Adopted February 3, 2021

St. Lucie Transportation Planning Organization

SMART MOVES 2045

St. Lucie TPO Long Range Transportation Plan

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Acronyms

3-C	Cooperative, Continuous, and Comprehensive
ABM	Activity-Based Model
ACES	Automated, Connected, Electric, and Shared-Use
ATCMTD	Advanced Transportation and Congestion Management Technologies Deployment Initiative
ATMS	Advanced Transportation Management System
ATSC	Adaptative Traffic Signal Control
AV	Autonomous Vehicle
AV FTAC	Automated Vehicle Fast Track Action Committee
BEBR	Bureau of Economic and Business Research
BOCC	County Governing Board
BPAC	Bicycle/Pedestrian Advisory Committee
BRT	Bus Rapid Transit
BUILD	Better Utilizing Investments to Leverage Development
CAC	Citizen's Advisory Committee
CCTV	Closed Circuit Television
CEI	Construction Engineering Inspection
CIG	Capital Investment Grants Program
CIGP	County Incentive Grant Program
CMP	Congestion Management Process
CRA	Community Redevelopment Areas
CRISI	Consolidated Rail Infrastructure and Safety Improvements
CST	Construction
CTST	Community Traffic Safety Team
DDR	District Dedicated Revenue
E+C	Existing+Committed
ENV	Environmental
EJ	Environmental Justice
FAST	Fixing America's Surface Transportation
FDOT	Florida Department of Transportation
FHWA	Federal Highway Administration
FLZ	Freight Logistics Zone
FTA	Federal Transit Administration
FTP	Florida Transportation Plan
FY	Fiscal Year
GIS	Geographic Information System
HOV	High-Occupancy Vehicle
HSIP	Highway Safety Improvement Program
HTF	Highway Trust Fund
IMI	Integrated Mobility Innovation
INC	Construction Incentive
INFRA	Infrastructure for Rebuilding America
IRLSH	Indian River Lagoon Scenic Highway
ITS	Intelligent Transportation System
LAR	Local Agency Reimbursement
LCB	Local Coordinating Board for Transportation Disadvantaged
LOFT	Local Option Fuel Tax
LOS	Level of Service
LRTP	Long Range Transportation Plan
MAC	Major Activity Centers
MAP-21	Moving Ahead for Progress in the 21st Century Act
MARTY	Martin County Public Transit
MOD	Mobility on Demand

MPO	Metropolitan Planning Organization
MSTU	Municipal Services Taxing Unit
NHPP	National Highway Performance Program
NHS	National Highway System
NHTSA	National Highway Traffic Safety Administration
NOAA	National Oceanic and Atmospheric Administration
NSBP	National Scenic Byways Program
NSTC	National Science and Technology Council
NSTP	New Start Program
O&M	Operations and Maintenance
PD&E	Project Development and Environment
PE	Preliminary Engineering
PIP	Public Involvement Plan
PKBD	Turnpike Master Bond Fund
PKYI	Turnpike Improvement
PPP	Public Participation Plan
PTASP	Public Transportation Agency Safety Plan
ROW	Right-of-Way
RRU	Railroad/Utilities Construction
SCETS	State Comprehensive Enhanced Transportation Systems
SFCS	South Florida Commuter Services
SHSP	Strategic Highway Safety Plan
SIS	Strategic Intermodal System
SLR	Sea Level Rise
SPTO	State Public Transportation Office
STBG	Surface Transportation Block Grant
STTF	State Transportation Trust Fund
TA	Transportation Alternatives
TALT	Transportation Alternatives – Any Area
TALU	Transportation Alternatives ≥ 200K
TAC	Technical Advisory Committee
TAZ	Traffic Analysis Zone
TCCME	Treasure Coast Corridor Management Entity
TCRMP5	Treasure Coast Regional Planning Model version 5
TDC	Tourist Development Council
TDD	Transportation Development Districts
TDP	Transit Development Plan
TDSP	Transportation Disadvantaged Service Plan
TERM	Transit Economic Requirements Model
TID	Transportation Improvement Districts
TIF	Transportation Impact Fees
TIF	Tax Increment Financing
TIGER	Transportation Investment Generating Economic Recovery
TIP	Transportation Improvement Program
TMA	Transportation Management Area
TOD	Transit Oriented Development
TPO	Transportation Planning Organization
TRIP	Transportation Regional Incentive Program
TSMO	Transportation Systems Management and Operations
TTR	Travel Time Reliability
USACE	U.S. Army Corps of Engineers
V/C	Volume-to-Capacity
VMT	Vehicle Miles Traveled
YOE	Year of Expenditure

Chapter 1. Plan Overview

- About the St. Lucie TPO
- About *SmartMoves 2045*
- Plan Organization

Chapter 1. Plan Overview

1.1 About the St. Lucie TPO

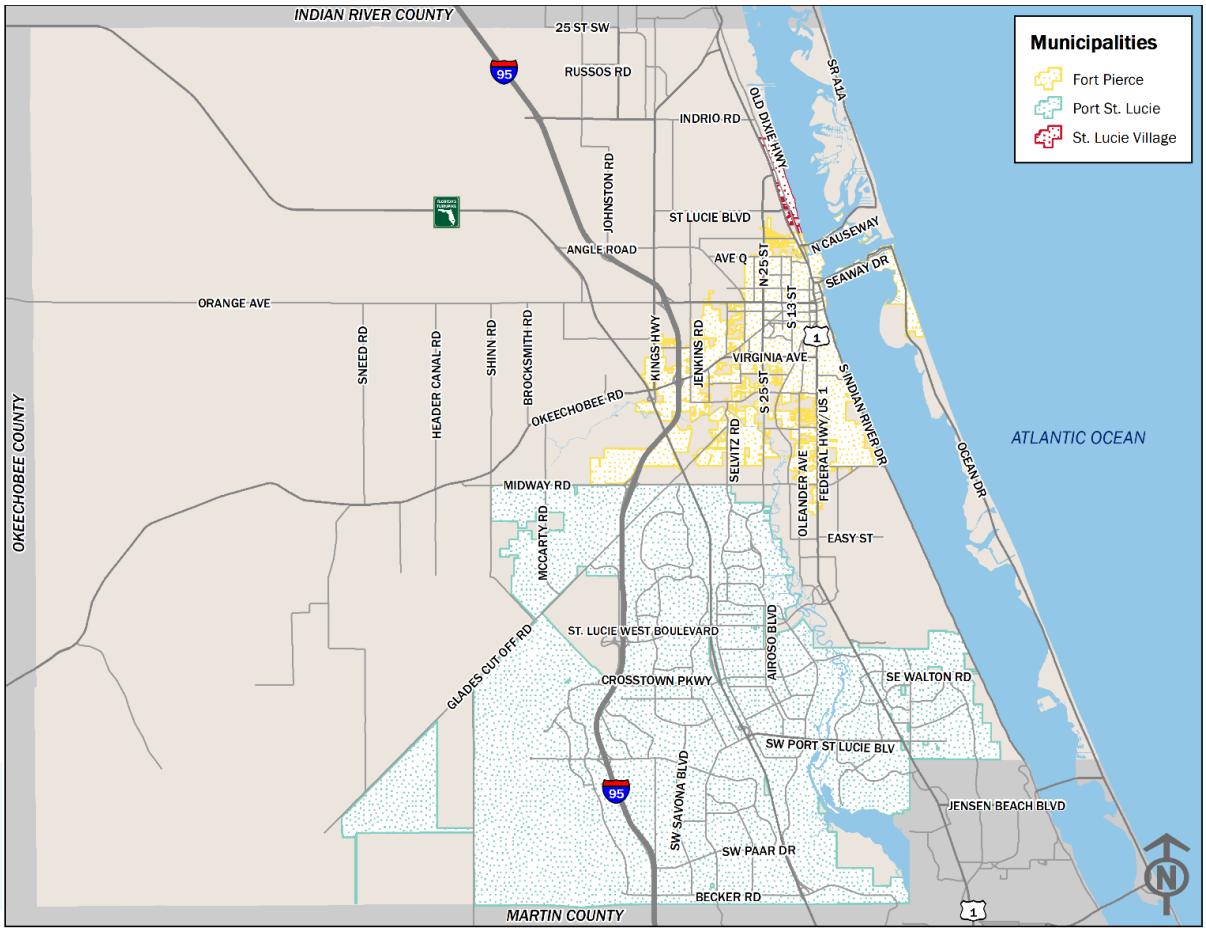
The St. Lucie Transportation Planning Organization (TPO) is an independent metropolitan planning organization (MPO) responsible for the transportation planning and programming for the City of Fort Pierce, City of Port St. Lucie, St. Lucie Village, and the unincorporated areas of St. Lucie County. MPOs are established by federal requirements for urbanized areas that exceed 50,000 in population, and provides the TPO planning and project prioritization responsibility of federal transportation funds.

The St. Lucie TPO Board meets regularly to act on plans and programs prepared by the TPO and determine how best to meet the transportation needs of the area. The Board is comprised of the following twelve (12) members.

- Four (4) St. Lucie County Board of County Commissioners
- Four (4) City of Port St. Lucie Councilmembers
- Two (2) City of Fort Pierce Commissioners
- One (1) St. Lucie County School Board member
- One (1) Community Transit representative

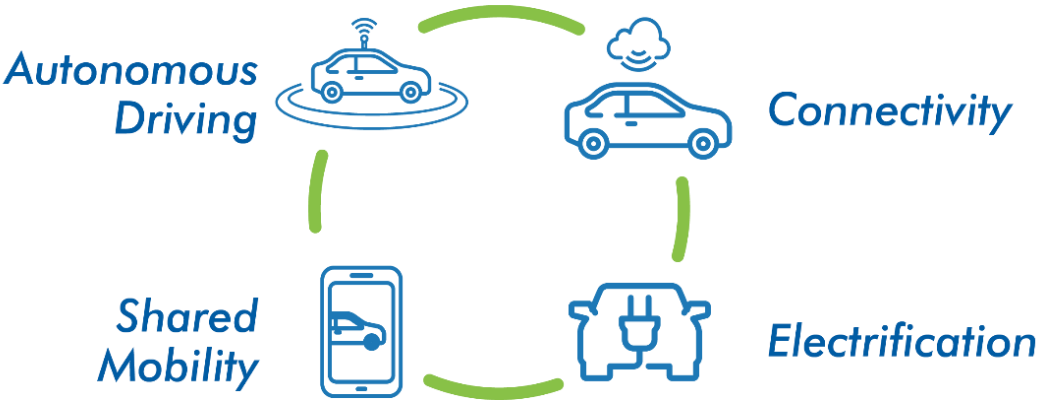
In addition to the Board, the TPO administers the following advisory committees.

- Technical Advisory Committee (TAC)
- Citizen's Advisory Committee (CAC)
- Local Coordinating Board for Transportation Disadvantaged (LCB)
- Bicycle/Pedestrian Advisory Committee (BPAC)
- Indian River Lagoon Scenic Highway (IRLSH) Treasure Coast Corridor Management Entity (TCCME) Meeting



1.2 About SmartMoves 2045

SmartMoves 2045 represents the Long Range Transportation Plan (LRTP) for the St. Lucie TPO through the planning horizon year of 2045. *SmartMoves 2045* serves as an instrument to identify needed improvements to the transportation network; and provides a financially constrained, long term investment framework to address current and future transportation challenges over the next 25 years. This will assist the community such as citizens, businesses, and elected officials in cultivating their transportation vision for the TPO area through the year 2045. Additionally, the plan must be reviewed and updated every five (5) years.



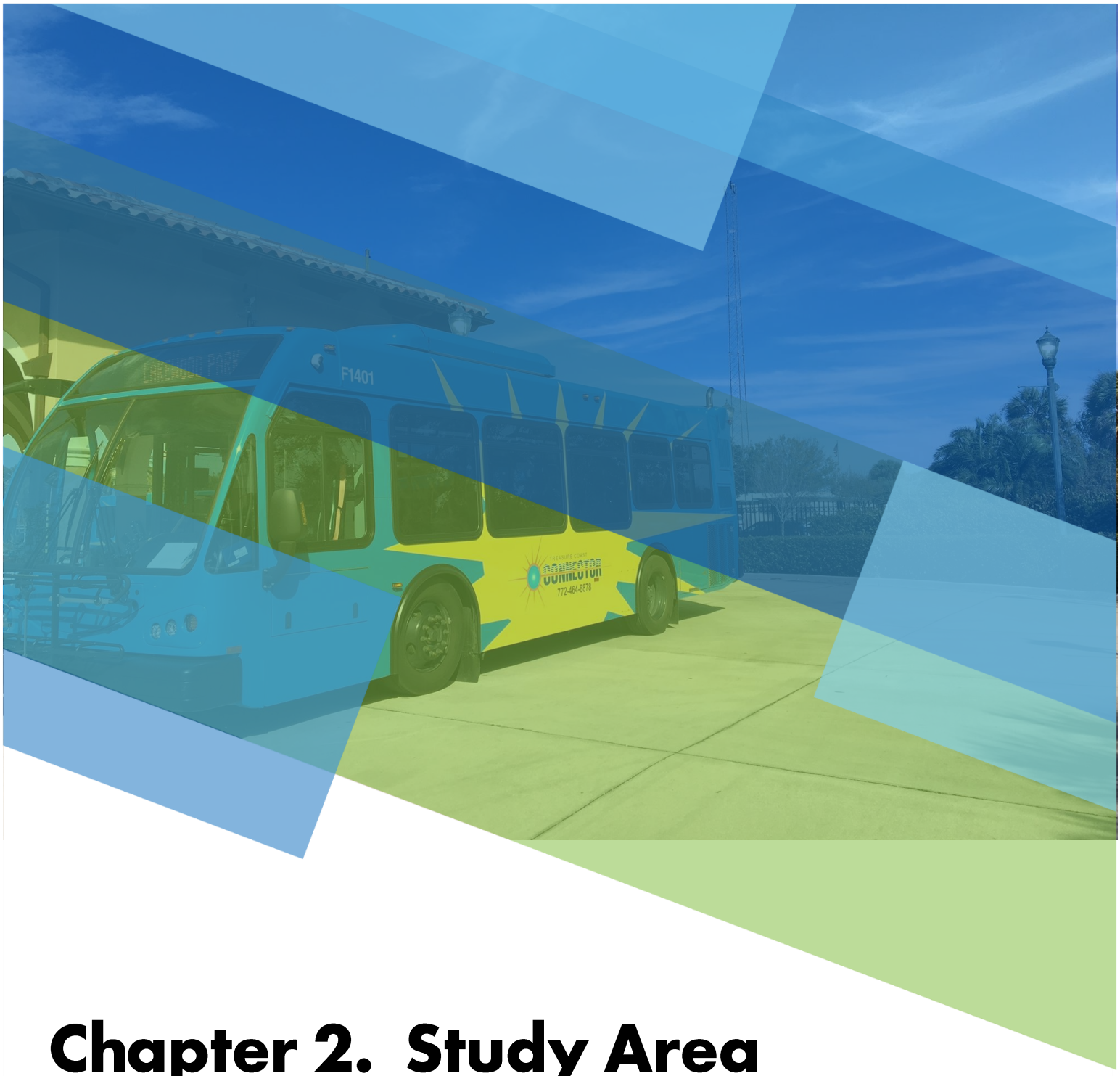
The term "SmartMoves" is representative of all modes such as pedestrians, bicyclists, transit riders, and motorists including automated, connected, electric, and shared-use (ACES) vehicle concepts. ACES vehicles are expected to make travel safer and more efficient, but most importantly, greatly improve mobility, particularly for easy-to-ignore communities. The benefits of ACES are expected to align with traditional objectives of shared vehicle use, strong urban centers, efficient travel corridors, and inclusive access.

1.3 Plan Organization

The documentation of this report is organized as follows with an emphasis on the adopted plan and summarizes the activities and assumptions that were used to develop *SmartMoves 2045*. The Technical Appendix is a companion document to this report.

Chapter 1. Plan Overview
Chapter 2. Study Area Data Review Analysis
Chapter 3. Goals, Objectives, and Performance Measures,
Chapter 4. Community Engagement
Chapter 5. Multimodal Needs Plan
Chapter 6. Financial Resources Analysis
Chapter 7. Transportation Alternatives
Chapter 8. Multimodal Cost Feasible Plan
Chapter 9. Implementation

Furthermore, the FDOT LRTP Review Checklist can be found in **Appendix A**, which displays how *SmartMoves 2045* addresses Federal and State Requirements as well as providing proactive recommendations.



Chapter 2. Study Area Data Review Analysis

- Countywide System
- Transportation System
- Movement of Goods and Services
- Forecast of Population and Employment

Chapter 2. Study Area Data Review Analysis

2.1 Countywide System

Environmental Justice (EJ)

An Environmental Justice (EJ) area is defined by the TPO as any census tract where 50 percent (50%) or more individuals live in poverty or 50 percent (50%) or more of the population is minority. In each of the municipalities there are pockets of EJ area as depicted in **Figure 2-1**. Incorporating fairness and equity into the development of transportation policies and funding decisions is essential for long range planning.

The essence of effective environmental justice practice is summarized in the following three fundamental principles.

- Avoid, minimize, and lessen negative effects
- Ensure full and fair participation by all potentially affected communities
- Prevent the denial of, reduction in, or significant delay in the receipt of benefits by minority and low-income populations

The TPO is committed to ensuring the full and fair participation of all potentially affected communities by striving for continuous, cooperative, and comprehensive public involvement in transportation decision-making. The development of *SmartMoves 2045* adheres to the commitment.

Sea Level Rise (SLR) Vulnerability

A desktop review of available sea level rise (SLR) vulnerability data was done using the University of Florida Sea Level Scenario Sketch Planning Tool and National Oceanic and Atmospheric Administration (NOAA) Coastal Flood Exposure Mapper. Global SLR is mainly due to thermal expansion and melting of land ice. Local SLR rates depend on natural geologic processes as well as land use processes and groundwater withdrawal. The local SLR rates in the Treasure Coast area generally follow the global sea level rise rates. In the past 50 years, mean sea level has risen 5.5 inches in the Treasure Coast and Southeast Florida according to NOAA tide gauge data.

There are different SLR projection curves from NOAA and the U.S. Army Corps of Engineers (USACE) that are commonly used to project SLR. Listed below are the different SLR projection available.

- USACE 2013 Low
- USACE 2013 Intermediate
- USACE 2013 High
- NOAA 2017 Low
- NOAA 2017 Intermediate-Low
- NOAA 2017 Intermediate
- NOAA 2017 Intermediate-High
- NOAA 2017 High
- NOAA 2017 Extreme

The most aggressive projection, the 2017 NOAA High, was utilized for the purposes of this review. This projection showed that, in the year 2050, minor impacts to the County's roadways could be experienced shown in **Figure 2-2**. Less aggressive projections prepared by NOAA and USACE showed little to no impact on the County's roadways projected by 2050.

Environmentally-Sensitive Areas

The basemap of the environmentally-sensitive areas generated from the *Go2040*, LRTP was utilized to determine the potential impacts of needed transportation projects. The basemap was compared to current conservation plans and maps and natural and historical resource inventories through the Florida Department of Environmental Protection (FDEP) Map Direct. In addition, the following available geographic information system (GIS) databases was used to identify and locate the following features.

- Large water bodies
- Major hydrology
- Major canals
- National Hydrography Dataset water bodies
- Environmental lands
- Special Emphasis Area (including Hawks Bluff, Lennard Road, Indian River Drive, Narrows Area, North Fork St. Lucie River, 10 Mile Creek Area, Mariposa Cane Slough Preserve)

In addition to the basemap, a workshop was held that included the St. Lucie Conservation Alliance, Autobahn Local Chapter, and the St. Lucie County Environmental Management staff to identify the Special Emphasis Areas that may not have been mapped to date. This was a collaborative effort similar to the efforts during the development of *Go2040*. **Figure 2-3** reflects the initial base map with the enhanced local data that was reviewed and agreed back in 2016 and there have been no changes since *Go2040*.

Federal and Tribal Lands

Federal lands adjacent to communities contribute to the economy, cultural identity, and quality of life in these communities. The Federal lands in St. Lucie County is shown in **Figure 2-4** and listed in **Table 2-1**. The transportation system should provide access to or within Federal lands. The Federal Lands Office of Federal Highway Administration (FHWA) was consulted during the development of *SmartMoves 2045*.

Table 2-1. Federal Lands

Parcel ID	Land Use Code	Street Number	Street Name	Total Acres	Total Appraised Value
1334-421-0001-000-9	FEDERAL	2395	JOHNSTON RD	0.91	$19,800
1404-110-0001-000-8	FEDERAL	2395	JOHNSTON RD	7.61	$19,800
1404-110-0002-000-5	VAC GOVT	0	TBD	0.23	$212,900
1434-121-0001-000-5	COUNTIES	0	TBD	9.30	$10,300
1435-431-0001-000-0	VAC GOVT	0	TBD	14.27	$600
1436-343-0001-000-3	VAC GOVT	0	TBD	0.50	$100

Parcel ID	Land Use Code	Street Number	Street Name	Total Acres	Total Appraised Value
2401-501-0280-020-7	FEDERAL	1940	SEAWAY DR	0.81	$343,000
2402-131-0001-000-0	FEDERAL	1400	SEAWAY DR	6.05	$885,200
2410-701-0010-000-0	MILITARY	900	SEAWAY DR	2.03	$7,038,000
2410-701-0066-000-7	FEDERAL	101	US HIGHWAY 1	1.12	$914,500
3110-233-0001-000-0	VAC GOVT	0	TBD	1.03	$278,400
3323-684-0034-000-0	FEDERAL	0	TBD	0.00	$6,200

The Seminole Tribe of Florida is a federally recognized Indian Tribe and the only Tribe in America who never signed a peace treaty. The location of the Fort Pierce Subdivision is shown in **Figure 2-5**. The Seminole Tribe Fort Pierce Subdivision and the Seminole Tribe Real Estate Administrator were consulted during the development of *SmartMoves 2045*.

Weblink: http://www.semtribe.com/STOF/enterprises/fort-pierce-reservation

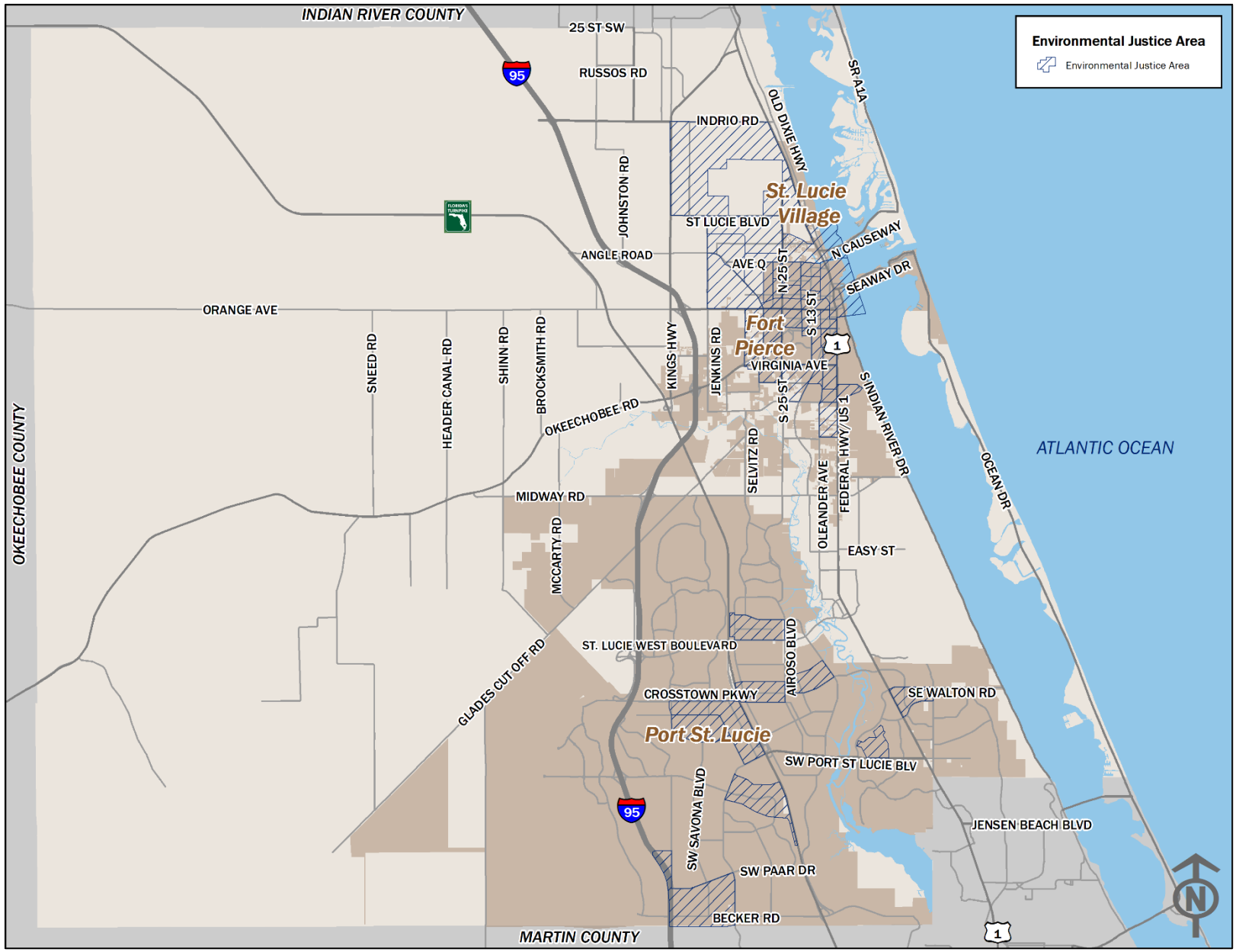


Figure 2-1. Environmental Justice Area

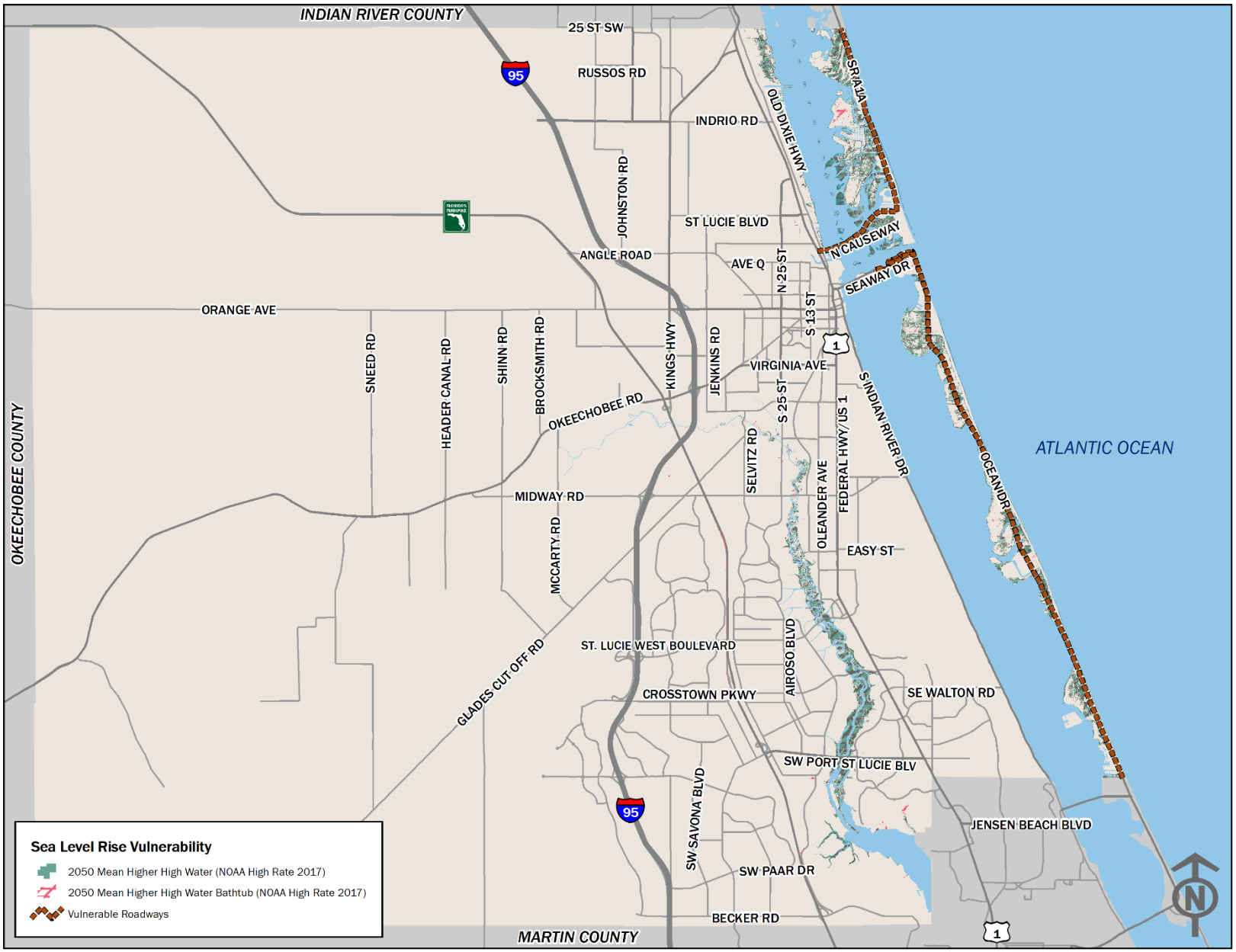


Figure 2-2. Sea Level Rise Vulnerability

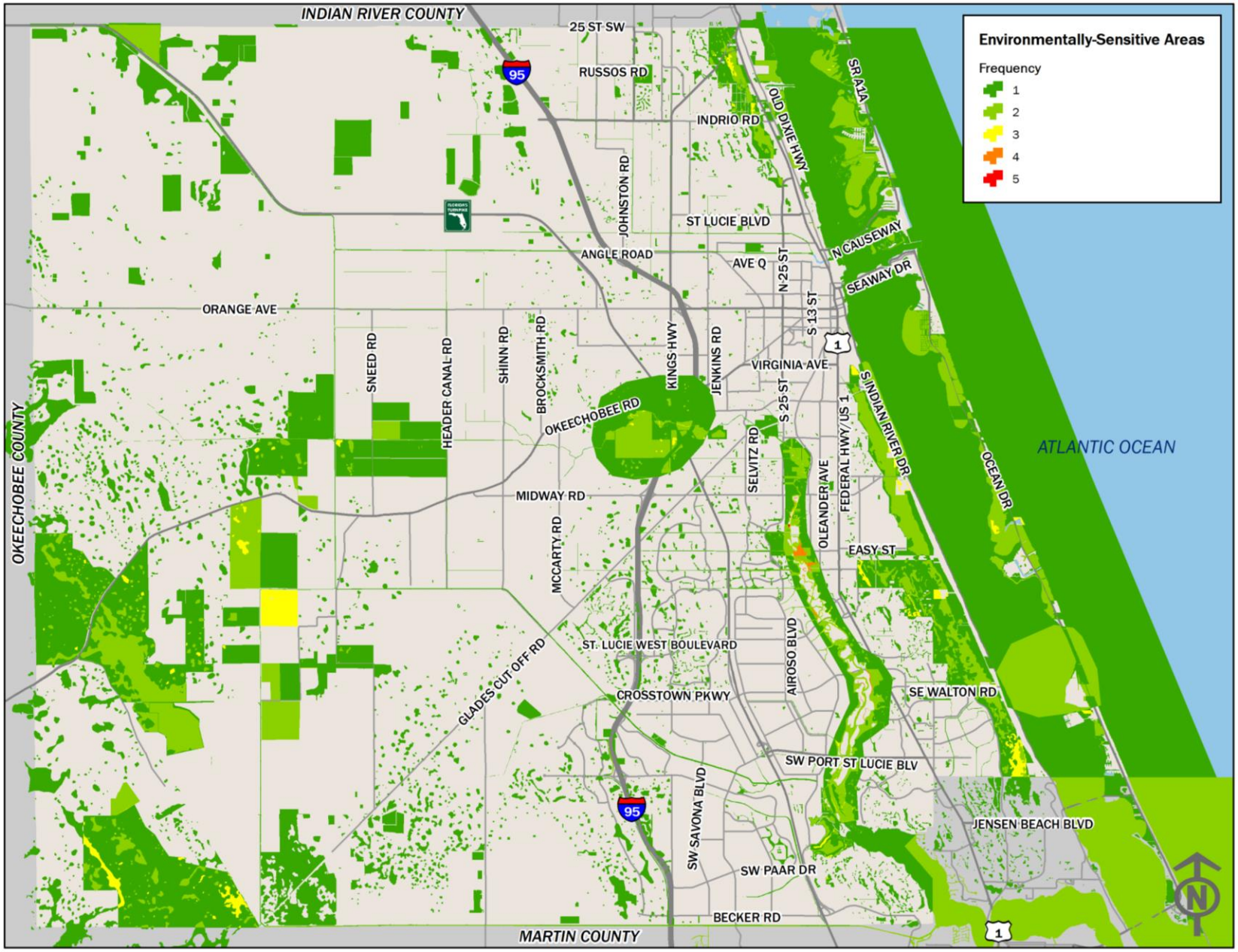


Figure 2-3. Environmentally-Sensitive Areas

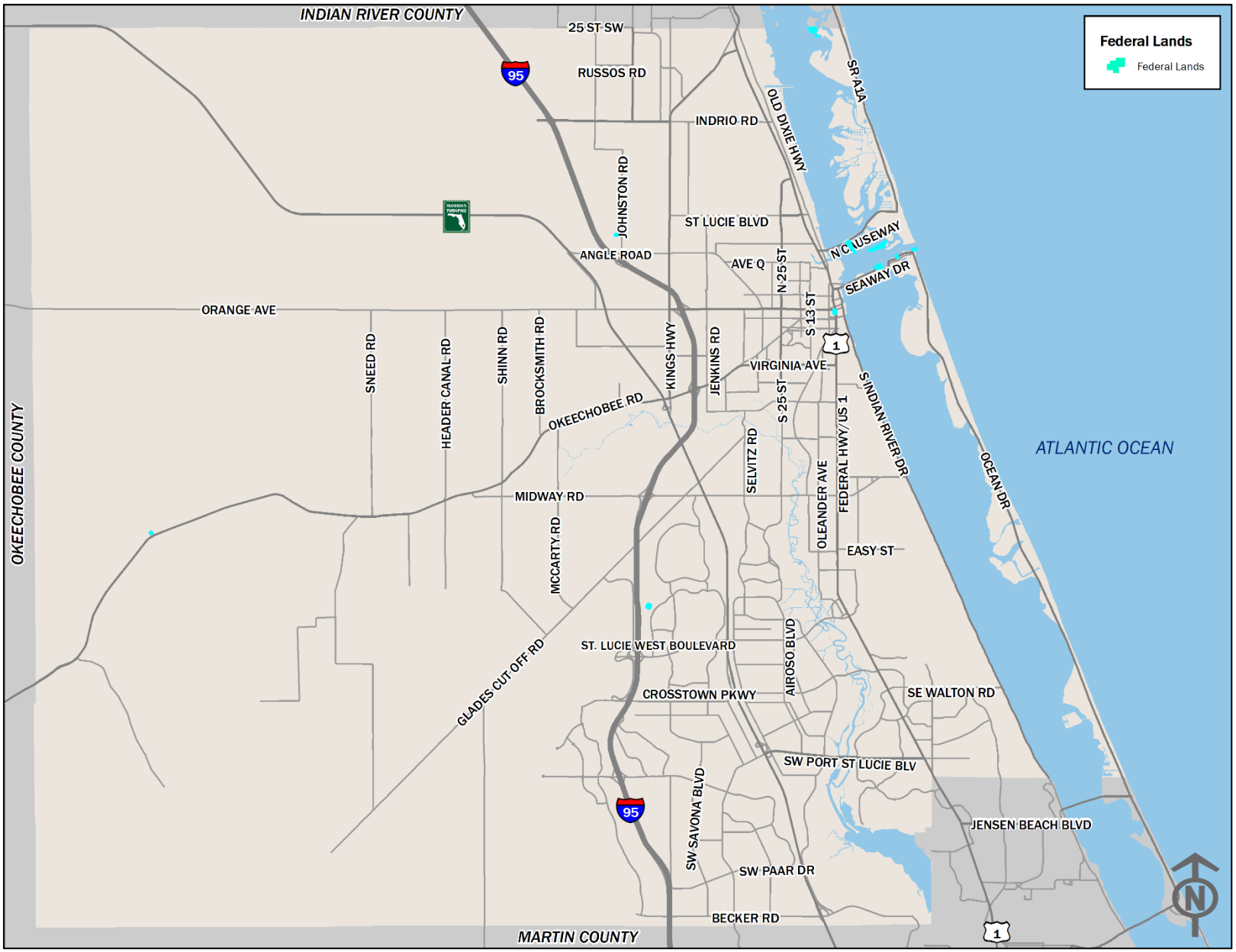


Figure 2-4. Federal Lands

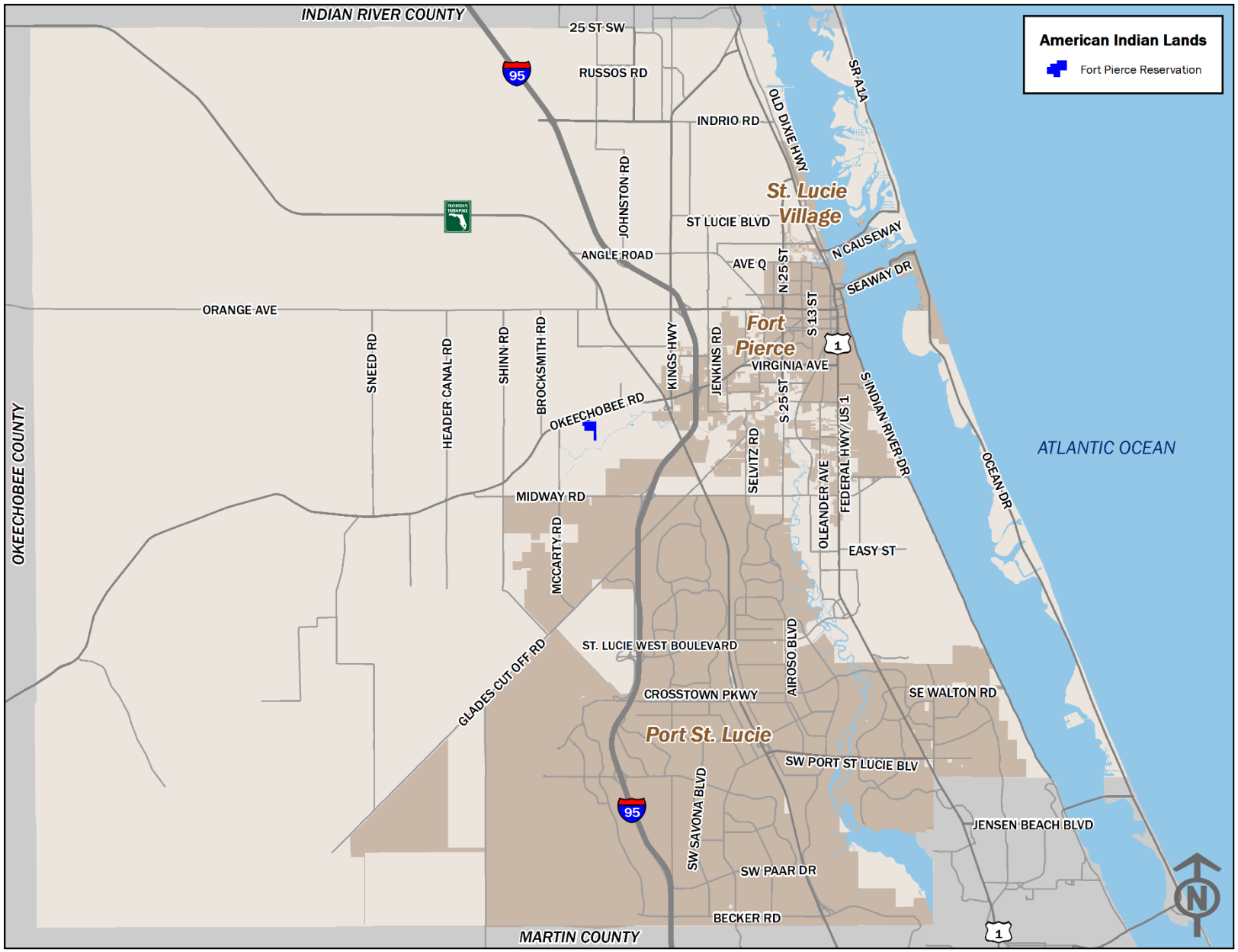


Figure 2-5. American Indian Lands

2.2 Transportation System

Roadway Functional Classification

The roadway functional classification is used to group and describe roads according to the type of service they provide and their role in the network. Roadways with a higher functional classification, such as arterials, provide greater mobility with less accessibility while a local roadway provides greater accessibility with less mobility as shown in **Figure 2-6**. Shown in **Figure 2-7** are the roadway functional classification in St. Lucie County and Urban Service Area. Roadways functionally classified as urban minor collector or above are eligible for Federal-aid highway funding. An Urban Service Area allows local government to maximize infrastructure investments within a boundary where services are available and will be most needed as growth continues.

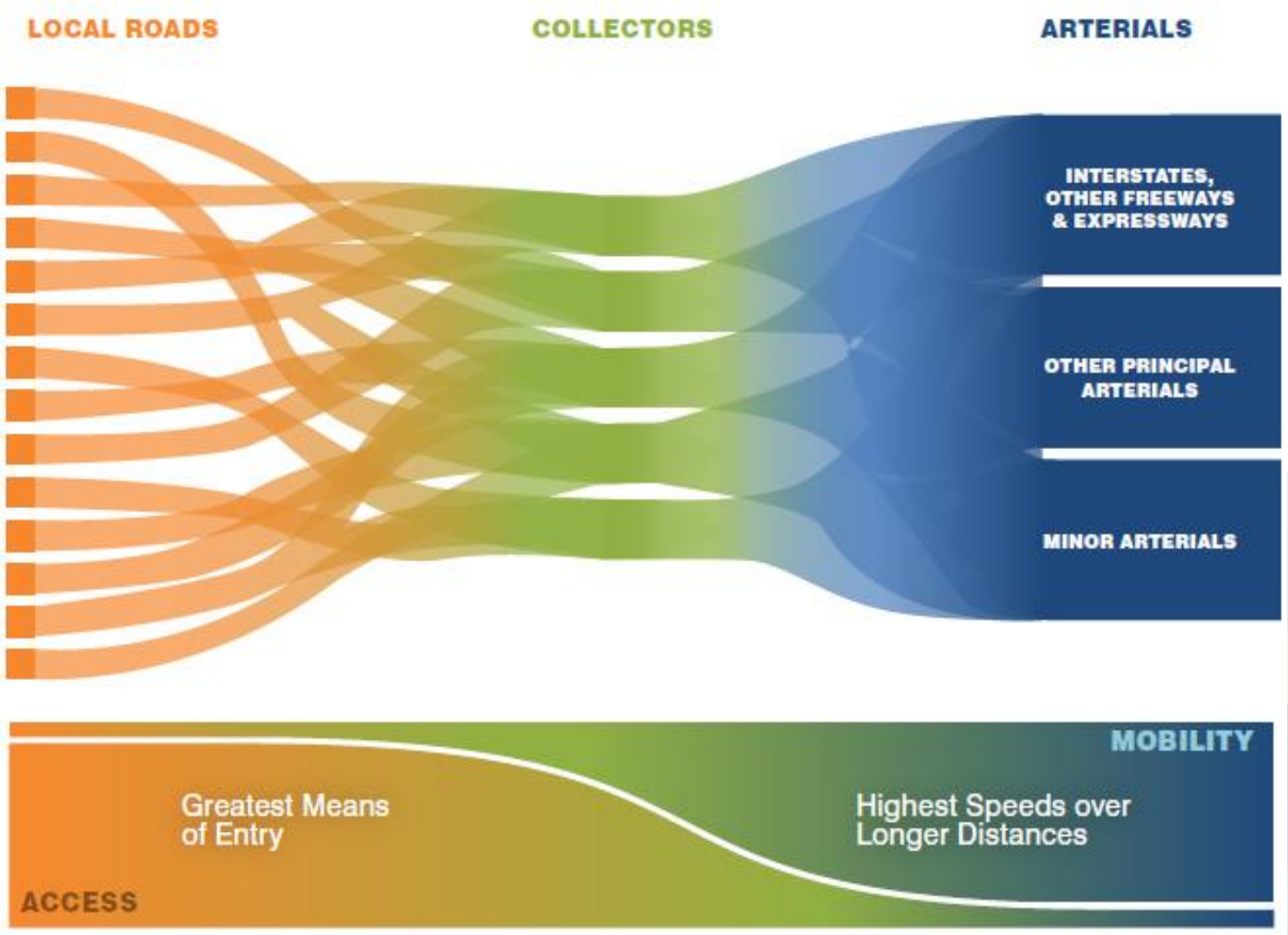


Figure 2-6. FHWA Functional Classification Guidelines

Strategic Intermodal System (SIS) Facilities

The Strategic Intermodal System (SIS), established by the Florida Legislature and Governor in 2003, is composed of a statewide network of high-priority transportation facilities. Shown in **Figure 2-8** represent St. Lucie County's primary means for moving people and freight.

Weblink: https://www.fdot.gov/planning/systems/documents/brochures/default.shtm#maps

Treasure Coast Connector

The Treasure Coast Connector is the public transit provider for St. Lucie County through a contract with the Board of County Commissioners of St. Lucie County. There are eight (8) fixed bus routes as shown in **Figure 2-9**. Two (2) of the eight (8) routes are regional, Route 1 connects with Martin County (MARTY) and Route 7 connects with Indian River County (GoLine). MV Transportation provides transportation services for the Treasure Coast Connector. All fares on the Treasure Coast Connector were provided at no cost to the riders between 2017 and 2019 through an FDOT grant. The grant was extended to continue providing free fares. It should be noted that there was an increase in ridership during this time.

