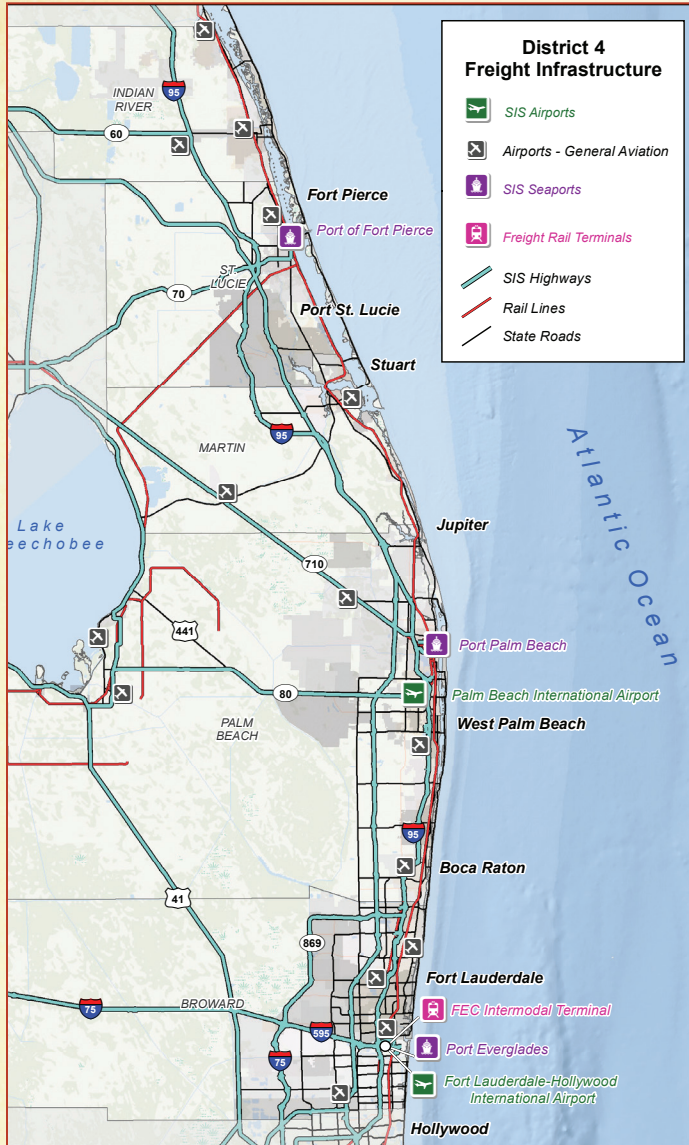


# **FDOT** **DISTRICT 4**

**FREIGHT MOBILITY IMPLEMENTATION GUIDE**







Freight transportation planning continues to receive increased attention given its potential to facilitate economic growth and global competitiveness. Freight planning encompasses the management of how freight moves using available transportation systems. This involves a partnership between the public and private entities managing the transportation systems and the private organizations using them. The freight industry is a critical part of the economy as it is responsible for the delivery of goods consumed by businesses, residents, and visitors.

New funding opportunities for freight materialized with the prior federal surface transportation reauthorization bill, Moving Ahead for Progress in the 21st Century Act (MAP-21). Signed into law in 2012, MAP-21 included a number of provisions designed to enhance freight movement in support of national goals such as the identification of a Freight Network and incentives to prioritize projects that advance freight performance targets. This Act has recently been replaced with the signing of the Fixing America's Surface Transportation Act (FAST Act) in December 2015. The FAST Act continues to include freight provisions including \$4.5 billion over five years for the Nationally Significant Freight and Highway Projects Program and \$6.3 billion over five years for the National Highway Freight Program.

Florida is well positioned to take advantage of these evolving regulations and funding opportunities for freight program advancement. For many years, Florida has been at the forefront of freight planning through the development and funding of a multimodal strategic network known as the Strategic Intermodal System (SIS). This network carries more than 99 percent of all commercial air passengers and cargo, virtually all waterborne freight, cruise passengers, and rail freight, 89 percent of interregional rail and bus passengers, 55 percent of total traffic, and more than 70 percent of all truck traffic on the State Highway System. More information can be found at: <http://www.dot.state.fl.us/planning/sis/>.

To further emphasize the importance of freight, the Florida Department of Transportation (FDOT) created the Office of Freight, Logistics, and Passenger Operations (FLP). FLP, in collaboration with multiple stakeholders, completed a statewide Freight Mobility and Trade Plan (FMTP) in compliance with MAP-21, allowing Florida's freight projects to qualify for a higher federal share of funds. In addition to the FMTP, FDOT's modal offices (Aviation, Seaport and Waterways, Rail and Motor Carrier) are in the process of updating their respective statewide modal system plans. As part of this increased emphasis on freight planning, FDOT added Freight Coordinator positions at the district and statewide levels to promote regional and statewide freight programs. These Coordinators serve as the primary contact on freight matters and as a resource for connecting regional freight issues with other governmental organizations and the private sector. Additional material is available at: <http://www.freightmovesflorida.com>.

District Four's location provides prime access to the Latin American and Caribbean markets. Changing trade patterns, facilitated by the Panama Canal expansion, shifting of global manufacturing centers, increased use of the Suez Canal, and an increasingly global market place provide South Florida with new and expanding opportunities for growth. The region is home to major international gateways, and highway and rail networks that connect South Florida to domestic and international markets, which creates an increasingly competitive environment for freight and logistics businesses. District Four is well positioned to capture the significant economic benefits from expanded international trade in addition to a growing population of residents and visitors. To ensure the region capitalizes on these opportunities, coordination with all local freight partners is necessary. The Southeast Florida Regional Freight Plan, a collaboration among three metropolitan planning organizations (MPOs), two FDOT Districts, three seaports, three airports, three freight railroads, and a diverse logistics community illustrates the region's commitment to bringing a diverse set of stakeholders together.

