



Transportation Alternatives Study









Dear Floridians and Visitors,

The Florida Department of Transportation (FDOT), in cooperation with the Florida Transportation Commission, worked with statewide, regional, and local partners to develop the Florida Transportation Plan (FTP) in 2010. The FTP is the foundation for the transportation vision of Florida and the goals, objectives, and strategies to achieve this vision over the next 50 years. These coordination efforts look to provide Florida's taxpayers with a greater return on our investment, and to create the conditions for the private sector to invest, grow and provide good paying jobs for the state as it continues to progress forward.

This Transportation Alternatives Study of the I-75 corridor is the highest level of corridor planning for Strategic Intermodal System (SIS) corridor development and provides the overall framework for future development of the corridor. This study provides an assessment of mobility, emergency management, homeland security, and economic development along the I-75 corridor and discusses ten alternative transportation options available for implementation. Several policy implications for the corridor are also discussed. The study evaluates the implementation potential of the alternatives identified and the anticipated benefits to be achieved.

This study will contribute to decisions about the future of I-75 as well as future studies for enhanced connectivity between Tampa Bay and Jacksonville, and other parts of the state. We commend all of our partners for their active participation and ongoing commitment to this effort.

Sincerely

Bob Romig

State Transportation Development Administrator

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INTRODUCTION











Background

The impetus for the I-75 Transportation Alternatives Study stemmed from the Future Corridors Program that originated from the ▲ Florida Department of Transportation (FDOT) in 2006. The vision for Florida's Future Corridors Program was to create a statewide network of high-speed, high-capacity facilities that are the critical foundation for the state's continued growth and development. The Future Corridors Program identified potential new corridor study areas, as well as potential corridor transformation (re-use) study areas. The initial inventory of potential corridor transformation study areas included I-75 and four other facilities. The proposed prototype studies for corridor transformation areas would develop a coordinated approach to reuse an existing corridor in a congested urban region. Options to be explored would include managed lanes, modal alternatives, and pricing strategies. As such, the I-75 Transportation Alternatives Study was initiated in 2011 by the FDOT Systems Planning Office. This high-level study of I-75 offers a comprehensive view of the entire I-75 corridor across all modes. The study accounts for transportation, emergency management, homeland security, and economic development and their relationship with I-75.

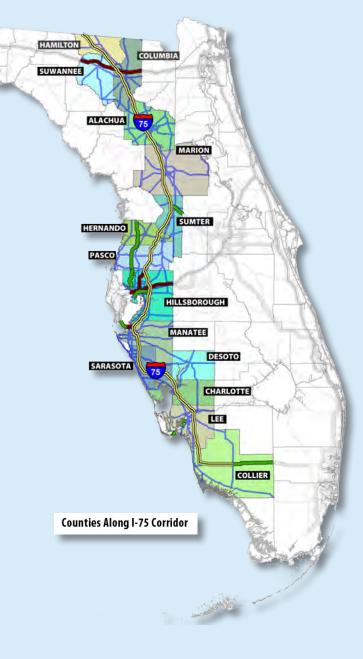
Study Area

The I-75 Corridor is one of the state's most critical transportation facilities, providing for the movement of people and freight along the west coast of Florida and through north Florida. The study corridor under evaluation includes the 15 counties through north, central, and southwest Florida. The 15 counties along the study corridor are home to over 4.5 million residents, which constitute approximately 24 percent of Florida's total population.

Study Purpose

The purpose of the I-75 Alternatives Study is to assess the travel demand and freight moving along the I-75 corridor in the State of Florida against four measures: transportation, emergency management, homeland security, and economic development. This assessment will identify cost effective strategies to alleviate congestion, facilitate emergency and security response, and foster economic development in Florida.

The study consists of two technical memorandums and a report summary, which will influence the Strategic Intermodal System (SIS) and the Office of Freight, Logistics and Passenger Operations programs on I-75 and associated SIS facilities along the I-75 corridor. The Identification of Corridor Conditions and Needs Technical Memorandum identifies existing conditions along the I-75 Corridor, while the Alternative Options and Policy Implications Technical Memorandum identifies alternative options for improving the I-75 Corridor, along with policy implications of implementing those alternatives. The I-75 Transportation Alternatives Study summarizes and concludes the full study.