There is a premium Curb-to-Curb service in the South Port St. Lucie area called the Treasure Coast Connector-On Demand. This micro-transit project is a pilot program funded by FDOT and utilizes the technologies of TransLoc.

Weblink: http://treasurecoastconnector.com/

Intercity Bus Facilities

The Nation's largest provider of intercity bus service is Greyhound Lines. There are two (2) stops in St. Lucie County.

- **FORT PIERCE STATION "LOVES TRAVEL STOP"** 7150 Okeechobee Road, Fort Pierce, FL,34945
- **PORT SAINT LUCIE STATION "SHELL GAS STATION"** 1795 SW Saint Lucie West Blvd, Port Saint Lucie, FL, 34986

Additionally, there are other private transportation providers serving St. Lucie County shown below.

- **SMART SHUTTLE.** Shuttle Service for Treasure Coast to Orlando International Airport
  - Fort Pierce Station "Dunkin Donuts"
    - 7049 Okeechobee Road, Fort Pierce, FL, 34945
  - Port Saint Lucie Station "Sunoco Gas Station"
    - 471 W. Port Saint Lucie Blvd, Port Saint Lucie, FL, 34953
- **RED COACH.** Bus Service Miami – Tallahassee via Orlando
  - Fort Pierce/Port Saint Lucie Service Plaza MM 144 on FL Turnpike
- **JET SET EXPRESS.** Bus Service Miami – Orlando
  - Fort Pierce/Port Saint Lucie Service Plaza MM 144 on FL Turnpike
- **BUSLINE ORLAND.** Bus Service Miami – Orlando
  - Fort Pierce/Port Saint Lucie Service Plaza MM 144 on FL Turnpike

St. Lucie Walk-Bike Network

Nationally recognized by FHWA, the St. Lucie Walk-Bike Network is a cooperative effort among local, State, and Federal agencies using a variety of funding programs. In addition to schools, the St. Lucie Network connects communities with places of employment and local attractions. Shown in **Table 2-2** are the mileage separated by facility type and the Walk-Bike Network is depicted in **Figure 2-10**. Additionally, **Figure 2-11** displays the existing bicycle facilities by facility type.

Table 2-2. Walk-Bike Network Mileage, 2018

Facility Type	Miles
8'-12' Wide Sidewalks	178
4'-6' Wide Sidewalks	518
Marked Bike Lanes	111
4' Wide Paved Shoulders	29
Unpaved Hiking-Bike Trails	92
Total	927

Shared Micromobility

Shared micromobility is one of the fastest growing branches of transport. It includes several modes of transportation, namely docked and dockless bikeshare systems, electric bikes, and electric scooters. St. Lucie County launched a bike share program in January 2018 and electric scooter share program in September 2019 both in the City of Fort Pierce.

Bike Share Program

The bike share program is designed to promote public health and recreation, provide an affordable non-motorized travel option for short trips, and improve access to the county's fixed-route bus service. Four (4) bike share locations are in the City of Fort Pierce as shown in **Figure 2-12**. The program has consistently grown and at the end of August 2019, there were over 2,754 users and 5,248 rides since the inception of the bike share program.

Electric Scooter Share Program

The electric scooters (e-scooters) enhance mobility by presenting a flexible, easy, and convenient car alternative for many short trips. This will hopefully bridge transit gaps and create recreation for residents and visitors. The e-scooters do not require a docking station, meaning that users leave e-scooters in a location of their choosing when they end their rides. In addition, "no ride zones" have been identified at Seaway Drive Bridge (South Bridge), Indian River Drive and inside parking garages for rider safety.

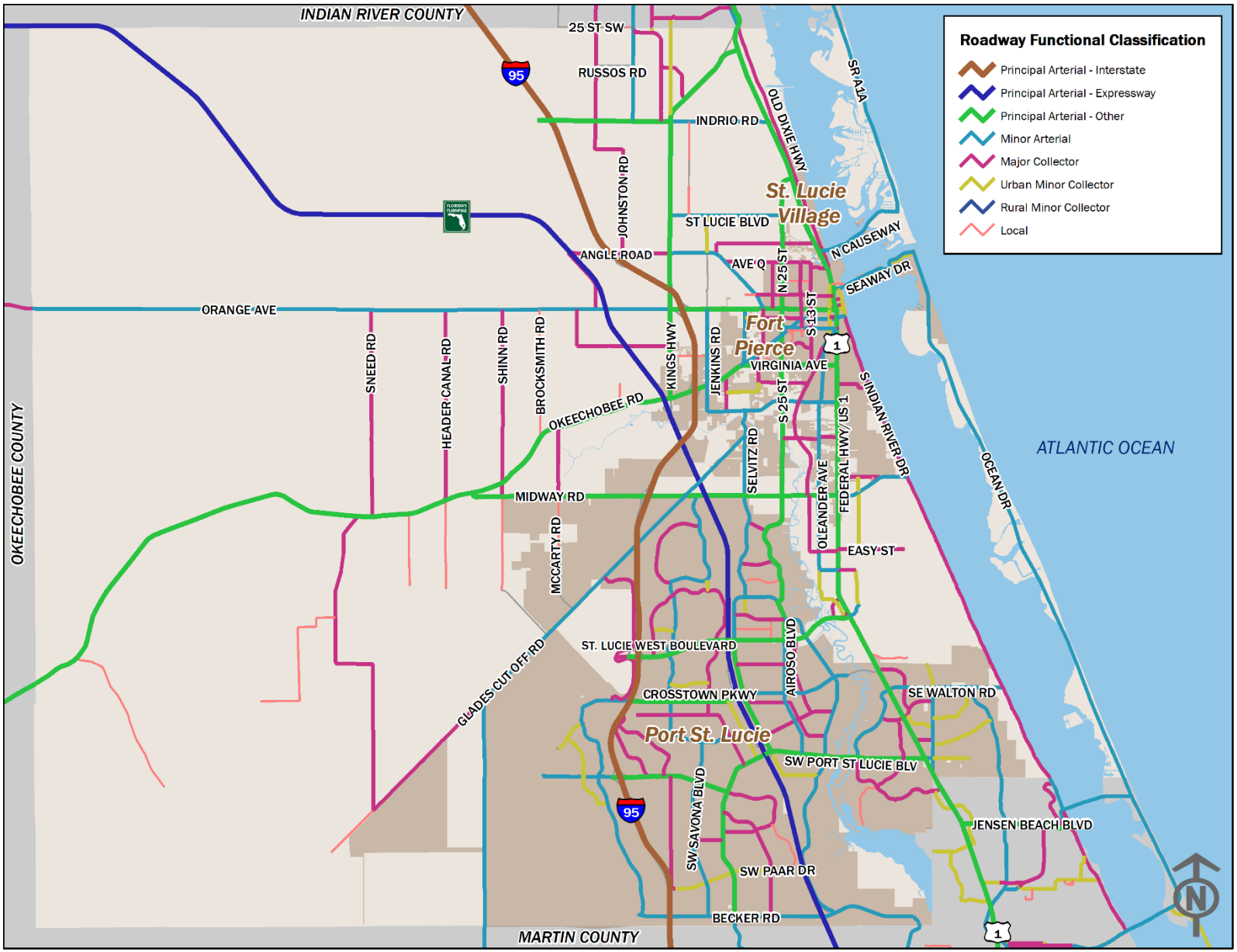


Figure 2-7. Roadway Functional Classification

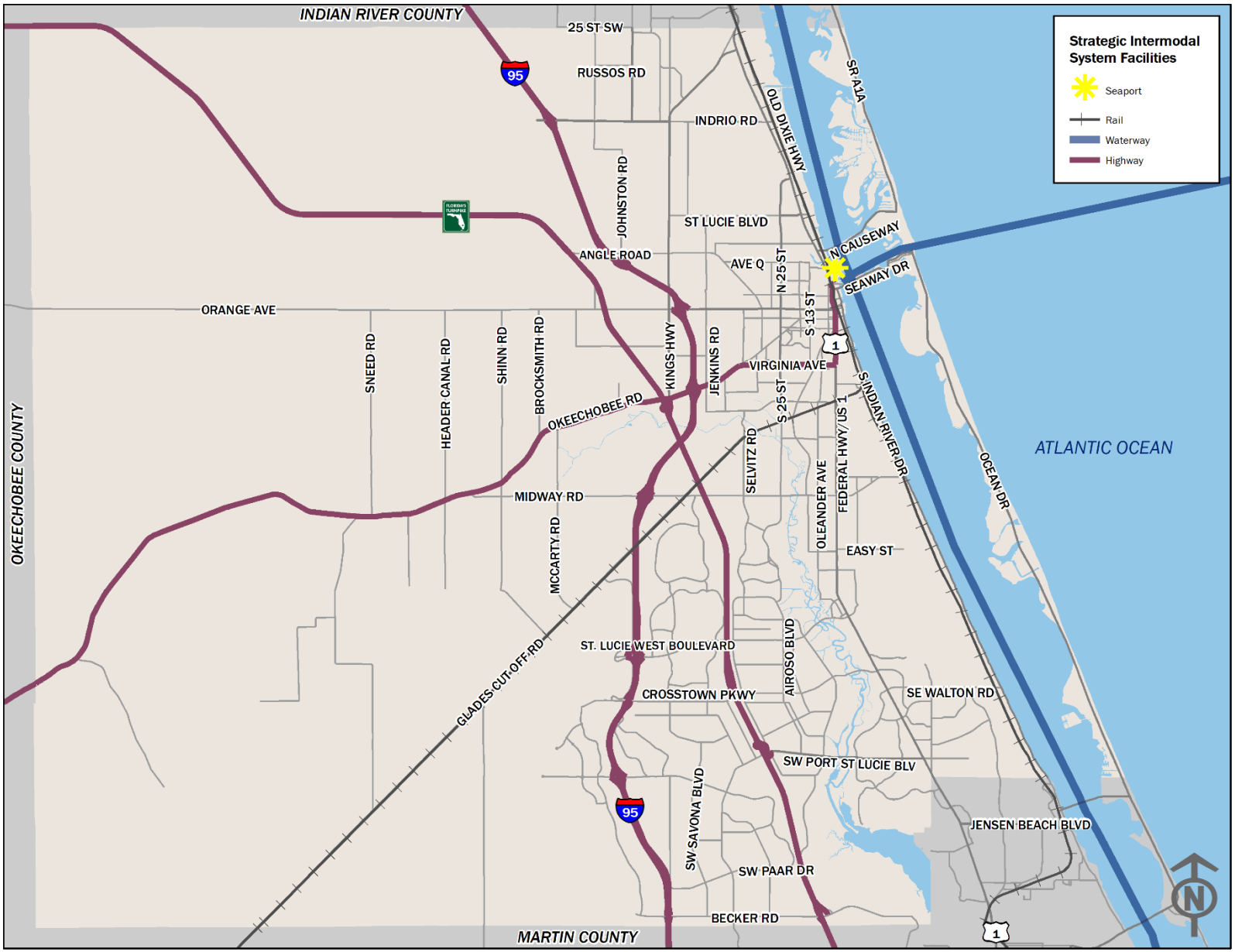


Figure 2-8. Strategic Intermodal System Facilities

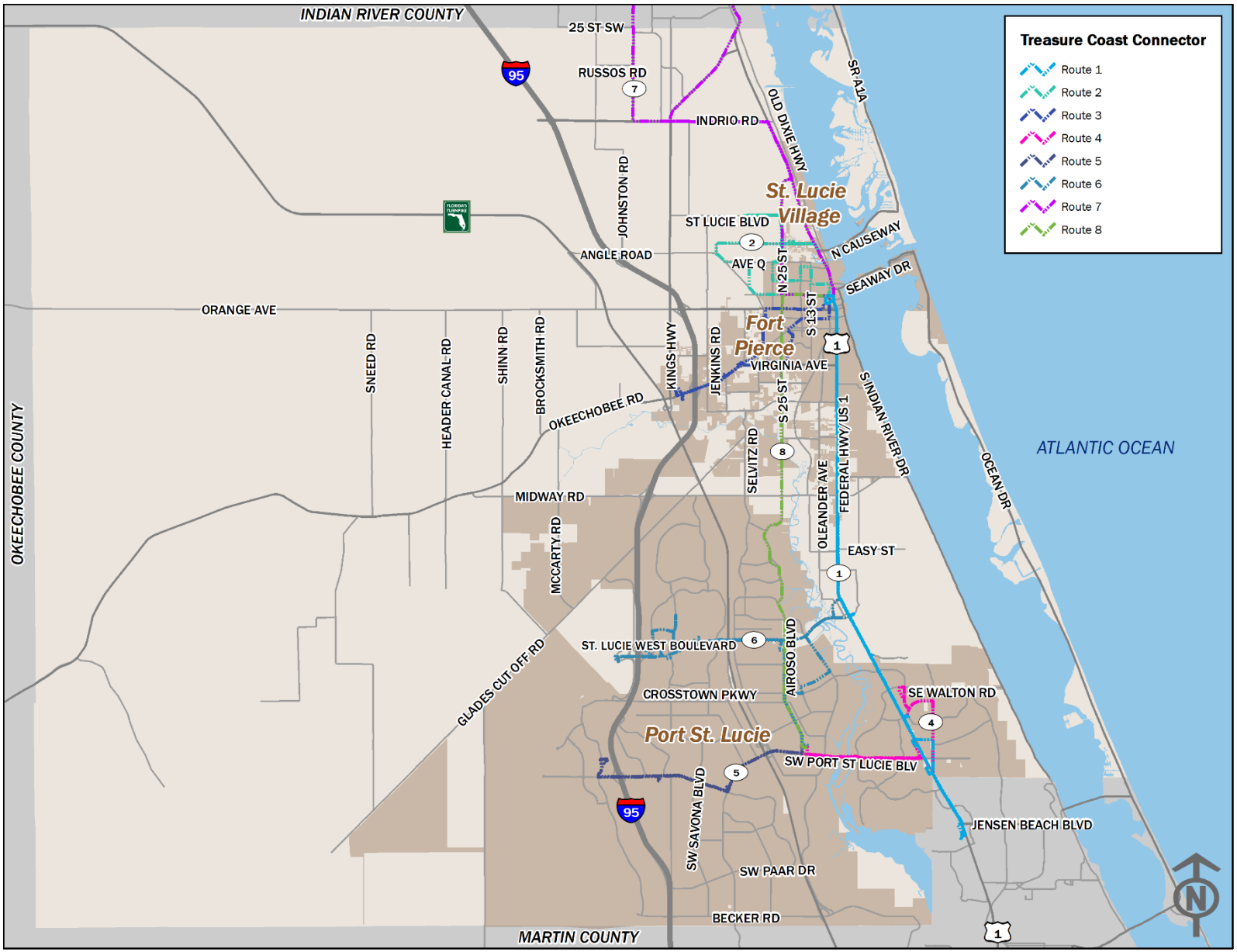


Figure 2-9. Treasure Coast Connector

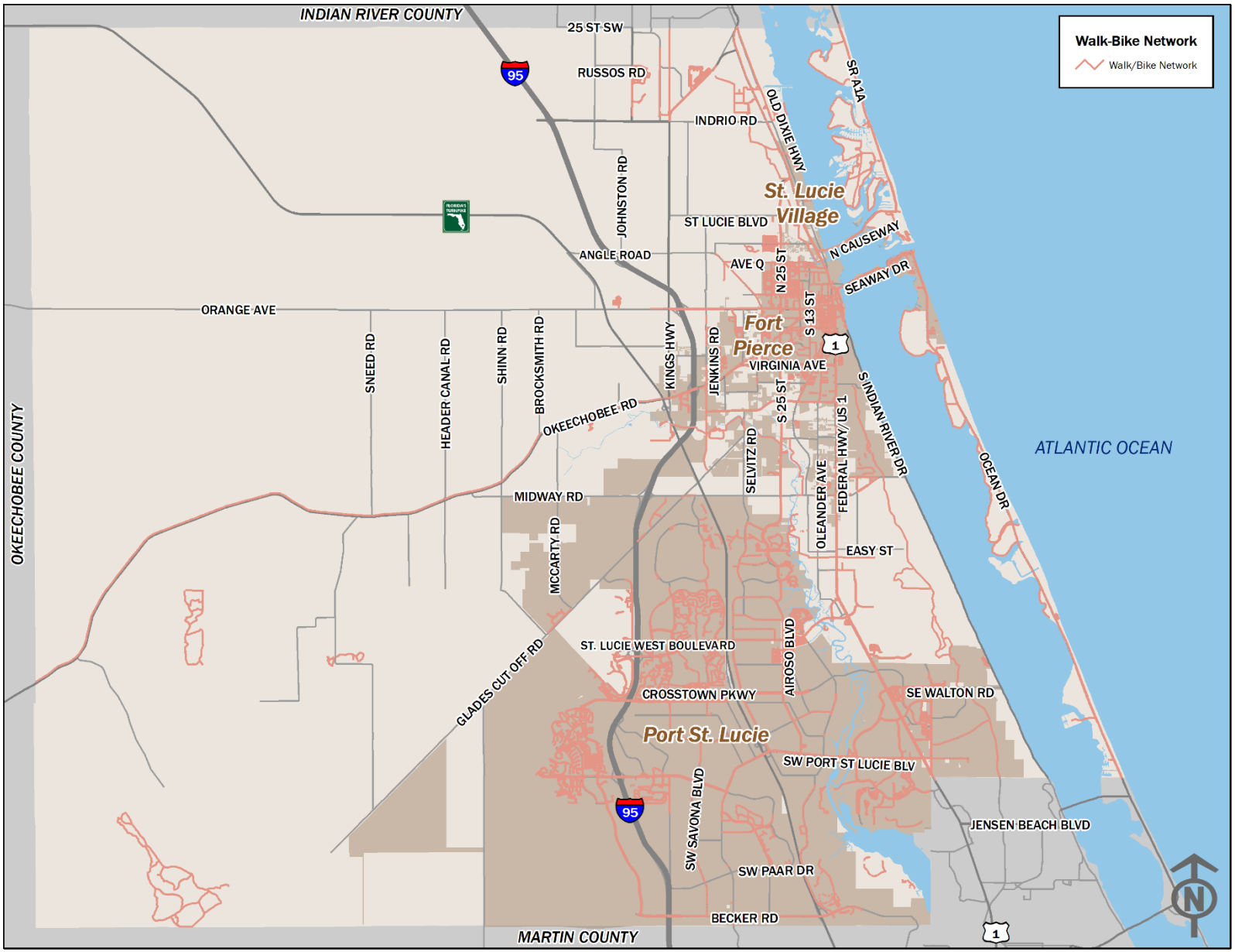


Figure 2-10. Walk-Bike Network

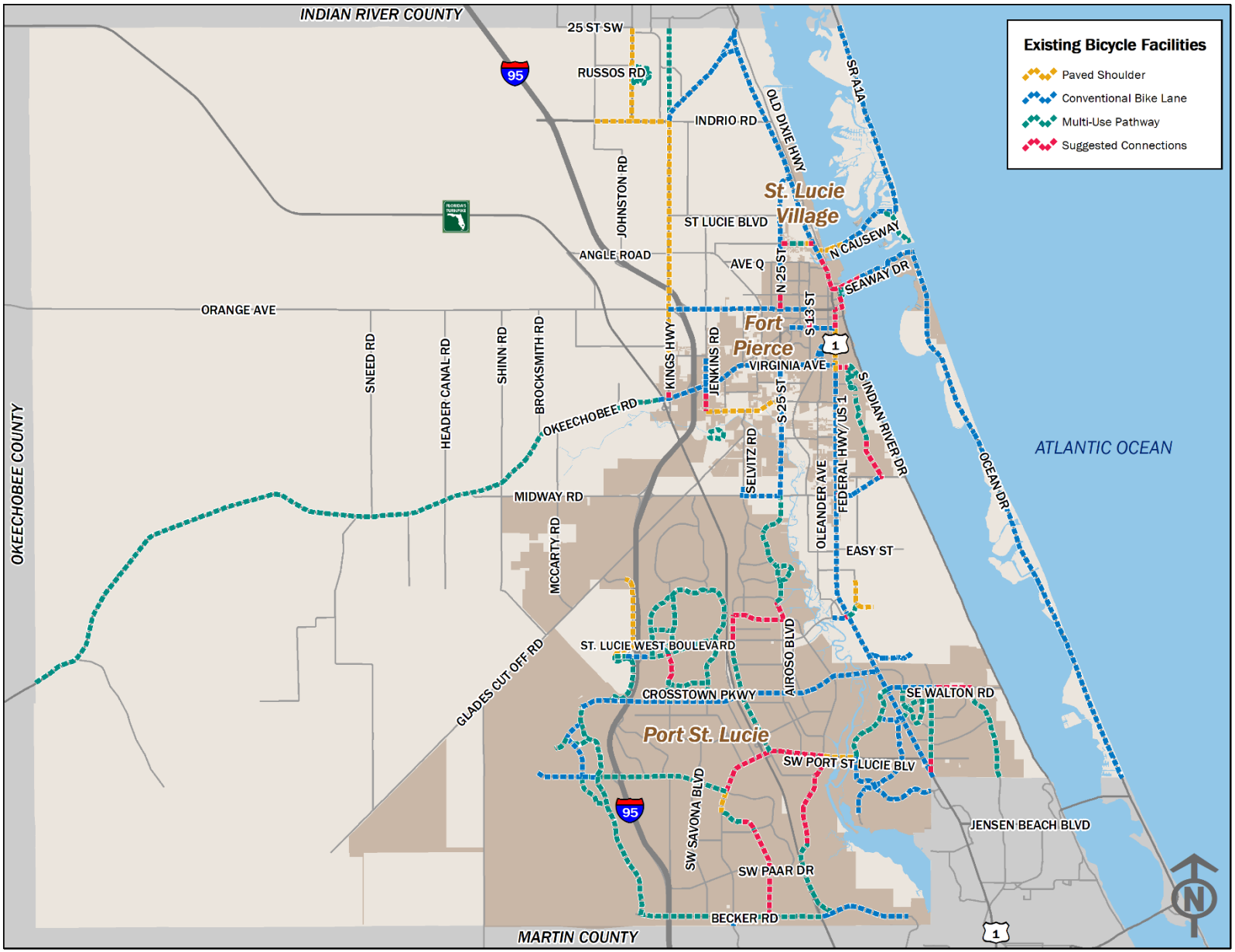


Figure 2-11. Existing Bicycle Facilities

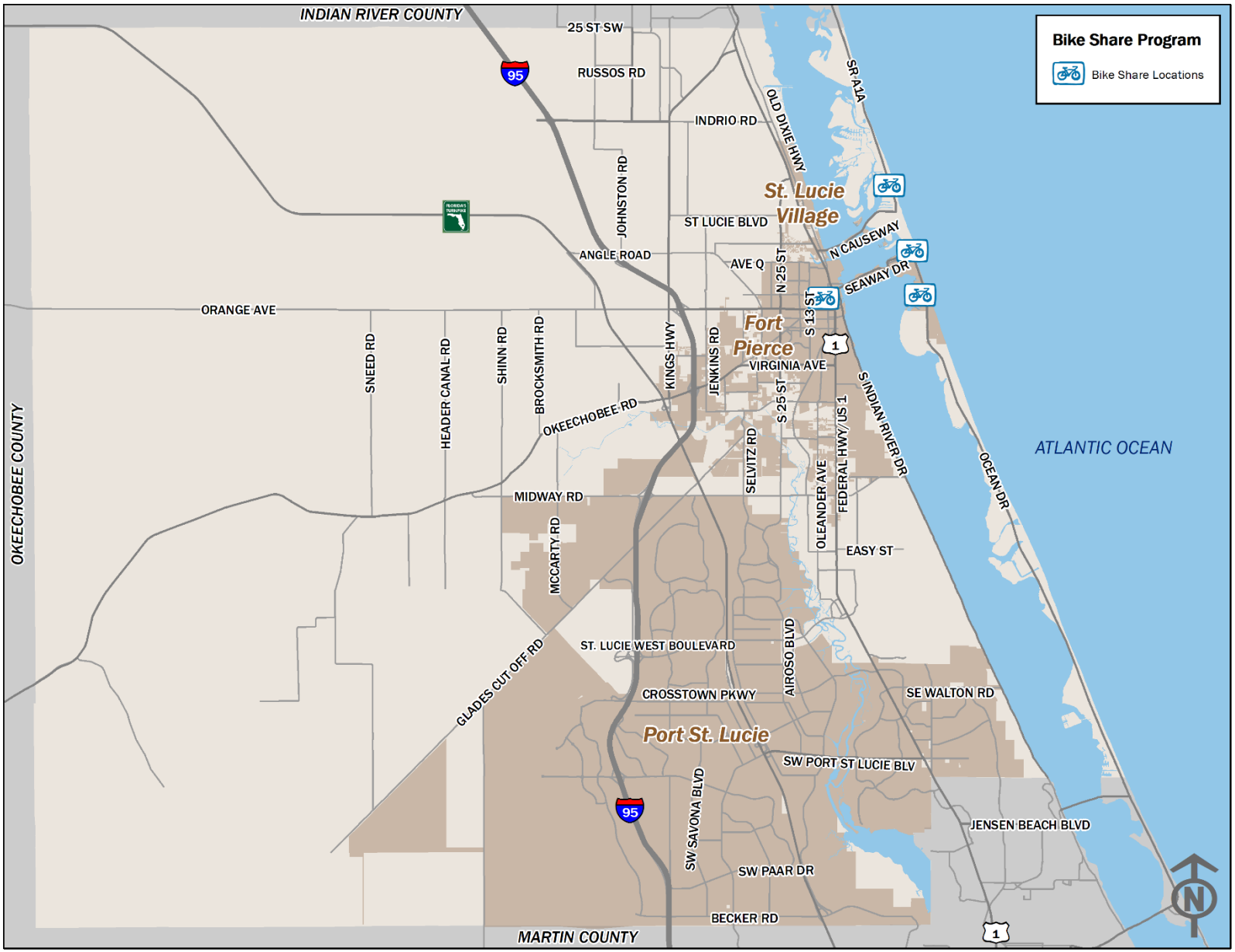


Figure 2-12. Bike Share Program

2.3 Movement of Goods and Services

The *2040 Treasure Coast Regional Long Range Transportation Plan – Freight Element, 2017* was prepared to summarize the region's freight transportation system. Most routes are used by trucks in some capacity for local deliverables but only a portion of the overall system is considered critical for freight movements and are listed below.

- SIS Roadways
- National Highway Freight Network (NHFN)
- Locally designated truck routes

The identification and prioritization of roadway freight needs reflect all regional freight needs of the 2040 planning horizon and is shown in **Figure 2-13**.

County	Roadway	Limits	Description	Score	Rank
St. Lucie	Jenkins Road	Midway Road to St. Lucie Boulevard	Widen 2 to 4L	80	1
St. Lucie	US 1	Martin County to Indian River County	Corridor Retrofit	74	2
Martin	I-95	S of Bridge Road to S of High Meadows Avenue	Widen 6 to 8L	66	3
Martin	I-95	S of High Meadows Avenue to St. Lucie County	Widen 6 to 8L	64	4
Martin	US 1	Cove Road to St. Lucie County	Corridor Retrofit	64	4
St. Lucie	Glades Cut Off Road	Commerce Center Drive to Selvitz Road	Widen 2 to 4L	63	6
St. Lucie	I-95	Northern Connector	New Interchange	63	6
St. Lucie	Midway road	Glades Cut Off Road to Selvitz Road	Widen 2 to 4L	63	6
St. Lucie	Florida's Turnpike	Midway Road	New Interchange	62	9
St. Lucie	Florida's Turnpike	Becker Road to Port St. Lucie Boulevard	Widen 4 to 6L	61	10

Figure 2-13. 2040 TCRLRTP – Freight Element

2.4 Forecast of Population and Employment

The forecast of the geographic distribution of the TPO area's population and employment is one of the first steps in the LRTP process and is completed at a traffic analysis zone (TAZ) level. **Figure 2-14** illustrates the TAZ geographic structure for the St. Lucie TPO used for this forecast effort. The development of the forecast data represents a cooperative effort among the St. Lucie TPO, FDOT District Four, and the local government jurisdictions in in the TPO area.

The population growth forecast was based on countywide growth totals developed by the Bureau of Economic and Business Research (BEBR) at the University of Florida. BEBR published the Projections of Florida Population by County 2020-2045, with Estimates for 2017 in January 2018. Three following (3) countywide forecasts were prepared for each county.

- **LOW:** The low range of the forecasts
- **MEDIUM:** The average of all forecasts
- **HIGH:** The high range of the forecasts

The TPO Board accepted the BEBR High population projected for 2045 in April 2019. To further the collaboration of the forecast data, a focus group was held in February 2020 to review and gain concurrence on the TAZ data also known as the socioeconomic data from the Treasure Coast Regional Planning Model version 5 (TCRPM5). The Model Focus Group stakeholders from St. Lucie County, Fort Pierce, and Port St. Lucie attended, participated, and provided meaningful feedback. The updated population and employment data projected for 2045 provides a more accurate projection since the information was provided and heard from local stakeholders.

Table 2-3 shows the population and employment growth forecast expected to occur over the next 25 years. The data are projecting growth for the TPO area with an 80 percent (80%) increase in population and a 76 percent (76%) increase in employment. Illustrations of the population and employment growth are shown in **Figure 2-15** and **Figure 2-16**.

Table 2-3. Forecasted Population and Employment Growth, 2015 to 2045

	Total Population	Total Employment
2015	292,362	108,097
2045	525,100	190,247
Total Growth	232,738	82,150
Percent Growth	79.61%	75.99%

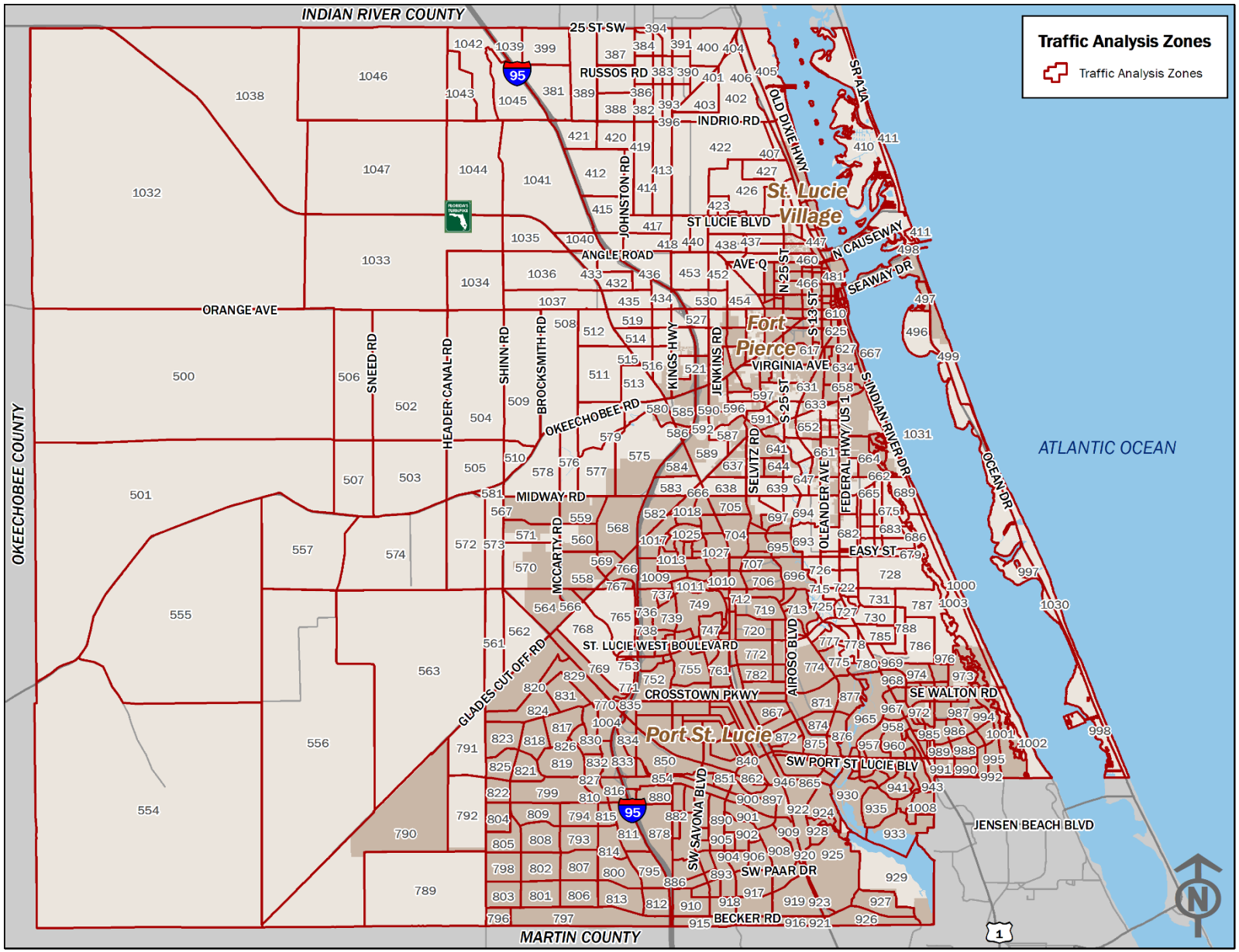


Figure 2-14. Traffic Analysis Zones

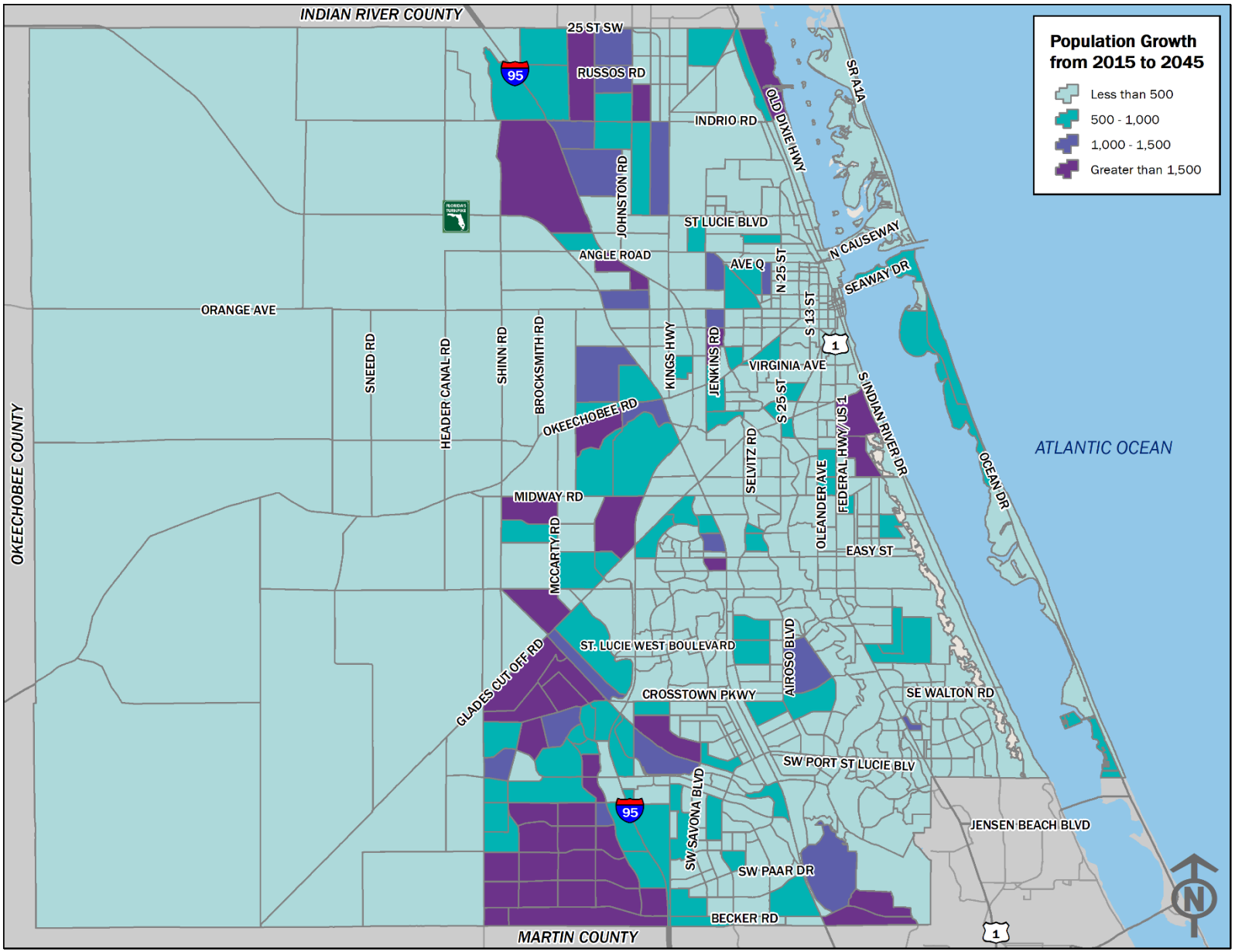


Figure 2-15. Population Growth from 2015 to 2045

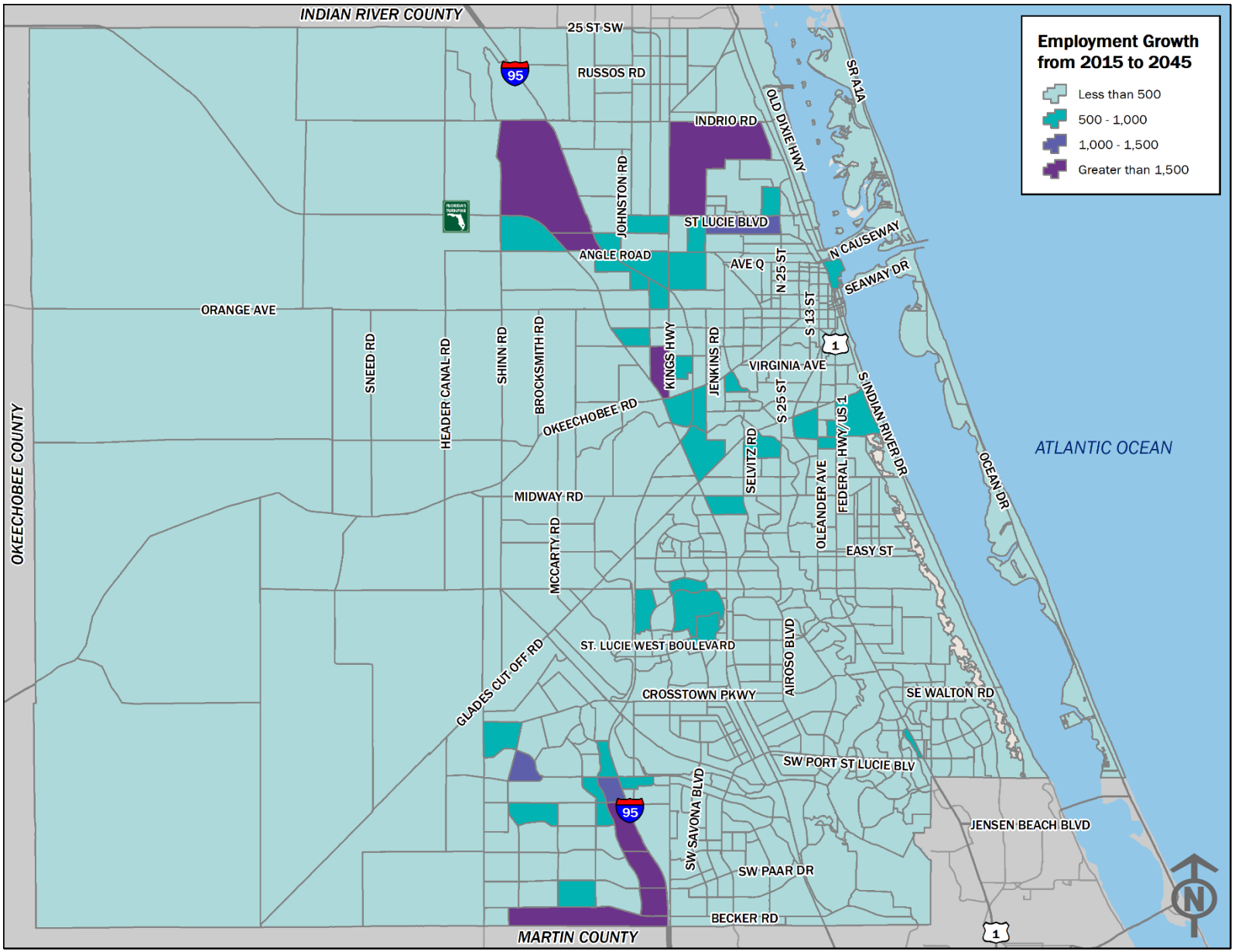


Figure 2-16. Employment Growth from 2015 to 2045

Chapter 3. Goals, Objectives, and Performance Measures

- FAST Act
- Federal and State Requirements
- Goals, Objectives, and Performance Measures

Chapter 3. Goals, Objectives, and Performance Measures

3.1 Fixing America's Surface Transportation Act (FAST Act), 2015

The Fixing America's Surface Transportation (FAST) Act was signed into law on December 4, 2015, as a funding and authorization bill to guide federal transportation investment. It authorized $305 billion over Fiscal Years (FY) 2016 through 2020 for highway, highway and motor vehicle safety, public transportation, motor carrier safety, hazardous materials safety, rail, and research, technology, and statistics programs. The FAST Act was the first federal law in over a decade to provide long-term funding certainty for surface transportation infrastructure planning and investment.

The FAST Act continues the metropolitan planning requirements that were in effect under Moving Ahead for Progress in the 21st Century Act (MAP-21), as well as the approach to formula program funding, authorizing lump sum totals. The FAST Act continues to include support for facilities that enable an intermodal transportation system. It expands the scope of consideration of the metropolitan planning process to include improving transportation system resiliency and reliability and enhancing travel and tourism.

The FAST Act established the following specific performance measures to evaluate critical needs by setting targets for safety, maintenance of assets, and travel time reliability.

- PERFORMANCE MEASURE #1 – SAFETY
  - Fatalities
  - Serious Injuries
  - Non-Motorized Fatalities and Serious Injuries
- PERFORMANCE MEASURE #2 – BRIDGE AND PAVEMENT CONDITION
  - Pavement Condition
  - Bridge Condition
- PERFORMANCE MEASURE #3 – TRAVEL TIME RELIABILITY
  - Interstate Person-Miles that are Reliable
  - Non-Interstate NHS Person-Miles that are Reliable
  - Truck Travel Time Reliability

3.2 Federal and State Requirements

Federal Requirements

Shown below are the federal requirements for the LRTP as per 23 C.F.R.450.306(a) and (b).

1. Support the **ECONOMIC VITALITY** of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency.
2. Increase the **SAFETY** of the transportation system for motorized and non-motorized users.
3. Increase the **SECURITY** of the transportation system for motorized and nonmotorized users.
4. Increase the **ACCESSIBILITY AND MOBILITY** of people and freight.
5. Protect and enhance the **ENVIRONMENT**, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns.
6. Enhance the **INTEGRATION AND CONNECTIVITY** of the transportation system across and between modes for people and freight.
7. Promote **EFFICIENT SYSTEM MANAGEMENT** and operations.
8. Emphasize the **PRESERVATION** of the existing transportation system.
9. Improve the **RESILIENCY AND RELIABILITY** of the transportation system, and reduce or mitigate storm water impacts of surface transportation.
10. Enhance **TRAVEL AND TOURISM**.

State Requirements

State requirements for the LRTP as per Section 339.175(6)(b). F.S. include the following.

- Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
- Increase the safety and security of the transportation system for motorized and non-motorized users
- Increase the accessibility and mobility options available to people and for freight
- Protect and enhance the environment, promote energy conservation, and improve quality of life
- Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight
- Promote efficient system management and operation
- Emphasize the preservation of the existing transportation system

Florida Transportation Plan (FTP)

The Florida Transportation Plan (FTP) is the state's long-range plan guiding Florida's transportation future. Three elements are included – a Vision Element, Policy Element, and Implementation Element.

- **VISION ELEMENT** – provides a longer-term view of major trends, uncertainties, opportunities, and desired outcomes shaping the future of Florida's transportation system during the next 50 years

- **POLICY ELEMENT** – defines goals, objectives, and strategies for Florida's transportation future over the next 25 years.
- **IMPLEMENTATION ELEMENT** – defines the roles of state, regional, and local transportation partners in implementing the Florida Transportation Plan, including specific short- and medium-term actions and performance measures.

The goals are listed below.

- **SAFETY AND SECURITY** for residents, visitors, and businesses
- Agile, resilient, and quality transportation **INFRASTRUCTURE**
- Connected, efficient, and reliable **MOBILITY** for people and freight
- **TRANSPORTATION CHOICES** that improve accessibility and equity
- Transportation solutions that strengthen Florida's **ECONOMY**
- Transportation systems that enhance Florida's **COMMUNITIES**
- Transportation solutions that enhance Florida's **ENVIRONMENT**

Some of the specific implementation strategies identified to achieve these goals are listed below.

- Updating Florida's Strategic Highway Safety Plan (SHSP).
- Developing policies and standards for next generation transportation corridors that support emerging technologies such as connected vehicles or alternative fuel sources.
- Promoting innovative urban mobility solutions or moving people and freight, including expanding modal choices, and deploying new technologies.
- Enhancing public transportation options.
- Using regional visions to guide major transportation capacity decisions.
- Improving understanding of customer needs and values with emphasis on demographic trends such as growth in millennials and older residents.
- Continue to implement strategies to reduce transportation-related air quality pollutants including greenhouse gas emissions.

