report

# Treasure Coast Regional Long Range Transportation Plan - Freight Element

prepared for

Florida Department of Transportation District 4

prepared by

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# 1.0 Introduction and Background

The Treasure Coast region has been actively engaged in regional transportation planning for several years. Freight was identified as a key component for the 2040 Treasure Coast Regional Long Range Transportation Plan (RLRTP). This report summarizes the region's freight transportation system and serves as input to the RLRTP. Freight transportation is a critical element of the long range planning under taken by M/TPOs.

Federal guidance relating to freight transportation to states and MPOs continues to strengthen. The importance of freight at the national level began in 1991 with ISTEA; each subsequent bill has strengthened this message. The national freight policy is designed to drive U.S. global competitiveness. Fixing America's Surface Transportation Act (FAST Act), passed December 4, 2015, further increased the focus and funding available for freight.

The national freight program provides new funding opportunities. The FAST Act established the Nationally

#### National Freight Policy Focuses on improving condition and performance of the national freight network to provide foundation for the U.S. to compete in the global economy Sets goals related to: Infrastructure improvements Operational improvements Safety, security, and system resiliency improvements Improving state of good repair Increasing use of advanced technology to improve safety and efficiency Incorporating concepts of performance, innovation, competition, and accountability into operation and maintenance of the national freight network Improving economic efficiency · Reducing environmental impacts of freight movement MAP-11: Freight Transportation

Significant Freight and Highway Projects (NSFHP) Program. This program provides dedicated funding for eligible NSFHP projects. In addition to the dedicated formula funds provided to each state, a discretionary competitive grant program was created called the FASTLANE Grant Program (also know as Fostering Advancements in Shipping and Transportation for the Long-term Achievement of National Efficiencies).

These new funding programs are designed to help address ongoing challenges, including: Safe, efficient, and reliable movement of freight and people; global, national, and regional economic competitiveness; congested highways; efficient intermodal connections and "first/last" mile; international border operations; modernization of seaports and their landside connections; infrastructure resiliency and environmental protection; and rail grade crossing conflicts.



As part of this legislation, new requirements were placed on states and a national freight highway system was designated. The ability of M/TPOs to benefit from these changes requires freight be a part of established transportation planning activities. In addition to changes to the federal freight program, it is also critical that the regional freight element is consistent with key statewide initiatives. This includes overarching guidance provided by Florida's Transportation Plan and Florida's Strategic Intermodal System Plan, as well as more specific freight guidance provided by Florida Freight Mobility & Trade Plan and the Florida Trade and Logistics Study. Florida's M/TPOs also have established a Freight Subcommittee as part of its MPOAC to help insure M/TPOs are prepared to provide key input to the state's freight program, specifically as it relates to urban goods movement.

The rest of this report summarizes existing freight policies, objectives, and visions; identifies freight and logistics network elements; identifies freight needs and priorities; and presents a summary of the freight system. Appendix A provides a literature review of relevant documents.

# 2.0 Existing Freight Policies, Objectives, and Visions

The three M/TPOs in the Treasure Coast region have an established process to create individual Long Range Transportation Plans (LRTPs). The most recent 2040 LRTPs were adopted in late 2015 through early 2016. With a 2040 planning horizon, the LRTPs account for the substantial changes that have occurred since the completion of the 2035 plans. Specifically, federal legislation and statewide planning efforts such as Moving Ahead for Progress in the 21st Century Act (MAP-21), the Fixing America's Surface Transportation (FAST) Act, the 2060 Florida Transportation Plan (FTP), and the Freight Mobility and Trade Plan (FMTP) have been reshaping the goals and objectives that M/TPOs are working towards. The counties primarily worked to align their goals, objectives, and performance measures with MAP-21 Goals and the 2060 FTP Goals. For the purposes of this Treasure Coast RLRTP Freight Element, existing goals and objectives were reviewed to identify policy language that encompasses the needs of the freight system and its users.

## 2.1 Existing Federal and State Freight Guidance

One of the primary purposes of developing freight goals and objectives at the M/TPO level is to ensure that established plans are consistent with state and federal guidance. This is critical for an M/TPO to be eligible for all available funding programs. Over the past few years, updates to and creation of statewide transportation planning documents, as well as the passage of new surface transportation legislation at the federal level has impacted the planning environment M/TPOs are working within.

The first of these is the Moving Ahead for Progress in the 21<sup>st</sup> Century Act, or MAP-21. This legislation was signed into law in July of 2012 to provide over \$105 billion for surface transportation investments in fiscal years 2013 and 2014. This legislation was the first long-term highway legislation enacted since 2005 and set the stage for a performance based multimodal program. Key changes made through MAP-21 include an expansion of the National Highway System (NHS), establishment of a performance-based program, and a restructuring of existing or new formula programs. This was the current legislation when the LRTPs were developed for the three counties and was used as guidance for their goals and objectives.

Since the completion of the LRTPs, new federal legislation has come out in the form of the Fixing America's Surface Transportation Act, or FAST Act. Signed into law in December 2015, this law authorizes \$305 billion over fiscal years 2016 through 2020 for surface transportation infrastructure planning and investment. This legislation builds upon the foundation developed by MAP-21. The FAST Act seeks to improve mobility on America's highways through the development of programs and policies such as a new National Multimodal Freight Policy, funding through a new National Highway Freight Program, and the development of a new discretionary grant program for nationally significant freight and highway projects. Specifically, the FAST Act designates approximately \$1.2 billion per year for the National Highway Freight Program allocated to states by formula; the FASTLANE grant program, created as a discretionary competitive grant program, allocates an additional \$4.5 billion over five years for freight projects. In addition, the FAST Act will support economic growth, accelerate project delivery, and promote innovation. When the LRTPs for the Treasure Coast M/TPOs are updated once again, they will need to align planning policies with the guidance set forth by this Act.

At the state level, the 2060 FTP creates a vision and guidance over the next 50 years for transportation and investment decisions in Florida. This plan establishes the policy framework for the expenditure of state and federal transportation funds allocated to Florida through the work program. In addition, this document

provides guidance for other transportation partners, such as MPOs, transit agencies, and the like, as they work towards future plans and projects. The three major sections of the FTP are:

- Identifying key trends, issues, and opportunities which shape Florida's transportation past and future;
- Seven long range goals to guide transportation decisions, along with objectives, strategies, and indicators to support each goal; and
- Key actions to implement the FTP.

The state has also developed a comprehensive freight plan and program. The Freight Mobility and Trade Plan (FMTP) was conceived in April 2012 through Florida House Bill 599. The two main components of this document are the Policy Element, completed in June 2013, and the Investment Element, which was completed in September 2014. While Florida has been actively engaged in freight planning for many years, MAP-21 specifically called for states to develop freight plans. An adopted freight plan ensures that Florida is eligible for additional funding opportunities as up-to-date, compliant freight plans are now a requirement under the FAST Act in order to program projects with federal formula freight funding. State freight plans were required to have the following elements:

• Identify trends, needs, and issues;

#### Florida Transportation Plan Goals

- Safety and security for residents, visitors, and businesses
- Agile, resilient, and quality transportation infrastructure
- Efficient and reliable mobility for people and freight
- More transportation choices for people
   and freight
- Transportation solutions that support Florida's global economic competitiveness
- Transportation solutions that support quality places to live, learn, work, and play
- Transportation solutions that enhance Florida's environment and conserve energy

Source: FTP Vision Element, FDOT, August 2015

- Describe policies, strategies, and performance measures to guide investment decisions;
- Describe how the plan will improve the state's ability to meet national freight goals;
- Consider innovative technologies and operational strategies;
- Describe improvements required to reduce deterioration of heavy truck routes; and
- Provide an inventory of facilities with freight mobility issues and strategies to address those issues.

These planning and policy documents provide an excellent reference point for the M/TPOs to consider in the development of their own goals and objectives. As these documents are modified moving forward, they can provide a reference point for the changes in transportation policies and visioning.

## 2.2 Indian River County Freight Goals and Objectives

Both Indian River and Martin counties developed their goals and objectives in a similar fashion. The overall goals and objectives of these 2040 LRTPs are aligned with the MAP-21 and 2060 Florida Transportation Plan Goals. Freight is specifically called out under the MAP-21 goals related to "Freight Movement and Economic Vitality".

Indian River County developed five goals for this LRTP, each with its own subset of objectives. While many goals related to safety, connectivity and access impact the movement of freight, only a handful relate directly to freight. Of these five, two are identified as directly related to freight movement, with a combined total of three objectives. These objectives focused on implementing multimodal improvements, improving the Strategic Intermodal System (SIS) network, and enhancing freight mobility, as summarized in Table 2.1.

Recommended enhancements for the Indian River MPO focus on the addition of freight specific objectives to the safety and preservation goals (goals 4 and 5). Each of these areas are impacted by freight operations. Safety concerns related to reducing crash and injury rates may be different for freight movements. For instance, an interchange ramp may be too steep for a truck to safely navigate, resulting in the truck rolling down an embankment. Crash rates here could be reduced by making improvements to the ramp. The preservation goal of Indian River is focused on pavement index ratings and the bridge network. As trucks are heavier than a typical passenger car, they can have a much greater impact on these facilities. Rehabilitating a roadway without an understanding of the truck traffic on that roadway may result in deteriorated conditions much faster than expected. An understanding of the routes heavily used by trucks can ensure that improvement projects are undertaken with all users in mind.

#### Table 2.1 Indian River County Freight Goals and Objectives

Goal 1: A connected, responsive, aesthetically pleasing, and efficient transportation system that meets the needs of Indian River County residents, visitors, and businesses

Objective 1.03: Enhance the grid roadway network by constructing an average of two centerline miles of new roadway corridors with appropriate **multimodal improvements** each year from 2020 to 2040

Objective 1.04: <u>Enhance the FDOT's Strategic Intermodal System</u> (SIS) by constructing the Oslo Road Interchange at Interstate 95 by 2040

Goal 2: A transportation system that provides travel alternatives which enhance mobility for people and freight

Objective 2.06: <u>Enhance freight mobility</u> by improving an average of one centerline mile of roadway with appropriate multimodal improvements each year that are identified as serving freight movement

Source: Connecting Indian River County: Long Range Transportation Plan 2040 Update.

### 2.3 Martin County Freight Goals and Objectives

As mentioned above, Martin County identified and categorized the 2040 LRTP goals and objectives in a similar fashion as Indian River, albeit with some modifications. Martin County identified four overall goals, each of which has earmarked "Freight Movement and Economic Vitality" as a component of one or more objectives. Even though each of the four goals addresses freight or economics, only two goals specifically address freight, along with four objectives as shown in Table 2.2. Martin County did not identify specific policies to help reach these goals and objectives, but did identify performance measures used to determine how well the county is trending towards each objective.

Recommended enhancements for the Martin MPO focus on separating "freight movement" and "economic vitality" when screening existing objectives for relevance to freight. In looking at the objectives identified as addressing "freight movement and economic vitality", only one specifically mentions freight or improving freight networks (Objective 1B: Support improvements to major roadway freight corridors). Others indirectly relate to freight by referencing overall performance (e.g., prioritize improvements that maintain acceptable

travel performance), however, many relate to objectives that support economic vitality but not freight movement (e.g., increasing sidewalk coverage; improving transit commuter access to employment; and increasing the bike facility coverage). While freight movements are directly tied to economic vitality, a more suitable way to address this MAP-21 goal may be to separate the two components to ensure the specific freight goals of the county can be more readily realized and measured.