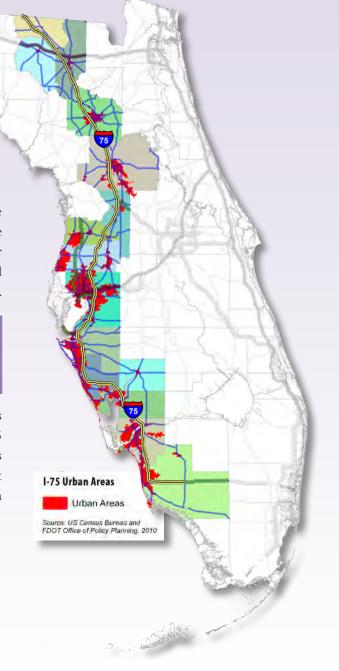
EXISTING CORRIDOR CONDITIONS AND NEEDS

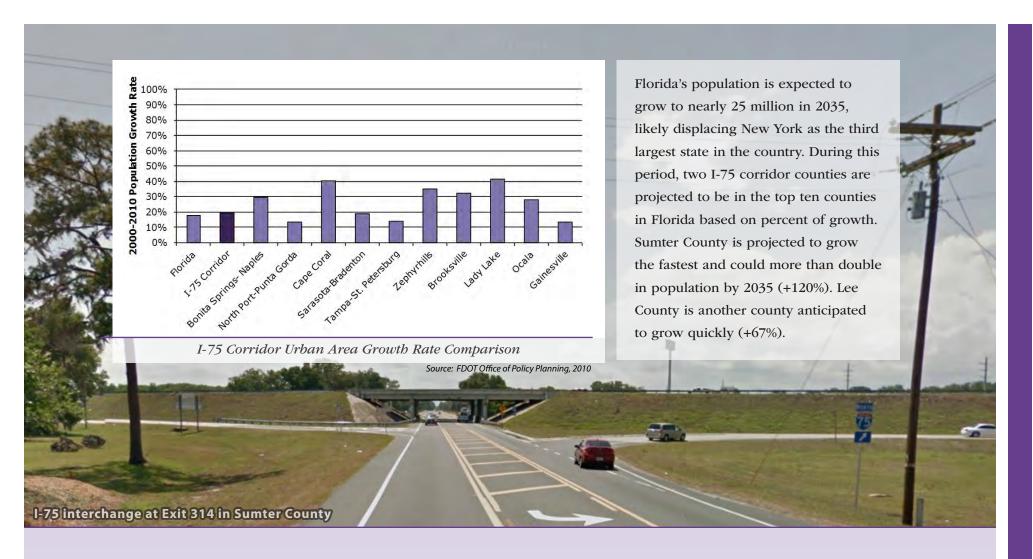
Demographics

The idyllic image of Florida's beaches may help explain why for years millions have come to Florida to vacation and then to stay. The 15 county I-75 study area is home to more than 4.5 million people, which is 24 percent of Florida's total population. The I-75 corridor runs through two of the top ten most populated counties in Florida (Hillsborough and Lee Counties), making the efficient movement of people and freight a priority for these areas.

Florida as a whole has been at the forefront of a decades-long shift in population from the nation's traditional economic centers in the North and Midwest to the Sunbelt.

The recent economic downturn in the state and rest of the country has temporarily halted this rapid growth, but forecasts indicate the growth will return in future years. Portions of the I-75 corridor have seen enormous growth to such an extent that alternative transportation options are becoming necessary. I-75 runs through Sumter County, which had Florida's second highest growth rate between 2000 and 2010 with 75 percent growth. Other fast growing counties in the study area were Lee (+40%) and Pasco (+35%).





While quick growth plays an important role in shaping the transportation needs of an area, counties beginning from much larger base populations are expected to see large raw growth. Three I-75 corridor counties are forecast to have some of the highest numerical growth statewide: Hillsborough (+474,308), Lee (+410,676), and Pasco (+220,214).

Together, the fifteen I-75 Corridor counties could add over two million new residents within the span of a generation, growing at a rate of 46 percent. The state of Florida is expected to grow at a rate of 33 percent, or over 6 million by 2035. Over a third of that growth is projected to be along the I-75 corridor. Depending on the travel choices made, any new population may add significantly to the congestion already being experienced in Florida.

Existing Conditions

EXISTING NUMBER OF LANES

The number of through lanes along I-75 ranges from four to eight lanes depending upon the location. In southwest Florida, from Collier County to Sarasota County, I-75 fluctuates between four and six lanes. As I-75 extends north through Manatee and Hillsborough Counties, the lane configuration ranges from six to eight lanes with a short four-lane segment north of US 301. North of the apex of I-75 and I-275 in Pasco County, I-75 has four lanes through Pasco County and all of Hernando County. Six-laning begins on I-75 at the junction of Florida's Turnpike and progresses north to the Florida/ Georgia state line.

TRAFFIC VOLUMES

Existing AADT along the I-75 corridor ranges from a high of 134,500 vehicles per day (vpd) north of SR 574 in Hillsborough County to a low of less than 20,000 vpd in Collier County along the segment known as Alligator Alley. The portion of the I-75 corridor that is generally the most heavily traveled is located on the stretch between Sarasota, Manatee, and Hillsborough Counties, with AADT exceeding 100,000 vehicles per day in several parts of Hillsborough and Sarasota Counties. Traffic volumes are significantly higher along I-75 north and south of Interstate 4 in Tampa where traffic volumes are 127,500 and 134,500, respectively. The northern section of the I-75 corridor, from Sumter County to Hamilton County, is primarily rural in nature with AADT ranging from 35,500 vpd in Hamilton County to 75,100 vpd in Marion County near Ocala.

FUTURE TRAFFIC

Future year 2035 traffic volumes along I-75 are forecasted to increase significantly throughout the corridor, with the largest increase in Pasco County north of CR 41 where AADT is projected to increase by nearly 120 percent from 34,500 vehicles per day (vpd) in 2011 to 75,700 vpd in 2035. Two other locations, including one site in Hillsborough County and one in Hernando County, increased by 100 percent or more. Of the sites that experienced an increase of more than 100 percent, the location in Hillsborough County north of Bruce B Downs Blvd experienced the largest absolute change in volumes with an increase of more than 66,000 vpd between 2011 and 2035.









Trip Patterns

Regional trip patterns vary greatly along the I-75 corridor, depending upon the selected location. For example, in Collier, Lee, and Hillsborough Counties, a large percentage of trips along I-75 are considered local trips, starting and ending within each respective county. In Charlotte, Sarasota, Pasco, Columbia, Suwannee, and Hamilton Counties, the large majority of trips are inter-regional in nature. This emphasizes the difference in trip characteristics in different areas of the state where I-75 is used more for long distance trips in some areas and used more for local trips in other areas. Trip characteristics of the corridor have a large impact on the types of alternatives that should be considered for improving mobility along the I-75 corridor.

SIS Intermodal Facilities

The I-75 corridor is served by major airports, intermodal freight-rail terminals, passenger terminals, and seaports. These intermodal facilities are part of the Strategic Intermodal System (SIS) and include four SIS airports, two SIS seaports, one SIS intermodal freight-rail terminals, and four SIS passenger terminals. I-75 serves and connects key SIS hubs that are on or adjacent to the corridor. Any improvements to I-75 should consider potential impacts to these facilities.