The Vision Element, Policy Element, and initial Performance Element were updated in 2020 and the Implementation Element is anticipated to be updated in 2021.

Weblink: http://floridatransportationplan.com/index.htm

The FDOT Source Book, 2020

The FDOT Source Book presents insights into Florida's transportation user demographics, system reliability, and injury and fatality data. The Source Book uses this data to show trends that give indicators of Florida's transportation system performance and critical safety figures. The Source Book also shows how electric vehicles, transportation network companies, and other emerging technologies are being deployed on the roadways. The data was acquired from both public and private sectors and describes the mobility conditions along Florida's state roadway network, transit network,

airports, railways, spaceports, and seaports. There are mobility performance and safety-related measures laid out in the Source Book. The specific mobility performance measures are identified below.

- All Vehicle
- Aviation
- Pedestrian/Bicycle
- Rail
- Seaport
- Spaceport
- Transit
- Truck
- Weekend

St. Lucie County Mobility Profile Weblink: https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/planning/fto/countyfiles/st-lucie.pdf?sfvrsn=44f41565_4

Florida Strategic Highway Safety Plan (SHSP)

The Florida Strategic Highway Safety Plan (SHSP) provides a framework of how to achieve Florida's safety goal of eliminating all transportation-related fatalities and serious injuries for all modes of travel. The primary focus is on motor vehicle safety but includes all users of the roadway system, including the connections between the roadway system and other modes. The SHSP provides Florida's traffic safety partners a plan for how they can move towards the goal during the next five years.

The key strategies to achieve the safety vision are listed below.

- **ENGINEERING**
  - Identify, develop, and deploy engineering solutions and best practices that encourage safe driving behavior and reduce roadway fatalities and serious injuries.
  - Strengthen collaboration with metropolitan planning organizations and local governments, including law enforcement personnel and community traffic safety teams, to ensure safety considerations are given priority in planning future roadway projects
- **EDUCATION**
  - Develop and implement targeted outreach and communications strategies to improve road users' awareness of safety issues, including sharing the road with other users, as well as their understanding of roadside and in-vehicle technologies, best practices, and other safety countermeasures.
  - Educate and train beginning and experienced road users to improve driving and riding skills.
  - Educate and train safety professionals including planning, engineering, law enforcement, emergency response, and other personnel, on best practices as well as new and innovative countermeasures.
- **ENFORCEMENT**
  - Provide law enforcement officers training, tools, and resources to incorporate new or recent laws and regulations; new programs, equipment, and technologies; and best practices.
  - Conduct focused enforcement and education activities in high-crash locations involving high-risk driving behaviors to increase compliance.
  - Coordinate with prosecutors and the courts to improve prosecution and adjudication of traffic safety-related cases.

» EMERGENCY RESPONSE

- › Accelerate the implementation of proven and innovative techniques and best practices to reduce emergency response time and improve the efficiency, effectiveness, and quality of care to traffic crash victims.
- › Advance targeted strategies for emergency response to particular types of crashes, such as trauma to vulnerable road users or spills of hazardous materials.
- › Implement proven strategies for ensuring the safety of emergency response personnel while on route or at the scene of a crash.
- › Implement proven and innovative strategies for enforcement and traffic operations personnel to clear vehicles and manage and restore traffic flow at the scene of a crash with emphasis on avoiding secondary crashes.

» INTELLIGENCE

- › Promote the collection, analysis, distribution, and use of quality crash data so state, regional, and local stakeholders can make appropriate and timely decisions on reducing and responding to crashes.
- › Expand data collection and analysis to address emerging trends and risks, such as micromobility.
- › Improve data analysis tools and methodologies and strengthen business intelligence capabilities among traffic safety partners.
- › Identify high risk locations and behaviors related to fatal and serious injury crashes through a systematic approach.

» INNOVATION

- › Achieve immediate gains through implementation of existing best practices and technologies, including Intelligent Transportation Systems (ITS) and Transportation Systems Management and Operations (TSMO).
- › Accelerate the implementation of new safety countermeasures including roadway, in-vehicle, and app-based safety systems.
- › Develop, test, and deploy emerging automated and connected vehicle technology to reduce human error and related crashes.

» INSIGHT INTO COMMUNITIES

- › Create safer communities through data driven decisions that include partner and community member input. With the goal of more coordinated land use, design, planning, and traffic operations decisions that reflect the unique context, needs, and preferences of each community.
- › Promote a broader range of safe transportation choices consistent with community visions.
- › Reduce disparities in transportation safety risks among socioeconomic groups.

» INVESTMENTS AND POLICIES

- › Employ flexible funding strategies, including integrating safety into other projects to better address safety improvements and/or support countermeasure implementation.
- › Prioritize projects providing a demonstrated reduction in fatalities and serious injuries.
- › Integrate safety into all aspects of transportation planning and decision making, ensuring the inclusion of partners and community member input throughout.

- Increase agility of program management and prioritization of decisions to address emerging issues in a quick-response manner.
- Enhance the expertise and skills of transportation, enforcement, emergency response, and other agency safety staff regarding challenges and countermeasures, particularly new technologies and data.
- Pursue legislation and policies that have been proven to reduce traffic fatalities and serious injuries.

FDOT Highway Safety Improvement Program (HSIP)

The Highway Safety Improvement Program (HSIP) is a core Federal-aid program with the purpose of achieving a significant reduction in fatalities and serious injuries on all public roads. FDOT State Safety Office (SSO) manages the HSIP and approves funding for projects and provides policies, tools, and guidelines to assist the Districts, Florida's Turnpike Enterprise, and local agencies with implementing the HSIP. The primary intent of the HSIP is to implement engineering safety improvements. However, the 4E approach to safety such as education, enforcement, engineering, and emergency services should be considered in developing HSIP projects.

The Safety Performance Management Measures Final Rule established the following performance measure for the HSIP.

1. Number of fatalities
2. Rate of fatalities per 100 million vehicle miles traveled (VMT).
3. Number of serious injuries.
4. Rate of serious injuries per 100 million VMT.
5. Number of non-motorized fatalities and non-motorized serious injuries.

FDOT focuses the following highway safety improvement projects.

- Low cost (typically under $1,000,000)
- Shorter-term, with concept to construction in under three (3) years
- Implemented on a public road
- Addressing a problem known to result in fatalities and serious injuries as identified in the Florida SHSP.

Highway safety improvement projects are to be implemented in four ways.

- **SYSTEMIC PROJECTS:** focus on mitigating highly prevalent crash types or contributing factors in the SHSP that result in large numbers of fatalities and serious injuries across the network.
- **HOTSPOT PROJECTS**: focus on the roadway segments, corridors, intersections, or ramps with the highest overall potential for safety improvement across the network.
- **POLICY-BASED PROJECTS:** improvements to brin roadway design or operational features up to a standard.
- **DATA AND ANALYSIS PROJECTS:** enhance the delivery of the HSIP by advancing planning, implementation, and evaluation methods.

FDOT Highway Safety Improvement Program (HSIP) Implementation Plan, 2020

The HSIP Implementation Plan documents Florida's HSIP funding and project decisions for the upcoming fiscal year to meet or make significant progress toward meeting its safety performance targets in subsequent years. The HSIP Implementation Plan is an opportunity for FDOT and its partners to:

- Reevaluate HSIP investment decisions;
- Ensure that projects identified, prioritized, and programmed in the state have the best potential for reducing serious injuries and fatalities;
- Identify roadway features that constitute the greatest hazard to road users;
- Determine available funding;
- Determine funding allocation goals;
- Provide an overview of HSIP program, strategies, and activities; and
- Summarize actions that are anticipated to achieve safety performance targets.

Funding is apportioned to Florida per the FAST Act formulas and in recent years, Florida received over $100 million annually for the HSIP. A prioritized list of safety needs is maintained by each District. FDOT used these HSIP funds to complete 391 projects, which address the safety categories of intersections, lane departure mitigation, pedestrian and bicyclist safety, and other programs representing the remaining SHSP emphasis areas during the 2018 state fiscal year.

FDOT Freight Mobility Trade Plan (FMTP), 2020

The FDOT Freight Mobility Trade Plan (FMTP) identifies freight transportation facilities critical to the state's economic growth and guides multimodal freight investments in the state. Using the FTP's goals, FDOT Modal Plans, partner agency plans, and feedback provided by the Florida Freight Advisory Committee (FLFAC), the FMTP created objectives that reflect Florida's collective freight vision. The St. Lucie County Foreign Trade Zone (FTZ) is identified as having $0.5 Million – $1 Million in merchandise received, $0.5 Million – $1 Million in exports, and 1 – 25 employees.

The FMTP objectives are listed below.

1. Leverage multisource data and technology to improve freight system safety and security.
2. Create a more resilient multimodal freight system.
3. Ensure the Florida freight system is in a state of good repair.
4. Drive innovation to reduce congestion, bottlenecks and improve travel time reliability.
5. Remove institutional, policy and funding bottlenecks to improve operational efficiencies and reduce costs in supply chains.
6. Improve last mile connectivity for all freight modes.
7. Continue to forge partnerships between the public and private sectors to improve trade and logistics.
8. Capitalize on emerging freight trends to promote economic development.
9. Increase freight-related regional and local transportation planning and land use coordination.
10. Promote and support the shift to alternatively fueled freight vehicles.

The FMTP also identifies investment strategies for enhanced productivity.

- **HUMAN CAPITAL** – through education at all levels and retraining the labor force for advanced production processes.
- **INNOVATIVE TECHNOLOGIES** – through fostering research and development.
- **PHYSICAL CAPITAL** – in the form of expanded and enhanced infrastructure.

- **ADVANCED MANUFACTURING AND EXPORT DEVELOPMENT** – by leveraging and capitalizing on Florida's strengths as an advanced manufacturing center and global gateway
- **INSTITUTIONAL ARRANGEMENTS** – to promote dynamic and competitive forces to elevate economic growth.

The performance measures of the FDOT FMTP are contained in Technical Memorandum 3 "Performance and Conditions."

FDOT FMTP Weblink: https://www.fdot.gov/rail/plandevel/freight-mobility-and-trade-plan

Public Transportation Agency Safety Plan (PTASP), 2020

The Treasure Coast Connector St. Lucie County Public Transportation developed the Public Transportation Agency Safety Plan (PTASP). The PTASP provides policies, procedures, and requirements to be followed by management, maintenance, and operations personnel in order to achieve a safe environment for all. The goal is to eliminate the human and fiscal cost of avoidable personal injury and vehicle accidents.

The PTASP objectives are listed below.

- Integrate safety management and hazard control practices within each of Treasure Coast Connector's departments.
- Assign responsibilities for developing, updating, complying with, and enforcing safety policies, procedures, and requirements.
- Verify compliance with Treasure Coast Connector's safety policies, procedures, and requirements through performance evaluations, accident/incident trends, and internal audits.
- Investigate all accidents/incidents, including identifying and documenting the causes for implementing corrective action to prevent a recurrence.
- Increase investigation and systemic documentation of near misses.
- Identify, analyze, and resolve safety hazards promptly.
- Minimize system modifications during the operational phase by establishing and utilizing safety controls as system design and procurement phases.
- Ensure that system modifications do not create new hazards.
- Provide training to employees and supervisors on the safety components of their job functions.

The Study Area Data Review Analysis memorandum is included in **Appendix B**.

3.3 Goals, Objectives, and Performance Measures

Integrating the previously-described Federal, State, and local goals, the *SmartMoves 2045* goals, objectives, and performance measures implement the vision to provide the public a safe and efficient multimodal transportation system. Furthermore, in order to plan and prepare for the future, incorporating climate change as an objective will address the impacts of climate change on the transportation. Climate changes will likely impact roadways, vehicles, and railways. The goals for *SmartMoves 2045* are shown in **Figure 3-1**. A detailed breakdown of each goal, along with the

objectives and performance measures can be found in **Table 3-1**. Additionally, a project ranking criteria was developed to link to the goals, objectives, and performance measures. Each project ranking criterion has a corresponding point value and a project can score a maximum of 100 points

The development of SmartMoves 2045 is in alignment with the Federal Planning Factors and Florida Transportation Plan. This alignment is confirmed in **Table 3-2**.

Figure 3-1. *SmartMoves 2045* Goals

Table 3-1. Goals, Objectives, and Performance Measures

» GOAL 1: SUPPORT ECONOMIC ACTIVITIES

Objectives	Performance Measures	Project Ranking		FDOT Targets	
		Criteria	Score	2-Yr	4-Yr
Enable the efficient movement of people and goods on the roadway network	% of person-miles traveled on the Interstate that are Reliable*	0.85 - 1.00 volume-to-capacity ratios 1.00 - 1.20 volume-to-capacity ratios Greater than 1.20 volume-to-capacity ratios	1 3 5	75%	70%
	% of person-miles traveled on the non-Interstate NHS that are Reliable*			n/a	50%
	The Truck Travel Time Reliability (TTTR) index is the average of the maximum TTTR calculated for each reporting segment on the Interstate*	Is the project on the Designated Freight Network? Yes	5	1.75	2
Optimize the management and operations of the transportation system	TSM&O Strategic Network Deployment	Is the project on the TSM&O Strategic Network/ATMS Network? Yes	4	n/a	n/a
Maximize the efficiency and effectiveness of the current transit system and improve access to destinations that support economic growth	% population within ¼ mile of Major Activity Centers (MACs)	Does project increase service hours or frequency? Yes	3	n/a	n/a
	Transit routes providing access to MACs	Is the project within ¼ mile of a Major Activity Center(s)? Yes	3	n/a	n/a

» GOAL 2: PROVIDE TRAVEL CHOICES

Objectives	Performance Measures	Project Ranking Criteria	Score	TPO Targets
Encourage walking, cycling, and other micromobility options	% of roadways with sidewalks and bike lanes	Does project fill a gap/enhance existing sidewalk infrastructure?	3	Yes
		Does project fill a gap/enhance existing multi-use pathways infrastructure?	4	Yes
		Does project fill a gap/enhance existing bike lanes infrastructure?	3	Yes
Improve transit accessibility	% of transit stops with sidewalk access	Is the project on a transit route?	5	Yes
	Miles of fixed route transit service	Is the project within ¼ mile of a shared bike locations and/or within the area for designated areas for e-scooter riding?	5	Yes

» GOAL 3: MAINTAIN THE TRANSPORTATION SYSTEM

Objectives	Performance Measures	Project Ranking		FDOT/County Targets		
		Criteria	Score	1-Yr	2-Yr	4-Yr
Maintain condition of existing roadway transportation assets	% of pavements of the Interstate System in Good Condition*	Does project improve pavement condition? Yes	5	n/a	n/a	≥ 60%
	% of pavements of the Interstate System in Poor Condition*			n/a	n/a	≤ 5%
	% of pavements of the non-Interstate NHS in Good Condition*			n/a	≥ 40%	≥ 40%
	% of pavements of the non-Interstate NHS in Poor Condition*			n/a	≤ 5%	≤ 5%
	% of NHS Bridges Classified as Good Condition*	Does project improve bridge condition? Yes	5	n/a	≥ 50%	≥ 50%
	% of NHS Bridges Classified as Poor Condition*			n/a	≤ 10%	≤ 10%
Maintain condition of existing transit assets	Equipment - Percentage of non-revenue, support-service and maintenance vehicles that have met or exceeded their useful life benchmark**	Does project replace aging fleet? Yes	10	14%	n/a	n/a
	Rolling Stock - Percentage of revenue vehicles within a particular asset class that have either met or exceeded their useful life benchmark**			0%	n/a	n/a
	Percentage of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) Scale**			0%	n/a	n/a

» GOAL 4: PROVIDE EQUITABLE, AFFORDABLE, AND SUSTAINABLE URBAN MOBILITY

Objectives	Performance Measures	Project Ranking Criteria	Score	TPO Targets
Support healthy living strategies, programs, and improvements to create more livable communities	Walking modal share	Does project add a sidewalk/ multi-use pathways?	3	Yes
	Bicycle modal share	Does project add a bicycle lane? Yes	3	Yes
	Transit modal share	Does project increase service hours or frequency? Yes	3	Yes
Ensure community participation is representative	Opportunities for engagement in traditionally underserved areas	Attendance in public engagement from Environmental Justice area?	2	Yes
Provide for transportation needs of transportation disadvantaged	% of low-income, older adults, persons with disabilities within ¼ mile of transit route	Is project in an Environmental Justice area?	5	Yes
Make transportation investments that minimize impacts to natural environment and allocate resources toward mitigation	Number of additional roadway lane miles of impacting environmentally-sensitive areas	Project is not in an environmentally-sensitive area	2	Yes
		Is project a vulnerable roadway due to sea level rise?	2	Yes
Improve transportation system's stability/resiliency in event of climate change, emergencies, or disasters	% of roadway lane miles subject to climate change impacts	Does project add a sidewalk/ multi-use pathways?	3	Yes

» GOAL 5: IMPROVE SAFETY AND SECURITY

Objectives	Performance Measures	Project Ranking		FDOT/County Targets	
		Criteria	Score	2-Yr	4-Yr
Improve safety and security in the Highway System	Number of fatalities*	Does project address a motorized safety issue? Yes	10	0	0
	Rate of fatalities per 100 million vehicle miles traveled (VMT)*			0	0
	Number of serious Injuries*			0	0
	Rate of serious injures per 100 million VMT*			0	0
"Improve safety and security in the Transit System *** (if applicable)"	Total number of reportable fatalities***			Support transit provider targets	Support transit provider targets
	Rate of reportable fatalities per total vehicle revenue miles by mode***				
	Total number of reportable injuries***				
	Rate of reportable injuries per total vehicle revenue miles by mode***				
	Total number of reportable safety events***				
	Rate of reportable safety events per total vehicle revenue miles by mode ***				
	Mean distance between major mechanical failures by mode***				
Improve safety and security in the Non-Motorized System	Number of non-motorized fatalities and serious injuries combined*	Does project address a non-motorized safety issue? Yes	10	0	0

*Indicates FHWA/FTA performance report requirement

**Applies to all recipients and subrecipients of Federal transit funding that own, operate, or manage public transportation capital assets

***Applies to all operators of public transportation that are a recipient or sub-recipient of FTA Urbanized Area Formula Grant Program funds und 49 U.S.C. Section 5307, or that operate a rail transit system that is subject to FTA's State Safety Oversight Program

Table 3-2. Goals, Objectives, and Planning Factors

Goals	Objectives	FAST ACT PLANNING FACTORS										FLORIDA TRANSPORTATION PLAN GOALS						
		Economic Vitality	Safety	Security	Accessibility and Mobility	Environmental Quality	Multimodal Connectivity	System Efficiency	System Preservation	Resiliency and Reliability	Travel and Tourism	Safety and Security	Infrastructure	Mobility	Transportation Choices	Economy	Communities	Environment
Support economic activity	Enable the efficient movement of people and goods on the roadway network	●			●			●		●				●		●		
	Optimize the management and operations of the transportation system	●	●	●	●			●	●	●	●	●	●	●		●		●
	Maximize the efficiency and effectiveness of the current transit system and improve access to destinations that support economic growth	●			●			●		●				●		●		
Provide travel choices	Encourage walking, cycling, and other micromobility options	●	●		●	●	●	●		●	●	●	●	●	●	●	●	●
	Improve transit accessibility	●	●		●	●	●	●		●	●	●	●	●	●	●	●	●

Goals	Objectives	FAST ACT PLANNING FACTORS										FLORIDA TRANSPORTATION PLAN GOALS						
		Economic Vitality	Safety	Security	Accessibility and Mobility	Environmental Quality	Multimodal Connectivity	System Efficiency	System Preservation	Resiliency and Reliability	Travel and Tourism	Safety and Security	Infrastructure	Mobility	Transportation Choices	Economy	Communities	Environment
Maintain the transportation system	Maintain condition of existing roadway transportation assets	●	●	●				●	●	●	●	●	●	●	●	●	●	
	Maintain condition of existing transit assets	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	
Provide equitable, affordable, and sustainable urban mobility	Support healthy living strategies, programs, and improvements to create more livable communities	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●
	Ensure community participation is representative																	
	Provide for transportation needs of transportation disadvantaged				●		●	●		●		●						
	Make transportation investments that minimize impacts to natural environment and allocate resources toward mitigation			●		●				●							●	●

Goals	Objectives	FAST ACT PLANNING FACTORS										FLORIDA TRANSPORTATION PLAN GOALS						
		Economic Vitality	Safety	Security	Accessibility and Mobility	Environmental Quality	Multimodal Connectivity	System Efficiency	System Preservation	Resiliency and Reliability	Travel and Tourism	Safety and Security	Infrastructure	Mobility	Transportation Choices	Economy	Communities	Environment
	Improve transportation system's stability/resiliency in event of climate change, emergencies, or disasters			●		●				●		●					●	●
Improve safety and security	Improve safety and security in the Highway System	●	●		●			●			●	●		●	●	●	●	
	"Improve safety and security in the Transit System *** (if applicable)"	●	●		●			●			●	●		●	●	●	●	
	Improve safety and security in the Non-Motorized System	●	●		●	●	●	●		●	●	●	●	●	●	●	●	●

*Indicates FHWA/FTA performance report requirement

** Applies to all recipients and subrecipients of Federal transit funding that own, operate, or manage public transportation capital assets

*** Applies to all operators of public transportation that are a recipient or sub-recipient of FTA Urbanized Area Formula Grant Program funds und 49 U.S.C. Section 5307, or that operate a rail transit system that is subject to FTA's State Safety Oversight Program

Chapter 4. Community Engagement

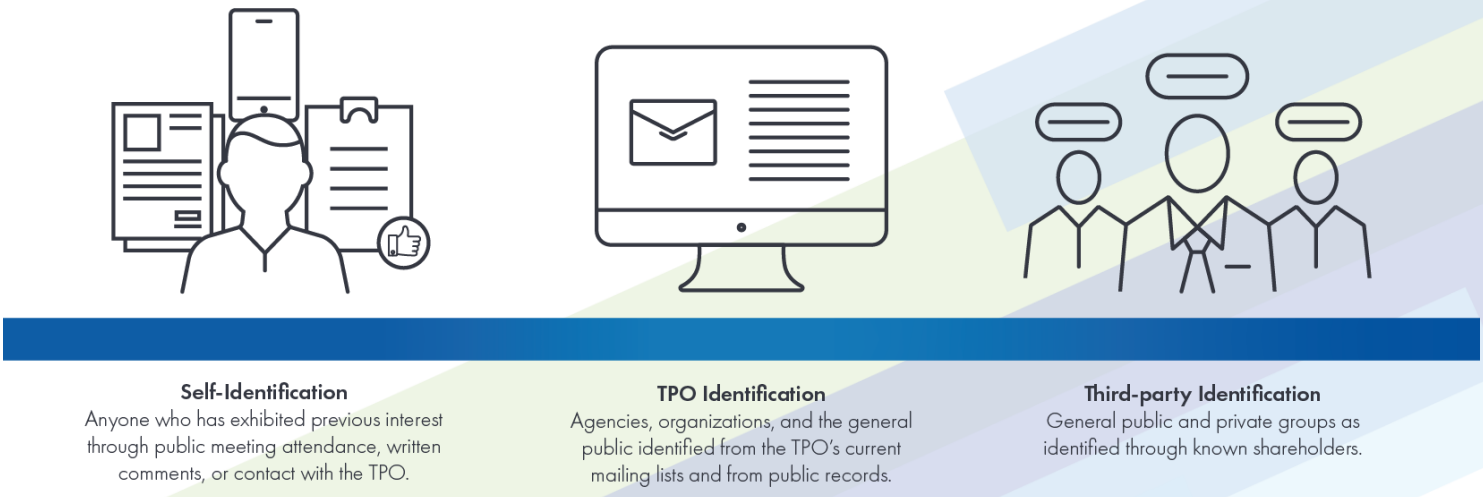
Chapter 4. Community Engagement

4.1 Introduction

A cooperative, continuous, and comprehensive effort has been made to reach out and gather the input of the community in order to accurately reflect the public's needs within *SmartMoves 2045*. A wide variety of methods have been used, from workshops and surveys to focus groups and committee meetings. The pandemic brought a halt to face-to-face meetings, but virtual meetings have taken their place and allowed for continued public participation. These diverse platforms have been made accessible to all and the quality of public engagement is still strong. The full Public Involvement Plan (PIP) is provided in **Appendix C**. The *PIP* establishes a clear framework to help ensure the greatest degree of public input, involvement, and education when considering transportation priorities and funding. Title VI of the Civil Rights Act of 1964, which prohibits discrimination on the basis of race, color and national origin, must be adhered to by any government entity that receives federal funding. Comments received from the public are documented in **Appendix C**.

Additionally, St. Lucie TPO's *Public Participation Plan (PPP)* adopted on February 5, 2020 can be found from the weblink below. St. Lucie TPO's *PPP* represents the process the TPO uses to help ensure the greatest degree of public input, involvement, and education when considering transportation priorities and funding. The PIP is consistent with the *PPP* to reflect community values and benefit all segments of the community equitability. A cooperative effort between local stakeholders, FDOT, and regional partners such as the Indian River County MPO and Martin MPO was accomplished through early, often, and thorough communication. The TPO uses three (3) different methods to identify the public to be involved.

St. Lucie's PPP weblink:
http://www.stlucietpo.org/documents/StLucieTPOPublicParticipationPlan_AdoptedFebruary5_2020.pdf



Self-Identification
Anyone who has exhibited previous interest through public meeting attendance, written comments, or contact with the TPO.

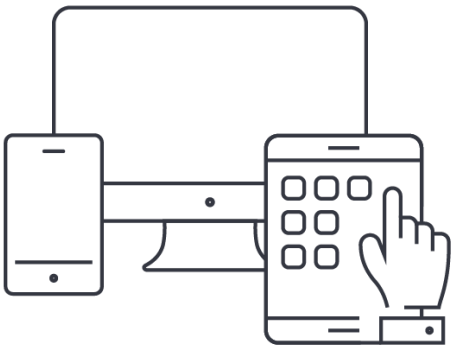
TPO Identification
Agencies, organizations, and the general public identified from the TPO's current mailing lists and from public records.

Third-party Identification
General public and private groups as identified through known shareholders.

4.2 Public Participation Methods

Specific methods including high-touch and high-tech tactics selected from the PPP are used to execute the PIP that promotes broad dialogue and continuing involvement of the citizens and stakeholders in the LRTP process.

HIGH-TOUCH & VIRTUAL HIGH-TOUCH
- » Focus Groups
- » Workshops
- » Regional Coordination
- » Committee Meetings



HIGH-TECH
- » Community Survey
- » Website
- » Media

High-Touch

High-touch methods are those that involve face-to-face outreach with the community. This ensures specific target groups or traditionally underserved populations are incorporated into the public process. Several of these methods were converted to virtual methods due to the pandemic.

Focus Groups

Focus groups provide a more intimate setting which allow for concentration on a single topic. A list of the meetings topics and dates can be seen below.

- » **MODELING FOCUS GROUP.** February 25th
  - › Updated 2045 population and employment data (socioeconomic data) with stakeholders from St. Lucie County, Fort Pierce, and Port St. Lucie.
- » **JOINT (MARTIN/ST. LUCIE COUNTY) COMMUNITY TRAFFIC SAFETY TEAM (CTST).** March 5th
  - › The Community Traffic Safety Team (CTST) are multi-jurisdictional, with members from city, county, state, and occasionally federal agencies, as well as private industry representatives and local citizens. The members are committed to a common goal of improving traffic safety in their communities. Presented current work at the time to receive feedback and identified local traffic safety problems.
- » **ENVIRONMENTAL PROTECTION & CLIMATE RESILIENCE FOCUS GROUP.** June 4th (virtual meeting)
  - › Received feedback from stakeholders including St. Lucie Conservation Alliance and St. Lucie County Environmental Management staff to update the environmentally-sensitive areas

- **CITY MANAGERS/COUNTY ADMINSTRATOR FOCUS GROUP.** October 2nd (virtual meeting)
  - Presented the draft Multimodal Needs Plan, revenue projections, and transportation alternatives and heard first-hand the City Managers and County Administrator's priorities.
- **ST. LUCIE COUNTY TOURISM DEVELOPMENT COUNCIL (TDC).** October 14th
  - The Tourism Development Council (TDC) makes recommendations related to enhancing travel and tourism in the St. Lucie TPO area, and for uses of tourist development tax revenue.
- **TREASURE COAST CHAPTER OF THE NATIONAL FEDERATION OF THE BLIND.** November 14th (virtual meeting)
  - The National Federation of the Blind knows that blindness is not the characteristic that defines you or your future. Presented the current work to date and heard feedback on transit accessibility.

Pop-Up Outreach

Pop-up outreach allows for us to come to the public and engage them where they live.

- **FRIDAY FEST AT FORT PIERCE CITY MARINA SQUARE.** Took place on November 1, 2019 in downtown Fort Pierce. It was a free event that included food, music, and activities for all ages. There was arts and crafts, children's activities, a brew tent, and a large variety of foods.

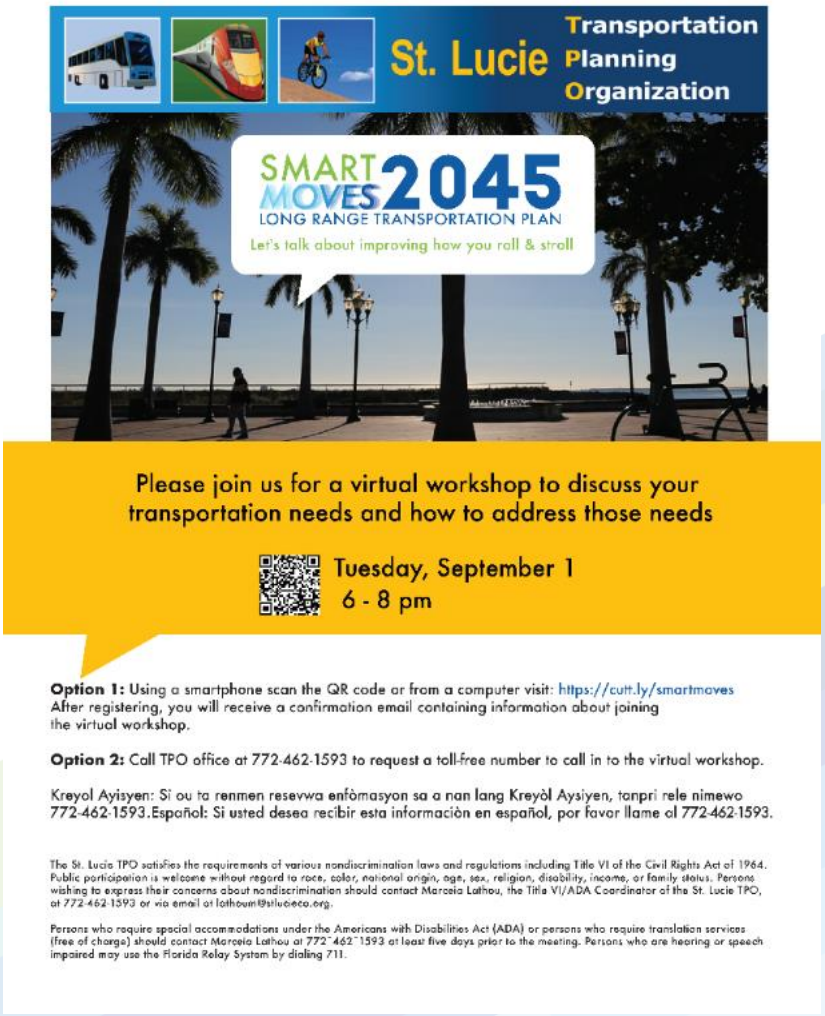
- **HEALTHY ST. LUCIE MONTHLY VIRTUAL MEETING.** Took place on October 8th (virtual meeting). The Healthy St. Lucie brings together diverse organizations and individuals to identify solutions for barriers to being healthy. Presented current work at the time and incorporated feedback to promote health where the community live, learn, work, and play.

- **KILMER BRANCH ST. LUCIE COUNTY LIBRARY IN FORT PIERCE.** Took place on December 12th. **PAULA A. LEWIS LIBRARY IN PORT ST. LUCIE.** Took place on December 15th. Reached a total of 55 people and 11% were from EJ areas.

Virtual Workshops

Virtual workshops were hosted on GoToWebinar. Participants were engaged with polls and surveys throughout to gauge the interests of the community. Participants were also provided with a toll-free conference number to allow them to call in and give verbal input to what was being presented. The quality of the responses was high and provided feedback which allowed for adjustments to be made during the development of *SmartMoves 2045*. Each workshop had two (2) run throughs to ensure that those who came late had the ability to see the full presentation and provide feedback. Furthermore, the presentations and recordings were immediately posted on the St. Lucie TPO's SmartMoves 2045 page as shown in **Figure 4-1**.

The Transportation Alternatives Development workshops provided information from the public's desires to influence adjustments to which projects were chosen for the Multimodal Cost Feasible plan. Shown in **Figure 4-2** is the zip code location of registrants overlaid with the environmental justice area. From the Transportation Alternatives Development workshops, 59 percent (59%) resided in environmental justice area. Specific efforts were made for the easy-to-ignore communities to ensure they were made aware of upcoming virtual workshops. The workshops were conducted on different days of the week and at different times to allow for more people with varying schedules to attend. A list of the workshops and topics can be seen below.



» WEDNESDAY, JULY 29TH FROM 2PM TO 4PM

› Goals, objectives, and performance measures to assess the effectiveness of policies and multimodal projects

› Multimodal Needs Plan that is essential for accommodating future travel demand, addressing safety issues, and meeting community needs for the next 25 years

› Revenue projections reasonably expected for use in prioritizing the Multimodal Needs Plan

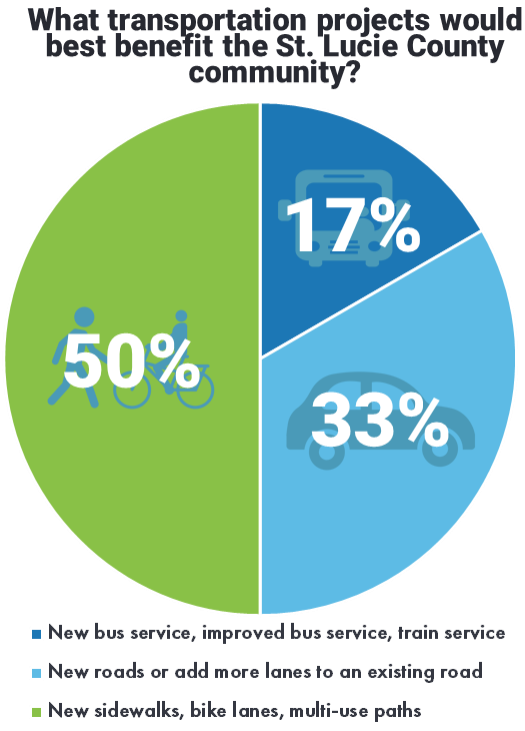
» THURSDAY, AUGUST 27TH FROM 4PM TO 6PM & TUESDAY, SEPTEMBER 1ST FROM 6PM TO 8PM

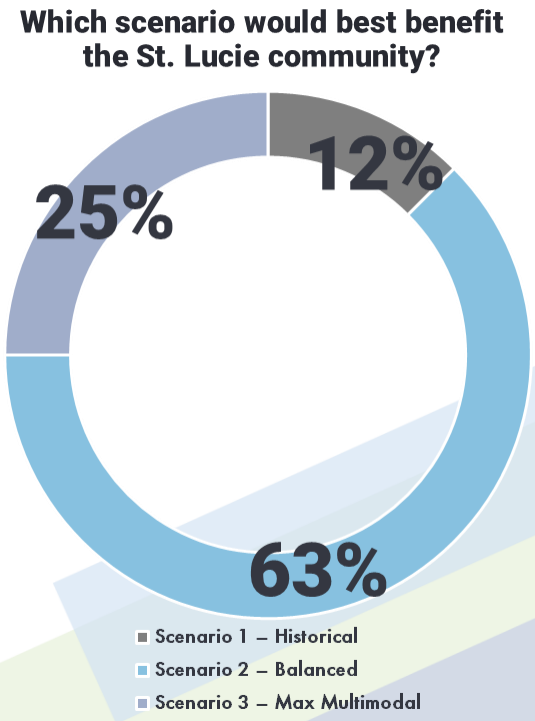
› Community survey results to help guide *SmartMoves 2045* to serve the public's transportation needs.

› Transportation alternative results to address travel demand/mobility needs and the community, goals, objectives, and performance targets.

Appendix C includes a summary of the public comments received.

POLL RESULTS



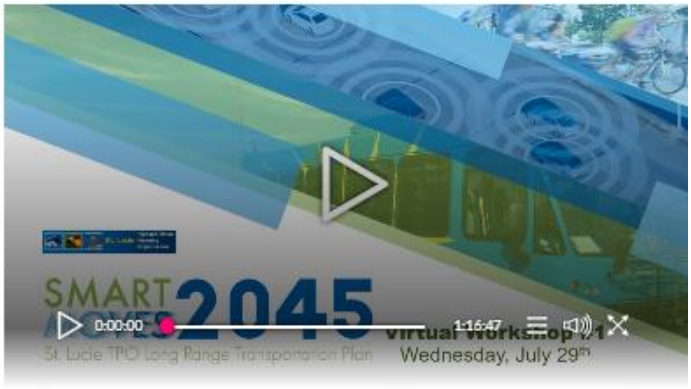


Virtual Workshop #3 Presentation

Virtual Workshop #3 Recording

Virtual Workshop #2 Presentation

Virtual Workshop #2 Recording



Virtual Workshop #1 Presentation

Virtual Workshop #1 Recording

Figure 4-1. Virtual Workshops Presentation and Recordings

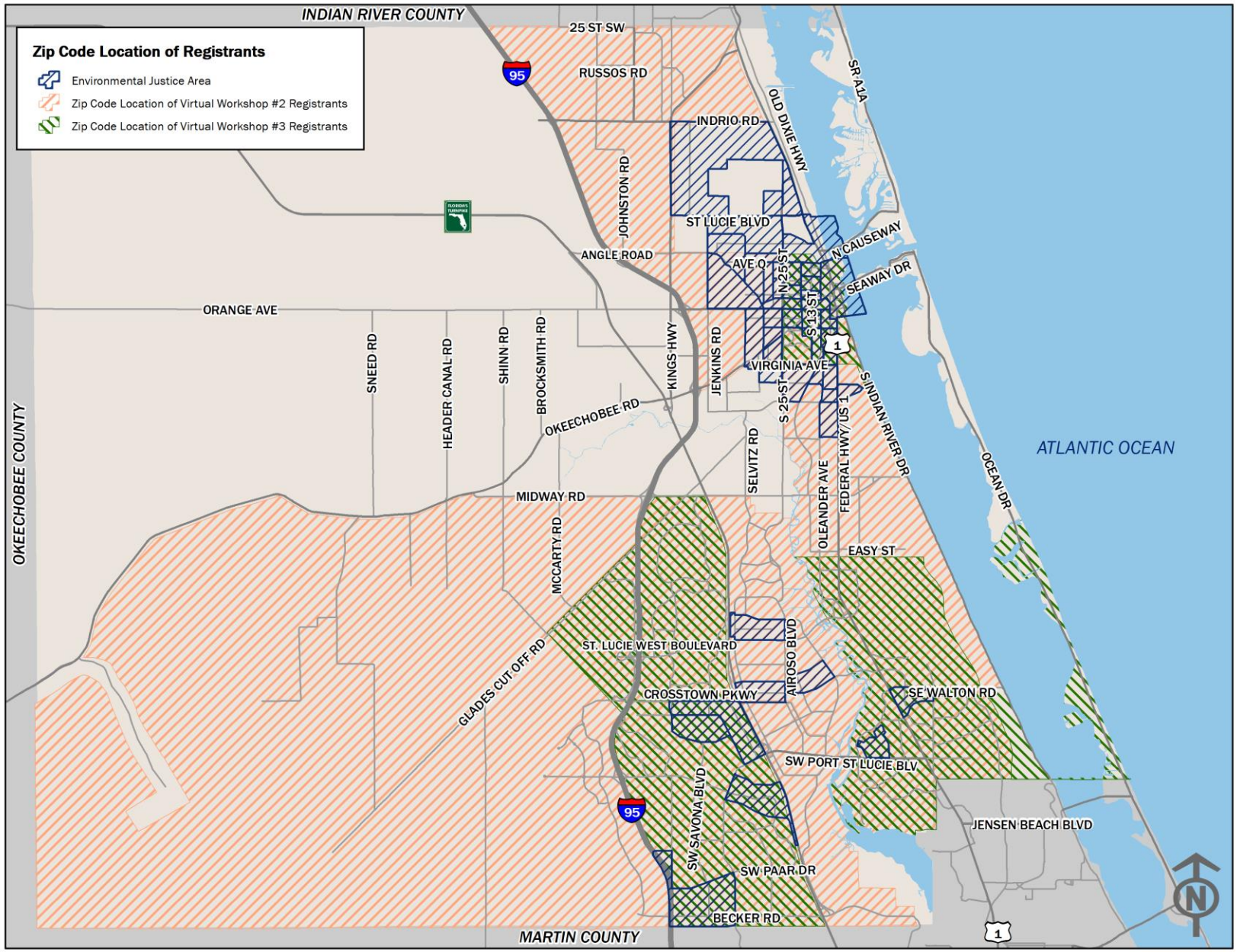


Figure 4-2. Zip Code Location of Registrants

Committee Meetings and TPO Board Meetings

Committee meetings cover a large variety of topics and allow various committees to coordinate throughout the drafting process of *SmartMoves 2045*. A list of all committees involved in the development of the plan is as follows:

- TPO Board
- Technical Advisory Committee (TAC)
- Citizens Advisory Committee (CAC)
- Bicycle-Pedestrian Advisory Committee (BPAC)
- Local Coordinating Board for Transportation Disadvantaged (LCB)
- Indian River Lagoon Scenic Highway (IRLSH) Treasure Coast Corridor Management Entity (TCCME)
- St. Lucie Local Mitigation Strategy (LMS) Working Group
- PGA Village Property Owners' Association Developer & Government Committee

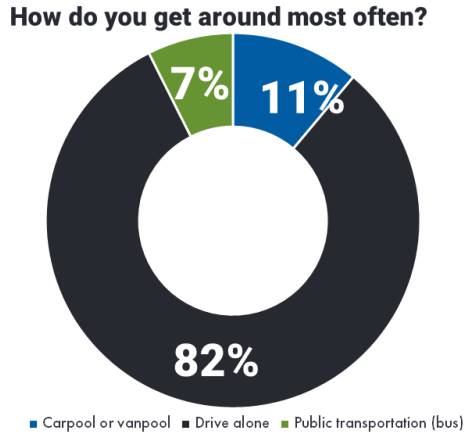
High-Tech

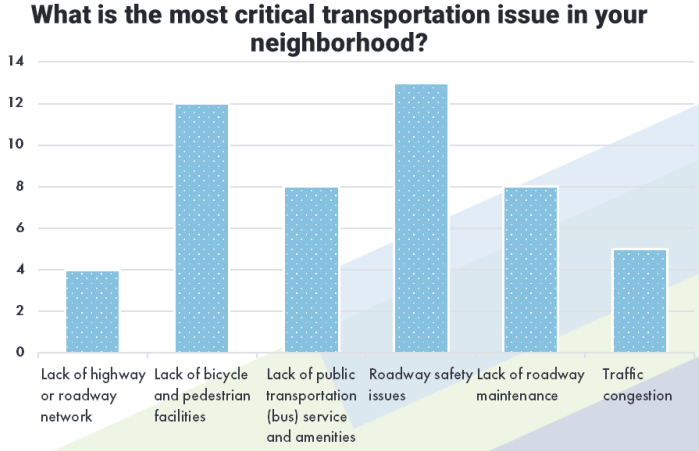
High-tech methods involve technology and digital resources for outreach and input from the community. This is emphasized in mass communications and utilized to reach a larger audience.

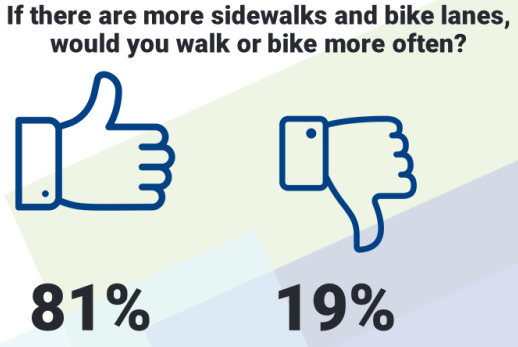
Community Survey

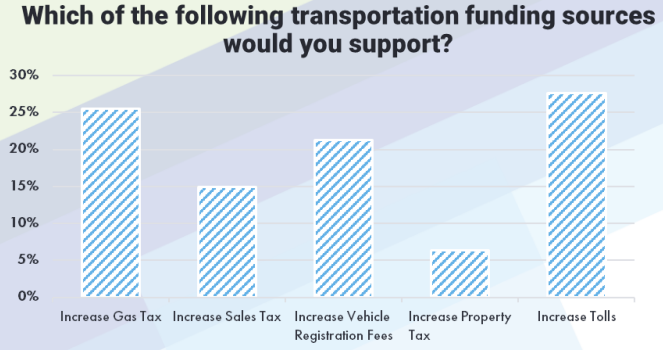
The community survey allows for a collection of answers to be recorded and analyzed. The survey was done through Survey Monkey and has been available throughout the entirety of the plan. The results of some of the community survey questions can be found below.