#### Table 2.2Martin County Freight Goals and Objectives

Goal 1: An efficient multimodal transportation system that supports the local economy and maintains the quality of life

#### B. Support improvements to major roadway freight corridors

#### J. Support projects that enhance the local economy

L. Prioritize funding for projects that <u>improve existing corridors that address multimodal transportation</u> needs with context sensitive designs

Goal 2: A safe multimodal transportation system

B. Prioritize projects and programs that improve safety on corridors with highest number of crashes with fatal and incapacitating **injuries by mode** 

Source: Moving Martin Forward: 2040 Long Range Transportation Plan.

### 2.4 St. Lucie County Freight Goals and Objectives

St. Lucie County developed the goals and objectives of the 2040 LTRP in a different manner. Goals and objectives are aligned with MAP-21. A total of six goals were developed, with three identified as related to "Movement of People and Freight". However, only one goal with two objectives directly address the movement of freight. Table 2.3 shows the goals and objectives specific to freight.

Recommended enhancements for the St. Lucie TPO focus on separating the movement of freight and the movement of people, as well as adding freight objectives for Goals 3 and 6. Existing objectives under each already cover freight indirectly (e.g., Goal 3: maintain condition of existing transportation assets, improve efficiency of existing transportation services; Goal 6: improve safety of transportation system that may include incorporation of infrastructure in support of automated vehicles). The defined goals and objectives are utilized to score projects and determine their priorities. Without objectives specifically related to freight, the corresponding project ranking criteria are similarly not freight-focused. As a result, a freight project would score very low based on the existing project ranking criteria.

#### Table 2.3 St. Lucie County Freight Goals and Objectives

Goal 1: Provide for efficient transportation that serves local and regional needs and stimulates economic prosperity and growth

Enable people and **goods to move** around efficiently. **Increase transportation options** and improve access to destinations that support prosperity and growth.

Source: Go2040: St. Lucie TPO Long Range Transportation Plan.

# 3.0 Freight and Logistics System Elements

The freight system of the Treasure Coast region is a multimodal network consisting of roadways, railways, airports, a seaport, waterways, and other supporting infrastructure such as warehouses, distribution centers, and truck parking facilities. The network is shown in Figure 3.1 with further information on each of these components detailed in the following subsections.

# 3.1 Key Freight Roadways

A well connected network of roadways is pivotal to the efficient movement of goods and services. While most routes will be used by trucks in some capacity for local deliveries, only a portion of the overall system is considered critical for freight movements. Without efficient movements on these roadways, other local streets may suffer from congestion as drivers attempt to find alternative routes. The three designations included here are:

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

#### 3.1.1 Key Roadway Designations

#### Strategic Intermodal System Roadways

The Strategic Intermodal System (SIS) roadways are the backbone of the roadway network. These roadways represent the state's high priority network of transportation facilities which facilitate mobility and economic development. The roadways and facilities identified as part of the SIS are critical for interregional, interstate, and international travel and are eligible for additional funding options from the state. At the state level, SIS highway facilities carry 89 percent of all interregional rail and bus passengers, 55 percent of total traffic, and more than 70 percent of all truck traffic on the State Highway System. Figure 3.2 shows the SIS roadway facilities in the Treasure Coast region. This system is predominantly made up of Interstates, and US and state roadways including I-95, Florida's Turnpike, US 1, US 441, State Road 60, State Road 70, and State Road 710.



#### Figure 3.1 Treasure Coast Freight Network



#### Figure 3.2 SIS Roadways in the Treasure Coast Region

Source: Florida Department of Transportation.

#### National Highway Freight Network

The Federal Highway Administration (FHWA) is an agency within the U.S. Department of Transportation (USDOT) which supports State and local governments in the design, construction, and maintenance of the Nation's highway system. To ensure the consistency and continuity of this support, long term federal transportation funding is a critical element so that States and local governments can appropriately plan for anticipated funding. The most recent transportation bill, Fixing America's Surface Transportation (FAST) Act, was the first federal law in over a decade to provide long-term funding for surface transportation. Signed into law in December 2015, the FAST Act authorizes \$305 billion for transportation spending over fiscal years 2016 through 2020.

For freight planning, the FAST Act has specifically designated federal money for freight improvement projects. To focus on the elements of the network most critical for the movement of goods, the FAST Act directed FHWA to establish a National Highway Freight Network (NHFN). This network ensures the strategic use of Federal resources and policies to improve the performance of the Nation's freight system. The NHFN is comprised of the following four subsystems which have their own designation criteria:

- Primary Highway Freight System (PHFS)
- Those portions of the Interstate System not part of the PHFS
- Critical Rural Freight Corridors (CRFCs)
- Critical Urban Freight Corridors (CUFCs)

#### **Primary Highway Freight System**

The Primary Highway Freight System (PHFS) is a critical component of the freight transportation network. This network was established through significant amounts of stakeholder feedback from local, regional, and state entities based on a preliminary designation by FHWA. The designation completed as part of the FAST Act built on the initial network designation process undertaken as part of the MAP-21 highway only primary freight network (PFN) under 23 U.S.C. 167(d). Nationally, the system consists of 41,518 centerline miles, including 37,436 centerline miles of Interstate and 4,082 centerline miles of non-Interstate roads. The state of Florida as a whole comprises 1600.69 miles of this, including 1538.92 miles of major corridors with the remainder being comprised of intermodal connectors. FHWA is charged with re-designating this system every five years to reflect changes in freight flows.

Within the Treasure Coast Region, this network includes I-95 through the entire region. In addition, the Port of Fort Pierce has an intermodal connector. At 6.11 miles, this connector includes SR 70 and US 1 from I-95 to the Port entrance. A map of the PHFS in the region is shown in Figure 3.3.



## Figure 3.3 Primary Highway Freight System

Source: FHWA.

#### Other Interstate Portions not on the PHFS

As the PHFS limited the total mileage designated, not all interstates across the country were included in this subsection. However, interstates are critical to the movement of goods and services. The purpose of this subsection is to ensure that all interstate portions are included as part of the overall NHFN. Within Florida, 54.63 miles of interstate are included in this subsection. However, as all interstate portions in the Treasure Coast region have been included as part of the PHFS, no further segments are identified in this subsection.

An important note on the other interstate portions not on the PHFS, the total mileage within the state impacts

funding availability for these roadways. For states whose mileage is greater than or equal to two percent of the total PHFS mileage of all states, funding may only be used on the PHFS, Critical Rural Freight Corridors, and Critical Urban Freight Corridors. Funds may be not used on these other interstates not included as part of the PHFS. Florida is a high mileage state, meaning that the State cannot use the funding on these other interstate portions not on the PHFS. While this does not impact the Treasure Coast region, it is an important consideration to remember.

#### **Critical Rural Freight Corridors**

Critical Rural Freight Corridors (CRFCs) are an important component of the NHFN as they serve as part of the first and last mile connectivity. These public roadways help to provide links between freight generators and a distribution pathway. The CRFCs must be outside the adjusted boundaries of any urbanized area, with the Census Bureau defining an urbanized areas as one with a population of at least 50,000. In addition, a roadway must meet one or more defined seven elements.

The identification of these facilities puts an emphasis on enhancing first and last mile connectivity. A State may designate the greater amount of 150 miles of highway or 20 percent of the PHFS mileage in the State. Within the State of Florida, 320.14 miles may be designated as CRFCs. For this effort, the State is responsible for designating the public roads in accordance with section 1116 of the FAST Act. Florida has worked to designate these corridors and at present no CRFCs are located in the Treasure Coast Region. However, SR 60 has been designated as a "planned" CRFC.

#### Seven Elements for CRFC Designation

- (A) is a rural principal arterial roadway and has a minimum of 25 percent of the annual average daily traffic of the road measured in passenger vehicle equivalent units from trucks (FHWA vehicle class 8 to 13);
- (B) provides access to energy exploration, development, installation, or production areas;
- (C) connects the PHFS or the Interstate System to facilities that handle more than:
  - 1. 50,000 20-foot equivalent units per year; or
  - 2. 500,000 tons per year of bulk commodities;
  - (D) provides access to:
    - 1. a grain elevator;
    - 2. an agricultural facility;
    - 3. a mining facility;
    - 4. a forestry facility; or
    - 5. an intermodal facility;
- (E) connects to an international port of entry;
- (F) provides access to significant air, rail, water, or other freight facilities in the State; or
- (G) is determined by the State to be vital to improving the efficient movement of freight of importance to the economy of the State.

Source: FHWA.

#### **Critical Urban Freight Corridors**

Similar to the CRFCs, States are also charged with designating Critical Urban Freight Corridors (CUFCs) in consultation with their MPOs. Specifically, for an urbanized area with a population greater than 500,000, MPOs are responsible for designating the CUFC. For areas with a population of less than 500,000, the State is responsible for designating the CUFC in consultation with the MPO. Regardless of the population size, a public road designated as a CUFC must be within an urbanized area and meet one or more of four defined elements.

As with the CRFCs, States and MPOs are encouraged to consider first and last mile connections for high volume freight corridors and/or freight intensive land uses. Designation of the CUFC is limited to the maximum of 75 miles of highway or 10 percent of the PHFS mileage in the State, whichever is greater. Within the state of Florida, 160.07 miles is eligible to be designated as part of the CUFCs. Florida has worked to designate these corridors and at present none are located in the Treasure Coast region.

#### Four Elements for CUFC Designation

- Connects an intermodal facility to:
  - The PHFS;
  - The Interstate System; or
  - An intermodal freight facility;
- Is located within a corridor of a route on the PHFS and provides an alternative highway option important to goods movement;
- Serves a major freight generator, logistics, center, or manufacturing and warehouse industrial land; or
- Is important to the movement of freight within the region, as determined by the MPO or the State.

Source: FHWA.

While the Treasure Coast region does not currently have CUFCs or CRFCs, it is important to remember that designations and certifications of these routes may be provided to FHWA on a rolling basis. Routes may be removed and added at any time so long as the requirements are met and the mileage does not exceed the maximum allowable limit.

#### Regionally Significant Roadways

Some of the counties of the Treasure Coast region have worked to designate truck routes within their boundaries. Specifically, St. Lucie and Indian River have made efforts to identify key truck routes. This does not prevent trucks from traveling on other roadways but they are encouraged to use these roadways. Martin County has not made such a designation. The identified roadways are part of the regionally significant roadway network defined through the RLRTP development process.

#### 3.1.2 Key Truck Corridors

One way to determine the most significant truck corridors in the region is by looking at the volume of trucks traveling on the roadways. Based on data from FDOT, Figure 3.4 shows the volume of trucks moving on the SIS roadway network in the Treasure Coast region with Table 3.1 supplementing this with detail on the top ten roadway segments by truck volume. Daily truck volumes range from 7,200 to almost 9,000. The highest volumes are seen along I-95, in particular on segments where it crosses with Florida's Turnpike. One explanation for this may be truck drivers' desire to avoid tolled roadways where possible. Therefore, the drivers are switching from Florida's Turnpike to I-95 when able in order to avoid continued tolls. Similarly, drivers may also be switching to Florida's Turnpike after these points and lowering the overall truck volumes seen on the parallel roadways.



#### Figure 3.4 Truck Volumes on Treasure Coast Regional Roadways

Source: Florida Department of Transportation, 2016.

