

III. Statewide Intermodal Connectivity and Seaport Access

The twin seaport objectives of expanding capacity and enhancing efficiency depend on improving critical intermodal connectors on a corridorwide basis to carry goods and passengers from Point A to Point B.

Florida's seaports have long cited intermodal connectivity as one of their top competitive concerns. They are not alone in this concern. Connectivity issues are a major focus of seaports nationwide, as essential road and rail networks experience near-critical congestion. The twin seaport objectives of expanding capacity and enhancing efficiency depend on critical intermodal connectors to carry goods and passengers from Point A to Point B.

Corridors of Commerce

As authorized by the Florida Legislature in 2003, and described in Section 341.0532, F.S., the SIS includes eight transportation corridors. These "Corridors of Commerce" (see Exhibit 11) are defined as "a system of transportation infrastructure that collectively provides for the efficient movement of significant volumes of intrastate, interstate, and international commerce by seamlessly linking multiple modes of transport":

- The Atlantic Coast Corridor, from Jacksonville to Miami, including Interstate 95. This extended Atlantic Commerce Corridor, from the Georgia border to Miami, received federal designation as High Priority Corridor 49 in the SAFETEA-LU Bill passed by Congress in 2005.
- The Gulf Coast Corridor, from Pensacola to St. Petersburg and to Tampa, including U.S. 98 and U.S. 19/State Road 27.
- The Central Florida/North-South Corridor, from the Florida-Georgia border to Naples and Fort Lauderdale/Miami, including Interstate 75.
- The Central Florida/East-West Corridor, from St. Petersburg to Tampa and to Titusville [the Canaveral area], including Interstate 4 and the Beeline Expressway.
- The North Florida Corridor, from Pensacola to Jacksonville, including Interstate 10 and U.S. 231, State Road 77, and State Road 79 from the Florida-Alabama border to Panama City.
- The Jacksonville to Tampa Corridor, including U.S. 301.
- The Jacksonville to Orlando Corridor, including U.S.17.
- The Southeastern Everglades Corridor, linking Wildwood, Winter Garden, Orlando, and West Palm Beach via Florida's Turnpike.

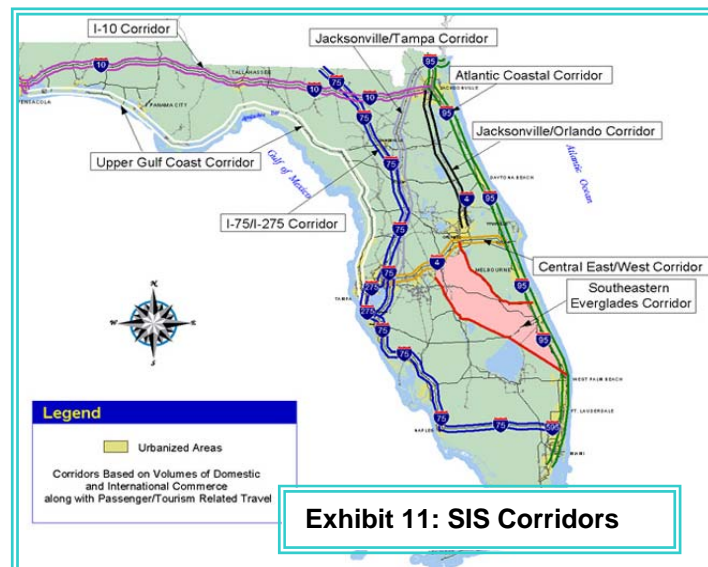


Exhibit 11: SIS Corridors

Within these corridors and the economic regions they serve, FDOT is looking at multimodal approaches to statewide transportation system needs. The 2003 intermodal connectivity assessment in the tri-county (Miami-Dade, Broward, and Palm Beach) Atlantic Commerce Corridor, supported by FDOT, the South Florida ports, and their rail partners, confirmed the appropriateness of this approach.³ An example of the multi-modal approach to implementing projects in this corridor is described in the box on the next page.