COMMUNITY SURVEY RESULTS







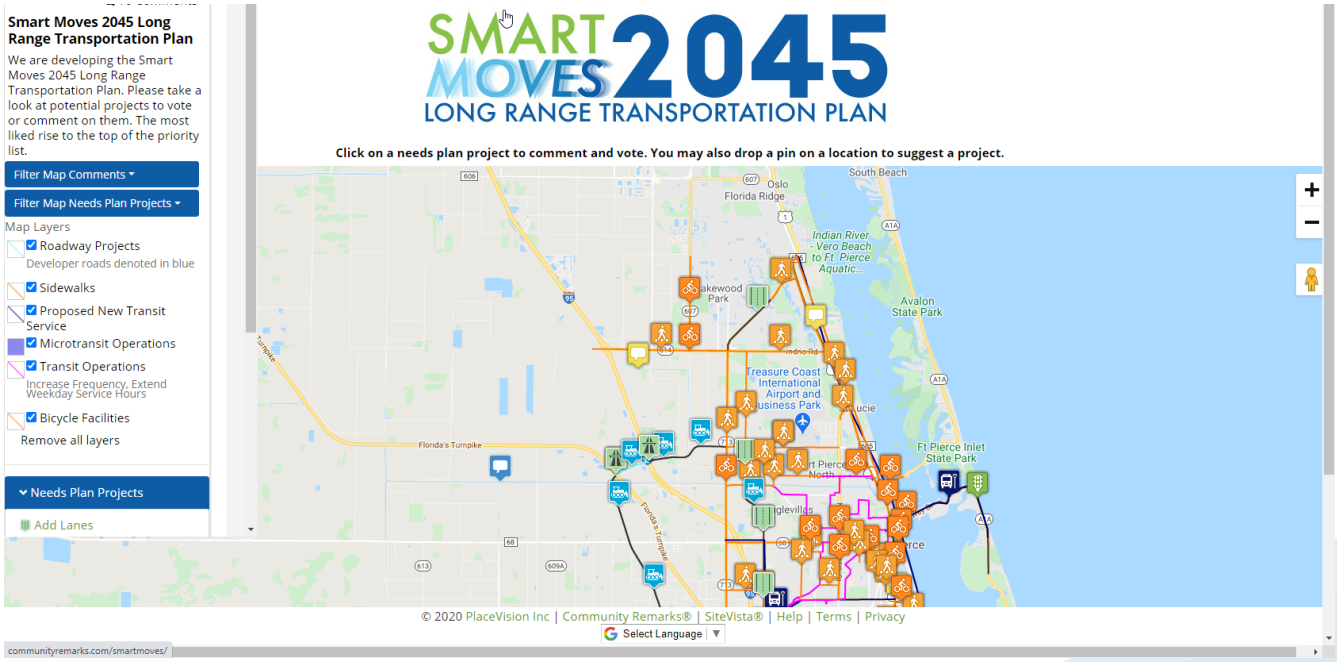


Website

During the development of *SmartMoves 2045*, project updates were prominent on the St. Lucie TPO's webpage. This included presentations, recordings, upcoming virtual workshops, and multiple ways for the community to provide feedback. The community survey and interactive map displaying the Multimodal Needs Plans and Multimodal Cost Feasible Plan allowed the community to provide instantaneous feedback. The interactive map included the projects in the Multimodal Needs Plan and Multimodal Cost Feasible Plan. Additionally, each project displayed the location and type of project and allowed users to provide comments or like/dislike.

St. Lucie TPO's weblink: http://www.stlucietpo.org/

Interactive Map weblink: https://www.communityremarks.com/smartmoves/



Media

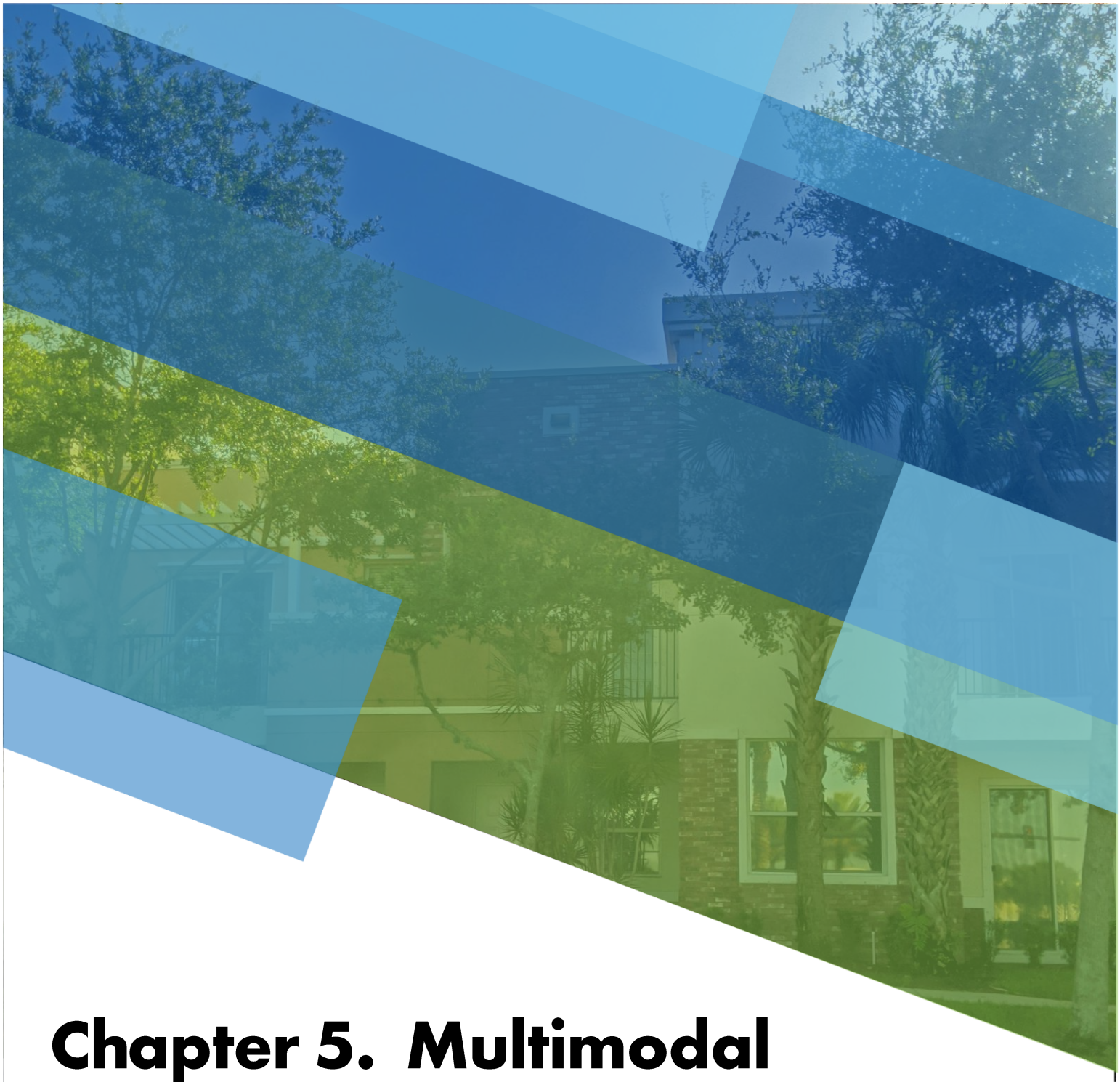
Social media such as Facebook and Twitter were utilized to engage the public on relevant updates to the plan, direct links to vote on projects, and calendar invites to workshops. This platform ensured the community was kept abreast as the *SmartMoves 2045* was developed.

Facebook weblink: https://www.facebook.com/StLucieTPO/

Twitter weblink: https://twitter.com/StLucieTPO

Interviews about the development of *SmartMoves 2045* were broadcasted through different local radio stations.

- **WPSL AM 1590.** Minority-owned radio station
- **WJNK LA GIGANTE AM 1330.** Spanish-speaking radio station



Chapter 5. Multimodal Needs Plan

- Introduction
- Baseline Projects
- Multimodal Needs Plan

Chapter 5. Multimodal Needs Plan

5.1 Introduction

The Multimodal Needs Plan identifies the transportation infrastructure that is essential for accommodating future multimodal travel demand, the movement of freight and goods, addressing safety issues, and meeting community needs for the next 25 years. There has been an increase in interest and investment in a greater variety forms of travel such as walking, bicycling, and transit. The development of the *SmartMoves 2045* Multimodal Needs Plan focuses on all modes such as pedestrians, bicyclists, transit riders, and motorists. It is inevitable future mobility is multifaceted and encompasses an ever-changing array of technologies. The incorporation of the ACES concept is pivotal and forward-looking. This may include different technologies and vehicle types on planning issues, including road design, VMT, parking, transit, urban form, transportation funding sources, and safety. The measurement of ACES impacts can be focused on specific consideration such as areas of engagement, financial planning, infrastructure programming, transportation planning and modeling, and policy.

Additionally, a Needs Plan is fiscally unconstrained, meaning funding requirements for improvements are not considered and serves as the basis for the development of the Cost Feasible Plan, which is impacted by anticipated funds throughout the 25-year planning range.

5.2 Baseline Projects

The first five years of the long range transportation plan also known as the TIP serves as the baseline for *SmartMoves 2045*. The TIP provides a comprehensive and prioritized listing of transportation projects for fiscal years (FY) 2020/21 to 2024/25 at the time of the *SmartMoves 2045* adoption. Transportation projects include roadway, sidewalk, or a transit project and identifies the project phases, such as design, right-of-way (ROW) acquisition, construction, that will occur. The TIP is frequently amended and annually adopted. Shown in **Table 5-1** are the programmed projects included in the TIP FY 2020/21 to 2024/25 and **Table 5-2** displays the SIS funding strategy for the first five year, FY 2020/21 to FY 2024/25.

Additionally, the following local projects were considered as baseline projects. Selvitz Road will be funded by St. Lucie County whereas a portion of California Boulevard will be funded by City of Port St. Lucie.

- Selvitz Road from Glades-Off Road to Edwards Road – Widen 2L to 4L
- California Boulevard from Crosstown Parkway to St. Lucie West Boulevard – Widen 2L to 4L

Figure 5-1 displays the programmed projects included in the TIP FY 2020/21 to 2024/25, the two local projects listed above being funded by St. Lucie County and City of Port St. Lucie, and the SIS Adopted 1st 5 Year Program.

Weblink: http://www.stlucietpo.org/transportation-improvement-program/

Table 5-1. TIP FY 2020/21 to 2024/25

Project Number	Roadway Name	From	To	Project Type
4353371	I-95 AT ST. LUCIE WEST BLVD			ADD LANES & RECONSTRUCT
2302566	KING'S HIGHWAY	500' S OF SR-70	NORTH OF PICOS ROAD	ADD LANES & RECONSTRUCT
2302567	KING'S HIGHWAY	NORTH OF PICOS ROAD	NORTH OF I-95 OVERPASS	ADD LANES & RECONSTRUCT
4383792	KING'S HIGHWAY	NORTH OF COMMERCIAL CIRCLE	ST LUCIE BLVD	ADD LANES & RECONSTRUCT
4383791	KING'S HIGHWAY	SR-9/I-95 OVERPASS	NORTH OF COMMERCIAL CIRCLE	ADD LANES & RECONSTRUCT
4383793	KING'S HIGHWAY	ST LUCIE BOULEVARD	SOUTH OF INDRIO ROAD	ADD LANES & RECONSTRUCT
2314402	MIDWAY ROAD	S. 25TH ST/SR-615	SR-5/US-1	ADD LANES & RECONSTRUCT
2314403	MIDWAY ROAD	GLADES CUT OFF ROAD	SELVITZ ROAD	ADD LANES & RECONSTRUCT
4317522	PORT ST. LUCIE BOULEVARD	PAAR DRIVE	DARWIN BLVD	ADD LANES & RECONSTRUCT
4317523	PORT ST. LUCIE BOULEVARD	BECKER ROAD	PAAR DRIVE	ADD LANES & RECONSTRUCT
4317526	PORT ST. LUCIE BOULEVARD	SOUTH OF ALCANTARRA BLVD	SOUTH OF DARWIN BLVD	ADD LANES & RECONSTRUCT
4317525	PORT ST. LUCIE BOULEVARD	SOUTH OF PAAR DR	SOUTH OF ALCANTARRA BLVD	ADD LANES & RECONSTRUCT
4368681	US-1 AT VIRGINIA AVENUE			ADD RIGHT TURN LANE(S)
4460761	BELL AVENUE	SOUTH 25TH STREET	SUNRISE BLVD	BIKE LANE/SIDEWALK
4317524	PORT ST. LUCIE BOULEVARD	DARWIN BLVD	GATLIN BLVD	BIKE LANE/SIDEWALK
4460741	SELVITZ ROAD	NORTHWEST FLORESTA DRIVE	NORTHWEST BAYSHORE BLVD	BIKE LANE/SIDEWALK
4435061	A1A SUNTRAIL	FT PIERCE INLET STATE PARK	SLC/INDIAN RIVER COUNTY LINE	BIKE PATH/TRAIL
4400321	FEC OVERPASS	SAVANNAS RECREATION AREA	SOUTH OF SAVANNAH RD	BIKE PATH/TRAIL
4399992	SAVANNAS PRESERVE STATE PARK GAP	WALTON RD	LENNARD RD	BIKE PATH/TRAIL

Project Number	Roadway Name	From	To	Project Type
4399993	SAVANNAS PRESERVE STATE PARK GAP	LENNARD RD	SAVANNAS RECREATION AREA	BIKE PATH/TRAIL
4397611	I-95 OFF-RAMPS AT GATLIN BLVD			INTERCHANGE – ADD LANES
4397541	I-95 OFF-RAMPS AT MIDWAY RD	NB OFF-RAMPS AT MIDWAY RD	SB OFF-RAMPS AT MIDWAY RD	INTERCHANGE – ADD LANES
4461681	ORANGE AVENUE	KINGS HWY	E OF I-95 SB RAMP	INTERCHANGE – ADD LANES
4226814	PARK AND RIDE LOT (Jobs Express Terminal)	GATLIN BLVD AT BRESCIA ST		PARK AND RIDE LOT (Jobs Express Terminal)
4443491	ALCANTARRA BLVD	SAVONA BLVD	PORT ST. LUCIE BLVD	SIDEWALK
4443481	CURTIS STREET	PRIMA VISTA BLVD	FLORESTA DRIVE	SIDEWALK
4415661	OLEANDER AVENUE	MIDWAY ROAD	SOUTH MARKET AVENUE	SIDEWALK
4447071	GATLIN BLVD	WEST OF I-95	PORT ST LUCIE BLVD	TRAFFIC CONTROL DEVICES/SYSTEM
4226816	I-95	MARTIN/ST. LUCIE COUNTY LINE	SR-70	PD&E/EMO STUDY
4299362	AIA NORTH CAUSEWAY BRIDGE	ENTIRE BRIDGE		BRIDGE REPLACEMENT
4463311	JENKINS ROAD	MIDWAY ROAD	ORANGE AVENUE	PD&E/EMO STUDY
4447061	PRIMA VISTA BOULEVARD AT AIROSO BOULEVARD			INTERSECTION IMPROVEMENT
4470031	25TH STREET AT EDWARDS ROAD, 25TH STREET AT CORTEZ BOULEVARD, 25TH STREET AT OKEECHOBEE ROAD, 25TH STREET AT DELAWARE AVENUE, 25TH STREET AT ORANGE AVENUE, SR-A1A/SEAWAY DRIVE AT BINNEY DRIVE			INTERSECTION LIGHTING RETROFIT IMPROVEMENT

Table 5-2. Strategic Intermodal System (SIS) Adopted 1st 5 Year Program

ID	Project Description	Project Type
4353371	I-95 at St. Lucie West Boulevard	Modify Interchange
4397611	I-95/Northbound and Southbound Off-Ramps at Gatlin Boulevard	Modify Interchange

ID	Project Description	Project Type
4397541	I-95/Northbound and Southbound Off-Ramp at Midway Road	Modify Interchange
4461681	SR-68/Orange Avenue from Kings Highway to East of I-95 Southbound Ramp	Modify Interchange
4368681	SR-5/US-1 at SR-70/Virginia Avenue	Add Turn Lane
4226816	I-95 from Martin/St. Lucie County Line to SR-70	Highway Capacity

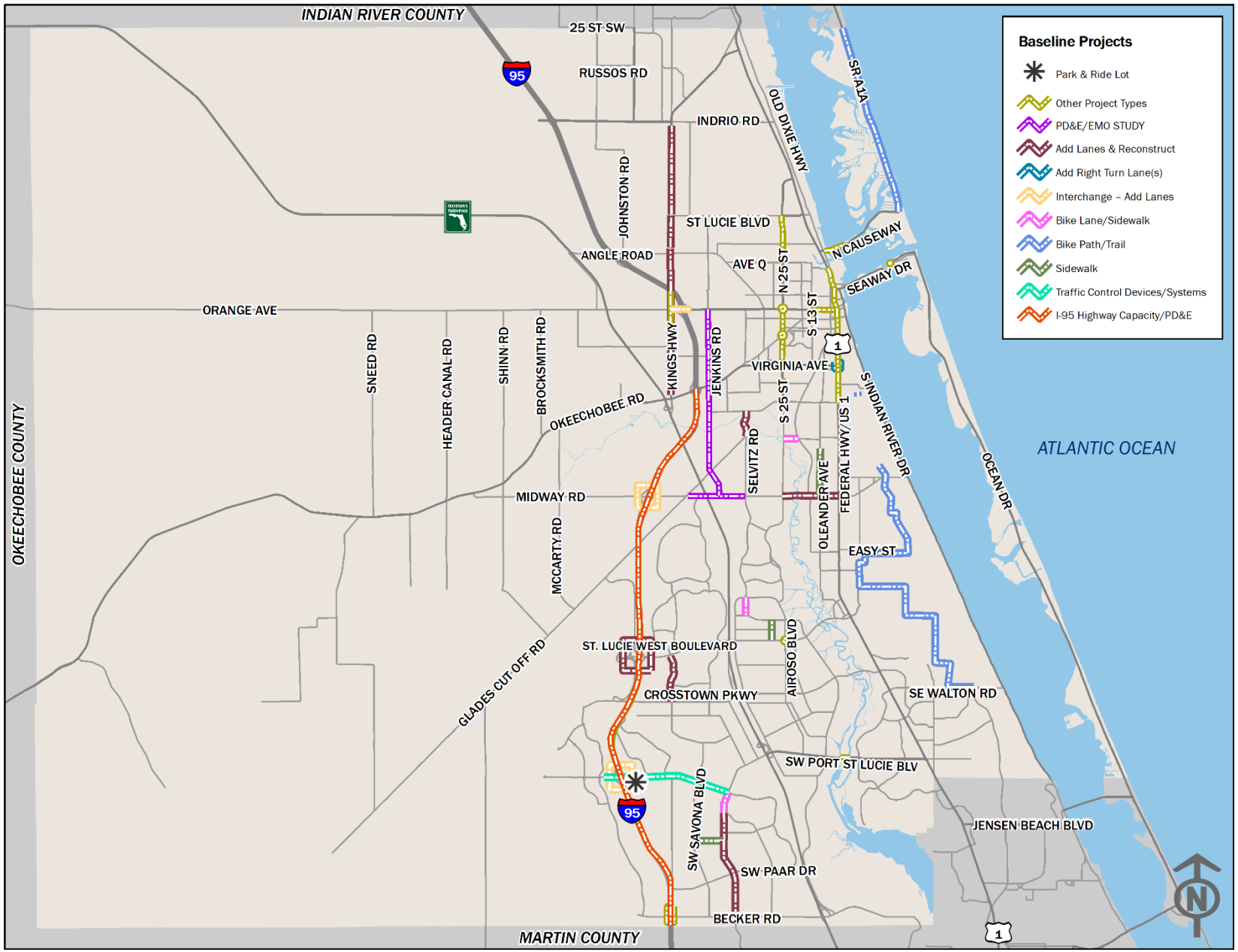


Figure 5-1. Baseline Projects

5.3 Multimodal Needs Plan

Roadway Needs Plan

The identification of the transportation system capacity deficiencies was evaluated and analyzed to identify the initial roadway needs as part of *SmartMoves 2045*. The TCRPM5 was utilized to forecast future transportation conditions with the aid of socioeconomic data, which includes the population and employment data projections from Chapter 2, and roadway network attributes such as the Functional Classifications from Chapter 2. The TCRPM5 is a regional travel demand model that includes the three Treasure Coast MPOs (Martin, St. Lucie, and Indian River MPOs), and was developed by the MPOs and FDOT District Four. Similar, to the previous model, the TCRPM5 is an activity-based model (ABM). An activity-based model is primarily influenced by household and individual characteristics and by the performance of the transportation system. The TCRPM5 includes the model base year of 2015, which includes roadways and conditions as they exist in the year 2015, and the Existing + Committed (E+C) scenarios, also known as the Baseline Projects.

Existing + Committed (E+C) Scenario (Baseline Projects)

The E+C scenario includes the existing roadway network along with the Baseline Projects from the FDOT's Five Year Work Program and the St. Lucie TPO Transportation Improvement Program (TIP) Fiscal Year (FY) 2019/20 – FY 2023/24 with the projected 2045 socioeconomic data. The 2045 traffic demand projections used the TCRPM5 E+C network and assumed that no capacity-producing roadway improvements would be implemented from 2025-2045. Volume-to-capacity (V/C) ratios were examined to identify roadway deficiencies resulting from the growth in travel demand model projections over the 25-year period. V/C ratios greater than 0.9 were considered to be deficient and V/C ratios above 1.0 indicate congested conditions and delays. Deficient roadways are candidates for potential roadway improvements or indicators that parallel network improvements are essential. Additionally, deficient roadways included V/C ratios greater than 0.9 and a logical terminus. The level of service (LOS) D was utilized when estimating the V/C ratio. **Figure 5-2** illustrates the 2045 traffic demand projections with the capacity of LOS D.

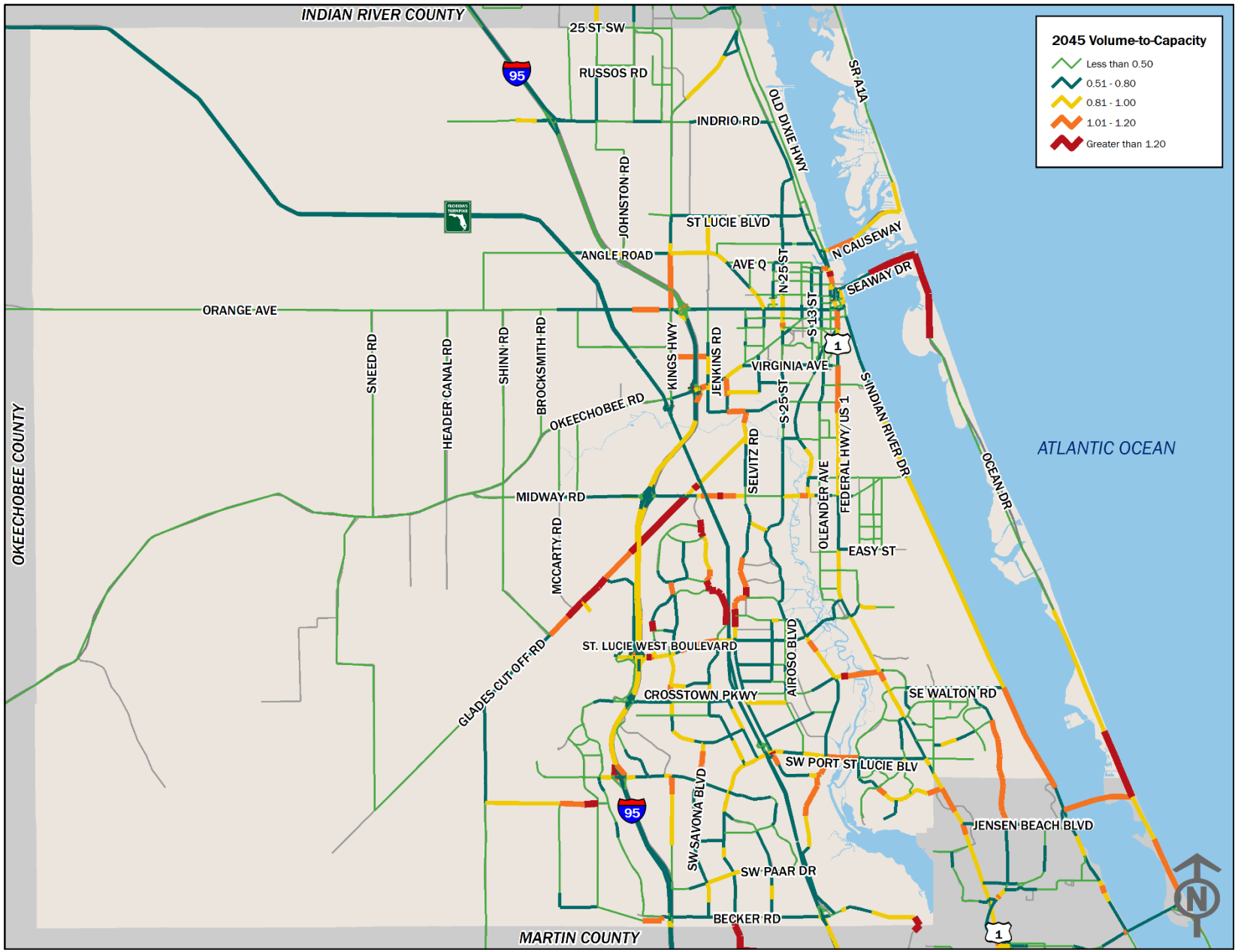


Figure 5-2. 2045 Volume-to-Capacity

2045 Preliminary Roadway Deficiencies

Table 5-3 and illustrated in Figure 5-3 is the 2045 preliminary roadway deficiencies. The results of the analysis demonstrate which roadways will experience congestion by 2045 if additional improvements are not made beyond the baseline projects.

Table 5-3. Preliminary Roadway Deficiencies

Roadway Name	From	To
ANGLE ROAD	I-95	ORANGE AVENUE
BAYSHORE BOULEVARD	ST. LUCIE WEST BOULEVARD	SELVITZ ROAD
CALIFORNIA BOULEVARD	CROSSTOWN PARKWAY	ST. LUCIE WEST BOULEVARD
CASHMERE BOULEVARD	ST. LUCIE WEST BOULEVARD	TORINO PARKWAY
DISCOVERY WAY	RANGE LINE ROAD	VILLAGE PARKWAY
EDWARDS ROAD	JENKINS ROAD	SELVITZ ROAD
GATLIN BOULEVARD	VILLAGE PARKWAY	ROSSER BOULEVARD
GLADES CUT OFF ROAD	RESERVE BOULEVARD	SELVITZ ROAD
GRAHAM ROAD	KINGS HIGHWAY	JENKINS ROAD
I-95	GATLIN BOULEVARD	OKEECHOBEE ROAD
JENKINS ROAD	EDWARDS ROAD	ORANGE AVENUE
KEEN ROAD	ANGLE ROAD	ST. LUCIE BOULEVARD
KINGS HIGHWAY	INDRIO ROAD	US-1
KINGS HIGHWAY	ORANGE AVENUE	ST. LUCIE BOULEVARD/ AIRPORT CONNECTOR
MCNEIL ROAD	EDWARDS ROAD	OKEECHOBEE ROAD
MIDWAY ROAD	EAST TORINO PARKWAY	US-1
OKEECHOBEE ROAD	KINGS HIGHWAY	VIRGINIA AVENUE
PEACHTREE BOULEVARD	SELVITZ ROAD	ST. JAMES DRIVE

Roadway Name	From	To
SELVITZ ROAD	GLADES CUT OFF ROAD	EDWARDS ROAD
SELVITZ ROAD	BAYSHORE BOULEVARD	MIDWAY ROAD
SOUTHEBEND BOULEVARD	BECKER ROAD	PORT ST. LUCIE BOULEVARD
ST. LUCIE WEST BOULEVARD	COMMERCE CENTRE DRIVE	BAYSHORE BOULEVARD
SW ROSSER BOULEVARD	SW APRICOT ROAD	GATLIN BOULEVARD
SW SAVONA BOULEVARD	GATLIN BOULEVARD	CALIFORNIA BOULEVARD
TORINO PARKWAY	CASHMERE BOULEVARD	MIDWAY ROAD
US-1	WALTON ROAD	AVENUE O

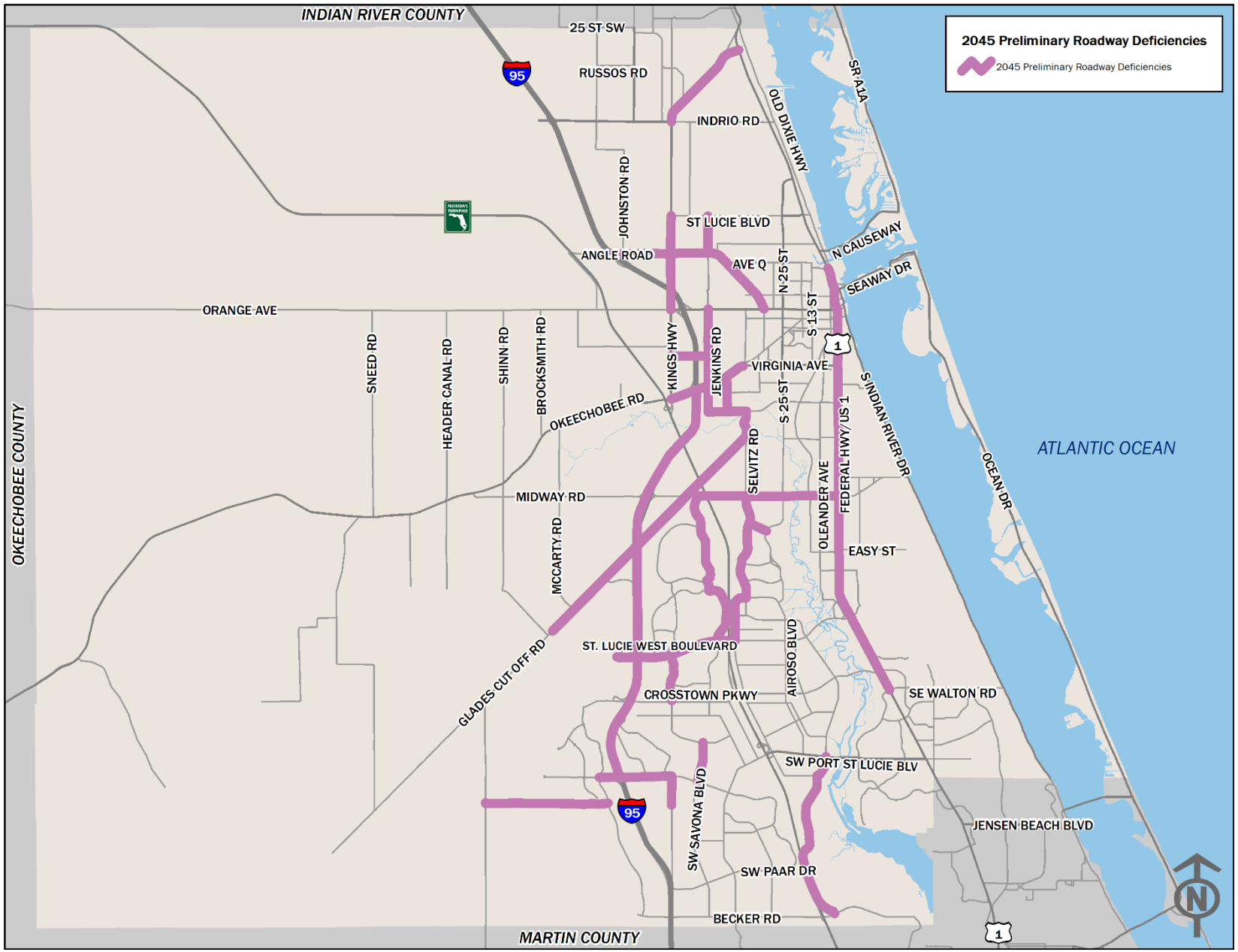


Figure 5-3. 2045 Preliminary Roadway Deficiencies

The 2045 preliminary roadway deficiencies serve as the starting point for the development of the roadway improvement project needs. The roadway deficiencies included V/C ratios greater than 0.9 and a logical terminus. The roadway needs plan was developed to include projects that address the roadway deficiencies.

Listed in **Table 5-4** is the roadway needs plan ordered by project type and roadway name. **Figure 5-4** displays the roadway needs plan. Developer funded projects are included in the roadway needs plan and shown in **Figure 5-5**. As part of the roadway needs plan, pedestrian and bicycle facility improvements are recommended to incorporate complete street elements.

Please note the Northern Connector from Florida's Turnpike to I-95 with the two (2) interchanges at Florida's Turnpike and I-95 is a private developer-built road considered as one project.

Table 5-4. Roadway Needs Plan

ID	Roadway Name	From	To	E+C Lanes	Needs Plan Lanes	Project Type	Length (miles)
101	Florida's Turnpike at Midway Road					New Interchange	
102	Florida's Turnpike at Northern Connector[1]					New Interchange	
103	I-95 at Northern Connector[1]					New Interchange	
104	Williams Road[1]	Shinn Road	McCarty Road	0	2	New 2 Lanes	1.52
105	Airport Connector	Johnston Road	Kings Highway	0	4	New 4 Lanes	1.42
106	Airport Connector	I-95	Johnston Road	0	4	New 4 Lanes	0.78
107	Northern Connector[1]	Florida's Turnpike	I-95	0	4	New 4 Lanes	0.94
108	Arterial A[1]	Glades Cut-Off Road	Midway Road	0	4	New 4 Lanes	2.34
109	Becker Road[1]	Range Line Road	N-S Road B	0	4	New 4 Lanes	2.03
110	Community Boulevard[1]	Becker Road	Discovery Way	0	4	New 4 Lanes	2.8
111	Crosstown Parkway[1]	Range Line Road	Village Parkway	0	4	New 4 Lanes	2.72
112	Discovery Way[1]	Range Line Road	N-S Road B	0	4	New 2 Lanes	1.99
113	E-W Road 2[1]	Community Boulevard	Village Parkway	0	4	New 2 Lanes	0.56

[1] Developer Funded

ID	Roadway Name	From	To	E+C Lanes	Needs Plan Lanes	Project Type	Length (miles)
114	E-W Road 6[1]	Shinn Road	Glades Cut-Off Road	0	4	New 4 Lanes	2.3
115	Jenkins Road	N Jenkins Road	St. Lucie Boulevard	0	4	New 4 Lanes	2.26
116	Jenkins Road	Post Office Road	Glades Cut-Off Road	0	4	New 4 Lanes	0.37
117	Jenkins Road	Walmart Distribution Center	Altman Road	0	4	New 4 Lanes	0.81
118	McCarty Road[1]	Glades Cut-Off Road	Williams Road	0	4	New 4 Lanes	1.98
119	Newell Road[1]	Shinn Road	Arterial A	0	4	New 4 Lanes	2.54
120	North-Mid County Connector	Orange Avenue	Florida's Turnpike	0	4	New 4 Lanes	1.88
121	Tradition Parkway[1]	Range Line Road	SW Stony Creek Way	0	4	New 4 Lanes	2.05
122	North-Mid County Connector	Okeechobee Road	Orange Avenue	0	4	New 4 Lanes	2.93
123	North-Mid County Connector	Midway Road	Okeechobee Road	0	4	New 4 Lanes	2.37
124	N-S Road A[1]	Becker Road	Crosstown Parkway	0	4	New 4 Lanes	5.13
125	N-S Road B[1]	Becker Road	Discovery Way	0	4	New 4 Lanes	2.8
126	Open View Drive (West)[1]	N-S Road A	Village Parkway	0	4	New 4 Lanes	2.97
127	Paar Drive (West)[1]	N-S Road A	Village Parkway	0	4	New 4 Lanes	3.3
128	Range Line Road[1]	Glades Cut-Off Road	Midway Road	0	4	New 4 Lanes	5.46
129	Shinn Road[1]	Glades Cut-Off Road	Midway Road	0	4	New 4 Lanes	4.95
130	Westcliffe Lane[1]	N-S Road A	SW Tremonte Avenue	0	4	New 4 Lanes	1.15
131	Williams Extension[1]	McCarty Road	Glades Cut-Off Road	0	4	New 4 Lanes	1.65
132	Bayshore Boulevard	St. Lucie West Boulevard	Selvitz Road	2	4	Widen 2L to 4L	1.46

ID	Roadway Name	From	To	E+C Lanes	Needs Plan Lanes	Project Type	Length (miles)
133	California Boulevard	Savona Boulevard	Del Rio Boulevard	2	4	Widen 2L to 4L	1.33
134	Discovery Way[1]	N-S Road B	Village Parkway	2	4	Widen 2L to 4L	1.31
135	East Torino Parkway	NW Cashmere Boulevard	Midway Road	2	4	Widen 2L to 4L	2.73
136	Glades Cut Off Road	Arterial A	Selvitz Road	2	4	Widen 2L to 4L	5.39
137	Jenkins Road	Altman Road	Orange Avenue	2	4	Widen 2L to 4L	3.01
138	Jenkins Road	Orange Avenue	N Jenkins Road	2	4	Widen 2L to 4L	0.52
139	Jenkins Road	Midway Road	Post Office Road	2	4	Widen 2L to 4L	0.34
140	Jenkins Road	Glades Cut-Off Road	Walmart Distribution Center	2	4	Widen 2L to 4L	0.58
141	Kings Highway	south of Indrio Road	US-1	2	4	Widen 2L to 4L	2.85
142	McCarty Road[1]	Williams Road	Midway Road	2	4	Widen 2L to 4L	1.27
143	Midway Road	East Torino Parkway	Selvitz Road	2	4	Widen 2L to 4L	1.33
144	NW Cashmere Boulevard	Swan Lake Circle	East Torino Parkway	2	4	Widen 2L to 4L	1.22
145	Savona Boulevard	Gatlin Boulevard	California Boulevard	2	4	Widen 2L to 4L	1.08
146	Selvitz Road	Bayshore Drive	Milner Drive	2	4	Widen 2L to 4L	2.68
148	Southbend Boulevard	Becker Road	Port St. Lucie Boulevard	2	4	Widen 2L to 4L	4.79
149	St. Lucie West Boulevard	E of I-95	Cashmere Boulevard	4	6	Widen 4L to 6L	1.92
150	I-95	Martin/St. Lucie County Line	SR-70	6	8	Widen 6L to 8L[2]	14.59
151	US-1	Martin County Line	Indian River County Line			Operational Improvement	21.42
152	Seaway Drive	Harbor Isle Marina	north of Blue Heron Boulevard			Operational Improvement	3.87

[2] Also known as Highway Capacity for Project Type per the SIS Adopted 1st 5 Year Program.

ID	Roadway Name	From	To	E+C Lanes	Needs Plan Lanes	Project Type	Length (miles)
153	Torino Parkway					Neighborhood Traffic Management	6.06
154	Indian River Drive	Martin/St. Lucie County Line	Seaway Drive			Neighborhood Traffic Management	14.63
155	I-95 at Becker Road					ACES Network	
156	I-95 at Midway Road					ACES Network	
157	Okeechobee Road between Florida's Turnpike & I-95					ACES Network	
158	I-95 at Indrio Road					ACES Network	
159	Kings Highway	St. Lucie Boulevard	south of Indrio Road	2	4	Widen 2L to 4L	2.4
160	Port St. Lucie Boulevard	Becker Road	Paar Drive	2	4	Widen 2L to 4L	1.2
161	California Boulevard	Del Rio Boulevard	Crosstown Parkway	2	4	Widen 2L to 4L	0.37
162	Midway Road[1]	Arterial A	I-95	2	4	Widen 2L to 4L	0.88
163	Becker Road[1]	N-S Road B	Village Parkway		6	New 6 Lanes	2.26
164	Paar Drive (West)[1]	Range Line Road	N-S Road A	0	2	New 2 Lanes	0.94
165	Open View Drive (West)[1]	Range Line Road	N-S Road A	0	2	New 2 Lanes	0.95
166	Trade Center/Tom Mackie[1]	Village Parkway	Discovery Way	0	2	New 2 Lanes	0.36
167	Village Parkway[1]	Becker Road	Discovery Way	4	6	Widen 4L to 6L	3.26
168	I-95 at Crosstown Parkway					ACES Network	

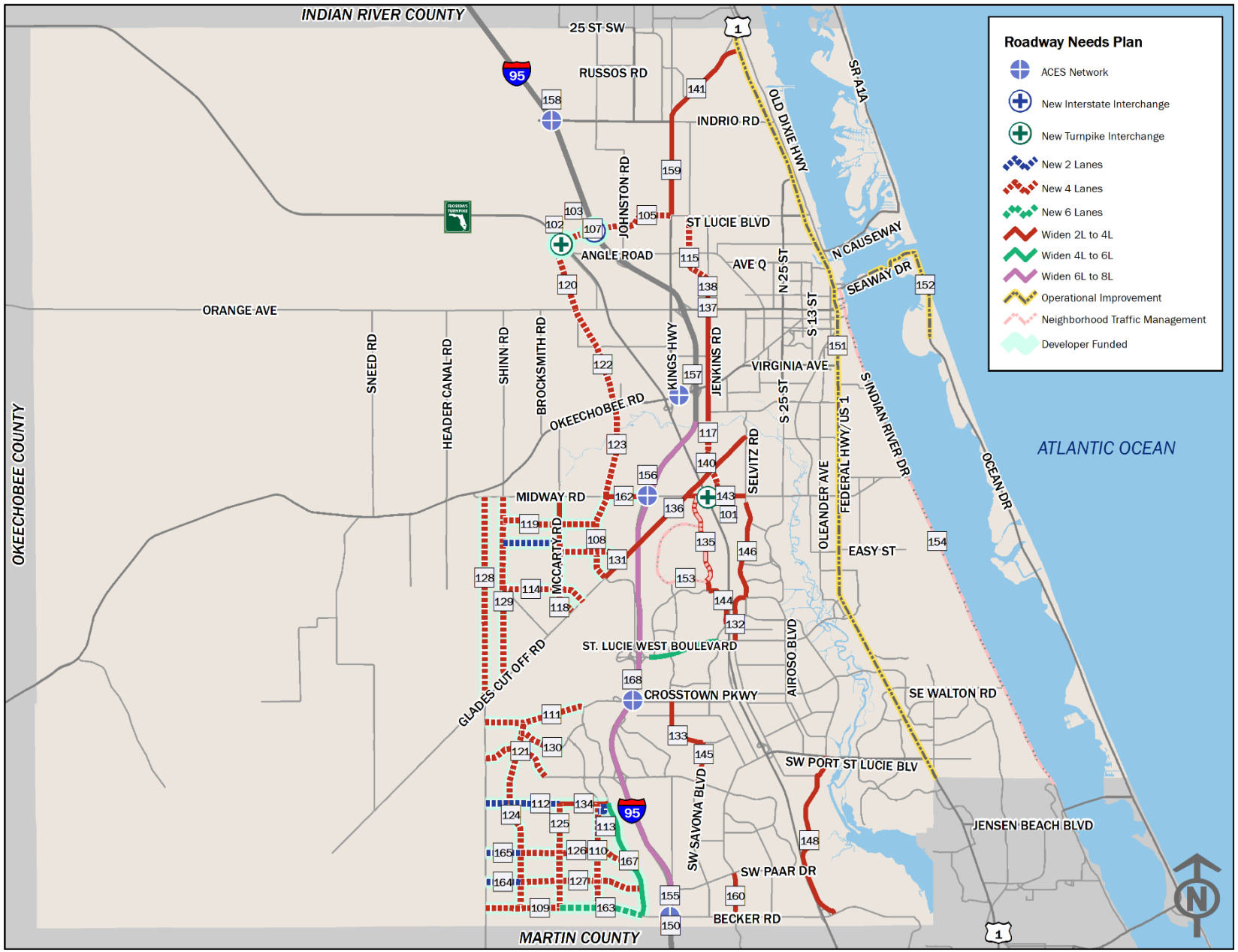


Figure 5-4. Roadway Needs Plan

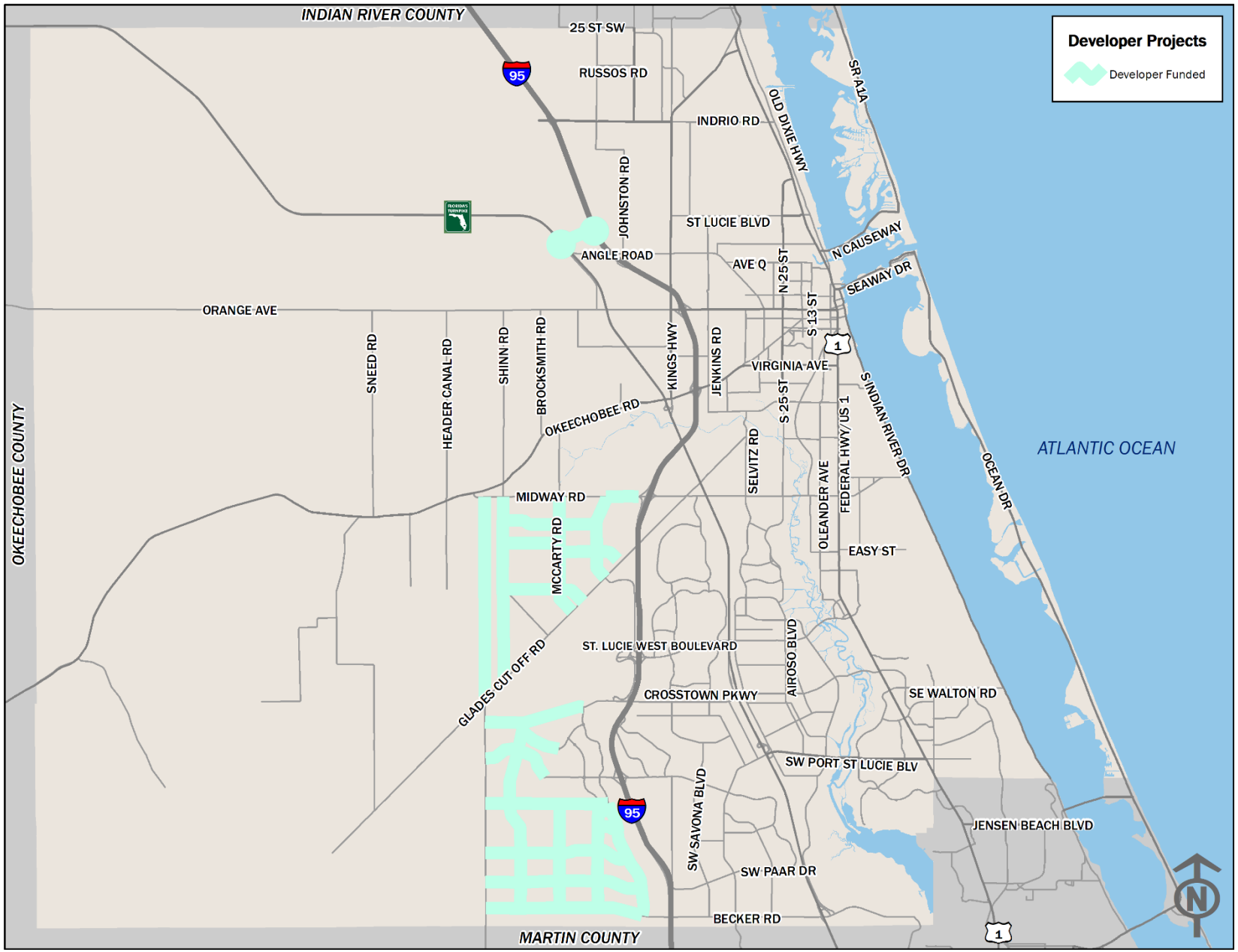


Figure 5-5. Developer Funded Projects

Movement of Freight and Goods

The efficiency and effectiveness of freight movement, connecting producers to consumers, and providing access to domestic and international markets are factors that could enhance the economic competitiveness in the TPO area.

