FINAL DRAFT PRELIMINARY ENGINEERING REPORT

for

Project Development & Environment (PD&E) Study
Midway Road (CR 712)
from Glades Cut Off Road (CR 709) to Selvitz Road (CR 615)

Financial Management Number: 231440-3-22-01
Federal Aid Number:
ETDM Number: 14177

Prepared for:



Florida Department of Transportation
District IV
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309

This *Preliminary Engineering Report* (PER) contains detailed engineering information that fulfills the purpose and need for the Midway Road PD&E Study from Glades Cut Off Road to Selvitz Road. The environmental document is a Type 2 Categorical Exclusion (November 2016).

December 2016

PROFESSIONAL ENGINEER CERTIFICATE

I hereby certify that I am a registered professional engineer in the State of Florida practicing with **Inwood Consulting Engineers, Inc.**, and that I have supervised the preparation of and approved the analysis, findings, opinions, conclusions, and technical advice reported in:

REPORT: Preliminary Engineering Report

PROJECT: Midway Road PD&E Study

LOCATION: From Glades Cut Off Road to Selvitz Road

FINANCIAL PROJECT NO.: 231440-3-22-01

CLIENT: Florida Department of Transportation – District Four

District Environmental Management Office

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This *Preliminary Engineering Report* (PER) contains detailed engineering information that fulfills the purpose and need for the Midway Road PD&E Study from Glades Cut Off Road to Selvitz Road in St. Lucie County.

I acknowledge that the procedures and references used to develop the results contained in this report are standard to the professional practice of transportation engineering as applied through design standards and criteria set forth by the federal, state, and local regulatory agencies as well as professional judgment and experience.

Signature:					
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Type 2 Categorical Exclusion

Appendix G

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Acronyms

AADT Annual Average Daily Traffic

AASHTO American Association of State Highway and Transportation Officials

ADA Americans with Disabilities Act

AN Advance Notification

APE Area of Potential Effect

CR County Road

CFA Core Foraging Area

CRAS Cultural Resource Assessment Survey

CSER Contamination Screening Evaluation Report

ERP Environmental Resource Permit

ETDM Efficient Transportation Decision Making

FAC Florida Administrative Code

FDEM Florida Division of Emergency Management

FEC Florida East Coast Railroad

FS Florida Statutes

FDEP Florida Department of Environmental Protection

FEMA Federal Emergency Management Agency

FHWA Federal Highway Administration

FLUCCS Florida Land Use Classification and Forms Cover System

FWC Florida Fish and Wildlife Conservation Commission

GIS Geographic Information System

HCM Highway Capacity Manual
HCS Highway Capacity Software
HOA Homeowner Association

ITS Intelligent Transportation System

LOS Level of Service

LRE Long Range Estimate

LRTP Long Range Transportation Plan

MOT Maintenance of Traffic

MPH Miles Per Hour

MPO Metropolitan Planning Organization
NAAQS National Ambient Air Quality Standards

NAC Noise Abatement Criteria

NEPA National Environmental Policy Act

NHWE Normal High Water Elevation

NRCS Natural Resources Conservation Service

NRHP National Register of Historic Places

NSR Noise Study Report

NSLRWCD North St. Lucie River Water Control District

NWI National Wetland Inventory
OFW Outstanding Florida Water

PD&E Project Development and Environment

PIP Public Involvement Plan
PTR Project Traffic Report

RCI Roadway Characteristics Inventory

SFWMD South Florida Water Management District

SHPO State Historic Preservation Officer

SHS State Highway System

SHWE Seasonal High Water Elevation
SHWT Seasonal High Water Table
SIP State Implementation Plan
SIS Strategic Intermodal System

SJRWMD St. Johns River Water Management District

SLD Straight Line Diagram

SR State Road

TIP Transportation Improvement Program

TNM Traffic Noise Model

TPO Transportation Planning Organization

TSMO Transportation Systems Management and Operations

TSP Transit Signal Priority
UAO Utility Agency/Owner

USDA United States Department of Agriculture
USFWS United States Fish and Wildlife Service

Section 1.0 Summary of Project

1.1 Summary of Project

This *Preliminary Engineering Report* (PER) contains detailed engineering information that fulfills the purpose and need for the widening of Midway Road/County Road (CR 712) from Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida. Midway Road is a major east-west road that connects residents and commuters to and from Interstate 95 (I-95) and to the commercial areas along US Highway 1 (US 1). The total project length is approximately 1.6 miles and includes a bridge over Florida's Turnpike. This study also evaluates pedestrian, bicycle, and transit facilities as well as improvements to freight mobility, operational improvements and access management along the project corridor. The environmental document is a Type 2 Categorical Exclusion.

1.2 Project Purpose and Need

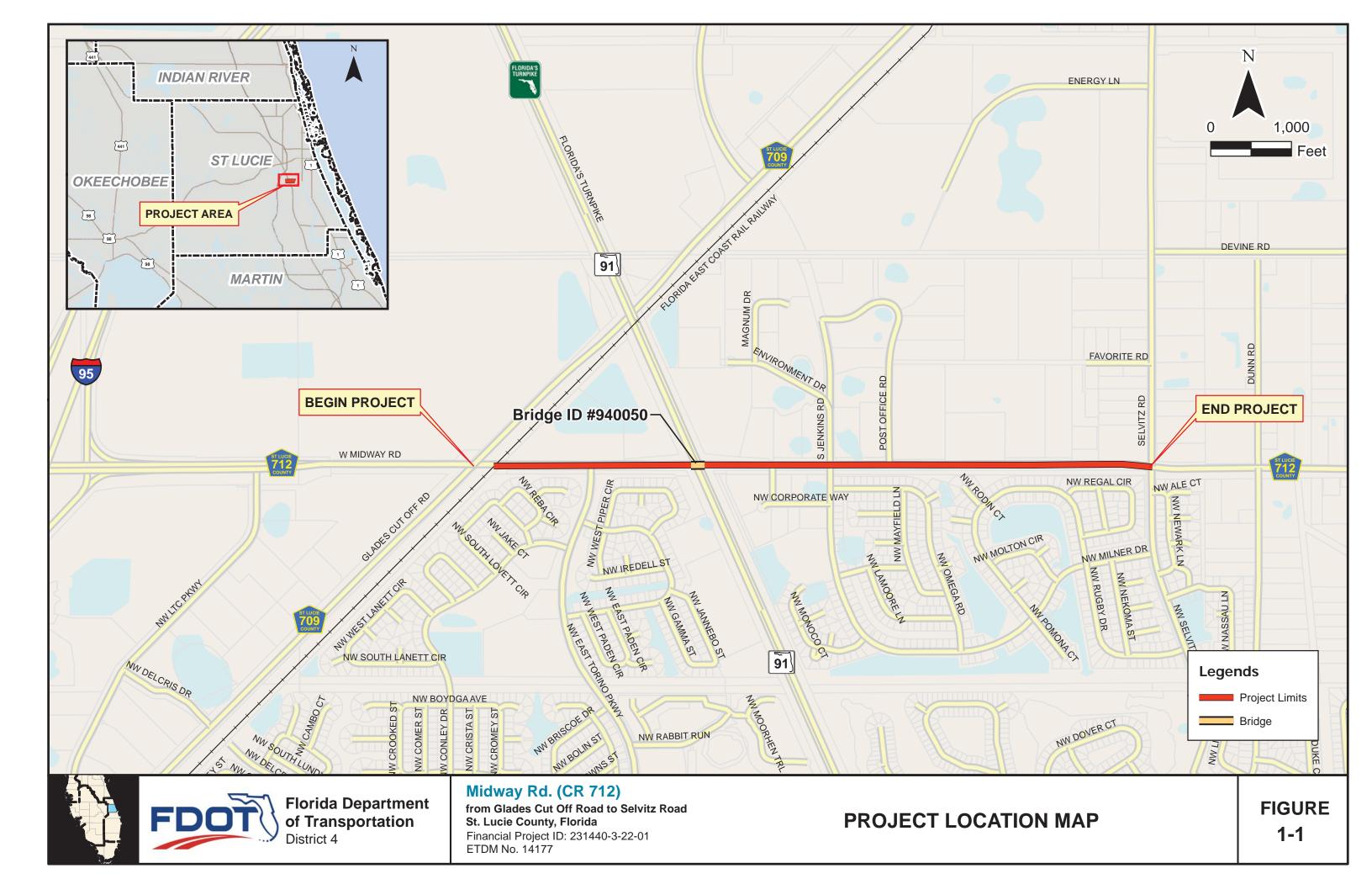
Based on recent traffic data from St. Lucie County, the facility does not adequately handle the existing traffic demand. Without capacity improvements, the traffic operations along the corridor will continue to deteriorate. The primary purpose for this project is to provide additional capacity to meet existing and future traffic needs, improve safety by alleviating existing roadway and capacity deficiencies, and allow opportunities for pedestrian, bicycle, and transit facilities. The additional capacity will also improve freight mobility and enhance emergency evacuation along the project corridor. The purpose and need of this project are further described below and include Transportation Demand, Capacity, Plan Consistency, Social Demands and Economic Development, Modal Interrelationships, and Roadway Deficiencies.

The project corridor extends approximately 1.6 miles along Midway Road (Roadway ID 94530000), from Glades Cut Off Road (Mile Post 5.813) to Selvitz Road (Mile Post 7.405). The project ties into the existing four-lane section to the west of Glades Cut Off Road and to a four-lane segment east of Selvitz Road currently under construction (St. Lucie County Project Number 06-18). The project corridor is in unincorporated St. Lucie County, but is the northern border to the City of Port St. Lucie (See Figure 1 – 1 Location Map).

Transportation Demand

The US Census-designated Port St. Lucie-Fort Pierce Metropolitan Statistical Area has been identified as one of the fastest growing metropolitan areas in Florida, which includes all of Martin and St. Lucie counties. From 2000 to 2010, this metropolitan area has experienced population growth from 319,426 persons in 2000 to 424,107 persons in 2010, representing an annual increase of 2.9%. Evaluating the population growth for the City of Port St. Lucie by itself revealed an even greater percentage increase. According to the Bureau of Economic and Business Research, the City has grown from a population of 88,769 in 2000 to 164,603 in 2010, representing an annual increase of 6.4%.

This rapid population growth has resulted in a significant increase in surface transportation demand along major arterials such as the Midway Road (CR 712) corridor. The population of the Port St. Lucie-Fort Pierce metropolitan area is projected to increase from 424,107 persons in year 2010 to 648,600



persons in year 2035, representing a growth of approximately 53% (Bureau of Economic Business Research).

As the population in the metropolitan area continues to increase, the developments in St. Lucie County will continue to push westward. In addition, the county is anticipated to experience traffic growth from the Developments of Regional Impact (DRI). A review of the recent DRI applications in the Treasure Coast Regional Planning Council shows the following statuses for the DRIs in the vicinity of the project corridor:

Completed - Orange Blossom Mall and St. Lucie West Approved - The Reserve Pending Notice of Proposed Change - LTC Ranch Withdrawn - Provences and Orchard Park

The DRI located along Midway Road (CR 712), which is LTC Ranch, would have the greatest impact on the project corridor if constructed. As currently approved, the development includes 4,000 dwelling units of residential, over 1,505,000 square feet (sq. ft.) of office space, 725,000 sq. ft. of retail, and 1,960,200 sq. ft. of industrial space. However, the status of this development is pending Notice of Proposed Change that may result in a change in the size of the approved development.

The approval of the LTC Ranch DRI will further increase the transportation demand resulting in congested conditions along the project corridor. Since Midway Road (CR 712) is one of the vital east-west corridors in St. Lucie County, it is critical to increase capacity to meet the anticipated future transportation demand.

Capacity

Traffic data obtained from the St. Lucie County Transportation Planning Organization (TPO) Traffic Counts and Level of Service (LOS) Report shows that the 2012 Annual Average Daily Traffic (AADT) along Midway Road (CR 712) west of Selvitz Road is 16,820 vehicles. Evaluating this traffic data using the 2012 FDOT Quality/Level of Service Handbook, the LOS is F which is beyond the St. Lucie County's adopted LOS criteria of E. This traffic data shows that the existing volume is already exceeding the capacity of the corridor which indicates that the roadway is operating in oversaturated and undesirable conditions. Furthermore, due to the industrial properties along the corridor, it has a high truck percentage at over 7% (Florida Traffic Online).

The traffic is anticipated to increase to 29,200 AADT by 2040 and the corridor will continue to operate at LOS F with degraded traffic operation unless the capacity is increased. The future traffic projections are based on the FDOT District Four Design Traffic Technical Memorandum for the I-95 PD&E Study from north of Becker Road to south of SR 70. This project utilized the Greater Treasure Coast Regional Planning Model as the basis for the future traffic projections. Without improvements, the congestion on the Midway Road (CR 712) project corridor will continue to operate at unacceptable driving conditions for residents and commuters due to the increased traffic volumes.

Plan Consistency

Martin and St. Lucie counties have independent Metropolitan Planning Organization/Transportation Planning Organization (MPO/TPO) but share a common Regional Long Range Transportation Plan

(RLRTP). The RLRTP establishes a unified strategy for transportation priorities and funding and creates a joint decision-making process regarding regional transportation issues.

The Midway Road (CR 712) project corridor extends from Glades Cut Off Road to Selvitz Road and is identified in the Martin and St. Lucie 2035 RLRTP. The project is identified in the St. Lucie County TPO 2035 Cost Feasible Plan (2016-2035) with a 2021-2025 implementation horizon. In addition, the project will be included in the next update to the State Transportation Improvement Program and the St. Lucie TPO Transportation Improvement Program. It should be noted that on the south side of the project corridor a multipurpose trail has been identified in the 2035 RLRTP in Table 4-9 of the Needs Plan Development.

Social Demands & Economic Development

Evacuation: Serving as part of the evacuation route network established by the Florida Division of Emergency Management, Midway Road (CR 712) plays an important role in facilitating traffic during emergency evacuation periods as it connects other major highways and arterials designated on the state evacuation route network within the project limits. These facilities include Okeechobee Road (SR 70), I-95, Glades Cut Off Road (CR 709), Selvitz Road, South 25th Street (CR 615), Oleander Avenue (CR 605), and US 1. During a twelve-month period in 2004-2005, St. Lucie County was hit directly by three major hurricanes. Midway Road (CR 712) is one of the county's most critical east-west routes and serves as a vital evacuation route for hurricanes or any other disasters. Additionally, widening Midway Road (CR 712) will ease traffic flow between South 25th Street and I-95, which will minimize a bottleneck effect during an emergency. It would also improve the ability of the local emergency management organization to evacuate large portions of the Treasure Coast in an acceptable timeframe which will enhance the safety of residents.

Economic Development: The Treasure Coast Planning Council Alternative Infill Development Plan developed for Martin and St. Lucie counties has identified several regional workplace districts located along the Midway Road (CR 712) corridor. These regional workplace districts are locations where business and economic development would be focused in order to provide jobs for residents within this metropolitan area. The Midway Road (CR 712) project area is a high-growth area. Important state and federal offices and nonprofit centers are located along Midway Road (CR 712) or nearby streets. This includes the main St. Lucie County Branch of the US Post Office, St. Lucie County Sheriff's Office, St. Lucie County Health Department, St. Lucie County Fire District Office, Hospice of the Treasure Coast, and New Horizons of the Treasure Coast, Inc. (a mental health center which is currently expanding). Significant truck traffic from the nearby St. Lucie County Landfill, CEMEX, Packers of Indian River Ltd., and Tropicana Products, Inc. place additional demands on the roadway. Meanwhile, new residential units are planned nearby. The St. Lucie County Fairgrounds, the County's Emergency Operations Center, is just six miles west of the project site.

According to the Martin and St. Lucie 2035 RLRTP, "The Regional Workplace Districts in St. Lucie County are located along the I-95 and Florida's Turnpike corridors and include the Treasure Coast Education Research Development Authority (TCERDA) area; the Crossroads Park of Commerce; the existing Rinker and Tropicana facilities along Glades Cut Off Road; the LTC Ranch Commerce Park; St. Lucie West Commerce Park; and Torrey Pines Institute south of Tradition and Gatlin Boulevard. These districts are well-situated for regional access, have ample room to grow, and can provide jobs for local residents." The Midway Road (CR 712) project corridor is anticipated to serve as the main transportation

corridor linking residents of both Martin and St. Lucie counties to this business area. Increasing the capacity along the project corridor will improve mobility and support the economic development of these districts as well as stimulate major construction activities that will contribute to economic growth within this area.

Modal Interrelationships

The accessibility to bicyclists and pedestrians along the corridor is minimal with only two sections of sidewalk within the corridor. They are located on the north side of Midway Road (CR 712) from East Torino Boulevard to Glades Cut Off Road and along the frontage of the recently constructed New Horizons medical facility. There are no bicycle lanes. During a recent field review (February 7, 2014), pedestrians were noted walking on the grassed shoulder while pushing a child's stroller. Additionally, the existing bridge over the Florida's Turnpike does not have sufficient shoulder width to accommodate pedestrian or bicycle traffic. A review of the Martin and St. Lucie 2035 RLRTP identified a multipurpose trail in Table 4-9 of the Needs Development Plan that would run along the entirety of Midway Road (CR 712) to connect with the other proposed multipurpose trails located on Okeechobee Road, Shin Road, Glades Cut Off Road, Selvitz Road, and Midway Road to the east.

The 2035 Future Bus and Train Network identified a proposed bus route along the entirety of Midway Road (CR 712) to connect to existing bus routes. Moreover, the County's Transit Development Plan from February 2014 identified Midway Road (CR 712) as a priority corridor to implement transit. The project will create opportunities to include pedestrian, bicycle, and transit facilities along the project corridor.

Roadway Deficiencies

The Midway Road (CR 712) bridge structure (ID 940050) over the Florida's Turnpike is located at Mile Post 6.346 and was constructed in 1957. The last inspection of the bridge was performed on December 19, 2013. Although the report notes no structural deficiencies, the bridge is classified as functionally obsolete.

1.3 Commitments

FDOT commits to the following measures:

- 1. The culvert will be designed to allow for air exchange within the pipe.
- 2. The St. Lucie County Fire Department has existing emergency accesses to Florida's Turnpike that must be maintained.
- 3. Avoidance and minimization of wetland impacts will be considered further during design and mitigation will be provided for unavoidable wetland impacts.
- 4. Prior to construction an updated caracara nest survey will be performed. Additional coordination will be conducted with USFWS, if necessary. Construction staging will be prohibited within the primary buffer of the caracara nest.

- 5. An updated gopher tortoise survey will be conducted prior to construction. Gopher tortoises will be avoided, or if they cannot be avoided, a permit will be obtained for relocation.
- 6. The Standard Protection Measures for the Eastern Indigo Snake will be implemented during construction.
- 7. The Florida Department of Transportation is committed to the construction of feasible and reasonable noise abatement measures at the noise-impacted locations identified in the Noise Report contingent upon the following conditions.
 - Detailed noise analyses during the final design process support the need, feasibility and reasonableness of providing abatement.
 - Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion.
 - Community input supporting types, heights, and locations of the noise barrier(s) is provided to the District Office.
 - Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues have been resolved.
- 8. All applicable St. Lucie County noise ordinances as found in Chapter 1-13.8, Noise Control, of the St. Lucie County Code of Ordinances will be adhered to during construction.

1.4 Recommended Alternative

The proposed improvements include widening Midway Road from 2 to 4-lanes. The typical section includes two, 11-foot travel lanes in each direction separated by a 22-foot median. Seven-foot buffered bike lanes would be provided in each direction located adjacent to the outside travel lanes. Type F curb and gutter is used along the inside and outside lanes and collects stormwater runoff which is then directed to stormwater retention ponds. A six-foot wide sidewalk would be provided on the north side of the roadway, and a 12-foot-wide shared-use path would be provided along the south side of the roadway. The alignment is shifted south resulting in Canal 103 being enclosed in a box culvert, consistent with the segment to the east between Selvitz Road and 25th Street. The canal is located within right-of-way owned by both St. Lucie County and the City of Port St. Lucie. This alternative will also include a 10-foot-wide landscape strip which will incorporate both existing native vegetation as well as supplemental plantings to screen the residential properties adjacent to the south side of the roadway. A new bridge structure over Florida's Turnpike will be constructed to accommodate the roadway typical section. This typical section requires a minimum of 160 feet of R/W. Approximately 25 feet to 32.5 feet of R/W would need to be acquired from the City of Port St. Lucie along the south side of the roadway. Based on coordination with the City, the right-of-way will be acquired through a perpetual easement with the County. Additionally, up to 28 feet of right-of-way would need to be acquired along the north side of the roadway. The design speed for this typical section would be 45 mph (Figure 5-8). The stormwater management system includes utilizing two existing stormwater ponds and construction of an additional two ponds.

The proposed bridge improvements include replacing the bridge at Midway Road over Florida's Turnpike (Existing Bridge No. 940050). The bridge typical section consists of four 11-foot lanes (two in each

direction), two seven-foot buffered bicycle lanes, a six-foot barrier separated sidewalk, a 12-foot barrier separated shared-use path, 22-foot median, and traffic railing barrier on both sides for an overall out-to-out width of 106 feet and three inches (Figure 5-4). Both the sidewalk and shared use path utilized a fully enclosed fence per Turnpike requirements. See Section 5.4.3 for a detail discussion of the recommended alternative.

Based on a comparative evaluation of the No Build and Build Alternatives' impacts and ability to meet the purpose and need of the project, as well as public input and coordination with the resource agencies, the recommended alternative for Midway Road is Build Alternative 2 – Box Culvert (see Section 5.6). An evaluation matrix comparing the build and no build alternatives is shown in Table 5-17. As shown in the matrix, the Recommended Alternative results in fewer parcel impacts and reduces the wetland impacts.

Section 2.0 Existing Conditions

The existing conditions for Midway Road within the project limits were identified from GIS data, available as-built construction plans, Florida Department of Transportation (FDOT) Roadway Characteristics Inventory (RCI), right-of-way maps, and field reviews conducted by the project team.

2.1 Typical Sections

The existing Midway Road typical section from Glades Cut Off Road to NW East Torino Drive consists of a four-lane divided roadway with curb and gutter and a design speed of 40 mph. The existing roadway then transitions to a two-lane undivided rural roadway until just west of the Selvitz Road intersection, and consists of two 12-foot travel lanes, one in each direction, and un-paved outside shoulders of varying widths with a design speed of 45 mph. Stormwater is collected in swales along the outside of the roadway which drains into Canal 103. The existing posted speed is 45 mph.

The accessibility to bicyclists and pedestrians along the corridor is minimal with only two sections of sidewalk within the corridor. They are located on the north side of Midway Road from Glades Cut Off Road to NW East Torino Parkway and along the frontage of the recently constructed New Horizons medical facility. There are no bicycle lanes along the project corridor.

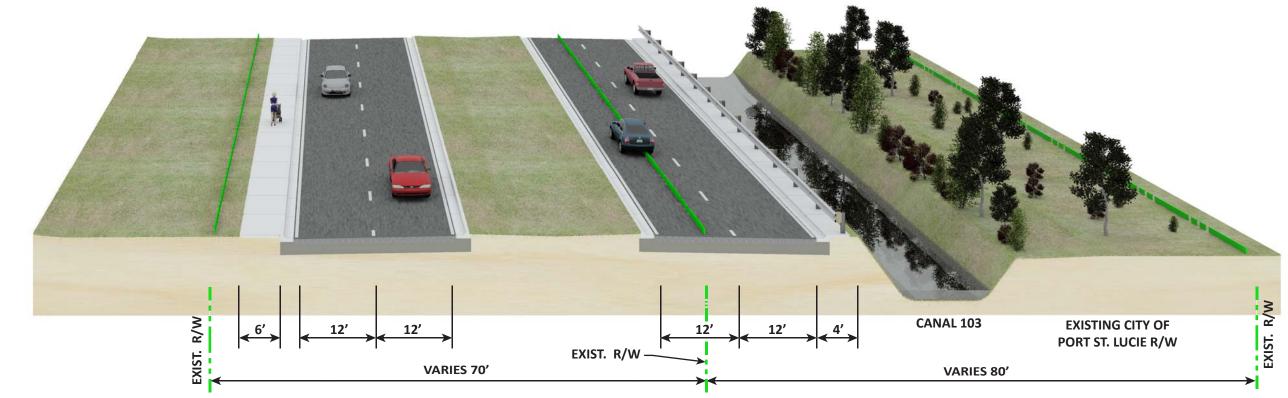
The existing roadway typical sections are shown in Figure 2-1.

2.2 Roadway Right-of-Way

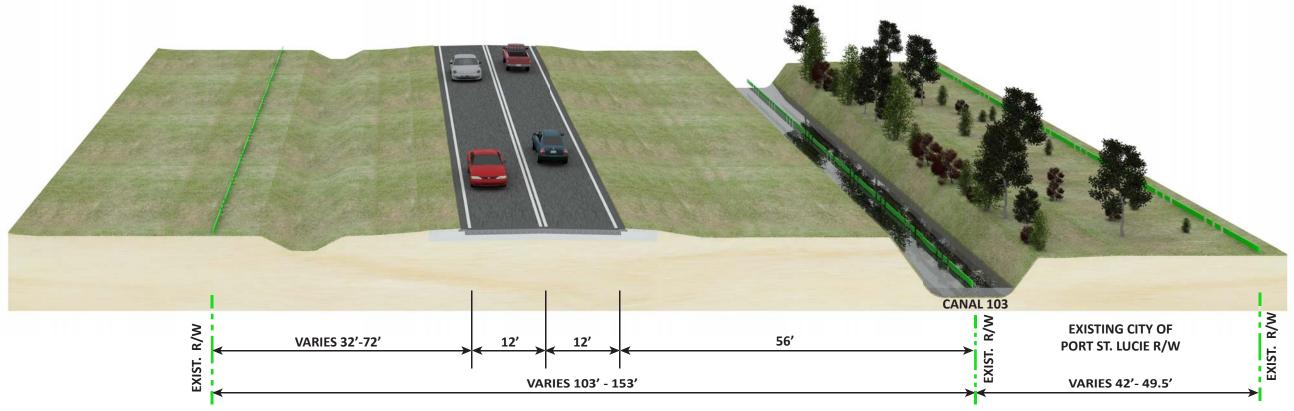
The existing right-of-way along Midway Road varies from 103 feet to 153 feet. Near Florida's Turnpike, the right-of-way envelope expands to a maximum of 195 feet. Canal 103 parallels the south side of Midway Road and is located within both the Midway Road right-of-way (owned by St. Lucie County) and the City of Port St. Lucie right-of-way. The width of the Port St. Lucie Canal 103 right-of-way varies from 42 to 49.5 feet. The center of construction and the existing right-of-way for Midway Road and Canal 103 are shown in the *Preliminary Concept Plans* located in Appendix A.

2.3 Roadway Classification

Currently, Midway Road is functionally classified by St. Lucie County as an Urban Principal Arterial within the project study area. Being a County roadway, Midway Road does not have an official access management classification. However, St. Lucie County has requested that the improvements reflect the latest FDOT standards. As a result, the access management plan for the proposed improvements is based on Access Class 5 standards. This section of Midway Road is also designated as a hurricane evacuation route by the FDEM.



From Glades Cut Off Road to West of NW East Torino Parkway



West of NW East Torino Parkway to West of Selvitz Road





from Glades Cut Off Road to Selvitz Road St. Lucie County, Florida Financial Project ID: 231440-3-22-01 ETDM No. 14177 EXISTING ROADWAY
TYPICAL SECTION

FIGURE 2-1

2.4 Existing Property and Land Uses

Existing parcel data in the form of GIS shapefiles from St. Lucie County and the City of Port St. Lucie as well as right-of-way maps were used to determine the property lines within the project area. These property lines are shown in the *Preliminary Concept Plans* located in Appendix A.

Midway Road is bordered by the City of Port St. Lucie to the south and unincorporated St. Lucie County to the north. Additionally, White City, which is an unincorporated community and census-designated place, is positioned immediately east of the project. Existing land use consists primarily of residential and some commercial land uses to the south and commercial, government, and industrial facilities to the north, including Tropicana Products, Inc.; CEMEX; Packers of Indian River Ltd.; U.S. Post Office; St. Lucie County Sheriff's Office; and New Horizons of the Treasure Coast, Inc. Figure 2-2 shows the existing land use along the project corridor.

The City of Port St. Lucie Future Land Use Map (2014) shows institutional, conservation/open space, and commercial land uses south of the project corridor. The St. Lucie County Future Land Use (2015) map shows primarily industrial, public, residential and commercial facilities to the north. Figure 2-3 shows the future land uses along the corridor.

2.5 Horizontal and Vertical Alignment

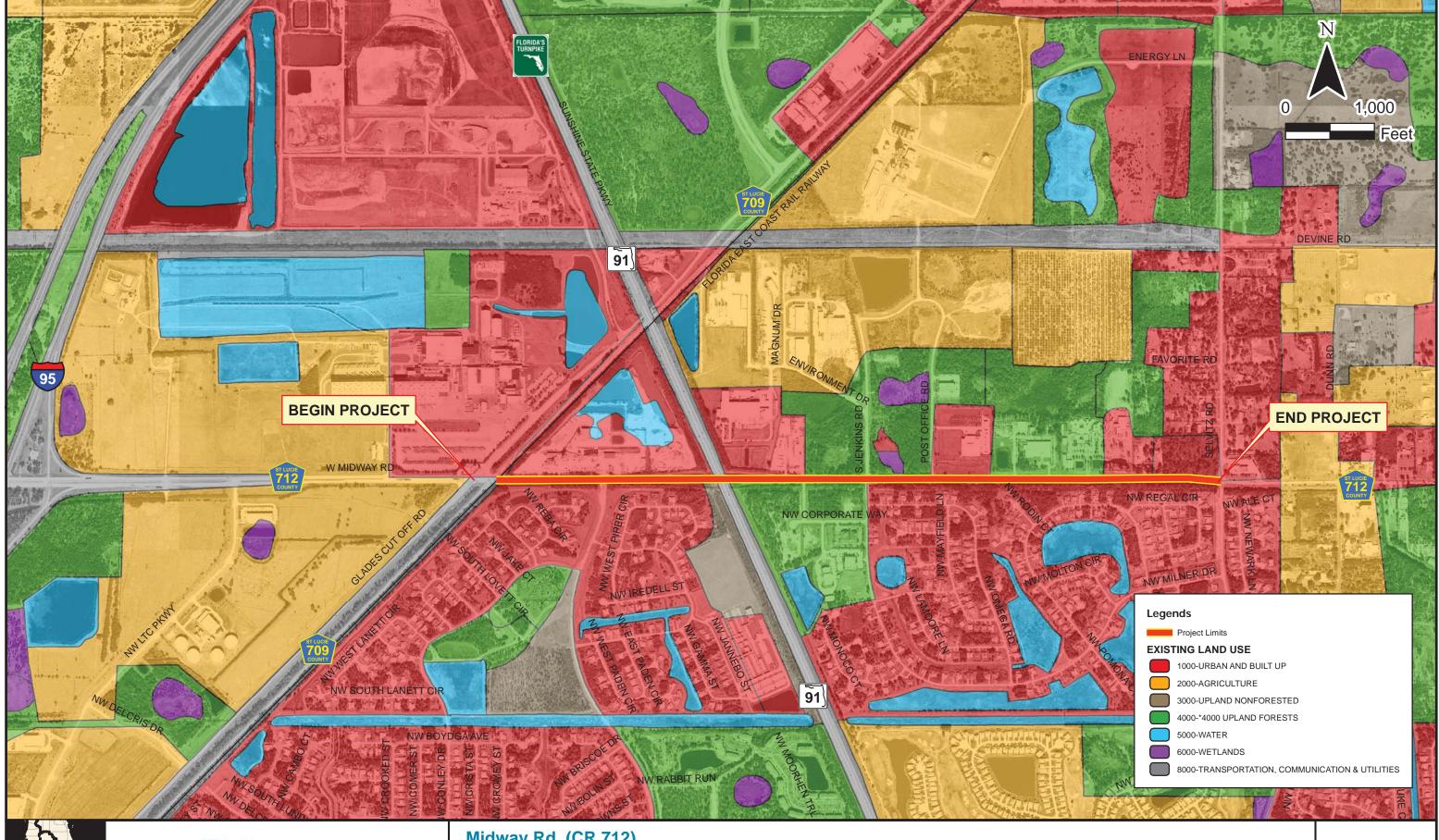
The existing horizontal and vertical alignments of Midway Road were determined from the survey data provided for the project in conjunction with the design construction plans for Midway Road widening from Selvitz Road to 25th Street (County Project No. 06-18). Within the project limits, the existing horizontal alignment consists of two tangent sections followed by two back to back curves which shift the alignment to the south to align with the Midway Road improvements east of Selvitz Road. The existing horizontal geometrics meet criteria for a 45 mph design speed. Table 2-1 below summarizes the horizontal alignment in detail.

Table 2-1
Existing Horizontal Alignment of Midway Road

	Roadway Bearing	PI Station	Deflection Angle and Direction	Degree of Curvature	Curve Radius (ft.)	Curve Length (ft.)	Super- elevation (ft./ft.)
Tangent	N 89°53'19" W (1)		00°12'22" (LT)				
Tangent	N 89°54'18" E (1)	222+41.67(1)					
Station Equa	Station Equation: Sta. 268+42.58, 33.07' RT, Baseline Survey = PC Sta. 1268+42.61, 0.00', Centerline Const. CP No. 06-18						
Curve C1A		1271+42.33 (2)	04°20'24" (RT)	0°43'24"	7,920	599.15	NC
Curve C2A		1277+07.69 (2)	03°50'46" (LT)	0°47'09"	7,290	489.36	NC

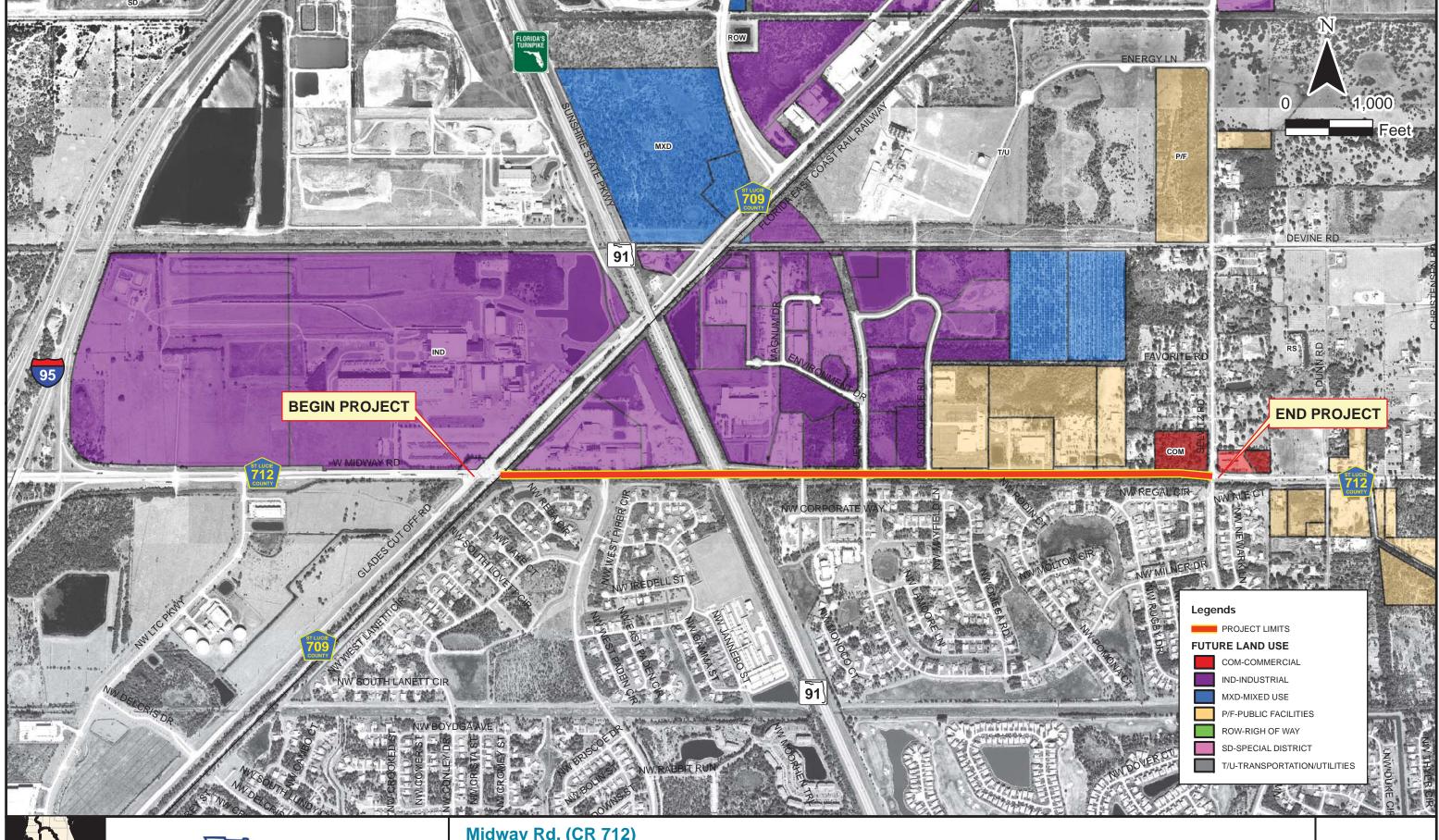
^{(1) -} Stationing referenced to baseline of survey.

^{(2) -} Stationing referenced to centerline of construction County Project No. 06-18.





from Glades Cut Off Road to Selvitz Road St. Lucie County, Florida
Financial Project ID: 231440-3-22-01
ETDM No. 14177





from Glades Cut Off Road to Selvitz Road St. Lucie County, Florida
Financial Project ID: 231440-3-22-01
ETDM No. 14177

FUTURE LAND USE MAP

FIGURE 2-3

The existing vertical alignment of Midway Road is relatively flat with the exception of the curb and gutter section near Glades Cut Off Road and the Florida's Turnpike overpass. Through the limits of the curb and gutter section, a minimum 0.30% grade has been maintained for drainage purposes. As the roadway passes over Florida's Turnpike, the profile consists of three vertical curves: sag, crest, and sag. The first two of these curves do not meet current design criteria standards for a 45 mph design speed. The existing vertical curve geometry is provided in Table 2-2 below.

Table 2-2
Existing Vertical Alignment of Midway Road

PVI Station ^{(1) (2)}	Grade Differential (Sag or Crest)	K Value	Curve Length (ft.)
212+23.21	3.80% (Sag)	53	200
218+98.66	7.81% (Crest)	74	575
225+70.41	4.01° (Sag)	81	325

^{(1) -} Vertical curve data is based on a "best fit" profile developed based on survey data.

2.6 Pedestrian Accommodations

Accessibility to pedestrians along the corridor is minimal with only two sections of sidewalk. They are located on the north side of Midway Road from Glades Cut Off Road to NW East Torino Parkway and along the frontage of the recently constructed New Horizons medical facility. Additionally, the existing bridge over Florida's Turnpike does not have sufficient shoulder width to accommodate pedestrian or bicycle traffic.

2.7 Bicycle Facilities

Currently, no designated bicycle lanes are provided along Midway Road within the project limits.

2.8 Transit

St. Lucie County contracts with the Council on Aging of St. Lucie, Inc. to provide bus services for residents and visitors. There are seven fixed routes for public bus service, none of which serve Midway Road. On demand response trips are available for eligible disadvantaged individuals and seniors. This service provides curb-to-curb service throughout St. Lucie County but must be scheduled at least 24 hours in advance.

2.9 Lighting

There is no continuous roadway lighting along Midway Road within the project limits. Intersection lighting is present (on the mast-arm assemblies) at the intersections of Glades Cut Off Road and NW East Torino Parkway. Additionally, the signal pole in the northwest quadrant of the Selvitz Road intersection (currently under construction) will have a luminaire and provide some lighting.

^{(2) -} Stationing referenced to baseline of survey.

2.10 Intersection Layout

Four main intersections exist within the project limits at Glades Cut Off Road, NW East Torino Parkway, NW Milner Drive-South Jenkins Road, and Selvitz Road. Figure 2-4 shows the existing lane configurations for these intersections on Midway Road.

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Figure 2-4
Existing Lane Configuration

2.11 Traffic Signals

There are three signalized intersections on Midway Road within the limits of the study. The signalized intersections are the intersections of Midway Road with Glades Cut Off Road, NW East Torino Parkway, and Selvitz Road.

2.12 Design and Posted Speed

The existing posted speed along Midway Road between Glades Cut Off Road and Selvitz Road is 45 mph.

The proposed design speed for both alternatives is 45 mph.

2.13 Railroad Crossing

The project includes one railroad crossing located at the beginning of the project, just east of Glades Cut Off Road. The crossing is a single track serving FEC Railroad freight trains and is located within a 200-foot FEC Railroad right-of-way. St. Lucie County was given authorization to cross the FEC Railroad right-of-way with Midway Road under a license agreement between the two entities. All existing FEC Railroad facilities including, but not limited to, control cabinets, conduit, fiber, electrical wiring, cantilevers, flashing lights, bells, gates, and all other warning devices are located with FEC Railroad's current right-of-way. Relocation of these facilities to accommodate the proposed roadway improvements

would be eligible for reimbursement. Based on the current proposed design Alternatives, it is anticipated that all of FEC Railroad's existing facilities would be impacted by both Alternatives 1 and 2. Close coordination during the design phase will be required with FEC Railroad and the FDOT Rail Office to verify the exact locations of existing and future relocated FEC Railroad facilities.

Table 2-3 summarizes the characteristics of the existing railroad crossings along Midway Road within the project limits.

Table 2-3
Summary of Railroad Crossings

	<u> </u>
Railroad Crossing	Crossing Location
Kamoad Crossing	Midway Road/E of Glades Cut Off Road
National Grade Crossing No.	272254P
Midway Rd Milepost	5.855
Type of Train	Freight
Railroad R/W Easements	200 foot FEC Right-of-Way (100-feet from Centerline of Tracks East and West)
Related Permits	Existing License Agreement between St. Lucie County and FEC for Midway Road Crossing
Traffic Control Equipment	Pavement Markings, Cantilever, Flashing Lights, Bells, and Gates
Maintained by	County
Crossing Periods (Hours of Day)	24
Average Crossing Duration (Minutes)	3
Average Train Length (Cars)	20
Average Crossing Speed (mph)	25

2.14 Drainage System Inventory

The project is in the North Fork sub basin of the St. Lucie Estuary Watershed as defined by the South Florida Water Management District (SFWMD). This project also lies within the jurisdiction of the North St. Lucie River Water Control District (NSLRWCD). The project traverses two waterbodies as identified by the Florida Department of Environmental Protection (FDEP). The first, Ten Mile Creek – waterbody identification (WBID) 3194A - is impaired for fecal coliform, dissolved oxygen, and nutrients with chlorophyll-a as the causative pollutant. The second is St. Lucie River (North Fork) - WBID 3194 - and is impaired for mercury, copper, fecal coliform, dissolved oxygen, and nutrients with chlorophyll-a as the causative pollutant. The project area generally flows from north to south and outfalls into Canal 103 through cross drains along the roadway. Canal 103 outfalls into North Fork of the St. Lucie River, which ultimately outfalls into the St. Lucie Aguatic Preserve, which is designated as an OFW.

There are two existing SFWMD permits for improvements within the project limits. The permit for the Midway Road and Glades Cut Off Road intersection improvements (ERP No. 56-01734-P) is for the proposed widening of Midway Road from LTC Parkway to approximately 700 feet west of the Florida's Turnpike overpass from two to four lanes. The East Basin of the permitted project extends from Glades

Cut Off Road to the end of the permitted project (700 feet west of the Florida's Turnpike overpass), which is within the limits of this study. The second permit is for Midway Road from Selvitz Road to 25th Street (ERP No. 56-00833-S) to widen the road from two to four lanes. Basins 1 and 2 of the permitted project fall within the limits of this study. There are approximately 875 feet of untreated Midway Road, including the Florida's Turnpike overpass, between the two permits. The limits for the two existing permits within the Midway Road PD&E Study project are shown in Figure 2-5.

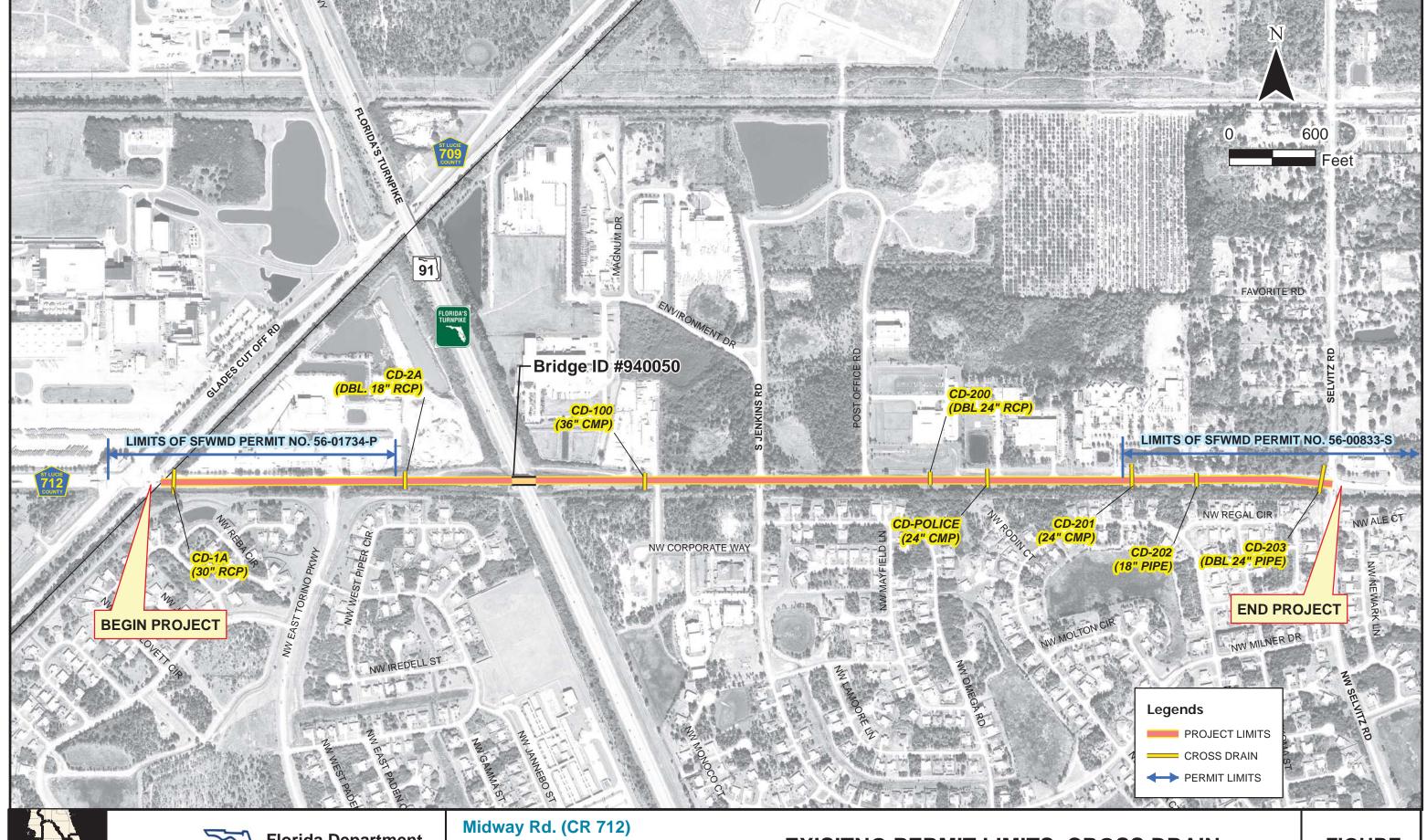
There are eight existing cross drains within the project limits. The cross drains allow for conveyance of offsite and onsite runoff to Canal 103, which runs along the project length, on the south side of Midway Road. The majority of the cross drains act as outfalls for the existing stormwater treatment facilities of the properties on the north side of Midway Road. The cross drains will need to be evaluated for potential extension or replacement during the design phase.

A summary of the existing cross drains and bridges is provided in Table 2-4. The existing cross drain and bridge culvert locations are also shown in Figure 2-5.

Table 2-4
Summary of Existing Cross Drains and Bridges

<u> </u>				
Structure Number	Station (1)	Description		
CD-1A	193+90	30" RCP		
CD-2A	210+30	Double 18" RCP		
Bridge ID #940050	217+57 to 220+24	52' Bridge over Florida's Turnpike		
CD-100	227+30	36" CMP		
CD-200	247+20	Double 24" RCP		
CD-Police	251+10	24" CMP		
CD-201	261+25	24" CMP		
CD-202	266+00	18" Pipe		
CD-203	274+50	Double 24" Pipe		

^{(1) -} Stationing referenced to baseline of survey.



Florida Department of Transportation District 4

from Glades Cut Off Road to Selvitz Road St. Lucie County, Florida Financial Project ID: 231440-3-22-01 ETDM No. 14177 EXISITNG PERMIT LIMITS, CROSS DRAIN AND BRIDGE LOCATIONS

FIGURE 2-5

2.15 Location Hydraulics

The Federal Emergency Management Agency (FEMA) has designated the area within this project as Zone X or areas outside of the 100-year flood zone. There are no regulatory flood ways within the limits of this study. Therefore, there is no encroachment on a base floodplain and the proposed action will not support development in the base floodplain. The following floodplain statement is a slightly modified version of statement Number 1 in the FDOT PD&E Manual. It has been tailored for this project.

"All work proposed by this study is outside the horizontal limits of the 100-year floodplain and no work is being performed below the 100-year flood elevation. As a result, this project does not encroach upon the base floodplain."

Additional information can be found in the *Midway Road Location Hydraulics Report* (Inwood Consulting Engineers, Inc., March 2016) located within the project files.

2.16 Traffic Data

A Design Traffic Technical Memorandum (Kimley-Horn and Associates, Inc., November 2016) was prepared for this project and includes information on the existing roadway conditions, future roadway conditions, and proposed improvements needed to adequately serve future design year 2040 traffic volumes on Midway Road.

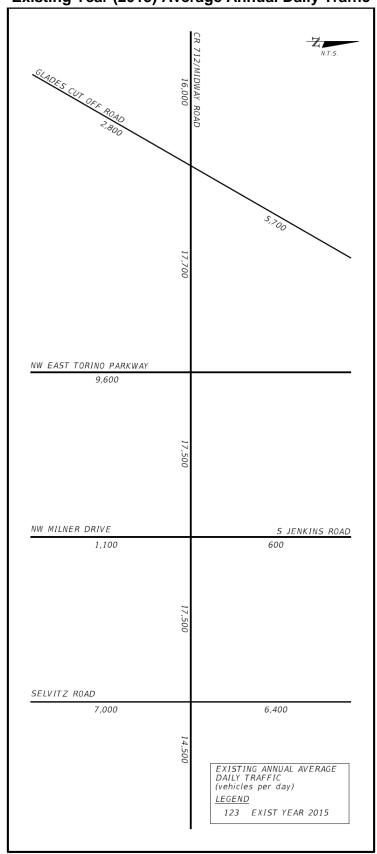
2.16.1 Existing Traffic Volumes

In order to develop the future traffic forecasts for the Midway Road corridor, traffic data was collected by FDOT throughout the study area. The following data collection efforts were completed by FDOT.

- Three-day, six-hour (7:00-10:00 AM and 4:00-7:00 PM) intersection turning movement volumes at four locations within the study area:
 - Glades Cut Off Road
 - NW East Torino Parkway
 - NW Milner Drive-South Jenkins Road
 - o Selvitz Road
- Seventy-two-hour approach traffic volumes
- Seventy-two-hour vehicle classification counts

Existing Year (2015) Average Annual Daily Traffic (AADT) volumes are shown in Figure 2-6. The Average Daily Traffic (ADT) was adjusted by an axle correction factor of 0.78 to calculate the AADTs. The intersection turning movement data were adjusted to peak season volumes using an FDOT peak season conversion factor of 0.98. Figure 2-7 illustrates the adjusted existing AM and PM peak hour turning movement counts.

Figure 2-6
Existing Year (2015) Average Annual Daily Traffic



CR 712/MIDWAY ROAD (568) 543 -(13) 20 -(96)107 5> (29) ⁽³⁰⁾32. 95 (128) (36) 45 170167 102 577 100 (515) (22) (522) 545 (252) 131 (0) 0 (0) 0 (0) 0 (0) NW EAST TORINO PARKWAY (166) 349 (1) 1 6 405 190 (258) 310 (301) (0) (456) (8) 17 (695) 768 10 (26) 330 (2) 5 (28) S JENKINS ROAD NW MILNER DRIVE (44) 47 48 619 (1) 0 38 (38) 22 (5) (687) (139)(100) (574) 122 (92) 593 58 97 84 (182) 43 (59) SELVITZ ROAD (100) 121 (117) 205 80 (40) 503 (576) 60 (55) (37) 54 EXISTING 2015 PEAK HOUR VOLUMES <u>LEGEND</u> AM (PM) Peak Hour **←** Vehicles

Figure 2-7
Existing Year (2015) Peak Hour Turning Volumes

2.16.2 Existing Operational Analysis

An operational analysis was performed at all four intersections within the study area. The Midway Road study intersections were analyzed using *Trafficware's Synchro 9.1* software, which utilizes methodologies outlined in the *Highway Capacity Manual, 2010 Edition* (HCM, 2010). Table 2-5 presents AM peak hour delay and Level of Service (LOS) for the study intersections. Per the St. Lucie County Comprehensive Plan, the LOS standard for Midway Road is LOS E. A majority of the movements at all four intersections are currently operating at LOS C or better during both AM and PM peak hours. In the AM peak hour, there are two movements operating below LOS C. These specific movements are:

- NW Milner Drive/South Jenkins Road northbound left-turn movement (LOS D), and
- Selvitz Road northbound left-turn, through, and right-turn movement (LOS D).

Table 2-6 depicts the PM peak hour delay and LOS for the study intersections. In the PM peak hour, there is one intersection operating below LOS C. This specific intersection is:

• NW East Torino Parkway northbound through and right-turn movement (LOS D).

Table 2-5 Existing Year (2015) AM Peak Hour Operational Analysis

			-	Delay ⁽¹⁾	and Level o	of Service
Intersection	Control Type	Approach	Movement	Movement	Approach	Intersection
			L	23.6 / C		
		EB	Т	22.2 / C	22.4 / C	
			R	N/A ⁽²⁾		
			L	25.2 / C		
		WB	Т	21.0 / C	21.7 / C	
Midway Road at	Signalized		R	N/A ⁽²⁾		22.5 / C
Glades Cut Off Road	Signalized		L	30.4 / C		22.570
		NB	Т	25.6 / C	19.8 / B	
			R	10.9 / B		
			L	30.0 / C		
		SB	T	23.1 / C	26.3 / C	
			R	24.4 / C		
			L	11.7 / B	19.4 / B	22.2 / C
		EB	Т	20.8 / C		
	Signalized		R	14.0 / B		
Midway Daad at		WD	L	15.9 / B	12.4 / B 34.1 / C	
Midway Road at		WB	T/R	10.9 / B		
NW East Torino Parkway		NB	L	33.7 / C		
			T/R	34.5 / C		
		SB	L	N/A ⁽³⁾	N/A ⁽³⁾	
		SB	T/R	IN/A ^(e)		
		EB	L	9.1 / A	(E)	
		ED	T/R	N/A ⁽⁴⁾	(5)	
Midway Road at		WB	L	10.1 / B	(E)	
NW Milner Drive-	Two-way Stop	VVD	T/R	N/A ⁽⁴⁾	(5)	(5)
S Jenkins Road		NB	L	28.7 / D	23.5 / C	
		IND	T/R	12.4 / B	23.5 / C	
		SB	L/T/R	15.6 / C	15.6 / C	
		ED	L	17.9 / B	21.6 / 0	_
		EB	T/R	33.6 / C	31.6 / C	
Midway Road at	Cianalina -	WD	L	18.9 / B	27.0./0	20.0./.0
Selvitz Road		WB	T/R	28.8 / C	27.9 / C	30.8 / C
		NB	L/T/R	36.8 / D	36.8 / D	
		SB	L/T/R	26.7 / C	26.7 / C	

Approach - EB = eastbound; WB = westbound; NB = northbound; SB = southbound Legend:

Note:

Approach - EB = eastbound; WB = westbound; NB = northbound; SB = southbound
Movement - L = left-turn; T = through; R = right-turn
(1) Delay measured in seconds per vehicle using HCM 2010 methodologies.
(2) Channelized movement operates under yield-control conditions. Delay and LOS are not defined.
(3) Movement/approach has no volume. Delay and LOS are not defined.
(4) Movement is uncontrolled. Delay and LOS are not defined.
(5) LOS is not defined for free-flow approaches or overall intersection for a two-way stop controlled intersection

Table 2-6 Existing Year (2015) PM Peak Hour Operational Analysis

	.g		-	Delay ⁽¹⁾	of Service									
Intersection	Control Type	Approach	Movement	Movement	Approach	Intersection								
			L	22.3 / C										
		EB	Т	20.9 / C	21.1 / C									
			R	N/A ⁽²⁾										
			L	23.4 / C										
		WB	Т	21.3 / C	21.4 / C									
Midway Road at	Signalized		R	N/A ⁽²⁾		21.7 / C								
Glades Cut Off Road	Olgridiized		L	28.9 / C		21.770								
		NB	Т	23.5 / C	18.2 / B									
			R	10.9 / B										
			L	29.0 / C										
		SB	Т	20.2 / C	25.3 / C									
			R	22.4 / C										
	y Signalized		L	N/A ⁽⁴⁾										
		EB	Т	19.3 / B	18.0 / B	18.7 / B								
			R	15.4 / B										
Midway Road at		WB	L	16.8 / B	10.4 / B 34.7 / C									
NW East Torino Parkway			T/R	6.2 / A										
INVI Last Tollilo Falkway		NB	L	31.3 / C										
			T/R	36.9 / D										
		SB	L	N/A ⁽³⁾	N/A ⁽³⁾									
			T/R	IN//A· /										
		EB	L	9.1 / A	(5)									
		LD	T/R	N/A ⁽⁴⁾	(3)									
Midway Road at										WB	L	9.4 / A	(5)	
NW Milner Drive-	Two-way Stop	VVD	T/R	N/A ⁽⁴⁾	(3)	(5)								
S Jenkins Road		NB	L	24.1 / C	18.4 / C									
			T/R	12.0 / B										
		SB	L/T/R	18.8 / C	18.8 / C									
		EB	L	15.7 / B	31.2 / C									
		ED	T/R	33.3 / C	31.2/0									
Midway Road at	Signalized	WB	L	18.0 / B	24.3 / C	29.2 / C								
Selvitz Road			T/R	24.9 / C		29.2 / C								
		NB	L/T/R	31.9 / C	31.9 / C									
		SB	L/T/R	31.9 / C	31.9 / C									

Legend:

Note:

Approach - EB = eastbound; WB = westbound; NB = northbound; SB = southbound
Movement - L = left-turn; T = through; R = right-turn
(1) Delay measured in seconds per vehicle using HCM 2010 methodologies.
(2) Channelized movement operates under yield-control conditions. Delay and LOS are not defined.
(3) Movement/approach has no volume. Delay and LOS are not defined.
(4) Movement is uncontrolled. Delay and LOS are not defined.
(5) LOS is not defined for free-flow approaches or overall intersection for a two-way stop controlled intersection

2.17 Crash Data and Safety Analysis

Crash data for the five-year period from 2010 to 2014 was obtained from the University of Florida's Signal Four Analytics and the St. Lucie Transportation Planning Organization (TPO) which utilized the Tindale-Oliver WebCDMS Service. Comparing the two sets of crash data, it was determined that the data sets were not identical even though there was matching crash data. Therefore, the two sets of crashes were combined and Signal Four Analytics was utilized to obtain the crash data for the combined list of crash numbers.

In total, 109 crashes were reported within the study limits between January 2010 and December 2014 of which 97 had information that could be attributed to a specific intersection/location (i.e., mapped). The frequency of crashes increases in every year from 2011 to 2014. It should be noted that the crash data obtained for this corridor only included short form crashes for 2012, 2013, and 2014. The number of short form crashes for 2010 and 2011 is not known. In total, there were 75 long form crashes and 34 short form crashes included in the data. There were 34 crashes with injury and no crashes with fatalities. There were nine reported property damage crashes with an average estimate of \$911. The average estimate of vehicle damage was \$3,911.

As shown in Table 2-7, the most frequent crash types were rear end crashes (40 crashes/37 percent), left-turn crashes (9 crashes/8 percent), and ran off road crashes (9 crashes/8 percent). In addition, there were two crashes that involved a pedestrian and one crash that involved a bicycle.

Table 2-7 Crashes by Type (2010 to 2014)

Rank	Crash Type	Total	Percent of Crashes
1	Rear End	40	37
2	Left Turn	9	8
2	Ran Off Road	9	8
4	Sideswipe	7	6
5	Angle	4	4
6	Coll. w/ Pedestrian	2	2
7	Head On	1	1
7	Right Turn	1	1
7	Coll. w/ Bicycle	1	1
7	Overturned	1	1
N/A	Other/Unknown	34	31
Total (Crashes	109	N/A

The highest occurrence of crashes was rear end crashes which are typical of roadways with signalized intersections. A rear end crash rate of eight crashes per year across three signalized intersections and multiple unsignalized intersections does not indicate a trend. Similarly, the average crash rate of less than two crashes per year for the left-turn crashes and ran off road crashes does not indicate a trend. It should be noted that a canal is present along the south side of Midway Road and a guardrail is not provided; therefore, a ran off road crash could involve a car driving into the canal.

Table 2-8 shows that approximately 71 percent of crashes occurred during daylight conditions and approximately 29 percent occurred during dawn/dusk or dark conditions. Overall, the percentage of dawn/dusk or dark condition crashes is comparable to the statewide average (29 percent versus 31 percent); although the number of dawn/dusk/dark crashes was higher than the statewide average for the intersections with Glades Cut Off Road, NW East Torino Parkway and Selvitz Road. It should be noted that street lights are provided at the Glades Road Cut Off intersection and NW East Torino Parkway intersection, but not along the rest of the corridor.

Table 2-8
Crashes by Lighting Condition (2010 to 2014)

Lighting Conditions	Number of Crashes	Percent of Crashes
Daylight	77	70.6
Dusk/Dawn	5	4.6
Dark	27	24.8
Unknown	0	0.0
Total	109	100.0

As shown in Table 2-9, approximately 89 percent of crashes occurred when the roadway surface was dry. The percentage of wet pavement crashes is lower than the statewide average (11 percent versus 17 percent).

Table 2-9
Crashes by Surface Condition (2010 to 2014)

Surface Conditions	Number of Crashes	Percent of Crashes
Dry	96	88.1
Wet	12	11.0
Other	1	0.9
Total	109	100.0

Table 2-10
Crashes by Location (2010 to 2014)

Location/Segment along Midway Road	No. of Crashes
Glades Cut Off Road	27
NW East Torino Parkway	25
NW Corporate Way	4
S Jenkins Road/NW Milner Drive	2
Post Office Road	3
Post Office Driveway	6
St. Lucie Sheriff's Office Driveway	5
East of New Horizons	5
Selvitz Road	20
Not Identified	12
Total	109

Crash patterns were analyzed at three major intersections, including Glades Cut Off Road, NW East Torino Parkway, and Selvitz Road. The other locations were not analyzed as the average crash rate at each location was approximately one crash per year or less. Crashes at the three analyzed intersections did not represent a trend that should be addressed.

Of the 109 crashes, the highest occurring crash types were rear end, left-turn, and ran off road. The crash rates did not reveal a pattern to be corrected; however, rear end crashes are typically associated with stop and/or congested conditions. The widening of Midway Road is intended to increase capacity which may have a positive impact on the number of rear end crashes. Additionally, the number of dawn/dusk or dark crashes was higher than the statewide average for the intersections with Glades Cut Off Road, NW East Torino Parkway, and Selvitz Road which may reflect the lack of street lighting provided along the corridor. A lighting study may be needed to determine if lighting should be provided.

2.18 Utilities

Eight Utility Agency/Owners (UAO) have been identified within the project area through the Sunshine 811 Design Ticket and utility coordination efforts. Table 2-11 identifies the UOA's contacted and a description of their facilities located on the project.

In accordance with Part 2, Chapter 10 of the PD&E Manual, the utility providers listed in Table 2-11 were notified of the proposed improvements and submitted files to identify any easements and the location of their existing/planned utilities within the project area.

Based on information from UAO mark-ups, project survey, and existing right-of-way maps, there are several utilities located within existing easements found on this project. The utility facilities located in easements include Florida Power and Light (FP&L), AT&T, Comcast Communications (Comcast), Fort Pierce Utility Authority (FPUA), and Florida Gas Transmission (FGT). FP&L maintains an existing overhead distribution pole line in a 10-foot utility easement along the south side of Midway Road from Glades Cut Off Road to NW Milner Drive. Comcast is also located in this 10-foot easement underbuilt on FP&L's pole line. Portions of both AT&T's facilities and FPUA's existing 12-inch water main and 8-inch gas mains along the north side of the road in front of the St. Lucie County Sherriff's Office are located in an easement adjacent to the right-of-way. The project also includes a 75-foot FGT easement located along the east side of Florida's Turnpike crossing under the existing Midway Road bridge. FGT maintains 30-inch, 24-inch, and 18-inch steel high pressure gas mains within the same easement.

Since relocations of facilities located in easements would likely be eligible for reimbursement, all measures will be taken to avoid impacting these existing AT&T, FGT, FPUA, Comcast, and FP&L facilities. Though relocation of other facilities within the existing right-of-way are anticipated, all efforts will be made during final design to minimize impacts to the overhead and underground utilities to the greatest extent possible.

Additional information regarding the existing utilities and anticipated impacts can be found in the *Utility Assessment Package* (Inwood Consulting Engineers, Inc., October 2016) located within the project files.

Table 2-11 Existing Utilities in the Study Area

Utility Company	Facility	Description
AT&T	Aerial Fiber Buried Copper/Fiber	AT&T maintains both aerial and buried facilities along the north side of Midway Road for the limits of the project. Aerial facilities are attached to both AT&T poles and FP&L's pole line.
City of Port St. Lucie	8"-20" WM 4" FM 2" Fiber	The City maintains a water main ranging in size from 12-16-inch along the south side of Midway Road for the limits of the project. Recently relocated water main along the east side of the project also included installation of 2-inch fiber. The City also maintains a 4-inch force main along the south side of the Road from Glades Cut Off Road to NW East Torino Parkway.
Comcast Communications	Aerial Fiber	Comcast maintains aerial fiber attached to FP&L's pole line located along the south side of Midway Road from Glades Cut Off Road to NW Milner Drive, where their facilities exit the project.
Florida Gas Transmission	18", 24" 30" GM	FGT maintains 30-inch, 24-inch, and 18-inch steel high pressure gas mains within a 75-foot easement located along the east side of Florida's Turnpike crossing under the existing Midway Road bridge.
Florida Power & Light-Distribution	13 kV Overhead Dist.	FP&L maintains an overhead and buried distribution electric line (<50 kV) along the south side of Midway Road in an easement from Glades Cut Off Road to NW Milner Drive. FP&L also has an overhead electric line along the north side of the road from just east of NW East Torino Parkway to Selvitz Road.
Florida Power & Light-Transmission	230 kV Overhead Trans.	FP&L maintains a 230 kV aerial transmission line along the west side of Glades Cut Off Road.
Ft. Pierce Utility Authority	12" WM 6" FM 8" GM	FPUA maintains a 12-inch water main and an 8-inch gas main along the north side of Midway Road starting from S Jenkins Road to Selvitz Road. Portions of the water and gas mains are located in easements. FPUA also maintains a 6-inch force main along the south side of the road from just east of the County Sherriff's Office to Selvitz Road.
St. Lucie County Utilities	8" FM	The County maintains an 8-inch force main along the north side of Midway Road which turns and travels along the west side Glades Cut Off Road. The County also has a 16-inch water main along the south side of Midway Road, which also turns and continues along the west side of Glades Cut Off Road. The County does not have any additional facilities east of Glades Cut Off Road.

2.19 Soils and Geotechnical Data

Based on a review of the St. Lucie County US Department of Agriculture (USDA) Soil Survey, the project corridor is mapped as follows:

- 25 Nettles and Oldsmar sands
- 31 Pepper and EauGallie sands
- 38 Riviera fine sand, 2 to 2 percent slopes
- 44 Tantile and Pomona sands
- 48 Wabasso sand, 0 to 2 percent slopes
- 50 Waveland and Immokalee fine sands

Figure 2-8 depicts the USDA soil survey map.

The subsurface conditions along the project corridor were explored by a total of 16 soil borings as follows:

- A total of 14 SPT borings to 10 feet deep below existing grades (borings RD-1 through RD-5, RD 7 through RD-10, RD-12 through RD-15, and RD-18).
- A total of two hand auger borings (RD-6 and RD-7) at difficult site access conditions.

Seasonal high groundwater levels are expected to be controlled by existing drainage features present in the project vicinity. Based on the preliminary soil borings, estimated seasonal high groundwater tables within the project limits are expected to range approximately from elevation +13 to +18 feet, NAVD 1988.

In general, the existing shallow subsurface soils encountered in the borings are suitable for supporting the proposed improvements after proper subgrade preparation. Site preparation should consist of normal clearing and grubbing followed by compaction of subgrade soils. Additional information can be found in the *Preliminary Roadway Soil Survey Report* (Tierra South Florida, Inc., May 2016) located within the project files.







Midway Rd. (CR 712)

from Glades Cut Off Road to Selvitz Road St. Lucie County, Florida
Financial Project ID: 231440-3-22-01
ETDM No. 14177

St. Lucie County USDA Soil Survey Map

FIGURE 2-8

2.20 Existing Bridge

Midway Road crosses over Florida's Turnpike with a four-span bridge structure (Bridge No. 940050). This bridge was constructed in 1957 with no major modifications to the bridge since then. The bridge has an out to out bridge width of 33.1 feet and an overall bridge length of 174 feet. The bridge is comprised of four spans with the two main spans being 50 feet with 37 feet end spans and it crosses Florida's Turnpike with a 24-degree skew angle. The superstructure utilizes steel rolled girders supporting a cast-in-place concrete deck. The existing substructure is multi-column reinforced concrete caps. The end slopes are contained with concrete slope protection. The existing structure was load rated in 1996 and is currently not posted. The bridge is listed as functionally obsolete and has a sufficient ration of 86.8 and a health index of 87.57.

Section 3.0

Planning Phase/Corridor Analysis

Consistent with FDOT's Efficient Transportation Decision Making (ETDM) process, the proposed project was evaluated during the ETDM programming screen (ETDM #14177). Through ETDM, early agency and public comments were obtained to provide project information on potentially environmentally sensitive areas and identification of project issues. The *ETDM Programming Summary Report* (dated May 27, 2015) is available on the ETDM public website (https://etdmpub.fla-etat.org/est/) and a copy is included in Appendix C. Based on the ETDM Programming Summary Report, four categories of assessed degree of effect were determined as above "Minimal" and were originally evaluated by ETDM as a "Moderate" potential effect. These included Section 4(f) Potential, Historic and Archaeological Sites, Wetlands, and Contamination.

The US Census-designated Port St. Lucie-Fort Pierce Metropolitan Statistical Area (MSA) and the City of Port St. Lucie area have been identified as one of the fastest growing metropolitan areas in Florida. This rapid population growth has resulted in a significant increase in surface transportation demand along major arterials, including the Midway Road corridor. Traffic analysis conducted during the planning phase indicated that the facility does not adequately handle the existing traffic demand. Without capacity improvements, the traffic operations along the corridor will continue to deteriorate. Since Midway Road is one of the vital east-west corridors in St. Lucie County, it is critical to increase capacity to meet the anticipated future transportation demand.

The primary purpose of the proposed improvements is to provide additional capacity to meet existing and future traffic needs; improve safety by alleviating existing roadway and capacity deficiencies; and allow opportunities for pedestrian, bicycle, and transit facilities. The additional capacity would also improve freight mobility and enhance emergency evacuation along the project corridor. The western limits of the project corridor will connect with the existing four-lane section of Midway Road. The eastern limits at Selvitz Road will connect with a four-lane section of Midway Road from Selvitz Road to South 25th Street that is currently under construction.

Project Design Standards

Although Midway Road is owned and maintained by St. Lucie County, the proposed improvements have been developed based on FDOT standards (per the County's request). As such, the design must comply with the recommended standards and practices set forth in the following documents:

- Plans Preparation Manual, FDOT
- Manual on Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways, State of Florida
- A Policy on Geometric Design of Highways and Streets, AASHTO
- A Policy on the Design of Urban Highways and Arterial Streets, AASHTO
- Drainage Manual, FDOT
- Manual on Uniform Traffic Control Devices, Federal Highway Administration
- Roadway and Traffic Design Standards, FDOT
- Highway Capacity Manual, Transportation Research Board
- Quality/Level of Service Handbook, FDOT

Table 4-1 includes the design criteria for the proposed roadway improvement alternatives. All criteria are subject to change and only the latest criteria will be used during the final design phase.

Table 4-1
Roadway Design Criteria (Midway Road)

DESIGN ELEMENT	CRITERIA	SOURCE
Design Speed	45 mph	PPM Table 1.9.1
Roadway Classification	Urban Arterial	
Design Vehicle	WB-40; WB-62FL at Glades Cut Off	
Design verilde	Rd., Jenkins Rd. and Post Office Rd.	
Access Management	Class 5	
Connection Spacing	440 ft.	PPM Table 1.8.2
Median Opening Spacing Directional	660 ft.	PPM Table 1.8.2
Median Opening Spacing Full	1320 ft.	PPM Table 1.8.2
Signal Spacing	1320 ft.	PPM Table 1.8.2

Table 4-1 Roadway Design Criteria (Midway Road) Continued

Continued								
DESIGN ELEMENT	CRITERIA	SOURCE						
	A. Typical Section							
Number of Lanes	4	Typical Section						
Lane Width	11	PPM Table 2.1.1						
Bike Lane	7' Buffered Bike Lane 7 ft. keyhole adjacent to right turn lane	PPM Table 2.1.2						
Sidewalk Width	6 ft. min	St. Lucie County Standard						
Minimum Median Width	22 ft.	PPM Table 2.2.1						
Roadway Cross Slope (Inside Lane)	0.02	PPM Figure 2.1.1						
Roadway Cross Slope (Outside Lane)	0.02	PPM Figure 2.1.1						
Border (from outside edge of traveled way)	12 ft.	PPM Table 2.5.2						
Clear Zone	24 ft.	PPM Table 4.2.1						
Drop Off Hazard	A drop of 6 ft. or more with a slope steeper than 1:3 located within 22 ft. of the travel way	PPM Figure 4.3.3						
	Roadside Slopes							
Front Slope	1:2	PPM Table 4.2.4						
Back Slope	1:2	PPM Table 4.2.4						
Transverse Slope	1:4	PPM Table 4.2.4						
	Driveway Grades							
Commercial	10%	Oten dead by dev. 545						
Residential	28%	Standard Index 515						
B.	Horizontal Geometry							
Maximum Superelevation	0.05	PPM Table 2.9.2						
Minimum Superelevation Transition Length	75 ft.	PPM Table 2.9.4						
Superelevation Transition Slope Rate	1:150	PPM Table 2.9.4						
Suj	perelevation Transition							
On Tangent	80%	PPM Section 2.9						
On Curve	20%	PPM Section 2.9						
Maximum Deflection (no curve)	1°00'00" (with C&G)	PPM Table 2.8.1a						
Minimum Stopping Sight Distance	360 ft.	PPM Table 2.7.1						
Maximum Curvature	8°15'00"	PPM Table 2.8.3						
Maximum Curvature Using Normal Cross Slope	2°45'00"	PPM Table 2.8.4						
Len	gth of Horizontal Curve							
Desirable	15V (V=Design Speed) = 675 ft.	PPM Table 2.8.2a						
Minimum	400 ft.	PPM Table 2.8.2a						
C. Vertical Geometry								
Maximum Grade	6%	PPM Table 2.6.1						
Minimum Grade	0.30%	PPM Table 2.6.4						
Minimum Distance Between VPI's	250 ft.	PPM Table 2.6.4						
Maximum Change in Grade (No Vertical Curve)	0.70%	PPM Table 2.6.2						
Minimum Crest Vertical Curve	K=98	PPM Table 2.8.5						
Minimum Length (3V)	135 ft.	PPM Table 2.8.5						

Table 4-1
Roadway Design Criteria (Midway Road)
Continued

DESIGN ELEMENT	CRITERIA	SOURCE
Minimum Sag Vertical Curve	K=79	PPM Table 2.8.6
Minimum Length (3V)	135 ft.	PPM Table 2.8.6
Base Clearance Above Base Clearance Water Elevation	1 ft. – Note: a base clearance less than 3 ft. requires a reduction in the design resilient modulus	PPM Table 2.6.3
D. Turı	n Lanes & Queue Length	
Queue Length Minimum	50 ft, See DTTM for details	PPM Section 2.13.2
Total Decel Distance	L = 185 ft.	Standard Index 301
Clearance Distance	L1 = 85 ft., L3 = 135 ft.	Standard Index 301
Brake to Stop Distance	L2 = 100 ft.	Standard Index 301
Taper Length (Single Left)	Δ = 50 ft.	Standard Index 301
Taper Length (Dual Left)	Δ = 100 ft.	Standard Index 301
E. Roady	way Clearance and Offsets	
Vertical Clearance Roadway over Roadway	16 ft. 6 in	PPM Table 2.10.1
Vertical Clearance Overhead Sign Structures	17 ft. 6 in.	PPM Table 2.10.2
Vertical Clearance Signals	17 ft. 6 in.	PPM Table 2.10.2
Light Pole Offset (min.)	4 ft. from face of curb	PPM Table 4.2.3
Utility Offset (min.)	4 ft. from face of curb	PPM Table 4.2.3
Signal Pole Offset (min.)	4 ft. from face of curb	PPM Table 4.2.3
Trees Offset (min.)	4 ft. from face of curb	PPM Table 4.2.3
Bridge Piers and Abutments	16 ft. from edge of travel lane	PPM Table 4.2.3
Other Obstacles Offset	4 ft. from face of curb	PPM Table 4.2.3
NOTES: (1) Plans Preparation Manual, 2016, FDC	DT	

(2) Design Standards FY 2016-17, FDOT

Alternative Alignment Analysis

The objective of the alternatives analysis process is to identify technically and environmentally sound alternatives to provide a safe transportation facility that meets the purpose and need of the project, is acceptable to the community, minimizes impacts on the environment, and is cost effective. The process results in the selection of a Proposed Alternative, which can be advanced to the design phase. This section summarizes the alternatives considered for this project.

Four alternatives were evaluated to determine if they can meet the purpose and needs of this project. These alternatives include the following:

- No-Build Alternative
- Transportation Systems Management and Operations (TSMO)
- Multimodal Alternatives
- Build Alternatives
 - Build Alternative 1 Canal Avoidance
 - Build Alternative 2 Box Culvert

In conducting the alternatives analysis, a full range of typical section, intersection, and alignment alternatives were first identified to meet the identified capacity needs. These alternatives were developed with consideration of future traffic needs, input from the public, input from local governments, and standard engineering practice, including compliance with requirements of the Americans with Disabilities Act (ADA).

5.1 No-Build Alternative

The No-Build Alternative assumes that no modifications or improvements will be implemented for the mainline of Midway Road within the limits of the study. The primary advantages of the No-Build Alternative are that it does not directly require any capital or expenditure of state/federal transportation trust funds and it produces no physical or social impacts.

The No-Build Alternative will remain under consideration throughout the alternatives analysis and evaluation process.

5.1.1 Advantages

Certain advantages would be associated with the implementation of the No-Build Alternative:

No acquisition of right-of-way

- No design, right-of-way, or construction costs
- No inconvenience to the traveling public and property owners during construction
- No impacts to utilities
- No impacts to the adjacent natural, physical, and human environment
- No additional noise impacts

5.1.2 Disadvantages

The potential disadvantages of the No-Build Alternative include:

- Not consistent with the St. Lucie County TPO Go 2040 Long Range Transportation Plan (LRTP) or the St. Lucie County Comprehensive Plan
- Does not improve multimodal mobility
- Results in reduced LOS and increased traffic congestion
- Motor vehicle crashes, property damage, injuries, and fatalities may increase due to increased congestion
- Emergency vehicle access is degraded
- User costs are increased due to congestion

5.1.3 Future Growth Trend Analysis

Traffic growth rates were evaluated utilizing three forecasting methodologies:

- Regression analysis of the most recent five years and 10 years of the most recent historical AADTs from FDOT count sites
- Regression analysis of at least five years of the most recent historical AADTs from FDOT count sites and the St. Lucie County 2040 model volumes from the Treasure Coast Regional Planning Model (TCRPM)
- Growth between the base year 2010 and the 2040 TCRPM roadway volumes

Engineering judgement was then utilized to determine the recommended traffic growth rates by evaluating historical growth rates, historical and model growth rates, and model growth rates. The recommended growth rates for all roadway segments is 5.0% or lower except for Glades Cut Off Road south of Midway Road, which had a recommended growth rate of 27.0% based on TCRPM model growth. The model growth rate along Glades Cut Off Road south of Midway Road was a result of increases in population and employment in the "western annex" that were reflected in the 2040 TCRPM. This is referred to herein as the Limited Growth Scenario. Based on conversations with St. Lucie County and the St. Lucie TPO staff, the population and employment increases are at least partially due to Development of Regional Impact (DRI) projects in the area that may or may not be built by the design year 2040 for Midway Road. Therefore, a second scenario was analyzed which limited growth along

Glades Cut Off Road to the south at 5.0%, consistent with the growth rates for Midway Road east and west of the intersection, and Glades Cut Off Road north of the intersection.

5.1.4 No-Build Alternative Traffic and Levels of Service

FDOT's TMTOOL spreadsheet was used to forecast turning movement volumes for 2020 and 2040 No-Build conditions. Table 5-1 presents the Future 2020 Uncapped Growth No-Build AM Peak Hour Operations Summary and Table 5-2 depicts the Future 2020 Uncapped Growth No-Build PM Peak Hour Operations Summary for the study intersections.

Table 5-3 presents the future 2020 limited growth no-build AM delay and LOS for the Midway Road at Glades Cut Off Road intersection. The intersection is anticipated to operate at LOS C with an average delay of 24.4 seconds per vehicle. All approaches and movements are anticipated to operate at LOS D or better. Delay and LOS for the eastbound right-turn and westbound right-turn movements are not defined, as these right-turn movements are channelized and operate under yield-control.

Table 5-1 Future (2020) Uncapped Growth No-Build AM Peak Hour Operations Summary

, <i>i</i>				Delay ⁽¹⁾	and Level	of Service
Intersection	Control Type	Approach	Movement			
			L	27.0 / C		
		EB	Т	23.8 / C	24.3 / C	
			R	N/A ⁽²⁾		
			L	39.3 / D		
		WB	Т	20.6 / C	25.2 / C	
Midway Road at	Signalized		R	N/A ⁽²⁾		31.7 / C
Glades Cut Off Road	Signalized		L	34.7 / C		31.770
		NB	Т	31.5 / C	64.2 / E	
			R	100.9 / F		
			L	34.9 / C		
		SB	Т	32.8 / C	34.1 / C	
			R	34.6 / C		
			L	13.1 / B		
		EB	T	20.9 / C	20.8 / C	23.7 / C
			R	20.9 / C		
Midway Road at		WB	L	16.5 / B	13.9 / B	
NW East Torino Parkway	Signalized	WB	T/R	12.9 / B	10.07 D	
1444 Last Formo Fankway		NB	L T/R	37.7 / D 37.6 / D	37.7 / D	
		SB	L T/R	N/A ⁽³⁾	N/A ⁽³⁾	
		ГВ	L	9.9 / A	(5)	
		EB	T/R	N/A ⁽⁴⁾	(3)	
Midway Road at		WB	L	10.9 / B	(5)	
NW Milner Drive-	Two-way Stop	VVD	T/R	N/A ⁽⁴⁾	(0)	(5)
S Jenkins Road		NB	L	18.0 / C	15.5 / C	
			T/R	10.9 / B		
		SB	L/T/R	12.3 / B	12.3 / B	
			L	9.9 / A		
		EB	Т	14.8 / B	13.9 / B	
			R	12.3 / B		
			L	10.5 / B		
		WB	Т	15.9 / B	15.4 / B	
Midway Road at	Ciancli-cd		R	15.9 / B		17.0 / B
Selvitz Road ⁽⁶⁾	Signalized		L	25.3 / C		17.0/B
		NB	Т	21.2 / C	22.7 / C	
			R	21.3 / C		
		SB	L	24.1 / C	21.5 / C	
			Т	20.1 / C		
			R	21.5 / C		

Legend:

- Approach EB = eastbound; WB = westbound; NB = northbound; SB = southbound

 Movement L = left-turn; T = through; R = right-turn

 (1) Delay measured in seconds per vehicle using HCM 2010 methodologies.

 (2) Channelized movement operates under yield-control conditions. Delay and LOS are not defined.

 (3) Movement/approach has no volume. Delay and LOS are not defined.

 (4) Movement is uncontrolled. Delay and LOS are not defined.

 (5) LOS is not defined for free-flow approaches or overall intersection for a two-way stop controlled intersection

 (6) Includes programmed improvements currently under construction as part of the widening of Midway Road from Selvitz Road to the east.

Note:

Table 5-2 Future (2020) Uncapped Growth No-Build PM Peak Hour Operations Summary

1 dtare (2020) eric				Delay ⁽¹⁾	and Level	of Service
Intersection	Control Type	Approach	Movement	Movement	Approach	Intersection
			L	24.3 / C		
		EB	Т	21.4 / C	21.8 / C	
			R	N/A ⁽²⁾		
			L	26.9 / C		
		WB	T	21.6 / C	22.1 / C	
Midway Road at	Signalized		R	N/A ⁽²⁾		27.9 / C
Glades Cut Off Road	Olgridiized		L	29.9 / C		27.570
		NB	T	26.7 / C	51.7 / D	
			R	73.0 / F		
			L	32.7 / C		
		SB	T	24.4 / C	31.2 / C	
			R	31.4 / C		
			L	N/A ⁽⁴⁾		
		EB	Т	21.7 / C	21.8 / C	22.0 / C
			R	21.8 / C		
Midway Bood at		WB	L	24.1 / C	13.2 / B	
Midway Road at NW East Torino Parkway	Signalized	VVD	T/R	7.3 / A	13.2 / D	
INVV East Tollilo Parkway		NB	L	36.1 / D	40.3 / D	
			T/R	43.1 / D		
		SB	L T/R	N/A ⁽³⁾	N/A(3)	
		ED	L	9.7 / A	(5)	
		EB	T/R	N/A ⁽⁴⁾		
Midway Road at		WD	L	10.0 / B	(5)	
NW Milner Drive-	Two-way Stop	WB	T/R	N/A(4)		(5)
S Jenkins Road		ND	L	15.9 / C	12.2 / B	
		NB	T/R	10.3 / B	13.2 / B	
		SB	L/T/R	13.5 / B	13.5 / B	
			L	9.3 / A		
		EB	Т	13.7 / B	13.0 / B	
			R	12.6 / B		
			L	9.7 / A		
		WB	Т	15.2 / B	14.7 / B	
Midway Road at			R	15.1 / B		406/-
Selvitz Road ⁽⁶⁾	Signalized		L	25.8 / C		16.2 / B
CONTENTED TO		NB	T	21.0 / C	23.0 / C	
			R	21.0 / C	20.070	
		SB	L	23.4 / C	22.5 / C	
			 T	22.2 / C		
			R	22.4 / C		
			1/	22.4/0		

 $Approach - EB = eastbound; \ WB = westbound; \ NB = northbound; \ SB = southbound$ Legend:

Movement - L = left-turn; T = through; R = right-turn
(1) Delay measured in seconds per vehicle using HCM 2010 methodologies. Note:

⁽²⁾ Channelized movement operates under yield-control conditions. Delay and LOS are not defined.

⁽³⁾ Movement/approach has no volume. Delay and LOS are not defined.

⁽⁴⁾ Movement is uncontrolled. Delay and LOS are not defined.

⁽⁵⁾ LOS is not defined for free-flow approaches or overall intersection for a two-way stop controlled intersection.

⁽⁶⁾ Includes programmed improvements currently under construction as part of the widening of Midway Road from Selvitz Road to the east.

Table 5-3
Future (2020) Limited Growth No-Build AM Peak Hour Operations Summary

				Delay ⁽¹⁾	and Level o	of Service
Intersection	Control Type	Approach	Movement	Movement	Approach	Intersection
			L	26.7 / C		
		EB	T	23.1 / C	23.6 / C	
			R	N/A ⁽²⁾		
			L	28.8 / C		24.4 / C
	Signalized	WB	T	21.6 / C	22.6 / C	
Midway Road at			R	N/A ⁽²⁾		
Glades Cut Off Road			L	33.3 / C		
		NB	T	29.4 / C	23.7 / C	
			R	15.6 / B		
			L	36.3 / D		
		SB	T	26.9 / C	32.1 / C	
			R	30.3 / C		

Table 5-4 presents the future 2020 limited growth no-build PM operations results for the Midway Road at Glades Cut Off Road intersection. The intersection is anticipated to operate at LOS C with an average delay of 23.6 seconds per vehicle. All approaches and movements are anticipated to operate at LOS C or better. Delay and LOS for the eastbound right-turn and westbound right-turn movements are not defined, as these right-turn movements are channelized and operate under yield-control.

Table 5-4
Future (2020) Limited Growth No-Build PM Peak Hour Operations Summary

					and Level o	
Intersection	Control Type	Approach	Movement	Movement	Approach	Intersection
			L	25.3 / C		
		EB	T	21.8 / C	22.3 / C	
1			R	N/A ⁽²⁾		
			L	27.1 / C		23.6 / C
		WB	T	22.5 / C	22.7/C	
Midway Road at	Signalized		R	N/A ⁽²⁾		
Glades Cut Off Road			L	31.6 / C		
		NB	T	27.3 / C	22.4 / C	
			R	16.2 / B		
			L	32.9 / C		
		SB	T	23.1 / C	29.5 / C	
			R	26.9 / C		

Table 5-5 presents the Future 2040 Uncapped Growth No-Build AM Peak Hour Operations Summary and Table 5-6 shows the Future 2040 Uncapped Growth No-Build PM Peak Hour Operations Summary for the study intersections. In the future year 2040 Uncapped Growth Scenario, the following intersections are expected to operate at LOS F (below the St. Lucie County LOS E standard) in both the AM and PM peak hour:

- Midway Road at Glades Cut Off Road
- Midway Road at NW East Torino Parkway

Table 5-5 Future (2040) Uncapped Growth No-Build AM Peak Hour Operations Summary

				Delay ⁽¹⁾	and Level	of Service
Intersection	Control Type	Approach	Movement	Movement	Approach	Intersection
			L	48.1 / D		
		EB	Т	31.1 / C	33.3 / C	
			R	N/A ⁽²⁾		
			L	851.6 / F		
		WB	Т	24.7 / C	340.2 / F	
Midway Road at	Signalized		R	N/A ⁽²⁾		315.4 / F
Glades Cut Off Road			L	465.4 / F		010.471
		NB	Т	140.8 / F	602.2 / F	
			R	909.1 / F		
			L	60.2 / E		
		SB	T	422.9 / F	272.8 / F	
			R	178.5 / F		
			L	28.2 / C		
		EB	Т	244.4 / F	255.7 / F	
			R	269.2 / F		
Midway Road at		WB	L	67.2 / E	37.3 / D	138.1 / F
NW East Torino Parkway	Signalized	VVD	T/R	31.3 / C	37.37 D	
14W Last Tollio Farkway		NB	L	102.9 / F	86.5 / F N/A ⁽³⁾	
			T/R	66.3 / E		
		SB	L T/R	N/A ⁽³⁾		
		EB	L	13.0 / B	(5)	
		ED	T/R	N/A ⁽⁴⁾	(0)	
Midway Road at		WB	L	15.6 / C	(5)	
NW Milner Drive-	Two-way Stop	VVD	T/R	N/A ⁽⁴⁾	(-7	(5)
S Jenkins Road		NB	L	39.7 / E	30.8 / D	
			T/R	16.4 / C		
		SB	L/T/R	22.8 / C	22.8 / C	
			L	15.8 / B		
		EB	Т	23.3 / C	21.6 / C	
			R	17.5 / B		
			L	17.2 / B		
		WB	Т	24.4 / C	23.7 / C	
Midway Road at	Cianolizad		R	24.3 / C		24.3 / C
Selvitz Road ⁽⁶⁾	Signalized		L	35.4 / D		24.3 / C
		NB	Т	25.0 / C	30.1 / C	
		_	R	25.2 / C		
			L	29.6 / C		
		SB	T	23.4 / C	25.7 / C	
			R	25.8 / C		

 $Approach - EB = eastbound; \ WB = westbound; \ NB = northbound; \ SB = southbound \ Movement - L = left-turn; \ T = through; \ R = right-turn$ Legend:

(1) Delay measured in seconds per vehicle using HCM 2010 methodologies. Note:

- (2) Channelized movement operates under yield-control conditions. Delay and LOS are not defined.

- (2) Challientze inovernier operates under yield-control controlls. Belay and LOS are not defined.
 (3) Movement/approach has no volume. Delay and LOS are not defined.
 (4) Movement is uncontrolled. Delay and LOS are not defined.
 (5) LOS is not defined for free-flow approaches or overall intersection for a two-way stop controlled intersection.
 (6) Includes programmed improvements currently under construction as part of the widening of Midway Road from Selvitz Road to the east.

Table 5-6 Future (2040) Uncapped Growth No-Build PM Peak Hour Operations Summary

				Delay ⁽¹⁾	and Level o	f Service
Intersection	Control Type	Approach	Movement	Movement	Approach	Intersection
			L	44.1 / D		
		EB	T	29.1 / C	30.6 / C	
			R	N/A ⁽²⁾		
			L	158.1 / F		
		WB	Т	24.1 / C	50.6 / D	
Midway Road at	Signalized		R	N/A ⁽²⁾		345.1 / F
Glades Cut Off Road			L	297.5 / F		343.171
		NB	Т	195.8 / F	1,097.3 / F	
			R	1,786.2 / F		
			L	70.6 / E		
		SB	Т	76.7/ E	133.3 / F	
			R	244.0 / F		
			L	N/A ⁽⁴⁾		
		EB	T	236.1 / F	261.6 / F	
			R	285.7/ F		
Midway Road at		WB	L	75.7 / E	28.3 / C	137.4 / F
NW East Torino Parkway	Signalized	VVD	T/R	13.7 / B	20.070	
TWV East Tollilo Falkway		NB SB	L	51.0 / D	55.5 / E	
			T/R	59.4 / E		
			L T/R	N/A ⁽³⁾	N/A(3)	
			L	12.5 / B	(5)	
		EB	T/R	N/A ⁽⁴⁾	(3)	
Midway Road at		WD	L	13.5 / B	(5)	
NW Milner Drive-	Two-way Stop	WB	T/R	N/A(4)	(5)	(5)
S Jenkins Road		ND	L	29.8 / D	24.5./.0	
		NB	T/R	13.5 / B	21.5 / C	
		SB	L/T/R	24.2 / C	24.2 / C	
			L	14.2 / B		
		EB	T	19.8 / B	18.7 / B	
			R	17.6 / B		
			L	14.6 / B		
		WB	T	22.1 / C	21.4 / C	
Midway Road at Selvitz Road ⁽⁶⁾	Signalizad		R	22.0 / C		221/0
	Signalized		L	34.6 / C		22.1 / C
		NB	Т	24.8 / C	29.8 / C	
			R	25.0 / C		
			L	28.9 / C		
		SB	T	26.7 / C	27.2 / C	
			R	27.0 / C		

Legend:

Note:

Approach - EB = eastbound; WB = westbound; NB = northbound; SB = southbound

Movement - L = left-turn; T = through; R = right-turn

(1) Delay measured in seconds per vehicle using HCM 2010 methodologies.

(2) Channelized movement operates under yield-control conditions. Delay and LOS are not defined.

(3) Movement/approach has no volume. Delay and LOS are not defined.

(4) Movement is uncontrolled. Delay and LOS are not defined.

(5) LOS is not defined for free-flow approaches or overall intersection for a two-way stop controlled intersection.

(6) Includes programmed improvements currently under construction as part of the widening of Midway Road from Selvitz Road to the east.

Table 5-7 presents the future 2040 limited growth no-build AM delay and LOS for the Midway Road at Glades Cut Off Road intersection. The intersection is anticipated to operate at LOS E with an average delay of 66.0 seconds per vehicle. The northbound and southbound approaches are anticipated to operate at LOS F. The westbound left-turn, northbound right-turn, southbound left-turn, and southbound right-turn movements are anticipated to operate at LOS F. Delay and LOS for the eastbound right-turn and westbound right-turn movements are not defined, as these right-turn movements are channelized and operate under yield-control.

Table 5-7
Future (2040) Limited Growth No-Build AM Peak Hour Operations Summary

					and Level o	
Intersection	Control Type	Approach	Movement	Movement	Approach	Intersection
			L	58.8 / E		
		EB	T	32.0 / C	35.6 / D	
			R	N/A ⁽²⁾		
	Signalized	WB	L	195.2 / F		66.0/E
			T	29.1 / C	52.7 / D	
Midway Road at			R	N/A ⁽²⁾		
Glades Cut Off Road		NB	L	63.3 / E		
			T	60.8 / E	208.1 / F	
			R	347.6 / F		
			Ĺ	153.0 / F		
		SB	T	48.3 / D	114.1 / F	
			R	101.7/F		

Table 5-8 presents the future 2040 limited growth no-build PM operations results for the Midway Road at Glades Cut Off Road intersection. The intersection is anticipated to operate at LOS F with an average delay of 82.5 seconds per vehicle. The northbound and southbound approaches are anticipated to operate at LOS F. The northbound right-turn, southbound left-turn, and southbound right-turn movements are anticipated to operate at LOS F. Delay and LOS for the eastbound right-turn and westbound right-turn movements are not defined, as these right-turn movements are channelized and operate under yield-control.

Table 5-8
Future (2040) Limited Growth No-Build PM Peak Hour Operations Summary

					and Level o	
Intersection	Control Type	Approach	Movement	Movement	Approach	Intersection
			L	58.8 / E		
		EB	T	32.0 / C	35.6 / D	
			R	N/A ⁽²⁾		66.0/E
	Signalized		L	195.2 / F		
		WB	T	29.1 / C	52.7 / D	
Midway Road at			R	N/A ⁽²⁾		
Glades Cut Off Road			L	63.3 / E		
		NB	T	60.8 / E	208.1/F	
			R	347.6 / F		
			L	153.0 / F		
		SB	T	48.3 / D	114.1 / F	
			R	101.7/F		

5.2 Transportation Systems Management and Operations

TSMO alternatives involve improvements designed to maximize the utilization and efficiency of the existing facility through improved system and demand management. The various TSMO options generally include traffic signal and intersection improvements, access management, and transit improvements. The additional capacity required to meet the projected traffic volumes along Midway Road in the design year cannot be provided solely through the implementation of TSMO improvements.

5.3 Multimodal Alternatives

Based on the projected traffic demand, there are no standalone multimodal alternatives that would meet the purpose and need for the project; however, multimodal accommodations have been coordinated with this project. St. Lucie County's FY 2015 – FY 2024 Transit Development Plan Major Update identifies a new fixed route along Midway Road within the project limits. Additionally, the proposed improvements include bus bays at the following locations:

- Eastbound, west of Milner Drive;
- Westbound, west of Selvitz Road; and
- Westbound, west of the New Horizons driveway.

The proposed improvements to Midway Road will create opportunities to include pedestrian, bicycle, and transit facilities along the project corridor. Currently, the accessibility to bicyclists and pedestrians along the corridor is minimal with only two sections of sidewalk within the corridor. They are located on the north side of Midway Road from Glades Cut Off Road to NW East Torino Parkway and along the frontage of the recently constructed New Horizons medical facility. There are no bicycle lanes. Additionally, the existing bridge over Florida's Turnpike does not have sufficient shoulder width to accommodate pedestrian or bicycle traffic. All Build Alternatives will provide a continuous six-foot sidewalk along the north side of the roadway and a 12-foot-wide shared-use path along the south side of the roadway. Additionally, seven-foot buffered bike lanes would be provided in each direction, adjacent to the outside travel lanes. Pedestrian features will be designed and constructed in accordance with applicable accessibility standards.

5.4 Build Alternative Alignment Analysis

5.4.1 Future Build Conditions Traffic Capacity Analysis

2020 Uncapped Growth Build Alternative

Figure 5-1 depicts the uncapped growth future 2020 turning movement volumes.