This Implementation Plan will build on the policies, principles, and objectives laid out in the FMTP and its Investment Element as well as the regional freight program already in place. This includes the development of the District's multimodal freight network and identification of successful efforts District Four has undertaken to implement freight planning as part of continued efforts to promote freight mobility.

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## Key Transportation and Freight Facilities

### STRATEGIC INTERMODAL SYSTEM (SIS) HIGHWAYS



I-75, I-95, I-595, Florida's Turnpike, US 27, SR 60, SR 70, SR 80, SR 821, SR 869, SR 710, US 441

**Fact:** District Four contains over 3,000 miles of SIS Highways that provide access to the ports and airports throughout the district ensuring the efficient movement of freight.



### SIS RAILROADS



CSX, FEC, FDOT/Tril-Rail, South Central Florida Express, Amtrak

**Fact:** The Florida East Coast Railway (FEC) is a 351-mile freight rail system located along the east coast of Florida. It is the exclusive rail provider to Port Everglades. FEC has partnered with the port to develop an Intermodal Container Transfer Facility (ICTF) adjacent to Port Everglades.



### SIS AIRPORTS



Palm Beach International Airport, Fort Lauderdale/Hollywood International Airport

**Fact:** In February 2015, Palm Beach International Airport handled 1,956 metric tons, while Fort Lauderdale/Hollywood International Airport moved 6,215 metric tons of air freight and U.S. Mail.



### SIS SEAPORTS



Port Everglades, Port of Palm Beach, Port of Fort Pierce (Emerging SIS)

**Fact:** The total value of economic activity at Port Everglades is approximately \$29.9 billion. More than 226,553 Florida jobs are impacted by the Port, including 12,840 people who work for companies that provide direct services to Port Everglades.



### NON SIS STATE HIGHWAYS



US 1, US 441 \*, SR A1A, SR 817

**Fact:** US 441/ State Road 7 is a critical north/south corridor serving District 4's western residential and commercial districts. FDOT has recently begun an improvement project along this corridor in the City of Hollywood from south of Pembroke Road to Stirling Road. This will include the addition of one through lane in each direction to increase capacity with an expected completion in Fall 2018.

*\*some segments of US 441 are on the SIS.*

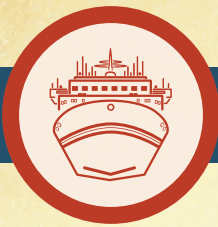


## County Trade Statistics: Top Import and Export Commodities

County Name	Population	Top Import Commodity	Tonnage	Top Export Commodity	Tonnage
Broward	1,869,235	Bulk Movement in Boxes	5,370,196	Petroleum or Coal Products	3,592,928
Indian River	144,755	Farm Products	476,176	Bulk Movement in Boxcars	436,126
Martin	153,392	Bulk Movement in Boxcars	512,771	Farm Products	472,858
Palm Beach	1,397,710	Bulk Movement in Boxcars	4,484,751	Farm Products	5,212,208
St. Lucie	291,028	Bulk Movement in Boxcars	579,412	Nonmetallic Minerals	1,640,568

Source: U. S. Census Bureau, 2014 Estimate and IHS Global Inc's Transearch, 2011





# SEAPORTS

District Four is home to three of Florida's fifteen deepwater seaports: Broward County Port Everglades, the Port of Palm Beach, and the Port of Fort Pierce. All three have been designated as part of the SIS. These seaports are critical international gateways for a broad assortment of freight and passenger movements. They serve a diverse consumer market within the state and are vital to both international trade and domestic cargo movements. Every household across the District and beyond derives benefits from these seaports in one way or another. The ports generate jobs and revenues, import items to fill store shelves, help businesses send their goods to markets quickly, and provide cruise vacation opportunities. Many industries in the District, such as energy, electronics, and agri-business, all benefit from these ports.

Port Everglades serves as the anchor for freight movement in the District and offers a full range of facilities and services for the cargo shipping industry, including capacity for petroleum, containerized cargo, and break bulk. In 2015, Port Everglades was the busiest container port in the state moving over one million twenty-foot equivalent units (TEUs), "almost 7 tons of freight" and the third busiest cruise port in the world serving 3.7 million passengers. Port of Palm Beach is recognized as one of the most efficient container ports in the U.S. based on container throughput per acre. The Port of Fort Pierce continues to explore and serve niche market opportunities. More information visit: <http://www.dot.state.fl.us/seaports>



## Port Everglades

 [www.porteverglades.net](http://www.porteverglades.net)

Port Everglades is a 2,190-acre deep-water seaport that handles domestic and international trade and cruise passengers. It is one of the state's leading container ports and the world's third largest cruise port. Port Everglades provides petroleum (gasoline) to a 12-county region, including South Florida's three International airports.



## Port of Palm Beach

 [www.portofpalmbeach.com](http://www.portofpalmbeach.com)

The Port of Palm Beach is a full-service 162-acre port that handles domestic and international trade and cruise passengers. It is the state's fourth largest container port, providing service to the Caribbean Basin. Its container throughput per acre is one of the most efficient in the U.S.



## Port of Fort Pierce

 [www.stlucieco.gov/public\\_works/port.htm](http://www.stlucieco.gov/public_works/port.htm)

The Port of Fort Pierce has historically provided niche cargo services. The county owns 20 acres at the port, adjacent to 67 acres owned privately, as well as 12 acres that house the privately owned Indian River Terminal. Currently, the port is exploring options for further development.