The Northern Connector from Florida's Turnpike to I-95 along with the two new interchanges, which are developer-funded, and the Airport Connector from I-95 to Kings Highway will provide a more direct route for freight movement traveling on these roadways to reach the Port of Fort Pierce, St. Lucie County International Airport, and a proposed rail spur from the Florida East Cost Railway (FEC) line into the Airport property. Additionally, the proposed interchange at Midway Road and Florida's Turnpike will help facilitate freight movement. These projects are identified in the Multimodal Needs Plan.

The potential location of the North St. Lucie County Freight Logistics Zone (FLZ) is shown in **Figure 5-6**. Additionally, the designated St. Lucie Freight Network is depicted in **Figure 5-7**, which incorporates the designated freight route and freight facilities/logistics cluster.

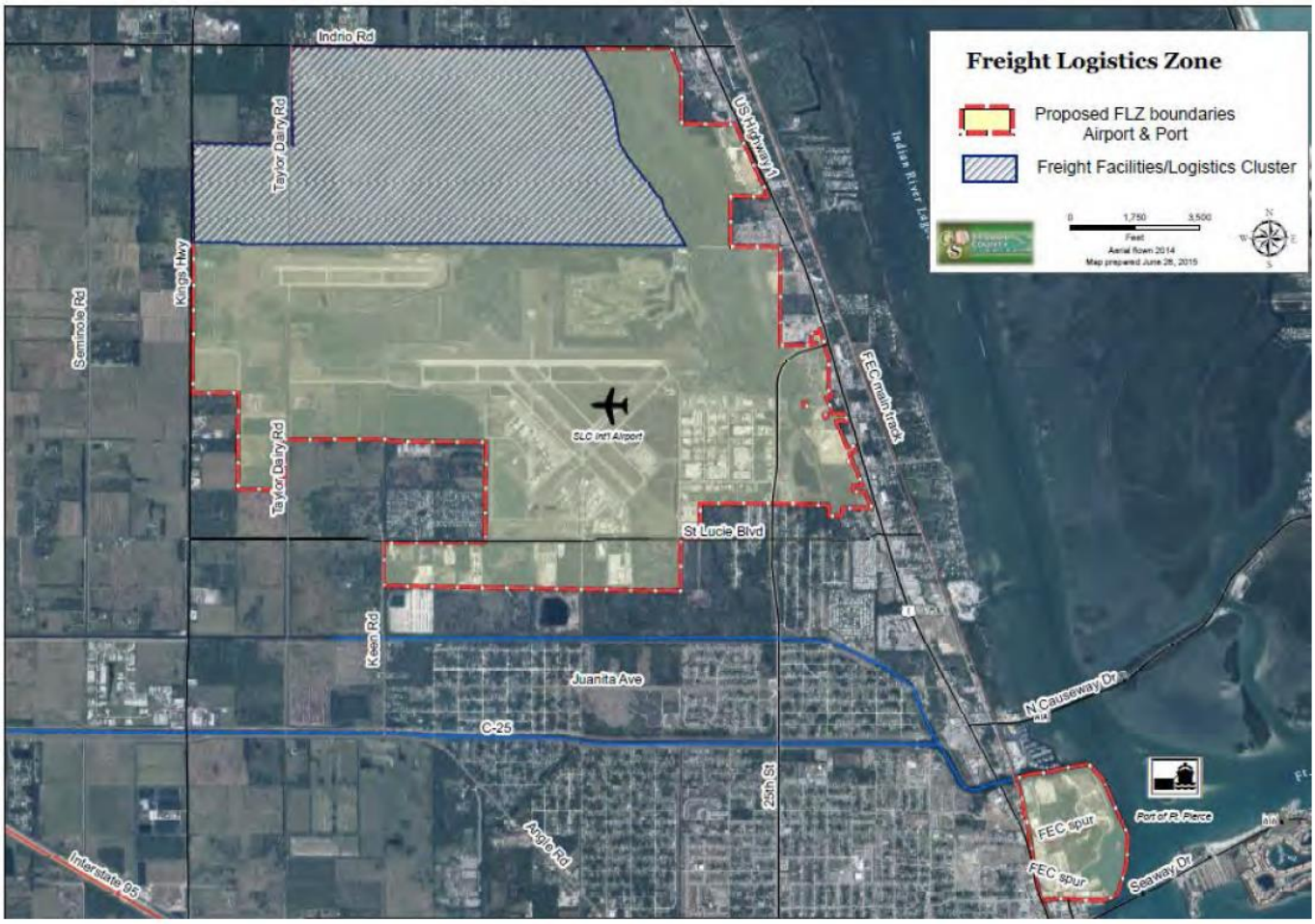


Figure 5-6. Freight Logistics Zone

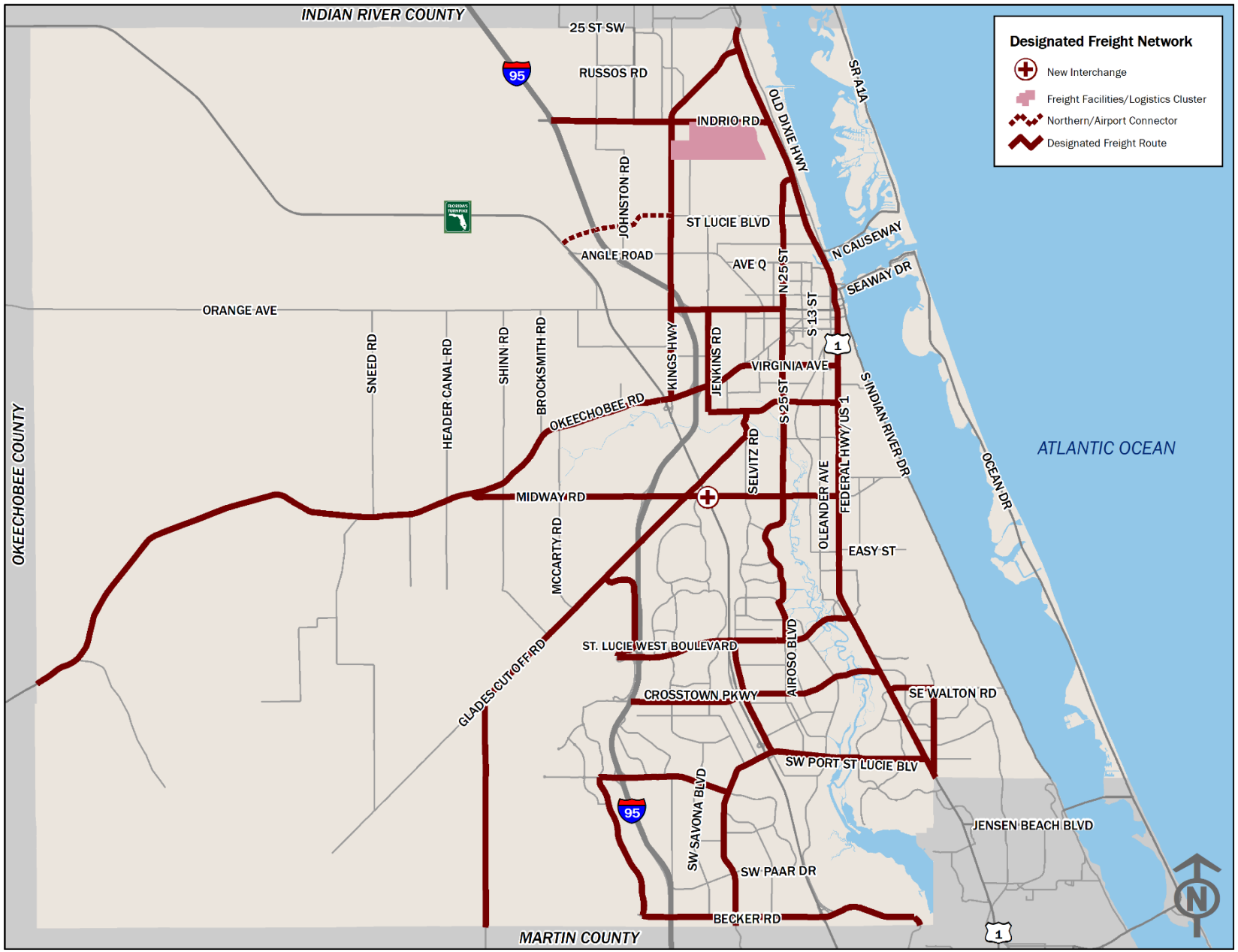


Figure 5-7. Designated Freight Network

Safety

Bicyclists, pedestrians, and motorists are considered as vulnerable road users as per the SHSP because they have the potential for a disproportionately high fatality rate. The last five years (5) of vulnerable road user crashes were obtained from Signal Four Analytics, 2016 to 2020 and depicted in **Figure 5-8**. Furthermore, a density-based clustering displaying the vulnerable road user crashes is shown in **Figure 5-9**. Recommendations and strategies that consider education, encouragement, engineering, enforcement, and evaluation in the hot spots will future reduce vulnerable crashes.

Florida shares the national traffic safety vision, "Toward Zero Deaths," and formally adopted its own version of the national vision, Driving Down Fatalities," in 2012. The mission of *SmartMoves 2045* aligns with the national traffic safety vision, to provide the public a safe and efficient multimodal transportation system.

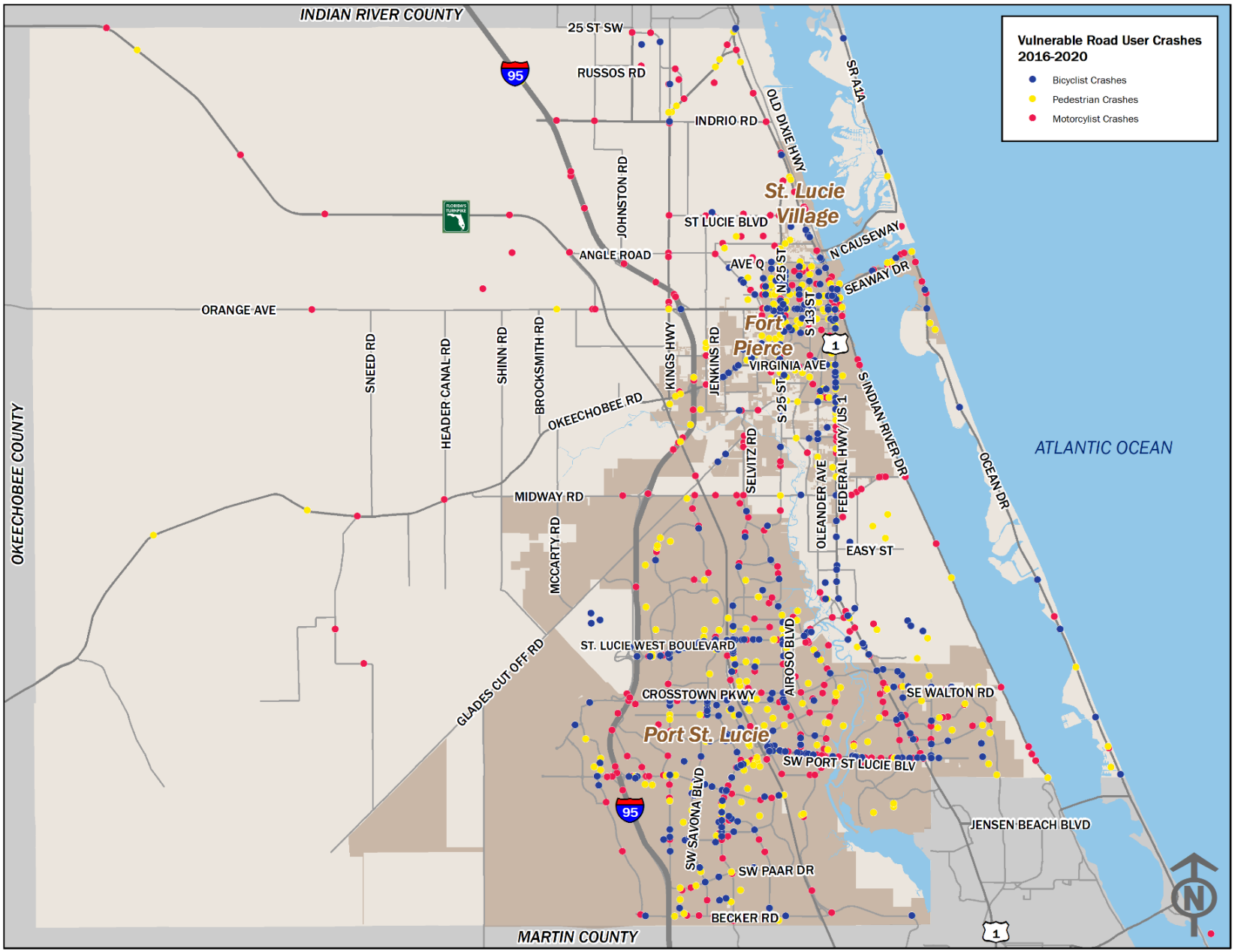


Figure 5-8. Vulnerable Road User Crashes 2016-2020

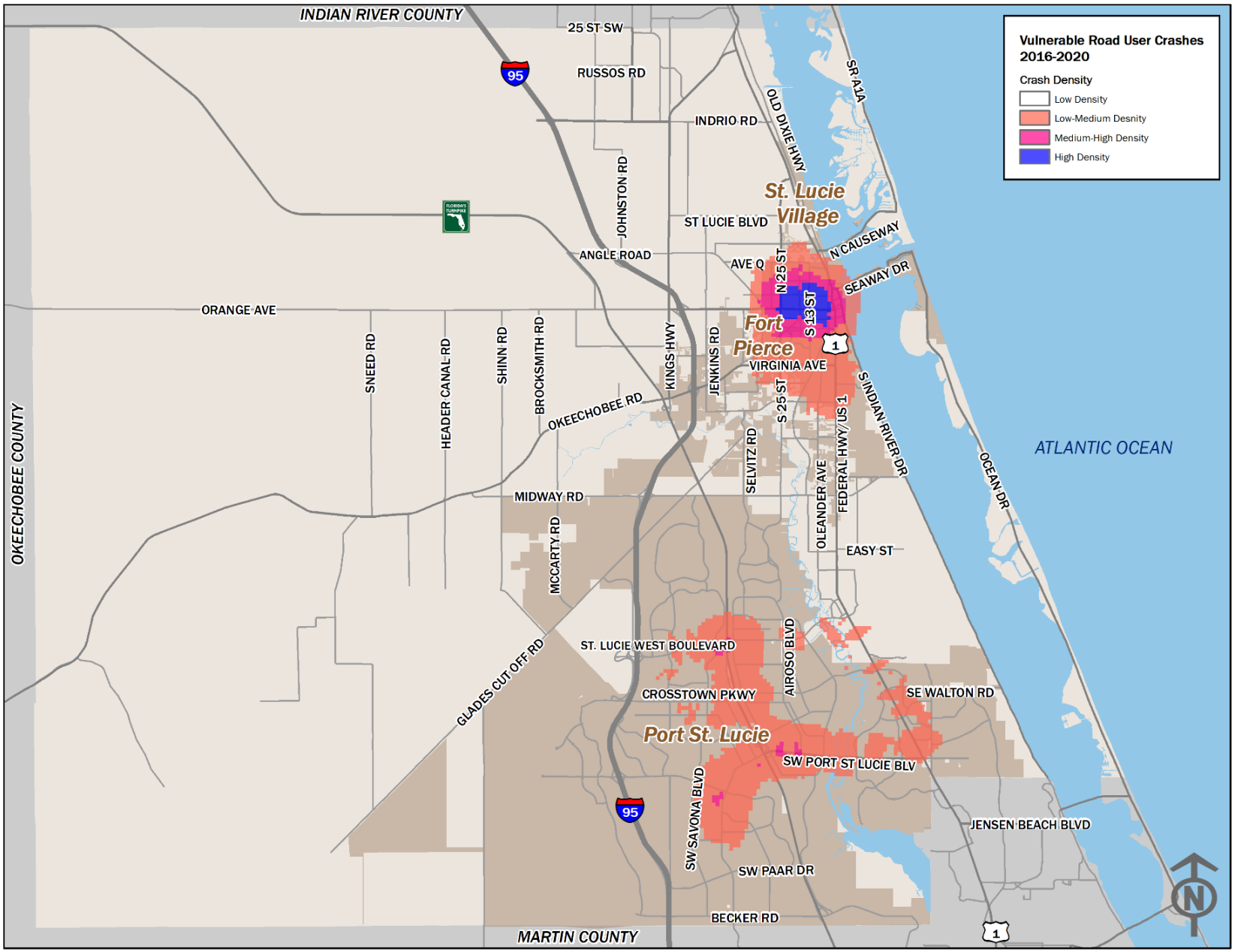


Figure 5-9. Vulnerable Road User Crashes 2016-2020 – Crash Density

Bicycle Facilities Needs Plan

The Bicycle Facilities Needs Plan originated from the St. Lucie Walk-Bike Network and considers the Safety Needs. Paved shoulder and suggested connections were identified as a need since the facilities do not provide a designated space for bicycle traffic. The Walk-Bike Network includes bicycle, pedestrian, and greenway projects. It builds upon previous planning efforts and continue the ongoing planning and coordinating efforts with more non-motorized facilities.

Listed in **Table 5-5** and depicted in **Figure 5-10**. The following are the types of bicycle facilities that may be implemented where feasible.

- **MULTI-USE PATHWAY** – Separate path (typically 8-12 feet) for shared use by bike riders, pedestrians, and other non-motorized users with minimal vehicle crossings.
- **SEPARATED BIKE LANES** – Protected or physically separated from the motor vehicle travel lane with flexible delineators, raised curbs, bollards, planters, or parking lanes. One-way separated bike lanes minimum desired width is 7 feet and a two-way separated bike lanes or cycle tracks minimum desired width is 12 feet.
- **BUFFERED BIKE LANES** – On-road, typically 6-7 feet with a conventional bike lane paired with a designated buffer space separating the bicycle lane from the motor vehicle travel lane.
- **CONVENTIONAL BIKE LANE** – On-road and typically 4-5 feet which has been designated by signs and pavement markings.

Table 5-5. Bicycle Facilities Needs Plan

ID	Roadway Name	From	To	Length (miles)
201	13th Street	Georgia Avenue	Orange Avenue	0.51
202	25th Street	Orange Avenue	Avenue F	0.51
203	Airoso Boulevard	Port St. Lucie Boulevard	St. James Drive	4.22
204	Bayshore Boulevard	Prima Vista Boulevard	Floresta Drive	0.67
205	Commerce Centre Drive	St. Lucie West Boulevard	Commerce Lakes Drive	2.46
206	Darwin Boulevard	Becker Road	SW Landale Boulevard	2.89
207	Edwards Road	Jenkins Road	S 25th Street	2.1
208	Emerson Avenue	Indrio Road	St. Lucie/Indian River County Line	2.5
209	Floresta Drive	Bayshore Boulevard	Airoso Boulevard	1.37
210	Indian Hills Drive	US-1	Indian Hills Recreation Area	0.31
211	Indian River Drive	Orange Avenue	AE Backus Museum & Gallery	0.31

ID	Roadway Name	From	To	Length (miles)
212	Indrio Road	Johnston Road	Kings Highway	2.14
214	Juanita Avenue	25th Street	US-1	0.87
215	Kings Highway	Okeechobee Road	Indrio Road	8.01
216	Lennard Road	Shanas Trail	south of Kitterman Road	1.14
217	Midway Road	US-1	Star Avenue	0.15
218	N 25th Street	Virginia Avenue	Avenue E	2
220	Oleander Avenue	Midway Road	Edwards Road	2.52
221	Oleander Avenue	Kitterman Road	south of Midway Road	2.75
222	Orange Avenue	US-1	Indian River Drive	0.2
223	Orange Avenue	Kings Highway	US-1	4.49
224	Port St. Lucie Boulevard	Gatlin Boulevard	US-1	5.9
227	Prima Vista Boulevard	Banyan Drive	US-1	0.1
228	Savannas Preserve State Park Trail	Weatherbee Road	south of Farmers Market Road	1.14
229	SE Lennard Road	US-1	Cane Slough Road/Mariposa Avenue	0.38
230	Seaway Drive	US-1	St. Lucie County Aquarium	0.84
231	Southbend Boulevard/SE Floresta Drive	SE East Snow Road	Port St. Lucie Boulevard	2.6
232	St. Lucie Boulevard	Kings Highway	N 25th Street	2.99
234	US-1	Gardenia Avenue	Orange Avenue	2.08
235	US-1	Seaway Drive	Old US Highway 1	0.88
236	US-1	Baysinger Avenue	Edwards Avenue	2.54
237	Walton Road	SE Scenic Park Drive	Green River Parkway	0.97

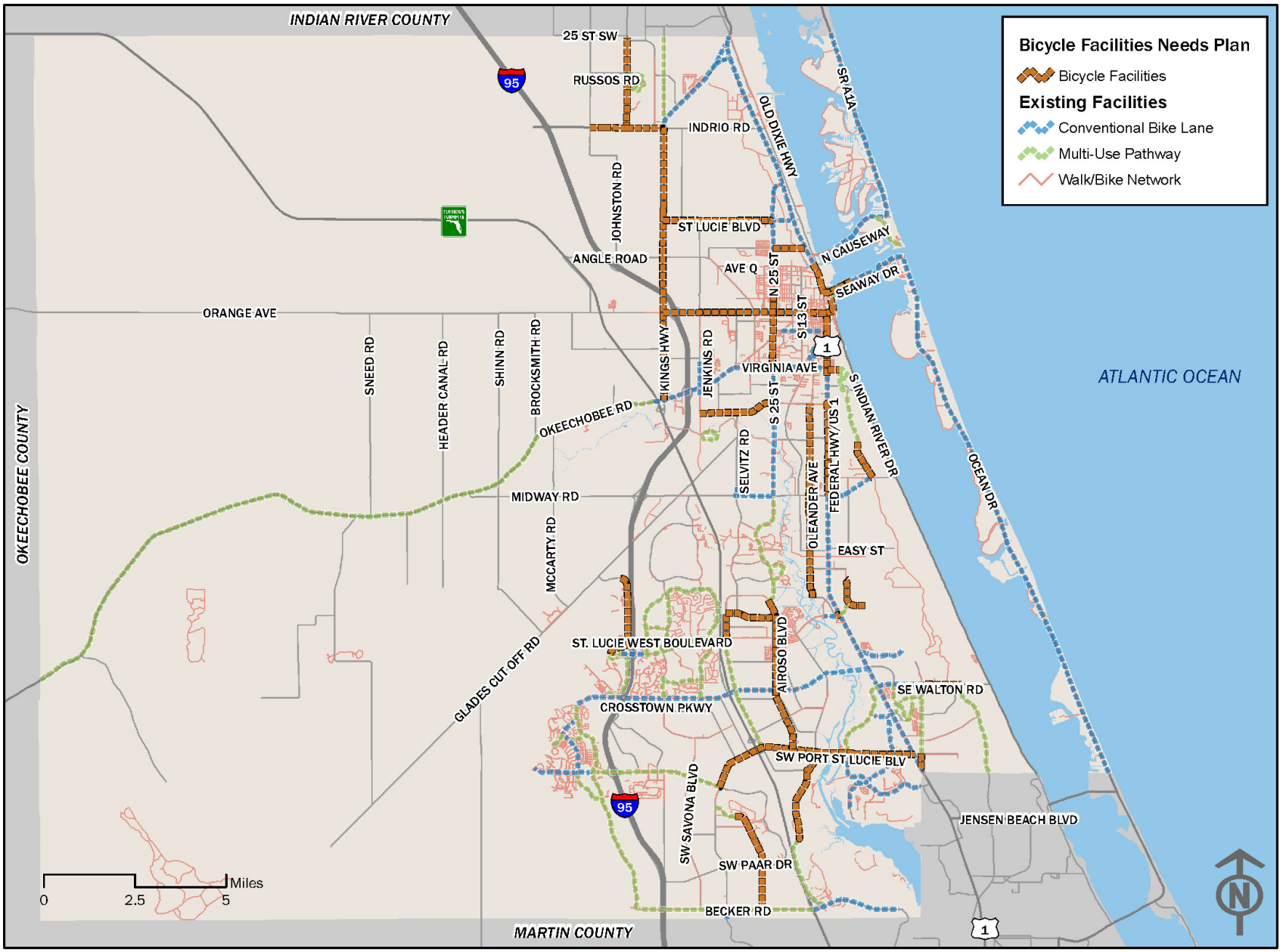


Figure 5-10. Bicycle Facilities Needs Plan

Pedestrian Facilities Needs Plan

The development of the Pedestrian Facilities Needs Plan builds off of the Safety Needs and the St. Lucie Walk-Bike Network and *Port St. Lucie Sidewalk Master Plan.* The Walk-Bike Network includes bicycle, pedestrian, and greenway projects. It builds upon previous planning efforts and continues the ongoing planning and coordinating efforts including the *Port St. Lucie Sidewalk Master* Plan which identifies sidewalks strategically and develops a road map for connecting sidewalks throughout the City.

Table 5-6 and **Figure 5-11** displays the Pedestrian Facilities Needs Plan.

Table 5-6. Pedestrian Facilities Needs Plan

ID	Roadway Name	From	To	Length (miles)
301	17th Street	Georgia Avenue	Delaware Avenue	0.24
302	25th Street	Industrial Avenue	US-1	0.42
303	53rd Street	Angle Road	Juanita Avenue	0.29
304	Abingdon Avenue	Savona Boulevard	Import Drive	0.89
305	Alcantarra Boulevard	Savona Boulevard	Port St. Lucie Boulevard	0.81
306	Angle Road	Kings Highway	N 53rd Street	1.27
307	Beach Avenue	Oleander Avenue	Riomar Drive	0.39
308	Becker Road	SE Courances Drive	Gilson Road	1.45
309	Bell Avenue	25th Street	Oleander Avenue	0.98
310	Berkshire Boulevard	South Blackwell Dr	Melaleuca Boulevard	1.29
311	Berkshire Boulevard	Melaleuca Boulevard	Green River Parkway	1.15
312	Blanton Boulevard	Torino Parkway	East Torino Parkway	1.08
313	Boston Avenue	S 25th Street	S 13th Street	0.8
314	Brescia Street	Gatlin Boulevard	Savage Boulevard	0.52
315	Cadima Street	Fairgreen Road	Galiano Road	0.15
316	Cambridge Drive	Westmoreland Boulevard	Morningside Boulevard	1.01

ID	Roadway Name	From	To	Length (miles)
317	Carter Avenue	Bayshore Boulevard	Airoso Boulevard	1.05
318	Charleston Drive	Berkshire Boulevard	Green River Parkway	0.51
319	Colonial Road	Southern Avenue	Ohio Avenue	0.25
320	Curtis Street	Prima Vista Boulevard	Floresta Drive	0.54
321	Delaware Avenue	Hartman Road	33rd Street	0.5
322	Easy Street	US-1	Silver Oak Drive	0.94
323	Edwards Road	Jenkins Road	S 25th Street	2.1
325	Eyerly Avenue	Bayshore Boulevard	Airoso Boulevard	1.18
326	Fairgreen Road	Cadima Street	Crosstown Parkway	0.81
327	Farmers Market Road	Oleander Avenue	US-1	0.5
328	Floresta Drive	Southbend Boulevard	Prima Vista Boulevard	1.55
329	Galiano Road	Cadima Street	Import Drive	0.45
330	Gilson Road	Martin/St. Lucie County Line	Becker Road	0.37
331	Glades Cut-Off Road	Range Line Road	C-24 Canal Road	2.43
332	Glades Cut-Off Road	Burnside Drive	Selvitz Road	6.9
333	Graham Road	Kings Highway	Jenkins Road	1.05
334	Grand Drive	Lennard Road	Tiffany Avenue	1.53
335	Hartman Road	Okeechobee Road	Orange Avenue	1.66
336	Hillmoor Drive	Hillmoor Professional Plaza	Lyngate Drive	0.39
337	Import Drive	Gatlin Boulevard	Savage Boulevard	2.06
338	Indrio Road	Kings Highway	Old Dixie Highway	2.79
342	Juanita Avenue	N 53rd Street	N 41st Street	1.27

ID	Roadway Name	From	To	Length (miles)
343	Keen Road	Angle Road	St. Lucie Boulevard	1
344	Kestor Drive	Becker Road	Darwin Boulevard	1.38
345	Kings Highway	north of I-95	Indrio Road	4.42
347	Kitterman Road	Oleander Avenue	US-1	0.5
348	Lakehurst Drive	Bayshore Boulevard	Airoso Boulevard	1.33
349	McCarthy Road	Midway Road	Okeechobee Road	1.88
350	Midway Road	Okeechobee Road	Selvitz Road	8.3
351	Milner Drive	Jenkins Road	Selvitz Road	1.19
352	Mississippi Avenue	S 11th Street	S 10th Street	0.08
353	Morningside Boulevard	Westmoreland Boulevard	Cambridge Drive	0.52
354	N Torino Parkway	NW Coventry Circle	NW East Torino Parkway	0.66
355	NW North Macdeo Boulevard	Selvitz Road	St James Drive	1.03
356	NW S Delwood Drive	NW East Torino Parkway	NW Jannebo Street	0.23
357	NW Volucia Drive	Torino Parkway	Blanton Boulevard	1.01
358	Ohio Avenue	S 11th Street	US-1	0.56
359	Old Dixie Highway	US-1 Junction	Kings Highway	7.31
360	Oleander Avenue	Midway Road	Edwards Road	2.52
361	Oleander Avenue	Beach Avenue	south of Midway Road	2.75
362	Paar Drive	Daemon Street	Savona Boulevard	0.98
363	Paar Drive	Savona Boulevard	Port St. Lucie Boulevard	0.76
364	Paar Drive	Port St. Lucie Boulevard	Tulip Boulevard	3.05
365	Peacock Trail	Peacock Park	Gatilin Boulevard	1.01

ID	Roadway Name	From	To	Length (miles)
367	Quincy Avenue	Okeechobee Road	S 25th Street	0.5
368	Range Line Road	Martin/St. Lucie County Line	Glades Cut-Off Road	6.14
369	Rosser Boulevard	Open View Drive	Daemon Street	1.4
370	S 11th Street	Mississippi Avenue	Georgia Avenue	0.38
371	Sandia Drive	Thornhill Drive	Lakehurst Drive	1.39
372	Savage Boulevard	Gatlin Boulevard	Import Drive	1.68
373	Savannah Road	US-1	Indian River Drive	0.95
374	SE Calmoso Drive	SE Sandia Drive	Floresta Drive	0.6
375	Selvitz Road	south of Devine Road	Edwards Road	1.82
376	Selvitz Road	Peachtree Boulevard	north of NW Nassau Lane	0.46
377	Selvitz Road	Floresta Drive	Bayshore Boulevard	0.49
378	Silver Oak Drive	Easy Street	Midway Road	1.8
379	St. Lucie Boulevard	Kings Highway	N 25th Street	2.99
380	Sunrise Boulevard	Midway Road	Edwards Road	2.71
381	SW Dalton Avenue	Savona Boulevard	Port St. Lucie Boulevard	0.93
382	Taylor Dairy Road	Angle Road	Indrio Road	3.54
383	Tiffany Avenue	east of Simmons Street	Grand Drive	0.32
384	Torino Parkway	south of NW Topaz Way	Blanton Boulevard	1.1
385	Torino Parkway	NW Topaz Way	NW Conus Street	1.13
386	US-1	North Causeway Bridge	St. Lucie County/Indian River County Line	6.49
387	US-1	Traub Avenue	High Point Boulevard	1.87
388	Village Green Drive	US-1	Cam De Entrada	0.72

ID	Roadway Name	From	To	Length (miles)
389	Weatherbee Road	Sunrise Boulevard	west of US-1	0.68
390	SE Bayshore Boulevard	Walgreen Driveway Entrance	SW Port St. Lucie Boulevard	0.04

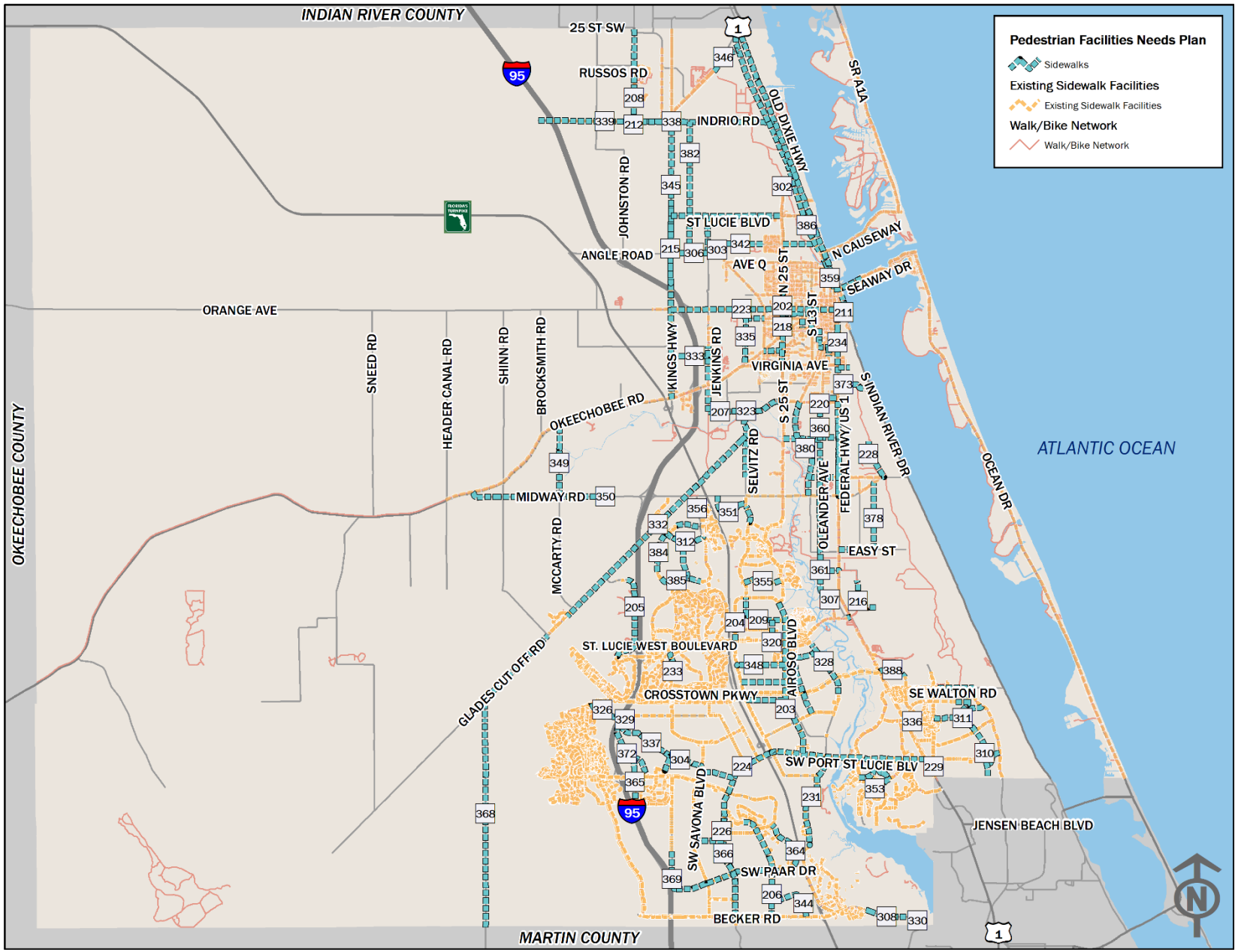


Figure 5-11. Pedestrian Facilities Needs Plan

Transit Needs Plan

The *St. Lucie County's 10-Year Transit Development Plan (TDP), 2019*, also known as *Bus Plus*, served as the foundation of the Transit Needs Plan. The *Bus Plus* represents the community's vision and goals for public transportation and is to be used as a strategic guide for the FY 2020-2029 planning horizon. Two (2) mircro-transit locations have been identified, Indian River Estates and Torino Parkway. Micro-transit is a low-cost, on-demand service that can function as a flexible, feeder service to other established routes. The Tradition Area micro-transit was launched early December 2019 and if the program goes well, the service will expand and become part of St. Lucie County Transit and the Treasure Coast Connector's transit options. Additionally, a new St. Lucie County Transit Operations Center located at the northwest corner on Devine Road and Selvitz Road is included. Currently, St. Lucie County Transit does not have an operations and maintenance facility to serve a fast-growing public transit entity. Listed in **Table 5-7** and illustrated in **Figure 5-12** is the Transit Needs Plan.

Table 5-7. Transit Needs Plan

ID	List of Improvements	Project Type
401	Crosstown Parkway	New Services
402	Fort Pierce to South Hutchinson Island	New Services
403	Gatlin Boulevard (Route 5 split)	New Services
404	Midway Road	New Services
405	Palm Beach Express	New Services
406	Port St. Lucie Boulevard (Route 5 split)	New Services
407	Selvitz Road/Bayshore Boulevard	New Services
408	Virginia Avenue	New Services
409	Passenger Train – Miami to Orlando	New Services
410	Indian River Estates micro-transit	New Services
411	Torino Parkway micro-transit	New Services
412	Increase frequency from 60 minutes to 30 minutes on Route 2 & Route 3	Improvements to Existing Service
413	Expand service hours on Route 7 to reflect the other route schedules (currently 7 am – 6 pm)	Improvements to Existing Service
414	Expand Saturday service hours to reflect weekday span of service (currently 8 am – 12 pm/1 pm – 4 pm)	Improvements to Existing Service

ID	List of Improvements	Project Type
415	Port St. Lucie Transfer Station improvements	Capital/Infrastructure
416	New Port St. Lucie City Center hub/transfer station	Capital/Infrastructure
417	Bus Stop/Shelter improvements	Capital/Infrastructure
418	Improved sidewalk connections to bus stops	Capital/Infrastructure
419	New operations/maintenance/administrative facility (St. Lucie County Transit Operations Center)	Capital/Infrastructure

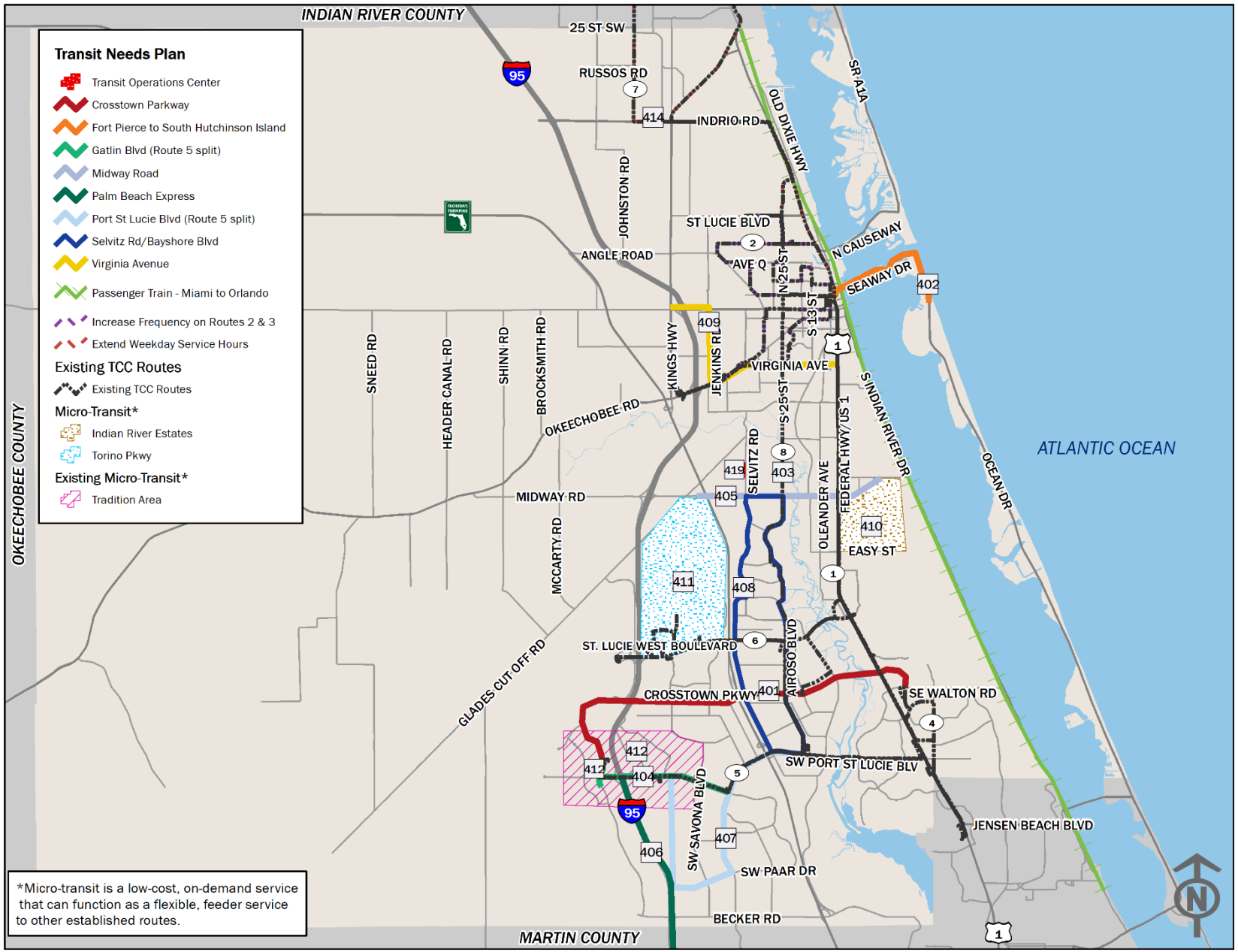


Figure 5-12. Transit Needs Plan

Congestion Management Process (CMP)

The CMP is a systematic procedure that provides for safe and effective management and operation of transportation facilities through the use of demand reduction and operational management strategies. The reduction in travel time delay improves air quality conditions by reducing emissions from idling and helping motorists reduce fuel cost by spending less time in congested conditions. The strategies are lower-cost alternatives that typically involve traffic operational improvements.

The CMP network is comprised of all major roadways that are included in the St. Lucie TPO's Traffic Count Data Management System. The CMP toolbox is comprised of four (4) categories.

- **MULTIMODAL IMPROVEMENTS** – Support livable communities while providing users modal choice and decreasing vehicular congestion.
  - Addition of sidewalks, bicycle lanes, multi-use paths
  - Public Transit
- **TRANSPORTATION SYSTEMS MANAGEMENT AND OPERATIONS IMPROVEMENTS WITH REAL TRAVEL TIME DATA COLLECTION** – Improve reliability of the roadway CMP network in enhancing customer expectations and making more efficient use of the existing transportation system.
  - Adaptative Traffic Signal Control (ATSC)
  - Real-time traffic information
  - Fiber optic cable, cameras for vehicle detection, surveillance Closed Circuit Television (CCTV) and traffic operations center
- **TRANSPORTATION DEMAND MANAGEMENT (TDM)** – Mitigate congestion by providing more trip choice and redistribute the timing of traffic demand to lessen the amount of peak period trips
  - Work site commuter choice programs, South Florida Commuter Services (SFCS), providing park-and-ride lots, and dedicating travel lanes for transit operations.
- **ROADWAY CAPACITY IMPROVEMENTS** – Adding capacity to the roadway network is considered a strategy to assist in the mitigation of congestion.
  - Intersection improvements such as adding or extending turn lanes and roadway widening

St. Lucie TPO's CMP Major Update was adopted in June 2018 and may be accessed through the following Weblink: http://www.stlucietpo.org/documents/StLucieTPOCMPMajorUpdateADOPTEDJUNE2018.pdf

Advanced Transportation Management System (ATMS)

The *Advanced Transportation Management System (ATMS) Master Plan-* is to provide recommendations for improving the existing traffic control system in St. Lucie County. The ATMS takes advantage of information that can be provided by roadside traffic sensors and cameras to increase transportation system efficiency, enhance mobility, and improve safety.