(102) 119 (677) 648 (46) 76 104 (36) (84)₉₆ 98 (137) (70)88 (169) 155 103 (85)687 (625) 223 (0) 11 (706) 737 (286) 150 0 (0) 0 (0) 0 (0) NW EAST TORINO PARKWAY (186)400(1) 1 202 (333) 6 (0) 574 (611) (279) 345 (10) 18 (820) 897 (53) 35 11 (27) 1 (3) 6 (30) S JENKINS ROAD NW MILNER DRIVE (48)4952 (6) 731 (810) (2) 2 40 (27) (42)25(115) 115 (638) 659 (176) 81 138 (111) 84 (183) 47 (65) SELVITZ ROAD (127) 161 82 (47) 573 (645) 68 (69) (117) 210 (47) 69 2020 PEAK HOUR VOLUMES LEGEND AM (PM) Peak Hour - Vehicles

Figure 5-1
Future Year (2020) Uncapped Growth Peak Hour Volumes

The 2020 Uncapped Growth Build Alternative proposes the following improvements:

- Midway Road
 - Four through lanes
- Midway Road at Glades Cut Off Road
 - Add a northbound right-turn overlap
- Midway Road at NW East Torino Parkway
 - o Convert eastbound right-turn lane to a shared through/right-turn lane
- Midway Road at NW Milner Drive/S Jenkins Road
 - Add one eastbound through lane
 - Add one westbound through lane

Table 5-9 presents the Future 2020 Uncapped Growth Build AM Peak Hour Operations Summary for the intersections. The intersection of Midway Road at Glades Cut Off Road is anticipated to operate at LOS C. All approaches are anticipated to operate at LOS C.

The intersection of Midway Road at NW East Torino Parkway is anticipated to operate at LOS C. The eastbound, westbound, and northbound approaches are anticipated to operate at LOS D or better.

An overall intersection LOS is not provided for the intersection of Midway Road at NW Milner Drive-S Jenkins Road as the intersection is two-way stop controlled and HCM 2010 does not define an intersection LOS for two-way stop control; however, all approaches to the intersection of Midway Road at NW Milner Drive-S Jenkins Road are anticipated to operate at LOS C or better.

The intersection of Midway Road at Selvitz Road is anticipated to operate at LOS B. All approaches are anticipated to operate at LOS C or better.

Table 5-10 presents the Future 2020 Uncapped Growth Build PM Peak Hour Operations Summary for the intersections under the Build scenario. The intersection of Midway Road at Glades Cut Off Road is anticipated to operate at LOS C. All approaches are anticipated to operate at LOS C or better.

The intersection of Midway Road at NW East Torino Parkway is anticipated to operate at LOS C. The eastbound, westbound, and northbound approaches are anticipated to operate at LOS D or better. Delay and LOS for the southbound approach and southbound movements are not defined, as no approach volumes exist.

As stated previously, an overall intersection LOS is not provided for the intersection of Midway Road at NW Milner Drive-S Jenkins Road as the intersection is two-way stop controlled and HCM 2010 does not define an intersection LOS for two-way stop control; however, all approaches to the intersection of Midway Road at NW Milner Drive-S Jenkins Road are anticipated to operate at LOS B or better.

The intersection of Midway Road at Selvitz Road is anticipated to operate at LOS B with an average delay of 16.2 seconds per vehicle. All approaches are anticipated to operate at LOS C or better.

Table 5-9 Future (2020) Uncapped Growth Build AM Peak Hour Operations Summary

				Delay ⁽¹⁾ and Level of Service		
Intersection	Control Type	Approach	Movement			
		ЕВ	L	27.0 / C		
			T	23.8 / C	24.3 / C	
			R	N/A ⁽²⁾		
			L	39.3 / D		25.4 / C
		WB	T	20.6 / C	25.2 / C	
Midway Road at	Signalized		R	N/A ⁽²⁾		
Glades Cut Off Road			L	34.7 / C		25.47 C
		NB	T	31.5 / C	21.1 / C	
			R	6.7 / A		
			L	34.9 / C		
		SB	T	32.8 / C	34.1 / C	
			R	34.6 / C		
			L	13.1 / B		
		EB	T	20.9 / C	20.8 / C	
			R	20.9 / C		
Midway Road at			L	16.3 / B		
NW East Torino Parkway	Signalized	WB	T	12.9 / B	13.9 / B	23.7 / C
11 W East Tormo Tarkway			R	12.9 / B		
		NB	L	37.7 / D	37.7 / D	
			T/R	37.6 / D		
		SB	L/T/R	N/A ⁽³⁾	N/A ⁽³⁾	
		EB WB NB	L	9.9 / A	(5)	
			T/R	N/A ⁽⁴⁾		
Midway Road at			L	10.9 / B	(5)	
NW Milner Drive-	Two-way Stop		T/R	N/A ⁽⁴⁾		(5)
S Jenkins Road			L	18.0 / C	15.5 / C	
			T/R	10.9 / B		
		SB	L/T/R	12.3 / B	12.3 / B	
			L	9.9 / A		
		EB	T	14.8 / B	13.9 / B	
			R	12.3 / B		
			L	10.5 / B		
Midway Road at Selvitz Road		WB	T	15.9 / B	15.4 / B	
	Signalized		R	15.9 / B		17.0 / B
	2.5		L	25.3 / C		1,.0, 1
		NB	T	21.2 / C	22.7 / C	
			R	21.3 / C		
		SB	L	24.1 / C		
			T	20.1 / C	21.5 / C	
			R	21.5 / C		

 $Approach - EB = eastbound; WB = westbound; NB = northbound; SB = southbound \\ Movement - L = left-turn; T = through; R = right-turn$ Legend:

Note:

- (1) Delay measured in seconds per vehicle using HCM 2010 methodologies.
 (2) Channelized movement operates under yield-control conditions. Delay and LOS are not defined.

- (3) Movement/approach has no volume. Delay and LOS are not defined.
 (4) Movement is uncontrolled. Delay and LOS are not defined.
 (5) LOS is not defined for free-flow approaches or overall intersection for a two-way stop controlled intersection

Table 5-10 Future (2020) Uncapped Growth Build PM Peak Hour Operations Summary

1 41413 (2020) 611				Delay ⁽¹⁾	and Level o	of Service	
Intersection	Control Type	Approach	Movement				
			L	24.3 / C			
		EB	T	21.4 / C	21.8 / C		
			R	N/A ⁽²⁾			
			L	26.9 / C			
		WB	T	21.6 / C	22.1 / C		
Midway Road at	Signalized		R	N/A ⁽²⁾		22.6 / C	
Glades Cut Off Road			L	29.9 / C		22.07 €	
		NB	Т	26.7 / C	17.4 / B		
			R	7.3 / A			
			L	32.7 / C			
		SB	T	24.4 / C	31.2 / C		
			R	31.4 / C			
			L	N/A ⁽⁴⁾			
		EB	T	21.7 / C	21.8 / C	22.0 / C	
	Signalized		R	21.8 / C			
Midway Road at		WB	L	24.1 / C	13.2 / B		
NW East Torino Parkway		,,,,,	T/R	7.3 / A	10.272		
		NB	L	36.1 / D	40.3 / D		
			T/R	43.1 / D			
		SB	L/T/R	N/A ⁽³⁾	N/A ⁽³⁾		
		EB	L T/R	9.7 / A N/A ⁽⁴⁾	(5)	(5)	
Midway Road at			L	10.0 / B			
NW Milner Drive-	Two-way Stop	WB	T/R	N/A ⁽⁴⁾	(5)		
S Jenkins Road	1 wo way btop		L	15.9 / C			
		NB	T/R	10.3 / B	13.2 / B		
		SB	L/T/R	13.5 / B	13.5 / B		
			L	9.3 / A			
		EB	T	13.7 / B	13.0 / B		
			R	12.6 / B			
			L	9.7 / A			
Midway Road at Selvitz Road		WB	T	15.2 / B	14.7 / B		
	G: 1: 1		R	15.1 / B		16.2 / D	
	Signalized		L	25.8 / C		16.2 / B	
		NB	T	20.9 / C	23.0 / C		
			R	21.0 / C		1	
		SB	L	23.4 / C			
			T	22.2 / C	22.5 / C		
			R	27.4 / C			

Legend:

Note:

- Approach EB = eastbound; WB = westbound; NB = northbound; SB = southbound Movement L = left-turn; T = through; R = right-turn

 (1) Delay measured in seconds per vehicle using HCM 2010 methodologies.

 (2) Channelized movement operates under yield-control conditions. Delay and LOS are not defined.

 (3) Movement/approach has no volume. Delay and LOS are not defined.
- (4) Movement is uncontrolled. Delay and LOS are not defined.
- (5) LOS is not defined for free-flow approaches or overall intersection for a two-way stop controlled intersection.

2020 Limited Growth Build Alternative

The 2020 Limited Growth Build Alternative proposes the following improvements:

- Midway Road
 - Four through lanes
- Midway Road at NW East Torino Parkway
 - o Convert eastbound right-turn lane to a shared through/right-turn lane
- Midway Road at NW Milner Drive/S Jenkins Road
 - o Add one eastbound through lane
 - Add one westbound through lane

The Midway Road at Glades Cut Off Road intersection is anticipated to operate at LOS C in the No-Build scenario; therefore, no improvements were recommended. The Midway Road at NW East Torino Parkway, Midway Road at NW Milner Drive-S Jenkins Road, and Midway Road at Selvitz Road intersections were not modified from the 2020 Uncapped Growth Build Scenario and therefore operate with the same delay and LOS as reported in the Uncapped Growth Scenario.

2040 Uncapped Growth Build Alternative

Figure 5-2 depicts the uncapped growth future 2040 turning movement volumes.

The 2040 Uncapped Growth Build Alternative proposes the following improvements:

- Midway Road
 - o Four through lanes
- Midway Road at Glades Cut Off Road
 - Convert eastbound shared through/right-turn lane to a through lane
 - Add one eastbound right-turn lane
 - Add one northbound left-turn lane
 - Add one northbound right-turn lane
 - Add northbound right-turn overlap
 - Add one southbound through lane
- Midway Road at NW East Torino Parkway
 - Add one eastbound through lane
 - Convert northbound shared through/right-turn lane to a through lane
 - Add one northbound right-turn lane
 - Convert westbound shared through/right-turn lane to a through lane
 - Add one westbound right-turn lane
- Midway Road at NW Milner Drive-S Jenkins Road
 - Add one eastbound through lane
 - Add one westbound through lane

Table 5-11 presents the Future 2040 Uncapped Growth Build AM Peak Hour Operations Analysis for the intersections. The intersection of Midway Road at Glades Cut Off Road is anticipated to operate at LOS E. The eastbound, northbound, and southbound approaches are anticipated to operate at LOS E.

N.T.S. (1,138) 1,077 (229) 384 (130) 164 ¹³⁵(176) (3₄₅₎ 3₈₄ 243 (129) (197)231 112(194) (65_{8) 518} — 121 (113) —1,143 (1,084) 705 (267) (0) 11 (1,473) 1,610 (441) 211 0 (0) 0 (0) 0 (0) NW EAST TORINO PARKWAY (293) 593 (1) 1 1,310 (1,306) (332) 484 (1,339) 1,433 (60) 39 (14) 26 13 (34) 5 (6) 9 (40) S JENKINS ROAD NW MILNER DRIVE (54) 57 (4) 5 1,190 (1,308) (52) 30 (164) 166 (953) 996 (299) 172 190 (163) 86 (214) 48 (80) SELVITZ ROAD (213) 320 (132) 238 85 (58)886 (974)100 (104) (71) 104 2040 PEAK HOUR VOLUMES LEGEND AM (PM) Peak Hour Vehicles

Figure 5-2
Future Year (2040) Uncapped Growth Peak Hour Volumes

Table 5-11 Future (2040) Uncapped Growth Build AM Peak Hour Operations Summary

Midway Road at NW East Torino Parkway So Jenkins Road at NW Milner Drive-S Jenkins Road at Selvitz Road At Glades Cut Off Road At Signalized	, ,				Delay ⁽¹⁾ and Level of Service			
Midway Road at Glades Cut Off Road Signalized Signalized Signalized EB	Intersection	Control Type	Approach	Movement				
Midway Road at Glades Cut Off Road Signalized Signalized WB								
Midway Road at Glades Cut Off Road Signalized WB			EB	T	64.6 / E	64.6 / E		
Midway Road at Glades Cut Off Road Signalized Signalized Signalized R N/A(2) R N/A(2) S8.9 / E				R	N/A ⁽²⁾			
Midway Road at Glades Cut Off Road Signalized R N/A ⁽²⁾				L				
Signalized Sig			WB		26.2 / C	46.6 / D		
NB		Signalized					589/F	
R 33.4 / C SB L 89.1 / F T 74.2 / E R 54.5 / D R 23.1 / C R 23.1 / C R 23.1 / C R 10.1 / B	Glades Cut Off Road						36.77 L	
SB			NB			67.1 / E		
SB								
Midway Road at NW East Torino Parkway Signalized EB								
Midway Road at NW East Torino Parkway Signalized Signalized Signalized Signalized WB			SB			72.2 / E		
Midway Road at NW East Torino Parkway Signalized Signalized WB								
Midway Road at NW East Torino Parkway Signalized WB								
Midway Road at NW East Torino Parkway Signalized WB L 79.7 / E 28.2 / C 44.7 / D NW East Torino Parkway NB L/T 17.8 / B 28.2 / C 44.7 / D NB L/T 59.4 / E 56.4 / E 56.4 / E 8 NB L/T/R N/A(3) N/A(3) N/A(3) N/A(3) NW Milner Drive-S Jenkins Road Two-way Stop EB L 15.6 / C (5) NB L 39.4 / E 30.6 / D (5) NB L 39.4 / E 30.6 / D (5) SB L/T/R 22.3 / C 22.3 / C (5) SB L/T/R 22.3 / C 22.3 / C 22.3 / C WB T 24.0 / C 23.3 / C 25.8 / C Midway Road at Selvitz Road Signalized WB T 24.0 / C 23.3 / C NB T 32.4 / C 30.7 / C 25.8 / C 25.8 / C			EB			52.0 / D		
NW East Torino Parkway Signalized WB								
NW East Torino Parkway Signalized WB	Midway Road at	a				-0-1-		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		Signalized	WB			28.2 / C	44.7 / D	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						56.4 / E		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$								
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$						NT / A (3)		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			SB			N/A ⁽³⁾		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			WB			(5)	(5)	
NW Milner Drive- S Jenkins Road Two-way Stop T/R N/A ⁽⁴⁾ NB L 39.4 / E 30.6 / D	MCI - Decision							
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$		T				(5)		
NB		1 wo-way Stop					(3)	
SB	S Jenkins Road					30.6 / D		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			SB			22.3 / C		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			SB			22.37 €		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			FR			21.3 / C		
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$			LD			21.37 €		
Midway Road at Selvitz Road Signalized Signalized Signalized Signalized WB T 24.0/C R 23.3/C 25.8/C NB T 32.4/C R 32.7/C R 32.7/C SB T 35.7/D 42.6/D								
NB R 23.9 / C 25.8 / C	· · · · · · · · · · · · · · · · · · ·		WB			23.3 / C		
Signalized L 28.7 / C 25.8 / C NB T 32.4 / C 30.7 / C L 33.1 / C SB T 35.7 / D 42.6 / D			2			20.070		
NB T 32.4/C 30.7/C R 32.7/C L 33.1/C SB T 35.7/D 42.6/D		Signalized					25.8 / C	
R 32.7 / C L 33.1 / C SB T 35.7 / D 42.6 / D			NB			30.7 / C		
SB L 33.1 / C T 35.7 / D 42.6 / D								
SB T 35.7/D 42.6/D			SB					
						42.6 / D		
				R	48.8 / D			

Legend:

Note:

Approach - EB = eastbound; WB = westbound; NB = northbound; SB = southbound
Movement - L = left-turn; T = through; R = right-turn
(1) Delay measured in seconds per vehicle using HCM 2010 methodologies.
(2) Channelized movement operates under yield-control conditions. Delay and LOS are not defined.
(3) Movement/approach has no volume. Delay and LOS are not defined.
(4) Movement is uncontrolled. Delay and LOS are not defined.
(5) LOS is not defined for free-flow approaches or overall intersection for a two-way stop controlled intersection.

The eastbound left-turn and through movements, westbound left-turn movement, northbound left-turn and through movements, and southbound left-turn and through movements are anticipated to operate LOS E or worse.

The intersection of Midway Road at NW East Torino Parkway is anticipated to operate at LOS D with an average delay of 44.7 seconds per vehicle. The eastbound, westbound, and northbound approaches are anticipated to operate at LOS D or better.

An overall intersection LOS is not provided at NW Milner Drive-S Jenkins Road as the intersection is two-way stop controlled and HCM 2010 does not define an intersection LOS for two-way stop control; however, all approaches to the intersection of Midway Road at NW Milner Drive-S Jenkins Road are anticipated to operate at LOS D or better. The northbound left-turn movement is the only movement anticipated to operate at LOS E or worse.

The intersection of Midway Road at Selvitz Road is anticipated to operate at LOS C with an average delay of 25.8 seconds per vehicle. All movements and approaches are anticipated to operate at LOS D or better.

Table 5-12 presents the Future 2040 Uncapped Growth Build PM Peak Hour Operations Analysis for the intersections. The intersection of Midway Road at Glades Cut Off Road is anticipated to operate at LOS D. The northbound right-turn movement, southbound approach, and southbound left-turn movement are anticipated to operate at LOS E or worse.

The intersection of Midway Road at NW East Torino Parkway is anticipated to operate at LOS C with an average delay of 28.1 seconds per vehicle. The eastbound, westbound, and northbound approaches are anticipated to operate at LOS D or better. The westbound left-turn movement is anticipated to operate LOS E. Delay and LOS for the southbound approach and southbound movements are not defined, as no approach volumes exist.

As previously mentioned, an overall intersection LOS is not provided at NW Milner Drive-S Jenkins Road intersection as the intersection is two-way stop controlled and HCM 2010 does not define an intersection LOS for two-way stop control; however, all approaches to the intersection of Midway Road at NW Milner Drive-S Jenkins Road are anticipated to operate at LOS C or better.

The intersection of Midway Road at Selvitz Road is anticipated to operate at LOS C. All movements and approaches are anticipated to operate at LOS D or better.

Table 5-12 Future (2040) Uncapped Growth Build PM Peak Hour Operations Summary

Tuture (2040) One				Delay ⁽¹⁾ and Level of Service		
Intersection	Control Type	Approach	Movement			
233015003023			L	51.7 / D		
		EB	T	38.3 / D	39.7 / D	
			R	N/A ⁽²⁾		45.5 (D
			L	55.6 / D		
		WB	T	30.0 / C	35.1 / D	
Midway Road at	Signalized		R	N/A ⁽²⁾		
Glades Cut Off Road			L	53.5 / D		45.5 / D
		NB	T	52.7 / D	55.0 / D	
			R	56.6 / E		
			L	105.7 / F]
		SB	T	43.4 / D	66.1 / E	
			R	39.1 / D		
			L	N/A ⁽³⁾		
		EB	T	35.8 / D	32.9 / C	28.1 / C
			R	23.2 / C		
Midway Road at	G' 1' 1	WD	L	61.8 / E	10.6 / D	
NW East Torino Parkway	Signalized	WB	T/R	6.6 / A	19.6 / B	
		NB	L/T	44.7 / D	26.9 / D	
			R	29.8 / C	36.8 / D	
		SB	L/T/R	N/A ⁽³⁾	N/A ⁽³⁾	
		EB	L	12.4 / B	(5)	(5)
			T/R	N/A ⁽⁴⁾	, ,	
Midway Road at		WB NB	L	13.5 / B	(5)	
NW Milner Drive-	Two-way Stop		T/R	N/A ⁽⁴⁾		
S Jenkins Road			L	29.8 / D	21.5 / C	
			T/R	13.5 / B		
		SB	L/T/R	24.1 / C	24.1 / C	
			L	15.1 / B		
		EB	T	21.2 / C	19.9 / B	
			R	18.7 / B		
			L	15.6 / B		
Midway Road at Selvitz Road		WB	T	24.3/ C	23.5 / C	
	Signalized		R	24.2 / C		24.4 / C
	Signalized		L	27.9 / C		24.4 / C
		NB	T	31.2 / C	29.6 / C	
			R	31.5 / C		_
		SB	L	28.2 / C		
			T	37.1 / D	36.0 / D	
			R	38.1 / D		

 $Approach - EB = eastbound; \ WB = westbound; \ NB = northbound; \ SB = southbound \ Movement - L = left-turn; \ T = through; \ R = right-turn$ Legend:

Note:

Movement - L = left-turn; 1 = through; R = right-turn
(1) Delay measured in seconds per vehicle using HCM 2010 methodologies.
(2) Channelized movement operates under yield-control conditions. Delay and LOS are not defined.
(3) Movement/approach has no volume. Delay and LOS are not defined.
(4) Movement has the right-of-way and is uncontrolled. Delay and LOS are not defined.
(5) LOS is not defined for free-flow approaches or overall intersection for a two-way stop controlled intersection

2040 Limited Growth Build Alternative

The 2040 Limited Growth Build Alternative proposes the following improvements:

- Midway Road
 - o Four through lanes
- Midway Road at Glades Cut Off Road
 - Add one southbound left-turn lane
- Midway Road at NW East Torino Parkway
 - o Add one eastbound through lane
 - Convert northbound shared through/right-turn lane to a shared through/left-turn lane
 - o Add one northbound right-turn lane
 - o Convert westbound shared through/right-turn lane to a through lane
 - Add one westbound right-turn lane
- Midway Road at NW Milner Drive-S Jenkins Road
 - Add one eastbound through lane
 - o Add one westbound through lane

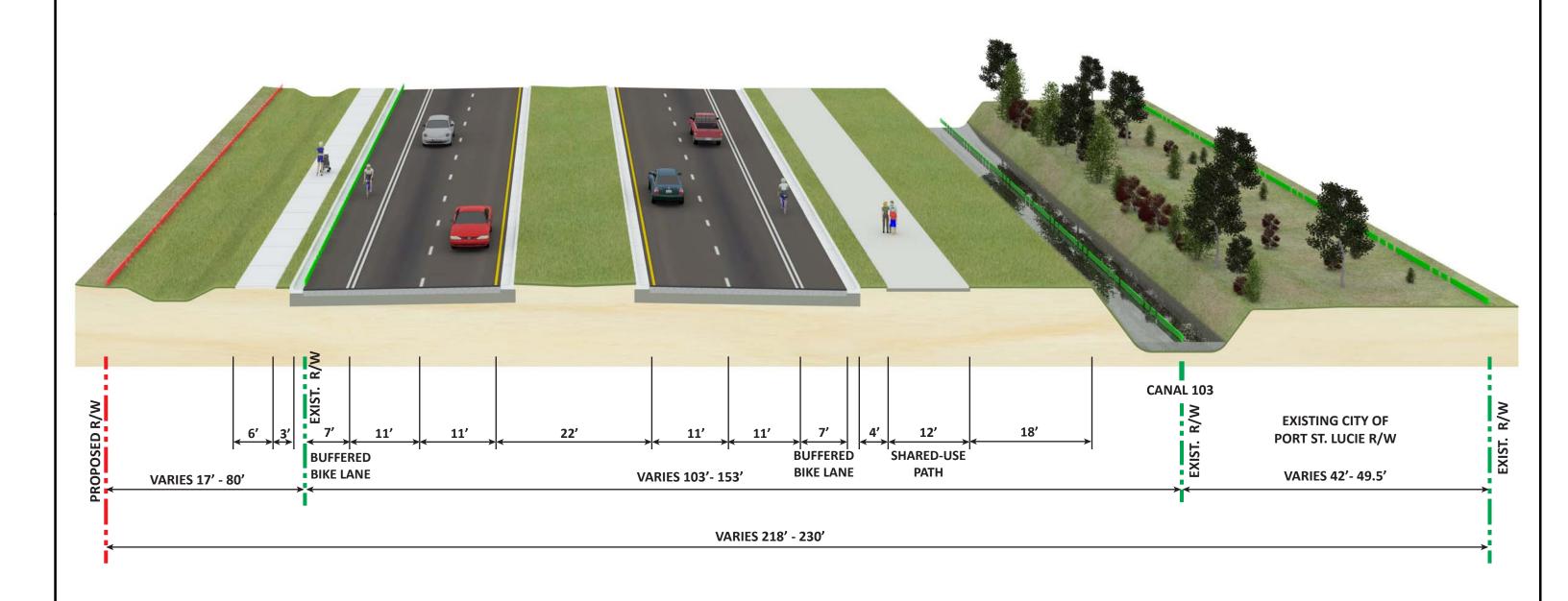
5.4.2 Build Alternative 1 - Canal Avoidance

Build Alternative 1 proposes to widen Midway Road from Glades Cut Off Road to Selvitz Road to a fourlane divided urban roadway. Alternative 1 has been developed to minimize impacts to the existing Canal 103 which parallels the southern side of Midway Road.

5.4.2.1 Alternative 1 Typical Section

Alternative 1 maintains Canal 103 in its current location along the south side of Midway Road. The typical section includes the full reconstruction of Midway Road and provides two 11-foot travel lanes in each direction separated by a 22-foot median. Seven-foot buffered bike lanes would be provided in each direction located adjacent to the outside travel lanes. Type F curb and gutter is used along the inside and outside lanes and collects stormwater runoff which is then directed to stormwater retention ponds. A six-foot-wide sidewalk would be constructed on the north side of the roadway, and a 12-foot-wide shared-use path would be constructed along the south side. An 18-foot buffer would be provided between the shared-use path and the Canal 103 front slope. The buffer provides space for canal maintenance equipment and eliminates the need to install guardrail to protect the canal. A new bridge structure over Florida's Turnpike will be constructed to accommodate the roadway typical section features. The design speed for this typical section would be 45 mph. Figure 5-3 shows the Alternative 1 typical section and Figure 5-4 shows the bridge typical section.

ALTERNATIVE 1 - CANAL AVOIDANCE URBAN 4 LANE WITH 7ft BUFFERED BIKE LANE



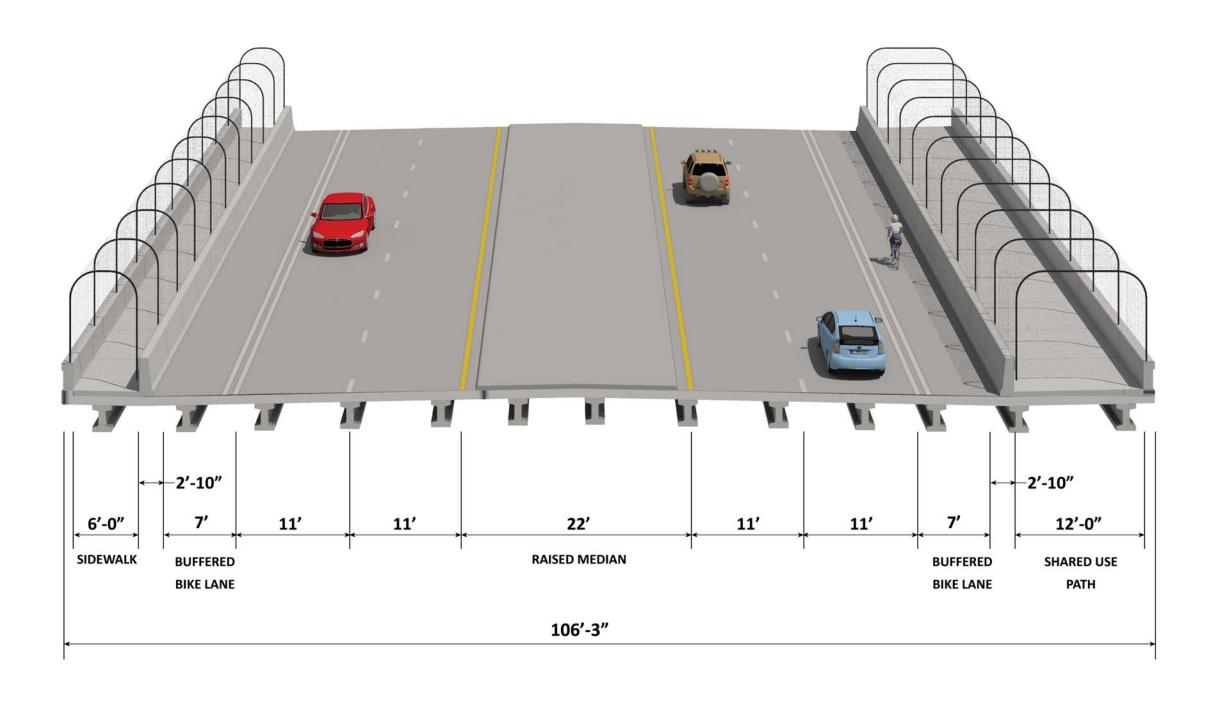




Midway Rd. (CR 712)

from Glades Cut Off Road to Selvitz Road St. Lucie County, Florida Financial Project ID: 231440-3-22-01 ETDM No. 14177 ALTERNATIVE 1
TYPICAL SECTION

FIGURE 5-3







Midway Rd. (CR 712)

from Glades Cut Off Road to Selvitz Road St. Lucie County, Florida Financial Project ID: 231440-3-22-01 ETDM No. 14177 BRIDGE TYPICAL SECTION

FIGURE 5-4

5.4.2.2 Alternative 1 Horizontal and Vertical Alignment

The horizontal alignment of Alternative 1 will shift the roadway to the north beginning east of the FEC Railroad and then crossing through a series of back to back normal crown curves (design speed (DS) = 45 mph). The alignment will then maintain a constant tangential path until it approaches the project terminus. There, it will again go through a series of back to back normal crown curves (DS = 45 mph) to shift the alignment back to the south aligning with Midway Road east of Selvitz Road. Concept plans depicting the horizontal geometry are included in Appendix A.

The vertical alignment will match the existing roadway elevation across the FEC Railroad crossing. From the FEC Railroad crossing to Florida's Turnpike, it will raise approximately one to two feet to provide three-feet of base clearance to the seasonal high water table (SHWT). From Florida's Turnpike to Post Office Road, the road will raise roughly 0.5 feet or less. From Post Office Road to Selvitz Road, the vertical alignment will match the existing road although a saw-tooth profile will need to be created to provide gutter grade. Longitudinal grades will consist of a minimum 0.30% slope to maintain gutter grades for drainage purposes. The roadway will raise approximately 22 feet as it crosses Florida's Turnpike to accommodate the bridge deck and beams while maintaining a minimum of 16.5-foot vertical clearance over the Turnpike travel lanes. The rise will be a series of back to back vertical curves - sag, crest, sag - which maintain minimum K-values (DS = 45 mph; Kcrest = 98; Ksag = 79) ensuring proper sight distance.

5.4.2.3 Alternatives 1 Conceptual Plans

The Preliminary Concept Plans for Alternative 1 are provided in Appendix A.

5.4.2.4 Alternative 1 Right-of-Way

The width of Alternative 1 varies from 218 to 230 feet and will be located adjacent to Canal 103. To accommodate this alternative, right-of-way will be required along the north side of the alignment. Alternative 1 would require right-of-way acquisition from 14 of 14 parcels along the north side of the roadway. The right-of-way acquisition width varies from 17 feet to 80 feet. Alternative 1 would result in the acquisition of property from the U.S. Postal Service. FDOT does not have the ability to utilize eminent domain to acquire property from the U.S. Postal Service since it is a federally-owned property. The proposed right-of-way line for Alternative 1 is shown on the concept plans contained in Appendix A.

5.4.2.5 Alternative 1 Cost Estimates

The estimated roadway and bridge construction cost for Alternative 1 is \$23.6 million. The roadway right-of-way costs are projected to be \$10.7 million. Reimbursable utility/railroad relocation costs are estimated at \$680,000. The combined engineering and construction engineering inspection costs are \$5.9 million. Thus, the construction, right-of-way, wetland mitigation, utility relocation, and combined engineering and construction engineering inspection costs for Alternative 1 is \$40.9 million. The most recent FDOT Long Range Estimate (LRE) costs are provided in Appendix E.

5.4.2.6 Alternative 1 Preliminary Drainage

A *Pond Siting Report* (Inwood Consulting Engineers, Inc., August 2016) was prepared for this study and provides a detailed discussion of the proposed stormwater management approach. The stormwater management approach will be the same for both alternatives. The proposed stormwater management systems consist of off-site treatment facilities (new and permitted) that will use both dry pre-treatment ponds, and wet detention ponds for water quality treatment of the stormwater runoff. According to SFWMD, treatment must be provided for the greater of one inch of stormwater runoff from the entire developed area or 2.5 inches of stormwater runoff from the new impervious area. Projects that discharge to OFWs shall provide an additional 50 percent treatment volume and will have at least one half inch of dry retention pre-treatment as part of the required detention. The SFWMD also requires that the post-development peak discharge shall be at or below pre-development peak discharge for the 25-year/72-hour storm event. Both wet and dry treatment ponds shall recover one half inch of the detention volume in 24 hours.

The project has been split into four drainage basins within the study limits. The stormwater runoff will be routed to the existing and proposed stormwater management sites for water quality treatment and attenuation in each basin before ultimately out-falling into Canal 103. Basin A begins at the beginning of the study at Glades Cut Off Road and extends to approximately 700 feet west of the Florida's Turnpike overpass. The stormwater runoff from this basin will be routed via stormsewer systems to the existing pond located to the south of Midway Road and east of the Glades Cut Off Road intersection. The existing control structure in this pond will be modified to provide treatment for stormwater runoff from the new improvements, including the additional treatment for OFW criteria. Basin B begins at the end of Basin A and extends to the Florida's Turnpike overpass. Three stormwater management alternatives were evaluated for this short basin consisting of two offsite pond alternatives and an exfiltration trench alternative. The offsite pond alternatives will provide both dry retention pre-treatment and wet detention treatment, including the additional treatment for OFW criteria. The Recommended Alternative for Basin B is Pond B-2 located on a City of Port St. Lucie owned parcel on the south side of Midway Road and the west side of Florida's Turnpike. The limits of the proposed Ponds 1 and 2/3 begin and end at the same locations as the existing permitted condition. Pond 1 is located on a parcel owned by St. Lucie County and Pond 2/3 is an existing pond constructed as part of the adjacent design segment to the east. Both the existing Pond 2/3 and the proposed Pond 1 will provide dry retention pre-treatment and wet detention treatment that also includes the additional treatment for OFW criteria. The ponds are designed to have enough capacity for the proposed conditions of this study.

5.4.2.7 Alternative 1 Utilities

Table 5-13 provides the estimated total utility relocation cost estimates and the reimbursable utility relocation cost estimates for Alternative 1. Close coordination during the design phase will be required with the UAOs identified in Table 5-13 to verify the exact location and depth of each utility. Additional information can be found in the *Utility Assessment Report* (Inwood Consulting Engineers, Inc., May 2016) located within the project files.

Table 5-13
Alternative 1 Utility Relocation Cost Estimate

	Clinty Relocation Cost Esti	
UAO Contact Phone No.	Relocation Estimate Alternative 1	Reimbursable Estimate Alternative 1
Comcast Communications Wilson Lopez 772-940-9310 Wilson_Lopez@cable.comcast.com	\$0	
FGT Joe Sanchez 407-838-7171 joseph.e.sanchez@energytransfer.com	\$0	
Florida Power & Light - Dist. Rob Morris 772-223-4215 rob.morris@fpl.com	\$450,000	\$90,000
Florida Power & Light - Trans. George Beck Geoge.beck@fpl.com	\$0	
Ft. Pierce Utilities Authority Bo Hutchinson 772-466-1600 bhutchinson@fpua.com	\$660,000	\$65,000
St. Lucie County Utilities Matthew Hammond, PE (772) 462-1134 hammondm@stlucieco.org	\$61,000	
AT&T Distribution Mark Gutierrez 772-460-4443 mg0939@att.com	\$410,000	\$25,000
Tropicana Bill Brooks 772-465-2030	\$0	
City of Port St. Lucie Utilities Kim Graham 772-344-4014 kimg@cityofpsl.com	\$185,000	
Florida East Coast Railroad Maurice Borrows FDOT Rail Coordinator 954-777-4379 maurice.borrows@dot.state.fl.us	\$500,000	\$500,000
Totals:	\$2,266,000	\$680,000

5.4.2.8 Alternative 1 Traffic Control Concepts

The temporary traffic control associated with the expansion of Midway Road for Alternative 1 will consist of a three-phased operation. During phase 1, traffic will be maintained on the existing travel lanes while the future westbound travel lanes, six-foot sidewalk, and half of Florida's Turnpike overpass bridge are constructed. A temporary critical wall may potentially be necessary between the work zone and the active travel lanes to retain the embankment associated with the raised profile near the overpass. Installation of drainage structures, drainage trunklines, and the construction of stormwater retention sites will also be completed. Phase 2 will maintain two-lane, two-way traffic on the newly constructed westbound lanes. During this phase, the eastbound lanes, shared-use path, and the remaining drainage structures will be constructed. Additional construction includes the demolition of the existing Florida's Turnpike overpass and the completion of the new overpass bridge. Phase 3 will involve the completion of the median, placement of friction course, and the final striping of the roadway.

5.4.2.9 Alternative 1 Bicycle and Pedestrian Accommodations

Bicycle and pedestrian facilities, including sidewalks, bike lanes, and construction of fully compliant ADA pedestrian features, will have a beneficial impact on cyclists and pedestrians and are provided for Alternative 1. Provisions for bicycles include a seven-foot buffered bike lane in each direction located adjacent to the outside travel lanes. Additionally, a six-foot-wide sidewalk is proposed on the north side of the roadway and a 12-foot-wide shared-use path is proposed along the south side of the roadway.

5.4.2.10 Alternative 1 Multimodal Accommodations

Multimodal accommodations are discussed in Section 5.3 of this report. Transit services are not currently provided along this segment of Midway Road; however, St. Lucie County's FY 2015-2024 Transit Development Plan Major Update identifies a new fixed route along Midway Road within the project limits. Additionally, the proposed improvements to Midway Road include bus bays at the following locations:

- Eastbound, west of Milner Drive;
- Westbound, west of Selvitz Road; and
- Westbound, west of the New Horizons driveway.

5.4.2.11 Alternative 1 Access Management

Under current conditions, the undivided facility provides unrestricted access from the side street connections. There are a number of median turn lanes to accommodate access to the developments along the north side of the roadway as well as side streets.

Being a County roadway, Midway Road does not have an official access management classification. However, St. Lucie County has requested that the improvements reflect the latest FDOT standards. As a result, the access management plan has been developed based on Access Class 5 standards. Access

Class 5 spacing requirements most closely match the existing side street and developmental spacing along the corridor while also accommodating the proposed design speed. Land adjacent to the corridor is developed and the probability of a major land use change is not high. An Access Class 5 roadway utilizes raised medians to provide separation between travel lanes and to restrict the number of median openings. The minimum median opening spacing allowed under Access Class 5 criteria is 660 feet for directional openings and 1,320 feet (design speed = 45 mph) for full and signalized openings. Table 5-14 identifies the locations of the proposed median openings. Additionally, the concept plans in Appendix A depict the proposed access management plan.

Table 5-14 Midway Road Alternative 1 Access Management Plan

Midway	y Road Alte	ernative 1 Acce	ss Manageme	ent Plan					
		Midway Road (CR	•						
	Access Ma	nagement Plan (<i>A</i> ∣	(ccess Class 5)		\				
B date	Ctation	O	Conne	Spacing (F	l) 				
Description	Station	Opening Type			Median				
			Westbound	Eastbound	Openings	Signal			
Glades Cut Off Road	3004+00	Signal	1480	1480	1480	1480			
NW East Torino Pkwy / CEMEX	3018+80	Signal							
Emergency Turnpike Access / Raised Drive-Over Concrete Median	3026+00	Driveway / Full	2041						
Emergency Turnpike Access / Raised Drive-Over Concrete Median	3038+25	Driveway / Full		2248	2248	2962			
Driveway - All Scape Supply	3039+21	Driveway		 					
			207						
NW Corporate Way / All Scape	3041+28	Dual	dev -15.5%						
Supply	0011120	Directional	714	714	714				
		Future Signal /							
NW Milner DR / S Jenkins Road	3048+42	Full	727		931				
Post Office Road	3055+69	Dual Directional	639	_					
Entrance - Post Office	3062+08	Driveway	292						
St. Lucie Sheriff's Office	3065+00	Full	384	_			-	384 dev -	
		EB Directional /			41.8%				
Driveway - Sheriff's Office	3068+84	Driveway	445	445	3958	445 dev - 32.6%	3958		
New Horizons	3073+29	Dual Directional	632	0000			3930		
Driveway	3079+61	Driveway			782				
Directional Opening	3081+11	EB Directional	189 dev -22.9%						
Driveway	3081+50	Driveway	407 22.370		689				
Selvitz Road	3088+00	Signal	650						
	Co	nnection spacing is s	ubstandard to ma	intain existing a	ccess points.				
		•			•	bilities.			
	Median opening spacing is substandard to maintain emergency response capabilities. Turnpike access and raised drive-over concrete median are for emergency use only and								
	are not included in the spacing calculations.								

are not included in the spacing calculations.

5.4.2.12Alternative 1 Engineering Evaluation of Environmental Impacts

An analysis of potential environmental impacts was conducted for Alternative 1. This included a review of impacts to wetlands, wildlife and habitat, archaeological and historic resources, contaminated sites, socio-cultural effects, and the potential increase in noise levels to the surrounding community. A summary of the findings is provided below.

- A wetland evaluation identified 0.36 acres of direct and secondary impacts to wetlands and 1.54 acres of impacts to surface waters. Mitigation will be provided for direct and secondary wetland impacts through purchase of mitigation credits in Bluefield Mitigation Bank. Mitigation for surface waters will not be required. Additional information can be found in the Wetland Evaluation Report (Kimley-Horn and Associates, Inc., May 2016) located within the project files.
- An evaluation of impacts to endangered species was conducted for the project. Seven federally-listed species were evaluated to determine if the proposed project will adversely affect these species. Based on the available data, field reconnaissance, and surveys, the following effects determinations were made: No effect Red cockaded woodpecker, Everglade snail kite, Florida scrub jay, American alligator, and tiny polygala; and May affect, not likely to adversely affect Audubon's crested caracara, wood stork, and Eastern indigo snake. Twenty-two additional state listed species were evaluated and adverse impacts are not anticipated either because there is no habitat for the species along the corridor or the habitat impacts are minimal and mitigation will be provided. Additional information can be found in the *Endangered Species Biological Assessment Report* (Kimley-Horn and Associates, Inc., May 2016) located within the project files.
- An evaluation of cultural and historic resources was conducted for the project and no previously recorded or newly identified archaeological sites were identified as being impacted by any of the alternatives. A total of 14 shovel tests were excavated within the Area of Potential Effect (APE) and no cultural material was recovered. The undocumented segment of the FEC Railroad Lake Harbor Branch (8SL3014) within the APE is considered National Register eligible under Criterion A in the areas of Community Planning and Development and Transportation for its historical significance related to the development of the east coast of Florida, specifically within St. Lucie County. The results of this survey are documented in the Cultural Resource Assessment Survey Report (Janus Research, Inc., April 2016) located within the project files.
- An evaluation of contaminated sites within the study area was conducted. Facilities identified in
 proximity to the right-of-way were assigned a risk ranking using the FDOT's standard
 methodology (i.e., High, Medium, Low, or No). Pond sites were also assigned a risk ranking to
 be evaluated as part of the overall engineering design process. Table 5-15 presents the risk
 rankings assigned to each site as a result of the contamination screening. Additional information
 can be found in the *Contamination Screening Evaluation Report* (Tierra South Florida, Inc.,
 March 2016) located within the project files.

Table 5-15
Contamination Risk Ranking Summary

Mainline Sites					
Site Name Initial Risk Ranking		Comments			
Townstar #38	High	Based on the close proximity of the underground storage tank (UST) area to the right-of-way and the currently contaminated site status, this facility is given a contamination risk ranking of "High."			
CSX Railroad	High	Based on its close proximity to the project corridor, the CSX Railroad is given a contamination risk ranking of " High ."			
Former Agricultural Field Medium		Based on historic uses of pesticides and herbicides, the Former Agricultural Fields are given a risk ranking of "Medium."			
Potential Pond Areas					
Site Name	Initial Risk Ranking	Comments			
Pond A	Medium	Pond A is agricultural land dating back to 1970, woodlands dating back to 1992 and existing stormwater pond since 2004.			
Pond B-1	Low	Pond B-1 is a cement stockyard for the adjoining CEMEX plant.			
Pond B-2	Medium	Pond B-2 is agricultural land dating back to 1970, woodlands dating back to 1992 and residences since 2004.			
Pond 1	Low	Pond 1 is wetland and rangeland dating back to 1944.			
Pond 2/3 Medium		Pond 2/3 is agricultural land dating back to 1944, and woodlands dating back to 1969.			

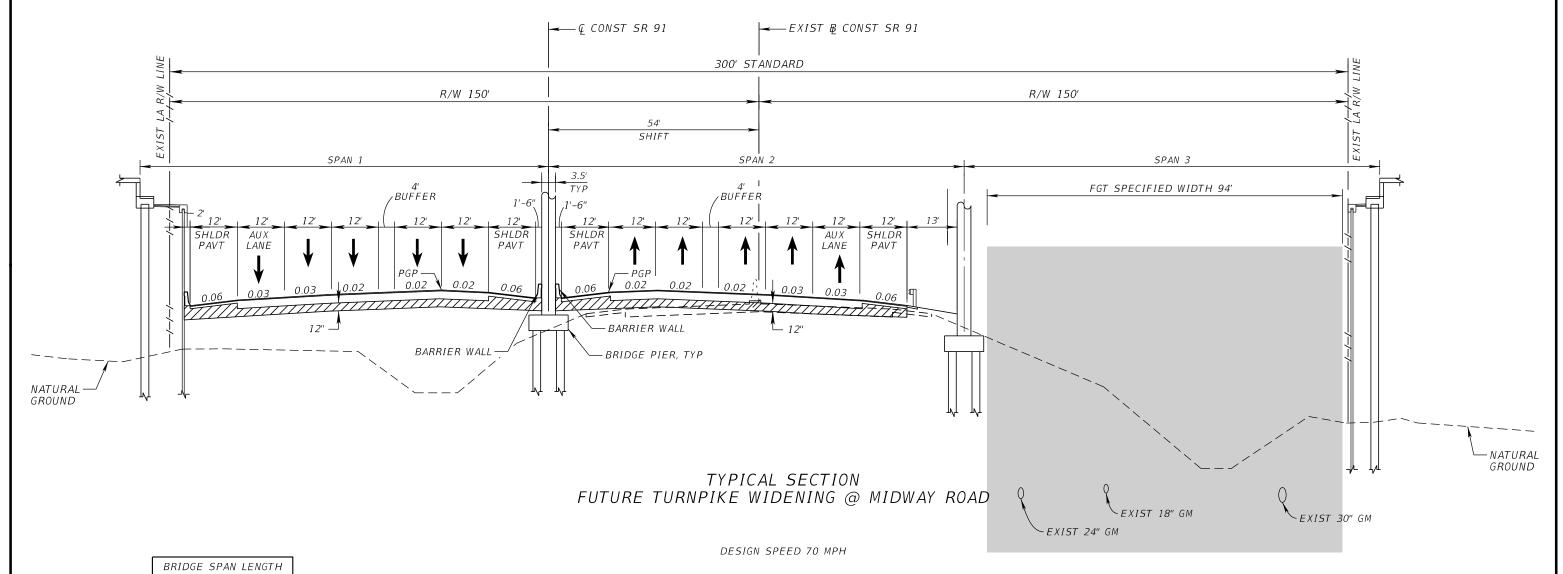
5.4.2.13 Alternative 1 Bridge Analysis

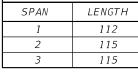
The proposed bridge improvements include replacing the bridge at Midway Road over Florida's Turnpike (Existing Bridge No. 940050). Replacement of this structure is necessary due to the constrained typical section of Florida's Turnpike. Currently, the existing bridge crosses over Florida's Turnpike and multicolumn bents only allow for two lanes in each direction. The current bents are pier protected and further widening of Florida's Turnpike cannot be accommodated with the current bridge. Further, widening of the existing bridge would require additional impacts to the FGT easement running along the east side of Florida's Turnpike.

The bridge typical section consists of four 11-foot lanes (two in each direction), two seven-foot buffered bicycle lanes, a six-foot barrier separated sidewalk, a 12-foot barrier separated shared-use path, 22-foot median, and traffic railing barrier on both sides for an overall out-to-out width of 106 feet and three inches as shown previously in Figure 5-4. Both the sidewalk and shared use path utilized a fully enclosed fence

per Turnpike requirements. The future plans for Florida's Turnpike include upgrading the facility to an eight-lane roadway (four lanes in each direction). In addition, there is a possible future interchange with Midway Road that may require auxiliary lanes. There are three FGT gas lines which will require a 94-foot specified width (measured along the Midway centerline) to be maintained along the east side of Florida's Turnpike. Based on these parameters and considering a possible future interchange, the proposed bridge replacement would be a three-span bridge with span lengths of 112 feet, 115 feet, and 115 feet for an overall bridge length of 342 feet as shown in Figure 5-5. This span arrangement will clear span the FGT easement, accommodate the existing Florida's Turnpike travel lanes as well as accommodate the ultimate eight-lane Florida's Turnpike typical section. The span lengths will also accommodate northbound and southbound acceleration lanes, should an interchange be constructed in the future.

The proposed bridge could be constructed with a superstructure comprised of Florida-I 45-inch beams with a cast-in-place concrete deck. The substructure would utilize multi-column bents supported on precast prestressed concrete piling. The end bents would utilize a retaining wall system to contain the end slopes. The retaining wall system will wrap around and run parallel to the south side of Midway Road to maintain Canal 103. The 32-inch vertical face wall with the junction slab and aluminum bullet railing will extend the length of the retaining wall. The total preliminary estimated construction cost for replacement of the bridge and the cost for removal of the existing bridge is estimated at \$7,016,000. The cost for the retaining wall and traffic railing is estimated at \$347,592. The most recent FDOT LRE costs are provided in Appendix E.





* MEASURED ALONG MIDWAY ROAD \cline{Q}





Midway Rd. (CR 712)

from Glades Cut Off Road to Selvitz Road St. Lucie County, Florida Financial Project ID: 231440-3-22-01 ETDM No. 14177 MIDWAY BRIDGE OVER FLORIDA'S TURNPIKE PROFILE

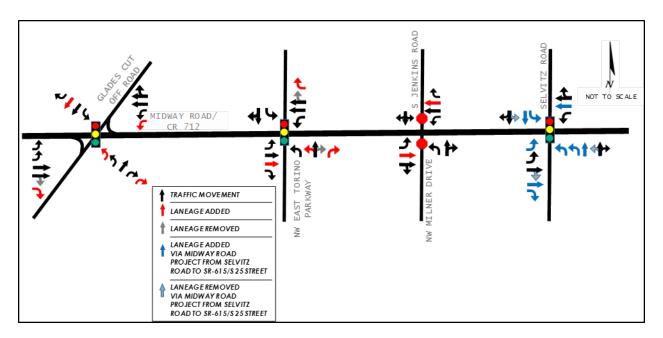
FIGURE 5-5

5.4.2.14Alternative 1 Intersection Layouts

Figure 5-6 shows the proposed configuration for the key intersections along the project in the year 2040 Uncapped Growth Scenario. The proposed intersection geometry is the same for both Alternative 1 and Alternative 2. All Build scenarios propose widening Midway Road from a two-lane section to a four-lane section from west of NW East Torino Parkway to east of Selvitz Road to match the four-lane section currently under construction east of Selvitz Road. It should be noted that the four-lane section under construction to the east also includes intersection improvements at the Selvitz Road intersection which have been assumed as background conditions for this analysis. The 2040 Uncapped Growth Build Alternative proposes the following improvements:

- Midway Road at Glades Cut Off Road
 - Convert eastbound shared through/right-turn lane to a through lane*
 - Add one eastbound right-turn lane*
 - Add one westbound left-turn lane
 - Add a second northbound left-turn lane*
 - Add a second northbound right-turn lane*
 - Add northbound right-turn overlap*
 - Add a second southbound through lane*
- Midway Road at NW East Torino Parkway
 - Add a second eastbound through lane
 - Add one westbound right-turn lane
 - Add a second northbound left-turn lane*
 - Convert northbound shared through/right-turn lane to a through lane*
 - Add one northbound right-turn lane*
- Midway Road at South Jenkins Road/NW Milner Drive
 - Add one eastbound through lane
 - Add a second westbound through lane

Figure 5-6
2040 Uncapped Growth Build Alternative Intersection Geometry



The 2040 Limited Growth Build Alternative proposes the following improvements:

- Midway Road at Glades Cut Off Road
 - Add one southbound left-turn lane
- Midway Road at NW East Torino Parkway
 - o Add one eastbound through lane
 - Convert northbound shared through/right-turn lane to a shared through/left-turn lane
 - o Add one (1) northbound right-turn lane
 - o Convert westbound shared through/right-turn lane to a through lane
 - Add one (1) westbound right-turn lane
- Midway Road at NW Milner Drive-S Jenkins Road
 - Add one eastbound through lane
 - o Add one westbound through lane

Figure 5-7 depicts the proposed 2040 Limited Growth Build improvements.

MI DWAY ROAD/
CR 712

TRAFFIC MOVEMENT
LANEAGE ADDED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
PROJECT FROM SELVIIZ
ROAD TO SR-615/S 25 STREET

A LANEAGE REMOVED
VIA MIDWAY ROAD
VIA MIDW

Figure 5-7
2040 Limited Growth Build Alternative Intersection Geometry

5.4.2.15 Alternative 1 Design Exceptions/Variations

No design exceptions or variations are anticipated for Alternative 1.

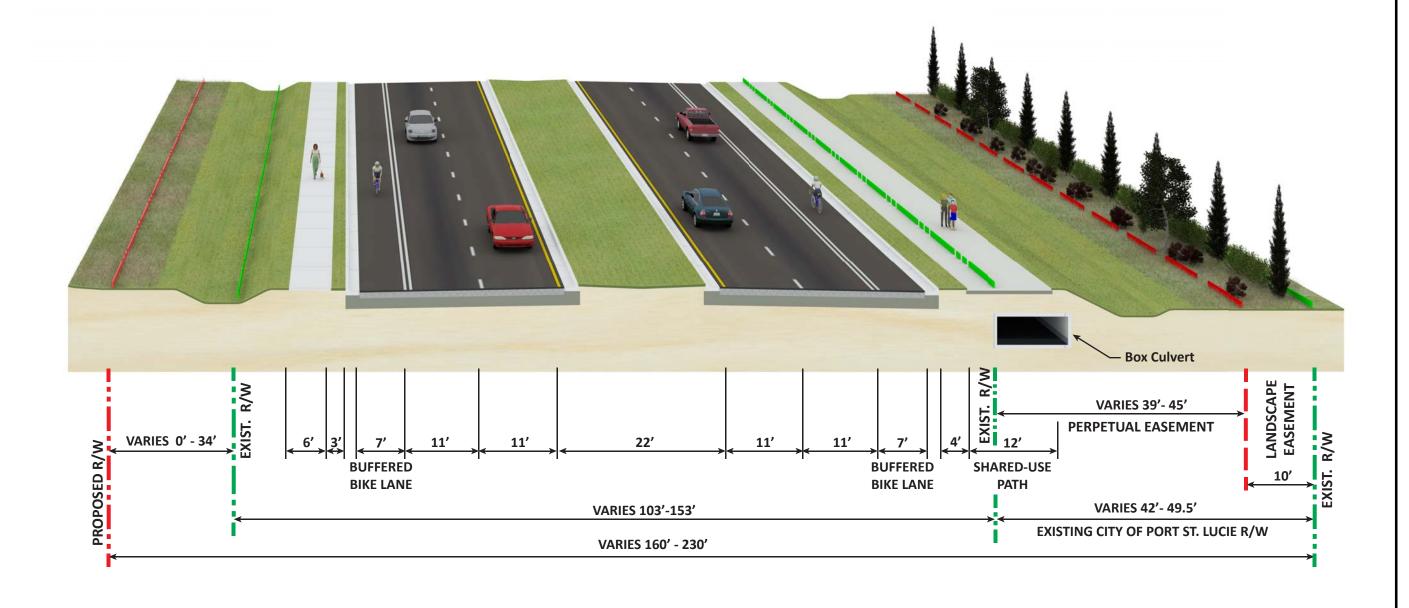
5.4.3 Build Alternative 2 - Box Culvert

Build Alternative 2 proposes to widen Midway Road from Glades Cut Off Road to Selvitz Road to a four-lane divided urban roadway. Alternative 2 has been designed to minimize impacts to the development located along the northern right-of-way line. The overall footprint of the typical section is minimized by enclosing the existing Canal 103 (which parallels the southern side of Midway Road) in a box culvert. This typical section is similar to the improvements associated with County Project No. 06-18 (Midway Road widening from Selvitz Road to 25th Street).

5.4.3.1 Alternative 2 Typical Section

The Alternative 2 typical section includes the full reconstruction of Midway Road and provides two 11-foot travel lanes in each direction separated by a 22-foot median. Seven-foot buffered bike lanes would be provided in each direction located adjacent to the outside travel lanes. Type F curb and gutter is used along the inside and outside lanes and collects stormwater runoff which is then directed to stormwater retention ponds. A six-foot-wide sidewalk would be constructed on the north side of the roadway, and a 12-foot-wide shared-use path would be constructed along the south side of the road. Canal 103 will be enclosed in an 11-foot by 5-foot concrete box culvert which will be located along the south side of Midway Road. This alternative will also include a 10-foot-wide landscape strip which will incorporate both existing native vegetation as well as supplemental plantings to screen the residential properties adjacent to the south side of the roadway. A new bridge structure over Florida's Turnpike will be constructed to accommodate the roadway typical section features. The design speed for this typical section would be 45 mph. Figure 5-8 depicts the Alternative 2 typical section and Figure 5-4 shows the bridge typical section.

ALTERNATIVE 2 - BOX CULVERT URBAN 4 LANE WITH 7ft BUFFERED BIKE LANE







Midway Rd. (CR 712)

from Glades Cut Off Road to Selvitz Road St. Lucie County, Florida Financial Project ID: 231440-3-22-01 ETDM No. 14177 ALTERNATIVE 2
TYPICAL SECTION

FIGURE 5-8

5.4.3.2 Alternative 2 Horizontal and Vertical Alignment

The horizontal alignment of Alternative 2 will shift the roadway to the south beginning east of the FEC Railroad through a series of back to back normal crown curves (DS = 45 mph) minimizing impacts to the CEMEX plant located on the north side of the roadway. The alignment will then maintain a tangential path with two deflections (< 01°00′00″) located west of Florida's Turnpike. As the project approaches Selvitz Road, it will again go through a series of back to back normal crown curves (DS = 45 mph) to shift the roadway to the south aligning with Midway Road east of Selvitz Road. Concept plans depicting the horizontal geometry for Alternative 2 are included in Appendix A.

The vertical alignment for Alternative 2 will match the existing roadway elevation across the FEC Railroad crossing. From the FEC Railroad crossing to Florida's Turnpike, it will raise approximately one to two feet to provide three feet of base clearance to the SHWT. From Florida's Turnpike to Post Office Road, the road will raise roughly 0.5 feet or less. From Post Office Road to Selvitz Road, the vertical alignment will match the existing road although a saw-tooth profile will need to be created to provide gutter grade. Longitudinal grades will consist of a minimum 0.03% slope to maintain minimum gutter grades for drainage purposes. The roadway will raise approximately 22 feet as it crosses Florida's Turnpike to accommodate the bridge deck and beams while maintaining a minimum of 16.5-foot vertical clearance over Florida's Turnpike travel lanes. The rise will be a series of back to back vertical curves - sag, crest, sag - which maintain minimum K-values (DS = 45 mph; Kcrest = 98; Ksag = 79) ensuring proper sight distance.

5.4.3.3 Alternative 2 Conceptual Plans

The Preliminary Concept Plans for Alternative 2 are provided in Appendix A.

5.4.3.4 Alternative 2 Right-of-Way

The proposed right-of-way width of Alternative 2 varies from 160 to 203 feet. This alternative will utilize all of the City-owned Canal 103 right-of-way (42 to 49.5 feet) as well as portions of City-owned tracts H-15 and H-17 to accommodate roadway features and a 10-foot landscape buffer. The use of the rights to utilize the City property will be acquired through a Perpetual Easement for the roadway features and a Temporary Easement for the landscape features. Alternative 2 utilizes the City-owned right-of-way on the south side of Midway Road, minimizing impacts to the privately-owned parcels on the north. This alternative will require right-of-way strip purchases ranging from 0 to 34 feet from 4 of 14 parcels along the north side of the roadway. Alternative 2 would not result in the acquisition of property from the U.S. Postal Service. FDOT does not have the ability to utilize eminent domain to acquire property from the U.S. Postal Service since it is a federally-owned property. The proposed right-of-way lines for Alternative 2 are shown on the concept plans contained in Appendix A.

5.4.3.5 Alternative 2 Cost Estimates

The estimated roadway and bridge construction cost for Alternative 2 is \$30.5 million. The roadway right-of-way costs are projected to be \$6.5 million. Reimbursable utility/railroad relocation costs are estimated

at \$500,000. The combined engineering and construction engineering inspection costs are \$7.6 million. Thus, the combined construction, right-of-way, wetland mitigation, utility relocation, and combined engineering and construction engineering inspection costs for Alternative 2 is \$45.1 million. The most recent FDOT LRE costs are provided in Appendix E.

5.4.3.6 Alternative 2 Preliminary Drainage

The preliminary drainage design for Alternative 2 is identical to the drainage design for Alternative 1 with the exception that Canal 103 is enclosed with an 11-foot by five-foot concrete box culvert that will connect to the 11-foot by five-foot concrete box culvert under construction for the roadway segment east of Selvitz Road.

5.4.3.7 Alternative 2 Utilities

Table 5-16 provides the utility relocation cost estimates and the reimbursable cost estimates for Alternative 2. Close coordination during the design phase will be required with the UAOs identified in Table 5-16 to verify the exact location and depth of each utility. Additional information can be found in the *Utility Assessment Report* (Inwood Consulting Engineers, Inc., May 2016) located within the project files.

Table 5-16
Alternative 2 Utility Relocation Cost Estimate

Alternative 2 offinty Nelocation Cost Estimate				
UAO Contact Phone No.	Relocation Est. Alternative 2	Reimbursable Est. Alternative 2		
Comcast Communications Wilson Lopez 772-940-9310 Wilson_Lopez@cable.comcast.com	\$0	\$0		
FGT Joe Sanchez 407-838-7171 joseph.e.sanchez@energytransfer.com	\$0	\$0		
Florida Power & Light - Dist. Rob Morris 772-223-4215 rob.morris@fpl.com	\$200,000	\$0		
Florida Power & Light - Trans. George Beck Geoge.beck@fpl.com	\$61,000	\$0		
Ft. Pierce Utilities Authority Bo Hutchinson 772-466-1600 bhutchinson@fpua.com	\$400,000	\$0		
St. Lucie County Utilities Matthew Hammond, PE (772) 462-1134 hammondm@stlucieco.org	\$0	\$0		
AT&T Distribution Mark Gutierrez 772-460-4443 mg0939@att.com	\$270,000	\$0		
Tropicana Bill Brooks 772-465-2030	\$0	\$0		
City of Port St. Lucie Utilities Kim Graham 772-344-4014 kimg@cityofpsl.com	\$1,065,000	\$0		
Florida East Coast Railroad Maurice Borrows FDOT Rail Coordinator 954-777-4379 maurice.borrows@dot.state.fl.us	\$500,000	\$500,000		
Totals:	\$2,496,000	\$500,000		

5.4.3.8 Alternative 2 Traffic Control Concepts

The temporary traffic control associated with the expansion of Midway Road for Alternative 2 will consist of a four-phased operation. During phase 1, traffic will be maintained on the existing travel lanes while

the box culvert is constructed enclosing Canal 103. During phase 2, traffic will remain on the existing lanes while the future eastbound travel lanes, 12-foot shared-use path, and half of Florida's Turnpike overpass bridge is constructed. Installation of drainage structures, drainage trunklines, and the construction of stormwater retention sites will also be completed. There is a potential that work in phase 1 and phase 2 will overlap. Phase 3 will maintain two-lane, two-way traffic on the newly constructed eastbound lanes. During this phase, the westbound lanes, sidewalk, and remaining drainage structures will be installed. Additional construction includes the demolition of the existing Florida's Turnpike overpass and the completion of the new overpass bridge. Phase 4 will involve the completion of the median, placement of friction course, and the final striping of the roadway.

5.4.3.9 Alternative 2 Bicycle and Pedestrian Accommodations

Bicycle and pedestrian facilities, including sidewalks, bike lanes, and construction of fully compliant ADA pedestrian features, will have a beneficial impact on cyclists and pedestrians. Provisions for bicycles include the inclusion of a seven-foot buffered bike lane in each direction located adjacent to the outside travel lanes. Additionally, a six-foot-wide sidewalk is proposed on the north side of the roadway and a 12-foot-wide shared-use path is proposed along the south side of the roadway.

5.4.3.10 Alternative 2 Multimodal Accommodations

Multimodal accommodations for Alternative 2 are identical to those provided for Alternative 1 and are described in Section 5.4.2.10.

5.4.3.11 Alternative 2 Access Management

The access management plan for Alternative 2 is identical to the plan provided for Alternative 1 and is described in Section 5.4.2.11.

5.4.3.12 Alternative 2 Engineering Evaluation of Environmental Impacts

An analysis of potential environmental impacts was conducted for Alternative 2. This included a review of impacts to wetlands, wildlife and habitat, archaeological and historic resources, contaminated sites, socio-cultural effects, and the potential increase in noise levels to the surrounding community. A summary of the findings is provided below.

A wetland evaluation identified 0.07 acres of direct and secondary impacts to wetlands and 3.95 acres of impacts to surface waters. Mitigation would be provided for direct and secondary wetland impacts through purchase of mitigation credits in Bluefield Mitigation Bank. Mitigation for surface waters will not be required; however, SFWMD will require a mechanism for air exchange for Alternative 2 which culverts Canal 103. Additional information can be found in the Wetland Evaluation Report (Kimley-Horn and Associates, Inc., May 2016) located within the project files.

• The impacts to endangered species, results of the cultural and historic resources evaluation, and impacts to contaminated sites and potential pond sites for Alternative 2 are identical to Alternative 1 and are described in Section 5.4.1.12.

5.4.3.13Alternative 2 Bridge Analysis

The proposed improvements to the Midway Road Bridge over Florida's Turnpike are the same for both Alternatives 1 and 2. See section 5.4.2.13 for details about the bridge analysis.

5.4.3.14 Alternative 2 Intersection Layouts

The proposed intersection layouts for Midway Road are the same for both Alternatives 1 and 2. See section 5.4.2.14 for details about the intersection layouts.

5.4.3.15 Alternative 2 Design Exceptions/Variations

No design exceptions or variations are anticipated for Alternative 2.

5.5 Public Involvement Summary

A public involvement program was implemented for the project. Public involvement began with the ETDM programming screening. Elected and Appointed Officials/Agencies and Public Kick-off meetings were held on August 18, 2015. Public comments were generally associated with the following and were taken into consideration during the study:

- How will access to properties change?
- What is the impact to the properties along the north side of the road?
- Concerns expressed for wildlife in the canal if filled (Alternative 2 encloses the canal similar to the St. Lucie County section to the east),
- Bus bays were requested along the route.
- The timing of this project was questioned. The other sections to the east from US 1 to Selvitz are designed and permitted and are being constructed currently. This would be the only section not currently 4-laned and would be bottle neck to the Interstate 95.
- Comments were expressed both for and against an interchange at Midway Road and the Florida's Turnpike. The 2005 Turnpike Interchange Feasibility Study was updated during the PD&E, but a separate PD&E Study for the interchange would be conducted in the future by the Florida's Turnpike Enterprise and thus was not included as part of the alternatives evaluated for the Midway Road PD&E Study.

Agency comments included:

- Request for bus bays.
- Side street access management plan as shown is appropriate.
- Access to All Landscape Supply is necessary.
- St. Lucie County Sheriff's Office discussed moving the full access to the eastern entrance, providing mountable curb or an official use only median opening in front of the western entrances and need to maintain existing access to the Florida's Turnpike on the northeast side of the Turnpike bridge.
- There is an Interlocal Agreement between the County and the City of Port St. Lucie for the section
 of Midway Road widening from 25th Street to Selvitz Road. Part of the agreement includes
 maintaining or restoring the landscape buffer between the C-103 canal on the south side of
 Midway and the residences further south.
- Road closures and detours should be minimized and avoided during construction.

Follow-up stakeholder meetings were held with the following stakeholders:

- St. Lucie County August 12, 2015 Primary purpose was to identify maintenance requirements for Canal 103 that should be incorporated in the typical section.
- SFWMD August 20, 2015 Drainage and Environmental Permitting Meeting Primary purpose was to discuss the stormwater management requirements.
- U.S. Post Office October 13, 2015 Primary purpose of the meeting was to discuss access management and overview of alternatives being considered.
- St. Lucie County Sheriff October 13, 2015 Primary purpose of the meeting was to discuss access management and overview of alternatives being considered.
- City of Port St. Lucie January 28, 2016 Primary purpose of the meeting was to inform the City on the progress with the project, discuss impacts to City-owned right-of-way associated with Canal 103, discuss landscape buffers and existing utilities and accommodation for each.
- New Horizons of the Treasure Coast and Okeechobee (New Horizons) April 5, 2016 Primary purpose of the meeting was to present the project alternatives and discuss access/median opening requirements necessary to maintain the New Horizon's facility operations.
- Florida East Coast (FEC) Railroad April 22, 2016 Email correspondence was submitted requesting information about the FEC facilities, R/W limits, existing easements, and operations at the railroad crossing at Midway Road. The proposed improvements were transmitted with a request for any information of concerns the FEC may have with the plan. There were no specific concerns expressed by FEC.
- Sherriff's office June 17, 2016 Chief Deputy Garry Wilson approved the proposed access management plan to minimize impacts on the Sherriff's office. This would include a full median opening at the western entrance and a drop curb at the eastern most entrance so that emergency vehicles could make a left out when needed.
- U.S. Post Office August 16, 2016 The purpose of the meeting was to discuss the access management plan proposed at Jenkins Road and Post Office Road.

The Alternatives Public Workshop was held on June 28, 2016. Public comments were generally associated with the following and were taken into consideration during the study:

- There were comments on which alternative was preferred and in general the preference was based on which side of the road you lived or worked on.
- There were some individuals that wanted an interchange with the Turnpike and others who did not, but there was not an overwhelming preference for one or the other.

- Traffic signals were requested at various intersections; Milner Drive being one in particular. A signal is not warranted now at this location, but it was explained to residents that the County is reviewing this location for a signal and could be considered in the future.
- There was a request for landscaping consistent with the section from 25th Street to Selvitz Road and shade trees along the multipurpose path. Also requested pedestrian lighting.
- It was mentioned by several residents that noise levels were high along this corridor and requests were made for noise walls. The noise analysis is discussed further in Section D.1.
- There was a request for sidewalks on Midway Road and street lights. The typical section includes sidewalks. Lighting evaluation will be included in the design phase.
- There was concern for wildlife that occur in the vegetation along Canal 103 and within the canal.

Summaries or meeting minutes of the Public and Agency Kickoff Meetings, stakeholder meetings and Alternatives Public Workshop are included in Appendix F. The comments were considered during the study and where applicable in each section below, there is further discussion of how the comments were addressed or incorporated in the study. FDOT will continue to coordinate with the public and the project stakeholders during the design process. FDOT will hold a Public Hearing for this project prior to the design phase.

5.6 Evaluation of Alternatives

In order to compare the Midway Road widening alternatives, the costs and impacts of Alternative 1 and Alternative 2 were determined and documented in a comparative evaluation matrix. This evaluation matrix is included as Table 5-17.

Table 5-17 Midway Road Alternatives Evaluation Matrix

Midway Road (CR 712)

From Glades Cut Off Road of Selvitz Road

Alternatives Evaluation Matrix

		Alternative 1	Alternative 2	
		Canal Avoidance	Box Culvert	
Evaluation Criteria	No-Build Alternative	4-Lane Urban with 7-Foot Buffered Bike Lane	4-Lane Urban with 7-Foot Buffered Bike Lane	
Relocations				
Number of residential relocations	0	0	0	
Number of business relocations	0	0	0	
Number of parcels impacted	0	16	9	
Natural, Environmental & Physical Impacts				
Threatened and endangered species	None	No adverse impacts	No adverse impacts	
Archaeological/historical sites	None	1	1	
Potential high or medium ranked contamination sites	None	3	3	
Wetlands (acres)	None	0.36	0.07	
Surface Water Impacts (Acres)	None	1.54	3.95	
Floodplains (acre-feet)	None	0	0	
Potential Section 4(f) resources	None	1	1	
Noise	None	TBD	TBD	
Social & neighborhood	None	Low	Low	
Estimated Costs (Present Day Costs)				
Design (10% of construction)	No cost	\$2,361,000	\$3,045,000	
Right-of-way acquisition	No cost	\$10,721,000	\$6,525,000	
Wetland mitigation ⁽¹⁾	No cost	\$4,000	\$1,000	
Roadway and bridge construction	No cost	\$23,605,000	\$30,450,000	
Reimbursable utility/railroad relocation	No cost	\$680,000	\$500,000	
CEI (15% of construction)	No cost	\$3,541,000	\$4,568,000	
Total Cost	No cost	\$40,912,000	\$45,089,000	

Notes:

(1) Based on \$9,999 per mitigation credit acre.

5.7 Recommended Alternative

After the June 28, 2016 alternatives public workshop for the project, a meeting was held with representatives from FDOT District 4, St. Lucie County, and the St. Lucie Transportation Planning Organization to discuss the selection of the Recommended Alternative. Advantages and disadvantages of Alternative 1 and Alternative 2 were presented and discussed. The typical section for Alternative 1 is shown in Figure 5-3 and the typical section for Alternative 2 is shown in Figure 5-4. the bridge typical section is shown in Figure 5-8. The Alternative 1 and Alternative 2 preliminary concept plans are provided in Appendix A. The final recommended alignment is shown in Appendix D. The advantages and disadvantages of both alternatives are listed below.

Alternative 1 – Canal Avoidance

Advantages:

- Lower engineering, right-of-way acquisition, and construction costs
- Five comment forms were received at the alternatives public workshop in favor of Alternative
 1 compared with 4 comment forms received in favor of Alternative 2

Disadvantages:

- Sixteen properties are impacted compared with nine parcels for Alternative No. 2
- Higher wetland impacts than Alternative 2
- Alternative 1 not preferred by representatives from St. Lucie County, Port St. Lucie, Sherriff's Office, New Horizons, and St. Lucie Public Schools
- FDOT does not have eminent domain rights on all required properties needed for construction

Alternative 2 – Box Culvert

Advantages:

- Nine properties are impacted compared with 16 parcels for Alternative 1
- Alternative 2 preferred by representatives from St. Lucie County, Port St. Lucie, Sherriff's Office, and St. Lucie Public Schools
- Alternative 2 maintains the corridor look/consistency established with the Midway Road widening from Selvitz Road to 25th Street
- Alternative 2 has lower wetland impacts
- FDOT has eminent domain rights on all required properties needed for construction

Disadvantages:

- Higher costs
- Four comment forms were received at the alternatives public workshop in favor of Alternative
 2 compared with five comment forms received in favor of Alternative

Based on the advantages and disadvantages listed above, Alternative 2 - Box culvert was selected as the Recommended Alternative.

Section 6.0

Design Details of the Recommended Alternative

6.1 Typical Section Package

The proposed improvement to Midway Road section includes the full reconstruction of Midway Road and provides two 11-foot travel lanes in each direction separated by a 22-foot median. Seven-foot buffered bike lanes would be provided in each direction located adjacent to the outside travel lanes. Type F curb and gutter is used along the inside and outside lanes and collects stormwater runoff which is then directed to stormwater retention ponds. A six-foot-wide sidewalk would be constructed on the north side of the roadway, and a 12-foot-wide shared-use path would be constructed along the south side of the road. Canal 103 will be enclosed in an 11-foot by 5-foot concrete box culvert which would be located along the south side of Midway Road. This alternative will also include a 10-foot-wide landscape strip which will incorporate both existing native vegetation as well as supplemental plantings to screen the residential properties adjacent to the south side of the roadway. A new bridge structure over Florida's Turnpike will be constructed to accommodate the roadway typical section features. The design speed for this typical section would be 45 mph. The signed Typical Section Package for the proposed alternative is included in Appendix B. (This will be completed after the Public Hearing is held.)

6.2 Intersection Concepts and Signal Analysis

The proposed intersection configurations are shown on the concept plans contained in Appendix D. During a meeting held on September 30, 2016 between staff representatives of St. Lucie County, St. Lucie TPO and FDOT, a decision was made to begin the project at the east approach of the Glades Cut Off Road and Midway Road intersection. Therefore, no intersection improvements at Glades Cut Off Road are included in the project. The summary of the meeting is contained in Appendix C.

6.3 Right-of-Way Needs and Relocations

The proposed right-of-way width of the Recommended Alternative (Alternative 2) varies from 160 to 203 feet. This alternative will utilize all of the City-owned Canal 103 right-of-way (42 to 49.5 feet) as well as portions of City-owned tracts H-15 and H-17 to accommodate roadway features and a 10-foot landscape buffer. The use of the rights to utilize the City property will be acquired through a Perpetual Easement for the roadway features and a Temporary Easement for the landscape features. Alternative 2 utilizes the City-owned right-of-way on the south side of Midway Road, minimizing impacts to the privately-owned parcels on the north side of the road. This alternative will require right-of-way strip purchases ranging from 0 to 34 feet from four of 14 parcels along the north side of the roadway. Alternative 2 would not result in the acquisition of property from the U.S. Postal Service. FDOT does not have the ability to utilize eminent domain to acquire property from the U.S. Postal Service since it is a federally-owned property. The proposed right-of-way line for the Recommended Alternative is shown on the concept plans contained in Appendix D.

6.4 Cost Estimates

Construction costs were estimated using the FDOT Long Range Estimate (LRE) program. Table 5-17 shows the estimated costs for the Recommended Alternative (Alternative 2). The FDOT LRE construction costs are provided in Appendix E.

6.5 Schedule and Planning Consistency

The improvements to Midway Road from Glades Cutoff Road to Selvitz Road are consistent with Go 2040, the adopted St. Lucie TPO's LRTP Cost Feasible Plan, St. Lucie TPO's FY 2015/16-2019/20 TIP, the current adopted FDOT STIP, and the FDOT Five-Year Work Program.

The project is currently funded for PD&E, Design and Right-of-Way (ROW) phases for FY 2017 in the current FDOT STIP, using local funds only. The construction phase is not yet funded in the FDOT STIP or Adopted Five-Year Work Program, but state and federal funding for construction is programmed for FY 2026-2030 in the St. Lucie TPO LRTP Cost Feasible Plan. Documentation of funding for this project can be found in the adopted St. Lucie TPO's FY 2015/16-2019/20 TIP, the current adopted FDOT STIP, the FDOT Five-Year Work Program, the adopted St. Lucie TPO LRTP, and the Martin-St. Lucie 2035 Regional LRTP. Per FDOT guidelines, this project meets planning consistency requirements as funding for the subsequent phases of PD&E, Design and ROW are reflected in the TIP/STIP, and funding for construction is included in St. Lucie TPO's adopted LRTP. Table 6-1 outlines the programmed funding for the project as described in the planning documents mentioned above.

Table 6-1
Project Funding Summary

Phase	Time Frame	Estimated Cost	Funding Source
Preliminary	2017	\$2,150,000 ⁽¹⁾	Local Funds for
Engineering			Participating
(Final Design)			
	2017	\$10,000 ⁽¹⁾	Local Funds for
D'alst a CM as			Participating
Right of Way	2021-2025	\$4,440,000 ⁽²⁾	State Funding
Construction	2026-2030	\$19,620,000 ⁽²⁾	Federal and State
Construction			Funding
Total		\$26,220,000	

⁽¹⁾ FDOT Current Adopted STIP

6.6 Pedestrian and Bicycle Facilities

Bicycle and pedestrian facilities, including sidewalks, bike lanes, and construction of fully compliant ADA pedestrian features, will have a beneficial impact on cyclists and pedestrians and are provided for in the Recommended Alternative. Provisions for bicycles include a seven-foot buffered bike lane in each direction located adjacent to the outside travel lanes. Additionally, a six-foot-wide sidewalk is proposed on the north side of the roadway and a 12-foot-wide shared-use path is proposed along the south side of the roadway.

⁽²⁾ St. Lucie County 2040 LRTP

6.7 Utility Impacts

Utility impacts for the recommend alternative are discussed in Section 5.4.3.7.

6.8 Temporary Traffic Control Plan

The temporary traffic control associated with the expansion of Midway Road for the Recommended Alternative will consist of a four-phased operation. During phase 1, traffic will be maintained on the existing travel lanes while the box culvert is constructed enclosing Canal 103. During phase 2, traffic will remain on the existing lanes while the future eastbound travel lanes, 12-foot shared-use path, and half of Florida's Turnpike overpass bridge is constructed. Installation of drainage structures, drainage trunklines, and the construction of stormwater retention sites will also be completed. Work in phase 1 and phase 2 may potentially overlap. Phase 3 will maintain two-lane, two-way traffic on the newly constructed eastbound lanes. During this phase, the westbound lanes, sidewalk, and remaining drainage structures will be installed. Additional construction includes the demolition of the existing Florida's Turnpike overpass and the completion of the new overpass bridge. Phase 4 will involve the completion of the median, placement of friction course, and the final striping of the roadway.

6.9 Drainage

A Pond Siting Report (Inwood Consulting Engineers, Inc., (August 2016) was prepared for this study and provides a detailed discussion of the proposed stormwater management approach. The stormwater management approach will be the same for both alternatives. The proposed stormwater management systems consist of off-site treatment facilities (new and permitted) that will use both dry pre-treatment ponds, and wet detention ponds for water quality treatment of the stormwater runoff. According to SFWMD, treatment must be provided for the greater of one inch of stormwater runoff from the entire developed area or 2.5 inches of stormwater runoff from the new impervious area. Projects that discharge to OFWs shall provide an additional 50 percent treatment volume and will have at least one half inch of dry retention pre-treatment as part of the required detention. The SFWMD also requires that the post-development peak discharge shall be at or below pre-development peak discharge for the 25-year/72-hour storm event. Both wet and dry treatment ponds shall recover one half inch of the detention volume in 24 hours.

The project has been split into four drainage basins within the study limits. The stormwater runoff will be routed to the existing and proposed stormwater management sites for water quality treatment and attenuation in each basin before ultimately out-falling into Canal 103. Basin A begins at the beginning of the study at Glades Cut Off Road and extends to approximately 700 feet west of the Florida's Turnpike overpass. The stormwater runoff from this basin will be routed via stormsewer systems to the existing pond located to the south of Midway Road and east of the Glades Cut Off Road intersection. The existing control structure in this pond will be modified to provide treatment for stormwater runoff from the new improvements, including the additional treatment for OFW criteria. Basin B begins at the end of Basin A and extends to the Florida's Turnpike overpass. Three stormwater management alternatives were evaluated for this short basin consisting of two offsite pond alternatives and an exfiltration trench alternative. The offsite pond alternatives will provide both dry retention pre-treatment and wet detention treatment, including the additional treatment for OFW criteria. The Recommended Alternative for Basin B is Pond B-2 located on a City of Port St. Lucie owned parcel on the south side of Midway road and the west side of Florida's Turnpike. The limits of the proposed Ponds 1 and 2/3 begin and end at the

same locations as the existing permitted condition. Pond 1 is located on a parcel owned by St. Lucie County and Pond 2/3 is an existing pond constructed as part of the adjacent design segment to the east. Both the existing Pond 2/3 and the proposed Pond 1 will provide dry retention pre-treatment and wet detention treatment that also includes the additional treatment for OFW criteria. The ponds are designed to have enough capacity for the proposed conditions of this study.

6.10 Bridge Analysis

The recommended bridge improvements are discussed in Section 5.4.2.13.

6.11 Special Features and Aesthetic Considerations

St. Lucie County has requested that a 10-foot-wide landscape strip buffer adjacent to the south side of the roadway be provided which will incorporate both existing native vegetation as well as supplemental plantings to screen the residential properties. The landscaping will follow the landscape palette along Floresta Drive as preferred by the City of Port St. Lucie. The existing landscape buffers will be cleared of exotics and replaced with native vegetation. St. Lucie County has also requested that a landscape buffer be installed between the stormwater management ponds and the existing residences at Pond A, Pond B-2, and Pond 1. Pond 2/3 already has an existing landscape buffer.

6.12 Access Management

Under current conditions, the undivided facility provides unrestricted access from the side street connections. There are several median turn lanes to accommodate access to the developments along the north side of the roadway as well as side streets.

Since Midway Road is a St. Lucie County owned roadway, it does not have an official access management classification. However, St. Lucie County has requested that the improvements reflect the latest FDOT standards. As a result, the access management plan has been developed based on Access Class 5 standards. Access Class 5 spacing requirements most closely match the existing side street and developmental spacing along the corridor while also accommodating the proposed design speed. Land adjacent to the corridor is developed and the probability of a major land use change is not high. An Access Class 5 roadway utilizes raised medians to provide separation between travel lanes and to restrict the number of median openings. The minimum median opening spacing allowed under Access Class 5 criteria is 660 feet for directional openings and 1,320 feet (design speed = 45 mph) for full and signalized openings. Table 5-14 identifies the locations of the proposed median openings. Additionally, the Recommended Alternative concept plans in Appendix D depict the recommended access management plan.

6.13 Engineering Evaluation of Environmental Impacts

In addition to the environmental impacts discussed in Section 5.4.3.12, a Noise Study (Bernard Kenny Associates, Inc., October 2016) was prepared for the project and is contained in the project files.

The Noise Study identified five noise sensitive areas which were evaluated for potential impacts for the Existing Year 2015 Condition, the No-Build Alternative 2040 Condition, and the Build Alternative 2 2040 Condition. The noise sensitive areas evaluated are representative of 110 noise sensitive receptor locations. The noise sensitive areas are as follows: the existing residential areas on the north and south

side of W. Midway Road and the New Horizons Complex on the north side of the W. Midway Road. The Noise Abatement Criteria (NAC) Activity Categories for the noise sensitive areas evaluated include Activity Category B and C locations. The Activity Category B locations represent the residential areas. The Activity Category C locations represent the New Horizons Complex. Activity Category B and C locations require potential noise abatement measures for computer predicted sound levels which approach 66 dB(A).

Potential noise abatement measures were evaluated at one location on the southeast side of the study corridor west of Selvitz Road. The remaining noise sensitive areas did not approach or exceed the appropriate NAC for the Activity Categories evaluated. Potential noise barrier placement (BW1S) was evaluated for the residential dwellings identified as R84S and R85S. Additionally, two neighboring residential dwellings (R84A S and R85A S) were also evaluated. A noise barrier approximately 500 feet long and 10 feet high was determined to meet the FDOT's feasibility factor (Noise Reduction Factor) and reasonableness factor (Noise Reduction Design Goal). The cost of the noise barrier is approximately \$150,000.00. The cost per benefitted receptor is approximately \$37,500.00. The cost of the noise barrier meets the FDOT's cost reasonableness of \$42,000.00 per benefitted receptor.

The Florida Department of Transportation is committed to the construction of feasible and reasonable noise abatement measures at the noise-impacted locations identified in the Noise Report contingent upon the following conditions.

- Detailed noise analyses during the final design process support the need, feasibility and reasonableness of providing abatement.
- Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion.
- Community input supporting types, heights, and locations of the noise barrier(s) is provided to the District Office.
- Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues have been resolved.

All applicable St. Lucie County noise ordinances as found in Chapter 1-13.8, Noise Control, of the St. Lucie County Code of Ordinances will be adhered to during construction.

The signed Type 2 Categorical Exclusion document is as Appendix G.

Section 7.0 Conceptual Design Plans

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Conceptual design plans for the Recommended Alternative are provided in	Appendix D.

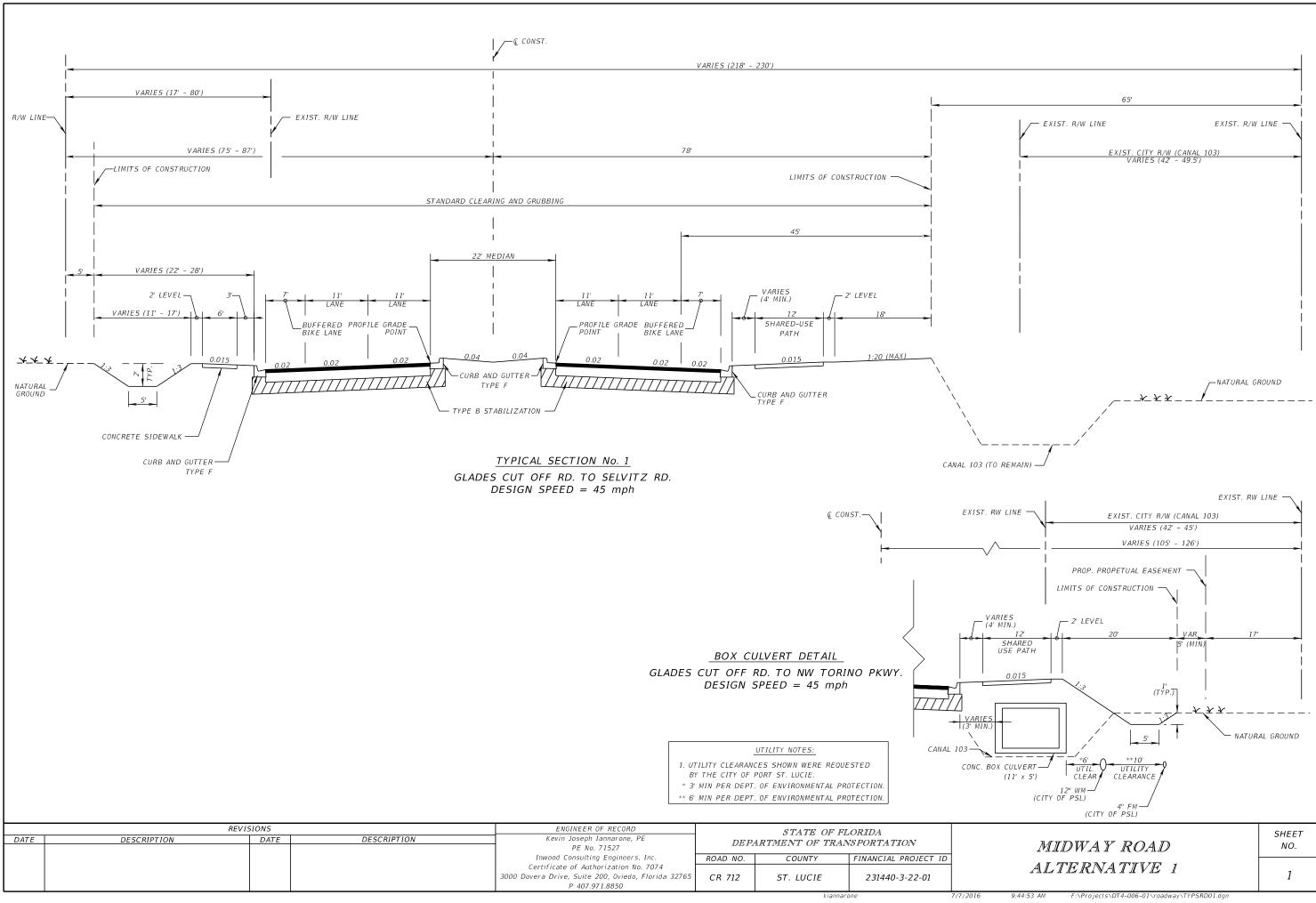
8.1 List of Technical Reports and Memoranda Completed for the Project

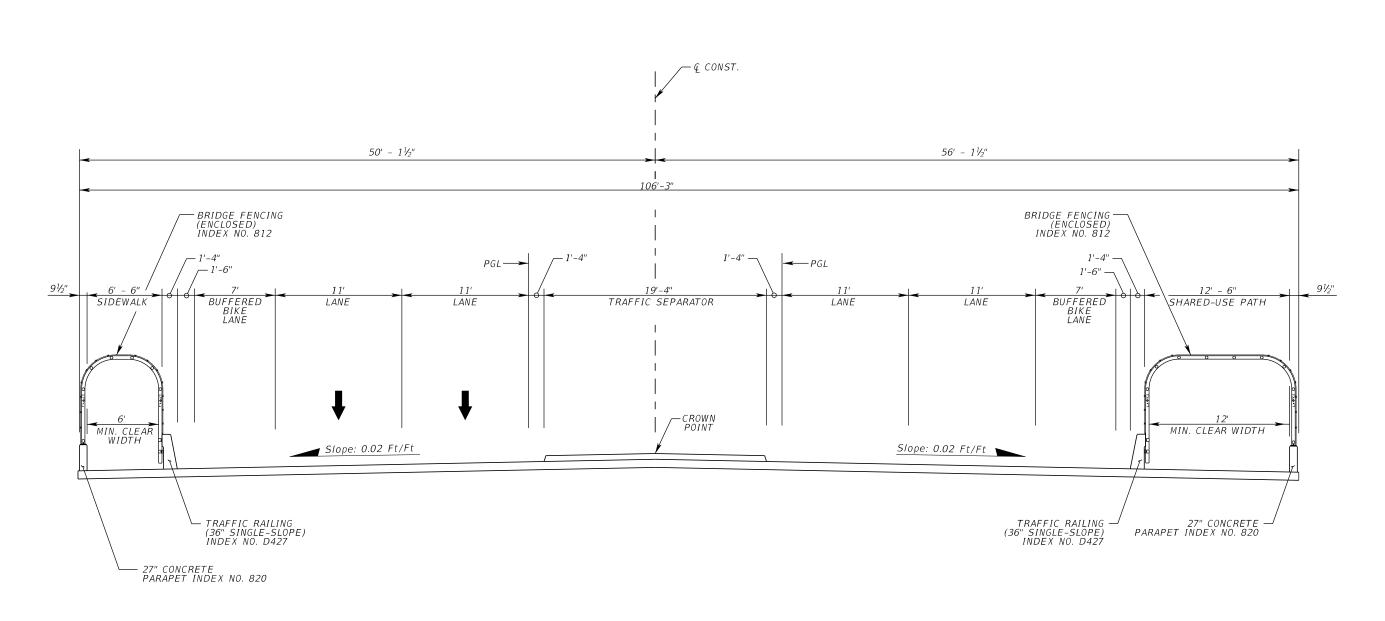
The following Technical Reports and Memoranda were prepared as part of this PD&E Study and were used to provide the technical analysis necessary to develop and select the Recommended Alternative.