Roadway	From	То	County	AADT	AADTT	Truck Percent
I-95	Indian River County Line	Orange Ave	St. Lucie	46,500	8,975	19.3%
I-95	SW High Meadow Ave	SW Kanner Hwy	Martin	63,000	8,694	13.8%
I-95	SW Kanner Hwy	SE Bridge Rd	Martin	73,500	8,159	11.1%
I-95	Orange Ave	Graham Rd	St. Lucie	54,502	7,739	14.2%
I-95	Graham Rd	Okeechobee Rd	St. Lucie	54,502	7,739	14.2%
I-95	Martin Hwy	SW High Meadow Ave	Martin	51,500	7,262	14.1%
I-95	Okeechobee Rd	Midway Rd	St. Lucie	69,500	7,159	10.3%
I-95	Midway Rd	St. Lucie W Blvd	St. Lucie	61,500	6,581	10.7%
I-95	St. Lucie County Line	Martin Hwy	Martin	59,325	6,288	10.6%
I-95	Brevard County Line	Fellsmere Rd	Indian River	43,500	5,916	13.6%

#### Table 3.1 Top 10 Highest Volume Regional Roadways by Truck Traffic

Source: Florida Department of Transportation, 2016.

In addition to looking at overall truck volumes, it also is important to look at the percent of total traffic represented by trucks. This helps further refine and evaluate key truck corridors. Figure 3.5 illustrates the percent trucks along the SIS and Table 3.2 provides the top ten roadways based on percent truck. Note the list of roadways is different from the top ten roadways based on total truck volume. Truck percent ranges from 20 to 43 percent as compared to 10 to 19 percent when looking at the highest volume roadways.



#### Figure 3.5 Truck Share of Traffic on Treasure Coast Regional Roadways

Source: Florida Department of Transportation, 2016.

Roadway	From	То	County	AADT	AADTT	Truck Percent
US 98	SW Kanner Hwy	Palm Beach County Line	Martin	5,000	2,155	43.1%
US 98	Okeechobee County Line	SW Kanner Hwy	Martin	2,500	800	32%
SR 60	Osceola County Line	Blue Cypress Rd	Indian River	5,583	1,535	27.5%
SR 60	Blue Cypress Rd	CR 512	Indian River	5,583	1,535	27.5%
SR 710	SW Kanner Hwy	Palm Beach County Line	Martin	7,400	1,983	26.8%
SR 60	94 <sup>th</sup> Dr	I-95	Indian River	8,700	2,297	26.4%
SR 710	Okeechobee County Line	SW Allapattah Rd	Martin	7,100	1,711	24.1%
SR 60	CR 512	94 <sup>th</sup> Dr	Indian River	4,600	984	21.4%
SR 60	94 <sup>th</sup> Dr	90 <sup>th</sup> Ave	Indian River	10,200	2,173	21.3%
SR 710	SW Allapattah Rd	SW Kanner Hwy	Indian River	10,900	2,180	20%

#### Table 3.2 Top 10 Highest Volume Regional Roadways by Truck Share of Traffic

Source: Florida Department of Transportation, 2016.

## 3.2 Key Freight Railroads

The history of the development on the East Coast of Florida is synonymous with the name of Henry Flagler, whose ambition was to expand his railroad network throughout the state of Florida in the late 19th century. This ambition has helped to shape the current rail infrastructure in place today. There are three entities operating the freight railroad network in the Treasure Coast region: Florida East Coast Railway (FEC), South Central Florida Express railroad (SCXF), and CSX Transportation. Figure 2.3 shows these three railroads operating within the Treasure Coast Region. The grey lines show SIS roadway network for reference. Note the SCXF currently has operating authority on FEC's K Branch from Fort Pierce to South Bay. FEC, as owner, also has operating rights along this corridor..



#### Figure 3.6 Freight Railroads in the Treasure Coast Region

Note: SCXF, as shown, has operating authority along track owned by FEC.

#### 3.2.1 Florida East Coast Railway

The Florida East Coast Railway (FEC) is a 351-mile Class II freight rail system located along the east coast of Florida. It is the only north-south mainline along the Atlantic coast between Miami and Jacksonville. FEC is the primary rail service provided in the Treasure Coast region, operating 76 miles of freight rail. FEC transports a mix of freight including intermodal containers and trailers, bulk/carload, and box car/general merchandise. FEC provides direct and exclusive service to PortMiami, Port Everglades and Port of Palm Beach, as well as a network of terminals. In the Treasure Coast region, FEC serves the Port of Fort Pierce and the cities of Port St. Lucie and Vero Beach. In addition to regular freight service, the



development of the Brightline express passenger rail service by All Aboard Florida will add additional trains to the corridor.<sup>1</sup>

#### 3.2.2 CSX

CSX, one of North America's Class I railroads, also operates in the Treasure Coast region. In Florida, CSX operates and maintains more than 2,800 miles of track and handles more than 1.1 million carloads of freight on the state's rail network. In the Treasure Coast region, CSX operates 25 miles of railway in the southwest corner of Martin County where it provides limited carload service. CSX provides carload/bulk and box car/general merchandise service through the region with limited stops at rail served properties in Martin County.



#### 3.2.3 South Central Florida Express

Another railroad company operating in the Treasure Coast region is South Central Florida Express railroad (SCXF). SCXF is a Class III railroad serving the agricultural industries of South Central Florida. The railroad serves 26 customers and hauls cut cane, bulk raw sugar, packages and bulk-refined sugar, fertilizer, molasses, pulpwood logs, rolled paper, and farm equipment. SCXF has been owned and operated by the

U.S. Sugar Corporation since 1994. The railroad currently owns a 98-mile section between Sebring and Pahokee. The railroad also owns a branch line running south of Lake Harbor and then turning east into the cane fields south of Belle Glade. SCXF operates on 171 route miles on both sides of Lake Okeechobee in South Florida. The line on the west side of Lake Okeechobee interchanges with CSX at Sebring and, through a lease agreement, operates over 51 miles of FEC track to the Atlantic Coast



where it connects to the FEC main line at Fort Pierce. SCXF has haulage rights on the FEC to its Jacksonville interchanges with CSX and Norfolk Southern. SCXF operates on 45 miles of railway in the Treasure Coast region.

<sup>&</sup>lt;sup>1</sup> http://www.allaboardflorida.com/

### 3.3 Seaports and Waterways

#### 3.3.1 Port of Fort Pierce

Established in 1918, the Port of Fort Pierce, which lies within the City of Fort Pierce's limits, falls under the jurisdiction of St. Lucie County and the five County Commissioners. The County owns 20 acres at the port, adjacent to 67 undeveloped privately owned acres and 12 acres which house the privately owned Fort Pierce Yachting Center, formerly known as the Indian River Terminal. This port has historically served a hinterland including St. Lucie, Indian River, Okeechobee, Highlands, Hendry, Glades, and Martin counties. The port has traded with nearby partners in the Caribbean Basin and the Bahamas as well as the Far East and Europe. No container cargo has been handled at the Port of Fort Pierce since FY 2011/12, however the port does continue to export break, neo and dry bulk cargo via barges. The port updated its Master Plan in December 2015 and continues to explore its strategic opportunities.

The Florida Seaport Five-Year Capital Improvement Program (CIP) for 2015-2016 through 2019/2020 identifies several projects for the Port of Fort Pierce. The port continues to work on infrastructure and economic development projects to attract business to the region. Currently, the port is midway through the construction phase of the 2<sup>nd</sup> Street project which runs the length of the port (from north to south) and serves as the primary entrance road to the port. This major project includes widening the roadway to accommodate freight, moving and burying power lines to accommodate Oversize & Overweight trucks, adding a truck "turnaround" loop at the northern end, installing upgraded power, water, sewer, and natural gas mains to serve the port areas as well as a storm water collection and treatment system. Construction is anticipated to be complete by April 2018.

Another significant development underway at the port is the development of Fisherman's Wharf. The objective of developing this area is to serve as a "Transition Zone" between the City's Downtown to the south and the more industrial area to the north. A recently completed study looked at various options for optimal development for this portion of land, as shown in Figure 3.7. Option 2 was selected, in a comparative evaluation process in close collaboration with the City and County, as the optimal land configuration. As a result of this study, the County was able to apply for and successfully receive funding through the Florida Seaport Transportation and Economic Development Program (FSTED) for two small properties totaling 0.44 acres as well as design funds for Fisherman's Wharf bulkhead and dredging project. It is the intent of the County to move the design project forward and apply for additional funds from FSTED for construction of the bulkhead and dredging project.

The Port is also focusing it's efforts on the County owned Harbour Pointe parcel at the northern end of the port. They are exploring options on developing the land to best fit the region and community as well as provide for economic development in the area.



#### Figure 3.7 Development Options for Fisherman's Wharf

Source: Fisherman's Wharf Development Study, 2015.

#### 3.3.2 Regional Waterways of the Treasure Coast

In addition to the seaport infrastructure of the Treasure Coast, another important transportation facility is the waterway system located in this region. Of particular importance are the Atlantic Intracoastal Waterway (AIW) which passes through all three counties, the St. Lucie River, and the St. Lucie Canal. In an effort to identify and prioritize waterway access needs and facilities of the regional waterway system, a Martin/St. Lucie Regional Waterways Plan was developed in December 2014. This effort was spearheaded by the Treasure Coast Regional Planning Council (TCRPC) with funding provided by the Martin MPO, St. Lucie TPO, and the Florida Inland Navigational District (FIND). The study area of focus for this project is shown in Figure 3.8.

#### Figure 3.8 Martin/St. Lucie Regional Waterways Plan Study Area



DREDGING RESPONSIBILITIES & PERMITTED DEPTHS

Source: 2014 Martin and St. Lucie Regional Waterways Plan.

The AIW serves as a mixed use transportation corridor in Martin and St. Lucie counties. Cargo services are limited to infrequent barge traffic to serve specific customers. Barge service provides products to specific industrial hubs (power plants). The region is home to two navigable inlets in Stuart and Fort Pierce. Cargo volumes from Jacksonville to Miami, fluctuate annually, driven largely by petroleum movements. There has been a significant reduction in recent years due to a declining demand for petroleum products. This is largely due to the conversion of Florida Power and Light Company (FPL) plants from petroleum to natural gas. Cargo trends along the AIW are shown in Table 3.3 below for 2007 through 2014. Recent operations are extremely limited and consist of primary manufactured goods and manufactured equipment and machinery.

Year	Total Tons	Petroleum Tons	Percent Petroleum
2007	458,639	454,337	99%
2008	75,071	66,746	89%
2009	55,252	49,452	90%
2010	80,217	61,806	77%
2011	12,243	5,800	47%
2012	1,291	-	0%
2013	1,737	-	0%
2014	1,241	-	0%

# Table 3.3Atlantic Intracoastal Waterway Cargo Volumes, 2007 through 2014Jacksonville, FL to Miami, FL

#### Source:

http://www.navigationdatacenter.us/wcsc/webpub14/Part1\_WWYs\_tonsbyTT\_Dr\_Yr\_comm2014\_2010.htm http://www.navigationdatacenter.us/wcsc/webpub11/Part1\_WWYs\_tonsbyTT\_Dr\_Yr\_commCY2011-2007.HTM

While the cargo movements along the AIW have decreased, the waterways also are home to a successful yacht building and service industry. The waterways provide direct water access for landside facilities. For example, American Custom yachts Inc. is located along the St. Lucie Canal between Florida's Turnpike and I-95, as shown in Figure 3.9. Increased rail service along the FEC corridor (freight and passenger) has the potential to impact waterborne vessels at the Loxahatchee and St. Lucie River bridges including barge traffic, other commercial operations, and recreational uses.