³ *Intermodal Connectivity in the Atlantic Commerce Corridor*, CH2MHill in association with J.D. Sanchez Consulting, Inc., November 2003.

Best Practices Example of a Multimodal Corridor Plan: the Atlantic Commerce Corridor

(Condensed from *Florida's Strategic Intermodal System Plan, Implementation Guidance*, Chapter 3, Needs, Priorities & Project Selection, Adopted January 20, 2005)

FDOT and its partners in Southeast Florida already have begun a corridor-level multimodal planning process as part of the Atlantic Commerce Corridor initiative. This plan was developed under the auspices of the Port of Palm Beach and FDOT with the support of the Port of Miami, Port Everglades, the Florida East Coast Railway, the FSTED Council and the Florida Ports Financing Commission. Although the Atlantic Commerce Corridor Plan emphasizes seaport and rail freight transport in Southeast Florida, its concept could be expanded to include passenger transport and to involve other partners along the entire Atlantic Coast from Jacksonville to Miami. The concept is also applicable to the seven other multimodal corridor plans that will be developed in other areas of the state.

As one example, FDOT and partners might identify a need to reduce travel time and cost for freight imports and exports moving to and from manufacturers in the Atlantic Commerce Corridor. A multimodal package of improvements to address that need might include:

- ***Expansions of air cargo facilities;***
- ***Longer runways at SIS airports to accommodate long-haul air cargo flights, reducing the need to transfer freight over long distances to other airports in the corridor or in other states;***
- ***Bottleneck relief, operational improvements and new technology to improve the efficiency and reliability of SIS highways and rail lines connecting to SIS hubs and serving interstate trips to Georgia and Alabama;***
- ***Operational and safety improvements on the SIS connectors and improvements at the hubs to facilitate the transport of freight onto and off of the hubs;***
- ***New technologies to expedite safety and security checks and processing of freight at the SIS hubs and on SIS highways;***
- ***Additional container cranes and new berths at SIS seaports to expedite the loading process and accommodate more ships;***
- ***Creation of one or more inland ports to help facilitate freight distribution;***
- ***Improvements to the Atlantic Intracoastal Waterway and SIS waterway connectors to accommodate short sea shipping services between major SIS seaports and smaller SIS and Emerging SIS seaports; and***
- ***Expansions of the shipping channels linking SIS seaports to the Atlantic Ocean.***

FDOT owns only the SIS highways and some of the SIS roadway connectors in the Atlantic Commerce Corridor. Other partners and stakeholders would include the rail operators; the airport and seaport authorities; the Army Corp of Engineers (for the waterway improvements); regulatory and oversight agencies at the local, state and federal levels; and representatives of all jurisdictions that the imports and exports pass through in the corridor on their way to or from the Atlantic Ocean, Georgia and Alabama.

To determine which improvements or combinations of improvements would best satisfy the demand for freight shipments to, from and within the Atlantic Commerce Corridor, FDOT and its partners would gather information related to all proposed improvements in the corridor. Each proposed investment would be evaluated and ranked on the basis of how well it meets identified needs in the corridor and how well it meets the goals and objectives of the SIS. The proposed investments would then be included in a list of prioritized projects specific to the Atlantic Commerce Corridor plan.

Seaport Connectors

In implementing the adopted SIS Plan, FDOT is focusing on the connectors that link the identified SIS transportation hubs and corridors. *Florida's Strategic Intermodal System Plan Atlas*, published in January 2005, identified these connectors for all modes, including the seaports.⁴ With its November 2005 release of proposed SIS and SIS Growth Management funding for the six-year period, FY 05/06-10/11, as a complement to previous SIS funding in FY 04/05 and FY 05/06-09/10, FDOT identified more than \$500 million in off-port seaport-related road and rail projects to facilitate access to and from the respective SIS seaports and \$106.5 million for selected on-port road and rail continuation of these connectors as well as waterway connectors. Among the critical off-port connectors programmed for all or partial funding over the five-year period are:

- The I-4 Crosstown Connector, which provides intermodal access for the Port of Tampa.
- Eller Drive, which provides intermodal access to Port Everglades.
- Portions of SR 710, essential to the Port of Palm Beach's cargo access.
- The Martin Luther King Jr./ 21st Street Interchange, the primary access to the Port of Jacksonville's Talleyrand terminal.
- The Downtown Bypass Tunnel serving the Port of Miami.