■ Freight Mobility

Travel data indicate that freight most efficiently utilizes the I-75 corridor for shorter and intrastate trips rather than for interstate travel. Long haul freight travel is primarily conducted along the corridor to link South Florida and Tampa. This is an important link within the state as both Tampa and Miami-Dade are primary shipping hubs that import and export goods internationally. Significant increased freight tonnage on I-75 is expected by 2035. The commodity flow analysis from the I-75 Sketch Interstate Plans revealed that Georgia is projected to be the state's top national trading partner by 2035, with total trading tonnage forecasted to increase by approximately 175 percent. Truck volumes are also projected to increase significantly by 2035.

Need for Improvements

The transportation analysis illustrates that alternative transportation options must be available by the 2035 planning horizon to capture growing demand. I-75, even at build-out, will not be operating at sufficient levels, and model results imply that parallel facilities may be facing a similar growth problem. Alternative transportation routes and modal choices must become readily available to ensure safe and efficient movement of passenger and freight travel.







Emergency Management and Response

Chapter 9G-6, Florida Administrative Code, requires each county in Florida to develop a Comprehensive Emergency Management Plan (CEMP). The CEMPs of the 15 counties in the I-75 corridor are operations-oriented documents that establish the framework for an effective system to ensure that the counties and their municipalities will be adequately prepared to deal with the occurrence of emergencies and disasters.

In every case, I-75 serves as a geographic reference; the issues and considerations identified for the I-75 corridor would generally apply to most other roadways in the state as well. From each of the county CEMPS, the following general considerations emerged and apply to all 15 counties in the study area:

- Critical interchanges of other evacuation roadways with I-75 need to be monitored during an evacuation event to ensure and expedite vehicle movement. The movement of vehicles will require extensive traffic control efforts.
- The entire I-75 study area is susceptible to hazardous materials incidents, whether by damage to fixed facilities or by accidents resulting from transportation of those materials by railway, through the air, by water or over major roadways such as I-75.
- The I-75 corridor experiences heavy use by passenger and commercial traffic. The interstate is undeniably vulnerable to transportation system accidents.
- Staging areas are, in many cases, located near or along I-75. These sites are readily accessible to rail, roadway, and air carriers for the assembly of personnel, supplies, and equipment prior to deployment to the affected area(s).
- If I-75 is damaged or impassable, alternate routes to I-75 should be available and clear. The disruption of the I-75 infrastructure would be a major hindrance to recovery operations, such as distribution of food, water and ice.

I-75 is part of the critical transportation infrastructure and serves as part of the evacuation network in each county of the study area. The Statewide Regional Evacuation Study Program (SRESP) implemented through the Florida Division of Emergency Management was created to identify and implement strategies for the facilitation of evacuations. The SRESP provided important information in confirming the importance of I-75 as a north/south evacuation corridor. I-75 plays a key role in the evacuation network for the five regional planning councils (RPC) and all 15 counties in the study area. Additionally, I-75 directly connects to more than 70 other RPC designated facilities that are part of the SRESP evacuation network.



Homeland Security

On I-75, various law enforcement agencies are used to monitor and control passenger and commercial traffic, investigate accidents, and provide general security enforcement. From day to day, these agencies help regulate the safety of the I-75 corridor, as well as having major responsibilities with regard to homeland security. The roles and responsibilities of various law enforcement agencies along the I-75 corridor include the following:

- The Florida Department of Law Enforcement (FDLE) is a key player with regard to its commitment to domestic security in Florida. FDLE operates the Florida Fusion Center (FFC), which has a significant role in passing intelligence to state and local partners. The FFC, located in Tallahassee, serves as Florida's primary fusion center for the gathering, processing, analysis, and dissemination of criminal intelligence, terrorism, and homeland security information. If a suspicious activity or potential public safety threat along I-75 is reported to the local law enforcement agency, this information can then be communicated through regional fusion centers or directly to the FFC.
- The Department of Highway Safety and Motor Vehicles is the parent agency for the Florida Highway Patrol (FHP). FHP is responsible for patrolling the entire length of I-75 and covers the area with three troops or territories. FHP promotes safety on I-75 and all Florida highways through enforcement as well as educational efforts. FHP publishes road closure information and also provides it to the Division of Emergency Management (DEM). One of the main goals of FHP is to attempt to reduce criminal activities occurring on Florida's highways through detection, prevention, and enforcement of criminal laws relating to highway violence, transportation of illegal drugs/contraband, auto theft, driver license fraud, and emissions fraud.
- The Florida Highway Patrol also houses the Office of Motor Carrier Compliance (OMCC). The OMCC provides commercial vehicle safety and weight enforcement functions. OMCC law enforcement officers are in force along the entire I-75 corridor and perform traffic enforcement with an emphasis on violations by commercial motor vehicles (CMVs) and passenger vehicles interacting with large trucks.
- The county sheriff's offices are the chief law enforcement entities in each county of the I-75 study area. Both the sheriff's offices and police departments in the corridor have the responsibility to take action in homeland security events within their communities and their jurisdictions. These agencies are the primary first responders when a disaster strikes.



Economic Development

I-75 is a key contributor to economic development in the 15 county study area. Major businesses rely on I-75 for the movement of freight and people. The interstate also has the capability to funnel trips to developments and businesses along parallel and intersecting corridors.

I-75 is a major asset for enhancing Florida's economic competitiveness and diversification at local, regional and global levels. The I-75 corridor is home to multinational corporations and is part of a network that connects international markets to the United States and vice versa. I-75 offers unparalleled access to economic opportunities in the counties along the corridor where many corporate parks, light manufacturers, distribution centers, and research and development operations are either located or desire to locate.

As reflected in Fortune magazine, a number of major businesses chose to locate in the 15 county I-75 corridor study area. Fortune magazine has been a trusted source for business news and analyses for decades, including the distribution of major businesses in Florida. Among the well-known researched and ranked lists is the Fortune 500, an annual list compiled and published by Fortune magazine that ranks the top American public corporations as measured by their gross revenue. There are 16 Fortune 500 companies headquartered in Florida, and two of those companies are located along the I-75 Corridor. Proximity to I-75 is an important aspect in location choice, which is linked to the ability to move freight and people.