- Cultural Resource Assessment Study (CRAS) Janus Research, Inc., April 2016
- Contamination Screening Evaluation Report Tierra South Florida, Inc., March 2016
- Pond Siting Report Inwood Consulting Engineers, Inc., August 2016
- Location Hydraulics Report Inwood Consulting Engineers, Inc., March 2016
- Wetlands Evaluation Report Kimley-Horn and Associates, Inc., May 2016
- Endangered Species Biological Assessment Report Kimley-Horn and Associates, Inc., May 2016
- Section 4(f) Determination of Applicability Inwood Consulting Engineers, Inc., February 2016
- Noise Study Report (NSR) Inwood Consulting Engineers, Inc., June 2016
- Air Quality Technical Memorandum Inwood Consulting Engineers, Inc., June 2016
- Preliminary Roadway Soil Survey Report Tierra South Florida, Inc., May 2016
- Design Traffic Technical Memorandum (DTTM) Kimley-Horn and Associates, Inc., May 2016
- Interchange Concept Report, Midway Road and Florida's Turnpike Kimley-Horn and Associates, Inc., May 2016
- Water Quality Impact Evaluation (WQIE) checklist Inwood Consulting Engineers, Inc., June 2016
- Utility Assessment Package Inwood Consulting Engineers, Inc., October 2016
- Drainage Documentation Report H.W. Lochner, Inc., June 2013
- Desktop Analysis of Three Potential Pond Sites from Glades Cut Off Road to Selvitz Road, St. Lucie County, Florida. Diane K Kloetzer, Janus Research, February 17, 2016

Appendix A

Preliminary Concept Plans

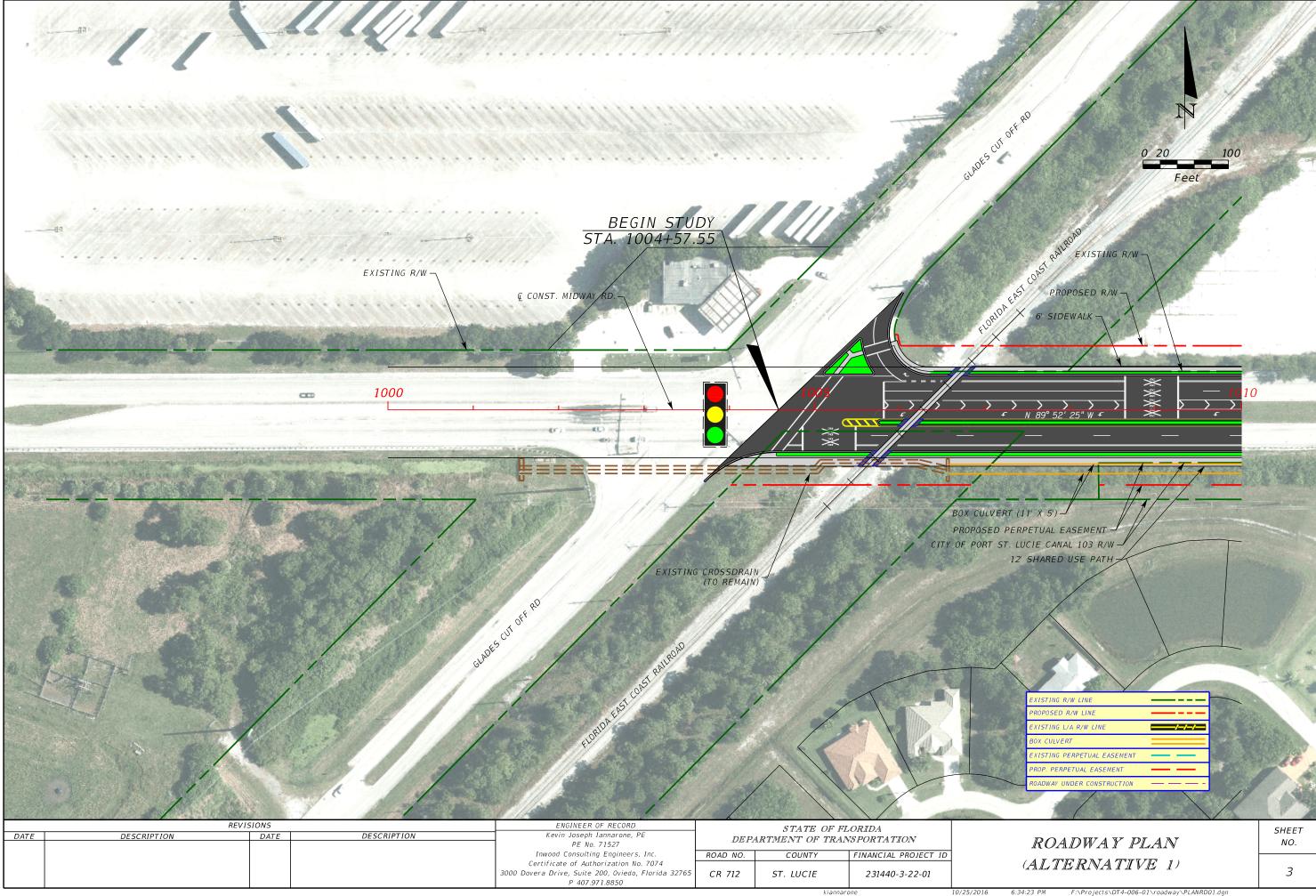


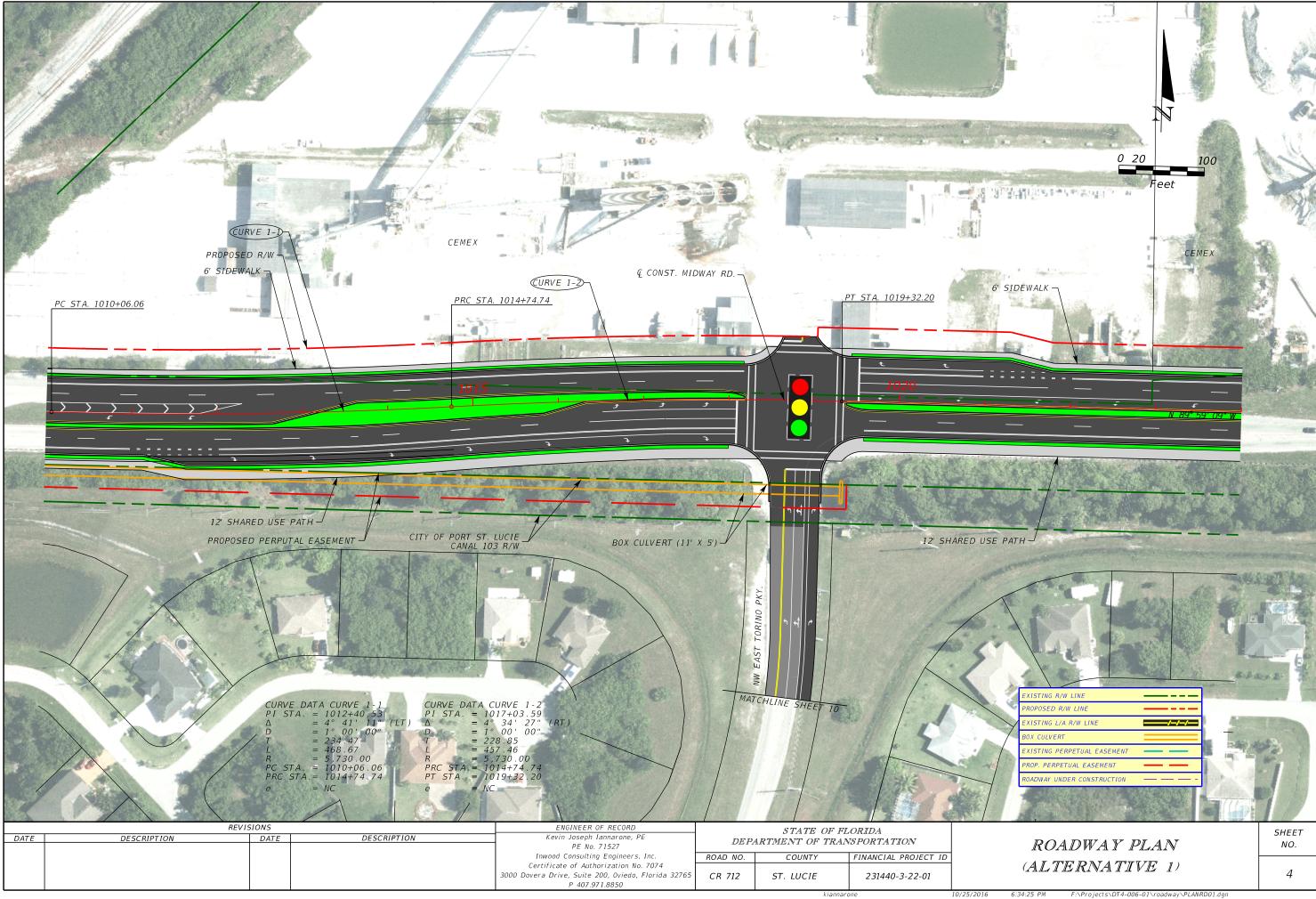


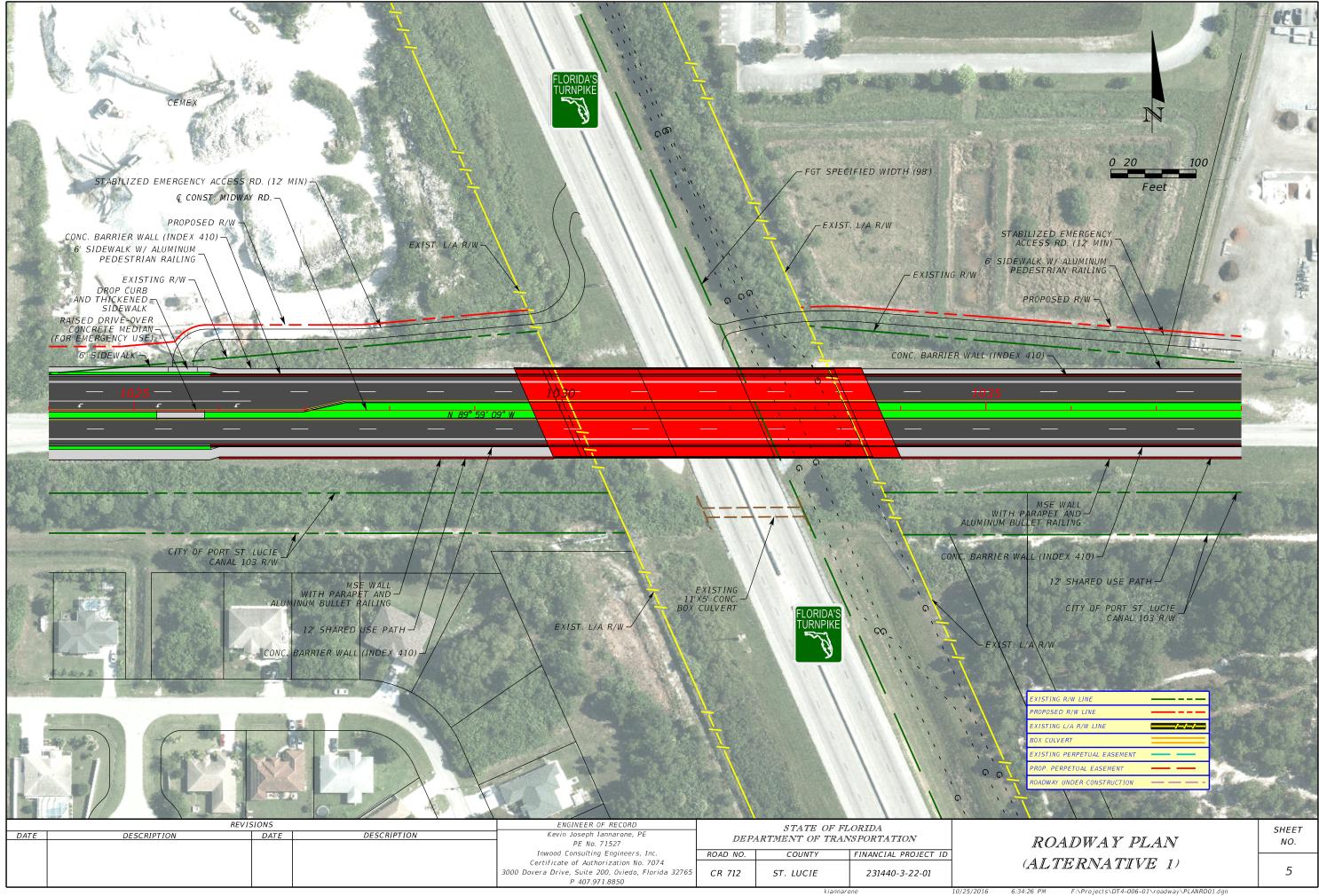
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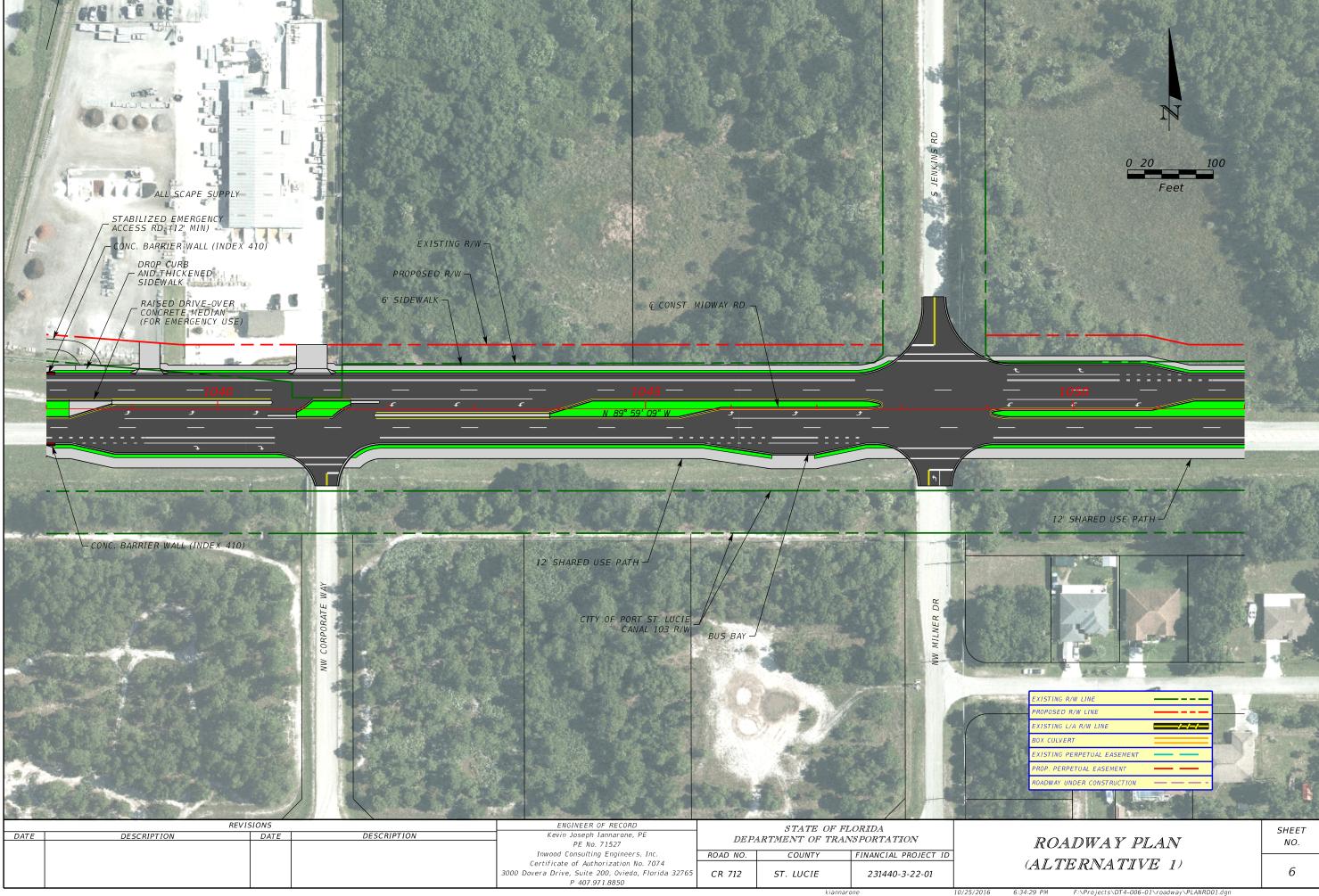
	REVISIONS	REVISIONS ST. LUCIE COUNTY CONCURRENCE Kimley-Horn and Associates, Inc. STATE OF FLORIDA		FLORIDA		SHEET		
DATE	DESCRIPTION	ST, ESSIE SSSTT SSTEETINEINE	,	DEP	ARTMENT OF TRA			1
			Certificate Of Authorization No. 696				MIDWAYROAD	NO.
			Kenneth W. Jackson, P.E. P.E. License No. 50602	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	TYPICAL SECTIONS	
		Michael V. Powley, PE Date St. Lucie County Engineer	1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CR 712	ST. LUCIE	231440-3-22-01		2

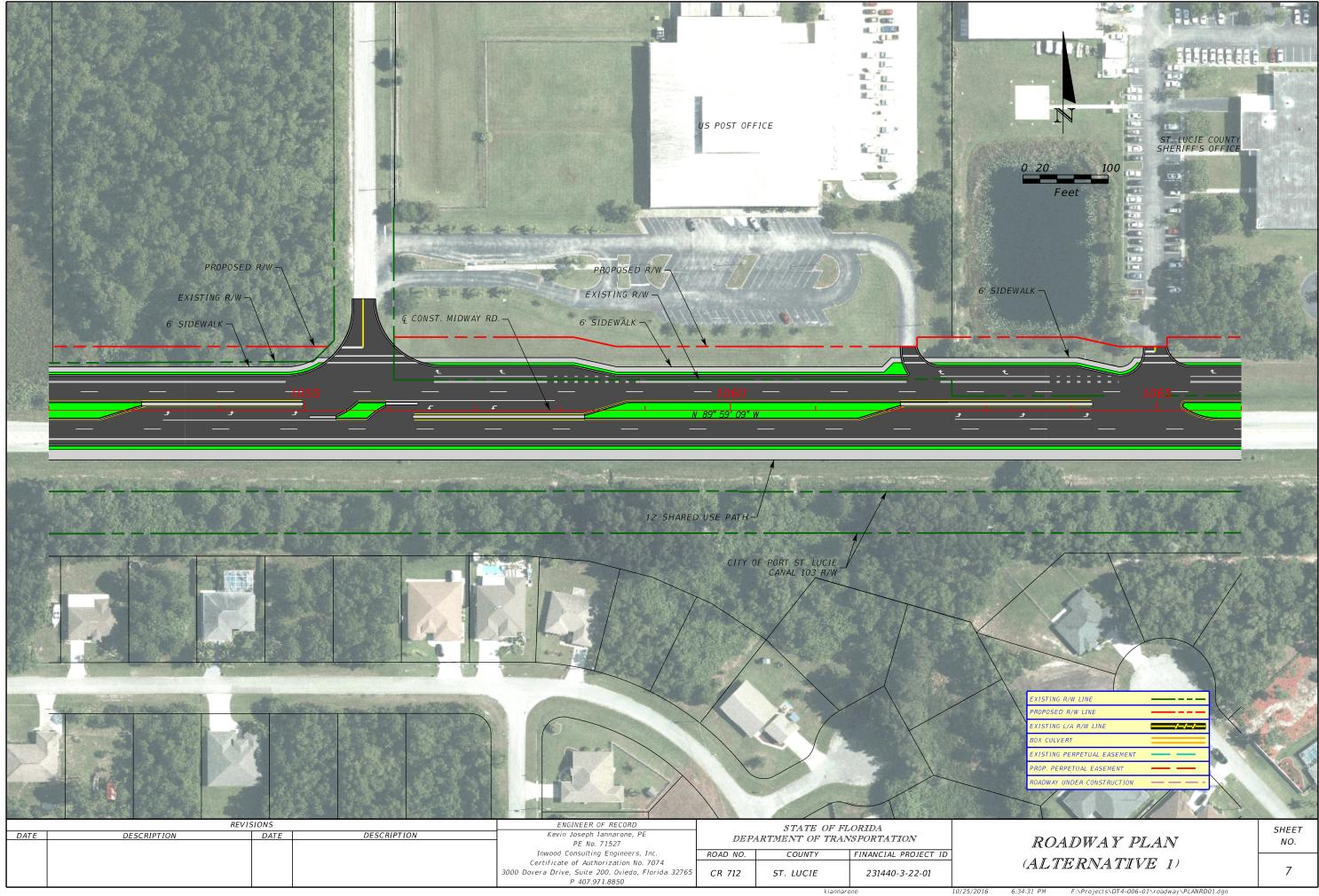
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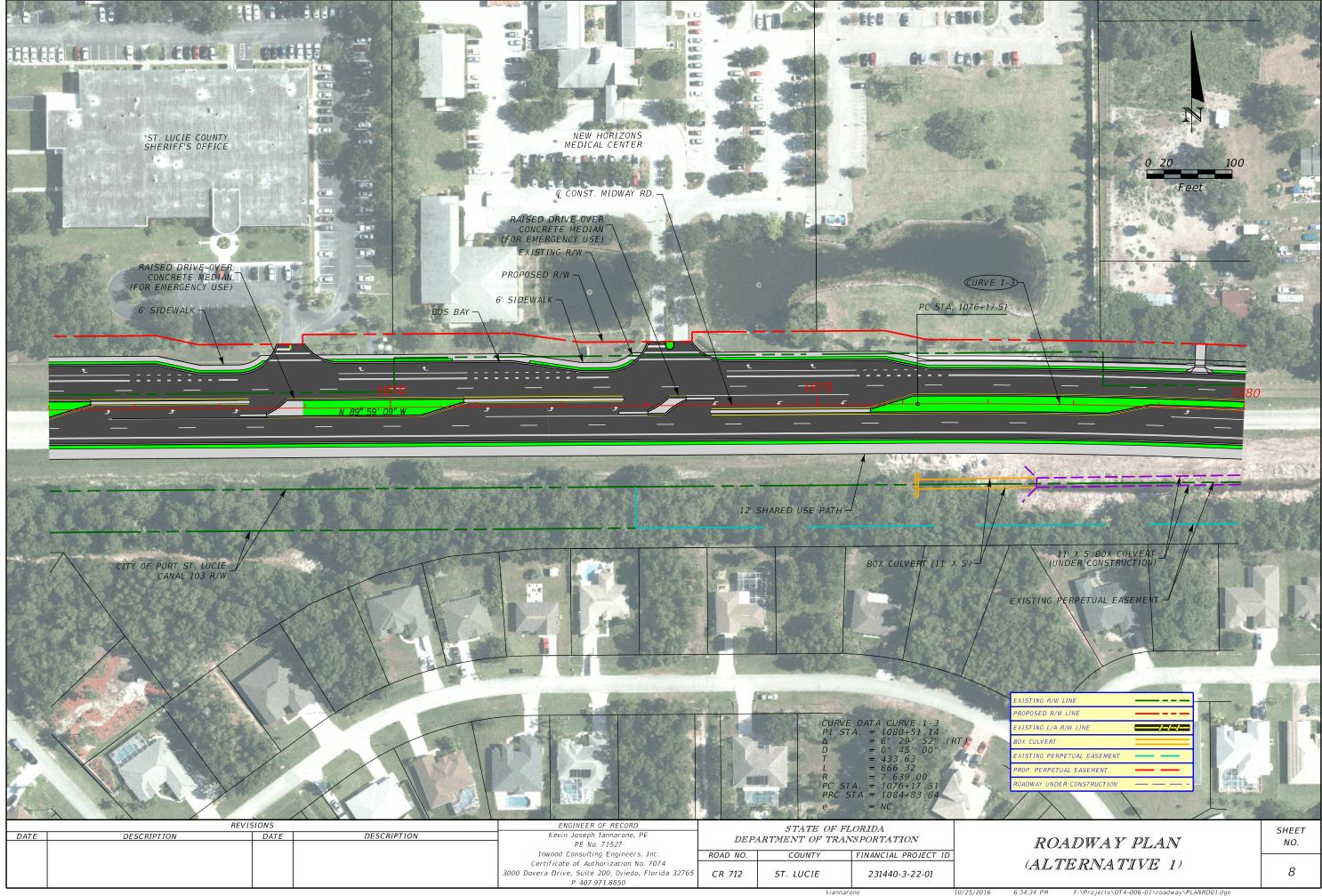


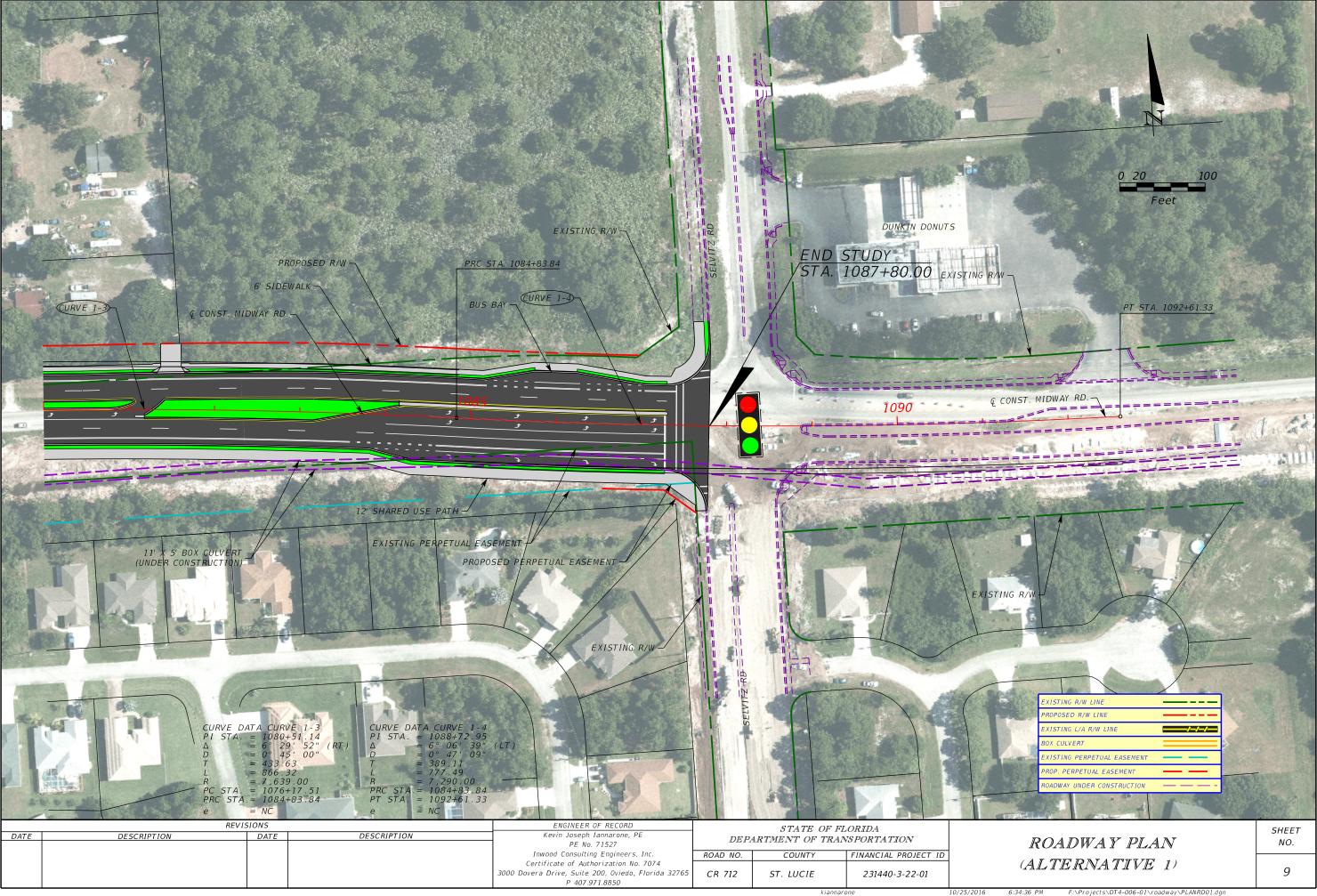




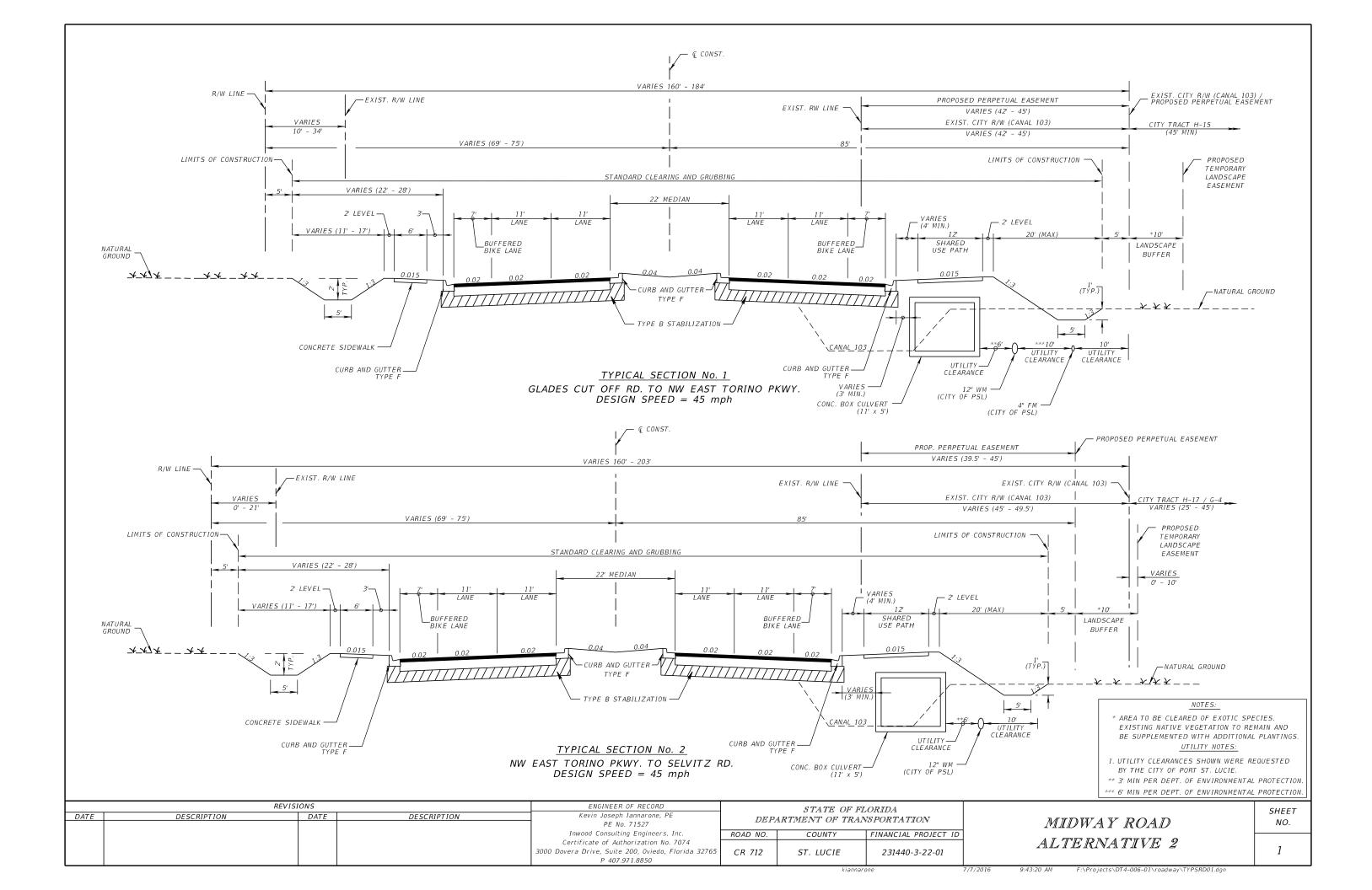


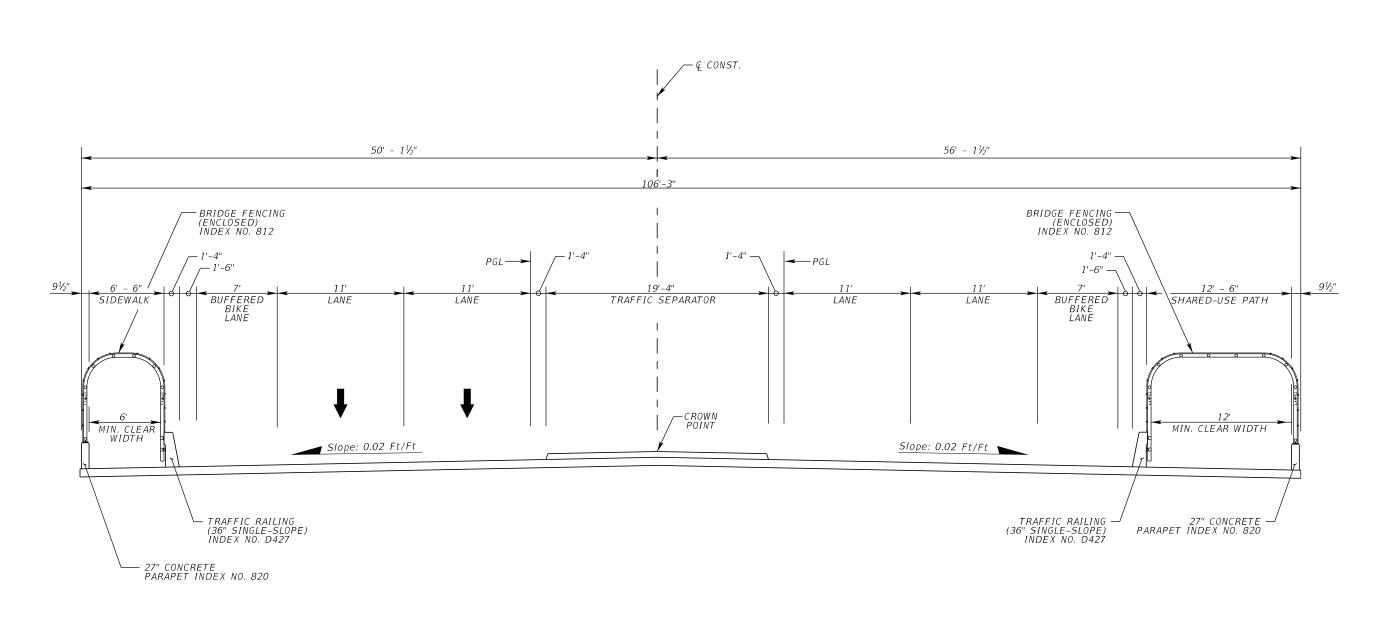








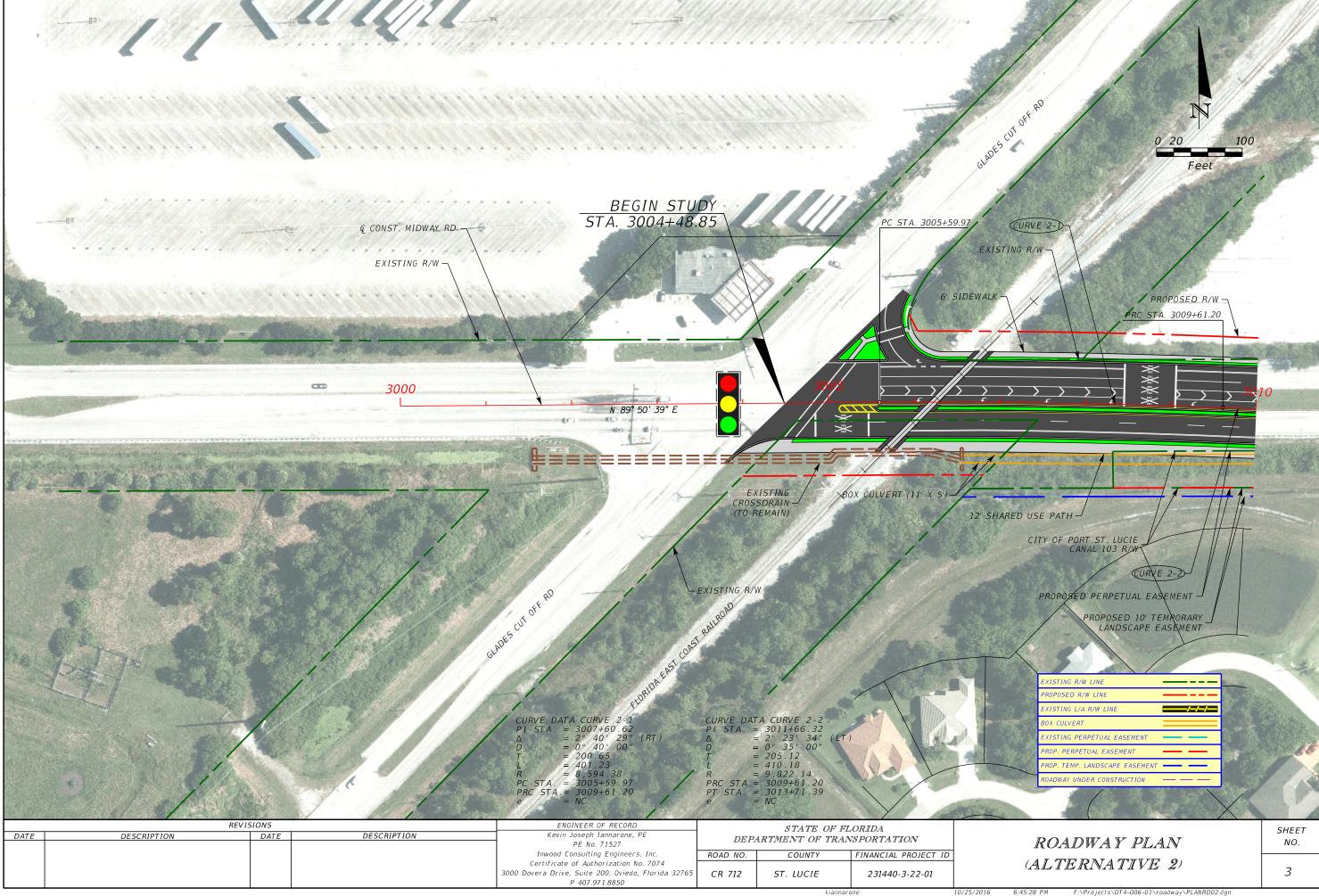


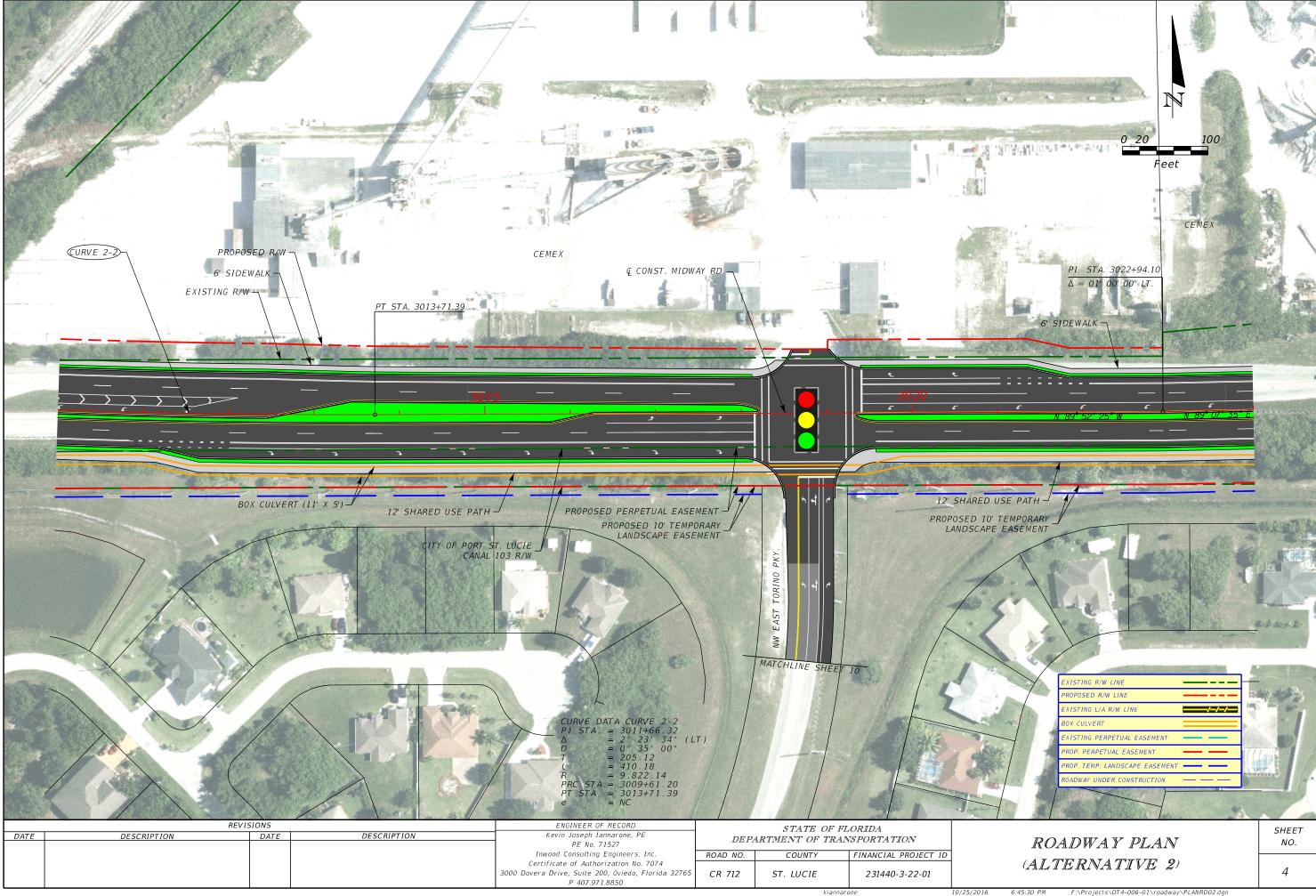


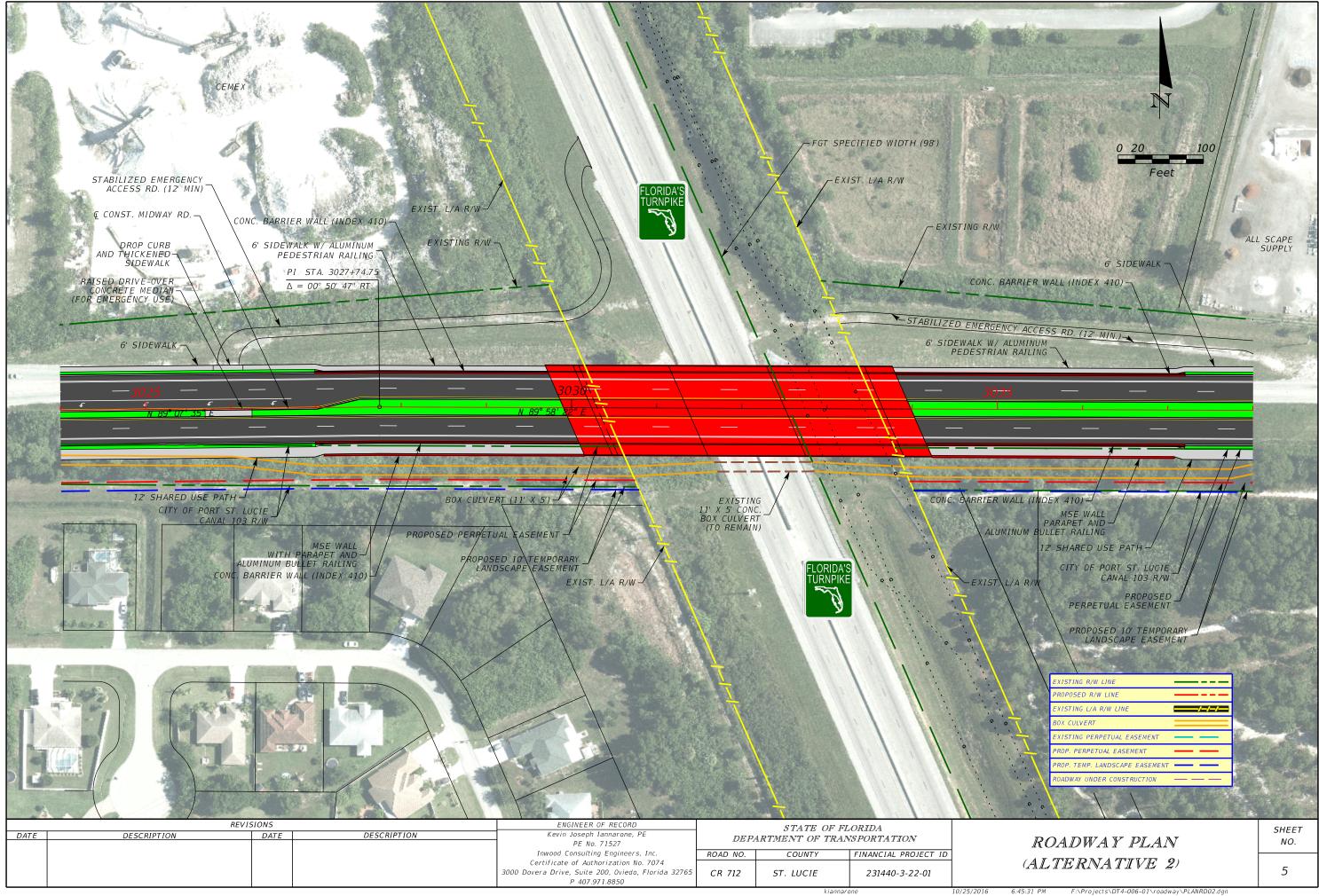
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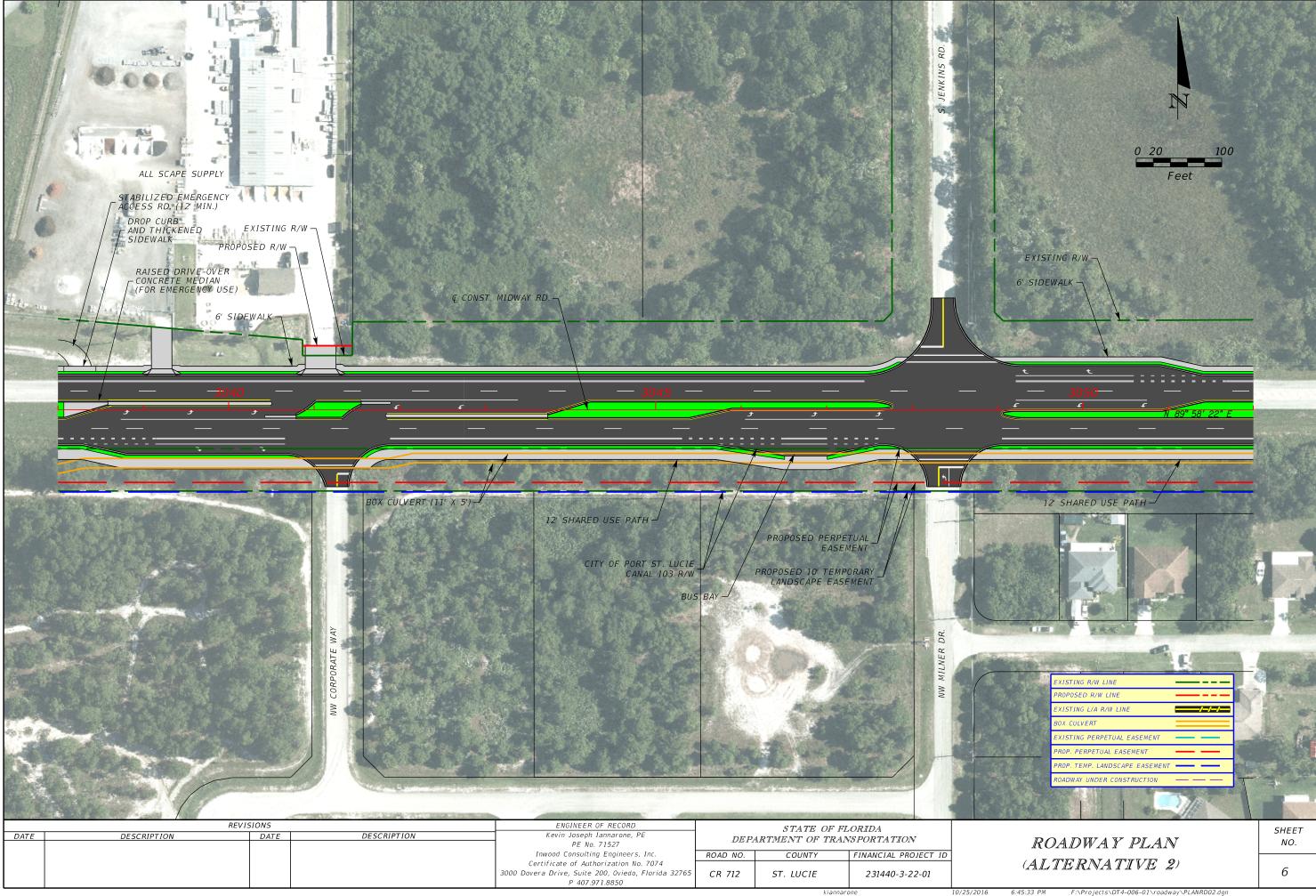
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DATE	DESCRIPTION	377 E001E 0001111 0011001111E110E		DEP	ARTMENT OF TRA			
			Certificate Of Authorization No. 696 Kenneth W. Jackson, P.E.				MIDWAYROAD	NO.
			P.E. License No. 50602	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	TYPICAL SECTIONS	
		Michael V. Powley, PE Date St. Lucie County Engineer	1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CR 712	ST. LUCIE	231440-3-22-01		2

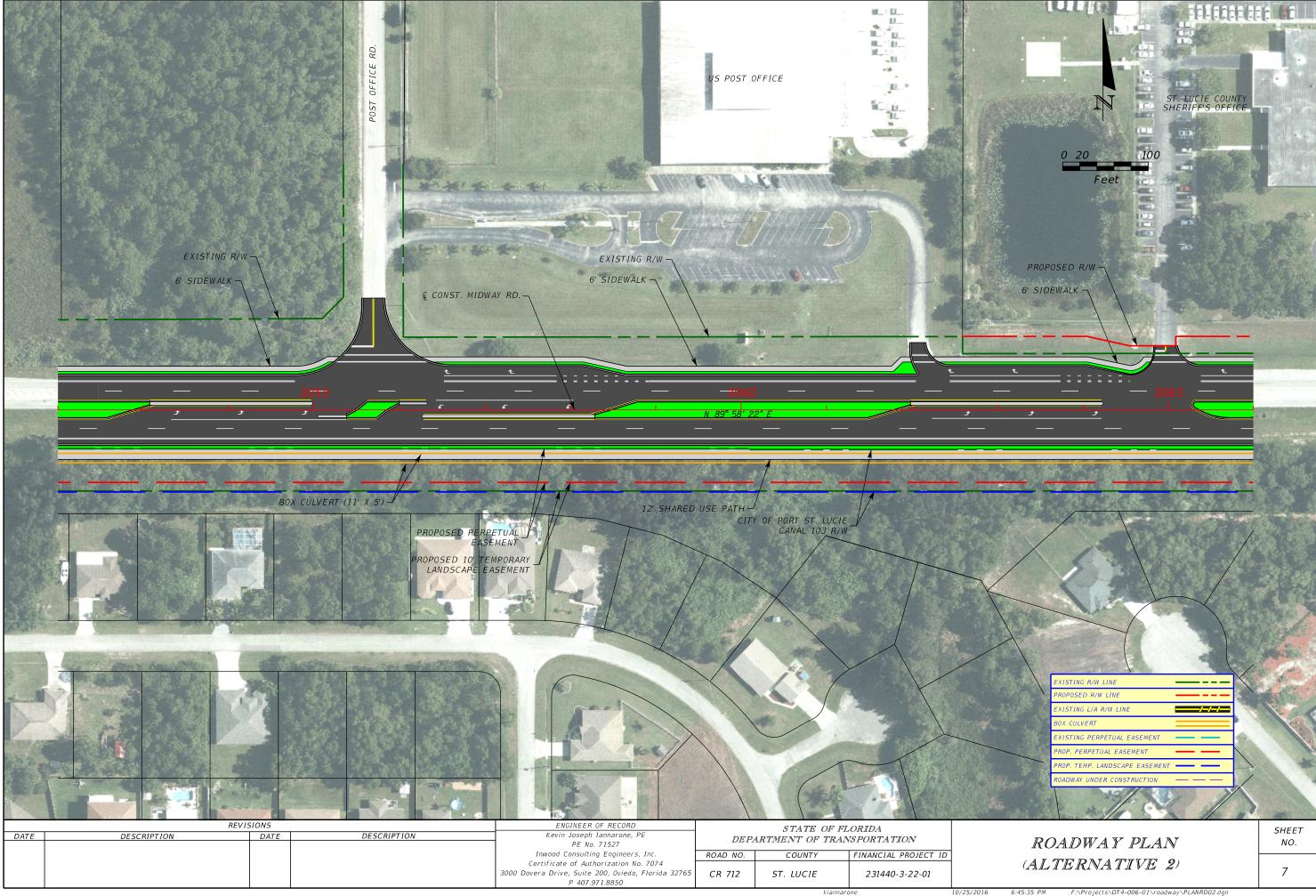
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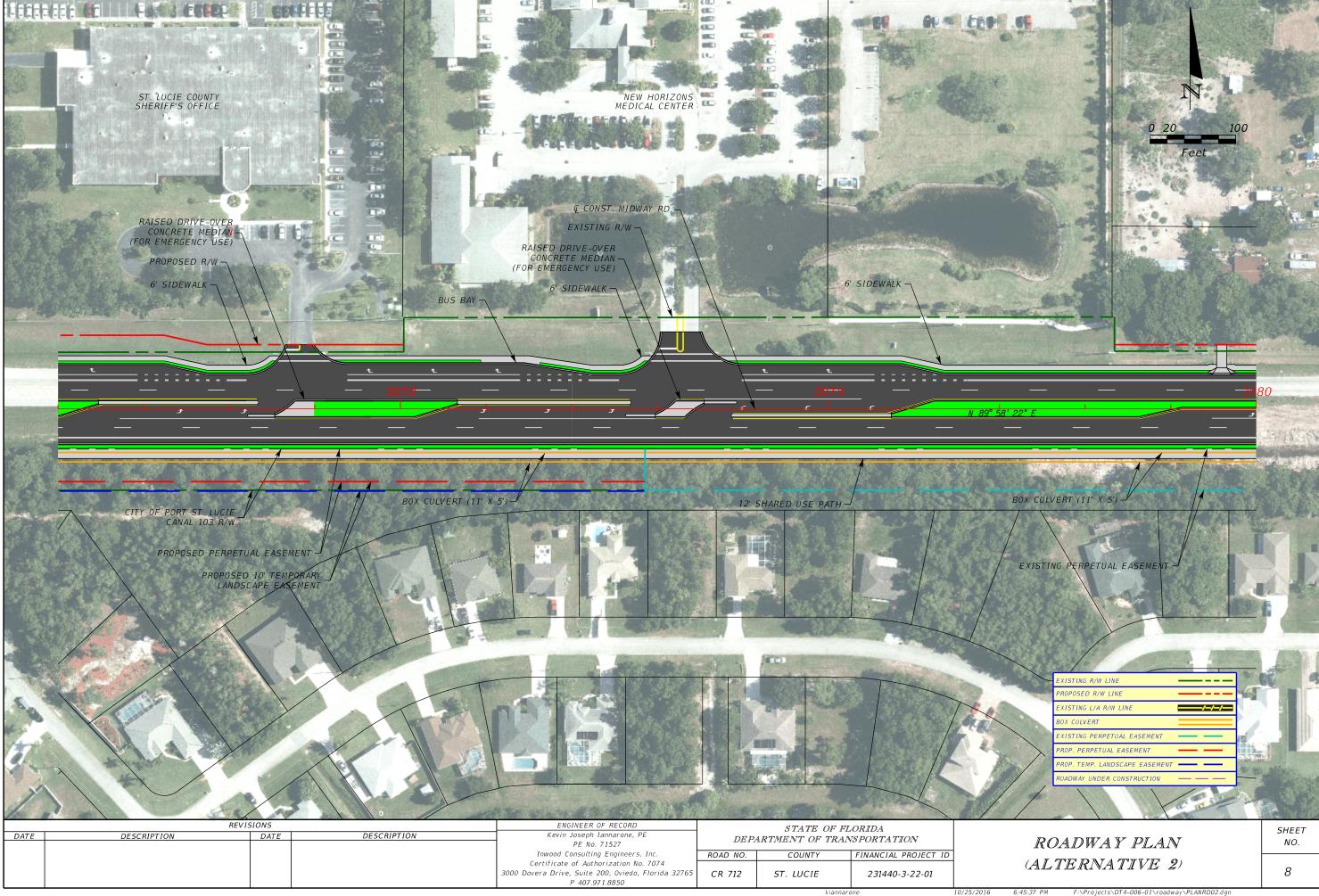


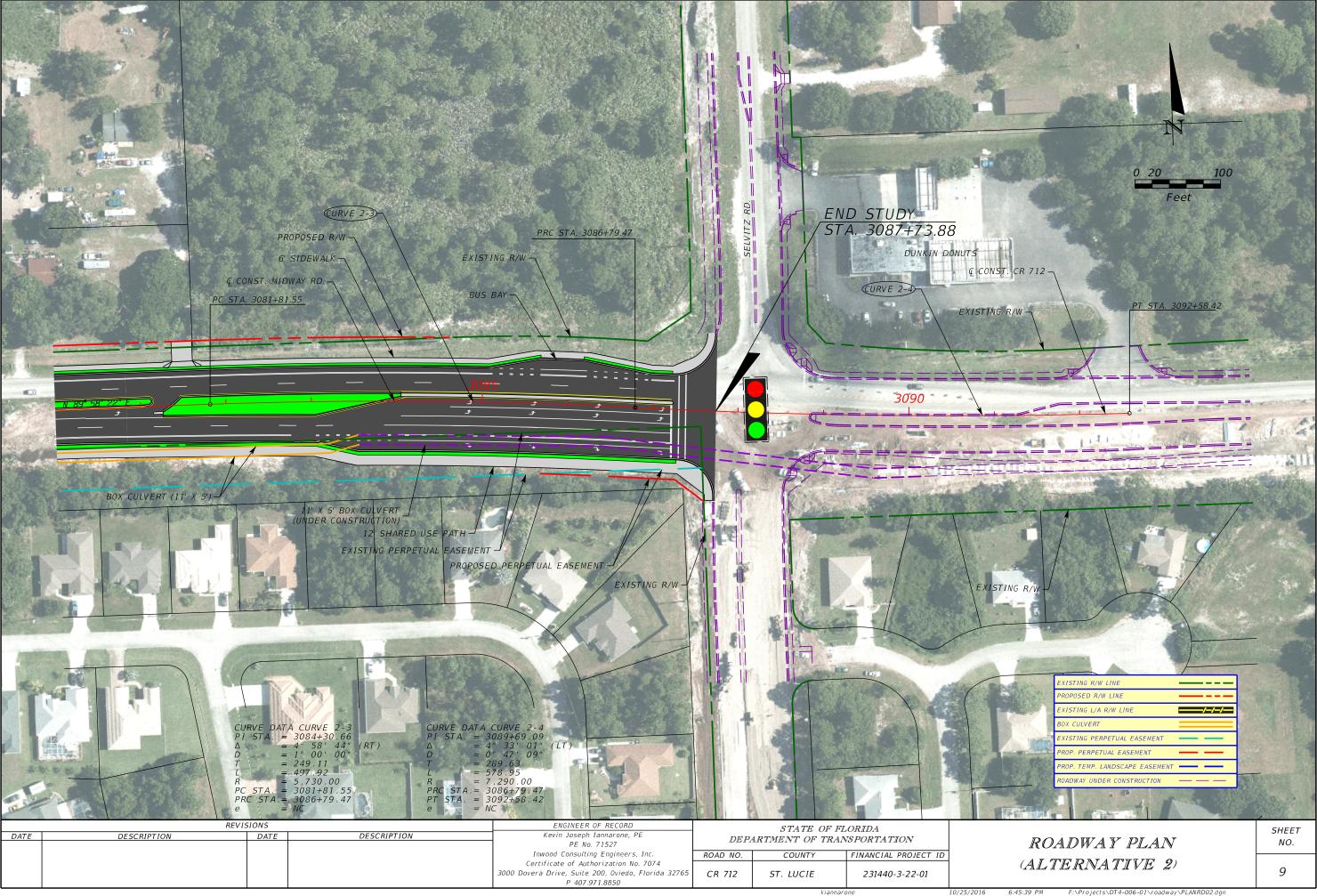














Appendix B

Typical Section Package

To be completed following comments from the Public Hearing.

Appendix C

Agency Correspondence

ETDM Programming Summary Report



Meeting Minutes

3000 Dovera Drive, Suite 200, Oviedo, FL 32765 | P: 407-971-8850 | F: 407-971-8955 | www.inwoodinc.com

DATE: September 30, 2016

TO: July Jimenez, PE

FROM: Alex Hull, PE

RE: Midway Road PD&E (FPID: 231440-3) – St. Lucie County – St. Lucie TPO

Coordination Meeting Regarding Glades Cut Off Road Intersection

CC: All Attendees (via email)

A meeting was held beginning at 1:30 PM on September 30, 2016, at the St. Lucie County Engineering office in St. Lucie County, Florida, in regards to the Midway Road (CR 712) PD&E Study. The purpose of the meeting was to discuss the Midway Road and Glades Cut Off Road intersection. Those in attendance were Craig Hauschild and Mike Harvey with St. Lucie County, Peter Buchwald with St. Lucie TPO, July Jimenez with FDOT, and Alex Hull with Inwood. Ian Rairden with KHA and Kevin Iannarone with Inwood participated via teleconference.

The meeting began with introductions and a discussion of the intersection options that were developed for the Glades Cut Off Road intersection. Seven intersection configurations were discussed. The intersection concepts, the LOS analysis and the cost estimates prepared for the intersection options are attached. The intersection options are briefly discussed below:

Option 1: Adds NB left and NB right; adds WB left; adds SB thru; adds EB right. Requires right-of-way acquisition from Tropicana Products, Inc. and Marathon gas station. Complies with original DTTM and meets LOS D for the design year 2040. Estimated Cost = \$10,797,000.

Option 1A: Adds NB thru, NB left and NB right; adds WB left; adds SB thru; adds EB right. Requires right-of-way acquisition from Tropicana Products, Inc. and Marathon gas station. This option added a northbound thru lane in comparison with Option 1. The LOS was not determined but would be equal to or better than for Option 1. Estimated Cost = \$11,379,000.

Option 2: Adds SB left. The DTTM prepared for Midway Road originally recommended extensive intersection improvements as described above. During review of the Midway Road DTTM, FDOT made a comment about the high growth projected by the traffic model along Glades Cut Off Road south of Midway Road that was not consistent with the projected growth east and west along Midway Road or along Glades Cut Off Road to the north. The growth along Glades Cut Off Road south of Midway Road was a result of increases in population and employment in the "western annex" that were reflected in the 2040 traffic model. The population and employment increases are at least partially due to DRI's in the area that may or may not be built by the design year 2040 for Midway Road. These high population and employment increases resulted in the extensive intersection improvement recommendations contained in the traffic report. Therefore, additional analysis was conducted in which the growth on Glades Cut Off Road to the south was capped at a 5% annual growth rate. This revised growth rate is



Meeting Minutes

3000 Dovera Drive, Suite 200, Oviedo, FL 32765 I P: 407-971-8850 I F: 407-971-8955 I www.inwoodinc.com consistent with the growth rates for Midway Road east and west of the intersection, and Glades Road Cut Off Road to the north of the intersection. FDOT concurred with this analysis. It was determined that minimal intersection improvements, consisting of an additional southbound to eastbound left turn, could be implemented in the future and would result in an LOS D for the Glades Cut Off Road intersection in the 2040 design year. If the traffic volumes in the year 2040 are as the original DTTM projected, the LOS would be F. Estimated Cost = \$538,000.

Options 3 and 4 are interim alternatives with various improvements added. The estimated costs for these options are \$1,955,00 and \$1,448,000 respectively. These options were not discussed in detail during the meeting.

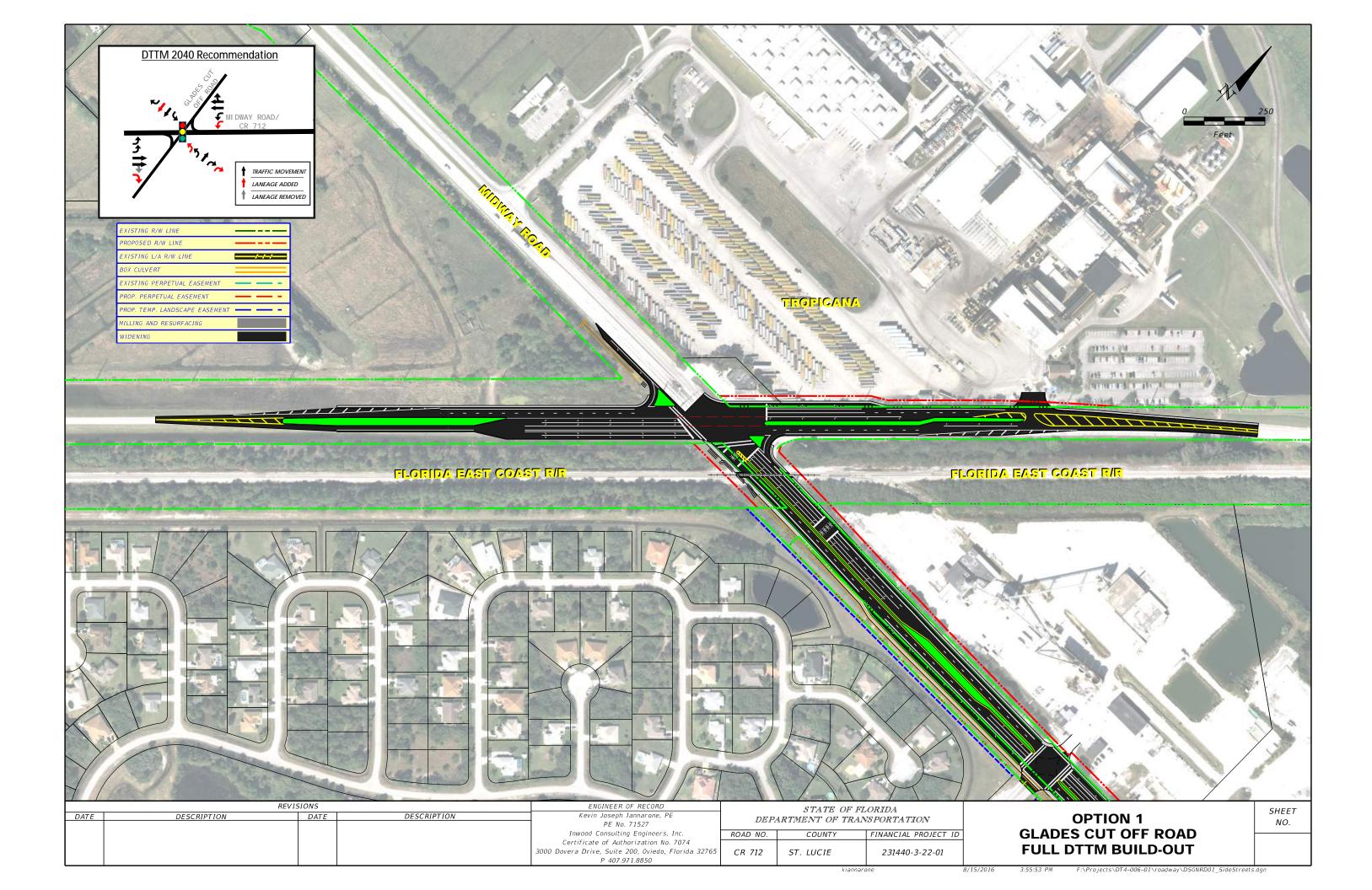
Option 5: Adds EB right and NB left. This is another interim variation from the original DTTM recommendation. The LOS would be F. Cost =\$1,465,000

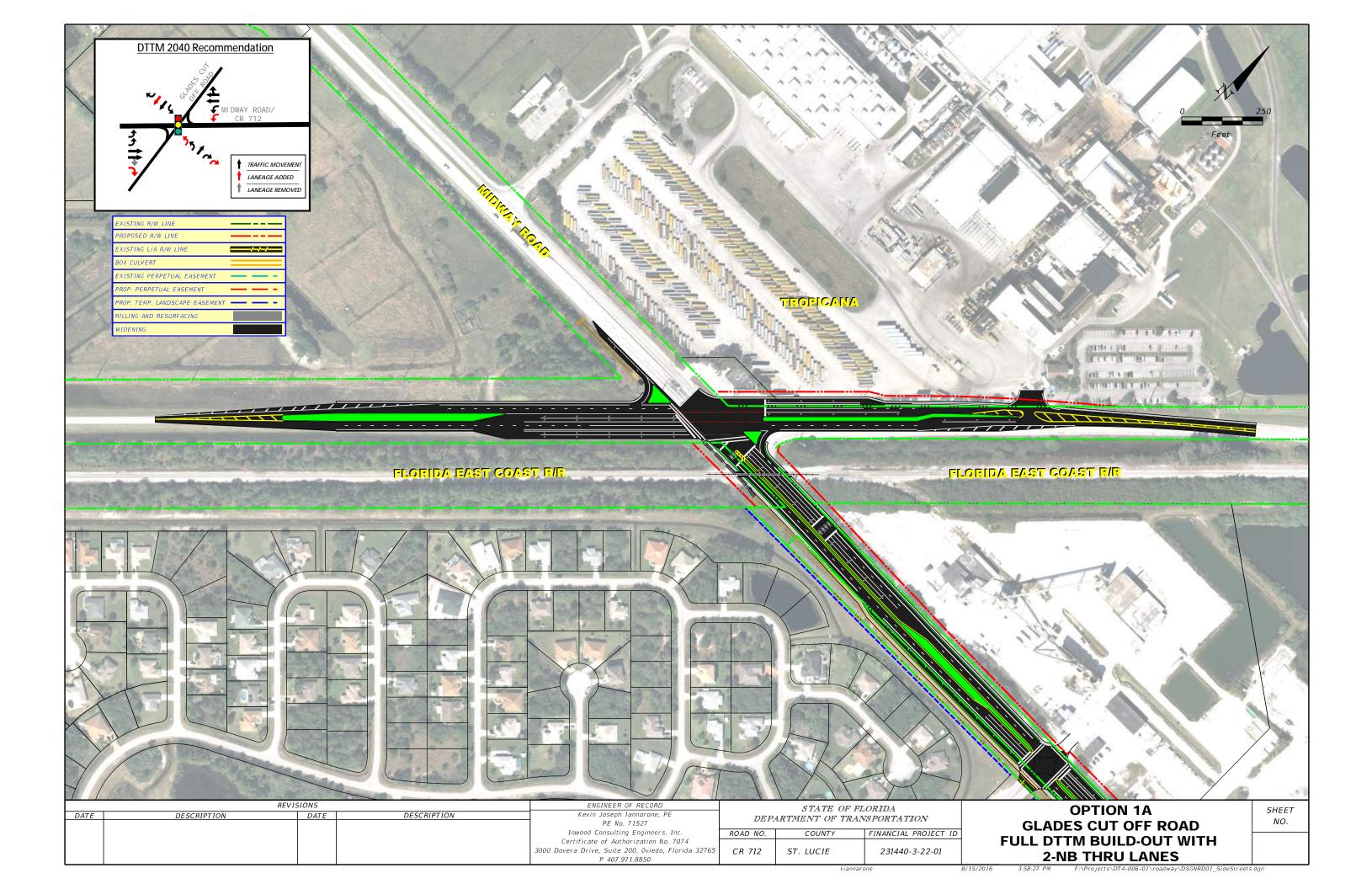
Option 5A: Converts NB thru to shared thru-right, and adds NB left, WB left, and EB right. This was an option that the VE Team recommended for consideration. The LOS would be F. the cost was not determined but would be similar to the other interim intersection options 3, 4 and 5.

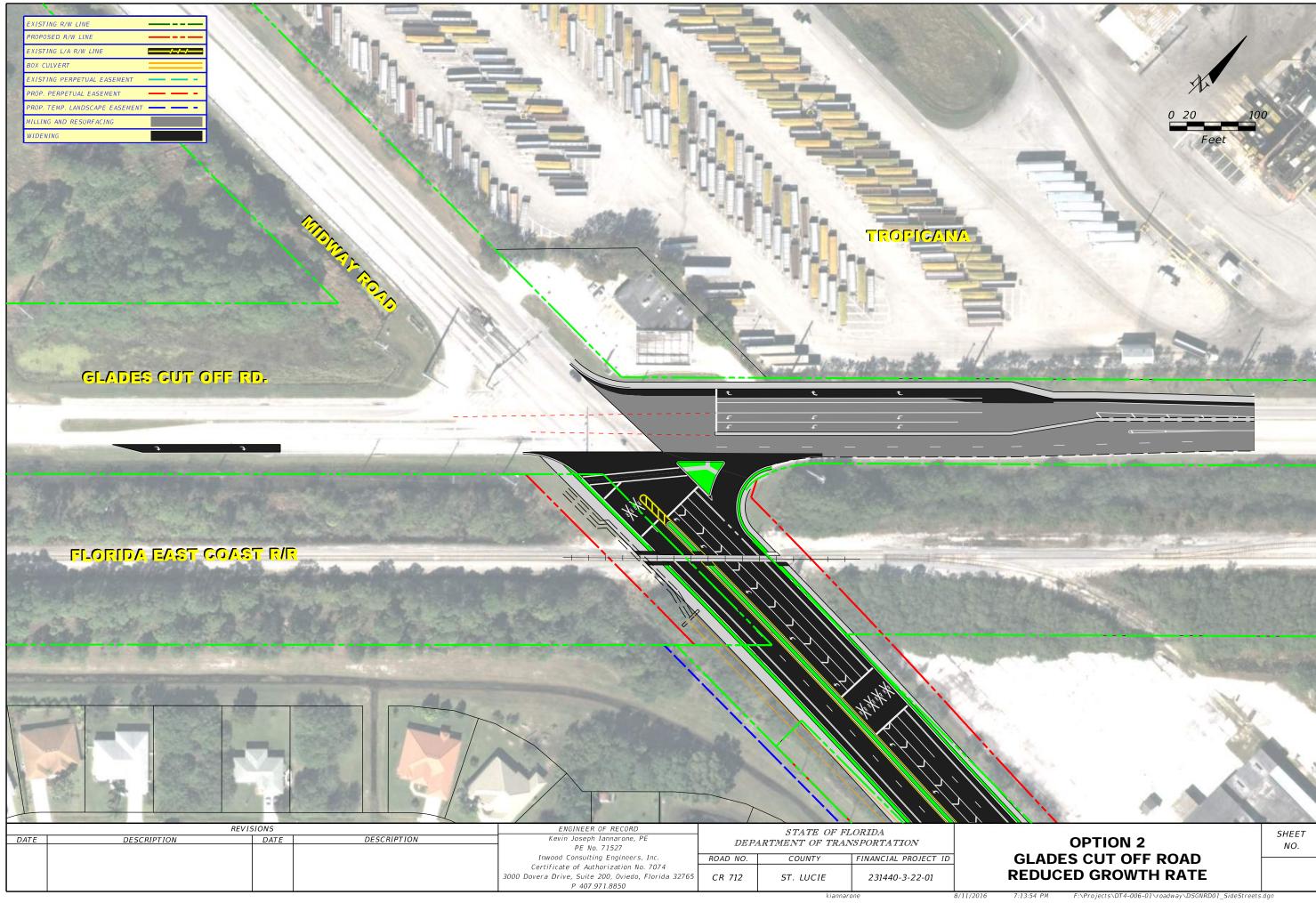
The traffic volumes and projections were then discussed. Peter explained how the population projections were distributed within the County. He also stated that he agreed with the revised projection methodology for the Glades Cut Off Road intersection used to develop Option 2. He stated that he would write a letter to the County giving his concurrence. He also stated that he would program CMP funds for the minor intersection improvements associated with Option 2 so that the construction could occur when the improvements are needed.

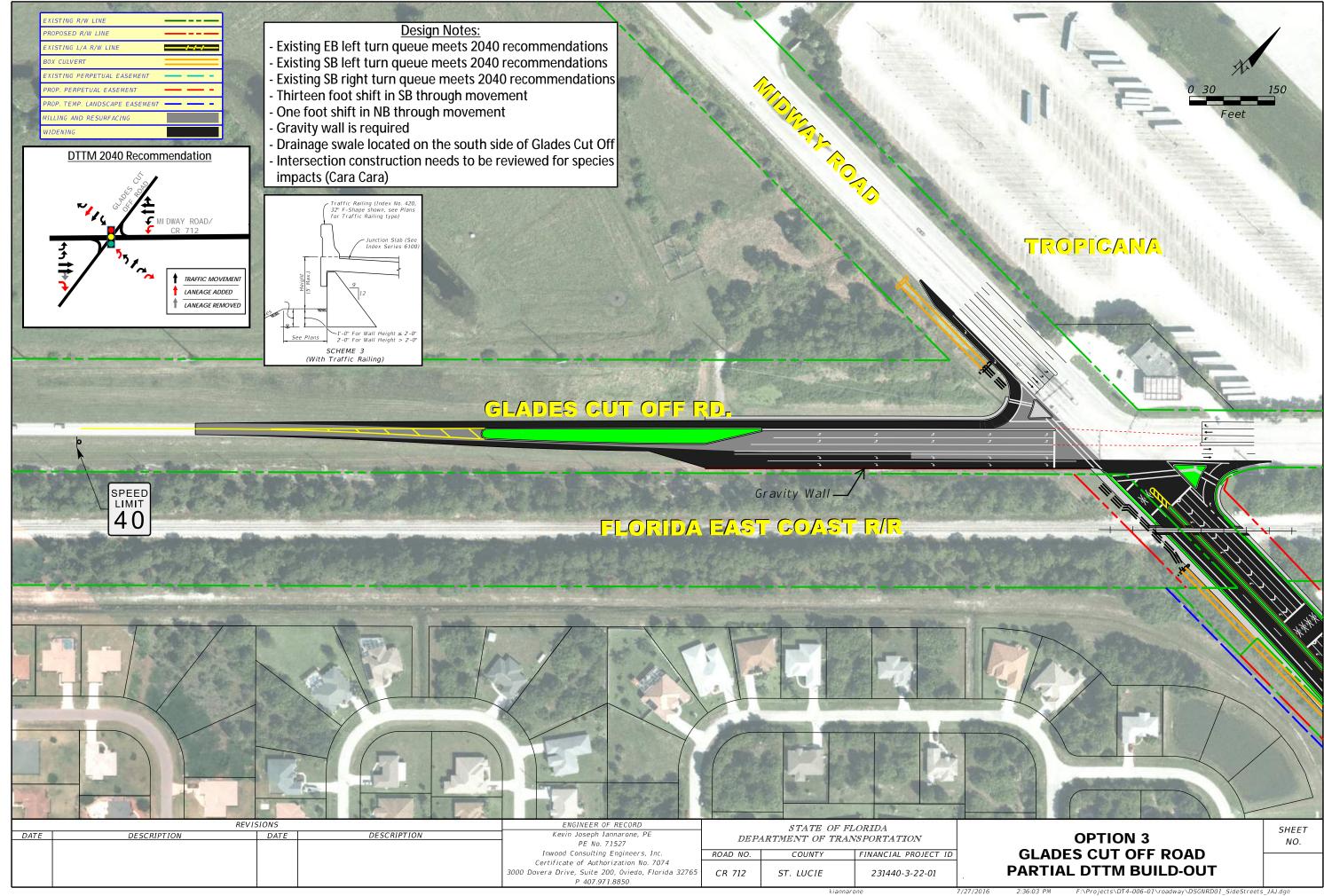
It was then agreed that the project limits would be from Glades Cut Off Road (east approach) to Selvitz Road. No intersection improvements at Glades Cut Off Road would be included in the project.

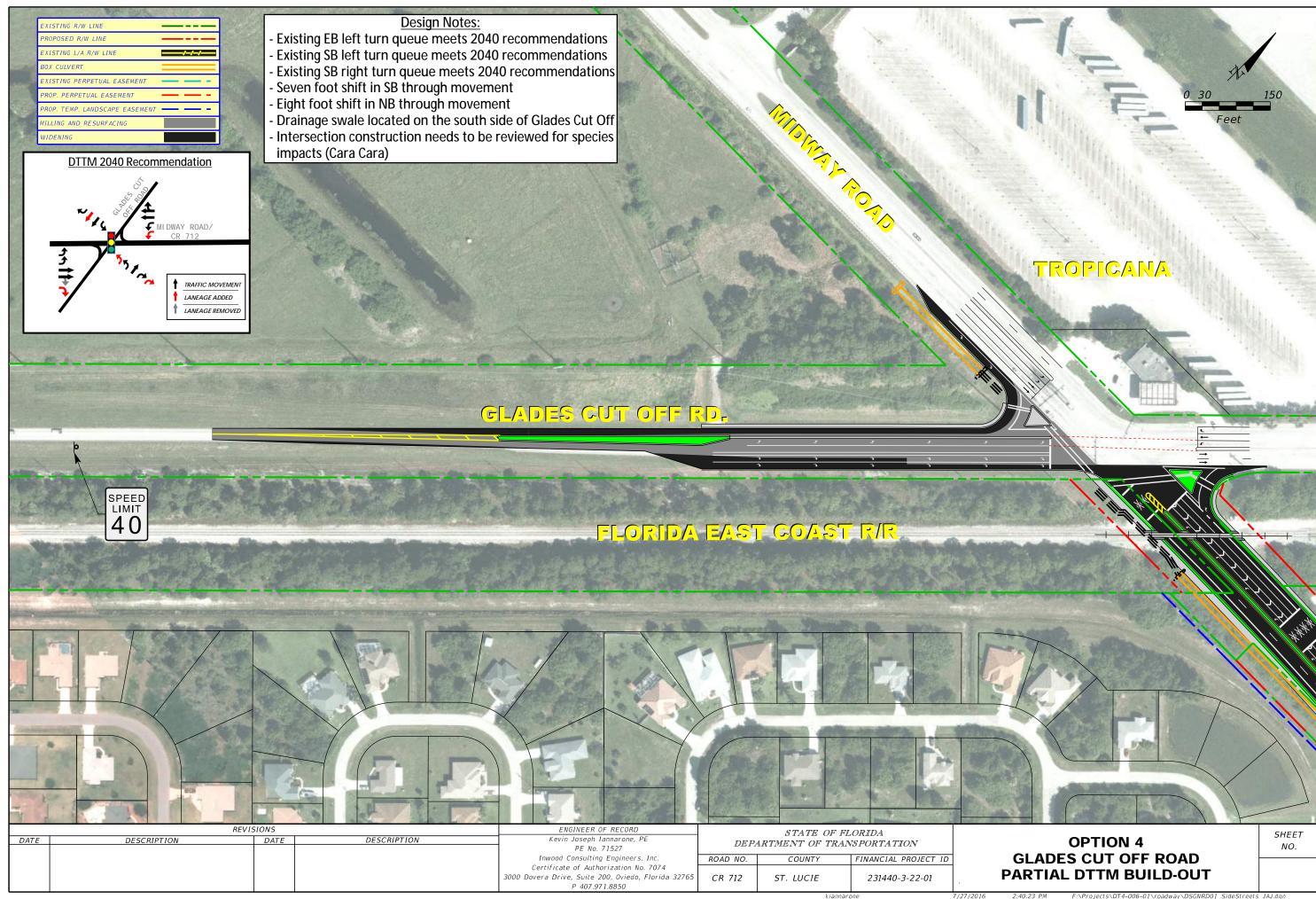
The meeting was concluded at approximately 3:00 PM.

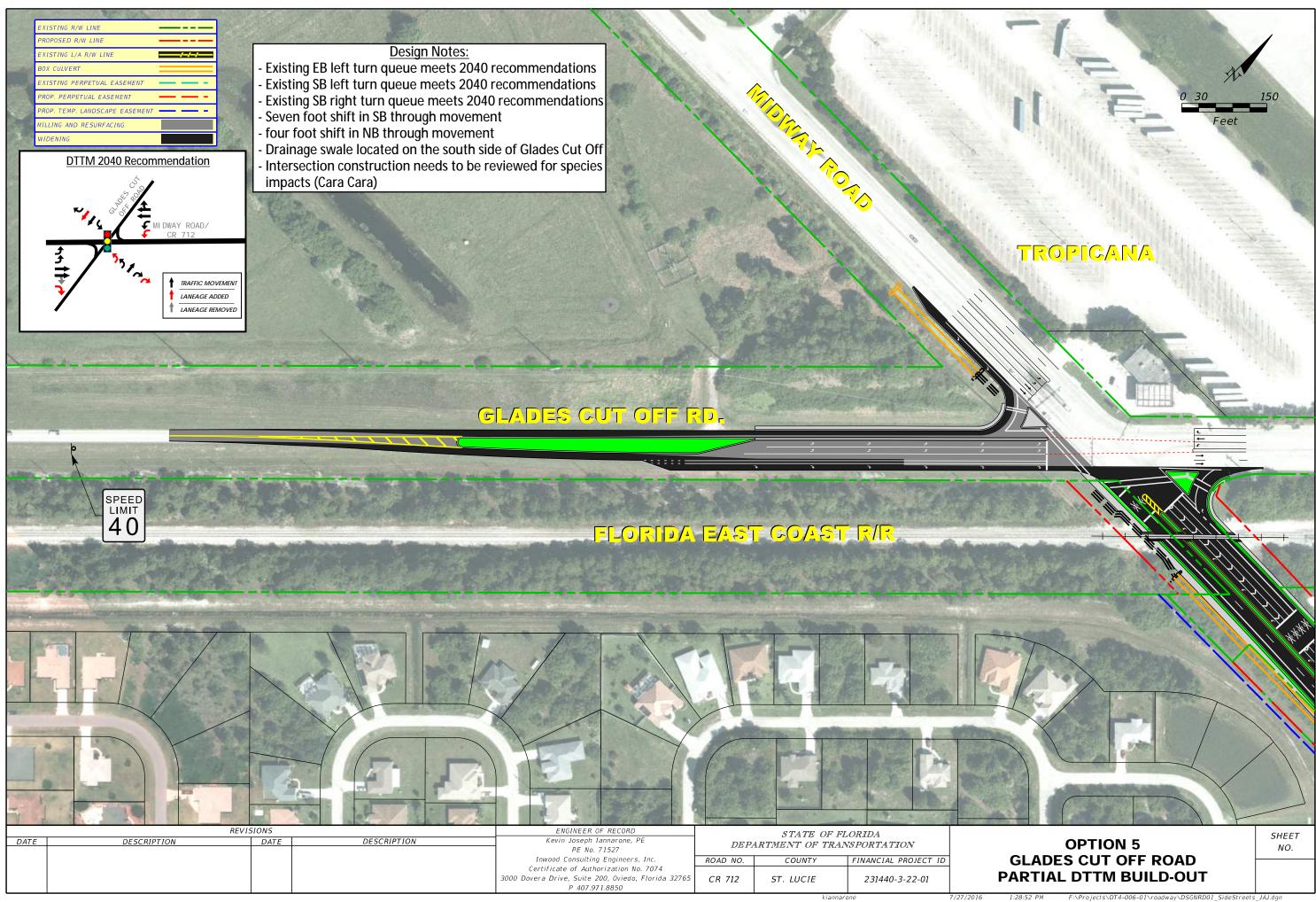












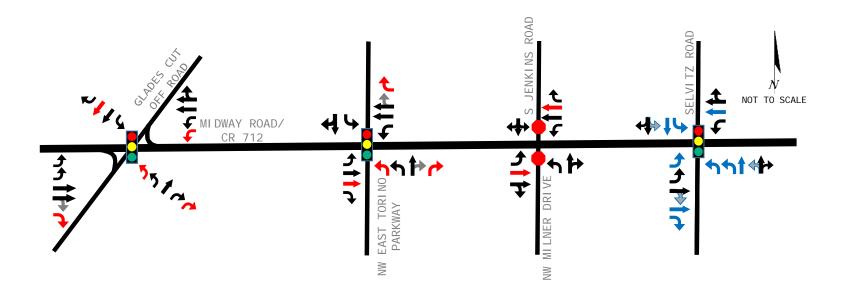
Intersection Cost Analysis

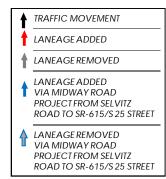


Estimated Costs (Present Day Costs)	Glades Opt. 1	Glades Opt. 1A	Glades Opt. 2	Glades Opt. 3	Glades Opt. 4	Glades Opt. 5	Torino
Design (10% of construction)	\$375,000	\$381,000	\$43,000	\$156,000	\$116,000	\$117,000	\$30,000
Road right-of- way	\$6,107,000	\$6,622,000	\$ 0	\$ O	\$ 0	\$ 0	\$ 0
Wetland mitigation	\$0	\$0	\$0	\$0	\$0	\$0	\$0
Roadway and bridge construction	\$3,752,000	\$3,806,000	\$430,000	\$1,564,000	\$1,158,000	\$1,172,000	\$295,000
Reimbursable utility/railroad relocation	\$ O	\$ 0	\$ 0	\$ O	\$ 0	\$ 0	\$ 0
CEI (15% of construction)	\$563,000	\$570,000	\$65,000	\$235,000	\$174,000	\$176,000	\$44,000
Total Cost	\$10,797,000	\$11,379,000	\$538,000	\$1,955,000	\$1,448,000	\$1,465,000	\$369,000

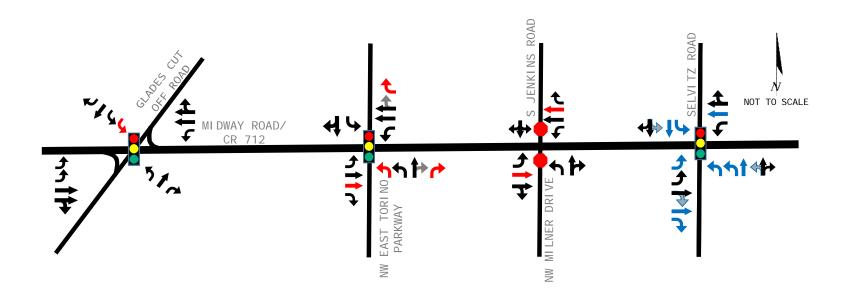


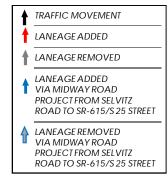
				Delay (seconds/vehicle) and LOS									
Option	Year	Peak Hour	E	В	V	/B	N	IB	S	В	Inters	ection	
	2020	AM	20.2	С	20.8	С	23.3	С	25.2	С	21.6	С	
	2020	PM	18.4	В	19.3	В	22.4	С	23.2	С	20.0	С	
1	2030	AM	31.3	С	28.3	С	35.0	D	40.0	D	31.9	С	
	2030	PM	26.4	С	26.3	С	32.6	С	32.4	С	28.6	С	
	2040	AM	55.2	Е	40.0	D	53.4	D	60.8	Е	49.4	D	
	2040	PM	35.8	D	32.5	С	45.3	D	50.7	D	39.1	D	



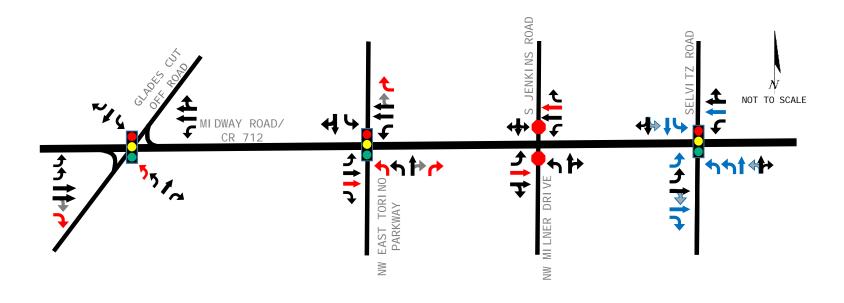


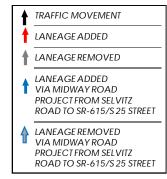
				Delay (seconds/vehicle) and LOS									
Option	Year	Peak Hour	E	В	W	/B	N	IB	S	В	Inters	ection	
	2020	AM	23.5	С	22.8	С	25.8	С	27.6	С	24.1	С	
	2020	PM	19.5	В	20.4	С	23.4	С	22.6	С	20.8	С	
2	2030	AM	46.2	D	46.2	D	62.8	Е	91.6	F	54.8	D	
	2030	PM	29.2	С	29.1	С	34.5	С	37.4	D	31.5	С	
	2040	AM	95.6	F	143.0	F	118.6	F	147.8	F	125.2	F	
	2040	PM	42.9	D	34.4	С	105.2	F	70.2	Е	60.7	E	



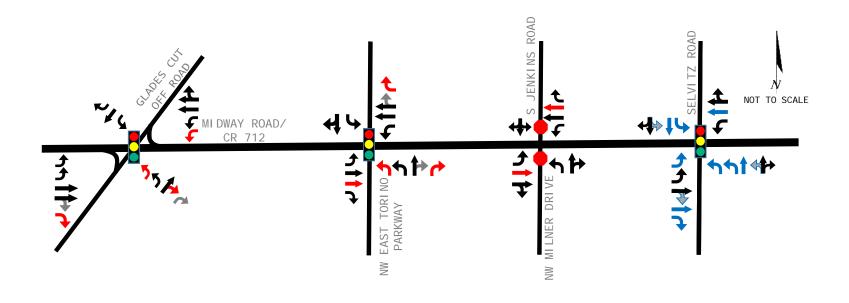


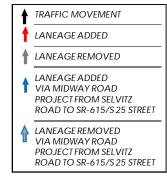
				Delay (seconds/vehicle) and LOS									
Option	Year	Peak Hour	E	В	V	/B	N	В	S	В	Inters	ection	
	2020	AM	23.0	С	22.3	С	24.9	С	28.4	С	23.7	С	
	2020	PM	19.8	В	20.7	С	23.3	С	23.8	С	21.1	С	
5	2030	AM	50.7	D	32.9	С	51.4	D	65.0	Е	45.5	D	
5	2030	PM	27.9	С	27.7	С	40.5	D	33.1	С	31.4	С	
	2040	AM	125.1	F	86.4	F	83.3	F	124.0	F	99.7	F	
	2040	PM	42.1	D	31.2	С	142.1	F	55.1	E	68.0	E	





				Delay (seconds/vehicle) and LOS									
Option	Year	Peak Hour	E	В	V	/B	N	IB	S	В	Inters	ection	
	2020	AM	25.1	С	26.3	С	32.7	С	27.1	С	27.0	С	
	2020	PM	23.5	С	24.2	С	31.2	С	25.2	С	25.2	С	
5A	2030	AM	53.4	D	49.0	D	90.3	F	54.9	D	59.6	Е	
SA	2030	PM	46.5	D	45.1	D	82.3	F	44.7	D	54.1	D	
	2040	AM	114.5	F	100.5	F	230.2	F	72.2	Е	132.4	F	
	2040	PM	94.3	F	84.2	F	227.8	F	71.9	E	125.7	F	





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Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	16	∱ ∱		Ť	∱ ∱		7	↑	7	ሻሻ	†	7
Traffic Volume (veh/h)	208	1332	62	233	1411	232	82	75	165	211	93	169
Future Volume (veh/h)	208	1332	62	233	1411	232	82	75	165	211	93	169
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1759	1759	1900	1759	1759	1900	1759	1759	1759	1759	1759	1759
Adj Flow Rate, veh/h	224	1432	0	251	1517	0	88	81	177	227	100	182
Adj No. of Lanes	2	2	0	1	2	0	1	1	1	2	1	1
Peak Hour Factor	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
Percent Heavy Veh, %	8	8	8	8	8	8	8	8	8	8	8	8
Cap, veh/h	279	1477	0	283	1754	0	109	185	410	284	224	319
Arrive On Green	0.09	0.44	0.00	0.17	0.52	0.00	0.07	0.11	0.11	0.09	0.13	0.13
Sat Flow, veh/h	3250	3431	0	1675	3431	0	1675	1759	1495	3250	1759	1495
Grp Volume(v), veh/h	224	1432	0	251	1517	0	88	81	177	227	100	182
Grp Sat Flow(s), veh/h/ln	1625	1671	0	1675	1671	0	1675	1759	1495	1625	1759	1495
Q Serve(g_s), s	8.4	51.7	0.0	18.1	48.8	0.0	6.4	5.3	12.0	8.5	6.5	13.5
Cycle Q Clear(g_c), s	8.4	51.7	0.0	18.1	48.8	0.0	6.4	5.3	12.0	8.5	6.5	13.5
Prop In Lane	1.00	01.7	0.00	1.00	10.0	0.00	1.00	0.0	1.00	1.00	0.0	1.00
Lane Grp Cap(c), veh/h	279	1477	0	283	1754	0.00	109	185	410	284	224	319
V/C Ratio(X)	0.80	0.97	0.00	0.89	0.86	0.00	0.80	0.44	0.43	0.80	0.45	0.57
Avail Cap(c_a), veh/h	421	1481	0.00	353	1754	0.00	231	185	410	448	224	319
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	55.4	33.6	0.0	50.2	25.5	0.0	56.9	51.8	36.9	55.3	49.9	43.5
Incr Delay (d2), s/veh	5.3	16.5	0.0	23.6	4.6	0.0	9.7	1.6	0.7	4.2	1.4	2.4
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	7.1	35.6	0.0	15.5	31.4	0.0	5.9	4.8	8.7	7.2	5.9	9.7
LnGrp Delay(d),s/veh	60.7	50.2	0.0	73.7	30.1	0.0	66.7	53.4	37.6	59.5	51.3	45.9
LnGrp LOS	60.7 E	50.2 D	0.0	73.7 E	30.1 C	0.0	60.7 E	55.4 D	37.0 D	57.5 E	51.5 D	43.7 D
Approach Vol, veh/h	<u> </u>	1656		<u>L</u>	1768			346	D	<u> </u>	509	
Approach Delay, s/veh		51.6			36.3			48.7			53.0	
1.1		51.0 D			30.3 D			40.7 D			55.0 D	
Approach LOS	_					,	_				D	
Timer	1	2	3	4	5	6	7	8				
Assigned Phs Phs Duration (G+Y+Rc), s	1 16.6	2 71.1	3 16.8	4 19.0	5 26.8	6 60.8	7 14.1	8 21.7				
Change Period (Y+Rc), s	6.0	6.3	6.0	6.0	6.0	6.3	6.0	6.0				
Max Green Setting (Gmax), s	16.0	64.7	17.0	13.0	26.0	54.7	17.0	13.0				
Max Q Clear Time (q_c+l1), s	10.4	50.8	10.5	14.0	20.0	53.7	8.4	15.5				
.0			0.3									
Green Ext Time (p_c), s	0.3	10.9	0.3	0.0	8.0	0.9	0.1	0.0				
Intersection Summary			45.0									
HCM 2010 Ctrl Delay			45.2									
HCM 2010 LOS			D									

	_#	→	7	*	←	٤	•	×	<i>></i>	6	×	~
Movement	EBL	EBT	EBR	WBL	WBT	WBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations	16	∱ ∱		Ť	∱ ∱		7	↑	7	ሻሻ	†	7
Traffic Volume (veh/h)	174	1461	49	84	1314	195	89	71	229	300	52	202
Future Volume (veh/h)	174	1461	49	84	1314	195	89	71	229	300	52	202
Number	1	6	16	5	2	12	7	4	14	3	8	18
Initial Q (Qb), veh	0	0	0	0	0	0	0	0	0	0	0	0
Ped-Bike Adj(A_pbT)	1.00		1.00	1.00		1.00	1.00		1.00	1.00		1.00
Parking Bus, Adj	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Adj Sat Flow, veh/h/ln	1810	1810	1900	1810	1810	1900	1810	1810	1810	1810	1810	1810
Adj Flow Rate, veh/h	181	1522	0	88	1369	0	93	74	239	312	54	210
Adj No. of Lanes	2	2	0	1	2	0	1	1	1	2	1	1
Peak Hour Factor	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96	0.96
Percent Heavy Veh, %	5	5	5	5	5	5	5	5	5	5	5	5
Cap, veh/h	280	1548	0	137	1533	0	116	285	364	366	361	436
Arrive On Green	0.08	0.45	0.00	0.08	0.45	0.00	0.07	0.16	0.16	0.11	0.20	0.20
Sat Flow, veh/h	3343	3529	0	1723	3529	0	1723	1810	1538	3343	1810	1538
Grp Volume(v), veh/h	181	1522	0	88	1369	0	93	74	239	312	54	210
Grp Sat Flow(s), veh/h/ln	1672	1719	0	1723	1719	0	1723	1810	1538	1672	1810	1538
Q Serve(g_s), s	6.3	52.1	0.0	5.9	43.7	0.0	6.3	4.3	16.8	10.9	2.9	13.5
Cycle Q Clear(g_c), s	6.3	52.1	0.0	5.9	43.7	0.0	6.3	4.3	16.8	10.9	2.9	13.5
Prop In Lane	1.00	02	0.00	1.00		0.00	1.00		1.00	1.00	,	1.00
Lane Grp Cap(c), veh/h	280	1548	0	137	1533	0	116	285	364	366	361	436
V/C Ratio(X)	0.65	0.98	0.00	0.64	0.89	0.00	0.80	0.26	0.66	0.85	0.15	0.48
Avail Cap(c_a), veh/h	392	1548	0.00	419	1836	0.00	202	288	367	392	361	436
HCM Platoon Ratio	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Upstream Filter(I)	1.00	1.00	0.00	1.00	1.00	0.00	1.00	1.00	1.00	1.00	1.00	1.00
Uniform Delay (d), s/veh	53.0	32.4	0.0	53.3	30.4	0.0	54.9	44.1	41.1	52.2	39.4	35.5
Incr Delay (d2), s/veh	1.9	18.9	0.0	10.4	4.7	0.0	9.2	0.5	4.2	15.3	0.2	0.8
Initial Q Delay(d3),s/veh	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
%ile BackOfQ(95%),veh/ln	5.3	37.3	0.0	5.8	29.4	0.0	6.0	3.9	12.0	9.8	2.7	9.8
LnGrp Delay(d),s/veh	54.8	51.2	0.0	63.6	35.2	0.0	64.0	44.6	45.3	67.5	39.6	36.3
LnGrp LOS	J4.0 D	D D	0.0	03.0 E	33.2 D	0.0	04.0 E	44.0 D	43.3 D	67.5 E	57.0 D	30.3 D
Approach Vol, veh/h	U D	1703			1457			406	<u> </u>	<u>L</u>	576	
• •		51.6			36.9			49.5			53.5	
Approach LOS												
Approach LOS		D			D		_	D			D	
Timer Assistant Physics	1	2	3	4	5	6	7	8				
Assigned Phs Phs Duration (G+Y+Rc), s	1 16.0	2 59.5	3 19.0	4 24.8	5 15.5	6 60.0	7 14.0	8 29.8				
Change Period (Y+Rc), s	6.0	6.3	6.0	6.0	6.0	6.3	6.0	6.0				
		63.7	14.0	19.0	29.0	0.3 48.7		19.0				
Max Green Setting (Gmax), s	14.0						14.0					
Max Q Clear Time (g_c+l1), s	8.3 0.2	45.7 7.5	12.9 0.1	18.8 0.0	7.9 0.4	54.1 0.0	8.3 0.1	15.5 0.9				
Green Ext Time (p_c), s	0.2	7.5	U. I	0.0	0.4	0.0	U. I	0.9				
Intersection Summary			47.5									
HCM 2010 Ctrl Delay			46.5									
HCM 2010 LOS			D									



Florida Department of Transportation

RICK SCOTT GOVERNOR

Chanter 1 Overview

605 Suwannee Street Tallahassee, FL 32399-0450 JIM BOXOLD SECRETARY

ETDM Summary Report

Project #14177 - Midway Road Widening

Programming Screen - Published on 05/27/2015

Printed on: 7/07/2015

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Screening Summary Reports

Introduction to Programming Screen Summary Report

The Programming Screen Summary Report shown below is a read-only version of information contained in the Programming Screen Summary Report generated by the ETDM Coordinator for the selected project after completion of the ETAT Programming Screen review. The purpose of the Programming Screen Summary Report is to summarize the results of the ETAT Programming Screen review of the project; provide details concerning agency comments about potential effects to natural, cultural, and community resources; and provide additional documentation of activities related to the Programming Phase for the project. Available information for a Programming Screen Summary Report includes:

- Screening Summary Report chart
- Project Description information (including a summary description of the project, a summary of public comments on the project, and community-desired features identified during public involvement activities)
- Purpose and Need information (including the Purpose and Need Statement and the results of agency reviews of the project Purpose and Need)
- Alternative-specific information, consisting of descriptions of each alternative and associated road segments; an overview of ETAT Programming Screen reviews for each alternative; and agency comments concerning potential effects and degree of effect, by issue, to natural, cultural, and community resources.
- Project Scope information, consisting of general project commitments resulting from the ETAT Programming Screen review, permits, and technical studies required (if any)
- Class of Action determined for the project
- Dispute Resolution Activity Log (if any)

The legend for the Degree of Effect chart is provided in an appendix to the report.

For complete documentation of the project record, also see the GIS Analysis Results Report published on the same date as the Programming Screen Summary Report.

#14177 Midway Road Widening

District: District 4 **County:** St. Lucie

Planning Organization: FDOT District 4

Plan ID: Not Available

Federal Involvement: Federal Funding

Phase: Programming Screen From: Glades Cut-Off Rd

To: Selvitz Road

Financial Management No.: 23144032201

Contact Information: Vanita Saini (954) 777-4468 vanita.saini@dot.state.fl.us

Snapshot Data From: Summary Report Re-Published 5/27/2015

Issues and Categories are reflective of what was in place at the time of the screening event.

		Soc	ial a	nd E	con	omic	:	С	ultu	ral		N	latur	al			PI	hysi	cal			
	Land Use Changes	Social	Relocation Potential	Farmlands	Aesthetic Effects	Economic	Mobility	Section 4(f) Potential	Historic and Archaeological Sites	Recreation Areas	Wetlands	Water Quality and Quantity	Floodplains	Wildlife and Habitat	Coastal and Marine	Noise	Air Quality	Contamination	Infrastructure	Navigation	Special Designations	
Selvitz Road viewed from 05/23/2014 to	2	2	2	0	2	1	1	3	3	0	3	2	0	2	0	0	2	3	N/A	N/A	0	

Purpose and Need

Purpose and Need

Based on recent traffic data from St. Lucie County, the facility does not adequately handle the existing traffic demand. Without capacity improvements, the traffic operations along the corridor will continue to deteriorate. The primary purpose for this project is to provide additional capacity to meet existing and future traffic needs, improve safety by alleviating existing roadway and capacity deficiencies, and allow opportunities for pedestrian, bicycle, and transit facilities. The additional capacity will also improve freight mobility and enhance emergency evacuation along the project corridor. The purpose and need of this project are further described in the following sections that include Transportation Demand, Capacity, Plan Consistency, Social Demands and Economic Development, and Modal Interrelationships.

Transportation Demand

The US Census designated Port St. Lucie-Fort Pierce Metropolitan Statistical Area (MSA) has been identified as one of the fastest growing metropolitan areas in Florida, which includes all of Martin and St. Lucie Counties. From 2000 to 2010, this metropolitan area has experienced population growth from 319,426 persons in 2000 to 424,107 persons in 2010, representing an annual increase of 2.9%. Evaluating the population growth for the City of Port St. Lucie by itself revealed an even greater percentage increase. According to the Bureau of Economic and Business Research, the City has grown from a population of 88,769 in 2000 to 164,603 in 2010 representing an annual increase of 6.4%.

This rapid population growth has resulted in a significant increase in surface transportation demand along major arterials such as the Midway Road (CR 712) corridor. The population of the Port St. Lucie-Fort Pierce metropolitan area is projected to increase from 424,107 in year 2010 to 648,600 in year 2035 representing a growth of approximately 53% (Source: Bureau of Economic Business Research).