Implementation of these critical access projects will go a long way towards improving seaport connectivity although some of the programmed funding is in the outer years, whereas the improvements are needed immediately, and other road, rail, and waterway connectors remain to be funded. Further, it is hoped that more universal criteria will be adopted to address hub-to-hub connectors, such as the connection between Port Everglades and Fort Lauderdale International Airport or between the Port and the FEC rail hub, and on-port road and rail connector links that essentially "close the loop" between the identified connector and critical on-port terminals. Currently, the SIS does not address these links.

At stake in achieving real-time seaport connectivity are Florida's strategic economic and global competitiveness, business retention and growth, and the resulting economic impact. As discussed previously, this projected economic impact was quantified in a 2008 forecast by the Washington Economic Group led by Tony Villamil, head of the Governor's Economic Development Council:

- \$62 billion in waterborne trade.
- \$42.8 billion in gross economic output.
- Thousands of businesses.
- 350,000 jobs.

Additional details about the status of funding for the seaport connectors identified in the *Atlas* are contained in Appendix B. The information in the Appendix reflects input from each seaport and their respective FDOT Districts.

Florida's Intermodal Rail System

Florida's railroad system is an integral part of the state's intermodal transportation infrastructure. Because of its potential importance in alleviating the highway congestion that will increase with the forecasted growth in population and trade, the rail components of the SIS deserve particular attention. These components are all the more sensitive

⁴ Seven of Florida's seaports are on the SIS – the Port of Miami, Port Everglades, the Port of Palm Beach, Port Canaveral, the Port of Jacksonville, Port Manatee, and the Port of Tampa – and three are Emerging SIS ports – the Port of Fernandina, the Port of Pensacola, and Port Panama City.

because of their potential use as alternative evacuation and supply routes in case of emergencies such as hurricanes or other disasters. The Florida East Coast Railway (FEC) and CSX Transportation (CSXT), which serve South Florida, North Florida, and Tampa Bay seaports, are on the SIS; others that serve less developed regions in Northwest Florida are not.

Whether on the SIS or not, the majority of Florida's fourteen seaports rely on the railroad network to transport a portion of the domestic and international cargoes crossing their docks:

- In South Florida, only the FEC serves the three ports, although the CSXT carries domestic bulk cargoes over the South Florida Rail Corridor, which it shares with the regional passenger service provided by Tri-Rail under the South Florida Regional Transportation Authority. Through interline agreements, the FEC is able to move commodities through Atlanta and beyond, as well as up the East Coast and along the Gulf Coast.
- Three of the deep-water seaports (Port Manatee, the Port of Palm Beach, and the Port of Jacksonville) operate their own terminal switching railroads.
- Others, such as Port Panama City and the Port of Port St. Joe, depend on Class III railroads to connect to the CSXT mainline/trunk-route system.

All of Florida's seaports experience to differing degrees the constraints of one-railroad service. Even in Jacksonville, where interchanges with several railroads occur, the Port experiences this constraint at its Blount Island and Dames Point terminals. This and other physical and policy constraints hurt the ability of Florida's seaports to compete with out-of-state rail-oriented load centers, including New Orleans, Houston, Savannah, and Charleston. These constraints include:

- A lack of on-dock railroad transfer capability.
- Numerous highway/grade crossings.
- Service and scheduling problems in reaching consumption centers at either end of the peninsula.
- Multiple cargo-handling movements.

The impediments to intermodal efficiency can be corrected by:

- Intermodal improvements to improve cargo transfers between modes.
- Double-tracking projects where needed to enhance existing capacity, provide for more efficient railroad operations and eliminate crossing conflicts.
- Crossing improvements to eliminate or minimize crossing blockage of motorists.
- New track to allow better and more efficient transfers between rail carriers.
- Vehicular access improvements to provide better truck access and intermodal transfers in particular locations.
- At-grade crossing closures where alternative crossings are nearby.