#### Figure 3.9 Example of Yacht Industry



Source: http://www.americancustomyachts.com/

### Florida's Premier Custom Yacht Builder and Marine Service Facility

More than just a boatyard, American Custom Yachts' 63-acre marine facility accommodates the construction of ACY's worldfamous custom sportfishermen and provides a full range of marine services on site, including yacht repair, repowering and refitting, complete painting services and storage for over 300 vessels. Our reputation is built on long-lasting relationships with our customers and business associates. Our customers know they can come to us anytime with any problem, just like family. Whatever your marine service needs are, big or small, let us know. We'll treat you right at home.

## 3.4 Airports

The Treasure Coast region is home to a network of airports. These airports consist largely of general aviation airports. Commercial flights, foreign trade zone (FTZ) status, customs services, and economic development plans set a few of the airports apart, as described below.

#### 3.4.1 Vero Beach Regional Airport

Vero Beach Regional Airport, formerly known as Vero Beach Municipal Airport, is located in Indian River County and is owned and operated by the City of Vero Beach. The airport has three operational runways with lengths of 3,504', 4,974', and 7,314'. Operations at this airport are predominately General Aviation Local and General Aviation Itinerant however there are some air taxi and military operations as well. Commercial service began on December 10<sup>th</sup>, 2015 at this airport for the first time in nearly 20 years. Total annual operations at this facility exceed 250,000. The city of Vero Beach worked with the Federal Aviation Administration (FAA) and the Florida Department of Transportation (FDOT) to prepare an Airport Master Plan which was completed in June 2016 and will guide the future of the airport. The master plan prioritizes maximizing development to complement existing infrastructure, particularly in the short term; protecting lands for future development opportunities; and expansion and development of aeronautical needs in the Midfield and Northwest cores. Figure 3.10 illustrates the facilities and improvements.

#### Figure 3.10 Planned Airport Facilities and Infrastructure Improvements at Vero Beach Regional Airport



Source: Plan for Sustaining Vero Beach Regional Airport, Executive Summary, June 2016.

#### 3.4.2 Treasure Coast International Airport and Business Park

The Treasure Coast International Airport and Business Park, formerly referred to as the St. Lucie County International Airport, is owned and operated by the St. Lucie County Board of County Commissioners. The airport encompasses 3,660 acres and contains three operational runways with lengths of 4,000', 4,755', and 6,492'. Operations at this airport are predominately General Aviation Local and General Aviation Itinerant with total operations reaching nearly 200,000 annually. The most recent Master Plan Update for this airport was completed in June 2011 to identify a long range, orderly direction for airport development. Recommended developments from this plan, shown in Figure 3.10, include capacity for future industrial development. As the airport is designated as a US Customs Port of Entry and includes the only Foreign Trade Zone (FTZ) within the Treasure Coast Region, current business development plans seek to better utilize these attributes. As part of Planned Activity Level (PAL) 1, the airport sought to provide opportunities for the utilization of existing on-airport FTZs and warehouse development. PAL 2, to be implemented in 2014 through 2018, would then extend Taxiway A to provide access to planned maintenance/cargo facility developments. Lastly, in PAL 2 – 3, to implement between 2014 and 2029, the airport would develop intermodal connectivity with Port, highways, and rail. This 2011 Master Plan will be updated in the near future to serve as a guide to airport development and operation in accordance with the needs and desires of St. Lucie County, Florida during the period 2016-2036.



#### Figure 3.11 Recommended Developments for the Treasure Coast International

Source: 2011 Master Plan Update, St. Lucie County International Airport.

#### 3.4.3 Witham Field

Another airport in the Treasure Coast region is Witham Field. Located in Martin County, approximately one mile southeast of Stuart, Witham Field does not have commercial or cargo air services but plays a significant role in the general aviation needs of the region. The three runways of this airport can accommodate most general aviation aircraft and serve several major tenants including Triumph Aircraft Industries, Inc. (aircraft parts manufacturing) and Fair Wind Charter (air taxi/charter), as well as two fixed base operators: Atlantic

Aviation and Stuart Jet Center. Efforts to expand this airport's attractiveness to users has included attempts to build a U.S. Customs facility that would serve international air and marine travelers. This would allow users to clear customs at Witham Field, rather than using facilities in either West Palm Beach or Fort Pierce. This facility is moving forward with the County Commission's vote to apply for a state construction grant in December 2016.<sup>23</sup>

#### 3.4.4 Economic Impact of the Treasure Coast Airports

FDOT at the state level has undertaken efforts to understand and illustrate the economic impact of these airports. The latest update of the *Florida Statewide Aviation Economic Impact Study* was completed in August 2014 and includes an economic impact for each of the individual airports. Table 3.4 below summarizes these impacts for the airports in the Treasure Coast Region. Other airport facilities located within the Treasure Coast region include Sebastian Municipal Airport (Indian River County), New Hibiscus Airpark (Indian River County), and Indiantown Airport (Martin County) and are also included here. Note that of these other airports, Sebastian is the only publically owned and operated facility, and thus the only one eligible to receive aviation grant funding. While operations at these airports are minimal and do not include cargo, they do still have a significant economic impact on their community and have the potential for future growth.

Witham Field and Vero Beach Regional Airport have the largest economic impacts. Witham Field is the largest by overall output, accounting for nearly half of the total economic output associated with the airports in the region. Vero Beach Regional Airport is the most significant based on the number of employees and total payroll. While the other airports may have a lower economic impact relative to these large generators, each is a critical element in the transportation network of the Treasure Coast region and provides a significant number of jobs and economic output.

		Emp	Employment Pay		Payroll	/roll Output	
Airport	County	Total	Percent of Region	Total	Percent of Region	Total	Percent of Region
Indiantown Airport	Martin	60	< 1%	\$2 M	< 1%	\$7 M	< 1%
New Hibiscus Airpark	Indian River	12	< 1%	\$0.4 M	< 1%	\$2 M	< 1%
Sebastian Municipal Airport	Indian River	364	5%	\$12 M	5%	\$45 M	3%
Treasure Coast International Airport	St Lucie	1,282	17%	\$50 M	20%	\$156 M	12%
Vero Beach Regional Airport	Indian River	3,515	47%	\$124 M	49%	\$469 M	36%
Witham Field	Martin	2,310	31%	\$66 M	26%	\$616 M	48%
Total		7,543		\$255 M		\$1.3 B	

#### Table 3.4 Economic Impact of the Treasure Coast Airports

Source: Florida Statewide Aviation Economic Impact Study, 2014.

<sup>&</sup>lt;sup>2</sup> http://floridapolitics.com/archives/210042-sally-swartz-customs-facility-at-witham-field-fails-at-the-starting-gate

<sup>&</sup>lt;sup>3</sup> http://www.tcpalm.com/story/news/local/shaping-our-future/growth/2016/12/20/us-customs-facility-moves-forwardmartin-county/95531570/

# 3.5 Other Key Industrial Areas

While the major freight transportation infrastructure used to transport goods is a vital part of freight related activities in any region, supplemental facilities associated with these movements are also important. Such facilities include but are not limited to: warehouses and distribution centers, foreign trade zones, truck parking, and new developments. The following details some of these facilities in the Treasure Coast region.

#### 3.5.1 Freight Activity Centers and Land Use

FDOT developed a statewide dataset of large-scale freight facilities. This was done by acquiring data from the Florida Department of Revenue (DOR). The initial parcel data file from DOR utilized land use codes identified as freight-related; these were joined with DOR parcel boundary files to help identify and describe these facilities. The complete dataset contained 91,985 records statewide. In order to hone in on the largest facilities, parcels which contained buildings over 100,000 square feet were selected for additional analysis. While the full list of records is available, only the largest facilities were validated to confirm their current use.

For the purpose of the Treasure Coast Freight Plan, those facilities identified through this effort were utilized to help illustrate where the centers of freight activity are located in the Treasure Coast region. The dataset was taken as provided by FDOT with few modifications. Specifically, the dataset was briefly reviewed to remove any facilities which were not freight related (i.e. some of the larger facilities in the Treasure Coast region are storage facilities which would not generate freight activities and were recommended for removal within the database itself). Table 3.5 shows the remaining freight facilities summarized by aggregated square footage and DOR Land Use within each county. While the square footage does not necessarily indicate how large operations are, it does yield some comparison of the relative size of the industry, particularly as vacant parcels would not otherwise be identified. Based on total land by classification, vacant land is the largest type at 39 percent of the total facility types. Vacant parcels represent lands that may be developed to support freight activity in the future. Warehousing & Distribution follows closely behind vacant land at 30 percent of the total land area. Combined with Light Manufacturing, these three land uses account for 81 percent of all identified freight land uses within the region.

Department of Revenue Land Use	Indian River (1,000 sq. ft.)	Martin (1,000 sq. ft.)	St. Lucie (1,000 sq. ft.)	Total	Percent
Vacant	20,155	30,226	74,773	125,155	39%
Light Manufacturing	6,768	13,069	18,716	38,553	12%
Heavy Manufacturing	816	263	4,120	5,198	2%
Lumber Yards	400	1,427	2,939	4,765	1%
Packing Plants	6,526		7,259	13,785	4%
Bottlers		3,607	744	4,351	1%
Food Processing	26	43	89	158	0%
Materials Processing	3,225	8,926	7,933	20,084	6%
Warehousing & Distribution	19,536	24,506	53,191	97,233	30%
Open Storage	6,951	3,201	4,394	14,547	4%
Total	64,403	85,267	174,159	323,830	100%

#### Table 3.5Freight Facilities by Land Area

Source: FDOT Freight Facilities Dataset Database Manual.

Similarly, Table 3.6 details the total available building square footage in the region by land use type. As expected the Vacant land use is at zero square feet as vacant properties do not have any facilities built on them. The proportion of Open Storage classifications is also less as open storage facilities typically do not have many structures on them. Warehousing & Distribution and Light Manufacturing continue to be the largest industries, with 65 percent and 20 percent, respectively, of all building space.

Department of Revenue Land Use	Indian River (1,000 sq. ft.)	Martin (1,000 sq. ft.)	St. Lucie (1,000 sq. ft.)	Total	Percent
Vacant	0	0	0	0	0%
Light Manufacturing	1,017	1,537	2,848	5,402	20%
Heavy Manufacturing	75	93	486	654	2%
Lumber Yards	37	174	452	663	2%
Packing Plants	907	0	921	1,828	7%
Bottlers	0	207	104	310	1%
Food Processing	5	13	66	84	0%
Materials Processing	83	70	397	550	2%
Warehousing & Distribution	4,150	5,949	7,608	17,708	65%
Open Storage	30	35	157	223	1%
Total	6,304	8,078	13,040	27,422	100%

#### Table 3.6Freight Facilities by Building Size

Source: FDOT Freight Facilities Dataset Database Manual.

Individual parcels were mapped and analyzed to identify clusters of freight activity centers. Many of these clusters are located in close proximity to interchanges with I-95 and Florida's Turnpike, or adjacent to existing hubs such as airports, or in some cases along key commercial corridors. Figures 3.12 through 3.18 provide illustrations of seven key clusters.