As the population in the metropolitan area continues to increase, the developments in St. Lucie County will continue to push westward. In addition, the County is anticipated to experience traffic growth from the Developments of Regional Impact (DRI). A review of the recent DRI's applications in the Treasure Coast Regional Planning Council (TCRPC) shows the following statuses for the DRI's in the vicinity of the project corridor:

Completed - Orange Blossom Mall and St. Lucie West Approved - The Reserved Pending Notice of Proposed Change (NOPC) - LTC Ranch Withdrawn - Provences and Orchard Park

These DRI's are geographically shown in Figure 2. The DRI located along Midway Road (CR 712), which is LTC Ranch, would have the greatest impact on the project corridor if constructed. As currently approved, the development includes 4,000 dwelling units of residential, over 1,505,000 square feet (SQFT) of office space, 725,000 SQFT of retail, and 1,960,200 SQFT of industrial space. However, the status of this development is pending Notice of Proposed Change (NOPC) that may result in a change in the size of the approved development.

The approval of the LTC Ranch DRI will further increase the transportation demand resulting in congested conditions along the project corridor. Since Midway Road (CR 712) is one of the vital east-west corridors in St. Lucie County, it is critical to increase capacity to meet the anticipated future transportation demand.

Capacity

Traffic data obtained from the St. Lucie County TPO Traffic Counts and Level of Service Report shows that the 2012 Annual Average Daily Traffic (AADT) along Midway Road (CR 712) west of Selvitz Road is 16,820 vehicles. Evaluating

this traffic data using the 2012 FDOT Quality/Level of Service Handbook, the Level of Service (LOS) is LOS F which is beyond the St. Lucie County's adopted LOS criteria of LOS E. This traffic data shows that the existing volume is already exceeding the capacity of the corridor which indicates that the roadway is operating in oversaturated and undesirable conditions. Furthermore, due to the industrial properties along the corridor, it has a high truck percentage at over 7% (Florida Traffic Online.)

The traffic is anticipated to increase to 29,200 AADT by 2040 and the corridor will continue to operate at LOS F with degraded traffic operation unless if the capacity is increased. The future traffic projections are based on the FDOT District Four Design Traffic Technical Memorandum for the I-95 PD&E Study from north of Becker Road to south of SR 70. This project utilized the Greater Treasure Coast Regional Planning Model (GTCRPM) as the basis for the future traffic projections. Without improvements, the congestion on the Midway Road (CR 712) project corridor will continue to operate at unacceptable driving conditions for residents and commuters due to the increased traffic volumes.

Plan Consistency

Martin and St. Lucie Counties have independent Metropolitan Planning Organizations (MPO) but share a common Regional Long Range Transportation Plan (RLRTP). The RLRTP establishes a unified strategy for transportation priorities and funding and creates a joint decision-making process regarding regional transportation issues.

The Midway Road (CR 712) project corridor extends from Glades Cut-Off Road to Selvitz Road and is identified in the Martin and St. Lucie 2035 Regional Long Range Transportation Plan (RLRTP). The project is identified in the St. Lucie County TPO 2035 Cost Feasible Plan (2016-2035) with a 2021-2025 implementation horizon. In addition, the project will be included in the next update to the State Transportation Improvement Program (STIP) and the St. Lucie TPO TIP. It should be noted that on the south side of the project corridor a multipurpose trail has been identified in the 2035 RLRTP in Table 4-9 of the Needs Plan Development.

Social Demands & Economic Development

Evacuation: Serving as part of the evacuation route network established by the Florida Division of Emergency Management, Midway Road (CR 712) plays an important role in facilitating traffic during emergency evacuation periods as it connects other major highways and arterials designated on the state evacuation route network within the project limits. These facilities include the Okeechobee Road (SR 70), I-95, Glades Cut-off Road (CR 709), Selvitz Road, S 25th Street (CR 615), Oleander Avenue (CR 605), and US 1. During a twelve month period in 2004-2005, St. Lucie County was hit directly by three major hurricanes. Midway Road (CR 712) is one of the county's most critical east-west routes and serves as a vital evacuation route for hurricanes or any other disasters. Additionally, widening Midway Road (CR 712) will ease traffic flow between S 25th Street and I-95, which will minimize a bottleneck effect during an emergency. It would also improve the ability of the local emergency management organization to evacuate large portions of the Treasure Coast in an acceptable time frame which will enhance the safety of residents.

Economic Development: The Treasure Coast Planning Council Alternative Infill Development Plan developed for Martin and St. Lucie Counties has identified several regional workplace districts located along the Midway Road (CR 712) corridor (see Figure 3). These regional workplace districts are locations where business and economic development would be focused to provide jobs for residents within this metropolitan area. The Midway Road (CR 712) project area is a high-growth area. Important state and federal offices and nonprofit centers are located along Midway Road (CR 712) or nearby streets. This includes the main St. Lucie County Branch of the U.S. Post Office, the St. Lucie County Sheriff's Office, St. Lucie County Health Department, St. Lucie County Fire District Office, Hospice of the Treasure Coast, and the New Horizons of the Treasure Coast, Inc. (Mental Health Center which is currently expanding). Significant truck traffic from the nearby St. Lucie County Landfill, CEMEX, Packers of Indian River Ltd., and Tropicana place additional demands on the roadway. Meanwhile, new residential units are planned nearby. The St. Lucie County Fairgrounds, the County's

Emergency Operations Center, is just six miles west of the project site.

According to the Martin and St. Lucie County 2035 Regional Long Range Transportation Plan, "The Regional Workplace Districts in St. Lucie County are located along the I-95 and Turnpike corridors and include the Treasure Coast Education Research Development Authority (TCERDA) area; the Crossroads Park of Commerce; the existing Rinker and Tropicana facilities along Glades Cut-off Road; the LTC Ranch Commerce Park; St. Lucie West Commerce Park; and Torrey Pines Institute south of Tradition and Gatlin Boulevard. These districts are well-situated for regional access, have ample room to grow, and can provide jobs for local residents." The Midway Road (CR 712) project corridor is anticipated to serve as the main transportation corridor linking residents of both Martin and St. Lucie Counties to this business area. Increasing the capacity along the project corridor will improve mobility and support the economic development of these districts as well as stimulate major construction activities that will contribute to economic growth within this area.

Modal Interrelationships

The accessibility to bicyclists and pedestrians along the corridor is minimal with only two sections of sidewalk within the corridor. They are located on the north side of Midway Road (CR 712) from East Torino Boulevard to Glades Cut-Off Road and along the frontage of the recently construction New Horizons medical facility. There are no bicycle lanes. During a recent field review (February 7, 2014), pedestrians were noted walking on the grassed shoulder pushing a child's stroller. Additionally, the existing bridge over the Florida's Turnpike does not have sufficient shoulder width to accommodate pedestrian or bicycle traffic. A review on the Martin and St. Lucie County 2035 RLRTP identified a multipurpose trail in Table 4-9 of the Needs Development Plan that would run along the entirety of Midway Road (CR 712) to connect with the other proposed multipurpose trails located on Okeechobee Rd, Shin Road, Glades Cut-Off Road, Selvitz Road, and roads further east.

The 2035 Future Bus and Train Network identified a proposed bus route along the entirety of Midway Road (CR 712) to connect to existing bus routes. Moreover, the County's Transit Development Plan (TDP) from February 2014 identified Midway Road (CR 712) as a priority corridor to implement transit. The project will create opportunities to include pedestrian, bicycle and transit facilities along the project corridor.

Roadway Deficiencies

The Midway Road bridge structure (ID 940050) over the Florida's Turnpike is located at M.P. 6.346 and was constructed in 1957. The last inspection of the bridge was performed on December 19, 2013. Although the report notes no structural deficiencies the bridge is classified as Functionally Obsolete.

Purpose and Need Reviews

FDOT District 4

	1	1	
Acknowledgement	Date Reviewed	Reviewer	Comments
Understood	10/09/2014	Zhuan Loo (zhuan.loo@stantec.com)	Safety issues will be further evaluated during PD&E Phase.
		l .	The St. Lucie County MPO TIP lists the project for \$3.8M for the Preliminary Engineering phase, while the FDOT STIP lists the project total for \$71.2M for the Preliminary Engineering and PD&E phases.

FL Department of Agriculture and Consumer Services

Acknowledgement	Date Reviewed	Reviewer	Comments
Understood		Steve Bohl (Steve.Bohl@freshfromflo rida.com)	No Purpose and Need comments found.

FL Department of Economic Opportunity

i E Dopartinont of Ec	onomic opportai	iity	I
Acknowledgement	Date Reviewed	Reviewer	Comments

Understood	07/03/2014	Matt Preston	No Purpose and Need comments found.
		(matt.preston@deo.myflor	
		ida.com)	

FL Department of Environmental Protection

Acknowledgement	Date Reviewed	Reviewer	Comments
Understood	07/01/2014	Lauren Milligan (lauren.milligan@dep.stat e.fl.us)	No Purpose and Need comments found.

FL Department of State

Acknowledgement	Date Reviewed	Reviewer	Comments
Understood	06/12/2014	Ginny Jones (ginny.jones@dos.myflori da.com)	none

FL Fish and Wildlife Conservation Commission

Acknowledgement	Date Reviewed	Reviewer	Comments
Understood		Scott Sanders (scott.sanders@myfwc.co m)	No Purpose and Need comments found.

Federal Highway Administration

Acknowledgement	Date Reviewed	Reviewer	Comments
Accepted	08/08/2014	Luis Lopez, P.E. (luis.d.lopez@dot.gov)	Purpose and Need: Safety was mentioned during the overall introduction of the Purpose and Need but there is no data or discussion available to support it. Discussion is recommended. Planning Consistency: Is the project included in the current STIP? Planning Consistency: This project is in the ETDM Programming Screen and therefore the project phase costs and related funding for those phases that are identified should be consistent with the TIP and LRTP. The project description identifies the project cost, excluding ROW, to be approximately \$19m, but the upcoming TIP (to be effective October 1m, 2014) identifies the project costs programmed over the next 5 years as \$36m (\$45 if ROW is included) and total project costs estimated to be \$57m. Please update this information in the screening tool to more accurately reflect what is being presented to the public. Public comments on this project were not included in the screening tool. Is FDOT aware of any controversy or support for the proposed project? The status of the planning Consistency for this projects was identified as - "no information available" yet, within the project purpose and need there was narrative that described the programming of this project with the MPO documents. This should be updated to reflect this information.

National Marine Fisheries Service

Acknowledgement	Date Reviewed	Reviewer	Comments
Understood		Brandon Howard (Brandon.Howard@noaa. gov)	None

National Park Service

Acknowledgement	Date Reviewed	Reviewer	Comments
Understood	06/17/2014	Anita Barnett (anita_barnett@nps.gov)	No Purpose and Need comments found.

Natural Resources Conservation Service

Acknowledgement	Date Reviewed	Reviewer	Comments
Understood		Rick Robbins (rick.a.robbins@fl.usda.go v)	No Purpose and Need comments found.

South Florida Water Management District

Acknowledgement	Date Reviewed	Reviewer	Comments
Understood	06/27/2014	Mindy Parrott	No Purpose and Need comments found.
		(mparrott@sfwmd.gov)	

US Army Corps of Engineers

Acknowledgement	Date Reviewed	Reviewer	Comments
Understood	06/24/2014	Garett Lips (Garett.G.Lips@usace.ar	No Purpose and Need comments found.
		my.mil)	

US Coast Guard

Acknowledgement	Date Reviewed	Reviewer	Comments
Understood	05/27/2014	Evelyn Smart	No Coast Guard involvement.
		(evelyn.smart@uscg.mil)	

US Environmental Protection Agency

Acknowledgement	Date Reviewed	Reviewer	Comments
Understood	07/02/2014	Maher Budeir	No Purpose and Need comments found.
		(budeir.maher@epa.gov)	

US Fish and Wildlife Service

Acknowledgement	Date Reviewed	Reviewer	Comments
Understood	05/28/2014	John Wrublik	No Purpose and Need comments found.
		(john_wrublik@fws.gov)	

Project Description Data

Project Description

Project Description

The Midway Road (CR 712) project corridor is centrally located in the eastern part of St. Lucie County, Florida and is owned and maintained by St. Lucie County. The project corridor extends approximately 1.6 miles along Midway Road (Roadway ID: 94530000), also known as County Road (CR) 712, from Glades Cut-Off Road (Mile Post: 5.813) to Selvitz Road (Mile Post: 7.405). The project corridor is located in Unincorporated St. Lucie County but is the northern border to the City of Port St. Lucie (See Figure 1).

Midway Road (CR 712) is a major east-west roadway that provides a vital connection to residents and commuters to and from the Interstate 95 (I-95) to the commercial areas along US 1. Within the project limits, Midway Road (CR 712) is a two lane undivided roadway with a varying posted speed from 35 to 45 miles per hour. Midway Road (CR 712) is functionally classified as an Urban Principal Arterial and is designated as a hurricane evacuation route by the Florida Division of Emergency Management. The existing roadway typical section consists of two 12-ft lanes, one in each direction and the existing right of way also varies with a minimum width of 70-ft. The land uses consist of residential, commercial, government, and industrial facilities such as Tropicana Products Inc., CEMEX, Packers of Indian River Ltd., US Post Office, St. Lucie County Sheriff, and New Horizons.

The study corridor includes a bridge (#940050) that goes over the Florida's Turnpike. The Florida East Coast (FEC) railroad traverses the corridor by running adjacent and parallel to the Glades Cut-Off Road. Canal 103, part of the St. Lucie Water Control District, is the principal receiving water body for the project area and conveys stormwater from the west side of the Florida's Turnpike through an existing concrete box culvert. The canal runs parallel along the south side

of Midway Road (CR 712) and after Selvitz Road, the canal diverges and continues southeasterly to discharge into the North Fork of the St. Lucie River. The North Fork is designated as an Outstanding Florida Water (OFW) and an Aquatic Preserve. It is the main collector water body in the St. Lucie County and discharges into the Indian River Lagoon. The canal along with the adjacent vegetative buffer, provide a physical separation to the residential homes on the south side.

The Midway Road (CR 712) Project Development & Environment (PD&E) study from Glades Cut-Off Road to Selvitz Road will evaluate alternatives to widen the existing road from two to four lanes within the project limits to satisfy future traffic demand and capacity needs. The proposed study will also consider pedestrian, bicycle, and transit facilities, improvements to freight mobility, and evaluate operational improvements and access management into some commercial businesses along the project corridor. Additional right of way requirements will be evaluated during the PD&E Study for offsite ponds in order to meet stormwater management requirements. At this time, it is not anticipated that any right of way requirements will impact the adjacent environmentally sensitive areas.

The current project construction cost is estimated at \$19 million based on the St. Lucie County and Martin County 2035 Regional Long Range Transportation Plan (RLRTP). The project construction cost is anticipated to be funded with federal funds. It should be noted that this estimated cost does not include right of way acquisitions.

Logical Termini

The Midway Road (CR 712) project limits are from Glades Cut-off Road as the western terminus to Selvitz Road as the eastern terminus in St. Lucie County. The proposed eastern and western limits for this project represent logical end points that tie into other future projects along Midway Road (CR 712) with the ultimate vision of having a continuous four-lane roadway from I-95 to US-1. The only existing four-lane section of Midway Road (CR 712) is from the interchange with I-95 to Glades Cut-off Road. East of Glades Cut-off Road up to the commercial area of US-1, Midway Road (CR 712) is generally a two-lane, undivided roadway.

Midway Road (CR 712) from Glades Cut-off Road to Selvitz Road has been identified for widening from two to four lanes in the 2035 Cost Feasible Plan of the St. Lucie County Transportation Planning Organization (TPO) (see Plan Consistency section for more information). The western limits of the project corridor will logically connect with the existing four-lane section of Midway Road (CR 712). The eastern limits of the project corridor at Selvitz Road will connect with a future four-lane section of Midway Road (CR 712) from Selvitz to S 25th Street that has also been identified in the 2035 St. Lucie TPO Cost Feasible Plan and will be completed with the County's Transportation Management Area (TMA) funding. From S 25th Street to US-1, this segment is slated for construction to widen from two to four lanes in 2013 to 2016 based on the St. Lucie TPO Transportation Improvement Program (TIP) of Fiscal Year (FY) 2013/14 - 2017/18.

Summary of Public Comments

Summary of Public Comments is not available at this time.

Justification

An extensive Public Involvement Plan (PIP) will be prepared and conducted during the PD&E phase of this project. The PIP will (1) outline how project team members will engage the community and other stakeholders in consensus-building/context sensitive solutions for any alternative under consideration, including the No-Build Alternative, and (2) incorporate environmental and community values into the development of the preferred alternative.

Planning Consistency Status

No information available.

Federal Consistency Determination

Date: 07/01/2014

Determination: CONSISTENT with Coastal Zone Management Program.

Lead Agency

Federal Highway Administration

Participating and Cooperating Agencies

No Cooperating Agencies have been identified.

No Participating Agencies have been identified.

Exempted Agencies

Agency Name	Justification	Date
Federal Transit Administration	FTA has requested to be exempt from reviewing any non-transit projects.	05/21/2014

Community Desired Features

No desired features have been entered into the database. This does not necessarily imply that none have been identified.

User Defined Communities Within 500 Feet

No user defined communities were found within a 500 ft. buffer distance for this project.

Census Places Within 500 Feet

- Port St. Lucie
- White City

Alternative #1 - Alternative 1

Alternative Description

Name	From	То	Туре	Status	Total Length	Cost	Modes	SIS
							Roadway	
	Glades Cut-Off			ETAT Review			Bicycle	
Alternative 1	Rd	Selvitz Road	Widening	Complete	1.6 mi.	\$19,000,000.00	Pedestrian	N

Segment Description(s)

Location and Length

Segment No.	Name	Beginning Location	Ending Location	Length (mi.)	Roadway Id	ВМР	EMP
Segment 1	Segment 1	Glades Cut-Off Road	Selvitz Road	1.6	94530000		

Jurisdiction and Class

Segment No.	Jurisdiction	Urban Service Area	Functional Class
Segment 1	County	In/Out	URBAN: Principal Arterial - Other

Base Conditions

Segment No.	Year	AADI	Lanes	Config
Segment 1	2012	16820	2	Lanes Undivided

Interim Plan

Segment No.	Year	AADT	Lanes	Config
Segment 1				

Needs Plan

Segment No.	Year	AADT	Lanes	Config
Segment 1	2040	29200	4	

Cost Feasible Plan

OOST I Casible I lall		i i		1
Segment No.	Year	AADT	Lanes	Config
Seament 1	2040			

Funding Sources

Segment No.		FEDERAL	Unknown	
	\$19,000,000			

Project Effects Overview for Alternative #1 - Alternative 1

Issue	Degree of Effect	Organization	Date Reviewed
Social and Economic			
Land Use Changes	2 Minimal	FDOT District 4	07/03/2014
Land Use Changes	1 Enhanced	FL Department of Economic Opportunity	07/03/2014
Social	2 Minimal	FDOT District 4	07/03/2014
Social	0 None	US Environmental Protection Agency	07/07/2014
Relocation Potential	2 Minimal	FDOT District 4	07/03/2014
Farmlands	0 None	Natural Resources Conservation Service	05/29/2014
Aesthetic Effects	2 Minimal	FDOT District 4	07/03/2014
Economic	1 Enhanced	FL Department of Economic Opportunity	07/03/2014
Economic	1 Enhanced	FDOT District 4	07/03/2014
Mobility	1 Enhanced	FDOT District 4	07/03/2014

Cultural			
Historic and Archaeological Sites	3 Moderate	FL Department of State	06/12/2014
Recreation Areas	N/A N/A / No Involvement	National Park Service	06/17/2014
Recreation Areas	0 None	FL Department of Environmental Protection	07/01/2014
Recreation Areas	0 None	South Florida Water Management District	07/01/2014
Recreation Areas	0 None	US Environmental Protection Agency	07/07/2014
Natural			
Wetlands	3 Moderate	US Army Corps of Engineers	06/24/2014
Wetlands	2 Minimal	US Environmental Protection Agency	07/07/2014
Wetlands	3 Moderate	National Marine Fisheries Service	05/28/2014
Wetlands	2 Minimal	US Fish and Wildlife Service	05/29/2014
Wetlands	3 Moderate	South Florida Water Management District	07/01/2014
Wetlands	2 Minimal	FL Department of Environmental Protection	07/01/2014
Water Quality and Quantity	2 Minimal	FL Department of Environmental Protection	07/01/2014
Water Quality and Quantity	2 Minimal	US Environmental Protection Agency	07/07/2014
Water Quality and Quantity	2 Minimal	South Florida Water Management District	07/01/2014
Floodplains	0 None	South Florida Water Management District	07/01/2014
Floodplains	0 None	US Environmental Protection Agency	07/07/2014
Wildlife and Habitat	2 Minimal	US Fish and Wildlife Service	05/29/2014
Wildlife and Habitat	2 Minimal	FL Fish and Wildlife Conservation Commission	07/01/2014
Coastal and Marine	0 None	National Marine Fisheries Service	05/28/2014
Coastal and Marine	0 None	South Florida Water Management District	07/01/2014
Physical			
Air Quality	2 Minimal	US Environmental Protection Agency	07/07/2014
Contamination	3 Moderate	US Environmental Protection Agency	07/07/2014
Contamination	3 Moderate	FL Department of Environmental Protection	07/01/2014
Contamination	2 Minimal	South Florida Water Management District	07/01/2014
Infrastructure	N/A N/A / No Involvement	FL Department of Agriculture and Consumer Services	06/27/2014
Navigation	N/A N/A / No Involvement	US Coast Guard	05/27/2014
Navigation	N/A N/A / No Involvement	US Army Corps of Engineers	06/24/2014
Special Designations			
Special Designations	0 None	South Florida Water Management District	07/01/2014

US Environmental Protection Agency

07/07/2014

Printed on: 7/07/2015

ETAT Reviews and Coordinator Summary: Social and Economic

Land Use Changes

Project Effects

Coordinator Summary Degree of Effect:

2 Minimal assigned 09/03/2014 by FDOT District 4

Comments:

This project is identified in the Martin and St. Lucie 2035 Regional Long Range Transportation Plan (RLRTP) and is identified in the St. Lucie County TPO 2035 Cost Feasible Plan (2016-2035) with a 2021-2025 implementation horizon. In addition, the project will be included in the next update to the State Transportation Improvement Program (STIP) and the St. Lucie TPO TIP. It should be noted that on the south side of the project corridor a multipurpose trail has been identified in the 2035 RLRTP in Table 4-9 of the Needs Plan Development. The project is not located within a quarter mile of any existing local parks. The project is also not located in an Area of Critical State Concern, does not encroach on a military base, and is not located within the Coastal High Hazard Area.

The Future Land Use Map (FLUM) of the Comprehensive Plan shows several FLUM categories surrounding the project: a mix of land uses that consist of residential land uses to the south and industrial, public facilities, and commercial land uses to the north. The City of Port St. Lucie future land use map shows that the currently vacant land in the southeast quadrant of Midway Road (CR 712) and the Florida's Turnpike has a commercial land use. The widening of the project corridor will primarily utilize the existing right of way; however, additional right of way may be identified for acquisition during the PD&E Study to provide offsite ponds for stormwater management requirements. Based on ETAT review comments, FDOT assigns a summary degree of effects of Minimal to Land Use Changes.

Degree of Effect: Minimal assigned 07/03/2014 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Residential communities located to the south and east of the project corridor. Industrial and government facilities located to the north of the project corridor.

Comments on Effects to Resources:

The future land use maps of St. Lucie County (2013) and the City of Port St. Lucie (2014) revealed that the project corridor is composed of a mix of land uses that consist of residential land uses to the south and industrial, public facilities, and commercial land uses to the north. The City of Port St. Lucie future land use map shows that the currently vacant land in the southeast quadrant of Midway Road (CR 712) and the Florida's Turnpike has a commercial land use. During a field visit conducted on February 7, 2014, it was verified that the land uses along the project corridor consists of residential, commercial, government, and industrial facilities. Canal 103, which is part of the St. Lucie Water Control District, is located along the south side of the Midway Road (CR 712) project corridor and provides a physical divide between the southern residential area and the northern industrial and commercial area.

The widening of the project corridor will primarily utilize the existing right of way; however, additional right of way may be identified for acquisition during the PD&E Study to provide offsite ponds for stormwater management requirements.

It is anticipated that the effect to Land Use will be Minimal.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: Enhanced assigned 07/03/2014 by Matt Preston, FL Department of Economic Opportunity

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

St. Lucie County Comprehensive Plan 2010.

Comments on Effects to Resources:

The proposed improvements are consistent and compatible with the *St. Lucie County Comprehensive Plan 2010* and the development goals of the City and County. Midway road is a critical east-west evacuation route. The Comprehensive Plan projects a 2030 LOS of F if no improvements are made. It is currently operating at a LOS E. Policy 5.2.3.1 calls for the improvement of Midway Road so as to operate at a minimum LOS D during an emergency evacuation.

This section of Midway Road is identified on the Right of Way Protection Map as a proposed 4 lane roadway.

The Future Land Use Map (FLUM) of the Comprehensive Plan shows several FLUM categories surrounding the project, including: **City of Port St. Lucie** - Commercial Limited, Institutional, Open Space - Conservation, Commercial General, and Commercial Service. **St. Lucie County** - Industrial, Public Facilities, and Residential.

The project is not located within a quarter mile of any existing local parks.

The project is not located in an Area of Critical State Concern, does not encroach on a military base, and is not located within the Coastal High Hazard Area.

Additional Comments (optional):

CLC Commitments and Recommendations:

Social

Project Effects

Coordinator Summary Degree of Effect:



2 Minimal assigned 09/03/2014 by FDOT District 4

Comments

The project serves to enhance mobility and accessibility and public safety along the project corridor. While the widening of the project corridor will primarily utilize the existing right of way; additional right of way may be identified for acquisition during the PD&E Study to provide offsite ponds for stormwater management requirements. Potential noise and vibration effects may be of concern to the residential areas located to the south as a result of increased traffic on an expanded facility, the overall impacts on the social environment and cohesion are anticipated to be minor. Potential social impacts will be assessed further during Project Development as more detailed information becomes available.

Public outreach to solicit input from the transportation disadvantaged, elderly, low income, and minority populations will be conducted to ensure that a thorough Environmental Justice/Title VI analysis that considers potentially disproportionate impacts to protected groups is conducted and that identified transportation needs are addressed through the project. Limited English Proficiency (LEP) accommodations will be necessary during public outreach as the demographic data indicates that 16% of the Spanish-speakers speak English "Less than very well". Public commentary collected as a result of such efforts will be documented in the EST. Additionally, a Socio-cultural Effects Evaluation and Noise Study Report will be conducted as part of the PD&E Study. Based on ETAT review comments, FDOT assigns a summary degree of effect of Minimal to Social.

Degree of Effect: 2 Minimal assigned 07/03/2014 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Within the 500-ft buffer, the following resources were identified:

LTC Ranch

Cemex

Packers of Indian River

Contech Engineered Solutions

St. Lucie County Department of Health

US Post Office

St. Lucie County Sheriff's Office

New Horizons (Emotional and Mental Health Facility)

Mobil Gas Station

Dunkin' Donuts

Subway Sandwich

FEC Railroad

Canal 103

Bridge #940050

Residential communities located to the south and east of the project corridor. Industrial and government facilities located to the north of the project corridor.

City of Port St. Lucie to the south and the White City community to the east of the project

Comments on Effects to Resources:

The project corridor is located along the northern border of the City of Port St. Lucie. The roadway is owned and maintained by St. Lucie County. The corridor is within the US Census designated Port St. Lucie-Fort Pierce Metropolitan Statistical Area (MSA) and has been identified as one of the fastest growing metropolitan areas in Florida, which includes all of Martin and St. Lucie Counties. From 2000 to 2010, this metropolitan area has experienced population growth from 319,426 persons in 2000 to 424,107 persons in 2010, representing an annual increase of 2.9%. Evaluating the population growth for the City of Port St. Lucie by itself revealed an even greater percentage increase. According to the Bureau of Economic and Business Research, the City has grown from a population of 88,769 in 2000 to 164,603 in 2010 representing an annual increase of 6.4%.

The population of the Port St. Lucie-Fort Pierce metropolitan area is projected to increase from 424,107 in year 2010 to 648,600 in year 2035 representing a growth of approximately 53% (Source: Bureau of Economic Business Research). As the population in the metropolitan area continues to increase, developments in St. Lucie County will continue to grow thereby increasing the amount of traffic on the roads. According to the 2010 US Census, the population of St. Lucie County is 277,789 and includes the following breakdown:

African-Americans: 53,036 (19%)

American Indian, Eskimo or Aleut: 1,123 (0.4%)

Asian Americans: 4,334 (1.6%) Caucasian American: 199,336 (72%)

Native Hawaiian and Other Pacific Islander: 161 (0.06%)

Other: 19,799 (7%) Hispanics: 45,995 (17%)*

*(the Hispanic Ethnicity includes Blacks and Whites)

Serving as part of the evacuation route network established by the Florida Division of Emergency Management, Midway Road (CR 712) plays an important role in facilitating traffic movement during emergency evacuation periods. The project corridor provides connections to other major highways and arterials designated on the state evacuation route network such as Okeechobee Road (SR 70), I-95, Glades Cut-off Road (CR 709), Selvitz Road, S 25th Street (CR 615), Oleander Avenue (CR 605), and US-1. In addition, there is one overpass bridge (#940060) over the Florida's Turnpike that may need to be modified or replaced depending on the alternative.

It should be noted that any transportation project that requires federal funding must satisfy the Executive Order 13166, "Improving Access to Services for Persons with Limited English Proficiency (LEP)." Demographic information of four Census Tracts that surround the project area was analyzed. Of the Spanish-speaking residents, over 16% speak "English less than very well". Based on LEP specifications as defined by Chapter 11 of the Project Development and Environment (PD&E) Manual, future public involvement efforts in Spanish should be considered.

It is anticipated that the effect to Social will be Minimal.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 0 None assigned 07/07/2014 by Maher Budeir, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Additional Comments (optional):

CLC Commitments and Recommendations:

Relocation Potential

Project Effects

Coordinator Summary Degree of Effect:

2 Minimal assigned 09/30/2014 by FDOT District 4

Comments:

While the widening of the project corridor will primarily utilize the existing right of way; additional right of way may be identified for acquisition during the PD&E Study to provide offsite ponds for stormwater management requirements. Should right of way acquisitionbe identified during Project Development, FDOT shall carry out a Right of Way and Relocation Program in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and Florida Statute 339.09.

FDOT assigns a degree of effect of Minimal to Relocation Potential.

Degree of Effect: Minimal assigned 07/03/2014 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Residential communities located to the south and east of the project corridor. Industrial and government facilities located to the north of the project corridor.

Comments on Effects to Resources:

The widening of the project corridor will primarily utilize the existing right of way. It is not anticipated to displace any residences or businesses within the community. However, additional right of way may be identified for acquisition during the PD&E Study to provide offsite ponds for stormwater management requirements. It is not anticipated that any right of way requirements will impact the adjacent environmentally sensitive areas.

A Conceptual Stage Relocation Plan will be prepared if relocations are determined to be necessary. If right of way or relocations are required then FDOT will carry out a right of way and relocation program in accordance with Florida Statute 339.09 and the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (as amended by the Public Law 100-17.

It is anticipated that the effect to Relocation Potential will be Minimal.

Additional Comments (optional):

CLC Commitments and Recommendations:

Farmlands

Project Effects

Coordinator Summary Degree of Effect:

0 None assigned 09/03/2014 by FDOT District 4

Comments:

A review of the GIS Analysis and ETAT agency comment identified Farmland Soils of Unique Importanceat all buffer widths for this project; however, the USDA-NRCS considers land to be used in production of commodity crops, such as, cotton, citrus, row crops, specialty crops, nuts, etc. as Farmlands of Unique Importance or Farmlands of Local Importance. The project corridor traverses through a mix of residential land uses to the south and industrial, public facilities, and commercial land uses to the north. FDOT assigns a degree of effect of None to Farmlands.

Degree of Effect: 0 None assigned 05/29/2014 by Rick Allen Robbins, Natural Resources Conservation Service

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

The USDA-NRCS considers soil map units with important soil properties for agricultural uses to be Prime Farmland. In addition, the USDA-NRCS considers any soils with important soil properties and have significant acreages that are used in the production of commodity crops (such as, cotton, citrus, row crops, specialty crops, nuts, etc.) to be considered as Farmlands of Unique Importance or Farmlands of Local Importance. Nationally, there has been a reduction in the overall amount of Prime and Unique Farmlands through conversion to non-farm uses. This trend has the possibility of impacting the nation's food supply and exporting capabilities.

Comments on Effects to Resources:

Conducting GIS analysis of Prime Farmland (using USDA-NRCS data) and Important Farmland Analysis (using Assoicated Level !!! Water Management District data and 2010 SSURGO data) has resulted in the determination that there are Farmland Soils of Unique Importance at all buffer widths for this project. The amounts range from 34.36 acres at the 100' buffer width and 188.21 acres at the 500' buffer width. However, most of the project area is mixed urban and residential land use. With existing Land use and project design (widening), we are assigning a No Degree of Effect to Important Farmlands.

Additional Comments (optional):

CLC Commitments and Recommendations:

Aesthetic Effects

Project Effects

Coordinator Summary Degree of Effect:

2 Minimal assigned 09/03/2014 by FDOT District 4

Printed on: 7/07/2015

Comments:

A review of the GIS Analysis and ETAT agency comments identified a park Milner Drive Tot, in the vicinity of the project corridor and an existing bridge

(Bridge #940050) along Midway Road over the Florida's Turnpike. The park is located approximately 500-ft to the east of the Florida's Turnpike and it is not anticipated that the project will directly affect the park. However, changes to the Florida Turnpike crossing, such as raising the profile grade for a new bridge, may affect aesthetics for adjacent facilities. Additionally, there is a native plant buffer between Canal 103 and the residential community to the south. The City of Port St. Lucie and County have entered into an agreement to ensure that the existing native plant buffer is preserved to the greatest extent possible. FDOT shall coordinate with the City of Port St. Lucie and the County.

FDOT assigns a degree of effect of Minimal to Aesthetics Effects.

Degree of Effect: 2 Minimal assigned 07/03/2014 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Residential communities located to the south and east of the project corridor. Industrial and government facilities located to the north of the project corridor.

City of Port St. Lucie to the south and the White City community to the east of the project.

Comments on Effects to Resources:

Approximately 500-ft from the project corridor on the east side of the Florida's Turnpike is Milner Drive Tot lot which is a park that is maintained by the City of Port St. Lucie. At this time it is not anticipated that this park will be directly affected by the project. If the existing two-lane bridge along Midway Road (CR 712) over the Florida's Turnpike is elevated as a result of replacement to accommodate four lanes, then some visual impacts may be a concern to the surrounding communities due to the higher bridge profile. In addition, on the south side of the corridor there exists a native plant community that acts as a buffer between Canal 103 and the residential communities. The City and County have entered into an agreement to ensure that the existing native plant communities are preserved to the greatest extent possible.

It is anticipated that the effect to Aesthetics Effects will be Minimal.

Additional Comments (optional):

CLC Commitments and Recommendations:

Economic

Project Effects

Coordinator Summary Degree of Effect:



1 Enhanced assigned 09/03/2014 by FDOT District 4

Comments:

A review of the GIS Analysis and ETAT agency comments identified several commercial, industrial, county and federal facilities along the project corridor. The project is not located in a Rural Area of Critical Economic Concern (RACEC). The project traverses one of the St. Lucie's Regional Workplace Districts to which the project may serve as one of the main transportation corridor to link residents of Martin and St. Lucie Counties to the districts. The project would also be beneficial for future industrial development within St. Lucie County. However, an unconstrained roadway would be beneficial for future industrial development within St. Lucie County. The area is built-out within the city of Port St. Lucie, but an unconstrained roadway would be beneficial for any future redevelopment and industrial related employment.

Based on ETAT review comments, FDOT assigns a summary degree of effect of Enhanced to Economic.

Degree of Effect: Enhanced assigned 07/03/2014 by Matt Preston, FL Department of Economic Opportunity

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

St. Lucie County Comprehensive Plan 2010.

Comments on Effects to Resources:

The project is not located in a Rural Area of Critical Economic Concern (RACEC). However, an unconstrained roadway would be beneficial for future industrial development within St. Lucie County. The area is built-out within the city of Port St. Lucie, but an unconstrained roadway would be beneficial for any future redevelopment and industrial related employment.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 1 Enhanced assigned 07/03/2014 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Within the 500-ft buffer, the following resources were identified:

LTC Ranch

Cemex

Packers of Indian River

Contech Engineered Solutions

St. Lucie County Department of Health

US Post Office

St. Lucie County Sheriff's Office

New Horizons (Emotional and Mental Health Facility)

Mobil Gas Station

Dunkin' Donuts

Subway Sandwich

Comments on Effects to Resources:

The project corridor includes commercial and industrial land uses such as the Tropicana Products Inc., CEMEX, Packers of Indian River Ltd., Hospice of the Treasure Coast, and the New Horizons of the Treasure Coast, Inc. (Mental Health Center which is currently expanding). The truck percentage is high at over 7%; which indicates that the project corridor has significant freight activity. Meanwhile, new residential units are planned nearby. The St. Lucie County Fairgrounds and the County's Emergency Operations Center are just six miles west of the project site. The corridor also includes Federal and County offices such as the U.S. Post Office, St. Lucie County's Sheriff's Office, Fire District, and Health Department.

According to the Martin and St. Lucie County 2035 Regional Long Range Transportation Plan (RLRTP), "The Regional Workplace Districts in St. Lucie County are located along the I-95 and Turnpike corridors and include the Treasure Coast Education Research Development Authority (TCERDA) area; the Crossroads Park of Commerce; the existing Rinker and Tropicana facilities by the intersection of Glades Cut-off Road and Midway Road (CR 712); the LTC Ranch Commerce Park; St. Lucie West Commerce Park; and Torrey Pines Institute south of Tradition and Gatlin Boulevard." The project corridor traverses one of the Regional Workplace Districts and as state in the RLRTP, these districts are well-situated for regional access, have ample room to grow, and can provide jobs for local residents. The Midway Road (CR 712) project corridor is anticipated to serve as one of the main transportation corridor linking residents of both Martin and St. Lucie Counties to these business areas.

The Treasure Coast Planning Council Alternative Infill Development Plan developed for Martin and St. Lucie Counties has also identified several regional workplace districts located along the Midway Road (CR 712) project corridor. These regional workplace districts are focused to provide jobs for residents within this metropolitan area.

It is anticipated that the effect to Economic will be Enhanced.

Additional Comments (optional):

CLC Commitments and Recommendations:

Mobility

Project Effects

Coordinator Summary Degree of Effect:

1 Enhanced assigned 09/03/2014 by FDOT District 4

Comments:

A review of the GIS Analysis and ETAT agency comments identified several commercial, industrial, county and federal facilities along the project corridor. The project will tie into the existing four lane section along Midway Road (CR 712) on the west side from Glades Cut-off Road to I-95 and to the widening project east of Selvitz Road that is being developed by the St. Lucie County. This project in anticipated to improve vehicular connectivity, mobility, emergency response, and evacuation access to I-95. FDOT shall coordinate with St. Lucie County to create opportunities to include pedestrian, bicycle, and transit facilities.

Based on ETAT review comments, FDOT assigns a degree of effect of Enhanced to Mobility.

Degree of Effect: 1 Enhanced assigned 07/03/2014 by Gaspar Jorge Padron, FDOT District 4

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Within the 500-ft buffer, the following resources were identified:

New Horizons (Emotional and Mental Health Facility)

Midway Road Connector Corridor Multi-Use Trail Opportunities

FEC Railroad

Canal 103

Bridge #940050

Comments on Effects to Resources:

The widening of the project corridor will tie into the existing four lane section along Midway Road (CR 712) on the west side from Glades Cut-off Road to I-95. The project will also provide a connection to the Midway Road (CR 712) widening project east of Selvitz Road that is being developed by the St. Lucie County. This will improve vehicular connectivity, mobility, emergency response, and evacuation access to I-95. In addition the proposed project will create opportunities to include pedestrian, bicycle, and transit facilities. Currently, the existing corridor does not have sidewalks and that forces pedestrians to utilize the existing swale area.

It is anticipated that the effect to Mobility will be Enhanced.

Additional Comments (optional):

CLC Commitments and Recommendations:

ETAT Reviews and Coordinator Summary: Cultural

Section 4(f) Potential

Project Effects

Coordinator Summary Degree of Effect:

3 Moderate assigned 09/03/2014 by FDOT District 4

Comments:

A review of the EST GIS Analysis did not identify any public parks, recreation lands, or wildlife and waterfowl refuges along the project corridor. However, a review of the GIS Analysis and ETAT agency comments for historic and archaeological resources identified a historic-aged bridge (#940050), constructed in 1957, and 5 linear sources such the FEC Railroad, Midway Road, Florida's Turnpike, Canal 103 and CR 706. There are no recorded archaeological sites in the project corridor but there is a potential for unrecorded sites. At this time, it is unknown if specific sections of these resources near the project have been examined. Additionally, it is unknown whether bridge # 940050 will need to be replaced as part of the project, which may have an adverse effect if the bridge is determined to be significant.

A Cultural Resource Assessment Survey (CRAS) will be performed for the entire corridor during the PD&E phase. FDOT will coordinate with ETAT agencies throughout Project Development, including for review and comment of the CRAS. FDOT will avoid and minimize impacts to any resources which may be identified by the CRAS to the greatest extent practicable. However, if the project results in any adverse effects to significant or historic or archaeological resources, Section 4(f) coordination will be required. A Section 4(f) Programmatic or Individual Statement will be completed during PD&E. if warranted.

Based on ETAT comments and a review of the EST, FDOT assigns a degree of effect of Moderate to Section 4(f) Potential.

None found

Historic and Archaeological Sites

Project Effects

Coordinator Summary Degree of Effect:

3 Moderate assigned 09/03/2014 by FDOT District 4

Comments

A review of the GIS Analysis and ETAT agency comments identified a historic-aged bridge (#940050), constructed in 1957, and 5 linear sources such the FEC Railroad, Midway Road, Florida's Turnpike, Canal 103 and CR 706. There are no recorded archaeological sites in the project corridor but there is a potential for unrecorded sites. At this time, it is unknown if specific sections of these resources near the project have been examined. Additionally, it is also unknown whether bridge # 940050 will need to be replaced as part of the project, which may have an adverse effect.

A Cultural Resource Assessment Survey (CRAS) will be performed for the entire corridor during the PD&E phase. FDOT will coordinate with ETAT agencies throughout Project Development, including for review and comment of the CRAS. FDOT will avoid and minimize impacts to any resources which may be identified by the CRAS to the greatest extent practicable.

FDOT agrees with the Florida Department of State and assigns a degree of effect of Moderate to Historic and Archaeological Sites.

Degree of Effect: 3 Moderate assigned 06/12/2014 by Ginny Leigh Jones, FL Department of State

Coordination Document: PD&E Support Document As Per PD&E Manual

Coordination Document Comments:

A survey conducted in 2006 covered the project corridor from the Turnpike to beyondSelvitz Road. However, the survey was not reviewed by FDOT or any federal agency. Finally, due to the passage of time since the survey more resources may have reached 50 years old. As discussed in the PED, a Cultural Resources Assessment Survey (CRAS) should be conducted. All historic-age resources, including potential historic districts, within the area of potential effect should be documented and assessed for NRHP eligibility. The resultant survey report shall conform to the specifications set forth in Chapter 1A-46 Florida Administrative Code, FDOT PD&E Manual Part 2, Chapter 12and will need to be forwarded to this agency (or the appropriate Federal Agency) for review and comment.

Direct Effects

Identified Resources and Level of Importance:

GIS analysis of the project corridor reveals that the proposed project intersects with one historic-aged bridge, and 5 linear resources. The bridge - FDOT bridge no. 940050 - was constructed in 1957. However, it is unknown if this bridge is significant. One of the linear resources - FEC Railroad (8SL3014) has been determined by this office to be significant. The other four linear resources (Midway Road - SL1657; Florida Turnpike - SL1789, Canal 103 - SL1809, CR 706 - SL3149) have had sections determined not significant. It is unknown if the specific sections of these resources close the proposed project have been examined. This will need to be determined in the Cultural Resources Assessment Survey (CRAS) that will be completed for this project.

There are no recorded archaeological sites in the project corridor but there is a potential for unrecorded sites.

The 1944 aerial shows very little development in project area. There is some agricultural fields and there may be some associated home sites with these farms. By the 1958 aerial the Turnpike, Glades Cut-Off Road, and Midway Road are extant. There is some additional - though minor - agricultural use around the project corridor. Most of the additional development is on the eastern end of the project corridor. The 1970 aerial shows still minor development around the intersection of the Turnpike, Glades Cut-off Road and Midway Road but there is more development west of that intersection, reflecting more development in the interior of the state. Also predictably, there is increased development in the eastern portion of the project corridor by the 1970 aerial. These aerials show that there may be unrecorded cultural resources in the project corridor.

Comments on Effects to Resources:

It is unclear if the project will include the replacement of FDOT bridge no. 940050 but if the bridge is found to be significant, its replacement would be an adverse effect. Regarding the linear resources, typically adverse effects to these resources would be the severing or re-routing of the resource. It is difficult at this time to determine if the proposed project would result in this occurring. The widening of the roadway has the potential to impact significant archaeological resources.

Additional Comments (optional):

A survey conducted in 2006 covered the project corridor from the Turnpike to beyondSelvitz Road. However, the survey was not reviewed by FDOT or any federal agency. Finally, due to the passage of time since the survey more resources may have reached 50 years old. As discussed in the PED, a Cultural Resources Assessment Survey (CRAS) should be conducted. All historic-age resources, including potential historic districts, within the area of potential effect should be documented and assessed for NRHP eligibility. The resultant survey report shall conform to the specifications set forth in Chapter 1A-46 Florida Administrative Code, FDOT PD&E Manual Part 2, Chapter 12and will need to be forwarded to this agency (or the appropriate Federal Agency) for review and comment.

CLC Commitments and Recommendations:

Recreation Areas

Project Effects

Coordinator Summary Degree of Effect:

0 None assigned 09/03/2014 by FDOT District 4

Comments

A review of the GIS Analysis and ETAT agency comments identified a South Florida Water Management District owned easement within 100-ft of the project corridor. An ERP will be required for this project.

Based on ETAT comments and a review of the EST, FDOT agrees with the US Environmental Protection Agency, Florida Department of Environmental Protection, and South Florida Water Management District and assigns a summary degree of effect of None to Recreation Areas.

Degree of Effect: N/A // No Involvement assigned 06/17/2014 by Anita Barnett, National Park Service

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 0 None assigned 07/01/2014 by Lauren P. Milligan, FL Department of Environmental Protection

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 0 None assigned 07/01/2014 by Mindy Parrott, South Florida Water Management District

Coordination Document: Permit Required **Coordination Document Comments:**

An ERP is required.

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Effects to Recreation, Coastal Resources and Floodplains are not anticipated based on SFWMD's review.

Additional Comments (optional):

An ERP is required.

CLC Commitments and Recommendations:

Degree of Effect: 0 None assigned 07/07/2014 by Maher Budeir, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Additional Comments (optional):

CLC Commitments and Recommendations:

ETAT Reviews and Coordinator Summary: Natural

Wetlands

Project Effects

Coordinator Summary Degree of Effect: 3 Moderate assigned 09/03/2014 by FDOT District 4

Comments:

Based on the agency comments and the GIS analysis results, there are a total of 6.7 acres of palustrine wetlands with both forested and scrub-shrub wetlands, and Canal 103 within the 500-ft buffer of the project corridor. The wetlands, surface waters, and natural areas along the corridor provide suitable habitat for wildlife, aquifer recharge, natural filters for pollutants, essential carbon export/import functions, flood water attenuation and storage, and contributions to the ecosystem through food-web productivity, among many other functions.

The project will primarily utilize the existing right of way. However, additional right of way may be identified for acquisition during the PD&E Study to provide offsite ponds for stormwater management. Where practicable, any necessary stormwater management facilities will be located within previously disturbed, upland sites and outside of environmentally sensitive areas. A Wetlands Evaluation and Report (WER) will be completed during the PD&E phase. The WER will provide habitat characterizations of the existing wetlands within the corridor and the vicinity; document the existing conditions of the resources; evaluate direct, indirect, cumulative, and secondary impacts; and, make recommendations for sequentially avoiding, minimizing and/or mitigating resource impacts.

FDOT will continue coordination with regulatory agencies throughout the development of the project to address potential environmental issues and to ensure wetland impacts are sequentially avoided and minimized to the greatest extent practicable. Agency coordination discussions will also include the design of the proposed stormwater system and the requirements for stormwater treatment. FDOT will obtain an environmental resource permit (ERP) during final design and provide compensatory mitigation for any unavoidable impacts.

Stormwater Pollution Prevention Plans (SWPPP) will be prepared during the design phase and incorporated into the construction contract to ensure that Contractor implements BMPs to control stormwater runoff and other potential water quality impacts. The SWPPP will be prepared in compliance with state and federal standards. Furthermore, the Contractor will be required to obtain an FDEP NPDES permit. A preconstruction meeting will be held with the project Contractor to review construction requirements in environmentally sensitive areas; to delineate the wetlands limits; and, to reiterate the requirement for the use of Best Management Practices to minimize temporary construction impacts.

Based on ETAT comments and a review of the EST, FDOT agrees with South Florida Water Management District, US Army Corps of Engineers and the National Marine Fisheries Service, and assigns a summary degree of effect of Moderate to Wetlands.

Degree of Effect: 3 Moderate assigned 06/24/2014 by Garett Lips, US Army Corps of Engineers

Coordination Document: Permit Required

Direct Effects

Identified Resources and Level of Importance:

The areas adjacent to the corridor have residential, commercial, and undeveloped lands with both uplands and wetlands. There areapproximately 1.7 acres of freshwaterpalustrine wetlands with bothforestedand scrub-shrub wetlands. The project area includes Canal 103 which is located along the south side of Midway Road throughout the project limits. The wetlands and natural environment provide sustainable habitat for wildlife, aquifer recharge, natural filters for pollutants, essential carbon export/import functions, flood water attenuation and storage, and contributions to the ecosystem through food-web productivity, among many other functions.

Comments on Effects to Resources:

Filling wetlands reduces the ability of the natural environment to provide: sustainable habitat for wildlife, aquifer recharge, natural filters for pollutants, essential carbon export/import functions, flood water attenuation and storage, and contributions to the ecosystem through food-web productivity, among many other functions.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: Minimal assigned 07/07/2014 by Maher Budeir, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

1.7 Acres of wetland within 200 foot buffer

Comments on Effects to Resources:

The design of the project including the alignemnt and the foot print of the proposed project should be developed in a manner that will avoid impact on the wetland resource. Unavoidable impact should be fully mitigated.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 3 Moderate assigned 05/28/2014 by Brandon Howard, National Marine Fisheries Service

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

Based on our review of the information provided on the EST website, GIS-based effects analysis on wetlands and interpretation of aerial photographs, NOAA's National Marine Fisheries Service (NMFS) has determined that emergent wetlands and ditches are located within the project corridor. These wetlands range from low to moderate in quality.

Comments on Effects to Resources:

The wetlands along the proposed roadway expansion provide water quality functions, such as removal of sediments, excess nutrients, and contaminants, which benefit and support these aquatic ecosystems. Through hydrological connections, these wetlands also contribute plant material and other useable nutrients (both dissolved and particulate organic matter) into aquatic food webs that include recreationally, commercially, and ecologically important species within downstream estuaries. If wetland impacts are unavoidable, sequential minimization and mitigation should take place.

In addition to the direct impacts from filling wetlands, construction activities may impact adjacent wetlands through sedimentation and runoff.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 2 Minimal assigned 05/29/2014 by John Wrublik, US Fish and Wildlife Service

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

Wetlands

Comments on Effects to Resources:

Wetlands provide important habitat for fish and wildlife. According to data in the Environmental Screening tool, wetlands occur within the project area. We recommend that the project be designed to avoid these valuable resources to the greatest extent practicable. If impacts to wetlands are unavoidable, we recommend that the FDOT provides mitigation that fully compensates for the loss of wetland resources.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 3 Moderate assigned 07/01/2014 by Mindy Parrott, South Florida Water Management District

Coordination Document: Permit Required

Direct Effects

Identified Resources and Level of Importance:

Wetlands and surface water exist within and adjacent to the project. These features may provide habitat for a variety of wetland dependent wildlife, including listed species such as the woodstork.

Comments on Effects to Resources:

The project may require dreding, filling, or crossing of wetlands and surface waters to accommodate road widening and the required stormwater management facilities.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: Minimal assigned 07/01/2014 by Lauren P. Milligan, FL Department of Environmental Protection

Coordination Document: Permit Required

Direct Effects

Identified Resources and Level of Importance:

The National Wetlands Inventory GIS report indicates that there are a total of 6.7 acres of palustrine wetlands within the 500-ft. project buffer zone.

Comments on Effects to Resources:

The proposed project will require an environmental resource permit (ERP) from the South Florida Water Management District for stormwater management and any wetland impacts. The ERP applicant will be required to eliminate or reduce the proposed wetland resource impacts of roadway construction to the greatest extent practicable.

- Minimization should emphasize avoidance-oriented corridor alignments, wetland fill reductions via pile bridging and steep/vertically retained side slopes, and median width reductions within safety limits.
- Wetlands should not be displaced by the installation of stormwater conveyance and treatment swales; compensatory treatment in adjacent uplands is the preferred alternative.
- After avoidance and minimization have been exhausted, mitigation must be proposed to offset the adverse impacts of the project to existing wetland functions and values. Significant attention is given to any forested wetland systems, which are difficult to mitigate.
- The cumulative impacts of concurrent and future transportation improvement projects in the vicinity of the subject project should also be addressed.

Additional Comments (optional):

CLC Commitments and Recommendations:

Water Quality and Quantity

Project Effects

Coordinator Summary Degree of Effect:



2 Minimal assigned 09/03/2014 by FDOT District 4

A review of the GIS Analysis and ETAT agency comments identified Canal 103, 2 limited drinking water wells, 6 active onsite sewage facilities, 2 verified impaired Florida Waters, and 4 US EPA National Pollutant Discharge Elimination System permits. The project is also within the Surficial Aquifer System. The project currently discharges to C-103, which connects to the North Fork of the St. Lucie River. The North Fork of the St. Lucie River is an Outstanding Florida Water and portions of it are an Aquatic Preserve.

FDOT acknowledges the ETAT agency's comments regarding the project's potential permit requirements and will obtain all required permits during final design. FDOT also acknowledges the ETAT's agency's concerns regarding the project's potential impacts to wetlands/surface waters and water quality. These concerns are addressed in more detail within each of the corresponding sections within this document. A Wetlands Evaluation and a Water Quality Impact Evaluation (WQIE) will be conducted during Project Development. FDOT will continue coordination with regulatory agencies, such as the North St. Lucie River Water Control District, throughout the development of the project to ensure all potential environmental issues are fully resolved. Additionally, water qualityimpact evaluationshould be conducted to ensure no impact on water quality in Canal 103.

Storm water runoff will increase in quantity as a result of the additional impervious area associated with the proposed widening. FDOT will evaluate the existing stormwater system and the stormwater compensation needed for the project during the PD&E phase. Coordination will be maintained with each agency for the design of any needed stormwater system improvements and the requirements for stormwater treatment. To minimize potential construction-related impacts, Stormwater Pollution Prevention Plans (SWPPP) will be prepared in compliance with state and federal standards and incorporated into the construction contract. The Contractor will be required adhere to the SWPPP and implement Best Management Practices (BMPs) to control stormwater runoff and other potential water guality impacts during construction. The SWPPP will be prepared in compliance with state and federal standards. Furthermore, the Florida Department of Transportation will be required to obtain an Environmental Resource Permit (ERP) or permit modification. During Construction, a water use permit from the SFWMD may be required. The project shall be designed to meet the SFWMD water quantity and quality criteria in ERP Applicant's Handbook Volume I and II.

Based on ETAT comments, FDOT agrees with the US Environmental Protection Agency, FL Department of Environmental Protection and South Florida Water Management District and assigns a summary degree of effect of Minimal to Water Quality and Quantity.

Degree of Effect:



2 Minimal assigned 07/01/2014 by Lauren P. Milligan, FL Department of Environmental Protection

Coordination Document: Permit Required

Direct Effects

Identified Resources and Level of Importance:

Increased stormwater runoff carrying oils, greases, metals, sediment, and other pollutants from the increased impervious surface would be of concern. Natural resource impacts within and adjacent to the proposed road right-of-way will likely include alteration of the existing surface water hydrology and natural drainage patterns, and reduction in flood attenuation capacity of area creeks, ditches, and sloughs as a result of increased impervious surface within the watershed.

Comments on Effects to Resources:

Every effort should be made to maximize the treatment of stormwater runoff from the proposed road project to prevent ground and surface water contamination. Stormwater treatment should be designed to maintain the natural predevelopment hydroperiod and water quality, as well as to protect

the natural functions of adjacent wetlands. We recommend that the PD&E study include an evaluation of existing stormwater treatment adequacy and details on the future stormwater treatment facilities. Retro-fitting of stormwater conveyance systems would help reduce impacts to water quality.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 2 Minimal assigned 07/07/2014 by Maher Budeir, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Canal 103

Comments on Effects to Resources:

Storm water runoff will increase in quantity due the increased impervious surface. Impact on water quantity and pond siting should be fully assessed. Additionally water qualityimpact evaluationshould be conducted to ensure no impact on water quality in Canal 103

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 2 Minimal assigned 07/01/2014 by Mindy Parrott, South Florida Water Management District

Coordination Document: Permit Required Coordination Document Comments:

An Environmental Resource Permit (56-00833-S) exists for Midway Road from Selvitz to 25th Street. This permit could be modified to include the project.

Direct Effects

Identified Resources and Level of Importance:

The project currently discharges to C-103, which connects to the North Fork of the St. Lucie River. The North Fork of the St. Lucie River is an Outstanding Florida Water and portions of it are an Aquatic Preserve.

Comments on Effects to Resources:

The project must be designed to meet the SFWMD water quantity and quality criteria in ERP Applicant's Handbook Volume I and II.

Additional Comments (optional):

An Environmental Resource Permit (56-00833-S) exists for Midway Road from Selvitz to 25th Street. This permit could be modified to include the project.

CLC Commitments and Recommendations:

Floodplains

Project Effects

Coordinator Summary Degree of Effect: 0 None assigned 09/03/2014 by FDOT District 4

Comments:

A GIS review of the FEMA Floodplain identified that the project is within Zone X. FDOT acknowledges South Florida Water Management's concern on acquiring appropriate permits and will coordinate with the appropriate agencies during project development and design. FDOT will continue coordination with regulatory agencies throughout the development of the project to ensure all potential environmental issues, if any, are fully resolved. Stormwater Pollution Prevention Plans (SWPPP) will be prepared during the design phase and incorporated into the construction contract to ensure that Contractor implements Best Management Practices (BMPs) to control stormwater runoff and other potential water quality impacts. The SWPPP will be prepared in compliance with state and federal standards. Furthermore, the Contractor will be required to obtain an FDEP NPDES permit. Based on a review of the EST and the ETAT agency's comments, FDOT agrees with the US Environmental Protection Agency and the South Florida Water Management District and assigns a summary degree of effect of None to Floodplain.

Degree of Effect: 0 None assigned 07/01/2014 by Mindy Parrott, South Florida Water Management District

Coordination Document: Permit Required **Coordination Document Comments:**

An ERP is required.

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Effects to Recreation, Coastal Resources and Floodplains are not anticipated based on SFWMD's review.

Additional Comments (optional):

An ERP is required.

CLC Commitments and Recommendations:

Degree of Effect: 0 None assigned 07/07/2014 by Maher Budeir, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Additional Comments (optional):

CLC Commitments and Recommendations:

Wildlife and Habitat

Project Effects

Coordinator Summary Degree of Effect:



2 Minimal assigned 09/03/2014 by FDOT District 4

Comments:

According to the GIS Analysis results and ETAT agency comments,, the project area is dominated by a mix of commercial, industrial, and residential development, with 68.77% classified as High or Low Intensity Urban, and another 6.86% as Transportation (roads and rail). Other land cover types in the assessment area include Mesic Flatwoods (15.90%, 33.5 acres), Improved Pasture (4.32%, 9.1 acres), Freshwater Marshes (3.03%, 6.4 acres), Rural Lands (0.95%, 2.0 acres), and Exotic Plants (0.16%, 0.3 acres).

The project area is within U.S. Fish and Wildlife Service Consultation Areas for caracara, Florida grasshopper sparrow, red-cockaded woodpecker, scrub jay, and snail kite. The corridor is also within four wood stork Core Foraging Areas (CFAs). There is no Critical Habitat for listed species or bald eagle nest within the one-mile buffer. Based on range and preferred habitat type, the following species listed by the Federal Endangered Species Act and the State of Florida as Federally Endangered (FE), Federally Threatened (FT), State-Threatened (ST), or State Species of Special Concern (SSC) may occur along the project area: gopher frog (SSC), gopher tortoise (ST), American alligator (FT based on similarity of appearance to American crocodile), Eastern indigo snake (FT), Florida pine snake (SSC), Audubon's crested caracara (FT), Florida burrowing owl (SSC), Southeastern American kestrel (ST), Florida sandhill crane (ST), least tern (ST), wood stork (FE), limpkin (SSC), little blue heron (SSC), tricolored heron (SSC), roseate spoonbill (SSC), snowy egret (SSC), white ibis (SSC), and Sherman's fox squirrel (SSC). FWC's Potential Habitat Richness classifications within the 500 ft buffer include 2.32% moderately high and 27.67% medium. In the Florida Natural Areas Inventory Critical Lands and Waters Identification Project (CLIP), 14.15% of the assessment area is Priority 2 (high) for Biodiversity Resources. Also in CLIP, 0.63% ranks Moderately High for Rare Species Habitat Conservation Priorities.

FDOT acknowledges the agencies' concerns regarding the project's potential impacts to wildlife and habitat. An Endangered Species Biological Assessment (ESBA) and wetland evaluation (as described in the previous Wetlands issue) will be conducted during the PD&E Study. The ESBA will include wildlife surveys, plant community mapping, habitat characterizations, existing resources condition descriptions, and recommendations for sequentially avoiding, minimizing and mitigating direct, secondary, and cumulative effects on wildlife and habitat resources. The ESBA report will be prepared in compliance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 USC 1531 *et seq.*) and in accordance with Part 2, Chapter 27 of the FDOT PD&E Manual.

Primary wildlife issues associated with this project include: potential adverse effects to a moderate number of species listed by the Federal Endangered Species Act as Endangered or Threatened, or by the State of Florida as Threatened or Species of Special Concern; potential water quality degradation as a result of additional stormwater runoff from the expanded roadway surface draining into adjacent waterways and wetlands; and potential for increased wildlife roadkill. FDOT will coordinate with the ETAT agencies throughout project development so that the final design of the project, including any offsite drainage ponds, will avoid and minimize wildlife and habitat impacts to the greatest extent practicable. Drainage retention areas and equipment staging areas will be evaluated and sited to avoid habitat destruction or degradation to the greatest extent practicable. If impacts are

determined to be unavoidable, a detailed compensatory mitigation plan will be prepared. In addition, if required, an appropriate wetland mitigation plan will be prepared (as described in the previous Wetlands issue), including type for type restoration, enhancement or creation within the same wood stork CFA as any wetland impacts, where practicable, to minimize wood stork foraging habitat loss.

Based on the ETAT comments, FDOT agrees with Florida Fish and Wildlife Conservation Commission and US Fish and Wildlife Services and assigns a summary degree of effect of Minimal to Wildlife and Habitat.

Degree of Effect: Minimal assigned 05/29/2014 by John Wrublik, US Fish and Wildlife Service

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

Federally listed species and fish and wildlife resources

Comments on Effects to Resources:

Federally-listed species -

The Service has reviewed our Geographic Information Systems (GIS) database for recorded locations of Federally listed threatened and endangered species on or adjacent to the project study area. The GIS database is a compilation of data received from several sources. Based on review of our GIS database, the Service notes that the following Federally listed species may occur in or near the project area.

Wood Stork

The project corridor is located in the Core Foraging Areas (CFA)(within 18.6 miles) of three active nesting colonies of the endangered wood stork (*Mycteria americana*). The Service believes that the loss of wetlands within a CFA due to an action could result in the loss of foraging habitat for the wood stork. To minimize adverse effects to the wood stork, we recommend that any lost foraging habitat resulting from the project be replaced within the CFA of the affected nesting colony. Moreover, wetlands provided as mitigation should adequately replace the wetland functions lost as a result of the action. The Service does not consider the preservation of wetlands, by itself, as adequate compensation for impacts to wood stork foraging habitat, because the habitat lost is not replaced. Accordingly, any wetland mitigation plan proposed should include a restoration, enhancement, or creation component. In some cases, the Service accepts wetlands compensation located outside the CFA of the affected wood stork nesting colony. Specifically, wetland credits purchased from a "Service Approved" mitigation bank located outside of the CFA would be acceptable to the Service, provided that the impacted wetlands occur within the permitted service area of the bank.

For projects that impact 5 or more acres of wood stork foraging habitat, the Service requires a functional assessment be conducted using our "Wood Stork Foraging Analysis Methodology" (Methodology) on the foraging habitat to be impacted and the foraging habitat provided as mitigation. The Methodology can be found at: http://www.fws.gov/verobeach/ListedSpeciesBirds.html .

Florida Scrub-Jay

The project occurs within the geographic range of the threatened Florida Scrub-Jay (*Aphelocoma coerulescens*). If suitable habitat occurs in the project corridor, we recommend that surveys based on Service protocol be conducted to determine the status of the Florida scrub-jay in the project area. The Service's Florida scrub-jay survey protocol can be found at: http://www.fws.gov/verobeach/ListedSpeciesBirds.html .

Audubon's crested caracara

The project occurs within the geographic range of the threatened Audubon's crested caracara (*Polyborus cheriway = Polyborus plancus audubonii*). If suitable habitat occurs in or near the project corridor, we recommend that nest surveys based on Service protocol be conducted to determine the status of caracara nesting in the project area. The Service's caracara nest survey guidance can be found at: http://www.fws.gov/verobeach/ListedSpeciesBirds.html

The Service believes that the following federally listed species have the potential to occur in or near the project site: wood stork, Audubon's crested caracara, Florida scrub-jay, Eastern indigo snake (*Drymarchon couperi = Drymarchon corais couperi*), and Federally listed plants in St. Lucie County at http://ecos.fws.gov/ ipac/. Accordingly, the Service recommends that the Florida Department of Transportation (FDOT) prepare a Biological Assessment for the project (as required by 50 CFR 402.12) during the FDOT's Project Development and Environment process.

Fish and Wildlife Resources

Wetlands provide important habitat for fish and wildlife. According to data in the Environmental Screening tool, wetlands occur within the project area. We recommend that the project be designed to avoid these valuable resources to the greatest extent practicable. If impacts to wetlands are

unavoidable, we recommend that the FDOT provides mitigation that fully compensates for the loss of wetland resources.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 2 Minimal assigned 07/01/2014 by Scott Sanders, FL Fish and Wildlife Conservation Commission

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

The Office of Conservation Planning Services of the Florida Fish and Wildlife Conservation Commission (FWC) has coordinated an agency review of ETDM #14177, St. Lucie County, and provides the following comments related to potential effects to fish and wildlife resources on this Programming Phase project.

The Project Description Summary states that this project involves the evaluation of alternatives to widen Midway Road (CR 712) from two to four lanes between Glades Cut-Off Road and Selvitz Road, a distance of approximately 1.6 miles. The Project Description did not address the potential need for new Drainage Retention Areas (DRAs) to handle the additional stormwater runoff from the expanded roadway.

The project area was evaluated for potential fish, wildlife, and habitat resources within 500 feet of the proposed alignment. Our assessment reveals that the project area is dominated by a mix of commercial, industrial, and residential development, with 68.77% classified as High or Low Intensity Urban, and another 6.86% as Transportation (roads and rail). Other land cover types in the assessment area include Mesic Flatwoods (15.90%, 33.5 acres), Improved Pasture (4.32%, 9.1 acres), Freshwater Marshes (3.03%, 6.4 acres), Rural Lands (0.95%, 2.0 acres), and Exotic Plants (0.16%, 0.3 acres).

Based on range and preferred habitat type, the following species listed by the Federal Endangered Species Act and the State of Florida as Federally Endangered (FE), Federally Threatened (FT), State-Threatened (ST), or State Species of Special Concern (SSC) may occur along the project area: gopher frog (SSC), gopher tortoise (ST), American alligator (FT based on similarity of appearance to American crocodile), Eastern indigo snake (FT), Florida pine snake (SSC), Audubon's crested caracara (FT), Florida burrowing owl (SSC), Southeastern American kestrel (ST), Florida sandhill crane (ST), least tern (ST), wood stork (FE), limpkin (SSC), little blue heron (SSC), tricolored heron (SSC), roseate spoonbill (SSC), snowy egret (SSC), white ibis (SSC), and Sherman's fox squirrel (SSC).

The GIS analysis revealed several specific characteristics associated with lands along the project alignment that provide an indication of potential habitat quality or sensitivity that will require field studies to verify the presence or absence of listed wildlife species and the quality of wildlife habitat resources. In the FWC's Potential Habitat Richness classification, 2.32% of the assessment area is ranked moderately high, while 27.67% is ranked medium. In the Florida Natural Areas Inventory Critical Lands and Waters Identification Project (CLIP), 14.15% of the assessment area is Priority 2 (high) for Biodiversity Resources. Also in CLIP, 0.63% ranks Moderately High for Rare Species Habitat Conservation Priorities. The project area is within U.S. Fish and Wildlife Service Consultation Areas for Caracara, Florida Grasshopper Sparrow, Red-cockaded Woodpecker, Scrub Jay, and Snail Kite, and is within the core foraging area of four wood stork colonies.

Primary wildlife issues associated with this project include: potential adverse effects to a moderate number of species listed by the Federal Endangered Species Act as Endangered or Threatened, or by the State of Florida as Threatened or Species of Special Concern; potential water quality degradation as a result of additional stormwater runoff from the expanded roadway surface draining into adjacent waterways and wetlands; and potential for increased wildlife roadkill. New DRAs outside the ROW should be sited to avoid undisturbed natural habitats.

Comments on Effects to Resources:

Based on the project information provided, we believe that direct and indirect effects of this project could be minimal, provided that all roadway construction is confined to the existing ROW, any new DRAs are not constructed within areas of natural habitat, and degradation of adjacent or downstream water quality is avoided via inclusion of Best Management Practices in the project design.

Additional Comments (optional):

CLC Commitments and Recommendations:

Coastal and Marine

Project Effects

Coordinator Summary Degree of Effect:

0 None assigned 09/03/2014 by FDOT District 4

Comments

Based on a review of relevant GIS layers, there are no coastal and marine facilities within the project vicinity. FDOT acknowledges the ETAT agency's comments on wetlands. These concerns are addressed in detail within the corresponding sections below. A Wetlands Evaluation Report (WER) will be prepared during the PD&E phase. The report will provide habitat characterization of the existing wetlands within the corridor and the vicinity, document the existing conditions of the resources, and make recommendations for sequentially avoiding, minimizing and mitigating resource impacts.

Stormwater Pollution Prevention Plans (SWPPP) will be prepared during the design phase and incorporated into the construction contract to ensure that Contractor implements Best Management Practices (BMPs) to control stormwater runoff and other potential water quality impacts. The SWPPP will be prepared in compliance with state and federal standards. Furthermore, the Contractor will be required to obtain an FDEP NPDES permit.

If during the PD&E and/or Design Phase, wetland impacts are determined to be unavoidable, a detailed mitigation plan will be prepared. FDOT will continue coordination with regulatory agencies throughout the development of the project to ensure all potential environmental issues are fully addressed and resolved.

Based on the ETAT comments and a review of the EST GIS, FDOT assigns a summary degree of effect of None to Coastal and Marine.

Degree of Effect: 0 None assigned 05/28/2014 by Brandon Howard, National Marine Fisheries Service

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

Based on our review of the information provided on the EST website, GIS-based effects analysis on wetlands and interpretation of aerial photographs, NOAA's National Marine Fisheries Service (NMFS) has determined that emergent wetlands and ditches are located within the project corridor. These wetlands range from low to moderate in quality.

Comments on Effects to Resources:

The wetlands along the proposed roadway expansion provide water quality functions, such as removal of sediments, excess nutrients, and contaminants, which benefit and support these aquatic ecosystems. Through hydrological connections, these wetlands also contribute plant material and other useable nutrients (both dissolved and particulate organic matter) into aquatic food webs that include recreationally, commercially, and ecologically important species within downstream estuaries. If wetland impacts are unavoidable, sequential minimization and mitigation should take place.

In addition to the direct impacts from filling wetlands, construction activities may impact adjacent wetlands through sedimentation and runoff.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 0 None assigned 07/01/2014 by Mindy Parrott, South Florida Water Management District

Coordination Document: Permit Required **Coordination Document Comments:**

An ERP is required.

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Effects to Recreation, Coastal Resources and Floodplains are not anticipated based on SFWMD's review.

Additional Comments (optional):

An ERP is required.

CLC Commitments and Recommendations:

ETAT Reviews and Coordinator Summary: Physical

Noise

Project Effects

Coordinator Summary Degree of Effect:

0 None assigned 09/03/2014 by FDOT District 4

Comments:

A review of the EST GIS Analysis indicates that there is a Healthcare facility (New Horizons) and two residential areas within the 100-ft buffer. During PD&E phase, a Noise Study Analysis shall be conducted to identify impacts to these resources, if any.

Based on a review of the EST GIS layers and ETAT comment, FDOT assigns a degree of effect of None to Noise.

None found

Air Quality

Project Effects

Coordinator Summary Degree of Effect:

Minimal assigned 09/03/2014 by FDOT District 4

Comments:

This project is located within a USEPA designated Air Quality Maintenance Attainment Area for all of the four pollutants (nitrogen oxides, ozone, carbon monoxide, and small particulate matter) specified in the National Ambient Air Quality Standards (NAAQS). Activities during construction will use BMPs to minimize the impact of fugitive emission and dustresulting from construction activities.

The project area is in attainment for all air quality standards related to transportation. The proposed scope of work, widening from two to four lanes will improve the corridor's level of service, and, therefore, is not anticipated to adversely affect air quality. An Air Quality screening evaluation will be performed during the PD&E Study to confirm and quantify impacts, if any.

Based on the ETAT agency comments and review of the EST GIS, FDOT assigns a summary degree of effect of Minimal to Air Quality.

Degree of Effect: 2 Minimal assigned 07/07/2014 by Maher Budeir, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Air

Comments on Effects to Resources:

This project is located within a USEPA designated Air Quality Maintenance Attainment Area for all of the four pollutants (nitrogen oxides, ozone, carbon monoxide, and small particulate matter) specified in the National Ambient Air Quality Standards (NAAQS). Activities during constructions should use BMPs to minimize the impact of fugitive emission and dustresulting from construction activities.

Additional Comments (optional):

CLC Commitments and Recommendations:

Contamination

Project Effects

Coordinator Summary Degree of Effect:

3 Moderate assigned 09/03/2014 by FDOT District 4

Comments:

A review of the GIS Analysis indicated that there are two hazardous waste facilities, three petroleum contamination monitoring sites, one solid waste facility and five storage tank contamination monitoring sites within the 500-ft. buffer of this project. These sites represent potential subsurface contamination. Construction activities have the potential to mobilize subsurface contamination.

A Contamination Screening Evaluation Report (CSER) will be prepared during the PD&E phase to further document these sites and any other potentially contaminated sites, and assess their involvement with the project. During final design, the CSER will be reevaluated, additional assessment (Level I) and remediation (Level II) activities will occur as needed, and various recommendations for construction will be implemented. Dewatering, if allowed, may need to be limited (i.e., low flow, short term) in order to avoid exacerbation of contamination. Special Provisions addressing Areas of Known Contamination, and/or "Section 120 Excavation and Embankment - Unidentified Areas of Contamination" (FDOT Standard Specifications for Road and Bridge Construction), will be included in the project's construction contract documents.

FDOT will notify FDEP and St. Lucie County in the event contamination is detected during construction. Also, as advised by FDEP, the Contamination Screening Evaluation shall outline specific procedures that should be followed by the applicant in the event drums, wastes, tanks or potentially

contaminated soils are encountered during construction. Special attention should be made in the screening evaluation to historical land uses (such as solid waste disposal) that may have an effect on the proposed project, including stormwater retention and treatment areas.

Based on the ETAT comments and a review of GIS layers, FDOT agrees with the US Environmental Protection Agency and the Florida Department of Environmental Protection and assigns a summary degree of effect of Moderate to Contaminated Sites.

Degree of Effect: 3 Moderate assigned 07/07/2014 by Maher Budeir, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Groundwater Aquifer

Comments on Effects to Resources:

Based in EST data, a solid waste facility, a biomedical waste facility, a hazardous waste facility and several petroleum contamination monitoring sites and storage tank contamination monitoring sites are within the 200 foot buffer of the proposed project.

All these sites represent potential subsurface contamination. A site specific survey for known subsurface contamination will help design construction activities in a manner that avoids or properly manages encountered contamination. Construction activities has the potential to mobilize subsurface contamination. Contingencies should be in place to manage encountered contamination in a manner consistent with local, sate and federal regulations.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 3 Moderate assigned 07/01/2014 by Lauren P. Milligan, FL Department of Environmental Protection

Coordination Document: To Be Determined: Further Coordination Required

Direct Effects

Identified Resources and Level of Importance:

GIS data indicates that there are two hazardous waste facilities, three petroleum contamination monitoring sites, one solid waste facility and five storage tank contamination monitoring sites within the 500-ft. buffer of this project.

Comments on Effects to Resources:

A Contamination Screening Evaluation (similar to Phase I and Phase II Audits) may need to be conducted along the project right-of-way in considering the proximity to potential hazardous waste and petroleum contamination sites. The Contamination Screening Evaluation should outline specific procedures that would be followed by the applicant in the event drums, wastes, tanks or potentially contaminated soils are encountered during construction. Special attention should be made in the screening evaluation to historical land uses (such as solid waste disposal) that may have an affect on the proposed project, including stormwater retention and treatment areas.

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: 2 Minimal assigned 07/01/2014 by Mindy Parrott, South Florida Water Management District

Coordination Document: To Be Determined: Further Coordination Required

Coordination Document Comments:

A water use permit for dewatering may be required. Coordination prior to submittal of the ERP is recommended to determine permit requirements.

Direct Effects

Identified Resources and Level of Importance:

Groundwater from the surficial aquifer in south Florida is used for drinking water supplies and irrigation.

Comments on Effects to Resources:

Project construction activities, such as dewatering, must be designed and performed in a manner that will not result in the movement of contaminant plumes.

Additional Comments (optional):

A water use permit for dewatering may be required. Coordination prior to submittal of the ERP is recommended to determine permit regiurements.

CLC Commitments and Recommendations:

Infrastructure

Project Effects

Coordinator Summary Degree of Effect: N/A N/A / No Involvement assigned 09/03/2014 by FDOT District 4

Comments:

A review of the GIS Analysis identified the FEC Railroad; however, impacts to the facility are not anticipated. Based on the ETAT agency comments and review of the EST GIS, FDOT assigns a summary degree of effect of NA/No Involvement to Infrastructure.

Degree of Effect: N/A // No Involvement assigned 06/27/2014 by Steve Bohl, FL Department of Agriculture and Consumer Services

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Additional Comments (optional):

CLC Commitments and Recommendations:

Navigation

Project Effects

Coordinator Summary Degree of Effect: N/A / No Involvement assigned 10/07/2014 by FDOT District 4

Comments:

Degree of Effect: N/A N/A / No Involvement assigned 05/27/2014 by Evelyn Smart, US Coast Guard

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

There are no navigable waters in the project vicinity. No Coast Guard involvement.

Comments on Effects to Resources:

Additional Comments (optional):

CLC Commitments and Recommendations:

Degree of Effect: N/A N/A / No Involvement assigned 06/24/2014 by Garett Lips, US Army Corps of Engineers

Coordination Document: No Involvement

Direct Effects

Identified Resources and Level of Importance:

There are no navigable waterways in the project area.

Comments on Effects to Resources:

There are noanticipatedeffects on Navigation

Additional Comments (optional):

ETAT Reviews and Coordinator Summary: Special Designations

Special Designations

Project Effects

Coordinator Summary Degree of Effect:

0 None assigned 09/03/2014 by FDOT District 4

Comments:

A review of the GIS Analysis identified that the project corridor is not adjacent to any area designated as Coastal Barrier Resource System (CBRS), Wild and Scenic River, Aquatic Preserve, Outstanding Florida Waters (OFW), or Sole Source Aquifer. The project area is underlain by the Floridan Aquifer, which is not designated as a Sole Source Aquifer (vs. the sole source Biscayne Aquifer, which underlies south Florida, well south of St. Lucie County).

Based on a review of the EST GIS layers and ETAT comments, FDOT agrees with the US Environmental Agency and the South Florida Water Management District and assigns a summary degree of effect of None to Special Designations.

Degree of Effect: 0 None assigned 07/01/2014 by Mindy Parrott, South Florida Water Management District

Coordination Document: Permit Required **Coordination Document Comments:**

An ERP is required.

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Effects to Recreation, Coastal Resources and Floodplains are not anticipated based on SFWMD's review.

Additional Comments (optional):

An ERP is required.

CLC Commitments and Recommendations:

Degree of Effect: 0 None assigned 07/07/2014 by Maher Budeir, US Environmental Protection Agency

Coordination Document: PD&E Support Document As Per PD&E Manual

Direct Effects

Identified Resources and Level of Importance:

Comments on Effects to Resources:

Additional Comments (optional):

CLC Commitments and Recommendations:

Eliminated Alternatives

There are no eliminated alternatives for this project.

Project Scope

General Project Commitments

There are no general project recommendations identified for this project in the EST.

Anticipated Permits

Permit	Туре	Conditions	Review Org	Review Date
USACOE General Use Permit	USACE		FDOT District 4	09/30/14
SFWMD Environmental Resource Permit	Water		FDOT District 4	09/30/14

Anticipated Technical Studies

Technical Study Name	Туре	Conditions	Review Org	Review Date
Noise Study Report	ENVIRONMENTAL		FDOT District 4	09/30/2014
Air Quality Report	ENVIRONMENTAL		FDOT District 4	09/30/2014
Contamination Screening Evaluation Report	ENVIRONMENTAL		FDOT District 4	09/30/2014
Endangered Species Biological Assessment	ENVIRONMENTAL		FDOT District 4	09/30/2014
Wetlands Evaluation Report	ENVIRONMENTAL		FDOT District 4	09/30/2014
Section 4f Evaluation	ENVIRONMENTAL		FDOT District 4	09/30/2014
Section 106 Case Study	ENVIRONMENTAL		FDOT District 4	09/30/2014
Cultural Resource Assessment Survey	ENVIRONMENTAL		FDOT District 4	09/30/2014

Class of Action

Class of Action Determination

Class of Action	Other Actions	Lead Agency	Cooperating Agencies	Participating Agencies
Type 2 Categorical Exclusion		,	, , ,	No Participating Agencies have been identified.

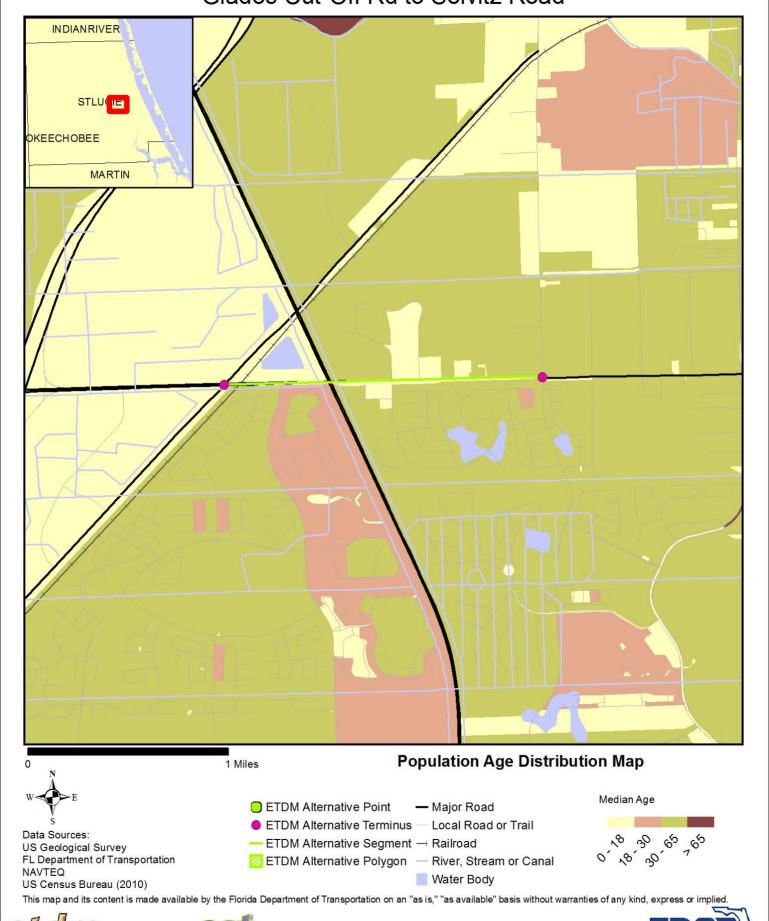
Class of Action Signatures

Name	Agency	Review Status	Date	ETDM Role
Richard Young	FDOT District 4	ACCEPTED	04/02/2015	FDOT ETDM Coordinator
Luis D Lopez, P.E.	Federal Highway Administration	ACCEPTED	05/20/2015	Lead Agency ETAT Member

Dispute Resolution Activity Log

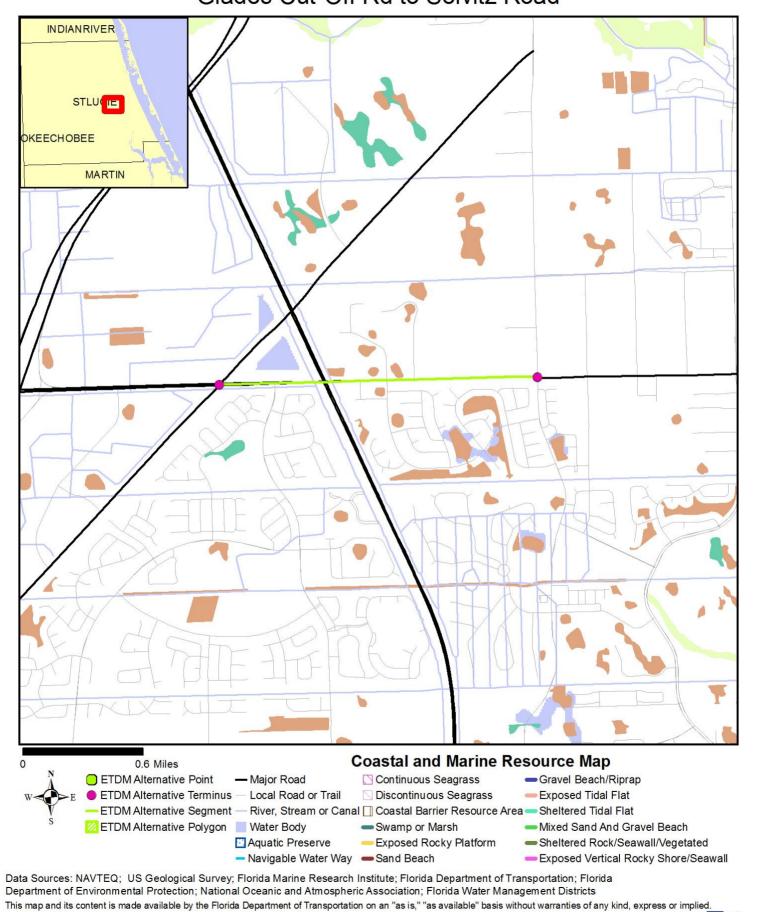
There are no dispute actions identified for this project in the EST.

Hardcopy Maps: Alternative #1



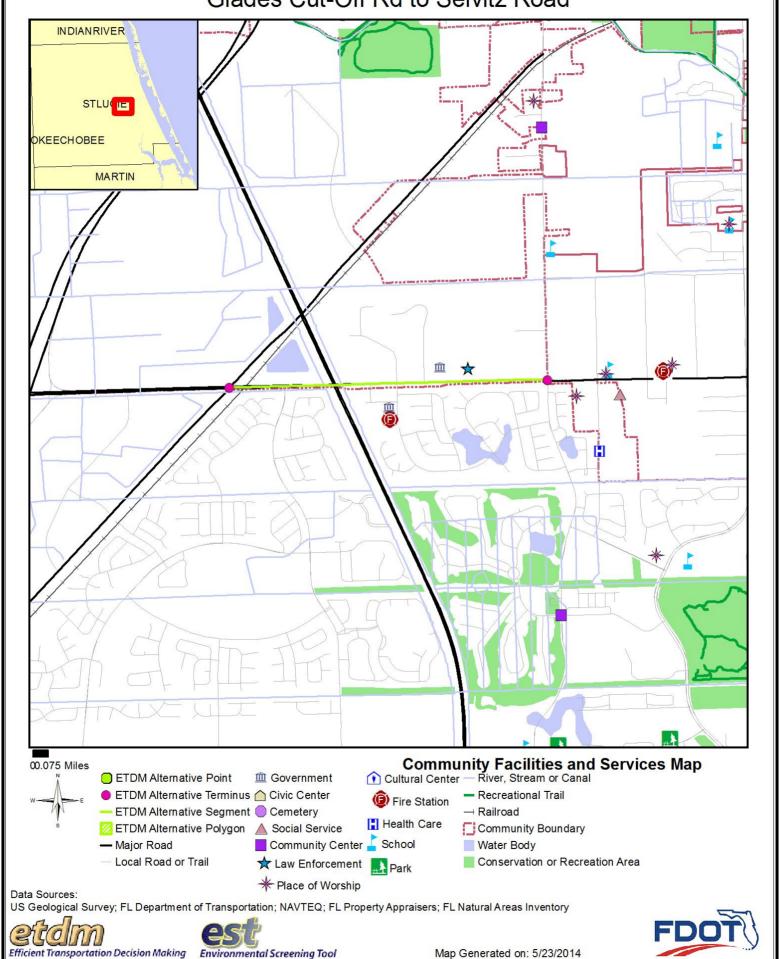
Efficient Transportation Decision Making

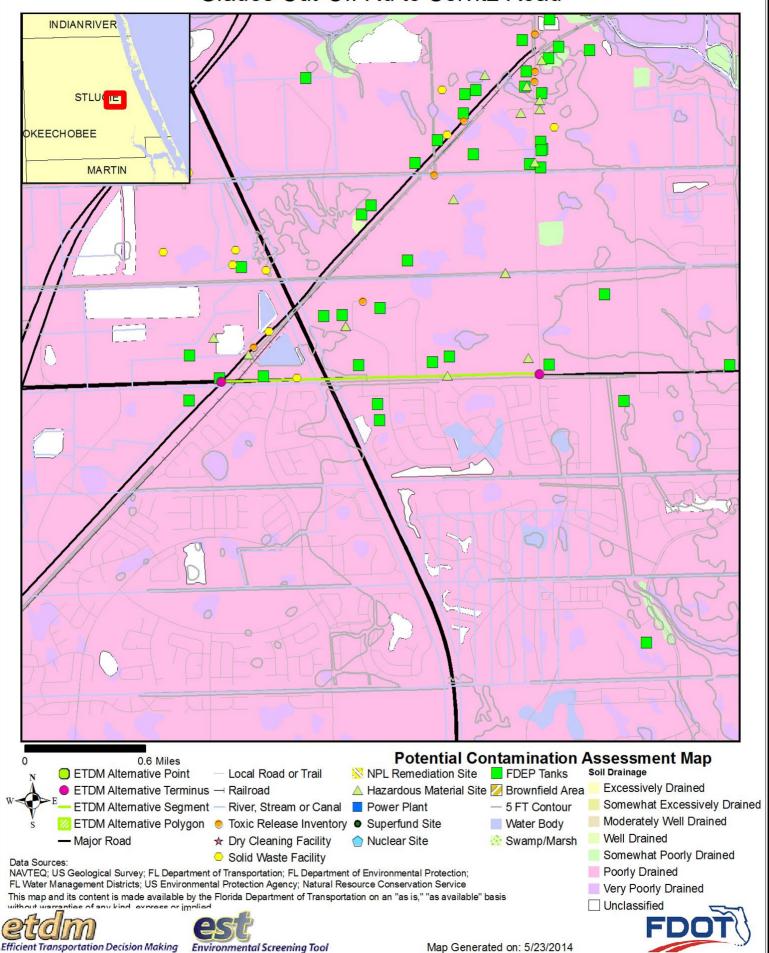
Environmental Screening Tool

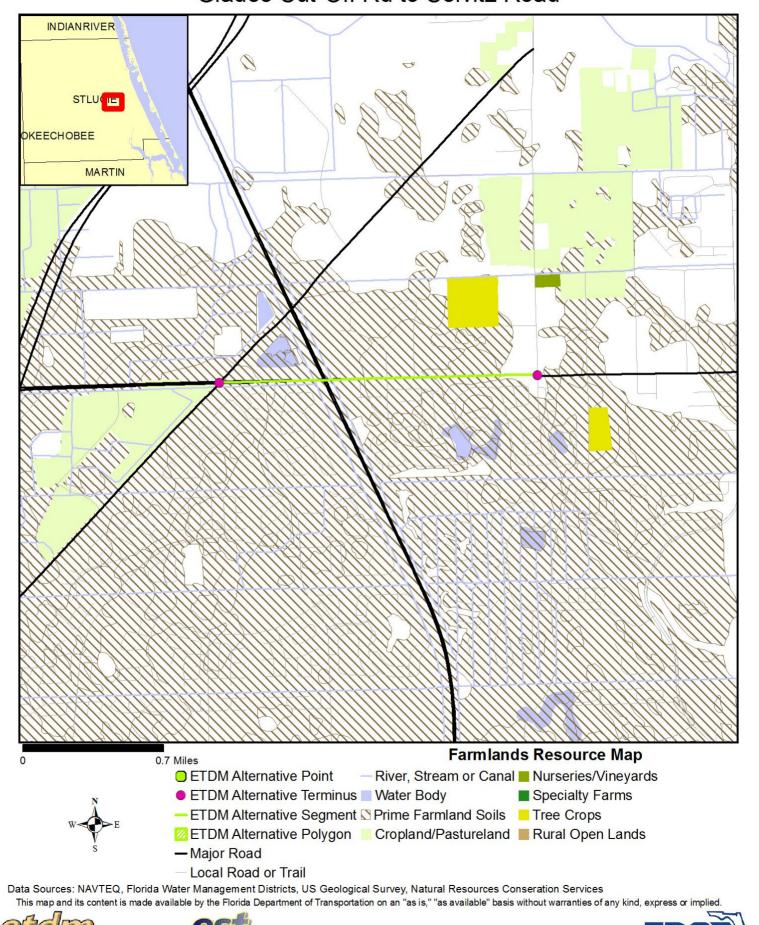




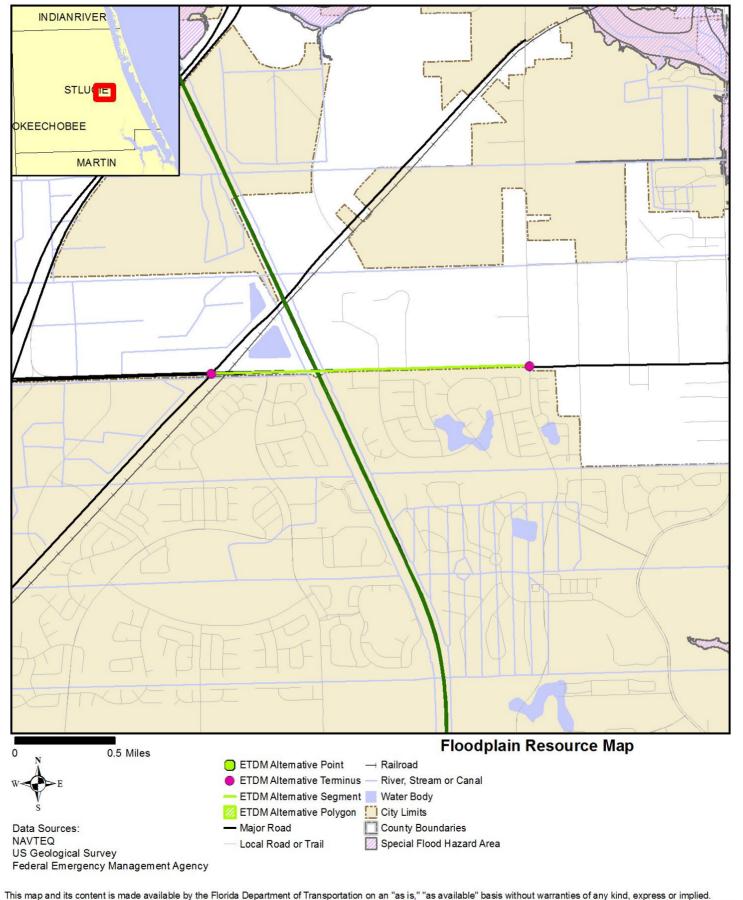
Efficient Transportation Decision Making Environmental Screening Tool





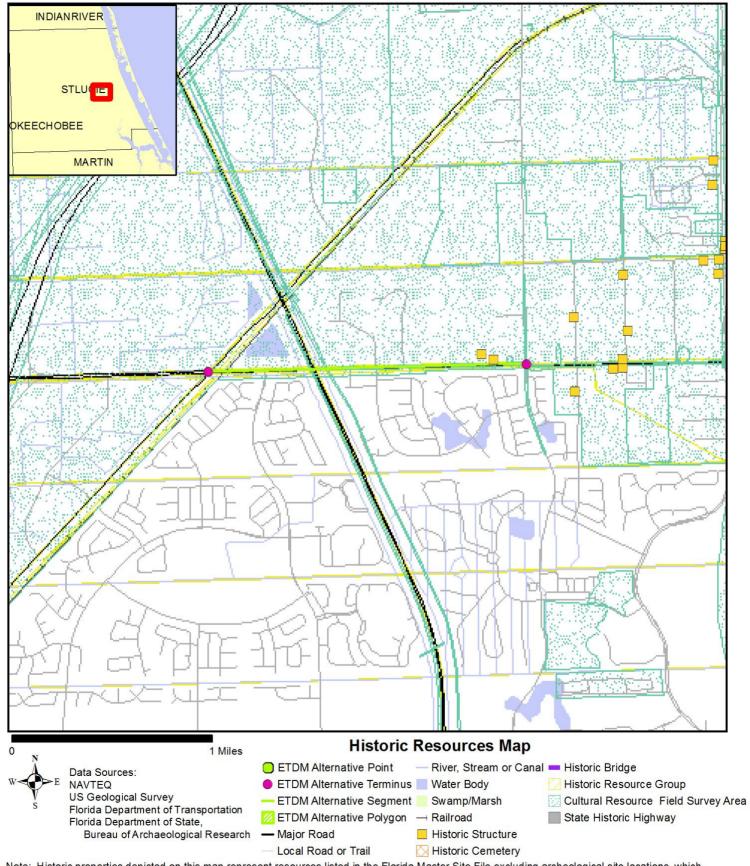


Efficient Transportation Decision Making Environmental Screening Tool





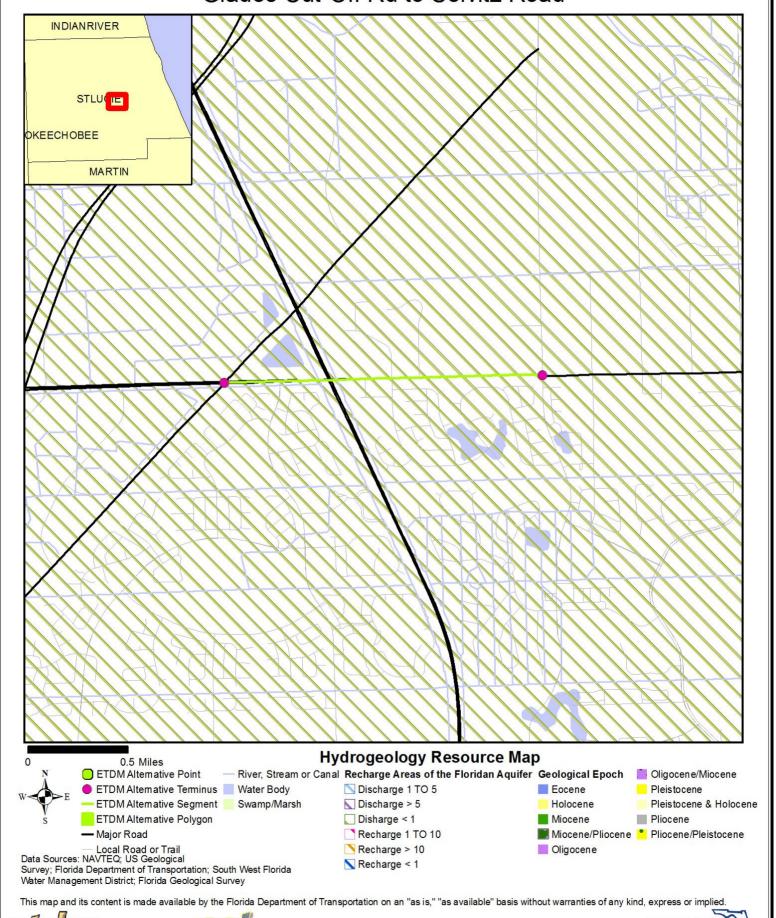




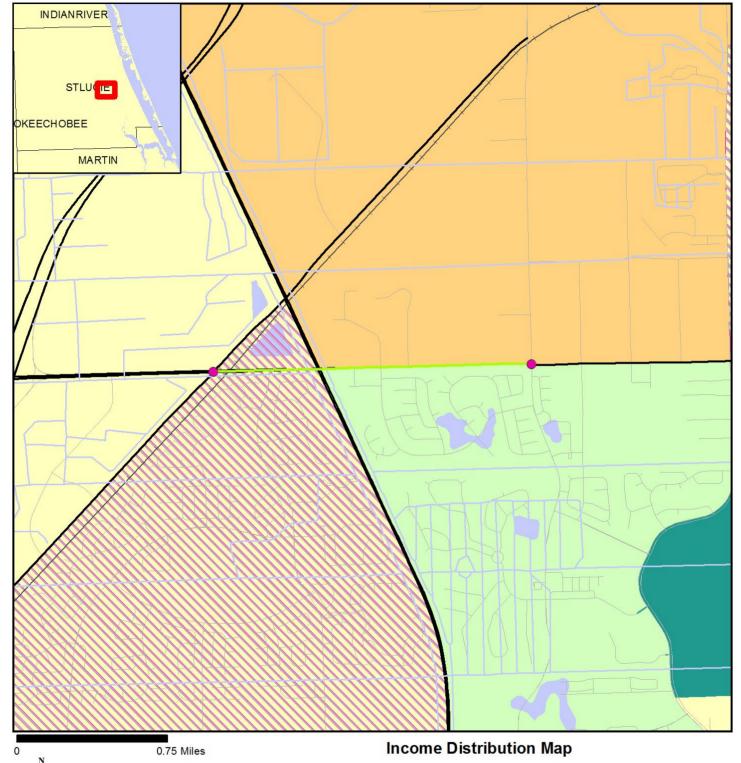
Note: Historic properties depicted on this map represent resources listed in the Florida Master Site File excluding archeological site locations, which, pursuant to Chapter 267.135, Florida Statutes, may be exempt from public record (Chapter 119.07, Florida Statutes). Absence of features on the map does not necessarily indicate an absence of resources in the project vicinity.