Implementation includes the communications network system, which is shown in **Figure 5-13** and the list of the priority corridors within each maintaining agency is shown in **Figure 5-14**.

Additionally, enhancing the St. Lucie County and City of Fort Pierce traffic communication systems similar to the existing City of Port St. Lucie system is necessary. Then the three (3) systems can be connected so that the entire County can operate under one system and operations center. Furthermore, this coincides with the CMP toolbox and facilitates the

ACES Network, and investment towards ATMS has been allocated in the Multimodal Cost Feasible Plan. The ACES Network will facilitate Intercity Bus Service Improvements which include the enhancement of privately owned and operated systems.

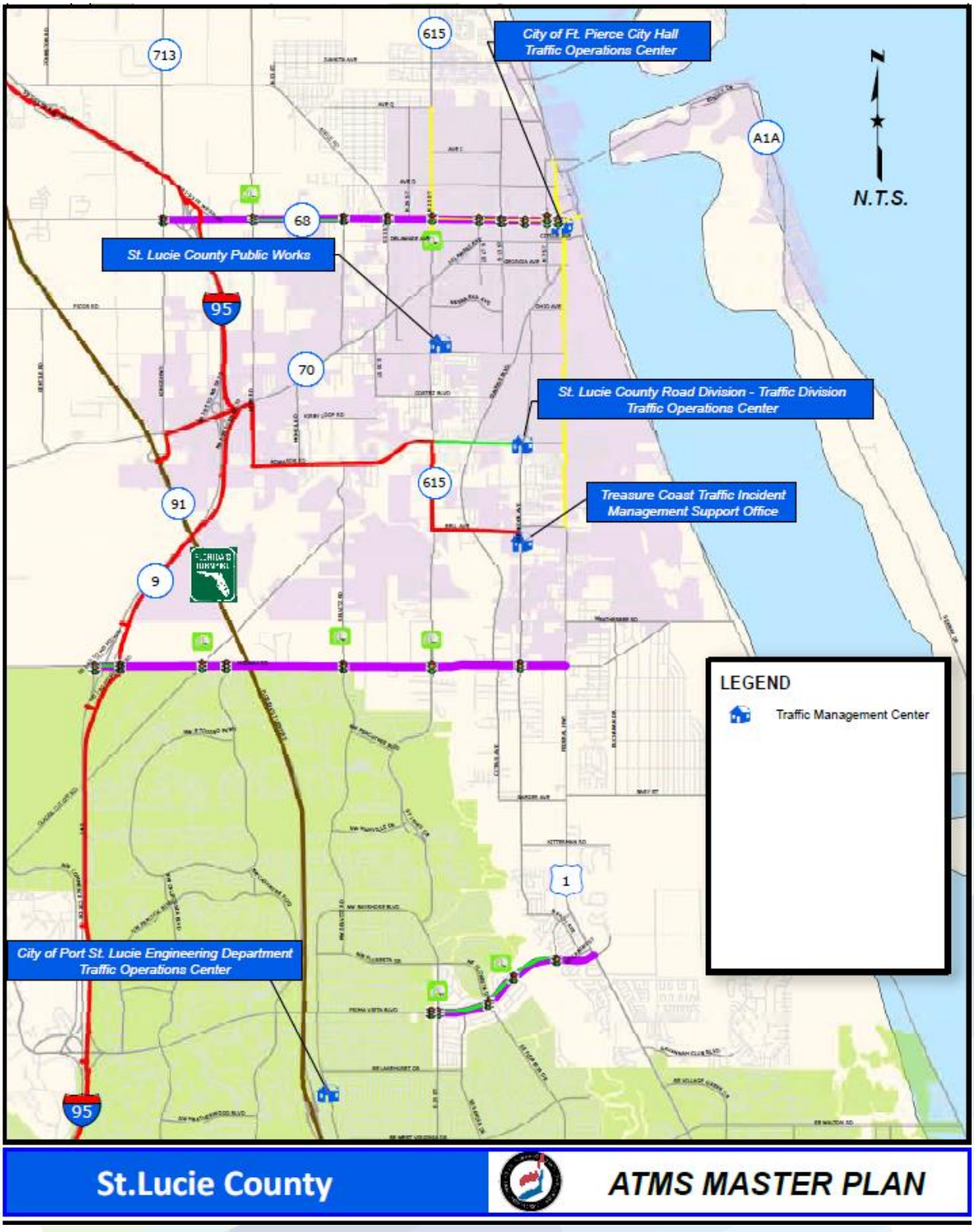


Figure 5-13. Communication Network Connections

Priority Phases		
MAINTAINING AGENCY	**CORRIDOR**	**PRIORITY PHASE**
St. Lucie County	US 1	Priority 1
	Prima Vista Blvd	Priority 2
	CR 712 (Midway Road)	Priority 2
	County Rd 615	Priority 3
	Orange Avenue	Priority 2
	Angle Road	Priority 4
	North Kings Highway	Priority 4
	Edwards Road/ County Rd 611	Priority 1
	SR 713/Turnpike Feeder Rd	Priority 4
	North Beach Causeway Dr	Priority 4
	SR 614 (Indrio Rd)	Priority 4
City of Ft. Pierce	South 33rd Street	Priority 4
	US 1	Priority 1
	SR 70/Virginia Avenue	Priority 1
	SR 615 (South 25th St.)	Priority 3
	Okeechobee Road	Priority 3
	South 13th Street	Priority 3
	South 7th Street	Priority 3
	CR 68 (Orange Avenue)	Priority 2
	Avenue D	Priority 3
	Avenue I	Priority 4
City of Port St. Lucie	US 1	
	SW Port St. Lucie Blvd	
	NW Bay Shore Blvd	
Number of Intersections Derived From Section 6 Quantities		**113**

Figure 5-14. Priority Phases

Transportation Systems Management and Operations (TSM&O)

Transportation Systems Management and Operations (TSM&O) is a philosophy of operating/managing the transportation network with technology strategies and clear performance measures to optimize performance outcomes. The *Transportation Systems Management and Operations Master Plan for Martin, St. Lucie, and Indian River Counties, 2019* identifies locations where TSM&O projects can help improve mobility, safety, or transit service. Table 5-8 and Figure 5-15 displays the service package by the three types of service areas as the possible strategies for implementation: traffic management, transit management, and safety and emergency management. Installing fiber optics and communications independent of specific TSM&O implementation strategies is encouraged to foster future improvements, such as the ACES Network and shown in Figure 5-16.

Improvements and upgrades should be considered to ensure efficient communication, monitoring, operational coordination, data collection and sharing, information synthesized and distribution among agencies in the existing regional TSM&O/Intelligent Transportation System (ITS).

Table 5-8. Service Area/Package

Service Area	Service Package	
Traffic Management	Network Surveillance	Emissions Monitoring and Management
	Traffic Probe Surveillance	Standard Railroad Grade Crossing
	Traffic Signal Control	Railroad Operations Coordination
	Traffic Metering	Parking Facility Management
	HOV Lane Management	Regional Parking Management
	Traffic Information Dissemination	Reversible Lane Management
	Regional Traffic Management	Speed Warning and Enforcement
	Traffic Incident Management System	Drawbridge Management
	Transportation Decision Support and Demand Management	Roadway Closure Management
	Electronic Toll Collection	Dynamic Roadway Warning
Transit Management	Public Transport Vehicle Tracking	Public Transport Traveler Information
	Public Transport Fixed-Route Operations	Multi-modal Coordination
	Demand Response Public Transport Operations	Public Transport Traveler Information
	Public Transport Fare Collection Management	Public Transport Signal Priority
	Public Transport Security	Public Transport Passenger Counting
Safety & Emergency Management	Emergency Call-Taking and Dispatch	Early Warning System
	Emergency Routing	Disaster Response and Recovery
	Mayday and Alarms Support	Evacuation and Reentry Management
	Roadway Service Patrols	Disaster Traveler Information
	Transportation Infrastructure Protection	Intersection Safety Warning
	Wide-Area Alert	Intersection Collision Avoidance

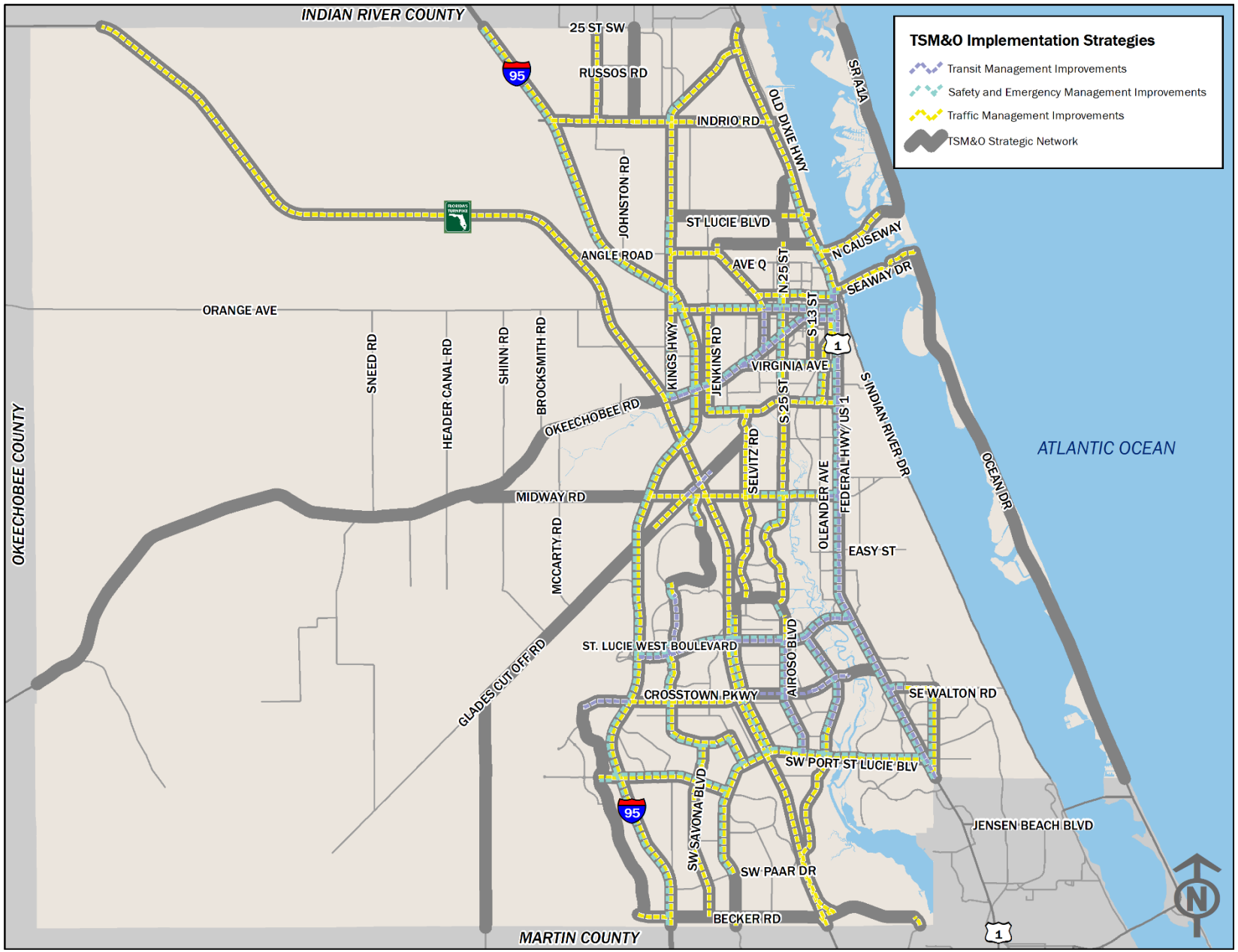


Figure 5-15. TSM&O Implementation Strategies

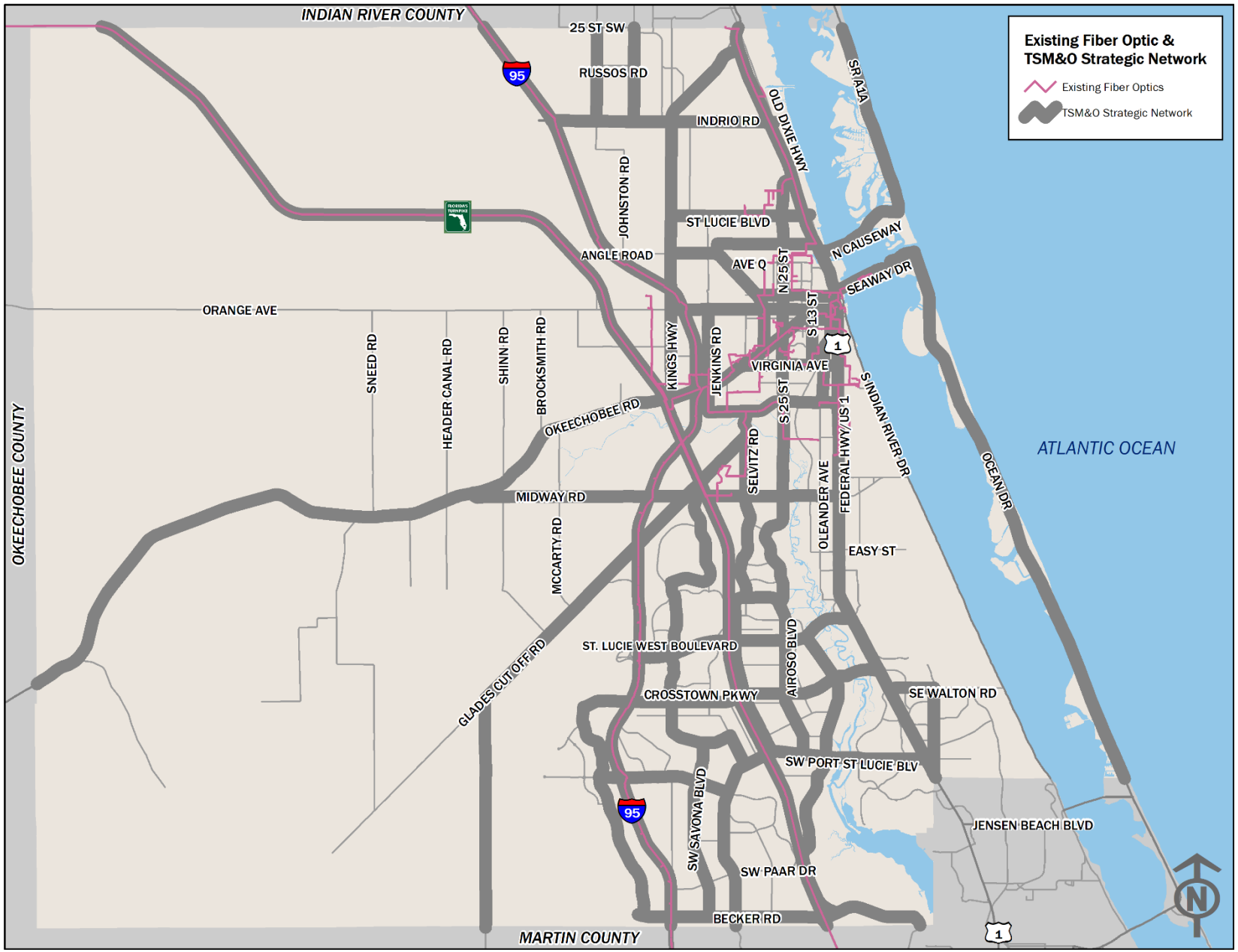


Figure 5-16. Existing Fiber Optic & TSM&O Strategic Network

Automated, Connected, Electric, and Shared-USE (ACES) Vehicle Needs

The U.S. Government encourages a future in which the United States is a global leader in Autonomous Vehicle (AV) technology. To support this endeavor, the White House and the US Department of Transportation developed AV 4.0, building upon previous versions of Federal AV guidance to provide policies, guidance, and best practices in preparation for emerging and innovative AV technology. To maximize the potential societal benefits which this technology may yield, it is necessary to have appropriate oversight by the Government to ensure safety, open markets, allocation of scarce public resources, and protection of the public interest. AV 4.0 establishes principles that consist of three core interests: prioritizing safety, security, and privacy for users and communities; promoting efficient markets; and facilitating coordinated research efforts nationwide.

The introduction of AVs in the coming decades has the potential to substantially affect many sectors of daily life. The National Highway Traffic Safety Administration (NHTSA) has highlighted four main areas of potential benefit with regard to AVs: safety, economic and societal benefits, efficiency and convenience, and mobility.

The National Science and Technology Council's (NSTC) Automated Vehicle Fast Track Action Committee (AV FTAC) expanded upon USDOT's principles and adopted a total of 10 principles to guide the development of AV technology in the United States.

- Prioritize Safety
- Emphasize Security and Cybersecurity
- Ensure Privacy and Data Security
- Enhance Mobility and Accessibility
- Remain Technology Neutral
- Protect American Innovation and Creativity
- Modernize Regulations
- Promote Consistent Standards and Policies
- Ensure a Consistent Federal Approach
- Improve Transportation System-Level Effects

Local governments are in an ideal position to engage with citizens, to address their concerns and to ensure that automation supports local needs. Collaboration is needed among manufacturers, technology developers, infrastructure owners and operators, and relevant government agencies to establish protocols that will help to advance safe operations in these testing environments. Figure 5-17 provides a conceptual framework to help provide clarity to the public regarding the general distinctions between the stages of testing and full deployment.

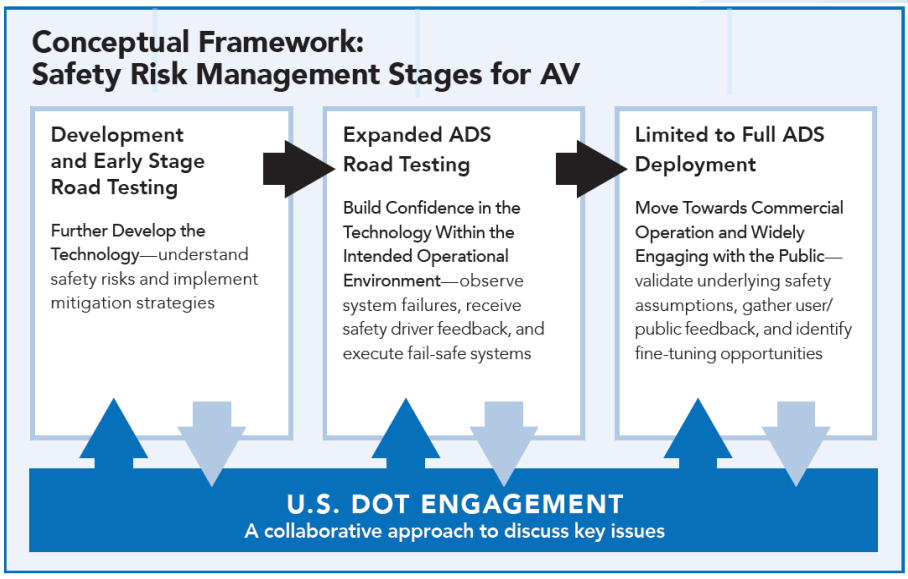
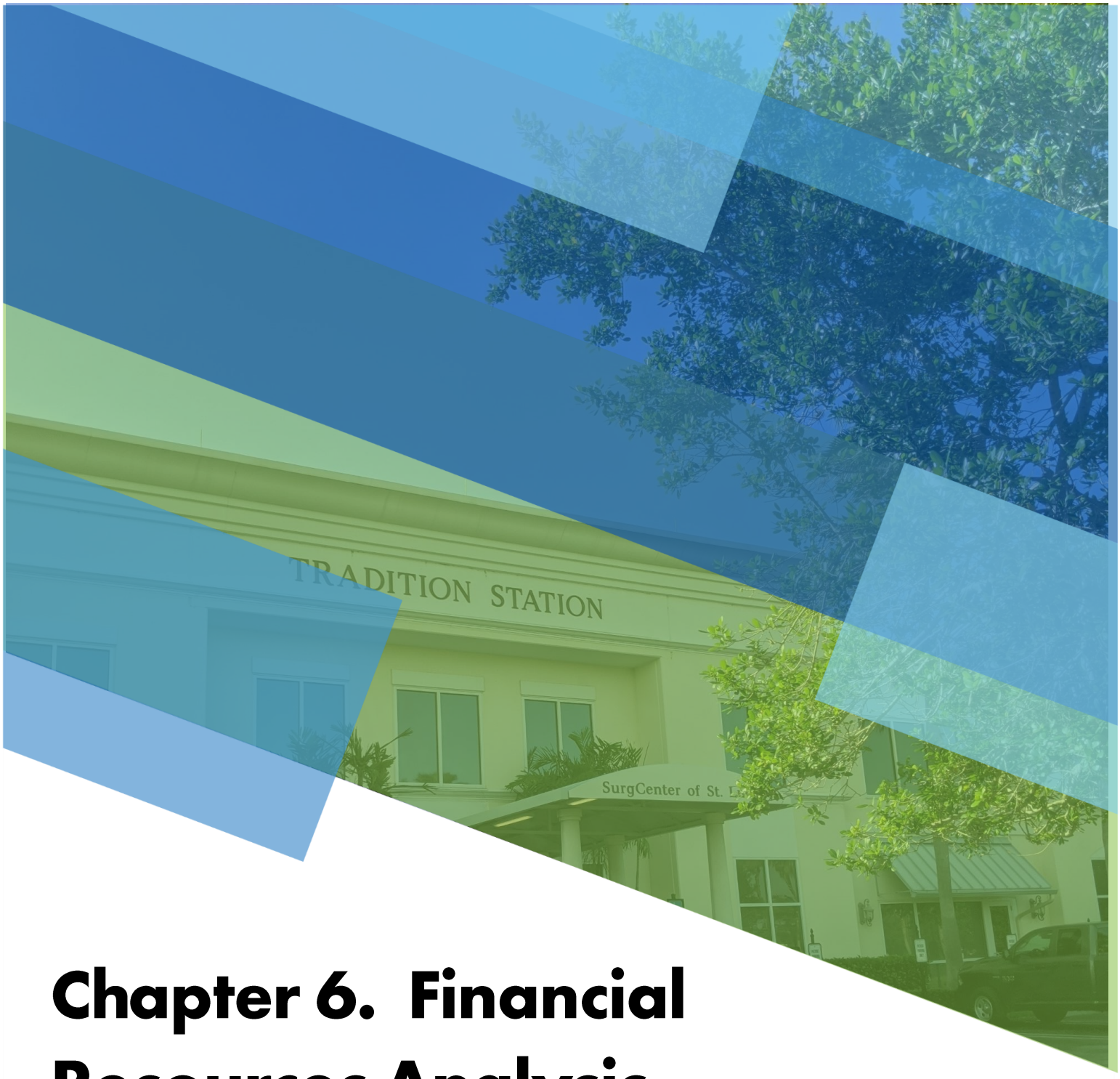


Figure 5-17. AV Safety Risk Management



Chapter 6. Financial Resources Analysis

- Introduction
- Funding Sources
- Projected Revenue Estimates
- Resurfacing, Bridge, and Operations and Maintenance (O&M)
- Alternative and Innovative Transportation Funding Sources
- Project Cost Estimates

Chapter 6. Financial Resources Analysis

6.1 Introduction

The financial resources task is a key component of *SmartMoves 2045* because it provides an overview of how transportation investment is anticipated to be funded. Projecting revenues reasonably through 2045 lays the framework in prioritizing the Multimodal Needs Plan to develop a Cost Feasible Plan. Projected revenues are a snapshot in time of the current revenue picture and anticipated trends. This accounts for future capital investment in transportation infrastructure as well as ongoing operating and maintenance expenses. **Table 6-1** displays the SmartMoves 2045 time bands consistent with federal and State requirements for LRTPs.

Table 6-1. SmartMoves 2045 Time Bands

Funding Document	TIP	SmartMoves 2045 Cost Feasible Plan		
Time Band	(Present) 2021-2025	2026 – 2030	2031 – 2035	2036 – 2045

6.2 Funding Sources

Federal and State Funds

Federal funding for transportation is derived from highway excise taxes on motor fuel and truck-related taxes on truck tires, sales of trucks and trailers, and heavy vehicle use. Tax revenues are deposited into either the Highway Account or the Mass Transit Account of the Federal Highway Trust Fund (HTF) and then distributed to the states through a system of formula grants and discretionary allocations. **Table 6-2** shows the account distribution of these tax revenues. In the state of Florida, 1 cent of federal gasoline tax yields $1.4 billion per year statewide, and 1 cent of federal diesel tax yields $400 million per year statewide.

Table 6-2. Federal Highway User Fees[3]

User Fee	Tax Rate (Cents per Gallon)	Distribution of Tax (Cents per Gallon)		
		Highway Account Fund	Mass Transit Fund	Underground Storage Tanks Trust Fund
Gasoline	18.4	15.44	2.86	0.1
Diesel & Kerosene Fuel	24.4	21.44	2.86	0.1
Liquefied Petroleum Gas	18.3	16.17	2.13	–
Liquefied Natural Gas	24.3	22.44	1.86	–
Other Special Fuels	18.4	15.44	2.86	0.1

[3] Florida MPOAC Transportation Revenue Study, 2012

User Fee	Tax Rate (Cents per Gallon)	Distribution of Tax (Cents per Gallon)		
		Highway Account Fund	Mass Transit Fund	Underground Storage Tanks Trust Fund
Compressed Natural Gas	18.3	15.43	2.86	–

Before 2008, highway tax revenue dedicated to the trust fund was sufficient to pay for outlays from the fund. However, since 2008, the fund has been supplemented by transfers from general revenues including the Fixing America's Surface Transportation (FAST) Act of 2015. Those transfers will enable the trust fund to meet spending obligations through FFY 2021. Moving Ahead for Progress in the 21st Century (MAP-21) in 2012 was the major legislative bill that preceded the FAST Act. The various federal funding categories have different project eligibility requirements. A summary of eligible activities for federal funds under major programs is provided in **Table 6-3**.

Table 6-3. Project Eligibility for Federal Funds

Federal Funding Program	Eligible Facilities	Planning & Design	Capital & Construction	Operations	Maintenance
National Highway Performance Program (NHPP)	National Highway System	✓	✓	✓	✓
Surface Transportation Block Grant Program (STBG)	Federally functionally classified roads, transit	✓	✓	✓	✓
Highway Safety Improvement Program (HSIP)	Consistent with State Strategic Highway Safety Plan	✓	✓	✗	✗
National Highway Freight Program	National Highway Freight Network	✓	✓	✗	✗
FTA Section 5307 – Urbanized Area	Public Transit	✓	✓	✓	✓
FTA Section 5339 – Bus and Bus Facilities	Public Transit	✗	✓	✓	✗

The Surface Transportation Block Grant (STBG) program and Transportation Alternatives (TA) provide direct funding to the metropolitan planning organizations based on population size. The State oversees most of the other federal funding programs.

In Florida, state funds are managed through the State Transportation Trust Fund (STTF). Receipts from fuel taxes make up 75 percent of the revenue portfolio of the STTF. State Tax Sources for State Use include State Fuel Sales Tax, State Comprehensive Enhanced Transportation Systems (SCETS) Tax, Aviation Fuel Tax, Fuel Use Tax and Fee, Motor Vehicle License Tax, Initial Registration Fee, Title Fee, Rental Car Surcharge, and State Documentary Stamp Tax. Toll revenues

are collected and distributed for its own debt service, operations, maintenance, and capacity building. STTF funds can be used on the State Highway System (SHS), the Strategic Intermodal System (SIS), public transportation projects, and county or municipal roadway projects through the County Incentive Grant Program or Transportation Regional Incentive Program (TRIP). A summary of eligible activities for state funds is provided in **Table 6-4**.

Table 6-4. Project Eligibility for State Funds

State Funding Program	Eligible Facilities	Planning & Design	Capital & Construction	Operations	Maintenance
District Dedicated Revenue (DDR)	State Highway System (SHS)	✓	✓	✓	✓
State Primary Highways & Public Transportation Office (DS)	State Highway System (SHS)	✓	✓	✓	✗
State Public Transportation Office (DPTO)	Consistent with State Strategic Highway Safety Plan	✓	✓	✓	✓

District Dedicated Revenue (DDR) funds, statutorily known as the State Comprehensive Enhanced Transportation Systems (SCETS) Tax, are allocated directly to the districts. In addition to highway uses, these funds may also be used for district public transportation projects.

State Primary Highways and Public Transportation Office funds comprised of needs are distributed (Resurfacing, Non-Formula DS and Rental car fees) and a remainder, known as Regular DS, distributed by Statutory Formula. These funds are predominantly spent on the SHS.

State Public Transportation Office (SPTO) funds are required by Florida Statutes to be a minimum of 15% of all state revenues deposited into the STTF. These funds are allocated to freight, logistics and passenger operations programs.

Local Funds

Local funding sources include local gas taxes, road impact fees, and as of 2019, a half-cent infrastructure sales tax. These funds are used to expand and maintain locally owned roads, transit projects, and to cover the local-match requirement of certain federal and state funded projects. A summary of eligible activities for local funds is provided in **Table 6-5**.

Table 6-5. Project Eligibility for Local Funds

Local Funding Program	Eligible Facilities	Planning & Design	Capital & Construction	Operations	Maintenance
Fuel Taxes	Roads and Transit	✓	✓	✓	✓

Local Funding Program	Eligible Facilities	Planning & Design	Capital & Construction	Operations	Maintenance
Impact Fees	Needs due to new development	✓	✓	✗	✗
Half-Cent Infrastructure Sales Tax	Public Infrastructure, water quality, road reconstruction and repaving, sidewalks, and public safety	✓	✓	✗	✓

Fuel Taxes

The following State motor fuel taxes are distributed to local governments.

- **CONSTITUTIONAL FUEL TAX** – Set at 2.0 cents per gallon, this tax is distributed to counties based on a constitutional formula. The first call on the proceeds from this tax is to meet the debt service requirements, if any, on local bond issues backed by the tax proceeds. The balance, called the 20 percent surplus and the 80 percent surplus, is credited to the counties' transportation trust funds.
- **COUNTY FUEL TAX** – Set at 1.0 cent per gallon, this tax is distributed by the same formula as the Constitutional Gas Tax.

Other local option taxes for transportation purposes collected in St. Lucie County include the following.

- **9TH-CENT FUEL TAX** – Set at 1.0 cent on every gallon of motor and diesel fuels sold.
- **LOCAL OPTION FUEL TAX (LOFT)** – Counties are authorized to levy a fuel tax of up to 11 cents per gallon of gasoline through two separate taxes: a 1 to 6-Cent Local Option Gas Tax and a 1 to 5-Cent Local Option Gas Tax imposed on every gallon of motor fuel sold. In addition, one-cent on every gallon of motor and diesel fuel sold may be levied by local governments.

Currently, the St. Lucie County charges 12.0 cents of LOFT in addition to 3 cents of State fuel tax for local use. Historical fuel tax revenues are shown in **Figure 6-1**.

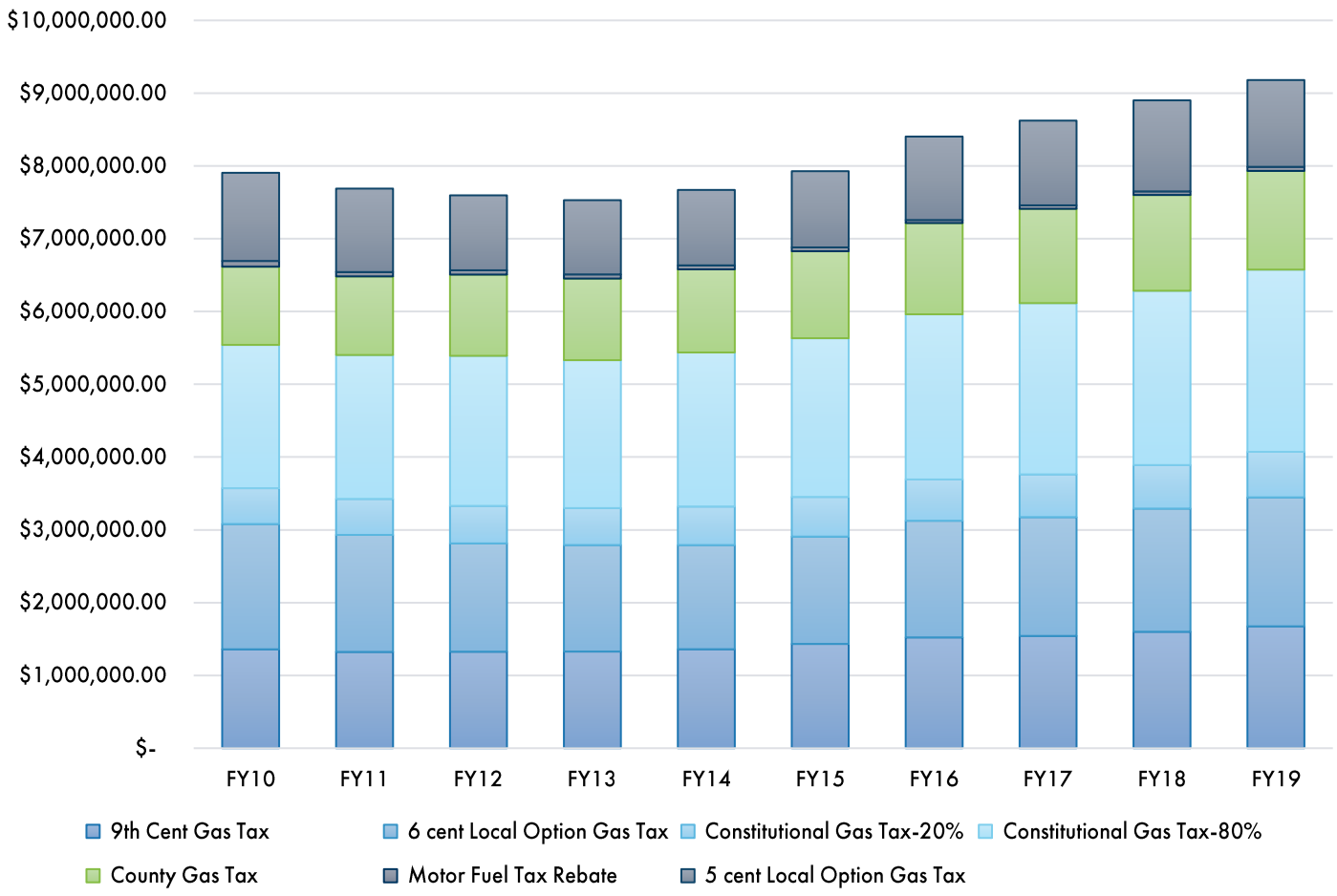


Figure 6-1. Historical Fuel Tax Revenue

Transportation Impact Fees (TIF)

Impact fees are collected from new developments to mitigate the impact that the added travel demand will generate on the network. Transportation Impact Fees (TIF) revenues may be used only for added roadway capacity facilities needed due to the increase in demand. These funds may be used for Planning & Design or Roadway Construction. Impact fees are collected by St. Lucie County and the cities of Fort Pierce and Port St. Lucie.

Over the past ten years, the County has collected approximately $43.5 million in roads impact fees. However, as shown in **Figure 6-2** there was an unanticipated increase in impact fees in fiscal years 2018 and 2019. Moving forward, the County does not anticipate the continued rate of growth in transportation impact fees.

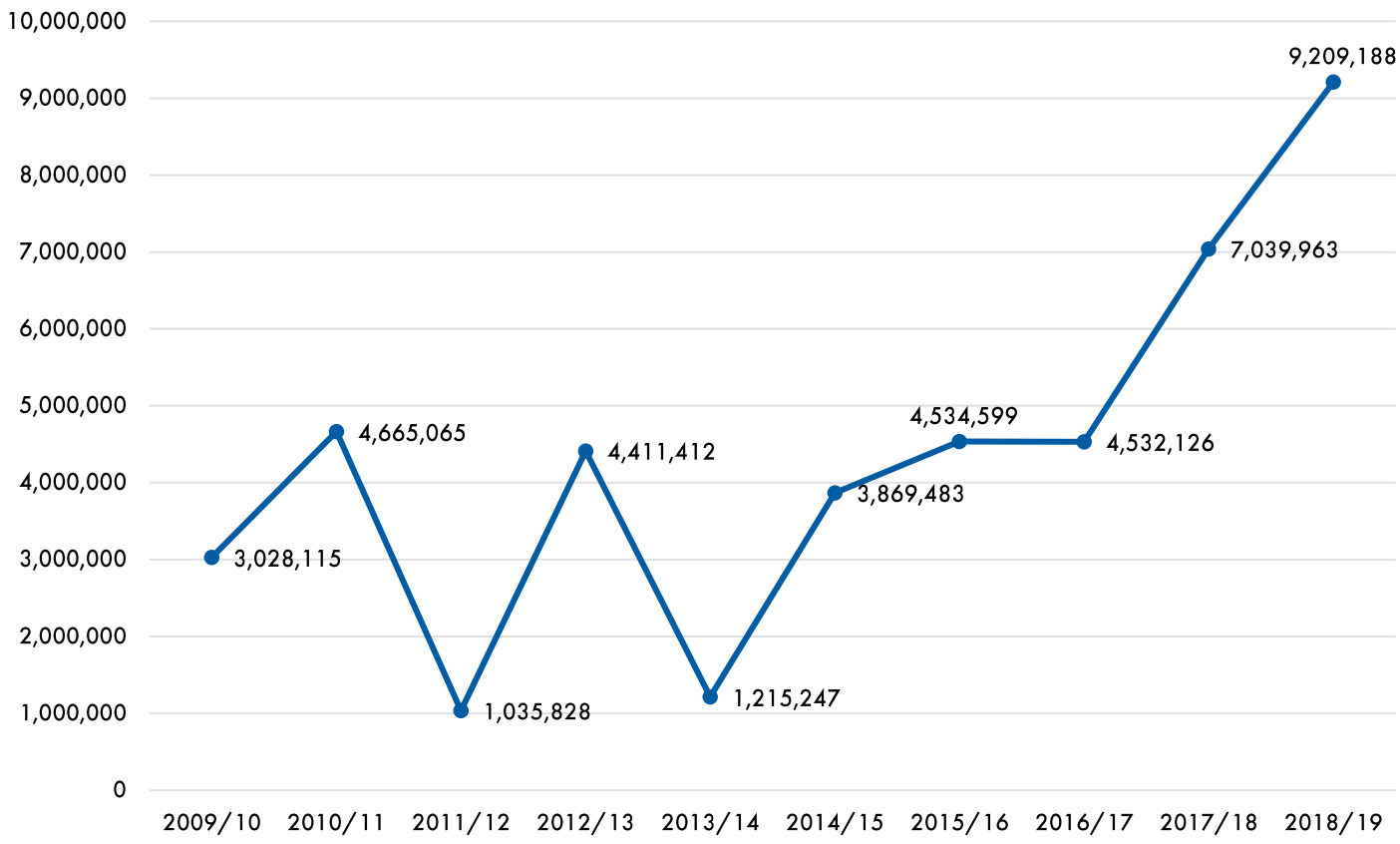


Figure 6-2. Historical Transportation Impact Fee Revenue

Half-Cent Infrastructure Sales Tax

Starting in 2019, St. Lucie County increased the existing 6.5% sales tax by 0.5% to be used for the financing, planning, constructing, reconstructing, renovating, and improving of infrastructure. The tax, which will be in effect for a total of ten (10) years will program projects relating to water quality, road reconstruction and repaving, sidewalks, and public safety. Projects have already been identified to be completed for the first five years. The Half-Cent Infrastructure Sales Tax generated nearly $6 million in Fiscal Year (FY) 2019.

Local Funds for Transit

The Transit Municipal Services Taxing Unit (MSTU) is a local property tax which generates funding for fixed-route bus service in St. Lucie. The current millage rate for the Transit Municipal Services Taxing Unit is 0.1269, or $12.69 per year on a home valued at $150,000 with a $50,000 homestead exemption. The millage rate of the Transit MSTU has not been increased since 2011. **Figure 6-3** depicts historical data on MSTU revenues for the past 10 years. Transit revenues are also generated locally through fares and advertising. However, all fares on the Treasure Coast Connector were provided at no cost to the riders between 2017 and 2019 through an FDOT grant. The grant was extended to provide free fares through August 2020. Grants awarded in FY2020 to fund Direct Connect, a supplementary service program for the transportation disadvantaged included $90,000 with an additional $10,000 local match. Potential availability of these funding sources was factored into the local forecast. Nonetheless, the 2020 St. Lucie County Transportation Disadvantaged Service Plan (TDSP) notes that funding for transportation services has not kept up with the ever-increasing travel demand, therefore creating a financial barrier to the maintenance of existing service levels and making an expansion to inter-county service non feasible.

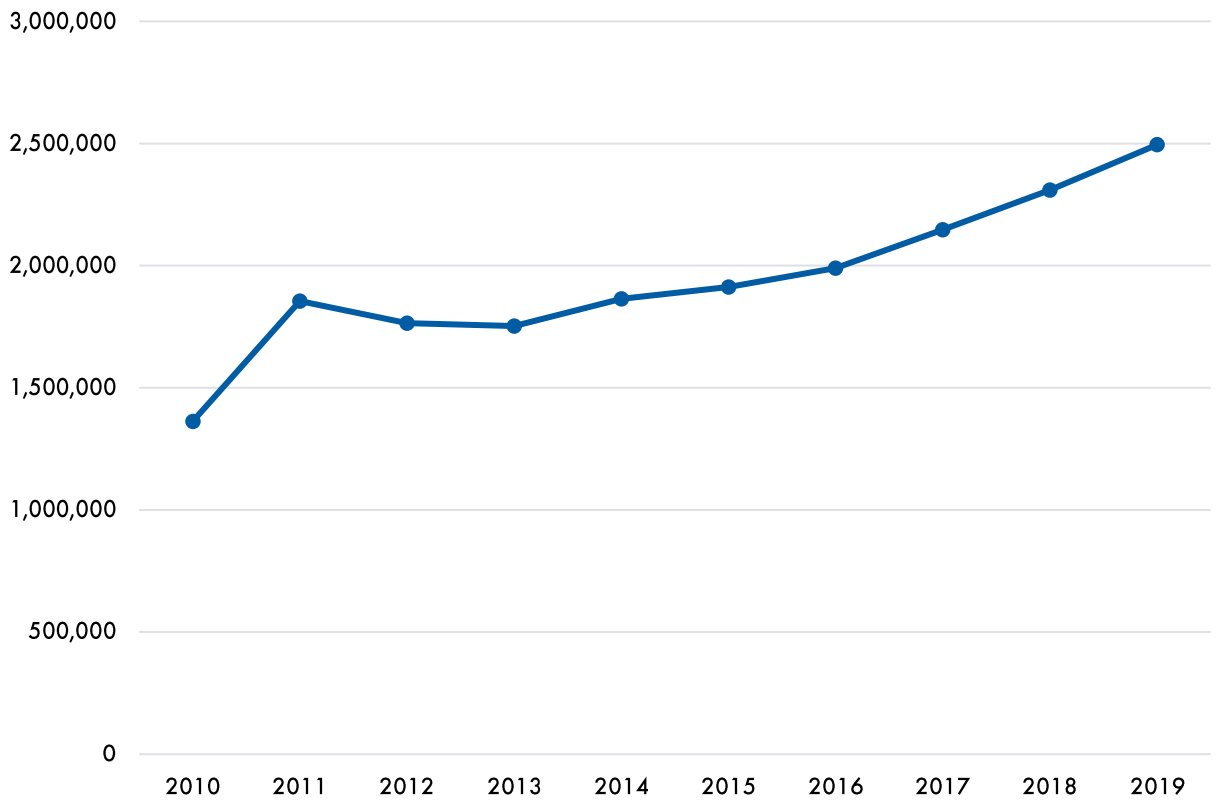


Figure 6-3. Historical Municipal Services Taxing Unit Revenues

6.3 Projected Revenue Estimates

Federal and State Funds

FDOT provides estimates in YOE for state capacity programs for individual MPOs in *the 2045 Forecast of State and Federal Revenues for Statewide and Metropolitan Plans.* The allocation of federal and State revenues is documented in **Appendix D**. FDOT provides the St. Lucie TPO an estimate of federal and State funds (combined) for the following programs. The federal and state funds anticipated to be available to program projects in the Cost Feasible Plan are summarized in **Table 6-6**.

- Other Roads Construction & ROW (i.e., Non-SIS)
- Transit
- Transportation Management Area (TMA) Funds
- Transportation Alternatives (TA) Funds

Table 6-6. Projected State and Federal Funds, 2021 to 2045 in Millions (in Year of Expenditure)

Funding Category	2021-2025	2026-2030	2031-2035	2036-2045	Total
Other Roads Construction & ROW[4]	74.42	98.36	109.04	229.86	511.71
Transit	30.81	38.85	42.55	88.64	200.85
TMA[5]	20.68	20.68	20.68	41.35	103.39
Transportation Alternatives (TALU)[6]	1.67	1.67	1.67	3.34	8.35
Total	127.58	159.56	173.94	363.19	824.30

Federal transit revenue sources include Section 5307 and 5311 funds, which may be used for operating expenses, as well as Section 5307, 5310, and 5339 funds which may be used for capital expenditures.

Other Roads Construction & ROW is a capacity program that provides funds for construction, improvements, and associated Right-Of-Way (ROW) on SHS roadways that are not designated as part of the Strategic Intermodal System. As per FDOT guidance, MPOs can assume that the equivalent of 22 percent (22%) of those estimated funds will be available from the statewide Product Support estimates for Project Development and Environment (PD&E) and Engineering Design. The projection shown in **Table 6-6** includes funds for PD&E and Engineering Design.