### Highlights:

- The total value of economic activity at Port Everglades in fiscal year 2015 was approximately \$29.9 billion.
- More than 226,553 Florida jobs are impacted by the Port Everglades.
- Almost 12,840 people work for companies that provide direct services to Port Everglades Projects.
- The Port of Palm Beach generates approximately 2,850 direct and indirect jobs in the surrounding community.
- The Port of Palm Beach contributes \$260 million in business revenue and \$12 million in state and federal taxes.
- Over \$7 billion worth of commodities moves through the Port of Palm Beach each year.

## District Four's Economy in Motion

Port Everglades Receives U.S. Army Corps of Engineers Approval to Deepen and Widen Harbor

On June 26, 2015, Port Everglades received the Chief of Engineers Report from the U.S. Army Corps of Engineers that clears the way for the Port to begin the next phase of deepening and widening its channels.

The project is designed to enable safe passage of deep draft Post-Panamax cargo ships, which are now able to fit through the Canal with the completion of the Panama Canal Expansion in June 2016. Port Everglades already handles Post-Panamax ships from Europe and South America, but the ships must be lightly loaded, which is inefficient and negates their expected benefits.

### Highlights:

- Deepening the main navigational channels from 42 feet to 48 feet (plus 1-foot required and another 1-foot allowable over depth for a total of 50 feet), and
- The project is anticipated to create an estimated 4,700 total construction jobs and nearly 1,500 permanent direct jobs locally from the additional cargo capacity.







## Railroads

Railroads are a key component of the freight network in District Four. They support the local economy by providing on-port rail access to all three of the District's seaports and connections to the rest of the United States. According to the Association of American Railroads, railroads haul approximately one-third of all U.S. exports making them key to global competitiveness. Due to growing globalization combined with environmental awareness, railroad usage has seen a resurgence. District Four is served by three freight railroads. Florida East Coast Railway (FECR) operates along the East Coast of Florida providing a mix of freight services (carload, box car, intermodal) including direct connections to all three seaports. CSX provides carload and box car service along the South Florida Rail Corridor (SFRC). The SFRC is state-owned and accommodates cargo and passenger service. FDOT D4, responsible for managing this corridor, has an expanded in-house rail department. Finally, the South Central Florida Express (SCFE), owned by U.S. Sugar Corporation, serves a largely agricultural base of customers around Lake Okeechobee.

More information visit: <http://www.dot.state.fl.us/rail>



## District Four's Economy in Motion

FEC Intermodal Container Transfer Facility (ICTF)



**The State of Florida contributed \$18 million in grants to the \$72 million project and awarded a \$30 million state infrastructure bank loan to the FEC.**

- Is a State-of-the-art 43-acre near-dock Intermodal Container Transfer Facility (ICTF) adjacent to Port Everglades on Eller Drive.
- Increases intermodal capacity from 100,000 to 450,000 lifts a year.
- Unique near-dock intermodal facility improves the transfer of both domestic and international containers between ships and rail.
- Is the largest operating facility in FECR's network and will allow FECR to build 9,000-foot unit trains within the facility.
- Provides more opportunities to trans-load import cargo from ocean containers to domestic containers for inland rail transport.
- Will allow cargo to move through Port Everglades to/from Atlanta and Charlotte in two days, and Nashville and Memphis in three days, and with connections to CSX and Norfolk Southern allow for rail service to 70 percent of the U.S. population within four days.

## Passenger Rail and Transit

In addition to freight, railroads have a long history of moving passengers in the District. Current services include Amtrak intercity service and the Tri-Rail commuter system. Planned future passenger service includes the Brightline express train service, which is privately owned and operated, and the Tri-Rail Coastal Link. There are a variety of bus and shuttle services to provide additional options to commuters and to connect them with the existing and planned rail service. Transit enhances the transportation network by efficiently moving passengers while using a significantly lower portion of the capacity, thereby increasing mobility for all users. Passenger rail and transit are important components of the District's transportation system providing access to employment and commercial venues for residents and visitors. These non-freight orientated modes provide access, increase mobility, and reduce roadway congestion, resulting in a more efficient network and additional capacity for freight movements. The District's strategy to develop a complete transportation network is dependent upon identifying the best facility types for an area and helping transit, bicycle, pedestrian, auto and freight work in tandem and complement one another.





# AIRPORTS

Businesses rely on air services to visit markets and customers, obtain production inputs, distribute inventories, and transport products. Additionally, air services transport millions of passengers each year to vacation destinations, many of which are located in Florida, significantly increasing the demand for goods and services. Fort Lauderdale-Hollywood International and Palm Beach International, both SIS airports, handle the majority of passenger and cargo volumes in the District. The bulk of cargo services consists of courier or expedited carrier freight (e.g., Federal Express, UPS) and belly cargo moving in passenger aircraft. The largest share of service is domestic but international service is growing. These two airports and related aviation services are major economic engines for business growth and job creation in District Four. The remaining system consists of a few executive airports providing limited commercial service, and smaller general aviation airports located throughout the District. More information visit: <http://www.dot.state.fl.us/aviation>



## Fort Lauderdale-Hollywood International Airport (FLL)

[www.fll.org](http://www.fll.org)

In 2014, the total cargo of freight and mail was approximately 86 thousand U.S. tons which is an increase of two percent from the total amount of cargo in 2013.

The new South Runway that opened in September 2014 created an estimated 11,000 construction jobs with a \$1.4 billion impact to the regional economy. It also won the Commercial Airport Project of the Year Award at the Annual 2015 Southeast Chapter of the American Association of Airport Executives (AAAE).

## Palm Beach International Airport (PBI)

[www.pbia.org](http://www.pbia.org)

In 2014, the total cargo of freight and mail was approximately 28 thousand U.S. tons which is an increase of 21 percent from the total amount of cargo in 2013.