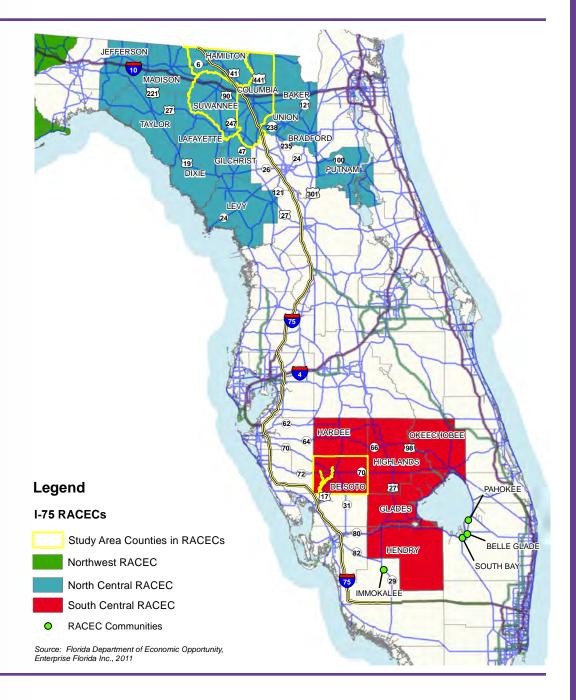
Tourism plays a fundamental role in Florida's economy, with the sun, sand, and a variety of other attractions bringing millions of visitors to Florida each year. Understanding visitor travel trends is an important part of using and predicting future travel demands, especially in a state with such a strong tourism industry. Visitor travel patterns are often different from resident or freight travel in both temporal and geographic distribution.

Understanding the significance of visitor travel is relevant to I-75 as it is a core part of the statewide transportation system, and Florida tourism is heavily dependent on a strong transportation system. Visitors to any new place want convenient, safe, and efficient travel both into and out of their destinations. Failure to meet the transportation needs of visitors could diminish Florida's attractiveness and jeopardize the economic momentum.

Special tourism considerations for the I-75 corridor include Gasparilla and bowl games in Tampa, regular generators like the football games in Gainesville and Tampa, nearby events like Lakeland's SUN 'n FUN, and special events like the Republican National Convention 2012, also in Tampa. These events generate massive traffic issues due to participation of between 50,000 to 500,000 people. The I-75 corridor is a major facility responsible for moving all these people efficiently, and alternatives should be considered to help improve the mobility along the corridor.

The proximity of I-75 to the Rural Areas of Critical Economic Concern (RACEC) serves as an important component in providing much needed exposure to those areas. I-75 provides direct access to the RACEC counties of Hamilton, Suwannee, and Columbia and connects to DeSoto County via US 17, SR 72, and SR 70. The RACEC community of Immokalee is connected to the I-75 corridor via SR 29 and SR 82.

Along the I-75 corridor, one of the key strategies supporting economic development is the use of Enterprise Zones. Within the 15 county study area, there are a total of 12 Enterprise Zones. These include Enterprise Zones in Collier, Lee, DeSoto, Sarasota, Manatee, Hillsborough, Hernando, Sumter, Columbia, Suwannee, and Hamilton Counties, as well as the City of Ocala. Providing sufficient access for these business areas will be key to providing efficient transportation improvements in these areas of the corridor.

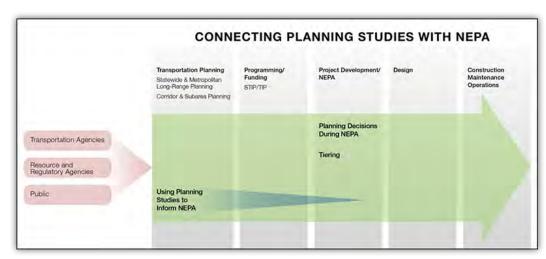




Environmental Considerations

The Corridor Transportation Alternatives Study is the first step in the corridor study process and serves to inform National Environmental Policy Act (NEPA) and future FDOT environmental planning processes. General environmental considerations along the I-75 corridor include natural resources, such as water resources, wetlands and floodplains, sensitive habitats, and conservation and recreational areas. Future analysis would need to be more thorough and provide further detailed information.

The I-75 Transportation Alternatives Study process provides an early opportunity for general conceptual transportation options to be reviewed at the statewide level by our agency partners. These partnerships, including FDOT and cooperating agencies, are instrumental in identifying environmental issues and setting a path for preservation of the State's most valuable natural resources.



Source: Guidance on Using Corridor and Subarea Planning to Inform NEPA, April 2011.

ALTERNATIVE OPTIONS

Since I-75 is overwhelmed with traffic demand in many locations, and growth continues to occur along the corridor, FDOT and its partners have examined possible strategies to improve one of Florida's most critical corridors. The goal of analyzing these strategies is to develop a multi-faceted approach to make Florida's transportation system within the I-75 corridor more efficient at moving people and freight. These strategies or alternative options not only address potential improvements to I-75, but also include options to improve parallel highways corridors and implement multimodal approaches.

Numerous transportation alternatives are available for development in the I-75 corridor, and some alternatives are more applicable than others in certain areas. Alternatives were grouped into one of ten categories based on characteristics. The ten categories and their component alternatives are shown in the table and discussed in detail in the following pages.