- Figure 3.12 shows the interchange of I-95 with 20<sup>th</sup> Street in Indian River County. The largest freight generation in this area is due to the location of a CVS distribution center north of 20<sup>th</sup> St and west of I-95. Other parcels here include the New Hibiscus Airpark and vacant lands surrounding this airfield.
- Figure 3.13 shows the area around the Vero Beach Regional Airport in Indian River County. These parcels surrounding the airport are important as they can support existing functions at the airport as well as yield opportunities for expansion.
- Figure 3.14 shows the area around the Treasure Coast International Airport in St. Lucie County. The airport and the surrounding freight facilities are important elements as the Treasure Coast International Airport looks towards future industrial development as part of master planning efforts. In addition, this region offers a unique opportunity for the Treasure Coast as it is located within the only Foreign Trade Zone in the region.
- Figure 3.15 shows the area around the intersection of I-95 and Florida's Turnpike in St. Lucie County. This area is a prime location for companies as they would have immediate access to both I-95 and Florida's Turnpike for better access to distribution channels. Companies such as Wal-mart have

strategically located distribution centers which can take advantage of this. Of note, this location does highlight some issues with the freight facility database which should be noted for future iterations of this dataset. Tropicana operates a large facility here which relies on truck movements to deliver and ship products. The exclusion of this facility may be due to agricultural uses not being included in the dataset, however, this would need confirmation with current land uses.

- Figure 3.16 shows the area around I-95 and St. Lucie West Boulevard in St. Lucie County. This area
  represents a cluster of smaller warehouses and distribution centers which can generate large amounts of
  freight traffic when examined as a whole. Companies located here include a Fedex Shipping Center,
  United Refrigeration, and Treasure Coast Newspapers among others as well as some vacant parcels for
  future development.
- Figure 3.17 shows the area around I-95 and SW Martin Highway in Martin County. Several larger companies have located here, primarily north of SW Martin Highway, although additional vacant parcels due exist to the south. Companies located here include Armellini Express Lines, FedEx Ship Center, International Wholesale Tile, and a mix of other medium and small size companies.
- Figure 3.18 shows the area off of SR 710 in the Indiantown area of Martin County. Its location in the western part of the county lends to more agricultural uses, as demonstrated by both Louis Dreyfus Citrus and Tampa Farm Services. Facilities in this region may benefit from more sustainable energy sources being introduced in the region through proximity to the Martin Next Generation Solar Energy Center.

#### Figure 3.12 Freight Activity Center Example – I-95 and 20th Street (Indian River)



Source: FDOT Freight Facilities Dataset.

# Figure 3.13 Freight Activity Center Example – Vero Beach Regional Airport (Indian River)



Source: FDOT Freight Facilities Dataset.

Figure 3.14 Freight Activity Center Example – Treasure Coast International Airport (St. Lucie)



Source: FDOT Freight Facilities Dataset.



#### Figure 3.15 Freight Activity Center Example – I-95 and Florida's Turnpike (St. Lucie)

Source: FDOT Freight Facilities Dataset.

#### Figure 3.16 Freight Activity Center Example – I-95 and St. Lucie W Blvd (St. Lucie)



Source: FDOT Freight Facilities Dataset.

# Figure 3.17 Freight Activity Center Example – I-95 and SW Martin Highway (Martin)



Source: FDOT Freight Facilities Dataset.

#### Figure 3.18 Freight Activity Center Example – SR 710 in Indiantown (Martin)



Source: FDOT Freight Facilities Dataset.

#### 3.5.2 Foreign Trade Zones

Foreign trade zones (FTZs) are an important element of the logistics community as they are secure areas under U.S. Customs and Border Protection (CBP) supervision which allow for merchandise handling through such operations as storage, assembly, and manufacturing. Foreign merchandise is not subject to CBP entry procedures and duty payments until it enters CBP territory for domestic consumption. This can reduce, delay, or eliminate duties owed on either original materials or finished products.

As mentioned, the only FTZ currently located within the Treasure Coast Region is at the Treasure Coast International Airport and Business Park. The grantee of FTZ No. 218 is the Treasure Coast Foreign Trade Zone, Inc. FTZ No. 218 was created in 1996 under the name "Central Florida Foreign Trade Zone #218". This FTZ is operated through a Board of Directors charged with enhancing the local economy and encouraging foreign trade by assisting companies with local employment and economic activity. The four distinct areas which compose FTZ No. 218 are as follows:

- St. Lucie County International Airport and Adjacent Airport Industrial Park 1,063 acres with warehouse, hangar, and secure office space
- Crossroads Commerce Park 15 acres of warehouse and secure office space
- Kings Highway Industrial Park 102 acres of warehouse and secure office space
- St. Lucie West Commerce Park 408 acres of warehouse, manufacturing, and secure office space

#### 3.5.3 Truck Parking Facilities

Changes in federal legislation have brought truck parking and the availability of such parking to the forefront of freight transportation planning. Several federal, state, and local level planning studies have been conducted in order to document available truck parking locations, related regulations, and the overall unmet demand for such parking. Truck parking is an important part of an efficient supply chain as it allows truck drivers an opportunity to rest, refuel, and/or service their vehicles. Without adequate and safe parking, truck drivers can face fines or loss of employment should they go over their federally mandated service hours. Locally, FDOT District 4 has been working to document the supply and demand of truck parking as it relates to Broward, Palm Beach, Martin, St. Lucie, and Indian River counties in order to determine if there is an adequate supply for truckers serving the South Florida market.

Within the Treasure Coast region, this study identifies ten locations where trucks can legally park which provide almost 1,000 spaces total: two in Indian River County, seven in St. Lucie County, and one in Martin County. These facilities are shown in Figure 3.19. Only three of these facilities are publically owned: two along I-95 in St. Lucie and Martin Counties (each divided into separate northbound and southbound facilities) and one in St. Lucie County along Florida's Turnpike. Table 3.7 lists each of these truck stops along with the availability of spaces.



#### Figure 3.19 Truck Parking Locations in the Treasure Coast Region

Name	City/County	Ownership	Number of Spaces
Travel America Vero Beach	Vero Beach, Indian River County	Private	162
Gator Texaco Truck Stop	Vero Beach, Indian River County	Private	17+
St. Lucie County Rest Area	Fort Pierce, St. Lucie County	Public	84
Flying J	Fort Pierce, St. Lucie County	Private	156
Love's Travel Stop	Fort Pierce, St. Lucie County	Private	120+
Love's Travel Stop	Fort Pierce, St. Lucie County	Private	100+
Marathon Gas/Falcon Truck Stop	Fort Pierce, St. Lucie County	Private	25+
Pilot Travel Center	Fort Pierce, St. Lucie County	Private	100
Florida's Turnpike Plaza (Mile Post 144)	Port St. Lucie, St. Lucie County	Public	32
Martin County Rest Area	Palm City, Martin County	Public	120
Total			916+

#### Table 3.7 Truck Parking Locations in the Treasure Coast Region

Source: Florida Department of Transportation.

To help illustrate the differences between private and public truck parking facilities, Figures 3.20 and 3.21 are provided. The private truck parking facility, Figure 3.20, is predominately used by truck drivers, for amenities such as fueling, parking, showers, vehicle maintenance, convenience stores, and more. Small amounts of passenger car parking is also available, typically for vehicles using the fueling station or convenience store, or employees of the facility. Often times, truckers may need to pay to use such facilities, unless they make a purchase of some kind. The public truck parking facility, Figure 3.21, typically coexists as part of a state owned and operated rest area. These facilities have fewer amenities, do not cater exclusively to the trucking industry, and may not allow extended or overnight parking.

Both the public and private truck parking facilities located in the Treasure Coast region serve truck drivers delivering loads to/from South Florida. Given the shortage of truck parking facilities in Palm Beach, Broward, and Miami-Dade counties, many drivers use the Treasure Coast facilities to stage for their southern deliveries. The majority of facilities in the Treasure Coast have high utilization rates and are located conveniently adjacent to I-95 and Florida's Turnpike.



## Figure 3.20 Private Truck Parking Facility Example

Source: Google Earth.

# Figure 3.21 Public Truck Parking Facility Example



Source: Google Earth.

#### 3.5.4 Pipeline Developments

Another mode which is less visible to users is the pipeline network. Florida is significantly dependent upon the natural gas supply as it generates roughly 68 percent of the electricity used by Floridians. In contrast to other states such as Texas, Florida does not produce much of its own natural gas and has no natural gas storage. Central and South Florida depend on two natural gas pipelines operated by Gulfstream Natural Gas System and Florida Gas Transmission. These two pipelines are nearly at capacity as they work to deliver up to 4.4 billion cubic feet of natural gas each day. To expand capacity, Florida Power and Light (FPL) is working with Sabal Trail Transmission, LLC and Florida Southeast Connection, LLC to develop a new pipeline system to better serve Florida's natural gas needs.

In regards to the Treasure Coast Region, these developments are of local importance. The Florida Southeast Connection pipeline, at a cost of \$550 million, will interconnect with the two existing interstate pipelines as well as the new interstate pipeline under development by Sabal Trail Transmission. Construction began in August 2016 on this pipeline which will terminate at the Martin Next Generation Clean Energy Center after passing through Osceola, Polk, Okeechobee, and St. Lucie counties. The completed pipeline will consist of 77 miles of 36" pipe and 50 miles of 30" pipe, which is shown in Figure 3.22. This pipeline was designed to eliminate or minimize impacts to the local ecosystems as it will be constructed adjacent to existing utilities and/or transportation infrastructure. After its expected completion in 2017 this pipeline is projected to deliver about 600 million cubic feet of natural gas per day by 2020.



#### Figure 3.22 New Interstate Pipeline

Source: NextEra Energy.

# 4.0 Freight Needs and Priorities

A key component of this Freight Element is the identification and prioritization of freight needs to ensure these established priorities can be reflected in the RLRTP. This section presents an analysis of identified freight needs for highways and non-highway modes.

## 4.1 Freight Roadway Needs and Priorities

The freight roadway needs and priorities for the Treasure Coast region represent those projects that fall on the defined and adopted regionally significant roadways and address the established ranking criteria. The prioritization score has been factored into the larger RLRTP prioritization process. This section defines the process undertaken to determine the freight roadway priorities.

#### 4.1.1 Regional Freight Roadway Network

The regional freight roadway network, for purposes of identifying roadway needs, was defined as the regional transportation network defined and adopted by the three M/TPOs as part of the RLRTP. This regional network consists of the following three components:

- Strategic Intermodal System (SIS) Network;
- Treasure Coast RLRTP Primary Regional Facilities; and
- Treasure Coast RLRTP Secondary Regional Facilities.

SIS facilities, as mentioned in Section 2, are Florida's high priority transportation facilities deemed most important to the state's economy and mobility. SIS roadway facilities in the Treasure Coast region include I-95, Florida's Turnpike, US 98/441, SR 60 west of I-95, and SR 70 west of I-95 (Emerging SIS). To supplement the SIS network on a more regional level, the Treasure Coast Transportation Council (TCTC) designated a regional roadway network to ensure mobility in the Treasure Coast region. The regional network was first established as a component of the 2030 RLRTP. The 2040 RLRTP updated the regional roadway network to include updates to the network. The Treasure Coast RLRTP network is organized into Primary and Secondary Regional Facilities.