PBI is working to update its airport master plan which was last completed in 2006 in order to determine future needs. While plans for a runway extension have temporarily been put on hold due to a passenger volume decrease between 2007 and 2012, the county airport department is continuing to purchase land to support future development opportunities.

## General Aviation Airports

Although the GA airports do not conduct air cargo operations there are land-side freight opportunities at many of these public facilities. GA airports are becoming more self-sufficient using their land-side facilities.



### Highlights:

- FLL is the second largest airport statewide for air cargo activity based on direct output and employment and the third largest based on tonnage and value of cargo.
- Air cargo activities contribute to 2,652 jobs in District Four and a total annual economic output of over \$215 million.

## District Four's Economy in Motion

Annual Economic Impact of Commercial and General Aviation Airports in District Four



In August 2014, the FDOT updated the Florida Statewide Aviation Economic Impact Study. The study provided the estimated annual economic impact associated with aviation facilities on Florida's economy. It includes economic impacts of various on-airport and off-airport aviation related activities and expresses economic benefits as direct, indirect, and induced (multiplier) impacts. For each of these measures, economic benefits were expressed in terms of employment, payroll (earning), and total annual economic activity (output). Additional information on the study is located at <http://www.dot.state.fl.us/aviation/economicimpact.shtm>.

## Annual Economic Impact of Commercial and General Aviation Airports in District Four

### Commercial Airports

Airport Name	Total Employment	Total Payroll	Total Output
Ft. Lauderdale/Hollywood International Airport	139,920	\$3,856,536,000	\$13,205,571,000
Palm Beach International Airport	34,048	\$951,297,000	\$3,425,068,000
<b>Total</b>	<b>173,968</b>	<b>\$4,807,833,000</b>	<b>\$16,630,639,000</b>

### General Aviation Airports

<b>Total</b>	<b>16,752</b>	<b>\$595,192,000</b>	<b>\$2,575,574,000</b>
<b>Total Aviation Impact</b>	<b>190,790</b>	<b>\$5,403,025,000</b>	<b>\$19,206,213,000</b>

Source: Florida Statewide Aviation Economic Impact Study, 2014

Note: private owned/public operated ga airports are not involved



# HIGHWAY/MOTOR CARRIER FREIGHT NETWORK



District Four's highway network provides connectivity both within the District and to other regions in Florida and beyond. An integrated hierarchy of roadways, including interstates, U.S. routes, state routes, and local roadways, provides access and mobility for people and freight. A key component of District Four's highway network is the Strategic Intermodal System (SIS). This consists of corridors and connectors that provide interregional connectivity (corridors) and last mile connections to major hubs (connectors). These intermodal connectors link hub facilities (i.e. seaport and airports) to strategic highway, rail, and waterway corridors. Roadways identified as part of this network include I-75, I-95, Florida's Turnpike, I-595, US 27, SR 80, among others. More information visit: <http://www.dot.state.fl.us/planning/SIS>



## Key Freight Facilities

STRATEGIC INTERMODAL SYSTEM (SIS) HIGHWAY



I-75, I-95, I-595, Florida's Turnpike, US 27, SR 60, SR 70, SR 80, SR 821, SR 869, SR 710, US 441

NON SIS STATE HIGHWAYS



US 1, US 441 \*, SR A1A, SR 817

*\*some segments of US 441 are on the SIS.*

## SIS Highway Centerline miles in District 4

SIS Highway	550
Emerging SIS highway	51
SIS Highway Connectors	34
SIS Highway Planned Add	3
<b>TOTAL</b>	<b>638</b>

## Highlights:

### 95 Express

- A major initiative to improve mobility on the roadway network without significant capacity expansions involves express lanes being constructed on I-95 in Broward and Palm Beach Counties. Phase 3 of the 95 Express Lanes project will be implemented as funding allows and will result in 29 miles of express lanes between Stirling Road in Broward County to Linton Boulevard in Palm Beach County. This will be done by converting the existing High Occupancy Vehicle (HOV) lane into an express lane operation.

### I-95 Interchange Master Plan

- FDOT's I-95 Interchange Master Plan Study is an ongoing effort to identify short term and long term needs for interchanges along I-95 in Broward and Palm Beach Counties. Current programming includes 17 interchanges, all in various stages of funding. Thus far, five of these have been funded through the construction phase which will help to address traffic spillback on I-95, improve interchange operations, reduce congestion, and enhance safety.



## District Four's Economy in Motion

Eller Drive Overpass



FDOT's \$42.5 million Eller Drive Overpass project was completed in early 2015 as part of the SIS connector program. Located at the east end of I-595, the Eller Drive Overpass carries vehicles entering Port Everglades over two new rail tracks that will expand into six working tracks for the new Intermodal Container Transfer Facility (ICTF) rail yard at the Port. This project eliminated an at grade crossing, providing direct access to the interstate system.





# FREIGHT AND LAND USE

## Foreign Trade Zones

A Foreign Trade Zone (FTZ) is a secured, restricted, and enclosed area that is typically near a U.S. port of entry but outside the customs territory of the United States. An FTZ is a duty-free port regulated by U.S. Customs where companies can bring raw materials or finished goods into the United States which can then be stored, assembled, repackaged, graded, manufactured, or re-exported without paying duty or do any of the above and import into the U.S. at a deferred duty expense. At present, there are four FTZs within District 4 however there are also five subzones of FTZ No. 25 for specific operators at Port Everglades.