Alternative Transportation Category	Identified Alternative Options		
Add Capacity to Parallel Corridors and Develop New Parallel Corridors	Add lanes on arterials, improve local intersections, operational improvements, new roadways, and new separated crossings for local connectivity		
Transportation System Management and Operations (TSM&O)	Virtual Freight Network, Intelligent Transportation Systems (ITS)		
Managed Lanes	HOV Lanes, Truck Only Lanes, Reversible Lanes, Express Lanes, Vehicle Restricted Lanes, Dedicated Bus Lanes		
Intermodal Logistics Center (ILCs)	Intermodal Logistics Centers (ILC) that may be known as Inland Ports, Freight Activity Centers (FAC), freight terminals or a freight village		
Marine Highways	Marine highways and short sea shipping		
Parallel Freight Rail Corridors	CSX, Norfolk Southern, Florida Northern, Seminole Gulf Railway		
Passenger Rail Services	High Speed Rail, Commuter Rail, Light Rail, Amtrak		
Intra-Regional Transit Services	Cross county bus services, express bus services, bus rapid transit (BRT)		
Transportation Demand Management Programs	Carpool, vanpool, express, bus services, ridesharing, park and ride, telecommuting		
Add Capacity to I-75	Add full lanes, add interchanges, add auxiliary lanes, operational improvements		

75 and CSX Corridors North of Exit 321 in Sumter County

Add Capacity to Parallel Corridors and **Develop New Parallel Corridors**

FDOT and its partners are pursuing key strategies to improve traffic flow on parallel corridors and provide alternatives for motorists on I-75. Traffic conditions along the I-75 roadway corridor exceed capacity in several segments. Improvements have been identified within the corridor to help alleviate congestion by adding lanes, interchange improvements, and ramp improvements to increase the flow of traffic on highway facilities. Parallel corridors may include the US 17, US 19, US 27, and US 301 on a statewide level or local arterials or state highways providing regional trips.

In some places along I-75, the traffic demand exceeds the capacity of the interstate. Adding capacity to parallel corridors has the potential to absorb some of the existing I-75 traffic demand, essentially extending the viability of I-75 while boosting activity in parallel corridors. This concept may not necessarily be applicable in all situations, though. Congestion is not only present on I-75, but also on adjacent corridors. In these areas, other alternative transportation options may be more effective choices for safe and efficient movement of people and freight.



New potential corridors include:

- Tampa Bay to Northeast Florida
- Central Florida Tampa Bay (I-4)
- US 27 Multimodal Corridor, Southeast Florida to Central Florida
- Southwest Florida to Central Florida (Heartland Parkway)
- Orange County to Duval County
- Naples Bypass

Benefits

- Reduced congestion
- Reduced emissions
- Reduced trip times
- Diversion of local trips from I-75
- Improved travel time reliability
- Improved emergency response
- Improved freight flow
- Increased connectivity
- Lowered production and distribution costs
- Improved on-time arrival
- Increased productivity
- Potential job creation

- Land use impacts
- Potential impacts to the human, natural and physical environment
- High right of way costs









Transportation Systems Management and Operation (TSM&O)

The Transportation Systems Management and Operations (TSM&O) develops strategies to improve mobility and freight movement. TSM&O is a performance driven approach for solving congestion and traffic problems in which Intelligent Transportation Systems (ITS), information and communications technology for infrastructure and vehicle systems, are used to locate incidents, inform travelers, and correct the causes of congestion in real-time.

ITS strategies have been in use by FDOT for many years, and have become an integral part of the transportation system. More recently, ITS strategies have been combined with other techniques to further improve operations. Examples of TSM&O strategies that are currently in development within the transportation system around the I-75 corridor include:

- Arterial management
- Emergency/incident management
- Freeway management
- Special events management
- Work zone management

- Transit operations and management
- Traveler information
- Travel demand management
- Freight management
- Travel weather management.

Effective regional management and operations requires collaboration and coordination among operating agencies across jurisdictions to improve the security, safety, and reliability of the transportation system. TSM&O strategies are being initiated in multiple locations within the I-75 corridor. On I-75 in Collier, Lee, and Charlotte Counties, the FDOT District One ITS Program provides real-time traffic management services to assist in improving highway commute times, safety, and mobility in the corridor. Additional regional traffic management improvements are planned for Sarasota and Manatee Counties in 2012.

Benefits

- Making the most of the existing infrastructure investment
- Improved coordination between planning/ MPOs/operation
- Better incident management
- Improved travel time reliability
- Better flow through work zones
- Cost savings

- Limited funds availability in transportation budgets
- Possible difficulties with public/private sector information sharing

Managed Lanes

Managed lanes, as defined by FDOT, are highway facilities or sets of lanes within an existing highway facility where operational strategies are proactively implemented and managed in response to changing conditions with a combination of tools. These tools may include accessibility, vehicle eligibility, pricing, or a combination thereof.





The goal of managed lanes is to aid in alleviating congestion, improve safety conditions, and enhance mobility in a more cost efficient manner but still maintaining the integrity of the I-75 corridor. Managed lanes include the following:

Express Lanes are a type of managed lane that uses acess and vehicle eligibility requirements in combination with congestion pricing. The pricing manages the congestion in these lanes by ensuring trip time reliability at a certain speed threshold.

Reversible Lanes are lanes in which traffic may travel in either direction depending on traffic conditions and time of day. Typically, they are meant to improve traffic flow in the peak direction of traffic during both the morning and afternoon rush hours. This is accomplished by daily phasing-in of traffic to the reversible lane using overhead message boards, special signing, and traffic control safety devices (signal lights, gates, vehicle restraints, etc.) on a regularly scheduled daily time interval.

High Occupancy Vehicle (HOV), High Occupancy Toll (HOT), Value Priced Lanes, and Dedicated Bus Lanes are each specific types of special use lanes. HOV lanes or carpooling lanes are reserved for vehicles with a driver and one or more passengers. HOV lanes may either be designated simply by diamond markings, double-white line striping, or separated by a physical barrier. HOT lanes give single occupancy motorists access to HOV lanes by paying a toll; however, "toll lanes" can be in combination with most of the other managed lanes. Typically, the tolls are variable depending on time of day and traffic conditions.

Truck only lanes are managed lanes separating heavy trucks from passenger traffic. This strategy is designed to reduce congestion, increase the longevity of pavement, and expand the economic benefits of streamlined freight mobility. Two common methods of separating trucks from general traffic are lane striping and concrete barriers. Truck lanes may be tolled and are typically more expensive to construct, as the pavement must be designed to accommodate heavier weights and larger vehicles.