#### **Primary Regional Facilities**

All SIS and Emerging SIS facilities are regionally significant and are designated as Primary Regional Facilities. In addition, all principal arterial facilities that meet at least one of the following criteria, and any minor arterial or major collector facilities that meet at least four of the following criteria, are designated as Primary Regional Facilities.

- Multi-County Facilities that traverse more than one county.
- SIS Connectivity Facilities that connect a SIS highway to another SIS Highway.
- **SIS Intermodal** Hubs, corridors, and connectors identified as SIS and emerging SIS.

- **Freight and Passenger Hubs** Freight and passenger hubs not on the SIS such as airports, bus terminals, ports, or rail yards that function as intermodal hubs.
- Intermodal Connectivity Facilities that serve non-SIS freight and passenger intermodal hubs.
- SIS Access Facilities that connect a SIS highway to another arterial or major collector.
- **Evacuation Route** Facilities that are designated hurricane evacuation routes, per local comprehensive plans.
- Regional Employment Access Facilities that connect to a regional employment hub (defined as a transportation analysis zone (TAZ) where the employment is two percent or greater of the region's employment or where the industrial employment is two percent or greater of the region's industrial employment).
- **Regional Connectivity** Facilities that connect with the SIS or Emerging SIS or serve another regional facility such as a regional park, sports complex, beach, university, or intermodal hub.

#### Secondary Regional Facilities

Secondary regional facilities include all intermodal facilities, arterials, and major collectors that are not principal arterials and meet one or more of the primary regional facility criteria listed above.

#### 4.1.2 Roadway Needs

Identification and prioritization of roadway freight needs is a key component of the Treasure Coast Regional Freight Element. Needs have been identified for the roadway mode of freight transportation based on individual M/TPO needs plans developed as part of the 2040 LRTPs. The freight needs identified and prioritized as part of this effort have not been constrained to "cost feasible" projects; they reflect all regional freight needs of the 2040 planning horizon.

#### 4.1.3 Freight Prioritization

Once freight needs were identified, it was necessary to prioritize them to ensure that limited resources are invested in the projects that provide the greatest public benefit. Current prioritization practices by each M/TPO were reviewed to help ensure consistency and compatibility, as appropriate. Each of the regional roadway needs has been evaluated based on a score out of 100 from the Freight Prioritization Worksheet. The data for freight prioritization was gathered using a variety of sources including the 2015 FDOT Florida Transportation Information (FTI) database, the 2014 InfoUSA establishment database, and a comparison of multimodal information. The InfoUSA database is a national dataset that maintains information on business establishments and can be used to identify businesses that are involved in the freight industry. These data were combined to complete the Freight Prioritization Worksheets. The Freight Prioritization Worksheet uses five criteria to apply a point value for each of the regional roadway projects. A high level explanation of these criteria is provided below with Appendix B providing more detailed information regarding criteria and scoring.

	Roadway Freight Prioritization Criteria
•	Truck Traffic (40 points)
	<ul> <li>Points are assigned based on the percentage of truck traffic and the total truck AADT for each regional need.</li> </ul>
•	Number of Truck Activity Centers within 0.5 miles from the roadways (25 points)
	<ul> <li>Number of Truck Activity Centers within 0.5 miles from the roadways. Points are assigned based on the total number of Transportation, Manufacturing, and Retail/Restaurant businesses within the 0.5-mile radius of the roadway.</li> </ul>
•	The Type of Project (15 points)
	<ul> <li>Points are assigned based on a list of projects ranging from Infrastructure Operations/Technology, and Regulatory/Institutional/Other.</li> </ul>
•	Facility Type (10 points)
	- Points are based on the classification of the roadway ranging from SIS Corridor to Other Minor Arterial.
•	Intermodal Connectivity (10 points)
	<ul> <li>Points are assigned to those roadways which will provide connectivity to multimodal routes should as transit or trails.</li> </ul>

Source: Kimley-Horn and Associates, Inc.

Fifty-three projects were identified and prioritized. The top 10 projects are listed below in Table 4.1. Appendix C provides the scores for all 53 projects.

#### Table 4.1Top 10 Roadway Projects

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

Source: Kimley-Horn and Associates, Inc.

#### 4.1.4 Integration with the Treasure Coast Regional LRTP

In addition to the Treasure Coast Regional Freight Element, the overall 2040 Treasure Coast RLRTP has developed a project prioritization process to focus on overall regional transportation needs. The score from the regional roadway freight analysis for each project was incorporated directly into the prioritization criteria for the 2040 RLRTP as one of ten equally-weighted criteria; therefore, freight transportation represents 10 percent of the overall project prioritization in the 2040 Treasure Coast RLRTP.

## 4.2 Non-Roadway Needs

Non-roadway freight needs include projects that have been identified for the airports, seaport, and railroads. The list of needs is driven by available project lists identified by the facilities through master plans, capital improvement plans, as well as projects included in FDOT's work program. Without an active outreach program, and given the limited list of freight needs, it was determined no prioritization would be completed for these projects.

#### 4.2.1 Railroad Needs

The railroad infrastructure in the Treasure Coast region is privately owned and operated. At present, no freight project needs have been identified for FEC, CSXT or SCFX for infrastructure located in the region. Efforts by All Aboard Florida to add capacity to the FEC corridor are underway and have not been included in this analysis.

#### 4.2.2 Seaport and Waterway Needs

The region is home to the Port of Fort Pierce. With excellent direct access to the FEC and acres of undeveloped land, the port is looking for new business opportunities and new tenants that may have overlooked this undeveloped port. The County has moved forward with a list of funded and unfunded projects designed to ensure its viability into the future. Table 4.2 summarizes funded seaport projects. These include roadway access improvements, property acquisition, and bulkhead and dredging improvements. Table 4.3 summarizes unfunded seaport projects. The unfunded project list provides short, mid and long term projects focused on roadway improvements (access and internal), bulkhead and dredging improvements, re-establishment of rail connections, and more distant connections to hubs like the Treasure Coast International Airport.

#### Table 4.2 Funded Seaport Projects

Description	FDOT Funding	Status
New Port Entrance (Design and Construction)	\$4,242,500	Anticipated Construction Completion: April 2018
Fisherman's Wharf Road Redevelopment	\$125,000	Anticipated Design Completion: May 2017
Fisherman's Wharf Property Acquisition	\$255,000	Letters of interest sent to property owner
Fisherman's Wharf Bulkhead & Dredging	\$225,000	New JPA for 17/18
Seagrass Study & Concept Development Plan	\$125,000	New JPA for 17/18

Source: Florida Department of Transportation.

#### Table 4.3Unfunded Seaport Projects

Description	Horizon	Improvement Type	Project Cost
Construct Fisherman's Wharf Roadway	Short-Term	Highway Connectors Capacity Project	\$800,000
Construct Bulkhead and Dredging at Fisherman's Wharf	Short-Term	Waterway Connectors Capacity Project	\$3,500,000
Construct Terminal Drive Roadway	Short-Term	Highway Connectors Capacity Project	\$1,500,000
Construct Harbor Street Roadway	Short-Term	Highway Connectors Capacity Project	\$2,500,000
Construct Port Avenue Roadway	Short-Term	Highway Connectors Capacity Project	\$500,000
Construct Avenue M Street Extension	Short-Term	Highway Connectors Capacity Project	\$2,500,000
Construct Bulkhead/Shore Stabilization and Dredging at Harbour Pointe	Short-Term	Waterway Connectors Capacity Project	\$8,000,000
Construct Bulkhead and Dredging at Destin Beach, Inc.	Mid-Term	Waterway Connectors Capacity Project	\$12,000,000
Re-establish Indian River Terminal Railway Spur	Mid-Term	Railroad Connectors Capacity Project	\$5,000,000
Re-establish Avenue M Railway Spur	Mid-Term	Railroad Connectors Capacity Project	\$5,000,000
Re-establish Fisherman's Wharf Railway Spur	Mid-Term	Railroad Connectors Capacity Project	\$5,000,000
Establish Treasure Coast International Airport Highway Connector to the Port	Long-Term	Highway Connector Capacity Project	\$14,000,000
Establish Treasure Coast International Airport Railway Connector to the Port	Long-Term	Railroad Connectors Capacity Project	\$15,000,000
Establish Regional Distribution Center Railway Connector to the Port	Long-Term	Highway Connector Capacity Project	\$65,000,000

Source: Florida Department of Transportation.

In addition to the port, the region also has an extensive waterway system. The 2014 Martin and St. Lucie Regional Waterways Plan was reviewed to identify projects. While a comprehensive set of recommendations was provided, there were no specific projects defined. Recommendations related to freight focused on developing a strategy for the Port of Fort Pierce, maintenance dredging, protecting access to marine industrial areas, assessing the impacts of All Aboard Florida, and more.

#### 4.2.3 Airport Needs

As described above, the airports in the Treasure Coast region do not serve large amounts of cargo. As such, the airport projects identified for the Treasure Coast region tend to benefit overall airport operations, not just freight movements. Table 4.4 illustrates ongoing and programmed FDOT investments in the region's airports. Over \$50 million has been invested by the FDOT from 2011 to 2016 with over \$40 million more programmed for 2017 to 2022. Key capacity related projects have been called out. The majority of these funds (72 percent) have been dedicated to the Treasure Coast International Airport and the Vero Beach Regional Airport. The airports continue to strive for improvement, as demonstrated by the multi-million dollar projects programmed for each facility. Note the funding and projects listed reflect state allocations; other funds may also be allocated towards these airports by non-FDOT sources.

## Table 4.4 Airport Improvements Identified in FDOT Work Program

Airport	2011-2016	2017-2022	Total
Martin Airport	\$1,625,965	\$0	\$1,625,965
Sebastian Airport	\$3,765,780	\$4,411,648	\$8,177,428
Design and Construct Taxiway C, D & E		\$3,904,648	\$3,904,648
Treasure Coast International Airport	\$16,754,222	\$14,338,726	\$31,092,948
Airport Expansion (Maintenance and Repair Operations)		\$5,055,000	\$5,055,000
Strengthen Runway 10R/28L		\$3,679,726	\$3,679,726
Airfield Signage & Lighting		\$1,800,000	\$1,800,000
Vero Beach Regional Airport	\$22,929,888	\$13,319,871	\$36,249,759
Rehab Runway 12R/30L		\$4,500,000	\$4,500,000
Reconstruct Center Apron		\$2,000,000	\$2,000,000
Rehab, Mark & Light North Apron		\$1,875,000	\$2,000,000
Witham Field	\$6,413,139	\$9,450,555	\$15,863,694
Taxiway A Improvements		\$1,500,000	\$1,500,000
Customs Facility	\$537,262	\$1,000,000	\$1,537,262
Airport Security Fence		\$1,000,000	\$1,000,000
Total	\$51,488,994	\$41,520,800	\$93,009,794

Source: FDOT Work Program.