TMA and TALU funds are allocated to areas with a population greater than 200,000. TMA funds are represented as "SU" or "STBG" funds in the Five-Year Work Program. These funds may be used for non-SIS Highways Construction & ROW, Product Support (e.g., Planning, PD&E studies, Engineering Design, Construction Inspection, etc.), and Transit. MPOs in TMAs can assume all estimated TMA and TALU funds and 10% of their Other Roads program estimates can be used for "off-system" roads. The estimate of TMA and TALU revenues is based on the split of the urbanized area population between St. Lucie and Martin counties. Revenues provided by FDOT for the Port St. Lucie Urbanized Area (PSL UZA) were split 68% for St. Lucie TPO and 32% for Martin MPO based on coordination between the St. Lucie TPO and Martin MPO Boards.

The District is also projected to have Transportation Regional Incentive Program (TRIP) and TALT funds which will be programmed at the District's discretion. FDOT also provides a statewide estimate of Florida New Starts (transit). The

[4] 10% of the Other Roads Construction & ROW can be used for off-system roads.
[5] TMA estimate based on 68% share of the total TMA revenue projection for Martin and St. Lucie Metropolitan Areas.
[6] TALU estimate based on 68% share of the total revenue projection for Martin and St. Lucie Metropolitan Areas, Funds for Port St. Lucie TMA. TALT estimates are not available at the county level; an FDOT districtwide estimate is provided in Table 6-8.

TPO may identify illustrative projects to be implemented using these funds if they become available to the TPO. These other state and federal funds are summarized in **Table 6-7**.

Table 6-7. Projected Other State and Federal Funds, 2021 to 2045 in Millions (in Year of Expenditure)

Funding Category	2021-2025	2026-2030	2031-2035	2036-2045	Total
TRIP (Districtwide)	28.90	43.10	47.9	98.20	218.10
TALT (Districtwide)	22.74	22.74	22.74	45.47	113.69
New Starts (Statewide)	226.30	259.20	282.40	593.40	1,361.30

Strategic Intermodal System (SIS)

This capacity program provides funds for construction, improvements, and associated ROW on SHS roadways that are designated as part of the Strategic Intermodal System (SIS). FDOT identifies and reports on planned projects and programs funded by these major programs: SIS Highways Construction & ROW, Aviation, Rail, and Intermodal Access. The SIS Funding Strategy includes the following three (3) inter-related sequential documents that identify potential SIS capacity improvement projects in various stages of development.

- SIS Adopted 1st 5-Year Plan, FY 2020/2021 through FY 2024/2025
- SIS Approved 2nd 5-Year Plan, FY 2025/2026 through FY 2029/2030
- SIS 2029-2045 Long Range Cost Feasible Plan

The expected SIS project expenditures for capacity projects within the TPO are summarized in **Table 6-8**.

Table 6-8. Expected SIS Expenditures, 2021 to 2045 in Millions (in Year of Expenditure)

Funding Category	2021-2025	2026-2030	2031-2035	2036-2045	Total
Strategic Intermodal System (SIS)	24.46	-	174.45	-	198.91

6.4 Resurfacing, Bridge, and Operations and Maintenance (O&M)

Districtwide estimates for SHS existing facilities expenditures include all expenditures for the program categories Resurfacing, Bridge, and Operations and Maintenance (O&M), which is shown in **Table 6-9**. In the previous Revenue Forecast, these expenditures were described as SHS O&M, but the expenditures on the Resurfacing and Bridge categories, in combination, are about as much as those for O&M. These existing facilities estimates are provided pursuant to an agreement between FDOT and FHWA Division Office, which does not include consultation with or participation by the Florida MPO's.

Table 6-9. Projected SHS Existing Facilities Estimate by District, 2021 to 2045 in Millions (in Year of Expenditure)

FDOT District	2021-2025	2026-2030	2031-2035	2036-2045	Total
District 4	1,728	2,038	2,199	4,549	10,514

6.5 Alternative and Innovative Transportation Funding Sources

Over 90 percent (90%) of the revenue available for federal surface transportation funding sources comes from the taxes on gasoline (18.4 cents per gallon) and diesel fuel (24.4 cents per gallon), which have not been adjusted since 1997[7]. Therefore, a majority of federal transportation revenues are driven by the two main components of fuel consumption, vehicle miles traveled (VMT) and vehicle fleet efficiency. As improved fuel efficiency and electrification become gradually more widespread, it is essential to identify alternative revenue sources to counter the potential reduction of the buying power of the Federal HTF. There are a variety of alternative funding options at the disposal of public agencies seeking to program transportation projects when securing funding from base revenue sources is unattainable or if there are more transportation needs projects than revenue anticipated to be available. The range of these available options is detailed in **Appendix D**.

6.6 Project Cost Estimates

Present day costs or 2018 dollars, based on the FDOT Revenue Estimating Guide, were developed for the Roadway Needs Plan to determine the financial feasibility. Cost per mile models were obtained from FDOT's Cost Per Mile Models for Long Range Estimating and can be seen in **Table 6-10**. The present-day cost estimates were adjusted for year of expenditure (YOE) to year 2045 using annual inflation factors provided by FDOT, as shown in **Table 6-11**. This approach identifies how much the various Roadway Needs Plan improvement projects would cost, depending on the timeframe when the projects are implemented. The roadway costs chosen are for Urban settings and as part of the roadway needs plan, pedestrian and bicycle facility improvements are recommended to incorporate complete street

[7] Florida MPOAC Transportation Revenue Study, 2012

elements. A full breakdown of the costs in the Roadway Needs Plan can be found in **Appendix F**. Project costs accounted the following phases.

- **PRELIMINARY ENGINEERING (PE)** – Project Development and Environment (PD&E) and Engineering Design, which determines the location and conceptual design of feasible build alternatives for improvements and their social, economic, and environmental effects.
- **RIGHT-OF-WAY (ROW)** – Acquisition of necessary right-of-way (property) based on the construction plans.
- **CONSTRUCTION (CST)** – Project is awarded and is being built.
- **CONSTRUCTION ENGINEERING INSPECTION (CEI)** – Conducted by inspectors during construction to ensure accuracy and quality.

Table 6-10. Roadway Cost Per Mile – Urban

Improvement Type	PE[8]	ROW[9]	CST Cost	CEI[10]
New Construction, 2 Lanes	$2,449,050.79	$ 734,715.24	$ 4,898,101.57	$1,077,582.35
New Construction, 4 Lanes	$3,772,663.26	$ 1,131,798.98	$ 7,545,326.51	$1,659,971.83
Lane Addition 2 to 4 Lanes	$2,678,897.03	$ 803,669.11	$ 5,357,794.05	$1,178,714.69
Lane Addition 4 to 6 Lanes	$2,457,874.80	$ 737,362.44	$ 4,915,749.60	$1,081,464.91
Lane Addition 6 to 8 Lanes	$2,976,638.21	$ 892,991.46	$ 5,953,276.42	$1,309,720.81

Table 6-11. Inflation Factors

Timeframe	Inflation Factors
2026 – 2030	1.32
2031 – 2035	1.55
2036 – 2045	2.05

Unit costs for bicycle and pedestrian facilities were obtained from FDOT's Cost Per Mile Models for Long Range Estimating and Costs for Pedestrian and Bicyclist Infrastructure Improvements as shown in **Table 6-12**. The transit system costs were obtained from the *St. Lucie County's 10-Year Transit Development Plan (TDP), 2019*, also known as *Bus Plus*

[8] PE is 22% CST
[9] ROW is 50% CST
[10] CEI is 15% CST

and the TDP Annual Progress Report as shown in **Table 6-13**. All costs are in 2018 dollars except stated otherwise in footnotes.

Table 6-12. Bicycle and Pedestrian Facilities Costs

Infrastructure	Cost per Mile
Shared Use Path (12 feet)	$309,452.52
Bicycle Facilities (requires resurfacing)	$153,931.17
Bicycle Facilities (requires roadway construction)	$1,149,266.13
Sidewalk (Width of 5 feet – one side)	$156,874.19
Sidewalk (Width of 5 feet – two sides)	$313,748.37

Table 6-13. Transit System Operating/Capital Costs

Project Type	Operating Costs	Capital Costs
Maintain Existing Fixed-Route Service (Routes 1-8)[11]	$20,820,479.75	$576,314.00
Maintain Existing Paratransit Service (ADA and TD)[17]	$8,421,522.50	$576,314.00
New Services	$30,584 – $357,603	$127,500 – $448,000
Improvements to Existing Routes	$63,522 – $1,185,737.00	$896,000 – $1,792,000
Bus Stop/Shelter Improvements		$141,863.40
Improved Bus Stop Access		$378,302.40
Operations/Maintenance Facility		$15,241,405.53

[11] 5-year total cost from 2026-2030.

Chapter 7. Transportation Alternatives

Chapter 7. Transportation Alternatives

7.1 Introduction

As the Multimodal Needs Plan exceeds the available revenues, the development of various transportation alternatives and scenarios were crucial to inform project selection for the Multimodal Cost Feasible Plan. The transportation alternatives consisted of the development of the multimodal project priorities and model runs to address travel demand and mobility needs as well as the community goals, objectives, and performance targets.

7.2 Transportation Alternatives

Multimodal Project Priorities

The project ranking criteria is linked to the goals, objectives, and performance measures. Each project ranking criterion has a corresponding point value and a project can score a maximum of 100 points. Shown in **Table 7-1** is the goals and objectives associated with the project ranking criteria.

Table 7-1. Goals, Objectives, and Project Ranking Criteria

Goals	Objectives	Project Ranking Criteria	Score
Support Economic Activity	Enable the efficient movement of people and goods on the roadway network	0.85 - 1.00 volume-to-capacity ratios 1.00 - 1.20 volume-to-capacity ratios Greater than 1.20 volume-to-capacity ratios	1 3 5
		Is the project on the Designated Freight Network? Yes	5
	Optimize the management and operations of the transportation system	Is the project on the TSM&O Strategic Network/ATMS Network? Yes	4
	Maximize the efficiency and effectiveness of the current transit system and improve access to destinations that support economic growth	Does project increase service hours or frequency? Yes	3
		Is the project within ¼ mile of a Major Activity Center(s)? Yes	3
Provide travel choices	Encourage walking, cycling, and other micromobility options	Does project fill a gap/enhance existing sidewalk infrastructure? Yes	3
		Does project fill a gap/enhance existing multi-use pathways infrastructure? Yes	4
		Does project fill a gap/enhance existing bike lanes infrastructure? Yes	3
	Improve transit accessibility	Is the project on a transit route? Yes	5

Goals	Objectives	Project Ranking Criteria	Score
		Is the project within 1/4 mile of a shared bike locations and/or within the area for designated areas for e-scooter riding? Yes	5
Maintain the transportation system	Maintain condition of existing roadway transportation assets	Does project improve pavement condition? Yes	5
		Does project improve bridge condition? Yes	5
	Maintain condition of existing transit assets	Does project replace aging fleet? Yes	10
Provide equitable, affordable, and sustainable urban mobility	Support healthy living strategies, programs, and improvements to create more livable communities	Does project add a sidewalk/multi-use pathways? Yes	3
		Does project add a bicycle lane? Yes	3
		Does project increase service hours or frequency? Yes	3
	Ensure community participation is representative	Attendance in public engagement from an Environmental Justice area? Yes	2
	Provide for transportation needs of transportation disadvantaged	Is project in an Environmental Justice area? Yes	5
	Make transportation investments that minimize impacts to natural environment and allocate resources toward mitigation	Project is not in an environmentally-sensitive area	2
	Improve transportation system's stability/resiliency in event of climate change, emergencies, or disasters	Is project a vulnerable roadway due to sea level rise? Yes	2
Improve safety and security	Improve safety and security in the Highway System	Does project address a motorized safety issue? Yes	10
	Improve safety and security in the Transit System[12] *(if applicable)*		
	Improve safety and security in the Non-Motorized	Does project address a non-motorized safety issue? Yes	10

[12] Applies to all operators of public transportation that are a recipient or sub-recipient of FTA Urbanized Area Formula Grant Program funds under 49 U.S.C. Section 5307, or that operate a rail transit system that is subject to FTA's State Safety Oversight Program

Multimodal Project Priorities Highlights

The highlights displaying the multimodal project priorities based on the project scores are shown in the tables below and the overall results of the multimodal project priorities are shown in **Appendix E**.

Table 7-2. Top 10 Projects (all modes)

Rank	Project Type	Roadway Name	To	From	Points
1	Operational Improvement	US-1	Martin County Line	Indian River County Line	74
2	Bicycle Facilities	Orange Avenue	Kings Highway	US-1	65
2	Bicycle Facilities	US-1	Seaway Drive	Old US Highway 1	65
4	Bicycle Facilities	US-1	Gardenia Avenue	Orange Avenue	60
5	Bicycle Facilities	Port St. Lucie Boulevard	Gatlin Boulevard	US-1	56
6	Bicycle Facilities	N 25th Street	Virginia Avenue	Avenue E	55
6	Bicycle Facilities	US-1	Baysinger Avenue	Edwards Avenue	55
8	New Transit Services	Fort Pierce to South Hutchinson Island			53
9	Widen 4L to 6L	St. Lucie West Boulevard	E of I-95	Cashmere Boulevard	52
10	New Transit Services	Port St. Lucie Boulevard (Route 5 split)			50

Table 7-3. Top 10 Projects (roadway)

Rank	Project Type	Roadway Name	To	From	Points
1	Operational Improvement	US-1	Martin County Line	Indian River County Line	74
9	Widen 4L to 6L	St. Lucie West Boulevard	E of I-95	Cashmere Boulevard	52
17	Neighborhood Traffic Management	Indian River Drive	Martin/St. Lucie County Line	Seaway Drive	47
18	Widen 2L to 4L	Kings Highway	St. Lucie Boulevard	South of Indrio Road	40
18	Widen 2L to 4L	Port St. Lucie Boulevard	Becker Road	Paar Drive	40

Rank	Project Type	Roadway Name	To	From	Points
24	Widen 2L to 4L	Kings Highway	South of Indrio Road	US-1	37
28	Operational Improvement	Seaway Drive	Harbor Isle Marina	north of Blue Heron Boulevard	34
40	New 4L	Airport Connector	Florida's Turnpike	Kings Highway	30
40	Widen 2L to 4L	Midway Road	Glades Cut-Off Road	Selvitz Road	30
46	Widen 2L to 4L	Jenkins Road	Altman Road	Orange Avenue	29

Table 7-4. Top 10 Projects (bicyclists)

Rank	Project Type	Roadway Name	To	From	Points
2	Bicycle Facilities	Orange Avenue	Kings Highway	US-1	65
2	Bicycle Facilities	US-1	Seaway Drive	Old US Highway 1	65
4	Bicycle Facilities	US-1	Gardenia Avenue	Orange Avenue	60
5	Bicycle Facilities	Port St. Lucie Boulevard	Gatlin Boulevard	US-1	56
6	Bicycle Facilities	N 25th Street	Virginia Avenue	Avenue E	55
6	Bicycle Facilities	US-1	Baysinger Avenue	Edwards Avenue	55
13	Bicycle Facilities	Port St. Lucie Boulevard	Becker Road	Darwin Boulevard	49
13	Bicycle Facilities	Prima Vista Boulevard	Banyan Drive	US-1	49
27	Bicycle Facilities	Indrio Road	Johnston Road	Kings Highway	35
28	Bicycle Facilities	25th Street	Orange Avenue	Avenue F	34

Table 7-5. Top 10 Projects (pedestrian)

Rank	Project Type	Roadway Name	To	From	Points
10	Pedestrian Facilities	US-1	North Causeway Bridge	St. Lucie County/Indian River County Line	50
10	Pedestrian Facilities	US-1	Traub Avenue	High Point Boulevard	50
13	Pedestrian Facilities	Port St. Lucie Boulevard	Becker Road	Gatlin Boulevard	49
20	Pedestrian Facilities	Old Dixie Highway	US-1 Junction	Kings Highway	39
28	Pedestrian Facilities	Indrio Road	Kings Highway	Old Dixie Highway	34
28	Pedestrian Facilities	Indrio Road	Aico Road	Kings Highway	34
35	Pedestrian Facilities	25th Street	Industrial Avenue	US-1	32
35	Pedestrian Facilities	Kings Highway	north of I-95	Indrio Road	32
51	Pedestrian Facilities	53rd Street	Angle Road	Juanita Avenue	27
51	Pedestrian Facilities	Floresta Drive	Southbend Boulevard	Prima Vista Boulevard	27

Table 7-6. Top 10 Projects (transit)

Rank	Project Type	Roadway Name	Points
8	New Transit Services	Fort Pierce to South Hutchinson Island	53
10	New Transit Services	Port St. Lucie Boulevard (Route 5 split)	50
16	New Transit Services	Selvitz Road/Bayshore Boulevard	48
20	Improvements to Existing Service	Increase frequency from 60 minutes to 30 minutes on Route 2 & Route 3	39
20	Improvements to Existing Service	Expand service hours on Route 7 to reflect the other route schedules (currently 7 am – 6 pm)	39
20	Improvements to Existing Service	Expand Saturday service hours to reflect weekday span of service (currently 8 am – 12 pm/1 pm – 4 pm)	39
25	New Transit Services	Crosstown Parkway	36

Rank	Project Type	Roadway Name	Points
25	New Transit Services	Passenger Train – Miami to Orlando	36
34	New Transit Services	Virginia Avenue	33
48	New Transit Services	Midway Road	28

Travel Demand Modeling Analysis

The TCRPM5 was utilized as the travel demand model to forecast transportation conditions with the aid of the socioeconomic data. The different travel demand modeling analysis built upon the E+C (Baseline/TIP) scenario with particular roadway projects.

Airport Connector and Related Projects

Listed below are the Airport Connector and related projects included in this analysis and the results of the Volume-to-Capacity (V/C) is shown in **Appendix E**.

- Airport Connector from I-95 to Kings Highway – New 4 Lanes
- Northern Connector from Florida's Turnpike to I-95 with the two (2) interchanges at Florida's Turnpike and I-95 – New 4 Lanes (a private developer-built road)
- Mid-North County Connector from Midway Road to Florida's Turnpike – New 4 Lanes
- Arterial A from Glades Cut-Off Road to Midway Road – New 4 Lanes

Jenkins Road + Midway Road Turnpike Interchange

The projects included for the Jenkins Road and Midway Road Turnpike Interchange is listed below and the results of the V/C is shown in **Appendix E**.

- Jenkins Road from Midway Road to St. Lucie Boulevard – Widen 2L to 4L and New 4L
- Interchange at Florida's Turnpike at Midway Road – New Interchange

Lennard Road Extension

The Lennard Road Extension is a parallel facility with Indian River Drive. Though they are both parallel facilities, the roadway characteristics is very different. The results of the V/C are shown in **Appendix E**.

- Lennard Road from Walton Road to Easy Street – New 2L

Scenarios

The scenarios include a mix of investment in modes, such as roadway, bike, walk, and transit based on the community and stakeholder engagement. Additionally, the ACES Network is the foundation of ACES because these are park-and-ride lots incorporating Electric Vehicle (EV) charging station and connecting to transit. In each scenario, there are continued investment in partially-funded projects in the current TIP FY 2020/2021 – 2024/2025, SIS Adopted 1st 5-Year Plan, FY 2020/2021 – FY 2024/2025, and transit operations and maintenance. Other common aspects include the 30 Developer projects in the 2036-2045 time-band. Actual construction of these projects is dependent on Development Agreements and other binding project approvals. Inspired by the stakeholder and community

participation, operational improvements along US-1 from Martin County Line to Indian River County Line and Seaway Drive from Harbor Isle Marina to north of Blue Heron Boulevard and neighborhood traffic management along Indian River Drive from Martin/St. Lucie County Line to Seaway Drive and Torino Parkway corridor are in each scenario. The three scenarios are summarized in **Appendix F**.

- **SCENARIO 1 – HISTORICAL** represents a financial investment that follows similar historical trends from previous LRTPs.
- **SCENARIO 2 – BALANCED** represents a financial investment that is more balanced towards the modes, such as roadway and bicycle and pedestrian facilities.
- **SCENARIO 3 – MAX MULTIMODAL** represents a financial investment that maximize multimodal, which indicates ¼ of funds towards roadway and ¾ of funds towards bicycle and pedestrian facilities.

Transportation Alternatives Workshop

As summarized in Chapter 4, Virtual Transportation Alternatives Workshops were held on two (2) different days of the week as well as time periods to ensure the community had the opportunity to attend. Additionally, toll-free numbers were provided for people who dialed from landlines with no charge to the person placing the call. Understanding the development of *SmartMoves 2045* is a collaborative effort. St. Lucie County Transit staff, a partner agency, provided transit related responses. The community had multiple ways to provide valuable feedback such as through the polls throughout the workshop and questions and answers at the end. If the community did not feel comfortable in typing their questions, the community had the opportunity to voice their feedback.

The community resonated most with Scenario 2 – Balanced in providing transportation investment in all modes; roadway, bike, walk, and transit. There was also an emphasis in providing neighborhood traffic management and traffic operations.

Chapter 8. Multimodal Cost Feasible Plan

Chapter 8. Multimodal Cost Feasible Plan

8.1 Introduction

The Multimodal Cost Feasible Plan was developed to meet Federal LRTP requirements and to consider the future cost of prioritized transportation projects. Based on the FDOT *Revenue Forecasting Guidebook* published in July 2018, multipliers to convert project cost estimates to YOE dollars for the latest project cost are calculated based on 2018 dollars. Therefore, 2018 cost estimates for construction were inflated to YOE dollars.

The Multimodal Needs Plan identifies all of the transportation projects necessary to meet future transportation needs and is fiscally unconstrained, meaning funding requirements for improvements are not yet considered. The prioritized projects in the Multimodal Needs Plan are included in the Multimodal Cost Feasible Plan to the extent that funding is available. The Multimodal Cost Feasible Plan is fiscally constrained meaning the TPO cannot plan to spend more money than it can reasonably expect to receive for project implementation through the year 2045.

The Multimodal Cost Feasible Plan covers the 25-year period from 2021-2045. The first five years of the LRTP, also known as the TIP, serves as the LRTP E+C or baseline. The LRTP provides a comprehensive and prioritized listing of transportation projects. Transportation projects include roadway, bicycle facilities, sidewalk facilities, and transit. Additionally, the project phases were identified including PE; ROW acquisition; CST; and CEI activities that are anticipated to occur.

Consistent with the State and Federal requirements for LRTPs, three multi-year time bands were used to report future revenues anticipated to be available for project implementation. The time bands are consistent with the future programming of projects through the TPO's TIP.

8.2 Multimodal Cost Feasible Plan

The Multimodal Cost Feasible Plan represents a financial transportation investment that emphasizes improvements for bicyclists, pedestrians, and transit riders, as well as the traditional improvement, roadway. Not sacrificing needed roadway infrastructure (i.e. addressing congestion) while providing multi-use paths will enhance travel and tourism according to the St. Lucie TDC, the agency responsible for tourism. The financial transportation investment recommended for multimodal improvements in this Cost Feasible Plan is higher than the traditional TIP investment, which represents a shift toward a more balanced approach as inspired by the community and stakeholder participation regarding the Transportation Scenario Alternatives. Approximately 57% of the transportation investment is towards roadway whereas the other 43% is towards bicycle and pedestrian facilities and capital/operating transit improvements. More specifically, out of the 43%, 24% is towards bicycle and pedestrian facilities, ATMS, ACES Network, and TPO Planning and the remaining, 19% is towards capital/operating transit improvements. In the current adopted TIP, the roadway investment is 88% and bicycle and pedestrian facilities is 12%. The distribution of funding for investment in the Multimodal Cost Feasible Plan will provide the public a safe and efficient multimodal transportation system.

Baseline Projects

The first five years of the Multimodal Cost Feasible Plan is the adopted TIP FY 2020/21 to 2024/25. **Table 8-1** displays the capital programmed projects included in the TIP FY 2020/21 to 2024/25 with specific details of the phases, funding amounts, and sources.

Table 8-1. TIP FY 2020/21 to 2024/25

Project Number	Roadway Name	From	To	Project Type	< FY 2021	PE	PDE	ENV	ROW	INC	RRU	CST	Total	Funding Source
4353371	I-95 AT ST. LUCIE WEST BLVD			ADD LANES & RECONSTRUCT	$1.81 M					$.15 M	$.40 M	$14.45 M	**$16.81 M**	State
2302566	KING'S HIGHWAY	500' S OF SR-70	NORTH OF PICOS ROAD	ADD LANES & RECONSTRUCT	$77.44 M				$2.85 M				**$81.49 M**	Federal & State
2302567	KING'S HIGHWAY	NORTH OF PICOS ROAD	NORTH OF I-95 OVERPASS	ADD LANES & RECONSTRUCT	$77.44 M				$.23 M				**$81.49 M**	State
4383792	KING'S HIGHWAY	NORTH OF COMMERCIAL CIRCLE	ST LUCIE BLVD	ADD LANES & RECONSTRUCT	$9.87 M				$7.58 M			$27.57 M	**$117.47 M**	Federal & State
4383791	KING'S HIGHWAY	SR-9/I-95 OVERPASS	NORTH OF COMMERCIAL CIRCLE	ADD LANES & RECONSTRUCT	$9.87 M			$.06 M	$17.75 M			$43.58 M	**$117.47 M**	Federal & State
4383793	KING'S HIGHWAY	ST LUCIE BOULEVARD	SOUTH OF INDRIO ROAD	ADD LANES & RECONSTRUCT	$9.87 M				$11.06 M				**$117.47 M**	Federal & State
2314402	MIDWAY ROAD	S. 25TH ST/SR-615	SR-5/US-1	ADD LANES & RECONSTRUCT	$79.27 M				$1.65 M				**$82.01 M**	Federal
2314403	MIDWAY ROAD	GLADES CUT OFF ROAD	SELVITZ ROAD	ADD LANES & RECONSTRUCT	$79.27 M				$1.09 M				**$82.01 M**	Federal & Local
4317522	PORT ST. LUCIE BOULEVARD	PAAR DRIVE	DARWIN BOULEVARD	ADD LANES & RECONSTRUCT	$7.55 M				$.10 M				**$50.47 M**	Federal
4317523	PORT ST. LUCIE BOULEVARD	BECKER ROAD	PAAR DRIVE	ADD LANES & RECONSTRUCT	$7.55 M			$.07 M	$.92 M				**$50.47 M**	Federal
4317526	PORT ST. LUCIE BOULEVARD	SOUTH OF ALCANTARRA BLVD	SOUTH OF DARWIN BOULEVARD	ADD LANES & RECONSTRUCT	$7.55 M					$.13 M	$.04 M	$11.43 M	**$50.47 M**	Federal & State
4317525	PORT ST. LUCIE BOULEVARD	SOUTH OF PAAR DR	SOUTH OF ALCANTARRA BOULEVARD	ADD LANES & RECONSTRUCT	$7.55 M						$.06 M	$14.22 M	**$50.47 M**	Federal & State & Local
4368681	US-1 AT VIRGINIA AVENUE	INTERSECTION	INTERSECTION	ADD RIGHT TURN LANE(S)	$3.26				$.16 M				**$3.42 M**	State
4460761	BELL AVENUE	SOUTH 25TH STREET	SUNRISE BOULEVARD	BIKE LANE/SIDEWALK		$.01 M						$.41 M	**$.41 M**	Federal & State
4317524	PORT ST. LUCIE BOULEVARD	DARWIN BOULEVARD	GATLIN BOULEVARD	BIKE LANE/SIDEWALK	$7.55 M							$4.66 M	**$50.47 M**	State
4460741	SELVITZ ROAD	NORTHWEST FLORESTA DRIVE	NORTHWEST BAYSHORE BOULEVARD	BIKE LANE/SIDEWALK		$.01 M						$.45 M	**$.45 M**	Federal & State
4435061	A1A SUNTRAIL	FT PIERCE INLET STATE PARK	SLC/INDIAN RIVER COUNTY LINE	BIKE PATH/TRAIL			$.27 M						**$.27 M**	State
4400321	FEC OVERPASS	SAVANNAS RECREATION AREA	SOUTH OF SAVANNAH ROAD	BIKE PATH/TRAIL	$.11 M	$.43 M		$.12 M	$.06 M		$.08 M	$2.75 M	**$3.54 M**	State
4399992	SAVANNAS PRESERVE STATE PARK GAP	WALTON ROAD	LENNARD ROAD	BIKE PATH/TRAIL	$1.60 M							$5.98 M	**$11.03 M**	State

Project Number	Roadway Name	From	To	Project Type	< FY 2021	PE	PDE	ENV	ROW	INC	RRU	CST	Total	Funding Source
4399993	SAVANNAS PRESERVE STATE PARK GAP	LENNARD ROAD	SAVANNAS RECREATION AREA	BIKE PATH/TRAIL	$1.60 M			$.08 M	$.08 M			$3.30 M	**$11.03 M**	State
4397611	I-95 OFF-RAMPS AT GATLIN BOULEVARD			INTERCHANGE – ADD LANES	$ .99 M						$.02 M	$3.83 M	**$4.84 M**	Federal
4397541	I-95 OFF-RAMPS AT MIDWAY ROAD	NB OFF-RAMPS AT MIDWAY ROAD	SB OFF-RAMPS AT MIDWAY ROAD	INTERCHANGE – ADD LANES	$.61 M			$.03 M				$1.54 M	**$2.18 M**	State
4461681	ORANGE AVENUE	KINGS HIGHWAY	E OF I-95 SB RAMP	INTERCHANGE – ADD LANES		$.48 M	$.31 M	$.01 M	$.35 M				**$1.14 M**	Federal
4226814	GATLIN BLVD AT BRESCIA ST			PARK AND RIDE LOT (Jobs Express Terminal)	$8.60 M				$2.64 M				**$13.91 M**	State
4443491	ALCANTARRA BOULEVARD	SAVONA BOULEVARD	PORT ST. LUCIE BOULEVARD	SIDEWALK	$0.005 M							$.60 M	**$.605 M**	Federal & State
4443481	CURTIS STREET	PRIMA VISTA BOULEVARD	FLORESTA DRIVE	SIDEWALK	$0.005 M							$.57 M	**$.575 M**	Federal & State
4415661	OLEANDER AVENUE	MIDWAY ROAD	SOUTH MARKET AVENUE	SIDEWALK	$0.005 M							$.93 M	**$.935 M**	Federal & State
4447071	GATLIN BLVD	WEST OF I-95	PORT ST LUCIE BOULEVARD	TRAFFIC CONTROL DEVICES/SYSTEM		$.01 M						$.29 M	**$.30 M**	Federal
4226816	I-95	MARTIN/ST. LUCIE COUNTY LINE	SR-70	PD&E	$8.60 M		$2.66 M						**$11.26 M**	Federal
4299362	A1A NORTH CAUSEWAY BRIDGE	ENTIRE BRIDGE		BRIDGE REPLACEMENT	$14.07 M			$.02 M	$19.89	$.63 M	$3.25 M	$80.88 M	**$118.74**	Federal & State
4463311	JENKINS ROAD	MIDWAY ROAD	ORANGE AVENUE	PD&E/EMO STUDY			$.77 M						**$.77 M**	Federal & State & Local
4447061	PRIMA VISTA BOULEVARD AT AIROSO BOULEVARD			INTERSECTION IMPROVEMENT		$.005 M						$.26 M	**$.27 M**	Federal
4470031	25TH STREET AT EDWARDS ROAD, 25TH STREET AT CORTEZ BOULEVARD, 25TH STREET AT OKEECHOBEE ROAD, 25TH STREET AT DELAWARE AVENUE, 25TH STREET AT ORANGE AVENUE, SR-A1A/SEAWAY DRIVE AT BINNEY DRIVE			INTERSECTION LIGHTING RETROFIT IMPROVEMENT		$.13 M		$.01 M					**$.148 M**	Federal

PE = Preliminary Engineering
PD&E = Project Development and Environmental
ENV = Environmental
ROW = Right of Way Support
INC = Construction Incentive
RRU = Railroad/Utilities Construction
LAR = Local Agency Reimbursement
CST = Construction

Multimodal Cost Feasible Plan Projects 2026-2045

Based on the development of the Transportation Alternatives, Scenario 2 – Balanced resonated with the community during the two (2) Virtual Transportation Alternatives Workshops as well as the Focus Groups, Committee Meetings, and the TPO Board. The transportation investment for the Multimodal Cost Feasible Plan Projects for FY 2026 – 2045 emphasizes improvements for bicyclists, pedestrians, and transit riders and the traditional improvement, roadway. Investing transportation funds for the community with more energy-efficient choices for getting around will improve the efficiency and resiliency of the transportation system. Furthermore, set aside funds have been allocated in each time band for CMP/ATMS projects. The widening of roadways is not always the right way to improve congestion and the CMP/ATMS allows for condition improvements without major construction costs. The following tables represent the available funds, cost of projects, and allocation of funds. **Table 8-2** displays the projected base revenue forecast. **Table 8-3** displays the available revenue in the time bands adjusted with the addition of any left-over funds from the previous time band. **Table 8-4** represents the value of all the projects being funded in the plan. It is assumed the transit funds will be used completely either for capital or operating improvements. **Table 8-5** represents the remaining funds left over for each time band after the projects have been funded. In the last time band, 2036 – 2045, there are no unprogrammed funds, meaning all the funds allocated has been identified towards a specific project.

Table 8-6 represents the amount of funding required to fund all of the developer projects and the total amount of the unfunded projects. The roadway, bicycle, pedestrian, and transit projects are represented in **Table 8-7**.

A jurisdictional transfer will need to take place along Airport Connector from I-95 to Kings Highway in order for this project to be funded by State Other Roads Construction & ROW funds. FDOT states that any non-Interstate road or segment of road, including bridges and toll facilities, may be transferred onto or off the SHS subject to an agreement between all parties. This would allow for the Airport Connector from I-95 to Kings Highway to be transferred to FDOT jurisdiction for construction and funding. Furthermore, the new interchange located on Florida's Turnpike at Midway Road is also assumed to be funded by State Other Roads Construction & ROW funds. Additional assumptions to the revenue sources for the roadway projects are noted in **Table 8-7**.

Appendix G includes the Multimodal Needs Plan and Cost Feasible Plan Project Cost Estimates.

Table 8-2. Base Revenue Forecast (in Year of Expenditure)

Revenue Source	2026–2030	2031–2035	2036–2045
Strategic Intermodal System (SIS)	$0 M	$174.49 M	$0 M
State Other Roads, Construction & ROW[13]	$98.36 M	$109.04 M	$229.86 M
Federal (TMA & TALU+TALT) Funds	$23.96 M	$23.96 M	$47.90 M
Transit	$38.85 M	$42.55 M	$88.64 M
Total	$161.17 M	$350.04 M	$366.40 M

Table 8-3. Adjusted Revenue with Carry Over (in Year of Expenditure)

Revenue Source	2026–2030	2031–2035	2036–2045
Strategic Intermodal System (SIS)	$0 M	$174.49 M	$0 M
State Other Roads, Construction & ROW[17]	$98.36 M	$109.04 M	$242.86 M
Federal (TMA & TALU+TALT) Funds	$23.96 M	$23.96 M	$47.90 M
Transit	$38.85 M	$48.90 M	$89.12 M
Total	$161.17 M	$356.39 M	$379.88 M

[13] 10% of the Other Roads Construction & ROW can be used for off-system roads.

Table 8-4. Value of Projects (in Year of Expenditure)

Revenue Source	2026 – 2030	2031 – 2035	2036 – 2045
Strategic Intermodal System (SIS)	$0 M	$174.49 M	$0 M
State Other Roads, Construction & ROW[17]	$98.36 M	$96.04 M	$242.86 M
Federal (TMA & TALU+TALT) Funds	$23.96 M	$23.96 M	$47.90 M
Transit	$32.50 M	$48.43 M	$89.12 M
Total	$154.82 M	$342.92 M	$379.88 M

Table 8-5. Uncommitted Funds (in Year of Expenditure)

Revenue Source	2026 – 2030	2031 – 2035	2036 – 2045
Strategic Intermodal System (SIS)	$0 M	$0 M	$0 M
State Other Roads, Construction & ROW[17]	$0 M	$13.0 M	$0 M
Federal (TMA & TALU+TALT) Funds	$0 M	$.0 M	$0 M
Transit	$6.35 M	$0.48 M	$0 M
Total	$6.35 M	$13.47 M	$0 M

Table 8-6. Total Potential Developer Funded or Unfunded Projects (in Year of Expenditure)

Revenue Source	2026 – 2030
Developer Funded	$1.86 B
Unfunded	$787.95 M

Figure 8-1 displays the Cost Feasible Plan by project types, while **Figure 8-2** depicts the Cost Feasible Plan by the time band in which funding for the project will be completed. **Figure 8-3** depicts the Cost Feasible Plan for the bicycle and pedestrian network only on the State Highway System. Additional investments towards bicycle and pedestrian facilities have been allocated but not assigned to specific projects. **Figure 8-4** depicts the Cost Feasible Plan for the transit network.

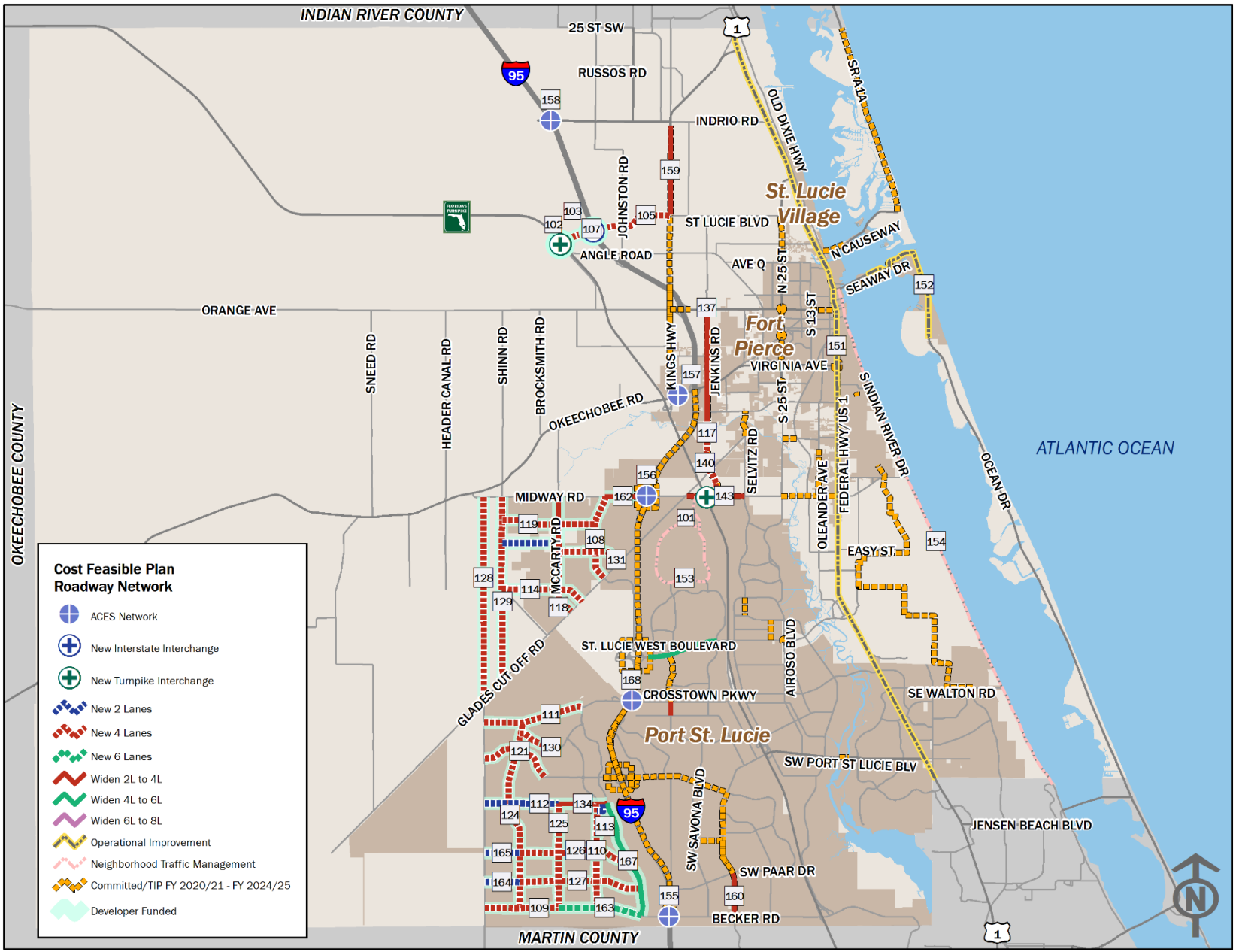


Figure 8-1. Cost Feasible Plan – Roadway Network

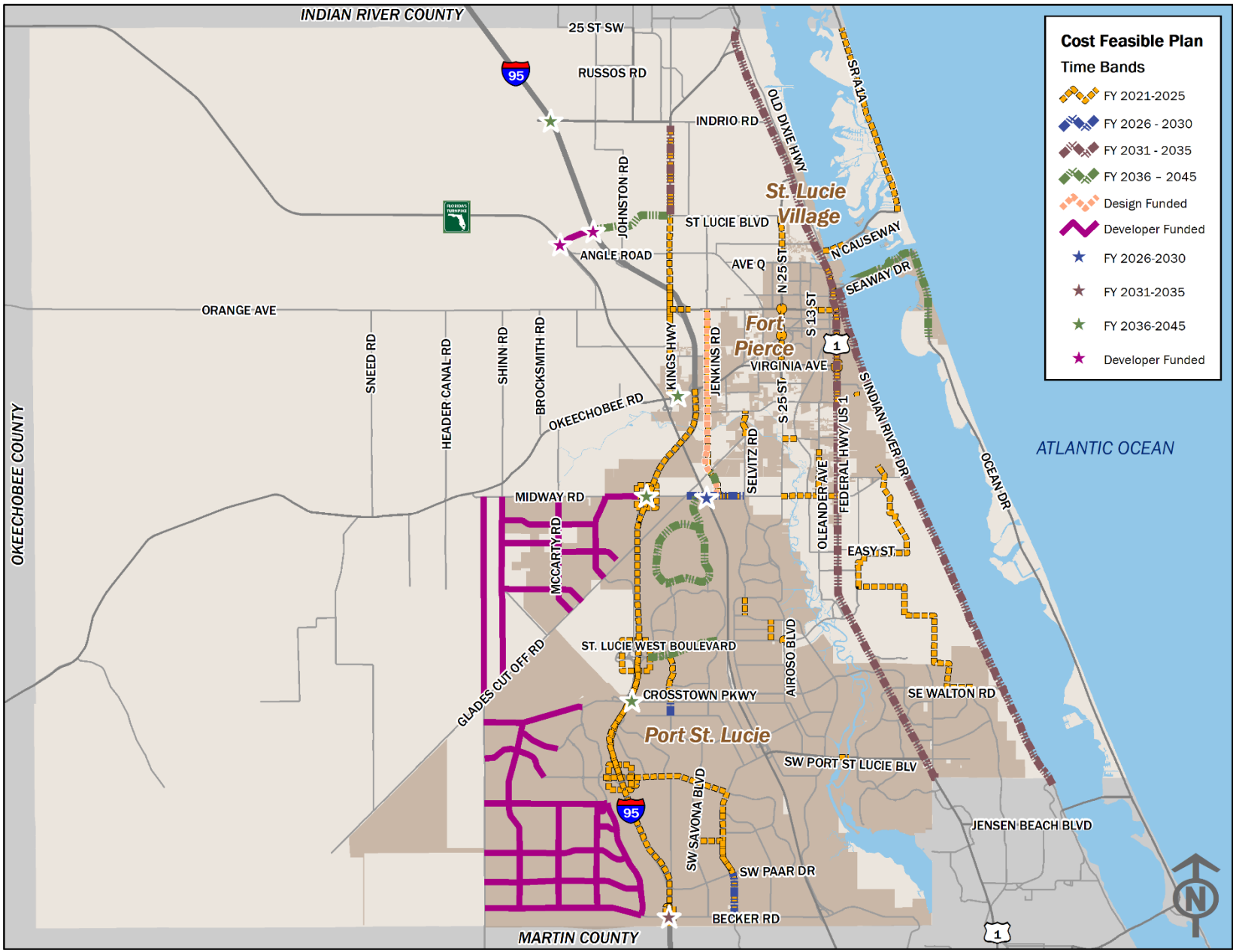


Figure 8-2. Cost Feasible Plan – Time Bands

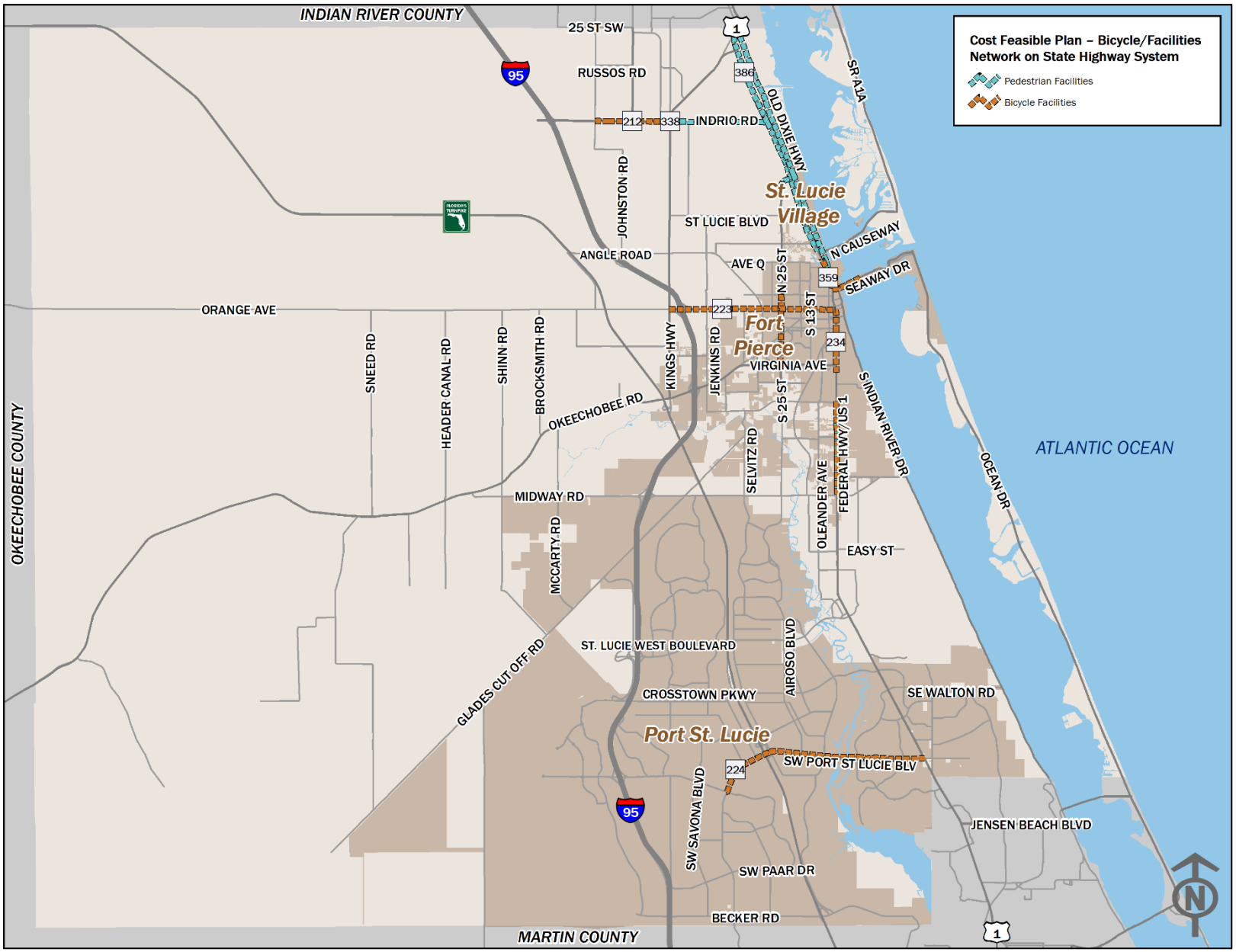


Figure 8-3. Cost Feasible Plan – Bicycle/Facilities Network on State Highway System