Efficient Transportation Decision Making Environmental Screening Tool





Data Sources: **US Geological Survey** FL Department of Transportation US Census Bureau (2010)

ETDM Alternative Point

- Railroad

ETDM Alternative Terminus — River, Stream or Canal

— ETDM Alternative Segment

N > 20% Below Poverty

ETDM Alternative Polygon | Water Body

— Major Road

Local Road or Trail

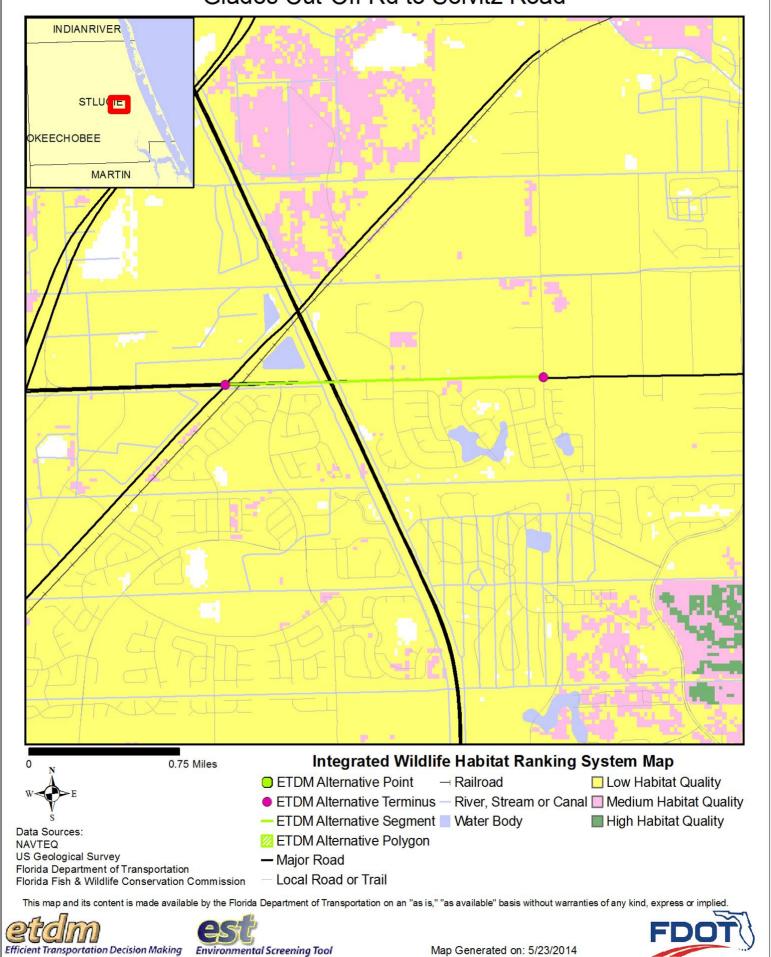
11 1 200 300 (1888) ASBS

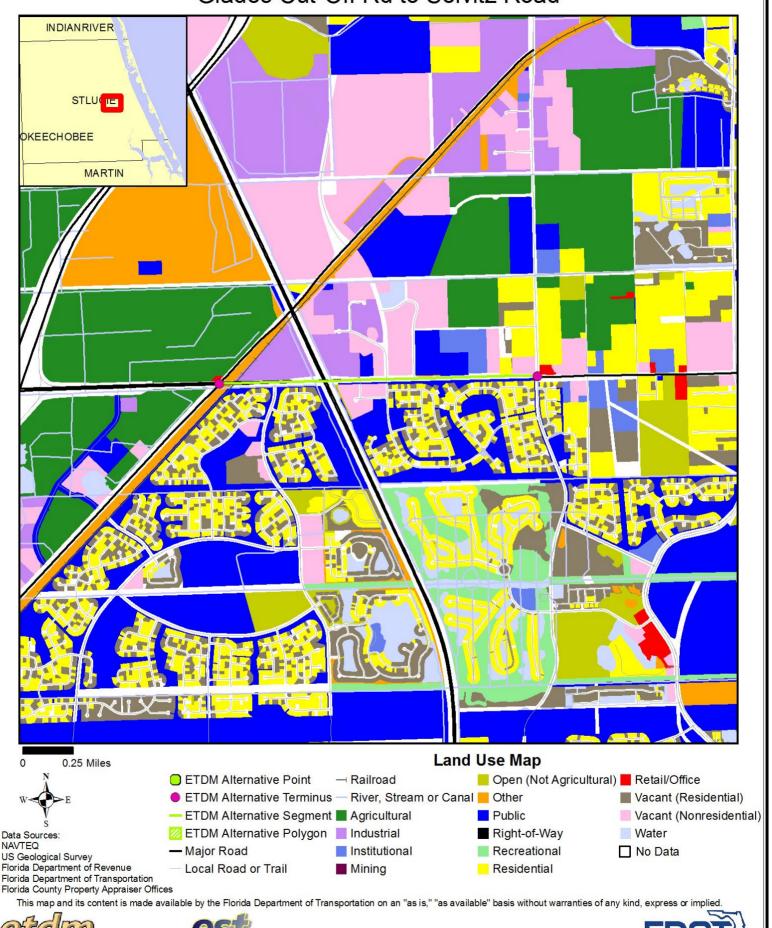
Median Household Income

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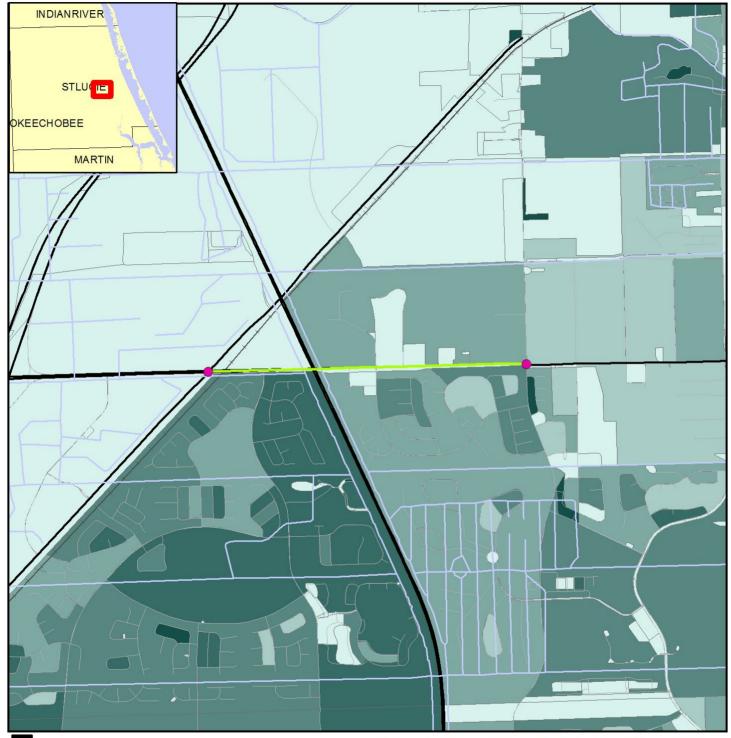








Efficient Transportation Decision Making Environmental Screening Tool





Data Sources: **US Geological Survey** FL Department of Transportation US Census Bureau (2010)

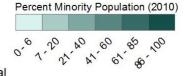
Minority Population Distribution Map

ETDM Alternative Point - Major Road

 ETDM Alternative Terminus — Local Road or Trail ETDM Alternative Segment → Railroad

ETDM Alternative Polygon — River, Stream or Canal

Water Body



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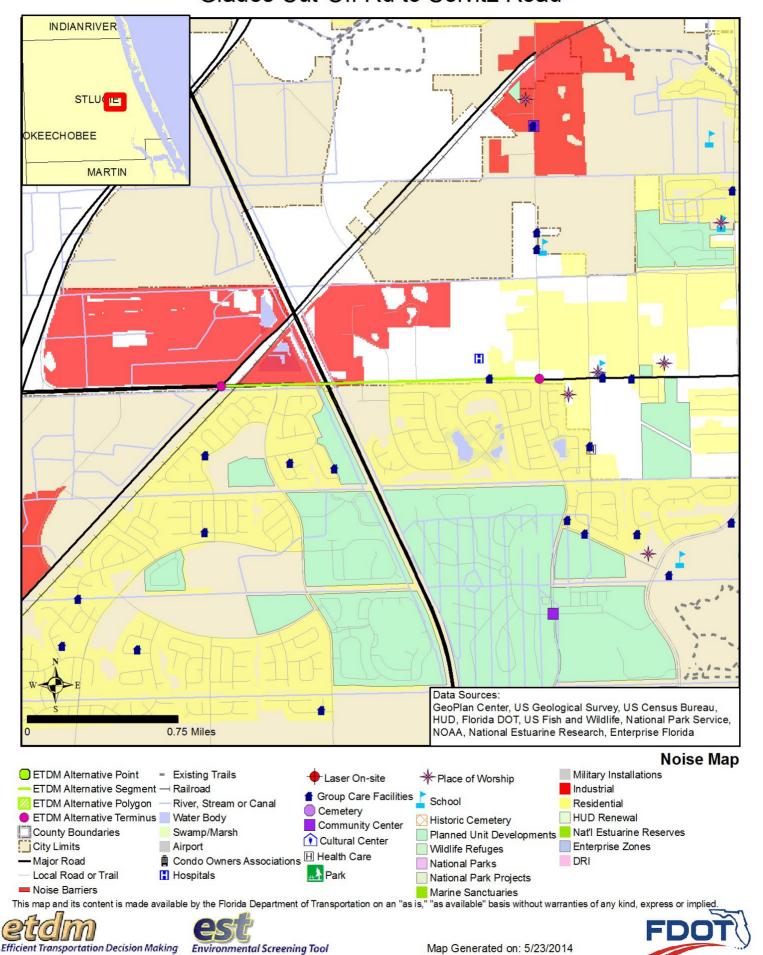


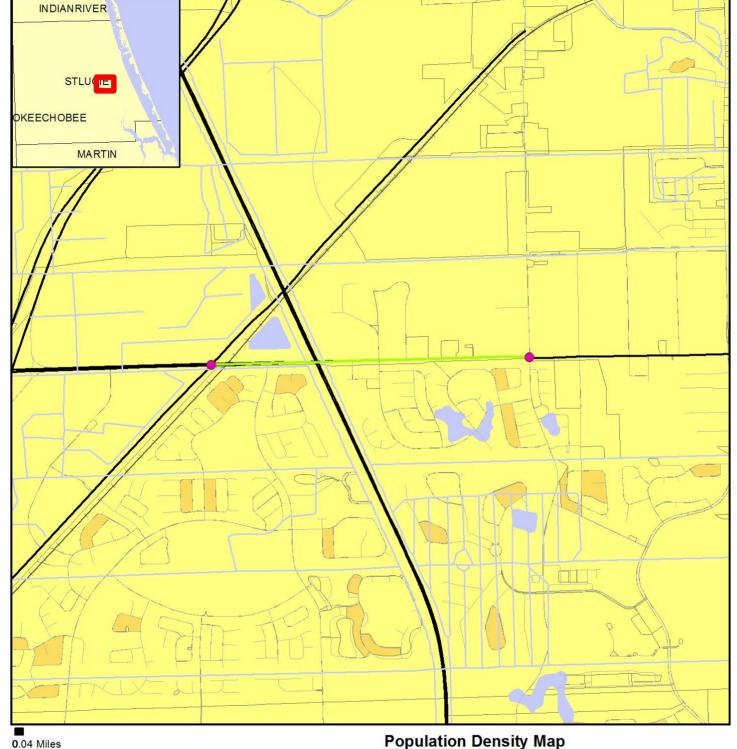


Map Generated on: 5/23/2014



Printed on: 7/07/2015





0.04 Miles



Data Sources: **US Geological Survey** FL Department of Transportation US Census Bureau (2010)

→ Railroad

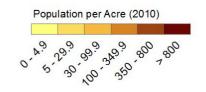
 ETDM Alternative Terminus — River, Stream or Canal ETDM Alternative Segment Water Body

💹 ETDM Alternative Polygon

ETDM Alternative Point

- Major Road

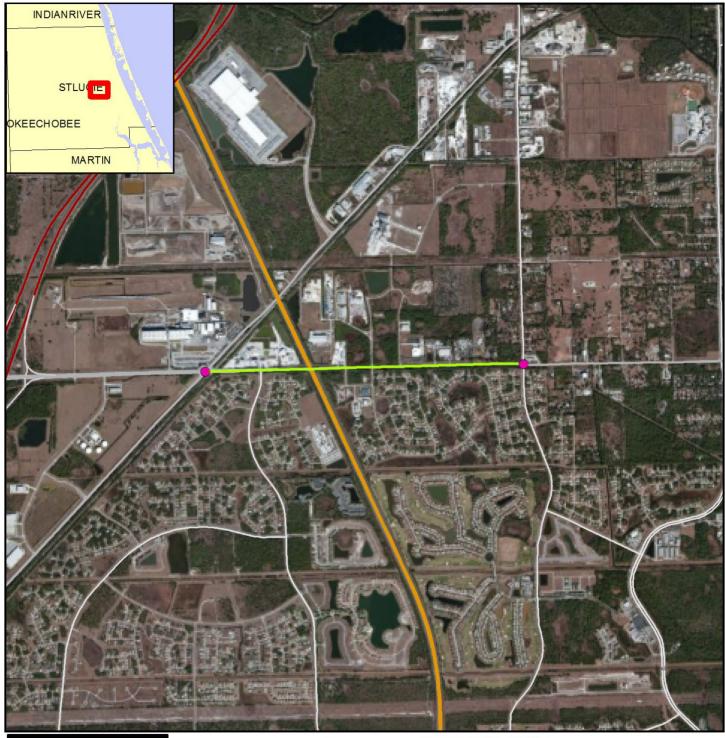
Local Road or Trail



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0.8 Miles

Project Aerial Map



Data Sources: Highways - NAVTEQ Digital Orthophotograph - US Geological Survey

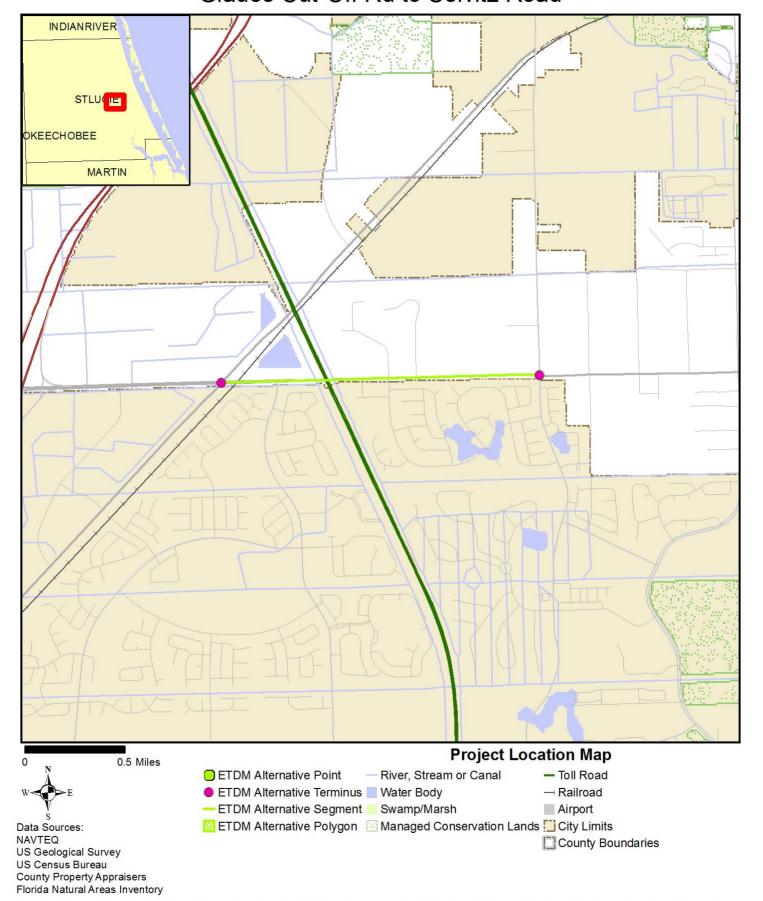
- ETDM Alternative Point
- Primary and Limited Access Highway
- ETDM Alternative Terminus Secondary, Unlimited Access Highway
- ETDM Alternative Segment Other Highway Feature
- 🗾 ETDM Alternative Polygon 🛑 Local Road

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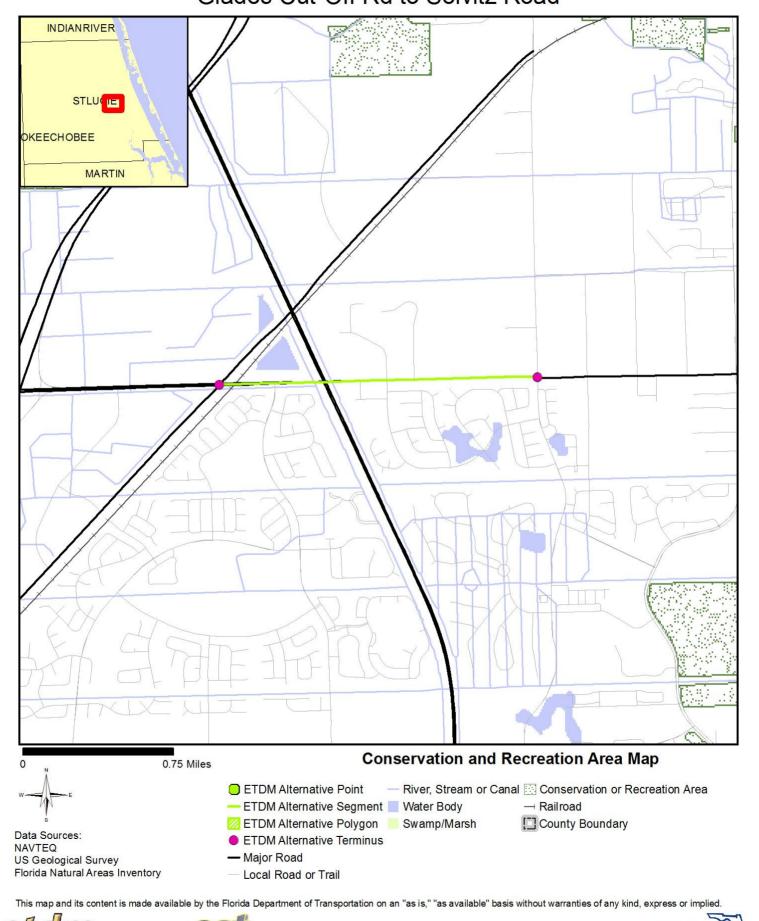




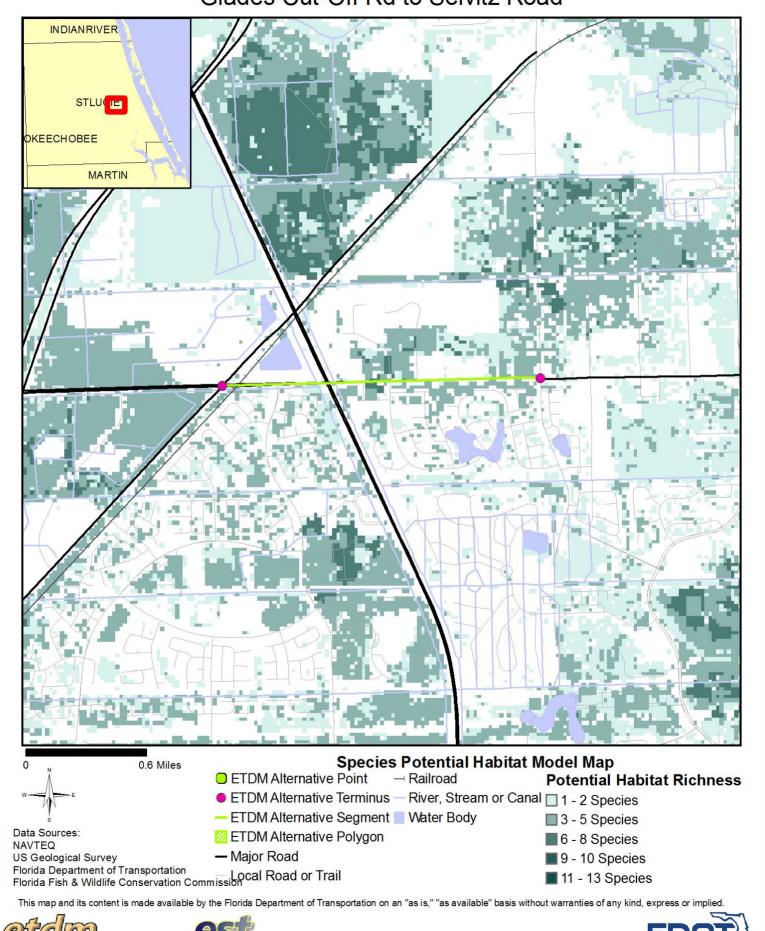
its content is made available by the Florida Department of Transportation on an "as is," "as available" basis without warranties of any kind, express or imp



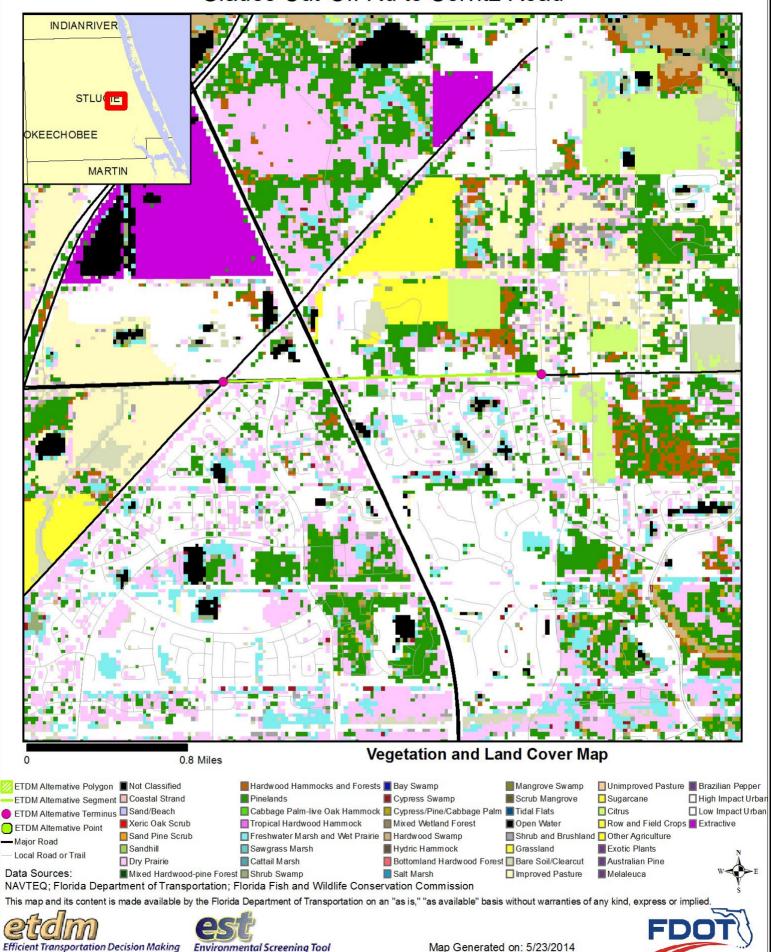


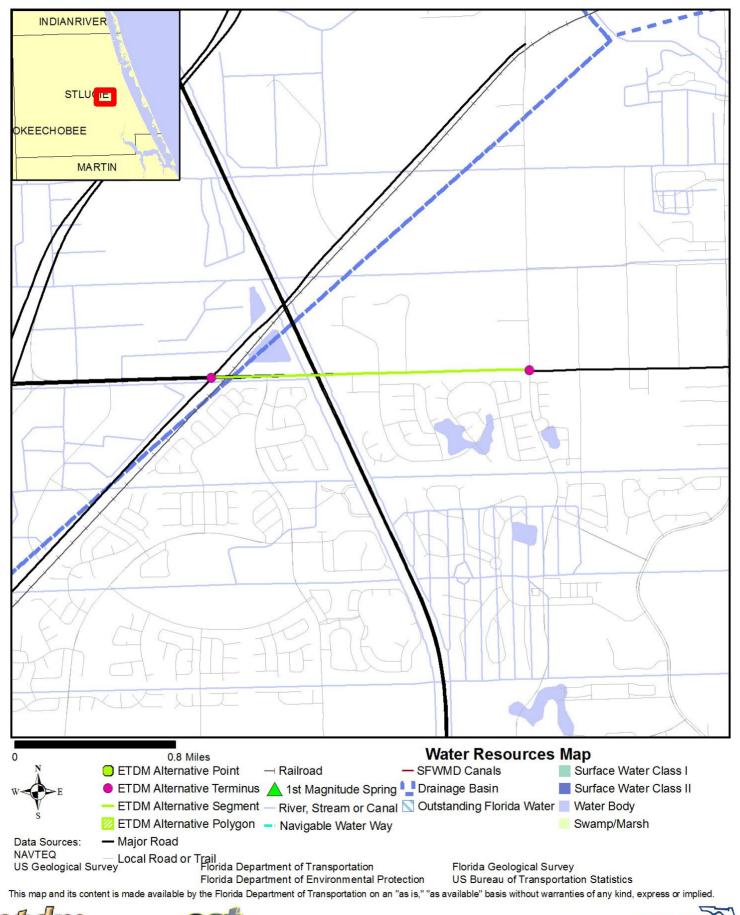


Efficient Transportation Decision Making Environmental Screening Tool



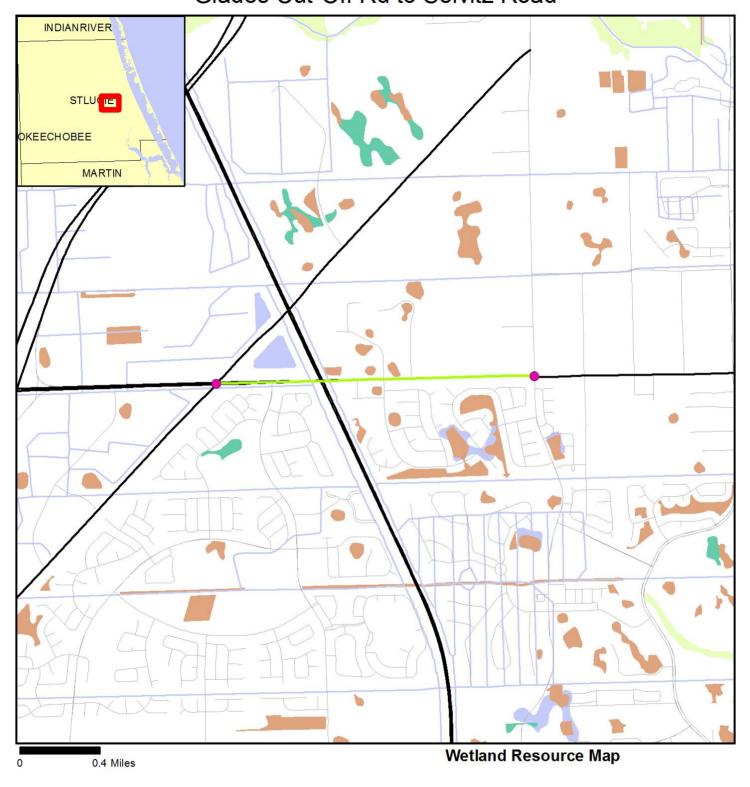
Efficient Transportation Decision Making Environmental Screening Tool













ETDM Alternative Polygon

- ETDM Alternative Segment

ETDM Alternative Terminus

Data Sources: NAVTEQ; Florida Water Management Districts; US Geological Survey

ETDM Alternative Point

- Major Road

Local Road or Trail

River, Stream or Canal

Water Body

Non-vegetated Wetland

Vegetated Non-forested Wetland

■ Wetland Forested Mixed

Wetland Coniferous Forest

Wetland Hardwood Forest This map and its content is made available by the Florida Department of Transportation on an "as is," "as available" basis without warranties of any kind, express or implied





Appendices

PED Comments

Advance Notification Comments

Federal Highway Administration Comment --

Purpose and Need:

- Safety was mentioned during the overall introduction of the Purpose and Need but there is no data or discussion available to support it.
 Discussion is recommended.
- Planning Consistency: Is the project included in the current STIP?
- Planning Consistency: This project is in the ETDM Programming Screen and therefore the project phase costs and related funding for those phases that are identified should be consistent with the TIP and LRTP. The project description identifies the project cost, excluding ROW, to be approximately \$19m, but the upcoming TIP (to be effective October 1m, 2014) identifies the project costs programmed over the next 5 years as \$36m (\$45 if ROW is included) and total project costs estimated to be \$57m. Please update this information in the screening tool to more accurately reflect what is being presented to the public.
- Public comments on this project were not included in the screening tool. Is FDOT aware of any controversy or support for the proposed project?
- The status of the planning Consistency for this projects was identified as "no information available" yet, within the project purpose and need there was narrative that described the programming of this project with the MPO documents. This should be updated to reflect this information.

Socio Cultural Impacts:

- There are medium density (fixed single family) dwelling units within 1320 feet of the project. How will access to these home sites be maintained?
- What outreach efforts are planned or have been made to the minority and low income populations along this project? There appears to be at least one residential area that has been identified in the ETDM tool as having a 100% minority population. Additionally, the ETDM tool identifies a small percentage of the population that does not speak English well and will require special outreach efforts.

Mobility/Freight

- Business and commercial what mitigation coordination has taken place with the commercial businesses within the project area of impact for either continued access to their businesses or any taking/relocation of property for the project? There are a number of businesses within the project impact area that are major traffic generators (US Postal Service, Health Department, and Mental Health Center among others).
- What operational improvements are being considered as part of or independent of this project to assist with access to/from the existing businesses?
- Bicycle/Pedestrian facilities it is stated that currently accessibility for both modes is minimal along the facility. It is not clear if bicycle and
 pedestrian facilities will be included in the project. A mention is made of a proposed multiuse trail in the Long Range Plan Needs Plan, but not if
 there are any actions to move the trail forward as a funded project.
- Truck traffic This appears to be a well-used freight corridor with currently a 7% truck volume. What is the anticipated growth of the freight volume over the next 20 years especially considering the developments and economic centers planned along this corridor? Have any outreach efforts been made to the freight providers for their input for operational improvements?

Transit -

It did not appear from the project description that transit services are currently available. Are these services part of the planned improvement to this facility in this location?

--Luis D Lopez, P.E., 8/8/2014

Response --

--, \$tools.date.format("M/d/yyyy",\$comment.responseTimestamp)

South Florida Water Management District Comment --

No additional comments.

-- Mindy Parrott, 7/1/2014

Printed on: 7/07/2015

Response --

--, \$tools.date.format("M/d/yyyy",\$comment.responseTimestamp)

GIS Analyses

Since there are so many GIS Analyses available for Project #14177 - Midway Road Widening, they have not been included in this ETDM Summary Report. GIS Analyses, however, are always available for this project on the Public ETDM Website. Please click on the link below (or copy this link into your Web Browser) in order to view detailed GIS tabular information for this project:

http://etdmpub.fla-etat.org/est/index.jsp?tpID=14177&startPageName=GIS%20Analysis%20Results

Special Note: Please be sure that when the GIS Analysis Results page loads, the **Summary Report Re-Published 5/27/2015Milestone** is selected. GIS Analyses snapshots have been taken for Project #14177 at various points throughout the project's life-cycle, so it is important that you view the correct snapshot.

Project Attachments

Note: Attachments are not included in this Summary Report, but can be accessed by clicking on the links below:

Date	Туре	Size	Link / Description
05/22/2014	Hardcopy Map (from Attach Document Tool)	2.35 MB	http://etdmpub.fla-etat.org/est/servlet/blobViewer?blobID=17215 Figure 1- Project Location Map.jpg
05/22/2014	Form SF-424: Application for Federal Assistance	989 KB	http://etdmpub.fla-etat.org/est/servlet/blobViewer?blobID=17214 Federal Aid Application
05/21/2014	Ancillary Project Documentation	142 KB	http://etdmpub.fla-etat.org/est/servlet/blobViewer?blobID=17210 Regional Workplace District
05/21/2014	Ancillary Project Documentation	2.23 MB	http://etdmpub.fla-etat.org/est/servlet/blobViewer?blobID=17209 DRI Locations
05/21/2014	Ancillary Project Documentation	2.35 MB	http://etdmpub.fla-etat.org/est/servlet/blobViewer?blobID=17208 Project Location Map

Degree of Effect Legend

Color Code	Meaning	ETAT	Public Involvement	
N/A	Not Applicable / No Involvement	There is no presence of the issue in relationship to the project, or the issue is irrelevant in relationship to the proposed transportation action.		
0	None (after 12/5/2005)	The issue is present, but the project will have no impact on the issue; project has no adverse effect on ETAT resources; permit issuance or consultation involves routine interaction with the agency. The <i>None</i> degree of effect is new as of 12/5/2005.	No community opposition to the planned project. No adverse effect on the community.	
1	Enhanced	Project has positive effect on the ETAT resource or can reverse a previous adverse effect leading to environmental improvement.	Affected community supports the proposed project. Project has positive effect.	
2	Minimal	Project has little adverse effect on ETAT resources. Permit issuance or consultation involves routine interaction with the agency. Low cost options are available to address concerns.	Minimum community opposition to the planned project. Minimum adverse effect on the community.	
2	Minimal to None (assigned prior to 12/5/2005)	Project has little adverse effect on ETAT resources. Permit issuance or consultation involves routine interaction with the agency. Low cost options are available to address concerns.	Minimum community opposition to the planned project. Minimum adverse effect on the community.	
3	Moderate	Agency resources are affected by the proposed project, but avoidance and minimization options are available and can be addressed during development with a moderated amount of agency involvement and moderate cost impact.	Project has adverse effect on elements of the affected community. Public Involvement is needed to seek alternatives more acceptable to the community. Moderate community interaction will be required during project development.	
4	Substantial	The project has substantial adverse effects but ETAT understands the project need and will be able to seek avoidance and minimization or mitigation options during project development. Substantial interaction will be required during project development and permitting.	Project has substantial adverse effects on the community and faces substantial community opposition. Intensive community interaction with focused Public Involvement will be required during project development to address community concerns.	
5	Potential Dispute (Planning Screen)	Project may not conform to agency statutory requirements and may not be permitted. Project modification or evaluation of alternatives is required before advancing to the LRTP Programming Screen.	Community strongly opposes the project. Project is not in conformity with local comprehensive plan and has severe negative impact on the affected community.	
5	Dispute Resolution (Programming Screen)	Project does not conform to agency statutory requirements and will not be permitted. Dispute resolution is required before the project proceeds to programming.	Community strongly opposes the project. Project is not in conformity with local comprehensive plan and has severe negative impact on the affected community.	

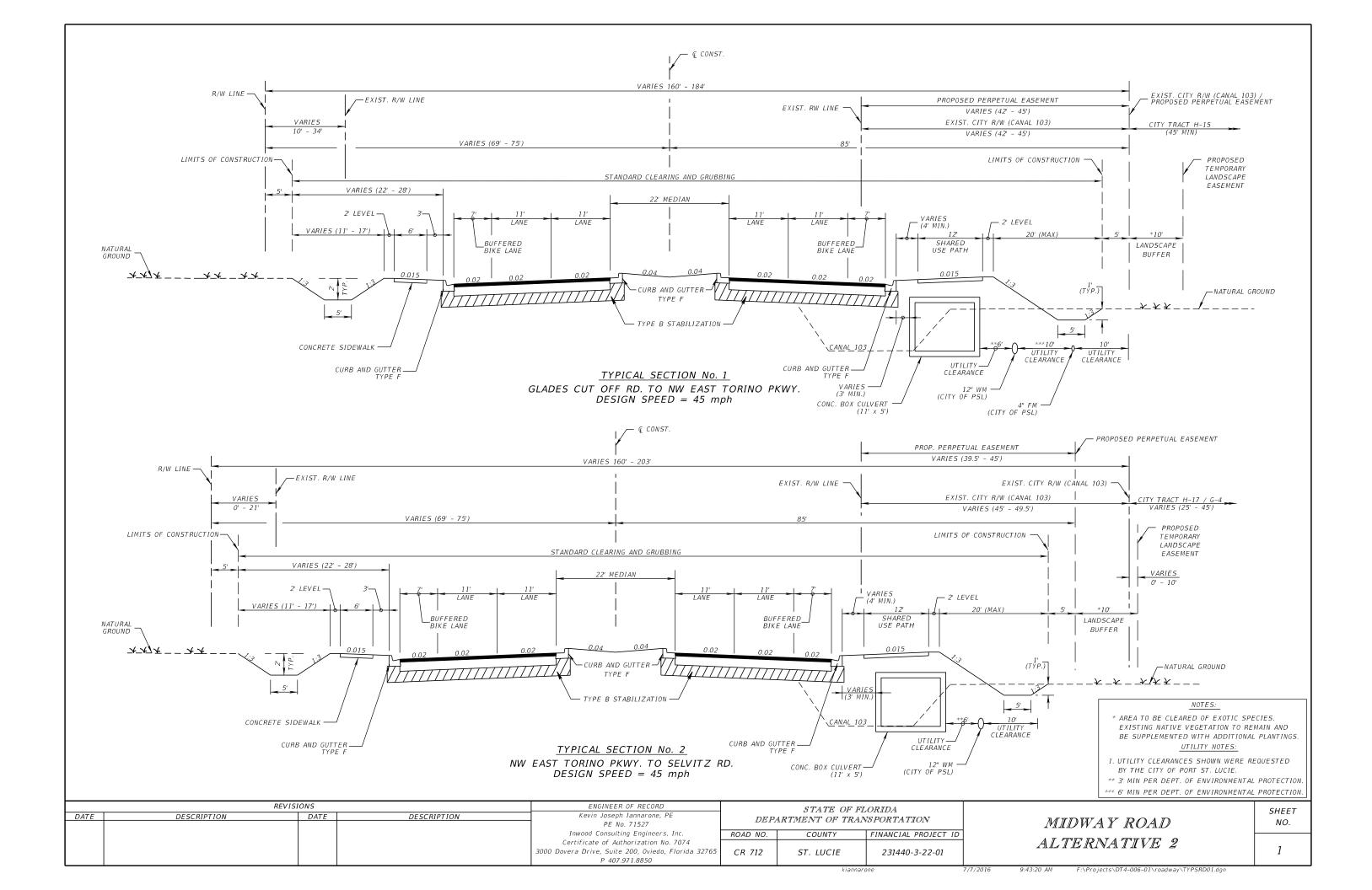
Printed on: 7/07/2015

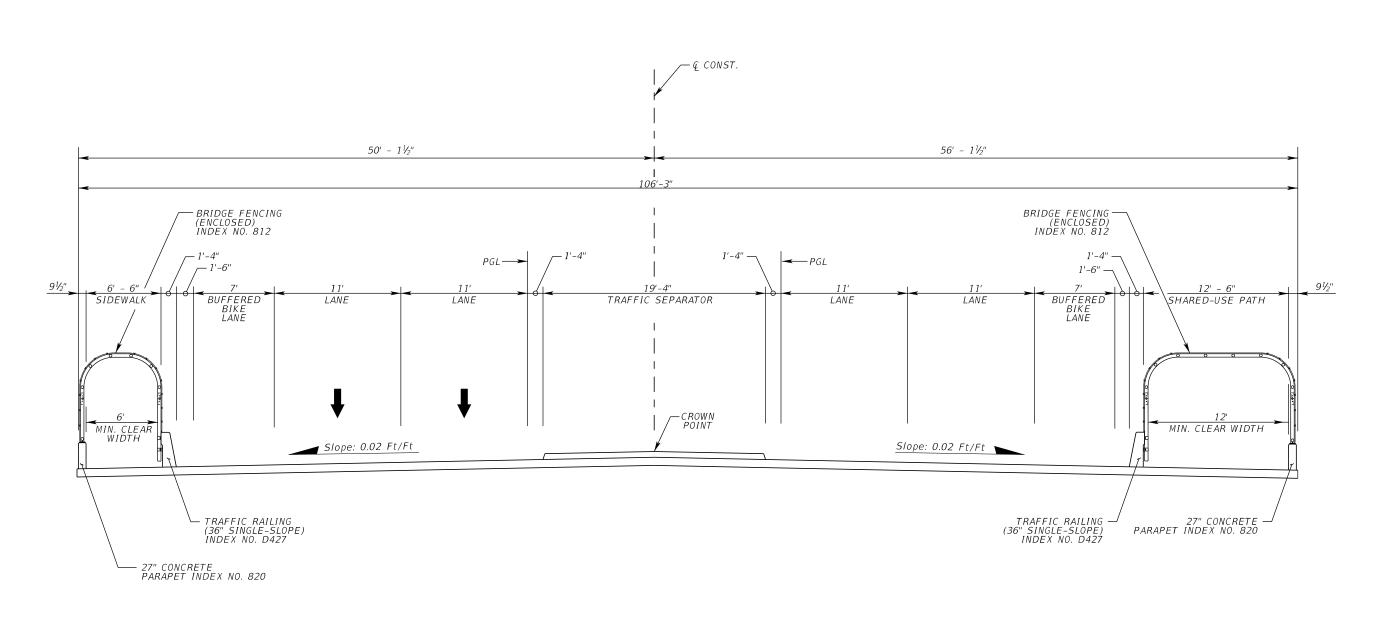
No ETAT	Γ Consensus	ETAT members from different agencies assigned a different degree of effect to this project, and the ETDM coordinator has not assigned a summary degree of effect.
No ETAT		No ETAT members have reviewed the corresponding issue for this project, and the ETDM coordinator has not assigned a summary degree of effect.

Printed on: 7/07/2015

<u>Appendix D</u>

Recommended Alternative Concept Plans

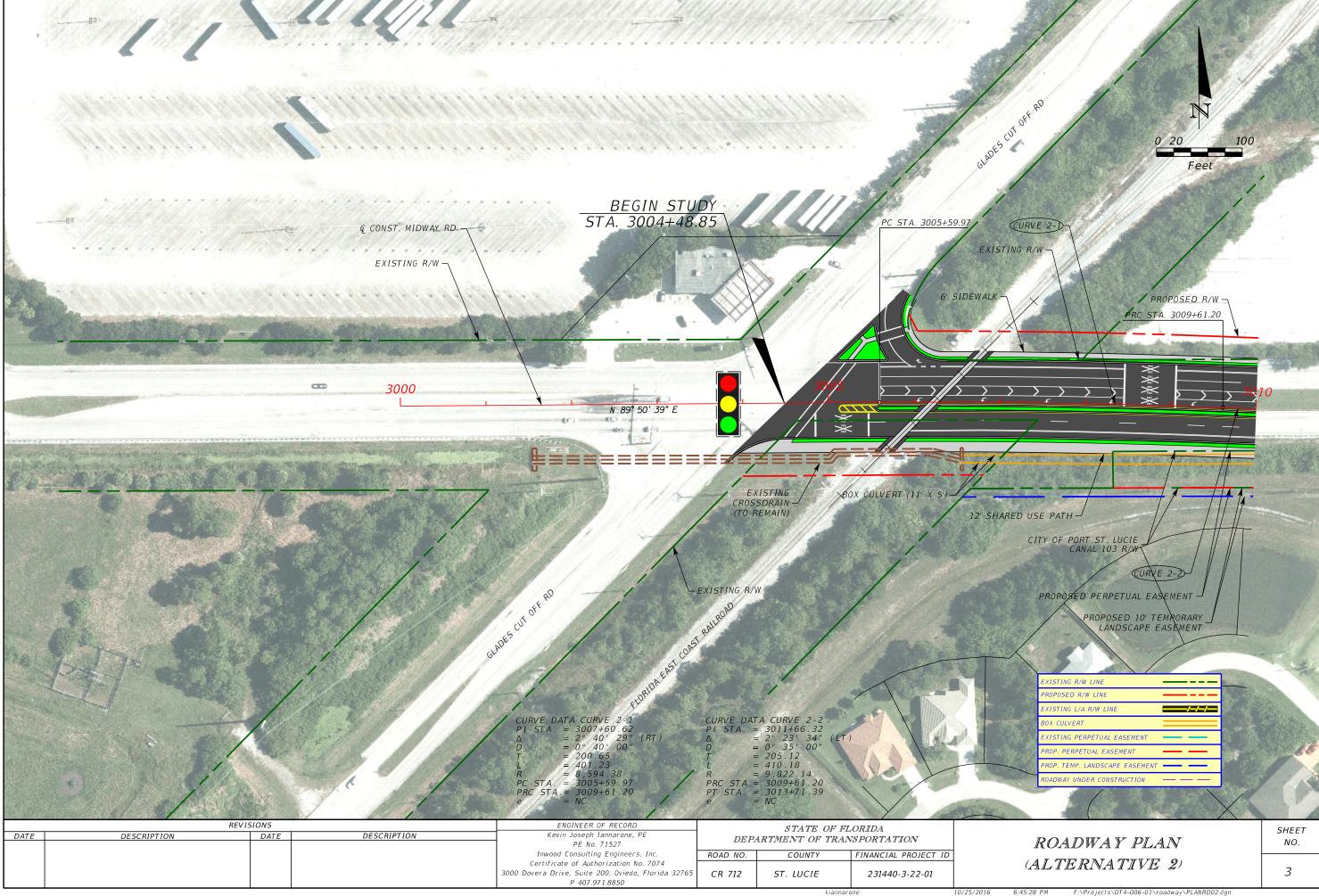


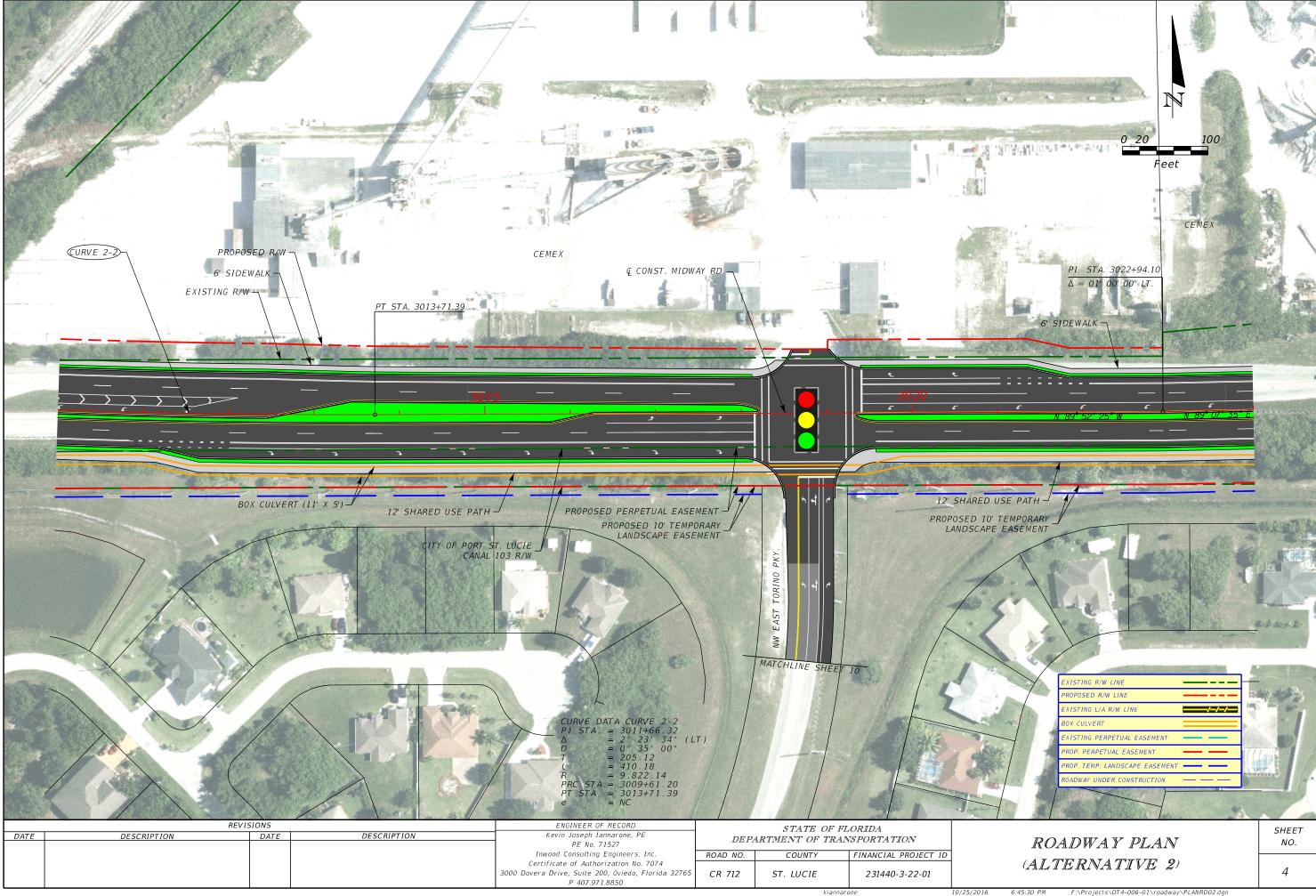


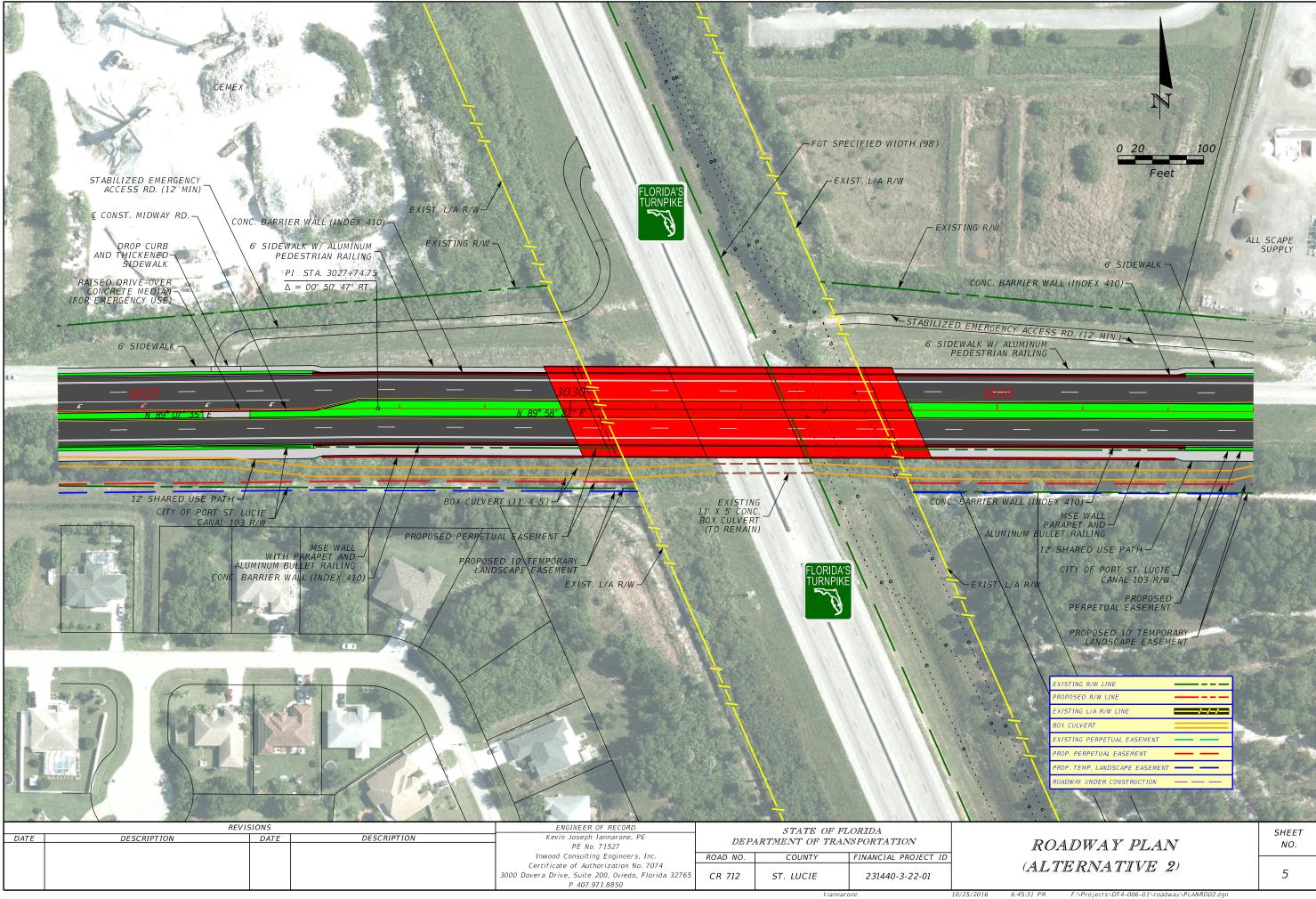
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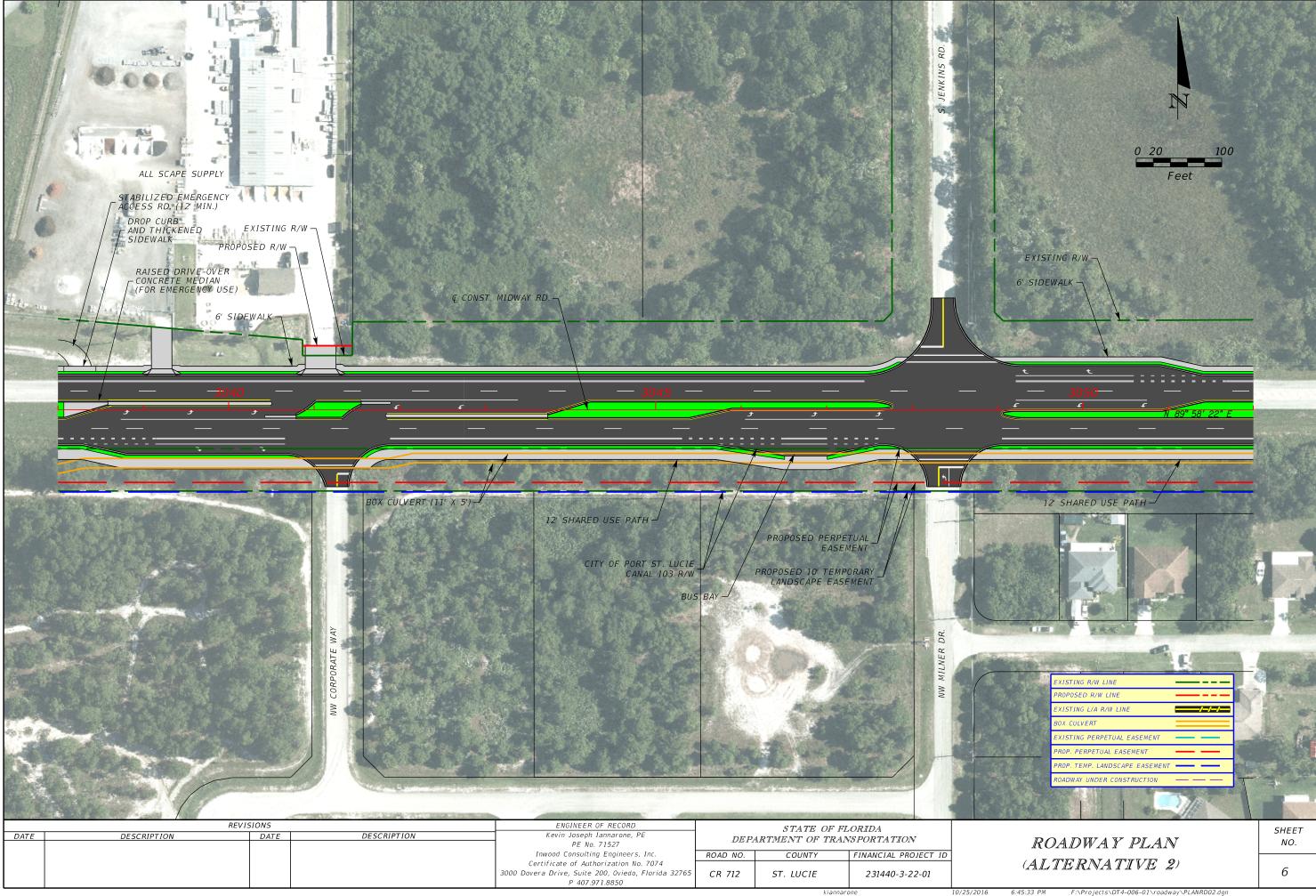
REVISIONS		ST. LUCIE COUNTY CONCURRENCE	Kimley-Horn and Associates, Inc.	STATE OF FLORIDA		LORIDA	
DATE	DESCRIPTION		Certificate Of Authorization No. 696	DEPARTMENT OF TRANSPORTATION		NSPORTATION	MIDWAY ROAD
			Kenneth W. Jackson, P.E. P.E. License No. 50602	ROAD NO.	COUNTY	FINANCIAL PROJECT ID	TYPICAL SECTIONS
		Michael V. Powley, PE Date St. Lucie County Engineer	1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411	CR 712	ST. LUCIE	231440-3-22-01	

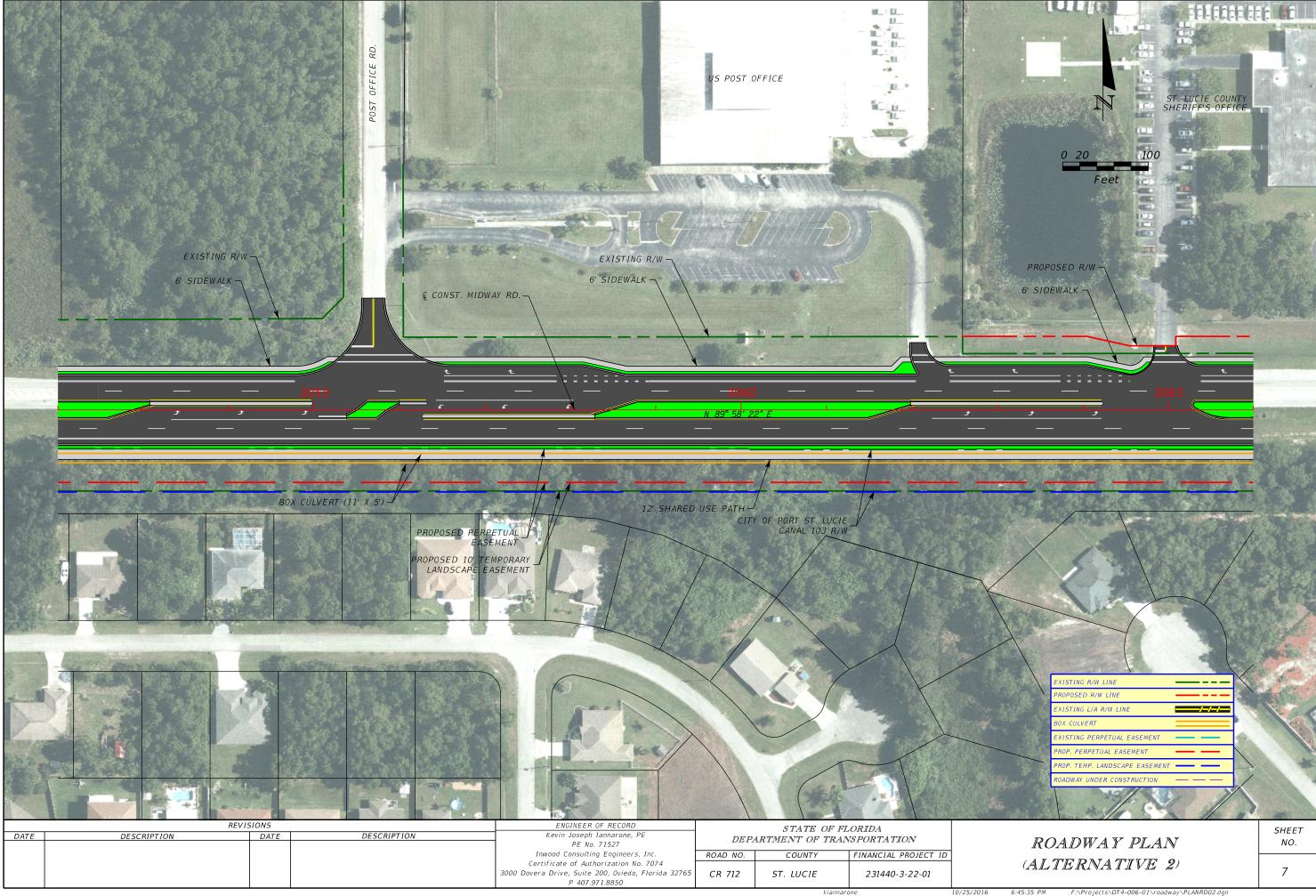
SHEET NO.

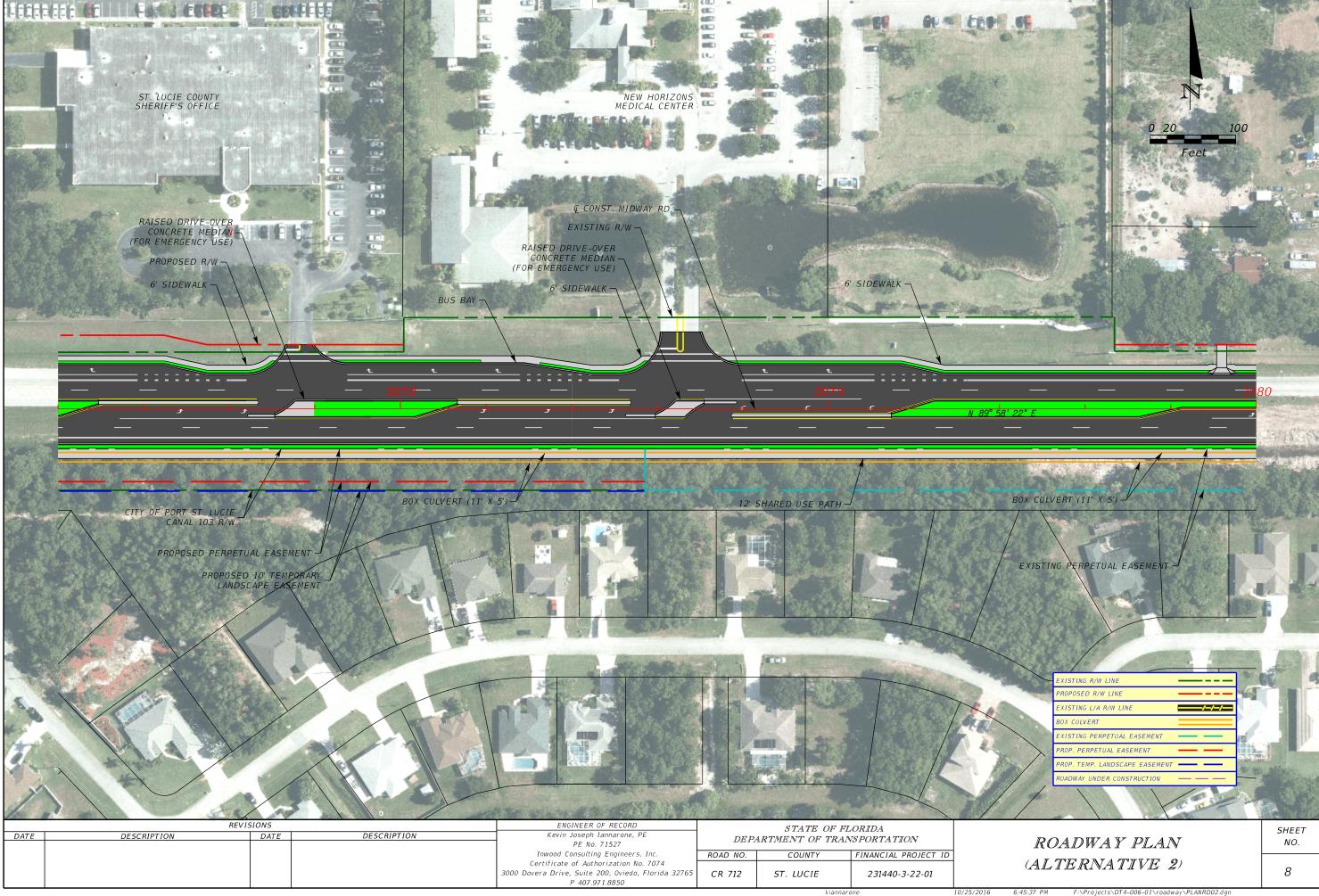


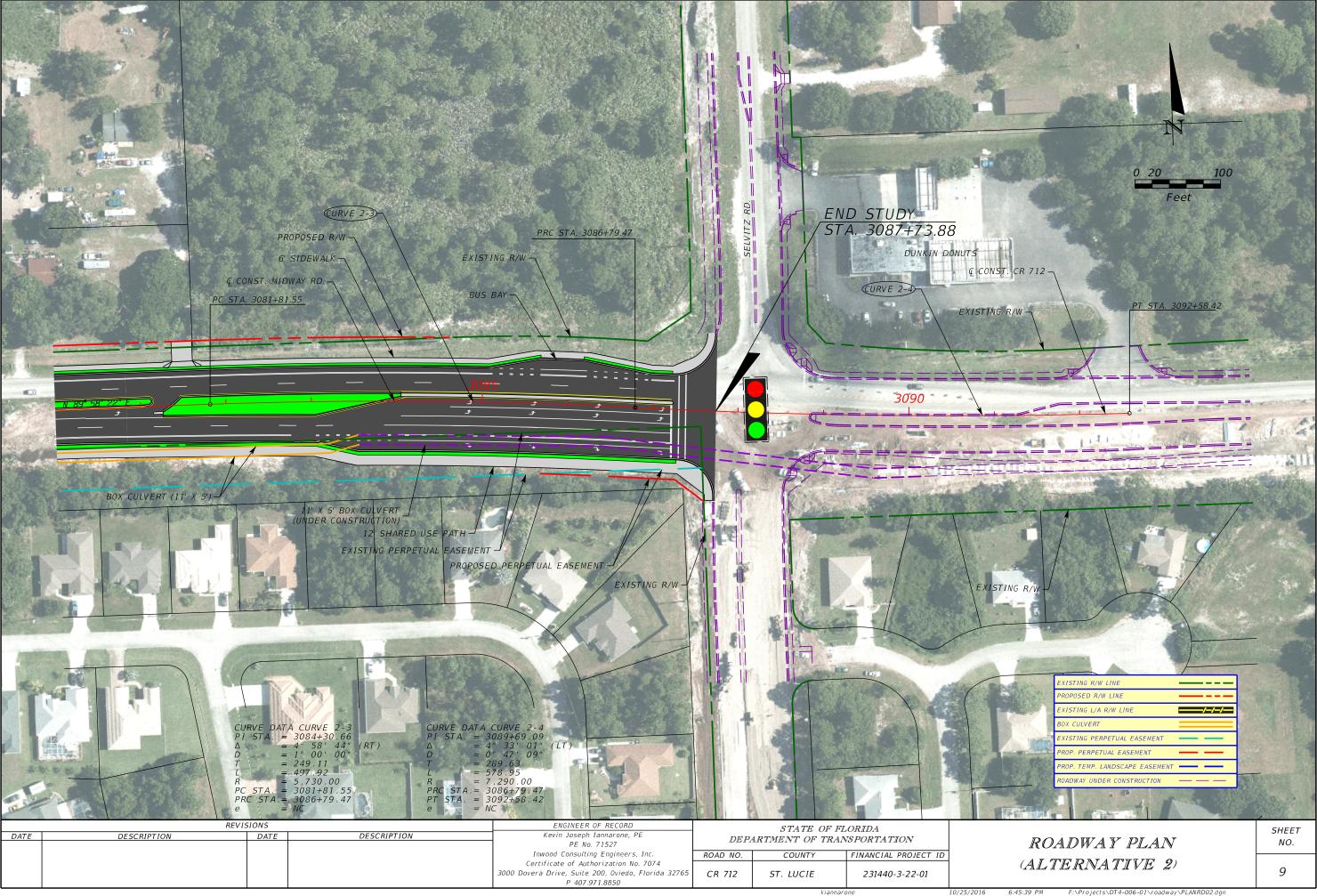














Appendix E

Long Range Estimates (LRE)

Date: 10/26/2016 7:17:42 AM

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

Project: 231440-3-22-01 **Letting Date:** 01/2099

Description: W. MIDWAY RD/CR-712 FROM GLADES CUT OFF ROAD TO SELVITZ ROAD.

District: 04 County: 94 ST. LUCIE Market Area: 11 Units: English

Contract Class: 4 Lump Sum Project: N Design/Build: N Project Length: 1.592 MI

Project Manager: Jimenez

Version 1-P Project Grand Total

\$23,605,314.91

Net Length:

Description: W. MIDWAY RD/CR-712 FROM GLADES CUT OFF ROAD TO SELVITZ ROAD. Alternative 1 -

Canal Avoidance

Sequence: 1 NDU - New Construction, Divided, Urban

1.592 MI 8,406 LF

Description:

EARTHWORK COMPONENT

User	Inp	ut	Data

Description	Value
Standard Clearing and Grubbing Limits L/R	87.00 / 78.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	1.576
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
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 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 itemDescriptionQuantity UnitUnit PriceExtended Amount120-6EMBANKMENT127,417.29 CY\$10.00\$1,274,172.90

X-Items

Pay itemDescriptionQuantity UnitUnit PriceExtended Amount120-6EMBANKMENT50,000.00 CY\$10.00\$500,000.00

Comment: Embankment near overpass

Earthwork Component Total \$1,774,172.90

ROADWAY COMPONENT

User Input Data

Description Value

Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay	Items
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Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	63,809.06 SY	\$3.27	\$208,655.63
285-709	OPTIONAL BASE,BASE GROUP 09	54,170.45 SY	\$12.72	\$689,048.12
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	8,938.12 TN	\$96.99	\$866,908.26
337-7-43	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	4,469.06 TN	\$111.68	\$499,104.62

X-Items

A-items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	514.00 TN	\$96.99	\$49,852.86
	Comment: 5% Contingency			
337-7-43	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	257.00 TN	\$111.68	\$28,701.76
	Comment: 5% Contingency			
515-2-311	PED/BICYCLE RAILING, ALUM,42" TYPE 1	800.00 LF	\$72.54	\$58,032.00
515-4-1	BULLET RAIL, SINGLE RAIL	800.00 LF	\$36.20	\$28,960.00
521-6-31	CONC PARAPET, RETAINING WALL SYS, 27"	800.00 LF	\$237.26	\$189,808.00

Turnouts/Crossovers Subcomponent

Description	Value
Asphalt Adjustment	15.00
Stabilization Code	Υ
Base Code	Υ
Friction Course Code	Υ

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	9,571.36 SY	\$3.27	\$31,298.35
285-709	OPTIONAL BASE,BASE GROUP 09	8,125.57 SY	\$12.72	\$103,357.25
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,340.72 TN	\$96.99	\$130,036.43
337-7-43	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	670.36 TN	\$111.68	\$74,865.80

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Υ
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
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	645.00 EA	\$3.48	\$2,244.60
711-13-111	THERMOPLASTIC,HOT SPRAY,WHITE,SOLID,6"	6.37 NM	\$1,447.69	\$9,221.79
711-13-111	THERMOPLASTIC,HOT SPRAY,WHITE,SOLID,6"	6.37 NM	\$1,447.69	\$9,221.79
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	3.18 GM	\$1,494.07	\$4,751.14

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

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-72-5	SHLDR CONC BARRIER WALL,RIGID C&C	1,600.00 LF	\$188.68	\$301,888.00
	Roadway Component Total			\$3,285,956.40

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	30.25 / 26.25
Total Outside Shoulder Perf. Turf Width L/R	22.00 / 24.00
Sidewalk Width L/R	6.00 / 0.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	8,405.76 LF	\$17.00	\$142,897.92
520-1-10	CONCRETE CURB & GUTTER, TYPE F	8,405.76 LF	\$17.00	\$142,897.92
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	5,603.84 SY	\$35.15	\$196,974.98
570-1-1	PERFORMANCE TURF	42,962.77 SY	\$1.77	\$76,044.10
	DRIVEWAYS, 4"	,	,	, , .

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
522-2	CONCRETE SIDEWALK AND DRIVEWAYS, 6"	11,095.00 SY	\$45.00	\$499,275.00

Comment: 12' shared-use path

Erosion Control Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	16,811.52 LF	\$0.94	\$15,802.83
104-11	FLOATING TURBIDITY BARRIER	398.00 LF	\$9.38	\$3,733.24
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	398.00 LF	\$4.25	\$1,691.50
104-15	SOIL TRACKING PREVENTION DEVICE	2.00 EA	\$2,847.83	\$5,695.66
104-18	INLET PROTECTION SYSTEM	82.00 EA	\$92.60	\$7,593.20
	Shoulder Component Total			\$1,092,606.35

MEDIAN COMPONENT

User Inp	ut Data
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DescriptionValueTotal Median Width22.00Performance Turf Width18.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	16,811.52 LF	\$17.00	\$285,795.84
520-5-41	TRAF SEP CONC-TYPE IV, 4' WIDE	2,131.00 LF	\$35.00	\$74,585.00
570-1-2	PERFORMANCE TURF, SOD	16,811.52 SY	\$2.87	\$48,249.06
	Median Component Total			\$408,629.90

DRAINAGE COMPONENT

Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	28.66 CY	\$1,898.93	\$54,423.33
425-1-351	INLETS, CURB, TYPE P-5, <10'	58.00 EA	\$4,693.75	\$272,237.50
425-1-451	INLETS, CURB, TYPE J-5, <10'	16.00 EA	\$7,528.44	\$120,455.04
425-1-521	INLETS, DT BOT, TYPE C, <10'	8.00 EA	\$2,444.31	\$19,554.48
425-2-41	MANHOLES, P-7, <10'	8.00 EA	\$3,620.48	\$28,963.84
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	4,216.00 LF	\$74.92	\$315,862.72
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	376.00 LF	\$113.77	\$42,777.52
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	7,960.00 LF	\$160.71	\$1,279,251.60
570-1-1	PERFORMANCE TURF	483.97 SY	\$1.77	\$856.63

Box Culvert 1

Description	Unit cost for 400-4-1 was determined to	Value
Size	be \$800 per CY based on St. Luce County bid data for a similar installation on	10 x 6
Length	Midway Road and coordination with the	1,275.00
Multiplier	Department Estimates Office.	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-4-1	CONC CLASS IV, CULVERTS	1,366.75 CY	\$800.00	\$1,093,400.00
415-1-1	REINF STEEL- ROADWAY	171,471.50 LB	\$0.90	\$154,324.35

Box Culvert 2

Description	be \$800 per CY based on St. Luce County	Value
Size	bid data for a similar installation on	10 x 6
Length	Midway Road and coordination with the	140.00
Multiplier	Department Estimates Office.	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-4-1	CONC CLASS IV, CULVERTS	175.00 CY	\$800.00	\$140,000.00
415-1-1	REINF STEEL- ROADWAY	21,084.00 LB	\$0.90	\$18,975.60

Retention Basin 1

Description	Value
Size	1.5 AC
Multiplier	2
Depth	6.00
Description	Basin 2 - Pond 1 Basins 1 and 3 utilize existing ponds and do not require construction / modification. Basin B will utilize exfiltration

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.00 AC	\$14,124.61	\$42,373.83
120-1	REGULAR EXCAVATION	29,040.00 CY	\$5.06	\$146,942.40
400-2-2	CONC CLASS II, ENDWALLS	36.00 CY	\$1,898.93	\$68,361.48
425-1-541	INLETS, DT BOT, TYPE D, <10'	2.00 EA	\$3,976.01	\$7,952.02
425-2-71	MANHOLES, J-7, <10'	2.00 EA	\$10,014.28	\$20,028.56
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	112.00 LF	\$141.55	\$15,853.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	400.00 LF	\$297.35	\$118,940.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	2,050.00 LF	\$10.16	\$20,828.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	2.00 EA	\$1,946.90	\$3,893.80
570-1-1	PERFORMANCE TURF	14,520.00 SY	\$1.77	\$25,700.40

Retention Basin 2

Description		Value
Size		2 AC
Multiplier		1
Depth		6.00
Description	Pond B-2	

Pay	Items
-----	-------

Pay item	Description	Quantity Unit Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00 AC \$14,124.61	\$28,249.22

120-1	REGULAR EXCAVATION	19,360.00 CY	\$5.06	\$97,961.60
400-2-2	CONC CLASS II, ENDWALLS	18.00 CY	\$1,898.93	\$34,180.74
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00 EA	\$3,976.01	\$3,976.01
425-2-71	MANHOLES, J-7, <10'	1.00 EA	\$10,014.28	\$10,014.28
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	\$141.55	\$7,926.80
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	\$297.35	\$59,470.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00 LF	\$10.16	\$11,988.80
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,946.90	\$1,946.90
570-1-1	PERFORMANCE TURF	9,680.00 SY	\$1.77	\$17,133.60
	Drainage Component Total			\$4,284,804.65

SIGNING COMPONENT

Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	39.00 AS	\$303.56	\$11,838.84
700-1-12	SINGLE POST SIGN, F&I GM, 12- 20 SF	4.00 AS	\$1,289.21	\$5,156.84
700-2-15	MULTI- POST SIGN, F&I GM, 51- 100 SF	4.00 AS	\$6,727.25	\$26,909.00
700-2-16	MULTI- POST SIGN, F&I GM, 101- 200 SF	4.00 AS	\$7,732.16	\$30,928.64
	Signing Component Total			\$74,833.32

SIGNALIZATIONS COMPONENT

Signalization 1	
Description	Value
Туре	4 Lane Mast Arm
Multiplier	1
Description	New Signals Torino Parkway

Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00 LF	\$5.19	\$3,892.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00 LF	\$17.57	\$4,392.50
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$5,181.25	\$5,181.25
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00 EA	\$491.99	\$7,871.84
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$1,862.40	\$1,862.40
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	\$2.34	\$140.40
649-31-103	M/ARM,F&I, WS-150,SING ARM,W/0 LUM-60	4.00 EA	\$30,117.43	\$120,469.72
650-1-14	TRAFFIC SIGNAL,F&I ALUMINUM,	12.00 AS	\$902.98	\$10,835.76

	3 S 1 W			
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$597.74	\$4,781.92
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00 EA	\$247.55	\$2,970.60
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00 AS	\$1,074.60	\$12,895.20
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$135.46	\$1,083.68
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$23,935.18	\$23,935.18
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$236.91	\$947.64

Signalization 2

DescriptionValueType4 Lane Mast ArmMultiplier1DescriptionGlades Cut Off Road Replace
impacted mast arms (eastside)
and rail mast arm.

Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00 LF	\$5.19	\$3,892.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00 LF	\$17.57	\$4,392.50
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$5,181.25	\$5,181.25
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00 EA	\$491.99	\$7,871.84
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$1,862.40	\$1,862.40
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	\$2.34	\$140.40
649-31-103	M/ARM,F&I, WS-150,SING ARM,W/0 LUM-60	3.00 EA	\$30,117.43	\$90,352.29
650-1-14	TRAFFIC SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00 AS	\$902.98	\$10,835.76
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$597.74	\$4,781.92
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00 EA	\$247.55	\$2,970.60
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00 AS	\$1,074.60	\$12,895.20
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$135.46	\$1,083.68
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$23,935.18	\$23,935.18
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$236.91	\$947.64

Signalization 3

Description	Value
Type	4 Lane Mast Arm
Multiplier	1
Description	Selvitz Road - New mast arms west side of intersection

Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00 LF	\$5.19	\$3,892.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00 LF	\$17.57	\$4,392.50
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$5,181.25	\$5,181.25
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00 EA	\$491.99	\$7,871.84
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$1,862.40	\$1,862.40
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	\$2.34	\$140.40
649-31-103	M/ARM,F&I, WS-150,SING ARM,W/0 LUM-60	2.00 EA	\$30,117.43	\$60,234.86
650-1-14	TRAFFIC SIGNAL,F&I ALUMINUM, 3 S 1 W	8.00 AS	\$902.98	\$7,223.84
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	4.00 AS	\$597.74	\$2,390.96
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	6.00 EA	\$247.55	\$1,485.30
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	6.00 AS	\$1,074.60	\$6,447.60
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	4.00 EA	\$135.46	\$541.84
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$23,935.18	\$23,935.18
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	2.00 EA	\$236.91	\$473.82

Interconnect Subcomponent

Description	Value
Туре	U
Length of Fiber Run	8,300.00
Number of Intersections	3
Percentage of Underpavement Conduit	0.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-1-12	CONDUIT, F& I, UNDERGROUND	8,300.00 LF	\$29.49	\$244,767.00
635-1-15	PULL & JUNCTION BOX, F&I, FIBER OPTICS	14.00 EA	\$1,244.98	\$17,429.72
635-1-16	PULL & JUNCTION BOX, F&I, SPECIAL	3.00 EA	\$2,317.00	\$6,951.00
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	12.00 AS	\$589.82	\$7,077.84
	Signalizations Component Total			\$774,703.60

LANDSCAPING COMPONENT

User Input Data

DescriptionValueComponent DetailY

Pay Items

Pay item Description Quantity Unit Unit Price Extended Amount

	Landscaping Component Total			\$414,352.48
590-70	IRRIGATION SYSTEM	4.00 LS	\$44,647.83	\$178,591.32
580-1-2	LANDSCAPE COMPLETE (LARGE PLANTS)	4.00 LS	\$22,471.73	\$89,886.92
580-1-1	LANDSCAPE COMPLETE (SMALL PLANTS)	4.00 LS	\$36,468.56	\$145,874.24

BRIDGES COMPONENT

В	ri	d	a	e	1

3		
Description		Value
Estimate Type		Detailed Estimate
Primary Estimate		YES
Structure No.		000000
Geographic District		04
Segment Count		1
Bridge Length (LF)		342.00
Average Bridge Width (LF)		106.25
Average Skew Angle		0.00
Construction Type		New/Replacement
Typical Section		Urban Undivided, Flush SW
Sidewalk Width Left		6.00
Sidewalk Width Right		12.00
Concrete Traffic Railing		Left/Right
Pedestrian/Bicycle Railing		
Total Design Load Demand Weight		31,180
Final Bridge Cost		\$6,847,788.87
Calculated Final Cost per SF		\$188.45
Description	NEW TURNPIKE OVERPASS	

Description NEW TURNPIKE OVERPAS

Bridge Deck and Approach Slab Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	4,000.00 SF	\$42.00	\$168,000.00
400-2-10	CONC CLASS II, APPROACH SLABS	239.50 CY	\$400.00	\$95,800.00
400-9	BRIDGE DECK GROOV &PLANING, DECK 8.5" GR	3,392.72 SY	\$15.00	\$50,890.80
415-1-9	REINF STEEL- APPROACH SLABS	45,687.50 LB	\$0.90	\$41,118.75
521-5-4	CONC TRAF RAIL, BRG, 32" VERT FACE	402.00 LF	\$85.09	\$34,206.18
521-5-4	CONC TRAF RAIL, BRG, 32" VERT FACE	402.00 LF	\$85.09	\$34,206.18

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-6-11	CONC PARAPET, PED/BIKE, 27"	804.00 LF	\$65.25	\$52.461.00

BRIDGE SEGMENTS

Segment 1

Segment Position First/Last
Segment Over Land

Segment Length (LF)	342
Segment Width (LF)	106.25
Average Clearance (LF)	25
End Bent Fill Height (LF)	18
Average Pile Length (LF)	75
No. of Intermediate Supports	8
Superstructure / Beam Type	Slab(Cast in Place)
Substructure / Pier Type	Multi Columns
Foundation Type	Pre-stressed Sq. Piles 18"
Design Load Demand Weight	31,180
Total Segment Cost	\$6,539,105.96

Segment 1 Superstructure, Substructure and Foundation Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-4	CONC CLASS II, SUPERSTRUCTURE	2,299.13 CY	\$774.10	\$1,779,756.53
400-4-5	CONC CLASS IV, SUBSTRUCTURE	736.33 CY	\$1,009.80	\$743,546.03
400-4-5	CONC CLASS IV, SUBSTRUCTURE	1,332.52 CY	\$1,009.80	\$1,345,578.70
415-1-4	REINF STEEL- SUPERSTRUCTURE	597,773.80 LB	\$0.85	\$508,107.73
415-1-5	REINF STEEL- SUBSTRUCTURE	99,404.55 LB	\$0.91	\$90,458.14
415-1-5	REINF STEEL- SUBSTRUCTURE	286,491.80 LB	\$0.91	\$260,707.54
455-34-3	PRESTRESSED CONCRETE PILING, 18" SQ	14,801.40 LF	\$98.83	\$1,462,822.36
455-143-3	TEST PILES-PREST CONCRETE,18" SQ	1,644.60 LF	\$211.68	\$348,128.93
	Bridge 1 Total			\$7,015,788.87
	Bridges Component Total			\$7,015,788.87

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	400.00
Begin height	5.00
End Height	25.00
Multiplier	2

Pay Items

. ay itoino				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
548-12	RET WALL SYSTEM, PERM, EX BARRIER	12,000.00 SF	\$31.02	\$372,240.00
	Retaining Walls Component Total			\$372,240.00

Sequence 1 Total \$19,498,088.47

Sequence: 2 WUR - Widen/Resurface, Undivided, Rural

Net Length: 0.174 MI

919 LF

Description: Torino Pkwy Intersection Improvements Note: signalization is included in sequence 1

EARTHWORK COMPONENT

User Input Data

Description Standard Clearing and Grubbing Limits L/R	Value 10.00 / 35.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.174
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

i dy itellio				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.95 AC	\$14,124.61	\$13,418.38
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	950.02 CY	\$61.87	\$58,777.74
	Earthwork Component Total			\$72,196.12

ROADWAY COMPONENT

User Input Data

Description	Value
Number of Lanes	4
Existing Roadway Pavement Width L/R	30.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	110
Widened Outside Pavement Width L/R	18.00 / 0.00
Widened Structural Spread Rate	330
Widened Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
160-4	TYPE B STABILIZATION	3,879.04 SY	\$3.27	\$12,684.46
285-709	OPTIONAL BASE,BASE GROUP 09	1,871.13 SY	\$12.72	\$23,800.77
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	3,062.40 SY	\$5.61	\$17,180.06
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	168.43 TN	\$96.99	\$16,336.03
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	303.18 TN	\$96.99	\$29,405.43
337-7-43	ASPH CONC FC,TRAFFIC C,FC-	168.43 TN	\$111.68	\$18,810.26

337-7-43	12.5,PG 76-22 ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	151.59 TN	\$111.68	\$16,929.57
X-Items Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	23.50 TN	\$96.99	\$2,279.27
	Comment: 5% contingency			
337-7-43	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	16.00 TN	\$111.68	\$1,786.88
	Comment: 5% contingency			

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	3

Pay Items

. uy itoilio				
Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	117.00 EA	\$3.48	\$407.16
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.70 GM	\$898.02	\$628.61
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.52 GM	\$366.32	\$190.49
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.70 GM	\$5,322.10	\$3,725.47
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	0.52 GM	\$1,494.07	\$776.92
	Roadway Component Total			\$144,941.37

SHOULDER COMPONENT

User Input Data

Description	Value
Existing Total Outside Shoulder Width L/R	0.00 / 0.00
New Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	10.00 / 10.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips No. of Sides	0

Pay Items

Pay item Description Quantity Unit Unit Price Extended Amount

570-1-1	PERFORMANCE TURF	2,041.60 SY	\$1.77	\$3,613.63
Erosion Control	ı			
Pay Items				
Pay item	Description	Quantity Unit	Unit Price Exte	ended Amount
104-10-3	SEDIMENT BARRIER	2,113.06 LF	\$0.94	\$1,986.28
104-11	FLOATING TURBIDITY BARRIER	17.40 LF	\$9.38	\$163.21
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	17.40 LF	\$4.25	\$73.95
104-15	SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,847.83	\$2,847.83
104-18	INLET PROTECTION SYSTEM	1.00 EA	\$92.60	\$92.60
107-1	LITTER REMOVAL	0.42 AC	\$36.16	\$15.19
107-2	MOWING	0.42 AC	\$53.21	\$22.35
	Shoulder Component Total			\$8,815.04

DRAINAGE COMPONENT

Pay Items				
Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
400-2-2	CONC CLASS II, ENDWALLS	3.13 CY	\$1,898.93	\$5,943.65
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	32.00 LF	\$76.03	\$2,432.96
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00 LF	\$113.77	\$1,820.32
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	2.00 EA	\$1,531.43	\$3,062.86
570-1-1	PERFORMANCE TURF	70.30 SY	\$1.77	\$124.43
	Drainage Component Total			\$13,384.22

SIGNING COMPONENT

Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ext	ended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00 AS	\$303.56	\$607.12
700-1-50	SINGLE POST SIGN, RELOCATE	2.00 AS	\$224.11	\$448.22
	Signing Component Total			\$1,055.34
Sequence 2 Total \$240,392.09				

Date: 10/26/2016 7:17:43 AM

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

Project: 231440-3-22-01 Letting Date: 01/2099

Description: W. MIDWAY RD/CR-712 FROM GLADES CUT OFF ROAD TO SELVITZ ROAD.

County: 94 ST. LUCIE Market Area: 11 Units: English

Contract Class: 4 Lump Sum Project: N Design/Build: N Project Length: 1.592 MI

Project Manager: Jimenez

Version 1-P Project Grand Total

\$23,605,314.91

Description: W. MIDWAY RD/CR-712 FROM GLADES CUT OFF ROAD TO SELVITZ ROAD. Alternative 1 -

Canal Avoidance

Project Se	equences Subtotal		\$19,738,480.56
102-1	Maintenance of Traffic	10.00 %	\$1,973,848.06
101-1	Mobilization	8.00 %	\$1,736,986.29
Project Se	equences Total		\$23,449,314.91
D	knowns	0.00 %	\$0.00
Project Un		0.00 %	\$0.00

Non-Bid Components:

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
999-16	PARTNERING (DO NOT BID)	2.00 LS	\$3,000.00	\$6,000.00
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)	LS	\$150,000.00	\$150,000.00
Project Non-	Bid Subtotal			\$156,000.00

\$23,605,314.91

Date: 10/26/2016 7:17:04 AM

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

Project: 231440-3-22-01 **Letting Date:** 01/2099

Description: W. MIDWAY RD/CR-712 FROM GLADES CUT OFF ROAD TO SELVITZ ROAD.

District: 04 County: 94 ST. LUCIE Market Area: 11 Units: English

Contract Class: 4 Lump Sum Project: N Design/Build: N Project Length: 1.592 MI

Project Manager: Jimenez

Version 2 Project Grand Total

\$30,450,196.75

Description: W. Midway Road / CR-712 From Glades Cut-off Road to Selvitz Road. Alternative 2 - Box Culvert

Sequence: 1 NDU - New Construction, Divided, Urban **Net Length:** 1.592 MI

8,406 LF

Description:

EARTHWORK COMPONENT

User Input Data	Use	r Inp	ut E)ata
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Description	Value
Standard Clearing and Grubbing Limits L/R	75.00 / 85.00
Incidental Clearing and Grubbing Area	0.00

Alignment Number	1
Distance	1.576
Top of Structural Course For Begin Section	103.00
Top of Structural Course For End Section	103.00
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 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	30.88 AC	\$14,124.61	\$436,167.96
120-6	EMBANKMENT	129,778.07 CY	\$10.00	\$1,297,780.70

X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
120-6	EMBANKMENT	50,000.00 CY	\$10.00	\$500.000.00

Comment: embankment near overpass

Earthwork Component Total \$2,233,948.66

ROADWAY COMPONENT

User Input Data

Description Value

Number of Lanes	4
Roadway Pavement Width L/R	29.00 / 29.00
Structural Spread Rate	330
Friction Course Spread Rate	165

Pay	Items
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Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	63,809.06 SY	\$3.27	\$208,655.63
285-709	OPTIONAL BASE,BASE GROUP 09	54,170.45 SY	\$12.72	\$689,048.12
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	8,938.12 TN	\$96.99	\$866,908.26
337-7-43	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	4,469.06 TN	\$111.68	\$499,104.62

X-Items

A-items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	514.00 TN	\$96.99	\$49,852.86
	Comment: 5% Contingency			
337-7-43	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	257.00 TN	\$111.68	\$28,701.76
	Comment: 5% Contingency			
515-2-311	PED/BICYCLE RAILING, ALUM,42" TYPE 1	600.00 LF	\$72.54	\$43,524.00
515-4-1	BULLET RAIL, SINGLE RAIL	600.00 LF	\$36.20	\$21,720.00
521-6-31	CONC PARAPET, RETAINING WALL SYS, 27"	600.00 LF	\$237.26	\$142,356.00

Turnouts/Crossovers Subcomponent

Description	Value
Asphalt Adjustment	15.00
Stabilization Code	Υ
Base Code	Υ
Friction Course Code	Υ

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
160-4	TYPE B STABILIZATION	9,571.36 SY	\$3.27	\$31,298.35
285-709	OPTIONAL BASE,BASE GROUP 09	8,125.57 SY	\$12.72	\$103,357.25
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	1,340.72 TN	\$96.99	\$130,036.43
337-7-43	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	670.36 TN	\$111.68	\$74,865.80

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
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	645.00 EA	\$3.48	\$2,244.60
711-13-111	THERMOPLASTIC,HOT SPRAY,WHITE,SOLID,6"	6.37 NM	\$1,447.69	\$9,221.79
711-13-111	THERMOPLASTIC,HOT SPRAY,WHITE,SOLID,6"	6.37 NM	\$1,447.69	\$9,221.79
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	3.18 GM	\$1,494.07	\$4,751.14

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

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-72-5	SHLDR CONC BARRIER WALL,RIGID C&C	1,200.00 LF	\$188.68	\$226,416.00
	Roadway Component Total			\$3,141,284.40

SHOULDER COMPONENT

User Input Data

Description	Value
Total Outside Shoulder Width L/R	30.25 / 28.25
Total Outside Shoulder Perf. Turf Width L/R	22.00 / 26.00
Sidewalk Width L/R	6.00 / 0.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	8,405.76 LF	\$17.00	\$142,897.92
520-1-10	CONCRETE CURB & GUTTER, TYPE F	8,405.76 LF	\$17.00	\$142,897.92
522-1	CONCRETE SIDEWALK AND DRIVEWAYS, 4"	5,603.84 SY	\$35.15	\$196,974.98
570-1-1	PERFORMANCE TURF	44,830.72 SY	\$1.77	\$79,350.37
X-Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount

CONCRETE SIDEWALK AND 11,095.00 SY \$45.00 DRIVEWAYS, 6"

Erosion Control

522-2

Comment: 12' shared-use path

\$499,275.00

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
104-10-3	SEDIMENT BARRIER	16,811.52 LF	\$0.94	\$15,802.83
104-11	FLOATING TURBIDITY BARRIER	398.00 LF	\$9.38	\$3,733.24
104-12	STAKED TURBIDITY BARRIER- NYL REINF PVC	398.00 LF	\$4.25	\$1,691.50
104-15	SOIL TRACKING PREVENTION DEVICE	2.00 EA	\$2,847.83	\$5,695.66
104-18	INLET PROTECTION SYSTEM	82.00 EA	\$92.60	\$7,593.20
	Shoulder Component Total			\$1,095,912.62

MEDIAN COMPONENT

User Inp	ut Data
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DescriptionValueTotal Median Width22.00Performance Turf Width18.00

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
520-1-10	CONCRETE CURB & GUTTER, TYPE F	16,811.52 LF	\$17.00	\$285,795.84
520-5-41	TRAF SEP CONC-TYPE IV, 4' WIDE	2,131.00 LF	\$35.00	\$74,585.00
570-1-2	PERFORMANCE TURF, SOD	16,811.52 SY	\$2.87	\$48,249.06
	Median Component Total			\$408,629.90

DRAINAGE COMPONENT

Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-2	CONC CLASS II, ENDWALLS	28.66 CY	\$1,898.93	\$54,423.33
425-1-351	INLETS, CURB, TYPE P-5, <10'	58.00 EA	\$4,693.75	\$272,237.50
425-1-451	INLETS, CURB, TYPE J-5, <10'	16.00 EA	\$7,528.44	\$120,455.04
425-1-521	INLETS, DT BOT, TYPE C, <10'	8.00 EA	\$2,444.31	\$19,554.48
425-2-41	MANHOLES, P-7, <10'	8.00 EA	\$3,620.48	\$28,963.84
430-175-124	PIPE CULV, OPT MATL, ROUND, 24"S/CD	4,216.00 LF	\$74.92	\$315,862.72
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	376.00 LF	\$113.77	\$42,777.52
430-175-148	PIPE CULV, OPT MATL, ROUND, 48"S/CD	7,960.00 LF	\$160.71	\$1,279,251.60
570-1-1	PERFORMANCE TURF	483.97 SY	\$1.77	\$856.63

Box Culvert 1

Description	Unit cost for 400-4-1 was determined to	Value
Size	be \$800 per CY based on St. Luce County	10 x 6
Length	bid data for a similar installation on	7,099.00
Multiplier	Midway Road and coordination with the Denartment Estimates Office	1

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-4-1	CONC CLASS IV, CULVERTS	7,481.95 CY	\$800.00	\$5,985,560.00
415-1-1	REINF STEEL- ROADWAY	943,151.50 LB	\$0.90	\$848,836.35

Retention Basin 1

DescriptionValueSize1.5 ACMultiplier2Depth6.00DescriptionBasin 2 - Pond 1 Basins 1 and 3 utilize existing ponds and do not require construction / modification.

Pay Items

Pay items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	3.00 AC	\$14,124.61	\$42,373.83
120-1	REGULAR EXCAVATION	29,040.00 CY	\$5.06	\$146,942.40
400-2-2	CONC CLASS II, ENDWALLS	36.00 CY	\$1,898.93	\$68,361.48
425-1-541	INLETS, DT BOT, TYPE D, <10'	2.00 EA	\$3,976.01	\$7,952.02
425-2-71	MANHOLES, J-7, <10'	2.00 EA	\$10,014.28	\$20,028.56
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	112.00 LF	\$141.55	\$15,853.60
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	400.00 LF	\$297.35	\$118,940.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	2,050.00 LF	\$10.16	\$20,828.00
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	2.00 EA	\$1,946.90	\$3,893.80
570-1-1	PERFORMANCE TURF	14,520.00 SY	\$1.77	\$25,700.40

Retention Basin 2

DescriptionValueSize2 ACMultiplier1Depth6.00DescriptionPond B-2

Pay Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	2.00 AC	\$14,124.61	\$28,249.22
120-1	REGULAR EXCAVATION	19,360.00 CY	\$5.06	\$97,961.60
400-2-2	CONC CLASS II, ENDWALLS	18.00 CY	\$1,898.93	\$34,180.74
425-1-541	INLETS, DT BOT, TYPE D, <10'	1.00 EA	\$3,976.01	\$3,976.01
425-2-71	MANHOLES, J-7, <10'	1.00 EA	\$10,014.28	\$10,014.28
430-175-142	PIPE CULV, OPT MATL, ROUND, 42"S/CD	56.00 LF	\$141.55	\$7,926.80
430-175-160	PIPE CULV, OPT MATL, ROUND, 60"S/CD	200.00 LF	\$297.35	\$59,470.00
550-10-220	FENCING, TYPE B, 5.1-6.0', STANDARD	1,180.00 LF	\$10.16	\$11,988.80
550-60-234	FENCE GATE,TYP B,SLIDE/CANT,18.1-20'OPEN	1.00 EA	\$1,946.90	\$1,946.90

570-1-1	PERFORMANCE TURF	9,680.00 SY	\$1.77	\$17,133.60
	Drainage Component Total			\$9,712,501.05

SIGNING COMPONENT

Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	39.00 AS	\$303.56	\$11,838.84
700-1-12	SINGLE POST SIGN, F&I GM, 12- 20 SF	4.00 AS	\$1,289.21	\$5,156.84
700-2-15	MULTI- POST SIGN, F&I GM, 51- 100 SF	4.00 AS	\$6,727.25	\$26,909.00
700-2-16	MULTI- POST SIGN, F&I GM, 101- 200 SF	4.00 AS	\$7,732.16	\$30,928.64
	Signing Component Total			\$74,833.32

SIGNALIZATIONS COMPONENT

Signalization 1	
Description	Value
Туре	4 Lane Mast Arm
Multiplier	1
Description	New Signals Torino Pkwy.

Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00 LF	\$5.19	\$3,892.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00 LF	\$17.57	\$4,392.50
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$5,181.25	\$5,181.25
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00 EA	\$491.99	\$7,871.84
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$1,862.40	\$1,862.40
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	\$2.34	\$140.40
649-31-103	M/ARM,F&I, WS-150,SING ARM,W/0 LUM-60	4.00 EA	\$30,117.43	\$120,469.72
650-1-14	TRAFFIC SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00 AS	\$902.98	\$10,835.76
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$597.74	\$4,781.92
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00 EA	\$247.55	\$2,970.60
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00 AS	\$1,074.60	\$12,895.20
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	8.00 EA	\$135.46	\$1,083.68
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$23,935.18	\$23,935.18
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	4.00 EA	\$236.91	\$947.64

Signalization 2

DescriptionValueType4 Lane Mast ArmMultiplier1

Description Glades Cut Off Rd. Replace impacted mast arms (east side)

and rail mast arm

Pay Items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00 LF	\$5.19	\$3,892.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00 LF	\$17.57	\$4,392.50
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$5,181.25	\$5,181.25
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00 EA	\$491.99	\$7,871.84
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$1,862.40	\$1,862.40
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	\$2.34	\$140.40
649-31-103	M/ARM,F&I, WS-150,SING ARM,W/0 LUM-60	3.00 EA	\$30,117.43	\$90,352.29
650-1-14	TRAFFIC SIGNAL,F&I ALUMINUM, 3 S 1 W	12.00 AS	\$902.98	\$10,835.76
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	8.00 AS	\$597.74	\$4,781.92
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	12.00 EA	\$247.55	\$2,970.60
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	12.00 AS	\$1,074.60	\$12,895.20
665-1-11	PEDESTRIAN DETECTOR, F&I,	8.00 EA	\$135.46	\$1,083.68

1.00 AS \$23,935.18

\$236.91

4.00 EA

Signalization 3

670-5-111

700-3-101

STANDARD

PREEMPT

DescriptionValueType4 Lane Mast ArmMultiplier1DescriptionSelvitz Road - new mast arms
west side of intersection

TRAF CNTL ASSEM, F&I, NEMA, 1

SIGN PANEL, F&I GM, UP TO 12

Pay Items

•				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-2-11	CONDUIT, F& I, OPEN TRENCH	750.00 LF	\$5.19	\$3,892.50
630-2-12	CONDUIT, F& I, DIRECTIONAL BORE	250.00 LF	\$17.57	\$4,392.50
632-7-1	SIGNAL CABLE- NEW OR RECO, FUR & INSTALL	1.00 PI	\$5,181.25	\$5,181.25
635-2-11	PULL & SPLICE BOX, F&I, 13" x 24"	16.00 EA	\$491.99	\$7,871.84
639-1-112	ELECTRICAL POWER SRV,F&I,OH,M,PUR BY CON	1.00 AS	\$1,862.40	\$1,862.40
639-2-1	ELECTRICAL SERVICE WIRE, F&I	60.00 LF	\$2.34	\$140.40

\$23,935.18

\$947.64

649-31-103	M/ARM,F&I, WS-150,SING ARM,W/0 LUM-60	2.00 EA	\$30,117.43	\$60,234.86
650-1-14	TRAFFIC SIGNAL,F&I ALUMINUM, 3 S 1 W	8.00 AS	\$902.98	\$7,223.84
653-1-11	PEDESTRIAN SIGNAL, F&I LED COUNT, 1 WAY	4.00 AS	\$597.74	\$2,390.96
660-1-102	LOOP DETECTOR INDUCTIVE, F&I, TYPE 2	6.00 EA	\$247.55	\$1,485.30
660-2-106	LOOP ASSEMBLY, F&I, TYPE F	6.00 AS	\$1,074.60	\$6,447.60
665-1-11	PEDESTRIAN DETECTOR, F&I, STANDARD	4.00 EA	\$135.46	\$541.84
670-5-111	TRAF CNTL ASSEM, F&I, NEMA, 1 PREEMPT	1.00 AS	\$23,935.18	\$23,935.18
700-3-101	SIGN PANEL, F&I GM, UP TO 12 SF	2.00 EA	\$236.91	\$473.82

Interconnect Subcomponent

Description	Value
Туре	U
Length of Fiber Run	8,300.00
Number of Intersections	3
Percentage of Underpavement Conduit	0.00

Pay Items

i ay items				
Pay item	Description	Quantity Unit	Unit Price	Extended Amount
630-1-12	CONDUIT, F& I, UNDERGROUND	8,300.00 LF	\$29.49	\$244,767.00
635-1-15	PULL & JUNCTION BOX, F&I, FIBER OPTICS	14.00 EA	\$1,244.98	\$17,429.72
635-1-16	PULL & JUNCTION BOX, F&I, SPECIAL	3.00 EA	\$2,317.00	\$6,951.00
660-2-102	LOOP ASSEMBLY, F&I, TYPE B	12.00 AS	\$589.82	\$7,077.84
	Signalizations Component Total			\$774,703.60

LANDSCAPING COMPONENT

User Input Data

DescriptionValueComponent DetailY

Pay Items

Pay item	Description	Quantity Unit Unit P	rice Extended Amount
580-1-1	LANDSCAPE COMPLETE (SMALL PLANTS)	5.00 LS \$36,468	3.56 \$182,342.80
580-1-2	LANDSCAPE COMPLETE (LARGE PLANTS)	5.00 LS \$22,47	1.73 \$112,358.65
590-70	IRRIGATION SYSTEM	5.00 LS \$44,64	7.83 \$223,239.15
	Landscaping Component Total		\$517,940.60

BRIDGES COMPONENT

Bridge 1

Description		Value
Estimate Type		Detailed Estimate
Primary Estimate		YES
Structure No.		000000
Geographic District		04
Segment Count		1
Bridge Length (LF)		342.00
Average Bridge Width (LF)		106.25
Average Skew Angle		0.00
Construction Type		New/Replacement
Typical Section		Urban Undivided, Flush SW
Sidewalk Width Left		6.00
Sidewalk Width Right		12.00
Concrete Traffic Railing		Left/Right
Pedestrian/Bicycle Railing		
Total Design Load Demand Weight		31,180
Final Bridge Cost		\$6,847,788.87
Calculated Final Cost per SF		\$188.45
Description	NEW TURNPIKE OVERPASS	

Bridge Deck and Approach Slab Pay Items

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Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-3	REMOVAL OF EXISTING STRUCTURES/BRIDGES	4,000.00 SF	\$42.00	\$168,000.00
400-2-10	CONC CLASS II, APPROACH SLABS	239.50 CY	\$400.00	\$95,800.00
400-9	BRIDGE DECK GROOV &PLANING, DECK 8.5" GR	3,392.72 SY	\$15.00	\$50,890.80
415-1-9	REINF STEEL- APPROACH SLABS	45,687.50 LB	\$0.90	\$41,118.75
521-5-4	CONC TRAF RAIL, BRG, 32" VERT FACE	402.00 LF	\$85.09	\$34,206.18
521-5-4	CONC TRAF RAIL, BRG, 32" VERT FACE	402.00 LF	\$85.09	\$34,206.18

Bridge X-Items

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
521-6-11	CONC PARAPET, PED/BIKE, 27"	804.00 LF	\$65.25	\$52,461.00

BRIDGE SEGMENTS

Segment 1

Segment Position	First/Last
Segment Over	Land
Segment Length (LF)	342
Segment Width (LF)	106.25
Average Clearance (LF)	25
End Bent Fill Height (LF)	18
Average Pile Length (LF)	75
No. of Intermediate Supports	8
Superstructure / Beam Type	Slab(Cast in Place)
Substructure / Pier Type	Multi Columns
Foundation Type	Pre-stressed Sq. Piles 18"
Design Load Demand Weight	31,180

Total Segment Cost

\$6,539,105.96

Seament 1	Superstructure	Substructure and	Foundation	Pay Itoms
Seument	i Suberstructure.	Substructure and	i Foundation	rav itellis

Pay item	Description	Quantity Unit	Unit Price	Extended Amount
400-2-4	CONC CLASS II, SUPERSTRUCTURE	2,299.13 CY	\$774.10	\$1,779,756.53
400-4-5	CONC CLASS IV, SUBSTRUCTURE	736.33 CY	\$1,009.80	\$743,546.03
400-4-5	CONC CLASS IV, SUBSTRUCTURE	1,332.52 CY	\$1,009.80	\$1,345,578.70
415-1-4	REINF STEEL- SUPERSTRUCTURE	597,773.80 LB	\$0.85	\$508,107.73
415-1-5	REINF STEEL- SUBSTRUCTURE	99,404.55 LB	\$0.91	\$90,458.14
415-1-5	REINF STEEL- SUBSTRUCTURE	286,491.80 LB	\$0.91	\$260,707.54
455-34-3	PRESTRESSED CONCRETE PILING, 18" SQ	14,801.40 LF	\$98.83	\$1,462,822.36
455-143-3	TEST PILES-PREST CONCRETE,18" SQ	1,644.60 LF	\$211.68	\$348,128.93
	Bridge 1 Total			\$7,015,788.87
	Bridges Component Total			\$7,015,788.87

RETAINING WALLS COMPONENT

Retaining Wall 1

Description	Value
Length	300.00
Begin height	5.00
End Height	25.00
Multiplier	2

Pay Items

Pay item 548-12	Description RET WALL SYSTEM, PERM, EX BARRIER	Quantity Unit 9,000.00 SF	Unit Price \$31.02	Extended Amount \$279,180.00
	Retaining Walls Component Total			\$279,180.00

Sequence 1 Total \$25,254,723.02

Sequence: 2 WUR - Widen/Resurface, Undivided, Rural

Net Length: 0.174 MI

919 LF

Description: Torino Parkway Intersection Improvements Note: signal included in segment 1

EARTHWORK COMPONENT

Description	Value
Standard Clearing and Grubbing Limits L/R	10.00 / 35.00
Incidental Clearing and Grubbing Area	0.00
Alignment Number	1
Distance	0.174
Top of Structural Course For Begin Section	102.00
Top of Structural Course For End Section	102.00
Horizontal Elevation For Begin Section	100.00
Horizontal Elevation For End Section	100.00
Existing Front Slope L/R	6 to 1 / 6 to 1
Existing Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Front Slope L/R	6 to 1 / 6 to 1
Outside Shoulder Cross Slope L/R	6.00 % / 6.00 %
Roadway Cross Slope L/R	2.00 % / 2.00 %

Pay Items

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Pay item	Description	Quantity Unit	Unit Price	Extended Amount
110-1-1	CLEARING & GRUBBING	0.95 AC	\$14,124.61	\$13,418.38
120-2-2	BORROW EXCAVATION, TRUCK MEASURE	950.02 CY	\$61.87	\$58,777.74
	Earthwork Component Total			\$72,196.12

ROADWAY COMPONENT

User Input Data

•	
Description	Value
Number of Lanes	4
Existing Roadway Pavement Width L/R	30.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	110
Widened Outside Pavement Width L/R	18.00 / 0.00
Widened Structural Spread Rate	330
Widened Friction Course Spread Rate	165

Pay Items

Pay item	Description	Quantity Unit	Unit Price Ex	tended Amount
160-4	TYPE B STABILIZATION	3,879.04 SY	\$3.27	\$12,684.46
285-709	OPTIONAL BASE,BASE GROUP 09	1,871.13 SY	\$12.72	\$23,800.77
327-70-5	MILLING EXIST ASPH PAVT, 2" AVG DEPTH	3,062.40 SY	\$5.61	\$17,180.06
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	168.43 TN	\$96.99	\$16,336.03
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	303.18 TN	\$96.99	\$29,405.43
337-7-43	ASPH CONC FC,TRAFFIC C,FC-	168.43 TN	\$111.68	\$18,810.26

337-7-43	12.5,PG 76-22 ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	151.59 TN	\$111.68	\$16,929.57
X-Items Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
334-1-13	SUPERPAVE ASPHALTIC CONC, TRAFFIC C	23.50 TN	\$96.99	\$2,279.27
	Comment: 5% contingency			
337-7-43	ASPH CONC FC,TRAFFIC C,FC- 12.5,PG 76-22	16.00 TN	\$111.68	\$1,786.88
	Comment: 5% Contingency			

Pavement Marking Subcomponent

Description	Value
Include Thermo/Tape/Other	Υ
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	3

Pay Items

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Pay item	Description	Quantity Unit	Unit Price Ex	xtended Amount
706-3	RETRO-REFLECTIVE PAVEMENT MARKERS	117.00 EA	\$3.48	\$407.16
710-11-101	PAINTED PAVT MARK,STD,WHITE,SOLID,6"	0.70 GM	\$898.02	\$628.61
710-11-131	PAINTED PAVT MARK,STD,WHITE,SKIP, 6"	0.52 GM	\$366.32	\$190.49
711-15-101	THERMOPLASTIC, STD-OP, WHITE, SOLID, 6"	0.70 GM	\$5,322.10	\$3,725.47
711-15-131	THERMOPLASTIC, STD-OP, WHITE, SKIP, 6"	0.52 GM	\$1,494.07	\$776.92
	Roadway Component Total			\$144,941.37

SHOULDER COMPONENT

User Input Data

Description	Value
Existing Total Outside Shoulder Width L/R	0.00 / 0.00
New Total Outside Shoulder Width L/R	10.00 / 10.00
Total Outside Shoulder Perf. Turf Width L/R	10.00 / 10.00
Existing Paved Outside Shoulder Width L/R	0.00 / 0.00
New Paved Outside Shoulder Width L/R	0.00 / 0.00
Structural Spread Rate	110
Friction Course Spread Rate	80
Total Width (T) / 8" Overlap (O)	Т
Rumble Strips No. of Sides	0

Pay Items

Pay item Description Quantity Unit Unit Price Extended Amount

PERFORMANCE TURF	2,041.60 SY	\$1.77	\$3,613.63
I			
Description	Quantity Unit	Unit Price Exte	ended Amount
SEDIMENT BARRIER	2,113.06 LF	\$0.94	\$1,986.28
FLOATING TURBIDITY BARRIER	17.40 LF	\$9.38	\$163.21
STAKED TURBIDITY BARRIER- NYL REINF PVC	17.40 LF	\$4.25	\$73.95
SOIL TRACKING PREVENTION DEVICE	1.00 EA	\$2,847.83	\$2,847.83
INLET PROTECTION SYSTEM	1.00 EA	\$92.60	\$92.60
LITTER REMOVAL	0.42 AC	\$36.16	\$15.19
MOWING	0.42 AC	\$53.21	\$22.35
Shoulder Component Total			\$8,815.04
	Description SEDIMENT BARRIER FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER- NYL REINF PVC SOIL TRACKING PREVENTION DEVICE INLET PROTECTION SYSTEM LITTER REMOVAL MOWING	Description SEDIMENT BARRIER FLOATING TURBIDITY BARRIER STAKED TURBIDITY BARRIER NYL REINF PVC SOIL TRACKING PREVENTION DEVICE INLET PROTECTION SYSTEM LITTER REMOVAL MOWING Quantity Unit 2,113.06 LF 17.40 LF 1	Description SEDIMENT BARRIER SEDIMENT BARRIER STAKED TURBIDITY BARRIER STAKED TURBIDITY BARRIER NYL REINF PVC SOIL TRACKING PREVENTION DEVICE INLET PROTECTION SYSTEM LITTER REMOVAL MOWING Quantity Unit Size 12.113.06 LF S0.94 S9.38 STAKED TURBIDITY BARRIER 17.40 LF S4.25 S4.25 S2.847.83 S2.847.83 S2.847.83 S2.847.83 S2.847.83 S2.847.83 S3.86.16 S3.86.16 MOWING

DRAINAGE COMPONENT

Pay Items				
Pay item	Description	Quantity Unit	Unit Price E	xtended Amount
400-2-2	CONC CLASS II, ENDWALLS	3.13 CY	\$1,898.93	\$5,943.65
430-174-124	PIPE CULV, OPT MATL, ROUND,24"SD	32.00 LF	\$76.03	\$2,432.96
430-175-136	PIPE CULV, OPT MATL, ROUND, 36"S/CD	16.00 LF	\$113.77	\$1,820.32
430-984-129	MITERED END SECT, OPTIONAL RD, 24" SD	2.00 EA	\$1,531.43	\$3,062.86
570-1-1	PERFORMANCE TURF	70.30 SY	\$1.77	\$124.43
	Drainage Component Total			\$13,384.22

SIGNING COMPONENT

Pay Items				
Pay item	Description	Quantity Unit	Unit Price Ext	tended Amount
700-1-11	SINGLE POST SIGN, F&I GM, <12 SF	2.00 AS	\$303.56	\$607.12
700-1-50	SINGLE POST SIGN, RELOCATE	2.00 AS	\$224.11	\$448.22
	Signing Component Total			\$1,055.34
Sequence 2 Total \$240,392				\$240,392.09

Date: 10/26/2016 7:17:05 AM

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

Project: 231440-3-22-01 **Letting Date:** 01/2099

Description: W. MIDWAY RD/CR-712 FROM GLADES CUT OFF ROAD TO SELVITZ ROAD.

District: 04 County: 94 ST. LUCIE Market Area: 11 Units: English

Contract Class: 4 Lump Sum Project: N Design/Build: N Project Length: 1.592 MI

Project Manager: Jimenez

Project Non-Bid Subtotal

Version 2 Project Grand Total

Version 2 Project Grand Total

\$30,450,196.75

\$162,000.00

\$30,450,196.75

Description: W. Midway Road / CR-712 From Glades Cut-off Road to Selvitz Road. Alternative 2 - Box Culvert

Project Seq	uences Subtotal		\$25,495,115.11
102-1	Maintenance of Traffic	10.00 %	\$2,549,511.51
101-1	Mobilization	8.00 %	\$2,243,570.13
Project Seq	uences Total		\$30,288,196.75
Project Unkn	owns	0.00 %	\$0.00
Design/Build		0.00 %	\$0.00
Non-Bid Co	mponents:		
Pay item	Description	Quantity Unit Unit Pri	ce Extended Amount
999-16	PARTNERING (DO NOT BID)	2.00 LS \$6,000.0	\$12,000.00
999-25	INITIAL CONTINGENCY AMOUNT (DO NOT BID)	LS \$150,000.0	\$150,000.00

Appendix F

Public Involvement





Midway Road/CR 712 from Glades Cut Off Road to Selvitz Road FPID No.: 231440-3-22-01

EDTM No.: 14177

Elected and Appointed Officials/Agencies and Public Kick-off Meetings
Havert L. Fenn Center
2000 Virginia Avenue, Fort Pierce, Florida 34982
Tuesday, August 18

1.0 Introduction

This document summarizes the activities associated with the Elected and Appointed Officials/Agencies and Public Kick-off Meetings for the Midway Road/CR 712 Project Development and Environment (PD&E) Study from Glades Cut Off Road to Selvitz Road in St. Lucie County.

Kick-off Meeting Summary

The Florida Department of Transportation (FDOT) hosted an Elected and Appointed Officials/Agencies Kick-off Meeting for the Midway Road PD&E Project, from Glades Cut Off Road to Selvitz Road in St. Lucie County on Tuesday, August 18, 2015 from 3 p.m. to 4:30 p.m. at the Havert L. Fenn Center located at 2000 Virginia Avenue, Fort Pierce, Florida 34982. The meeting was intended to introduce elected and appointed officials and agencies to the project and to provide an opportunity to discuss the social, environmental, and economic effects of the potential improvements. Vanita Saini introduced the consultant project staff members and provided a brief project introduction. Alex Hull, Consultant Project Manager with Inwood, provided a short presentation about the project. Attendees, FDOT staff and consultant staff members reviewed proposed alternatives for the project and had an open discussion, providing project information, feedback and concerns.

The FDOT hosted the Public Kick-off Meeting on the same day and at the same location. The Public Kick-off Meeting for the Midway Road PD&E Project took place on Tuesday, August 18, 2015 from 5:30 p.m. to 7:30 p.m. at the Havert L. Fenn Center located at 2000 Virginia Avenue, Fort Pierce, Florida 34982. The purpose of the Public Kick-off Meeting was to provide the public with an opportunity to learn about the project, become familiar with the study process and provide initial feedback. The meeting started with an informal, open house format. A short presentation took place at 6 p.m. and provided attendees with an overview of the potential improvements and anticipated issues. The presentation was followed by a question and answer session. Attendees then had the opportunity to talk with representatives from the FDOT, consultant project team, St. Lucie County and the City of Port St. Lucie.

The purpose of the study is to evaluate the need to provide additional capacity to meet existing and future needs; to allow opportunities for pedestrians, bicyclists, and transit facilities; to improve freight movement; and to enhance emergency evacuation.

Project Team Attendees:

Representatives from the FDOT and the project team were available during both meetings to answer questions and respond to the public's comments and concerns. The project team representatives who attended the meeting included:

- Florida Department of Transportation Vanita Saini, Gaspar Padron, Shandra Davis, Rax Jung
- Inwood Alex Hull, David Dangel, Kevin lannarone,
- Kimley Horn Ken Jackson, Lynn Kiefer, Brady Walker
- Quest Corporation of America, Inc. (QCA) Beth Zsoka, Sharlene Lairscey, Jessica Francois, Yasir Mercado
- St. Lucie County John Frank, Craig Hauschild

Meeting Attendance

Over 60 people attended the kick-off meetings on August 18. A list of some of the attendees included below. The sign in sheets are included in the Appendix E section of this report.

Elected and Appointed Officials/Agencies in attendance included:

- Frank Knott, City of Port St. Lucie
- Murriah Dekle, St. Lucie County
- Peter Buchwald, St. Lucie TPO
- Hugo Carter, South Florida Water Management District
- Marianne Arbore, Council of Aging in St. Lucie
- June Dunn, Council of Aging in St. Lucie
- Mark Satterlee, St. Lucie County
- John Frank, St. Lucie County
- Kevin Dietrich, St. Lucie Sheriff
- Craig Hauschild, St. Lucie County
- Bob Adolphe, St. Lucie County
- Catherine Chaney, St. Lucie County Fire District
- Kori Benton, City of Fort Pierce

Other key stakeholders in attendance included:

- Packers of Indian River
- Church of Jesus Christ
- Marine Industries

The following Media attended and covered the public meeting:

Keona Gardner, TCPalm

2.0 Public Notification

Well over 1,500 meeting invitations were sent to residents, business owners, government officials and other interested parties in and around the project corridor. E-mails were sent to elected and appointed officials from the District Secretary and Project Manager. The invitation list included representatives from St. Lucie County, City of Port St. Lucie and the City of Fort Pierce. The project newsletter with the meeting information was hand delivered to businesses along the corridor. Copies of the elected officials, agency

and stakeholder invitations are included in Appendix A. Meeting information was also displayed on a VMS board on Midway Road for an entire week prior to the kick-off meetings.

3.0 Media Notification

The Public Kick-off Meeting was advertised in English in advance with a display advertisement in the St. Lucie News Tribune on Sunday, August 9, 2015. The St. Lucie News Tribune is part of the Treasure Coast Newspaper which has a print circulation of 93,811 daily and 109,289 on Sundays. A meeting announcement was also placed through the Florida Administrative Register (FAR).

A press release was submitted by the Florida Department of Transportation to all local media, prior to the meeting. A copy of the advertisements and press release can be found in Appendix B.

4.0 Website / Online Notification

The following websites had information regarding the Midway Road Kick-off Meetings. Information on the meeting was also posted on Florida Department of Transportation and the St. Lucie TPO social media sites.

Websites	Website Link	Section
Midway Road PD&E Project Website	www.MidwayRd.com	Public Notices
FDOT Website	www.dot.state.fl.us/	Meetings
Havert L. Fenn Center	www.stlucieco.gov	Fenn Center Events
St. Lucie TPO	www.stlucietpo.org	Home Page and Calendar of Events Page
City of Port St. Lucie	www.cityofpsl.com	Home Page, Social Media and to E-mail Distribution List

5.0 Public Meetings

The meetings were conducted in informal open house format. At the Elected and Appointed Officials/Agencies Kick-off Meeting attendees were welcome to come at any time between 3 p.m. and 4:30 p.m. Officials and agency representatives began arriving around 3 p.m. for the meeting. A presentation began around 3:20 p.m. Following the presentation, participants were asked to sit at the tables in the room to review and have initial discussions regarding the draft alternatives.

At the Public Kick-off Meeting participants were welcome to come at any time between 5:30 p.m. and 7:30 p.m. Members of the media and the public started arriving as early as 5 p.m. for the meeting. Several participants from the Elected/Appointed and Agency Meeting stayed to attend the Public Kick-off Meeting. The presentation began around 6:00 p.m.

Two of the same display boards were set up around the room. Meeting attendees were greeted by staff and asked to sign in prior to being directed to the displays and additional members of the project team to answer questions. Tables and chairs were provided in the middle of the room to allow participants to sit down and fill out comment forms. The comment forms also were created to easily fold and be mailed

back to the FDOT Project Manager at the District Four FDOT Office. Several members of the FDOT and project team assisted attendees by answering questions about the project and concerns. A presentation was provided to give attendees an overview of the project. Attendees had the opportunity to provide feedback and ask questions following the presentations.

Parking and Signage

Substantial parking was available to accommodate all meeting attendees, including the disabled. Signs were placed at the intersection in advance of the venue off of Virginia Avenue and leading to the meeting. The meeting information was also displayed on the Havert L. Fenn Center Display Board for the venue. As attendees entered the building, additional signs including electronic and arrow signs were used to point participants to the meeting room. Staff was readily available to assist participants from the front door to the meeting room.

Display Boards

Display Boards were available at the public meeting for public review and comments. The following boards were displayed at the public meeting:

- Welcome Board
- Title VI Boards in English and Spanish
- Midway Road Project Location Board

Copies of the boards can be found in the Appendix C.

Meeting Handouts

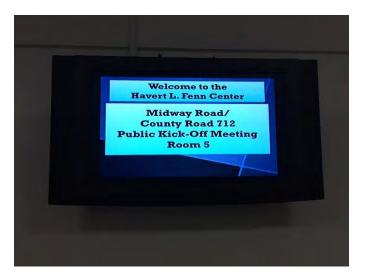
A Midway Road PD&E Project Newsletter and comment form were distributed to attendees at the sign in table. Participants had the opportunity to ask questions and voice concerns regarding the project directly with project team members. The comment forms were provided for those wishing to give written statements and leave them in comment boxes available at the meeting location. Participants were also given the option to take the comment forms with them and mail them to Vanita Saini, P.E., FDOT Project Manager. The submittal address was provided on the back of the comment cards. Residents were also informed that they could register to receive project updates and submit comments / feedback through the project website, www.MidwayRd.com.

Public Comments

12 comments were left in the boxes at the public meeting. Additional comments and requests may be submitted through the website, e-mail and by mail directly to Vanita Saini. The comments as well as the responses to the comments can be found in the Appendix F and G of this document.

End of Meeting Summary

This meeting summary was prepared by Beth Zsoka, Public Involvement Coordinator, Quest Corporation of America, Inc. For additional questions or comments, you can reach Beth at 772-834-1298 or Beth.Zsoka@QCAusa.com.

















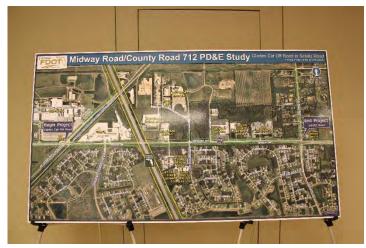




















Midway Road/CR 712 from Glades Cut Off Road to Selvitz Road

Elected and Appointed Officials/Agencies & Public Kick-off Meeting

August 18, 2015

- A. Elected Official, Agency & Public Notification
- **B.** Press Release/Media Notification
- C. Display Boards
- D. Meeting handouts
- E. Sign in Sheets
- F. Public Comments and Responses
- **G.** Meeting Presentation
- **H.** Meeting Notes

Elected Official, Agency & Public Notification



Florida Department of Transportation

RICK SCOTT GOVERNOR

3400 West Commercial Blvd. Fort Lauderdale, FL 33309 JIM BOXOLD SECRETARY

July 28, 2015

RE: Project Development and Environment Study Kick-off Meetings

Midway Road/County Road 712 Glades Cut Off Road to Selvitz Road St. Lucie County, Florida

Financial Project ID No.: 231440-3-22-01

ETDM No.: 14177

Dear Elected Official:

On behalf of the Florida Department of Transportation (FDOT), District Four, you and your staff are invited to an Elected and Appointed Officials/Agencies Kick-off Meeting to learn about the Project Development and Environment (PD&E) Study for Midway Road/County Road (CR) 712 from Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida. The purpose of the study is to evaluate the need to provide additional capacity to meet existing and future needs; to allow opportunities for pedestrians, bicyclists, and transit facilities; to improve freight movement; and to enhance emergency evacuation.

The meeting is scheduled for Tuesday, August 18 from 3 p.m. to 4:30 p.m. at the Havert L. Fenn Center located at 2000 Virginia Avenue, Fort Pierce, Florida 34982. This meeting is intended to introduce you to the project and to provide an opportunity to discuss the social, environmental, and economic effects of the potential improvements. FDOT and consultant staff members will be available at the meeting to discuss the project and answer questions.

A Public Kick-off Meeting is scheduled on the same day and at the same location from 5:30 p.m. to 7:30 p.m. This meeting will begin as an informal, open-house format. A short presentation will be made at 6 p.m., which will provide an overview of the potential improvements and anticipated issues. The presentation will be followed by a question and answer session. The purpose of this meeting is to provide an opportunity for the public to learn about the project, become familiar with the study process and provide initial feedback. The information presented will be the same at both meetings.

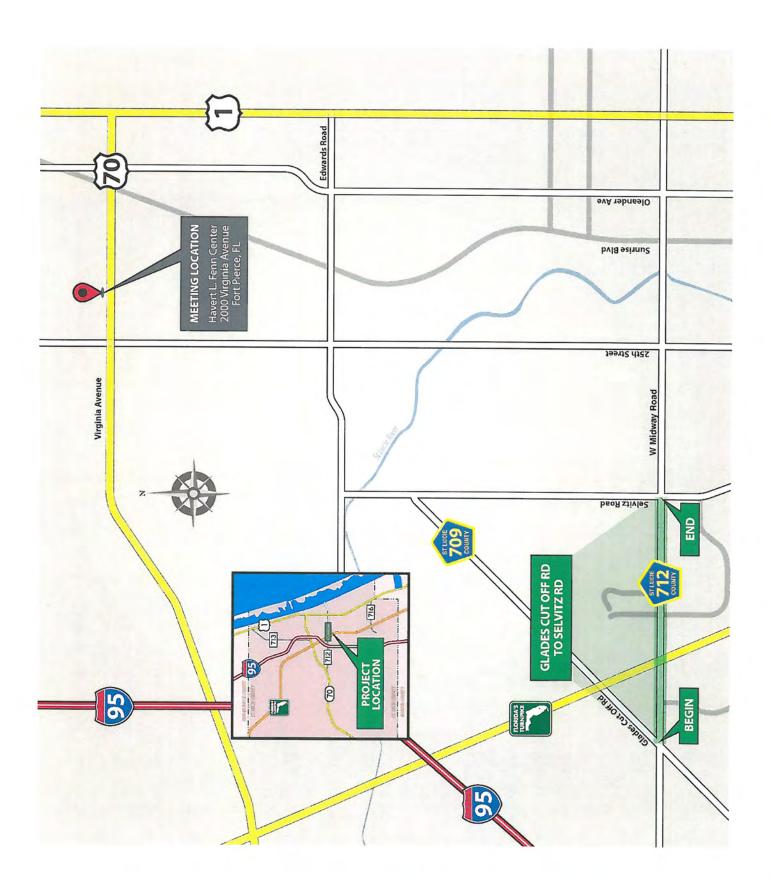
Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability, or family status. Persons who require special accommodations under the Americans with Disabilities Act or require translation services, free of charge, should contact Vanita Saini, P.E., FDOT Project Manager, by phone at 954-777-4468 or toll free at 1-866-336-8435 ext. 4468 or by email at vanita.saini@dot.state.fl.us at least seven days prior to the meeting. If you are hearing or speech impaired, please contact us by using the Florida Relay Service: 1-800-955-8771 (TDD) or 1-800-955-8770 (voice).

If you have questions or would like to have more information about this project, please contact Ms. Saini at the phone number or email address listed above or contact Alex Hull, P.E., Consultant Project Manager, by phone at 407-971-8850 or by email at ahull@inwoodinc.com. You may also visit the project website at www.MidwayRd.com. A project location map is attached for your convenience.

Sincerely,

Gerry O'Rellly, P.E.

District Four Secretary





Florida Department of Transportation

RICK SCOTT GOVERNOR 3400 West Commercial Blvd. Fort Lauderdale, FL 33309 JIM BOXOLD SECRETARY

July 24, 2015

RE:

Project Development and Environment Study Kick-off Meetings

Midway Road/County Road 712 Glades Cut Off Road to Selvitz Road St. Lucie County, Florida

Financial Project ID No.: 231440-3-22-01

ETDM No.: 14177

Dear Government Partner:

On behalf of the Florida Department of Transportation (FDOT), District Four, you and your staff are invited to an Elected and Appointed Officials/Agencies Kick-off Meeting to learn about the Project Development and Environment (PD&E) Study for Midway Road/County Road (CR) 712 from Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida. The purpose of the study is to evaluate the need to provide additional capacity to meet existing and future needs; to allow opportunities for pedestrians, bicyclists, and transit facilities; to improve freight movement; and to enhance emergency evacuation.

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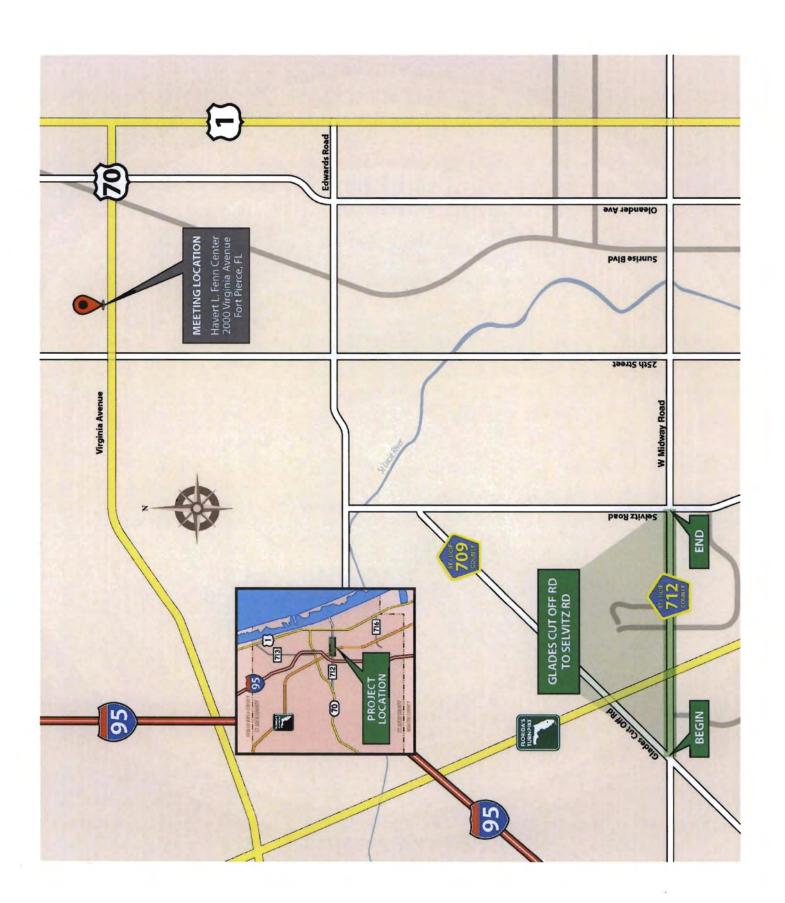
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Sincerely

Vanita Saini, P.E. FDOT Project Manager

Attachment





Florida Department of Transportation

RICK SCOTT GOVERNOR 3400 West Commercial Blvd. Fort Lauderdale, FL 33309 JIM BOXOLD SECRETARY

July 24, 2015

RE:

Project Development and Environment Study Kick-off Meetings

Midway Road/County Road 712 Glades Cut Off Road to Selvitz Road St. Lucie County, Florida

Financial Project ID No.: 231440-3-22-01

ETDM No.: 14177

Dear Property Owner:

On behalf of the Florida Department of Transportation (FDOT), District Four, you are invited to a Public Kick-off Meeting to learn about the Project Development and Environment (PD&E) Study for Midway Road/County Road (CR) 712 from Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida. The purpose of the study is to evaluate the need to provide additional capacity to meet existing and future needs; to allow opportunities for pedestrians, bicyclists, and transit facilities; to improve freight movement; and to enhance emergency evacuation.

The meeting is scheduled for Tuesday, August 18 from 5:30 p.m. to 7:30 p.m. at the Havert L. Fenn Center located at 2000 Virginia Avenue, Fort Pierce, Florida 34982. This meeting will begin as an informal, openhouse. A short presentation will be made at 6 p.m., which will provide an overview of the potential improvements and anticipated issues. The presentation will be followed by a question and answer session. The purpose of this meeting is to provide an opportunity for the public to learn about the project, become familiar with the study process and provide initial feedback. FDOT staff and consultant staff members will be available to discuss the project and answer questions

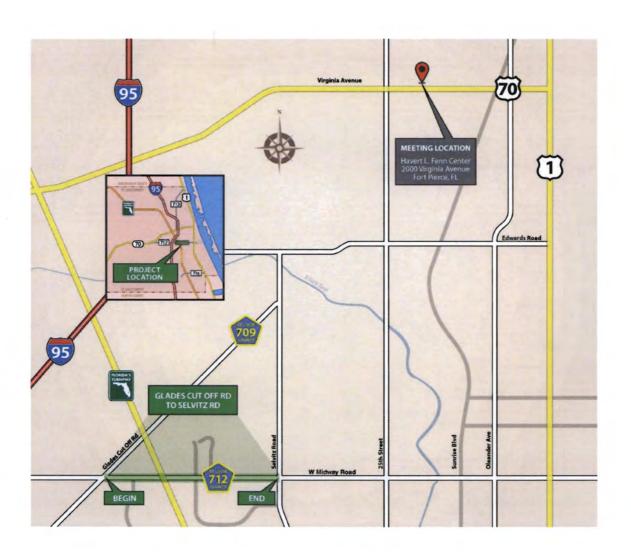
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If you have questions or would like to have more information about this project, please contact Ms. Saini at the phone number or email address listed above or contact Alex Hull, P.E., Consultant Project Manager, by phone at 407-971-8850 or by email at ahull@inwoodinc.com. You may also visit the project website at www.MidwayRd.com. A project location map is attached for your convenience.

Sincerely,

Vanita Saini, P.E. FDOT Project Manager

Enclosure



Florida Department of Transportation District Four

MIDWAY ROAD/CR 712

From Glades Cut Off Road to Selvitz Road FPID No.: 231440-3-22-01 and EDTM No.: 14177 PROJECT DEVELOMENT AND ENVIRONMENT STUDY

Newsletter No. 1 Page 1 July 2015

Introduction:

The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) Study for Midway Road/County Road (CR) 712 from Glades Road to Selvitz Road in St. Lucie County (see map below). The purpose of the study is to evaluate the need to provide additional capacity to meet existing and future needs; to allow opportunities for pedestrians, bicyclists, and transit facilities; to improve freight movement; and to enhance emergency evacuation.

Why Do We Need this Study?

The Port St. Lucie/Fort Pierce area has been identified by the US Census as one of the fastest growing metropolitan areas in Florida. This rapid population growth has resulted in a significant increase in surface transportation. Based on recent traffic data from St. Lucie County, Midway Road/County Road 712 between Glades Road and Selvitz Road does not adequately handle the existing traffic demand. In addition, the County anticipates continued growth and significant new development within and around the project limits. Without capacity improvements, the traffic operations along this corridor will continue to deteriorate.





Florida Department of Transportation District Four

MIDWAY ROAD/CR 712

From Glades Cut Off Road to Selvitz Road FPID No.: 231440-3-22-01 and EDTM No.: 14177 PROJECT DEVELOMENT AND ENVIRONMENT STUDY

Newsletter No. 1 Page 2 July 2015

How Can You Get Involved?

There is no need to wait until a public meeting to provide your input. Public comments and questions are welcomed at any time throughout the study. Please see our contact information in the column to the right. We are available for small group meetings with your neighborhood or special interest group.

Public Kick-off Meeting:

A Public Kick-off Meeting is scheduled to provide an opportunity for you to learn about the project, become familiar with the study process, and provide initial feedback. This meeting will begin as an informal, open-house format. A short presentation will be made at 6 p.m., which will provide an overview of the potential improvements and anticipated issues. The presentation will be followed by a question and answer session. FDOT staff and consultant staff members will be available at the meeting to discuss the project and answer questions.

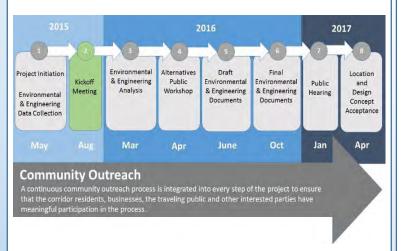
Date: Tuesday, August 18, 2015 Time: 5:30 p.m. to 7:30 p.m.

Presentation: 6 p.m.

Location: Havert L. Fenn Center
Address 2000 Virginia Avenue
Fort Pierce, Florida 34982

An Elected and Appointed Officials/Agencies Kick-off Meeting is scheduled on the same day and at the same location from 3 p.m. to 4:30 p.m. The information presented will be the same at both meetings.

Project Schedule:



Contact Information:

For more information about the project or to schedule a group meeting, please contact one of us:

Vanita Saini, P.E.
Project Manager, FDOT- District Four
3400 W. Commercial Boulevard
Fort Lauderdale, Florida 33309
Phone: (954) 777-4468
vanita.saini@dot.state.fl.us

Alex Hull, P.E.
Consultant Project Manager
Inwood Consulting Engineers, Inc.
3000 Dovera Drive, #200,
Oviedo, Florida 32765
Phone: (407) 971-8850
ahull@inwoodinc.com

Beth Zsoka
Public Involvement Coordinator
Quest Corporation of America
Phone: (772) 834-1298
beth.zsoka@qcausa.com

Public Notice:

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Study Website:

Please visit the study website at www.MidwayRd.com. It will be updated on a regular basis to provide the latest study information. You can also request to be added to the email list.

VMS Board Notification for the Public Kick-off Meeting

Board was displayed on the south side of the roadway, traveling eastbound, west of Glades Cut Off Road Starting on Tuesday, August 11 to Tuesday, August 18.





Press Release/Media Notification

Beth Zsoka

Attachments:

From: McGinness, Charles <Chuck.McGinness@dot.state.fl.us>

Sent: Tuesday, August 11, 2015 3:03 PM

To: McGinness, Charles

Subject: News Release - Public Kick-off Meeting Scheduled for Midway Road Project Development

and Environment Study midway road map.jpg



August 11, 2015

Barbara Kelleher, 954-777-4091 Barbara.Kelleher@dot.state.fl.us

Public Kick-off Meeting Scheduled for Midway Road Project Development and Environment Study

FORT PIERCE – The Florida Department of Transportation (FDOT) will hold a Public Kick-off Meeting for the Midway Road Project Development and Environment (PD&E) Study on Tuesday, August 18, 2015 from 5:30 p.m. to 7:30 p.m. at the Havert L. Fenn Center, located at 2000 Virginia Avenue, Fort Pierce, Florida 34982. This meeting will be held in an informal, open house format with a short presentation at 6 p.m., which will provide an overview of the potential improvements and anticipated issues. The presentation will be followed by a question and answer session. FDOT staff and consultant staff members will be available to discuss the project and answer questions.

The study will evaluate the need to provide additional capacity to meet existing and future needs; to allow opportunities for pedestrians, bicyclists, and transit facilities; to improve freight movement; and to enhance emergency evacuation.

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability, or family status. Persons who require special accommodations under the Americans with Disabilities Act or persons who require translation services (free of charge) should contact Vanita Saini, P.E., FDOT Project Manager, by phone at 954-777-4468 or by email at vanita.saini@dot.state.fl.us at least seven days prior to the meeting. If you are hearing or speech impaired, please contact us by using the Florida Relay Service: 1-800-955-8771 (TDD) or 1-800-955-8770 (voice).

For additional information about the project, visit our website at www.MidwayRd.com. A project location map is attached for your convenience.

Chuck McGinness

Public Information Specialist FDOT District Four (954) 777-4302



Celebrating 100 Years of Innovation, Mobility and Economic Development

Please note: Florida has a very broad public records law. Most written communications to or from state officials regarding state business are public records available to the public and media upon request. Your email communications may be subject to public disclosure.



Public Kick-Off Meeting

Midway Road/County Road 712

Project Development and Environment Study from Glades Cut Off Road to Selvitz Road in St. Lucie County

Financial Project Identification Number: 231440-3-22-01

ETDM No.: 14177

Tuesday, August 18, 2015

5:30 p.m. – 7:30 p.m.

Presentation at 6 p.m.

Havert L. Fenn Center

2000 Virginia Avenue, Fort Pierce, FL 34982



The purpose of this meeting is to present the project to the general public, gather local knowledge, and request comments on the potential improvements. Attendees will have an opportunity to discuss the study, ask questions, and provide comments on the proposed improvements. FDOT representatives will be available to answer questions.

The purpose of this study is to evaluate the need to provide additional capacity to meet existing and future needs; to allow opportunities for pedestrians, bicyclists, and transit facilities; to improve freight movement; and to enhance emergency evacuation.

For additional information about the project, visit our website at www.MidwayRd.com



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Notice of Meeting/Workshop Hearing

OTHER AGENCIES AND ORGANIZATIONS

Quest Corporation of America, Inc.

The Florida Department of Transportation (FDOT), District Four, announces a public meeting to which all persons are invited.

DATE AND TIME: Tuesday, August 18, 2015, from 5:30 p.m. to 7:30 p.m., with a presentation at 6 p.m.

PLACE: Havert L. Fenn Center, 2000 Virginia Avenue, Fort Pierce, Florida 34982.

GENERAL SUBJECT MATTER TO BE CONSIDERED:

Financial Management No.: 231440-3-22-01 and ETDM No.: 14177

Project Description: Midway Road/County Road (CR) 712 Project Development and Environment (PD&E) Study, from Glades Cut Off Road to Selvitz Road, in St. Lucie County.

The purpose of the study is to evaluate the need to provide additional capacity to meet existing and future needs; to allow opportunities for pedestrians, bicyclists, and transit facilities; to improve freight movement; and to enhance emergency evacuation. The purpose of this meeting is to provide an opportunity for the public to learn about the study, become familiar with the study process, and provide initial feedback. The meeting will start at 5:30 p.m. with a formal presentation starting at 6 p.m. Attendees will have an opportunity to discuss the study, ask questions, and provide comments on the potential improvements. FDOT staff and consultant staff members will be available to discuss the project and answer questions. An Elected and Appointed Officials/Agencies Kick-off Meeting will take place prior to the public meeting from 3 p.m. to 4:30 p.m. at the same location. The meeting is intended to introduce the project to officials and agencies and to provide an opportunity to discuss social, environmental, and economic effects of the potential improvements. The information presented will be the same at both meetings.

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability, or family status.

A copy of the agenda may be obtained by contacting: Vanita Saini, P.E., FDOT Project Manager, at (954) 777-4468 or by email at vanita.saini@dot.state.fl.us.

Pursuant to the provisions of the Americans with Disabilities Act, any person requiring special accommodations to participate in this workshop/meeting is asked to advise the agency at least 7 days before the workshop/meeting by contacting: Vanita Saini, P.E., FDOT Project Manager, at (954) 777-4468 or by email at vanita.saini@dot.state.fl.us. If you are hearing or speech impaired, please contact the agency using the Florida Relay Service, 1(800)955-8771 (TDD) or 1(800)955-8770 (Voice).

For more information, you may contact: Vanita Saini, P.E., FDOT Project Manager, at (954) 777-4468 or by email at vanita.saini@dot.state.fl.us. Additional information is available on the project website at www.MidwayRd.com.

Display Boards



Financial Project ID No: 231440-3-22-01

Welcome Public Meeting

Midway Road/County Road (CR) 712 PD&E Project

From Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida www.MidwayRd.com



FDOT Project Manager

Vanita Saini, P.E.
3400 West Commercial Boulevard
Fort Lauderdale, FL 33309
954-777-4468
Vanita.Saini@dot.state.fl.us

Public Information Director

Barbara Kelleher 3400 West Commercial Boulevard Fort Lauderdale, FL 33309 954-777-4091 Barbara.Kelleher@dot.state.fl.us



Title VI

The Florida Department of Transportation is required to comply with various non-discrimination laws and regulations, including Title VI of the Civil Rights Act of 1964.

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status.

Persons wishing to express their concerns about Title VI may do so by contacting either:

District Four

Florida Department of Transportation

District Four Title VI Coordinator

Adrienne C. Brown

3400 West Commercial Boulevard

Fort Lauderdale, Florida 33309-3421

(954) 777-4190 or

Toll free at (866) 336-8435, ext. 4190

Adrienne.Brown@dot.state.fl.us

Tallahassee Office
Florida Department of Transportation
Statewide Title VI Coordinator
Jacqueline Paramore
Equal Opportunity Office
605 Suwannee Street, MS 65
Tallahassee, Florida 32399-0450
(850) 414-4753
Jacqueline.paramore@dot.state.fl.us



Título VI

El Departamento de Transporte de la Florida está obligado a cumplir con diversas leyes y regulaciones de no discriminación, incluyendo el Título VI del Acto de Derechos Civiles de 1964.

La participación pública es solicitada sin distinción de raza, color, origen nacional, edad, sexo, religión, discapacidad o estado familiar.

Las personas que deseen expresar sus preocupaciones sobre el Título VI, pueden hacerlo poniéndose en contacto con cualquiera de estos contactos:

Distrito Cuatro

Departamento de Transporte de la Florida

Coordinadora de Distrito Cuatro de Título VI

Adrienne C. Brown

3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309-3421
(954) 777-4190 o al número gratuito
(866) 336-8435, ext. 4190
adrienne.brown@dot.state.fl.us

Oficina de Tallahassee

Departamento de Transporte de la Florida

Coordinador Estatal de Título VI

Jacqueline Paramore

Oficina de Igualdad de Oportunidades

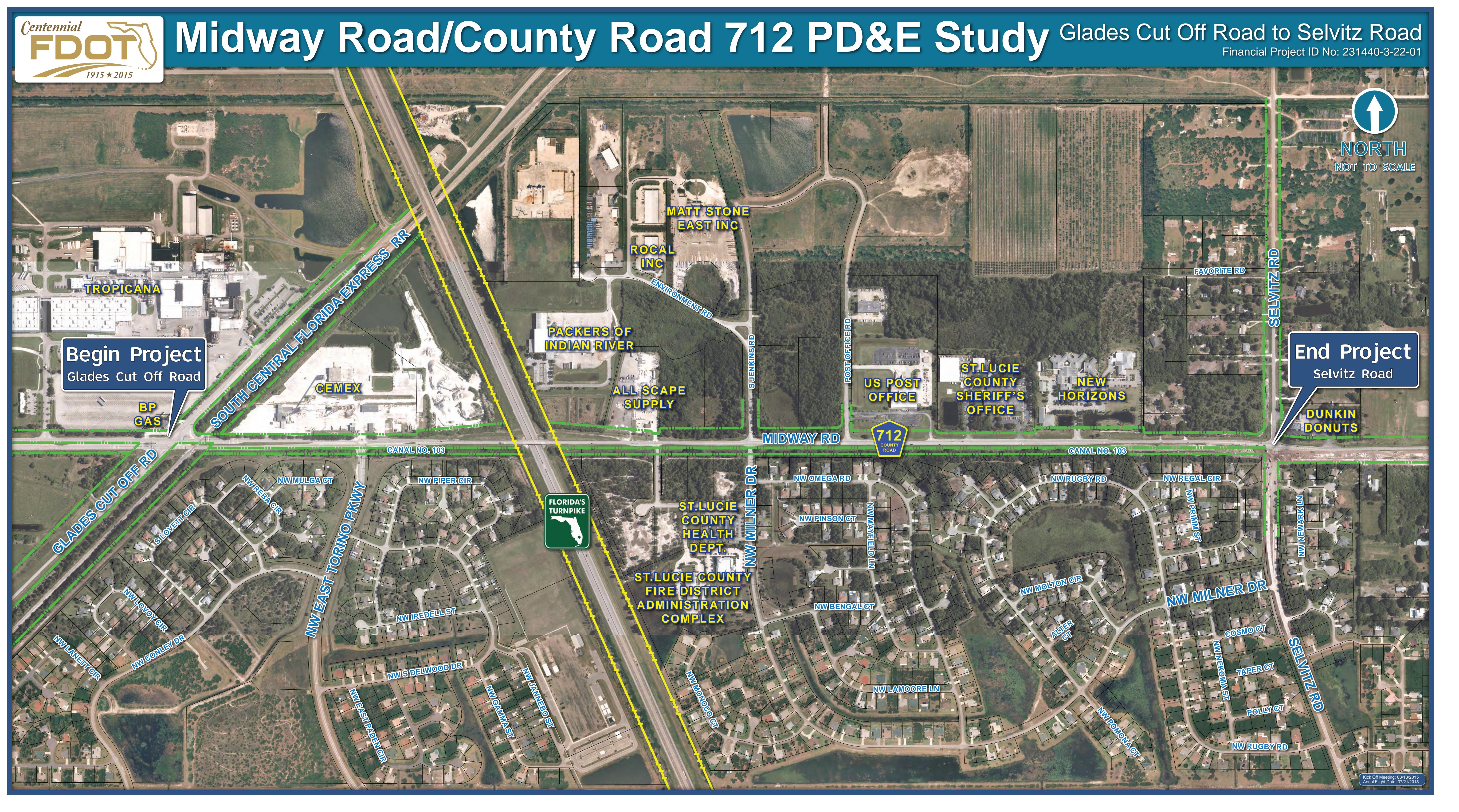
605 Suwannee Street, MS 65

Tallahassee, Florida 32399-0450

(850) 414-4753

 ${\it Jacqueline.paramore@dot.state.fl.us}$

Meeting handouts



Florida Department of Transportation District Four

MIDWAY ROAD/CR 712

From Glades Cut Off Road to Selvitz Road FPID No.: 231440-3-22-01 and EDTM No.: 14177 PROJECT DEVELOMENT AND ENVIRONMENT STUDY

Newsletter No. 1 Page 1 July 2015

Introduction:

The Florida Department of Transportation (FDOT) is conducting a Project Development and Environment (PD&E) Study for Midway Road/County Road (CR) 712 from Glades Road to Selvitz Road in St. Lucie County (see map below). The purpose of the study is to evaluate the need to provide additional capacity to meet existing and future needs; to allow opportunities for pedestrians, bicyclists, and transit facilities; to improve freight movement; and to enhance emergency evacuation.

Why Do We Need this Study?

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Florida Department of Transportation District Four

MIDWAY ROAD/CR 712

From Glades Cut Off Road to Selvitz Road FPID No.: 231440-3-22-01 and EDTM No.: 14177 PROJECT DEVELOMENT AND ENVIRONMENT STUDY

Newsletter No. 1 Page 2 July 2015

How Can You Get Involved?

There is no need to wait until a public meeting to provide your input. Public comments and questions are welcomed at any time throughout the study. Please see our contact information in the column to the right. We are available for small group meetings with your neighborhood or special interest group.

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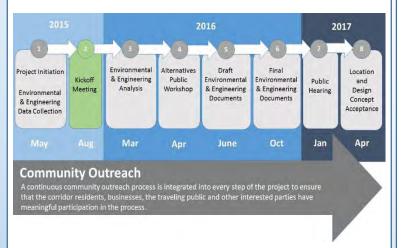
Date: Tuesday, August 18, 2015 Time: 5:30 p.m. to 7:30 p.m.

Presentation: 6 p.m.

Location: Havert L. Fenn Center
Address 2000 Virginia Avenue
Fort Pierce, Florida 34982

An Elected and Appointed Officials/Agencies Kick-off Meeting is scheduled on the same day and at the same location from 3 p.m. to 4:30 p.m. The information presented will be the same at both meetings.

Project Schedule:



Contact Information:

For more information about the project or to schedule a group meeting, please contact one of us:

Vanita Saini, P.E.
Project Manager, FDOT- District Four
3400 W. Commercial Boulevard
Fort Lauderdale, Florida 33309
Phone: (954) 777-4468
vanita.saini@dot.state.fl.us

Alex Hull, P.E.
Consultant Project Manager
Inwood Consulting Engineers, Inc.
3000 Dovera Drive, #200,
Oviedo, Florida 32765
Phone: (407) 971-8850
ahull@inwoodinc.com

Beth Zsoka
Public Involvement Coordinator
Quest Corporation of America
Phone: (772) 834-1298
beth.zsoka@qcausa.com

Public Notice:

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Study Website:

Please visit the study website at www.MidwayRd.com. It will be updated on a regular basis to provide the latest study information. You can also request to be added to the email list.



Public Kick-off Meeting

Midway Road/County Road (CR) 712 from Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida Financial Project Identification Number: 231440-3-22-01 ETDM Number: 14177

Havert L. Fenn Center, 2000 Virginia Avenue, Fort Pierce, Florida 34982

Tuesday, August 18, 2015 from 5:30 p.m. to 7:30 p.m.

Please provide your comments below. If more space is needed, please use an additional sheet of paper. You may place your comments in the "comment box" provided at the meeting, or send to Vanita Saini, P.E., FDOT Project Manager, at the address on the bottom. Please forward all comments by August 28, 2015.			
			
Name			
Address		Mail to: Vanita Saini, P.E.	
City, State, Zip		FDOT Project Manager Florida Department of Transportation	
Phone Number		3400 West Commercial Boulevard Fort Lauderdale, Florida 33309	
Email			

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Place Stamp Here

Ms. Vanita Saini, P.E. FDOT Project Manager Florida Department of Transportation 3400 West Commercial Boulevard Fort Lauderdale, Florida 33309

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Sign in Sheets



Centennial

STAFF SIGN IN

ELECTED AND APPOINTED OFFICIALS/AGENGIES KICK-OFF MEETING
Midway Road/County Road (CR) 712 from Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida

Financial Project Identification Number: 231440-3-22-01

ETDM Number: 14177

Havert L. Fenn Center, 2000 Virginia Avenue, Fort Pierce, Florida 34982

Tuesday, August 18, 2015

Name	Address	City/State/Zip	Phone #	Email Address	Organization
DAVID DANGEL	3000 DOVERA DRIVE, STE	EZO OVIEDO, FL 32765	407-971-8850	ddangel @invoodinc.com	INWOOD
Yeur Fangarore	3000 Dovera Drive Ste 20		407-971-8870	Kinneral Chwading : 100	Invered.
Beth Zsoka		,	772-834-1298	Beth. 250Ka@GAUSa. com	QCA
ressica tramo	8 3853 NIMINGALLEIVE	e Tampaz FL	813-399-74	Jessia. Francis@qu	noa.com
harrone Lairscon	Λ.	242 Tampair	813-9210-201	Shormene. Laursceyaa	Husa.com
AlexHull	3000 Dovera Dr. Suit 200		407 971887		
Yasir Mercado	61025 Miamilakus Dr	Miami Lakes, Fc	(305)986-73	24 Yasir. Mercado @ QCA	m QCA
Brady Walker	600 N Pine Island Road	Ft. Landerdale, FL	954-535-5100	brady. walker@kimley-horn. con	Kimley-Horn
John Fron (1	2300 Virgina Aug	Ft. Diace	7 72 -462 70	fronts @Stl vue coo	g sle
Vanita Saini	3400 Commerci	all Fort Lauberdel	6 954-77249	167 Vanite-Saina Ost-	Swiffus PDO
Ker Jackso.	1900 Weliva Wax Suite 20	West Palm Beach 333	561-840-08	Ken jackson & kinley-home	n Kinky Hors



STAFF SIGN IN

ELECTED AND APPOINTED OFFICIALS/AGENGIES KICK-OFF MEETING

Midway Road/County Road (CR) 712 from Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida

Financial Project Identification Number: 231440 3-22-01

Financial Project Identification Number: 231440-3-22-01

ETDM Number: 14177

Havert L. Fenn Center, 2000 Virginia Avenue, Fort Pierce, Florida 34982

Tuesday, August 18, 2015

Name	Address	City/State/Zip	Phone #	Email Address	Organization
Strom DIA DAVIS	Tampke MPS (3 Blog SSIC	Ocoee, FL	45/266-2878	onaa dan sodot stak H	e Ett
Stranout DAVIS	FDOT-D4	FT. LAWS	9)677-7896	Oranda danis codot stak H	us FOOT
C.J. PADRON	FOOT-D4	FI CAVD	954777 4320	Gespar, padron adot, sto	DeAvs FOOT
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Tuesday, August 18, 2015

Name	Address	City/State/Zip	Phone #	Email Address	Organization
FRANK KNOTP	121 SW PSLIBLUD	PSL	772 344 475	10 FLOOTERCITYOFPSL, CO	" CITYOFPSL
MURRIAH DEKLE	437 7 H STREET	F.P.	772-462-17	777 DEKLEM @ STU	UCSECO, ORG
Peter Buckwald				buckwald@stlucieco.org	St. Lucie TPO
Hugo Carta	3701 Gun Club Rd	Weit Palm Becch	863-462-526 ext 3621	1	STWUD
MARIANNE Abore	1565 Orange Ave	FP	777-345-8728	marhore@coas/icom	COASL
June Dunn	1505 orange Ave	FP	772 345-8229	Idunna coasticon	COASL
MARK SAFFORESE	2300 Mirgina the FP	It live Co.	772-462	Satterleen esthereco.co.	SL County
			A 1		





PUBLIC KICK-OFF MEETING

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Name	Address	City/State/Zip	Phone #	Email Address	Organization
RIOMARA PANODE	95T 5512 Short ST	FtPierce	9710185	- RTPANCOASTQ YAR	oo,com
KEVIN DIETA	erest 4100 W. Midw	My Rd Ft. PIERCE	E 370-2679	DetrickeStla	CIESHERIFF. Com
GARFIELD GRAN	of SZILIKW MIGA CT. Pt.	Stlace Pt. 84 Lucie	3496 954 868523	GANGG196Z EYAH	laco con
Jeon Yozel	5201 NWMilm	eror. PSL/FI 34	49837723436	060 Kozelje bell	south-ret
MIKE METZITI	9770 Marion Ro	Ft Present 3	3/145 772-214940	merrittimikelyhotmu	ail.com ZAM LLC
CRAIG HADSENZED	2300 VIRGANIA AVENUE	FP.	(772) 462-1712	HAUSCHILD CO STLUCTECO, OF	zh SLC
JOSEPH PLORIO	759 SW ARUBA B	BAY PSL.	722-236-903	g Lord Polis	M
Host Murphy	411 North USHZ	F. P.	772-971-742	HOYTTReHOYTCA	nuxphycoby
MR&MR. JEAN	VING 6473NWREGAA	cirel P.S.L.	777-237-746	NIVARS 13/WAX	G- 11. A
Reter allen	2 5082 NW RUSS	1 1 1	172.240.	3421	alleno,
Keona Garlie	1000 - 150		772-221	Keona-gardner C. Topalm. com	. TCPalm



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Name	Address	City/State/Zip	Phone #	Email Address	Organization
BoB ADOLEHE	ST Locie Co	Fi. Pierce	772- 462-1453	adolphopostzucioco, orc.	ST Lucie G,
Robyn Connor	5220 NW Bengal St.	PSL FL34983	777-	man 2 two 9801 Pao Ican	
George Mac Arthur	5063 MeliTTA LANE 77. P.	34946	772		Citizen
CATHERINE CHANGY	SUCED MILLDER	PSC 34983	772 621-3400		
NOTMAN PAULS	5441 NW MILNERDA	FSL 34983	772-359-034=	Norm 70 PAO LCOM	
Mr & Mo Robert Snyle	5273 m Milm Dr	PSL 34983	775621778	snyder. T. W@ Attinel	
Pathie & Rusty Durham	III W. 1st A	FP34982	772-971-1460	pdurham @irsc.edu	homeowner
Gary Cotoper	4306 wmdway kd	34981	772-216-7901		
ROCCO BENYOLA	4173 SWIRALDIN ST.	34953	771-349-1251	rocco bongola catt. net	
Carol Moler	5217 NW Iredell St	34986	772-344-0105	cjmoler@bellsouth.net	homeowner
John Moler	i.	٤,	2 (i. i.e	t v



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PUBLIC KICK-OFF MEETING

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Tuesday, August 18, 2015

Name	Address	City/State/Zip	Phone #	Email Address	Organization
Matthew Friam	4703 Selvitz Row	F1, Rea Fl 3498)	579-5764	Mpg. Freed Egmailson	
Lynn Kiefer	- Kimley-Horn			15 lynn. Kiefar Olimley	-horn-com
Kori Berton	City of Ft. Pierce			Kbenton @ city-ft pierce.	
JEFF POWE	n SIYS NW RUCKY DA	R. PSL. 3498)	(172)201-580	Power 2 work e a olcon	-
					1 11



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PUBLIC KICK-OFF MEETING

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Tuesday, August 18, 2015

Name	Address	City/State/Zip	Phone #	Email Address	Organization
Keona Cardiner	1939 S.E. Federal HW	Sman	4209	Keongo bardnergo Topannicon	TCPalmi



SIGN IN

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Tuesday, August 18, 2015

Name	Address	City/State/Zip	Phone #	Email Address	Organization
Michelle Le Franco	is 6327 NW Lykes	LN PSLF134	1983 7728796	009 Frenchy m Hehol	mail com. lose





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Tuesday, August 18, 2015

Name	Address	City/State/Zip	Phone #	Email Address	Organization
RAYMOND HARRS	2230 815t ct VERO BERRY	3]966	M2220-17911		Church of, JESUS Christ
Cynthia Cooper	4362 W. Midway Rd.	#1. Pierce F1. 34981	772-201-2067		
Kurt Garber	220 E. Robinson St.	Orl 32801	407-694-5/00		
Gabrielle Pettiford	6723 NW manie Ct	PSL, FL 34983	772-607-143	5 gdpe++1 ford@ho+mail	yan
Marty Laven	2732 Survise Blud.	FT. Pierre		5 marty lavere outh lake	
JERRY BICKGORD	5373 NW RUGBY DR	PSL, FL 34983			
Joyce ROGOLINO	6396 CITRUSAL	Ot PIERCE 3492	772-332-6690	jrogolino egmilia	CHURCH OF MESUS CHRIS
PAT ROGOLINO	10396 CITRUS AV	^		patrogdino e gmail.com	(OHI) WIH SE
Adjuenne Calien	6467. Regal CIP.			S adousalie, Ryahoo, C allen 172@hotmail.co	
Haydian Allen	5082 No highy Ir	PSL FL34	772 475 600g	allen 172@hotmail.co	n
MITTE CARAVAGIA	5701 Environment Dr			75 MGARAVAGISE	PACKERS UF FROM RIVE
		,		PACKERS CITEUS, LO	~

Public Comments and Responses



Public Kick-off Meeting

Midway Road/County Road (CR) 712 from Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida Financial Project Identification Number: 231440-3-22-01 ETDM Number: 14177

Havert L. Fenn Center, 2000 Virginia Avenue, Fort Pierce, Florida 34982

Tuesday, August 18, 2015 from 5:30 p.m. to 7:30 p.m.

Please provide your comments below. If more space is needed, please use an additional sheet of paper. You may place your comments in the "comment box" provided at the meeting, or send to Vanita Saini, P.E., FDOT Project Manager, at the address on the bottom. Please forward all comments by August 28, 2015.

I own the property 4362 and 4	
Road. My concern is when we o	
east on midway Road will we h	de given a let
hand turn into my property.	
both have large trailers 37 foot	
respectively and to make a 11 to	em a Midway
and Selvitz is not feasible	
lame Gary Cooper, Cindy Cooper	_
ddress 4362 W. Midway Rd.	Mail to: Vanita Saini, P.E.
ity, State, Zip Ft. Pierce, Fl. 34981	FDOT Project Manager Florida Department of Transportation
hone Number 772 - 216 - 7901	3400 West Commercial Boulevard Fort Lauderdale, Florida 33309
racecarshop 0427 egmail. com	
racecarshop 0427 egmail.com	



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3 sems like poor planning on someones project takes 10 years to complete on I-95 connect poutes will have a 2 land 10 years. Hopefully there is some uses to process. Design of bill vice mention of	gate. It this o So main g bit oneck for expectate It
cit down the overall time trans	
	-
Name Hort Murphy	Mail to:
Address 2400 South Ocean M. Apt 4200 d	Vanita Saini, P.E. FDOT Project Manager
City, State, Zip Fort Pierce FC 34949 Phone Number	Florida Department of Transportation 3400 West Commercial Boulevard
792 - 971-7424 Email	Fort Lauderdale, Florida 33309
Horringphy e Hotmal, am	



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Please forward all comments by August 28, 2015.

Please forward all comments by August 28, 2015.	
Street sign says:	
Bengal Street	
GPS says:	
Bengal Court	
Which is correct?	
Name Robyn Connor	Marie San
SLLO NW BOOKS St.	Mail to: Vanita Saini, P.E.
City, State, Zip PS L FL 34983	FDOT Project Manager Florida Department of Transportation
Phone Number 772 -708 6736	3400 West Commercial Boulevard Fort Lauderdale, Florida 33309
Email mam 2 + wa 9801 @ aol. com.	



Public Kick-off Meeting

Midway Road/County Road (CR) 712 from Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida Financial Project Identification Number: 231440-3-22-01 ETDM Number: 14177

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Please forward all comments by August 26, 2015.	
WILL There BC A WALL	on the
South SiDE OF MIDWAY?	
going West one Mid WAG going to BC A hongenough LANCE TO go North one gla	is there
going to BC A hongenous	h Tarning
LANE TO go North one gla	apes cutorE?
For the interchange to Turner going South on tok I Sur Want to Drive five miles No	ike. If I Am
going South on tok I Sur	e Would Not
Want to Drive five miles No	NTL to go Sull
Nama	
Marie GARFIELD GRANT	Mail to:
Address 5214 NW mulga ct	Vanita Saini, P.E.
City, State, Zip Pf. Sf. Lucic 34986	FDOT Project Manager Florida Department of Transportation
Name GARFIELD GRANT Address 5214 NW Mulga ct City, State, Zip Pf. Sf. Lucic 34986 Phone Number 954-868-3231	3400 West Commercial Boulevard Fort Lauderdale, Florida 33309
Email GARG 9 1962 BTYAHOO. CON	



Public Kick-off Meeting

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Please forward all comments by August 28, 2015.	
What will the impact of the Midway	Rund Project
from Glader Rd & Selvitz Rd to the	properties north
OF the Selvite/MidwyRd intersection	! We live appor.
1/2 Mile north of the intersection.	
Name Matthew Frao	
Address 4703 Selvitz Row	Mail to: Vanita Saini, P.E.
City, State, Zip Fl Preve Fl	FDOT Project Manager Florida Department of Transportation
Phone Number 7725795766	3400 West Commercial Boulevard Fort Lauderdale, Florida 33309
Email Mpg. tras a) gmailicon	



Public Kick-off Meeting

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not interested in Turnpike shit there	J,
Name Carol + John Moler	
Address 5217 NW Iredell St	Mail to: Vanita Saini, P.E.
City, State, Zip Port St. Lucie, FL 34986	FDOT Project Manager Florida Department of Transportation
Phone Number	3400 West Commercial Boulevard Fort Lauderdale, Florida 33309
772-344-0105 Email	
a moler a bell south net	



Public Kick-off Meeting

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Please provide your comments below. If more space is needed, please use an additio in the "comment box" provided at the meeting, or send to Vanita Saini, P.E., FDOT Proj Please forward all comments by August 28, 2015.	ect Manager, at the address on the bottom.	
1- How will this undering im	pact Milxer Dive	
s- Will there be a light of	n stop sign to	
exit. aft (towards I95) wh	ex exiting	
milsee Drie ?.	′ 0	
3. no lett turn from Milner	· mould Jone	
3- no left turn from Milner traffic to use Selvitz Road	instead of	
Cutting though.		
Name DOREEN SNYDER		
Address 5273 NW MILNER DRIVE	Mail to: Vanita Saini, P.E.	
City, State, Zip PORT ST. LUCIE, FL. 34983	FDOT Project Manager Florida Department of Transportation	
Phone Number (2) 62/- 7778 3400 West Commercial B Fort Lauderdale, Florida		
Email		

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Public Kick-off Meeting

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* ************************************	
Suriely its a great idea registerated turnpike infrastructure with that another thing country for you to think about is minor rest stop or parking are midway road for the Sentitructure the area.	arding the re and along ld be possible providing a ea along I drivers in
Name Address City, State, Zip Phone Number Email	Mail to: Vanita Saini, P.E. FDOT Project Manager Florida Department of Transportation 3400 West Commercial Boulevard Fort Lauderdale, Florida 33309



Public Kick-off Meeting

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Please lot ward all confinents by August 20, 2010.	
Turnjike accorded midway is or she	. I be a top priority for
energency execution access, had enforce	ment acces & emergency
Stroins access. Relience on The other	Two accord points (PSL 131vd =
Oxechober Rd) will simply prolong The	current deffice / ties.
(2) A Red light @ MILNER & Midway . Tr	offic leading our neighborshood
(Rigby - Onega - MILNER) going west	board on midway most be
able to sefely exam on coming traffic	. Limiting account to a RT
Turn only would be undely contrictive.	
Name JERRY C. BICKFORD	Mail to:
Address 5373 NW RUGBY DA	Vanita Saini, P.E. FDOT Project Manager
City, State, Zip POINT ST LULIE FL 34983	Florida Department of Transportati 3400 West Commercial Boulevar
Phone Number	Fort Lauderdale, Florida 33309
Email jerry - bickford Q ya hoo, com	



Elected and Appointed Officials/Agencies Kick-off Meeting

Midway Road/County Road (CR) 712 from Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida Financial Project Identification Number: 231440-3-22-01 ETDM Number: 14177

Havert L. Fenn Center, 2000 Virginia Avenue, Fort Pierce, Florida 34982

Tuesday, August 18, 2015 from 3 p.m. to 4:30 p.m.

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PlEASE CONSIDER PUTING BUS BAYS
Along the corridor. Please Also consider
putting signalized lights FOR CROSSING
the street within 1/4 Mile WAlking
distance from bus bax. The route will
probably Run East to WEST SO bus
bays need to be on both sides of
the Street. Thank you for your
consideration.

Name	MARIANNE AFBORE
Address	Community Transite
City, State	FORT PIERCE, FL 34950
Phone Nu	mber 777 345-8778
Email	marbore@coaslicom

Mail to:

Vanita Saini, P.E. FDOT Project Manager Florida Department of Transportation 3400 West Commercial Boulevard Fort Lauderdale, Florida 33309



Public Kick-off Meeting

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Flease forward all comments by August 20, 2010.	
- See attached for solutions	to milrer Dr
- Sidewalks - Servitz to	St. clames Gol
	Course
:	
,	
Name (EXON VOZE)	
Address 5aul Nw milner Dr	Mail to: Vanita Saini, P.E.
City, State Zip + St. Lucie FT. 34983	FDOT Project Manager Florida Department of Transportation
Phone Number 13 - 3 + 3 · 0 + 20	3400 West Commercial Boulevard Fort Lauderdale, Florida 33309
Email Vozelia pellentherest	

Milner Drive Solutions

7-13-2015

1. Blinking Speed Limit Sign(Variable Speed Display Board)-2

- 2. Sand hill Crane Crossing Signs
- Image on bent
- 3. Calming Measures & Descriptions -See Attached
 - a. Bengal & Milner
 - b. Monaco & Milner
 - c. Omega & Milner
- 4. Stop Signs @ streets listed above
- 5. Add several speed limit signs and maintain 20MPH.
- 6. Signage related to issues
- 7. Turn Restrictions
- 8. Truck Restrictions
- 9. Neighborhood Entry Treatment
- 10. Diverters
- 11. Medians
- 12. Speed Cushions
- 13. Speed Hump/Table
- 14. Traffic Circle
- 15. Roundabouts
- 16. City of Port Saint Lucie Police Department Patrolling

Items to Consider/Suggestions:

- *Bicyclist Safety
- *Cut-Through Traffic
- *Cut-Through Traffic & Speeding
- *#1 Priority Pedestrian Safety
- *Speeding
- *Wildlife

Created By:

Jean Kozel- 772-343-0420

5261 NW Milner Drive

Port Saint Lucie, Florida

34983

5au Nw milrer Dr.

Issue	Measure	Description
Bicyclist Safety	Bike lanes, signage and street symbols	Narrows the road to slow traffic and provides a travel lane for bicyclists
Cut-Through Traffic	Turn Restrictions	Prohibit cut-through traffic at certain times of day
	One-Way Streets	Remove one direction of traffic on a two lane street
	Truck Restrictions	Remove heavy truck traffic by shifting it to a nearby route
	Neighborhood Entry Treatment / Gateway	Generally an island, brick pavers or stamped concrete to alert motorists of their entry into a neighborhood
Cut-Through Traffic and Speeding	Street Closure: Full or Half Street	Full closure of street to one or both lanes of traffic in either direction before an intersection
	Diverters: Full or Half	Raised barrier placed diagonally across an intersection that forces traffic to turn
Pedestrian Safety	Paver Crosswalk	Pressed asphalt crosswalk with brick pattern to highlight pedestrian crossing area
	Mid-Block Crosswalk	Provide greater visibility to crossing pedestrians
	Pedestrian Refuge Island	An island in the middle of the street to break the crossing into two sections
	Paddles	3-foot tall lime green bollards placed on centerlines to alert motorists to the presence of pedestrian crossings
	In-Ground Flashing Beacons	Highlights presence of pedestrians in crosswalk with flashing lights
	Pedestrian Countdown Signal	Provides the number of seconds remaining to cross the street at an intersection
	Bulb-Outs	Shorten distance to cross the street and narrow the roadway

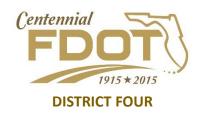
INFORMATION TAKEN FROM THE CITY OF SUNRISE NTCP

Issue	Measure	Description
Speeding	Street Markings	Visually narrow street to slow traffic
	Street Narrowing	Physically narrow street to slow traffic
	Median	Narrows streets to prevent turns at intersections or slow traffic
	Chicane	Winding street causes motorists to drive slower
	Speed Cushion	Modular devices that are made of rubber and spaced across the road at intervals that allow wide- axle vehicles such as ambulances to pass over with minimal effect, while causing automobiles to slow
	Speed Hump/Table	Raised area of pavement approximately 3-inches high and 12 or 22-feet long
	Variable Speed Display Board	Permanent radar unit and board alert motorists to their travel speed
	Speed Limit Sign	Reminds motorists of the speed limit
	Traffic Circle	Raised circular island in an intersection
Marine Company	Roundabout	Larger version of a traffic circle, installed on busier streets in larger intersections

SUMMARY

The NTCP Guide serves as a resource for the planning, design, and construction of traffic calming projects. It is an evolving document that assists the public in mitigating undesirable traffic issues in their neighborhoods. Modification of this Guide, as necessary, is the responsibility of the Planning and Development Department. While the NTCP is by no means the answer to all situations, it will help the City to work in coordination with the residents to develop positive solutions for neighborhoods that are negatively impacted by automotive traffic.

Meeting Presentation





Midway Road/County Road 712 Project Development and Environment Study from Glades Cut Off Road to Selvitz Road

St. Lucie County

FPID: 231440-3-22-01

ETDM: 14177

August 18, 2015

Presentation Agenda



- Purpose of the Meeting
- PD&E Study Objectives
- Project Location
- Project Need
- Public Involvement
- Engineering
- Environmental
- Environmental Reports
- Project Schedule
- What's Next
- How Can You Get Involved?



Purpose of the Meeting



- Introduce the Project
- Outline the Process and Schedule
- Share What We Know About the Project
- Receive Input from Community and Stakeholders
 - Questions and Concerns
 - Comment Forms
 - Website
 - Individual Meetings



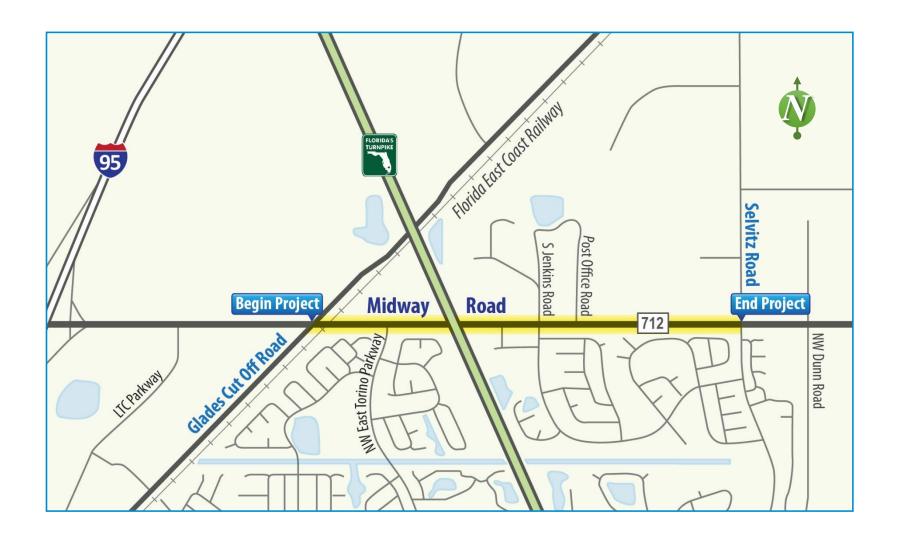
Project Development & Environment (PD&E) Studyar ROAD

The objectives of a PD&E study are to perform necessary social, environmental and engineering studies of a proposed transportation improvement to support decisions concerning if and where it should be built and what will be the basic design concepts.



Project Location







Project Need



- Provide for Existing and Future Traffic Needs
- Improve Safety
- Improve Freight Mobility
- Enhance Emergency Evacuation
- Provide Opportunities for Bicycle, Pedestrian and Transit Facilities
- Plan Consistency







PD&E Study Components



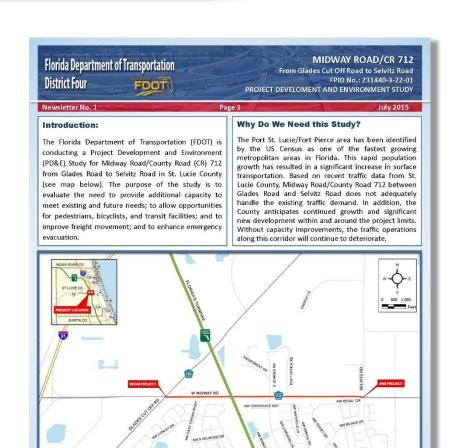
- Public Involvement
- Engineering
- Environmental



Public Involvement

MIDWAY ROAD

- Elected and Appointed Officials/Agencies Kick-off Meeting
- Public Kick-off Meeting
- Alternatives Public Meeting
- Public Hearing
- Project Website
- Newsletters
- Local Outreach







Engineering



- Data Collection and Analysis
- Alternatives Analysis
- Turnpike Interchange Feasibility Analysis



Data Collection and Analysis



- Vehicular Traffic
- Drainage Patterns
- Utilities
- Geotechnical
- Crash Data





Vehicular Traffic



- Roadway Does Not Handle Existing Traffic Demand
- Traffic Anticipated to Increase to 29,200 Annual Average Daily Traffic (AADT)
- Level of Service F with Degraded Traffic
 Operation Unless Capacity is Increased



Drainage

MIDWAY ROAD

- St. Lucie Estuary Watershed
 - Project Discharges to Canal C-103
 - Within St. Lucie River (North Fork)
 & Ten Mile Creek Boundaries
 - WBID 3194 & WBID 3194A
 - Impaired for Nutrients
 - Discharges to St. Lucie Aquatic Preserve
 - (Outstanding Florida Water)
- Anticipate Using Permitted Ponds
- No Floodplain Impacts
 - FEMA (Zone X)
 - "No Involvement"Classification Anticipated

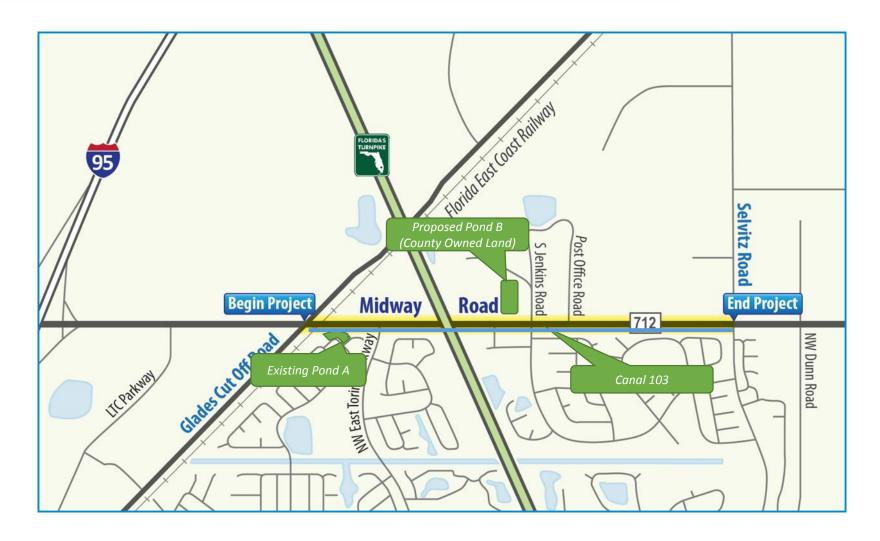






Drainage









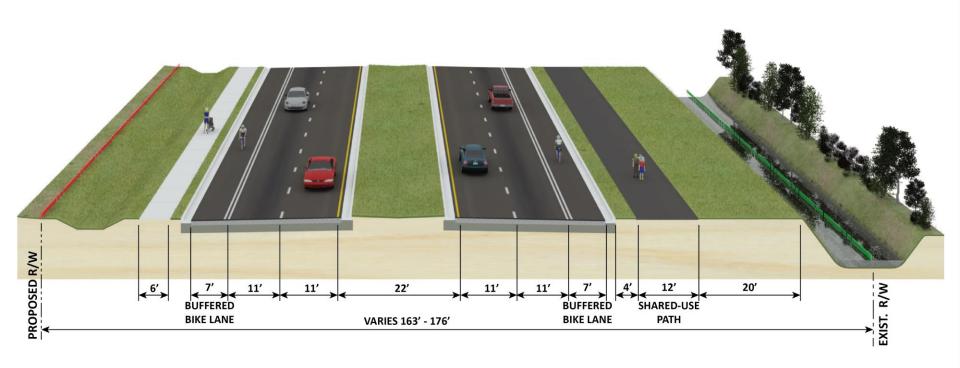
- No-Build Alternative
 - No Improvements Other Than Routine Maintenance







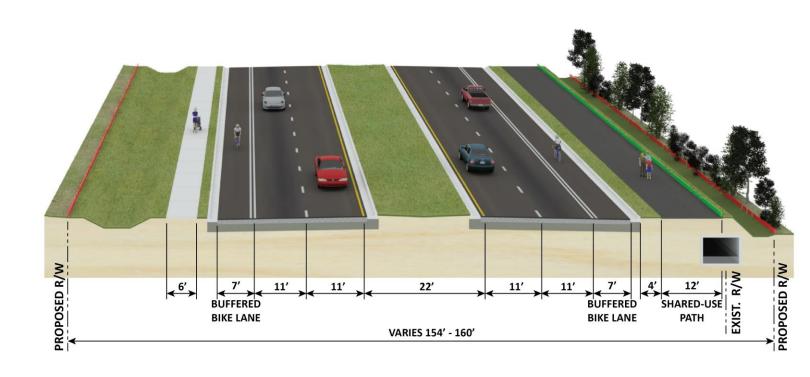
Alternate 1 – Canal Avoidance





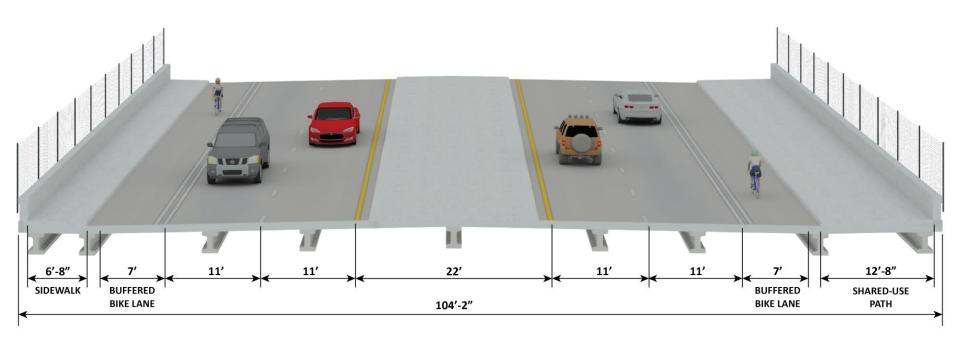


Alternate 2 – Box Culvert





Bridge over Turnpike





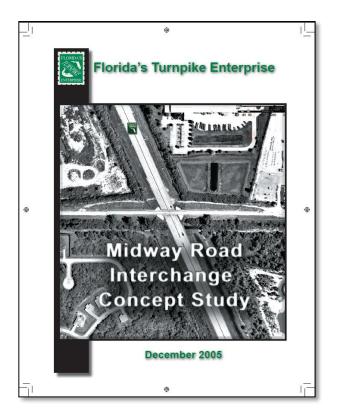
Turnpike Interchange Feasibility Analysis MIDWAY ROAD

- Interchange Concept Study Completed in 2005
 - No Fatal Flaws

Expected Revenue Covered Operation and Maintenance but

Not Construction Costs

- New Feasibility Analysis
 - Updated Traffic Analysis
 - New Alternatives Considered



Environmental



- Social and Cultural Environment
- Natural Environment
- Physical Environment
- Summarize Results in Environmental Reports



Social and Cultural Impacts



- Socio-Economic Impacts
- Socio-Cultural Effects
- Archaeological and Historic Sites
- Visual Impacts and Aesthetics
- Parks/Recreational Resources



Natural Impacts



- Wetlands
- Wildlife and Habitat







Physical Impacts



- Noise
- Contamination
- Air Quality
- Construction



Environmental Reports

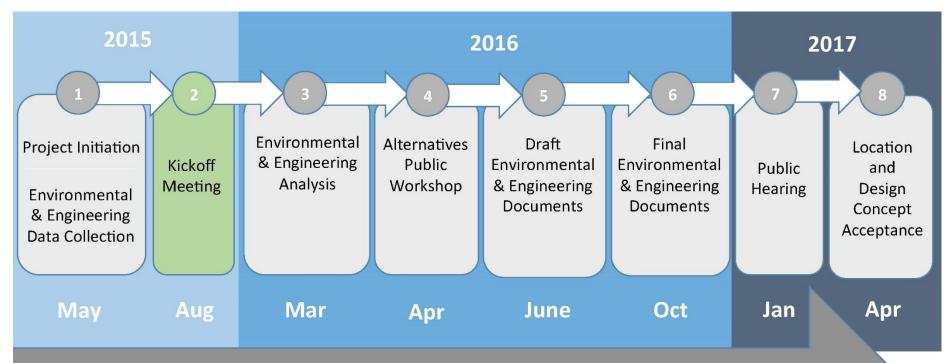


- Wetland Evaluation
- Endangered Species Biological Assessment
- Cultural Resources Assessment Survey
- Contamination Screening Evaluation
- Air Quality Screening
- Noise
- Type 2 Categorical Exclusion



Project Schedule





Community Outreach

A continuous community outreach process is integrated into every step of the project to ensure that the corridor residents, businesses, the traveling public and other interested parties have meaningful participation in the process.



Project Implementation



Long Range Planning

PD&E Study Phase

Current Project Phase

Design Phase

Funded in 2017

Right-of-way Acquisition Phase

Anticipated Funding in FY 2021 – 2025 Timeframe

Construction Phase

Anticipated Funding in 2021 – 2025 Timeframe



What's Next



- Work Toward the Public Alternatives Meeting
 - Evaluate Future Traffic Levels and Operational Performance
 - Develop Alternatives
 - Evaluate Environmental Impacts
- Continuous Public Involvement
 - St. Lucie Transportation Planning Organization
 - St. Lucie County
 - City of Fort Pierce
 - City of Port St. Lucie
 - Property Owners/Stakeholders
 - Project Team Available for Presentations



How Can You Get Involved?



- Comment Forms
 - Place in Comment Box Tonight
 - Mail or E-mail by Friday,
 August 28, 2015
- Website
 - www.MidwayRd.com
- Request a Small Group
 Meeting with Neighborhood
 or Special Interest Group



COMMENT FORM Public Kick-off Meeting

Midway Road/County Road (CR) 712 from Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida Financial Project Identification Numbers: 231440-3-22-01

Havert L. Fenn Center, 2000 Virginia Avenue, Fort Pierce, Florida 34982

Tuesday, August 18, 2015 from 5:30 p.m. to 7:30 p.m.

	-
Name	1
Address	Mail to:
	Vanita Saini, P.E.
City, State, Zip	FDOT Project Manager Florida Department of Transportation
Phone Number	3400 West Commercial Boulevard Fort Lauderdale, Florida 33309
	Fort Lauderdale, Florida 55509
Email	

Contact



FDOT Project Manager:

Vanita Saini, P.E.

Florida Department of Transportation

District Four

3400 West Commercial Blvd.

Fort Lauderdale, Florida 33309

(954) 777-4468

vanita.saini@dot.state.fl.us

Public Information (Toll-Free): 1-866-336-8435

www.MidwayRd.com



Comments



Questions / Answers / Discussion





Meeting Notes

Midway Cut Off Road/County Road 712 Elected and Appointed Officials/Agencies Kick-off Meeting 3 p.m. – 4:30 p.m. Minutes

August 18, 2015

Prepared by: Quest Corporation of America

Attendees started arriving around 3 p.m. The presentation started at approximately 3:20 p.m. There were 21 attendees.

Florida Department of Transportation's Project Manager, Vanita Saini, P.E., kicked off the meeting thanking everyone for attending. Ms. Saini introduced the project team. Consultant Project Manager Alex Hull, Inwood Consulting Engineers, Inc. presented a PowerPoint about the project. He stated the same presentation would be provided to the general public at the Public Kick-off Meeting at 6 p.m. Mr. Hull introduced the project. Mr. Hull asked that the group review the alternatives for the project to provide input for the analysis and documentation efforts that are submitted the FDOT and then to the Federal Highway for approval, following the presentation. Mr. Hull explained that the purpose of this meeting was also to outline the PD&E process and schedule, share knowledge of the project to date, and receive input from the general public and stakeholders. He reviewed the project location, which begins at Glades Road and ends at Selvitz Road, in St. Lucie County. Mr. Hull explained that today's meeting is the first major phase of the PD&E process, with the goal being to get input and generate comments. The alternative meeting to be held in spring 2016 is the next major meeting planned. A matrix evaluation to look at costs, right-of-way impacts, and the environmental analysis will be used to select an alternative that will go to the public hearing in the Fall 2016. Mr. Hull stated this project is needed to provide for existing and future traffic needs to improve safety, to improve freight mobility, to enhance emergency evacuations, to provide opportunities for bicycle, pedestrian and transit facilities and plan consistency.

With respect to public involvement, in addition to local agency coordination and local community outreach, participants were informed about the project website www.MidwayRd.com and project newsletter. On the engineering side, a Turnpike Interchange Feasibility Analysis will be completed. Also, data collection consists of vehicular traffic, drainage patterns, utilities, geotechnical, and crash data. Mr. Hull stated that the two-way existing roadway would only get worse as currently the roadway does not handle existing roadway demand. With respect to drainage, Mr. Hull stated that the FDOT anticipates using existing county lands or existing ponds to handle drainage. County owned land and ponds were discussed (see page 13 of PowerPoint). The no-build alternative states that there are no improvements other than routine maintenance. It serves as the baseline build.

Alternative Analysis

Alternate 1 – Canal Avoidance was presented. In summary with this alternative there is a four-lane improvement, 11-foot lane, a seven foot buffered bike lane, on the north side a six-foot pedestrian sidewalk, on the south side a 12-foot multipurpose trail. The graphic on page 15 of the presentation displayed the relative acquisition of right-of-way.

Alternate 2 – Box Culvert requires less right-of-way. According to Mr. Hull, the advantage is that there are less right of way costs. The box culvert, however, costs more than keeping the existing canal. The project team will be analyzing the costs of right-of-way construction.

Mr. Hull also noted that the bridge over the turnpike will be included in that alternatives for the project.

With respect to the turnpike updated traffic analysis and new alternatives will be considered. The last interchange concept study was completed in 2005.

Environmental

Mr. Hull also discussed the impacts to neighborhoods and communities (social and cultural impacts, natural impacts, and physical impacts).

Mr. Hull presented the project schedule and stated that the total project efforts can be an eight to ten year time period. We are currently at the kick-off meetings stage with respect to the PD&E process and community outreach. Through 2016 we enter the environmental and engineering analysis, hold the alternatives public workshop, will the draft the environmental and engineering documents, in 2017 a public hearing will be held, and the location and design concept will be accepted. In 2017 the design phase will be funded and it is anticipated that construction will begin in 2021.

Alex Hull and Vanita Saini invited the attendees to move to a table discussion to review the alternatives for the project and encouraged input and comments.

Comments / Open Discussion

Mr. Hull stated a disclaimer saying that the ideas being presented are discussion purposes only. He needed the attendees' input for further review. He noted that the project team has received input on the bus transit facilities and asked if the current alternatives are representing what they want. He stated more detail would be in the concept plans. He went on to say the same on access management and asked for input on access.

- 1. Frank Knott, City of Port St. Lucie, is looking to see how the interchange will fall in and affect the area.
- 2. Mark Satterlee, St. Lucie County, asked if there would be decel lanes/right turn lanes? Alex stated that the TPO is updating the traffic modeling now. They cannot run a model until the first of the year. He stated that the roll plots presented are his best guess assumption and he is moving forward with the analysis.
- 3. Alex asked the audience if there were any other comments on access management. There were no other comments made.
- 4. Alex asked if there were any additional comments on bus bay locations. Marianne Abore and June Dunn with COASL asked if bus bays are on both sides of the street. A brief discussion about signalization locations took place. It was stated that intersections needed to be close enough so that transit riders did not have as far to walk. Additional discussion took place on transit, the Health Department location and future transit (potential shuttle). Bus bays where buses can pull off the road versus bus stops are what they are looking at.
- 5. Frank Knott made a point about landscaping and that some stakeholders believe they live on a preserve. Alex Hull stated that his team would be talking to FDOT about landscaping.

- 6. The sidewalk at the New Horizons location was discussed.
- 7. John Frank, St. Lucie County, provided a comment about box culverts.

In summary, Alex Hull and Vanita Saini suggested comment forms to be filled out and closed the meeting.

Midway Cut Off Road/County Road 712 Public Kick-off Meeting 5:30 p.m. – 7:30 p.m. Minutes

August 18, 2015

Prepared by: Quest Corporation of America

The meeting started at 5:30 p.m. The presentation began at 6:00 p.m. There were 63 attendees.

Florida Department of Transportation's Project Manager, Vanita Saini, P.E., kicked off the meeting thanking everyone for attending. Ms. Saini introduced the project team's Consultant Project Manager Alex Hull.

Inwood Consulting Engineers, Inc.'s Consultant Project Manager Alex Hull, P.E., introduced the project and stated our goal is to gather input for the analysis and documentation efforts that are submitted the FDOT and then to the Federal Highway for approvals. Mr. Hull explained that the purpose of this meeting to outline the PD&E process and schedule, share knowledge of the project to date, and receive input from the general public and stakeholders. Mr. Hull stated that an Elected and Appointed/Agency Kick-off meeting took place earlier in the day. He reviewed the project location, which begins at Glades Road and ends at Selvitz Road, in St. Lucie County. Mr. Hull explained that today's meeting is the first major phase of the PD&E process, with the goal being to get input and generate comments. The alternative meeting to be held in spring 2016 is the next major meeting planned. A matrix evaluation to look at costs, right-of-way impacts, and the environmental analysis will be used to select an alternative that will go to the public hearing in the Fall 2016. Mr. Hull stated this project is needed to provide for existing and future traffic needs to improve safety, to improve freight mobility, to enhance emergency evacuations, to provide opportunities for bicycle, pedestrian and transit facilities and plan consistency.