# 5.0 Summary of Freight System

The Treasure Coast region is home to a multi-modal freight transportation system. Roadways are the foundation, providing truck access to established industries, while other modes provide varying degrees of service. A summary of key characteristics of the freight system are presented below:

- Freight considerations have been included in policy language. Each M/TPO has addressed freight in existing goals and objectives to varying degrees. Consistency with MAP-21 was a key consideration. Opportunities for future enhancements exist.
- Key regional roadways have been identified. Indian River and St. Lucie counties have designated key truck routes and Martin County has identified key regionally significant roadways. The NHFN and SIS highlight key interregional corridors.
- Freight rail service is provided by three railroads. The region is served by FEC, CSXT and SCFX. FEC is the primary provider with direct connections to Port of Fort Pierce and a rail yard in Fort Pierce. All three provide direct carload service to rail served properties.
- **Port of Fort Pierce has expansion opportunities.** The community continues to explore strategic opportunities to make the best use of the facility while preserving the quality of life in adjacent communities.
- Waterways handle limited cargo movement. The region is home to the AIW, and the St. Lucie River/Canal. While the waterways are maintained, barge traffic has decreased significantly in recent years due to shifts in industry patterns. Marine industries do rely on the waters. The region also has identified a set of strategies for alternate non-freight use of the waterways.
- Limited air cargo services exist but there are opportunities for economic development. The
  region's airports provide largely general aviation operations. Commercial service recently returned to
  Vero Beach Regional Airport. Treasure Coast International Airport is designated as an FTZ and is a US
  Customs Port of Entry. Master plans for both highlight a desire for expanded industrial development.
  Other local airports also offer general aviation services and have a significant economic impact on the
  region. Witham Field, for its part, has been working to acquire a Customs facility in order to increase
  traffic at this facility.
- Freight activity centers are clustered around key corridors. Existing freight intensive businesses are located in close proximity to I-95 and Florida's Turnpike interchanges, along key commercial corridors, and adjacent to transportation hubs (e.g., airports).
- **Region is home to significant truck parking facilities.** These consist of public and private facilities with a range of amenities. They operate at high levels of occupancy and serve truck drivers serving the South Florida market.
- **Top roadway priorities for freight focus on capacity expansion along key corridors.** Key projects include widening/adding lanes, new interchanges along I-95 and Florida's Turnpike, and corridor retrofits.

# Appendix A. Existing Freight Plans and Programs

A review of previously completed plans and programs was conducted in order to determine their relevancy in guiding the Treasure Coast Freight Element. A list of reviewed plans and programs is found in Table A.1 along with a brief summary of each.

#### Table A.1 Existing Freight Plans and Programs

Title	Study Level	Year	Summary
Vero Beach Municipal Airport Master Plan Briefing	Airport	2016	This document serves as a general overview of what the Vero Beach Municipal Master Plan will detail with regard to the airport's needs and potentials. The document demonstrates that 10 percent of its tenants will need more capacity in order to meet the demand in next five years. Moreover, the areas where the airport can improve its infrastructure are demonstrated. Lastly, the document provides an analysis of the airport's market share and traffic.
Compilation of Data and Recommendations for Port of Fort Pierce Master Plan Update	Seaport	2013	This document proposes revisions to the 2002 Port of Fort Pierce Master Plan and aims to stimulate economic development and job creation. It also identifies projects that could be submitted for Seaport/Intermodal funding requests to the state. Under the Jobs and Economic Impacts section, the document illustrates the port's potential in increasing tax revenues and creating highly paid jobs. It also emphasizes the need for improvement and investment in Florida ports due to the Panama Canal construction and the expected increase in the amount of cargo reaching the East Coast.
2011 Master Plan Update St. Lucie County International Airport	Airport	2011	The St. Lucie County International Airport master plan serves as a tool to analyze trends in aviation activity, assess facility needs, and identify needed development projects, thereby providing a vision for future airport development. The document mentions the Florida Strategic Intermodal System (SIS) program as an additional source of funding besides available to airports classified as SIS facilities.
St. Lucie TPO Long Range Transportation Plan (GO 2040)	County	2016	The Go 2040 LRTP is intended to guide the investment in multimodal transportation options and identify projects to be completed over the next 25 years in St. Lucie County. The document discusses the TPO's goals and objectives for freight, its assessment of County's freight system including highways, rail, seaports, and air, and the opportunities and emerging issues related to freight including the Northern Connector between Florida's Turnpike and I-95, and the North St. Lucie County Freight Logistics Zone. A brief illustration of the St. Lucie freight network concludes the section on freight.
Martin MPO 2040 Long Range Transportation Plan (Moving Martin Forward)	County	2015	The 2040 LRTP details how Martin County's multimodal transportation system will evolve over the next 25 years. The document includes freight movement in its Important Themes (Chapter 4) under the Freight Transportation section. Several freight-related plans and freight modes are listed which the county can benefit from or improve. Specifically, the document talks about truck traffic overview, through freight traffic, the Southeast Florida Regional Freight Plan, railroad traffic increases, agriculture, waterways, and freight traffic forecasts.
Indian River County 2040 Long Range Transportation Plan Update (Connecting IRC)	County	2015	The document mentions freight in its Goal 2, a transportation system that provides travel alternatives which enhance mobility for people and freight. This document focuses on freight movement in the Freight Improvements section. This section demonstrates the county's truck route roadway improvement projects.
Martin – St. Lucie 2035 Regional Long Range Transportation	Martin County and St. Lucie County	2011	The RLRTP creates a regional strategy for transportation priorities and funding, enhances information sharing between the M/TPOs, and creates a joint decision-making process regarding regional transportation issues. The

Title Plan (Enhancing	Study Level	Year	Summary document discusses Regional Freight and Good Movement under Chapter 3,
Mobility)			Study Area Data Review and Analysis.
Indian River County 2035 Long Range Transportation Plan Update	County	2010	The LRTP focuses on freight movement in two sections, namely, the Indian River MPO Truck Traffic Routing Plan, and Freight Improvements. The latter demonstrates the county's truck route roadway improvement projects, while the former explains the basis for directing commercial trucks to their destinations in an effort to minimize the impact on residential neighborhoods.
Strategic Intermodal System (SIS) Policy Plan	Statewide	2016	The Strategic Intermodal System (SIS) is Florida's high priority network of transportation facilities deemed most important to the state's economy. This document presents general information about the SIS and provides some SIS example projects. In the document, freight plays a key role in all emphasis areas, namely, interregional connectivity, intermodal connectivity, and economic development. The document also presents freight-related projects as part of SIS example projects which shows the importance of freight to the SIS visions and goals.
Florida Transportation Plan Policy Element	Statewide	2015	The FTP Policy Element is Florida's long-range transportation plan. This document defines goals and objectives for Florida's transportation system over the next 25 years. The Policy Element establishes the policy framework for the expenditure of state and federal transportation funds flowing through FDOT's work program. Freight is specifically mentioned in two of the seven goals that form the long-range vision of FTP Policy Element. These two goals are: "efficient and reliable mobility of people and freight", and "more transportation choices for people and freight". Freight-related emphasis areas that will facilitate achieving these goals are: increasing the efficiency, capacity, and last-mile connectivity of Florida's major air/sea/space ports and other freight terminals, increasing the efficiency, capacity, and connectivity of major truck, rail, and water corridors through targeted capacity improvements, accommodations for heavy freight movement, and separation of freight and passenger traffic on shared corridors.
Florida Statewide Aviation Economic Impact Study	Statewide	2014	This update to the Florida Statewide Aviation Economic Impact Study was completed in 2014 as part of the update to the Florida Aviation System Plan (FASP). This study provides an estimated annual economic impact for 19 commercial service airports, 102 public-use general aviation airports, and 11 military aviation facilities within Florida. This includes direct, indirect, and induced impacts.
Florida Freight Mobility and Trade Plan Investment Element	Statewide	2014	The Investment Element of the FMTP is organized to continue where the FMTP Policy Element concluded, and discusses all of the elements FDOT and its partners used to identify freight related investments needed for Florida's economy to continue to grow. In Chapter 4, the document explains the freight policies, strategies, and prioritization criteria that will guide the freight-related transportation investment decisions of the State. Specifically, the project rating criteria has been explained in full content by stating how projects can gain more points based on the defined criteria. Moreover, Chapter 5 presents how freight projects were collected and a summary of Florida Freight Needs, as well as the full project list by priority group.
Florida Freight Mobility and Trade Plan Policy Element	Statewide	2013	The Florida Freight Mobility and Trade Plan (FMTP) provides the State with an integrated and comprehensive plan to focus on objectives and strategies to benefit the movement of goods, commodities, and services. The FMTP focuses on four goals, three of which are directly related to freight. These three goals are: increasing the flow of domestic and international trade through the state's seaports and airports, increasing the development of intermodal logistic centers (ILC) in the state, and increasing the development of manufacturing industries in the state. In Chapter 4, the FMTP explains how its seven objectives are in line with the 2060 FTP, MAP-21, and state legislation 2012 HB 599. The FMTP goals generally focus on developing trade, increasing the efficiency of goods movement, and minimizing the cost of moving freight. Airports, seaports, ILCs, and freight networks are the core components of the FMTP objectives.

Title	Study Level	Year	Summary
Fixing America's Surface Transportation Act (FAST Act)	Federal	2015	This law provides long-term funding for surface transportation, meaning States and local governments can move forward with critical transportation projects with the confidence that they will have a Federal partner in the long term. The FAST Act includes a number of provisions focused on the movement of freight, including: establishing a national multimodal freight policy, new discretionary freight-focused grant program for funding to improve safety, eliminate freight bottlenecks, and improve critical freight movements. It also includes promoting best contracting practices and innovating financing and funding opportunities by reducing uncertainties and delays with respect to environmental reviews and permitting.
Moving Ahead for Progress in the 21st Century Act (MAP-21)	Federal	2012	MAP-21 creates a streamlined, performance-based, and multimodal program to address the many challenges facing the U.S. transportation system. One of the focal points of MAP-21 is freight movement. Under Section 1115, it is mentioned that the policy of the U.S. is to improve the condition and performance of the national freight network. The following are included in the goals of the national freight policy: to invest in infrastructure improvements, to improve the safety, security, and resilience of freight transportation, and to improve the state of good repair. Under Section 1116, the document demonstrates prioritization of projects to improve freight movement. Projects that demonstrate improvement in freight movement, and are identified in a state freight plan, will be eligible for increased funding under this section.

Source: Cambridge Systematics.