## Foreign Trade Zones in District 4

- |                              |                                |
|------------------------------|--------------------------------|
| ▶ Broward County (Zone 25)   | ▶ Palm Beach County (Zone 135) |
| ▶ Fort Lauderdale (Zone 241) | ▶ St. Lucie County (Zone 218)  |

## District Four's Economy in Motion

The value of goods moving through Port Everglades' FTZ No. 25 exceeded \$651 million in Fiscal Year 2014 (October 1, 2013 through September 30, 2014) and an additional \$9.26 billion worth of merchandise moved through the Special-Purpose Subzones of FTZ No. 25.



## Intermodal Logistics Centers

An Intermodal Logistics Center (ILC) is a facility or group of facilities serving as a point for the intermodal transfer of freight. ILCs play a significant role in expanding our trade and logistics infrastructure by enhancing our seaports, airports, railroads, and supporting intermodal highway connectors. Florida recognized the importance of ILCs in 2012 when legislation was enacted to support ILC development through a new ILC grant program, as well as inclusion of ILCs as part of the state's Strategic Intermodal System.

## Freight Logistics Zones

Section 311.103, F.S. defines a freight logistics zone as a grouping of activities and infrastructure associated with freight transportation and related services around an Intermodal Logistics Center (ILC). The law allows a county, or two or more contiguous counties, to designate a geographic area or areas within its jurisdiction as a freight logistics zone. The designation must include an adopted strategic plan which must include certain information. Projects within freight logistics zones, which are consistent with FDOT's Freight Mobility and Trade Plan, may be eligible for priority in state funding and certain incentive programs. Although there are currently no designated FLZs in District 4, there is interest in their development and designation among counties.

Source: <http://www.flsenate.gov/Session/Bill/2015/257>

## Industrial Land Use and Freight Activity Centers (FACs)

District 4 has a wide mix of land uses to accommodate residential, commercial, environmental, and industrial needs. Land use considerations can have a significant impact on development opportunities and community acceptance. Available land use data were analyzed as part of the Southeast Florida Regional Freight Plan to help evaluate existing development patterns and future opportunities. There are several locations throughout the District which have an existing cluster of industrial use or are anticipated to in the future. These areas include western Palm Beach County, lands adjacent or in close proximity to airports and seaports, and lands adjacent to key transportation corridors such as the SFRC, FECR, I-95, and Florida's Turnpike.

## Workforce

To prepare for increased logistics opportunities, local and state entities, such as CareerSource Florida, have been encouraging and developing a workforce focused on logistics. Several colleges and universities in the region now provide programs in logistics and supply chain management. Investments in programs of this type help ensure South Florida can continue to compete as a global logistics hub.





## Freight Funding Opportunities

A variety of funding opportunities exist for freight projects, and the opportunities continue to expand at the local, state and national levels. Funding programs can represent grants, loans, matches, and more. They can take on public-public partnerships and public-private partnerships. Examples include but are not limited to:

Type of Program	Summary of Program
<p>Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21) Fixing America’s Surface Transportation (FAST) Act</p>	<p><i>New funding opportunities have become available via the FAST Act and previously through MAP-21. These acts included a number of provisions for additional freight funding opportunities, including higher federal share of project costs for those which improve the movement of freight.</i></p>
<p>Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant program</p>	<p><i>The TIGER program provides another source of funding for DOT entities nationwide. This program helps fund projects which have a significant impact at a national, regional, or metropolitan level. Since its conception in 2009, TIGER has funded nearly \$4.6 billion to 381 projects nationwide.</i></p>
<p>Florida Strategic Intermodal System (SIS)</p>	<p><i>The SIS was established to help serve the mobility needs of Floridians and to ensure and expand Florida’s economic competitiveness. Identification as a SIS corridor, connector, or hub allows for the reception of the highest level of priority for capacity improvement funding. The currently designated SIS incorporates all modes of freight needs: commercial airports, deep-water seaports, rail terminals and corridors, waterways, and highways.</i></p>
<p>Intermodal Logistics Center (ILC) Infrastructure Support Program (ISP)</p>	<p><i>Managed by FDOT’s Office of Intermodal Systems Development, the ILC ISP provides funds to assist with local government or private sector projects that enhance transportation facilities for the shipment of goods through a seaport or from an ILC. These projects may include investments in road, rail, or other infrastructure. FDOT must allocate at least \$5 million annually from its Work Program to these activities. For more information on ILCs: <a href="http://www.freightmovesflorida.com">http://www.freightmovesflorida.com</a>.</i></p>
<p>Florida Seaport Transportation and Economic Development Program (FSTED)</p>	<p><i>In 1990, the Legislature created Chapter 311, F.S. which authorized FSTED. This established a collaborative relationship between FDOT and the state’s seaports with annual funding of \$15 million for a seaport grant program. Funding is typically matched by the port on a 50/50 basis. This program is managed by the FSTED Council and is in addition to the \$35 million allocated by FDOT annually to support bonded state revenues.</i></p>
<p>Public-Private Partnerships (P3s)/ Concessionaires</p>	<p><i>South Florida has been successful with P3s to help build key infrastructure improvements such as the I-595 Corridor and the PortMiami Tunnel in a reduced timeframe. In the case of I-595, FDOT entered into an agreement with I-595 Express, LLC, to serve as the concessionaire to design, build, finance, operate, and maintain the I-595 corridor improvements for a commitment of 35 years. This partnership allowed for the highway expansion to be completed in a five year timeframe instead of 15 to 20 years as funding became available.</i></p>



# IMPLEMENTATION ACTIVITIES

## Objective 1:

Capitalize on the Freight Transportation Advantages of Florida Through Collaboration on Economic Development, Trade and Logistics Programs - Characterize and highlight the strategic strengths of Florida's freight transportation system, including hubs like seaports, airports, and ILCs collaboratively with industry, and with other agencies and states, to establish Florida as the international gateway for trade. Strategies to achieve this objective are:

Strategy	Status	Implementation	Description
Work with local agencies and industry in the development of ILC and warehousing capacity in the District	Accomplished	ILC Market Assessment Study	FDOT D4 led the Intermodal Logistics Center (ILC) Market Assessment for the South Florida Region to expand the work initiated by the South Florida Inland Port Feasibility Study; results highlighted the need for additional warehouse and distribution center capacity to serve South Florida.
	Ongoing	Coordination with Major ILC Developers	FDOT D4 staff have developed ongoing relationships with land owners and developers planning to develop ILCs within or adjacent to the District; this has included meetings, tours, and incorporation of plans into the Southeast Florida Regional Freight Plan.
	Planned	SFRC Rail Siding Inventory & Analysis Study	The SFRC Rail Siding Inventory and Analysis Study will be performed in FY16/17 to identify opportunities for better utilization of state owned lands, focused on industrial-related economic development opportunities.
Foster relationships with local governments and economic development staff	Ongoing	Outreach to Economic Development Agencies and Chambers of Commerce	FDOT D4 staff have developed relationships with key agencies promoting economic development; this has included attendance and participation in regional conferences as well as ongoing coordination.
Identify and document beneficial transportation characteristics of the District to support economic development	Ongoing	District 4 FMTP Implementation Guide & Regional Freight Plan Development	FDOT D4 has defined and documented its freight and logistics network through the D4 FMTP Implementation Guide, participation in the Southeast Florida Regional Freight Plan, and ongoing coordination with key industrial partners and developers.
Identify needed skills, abilities, and best strategies for attracting and developing the necessary workforce	Accomplished	Seaport Transportation & Logistics Educational Needs Assessment	FDOT D4 led a study to investigate the opportunity and need for seaport and logistics workforce training. In addition, staff coordinate with local colleges to discuss logistics



## Objective 2:

Increase Operational Efficiency of Goods Movement - Identify and strengthen the critical freight network, and use Intelligent Transportation Systems (ITS) and other enhancements to increase efficiency, reliability, safety, and security of freight movements, including under emergency situations. Strategies to achieve this objective are:

Strategy	Status	Implementation	Description
Identify the critical freight transportation network for the District	Accomplished	Truck Counts and Freight Network Mapping	FDOT D4 has identified, quantified, and mapped the key truck corridors in the district. An extensive data collection effort was undertaken to ensure complete network coverage; a methodology was developed and applied to identify key truck corridors using truck volume, truck percent, location of freight activity centers, and more.
Support and back-up efforts to maintain and improve freight movement access and reduce negative local impacts	Ongoing	Railroad Crossing Delay Analysis	FDOT D4 has led an annual at grade rail crossing delay analysis along the entire SFRC and the FECR in D4 and D6. This data collection and analysis quantifies key delays to vehicular traffic and helps identify possible improvements to minimize gate down time and improve recovery time post event.
Promote and support use of Intelligent Transportation Systems (ITS) technology to increase efficiency and reliability of freight movements	Accomplished	SFL FRATIS Drayage Optimization Project (Participation)	FDOT D4 developed the concept of a Virtual Freight Network designed to deploy ITS technologies to improve truck operations in South Florida. This concept helped the region compete for and win a FHWA grant to deploy and test a Freight Advanced Traveler Information System (FRATIS). The project tested drayage optimization techniques.
	Ongoing	Central Office Truck Parking Availability Project (Participation)	FDOT D4 staff are actively participating in the Department's I-95 Real Time Truck Parking Project. This project complements efforts by the I-95 Corridor Coalition to provide a multi-state truck parking availability system.
Identify and implement projects to eliminate freight bottlenecks	Accomplished	Port Everglades/FECR ICTF (Funding Partner)	The relocation of FECR's Fort Lauderdale intermodal container transfer facility (ICTF) to an on-port location was a major success for Port Everglades allowing it to market an on-port facility. FDOT D4 was a key funding partner in this project.
	Accomplished	Eller Drive Grade Separation Project	FDOT D4 led the Eller Drive grade separation project, providing uninhibited truck and rail access to Port Everglades' Southport container complex. This was a critical project given the development of FECR's on-port ICTF.
	Ongoing	SIS Roadway and Modal Projects	FDOT D4 has invested in a significant number of major projects that benefit freight mobility. Projects include highways, rail, port and air (e.g., I-95 capacity expansion, I-595 reconstruction, managed lanes network, FLL runway, PEV Southport Turning Notch, FECR ICTF).
	Ongoing	Concept Development - Freight Focused Projects	FDOT D4's Concept Development staff are actively working with the District Freight Coordinator to use available freight resources (e.g. bottleneck analysis) to help develop freight improvement projects.