With respect to public involvement, in addition to local agency coordination and local community outreach, there is a project website www.MidwayRoad.com and a newsletter. On the engineering side, a Turnpike Interchange Feasibility Analysis is being conducted. Also, data collection consists of vehicular traffic, drainage patterns, utilities, geotechnical, and crash data. Mr. Hull stated that the two-way existing roadway would only get worse as currently the roadway does not handle existing roadway demand. With respect to drainage, Mr. Hull stated that the FDOT anticipates using existing county lands or existing ponds to handle drainage. County owned land and ponds were discussed (see page 13 of PowerPoint). The nobuild alternative states that there are no improvements other than routine maintenance. It serves as the baseline build.

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Alternate 1 — Canal Avoidance was presented. In summary with this alternative there is a four-lane improvement, 11-foot lane, a seven foot buffered bike lane, on the north side a six-foot pedestrian sidewalk, on the south side a 12-foot multipurpose trail. The graphic on page 15 of the presentation displayed the relative acquisition of right-of-way.

Alternate 2 – Box Culvert requires less right-of-way. According to Mr. Hull, the advantage is that there are less right of way costs. The box culvert, however, costs more than keeping the existing canal. We will be analyzing the costs of right-of-way construction.

Mr. Hull noted, also, in the alternatives analysis phase there will be replacing the bridge over the turnpike.

With respect to the turnpike updated traffic analysis and new alternatives will be considered. The last interchange concept study was completed in 2005.

Environmental

Mr. Hull also discussed the impacts to neighborhoods and communities (social and cultural impacts, natural impacts, and physical impacts).

Mr. Hull presented the project schedule and stated that the total project efforts can be an eight to ten year time period. We are currently at the kick-off meetings stage with respect to the PD&E process and community outreach. Through 2016 we enter the environmental and engineering analysis, hold the alternatives public workshop, will the draft the environmental and engineering documents, in 2017 a public hearing will be held, and the location and design concept will be accepted. In 2017 the design phase will be funded and it is anticipated that construction will begin in 2021.

Mr. Hull invited the attendees to ask questions or provide comments. He also encouraged the participants to fill out comment forms to document their questions and comments for the project.

Comments

A turnpike exchange would be awfully close to Fort Pierce I really don't see a necessity to get off on Midway Road. Just get off at Fort Pierce, go down Jenkins Road and you are right there. If they ever complete Jenkins Road through they could even get straight to Wal-Mart. They would not need a turnpike exchange.

Response: That is part of the Feasibility Analysis. We do a traffic model to see where people come from or what the traffic volumes will be on the interchange to the north, this one, the one to the south with or without the interchange. Does it make sense? Is it good to put an interchange in or not? I appreciate your opinion on that but that is why we do the study; so we can document from an engineering standpoint whether it is a good thing or not a good thing. We let the facts fall where they fall.

2) You have traffic going east and west, what is your point or return, turnaround? How deep do we have to go before we are able to turn back and go west?

Alex Hull: Once we make it a four-lane and put the median in?

Resident: Yes.

Response: Ok. What we will do as part of the study is develop an Access Management Plan. What that means is that is a plan on where full intersections are located and where

"directional" intersections are located. That is where you can't come out but you can turn left onto the side property. We develop that plan and generally, on a road like this, we will evaluate (although it has not be decided yet, we are still under the process) there will be opportunities for making U-turns at these locations along the roadway. Typically full interchanges/intersections are reasonably spaced along the corridor so that it does provide opportunities to make U-turns along the roadway.

Vanita: For the Access Management Plan we will be presenting it to the public for their input on the points that we put in each of the alternatives.

I am not sure if this is a comment or a question, I grew up here. I am in my 70s. When I was a child there was a ditch in front of everybody's house for drainage and this has to do with your canal that you are leaving on the south side. I have learned over the years that as we have had more and more construction and we have less water sitting so I am looking at all of the time when it rains out west where there is more water that when it rains to the east side of the turnpike. I really think we need it and I realize that with your plan to leave the drainage ditch you are looking for more of the right of way on the north side but I am sure they will take into consideration the environmental issues with that water. I do not like ditches but I think we need them.

Response: Thank you.

4) Is this project being designed in coordination with the west of Midway Route 1. You have four lanes being built in that area and then the bridge will not be built until ten years so this is going to be a bottleneck.

Response: First of all, to answer your question, this is being coordinated. Second of all, Midway Road is a long road and there is only so much money available at a certain amount of time to do projects. So, normally when a project is done it is broken up into smaller projects that funds are available to construct the project as you move. Right now Selvitz to 25th Street is under construction. Soon, within a year plus, from 25th Street to U.S. 1 will be under construction. As we move through this process the plan is, and I cannot predetermine the decision either build or no build, we don't know what we will be doing at this point. Assuming that it will move forward, it will move into construction as well. At some point there will be a continuous four-lane from U.S. 1 to just past I-95. The timing, to a large extent, is based on availability of funds.

5) The question that I had, I live on Milner Road and we seem to have a lot of cut-through traffic that goes through that intersection. What is going to be done to that intersection, if anything or what are you proposing?

Response: Milner and Midway, you are asking what is going to be done? We have not determined yet what will be done at Milner and Midway Road. We are in the process of looking at that. Do you have a recommendation?

Resident: A recommendation? You are the expert.

Resident 2&3: We are on Milner also and that is what we wanted to ask you. How is it going to affect us again because the Selvitz Road [construction] was a nightmare? It has decreased, thank God. This is a concern of ours because for with this construction they are going to use it as a cut-through.

Resident 4: They are talking about 10 years out.

Resident 2: We would like to be considered part of the project.

Response: We will have discussions with the county about this issue relating to cut-through traffic on Milner. I understand there is a problem and an issue with cut-through traffic. Before you brought it up, we are aware there is a problem there that you have.

6) In terms of the proposed interchange with the turnpike and the funding that you have got approved until 2017 for the design phase, does that include or exclude the interchange at this point?

Response: It is my understanding that the money that is earmarked is for Midway Road. It has not taken into consideration the turnpike at this point. Andy do you know anything different than that?

Andy stated no.

7) I am not familiar with how the water gets through the ditch underneath the turnpike.

Response: There is a pipe.

Resident: Wouldn't it make more sense to culvert it in? As far as I know, water flows downhill. You want to get it to North Fork River no? Wouldn't it be better to culvert it down with the rest of the culverts and let it get to the river?

Response: Well that is one of the alternatives that we are looking at, is putting the culvert the whole way from the project to connect to the culvert to connect to the culvert that is going to be constructed at Selvitz Road and east of there.

Resident: We are going to have the same amount of rain today as you are going to have 10 years from now. It is going to go to the same place as now. So that should not really change that.

Response: There are two ways to handle the water that is going to be there anyway, in a canal or ditch. There are disadvantages and advantages to both alternatives. That is the process of evaluation and we will go through and look at those.

8) The section that you are working on now from Selvitz to 25 Street, what is the target date to have that completed?

Response: I do not know the answer to that question. Does someone in the audience who may be more knowledgeable know that?

County Response: August 2016. They are a little behind.

9) I am not trying to dispute my husband about the canal and the ditch, or whatever. I am worried on the environmental impacts on the animals that have access to that water now (i.e. turtles and otters).

Response: That is an issue on any construction project when you are dealing with existing land that has more of a natural land. We have certain restraints and as part of our studies we look at the impacts to what we call protected species. We will look at it and if there are any protected species that are there. If there are species that are not protected, per se,

Resident: gofer tortoises

Response: Gofer tortoises are protected.

Resident: How about regular little...

Response: Rabbits are not.

Resident: I understand that and I am not worried about them. They will fend for themselves. I am just worried about all of the little turtles that cross the road. I have to get out of my car and help them on their way.

Other residents: I've seen otters. We've seen otters. Yes, otters.

Response: Well, again, we have to deal with protected species.

Resident: (unintelligible speaking) what about the sandhill crane?

Alex to Lynn Kiefer, Environmental representative for the project team: Would you like to give us a list of the protected species? Just the more likely protected species.

Response: Cranes, wood storks we would like to evaluate those tortoises. We would evaluate all of those species that live there. We are still in the process of evaluating this. We will be evaluating all of those species. We have to look at the wildlife impacts and that will be all documented.

10) The PowerPoint presentation will be available for us?

Response: Yes. The PowerPoint presentation and the board will be on the project website within five days.

11) My concern is that even though I do not live around there, there is a wall being considered.

Response: A wall will be evaluated. We have criteria that we have to meet in order to put a wall in. A noise study will be done to determine if a noise wall is reasonable and feasible to construct a wall.

Resident: Because I have seen it so many times in other projects where they have to build a berm and a wall on top of it to take care of not only the noise but also the dust and fumes.

Response: That is going to be evaluated and considered.

12) Reporter: I know for the portion that is currently under construction with the Selvitz Road to 25 Street and to U.S. 1 private land was needed to complete that project. Will private land be need for this portion?

Response: It is likely that land for the north side of the road will be needed in both alternatives in the project. There will be right-of-way acquisition likely on the north side of the road for both alternatives. Alternative 1, the canal avoidance alternative, will have more and the one where we put the box-culvert will have less. We will determine how much when we get into the more detailed studies.

Reporter: At this point do you know if anyone has suggested which alternative to go with? Not yet?

Response: No.

How is the proportionate fair share contribution considered for the turnpike since they are crossing a local state right-of-way?

Response: I do not know. I cannot answer that question whether the turnpike is going to contribute to construction of the Midway Bridge. That will be part of the discussions in the Feasibility Study, if an interchange is built but I cannot answer that questions at this time.

Going through the section at Midway before Highway 1 is that already in the agenda? Are they figuring out what they are going to do? There are a lot of old businesses [from 25th Street to U.S. 1].

Response: I believe that has already gone through a study and it has been designed so what is going to be constructed there is pretty well set.

Also, Midway over the river there will probably have to figure out the pylons to bring that down to bedrock because that road has sunk with the weight over time. I guess that all probably with the environmentalists will open that river up again like it was naturally.

Response: I apologize but I am not involved in that project.

16) Can we go back to the box-culvert one more time? How is the water entering the culvert and how far apart are the inlets? I am concerned about the overflow and the controlling of the water. How is it entering the culvert if it's a box?

Response: There will be inlets and access points for it. The other thing we are dong is on the north side if the canal, if the canal remains, we will put in a swale to capture any runoff that comes towards the box-culvert from the roadway. Any of the roadway runoff that is

generated in the vicinity will be collected separately and be taken to a storm water pond. Any other runoff that comes from lets say upstream, will be allowed to enter the canal as it naturally would enter the canal now.

17) I know you cannot plan for hurricanes but is any hurricane event part of the plan? How to do the runoff? We have had hurricanes in the past that have been pretty severe.

Response: There will be consideration taken to the elevation of the roadway and drainage considerations for the storm water.

Resident: That would be your normal thing? That is not just for this project?

Response: Right.

18) If you do the culvert, there is another one around from that Midway right there, another drainage. Are they going to open that up a little bit more?

Response: Ask me the question again.

Resident: Ok. From Glades Cutt Off Road coming down to Torino, coming down there is another drainage away from that canal that you have.

Response: There is a drainage ditch behind the houses and then you have the canal.

Resident: Yes. Are they going to open that one up a little bit more because I noticed whenever it rains the whole road is flooded sometimes.

Response: That is within the City of Port St. Lucie and that ditch is not part of this project. If you are having issues with that ditch is in the City of Port St. Lucie property. I would suggest that you contact the city of that swalish-area behind these lots.

Resident: If you put the concrete that little runoff will take more water than if they take it off there.

Response: Whatever we do, we will not compound any drainage issues that exist. We will take care of the road drainage. That will take water out of that canal. Any drainage improvement that can be made reasonably will be made but when DOT does a roadway project they cannot solve external unrelated drainage problems. That goes back to the local entities to deal with that but we will not compound it any.

19) Will this be a design build project?

Response: Likely not. Is that a fair statement Vanita?

Vanita: Right now we have not determined the procurement method but we are proceeding as design bid build. Design build usually we have that as an option if we want to advance the project and have it built sooner than normal.

I know you were talking about intersections before but I did not get that part about Selvitz Road and Midway Road. Are you going to, are you gong to have a traffic circle there? That is what they do in Martin County. Are we going to have a traffic circle there?

Response: We have not evaluated that at this time.

21) Reporter: When you mentioned the turnpike interchanges what did you mean by no fatal flaws?

Response: It means there is nothing that, at this point, says you absolutely cannot do it. It appears that it might work if there is money to do it. There is not physical or environmental reason why you cannot do it.

22) Reporter: For this project is there any ballpark figure for cost?

Response: We have not done that yet.

Ms. Saini thanked everyone for attending and reminded everyone that their comments are welcome on comment forms, via email, and on the website. Beth Zsoka, Public Involvement for the project also informed the public they could sign up for updates if they provided their email addresses or mailing addresses.

Vanita Saini closed the meeting thanking everyone for their attendance.



Meeting Minutes

3000 Dovera Drive, Suite 200, Oviedo, FL 32765 | P: 407-971-8850 | F: 407-971-8955 | www.inwoodinc.com

DATE: August 25, 2015

TO: Vanita Saini, PE

FROM: Kevin lannarone, PE

RE: Midway Road PD&E (FPID: 231440-3) - Public Officials Meeting

CC: All Attendees (via email), File

The Midway Road Project Kick-Off Meeting presentation was given to attending public officials (before the official kick-off meeting scheduled at 6:00pm that night) by Alex Hull, P.E. This presentation introduced the project; provided the project limits (Glades Cutoff Road to Selvitz Road); gave an overview of the PD&E process; and displayed the two alternative typical sections that will be evaluated with this project. Following the presentation, an informal meeting was held allowing the officials in attendance to provide input and thoughts related to the project. During this meeting preliminary scroll graphics with anticipated right-of-way impacts were shown. The bulleted items below summarize the key points of discussion.

Public Transit

- Bus bays are preferred in order to allow buses to stop without impeding the flow of traffic.
 - o Recent examples of County-preferred bus bays are present on 25th Street.
- Bus bays should be within ¼ mile of signalized intersections (when possible) to minimize uncontrolled pedestrian crossings.

Access Management

- The side street access management plan shown is appropriate.
- Accommodations for access to All Landscape Supply are necessary.
- A side line discussion with Deputy Kevin Dietrich of the St. Lucie Sheriff's Office occurred following the
 6:00pm public meeting. Access changes to the Sheriff's Office include:
 - Move the full opening to the eastern entrance.
 - Provide mountable curb (or an official use only median opening) in front of the western entrance to accommodate larger emergency response vehicles.
 - Need to maintain existing access to Florida's Turnpike on the north east side of the Turnpike Bridge.

Right of Way

- There is an Interlocal Agreement in place at the corner of Midway Road and Selvitz Road to facilitate the construction of the eastern Midway Road widening.
 - There is a landscape buffer that needs to be maintained / restored after construction, which is specified in this agreement.
- The City will require impacts to the existing landscape buffer west of Selvitz Road to be restored in a similar fashion.

Construction

Road closures and detours should be minimized / avoided during construction.

Landscaping

- The County questioned the potential for landscaping through the project corridor.
 - This issue will be discussed in detail at a later date.



Centennial

STAFF SIGN IN

ELECTED AND APPOINTED OFFICIALS/AGENGIES KICK-OFF MEETING Midway Road/County Road (CR) 712 from Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida Financial Project Identification Number: 231440-3-22-01

ETDM Number: 14177

Havert L. Fenn Center, 2000 Virginia Avenue, Fort Pierce, Florida 34982

Tuesday, August 18, 2015

This document is subject to public record laws and may be released to the media or public upon request. If you do not want your personal information to be made public, do not provide this information.

Name	Address	City/State/Zip	Phone #	Email Address	Organization
DAVID DANGEL	3000 DOVERA DRIV	IE, STEZO OVIEDO, FL32	765 407-971-8850	ddangel @invoodinc.com	INWOOD
Sevin Fanagrore	300 Dovera Drive		61 407-971-8850	Kiangeral Chwading you	Inwest.
Beth Zsoka			772-834-1298	Beth. 250 ka a work of the	WCA
essica tramu	is 3853 Nimigale	BIVE Tampaite	813-399-74	Jessia. Francis@QU	nusa.com
namene Lairsce			81313991714	f Shormene. Laursceyaa	Husa.com
AlexHull		700	407 971887	amella inwoodness	on Inurod
Yasir Mercado			(305)986-73	24 Yasir. Mercado @QCA	m QCA
Brady Walker	600 N Pine Island Road	Ft. Landerdale, FL	954-535-500		V
John Fron (1	2300 Virgina		> 72 -462 70	fronts @ Stl vue coo	g sle
Janith Saini	3900 Coma	7	le 954-77249	62 Vanide-Saine ald-	Suthflus PDO
Ker Jackso			FL 33407 561-840-08	Ken jackson@ kinley-home	n Kinky Hors



STAFF SIGN IN

ELECTED AND APPOINTED OFFICIALS/AGENGIES KICK-OFF MEETING Midway Road/County Road (CR) 712 from Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida Financial Project Identification Number: 231440-3-22-01

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Name	Address	City/State/Zip	Phone #	Email Address	Organization
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Stranous DAVIS	BOT-DY	FT. LAWD			
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SIGN IN



ELECTED AND APPOINTED OFFICIALS/AGENGIES KICK-OFF MEETING

Midway Road/County Road (CR) 712 from Glades Cut Off Road to Selvitz Road in St. Lucie County, Florida

Financial Project Identification Number: 231440-3-22-01

ETDM Number: 14177

Havert L. Fenn Center, 2000 Virginia Avenue, Fort Pierce, Florida 34982

Tuesday, August 18, 2015

This document is subject to public record laws and may be released to the media or public upon request. If you do not want your personal information to be made public, do not provide this information.

Address	City/State/Zip	Phone #	Email Address	Organization
121 SW PSLBLUD	PSL	772 344 475	o Frotte city offsh, co	n CITYOFPSL
437 7 H STREET	F.P.	772-462-17	777 DEKLEM @ STU	UCSECO, ORG
			buckwald@st/ucieco.org	St. Lucie TPO
3701 Gon Club Rd	Weil Palm Beach	863-462-526 ext 3621	hearter strundgor	STWUD
1565 Orange Aue	FP	777	marbore@coas/icom	COASC
1505 orange Ave	FP	772 345-8229	Idunna Coasticon	COASL
2300 Mirgina the FP	of line Co.	772-462	Satterleen esthereco.co.	SL County
	121 SW PSLBLUD 431 7 TH STREET 3701 Gon Club Rd 1565 Orange Ave FP Sierce	121 SW PSLBLUD 431 7 H STREET F.P. 3701 Gon Club Rd Weil Palm Beech 1565 Orange Pule FP 1505 orange Ave FF FF FF FF FF FF FF FF FF	121 SW PSL BLUD 431 7th STREET F.P. 3701 Gon Club Rd Weid Palm Beach 863-462-526 ext 3621 1565 Orange Pue FP 772-462 773-8229 772-462	121 SW PSL BLUD PSL 772 344 470 FXDOTTE CATOFFSL, CO 437 7 H STREET F.P. 772 462-1777 OEKLEM Q STUD buckwald @stlucieco.org 3701 Gon Club Rd Weit Palm Bred 863-462-5260 hearten strumd god ext 3621 hearten strumd god 1565 Orange Pue FP 772 345-8229 Iduna @coasl.com 772 - 462



Meeting Minutes

3000 Dovera Drive, Suite 200, Oviedo, FL 32765 | P: 407-971-8850 | F: 407-971-8955 | www.inwoodinc.com

DATE: October 13, 2015

TO: Vanita Saini, PE

FROM: Kevin lannarone, PE

RE: Midway Road PD&E (FPID: 231440-3) - Post Office Coordination

CC: All Attendees (via email), Joel Ouellette (Post Master), File

A coordination meeting with the US Post Office (5000 W Midway Road) was held on October 7, 2015, at 11:00am regarding the Midway Road (CR 712) PD&E Study. This meeting was requested by Joel Ouellette (Fort Pierce Postmaster) as a follow up to phone conversations regarding the project. The attendees included representatives from Inwood, St. Lucie County, and the US Post Office. The purpose of the meeting was to present the project to the Postmaster and discuss the access / median opening requirements necessary to maintain post office operations.

The meeting began with introductions, an overview of the project, and a review of the typical section alternatives. The meeting agenda, handouts, sign-in sheet, and roll plots provided at the meeting are attached to this document for reference. It was explained that the median opening locations shown on the roll plots are preliminary and are subject to change. The bulleted items below summarize the key points of discussion.

Typical Section Alternatives

- Alternative 1 (Canal Avoidance Typical)
 - o This alternative requires approximately 40 feet of right-of-way across the post office frontage.
 - This alternative will impact the existing retention pond on the post office property.
 - It was explained that the impacts to the post office property will be "cured" through the right-of-way acquisition process if this alternative is selected.
- Alternative 2 (Box Culvert)
 - No right-of way-impacts are anticipated (at this time) with this alternative.

Access Management / Median Opening Requirements

- Post Office Requests
 - o Full median opening at Post Office Road
 - Signal at Post Office Road
 - Maintain one-way entrance at eastern side of post office property
- Full ingress and egress is currently available off of Post Office Road.
- Kevin lannarone (Inwood) explained that there is criteria for median opening spacing and coordination between both the Post Office needs and the St. Lucie County Sheriff's Office (located next door) requirements will need to be balanced to create a safe and effective access management plan.
- The full median opening at Post Office Road is 730 feet from the intersection of Jenkins Road. Full median openings at both locations are below the 1,320 feet required to be within standards.
- Craig Hauschild (St. Lucie County) stated that the County would like to maintain median opening spacing per the design standards to minimize conflict points along the project corridor.
- John Frank (St. Lucie County) suggested post office access be provided through Jenkins Road which connects to Post Office Road north of the project corridor.
 - Louis Klegin (Port St. Lucie Post-master) stated changes to the standard delivery route would need post office approval from a federal level.



Meeting Minutes

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- This route change would add approximately 0.7 miles to the entrance (based on Google Earth measurements)
- Selena Griffett (St. Lucie County) suggested extending the post office entrance driveway to Jenkins Road to shorten the route and provide more direct access.

Traffic Analysis

- The traffic analysis for the corridor is scheduled to begin in January 2016 when the 2040 traffic model becomes available.
- An Interchange Feasibility Study will be conducted to determine if a new interchange with Florida's Turnpike is warranted on Midway Road.
- The results of the traffic analysis and Interchange Feasibility Study may impact the proposed median opening locations.

Other Discussion items

- Large delivery vehicles consist of 53-foot semi-trucks.
 - o The post office receives eight semi-truck deliveries per day.
 - Trucks enter Post Office Road from both eastbound and westbound directions.
- Fifty-three mail delivery vehicles leave the post office between 8:30am and 10:00am and return between 2:30pm and 4:00pm.
- Approximately 48 employees arrive and leave at 7:30am and 4:00pm, respectively.
- The Post Office Treasure Coast Maintenance facility is located on Post Office Road and requires access for large vehicles.
- It is anticipated that a signal at Jenkins Road will be warranted (pending the traffic analysis).
- Project Schedule / Phases
 - PD&E Phase Completed summer 2017
 - Design Phase Funded 2017
 - o Right-of-Way Acquisition Anticipated funding FY 2021-2025
 - Construction Anticipated funding FY 2021-2025

Please note, discussions with the St. Lucie County Sheriff's Office (after this meeting) revealed changes to the median openings shown at the meeting are required to maintain emergency response capabilities. Additional analysis will be necessary to determine what impacts this will have to the draft median openings.

Action Items

Inwood will investigate the potential to provide post office access off of Jenkins Road.



Midway Road/CR 712 PD&E Study Coordination Meeting

October 7, 2015

from Glades Cut Off Road to Selvitz Road

Financial ID No.: 231440-3-22-01

	Address	E-mail LOUIS, WKLEGING USPS, GO	
US PS	290 NU PENTEURL BLA		
SLC ENGENERAL	2300 Vincenes Are	HAUSCHILDE & STLUCTECO. ORG.	
		GRIFFETTS @STUXIECO.ORG	
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Coordination Meeting October 7, 2015

SUBJECT: Midway Road PD&E

FPID: 23144032201

MEETING DATE: Wednesday, October 7, 2015

MEETING TIME: 11:00 AM to 12:00 AM

VENUE: US Post Office (5000 West Midway Road)

- 1) Inroductions
- 2) Project Overview
 - a) PD&E Study to widen Midway Road
 - (1) Anticipated constructin funding FY 2021-2025
 - b) Typical Section Alternatives
 - (1) Alternative 1 (Canal Avoidance)
 - (2) Alternative 2 (Box Culvert)
- 3) Post Office Operations
 - a) Post Office Road (Full Median Opening)
 - (1) Full Ingress and Egress required
 - (2) Delivery truck access (53' semi-truck)
 - (3) Full Post Office access is available off of Post Office Road
 - (4) Post Office Treasure Coast Maintenance
 - b) Eastern Post Office access is a one-way entrance only
 - c) Shift Change / Delivery times?
- 4) Open discussion
- 5) Project website provides current project information and status
 - a) www.MidwayRd.com

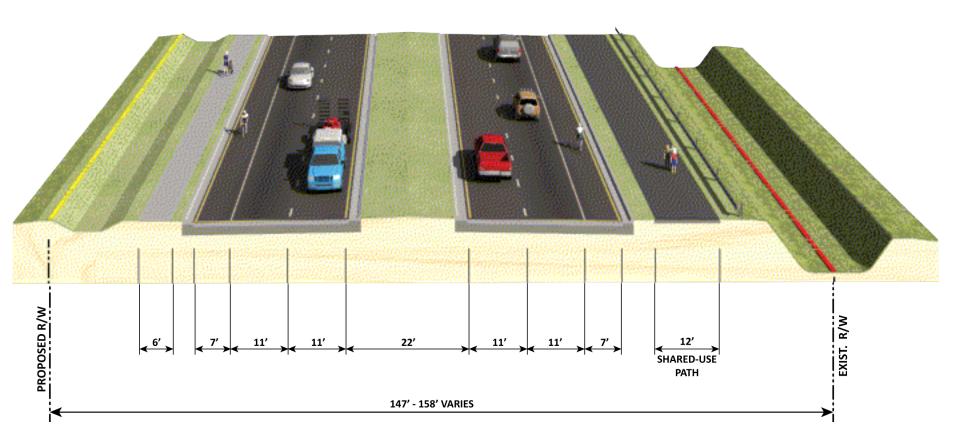
Action Items:

Action Item	Due Date	Person Responsible	Notes
1.			
2.			
3.			

1



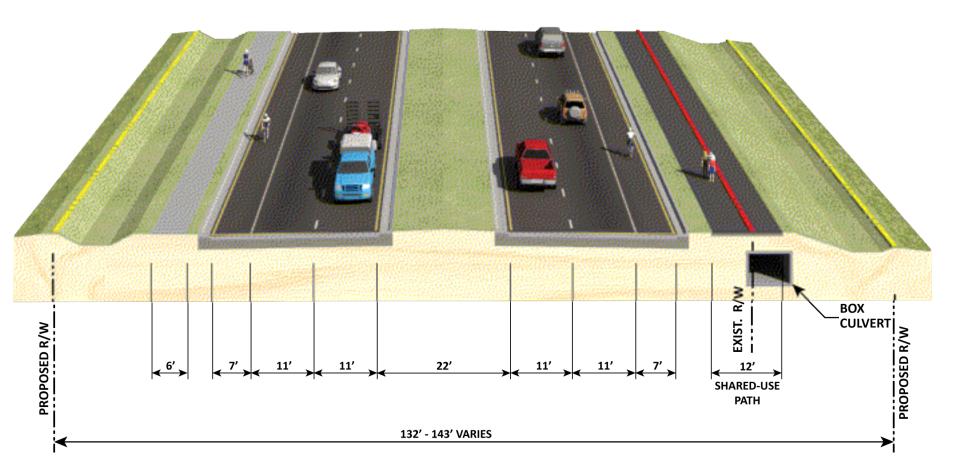
Alternate 1 – Canal Avoidance







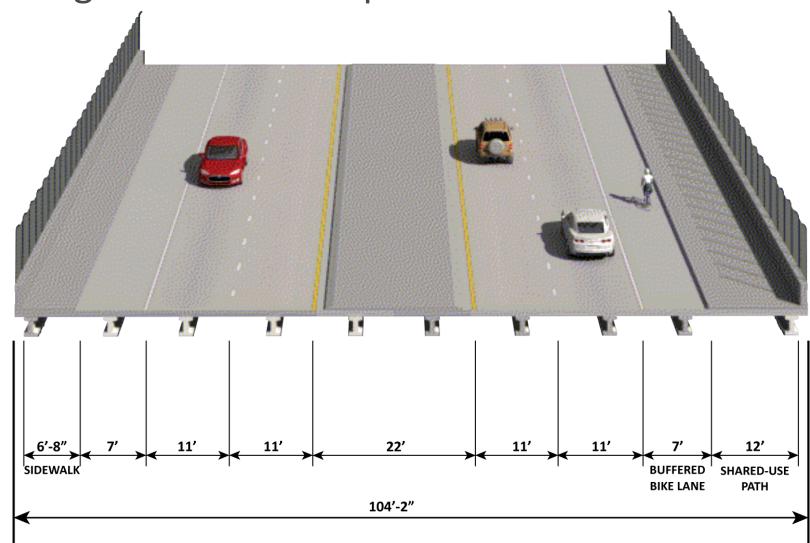
Alternate 2 – Box Culvert







Bridge Over the Turnpike



16



Meeting Minutes

3000 Dovera Drive, Suite 200, Oviedo, FL 32765 | P: 407-971-8850 | F: 407-971-8955 | www.inwoodinc.com

DATE: October 13, 2015

TO: Vanita Saini, PE

FROM: Kevin lannarone, PE

RE: Midway Road PD&E (FPID: 231440-3) - St. Lucie County Sheriff's Office Coordination

CC: All Attendees (via email), File

A coordination meeting with the St. Lucie Sheriff's Office (4700 W Midway Road) was held on October 7, 2015, at 1:30pm regarding the Midway Road (CR 712) PD&E Study. This meeting was requested by Deputy Kevin Dietrich following discussions at the public kick-off meeting and subsequent email correspondence. The attendees included representatives from Inwood, St. Lucie County, and the Sheriff's Office. The purpose of the meeting was to present the project to additional staff at the Sheriff's Office and discuss the access / median opening requirements necessary to maintain operations and emergency response capabilities.

The meeting began with introductions, an overview of the project, and a review of the typical section alternatives. The meeting agenda, handouts, sign-in sheet, and roll plots provided at the meeting are attached to this document for reference. It was explained that the median opening locations shown on the roll plots are preliminary and are subject to change. The bulleted items below summarize the key points of discussion.

Typical Section Alternatives

- Alternative 1 (Canal Avoidance Typical)
 - This alternative will require approximately 60 feet of right-of-way across the Sheriff's Office frontage.
- Alternative 2 (Box Culvert)
 - This alternative will require approximately 17 feet of right-of-way across the Sheriff's Office frontage.
- Both alternatives will impact overflow parking in the grassed area adjacent to the paved parking lot
 - o It was explained that the impacts to the overflow parking will by "cured" during the right-of-way acquisition phase of the project based on the selected alternative.

Access Management / Median Opening Requirements

- Sheriff's Office Requests
 - A full median opening at both entrances is preferred.
 - A full median opening is required at the western entrance to maintain emergency response capabilities. Right in – right out access at the eastern entrance is acceptable.
 - Mountable curb or a similar accommodation for emergency crossing of the median at the eastern access is required to maintain emergency response capabilities.
 - John Frank (St. Lucie County) stated a similar installation was utilized at Walton Road in front of the County Annex and should be reviewed for incorporation on Midway Road.
 - o The Sheriff's Office would like to have an emergency signal at the western access.
 - John Frank stated this request would need to be routed through St. Lucie County Engineering Division.
- Kevin lannarone (Inwood) explained that there is criteria for median-opening spacing and coordination between both the needs of the Sheriff's Office, Post Office, and New Horizons medical center will need to be balanced to create a safe and effective access management plan.
- The eastern access is the public entrance to the Sheriff's Office.



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• Emergency access to Florida's Turnpike via the dirt path and locked gate on the northeast quadrant of the Turnpike overpass must be maintained for emergency response capabilities.

Traffic Analysis

- The traffic analysis for the corridor is scheduled to begin in January 2016 when the 2040 traffic model becomes available.
- An Interchange Feasibility Study will be conducted to determine if a new interchange with Florida's Turnpike is warranted on Midway Road.
- The results of the traffic analysis and Interchange Feasibility Study may impact the proposed median opening locations.

Other Discussion Items

- The western access point will need to accommodate large emergency response vehicles as well as highspeed exits.
- Seventy-five to 100 patrol vehicles enter and leave the Sheriff's Office at 7:00am and 5:00pm, respectively. Additional admin staff arrives at 8:00am.
- It is anticipated that a signal at Jenkins Road will be warranted (pending the traffic analysis).
- Project Schedule / Phases
 - o PD&E Phase Completed summer 2017
 - o Design Phase Funded 2017
 - o Right-of-Way Acquisition Anticipated funding FY 2021-2025
 - o Construction Anticipated funding FY 2021-2025

Please note, Craig Hauschild (https://hauschildc@st.lucieco.org, 772-462-1712) will be replacing John Frank as the County representative for this project.

Action Items

• Inwood will revise the median openings shown to provide a full median opening at the western access and a mountable curb / emergency median crossing at the eastern access to the Sheriff's Office.



Midway Road/CR 712 PD&E Study Coordination Meeting

October 7, 2015

from Glades Cut Off Road to Selvitz Road

Financial ID No.: 231440-3-22-01

Name	Organization	Address	E-mail
Ken Waters	Sheriffs Office	4700 W Midway Rd.	Waters KeSTLuicSherritt.
KevinDiETRI	77 B	12	Dictrick & Stlucies 4EAIERO
MARK SCHIMPF	SHERIFFS OFFICE	"	SCHIMPFM@STLUCIESHERIFF.COM
Jhn Frank	SLC	2300 virginic Auc.	franks@SELucieco.org,
Dian Rhoses	Shoriff Ofc.	4700 w Midwy Rd	Rhodes best live sterifican
Keyn Ignagione	Inwood	3000 Doven Dave Svik 200	Kiannarone Cinwooding.com

Coordination Meeting October 7, 2015

SUBJECT: Midway Road PD&E

FPID: 23144032201

MEETING DATE: Wednesday, October 7, 2015

MEETING TIME: 1:30 PM to 2:30 PM

VENUE: St. Lucie Sheriff's Office (4700 West Midway Road)

- 1) Inroductions
- 2) Project Overview
 - a) PD&E Study to widen Midway Road
 - (1) Anticpated construction funding FY 2021-2025
 - b) Typical Section Alternatives
 - (1) Alternative 1 (Canal Avoidance)
 - (2) Alternative 2 (Box Culvert)
- 3) Sheriff's Office Operations
 - a) Eastern entrance is primary access (Full Median Opening)
 - (1) General Public Access
 - (2) Emergency Response
 - b) Western entrance
 - (1) Median needs to accommodate crossings of special response vehicles
 - c) Shift change times?
- **4)** Open discussion
- 5) Project website provides current project information and status
 - a) www.MidwayRd.com

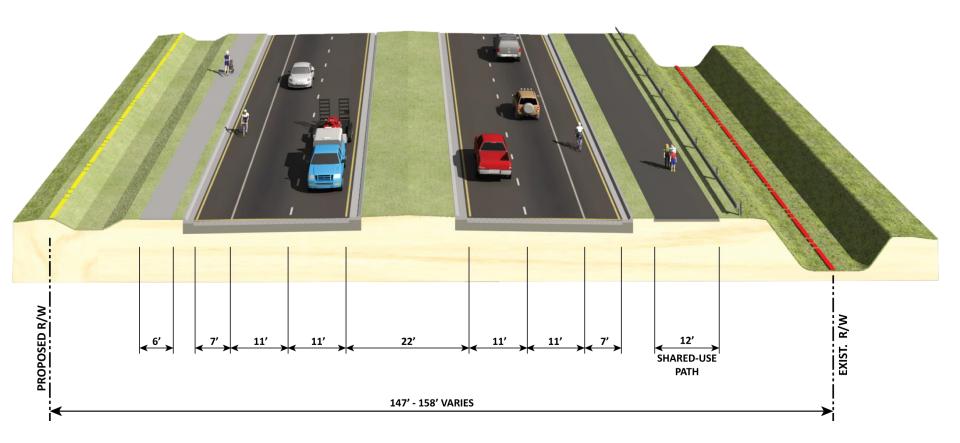
Action Items:

Action Item	Due Date	Person Responsible	Notes
1.			
2.			
3.			
4.			

1



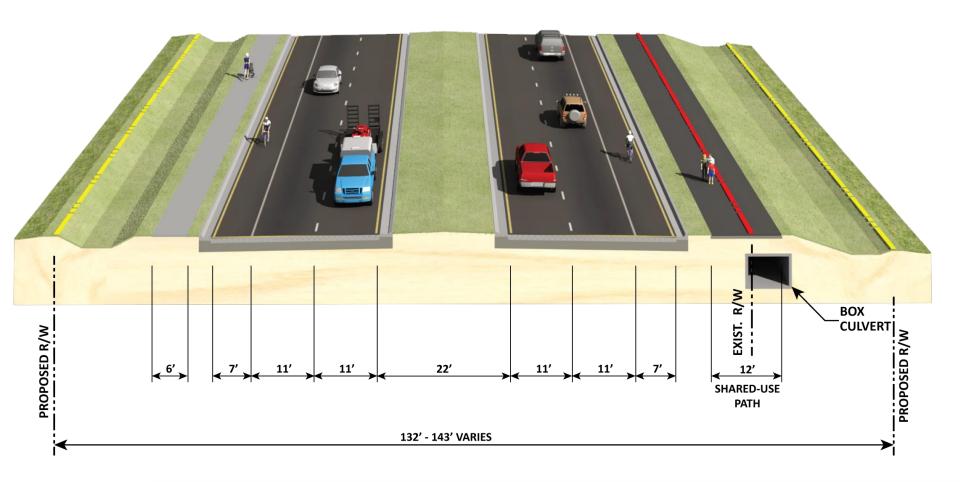
Alternate 1 – Canal Avoidance





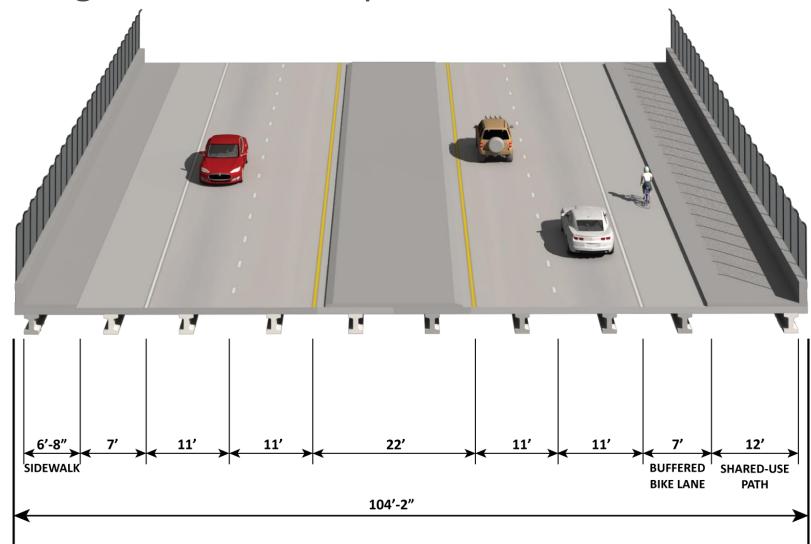


Alternate 2 – Box Culvert





Bridge Over the Turnpike



FDOT MIDWAY ROAD (CR 712) FROM GLADES CUT OFF ROAD TO SELVITZ ROAD Alternative No. 1

FDOT MIDWAY ROAD (CR 712) FROM GLADES CUT OFF ROAD TO SELVITZ ROAD Alternative No. 2



Meeting Minutes

3000 Dovera Drive, Suite 200, Oviedo, FL 32765 | P: 407-971-8850 | F: 407-971-8955 | www.inwoodinc.com

DATE: January 28, 2016

TO: Vanita Saini, PE

FROM: Kevin lannarone, PE

RE: Midway Road PD&E (FPID: 231440-3) - Coordination Meeting with City of Port St. Lucie

CC: All Attendees (via email), File

A coordination meeting was held on January 22nd, 2016, at the City of Port St. Lucie offices in regard to the Midway Road (CR 712) PD&E Study. The purpose of the meeting was to inform the City of the progress with the project and to discuss the potential impacts to the City-owned right-of-way associated with Canal 103. The items below summarize the key points of discussion. The meeting sign-in sheet, agenda, and exhibits are attached to this document for reference.

Project Overview: The PD&E Study will analyze two alternatives to widen Midway Road. The typical section will consist of a 4-lane urban roadway with 11-foot travel lanes, 7-foot buffered bike lanes, a 22-foot median, a 6-foot sidewalk on the north side, and a 12-foot shared-use path on the south side. An interchange feasibility study will be included with the PD&E Study which will analyze the potential for a new Midway Road / Florida's Turnpike interchange.

- Alternative 1 (Canal Avoidance)
 - Canal 103 and the existing vegetation will remain largely untouched.
 - o City of Port St. Lucie right-of-way impacts are only anticipated at project termini.
- Alternative 2 (Box Culvert)
 - o Canal 103 will be enclosed in a box culvert.
 - o City of Port St. Lucie right-of-way will be impacted through the entirety of the project.
 - o Seventeen feet of City-owned Canal 103 right-of-way will not be impacted.
 - This typical section is consistent with the Midway Road widening east of Selvitz Road (under construction).

Construction Costs: The design team is investigating alternatives to reduce costs and minimize impacts to the properties on the north side of Midway Road.

- Alternative 1
 - o LRE cost \$21,402,881
 - Right-of-way cost estimate \$10,500,000
- Alternative 2
 - o LRE cost \$27,932,634
 - o Right-of-way cost estimate \$6,800,000

Note: From this point forward, the discussions focused on Alternative 2.



Meeting Minutes

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Landscape Buffer: Can the 17-foot buffer be reduced?

- Glades Cut-off Road to East Torino Pkwy
 - o City-owned Tract H-15 (Parcel ID 3420-735-0088-000-6) separates the southern Canal 103 right-of-way from residential properties.
 - Minimal vegetation
 - Approximately 45 feet wide
 - The City is okay with eliminating the 17-foot buffer and utilizing all of Canal 103 right-ofway to minimize impacts to the northern property and accommodate utilities (discussed below).
 - A 10-foot landscape buffer can be planted in Tract H-15 to screen the residential properties.
- East Torino Pkwy to Selvitz Road
 - o City-owned Tracts H-17 and G-4 (Parcel IDs 3420-735-00241-000-0 & 3420-741-0007-000-4) separate the southern Canal 103 right-of-way from the residential properties.
 - Tract H-17 (west of Florida's Turnpike)
 - Approximately 45 feet wide
 - Partially vegetated, majority of vegetation is exotics
 - Tract G-4 (east of Florida's Turnpike)
 - Approximately 25 feet wide
 - Heavily vegetated, but consists of significant exotics
 - The City would like to maintain a 10-foot buffer within the existing Canal 103 right-ofway.
 - Maintain native vegetation and remove exotics
 - Add additional plantings to help screen the residences.
- Selvitz Road to 25th Street (under construction)
 - o The buffer varies in width from 40 feet to a minimum of 5 feet.
- The landscape buffer along with the additional / enhanced plantings should be similar to the Midway Road landscape buffer from Selvitz Road to 25th Street to provide corridor consistency.

Right-of-Way: It was explained that the reductions in the buffer may not eliminate impacts to the northern parcels. In addition, there is a cost associated with the requested landscaping. In an effort to minimize project costs, the design team asked if the City of Port St. Lucie would be willing to donate all or a portion of the Canal 103 right-of-way. Additionally, the City was asked if the landscape buffers should remain City property and be planted under a Temporary Construction Easement. Frank Knott will investigate and inform the team of the City's position.

Utilities:

- The City owns a 12-inch water main which will need to be relocated if Alternative 2 is selected.
 - A 6-foot separation from the box culvert is required.
 - A 10-foot buffer to large trees / new tree plantings is required.
 - City indicated that there could be some flexibility for shrub / smaller plantings.
- The City owns a 4-inch force main from Glades Cut-off Road to Torino Parkway which will need to be relocated if Alternative 2 is selected.
 - o 10 feet of separation to the water main is required.
 - o A 10-foot buffer to large trees / new tree plantings is required.
 - City indicated that there could be some flexibility for shrub / smaller plantings.



Meeting Minutes

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Other:

- The City is in support of a new Interchange with the Florida Turnpike. This will relieve congestion at the Port St. Lucie Blvd interchange to the south, and SR 70 interchange to the north.
- The City prefers alternative 2 (box culvert) as this maintains corridor look / consistency established with the Midway Road widening from Selvitz Road to 25th Street (under construction)

Basin B Ponds:

- If an interchange with Florida's Turnpike is approved, "in-field" pond sites will be investigated.
- Pond B-2 is sited on City-owned Tract A-1 (Parcel ID 3301-800-0010-000-2).
 - o The City has no plans to develop this parcel.
 - o Tract A-1 provides a buffer for the residences from the Turnpike.
 - The City requested a 10-foot landscape buffer long Florida's Turnpike to screen the residential properties. Further landscape enhancements may be required along the pond berms if this pond site is selected.
- The cleared parcels south of Tract A-1 are reserved for future sports fields (e.g., baseball, soccer, etc.).
 - o The City is not interested in pursuing a joint-use pond at this time.

Action Items:

- Inwood
 - Update the Alternative 2 typical section to reflect the landscape buffer and City utility requirements.
 - Request updated right-of-way cost estimates for Alternative 2.
 - o Estimate a revised cost for Alternative 2 based on implementation of the items discussed above.
- City of Port St. Lucie
 - o Investigate the potential for a donation of the City-owned Canal 103 right-of-way.
 - Investigate the City's preference for the landscape buffers (i.e., donation, fee purchase, or Temporary Construction Easement).
- St. Lucie County
 - o Provide the schedule of values for the landscape plantings east of Selvitz Road.

Midway Road PD&E Study

From Glades Cut Off Road to Selvitz Road FPID: 231440-3-22-01

City of Port St. Lucie Coordination Meeting January 22, 2016

Sign-In Sheet

Name	Representing	E-Mail
CERTO HAUSCHILD	SLC ENGINEERING	HAUSCHILD C @ STLUCIECO. ORG
Michael Harvey	SLC Engineering	harveym@stlucieco.org
Vanita Saini	FOOT	Vanita. Sai ni c Rot. Hab St. u.
Lynn Kiefer	Kimbey-Horn	Lynn. Kiefer@Kimley-horn. u
Kevin Iamarone	Inweech	Kiannarone @ inwooding cocon
FEANK KNOTT	CITY OF PSL	FRUOTTE CITYOFFS L. COM
Peter Buchuald	St. Lucit TPO	buchwalape stlucieco.org
Patricia Rochling	City of BL	patoracity of as l. com
Diana Spriggs	CAYOF PSZ WITH	aspringe Q city of sl. com
*		

Coordination Meeting January 22, 2016

SUBJECT: Midway Road PD&E

FPID: 23144032201

MEETING DATE: Friday January 22, 2016

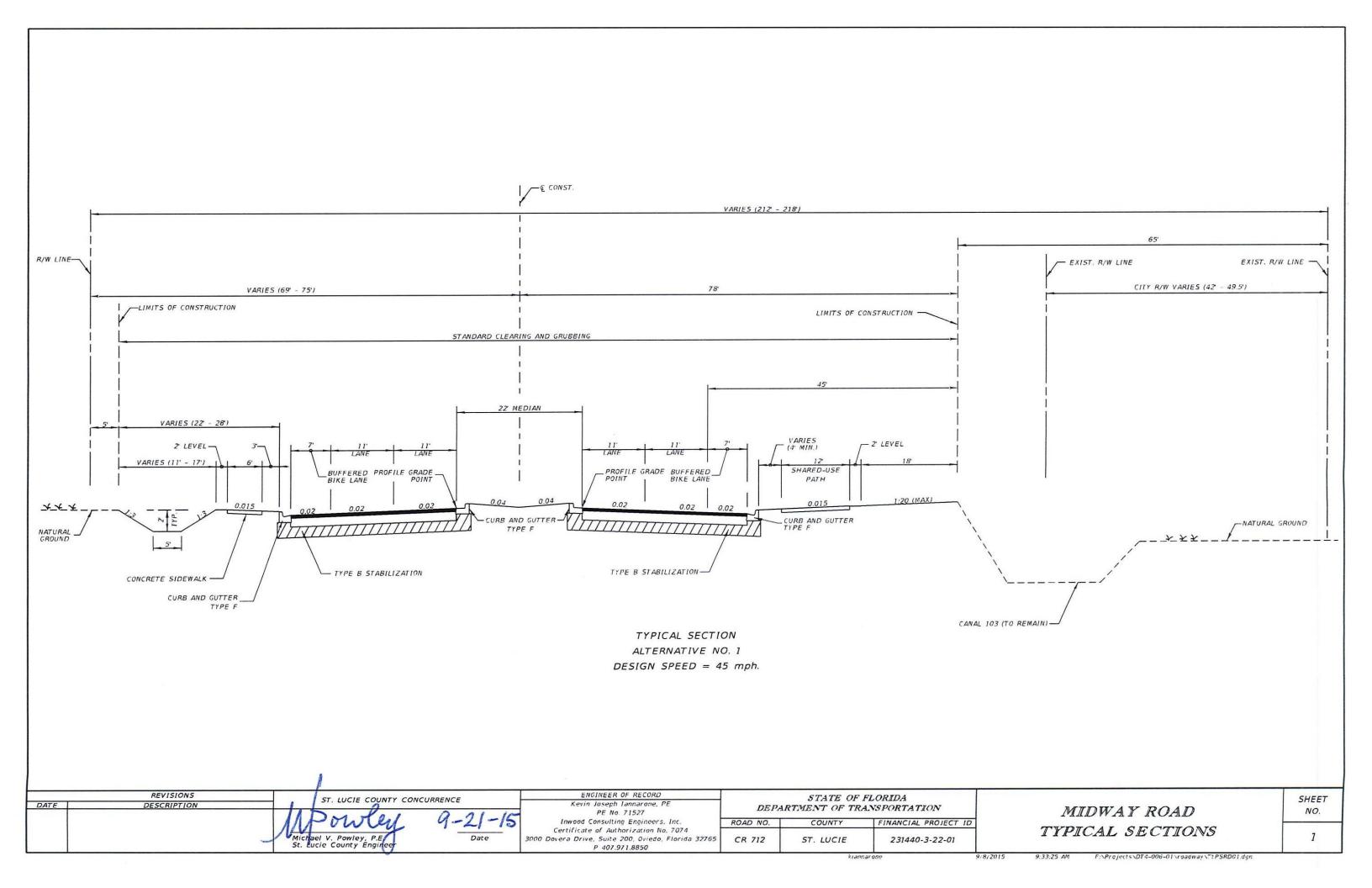
MEETING TIME: 9:00 AM to 10:00 AM

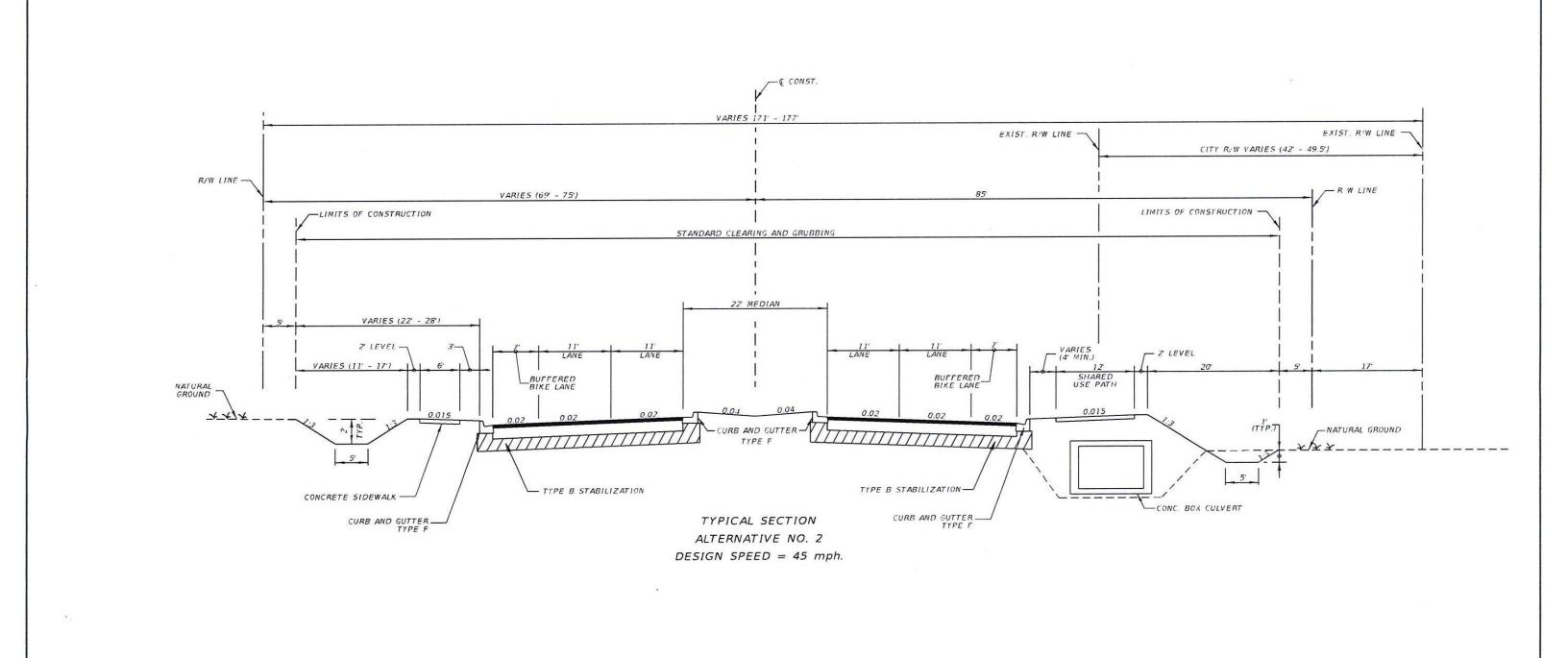
VENUE: 121 SW Port St. Lucie Blvd, Port St. Lucie Fl 34984

1) Inroductions

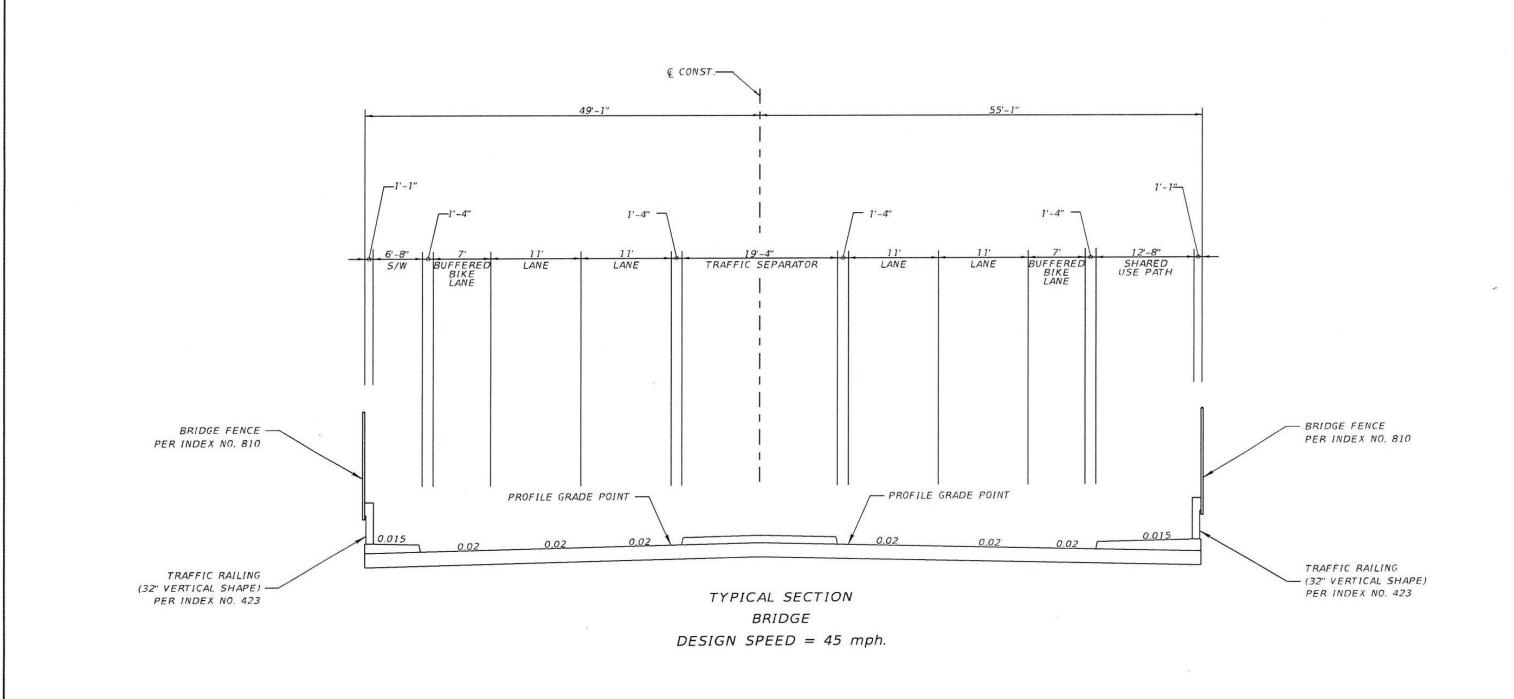
- 2) Project Overview
 - a) PD&E Study to widen Midway Road
 - (1) Anticipated design funding 2016 (FY 17)
 - (2) Anticipated construction funding FY 2021-2025
 - b) Turnpike Interchange Feasibility study
 - c) Midway Road Typical Section Alternatives
 - (1) Alternative 1 (Canal Avoidance)
 - (2) Alternative 2 (Box Culvert)
- 3) Canal 103
 - a) Ownership
 - b) Landscape Buffer requirements
 - c) Additional City owned properties
- 4) Basin B Pond Site
 - a) 800 foot long
 - b) Two alernaive pond sites
 - c) SFWMD Criteria requires dry pretreatment and wet detention
 - d) Pond B-2 Parcel is owned by the City of Port St. Lucie
 - i) What is the present use of this parcel?
 - ii) Are there any future plans for this parcel?
 - iii) What concerns (if any) are ther to proposing a stormwater pond on this parcel?
- 5) Open discussion

1





ENGINEER OF RECORD
Kevin Joseph Lannarone, PE REVISIONS STATE OF FLORIDA ST. LUCIE COUNTY CONCURRENCE SHEET DATE DESCRIPTION DEPARTMENT OF TRANSPORTATION MIDWAY ROAD NO. PE No. 71527 Inwood Consulting Engineers, Inc. ROAD NO. COUNTY FINANCIAL PROJECT ID TYPICAL SECTIONS Certificate of Authorization No. 7074 Michael V. Powley, P.E. St. Luce County Engineer 2 3000 Dovera Drive, Suite 200, Oviedo, Florida 32765 CR 712 ST. LUCIE 231440-3-22-01 P 407.971.8850 F:\Projects\DT4-006-01\roadway\TYPSRD01.dgn 9/8/2015

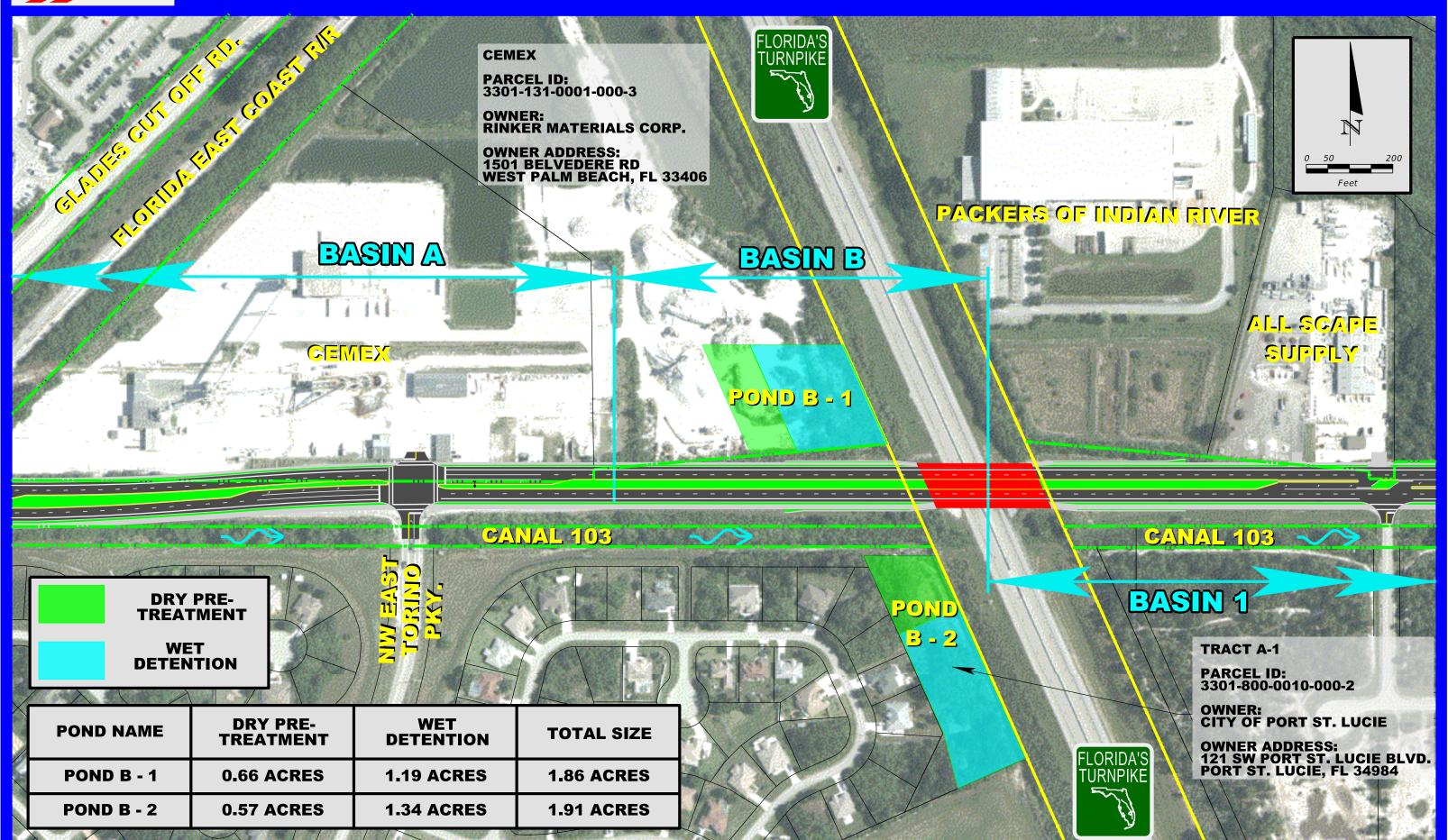


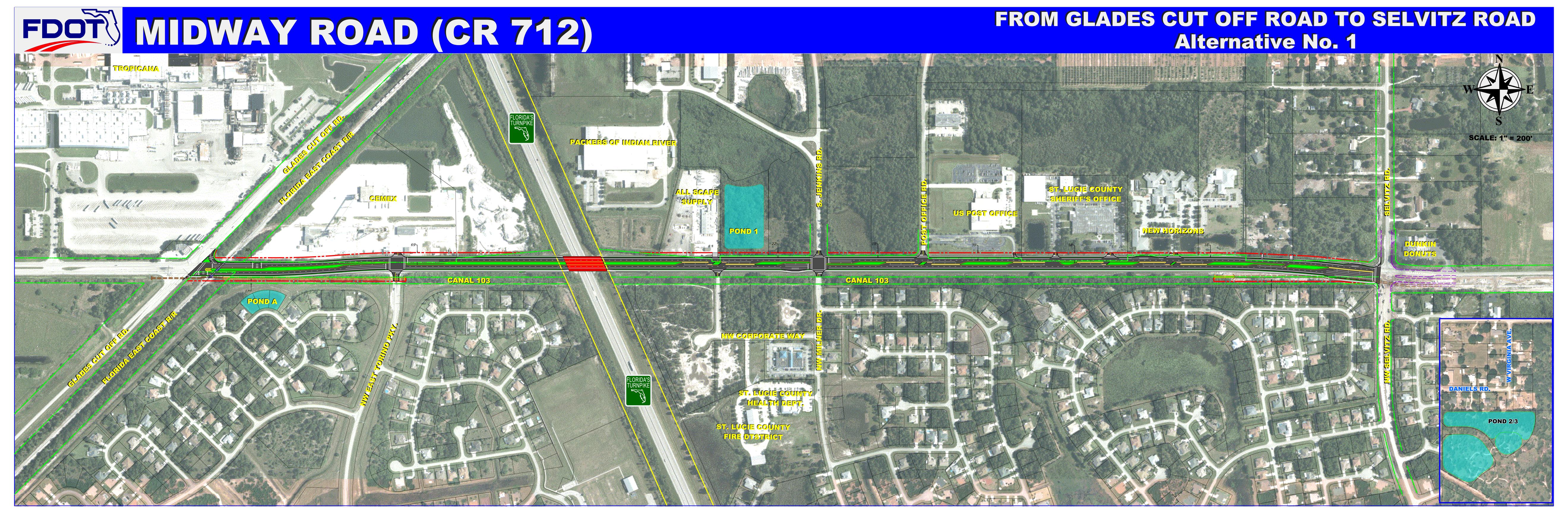
REVISIONS ST. LUCIE COUNTY CONCURRENCE STATE OF FLORIDA SHEET Kimley-Horn and Associates, Inc. DESCRIPTION DATE DEPARTMENT OF TRANSPORTATION Certificate Of Authorization No. 696 Kenneth W. Jackson, P.E. P.E. License No. 50602 1920 Wekiva Way, Suite 200 West Palm Beach, Florida 33411 MIDWAY ROAD TYPICAL SECTIONS NO. ROAD NO. COUNTY FINANCIAL PROJECT ID 3 CR 712 ST. LUCIE 231440-3-22-01 F:\Projects\DT4-006-01\roadway\TYPSRD01.dgn

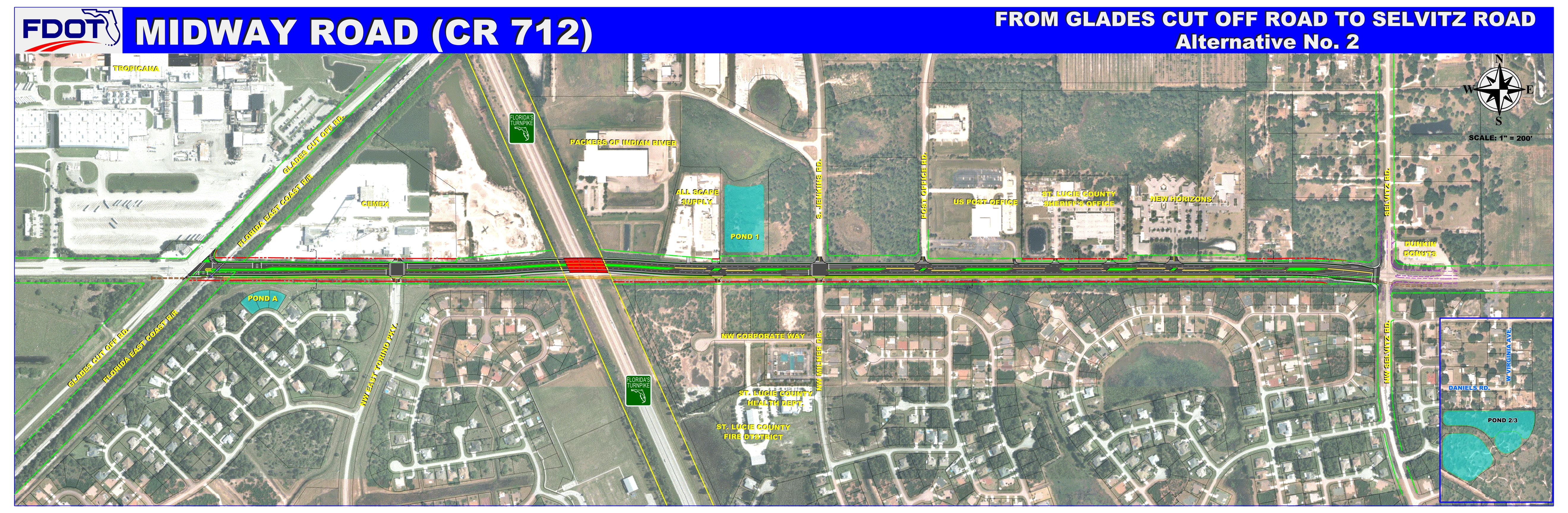


MIDWAY ROAD (CR 712)

BASIN B - POND EXHIBIT







Kevin Iannarone

From: Craig Hauschild hauschildc@stlucieco.org

Sent: Tuesday, June 28, 2016 2:37 PM

To: Kevin Iannarone

Cc: Alex Hull; Michael Powley

Subject: FW: 14010 Midway Rd, Glades Cut-Off Rd to Selvitz Rd - FPID: 231440-3, Midway Road

Access Management

Good afternoon Kevin,

Please see the response from the Fire District. Let me know if you have any questions.

Thanks, Craig

Craig A. Hauschild, P.E. Assistant County Engineer



St. Lucie County Engineering Division 2300 Virginia Ave., Rm. 229 Fort Pierce, FL 34982

Direct: (772) 462-1712 • Main: (772) 462-1707 • Fax: (772) 462-2362 Email: hauschildc@stlucieco.org • Website: www.stlucieco.org

From: DFoxx@slcfd.org [mailto:DFoxx@slcfd.org]

Sent: Tuesday, June 28, 2016 2:24 PM

To: Craig Hauschild hauschild hauschildc@stlucieco.org

Subject: RE: 14010 Midway Rd, Glades Cut-Off Rd to Selvitz Rd - FPID: 231440-3, Midway Road Access Management

Craig we are fine with the plan. The District would like signaling at Midway and Milner to accommodate future fire station plans. I'm sure signage for emergency use only is also included in the plan. Please call me if you have more guestions

Derek Foxx; Division Chief St. Lucie County Fire District Office (772) 621-3322

Sent from IBM Verse

Craig Hauschild --- RE: 14010 Midway Rd, Glades Cut-Off Rd to Selvitz Rd - FPID: 231440-3, Midway Road Access Management ---

From: "Craig Hauschild" <hauschildc@stlucieco.org>

To: "Captain Derek M. Foxx (<u>dfoxx@slcfd.org</u>)" < <u>dfoxx@slcfd.org</u>>

Cc: "Michael Powley" <powleym@stlucieco.org>, "Michael Harvey" <harveym@stlucieco.org>

Date: Tue, Jun 28, 2016 9:03 AM

Subject: RE: 14010 Midway Rd, Glades Cut-Off Rd to Selvitz Rd - FPID: 231440-3, Midway Road Access Management

Good morning Chief Foxx,

Congratulations (9 months late). My contact information appears dated.

I'm am following up on the email below. Please do not hesitate to contact me if you have any questions.

Thanks,

Craig

Craig A. Hauschild, P.E. Assistant County Engineer



St. Lucie County Engineering Division 2300 Virginia Ave., Rm. 229 Fort Pierce, FL 34982

Direct: (772) 462-1712 • Main: (772) 462-1707 • Fax: (772) 462-2362 Email: hauschildc@stlucieco.org • Website: www.stlucieco.org

From: Craig Hauschild

Sent: Thursday, June 23, 2016 11:15 AM

To: 'Captain Derek M. Foxx (dfoxx@slcfd.org)' <dfoxx@slcfd.org>

Cc: Michael Powley powleym@stlucieco.org>; Michael Harvey harveym@stlucieco.org>

Subject: 14010 Midway Rd, Glades Cut-Off Rd to Selvitz Rd - FPID: 231440-3, Midway Road Access Management

Good morning Captain Derek M. Foxx,

Attached, please find a graphic of the proposed access management plan for Midway Road, specifically for emergency access to the Turnpike. As discussed, a curb apron has been proposed at the existing access points off of Midway Road and within the medians proposed east and west of the turnpike bridge. This will accommodate emergency vehicles enabling them to make a right in and a left out when responding to and from a call. The curb apron proposed is that which has been utilized elsewhere for the central island of a roundabout. The height at the face of the curb is 1 inch. The transition to the median surface is another 2 inches with an overall height of 3 inches.

The photograph below represents an example of the traversable curb proposed. It is of the roundabout on Seaway Drive (A1A) in front of Chuck's Seafood Restaurant. I drove over the roundabout earlier this week in my Honda Civic without any problems.

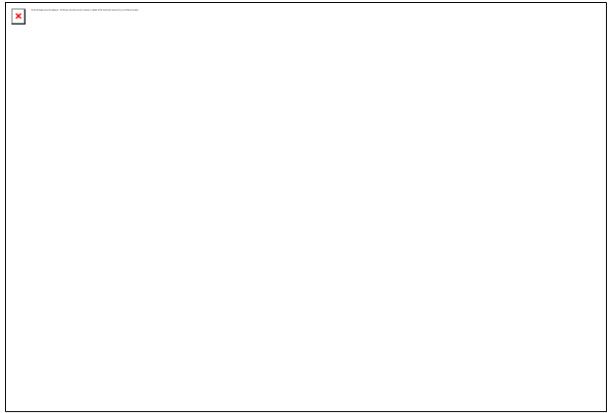


Figure 1 - Looking southeast at the roundabout on Seaway Drive from the north side of the roadway. Harbour Isle Drive is located behind the vehicle in the photograph.

Please do not hesitate to contact me if you have any questions. With your consent we will request that this type of curb be install at the access points and within the median as part of the access management plan.

Thank you, Craig

Craig A. Hauschild, P.E. Assistant County Engineer



St. Lucie County Engineering Division 2300 Virginia Ave., Rm. 229 Fort Pierce, FL 34982

Direct: (772) 462-1712 • Main: (772) 462-1707 • Fax: (772) 462-2362 Email: hauschildc@stlucieco.org • Website: www.stlucieco.org

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or copying. Your e-mail communications will be subject to public disclosure unless an exemption applies to the communication. It please notify the sender by reply e-mail and delete all materials from all computers.	f you received this email in error,
4	

Kevin Iannarone

From: Craig Hauschild hauschildc@stlucieco.org

Sent: Tuesday, June 21, 2016 11:37 AM

To: Kevin Iannarone

Cc: Alex Hull

Subject: FW: FPID: 231440-3, Midway Road PD&E - Access Management Approval in front of

Sheriff's Office

Attachments: Sheriff's Office Medain Detail_5-16-16.pdf

As requested.

From: Garry Wilson [mailto:GWilson@stluciesheriff.com]

Sent: Friday, June 17, 2016 1:06 PM

To: Craig Hauschild hauschildc@stlucieco.org

Subject: RE: FPID: 231440-3, Midway Road PD&E - Access Management Approval in front of Sheriff's Office

Craig, that will work for us. thanks

From: Craig Hauschild [mailto:hauschildc@stlucieco.org]

Sent: Friday, June 17, 2016 11:44 AM

To: Garry Wilson < <u>GWilson@stluciesheriff.com</u>> **Cc:** Michael Powley < <u>powleym@stlucieco.org</u>>

Subject: FPID: 231440-3, Midway Road PD&E - Access Management Approval in front of Sheriff's Office

Good morning Chief Deputy Wilson,

Attached, please find a graphic of the proposed access management plan for Midway Road at the Sheriff's Office. The western most access is proposed as a full median open. As discussed, a drop cub has been proposed within the median of the eastern most entrance in order for emergency vehicles to make a left out. The drop cub proposed is that which has been utilized elsewhere for the central island of a roundabout. The height at the face of the curb is 1 inch. The transition to the median surface is another 2 inches with an overall height of 3 inches.

The photograph below represents an example of the traversable curb proposed. It is of the roundabout on Seaway Drive (A1A) in front of Chuck's Seafood Restaurant. I drove over the roundabout last night in my Honda Civic without any problems.



Figure 1 - Looking southeast at the roundabout on Seaway Drive from the north side of the roadway. Harbour Isle Drive is located behind the vehicle in the photograph.

Please do not hesitate to contact me if you have any questions. With your consent we will request the drop curb within the median be incorporated into the access management plan.

Thank you, Craig

Craig A. Hauschild, P.E. Assistant County Engineer



St. Lucie County Engineering Division 2300 Virginia Ave., Rm. 229 Fort Pierce, FL 34982

Direct: (772) 462-1712 • Main: (772) 462-1707 • Fax: (772) 462-2362 Email: hauschildc@stlucieco.org • Website: www.stlucieco.org

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Please Note: Florida has very broad public records laws. Most written communications to or from County officials regarding County business are public records available to the public and media upon request. It is the policy of St. Lucie County that all County records shall be open for personal inspection, examination and / or copying. Your e-mail communications will be subject to public disclosure unless an exemption applies to the communication. If you received this email in error, please notify the sender by reply e-mail and delete all materials from all computers.



Meeting Minutes

3000 Dovera Drive, Suite 200, Oviedo, FL 32765 | P: 407-971-8850 | F: 407-971-8955 | www.inwoodinc.com

DATE: April 5, 2016

TO: July Jimenez, PE

FROM: Kevin lannarone, PE

RE: Midway Road PD&E (FPID: 231440-3) – New Horizons Coordination

CC: All Attendees (via email), File

A coordination meeting with New Horizons (4500 W. Midway Road) was held on April 4, 2016, at 1:00pm regarding the Midway Road (CR 712) PD&E Study. This meeting was requested by Linda Wakefield (New Horizons Facilities Manager) as a follow-up to email and phone conversations regarding the project. The attendees included representatives from FDOT (via phone), Inwood, St. Lucie County, and New Horizons. The purpose of the meeting was to present the project to New Horizons staff and discuss the access / median opening requirements necessary to maintain New Horizons' facility operations.

The meeting began with introductions, an overview of the project, and a review of the typical sections and alternative roll plots. The meeting agenda, handouts, sign-in sheet, and roll plots provided at the meeting are attached to this document for reference. The bulleted items below summarize the key points of discussion.

Typical Section Alternatives

- Alternative 1 (Canal Avoidance Typical)
 - This alternative requires additional right-of-way varying in width from 16 feet to 27 feet across the New Horizons frontage.
- Alternative 2 (Box Culvert)
 - o No right-of way impacts are anticipated (at this time) with this alternative.

New Horizons Operations

- Ambulances and accompanying fire trucks pick up patients from the facility and transport them to Lawnwood Medical Center located to the east of the project.
 - Frequency varies
 - o This is an emergency response transport
- Community transit enters and exits the facility daily
- Delivery vehicles
 - UPS deliveries
 - Semi –truck deliveries (e.g., food, medical supplies, etc.)
- Average of 500 clients weekly
- Employees
 - 100 150 employees come and go daily
 - o 3 shift changes



Meeting Minutes

3000 Dovera Drive, Suite 200, Oviedo, FL 32765 | P: 407-971-8850 | F: 407-971-8955 | www.inwoodinc.com

Access Management / Median Opening Requirements

- Kevin lannarone (Inwood) explained that there are criteria for median opening spacing based on minimizing conflict points on the roadway and maintaining safety. This goal is to create a balance between safety on the roadway and maintaining the operation of the existing facilities on the corridor.
- Currently a dual directional median opening is proposed in front of the New Horizons facility.
 - New Horizons staff expressed concern about the ability of emergency vehicles to head east when leaving the facility.

Other Discussion Items

- An Interchange Feasibility Study will be conducted to determine if a new interchange with Florida's Turnpike is warranted on Midway Road.
- New Horizons staff explained that many clients walk to the facility and maintaining / improving pedestrian access is important to their operations.
 - o It was explained that a sidewalk will be added on the north side of Midway Road, and a shared-use path will be added to the south side.
 - A new signal is anticipated at Jenkins Road which will provide an additional pedestrian crossing of Midway Road.
- New Horizons staff stated they preferred Alternative 2 (Box Culvert).
- Project Schedule / Phases
 - o PD&E Phase Completed summer 2017
 - o Design Phase Funded 2017
 - Right-of-Way Acquisition Anticipated funding FY 2021-2025
 - Construction Anticipated funding FY 2021-2025

Action Items

 Inwood will investigate alternatives to minimize impacts to ambulances exiting New Horizons and traveling east.

Note: The above reflects the writer's understanding of the contents of the meeting. If any misinterpretations of inaccuracies are included, please contact Kevin Januarone (407-971-8850) as soon as possible for resolution and revisions if necessary.



Midway Road/CR 712 PD&E Study Coordination Meeting

April 4, 2016

from Glades Cut Off Road to Selvitz Road

Financial ID No.: 231440-3-22-01

Name	Organization	Address	E-mail
LINDA WAKEFIEL	D NEW HORIZINS	4500 W. MIDWAY RD	LWAKEFIECDO HHTCINC.ORG
CRAZES HANSCHZED	ST. LOCIE COUNTY ENGINEERS	46 2300 VIRGINA AVE.	HAUSCHILDC@STLUCTECO.ORG
Michael Haney	St. Lucie County Eng.	2300 Virginia Ave.	harvey m@ stincieco. org
JOHN ROMAND	New Yorizons	4500 W. MIDWAY Pd.	TROMANO @ NATELY. ORS
Anette Gossel	n New Horizons	4500 W Midwy Rd	agosselin@nhtcinc.org
JoAnne KniGHT	New Hrizons	45 to w. mi Lua Rox V	jKNIGHT@ nhtcinc.org
July Jimenez	FOOT (Via Phore)	3400 W. Commercial Glad, Ft. landerdale	July, Jimenez @ dot. state.fl. us
Kevin Jannarone	Inuccol	3000 Dorers Orne Suite 200 oviedoft	Kignnarone @inweedine. com

Coordination Meeting April 4, 2016

SUBJECT: Midway Road PD&E

FPID: 23144032201

MEETING DATE: Monday, April 4th 2016

MEETING TIME: 1:00 PM to 2:00 PM

VENUE: New Horizons (4500 West Midway Road)

- 1) Inroductions
- 2) Project Overview
 - a) PD&E Study to widen Midway Road
 - (1) Project Schedule
 - b) Typical Section Alternatives
 - (1) Alternative 1 (Canal Avoidance)
 - (2) Alternative 2 (Box Culvert)
 - c) Alignments
- 3) New Horizons Operations
 - a) Traffic flow within the facility
 - b) Emergency response vehicle needs
 - c) Delivery vehicles
 - d) Median openings / access management
- 4) Open discussion
- 5) Project website provides current project information and status
 - a) www.MidwayRd.com

Action Items:

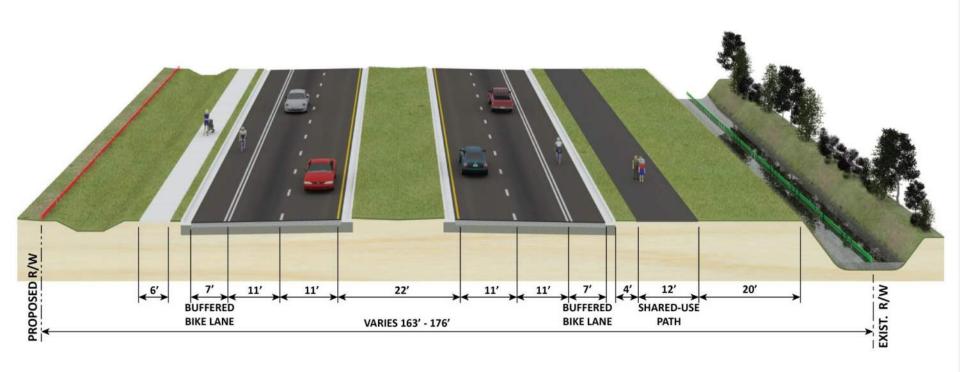
Action Item	Due Date	Person Responsible	Notes
1.			
2.			
3.			
4.			

1

Alternatives Analysis



Alternate 1 – Canal Avoidance

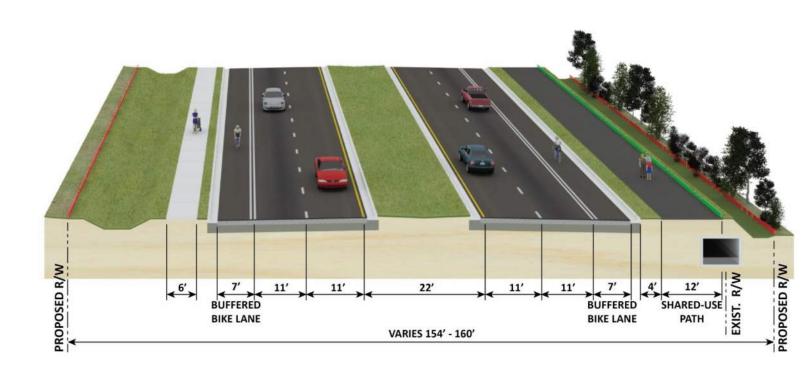




Alternatives Analysis



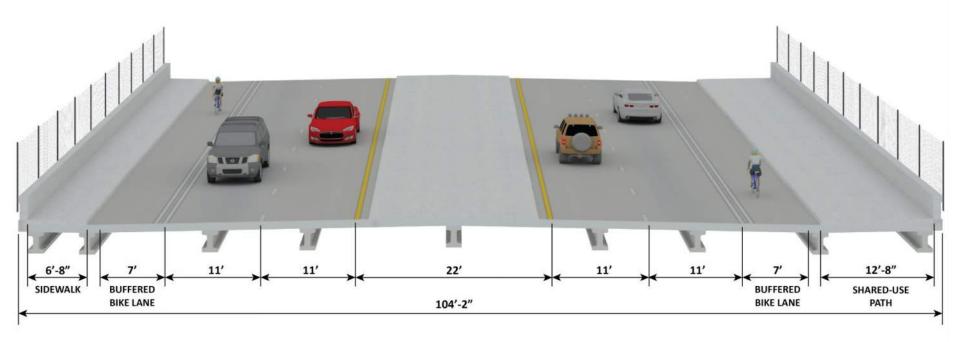
Alternate 2 – Box Culvert



Alternatives Analysis



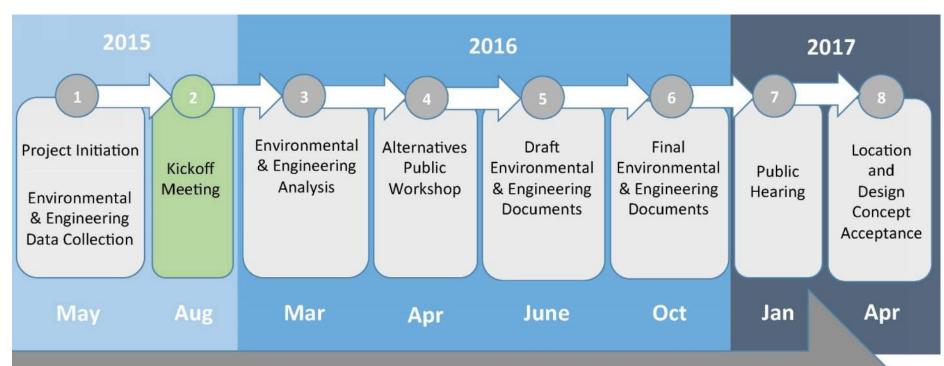
Bridge Over Turnpike





Project Schedule





Community Outreach

A continuous community outreach process is integrated into every step of the project to ensure that the corridor residents, businesses, the traveling public and other interested parties have meaningful participation in the process.



Project Implementation



Long Range Planning

PD&E Study Phase

Current Project Phase

Design Phase

Funded in 2017

Right-of-way Acquisition Phase

Anticipated Funding in FY 2021 – 2025 Timeframe

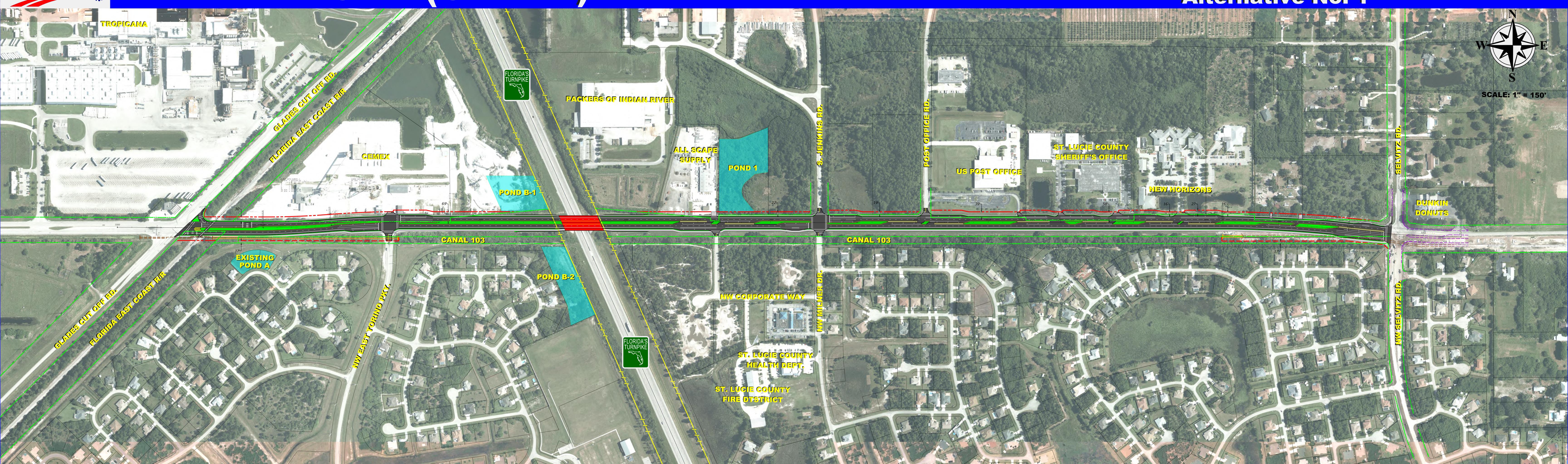
Construction Phase

Anticipated Funding in FY 2021 – 2025 Timeframe



FDOT MIDWAY ROAD (CR 712)

FROM GLADES CUT OFF ROAD TO SELVITZ ROAD Alternative No. 1



FDOT MIDWAY ROAD (CR 712) FROM GLADES CUT OFF ROAD TO SELVITZ ROAD Alternative No. 2 (Southern Shift)

Kevin Iannarone

From: Murriah Dekle <DekleM@stlucieco.org>
Sent: Thursday, January 07, 2016 10:32 AM

To: Kevin Iannarone

Craig Hauschild; Alex Hull; Saini, Vanita

Subject: RE: FPID: 231440-3, Midway Road PD&E, Transit

Hi Kevin,

I apologize for the delayed response. The three locations mentioned in your previous email, and depicted within the attachment are still appropriate. Based on the future land use designations and existing uses, I do not have additional bus stop locations to request for this particular segment. Thank you for including us in the process.

Happy New Year!

Murriah Dekle, MPA Community Transportation Coordinator

St. Lucie County, Board of County Commissioners Community Services Department 437 North 7th Street, Fort Pierce, FL 34950 O: 772-462-3065 | C: 812-7899 | deklem@stlucieco.org



From: Kevin lannarone [mailto:kiannarone@inwoodinc.com]

Sent: Thursday, January 07, 2016 8:40 AM **To:** Murriah Dekle < DekleM@stlucieco.org>

Cc: Craig Hauschild hauschild (a hauschild hauschild (a hauschild) (a hauschild") (a hauschild")

<Vanita.Saini@dot.state.fl.us>

Subject: RE: FPID: 231440-3, Midway Road PD&E, Transit

Good morning Murriah,

I am following up on the email below. Have you had an opportunity to review the proposed transit stops on Midway Road?

Please advise if any modifications are necessary.

Thank you.

Kevin lannarone, PE

Project Manager

INWOOD CONSULTING ENGINEERS

3000 Dovera Dr., Suite 200, Oviedo, FL 32765

P: 407-971-8850 C: 407-399-9641

From: Kevin lannarone

Sent: Thursday, December 17, 2015 3:15 PM

To: 'deklem@stlucieco.org' < deklem@stlucieco.org>

Cc: Craig Hauschild hauschildc@stlucieco.org; Alex Hull hull@inwoodinc.com/; 'Saini, Vanita'

<Vanita.Saini@dot.state.fl.us>

Subject: FPID: 231440-3, Midway Road PD&E, Transit

Good Afternoon Murriah,

I wanted to touch base with you regarding the anticipated transit stop locations on Midway Road from Glades Cut-Off to Selvitz Road. Based on previous coordination with Corine Williams, we are anticipating three bus bays / stops along the corridor. The first is near the Jenkins Road Intersection (EB), the second is between the Sherriff's Office and New Horizons (WB) and the third is at the Selvitz Road intersection (WB). Our understanding of the desired bus bay locations are shown in the attached exhibit. Currently, we have designed the bus bays to accommodate one bus at a time. We have not determined the final locations of signals and right turn lanes which may have a slight impact on the final locations of the bus bays.

Will you please review the attached graphic and advise if these stops locations are still appropriate. Are there any additional stops that should be added to the corridor?

Thank you.

Kevin lannarone, PE

Project Manager

INWOOD CONSULTING ENGINEERS

3000 Dovera Dr., Suite 200, Oviedo, FL 32765

P: 407-971-8850 C: 407-399-9641

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Meeting Minutes

3000 Dovera Drive, Suite 200, Oviedo, FL 32765 | P: 407-971-8850 | F: 407-971-8955 | www.inwoodinc.com

DATE: August 16, 2016

TO: July Jimenez, PE

FROM: Alex Hull, PE

RE: Midway Road PD&E (FPID: 231440-3) – US Postal Service Coordination Meeting

CC: All Attendees (via email)

A meeting was held on August 10, 2016, at the US Post Office on Midway Road in St. Lucie County, Florida, in regard to the Midway Road (CR 712) PD&E Study. The purpose of the meeting was to discuss the access management plan proposed at Jenkins Road and Post Office Road.

The meeting began with introductions and a discussion of the alternatives being considered. The proposed access management plan provides for a dual directional median opening at Post Office Road and for a full median opening at Jenkins Road. The County representatives stated that the County intends to request that a signal be included at Jenkins Road.

The Postal Service representatives explained that many large trucks currently turn eastbound onto Midway Road from Post Office Road and that the directional median opening would prevent that movement. They expressed that the additional travel time to go northbound on Post Office Road and then southbound on Jenkins Road would be expensive because of the extra travel time. They also expressed concerns about the condition of Post Office Road and Jenkins Road and whether the roads cold handle the large Post Office Trucks.

The FDOT representatives explained that the recommended alternative for implementation is Alternative 2 – Box Culvert. This alternative encloses Canal 103 located on the south side of Midway Road in a concrete box culvert. The result is that right-of-way impacts on the north side of the road are reduced. Specifically, no right-of-way would be acquired from US Postal Service property. It was also discussed that a full median opening at Post Office Road does not meet FDOT Access Management spacing criteria since the distance from Jenkins Road is less than 1,320 feet. It was explained that the access management plan is based on enhancing safety since it reduces conflict points. It was discussed that large trucks trying to make a left turn onto Midway Road at an unsignalized intersection could result in blocking the west bound lanes while the truck was waiting in the median to make the left turn.

Craig Hauschild, with St. Lucie County, stated that the roadways are part of the industrial park and were designed to accommodate truck traffic. He stated that the industrial park is responsible for maintenance and said that he would supply the plat of the development to the Post Office representatives. He also emphasized that the County is providing the signal at Jenkins Road to improve safety.



Meeting Minutes

3000 Dovera Drive, Suite 200, Oviedo, FL 32765 I P: 407-971-8850 I F: 407-971-8955 I www.inwoodinc.com

The US Postal Service representatives discussed other alternatives for providing direct access onto eastbound Midway Road. After further discussion, and after being informed that no right-of-way was being acquired from Postal Service property, agreed that the proposed access management plan was a safe plan and that they understood the safety benefits of the plan. They agreed to further evaluate their options over the next two weeks and get back with FDOT and the County if other options were identified.

FDOT Midway Road/CR 712 PD&E Study US Postal Service from Glades Cut Off Road to Selvitz Road

Financial ID No.: 231440-3-22-01

atul (S/mood) inc.com W. Tomenezadot, state. P.us Jose, R, ARREdondo Queps, Gas JOBL. M. DUCLICHTE @ USPS. 600 Jaequeline. d. loug @ US/S. gov HAUSCHZLOCE STLUCTECO, ORG harvey m@ stlucieco. or s ANgel, L. Fual QUSPS. Goo Robert, weiser @ USPS. gov Louis, J. Esposito Queps, Gou E-mail ENGENESATING Organization Engineering 1 MINDOC COUNTY 1000 SUSM SAM 24 SM 308n USPS ST. LUCEE SLC JASE (JOE) ARLEDMO ARRIVEDURE LONG JOSL M. Our MARE, PM Pobalt Wiger, Man LO REPER or the Phone: Louis J Esposin CRASES HOUSEHIED Angel GUAL Name Michael Harvey

Appendix G

Type 2 Categorical Exclusion

TYPE 2 CATEGORICAL EXCLUSION DETERMINATION FORM

for

Midway Road (County Road 712)
Project Development and Environment (PD&E) Study
From Glades Cut Off Road to Selvitz Road
St. Lucie County, Florida

Financial Project ID: 231440-3-22-01 ETDM Number: 14177

Prepared for:



Florida Department of Transportation District IV 3400 West Commercial Boulevard Fort Lauderdale, Florida 33309

December 2016

TYPE 2 CATEGORICAL EXCLUSION DETERMINATION FORM

for

Midway Road (County Road 712)
Project Development and Environment (PD&E) Study
From Glades Cut Off Road to Selvitz Road
St. Lucie County, Florida

Financial Project ID: 231440-3-22-01 ETDM Number: 14177

Prepared for:



Florida Department of Transportation District IV 3400 West Commercial Boulevard Fort Lauderdale, Florida 33309

December 2016

Prepared by: Kimley-Horn and Associates, Inc.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION

TYPE 2 CATEGORICAL EXCLUSION DETERMINATION FORM

1. GENERAL INFORMATION

County: St. Lucie County

Project Name: Midway Road (County Road 712)

Project Limits: Glades Cut Off Road to Selvitz Road (1.6 miles)

Project Numbers: 14177 231440-3-22-01 N/A

ETDM (if applicable) Financial Management Federal-Aid

2. PROJECT PURPOSE AND NEED

a. Purpose and Need Statement:

Based on recent traffic data from St. Lucie County, the facility does not adequately handle the existing traffic demand. Without capacity improvements, the traffic operations along the corridor will continue to deteriorate. The primary purpose for this project is to provide additional capacity to meet existing and future traffic needs, improve safety by alleviating existing roadway and capacity deficiencies, and allow opportunities for pedestrian, bicycle, and transit facilities. The additional capacity will also improve freight mobility and enhance emergency evacuation along the project corridor. The purpose and need of this project are further described below and include Transportation Demand, Capacity, Plan Consistency, Social Demands and Economic Development, Modal Interrelationships, and Roadway Deficiencies.

The project corridor extends approximately 1.6 miles along Midway Road (Roadway ID 94530000), from Glades Cut Off Road (Mile Post 5.813) to Selvitz Road (Mile Post 7.405). The project ties into the existing four-lane section to the west of Glades Cut Off Road and to a four-lane segment east of Selvitz Road currently under construction (St. Lucie County Project Number 06-18). The project corridor is in unincorporated St. Lucie County, but is the northern border to the City of Port St. Lucie (See *Figure 1 – Location Map*).

Transportation Demand

The US Census-designated Port St. Lucie-Fort Pierce Metropolitan Statistical Area has been identified as one of the fastest growing metropolitan areas in Florida, which includes all of Martin and St. Lucie counties. From 2000 to 2010, this metropolitan area has experienced population growth from 319,426 persons in 2000 to 424,107 persons in 2010, representing an annual increase of 2.9%. Evaluating the population growth for the City of Port St. Lucie by itself revealed an even greater percentage increase. According to the Bureau of Economic and Business

Research, the City has grown from a population of 88,769 in 2000 to 164,603 in 2010, representing an annual increase of 6.4%.

This rapid population growth has resulted in a significant increase in surface transportation demand along major arterials such as the Midway Road (CR 712) corridor. The population of the Port St. Lucie-Fort Pierce metropolitan area is projected to increase from 424,107 persons in year 2010 to 648,600 persons in year 2035, representing a growth of approximately 53% (Bureau of Economic Business Research).