Benefits

- Reduce congestion and create more travel options, such as use of transit
- Pricing strategies manage demand and generate revenue
- Some lane types may be constructed within existing right-of-way
- Truck-only lanes increase safety by reducing passenger vehicle and heavy truck conflicts

- For all managed lanes, limited funds availability in transportation budgets
- Truck-only lanes may discourage growth of the railhighway intermodal
- Potential impacts to the human, natural and physical environment

Intermodal Logistics Centers (ILCs)

The 2012 Florida Legislature defined an intermodal logistics center in HB 599 as a "...facility or group of facilities serving as a point of intermodal transfer of freight in a specific area physically separated from a seaport where activities relating to transport, logistics, goods distribution, consolidation, or value-added activities are carried out and whose activities and services are designed to support or be supported by conveyance or shipping through one or more seaports listed in FS 311.09." ILCs are often referred to as integrated logistics centers or inland ports. Many ILC facilities are specialized to deal mostly in standardized shipping containers. Rather than goods being loaded and unloaded at the seaports, intermodal facilities can act as a transfer for shipping containers between ship and highway or ship and train. The I-75 corridor is one the state's most critical transportation facilities, and an effective freight transportation strategy is necessary for a successful economy. The establishment of ILCs at key locations provides an alternative to increasing highway capacity along I-75 through a modal shift to rail.

The following describes the majority of the important characteristics of ILCs:

- Regional "Centers" ILCs need to be located nearby one or more large markets and have direct transportation access to them. Optimal distance from a metropolitan area depends on the type of ILC or related facility.
- International Trade Facilitators ILCs need to assist international trade by being connected to international gateways, international logistics services, and customs.
- Multi-modal Capabilities ILCs must be at the crossroads of an efficient, multimodal transportation infrastructure. Goods are moved between two or more forms of freight transportation such as rail to truck, barge to rail and/or truck, and air to truck to rail.
- Foreign Trade Zone Status This is essential to encourage secondary development around the facility such as truck stops/rest areas, office space, retail and commercial outlets, hotels, etc.
- Specific Available Labor Many of the jobs provided are higher paying and require a certain skill-level.
- Information Technology (IT) The facilities associated with an ILC must operate efficiently, in real time, and be secure. The best foundation for that is IT infrastructure.
- Marketing ILCs need to be aggressively marketed locally, nationally, and internationally to establish the facility as a node in larger supply chain networks.
- Public/Private Balance Cooperation among public and private entities helps develop and expand the facility as well as support growth opportunities.

Benefits

- Existing seaport operations would be enhanced by freeing up land to expand capacity, creating new market opportunities, and enhancing overall efficiency
- Would provide enhancements to the freight system (existing and future), improved intermodal connectivity, dispersal of truck traffic, and diverted truck trips to rail (emissions reductions)
- Increased travel safety along the I-75 corridor
- Supplementary operations at an ILC, such as air cargo, could also help to reduce growth pressures on major commercial airports

- Requires a large development area
- Potential land use conflicts due to industrial operations housed within an urban area
- Potential impacts to the human, natural and physical environment
- May require large amount of land acquisition and construction costs



Marine highways, also referred to as short sea shipping, are defined as the movement of goods and people by water over relatively short distances on routes not crossing an ocean. Marine highways can occur within lakes and river systems and along coast lines. It consists of mainly domestic shipping but can also include cross-border traffic, for instance between Canada, US, and/or Mexico. The vessels used for short sea shipping include small cargo ships, fast ferries, and barges. They carry containers, truck trailers, and freight related bulk cargo.

More recently called marine highways, short sea shipping operations moved about 6 percent of the nation's freight tonnage in 2000. Within Florida, short sea shipping is relatively new and is operation at only two of Florida's seaports:

- Container and Roll On-Roll Off (RO-RO) services between Jacksonville and both Puerto Rico and the Dominican Republic.
- Container and RO-RO services between Port Everglades and Puerto Rico.

Of the official marine highway corridors designated by the USDOT, one corridor includes the Gulf of Mexico and the Gulf Intracoastal Waterway. This marine highway serves the I-10 landside corridor and I-75 on Florida's west coast extending to the Tampa/Port Manatee area. Use of this marine corridor has the potential to relieve major freight truck bottlenecks around Tampa.

Benefits

- Helps to eliminate congestion on busy coastal highways and postpones costly roadway expansions
- Reduces highway safety issues due to truck crashes
- Improves port productivity
- Creates new jobs by re-establishing the US as a competitive ship builder
- Allows hazardous materials to be transported without moving through major population centers

- Handling costs make the service less competitive with other modes
- Costs of port modifications in order to handle short sea shipping vessels
- Perception of short sea shipping as unreliable
- Potential impacts to the human, natural and physical environment
- Bridges may be an impediment if clearance is too low



system and is critical to the economy. Most high-volume bulk commodities such as grain and chemicals travel by rail, and many manufactured goods are transported by train during part of their journeys. Several existing railroads serve the I-75 corridor including CSX, Norfolk Southern (NS), Florida Northern (FNOR), and Seminole Gulf Railway (SGLR). CSX runs from Jacksonville to Tampa and provides parallel service to I-75 from the Gainesville area to Tampa, while also providing service to the Port of Tampa. NS serves the northernmost section of the I-75 corridor from Lake City to the Florida/Georgia state line and provides connections to the southeastern US. FNOR is a short-line railroad running from High Springs in Alachua county to Red Level in Citrus County; FNOR connects with CSX in Newberry. SGLR operates on 115 route miles in southwest Florida and has interchanges with CSX at Arcadia and Oneco.

