313.19 | \$208.19   |
| 711-14-123 | THERMOPLASTIC, PREFORM, WHITE, SOLID, 12"                                                   | 388.00 LF | \$8.74     | \$3,391.12 |
|            | <b>Comment:</b> Assumed four 40' long crosswalks and two 17' crosswalks.                    |           |            |            |
| 711-14-125 | THERMOPLASTIC, PREFORM, WHITE, SOLID, 24"                                                   | 300.00 LF | \$16.67    | \$5,001.00 |
|            | <b>Comment:</b> Six 10' wide crosswalks. Assumed 5 24" longitudinal markings per crosswalk. |           |            |            |
| 711-14-160 | THERMOPLASTIC, PREFORMED, WHITE, MESSAGE                                                    | 6.00 EA   | \$221.24   | \$1,327.44 |
| 711-14-170 | THERMOPLASTIC, PREFORMED, WHITE, ARROW                                                      | 6.00 EA   | \$130.56   | \$783.36   |
| 711-16-101 | THERMOPLASTIC, STD-OTH, WHITE, SOLID, 6"                                                    | 0.35 GM   | \$5,375.48 | \$1,881.42 |
| 711-16-201 | THERMOPLASTIC, STD-OTH, YELLOW, SOLID, 6"                                                   | 0.93 GM   | \$5,202.76 | \$4,838.57 |

#### Peripherals Subcomponent

| Description                      | Value       |
|----------------------------------|-------------|
| Off Road Bike Path(s)            | 0           |
| Off Road Bike Path Width L/R     | 0.00 / 0.00 |
| Bike Path Structural Spread Rate | 0           |
| Noise Barrier Wall Length        | 0.00        |
| Noise Barrier Wall Begin Height  | 0.00        |
| Noise Barrier Wall End Height    | 0.00        |

#### Roadway Component Total

\$1,233,857.01

### SHOULDER COMPONENT

#### User Input Data

| Description | Value |
|-------------|-------|
|-------------|-------|

#### X-Items

| Pay item                        | Description                                | Quantity Unit | Unit Price | Extended Amount     |
|---------------------------------|--------------------------------------------|---------------|------------|---------------------|
| 104-10-3                        | SEDIMENT BARRIER                           | 3,150.00 LF   | \$1.95     | \$6,142.50          |
| 104-18                          | INLET PROTECTION SYSTEM                    | 3.00 EA       | \$156.69   | \$470.07            |
| 107-1                           | LITTER REMOVAL                             | 11.10 AC      | \$45.75    | \$507.83            |
| 107-2                           | MOWING                                     | 11.10 AC      | \$71.40    | \$792.54            |
| 520-1-10                        | CONCRETE CURB & GUTTER, TYPE F             | 4,399.00 LF   | \$46.10    | \$202,793.90        |
| 522-2                           | CONCRETE SIDEWALK AND DRIVEWAYS, 6"        | 3,024.77 SY   | \$109.46   | \$331,091.32        |
| 527-2                           | DETECTABLE WARNINGS                        | 360.00 SF     | \$34.37    | \$12,373.20         |
|                                 | <b>Comment:</b> 24 sq ft per pad x 15 pads |               |            |                     |
| 570-1-2                         | PERFORMANCE TURF, SOD                      | 8,774.41 SY   | \$5.31     | \$46,592.12         |
| <b>Shoulder Component Total</b> |                                            |               |            | <b>\$600,763.48</b> |

### DRAINAGE COMPONENT

**Pay Items**

| Pay item                        | Description                           | Quantity Unit | Unit Price | Extended Amount     |
|---------------------------------|---------------------------------------|---------------|------------|---------------------|
| 425-1-351                       | INLETS, CURB, TYPE P-5, <10'          | 25.00 EA      | \$6,976.95 | \$174,423.75        |
| 425-5-1                         | MANHOLE, ADJUST, UTILITIES            | 5.00 EA       | \$1,493.44 | \$7,467.20          |
| 425-6                           | VALVE BOXES, ADJUST                   | 10.00 EA      | \$940.20   | \$9,402.00          |
| 430-175-118                     | PIPE CULV, OPT MATL, ROUND, 18"S/CD   | 3,000.00 LF   | \$126.99   | \$380,970.00        |
| 430-984-125                     | MITERED END SECT, OPTIONAL RD, 18" SD | 5.00 EA       | \$2,788.26 | \$13,941.30         |
| 524-1-1                         | CONCRETE DITCH PAVT, NR, 3"           | 112.00 SY     | \$84.60    | \$9,475.20          |
| <b>Drainage Component Total</b> |                                       |               |            | <b>\$595,679.45</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    | 24.00 AS      | \$478.94   | \$11,494.56     |
| 700-1-12 | SINGLE POST SIGN, F&I GM, 12-20 SF  | 12.00 AS      | \$1,842.94 | \$22,115.28     |
| 700-1-60 | SINGLE POST SIGN, REMOVE            | 36.00 AS      | \$43.38    | \$1,561.68      |
| 700-2-14 | MULTI- POST SIGN, F&I GM, 31-50 SF  | 2.00 AS       | \$6,727.82 | \$13,455.64     |
| 700-2-15 | MULTI- POST SIGN, F&I GM, 51-100 SF | 2.00 AS       | \$8,751.88 | \$17,503.76     |