# IMPLEMENTATION ACTIVITIES

Strategy	Status	Implementation	Description
Identify and implement projects to eliminate freight bottlenecks	Ongoing	SIS Quick Fix Connector Projects	FDOT D4 led a project to evaluate its SIS connectors and to identify quick fix projects to enhance the connectors. With substantial SIS funds available for connector projects, this effort has been critical to the region's investments in connectors.
	Ongoing	IRIS & Northwood Rail Connection Projects	FDOT D4 worked with SFRTA, CSX, FECR, and other key partners to successfully compete for a TIGER grant to help fund connections between SFRC/CSX and FECR at Iris and Northwood. This project will help passenger and freight trains move between corridors, ensuring efficient operations.
	Ongoing	Port Everglades Capacity Projects (Funding Partner)	FDOT D4 is an active funding partner to Port Everglades having provided state funding to support priority port projects (Southport Turning Notch, Deep Dredge, Post Panamax Cranes, Cruise Berth Improvements, Cruise Terminal Infrastructure Enhancements, and more). Staff support master planning activities and help port staff pursue available state funding.
	Ongoing	Port of Palm Beach Capacity Projects (Funding Partner)	FDOT D4 is an active funding partner to Port of Palm Beach having provided state funding to support priority port projects as well as master planning activities (e.g., on-port rail improvements, reconstruction of berths, connector improvements).
	Ongoing	Fort Lauderdale-Hollywood International Airport Capacity Projects (Funding Partner)	FDOT D4 is an active funding partner to Fort Lauderdale-Hollywood International Airport having provided state funding to support priority projects like the new runway and the US 1 Interchange/Connector.
	Ongoing	Palm Beach International Airport Capacity Projects (Funding Partner)	FDOT D4 is an active funding partner to Palm Beach International Airport having provided state funding to support priority projects like the I-95 Interchange/Connector.
	Planned	Oslo Road Interchange Project	FDOT D4 is investing in the I-95/Oslo Road interchange project. This will facilitate access to key industrial/distribution activities.
Anticipate future freight facility needs	Accomplished	US 27 Freight Corridor Studies	FDOT D4 continues to explore the need for additional freight capacity along its roadway and rail networks. The US 27 Rail Feasibility Study and US 27 PACE Study were both conducted to evaluate the need for and ability to develop this critical inland corridor as a multi-modal freight facility.
	Ongoing	SR 80 Corridor Action Plan	FDOT D4 initiated the SR 80 corridor study designed to explore passenger and freight needs on the main east/west corridor connecting the Glades region to the rest of Palm Beach County.
	Ongoing	Port of Fort Pierce Development Support	The Port of Fort Pierce continues to explore its options for redevelopment. FDOT D4 has provided master planning support as well as funded connector projects to ensure adequate access to the facility.
	Ongoing	SIS Multimodal Unfunded Needs Plan	FDOT D4's SIS Multi-Modal Unfunded Needs Plan provides a comprehensive summary of the region's needs, incorporating input from modal partners on their priority projects.
	Ongoing	I-95 Interchange Master Plan & Implementation	FDOT D4 is actively working through a variety of projects to study and improve the interchanges along the I-95 corridor in Broward and Palm Beach counties.



Strategy	Status	Implementation	Description
Examine dedicated facilities for “non-freight” activity that serves to restore capacity for freight movement	Ongoing	Express Lane Network (I-595, I-95, I-75)	FDOT D4 is actively engaged in the development of a managed lanes network. This began, in partnership with FDOT D6 and FHWA, with the retrofit of the HOV lanes along the southern portion of I-95. The conversion from HOV to managed lane continues to advance to the north and will eventually extend through Broward and Palm Beach counties. In addition, the reconstruction of I-595 included a managed lane element; this element allows trucks to use the system. Work also is underway on the I-75 managed lane project that will tie directly into I-595’s network.
	Ongoing	Express Transit Services	FDOT D4 is studying express transit service along several key east/west and north/south corridors in Broward County which could impact overall traffic flows for all vehicles including trucks. These studies include bus rapid transit and queue jumping elements designed to streamline transit service. A more competitive transit system has the potential to help reduce overall congestion on these key corridors.
Truck Parking/Employ alternative delivery mechanisms for rest-stops/lay-over areas and other safety-enhancing facilities	Ongoing	Truck Parking Study & Related Effort	The need for truck parking has been identified as a national issue, state issue, and South Florida issue. FDOT D4 currently is conducting phase 1 of a truck parking study. This phase will identify the supply, demand, and unmet need. Phase 2 is anticipated to help identify potential development opportunities. Other truck parking efforts the District is and has been involved with include the Martin County Rest Area Truck Parking Expansion Project, and the Parking ITS/Dynamic Messaging Pilot Project being led by Central Office.
Assess possible freight network disruptions and develop contingency plans or principles that support the logistic industry and disaster response	Accomplished	SHRP2 C20 Port Everglades Petroleum Commodity Flow Pilot Study	FDOT D4 applied for, received, and completed a SHRP2 C20 Grant to advance freight data collection and modeling research. The grant consisted of the Port Everglades Petroleum Study which explored the use of technology to identify truck type, rail car type, and also track origin/destination of truck trips using GPS data.
	Accomplished	South Florida Freight Advanced Traveler Information System - Emergency Management Component	FDOT D4 developed the concept of a Virtual Freight Network designed to deploy ITS technologies to improve truck operations in South Florida. This concept helped the region compete for and win a FHWA grant to deploy and test a Freight Advanced Traveler Information System (FRATIS). The project developed and tested an emergency management Android App to facilitate post event recovery activates for the trucking industry.



# IMPLEMENTATION ACTIVITIES

## Objective 3:

Minimize Costs in the Supply Chain - Support and facilitate the use of more economical and environmentally friendly fuels like LNG and CNG; evaluate new approaches to freight infrastructure financing and regulatory reform, and balance trade flows. Strategies to achieve this objective are:

Strategy	Status	Implementation	Description
New approaches to freight infrastructure financing	Ongoing	Innovative Project Financing and Grants)	FDOT D4 has used a variety of funding programs to help advance key freight projects. FECR was able to use a SIB loan to help fund its on-port ICTF; D4 was awarded a TIGER grant to help fund the Iris and Northwood rail connections between the SFRC and FECR, and the reconstruction of the I-595 corridor was funded through a concessionaire agreement. Each of these represents innovative ways the District has helped leverage its funding as well as that of its partners.