Benefits can be realized by shifting some of the freight cargo currently being trucked on I-75 to rail. Revenues for many railroad companies are not enough to carry out all the expansions needed to accommodate more demand and maintenance; therefore, public funding or public-private partnerships may be required to fund the additional capacity on the freight rail system. Without proper investment to keep up with the increase in cargo demand, the railroad share of freight will stagnate. This will force more freight to be trucked using already congested highway corridors or require the construction of new ones, eventually making it more costly to the public, the shippers, and consumers.

Benefits

- Reduces highway maintenance costs due to lower truck vehicle miles traveled
- Helps lower highway vehicle congestion and delays
- Cheaper and more cost-effective than trucking or aviation for transporting goods over long distances
- Generates less air pollution per ton-mile than trucking
- Provides addition transportation resource in the case of a national emergency

- Slower speeds and congestion at rail crossings
- Expansion efforts on the physical capacity of the railroads can be costly to implement and maintain
- Potential impacts to the human, natural and physical environment
- Limited rail capacity and storage capacity









Passenger Rail Service

Premium transit options present a mobility option to support the I-75 corridor. Passenger rail systems relevant to I-75 to be considered for this alternative mobility option include Amtrak, high speed rail, and commuter services including the Tampa Bay Area Regional Transportation Authority (TBARTA) system and Gainesville's proposed premium transit corridors. Understanding the initiatives underway within the corridor to provide these services may provide FDOT with information needed for long-term planning options along I-75 corridor.

Amtrak – Amtrak and commuter passenger rail operate throughout the state. As part of its national system, Amtrak currently provides service between Jacksonville, Orlando, and Tampa via the Palmetto and Silver Service trains (the Silver Meteor and the Silver Star).

High speed rail – In response to the national High Speed Rail Corridor Development Program authorized under Section 501 of the Passenger Rail Investment and Improvement Act of 2008, the Florida Legislature created the Florida Rail Enterprise with a mission to plan, construct, maintain, operate, and promote Florida's high speed rail system. In Florida, Tampa-Orlando-Miami has been federally designated as a high speed corridor.

Commuter rail services and premium transit options – TBARTA coordinates with FDOT and MPO agencies within Citrus, Hernando, Hillsborough, Manatee, Pasco, Pinellas, and Sarasota Counties to plan, develop, and manage multimodal systems within the Tampa Bay region. In 2009, a Master Plan Vision for the 2035 and 2050 regional network was created which includes Short-Distance Rail, Long Distance Rail, Bus Rapid Transit with exclusive lanes in mixed traffic, and express buses, including some with managed lanes. Also, express transit corridors and rapid transit corridors have been proposed which would provide premium transit options in the I-75 corridor in the Gainesville area.

Benefits

- Reduces fossil fuel use and greenhouse gases (GHGs)
- Job creation and economic development around station locations
- Better connectivity between northern and southern sections of Florida

- Limited funds available in transportation budgets
- Initial construction costs typically not recovered with passenger fares
- Potential impacts to the human, natural and physical environment resulting from new facilities



Intra-Regional Transit Services

Fourteen of the fifteen counties in the I-75 corridor study area operate some form of fixed route bus or paratransit service. The primary purpose of these urban transit systems is to provide intra-county or intra-regional travel, and their impact on travel mobility within the I-75 corridor is focused on local trips. These regional transit systems can benefit local or commuter travel within the I-75 corridor particularly during peak travel demand periods. These county or regional transit systems include the following:

- Collier County Collier Area Transit (CAT)
- Lee County LeeTran
- Charlotte County (paratransit service only)
- Sarasota County Sarasota County Area Transit (SCAT)
- Manatee County Manatee County Area Transit (MCAT)
- Hillsborough County Hillsborough Area Regional Transit (HART)
- Pasco County Pasco County Public Transportation (PCPT)
- Hernando County TransHernando Express (THE) Bus
- Sumter County (paratransit service only)
- Marion County SunTran
- Alachua County Regional Transit System (RTS)
- Columbia County (paratransit service only)
- Suwannee County (paratransit service only)
- Hamilton County (paratransit service only)

Benefits

- Remove local trips from the I-75 corridor
- Reduces fossil fuel use and greenhouse gases (GHGs)
- Job creation and economic development around station locations

- Limited funds availability in transportation budgets
- Initial construction costs typically not recovered with passenger fares
- Potential impacts to the human, natural and physical environment resulting from new facilities



Single occupant vehicle commuters are one of the greatest causes of peak highway congestion in urban areas. A coordinated effort to provide Transportation Demand Management (TDM) alternatives for these commuters, using existing or low cost resources, can be beneficial to the development of public transit statewide and also can assist in efforts to relieve traffic congestion, improve air quality, and assure energy conservation. TDM programs encourage public/private partnerships to provide brokerage services to employers and individuals for:

- Carpools
- Vanpools
- Express bus service
- **Emergency Ride Home Services**
- Group taxi services

- Implementation of shuttle services
- Preferential parking for ride-sharers
- Telecommuting
- Bicycling/walking programs

for all employees

Benefits

• Recruit and retain skilled employees - commute

transportation to and from work locations easier

Expanding the labor market by making

- options and flexible schedules reduce turnover
- Reduced overhead costs along with tax savings benefits for the companies and employees
- Reduced need for parking
- Helps reduce air pollution and fuel consumption
- Improves mobility and enhances economic vitality of the region

- Lack of interest from employers and commuters
- Requires voluntary participation from employers and commuters

Add Capacity to I-75

To meet increasing transportation needs for I-75, FDOT is staying focused on key strategies to improve traffic flow on I-75. These strategies include adding new roadway capacity where it provides the most benefit, including additional through lanes or operational improvements such as new auxiliary lanes. Adding capacity to I-75 also includes the addition of new or modified interchanges. Interchanges are the access points for limited-access highways and are typically used along expressways or freeways, though they may occasionally be used at junctions between two surface streets. New interchanges provide additional access to I-75 and typically increase demand along the interstate. Interstates are limited access freeways designed for long distance, interstate travel, so particular attention is paid to requests for new interchanges. All interchange modifications, including new interchanges, must be approved at the federal level.