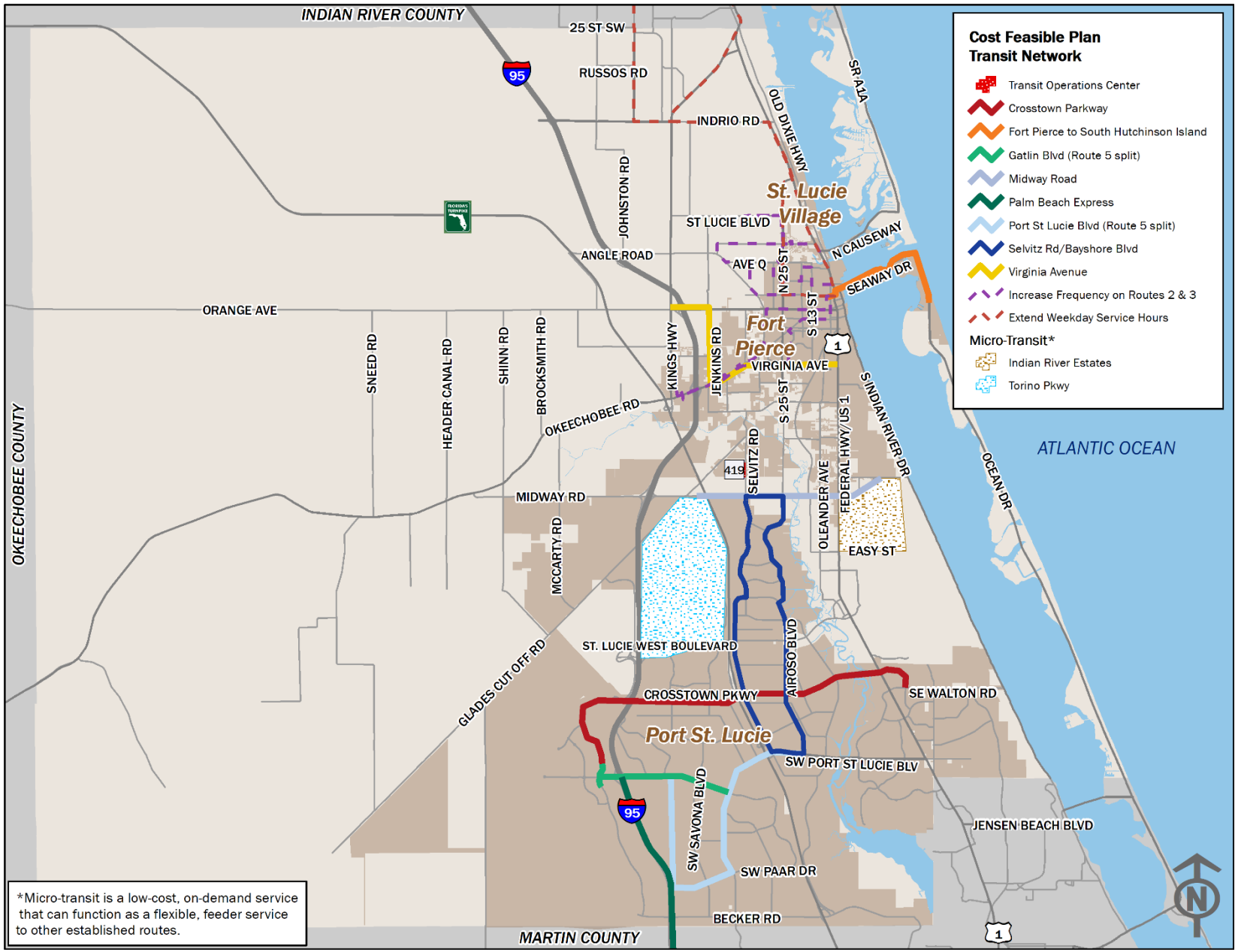


Figure 8-4. Cost Feasible Plan – Transit Network

Table 8-7. Multimodal Cost Feasible Plan Projects 2026-2045 (in Year of Expenditure)

ROADWAY PROJECTS (2026-2030)

Project ID	Rank	Project	From	To	Type	Revenue Source	PE	ROW	CST	CEI	Unfunded	Total	Notes
160	18	Port St. Lucie Boulevard	Becker Road	Paar Drive	Widen 2L to 4L	Federal (TMA) Funds			$7.71 M	$1.16 M		**$8.86 M**	TIP FY 2020/21 to 2024/25 funds the previous phases. In the previous LRTP, *Go2040* CFP and advanced in time band.
161	40	California Boulevard	Del Rio Boulevard	Crosstown Parkway	Widen 2L to 4L	Federal (TMA) Funds	$.56 M	$1.27 M	$2.55 M	$.38 M		**$4.76 M**	New project since it is not in the previous LRTP, *Go2040* CFP.
143	40	Midway Road	Glades Cut-Off Road	Selvitz Road	Widen 2L to 4L	Federal (TMA) Funds			$3.06 M			**$3.06 M**	TIP FY 2020/21 to 2024/25 funds the previous phases. This assumes a Revenue Source mostly funded by 10% State OA and Federal (TMA). In the previous LRTP, *Go2040* CFP and in the same time band.
143	40	Midway Road	Glades Cut-Off Road	Selvitz Road	Widen 2L to 4L	10% State OA			$7.68 M	$1.61 M		**$9.29 M**	
101	101	Florida's Turnpike at Midway Road			New Interchange/ Widen 2L to 4L	State Other Roads, Construction & ROW	$7.17 M		$74.45 M	$7.45 M		**$89.07 M**	Assumes a tight diamond interchange concept and the assumption of the Revenue Source is from State Other Roads, Construction & ROW funds. New project since it is not in the previous LRTP, *Go2040* CFP.

OTHER FEDERALLY-FUNDED INITIATIVES (2026-2030)

Project ID	Rank	Project	From	To	Type	Revenue Source	PE	ROW	CST	CEI	Unfunded	Total	Notes
		TPO Planning			Planning	Federal (TMA) Funds			$ 2.0 M			**$ 2.0 M**	
		St. Lucie Advanced Transportation Management System			Congestion Management Process	Federal (TMA) Funds			$ 2.0 M			**$ 2.0 M**	

BICYCLE-PEDESTRIAN PROJECTS (2026-2030)

Project ID	Rank	Project	From	To	Type	Revenue Source	PE	ROW	CST	CEI	Unfunded	Total	Notes
		Bicycle and Pedestrian Facilities				Federal (TALU+TALT) Funds			$3.28 M			**$3.28 M**	

TRANSIT PROJECTS (2026-2030)

Project ID	Rank	Project	From	To	Type	Revenue Source	PE	ROW	CST	CEI	Unfunded	Total	Notes
		Continue Existing Paratransit Service (ADA and TD)/Fixed-Route Service (Routes 1 through 8)			Maintain existing service	Transit			$30.39 M			**$30.39 M**	
405	**73**	Palm Beach Express			New Transit Services	Transit			$1.01 M			**$1.01 M**	
411	**77**	Torino Parkway micro-transit			New Transit Services	Transit			$.41 M			**$.41 M**	
417	**203**	Bus Stop/Shelter improvements			Capital/ Infrastructure	Transit			$.19 M			**$.19 M**	
418	**203**	Improved sidewalk connections to bus stops			Capital/ Infrastructure	Transit			$.50 M			**$.50 M**	

ROADWAY PROJECTS (2031-2035)

Project ID	Rank	Project	From	To	Type	Revenue Source	PE	ROW	CST	CEI	Unfunded	Total	Notes
137	**46**	Jenkins Road	Altman Road	Orange Avenue	Widen 2L to 4L	Federal (TMA) Funds	$2.71 M				$53.08 M	**$55.78 M**	TIP FY 2020/21 to 2024/25 funds the PD&E phase. New project since it is not in the previous LRTP, *Go2040* CFP.
116	**109**	Jenkins Road	Post Office Road	Glades Cut-Off Road	New 4 Lanes	Federal (TMA) Funds	$.49 M				$9.19 M	**$9.68 M**	TIP FY 2020/21 to 2024/25 funds the PD&E phase. New project since it is not in the previous LRTP, *Go2040* CFP.
140	**109**	Jenkins Road	Glades Cut-Off Road	Walmart Distribution Center	Widen 2L to 4L	Federal (TMA) Funds	$.52 M				$10.23 M	**$10.75 M**	TIP FY 2020/21 to 2024/25 funds the PD&E phase. New project since it is not in the previous LRTP, *Go2040* CFP.
139	**109**	Jenkins Road	Midway Road	Post Office Road	Widen 2L to 4L	Federal (TMA) Funds	$.31 M				$6.0 M	**$6.30 M**	TIP FY 2020/21 to 2024/25 funds the PD&E phase. New project since it is not in the previous LRTP, *Go2040* CFP.
117	**139**	Jenkins Road	Walmart Distribution Center	Altman Road	New 4 Lanes	Federal (TMA) Funds	$1.08 M				$20.11 M	**$21.19 M**	TIP FY 2020/21 to 2024/25 funds the PD&E phase. New project since it is not in the previous LRTP, *Go2040* CFP.
159	**18**	Kings Highway	St. Lucie Boulevard	south of Indrio Road	Widen 2L to 4L	State Other Roads, Construction & ROW			$17.70 M	$2.65 M		**$20.35 M**	ROW phase for FM# 4383793 is included in the TIP FY 2020/21 to 2024/25. The CST has been shifted to 2031-2035 to prioritize State funds on the Midway Rd Interchange. In the previous LRTP, *Go2040* CFP and shifted in time band.
150	**67**	I-95	Martin/St. Lucie County Line	SR-70	Widen 6L to 8L	SIS	$10.0 M	$10.0 M	$154.49 M			**$174.49 M**	Per the SIS Funding Strategy.

OTHER FEDERALLY-FUNDED INITIATIVES (2031-2035)

Project ID	Rank	Project	From	To	Type	Revenue Source	PE	ROW	CST	CEI	Unfunded	Total	Notes
		TPO Planning			Planning	Federal (TMA) Funds	$ 2.0 M					**$ 2.0 M**	
		St. Lucie Advanced Transportation Management System			Congestion Management Process	Federal (TMA) Funds	$ 2.0 M					**$ 2.0 M**	
154	**17**	Indian River Drive	Martin/St. Lucie County Line	Seaway Drive	Neighborhood Traffic Management	Federal (TMA) Funds	$.18 M		$4.88 M			**$5.06 M**	

OTHER STATE-FUNDED INITIATIVES (2031-2035)

Project ID	Rank	Project	From	To	Type	Revenue Source	PE	ROW	CST	CEI	Unfunded	Total	Notes
151	**1**	US-1	Martin County Line	Indian River County Line	Operational Improvement	State Other Roads, Construction & ROW	$7.90 M		$35.89 M	$5.38 M		**$49.17 M**	
155	**73**	I-95 at Becker Road			ACES Network	State Other Roads, Construction & ROW	$1.19 M	$4.81 M	$5.41 M	$.81 M		**$12.23 M**	

BICYCLE-PEDESTRIAN PROJECTS (2031-2035)

Project ID	Rank	Project	From	To	Type	Revenue Source	PE	ROW	CST	CEI	Unfunded	Total	Notes
		Bicycle and Pedestrian Facilities				Federal (TALU+TALT) Funds, Federal (TMA) Funds, and 10% State OA	$20.70 M					**$20.70 M**	
235	**2**	US-1	Seaway Drive	Old US Highway 1	Bicycle Facilities	State Other Roads, Construction & ROW	$.34 M		$1.57 M	$.24 M		**$2.15 M**	
202	**28**	25th Street	Orange Avenue	Avenue F	Bicycle Facilities	State Other Roads, Construction & ROW	$.20 M		$.91 M	$.14 M		**$1.24 M**	

TRANSIT PROJECTS (2031-2035)

Project ID	Rank	Project	From	To	Type	Revenue Source	PE	ROW	CST	CEI	Unfunded	Total	Notes
		Continue Existing Paratransit Service (ADA and TD)/Fixed-Route Service			Maintain new/existing service	Transit			$37.54 M			**$37.54 M**	
402	**8**	Fort Pierce to South Hutchinson Island			New Transit Services	Transit			$1.18 M			**$1.18 M**	
406	**10**	Port St. Lucie Boulevard (Route 5 split)			New Transit Services	Transit			$.92 M			**$.92 M**	
407	**16**	Selvitz Road/Bayshore Boulevard			New Transit Services	Transit			$1.24 M			**$1.24 M**	
413	**20**	Expand service hours on Route 7 to reflect the other route schedules (currently 7 am – 6 pm)			Improvements to Existing Service	Transit			$.09 M			**$.09 M**	
414	**20**	Expand Saturday service hours to reflect weekday span of service (currently 8 am – 12 pm/1 pm – 4 pm)			Improvements to Existing Service	Transit			$.40 M			**$.40 M**	
412	**20**	Increase frequency from 60 minutes to 30 minutes on Route 2 & Route 3			Improvements to Existing Service	Transit			$2.18 M			**$2.18 M**	
401	**25**	Crosstown Parkway			New Transit Services	Transit			$1.18 M			**$1.18 M**	
408	**34**	Virginia Avenue			New Transit Services	Transit			$1.18 M			**$1.18 M**	
404	**48**	Midway Road			New Transit Services	Transit			$1.18 M			**$1.18 M**	
403	**51**	Gatlin Boulevard (Route 5 split)			New Transit Services	Transit			$.04 M			**$.04 M**	
410	**139**	Indian River Estates micro-transit			New Transit Services	Transit			$.48 M			**$.48 M**	
417	**203**	Bus Stop/Shelter improvements			Capital/ Infrastructure	Transit			$.22 M			**$.22 M**	
418	**203**	Improved sidewalk connections to bus stops			Capital/ Infrastructure	Transit			$.59 M			**$.59 M**	

ROADWAY PROJECTS (2036-2045)

Project ID	Rank	Project	From	To	Type	Revenue Source	PE	ROW	CST	CEI	Unfunded	Total	Notes
149	**9**	St. Lucie West Boulevard	E of I-95	Cashmere Boulevard	Widen 4L to 6L	Federal (TMA) Funds	$4.14 M		$18.83 M	$2.82 M		**$25.79 M**	New project since it is not in the previous LRTP, *Go2040* CFP.
105	**40**	Airport Connector	Johnston Road	Kings Highway	New 4 Lanes	State Other Roads, Construction & ROW	$4.70 M	$10.69 M	$21.37 M	$3.21 M		**$39.96 M**	Assumes a jurisdictional transfer and a Revenue Source from State Other Roads, Construction & ROW funds. New project since it is not in the previous LRTP, *Go2040* CFP.
106	**40**	Airport Connector	I-95	Johnston Road	New 4 Lanes	State Other Roads, Construction & ROW	$2.58 M	$5.87 M	$11.74 M	$1.76 M		**$21.95 M**	Assumes a jurisdictional transfer and a Revenue Source from State Other Roads, Construction & ROW funds. New project since it is not in the previous LRTP, *Go2040* CFP.
116	**109**	Jenkins Road	Post Office Road	Glades Cut-Off Road	New 4 Lanes	10% State OA		$2.78 M	$3.96 M			**$6.75 M**	PE Phase is funded in 2031-2035. New project since it is not in the previous LRTP, *Go2040* CFP.
116	**109**	Jenkins Road	Post Office Road	Glades Cut-Off Road	New 4 Lanes	Federal (TMA) Funds			$1.61 M	$.84 M		**$2.44 M**	PE Phase is funded in 2031-2035. New project since it is not in the previous LRTP, *Go2040* CFP.

OTHER FEDERALLY-FUNDED INITIATIVES (2036-2045)

Project ID	Rank	Project	From	To	Type	Revenue Source	PE	ROW	CST	CEI	Unfunded	Total	Notes
		TPO Planning			Planning	Federal (TMA) Funds	$4.0 M					**$4.0 M**	
		St. Lucie St. Lucie Advanced Transportation Management System			Congestion Management Process	Federal (TMA) Funds	$4.0 M					**$4.0 M**	
153	**48**	Torino Parkway			Operational Improvement	State Other Roads, Construction & ROW	$.08 M		$2.33 M			**$2.41 M**	
152	**28**	Seaway Drive	Harbor Isle Marina	north of Blue Heron Boulevard	Operational Improvement	State Other Roads, Construction & ROW	$2.0 M		$9.07 M	$1.36 M		**$12.43 M**	
157	**82**	Okeechobee Road between Florida's Turnpike & I-95			ACES Network	State Other Roads, Construction & ROW	$1.58 M	$6.36 M	$7.16 M	$1.07 M		**$16.17 M**	
156	**109**	I-95 at Midway Road			ACES Network	State Other Roads, Construction & ROW	$1.58 M	$6.36 M	$7.16 M	$1.07 M		**$16.17 M**	

Project ID	Rank	Project	From	To	Type	Revenue Source	PE	ROW	CST	CEI	Unfunded	Total	Notes
158	**109**	I-95 at Indrio Road			ACES Network	State Other Roads, Construction & ROW	$1.58 M	$6.36 M	$7.16 M	$1.07 M		**$16.17 M**	
168	**109**	I-95 at Crosstown Parkway			ACES Network	State Other Roads, Construction & ROW	$1.58 M	$6.36 M	$7.16 M	$1.07 M		**$16.17 M**	

BICYCLE-PEDESTRIAN PROJECTS (2036-2045)

Project ID	Rank	Project	From	To	Type	Revenue Source	PE	ROW	CST	CEI	Unfunded	Total	Notes
		Bicycle and Pedestrian Facilities				Federal (TALU+TALT) Funds, Federal (TMA) Funds, and 10% State OA	$18.18 M					**$18.18 M**	
223	**2**	Orange Avenue	Kings Highway	US-1	Bicycle Facilities	State Other Roads, Construction & ROW	$2.91 M		$13.22 M	$1.98 M		**$18.10 M**	
234	**4**	US-1	Gardenia Avenue	Orange Avenue	Bicycle Facilities	State Other Roads, Construction & ROW	$1.08 M		$4.90 M	$.74 M		**$6.71 M**	
224	**5**	Port St. Lucie Boulevard	Gatlin Boulevard	US-1	Bicycle Facilities	State Other Roads, Construction & ROW	$3.64 M		$16.54 M	$2.48 M		**$22.66 M**	
218	**6**	N 25th Street	Virginia Avenue	Avenue E	Bicycle Facilities	State Other Roads, Construction & ROW	$1.04 M		$4.71 M	$.71 M		**$6.46 M**	
236	**6**	US-1	Baysinger Avenue	Edwards Avenue	Bicycle Facilities	State Other Roads, Construction & ROW	$1.32 M		$5.98 M	$.90 M		**$8.20 M**	
386	**10**	US-1	North Causeway Bridge	St. Lucie County/Indian River County Line	Sidewalks	State Other Roads, Construction & ROW	$.91 M		$4.12 M	$.62 M		**$5.64 M**	
387	**10**	US-1	Traub Avenue	High Point Boulevard	Sidewalks	State Other Roads, Construction & ROW	$.26 M		$1.19 M	$.18 M		**$1.63 M**	
359	**20**	Old Dixie Highway	US-1 Junction	Kings Highway	Sidewalks	State Other Roads, Construction & ROW	$1.02 M		$4.64 M	$.70 M		**$6.35 M**	
212	**27**	Indrio Road	Johnston Road	Kings Highway	Bicycle Facilities	State Other Roads, Construction & ROW	$1.11 M		$5.04 M	$.76 M		**$6.91 M**	
338	**28**	Indrio Road	Kings Highway	Old Dixie Highway	Sidewalks	State Other Roads, Construction & ROW	$.39 M		$1.77 M	$.27 M		**$2.42 M**	
302	**35**	25th Street	Industrial Avenue	US-1	Sidewalks	State Other Roads, Construction & ROW	$.06 M		$.27 M	$.04 M		**$.37 M**	
230	**48**	Seaway Drive	US-1	St. Lucie County Aquarium	Bicycle Facilities	State Other Roads, Construction & ROW	$.44 M		$1.98 M	$.30 M		**$2.71 M**	

TRANSIT PROJECTS (2036-2045)

Project ID	Rank	Project	From	To	Type	Revenue Source	PE	ROW	CST	CEI	Unfunded	Total	Notes
		Continue Existing Paratransit Service (ADA and TD)/Fixed-Route Service			Maintain new/existing service	Transit			$56.81 M			**$56.81 M**	
419	**202**	New operations/maintenance/administrative facility (St. Lucie County Transit Operations Center)			Capital/ Infrastructure	Transit			$31.24 M			**$31.24 M**	
417	**203**	Bus Stop/Shelter improvements			Capital/ Infrastructure	Transit			$.29 M			**$.29 M**	
418	**203**	Improved sidewalk connections to bus stops			Capital/ Infrastructure	Transit			$.78 M			**$.78 M**	

Chapter 9. Implementation

- Introduction
- Resiliency and Environmental/Stormwater Mitigation
- Environmental Justice Analysis
- System Performance Report
- LRTP/TIP Amendment Process

Chapter 9. Implementation

9.1 Introduction

SmartMoves 2045 emphasizes all modes for inclusion such as pedestrians, bicyclists, transit riders, and motorists and preparing a framework for the ACES network. The implementation of the Multimodal Cost Feasible Plan occurs through the programming of transportation improvements. Therefore, the TIP puts the LRTP into action and is updated and adopted annually by the St. Lucie TPO Board.

9.2 Resiliency and Environmental/Stormwater Mitigation

The reliability and functioning of the transportation network will increasingly need to consider and plan for climate change and extreme weather events. There are both direct and indirect pathways of disruption related to the vulnerability of the transportation system to climate change. **Figure 9-1** displays the sea level rise vulnerability overlaid with the cost feasible plan – roadway network. There are no Cost Feasible Roadway Projects within the sea level rise vulnerability which is the best strategy for natural risk reduction as confirmed by the project prioritization of the St. Lucie LMS Working Group which is the agency responsible for natural disaster risk reduction.

Environmental Mitigation Strategies

Transportation projects can impact many aspects of the environment, including wildlife and their habitats, wetlands, and groundwater resources. Avoidance of these potential impacts is the primary strategy of the St. Lucie TPO. In situations where impacts cannot be completely avoided, mitigation or conversation efforts are required. Environmental mitigation is the process of addressing damage to the environment caused by transportation projects or programs. The process of mitigation is best accomplished through enhancement, restoration, creation, and/or preservation projects that serve to offset unavoidable environmental impacts.

The Bluefield Ranch Mitigation Bank (BRMB) in St. Lucie and Martin counties offers State and federal wetland mitigation credits and numerous other environmental mitigation opportunities to offset environmental impacts in a 120-square mile area of East Central Florida. BRMB is a 2,675-acre parcel of land located in St. Lucie and Martin counties that is being restored to its historic mosaic of wetland and upland systems. BRMB also will be enhancing and restoring upland habitat and vegetation and is a certified habitat for relocation of the Gopher Tortoise and Indigo Snake. A second bank is the Bear Point Mitigation Bank, which is owned and operated by St. Lucie County and is an excellent example of ecosystem-based habitat restoration and how development can fund restoration projects that can greatly improve the natural resources. The Bear Point Impoundment is an approved 317-acre mitigation bank that is located on County-owned wetlands adjacent to the Indian River Lagoon. The bank was permitted by both the Florida Department of Environmental Protection (FDEP) and USACE and can be utilized as mitigation for impacts at other locations within the service area, from Sebastian Inlet to St. Lucie Inlet along the Indian River Lagoon. Bear Point Mitigation Bank is permitted to offset impacts to mangroves only. The USACE, FDEP, St. Lucie County Environmental Resources Department, and the Seminole Tribe were consulted in the development of these strategies. The stormwater runoff impacts of the Multimodal

Cost Feasible Plan Projects are reduced and mitigated through the widespread use in Florida of storm water runoff collection and treatment ponds.

Table 9-1 lists the Cost Feasible Roadway Projects that have a low potential environmental impact, which is visually shown in **Figure 9-2**.

Table 9-1. 2045 Cost Feasible Roadway Projects with Potential Environmental Impact

Project ID	Roadway Name	To	From	Project Type	Length (Miles)	Potential Environmental Impact
140	Jenkins Road	Glades Cut-Off Road	Walmart Distribution Center	Widen 2L to 4L	0.58	Low
117	Jenkins Road	Walmart Distribution Center	Altman Road	New 4 Lanes	117	Low
137	Jenkins Road	Altman Road	Orange Avenue	Widen 2L to 4L	3.01	Low

There is some developer funded road projects that may have environmental impacts at the east ends, which are not in the Cost Feasible Plan. Mitigation of these impacts will need to be addressed prior to construction through agency coordination and mitigation approaches discussed below.

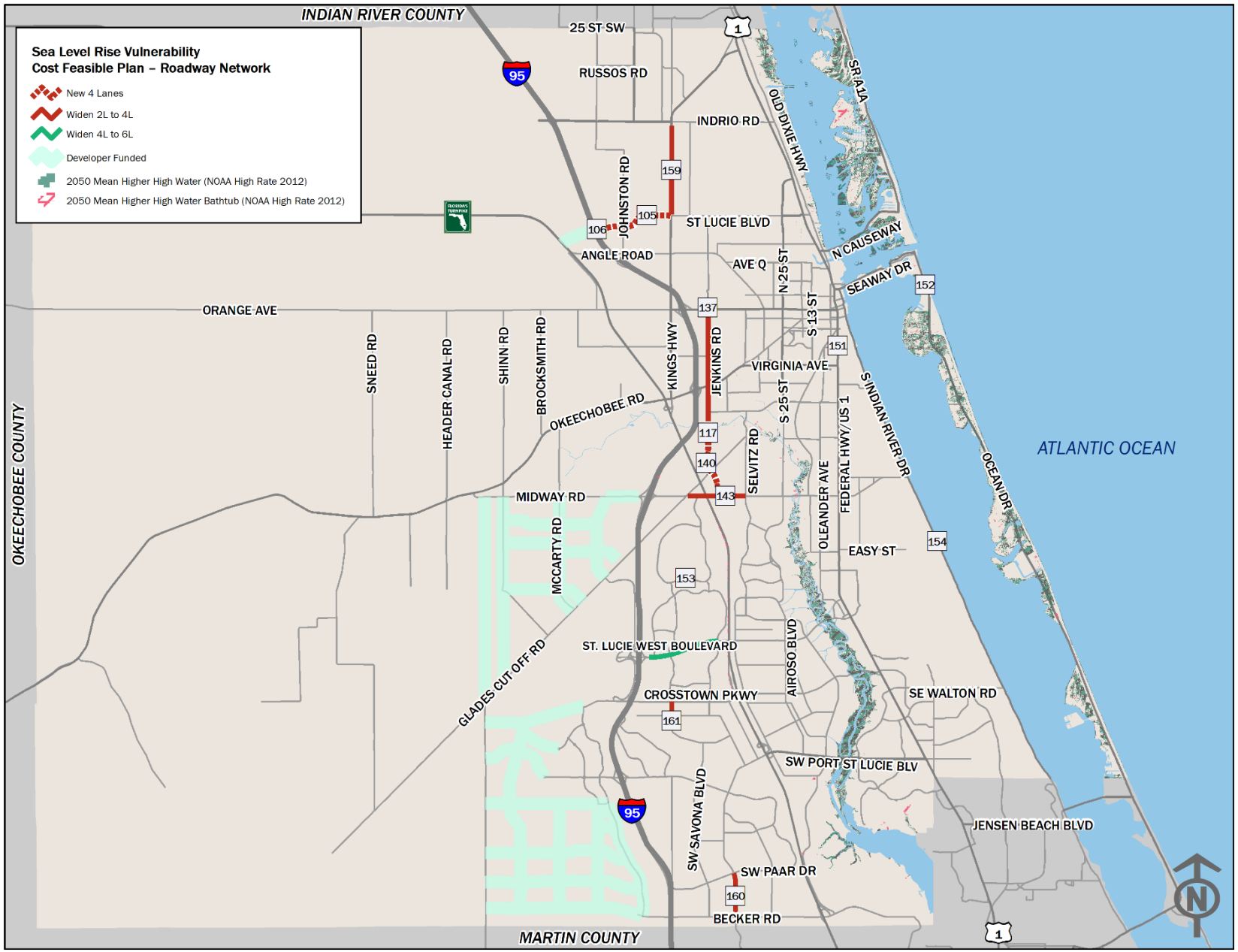


Figure 9-1. Sea Level Rise Vulnerability/Cost Feasible Plan – Roadway Network

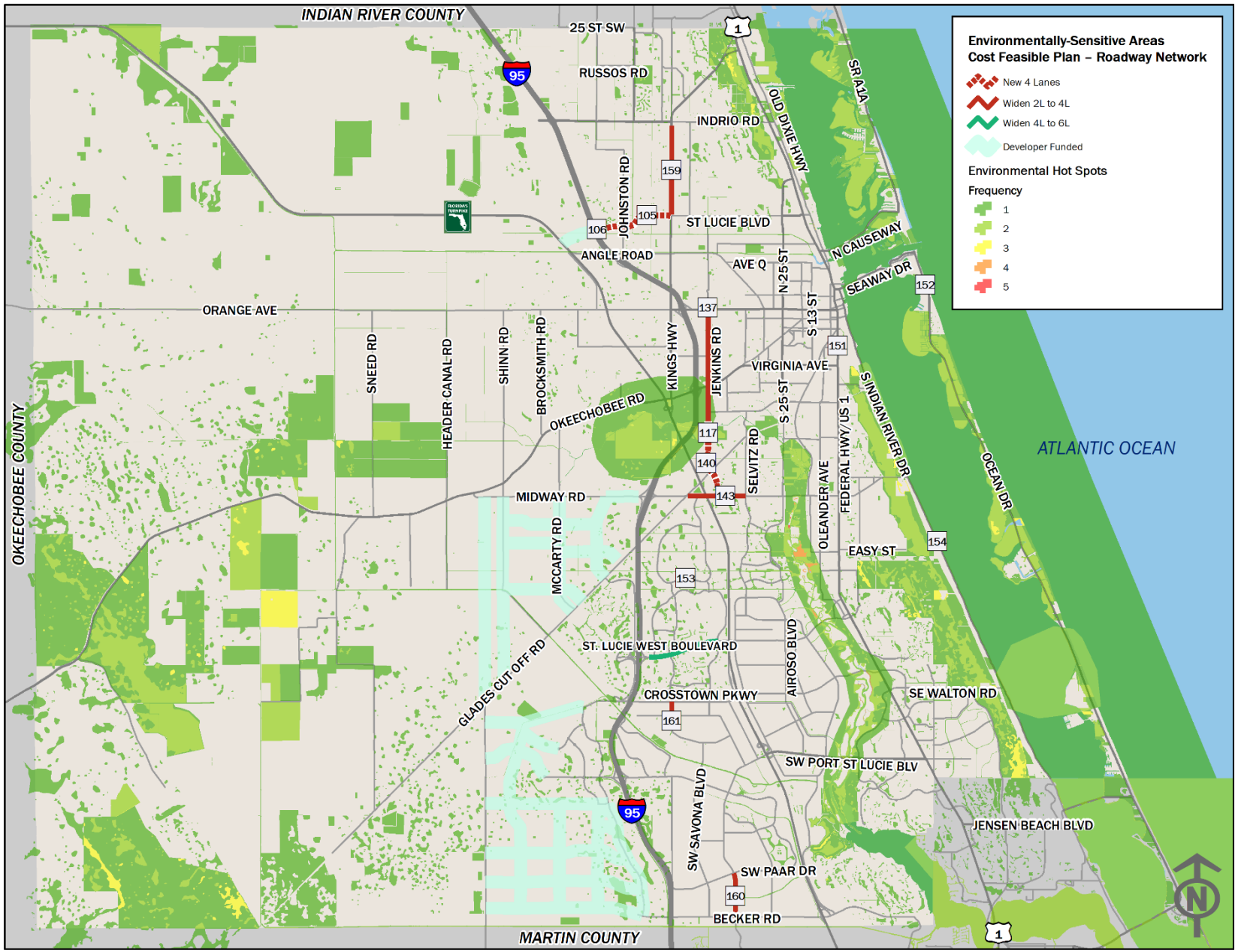


Figure 9-2. Environmentally-Sensitive Areas/Cost Feasible Plan – Roadway Network

9.3 Environmental Justice Analysis

As a result of the EJ/Title VI outreach, roadway projects will include pedestrian and bicycle facility improvements to incorporate complete street elements. Investment towards bicycle and sidewalk facilities, new transit routes, and improvements to existing service, and maintaining existing services in the EJ/Title VI areas are included in the Multimodal Cost Feasible Plan. Some specific improvements to existing transit services includes expanding service hours on Route 7 to reflect the other route schedules, expand Saturday service hours to reflect weekday span of service, and increasing frequency from 60 minutes to 30 minutes on Route 2, Route 3, Route 4, Route 5, and Route 6. Shown in **Figure 9-3** are the EJ areas overlaid with the Multimodal Cost Feasible Plan and existing transit routes.

The implementation of the Multimodal Cost Feasible Plan will significantly improve accessibility in the EJ/Title VI areas.

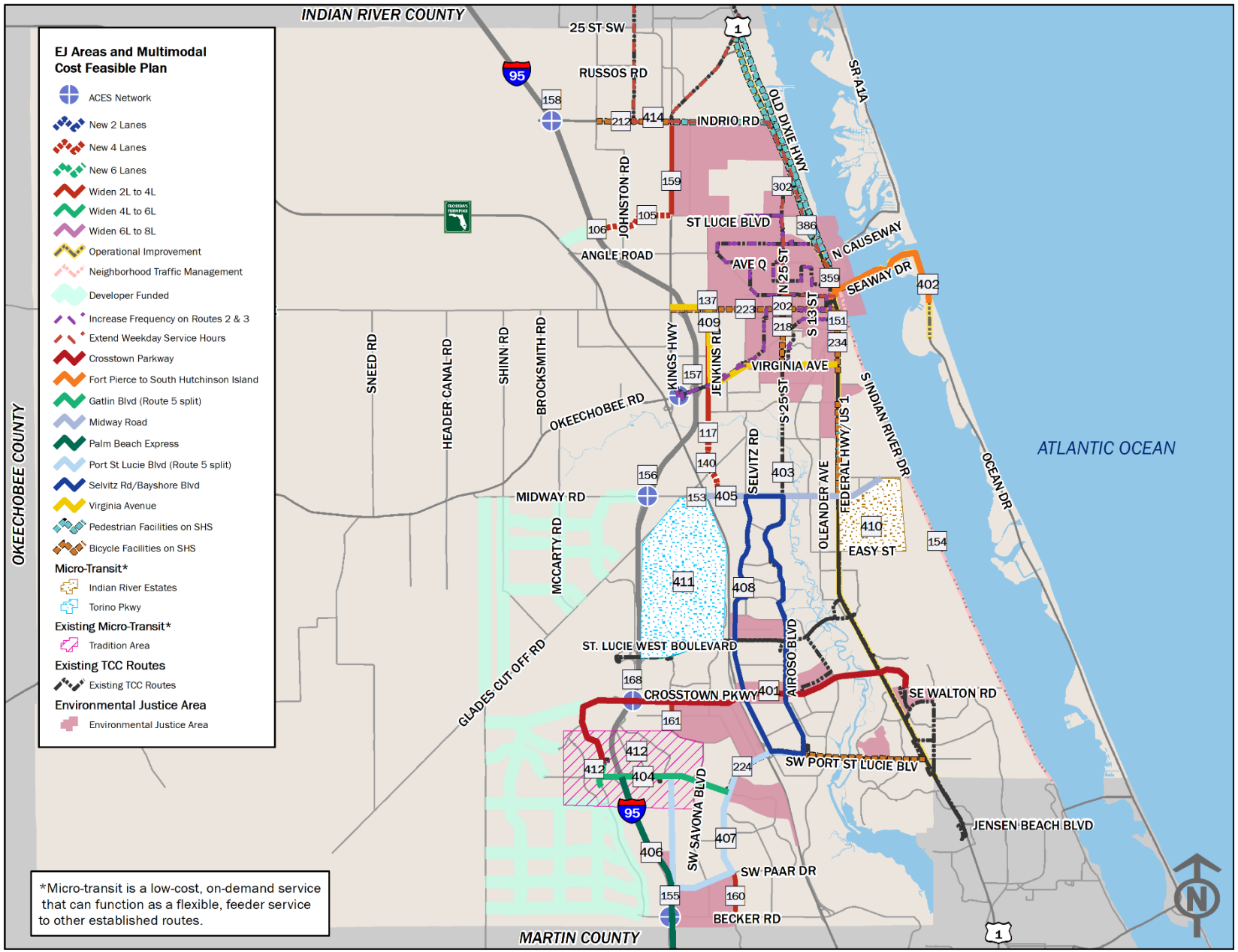


Figure 9-3. EJ Areas and Multimodal Cost Feasible Plan

9.4 System Performance Report

Performance management is a strategic approach to connect investment and policy decisions to help achieve performance goals. The following is the LRTP System Performance Report that documents this approach and will be evaluated annually through the TPO's TIP development process.

» GOAL 1: SUPPORT ECONOMIC ACTIVITIES

Objectives	Performance Measures	FDOT Targets		St. Lucie TPO Long Range Performance Target
		2-Yr	4-Yr	
Enable the efficient movement of people and goods on the roadway network	% of person-miles traveled on the Interstate that are Reliable*	75%	70%	70%
	% of person-miles traveled on the non-Interstate NHS that are Reliable*	n/a	50%	50%
	The Truck Travel Time Reliability (TTTR) index is the average of the maximum TTTR calculated for each reporting segment on the Interstate*	1.75	2	2
Optimize the management and operations of the transportation system	TSM&O Strategic Network Deployment	n/a	n/a	100%
Maximize the efficiency and effectiveness of the current transit system and improve access to destinations that support economic growth	% population within ¼ mile of Major Activity Centers (MACs)	n/a	n/a	16%
	Transit routes providing access to MACs	n/a	n/a	10

» GOAL 2: PROVIDE TRAVEL CHOICES

Objectives	Performance Measures	St. Lucie TPO Long Range Performance Target
Encourage walking, cycling, and other micromobility options	% of roadways with sidewalks and bike lanes	43%
Improve transit accessibility	% of transit stops with sidewalk access	100%
	Miles of fixed route transit service	300

» GOAL 3: MAINTAIN THE TRANSPORTATION SYSTEM

Objectives	Performance Measures	FDOT/County Targets			St. Lucie TPO Long Range Performance Target
		1-Yr	2-Yr	4-Yr	
Maintain condition of existing roadway transportation assets	% of pavements of the Interstate System in Good Condition*	n/a	n/a	≥ 60%	≥ 60%
	% of pavements of the Interstate System in Poor Condition*	n/a	n/a	≤ 5%	≤ 5%
	% of pavements of the non-Interstate NHS in Good Condition*	n/a	≥ 40%	≥ 40%	≥ 40%
	% of pavements of the non-Interstate NHS in Poor Condition*	n/a	≤ 5%	≤ 5%	≤ 5%
	% of NHS Bridges Classified as Good Condition*	n/a	≥ 50%	≥ 50%	≥ 50%
	% of NHS Bridges Classified as Poor Condition*	n/a	≤ 10%	≤ 10%	≤ 10%
Maintain condition of existing transit assets	Equipment - Percentage of non-revenue, support-service and maintenance vehicles that have met or exceeded their useful life benchmark**	14%	n/a	n/a	0%
	Rolling Stock - Percentage of revenue vehicles within a particular asset class that have either met or exceeded their useful life benchmark**	0%	n/a	n/a	0%
	Percentage of facilities with a condition rating below 3.0 on the FTA Transit Economic Requirements Model (TERM) Scale**	0%	n/a	n/a	0%

» GOAL 4: PROVIDE EQUITABLE, AFFORDABLE, AND SUSTAINABLE URBAN MOBILITY

Objectives	Performance Measures	St. Lucie TPO Long Range Performance Target
Support healthy living strategies, programs, and improvements to create more livable communities	Walking modal share	Maintain or Increase
	Bicycle modal share	Maintain or Increase
	Transit modal share	Maintain or Increase
Ensure community participation is representative	Opportunities for engagement in traditionally underserved areas	Maintain or Increase
Provide for transportation needs of transportation disadvantaged	% of low-income, older adults, persons with disabilities within ¼ mile of transit route	30%
Make transportation investments that minimize impacts to natural environment and allocate resources toward mitigation	Number of additional roadway lane miles of impacting environmentally-sensitive areas	0
Improve transportation system's stability/resiliency in event of climate change, emergencies, or disasters	% of roadway lane miles subject to climate change impacts	0%

» GOAL 5: IMPROVE SAFETY AND SECURITY

Objectives	Performance Measures	FDOT/County Targets		St. Lucie TPO Long Range Performance Target
		2-Yr	4-Yr	
Improve safety and security in the Highway System	Number of fatalities*	0	0	0
	Rate of fatalities per 100 million vehicle miles traveled (VMT)*	0	0	0
	Number of serious Injuries*	0	0	0
	Rate of serious injures per 100 million VMT*	0	0	0
"Improve safety and security in the Transit System *** (if applicable)"	Total number of reportable fatalities***	Support transit provider targets	Support transit provider targets	Support transit provider targets
	Rate of reportable fatalities per total vehicle revenue miles by mode***			
	Total number of reportable injuries***			
	Rate of reportable injuries per total vehicle revenue miles by mode***			
	Total number of reportable safety events***			
	Rate of reportable safety events per total vehicle revenue miles by mode ***			
	Mean distance between major mechanical failures by mode***			
Improve safety and security in the Non-Motorized System	Number of non-motorized fatalities and serious injuries combined*	0	0	0

*Indicates FHWA/FTA performance report requirement

**Applies to all recipients and subrecipients of Federal transit funding that own, operate, or manage public transportation capital assets

***Applies to all operators of public transportation that are a recipient or sub-recipient of FTA Urbanized Area Formula Grant Program funds und 49 U.S.C. Section 5307, or that operate a rail transit system that is subject to FTA's State Safety Oversight Program

9.5 LRTP/TIP Amendment Process[14]

The LRTPs and TIPs may be amended with the approval of the St. Lucie TPO Board. Florida Statute requires that the TPO Board adopt any amendments to the LRTP by a recorded roll call vote or hand-counted vote of the membership present. The two (2) types of amendments are the following.

- **ADMINISTRATIVE MODIFICATION** means a minor revision to a LRTP or TIP that includes minor changes to project/phase costs, minor changes to funding source of previously included projects, and minor changes to project/project phase initiation dates. An administrative modification does not require public review and comment, a re-demonstration of fiscal constraint, or a conformity determination (in nonattainment and maintenance areas).
- **AMENDMENT** means a revision to a LRTP or TIP that involves a major change to a project included in a metropolitan transportation plan or TIP, including the addition or deletion of a project or a major change in project cost, project/phase initiation dates, or a major change in design concept or design scope (e.g., changing project termini or the number of through traffic lanes or changing the number of stations in the case of fixed guideway transit projects). Changes to projects that are included only for illustrative purposes do not require an amendment. An amendment is a revision that requires public review and comment and a re-demonstration of fiscal constraint. If an amendment involves "non-exempt" projects in nonattainment and maintenance areas, a conformity determination is required.

[14] US Department of Transportation, Federal Highway Administration, Federal Register/Vol. 81, No. 103/Friday, May 27, 2016/Rules and Regulations. [Docket No. FHWA–2013–0037] RIN 2125–AF52; 2132–AB10, Statewide and Non-metropolitan Transportation Planning; Metropolitan Transportation Planning