**X-Items**

| Pay item                       | Description                | Quantity Unit | Unit Price | Extended Amount    |
|--------------------------------|----------------------------|---------------|------------|--------------------|
| 700-1-50                       | SINGLE POST SIGN, RELOCATE | 4.00 AS       | \$255.45   | \$1,021.80         |
| 700-2-60                       | MULTI- POST SIGN, REMOVE   | 2.00 AS       | \$914.59   | \$1,829.18         |
| 705-10-1                       | OBJECT MARKER, TYPE 1      | 3.00 EA       | \$189.14   | \$567.42           |
| <b>Signing Component Total</b> |                            |               |            | <b>\$69,549.32</b> |

**SIGNALIZATIONS COMPONENT****Signalization 1**

| Description | Value           |
|-------------|-----------------|
| Type        | 2 Lane Mast Arm |
| Multiplier  | 1               |
| Description |                 |

**Pay Items**

| Pay item  | Description                              | Quantity Unit | Unit Price  | Extended Amount |
|-----------|------------------------------------------|---------------|-------------|-----------------|
| 630-2-11  | CONDUIT, F& I, OPEN TRENCH               | 800.00 LF     | \$19.95     | \$15,960.00     |
| 630-2-12  | CONDUIT, F& I, DIRECTIONAL BORE          | 200.00 LF     | \$35.05     | \$7,010.00      |
| 632-7-1   | SIGNAL CABLE- NEW OR RECO, FUR & INSTALL | 1.00 PI       | \$9,277.87  | \$9,277.87      |
| 633-3-11  | FIBER OPTIC CONN HDWR, SPLICE ENCLOSURE  | 2.00 EA       | \$1,049.06  | \$2,098.12      |
| 635-2-11  | PULL & SPLICE BOX, F&I, 13" x 24"        | 12.00 EA      | \$1,203.44  | \$14,441.28     |
| 639-1-112 | ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON | 1.00 AS       | \$3,775.02  | \$3,775.02      |
| 639-2-1   | ELECTRICAL SERVICE WIRE, F&I             | 60.00 LF      | \$9.11      | \$546.60        |
| 649-21-4  | STEEL MAST ARM ASSEMBLY, F&I, 40'- 30'   | 4.00 EA       | \$78,692.51 | \$314,770.04    |

|                                       |                                            |         |             |                     |
|---------------------------------------|--------------------------------------------|---------|-------------|---------------------|
| 650-1-14                              | VEH TRAF SIGNAL,F&I ALUMINUM, 3<br>S 1 W   | 8.00 AS | \$1,723.20  | \$13,785.60         |
| 653-1-11                              | PEDESTRIAN SIGNAL, F&I LED<br>COUNT, 1 WAY | 8.00 AS | \$897.76    | \$7,182.08          |
| 660-1-102                             | LOOP DETECTOR INDUCTIVE, F&I,<br>TYPE 2    | 8.00 EA | \$639.54    | \$5,116.32          |
| 660-2-106                             | LOOP ASSEMBLY, F&I, TYPE F                 | 8.00 AS | \$1,806.76  | \$14,454.08         |
| 665-1-11                              | PEDESTRIAN DETECTOR, F&I,<br>STANDARD      | 8.00 EA | \$245.45    | \$1,963.60          |
| 670-5-111                             | TRAF CNTL ASSEM, F&I, NEMA, 1<br>PREEMPT   | 1.00 AS | \$47,176.96 | \$47,176.96         |
| 700-3-101                             | SIGN PANEL, F&I GM, UP TO 12 SF            | 4.00 EA | \$223.60    | \$894.40            |
| <b>Signalizations Component Total</b> |                                            |         |             | <b>\$458,451.97</b> |