## Objective 4:

Align Public and Private Efforts for Trade and Logistics - Formalize private sector engagement for freight policy through the Freight Leadership Group and develop frameworks for joint public-private investments in freight facilities. Strategies to achieve this objective are:

Strategy	Status	Implementation	Description
Bring business community into transportation planning process	Accomplished	Freight Summits	FDOT D4 has scheduled and led Southeast Florida regional freight summits periodically over the last decade. The summits engaged the public and private sector freight communities and provided an opportunity for the presentation and exchange of information. Panelists have included representatives from our seaports, airports, railroads, industry associations, MPOs and more. FDOT also has participated in many freight logistics conferences throughout the region representing South Florida's freight program
	Ongoing	Targeted Outreach to Freight Stakeholders	FDOT D4 actively engages with the freight industry. This is a function of the District Freight Coordinator's position. Outreach focuses on specific projects, like corridor studies, and on key activities, like needs and bottleneck identification.

## Objective 5:

Raise Awareness and Support for Freight Movement Investments - Coordinate common language public-private campaign to tell Florida's freight story by educating the public, businesses, young people, and elected officials. Strategies to achieve this objective are:

Strategy	Status	Implementation	Description
Tell the Freight Story - to educate and inform other public agencies and elected officials about freight and freight planning efforts	Planned	Freight Workshops for External Partners	A key component of FDOT D4's freight program is to provide educational programs for local governments and elected officials. The District does this through regular attendance at advisory committee meetings, and offering project briefings to affected communities. Future efforts will include the preparation and delivery of formal training material to ensure community leaders are aware of the importance of freight mobility.
	Planned	Freight Planning Tools, Content & Information	FDOT D4 plans to identify and develop various freight planning tools, content and information to aid local freight planning partners in their efforts.



### Objective 6:

Develop a Balanced Transportation Planning and Investment Model That Considers and Integrates All Forms of Transportation - Align state, regional, and local initiatives for freight movement, including regional partnership and integration, and strive for consistency of state policies and programs to enhance freight transportation. Strategies to achieve this objective are

Strategy	Status	Implementation	Description
Coordinate and integrate freight-related plans and programs of freight facility owners, local jurisdictions, Metropolitan Planning Organizations (MPOs), and the FDOT (Central Office & Districts) for expedited and informed decision making	Accomplished	2040 Southeast Florida Regional Freight Plan Update (Partner)	FDOT D4 initiated Southeast Florida's regional freight program, in partnership with the three MPOs, leading to the creation of the 2035 Southeast Florida Regional Freight Plan. Participation as a funding partner and technical advisor continued with development of the 2040 Southeast Regional Freight Plan.
	Ongoing	Treasure Coast Regional Transportation Plan Freight Component	In support of the Martin MPO, St. Lucie TPO, and Indian River MPO, FDOT D4 is funding and leading the development of the regional freight component of the Treasure Coast Regional Transportation Plan.
	Ongoing	Participation and Review of Seaport, Airport, MPO, and Comprehensive Plans	FDOT D4 staff actively engage with their agency and modal partners (e.g., airports, seaports, MPOs) providing input to and review of LRTPs, master plans, capital improvement plans and more.
Facilitate and maintain regional partnerships for multi-jurisdictional consensus and collaboration	Ongoing	Participation in Regional Transportation Committees & Working Groups	FDOT D4 actively collaborates with its partners throughout and adjacent to Southeast Florida. FDOT D4 participated as a member of SEFTC's Freight Subcommittee during preparation of the regional freight plan and will work closely with the TCTC throughout development of the Treasure Coast regional freight plan. D4 and D6 coordinate regularly on management of the SFRC, regional freight planning, and continue to discuss a coordinated approach to a regional freight advisory committee. In addition, D4 is participating in D1's US 27 Mobility Stakeholders Working Group.

### Objective 7:


Transform the FDOT's Organizational Culture to Include consideration of Supply Chain and Freight Movement Issues - Adopt a supply chain perspective for the FDOT's programs and operations with an integrated approach across the modes and inform planning, programming, and operational decisions with freight performance needs. Strategies to achieve this objective are:


Strategy	Status	Implementation	Description
Instill goods movement perspective in the transportation planning process and decisions within the District	Ongoing	Freight & Logistics Academy - District Staff Attendance	Many of FDOT D4's staff have attended the Freight & Logistics Academy. This training, sponsored by FDOT's FLP Office, has exposed staff with a diverse set of disciplines to freight and logistics concepts, operations, and impact.
	Ongoing	Multimodal Scoping Form - Freight Component	As part of project development activities (e.g., PD&Es, corridor/subarea studies) a variety of factors must be taken into consideration. FDOT D4 has developed key screening questions to help inform decisions about how to best accommodate freight mobility into design projects. Refinement and integration of these screening questions is ongoing.
	Ongoing	Freight & Goods Team	FDOT D4 developed a cross discipline Freight and Goods Team that meets monthly to discuss ongoing projects, needs, and opportunities. Participants react to new projects, brainstorm on opportunities, and share experiences and ideas
	Planned	Freight Workshops & Training for District Staff	FDOT D4 routinely provides training programs to staff on a variety of topics. A freight training program is planned to provide a background on freight transportation, Southeast Florida's freight system, and freight planning activities to date, including ways that FDOT and its partners integrate freight considerations into the larger transportation program.





## CONTACT INFORMATION

The FDOT welcomes your input, comments, and questions on the Freight Implementation Plan. For questions or requests for additional information, please contact Jeremy Upchurch, FDOT District 4 Freight Coordinator.

 **Jeremy Upchurch**

 [jeremy.upchurch@dot.state.fl.us](mailto:jeremy.upchurch@dot.state.fl.us)

 **954.777.4279**

 **Florida Department of Transportation – District Four**  
3400 West Commercial Blvd,  
Fort Lauderdale, FL 33309



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