# Appendix B. Prioritization Process

#### **Regional Freight Project Prioritization**

				Truck Traffic		Truck Activity Centers									
County	Roadway	Limits	Description	Truck Percent	Truck AADT	Truck Traffic Score	Transportation	Manufacturing	Retail	Truck Activity Center Score	Type of Project Score	Facility Type Score	Intermodal Connectivity Score	Total	Rank
St. Lucie	Jenkins Road	Midway Road to St. Lucie Boulevard	Widen 2 to 4L	41.8	4536	29	5	6	17	24	15	2	10	80	1
St. Lucie	US 1	Martin County to Indian River County	Corridor Retrofit	13.9	3267	19	4	3	25	25	10	10	10	74	2
Martin	I-95	S of Bridge Road to S of High Meadows Avenue	Widen 6 to 8L	11.1	8159	27	1	3	0	4	15	10	10	66	3
Martin	I-95	S of High Meadows Avenue to St. Lucie County	Widen 6 to 8L	14.1	7262	28	0	0	0	1	15	10	10	64	4
Martin	US 1	Cove Road to St. Lucie County	Corridor Retrofit	9.4	3431	15	10	5	34	25	10	4	10	64	4
St. Lucie	Glades Cut Off Road	Commerce Center Drive to Selvitz Road	Widen 2 to 4L	41.8	961	21	0	5	10	15	15	2	10	63	6
St. Lucie	1-95	Northern Connector	New Interchange	24.7	4653	27	0	0	0	1	15	10	10	63	6
St. Lucie	Midway Road	Glades Cut Off Road to Selvitz Road	Widen 2 to 4L	41.8	4536	29	1	1	3	5	15	4	10	63	6
St. Lucie	Florida's Turnpike	Midway Road	New Interchange	16.05	3789	23	0	1	3	4	15	10	10	62	9
St. Lucie	Florida's Turnpike	Becker Road to Port St. Lucie Boulevard	Widen 4 to 6L	12.4	5728	23	1	0	2	3	15	10	10	61	10
St. Lucie	1-95	N of Becker Road to N of Glades Cut Off Road	Widen 6 to 8L	6.8	4760	15	1	0	8	9	15	10	10	59	11
St. Lucie	Kings Highway	North of I-95 Overpass to Indrio Road	Widen 2 to 4L	19.2	2496	21	3	2	3	8	15	4	10	58	12
Martin	SR 91/Florida's Turnpike	Jupiter/Indiantown Road to SR 714/Stuart	Widen 4 to 6L	12.6	4914	21	3	6	2	11	15	10	0	57	13
Martin	SR 91/Florida's Turnpike	SR 714/Stuart to St. Lucie County Line	Widen 4 to 8	12.6	5166	22	2	5	1	8	15	10	0	55	14
Martin	I-95	Palm Beach County Line to Bridge Road	Widen 6 to 8L	7.3	5548	18	0	0	1	1	15	10	10	54	15
St. Lucie	1-95	Glades Cut-Off Road to S of SR 70	Widen 6 to 8L	10.3	7159	24	1	1	2	4	15	10	0	53	16
St. Lucie	NW Fast Torino Parkway	NW Cashmere Boulevard to Midway Road	Widen 2 to 4	41.8	1588	23	0	1	2	3	15	2	10	53	16
St. Lucie	NW California Boulevard/SW Savona Boulevard	Gatlin Boulevard to St. Lucie West Boulevard	Widen 2 to 4L	41.8	1191	22	0	0	2	2	15	2	10	51	18
St. Lucie	Northern Connector	Florida's Turnpike to I-95	New 4L	30.1	331	21	0	0	0	1	15	2	10	49	19
St. Lucie	Northern Connector	I-95 to Kings Highway	New 4L	30.1	331	21	0	0	0	1	15	2	10	49	19
St. Lucie	North-Mid County Connector	Florida's Turnpike to Midway Road	New 4I	41.8	293	21	0	0	0	1	15	2	10	49	19
St. Lucie	Florida's Turnpike	Northern Connector	New Interchange	20.8	2459	21	0	0	0	1	15	10	0	47	22
St. Lucie	St Lucie West Boulevard	F of I-95 to Cashmere Boulevard	Widen 4 to 6l	6.2	4536	15	0	0	3	3	15	4	10	47	22
Indian River	· I-95	Oslo Road	New Interchange	12.05	4087	20	0	0	0	1	15	10	0	46	24
Indian River	26 Street/Aviation Boulevard	66 Avenue to US 1	Widen 2 to 4	4	376	5	2	1	10	13	15	2	10	45	25
Martin	SR 714/Martin Highway	CR 76A/Citrus Boulevard to Martin Downs Boulevard	Widen 2 to 4L	6.7	1575	9	2	5	0	7	15	4	10	45	25
St. Lucie	Arterial A	Glades Cut-Off Road to Midway Road	New 4L	14.3	243	15	0	0	1	1	15	2	10	43	27
Indian River	• US 1	53 Street to CR 510	Widen 4 to 6L	5.2	1290	7	0	2	4	6	15	4	10	42	28
Indian Rive	Indian River Boulevard	US 1/4 Street to 37 Street	Widen 4 to 6L	3.9	956	4	2	0	6	8	15	4	10	41	29
Indian Rive	· CR 512	Willow Street to I-95	Widen 2 to 4L	10	1110	12	0	0	0	1	15	2	10	40	30
Indian Rive	· CR 512	I-95 to CR 510	Widen 4 to 6L	8.3	1428	10	0	0	0	1	15	4	10	40	30
Martin	Cove Road	SR 76/Kanner Highway to Willoughby Boulevard	Widen 2 to 4L	7.1	966	9	0	0	0	1	15	4	10	39	32
Martin	Cove Road	Willoughby Road to SR 5/US 1	Widen 2 to 4L	7.1	966	8	0	0	2	2	15	4	10	39	32
Indian Rive	· I-95	53 Street	New Interchange	8.75	2417	13	0	0	0	1	15	10	0	39	32
Martin	Indian Street	SR 76/Kanner Highway to Willoughby Boulevard	Widen 4 to 6L	6.2	1643	9	0	0	0	1	15	4	10	39	32
Indian Rive	· 27 Avenue	St. Lucie County Line to Oslo Road	Widen 2 to 4L	9.5	855	10	0	0	0	1	15	2	10	38	36
Indian Rive	82 Avenue	26 Street to Laconia Street	New 2L	9.8	276	10	0	0	0	1	15	2	10	38	36
Martin	Cove Road	SR 5/US 1 to CR A1A	Widen 2 to 4L	7.1	966	8	0	1	2	3	15	2	10	38	36
Indian Rive	25 Street SW	27 Avenue to 58 Avenue	New 2L	7.7	39	8	0	0	0	1	15	2	10	36	39
Indian Rive	43 Avenue	St. Lucie County Line to 26 Street	Widen 2 to 4L	7.7	770	8	0	0	1	1	15	2	10	36	39
Indian Rive	53 Street	82 Avenue to 58 Avenue	New 2L	7.8	257	8	0	0	0	1	15	2	10	36	39
Indian Rive	53 Street	Fellsmere N-S Road 1 to 82 Avenue	New 2L	7.8	257	8	0	0	0	1	15	2	10	36	39
St. Lucie	Port St. Lucie Boulevard	Becker Road to Paar Drive	Widen 2 to 4L	5.1	388	6	0	0	0	1	15	4	10	36	39
St. Lucie	Becker Road	Range Line Road to Village Parkway	New 4L	5.3	74	6	0	0	0	1	15	2	10	34	44
Indian Rive	CR 510	CR 512 to Intracoastal Waterway	Widen 2 to 4L	3.9	382	4	0	0	0	1	15	4	10	34	44
Martin	CR 713/High Meadow Avenue	I-95 to CR 714/Martin Highway	Widen 2 to 4L	5.3	731	6	0	0	1	1	15	2	10	34	44
St. Lucie	Crosstown Parkway	Range Line Road to Village Parkway	New 4L	5.2	920	6	0	0	0	1	15	2	10	34	44
Indian Rive	Roseland Road	CR 512 to US 1	Widen 2 to 4L	3.9	318	4	0	0	2	2	15	2	10	33	48
Indian Rive	66 Avenue	49 Street to Barber Street	Widen 2 to 4L	3.9	343	4	0	0	0	1	15	2	10	32	49
Indian Rive	58 Avenue	St. Lucie County Line Oslo Road	New 2L	7	686	8	0	0	0	1	15	2	0	26	50

#### Treasure Coast Regional Freight Plan

#### **Regional Freight Project Prioritization**

				Т	ruck Traff	ic		<b>Truck Activity Center</b>	S						
County	Roadway	Limits	Description	Truck Percent	Truck AADT	Truck Traffic Score	Transportation	Manufacturing	Retail	Truck Activity Center Score	Type of Project Score	Facility Type Score	Intermodal Connectivity Score	Total	Rank
St. Lucie	Port St. Lucie Boulevard	Paar Drive to Darwin Road	Widen 2 to 4L	4.7	733	5	0	0	1	1	15	4	0	25	51
St. Lucie	Selvitz Road	Glades Cut Off Road to Edwards Road	Widen 2 to 4L	4.9	358	5	0	2	1	3	15	2	0	25	51
Indian River	Oslo Road	I-95 to 58 Avenue	Widen 2 to 4L	3.9	137	4	0	0	2	2	15	2	0	23	53

#### Treasure Coast Regional Freight Plan

Appendix C. Scoring Worksheet

#### Freight Prioritization Worksheet

Prioritizing roadway needs based on freight movement.

1- Truck Traffic

Truck Percentage

Total Truck AADT

Truck Traffic - 40 Points							
Percentage (20 pts)	1-20 pts	Volume (20 pts)	1-20 pts				
≥30%	20 pts	>10,000	20 pts				
25-29%	19 pts	9,501-10,000	19 pts				
21-24%	18 pts	9,001-9,500	18 pts				
18-20%	17 pts	8,501-9,000	17 pts				
16-17%	16 pts	8,001-8,500	16 pts				
15%	15 pts	7,501-8,000	15 pts				
14%	14 pts	7,001-7,500	14 pts				
13%	13 pts	6,501-7,000	13 pts				
12%	12 pts	6,001-6,500	12 pts				
11%	11 pts	5,501-6,000	11 pts				
10%	10 pts	5,001-5,500	10 pts				
9%	9 pts	4,501-5,000	9 pts				
8%	8 pts	4,001-4,500	8 pts				
7%	7 pts	3,501-4,000	7 pts				
6%	6 pts	3,001-3,500	6 pts				
5%	5 pts	2,501-3,000	5 pts				
4%	4 pts	2,001-2,500	4 pts				
3%	3 pts	1,501-2,000	3 pts				
2%	2 pts	1,001-1,500	2 pts				
1%	1 pts	<1,000	1 pt				

Truck Percent Score (1-20) Truck Volume Score (1-20) "Truck Traffic" Total Score (1-40)

2- Truck Activity Centers (located within 0.5-mile distance)

Truck Activity Centers -	25 Points
Number of Establishments	1-25 pts
> 30	25 pts
27-29	24 pts
24-26	23 pts
22-23	22 pts
21	21 pts
20	20 pts
	pts
1	1 pts

"Truck Activity Center" Score (1-25):

#### 2040 Treasure Coast RLRTP – Regional Freight Plan

3- Type of Project. The projects were categorized into the following groups: Infrastructure, Operational/Technology, and Regulatory/Institutional/Other. "Infrastructure" includes projects that increase current capacity on a given corridor. "Operational/Technology" includes projects that streamline traffic flow without increasing capacity. "Regulatory/Institutional/Other" includes projects related to policies and regulations, or projects that could not be categorized into the two preceding categories.

Type of Projects - 15 Points						
Infrastructure	5-15 pts					
Adding lanes/New roadways	15 pts					
Improving Interchanges	10 pts					
Improving Intersections	5 pts					
Operational/Technology	3-10 pts					
Intelligent Transportation Systems	10 pts					
Geometric/Traffic Improvements	8 pts					
Congestion Management	3 pts					
Regulatory/Institutional/Other	5 pts					

"Type of Project" Score:

4- Facility Type. This identifies the roadway classification of the corridor or arterial that the project will occur on.

Facility Type - 10 Points	
SIS Corridor	10 pts
SIS Connector	8 pts
Other Principal Arterial	4 pts
Other Minor Arterial	2 pts

"Facility Type" Score: \_\_\_\_\_

5- Intermodal Connectivity. This identifies whether a project improves access to an intermodal facility.

Intermodal Connectivity - 10 Points		
Connectivity to an intermodal facility	10 pts	
None	0 pts	

"Intermodal Connectivity" Score:

Total Project Score (out of 100):