#### LIGHTING COMPONENT

##### Conventional Lighting Subcomponent

| Description        |                                   |          |      | Value      |                 |
|--------------------|-----------------------------------|----------|------|------------|-----------------|
| Spacing            |                                   |          |      | MAX        |                 |
| Pay Items          |                                   |          |      |            |                 |
| Pay item           | Description                       | Quantity | Unit | Unit Price | Extended Amount |
| 630-2-11           | CONDUIT, F& I, OPEN TRENCH        | 1,000.00 | LF   | \$19.95    | \$19,950.00     |
| 630-2-12           | CONDUIT, F& I, DIRECTIONAL BORE   | 200.00   | LF   | \$35.05    | \$7,010.00      |
| 635-2-11           | PULL & SPLICE BOX, F&I, 13" x 24" | 10.00    | EA   | \$1,203.44 | \$12,034.40     |
| 715-500-1          | POLE CABLE DIST SYS, CONVENTIONAL | 12.00    | EA   | \$779.94   | \$9,359.28      |
| Subcomponent Total |                                   |          |      |            | \$48,353.68     |

##### X-Items

| Pay item                        | Description                                 | Quantity | Unit | Unit Price  | Extended Amount     |
|---------------------------------|---------------------------------------------|----------|------|-------------|---------------------|
| 639-1-122                       | ELECTRICAL POWER SRV,F&I,<br>UG,PUR CONT    | 1.00     | AS   | \$4,287.87  | \$4,287.87          |
| 639-2-1                         | ELECTRICAL SERVICE WIRE, F&I                | 100.00   | LF   | \$9.11      | \$911.00            |
| 639-3-11                        | ELEC SERV DISCON, F&I, POLE MNT             | 1.00     | EA   | \$1,547.63  | \$1,547.63          |
| 715-1-12                        | LIGHTING CONDUCTORS, F&I,<br>INSUL,NO.8-6   | 3,200.00 | LF   | \$2.53      | \$8,096.00          |
| 715-7-11                        | LOAD CENTER, F&I, SECONDARY<br>VOLTAGE      | 1.00     | EA   | \$18,365.41 | \$18,365.41         |
| 715-62-400                      | LIGHT POLE CMPLT,SPL,F&I, 45'MH,<br>0'ARM L | 12.00    | EA   | \$10,575.17 | \$126,902.04        |
| <b>Lighting Component Total</b> |                                             |          |      |             | <b>\$208,463.63</b> |

|                         |                       |
|-------------------------|-----------------------|
| <b>Sequence 1 Total</b> | <b>\$3,198,137.07</b> |
|-------------------------|-----------------------|

**FDOT Long Range Estimating System - Production**  
**R3: Project Details by Sequence Report**

**Project:** 439832-5-52-01 **Letting Date:** 12/2027  
**Description:** CR 52/MERIDIAN AVENUE/21ST STREET/SUWANNEE WAY/ST. JOE ROAD  
**District:** 07 **County:** 14 PASCO **Market Area:** 07 **Units:** English  
**Contract Class:** 7 **Lump Sum Project:** N **Design/Build:** N **Project Length:** 0.160 MI  
**Project Manager:** CHARLIE XIE

**Version 2 Project Grand Total** **\$4,500,207.74**  
**Description:** 2024 WPUC

**Project Sequences Subtotal** **\$3,198,137.07**

|       |                        |         |              |
|-------|------------------------|---------|--------------|
| 102-1 | Maintenance of Traffic | 10.00 % | \$319,813.71 |
| 101-1 | Mobilization           | 10.00 % | \$351,795.08 |

**Project Sequences Total** **\$3,869,745.86**

|                  |         |              |
|------------------|---------|--------------|
| Project Unknowns | 15.00 % | \$580,461.88 |
| Design/Build     | 0.00 %  | \$0.00       |

**Non-Bid Components:**

| Pay item | Description                                | Quantity | Unit | Unit Price  | Extended Amount |
|----------|--------------------------------------------|----------|------|-------------|-----------------|
| 999-25   | INITIAL CONTINGENCY AMOUNT<br>(DO NOT BID) |          | LS   | \$50,000.00 | \$50,000.00     |

**Project Non-Bid Subtotal** **\$50,000.00**

**Version 2 Project Grand Total** **\$4,500,207.74**