As the population in the metropolitan area continues to increase, the developments in St. Lucie County will continue to push westward. In addition, the county is anticipated to experience traffic growth from the Developments of Regional Impact (DRI). A review of the recent DRI applications in the Treasure Coast Regional Planning Council shows the following statuses for the DRIs in the vicinity of the project corridor:

Completed - Orange Blossom Mall and St. Lucie West Approved - The Reserve Pending Notice of Proposed Change - LTC Ranch Withdrawn - Provences and Orchard Park

The DRI located along Midway Road (CR 712), which is LTC Ranch, would have the greatest impact on the project corridor if constructed. As currently approved, the development includes 4,000 dwelling units of residential, over 1,505,000 square feet (sq. ft.) of office space, 725,000 sq. ft. of retail, and 1,960,200 sq. ft. of industrial space. However, the status of this development is pending Notice of Proposed Change that may result in a change in the size of the approved development.

The approval of the LTC Ranch DRI will further increase the transportation demand resulting in congested conditions along the project corridor. Since Midway Road (CR 712) is one of the vital east-west corridors in St. Lucie County, it is critical to increase capacity to meet the anticipated future transportation demand.

Capacity

Traffic data obtained from the St. Lucie County Transportation Planning Organization (TPO) Traffic Counts and Level of Service (LOS) Report shows that the 2012 Annual Average Daily Traffic (AADT) along Midway Road (CR 712) west of Selvitz Road is 16,820 vehicles. Evaluating this traffic data using the 2012 FDOT Quality/Level of Service Handbook, the LOS is F which is beyond the St. Lucie County's adopted LOS criteria of E. This traffic data shows that the existing volume is already exceeding the capacity of the corridor which indicates that the roadway is operating in oversaturated and undesirable conditions. Furthermore, due to the industrial properties along the corridor, it has a high truck percentage at over 7% (Florida Traffic Online).

The traffic is anticipated to increase to 29,200 AADT by 2040 and the corridor will continue to operate at LOS F with degraded traffic operation unless the capacity is increased. The future traffic projections are based on the FDOT District Four Design Traffic Technical Memorandum for the I-95 PD&E Study from north of Becker Road to south of SR 70. This project utilized the Greater Treasure Coast Regional Planning Model as the basis for the future traffic projections. Without improvements, the congestion on the Midway Road (CR 712) project corridor will continue to operate at unacceptable driving conditions for residents and commuters due to the increased traffic volumes.

Plan Consistency

Martin and St. Lucie counties have independent Metropolitan Planning Organization/Transportation Planning Organization (MPO/TPO) but share a common Regional Long Range Transportation Plan (RLRTP). The RLRTP establishes a unified strategy for transportation priorities and funding and creates a joint decision-making process regarding regional transportation issues.

The Midway Road (CR 712) project corridor extends from Glades Cut Off Road to Selvitz Road and is identified in the Martin and St. Lucie 2035 RLRTP. The project is identified in the St. Lucie County TPO 2035 Cost Feasible Plan (2016-2035) with a 2021-2025 implementation horizon. In addition, the project will be included in the next update to the State Transportation Improvement Program and the St. Lucie TPO Transportation Improvement Program. It should be noted that on the south side of the project corridor a multipurpose trail has been identified in the 2035 RLRTP in Table 4-9 of the Needs Plan Development.

Social Demands & Economic Development

Evacuation: Serving as part of the evacuation route network established by the Florida Division of Emergency Management, Midway Road (CR 712) plays an important role in facilitating traffic during emergency evacuation periods as it connects other major highways and arterials designated on the state evacuation route network within the project limits. These facilities include Okeechobee Road (SR 70), I-95, Glades Cut Off Road (CR 709), Selvitz Road, South 25th Street (CR 615), Oleander Avenue (CR 605), and US 1. During a twelve-month period in 2004-2005, St. Lucie County was hit directly by three major hurricanes. Midway Road (CR 712) is one of the county's most critical east-west routes and serves as a vital evacuation route for hurricanes or any other disasters. Additionally, widening Midway Road (CR 712) will ease traffic flow between South 25th Street and I-95, which will minimize a bottleneck effect during an emergency. It would also improve the ability of the local emergency management organization to evacuate large portions of the Treasure Coast in an acceptable timeframe which will enhance the safety of residents.

Economic Development: The *Treasure Coast Planning Council Alternative Infill Development Plan* developed for Martin and St. Lucie counties has identified several regional workplace

districts located along the Midway Road (CR 712) corridor. These regional workplace districts are locations where business and economic development would be focused in order to provide jobs for residents within this metropolitan area. The Midway Road (CR 712) project area is a high-growth area. Important state and federal offices and nonprofit centers are located along Midway Road (CR 712) or nearby streets. This includes the main St. Lucie County Branch of the US Post Office, St. Lucie County Sheriff's Office, St. Lucie County Health Department, St. Lucie County Fire District Office, Hospice of the Treasure Coast, and New Horizons of the Treasure Coast, Inc. (a mental health center which is currently expanding). Significant truck traffic from the nearby St. Lucie County Landfill, CEMEX, Packers of Indian River Ltd., and Tropicana Products, Inc. place additional demands on the roadway. Meanwhile, new residential units are planned nearby. The St. Lucie County Fairgrounds, the County's Emergency Operations Center, is just six miles west of the project site.

According to the Martin and St. Lucie 2035 RLRTP, "The Regional Workplace Districts in St. Lucie County are located along the I-95 and Florida's Turnpike corridors and include the Treasure Coast Education Research Development Authority (TCERDA) area; the Crossroads Park of Commerce; the existing Rinker and Tropicana facilities along Glades Cut Off Road; the LTC Ranch Commerce Park; St. Lucie West Commerce Park; and Torrey Pines Institute south of Tradition and Gatlin Boulevard. These districts are well-situated for regional access, have ample room to grow, and can provide jobs for local residents." The Midway Road (CR 712) project corridor is anticipated to serve as the main transportation corridor linking residents of both Martin and St. Lucie counties to this business area. Increasing the capacity along the project corridor will improve mobility and support the economic development of these districts as well as stimulate major construction activities that will contribute to economic growth within this area.

Modal Interrelationships

The accessibility to bicyclists and pedestrians along the corridor is minimal with only two sections of sidewalk within the corridor. They are located on the north side of Midway Road (CR 712) from East Torino Boulevard to Glades Cut Off Road and along the frontage of the recently constructed New Horizons medical facility. There are no bicycle lanes. During a recent field review (February 7, 2014), pedestrians were noted walking on the grassed shoulder while pushing a child's stroller. Additionally, the existing bridge over the Florida's Turnpike does not have sufficient shoulder width to accommodate pedestrian or bicycle traffic. A review of the Martin and St. Lucie 2035 RLRTP identified a multipurpose trail in Table 4-9 of the Needs Development Plan that would run along the entirety of Midway Road (CR 712) to connect with the other proposed multipurpose trails located on Okeechobee Road, Shin Road, Glades Cut Off Road, Selvitz Road, and Midway Road to the east.

The 2035 Future Bus and Train Network identified a proposed bus route along the entirety of Midway Road (CR 712) to connect to existing bus routes. Moreover, the County's Transit Development Plan from February 2014 identified Midway Road (CR 712) as a priority corridor to implement transit. The project will create opportunities to include pedestrian, bicycle, and transit

facilities along the project corridor.

Roadway Deficiencies

The Midway Road (CR 712) bridge structure (ID 940050) over the Florida's Turnpike is located at Mile Post 6.346 and was constructed in 1957. The last inspection of the bridge was performed on December 19, 2013. Although the report notes no structural deficiencies, the bridge is classified as functionally obsolete.

b. Proposed Improvements:

The proposed improvements include widening Midway Road from 2 to 4-lanes. The typical section includes two, 11-foot travel lanes in each direction separated by a 22-foot median. Seven-foot buffered bike lanes would be provided in each direction located adjacent to the outside travel lanes. Type F curb and gutter is used along the inside and outside lanes and collects stormwater runoff which is then directed to stormwater retention ponds. A six-foot wide sidewalk would be provided on the north side of the roadway, and a 12-foot-wide shared-use path would be provided along the south side of the roadway. The alignment is shifted south resulting in Canal 103 being enclosed in a box culvert, consistent with the segment to the east between Selvitz Road and 25th Street. The canal is located within right-of-way (R/W) owned by both St. Lucie County and the City of Port St. Lucie. This alternative will also include a 10-foot-wide landscape strip which will incorporate both existing native vegetation as well as supplemental plantings to screen the residential properties adjacent to the south side of the roadway. A new bridge structure over Florida's Turnpike will be constructed to accommodate the roadway typical section. This typical section requires a minimum of 160 feet of R/W. Approximately 25 feet to 32.5 feet of R/W would need to be acquired from the City of Port St. Lucie along the south side of the roadway. Based on coordination with the City, the R/W will be acquired through a perpetual easement with the County. Additionally, up to 28 feet of R/W would need to be acquired along the north side of the roadway. The design speed for this typical section would be 45 mph (See Appendix A -Roadway and Bridge Typical Sections and Plan). The stormwater management system includes utilizing two existing stomwater ponds and construction of an additional two ponds.

Alternatives Considered

Three build alternatives, including the Transportation System Management and Operations (TSMO) alternative, were developed and considered during the preliminary engineering phase of this study. The No-Build Alternative, TSMO Alternatives, and Build Alternative 1 (Canal Avoidance) and Build Alternative 2 (Box Culvert) are described below.

No-Build Alternative

No improvements are made to Midway Road (CR 712) within the limits of the study.

Build Alternatives

Transportation System Management and Operations (TSMO) Alternatives

TSMO alternatives involve improvements designed to maximize the utilization and efficiency of the existing facility through improved system and demand management. The various TSMO options generally include traffic signal and intersection improvements, access management, and transit improvements. The additional capacity required to meet the projected traffic volumes along Midway Road (CR 712) in the design year cannot be provided solely through the implementation of TSMO improvements.

Build Alternative 1 (Canal Avoidance)

The typical section includes two, 11-foot travel lanes in each direction separated by a 22-foot median. Seven-foot buffered bike lanes would be provided in each direction located adjacent to the outside travel lanes. Type F curb and gutter is used along the inside and outside lanes and collects stormwater runoff which is then directed to stormwater retention ponds. A six-foot wide sidewalk would be provided on the north side of the roadway, and a 12-foot-wide shared-use path would be provided along the south side of the roadway. The alignment for this alternative would shift to the north to avoid impacts to Canal 103. This typical section requires a minimum of 153 feet of R/W. Since the existing County R/W width varies between 107 feet and 153 feet, from zero feet up to 46 feet of R/W would need to be acquired along the north side of the roadway. The design speed for this typical section would be 45 mph.

Build Alternative 2 (Box Culvert)

The roadway and pedestrian features of the typical section for this alternative are like Alternative 1 except that Canal 103 would be enclosed with a box culvert. The canal is located within R/W owned by both St. Lucie County and the City of Port St. Lucie. This typical section requires a minimum of 160 feet of R/W. Approximately 25 feet to 32.5 feet of R/W would need to be acquired from the City of Port St. Lucie along the south side of the roadway. Additionally, up to 28 feet of R/W would need to be acquired along the north side of the roadway. The design speed for this typical section would be 45 mph.

Based on a comparative evaluation of the No Build and Build Alternatives' impacts and ability to meet the purpose and need of the project, as well as public input and coordination with the resource agencies, the recommended alternative for Midway Road is Build Alternative 2 – Box Culvert. An evaluation matrix comparing the build and no build alternatives is included in **Appendix A**. As shown in the matrix, the Recommended Alternative results in fewer parcel impacts and reduces the wetland impacts.

c. Project Planning Consistency:

The proposed widening of Midway Road is consistent with the St. Lucie's Transportation Planning Organization (TPO)'s 2035 RLRTP Cost Feasible Plan. The project is included in the State Transportation Improvement Program (STIP) and the St. Lucie TPO's Transportation Improvement Program (TIP).

Copies of the planning consistency information are included in Appendix B.

Currently Adopted CF-LRTP		COMMENTS						
Yes, the proposed widening of Midway Road is consistent with the St. Lucie's Transportation Planning Organization (TPO)'s 2035 Regional Long Range Transportation Plan (RLRTP) Cost Feasible Plan.								
PHASE	Current Approve	•	TIP/STIP \$	TIP/STIP FY	COMMENTS			
PE (Final Design)	Y	Y	\$ 2,150,000	2017	PE (Design) funding is included in St. Lucie TPO's 2015/16-2019/20 (page C1-2) and in FDOT's 2015/16- 2019/20 STIP.			
R/W	N	N	\$ 0	N/A	Additional R/W for ponds is anticipated. R/W is not currently funded in the 2015/16-2019/20 STIP or TIP. (R/W funding is anticipated within the 2021-2025 timeframe, per the St. Lucie TPO 2035 Regional LRTP Cost Feasible Plan).			
Constructio	n N	N	\$ 0	N/A	Construction is not currently funded in the 2015/16-2019/20 STIP or TIP. (Construction funding is anticipated within the 2021-2025 timeframe, per the St. Lucie TPO 2035 Regional LRTP Cost Feasible Plan).			

3. CLASS OF ACTION

a. Class of Action:

[X] Type 2 Categorical Exclusion

b. Other Actions:

[X] Section 4(f) Evaluation

[X] Section 106 Consultation

[X] Endangered Species Biological

Assessment

- c. Public Involvement:
 - [] A public hearing is not required; therefore, approval of this Type 2 Categorical Exclusion constitutes acceptance of the location and design concepts for this project.
 - 2. [] A public hearing was held on and a transcript is included. Approval of this determination constitutes location and design concept acceptance for this project.
 - [] An opportunity for a public hearing was afforded and a certification of

opportunity is included. Approval of this determination constitutes acceptance of the location and design concepts for this project.
3. [X] A public hearing will be held and the public hearing transcript will be provided at a later date. Approval of this determination DOES NOT constitute acceptance of the project's location and design concepts.
[] An opportunity for a public hearing will be afforded and a certification of opportunity will be provided at a later date. Approval of this determination DOES NOT constitute acceptance of the project's location and design concepts.
d. Cooperating Agency: [] COE [] USCG [] FWS [] EPA [] NMFS [X] NONE
4. REVIEWERS' SIGNATURES
This project has been developed without regard to race, color, national origin, age, sex, religion, disability, or family status.
FDOT Project Manager Date
FDOT Environmental Administrator or Designee Date
5. FHWA CONCURRENCE
(For) Division Administrator or Designee Date

6. IMPACT EVALUATION

		Impa	ct Dete	rminati	on*	
Topical Categories		S i g	N o t S i	N o n e	N o I n v	Basis for Decision*
A. SO	CIAL & ECONOMIC					
1.	Land Use Changes	[]	[X]	[]	[]	See Attachment A. 1.
2.	Community Cohesion	[]	[X]	[]	[]	See Attachment A. 2.
3.	Relocation Potential	[]	[X]	[]	[]	See Attachment A. 3.
4.	Community Services	[]	[X]	[]	[]	See Attachment A. 4.
5.	Nondiscrimination					
	Considerations	[]	[X]	[]	[]	See Attachment A. 5.
6.	Controversy Potential	[]	[]	[X]	[]	See Attachment A. 6.
7.	Scenic Highways	[]	[]	[]	[X]	
8.	Farmlands	[]	[]	[]	[X]	
B. CUL	TURAL					
1.	Section 4(f)	[]	[]	[X]	[]	See Attachment B. 1.
2.	Historic Sites/District	[]	[X]	[]	[]	See Attachment B. 2.
3.	Archaeological Sites	[]	[]	[X]	[]	See Attachment B. 3.
4.	Recreation Areas	[]	[]	[]	[X]	
C. NAT	TURAL					
1.	Wetlands	[]	[X]	[]	[]	See Attachment C. 1.
2.	Aquatic Preserves	[]	[]	[]	[X]	
3.	Water Quality	[]	[X]	[]	[]	See Attachment C. 3.
4.	Outstanding FL Waters	[]	[]	[X]	[]	See Attachment C. 4.
5.	Wild and Scenic Rivers	[]	[]	[]	[X]	
6.	Floodplains	[]	[]	[X]	[]	See Attachment C. 6.
7.	Coastal Zone					
	Consistency	[]	[]	[X]	[]	See Attachment C. 7.
8.	Coastal Barrier					
	Resources	[]	[]	[]	[X]	

9.	Wildlife and Habitat	[]	[X]	[]	[]	See Attachment C. 9.
10.	Essential Fish Habitat	[]	[]	[]	[X]	
D. PHY	SICAL					
1.	Noise	[]	[X]	[]	[]	See Attachment D.1.
2.	Air Quality	[]	[X]	[]	[]	See Attachment D. 2
3.	Construction	[]	[X]	[]	[]	See Attachment D. 3.
4.	Contamination	[]	[X]	[]	[]	See Attachment D. 4.
5.	Aesthetic Effects	[]	[]	[]	[X]	
6.	Bicycles and Pedestrians	[]	[X]	[]	[]	See Attachment D. 6.
7.	Utilities and Railroads	[]	[X]	[]	[]	See Attachment D. 7.
8.	Navigation	[]	[]	[]	[X]	

a. [X] FHWA has determined that the project is EXEMPT from a USCG Permit in accordance with 23 CFR 650, Subpart H.

E. PERMITS REQUIRED

- Environmental Resource Permit issued by South Florida Water Management District (SFWMD)
- Section 404 Dredge and Fill Permit issued by the US Army Corps of Engineers (USACE)
- General National Pollutant Discharge Elimination System (NPDES) Permit for construction activities on more than one acre issued by Florida Department of Environmental Protection (FDEP)
- Water Use Permit issued by SFWMD if dewatering is required and does not meet the no notice general permit thresholds.

7. COMMITMENTS AND RECOMENDATIONS

FDOT commits to the following measures:

- 1. The culvert will be designed to allow for air exchange within the pipe.
- 2. Avoidance and minimization of wetland impacts will be considered further during design and mitigation will be provided for unavoidable wetland impacts.

b. [] Coordination with the USCG is necessary.

^{*} Impact Determination: Sig = Significant; NotSig = Not significant; None = Issue present, no impact; NoInv = Issue absent, no involvement. Basis of decision is documented in the referenced attachment(s).

- 3. Prior to construction an updated caracara nest survey will be performed. Additional coordination will be conducted with USFWS, if necessary. Construction staging will be prohibited within the primary buffer of the caracara nest.
- 4. An updated gopher tortoise survey will be conducted prior to construction. Gopher tortoises will be avoided, or if they cannot be avoided, a permit will be obtained for relocation.
- 5. The Standard Protection Measures for the Eastern Indigo Snake will be implemented during construction.
- 6. The Florida Department of Transportation is committed to the construction of feasible and reasonable noise abatement measures at the noise-impacted locations identified in the Noise Report contingent upon the following conditions.
 - Detailed noise analyses during the final design process support the need, feasibility and reasonableness of providing abatement.
 - Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion.
 - Community input supporting types, heights, and locations of the noise barrier(s) is provided to the District Office.
 - Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues have been resolved.
- 7. All applicable St. Lucie County noise ordinances as found in Chapter 1-13.8, Noise Control, of the St. Lucie County Code of Ordinances will be adhered to during construction.
- 8. The St. Lucie County Fire Department has existing emergency accesses to Florida's Turnpike that must be maintained.

IMPACT EVALUATION ATTACHMENTS

Attachments A through D summarize the results of the socio-economic, cultural, and environmental data collection and analysis conducted as part of this PD&E Study. The purpose of this analysis was to determine the effects associated with the proposed widening of Midway Road. This analysis was conducted utilizing the information obtained from comments made by the various Environmental Technical Advisory Team (ETAT) members using the Environmental Screening Tool (EST) and studies of the natural, physical and social environment conducted for this project. There were no substantial Degrees of Effect (DOE) or any dispute resolutions identified by the ETAT for any resources during the programming screen. The ETDM Programming Screen is available for review at https://etdmpub.fla-etat.org/ (ETDM number 14177). The DOE assigned for each resource during the programming screen are as follows: economic and mobility – *Enhanced*; farmlands, recreation areas, floodplains, coastal and marine, noise, infrastructure, navigation and special designations –*None or No Involvement*; land use changes, social, relocation potential, aesthetic effects, water quality and quantity, wildlife and habitat, and air quality–*Minimal*; Section 4(f) potential, historic and archaeological sites, wetlands, and contamination –*Moderate*.

A. Social & Economic

Data from this study as well as field reviews of the corridor and existing Geographic Information Systems (GIS) databases from St. Lucie County and the City of Port St. Lucie were used to assess the socio-economic characteristics and impacts associated with the proposed roadway widening.

ETDM Degree of Effect and Summary Comments:

Social

FDOT: Minimal

FDOT commented that public outreach to solicit input from the transportation disadvantaged, elderly, low income, and minority populations will be conducted to ensure that a thorough Environmental Justice/Title VI analysis that considers potentially disproportionate impacts to protected groups is conducted and that identified transportation needs are addressed through the project. Limited English Proficiency (LEP) accommodations will be necessary during public outreach as the demographic data indicates that 16% of the Spanish-speakers speak English "Less than very well". Public commentary collected as a result of such efforts will be documented in the EST.

Economic

FDOT: Enhanced

FL Department of Economic Opportunity (FDEO)

FDOT commented that the project is not located in a Rural Area of Critical Economic Concern (RACEC). The project traverses one of the St. Lucie's Regional Workplace Districts to which the project may serve as one of the main transportation corridor to link residents of Martin and St. Lucie Counties to the districts. The project would also be beneficial for future industrial development within St. Lucie County. However, an unconstrained roadway would be beneficial for future industrial development within St. Lucie County. The area is built-out within the city of Port St. Lucie, but an unconstrained roadway would be beneficial for any future redevelopment and industrial related employment.

FDEO commented that the project is not located in a RACEC. However, an unconstrained roadway would be beneficial for future industrial development within St. Lucie County. The area is built-out within the city of Port St. Lucie, but an unconstrained roadway would be beneficial for any future redevelopment and industrial related employment.

A public involvement program was implemented for the project. As mentioned above, public involvement began with the ETDM programming screening. Elected and Appointed Officials/Agencies and Public Kick-off meetings were held on August 18, 2015. Public comments were generally associated with the following and were taken into consideration during the study:

- How will access to properties change?
- What is the impact to the properties along the north side of the road?
- Concerns expressed for wildlife in the canal if filled (Alternative 2 encloses the canal like the St. Lucie County section to the east),
- Bus bays were requested along the route.
- The timing of this project was questioned. The other sections to the east from US 1 to Selvitz are designed and permitted and are being constructed currently. This would be the only section not currently 4-laned and would be bottle neck to the Interstate 95.
- Comments were expressed both for and against an interchange at Midway Road and the Florida's Turnpike. The 2005 Turnpike Interchange Feasibility Study was updated during the PD&E, but a separate PD&E Study for the interchange would be conducted in the future by the Florida's Turnpike Enterprise and thus was not included as part of the alternatives evaluated for the Midway Road PD&E Study.

Agency comments included:

- Request for bus bays.
- Side street access management plan as shown is appropriate.
- Access to All Landscape Supply is necessary.
- St. Lucie County Sheriff's Office discussed moving the full access to the eastern entrance, providing mountable curb or an official use only median opening in front of the western entrances and need to maintain existing access to the Florida's Turnpike on the northeast side of the Turnpike bridge.
- There is an Interlocal Agreement between the County and the City of Port St. Lucie for the section of Midway Road widening from 25th Street to Selvitz Road. Part of the agreement includes maintaining or restoring the landscape buffer between the C-103 canal on the south side of Midway and the residences further south.
- Road closures and detours should be minimized and avoided during construction.

Follow-up stakeholder meetings were held with the following stakeholders:

- St. Lucie County August 12, 2015 Primary purpose was to identify maintenance requirements for Canal 103 that should be incorporated in the typical section.
- SFWMD August 20, 2015 Drainage and Environmental Permitting Meeting Primary purpose was to discuss the stormwater management requirements.
- U.S. Post Office October 13, 2015 Primary purpose of the meeting was to discuss access management and overview of alternatives being considered.
- St. Lucie County Sheriff October 13, 2015 Primary purpose of the meeting was to discuss access management and overview of alternatives being considered.
- City of Port St. Lucie January 28, 2016 Primary purpose of the meeting was to inform the City on the progress with the project, discuss impacts to City-owned right-of-way associated with Canal 103, discuss landscape buffers and existing utilities and accommodation for each.
- New Horizons of the Treasure Coast and Okeechobee (New Horizons) April 5, 2016 –
 Primary purpose of the meeting was to present the project alternatives and discuss
 access/median opening requirements necessary to maintain the New Horizon's facility
 operations.
- Florida East Coast (FEC) Railroad April 22, 2016 Email correspondence was submitted
 requesting information about the FEC facilities, R/W limits, existing easements, and
 operations at the railroad crossing at Midway Road. The proposed improvements were
 transmitted with a request for any information of concerns the FEC may have with the
 plan. There were no specific concerns expressed by FEC.
- Sherriff's office June 17, 2016 Chief Deputy Garry Wilson approved the proposed access management plan to minimize impacts on the Sherriff's office. This would include a full median opening at the western entrance and a drop curb at the eastern most entrance so that emergency vehicles could make a left out when needed.

• U.S. Post Office - August 16, 2016 – The purpose of the meeting was to discuss the access management plan proposed at Jenkins Road and Post Office Road.

The Alternatives Public Workshop was held on June 28, 2016. Public comments were generally associated with the following and were taken into consideration during the study:

- There were comments on which alternative was preferred and in general the preference was based on which side of the road you lived or worked on.
- There were some individuals that wanted an interchange with the Turnpike and others who did not, but there was not an overwhelming preference for one or the other.
- Traffic signals were requested at various intersections; Milner Drive being one. A signal is not warranted now at this location, but it was explained to residents that the County is reviewing this location for a signal and could be considered in the future.
- There was a request for landscaping consistent with the section from 25th Street to Selvitz Road and shade trees along the multipurpose path. Also, requested pedestrian lighting.
- It was mentioned by several residents that noise levels were high along this corridor and requests were made for noise walls. The noise analysis is discussed further in Section D.1.
- There was a request for sidewalks on Midway Road and street lights. The typical section includes sidewalks. Lighting evaluation will be included in the design phase.
- There was concern for wildlife that occur in the vegetation along Canal 103 and within the canal.

Summaries or meeting minutes of the Public and Agency Kickoff Meetings, stakeholder meetings and Alternatives Public Workshop are included in *Appendix C*. The comments were considered during the study and where applicable in each section below, there is further discussion of how the comments were addressed or incorporated in the study. FDOT will continue to coordinate with the public and the project stakeholders during the design process. FDOT will hold a Public Hearing for this project prior to the design phase.

A.1. Land Use Changes

ETDM Degree of Effect and Summary Comments:

FDOT: Minimal

FL Department of Economic Opportunity: Enhanced

FDOT commented that This project is identified in the Martin and St. Lucie 2035 Regional Long Range Transportation Plan (RLRTP) and is identified in the St. Lucie County TPO 2035 Cost Feasible Plan (2016-2035) with a 2021-2025 implementation horizon. In addition, the project will be included in the next update to the State Transportation Improvement Program (STIP) and the St. Lucie TPO TIP. It should be noted that on the south side of the project corridor a multipurpose trail has been identified in the 2035

RLRTP in Table 4-9 of the Needs Plan Development. The project is not located within a quarter mile of any existing local parks. The project is also not located in an Area of Critical State Concern, does not encroach on a military base, and is not located within the Coastal High Hazard Area. The Future Land Use Map (FLUM) of the Comprehensive Plan shows several FLUM categories surrounding the project: a mix of land uses that consist of residential land uses to the south and industrial, public facilities, and commercial land uses to the north. The City of Port St. Lucie future land use map shows that the currently vacant land in the southeast quadrant of Midway Road (CR 712) and the Florida's Turnpike has a commercial land use. The widening of the project corridor will primarily utilize the existing right of way; however, additional right of way may be identified for acquisition during the PD&E Study to provide offsite ponds for stormwater management requirements.

FDOEO commented that the proposed improvements are consistent and compatible with the St. Lucie County Comprehensive Plan 2010 and the development goals of the City and County. Midway road is a critical east-west evacuation route. The Comprehensive Plan projects a 2030 LOS of F if no improvements are made. It is currently operating at a LOS E. Policy 5.2.3.1 calls for the improvement of Midway Road to operate at a minimum LOS D during an emergency evacuation.

Future land use was determined based on a review of the St. Lucie County and City of Port St. Lucie Future Land Use (FLU) Maps (*Figure 2*). According to the St. Lucie County FLU map the project study area to the north of Midway Road is primarily Industrial (IND), Residential Suburban (RS), Public Facilities (P/F), Mixed Use (MXD), and Commercial (COM). According to the City of Port St. Lucie FLU map the project study area south of Midway Road is primarily Residential (RL), Open Space Conservation (OSC), Institutional (I), Service Commercial (CS), General Commercial (CG), Open Space-Recreational (OSR).

Within the study area, the Industrial FLU is located along the northwestern portion of the project adjacent to Florida's Turnpike and Glades Cut Off Road, Residential and Open Space Conservation FLU runs along the entire southern portion of the project as well as the northeastern project terminus. Public Facilities and Mixed Use FLU are centrally located approximately 1200 feet northwest of the Selvitz Road/Midway Road intersection. Commercial FLU is primarily found southwest of the Glades Cut Off Road/Midway Road intersection and north of the Selvitz Road/Midway Road intersection.

This project is the last segment of Midway Road that is currently 2-laned. To the west, Midway Road has already been 4-laned to I-95. To the east, between Selvitz Road and 25th Street, widening of Midway Road is under construction. The section of Midway Road between 25th Street and US Highway 1 will soon be under construction. The south side of the corridor is generally already developed. Much of the north side is also developed or planned and permitted for development. Thus, the project is not expected to significantly induce growth, but will enhance the movement of goods and services and access to proposed and existing developments along the corridor. Because the project is consistent and compatible with the St. Lucie County

Comprehensive Plan 2010 and the development goals of the City and County, no changes to the existing land use patterns are anticipated.

A.2. Community Cohesion

Most the residential development consists of subdivisions located south of Midway Road, with more institution, commercial and industrial development along the north. The project is also located along an existing urban roadway and thus does not divide neighborhoods or result in social isolation.

There is some degree of enhancement to community cohesion in that sidewalks and bicycle facilities are included in the typical section whereas there are no bike lanes and only intermittent sidewalks along the corridor. These pedestrian and bicycle facilities will connect to existing or future facilities east along Midway to US 1 and will connect this portion of Midway Road to other community facilities further east (e.g. churches, White City Park, commercial shopping centers etc.). Thus, there are no adverse effects to community cohesion anticipated from the proposed project.

A.3. Relocation Potential

FDOT: Minimal

FDOT commented that while the widening of the project corridor will primarily utilize the existing right of way; additional right of way may be identified for acquisition during the PD&E Study to provide offsite ponds for stormwater management requirements. Should right of way acquisition be identified during Project Development, FDOT shall carry out a Right of Way and Relocation Program in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 and Florida Statute 339.09.

There are no residential or business relocations currently required for the recommended alternative. The project results in approximately 9.54 acres of impact to adjacent parcels outside the current R/W. Of the 9.54 acres, approximately 2.32 acres are private properties not owned by either St. Lucie County or the City of Port St. Lucie. The remaining new R/W required, approximately 7.22 acres, would consist of the need for temporary or perpetual easements for construction. A R/W acquisition and relocation program in accordance with the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (Uniform Act) and Florida Statute 339.09, will be carried out.

A.4. Community Services

There were no agency comments in ETDM regarding community services. FDOT documented several resources in ETDM and field reconnaissance was conducted to confirm the location of the community services.

The community resources that do occur along the project corridor include:

North Side of Midway Road

- US Post Office 5000 W. Midway Road, Fort Pierce, Florida 34981
- St. Lucie County Sheriff's Office 4700 W. Midway Road, Fort Pierce, Florida 34981
- New Horizons 4500 W. Midway Road, Fort Pierce, Florida 34981

South Side of Midway Road

- St. Lucie County Health Department 5150 NW Milner Drive, Port St Lucie, Florida 34983
- St. Lucie County Fire Department Administration Building 5160 NW Milner Drive, Port St Lucie, Florida 34983

Figure 3 shows the location of these facilities. As discussed above numerous stakeholder meetings were held to understand operations of these facilities and means to avoid and minimize impacts. The primary potential impacts that could occur for these facilities include R/W acquisition, changes in access, loss of facility amenities and temporary noise impacts during construction.

The recommended alternative shifts the road alignment south minimizing R/W impacts. Additionally, coordination was conducted with the City of Port St. Lucie to minimize the required setback from the Canal 103 southern bank allowing for R/W impacts to be minimized further to the properties to the north. As such, no R/W is required from these facilities except the sheriff's office, which requires approximately 0.25 acres of R/W. There are no impacts to the parking, existing stormwater ponds or other amenities. The Sherriff's office access is also modified. A full median opening would be provided at the western most access, but the eastern access would be a right out only. However, to minimize impacts, a drop curb would be provided at the eastern entrance and would allow for the continued left turn for emergency vehicles. The Sherriff's office concurred that this is acceptable in an email to St. Lucie County dated June 17, 2016.

Access will be affected for each of these facilities. New Horizons provides behavioral and primary health care services to children, adults and families to achieve mental and physical wellness. The facility provides assistance for substance abuse disorders and have indicated in previous meetings that some of their patients walk into the facility or are transported by ambulance. There were concerns expressed that access for emergency vehicles turning eastbound out of the facility towards the hospital and the access management would affect this movement. The access management requirements were explained during stakeholder meetings. The 911 call logs were obtained and the facility averages a medical emergency call, which would require an eastbound exit from the facility, twice per month. Coordination with St. Lucie County resulted in a determination that this was infrequent enough that a drive-over median concept would be an

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¹ http://www.nhtcinc.org/about-us.html Mission statement from New Horizons web page.

acceptable means of access and would allow for the continued left turn for emergency vehicles. This was included into the access management plan. Sidewalks and bicycle lanes are also included in the typical section; thus, enhancing safety for pedestrians/bicyclists exiting or entering the facility.

The US Postal Service expressed concerns regarding the access management resulting in rerouting the postal trucks north on Post Office Road and then south to the full access at Jenkins Road. But through coordination with the US Postal Service, the access management was understood and accepted.

For the St. Lucie County Fire Department, it was important to maintain the existing access to the Florida's Turnpike which exists currently through a locked gate. To accommodate this a curb apron was proposed at the existing access point off Midway Road and with it the medians proposed east and west of the Turnpike bridge. This would accommodate emergency vehicles enabling them to make a right in and a left out when responding to and from calls. This was accepted by the Division Chief (see email correspondence dated June 28, 2016 – *Appendix C*). There was a request for a light at Milner Drive. A traffic signal is not included in this PD&E study because it does not meet certain traffic signal warrants. However, a traffic signal at Milner Drive and Midway Road is being considered by St. Lucie County and may be added in the future.

As such, through coordination with the Sherriff's Department, the Fire Department, the US Postal Service and the New Horizons, the access management changes are acceptable and will minimize impacts on facility operations.

A.5. Nondiscrimination Considerations

Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations, signed by the President on February 11, 1994, directs federal agencies to take appropriate and necessary steps to identify and address disproportionately high and adverse effects of federal projects on the health or environment of minority and low-income populations to the greatest extent practicable and permitted by law. The project was developed in accordance with the Civil Rights Act of 1964, as amended by the Civil Rights Act of 1968, along with Title VI of the Civil Rights Act, Executive Order 12898 (Environmental Justice or EJ), which ensures that minority and/or low-income households are neither disproportionately adversely impacted by major transportation projects, nor denied reasonable access to them by excessive costs or physical barriers (Environmental Protection Agency [EPA], 1994). This project has been developed without regard to race, color, national origin, age, sex, religion, disability, or family status.

An analysis of EJ populations was conducted through a review census data, field reconnaissance and numerous neighborhood and public meetings. Per the 2010 Census (*Table 1*), most the residential population in the study area is non-minority.

TABLE 1 – PROJECT AREA ETHNICITY, 2010									
Census Tract	Block Group	2010 Population	Percent White	Percent Hispanic ¹	Percent Black	Percent Other ²			
382108	2	7,838	63.2	22.2	26.0	10.7			
381402	1	2,290	73.7	13.7	17.5	8.8			
381502	3	6,251	70.4	14.3	20.5	9.2			
382200	2	1,243	88.2	8.3	1.0	10.9			
Study Ar	ea Total	17,622	73.9 (average)	14.6 (average)	16.2 (average)	9.9 (average)			

Source: US Census Bureau, 2010

Table 2 illustrates the *Household Income Characteristics* summarized from the 2010 Census. The 2010 Census indicates that the median household income of the study area ranges from approximately \$43,000 to \$94,000, with an average of 9.2% of families' having incomes below the federal poverty level.

TABLE 2 – PROJECT AREA INCOME CHARACTERISTICS, 2010						
Census Tract	Block Group	Median Household Income (Dollars)	Percentage of Families with Incomes Below Poverty Level			
382108	2	48,210	10.7			
381402	1	43,278	13.5			
381502	3	50,828	9.5			
382200	2	94,167	4.8			
Source: US Census Bureau, 2010						

The proposed improvements occur on an existing roadway and there are no residential or business relocations required. As mentioned above the project would not impact community cohesion or otherwise impact resources that EJ populations frequent or are dependent upon. This is the last section of Midway Road from US Highway 1 to I-95 that has not already been evaluated and/or designed, permitted and constructed. The widening of Midway Road is expected

¹Hispanic includes persons of any race with Hispanic or Latino family heritage.

²Other persons include: American Indian/Alaskan Native, Asian, Native Hawaiian, other single race, and two or more races.

to increase capacity and enhance movement of goods and services along the corridor and to adjacent sections of the road. Further, the typical section provides bicycle and pedestrian facilities that will connect this section of Midway to other multi-modal facilities east and west of the project and to sidewalks along side streets including 25th Street. Thus, these facilities will provide a safer alternative for populations which may not have access to a car.

There are currently no transit facilities (Treasure Coast Connector bus line) along this corridor. But the *St. Lucie County's Future Year 2015-2024 Transit Development Plan Major Update* identifies a new fixed route along Midway Road within the project limits. Based on discussions with the St. Lucie County, Community Transportation Coordinator, transit stops were requested to accommodate this future route. Thus, the typical section includes three bus bays at:

- Eastbound, West of Milner Drive
- Westbound, West of Selvitz Road
- Westbound, West of the New Horizons driveway

The locations of the bus bays were acceptable to St. Lucie County (See email dated January 7, 2016 – *Appendix C*). Once the bus service is extended to Midway Road, the accommodations for transit stops will further enhance the multi-modal capacities for all populations adjacent to the study area.

Finally, as requested by the City of Port St. Lucie, a buffer will be maintained between the proposed road and the residential neighborhoods to the south. Exotic vegetation will be removed and native plantings will be installed to ensure a sufficient buffer remains post construction. This is similar to the buffer provided in the segment to the east that St. Lucie County is constructing.

Based on the demographics and the lack of impacts to EJ populations, the proposed improvements are not anticipated to result in disproportionate adverse impacts to minority or low income households, elderly, or handicapped persons, and are not anticipated to deny reasonable access to them from excessive cost or physical barrier. With the proposed multi-modal improvements and landscape buffer plantings, the proposed project provides and overall enhancement to the communities adjacent to the road and in the vicinity, that may use this corridor. Therefore, in accordance with the provisions of *Executive Order 12898* and *FHWA Order 6640.23a*, no further Environmental Justice analysis is required.

A.6. Controversy Potential

A public involvement program was conducted for this project to obtain comments and input from the public, government officials, agency representatives, and other interested parties. Based on input from the public and agencies during the study, no controversial issues were identified. Though stakeholders living and working on or near the corridor have expressed preferences or requests to minimize impacts, no agencies or persons have indicated that they do not want the road widened. Several meetings have been conducted to identify effects to stakeholders and the

alternatives have been designed to avoid and minimize impacts from construction and operation of the road. Of the comments received all have been in support of the project. A Public Hearing will be conducted for this project. The project will then be presented to the MPO to discuss the recommended alternative and the outcome of the Public Hearing. FDOT will continue to coordinate with the public and project stakeholders during the design process. A copy of the future Public Hearing Transcript will be included in **Appendix D**.

B. Cultural

B.1. Section 4(f)

ETDM Degree of Effect and Summary of Comments:

FDOT: Moderate

FDOT commented that a Cultural Resource Assessment Survey (CRAS) will be performed for the entire corridor during the PD&E phase. FDOT will coordinate with ETAT agencies throughout Project Development, including for review and comment of the CRAS. FDOT will avoid and minimize impacts to any resources which may be identified by the CRAS to the greatest extent practicable. However, if the project results in any adverse effects to significant or historic or archaeological resources, Section 4(f) coordination will be required. A Section 4(f) Programmatic or Individual Statement will be completed during PD&E, if warranted.

The FDOT prepared a Section 4(f) Determination of Applicability (DOA) for seven potential Section 4(f) resources adjacent to the corridor (See **Appendix E**):

- 1. Canal 103 City of Port St. Lucie
- 2. Tract H-15 City of Port St. Lucie
- 3. Tract H-17 City of Port St. Lucie
- 4. Tract G-4 City of Port St. Lucie
- 5. Tract F City of Port St. Lucie
- 6. Conservation Easement 56-01444-P SFWMD
- 7. Midway Road "Multi-Purpose" Trail St. Lucie County

The purpose of the DOA document is to determine whether these sites are considered Section 4(f) properties and whether there could be Section 4(f) use of those sites. There are two types of uses in Section 4(f). A Section 4(f) use can occur either directly or indirectly. A Section 4(f) direct use occurs when land from a Section 4(f) site is permanently acquired and incorporated into a transportation project or when there is a temporary occupancy of land that is adverse in terms of the statute's preservationist purposes. A Section 4(f) indirect use can occur when the proximity impacts of a transportation project are so great that purposes for which the Section 4(f) site exists are substantially impaired. Section 4(f) sites can also be divided into three categories:

- Historic and archaeological sites
- Publicly owned parks/recreation areas
- Wildlife and waterfowl refuges

These sites must also qualify as significant. Significant means that comparing the availability and function of the historic and/or archeological site, recreational resource, park, and/or wildlife/waterfowl refuge area with the historic and/or archeological site, recreational, park, and refuge objectives of the community, the site in question plays an important role in those objectives.

Based on the findings of the Section 4(f) DOA, impacts to Section 4(f) resources are not anticipated because of the proposed project. FHWA is currently reviewing the Section 4(f) DOA to determine if the resources listed above qualify for protection under Section 4(f). Correspondence will be included in *Appendix E* upon receipt.

B.2. Historic Sites/District

ETDM Degree of Effect and Summary Comments:

FDOT: Moderate

Florida Department of State: Moderate

FDOT commented that A Cultural Resource Assessment Survey (CRAS) will be performed for the entire corridor during the PD&E phase. FDOT will coordinate with ETAT agencies throughout Project Development, including for review and comment of the CRAS. FDOT will avoid and minimize impacts to any resources which may be identified by the CRAS to the greatest extent practicable.

FL Department of State commented that the project has the potential to impact a historicaged bridge and five linear resources, one which is considered to be significant (FEC Railroad). A cultural resources survey is needed to assess the effects of the project on other resources. A CRAS was completed and is discussed below.

In accordance with the procedures contained in 36 CFR, Part 800, a CRAS, including background research and a field survey coordinated with the State Historic Preservation Officer (SHPO), was performed for the project. A previous CRAS was conducted along Midway Road from east of the Florida's Turnpike Bridge to South 25th Street, St. Lucie County, FL (Janus Research 2006a). During that survey, five previously recorded historic resources (Midway Road (8SL1657), Building at 4362 Midway Road (8SL1806), Canal 103 (8SL1809), FEC Railroad – Lake Harbor Branch (8SL3014), and CR 709/Glades Cut Off Road (8SL3149)) were documented and determined ineligible for listing in the National Register of Historic Places (NRHP), except for the FEC Railroad. For this study, these same resources were documented along with one newly recorded historic bridge (8SL3282). Undocumented portions of Midway Road (8SL1657), Canal 103 (8SL1809), and CR 709/Glades Cut Off Road (8SL3149) within the current Area of Potential Effect

(APE) were recorded and are considered NRHP ineligible as part of the current study. Newly recorded FDOT Bridge No.940050 (8SL3282) is also considered ineligible for listing in the NRHP.

The only resource within the project corridor that is considered eligible for listing in the NRHP is the segment of the FEC Railroad – Lake Harbor Branch (8SL3014) within the APE. FDOT determined, however, that the proposed improvements which tie into the existing 4-lane section at the FEC railroad would not result in an adverse effect to the NRHP-eligible FEC Railroad – Lake Harbor Branch. This effects determination was based on the linear resources' essential physical features remaining intact as part of the proposed improvements; the ties and tracks not being replaced and the rail corridor route being maintained.

In a letter dated July 5, 2016, the SHPO concurred with the findings in the CRAS and with the no adverse effect determination for the FEC Railroad – Lake Harbor Branch. A copy of the SHPO concurrence on effects letter is attached in *Appendix F*. A separate desk top analysis was conducted for the proposed pond sites. No NRHP-listed or eligible resources were identified.

B.2. Archaeological Sites

As stated above, a CRAS was conducted for this project and included archaeological field surveys (including visual inspection and shovel testing). A total of fourteen (14) shovel tests were excavated within the archaeological APE; no cultural material was recovered. No newly or previously recorded archaeological sites were identified within the archaeological APE. A desktop analysis of the potential pond sites was also conducted and no recorded archaeological resources were identified. Furthermore, the pond locations were determined to have a low archaeological site probability.

C. Natural

C.1. Wetlands

ETDM Degree of Effect and Summary of Comments:

FDOT: Moderate

National Marine Fisheries Service (NMFS): Moderate

US EPA: Minimal

US Army Corps of Engineers (USACE): Moderate

FDEP: Minimal

US Fish and Wildlife (USFWS): Minimal

South Florida Water Management District (SFWMD): Moderate

FDOT commented that FDOT will continue coordination with regulatory agencies throughout the development of the project to address potential environmental issues and to ensure wetland impacts are sequentially avoided and minimized to the greatest extent

practicable. Agency coordination discussions will also include the design of the proposed stormwater system and the requirements for stormwater treatment. FDOT will obtain an environmental resource permit (ERP) during final design and provide compensatory mitigation for any unavoidable impacts.

NMFS commented that the proposed project may impact emergent wetlands and ditches, which range from low to moderate in quality. If wetland impacts are unavoidable, sequential minimization and mitigation should be provided.

US EPA commented that 1.7 acres of wetlands exist within a 200-foot buffer surrounding the proposed project. If wetland impacts cannot be avoided, appropriate mitigation will be required.

USACE commented that there are 1.7 acres of freshwater palustrine wetlands with both forested and scrub-shrub wetlands exist within the project corridor. Additionally, Canal 103 is located along the south side of Midway Road. Impacts to wetlands and surface waters less than 0.5 acres will require Nationwide Verification and impacts greater than 0.5 acres will require a Standard Permit.

FDEP commented that there are 6.7 acres of wetlands located within a 500-foot buffer of the proposed project. An ERP will likely be required. Avoidance and minimization of wetlands including avoidance-oriented corridor alignments, wetland fill reductions via pile bridging and steep/vertical retained side slopes and reduced median widths are recommended. Wetlands should not be displaced for stormwater conveyance and treatment swales. Mitigation is required for unavoidable impacts. Cumulative impacts should be addressed.

USFWS commented that wetlands provide important habitat for fish and wildlife and it is recommended that the project be designed to avoid and minimize impacts to wetlands to the greatest extent practicable. If impacts are unavoidable, mitigation should be provided that fully compensates for the loss of wetland resources.

SFWMD commented that wetlands exist within the propose project corridor, which provide habitat for a variety of wildlife. An Environmental Resource Permit (ERP) to address work in wetlands, including impacts to wetlands and mitigation to offset the impacts, will be required.

A wetland evaluation was conducted and the results are summarized in the Wetland Evaluation Report (WER) (May 2016). Based on this evaluation, eight wetlands totaling 5.1 acres, and 13 surface waters totaling approximately 11.16 acres were documented within the study area. Table 3 provides a summary of the wetlands and surface waters in the project study area and the locations are shown on **Figure 4**.

TABLE 3 – SUMMARY OF WETLANDS AND SURFACE WATERS WITHIN PROJECT STUDY AREA (ACRES)

Wetland Number	FLUCFCS Description	FLUCFCS Code	Size (acres)
SW01 (Canal 103)	Streams and Waterways	510	3.86
SW02	Reservoirs less than 10 acres	534	0.23
SW03	Streams and Waterways	510	0.12
SW04	Streams and Waterways	510	0.87
SW05	Reservoirs less than 10 acres	534	0.53
SW06	Reservoirs less than 10 acres	534	0.30
SW07	Reservoirs less than 10 acres	534	1.89
SW08	Streams and Waterways	510	0.06
SW09	Reservoirs less than 10 acres	534	1.35
SW10	Reservoirs less than 10 acres	534	0.73
SW11	Streams and Waterways	510	0.09
SW12	Reservoirs less than 10 acres	534	1.04
SW13	Streams and Waterways	510	0.09
WL01	Exotic Wetland Hardwoods	619	0.88
WL02	Exotic Wetland Hardwoods	619	0.41
WL03	Exotic Wetland Hardwoods	619	0.40
WL04	Freshwater Marshes	641	0.20
WL05	Freshwater Marshes	641	1.25
WL06	Freshwater Marshes	641	1.47
WL07	Exotic Wetland Hardwoods	619	0.30
WL08	Freshwater Marshes	641	0.19
		Total Acres	16.26

Approximately 3.53 acres of surface waters and 0.01 acres of wetlands will be impacted by the preferred build alternative (See *Table 4*). There are no wetland impacts associated with the potential pond sites. The proposed action (Alternative 2) has increased surface water impacts; however, selection of this alternative minimized impacts to wetlands.

TABLE 4 – SUMMARY OF DIRECT WETLAND AND SURFACE WATER IMPACTS (ACRES)							
Wetland / Surface Water No.	FLUCFCS Description	FLUCFCS Code	Alternative 1	Alternative 2			
SW01	Streams/Waterways	510	1.14	3.53			
SW12	Reservoir less than 10 acres	534	0.01	-			
WL01	Exotic Wetland Hardwoods	619	0.01	0.01			
WL06	Freshwater Marshes	641	0.12	-			
	Surface Water I	1.15	3.53				
	Wetland I	0.13	0.01				
	Total Ir	1.28	3.54				

Secondary impacts will occur to approximately 0.42 acres of surface waters and 0.06 acres of wetlands. The surface waters consist of a man-made canal (*Table 5*). Based on current regulations mitigation is not required for impacts to surface waters; however, to minimize potential water quality impacts, culvert design will include mechanisms to allow for air exchange within the culvert and best management practices (BMPs) will be implemented to reduce sediment transport downstream and minimize erosion.

TABLE 5 — SUMMARY OF SECONDARY WETLAND AND SURFACE WATER IMPACTS							
WL/SW Number	FI II(:F(:S I)Qscription						
SW01	510	Streams and Waterways	0.22	0.19			
SW04	510	Streams and Waterways	-	0.22			
SW10	534	Reservoirs less than 10 acres	0.07	-			
SW12	534	Reservoirs less than 10 acres	0.09	_			

TABLE 5 — SUMMARY OF SECONDARY WETLAND AND SURFACE WATER IMPACTS							
WL/SW Number	FLUCFCS Code	FLUCFCS Description	Alter	native 1		native 2	
SW13	510	Streams and Waterways	0.	.01	0.	01	
WL01	619	Exotic Wetland Hardwoods	0.	0.06 0.05			
WL05	641	Freshwater Marshes	0.	0.07		-	
WL06	641	Freshwater Marshes	0.10		0.	01	
		SW	0.39	SW	0.42		
		Secondary Impact Totals:		0.23	WL	0.06	

Avoidance and minimization of impacts have been considered for the project. However, complete avoidance of surface waters and wetlands is not possible with a build alternative because there are several linear drainage features that parallel or cross the project area and wetlands that extend into the R/W. Alternative 2 minimizes impacts to wetlands, but has a greater impact on surface waters as the alignment is shifted south and includes culverting the Canal 103. Alternative 1 impacts the most wetland and includes impacts to WL 06 which has an existing conservation easement. Stormwater management ponds have been sited to avoid impacts to wetlands and where applicable provide buffers between the pond limits and adjacent wetlands.

Based on the location of the surface waters parallel to the existing road and the wetlands which extend to and within the road R/W, there is no practicable alternative to construction in wetlands or surface waters. Though a build alternative was considered that avoided Canal 103 (Build Alternative 1 – Canal Avoidance), this alternative resulted in greater R/W impacts (16 versus 9 parcels), greater impacts to business operations at the CEMEX plant and All-Scape Supply as well as greater impacts to the facilities at the Sherriff's office and the New Horizons. With the implementation of measures to minimize impacts and mitigation, the proposed project will have no significant short-term or long-term adverse impacts on wetlands.

Mitigation will be required by the USACE and SFWMD to compensate for impacts to wetlands and potential wood stork foraging habitat (e.g. roadside swales/ditches and littoral areas of surface waters) (*Wood Stork Effect Determination Key*). SFWMD commented during a preapplication meeting that for the canal alternative the design will need to allow of air exchange (e.g. saddle risers). FDOT is committed to providing means to allow for air exchange in the pipe. Wetland impacts which will result from the construction of this project will be mitigated pursuant to Section 373.4137, Florida Statues (F.S.), to satisfy all mitigation requirements of Part IV of Chapter 373, F.S and 33 U.S.C. §1344. Bluefield Mitigation Bank service area extends to the project corridor and there are mitigation credits available.

C.3. Water Quality and Quantity

ETDM Degree of Effect and Summary of Comments:

FDOT: Minimal

South Florida Water Management District (SFWMD): Minimal

US EPA: Minimal FDEP: Minimal

FDOT commented that FDOT acknowledges the ETAT agency's comments regarding the project's potential permit requirements and will obtain all required permits during final design. FDOT also acknowledges the ETAT's agency's concerns regarding the project's potential impacts to wetlands/surface waters and water quality. These concerns are addressed in more detail within each of the corresponding sections within this document. A Wetlands Evaluation and a Water Quality Impact Evaluation (WQIE) will be conducted during Project Development. FDOT will continue coordination with regulatory agencies, such as the North St. Lucie River Water Control District, throughout the development of the project to ensure all potential environmental issues are fully resolved. Additionally, water quality impact evaluation should be conducted to ensure no impact on water quality in Canal 103.

According to SFWMD, ERP permit (56-00833-S) exists for Midway Road from Selvitz to 25th Street. This permit could be modified to include the proposed project. The project currently discharges into C-103, which connects to the North Fork of the St. Lucie River. The North Fork of the St. Lucie River is an Outstanding Florida Water and portions of it are an Aquatic Preserve.

US EPA commented that stormwater quantity would increase due to an increased amount of impervious surfaces. A water quality impact evaluation should be conducted to ensure no impact on water quality of the C-103.

FDEP commented that there will be an increase in stormwater runoff containing oils, greases, metals, etc. which should be a concern. The proposed project may also alter the natural drainage patterns and the flood attenuation capacity of area creeks and ditches. Negative impacts from runoff should be minimized and stormwater treatment plans should include maintaining predevelopment hydroperiod and water quality.

A pond siting evaluation was conducted for this study and the results were summarized in the *Pond Siting Report (PSR)*, dated August 2016. A total of five pond sites and exfiltration trench in one drainage basin was evaluated. Two of the ponds were existing ponds and three were new pond sites. The ponds were sized to accommodate Outstanding Florida Water (OFW) criteria and nutrient loading analysis per comments from SFWMD. The recommended stormwater options included using two of the existing ponds and construction of two new ponds. A Water

Quality Impact Evaluation (WQIE) was conducted for the project to comply with the Clean Water Act and the Safe Drinking Water Act. A copy of the WQIE is included in *Appendix G*. The results of the WQIE indicate that the project will not result in significant impacts to water quality. Stormwater treatment facilities will be designed in accordance with applicable state and local regulations.

C.4. Outstanding FL Waters

As discussed above in the ETDM comments from SFWMD and during agency meetings with SFWMD, the project ultimately discharges to the North Fork of the St. Lucie River (NFSLR) which is both an impaired water and an OFW. The project is in two water body ID's (WBID) – Ten Mile Creek (WBID 3194A) which is impaired for fecal coliform, dissolved oxygen and nutrients with chlorophyll-a as the causative pollutant and S.t Lucie River (North Fork) which is impaired for mercury, copper, fecal coliform, dissolved oxygen and nutrients with chlorophyll-a as the causative pollutant. Portions of the river, south of the Midway Road Bridge over the NFSLR are in the NFSLR Aquatic Preserve. As discussed in the PSR, water quality treatment will include an additional fifty percent treatment volume and one-half inch of dry retention as pretreatment per the OFW treatment criteria. A pollutant loading analysis was conducted in the PSR and the stormwater system would be designed in accordance with SFWMD criteria to minimize effects to the OFW, AP and impaired waters.

C.6. Floodplains

ETDM Degree of Effect and Summary of Comments:

FDOT: None US EPA: None SFWMD: None

Based on a review of the Federal Emergency Management Agency, Flood Insurance Rate Maps (FEMA-FIRM) 12111C0169J, 12111C0188J, 12111C0260J, and 12111C0276J (eff. 2/16/2012), the project area is located within FEMA flood zone X (areas outside the 0.2% annual chance flood). There are no impacts to the 100-year floodplain or a regulatory floodway.

C.7. Coastal Zone Consistency

Through the ETDM Programming Screen, the State of Florida has determined that this project is consistent with the Florida Coastal Zone Management Plan.

C.9. Wildlife and Habit

ETDM Degree of Effect and Summary Comments:

FDOT: Minimal FWC: Minimal USFWS: Minimal

FDOT commented that FDOT acknowledges the agencies' concerns regarding the project's potential impacts to wildlife and habitat. An Endangered Species Biological Assessment (ESBA) and wetland evaluation (as described in the previous Wetlands issue) will be conducted during the PD&E Study. The ESBA will include wildlife surveys, plant community mapping, habitat characterizations, existing resources condition descriptions, and recommendations for sequentially avoiding, minimizing and mitigating direct, secondary, and cumulative effects on wildlife and habitat resources. The ESBA report will be prepared in compliance with Section 7 of the Endangered Species Act (ESA) of 1973, as amended (16 USC 1531 et seq.) and in accordance with Part 2, Chapter 27 of the FDOT PD&E Manual.

FWC commented that several species may occur within the project area including, gopher frog, gopher tortoise, American alligator, Eastern indigo snake, Florida pine snake, Audubon's crested caracara, Florida burrowing owl, Southeastern American kestrel, Florida sandhill crane, least tern, wood stork, limpkin, little blue heron, tricolored heron, roseate spoonbill, snowy egret, white ibis, and Sherman's fox squirrel. Additionally, the project area is within U.S. Fish and Wildlife Service Consultation Areas for Audubon's crested caracara, Florida grasshopper sparrow, red-cockaded Woodpecker, Florida scrub-jay, and snail kite, and is within the core foraging area of four wood stork colonies. Primary wildlife issues associated with this project include: potential adverse effects to a moderate number of species listed by the Federal Endangered Species Act as Endangered or Threatened, or by the State of Florida as Threatened or Species of Special Concern; potential water quality degradation as a result of additional stormwater runoff from the expanded roadway surface draining into adjacent waterways and wetlands; and potential for increased wildlife roadkill. Based on the project information provided, FWC believes that direct and indirect effects of this project could be minimal, provided that all roadway construction is confined to the existing ROW, any new DRAs are not constructed within areas of natural habitat, and degradation of adjacent or downstream water quality is avoided via inclusion of Best Management Practices in the project design.

USFWS commented that federally listed species that occur on or adjacent to the study area are: wood stork, Florida scrub-jay, Audubon's crested caracara, and eastern indigo snake. Surveys should be conducted for Florida scrub-jay and Audubon's crested caracara to determine extent of wildlife use, especially nesting habitat. The project corridor is located within the Core Foraging Areas (CFA) (within 18.6 miles) of three active nesting colonies of the endangered wood stork. Wetlands are also located within the project area and appropriate mitigation should be provided. This mitigation could suffice for impacts to the CFA of the wood stork. For projects that impact 5 or more acres of wood stork foraging habitat, USFWS requires a functional assessment be conducted using the "Wood Stork

Foraging Analysis Methodology" on the foraging habitat to be impacted and the foraging habitat provided as mitigation.

An endangered species evaluation was conducted and the results are summarized in the *Endangered Species Biological Assessment* (ESBA) (June 2016). *Table 6* summarizes the likelihood of occurrence for state and federally listed species based on the assessment of potential habitat and/or actual observance of the species.

TABLE 6 – STATE AND FEDERALLY LISTED FLORA AND FAUNA POTENTIALLY OCCURRING WITHIN THE PROJECT AREA								
Scientific Name	Common Name	Federal Status	State Status	Likelihood of Occurrence				
	MAMMALS							
Sciurus niger shermani	Sherman's Fox Squirrel	NL	SSC	High				
	BIRDS		<u> </u>					
Aphelocoma coerulescens	Florida Scrub-Jay	Т	Т	Low				
Polyborus plancus audubonii	Audubon's Crested Caracara	Т	Т	High				
Picoides borealis	Red-cockaded Woodpecker	Е	E	Low				
Rostrhamus sociabilis plumbeus	Everglade Snail Kite	Е	E	Low				
Mycteria americana	Wood Stork	Т	Т	High				
Haliaeetus leucocephalus	Bald eagle	N	N	High				
Sternula antillarum	Least Tern	N	Т	None				
Aramus guarauna	Limpkin	N	SSC	None				
Grus canadensis pratensis	Florida Sandhill Crane	N	Т	High				
Falco sparverius paulus	Southeastern American Kestrel	N	SSC	Moderate				
Athene cunicularia	Florida Burrowing Owl	N	SSC	Low				
Egretta caerulea	Little Blue Heron	N	SSC	Moderate				
Egretta thula	Snowy Egret	N	SSC	Low				
Eudocimus albus	White Ibis	N	SSC	Moderate				

Egretta tricolor	Tricolored Heron	N	SSC	Moderate
Platalea ajaja	jaja Roseate Spoonbill		SSC	Low
TABLE 6 – STATE	AND FEDERALLY LISTED OCCURRING WITHIN THE			TIALLY
Scientific Name	Common Name	Federal Status	State Status	Likelihood of Occurrence
	REPTILE	<u> </u>		<u>, </u>
Gopherus polyphemus	Gopher Tortoise	С	Т	High
Drymarchon corais couperi	Eastern Indigo Snake	Т	Т	Moderate
Pituophis melanoleucus mugitus	Florida Pine Snake	NL	scc	Low
Alligator mississippiensis	American Alligator	т	т	High
	AMPHIBIA	AN		
Lithobates capito	Gopher Frog	N	SSC	Moderate
	PLANTS	3	<u>, </u>	<u>, </u>
Coelorachis tuberculosa	Piedmont Jointgrass	N	Т	Low
Conradina grandiflora	Large-flowered Rosemary	N	Т	Low
Glandularia maritima	Coastal Vervain	N	Е	Low
Lechea cernua	Nodding Pinweed	N	Т	Low
Linum carteri var. smallii	Small's Flax	N	Е	Low
Nemastylis floridana	Celestial Lily	N	Е	Low
Polygala smallii	Tiny Polygala	Е	Е	Low
Pteroglossaspis ecristata	Giant Orchid	N	Т	Low

E= Endangered; T=Threatened; T(S/A) = Threatened due to Similarity of Appearance; SSC=Species of Special Concern; C – Candidate Species; N=Not Listed; The Bald Eagle has been removed from the Endangered Species List and has been delisted by FWC. However, it is included due to its protection under the Bald and Golden Eagle Protection Act and the FWC Eagle Management Guidelines. **Bold** – denotes observed in field.

Seven federally listed species were evaluated to determine if the proposed project will adversely affect these species *(Table 7).* Based on review of available data, in conjunction with field reconnaissance and surveys, the following effects determinations were made:

TABLE 7 – EFFECTS DETERMINATIONS FOR FEDERALLY LISTED SPECIES	
Common Name	Effect Determination
Audubon's crested caracara	May affect, not likely to adversely affect
Wood stork	May affect, not likely to adversely affect
Red-cockaded woodpecker	No effect
Everglade snail kite	No effect
Florida scrub jay	No effect
American alligator	No effect
Eastern indigo snake	May affect, not likely to adversely affect
Tiny polygala	No effect

Twenty-two additional state listed species were evaluated and adverse impacts are not anticipated, either because there is no habitat for the species along the corridor or habitat impacts are minimal and mitigation will be provided.

Avoidance and minimization of listed species impacts will continue to be evaluated during the final design, permitting and construction phases of this project, and FDOT will incorporate all possible and practicable measures to avoid or minimize these impacts during design. A copy of the USFWS concurrence on effects letter is attached in *Appendix H*.

Additional measures to avoid and minimize impacts to listed species potentially occurring within the Midway Road study area have also been considered and include the following:

- Prior to construction an updated caracara nest survey will be performed. Additional
 coordination will be conducted with USFWS, if necessary. Construction staging will be
 prohibited within the primary buffer of the caracara nest.
- An updated gopher tortoise survey will be conducted prior to construction. Gopher tortoises will be avoided, or if they cannot be avoided, a permit will be obtained for relocation.
- The Standard Protection Measures for the Eastern Indigo Snake will be implemented during construction (See **Appendix I**).

D. Physical

D.1. Noise

ETDM Degree of Effect and Summary Comments:

FDOT: Minimal – A Noise Study will be conducted.

A traffic noise study was performed in accordance with Code of Federal Regulations, Title 23, Part 772 (23 CFR 772) *Procedures for Abatement of Highway Traffic Noise and Construction Noise* using methodology established by FDOT in the PD&E Manual, Part 2, Chapter 17 (FDOT, May 24, 2011).

The Noise Study identified five (5) noise sensitive areas which were evaluated for potential impacts for the Existing Year 2015 Condition, the No-Build Alternative 2040 Condition, and the Build Alternative 2 2040 Condition. The noise sensitive areas evaluated are representative of one hundred and ten (110) noise sensitive receptor locations. The noise sensitive areas are as follows: the existing residential areas on the north and south side of W. Midway Road and the New Horizons Complex on the north side of the W. Midway Road. The Noise Abatement Criteria (NAC) Activity Categories for the noise sensitive areas evaluated include Activity Category B and C locations. The Activity Category B locations represent the residential areas. The Activity Category C locations represent the New Horizons Complex. Activity Category B and C locations require potential noise abatement measures for computer predicted sound levels which approach 66 dB(A).

Potential noise abatement measures were evaluated at one (1) location on the southeast side of the study corridor west of Selvitz Road. The remaining noise sensitive areas did not approach or exceed the appropriate NAC for the Activity Categories evaluated. Potential noise barrier placement (BW1S) was evaluated for the residential dwellings identified as R84S and R85S. Additionally, two (2) neighboring residential dwellings (R84A S and R85A S) were also evaluated. A noise barrier approximately 500 feet long and 10 feet high was determined to meet the FDOT's feasibility factor (Noise Reduction Factor) and reasonableness factor (Noise Reduction Design Goal). The cost of the noise barrier is approximately \$ 150,000.00. The cost per benefitted receptor is approximately \$ 37,500.00. The cost of the noise barrier meets the FDOT's cost reasonableness of \$ 42,000.00 per benefitted receptor.

The FDOT is committed to the construction of feasible and reasonable noise abatement measures at the noise-impacted locations identified in the Noise Report contingent upon the following conditions:

• Detailed noise analyses during the final design process support the need, feasibility and reasonableness of providing abatement.

- Cost analysis indicates that the cost of the noise barrier(s) will not exceed the cost reasonable criterion.
- Community input supporting types, heights, and locations of the noise barrier(s) is provided to the District Office.
- Safety and engineering aspects as related to the roadway user and the adjacent property owner have been reviewed and any conflicts or issues have been resolved.

All applicable St. Lucie County noise ordinances as found in Chapter 1-13.8, Noise Control, of the St. Lucie County Code of Ordinances will be adhered to during construction.

D.2. Air Quality

ETDM Degree of Effect and Summary Comments:

FDOT: Minimal
US EPA: Minimal

During the ETDM, EST review, the FDOT stated that this project is located within a USEPA designated Air Quality Maintenance Attainment Area for all of the four pollutants (nitrogen oxides, ozone, carbon monoxide, and small particulate matter) specified in the National Ambient Air Quality Standards (NAAQS). Activities during construction will use BMPs to minimize the impact of fugitive emission and dust resulting from construction activities. The project area is in attainment for all air quality standards related to transportation. The proposed scope of work, widening from two to four lanes will improve the corridor's level of service, and, therefore, is not anticipated to adversely affect air quality. An Air Quality screening evaluation will be performed during the PD&E Study to confirm and quantify impacts, if any.

During the ETDM, EST review, the EPA stated that this project is located within a USEPA designated Air Quality Maintenance Attainment Area for all of the four pollutants (nitrogen oxides, ozone, carbon monoxide, and small particulate matter) specified in the National Ambient Air Quality Standards (NAAQS). Activities during constructions should use BMPs to minimize the impact of fugitive emission and dust resulting from construction activities.

An Air Quality screening was conducted for this project. The Build and No-Build alternatives for both the opening year (2020) and the design year (2040) were evaluated. The operations of the proposed facility are anticipated to result in maximum one-hour CO concentrations of 7.3 ppm and maximum eight-hour CO concentrations of 4.4 ppm in the design year for the Build Alternatives. These values do not meet or exceed the National Ambient Air Quality Standards (NAAQS) established by the United States Environmental Protection Agency (USEPA) of 35 ppm for a one-hour concentration and 9 ppm for an eight-hour concentration, with either the Build or No-Build alternatives. Thus, the project "passes" the screening model and no adverse impacts to air quality are anticipated to result from the operation of this project. The project is in an area

which is designated attainment for all the National Ambient Air Quality Standards under the criteria provided in the Clean Air Act. Therefore, the Clean Air Act conformity requirements do not apply to the project.

Construction activities may cause minor short-term air quality impacts in the form of dust from earthwork and unpaved roads. These impacts can be minimized by adherence to all applicable State and local regulations the *FDOT Standard Specifications for Road and Bridge Construction*.

D.3. Construction

Construction activities for the proposed improvements will have temporary air, noise, water quality, traffic flow, and visual impacts for those residents and travelers within the immediate vicinity of the project.

The air quality impact will be temporary and will primarily be in the form of emissions from diesel powered construction equipment and dust from embankment and haul road areas. Air pollution associated with the creation of airborne particles will be effectively controlled using watering or the application of calcium chloride in accordance with FDOT's Standard Specifications for Road and Bridge Construction as directed by the FDOT Project Manager.

Noise and vibration impacts will be from the heavy equipment movement and the driving of piles for boardwalks and bridge crossings. Noise control measures will include those contained in FDOT's Standard Specifications for Road and Bridge Construction.

Water quality impacts resulting from erosion and sedimentation will be controlled in accordance with FDOT's Standard Specifications for Road and Bridge Construction and using Best Management Practices. Stormwater pollution prevention measures will be developed per FDOT standards and in accordance with NPDES permit requirements.

Maintenance of Traffic and Sequence of Construction will be planned and scheduled to minimize traffic delays throughout the project. Signs will be used as appropriate to provide notice of lane closures and other pertinent information to the traveling public. The local news media will be notified in advance of lane closings and other construction related activities, which could excessively inconvenience the community so that motorists, residents, and businesspersons can plan travel routes in advance.

A sign providing the name, address, and telephone number of a Department contact person will be displayed on site to assist the public in obtaining immediate answers to questions and logging complaints about project activity.

Access to all businesses and residences will be maintained to the extent practical through controlled construction scheduling. Traffic delays will be controlled to the extent possible where many construction operations are in progress at the same time. The contractor will be required to

maintain one lane of traffic in each direction at all times, and to comply with the BMPs of FDOT. Also, present traffic movements will be maintained at all times. No locations will require temporary roads or bridges.

The removal of structures and debris will be in accordance with local and state regulatory agencies permitting this operation. The contractor is responsible for methods of controlling pollution on haul roads (if used), in borrow pits, other materials pits, and areas used for disposal of waste materials from the project. Temporary erosion control features, as specified in the FDOT's Standard Specifications for Road and Bridge Construction, Section 104, will consist of temporary grassing, sodding, mulching, sandbagging, hay bales, slope drains, sediment basins, sediment checks, artificial coverings, and berms.

D.4. Contamination

ETDM Degree of Effect and Summary Comments:

FDOT: Moderate US EPA: Moderate SFWMD: Minimal FDEP: Moderate

During the ETDM, EST review, the FDOT commented that A Contamination Screening Evaluation Report (CSER) will be prepared during the PD&E phase to further document these sites and any other potentially contaminated sites, and assess their involvement with the project. During final design, the CSER will be reevaluated, additional assessment (Level I) and remediation (Level II) activities will occur as needed, and various recommendations for construction will be implemented. Dewatering, if allowed, may need to be limited (i.e., low flow, short term) to avoid exacerbation of contamination. Special Provisions addressing Areas of Known Contamination, and/or "Section 120 Excavation and Embankment - Unidentified Areas of Contamination" (FDOT Standard Specifications for Road and Bridge Construction), will be included in the project's construction contract documents.

EPA commented that a solid waste facility, a biomedical waste facility, a hazardous waste facility, and several petroleum contamination monitoring sites and storage tank contamination monitoring sites are within the 200-foot buffer of the proposed project. A site-specific survey for known subsurface contamination will help design construction activities. Contingencies should be in place to manage encountered contamination.

SFWMD commented that a water use permit for dewatering may be required and should be coordinated with SFWMD before the ERP is submitted. Project construction activities must be designed and performed in a manner that will not result in the movement of contaminant plumes.

FDEP commented that a Contamination Screening Evaluation may be needed. The Contamination Screening should outline specific procedures that would be followed by the applicant if drums, wastes, tanks or potentially contaminated soils are encountered during construction. Special attention should be made to historic land uses (such as solid waste disposal) that may affect the project or stormwater facilities.

A Level I contamination screening evaluation was conducted and the results are summarized in the *Level I Contamination Screening Evaluation Report* (CSER), dated August 2016. The purpose of the contamination screening evaluation was to identify, review and evaluate known or potential contamination problems, provide risk rankings for those properties, facilities or sites that have the potential for contamination to affect the proposed improvements and to present recommendations concerning these problems. A total of 8 sites were reviewed for the potential of environmental impact. Five of these sites were assigned a ranking of "Low", one was assigned a ranking of "Medium" and two were assigned a ranking of "High". The rating system used for this report indicates that additional assessment activities are not recommended for sites ranking Low. Once R/W and drainage plans are finalized, it is recommended that another review of the public record and other pertinent data be performed to obtain the latest information concerning assessment or remediation activities for Low risk sites or Medium and High risk sites that are less than 300 feet from the corridor or currently lack documented contamination impacts.

In addition to the mainline sites, five pond sites and the use of exfiltration along the road R/W were evaluated. The risk ratings for the ponds and exfiltration trench evaluation include 1 Medium risk (Pond Site B-2) and five Low risk rankings. Pond B-2 is in the same areas as Site 8 – Former Agricultural Field (*Table 8*).

TABLE 8 – SITES RECOMMENDED FOR LEVEL II CONTAMINATION IMPACT ASSESSMENT						
Site No.	Site Name	Site Address	Contaminants Of Concern	Risk Potential Rating		
1	Townstar # 38	6600 Midway Rd	Petroleum Products	HIGH		
2	CSX Railroad	West end of project corridor	Petroleum Products, Herbicides and Pesticides	HIGH		
8	Former Agricultural Field	N/A	Herbicides, Pesticides and Heavy Metals	MEDIUM		

For sites or potential pond areas ranked no or low, no additional work is recommended at this time. These facilities are located at a distance that would not be expected to present contamination involvement to the project. Should the facility's permitting or regulatory status change between now and the time acquisitions are initiated, additional screening should be conducted.

For those locations with a risk ranking of "Medium" or "High", Level II field screening should be conducted unless proposed improvements do not include new R/W purchase or modifications to existing conditions. A soil and groundwater sampling plan should be developed for each site. The sampling plan would provide sufficient detail as to the number of soil and groundwater samples to be obtained and the specific analytical test to be performed.

Level II Contamination Impact Assessments are also recommended for any areas that have proposed dewatering or subsurface work activities (e.g. pole foundations, drainage features) occurring adjacent to or at any of the sites listed in Table 8 of the CSER. If dewatering is necessary during construction, a SFWMD Water Use Permit may be required. The contractor will be held responsible for ensuring compliance with any necessary dewatering permit(s). Any dewatering operations near potentially contaminated areas shall be limited to low-flow and short-term. A dewatering plan may be necessary to avoid potential contamination plume exacerbation.

This proposed project may result in contamination concerns. Any soil excavations and/or dewatering effluent generated during construction should be handled appropriately using BMPs to preclude the potential migration of contaminants within the project corridor. In addition, any construction activities conducted within a potentially contaminated area must protect the health of workers and the public.

Resolution of problems regarding contamination will be coordinated by FDOT with appropriate regulatory agencies and action will be taken, where applicable. Further coordination with the regulatory agencies, and possibly field surveys involving monitoring wells, soil borings and other site-specific methods, can identify potential contamination issues so that avoidance, minimization, and remediation measures can be taken.

Procedures specifying the contractor's responsibilities regarding encountering petroleum-contaminated soil and/or groundwater are set forth in *FDOT's Standard Specifications for Road and Bridge Construction*. If identified contamination will be impacted, general notes addressing the contamination will be included in the plans as determined by the District Contamination Impact Coordinator.

A National Emission Standards for Hazardous Air Pollutants (NESHAP) asbestos survey and screening for lead based coatings was conducted for Bridge #940050 (Midway Road over Florida's Turnpike). The results of the survey are summarized in the NESHAP Asbestos Survey and Lead Based Paint Report, dated May 2016, and show no Asbestos Containing Material (ACM) as a result of laboratory Polarized Light Microscopy (PLM) tests, but lead based paint was identified in all samples taken. Based on the conceptual description of work, the bridge will be replaced. During the initial design phase of the project, the District Contamination Impact Coordinator (DCIC) will review the scope of work on, or adjacent to, any potentially affected bridges and determine if additional ACM sampling is required in areas not accessible to the investigator during the previous ACM Survey.

D.5. Aesthetic Effects

ETDM Degree of Effect and Summary Comments:

FDOT: Minimal

FDOT commented in ETDM that GIS Analysis and ETAT agency comments identified a park Milner Drive Tot, in the vicinity of the project corridor and an existing bridge (Bridge #940050) along Midway Road over the Florida's Turnpike. The park is located approximately 500-ft to the east of the Florida's Turnpike and it is not anticipated that the project will directly affect the park. However, changes to the Florida Turnpike crossing, such as raising the profile grade for a new bridge, may affect aesthetics for adjacent facilities. Additionally, there is a native plant buffer between Canal 103 and the residential community to the south. The City of Port St. Lucie and County have entered into an agreement to ensure that the existing native plant buffer is preserved to the greatest extent possible. FDOT shall coordinate with the City of Port St. Lucie and the County.

The park on Milner Drive is not within the project corridor and will not be impacted because of the preferred alternative. No agencies commented on this issue during the review of the project. Additionally, on the south side of the corridor the City of Port St. Lucie has requested that the buffer between Canal 103 and the neighboring residential areas be preserved to the greatest extent practicable. This buffer is included in the plans. Exotics will be removed and supplemental native plantings installed to provide this buffer and minimize visual effects. The addition of landscaping, amenities and other aesthetic improvements will be addressed during the design phase of the project. Impacts to aesthetics are anticipated to be minimal.

D.6. Bicycles and Pedestrians

FDOT: Enhanced

FDOT commented in ETDM that GIS Analysis and ETAT agency comments identified several commercial, industrial, county and federal facilities along the project corridor. The project will tie into the existing four lane section along Midway Road (CR 712) on the west side from Glades Cut-off Road to I-95 and to the widening project east of Selvitz Road that is being developed by the St. Lucie County. This project in anticipated to improve vehicular connectivity, mobility, emergency response, and evacuation access to I-95. FDOT shall coordinate with St. Lucie County to create opportunities to include pedestrian, bicycle, and transit facilities.

The accessibility to bicyclists and pedestrians along the corridor is minimal with only two sections of sidewalk within the corridor. They are located on the north side of Midway Road (CR 712) from

East Torino Boulevard to Glades Cut Off Road and along the frontage of the recently constructed New Horizons medical facility. There are no bicycle lanes. During a field review (February 7, 2014), pedestrians were noted walking on the grassed shoulder while pushing a child's stroller. Additionally, the existing bridge over the Florida's Turnpike does not have sufficient shoulder width to accommodate pedestrian or bicycle traffic. The recommended alternative includes seven-foot buffered bike lanes in each direction located adjacent to the outside travel lanes. A six-foot wide sidewalk would be provided on the north side of the roadway, and a 12-foot-wide shared-use path would be provided along the south side of the roadway. These bicycle and pedestrian facilities will connect to other sections of Midway Road to the east and side streets improving overall multimodal connectivity.

D.7. Utilities and Railroads

Eight Utility Agency/Owners (UAO) have been identified within the project area through the Sunshine 811 Design Ticket and utility coordination efforts. *Table 9* identifies the UOAs contacted and a description of their facilities located on the project.

In accordance with Part 2, Chapter 10 of the PD&E Manual, the utility providers listed in **Table 9** were notified of the proposed improvements and submitted files to identify any easements and the location of their existing/planned utilities within the project area.

Based on information from UAO mark-ups, project survey, and existing right-of-way maps, there are several utilities located within existing easements found on this project. The utility facilities located in easements include Florida Power and Light (FP&L), AT&T, Comcast Communications (Comcast), Fort Pierce Utility Authority (FPUA), and Florida Gas Transmission (FGT). FP&L maintains an existing overhead distribution pole line in a 10-foot utility easement along the south side of Midway Road from Glades Cut Off Road to NW Milner Drive. Comcast is also located in this 10-foot easement underbuilt on FP&L's pole line. Portions of both AT&T's facilities and FPUA's existing 12-inch water main and 8-inch gas mains along the north side of the road in front of the St. Lucie County Sherriff's Office are in an easement adjacent to the right-of-way. The project also includes a 75-foot FGT easement located along the east side of Florida's Turnpike crossing under the existing Midway Road bridge. FGT maintains 30-inch, 24-inch, and 18-inch steel high pressure gas mains within the same easement.

Since relocations of facilities located in easements would likely be eligible for reimbursement, all measures will be taken to avoid impacting these existing AT&T, FGT, FPUA, Comcast, and FP&L facilities. Though relocation of other facilities within the existing right-of-way are anticipated, all efforts will be made during final design to minimize impacts to the overhead and underground utilities to the greatest extent possible.

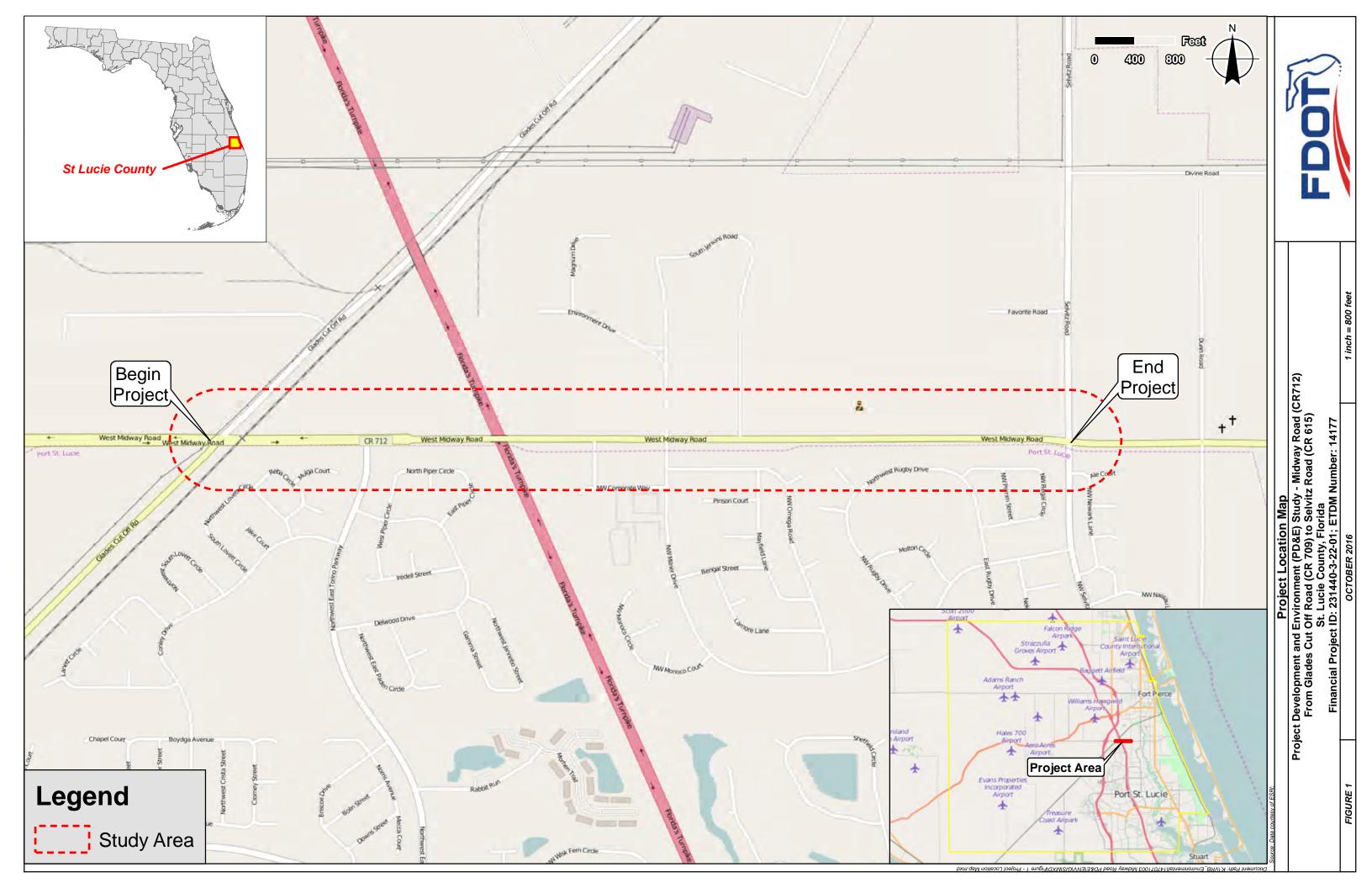
Additional information regarding the existing utilities and anticipated impacts can be found in the *Midway Road Utility Assessment Report* (Inwood Consulting Engineers, Inc., May 2016) located within the project files.

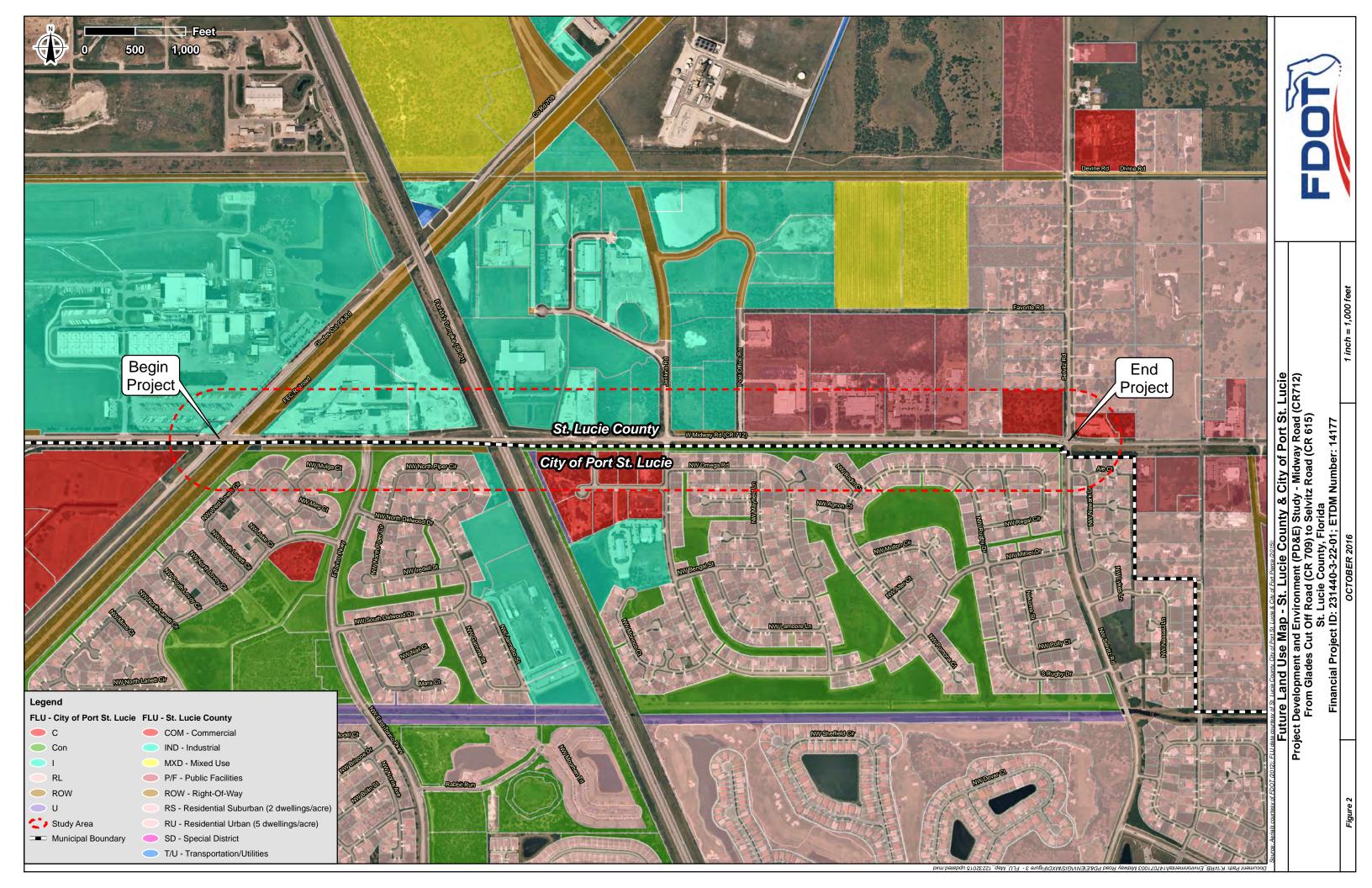
The project includes one railroad crossing located just east of Glades Cut Off Road. The crossing is a single track serving FEC Railroad freight trains and is located within a 200-foot FEC Railroad R/W. St. Lucie County was given authorization to cross the FEC Railroad R/W with Midway Road under a license agreement between the two entities. All existing FEC Railroad facilities including, but not limited to, control cabinets, conduit, fiber, electrical wiring, cantilevers, flashing lights, bells, gates, and all other warning devices are located with FEC Railroad's current R/W. Relocation of these facilities to accommodate the proposed roadway improvements would be eligible for reimbursement. Based on the recommended alternative, it is anticipated that all FEC Railroad's existing facilities would be impacted. Close coordination during the design phase will be required with FEC Railroad and the FDOT Rail Office to verify the exact locations of existing and future relocated FEC Railroad facilities.

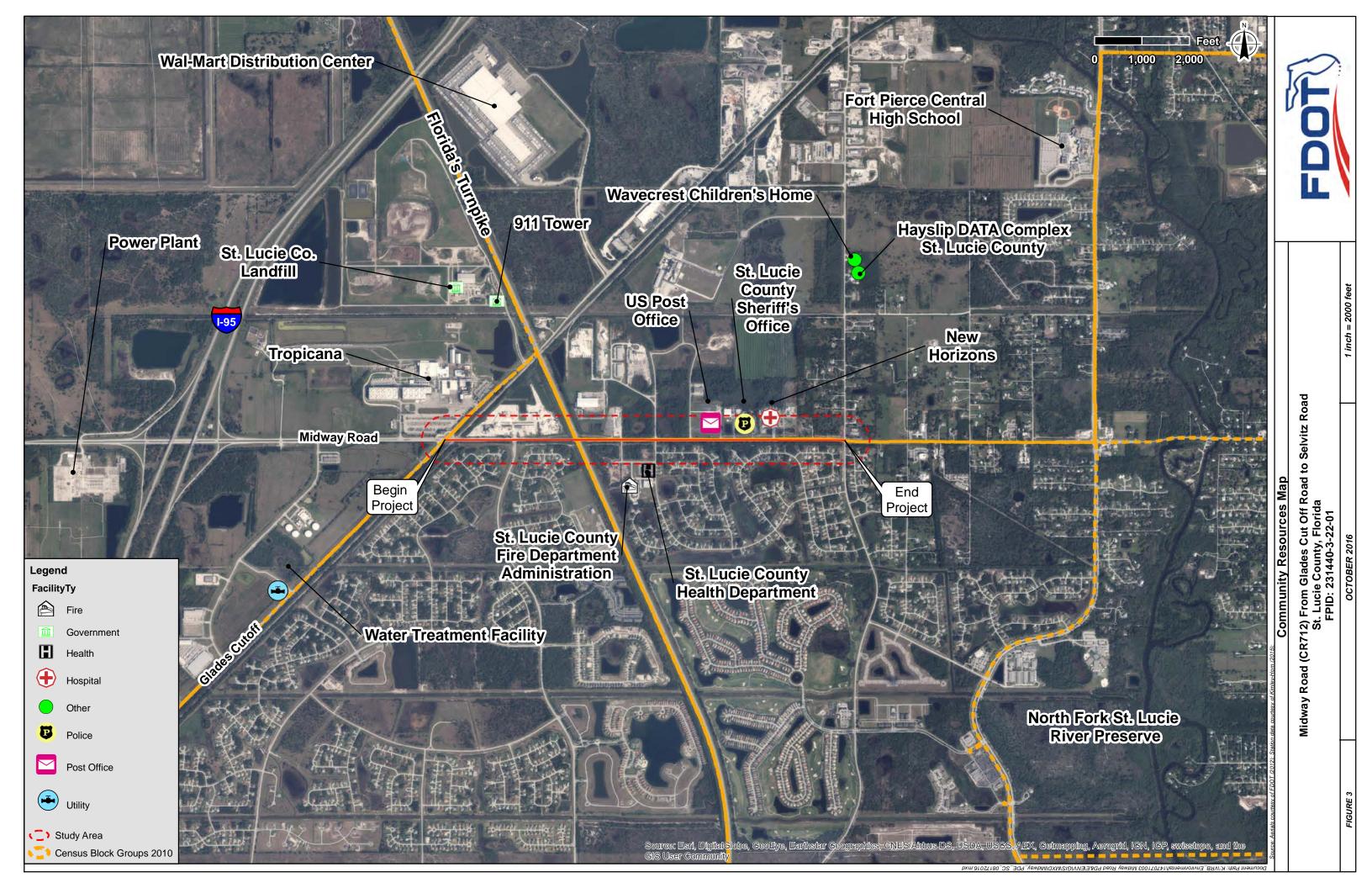
TABLE 9 – UTILITY PROVIDERS IN THE CORRIDOR				
Utility Company	Facility	Description		
AT&T	Aerial Fiber Buried Copper/Fiber	AT&T maintains both aerial and buried facilities along the north side of Midway Road for the limits of the project. Aerial facilities are attached to both AT&T poles and FP&L's pole line.		
City of Port St. Lucie	8"-20" WM 4" FM 2" Fiber	The City maintains a water main ranging in size from 12-16-inch along the south side of Midway Road for the limits of the project. Recently relocated water main along the east side of the project also included installation of 2-inch fiber. The City also maintains a 4-inch force main along the south side of the Road from Glades Cut Off Road to NW East Torino Parkway.		
Comcast Communications	Aerial Fiber	Comcast maintains aerial fiber attached to FP&L's pole line located along the south side of Midway Road from Glades Cut Off Road to NW Milner Drive, where their facilities exit the project.		
Florida Gas Transmission	18", 24" 30" GM	FGT maintains 30-inch, 24-inch, and 18-inch steel high pressure gas mains within a 75-foot easement located along the east side of Florida's Turnpike crossing under the existing Midway Road bridge.		
Florida Power & Light-Distribution	13 kV Overhead Dist.	FP&L maintains an overhead and buried distribution electric line (<50 kV) along the south side of Midway Road in an easement from Glades Cut Off Road to NW Milner Drive. FP&L also has an overhead electric line along the north side of the road from just east of NW East Torino Parkway to Selvitz Road.		
Florida Power & Light-Transmission	230 kV Overhead Trans.	FP&L maintains a 230-kV aerial transmission line along the west side of Glades Cut Off Road.		

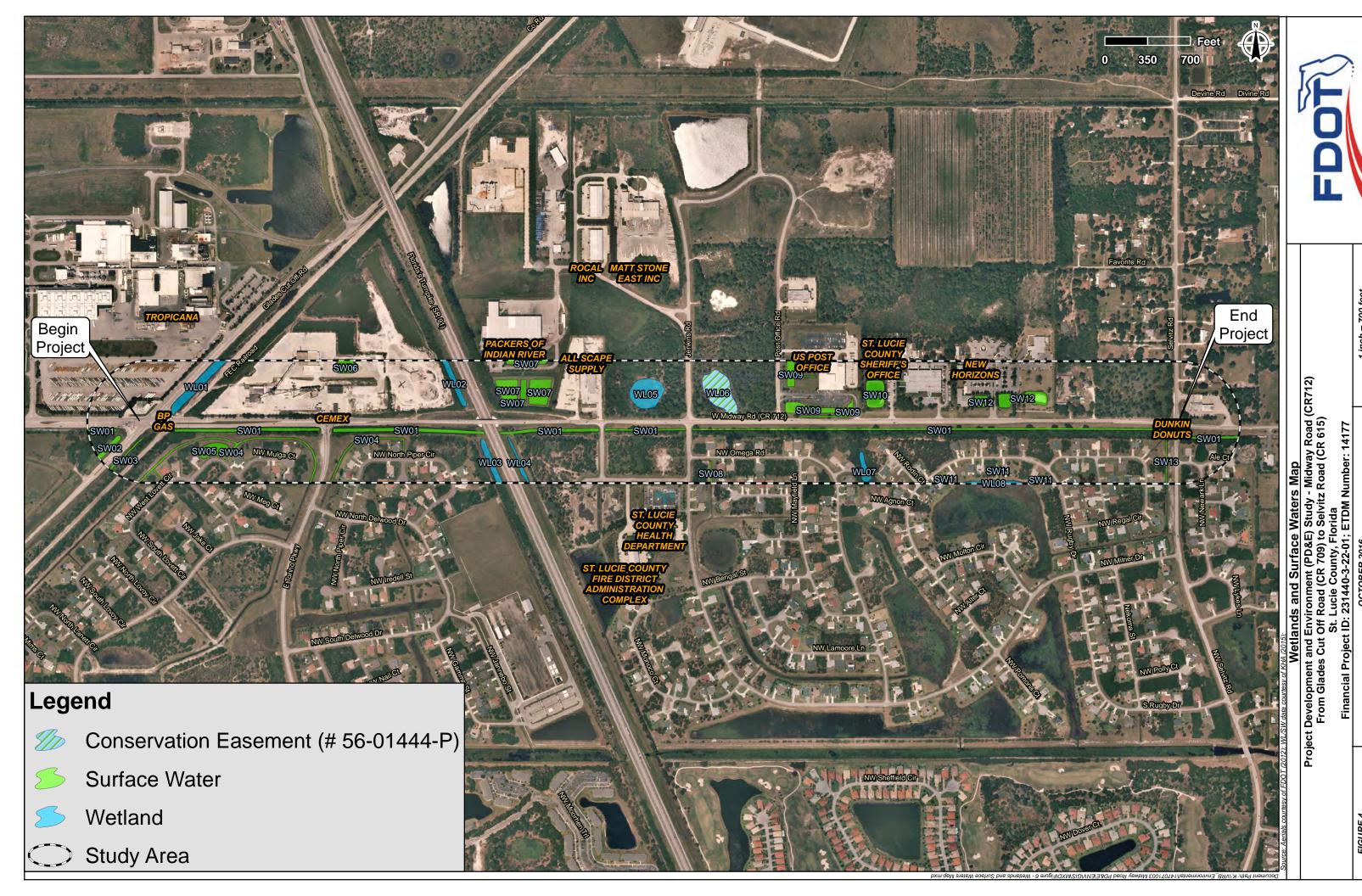
TABLE 9 – UTILITY PROVIDERS IN THE CORRIDOR					
Utility Company	Facility	Description			
Ft. Pierce Utility Authority	12" WM 6" FM 8" GM	FPUA maintains a 12-inch water main and an 8-inch gas main along the north side of Midway Road starting from S Jenkins Road to Selvitz Road. Portions of the water and gas mains are in easements. FPUA also maintains a 6-inch force main along the south side of the road from just east of the County Sherriff's Office to Selvitz Road.			
St. Lucie County Utilities 8" FM		The County maintains an 8-inch force main along the north side of Midway Road which turns and travels along the west side Glades Cut Off Road. The County also has a 16-inch water main along the south side of Midway Road, which also turns and continues along the west side of Glades Cut Off Road. The County does not have any additional facilities east of Glades Cut Off Road.			











ALL APPENDICES ARE CONTAINED IN THE SEPARATE TYPE 2 CATEGORICAL EXCLUSION DETERMINATION FORM CONTAINED IN THE PROJECT FILES