Again, as SIS implementation proceeds, improving the seaport-rail interface will make moving freight by rail more attractive to potential users, thereby taking trucks off the road and reducing highway congestion. Projects that are

important to each mode should be viewed as a whole if they are to achieve this objective. (A similar approach should be followed in improving the seaport-road and the seaport-airport interfaces.)

As part of its trade corridor development, Florida needs an effective and efficient railroad network to serve its citizens. The state's strategic railroad system must not only provide efficient intermodal connections within the state, but also connect with markets beyond state borders. With its 1,350-mile coastline, Florida is a natural trade border. A vital element of its continued success as a trading state is what happens along that border.

Short-Sea Shipping Initiatives

Domestic Short-Sea Shipping: *Freight operations using the nation's coastal waters, lakes, and rivers to transport goods in containers or on trailers between U.S. ports as an alternative to road or rail transport.*

An evolving alternative to moving freight by road or rail is the concept of short-sea shipping, the coastwise movement of containers or trailers which offers shippers, truckers and intermodal marketing companies the opportunity to shift intermodal cargo to the waterborne mode. This concept is being pursued at both the national and the state levels, and has the support of several Florida seaports. The state's

lengthy coastline – with SIS Atlantic and Gulf waterways -- offers particular opportunities to utilize the concept effectively once specific policy issues have been resolved and the appropriate infrastructure built.

In its efforts to make better use of the nation's inland and coastal waterways to relieve highway congestion, the U.S. Maritime Administration (MARAD), launched a Short-Sea Shipping Initiative several years ago. This initiative included the Short Sea Shipping Cooperative Program (SCOOP) of 60 public and private participants – including truck companies, shippers, railroads, terminal operators, port authorities, government entities, shipyards, equipment owners, environmentalists, labor, and others -- charged with investigating short-sea shipping alternatives to ease congestion and the strains on the nation's highways.



Subsequently, MARAD awarded a contract to analyze four case studies for market-viable short-sea shipping corridors, including origin/destination pairs. Port Canaveral was a participant in this study and is now working to develop an operational and economic model for successful, market-driven short-sea shipping.

The questions involved in determining whether the market is ready for short-sea shipping include:

- Can it provide cost-effective and timely alternatives to congested land routes and manage the increasing volumes of freight expected in the future, particularly the freight whose delivery is not time-sensitive?
- Can it offer shippers a cost-effective, reliable alternative to land transport to move their products to market?
- Can trucking companies be induced to use it as an alternative to highway congestion, driver shortages and rising fuel prices?

With the unprecedented volume of cargo coming out of China into the U.S., short-sea shipping is currently more prevalent on the West Coast, particularly the Northwest; but examples exist in the Florida market, including the longer distance roll-on/roll-off service Trailer Bridge provides between Jacksonville and San Juan. Columbia Coastal Transport and Crowley Maritime Corporation also provide a variety of services on the East Coast as well as elsewhere in the markets they serve. As all-water services bring more cargo through the East Coast ports, including Florida, short-sea

shipping may become more interesting to truckers and others charged with moving goods across the congested road and rail networks on this side of the continent.

Intelligent Transportation Systems

In its efforts to alleviate highway congestion and promote more efficient traffic flows, FDOT is partnering with other states, as part of the I-95 Corridor Coalition, to develop innovative intelligent transportation system (ITS) solutions to their mutual traffic concerns. Florida's seaports, which have benefited from the on-port and off-port ITS improvements implemented in recent years, are actively collaborating in this exchange of information technology to achieve faster, better, and cheaper freight movements.



Partnering for Improved Intermodal Connectivity

Florida faces both opportunities and challenges in the pursuit of statewide economic development through international trade. Through their partnership with FDOT in identifying priority projects on the SIS, the seaports have renewed confidence that the improvements to the intermodal infrastructure essential to moving goods from Point A to Point B along the state's Corridors of Commerce can be accelerated to maintain the state's competitiveness in global markets.

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