Because the I-75 roadway is reaching, and in some cases exceeding its practical capacity, combinations of approaches are needed. Adding capacity to the interstate through general-purpose lanes remains the primary means undertaken to combat growing demand and increase mobility. Though given the cost prohibitive nature of construction for additional general-purpose lanes and the present economic climate straining funding sources, capacity expansion should take place after efforts have been made to optimize capacity and use of existing facilities.



Benefits

- Reduced congestion, travel times, and improved freight flow
- Decreased interference between through traffic and short local trips
- Increased connectivity
- Improved emergency response
- Lowered production and distribution costs

- Potential high implementation costs, especially in congested urban areas where right-of-way will likely be required
- Displacement of community by acquisition of additional right of-way
- Potential impacts to the human, natural and physical environment
- Adding interchanges will not necessarily add capacity to the I-75 mainline.

Comparative Summary

All of the alternatives considered for implementation provide a positive impact in terms of mobility, emergency management, homeland security, and economic development. In order to provide a general summary of the alternative options, information for each alternative was generalized to a rating scale based on its impact to the main goals of the study. The degree of impact is indicated by the number of symbols and was evaluated based on the impact to the 15-county I-75 corridor. The degree of impact for each alternative was determined as follows:

MOBILITY – All alternatives improve mobility in some form, either for passenger movements, freight movements, or a combination of the two. Three symbols indicate these alternatives have the largest positive impact to mobility in terms of improved traffic flow, reduced congestion, and modal choices. Two symbols indicate some reductions in congestion and increased modal choices, but not as large an impact as three symbols. One symbol indicates those alternatives with the smallest impact on improving mobility along the I-75 corridor.



EMERGENCY RESPONSE –Three symbols indicate a positive impact to emergency response by providing additional capacity for evacuation efforts or improving communication for response efforts. Two symbols indicate some positive and some negative effects of the alternative, with little overall change to emergency response. One symbol indicates the alternative will have a negligible effect on emergency response.



HOMELAND SECURITY – Three symbols indicate the alternative provides benefits to homeland security preparedness, such as increased communication or ability to respond to incidents. Two symbols indicate the alternative has some positive and some negative effects, while one symbol indicates the alternative will have a negligible impact on homeland security.



ECONOMIC DEVELOPMENT – All alternatives improve economic development to some degree, typically in terms of improving efficiencies of freight movement, job creation, spurring new businesses or commercial developments, or a combination of factors. Three symbols indicate these alternatives have the largest positive impact to economic development within the I-75 study area, while two symbols indicate some increase in economic development activities, but not as large an impact as three symbols. One symbol indicates those alternatives with the smallest impact on economic development along the I-75 corridor.



AFFORDABILITY – Three symbols indicate the alternative is highly affordable compared to other alternatives and generally costs significantly less than other alternatives. Two symbols indicate the alternative has a medium cost level, while one symbol indicates the alternative has significant cost issues and is likely expensive



EASE OF IMPLEMENTATION – Three symbols indicate the alternative is easy to implement, with little or no right-of-way required, minimal environmental mitigation efforts, and can be completed within a few years time. Two symbols indicate the alternative takes longer to implement and may require some right-of-way, mitigation efforts, or longer to design and construct. One symbol indicates the alternative will take much longer to implement and will require coordinated efforts of various agencies and groups over a multiple year period.



Summary of Impacts by Alternative Option

	Mobility in the I-75 Corridor	Emergency Response	Homeland Security	Economic Development	Affordability	Ease of Implementation
Add Capacity to Parallel Corridors and Develop New Parallel Corridors	क क	ØØ	00		Ė Š\$	
Transportation System Management and Operation (TSM&O)	क क	000	000	M	ėsi ėsi ėsi	44 44
Managed Lanes	क क	00	00	M	ėsi ėsi	
Intermodal Logistics Centers (ILCs)	75	5	00		<u>i</u>	
Marine Highways	75	5	00		ėsi ėsi	
Parallel Freight Rail Corridors	क क	00	00	M	ėsi ėsi	
Passenger Rail Service	75	00			Ė \$	
Intra-Regional Transit Services	75	5			ėsi ėsi	41 41 41
Transportation Demand Management Programs	75	5	00	AT .	ėsi ėsi ėsi	44 44
Add Capacity to I-75	75 75	999	00		\$\$ \$	

Note: All of the alternatives considered for implementation provide a positive impact in terms of mobility, emergency management, homeland security, and economic development. The degree of impact is indicated by the number of symbols and was evaluated based on the impact to the 15-county I-75 corridor.

Level of Impact Low = 1 shield Medium = 2 shields High = 3 shields

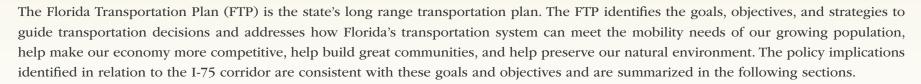
POLICY IMPLICATIONS





While the I-75 Transportation Alternatives Study identifies numerous alternative transportation options available for improving mobility, emergency and security response, and economic development along the I-75 corridor, it does not recommend specific projects or solutions for implementation. Through the identification of these alternative options, several policy implications emerged for consideration in conjunction with the implementation of alternatives. These policy implications can be summarized in five major policy initiatives, including:

- Land Use Decisions
- **Modal Options**
- Safety and Security Considerations
- Implementation and Coordination and
- Funding



In addition, the Enterprise Florida Roadmap to Florida's Future has addressed Growth Leadership Infrastructure as a Strategic Priority in its 2010-2015 Strategic Plan for Economic Development. The Roadmap recognizes Florida must take a proactive, systems-based approach to infrastructure issues, and their solutions. The solutions should be focused on growth leadership rather than growth management to realize prosperous, well-balanced communities.

Land Use Decisions The relationship between land use and transportation is reciprocal - land use creates demand for transportation facilities, and transportation facilities support economic development generating additional demand. Land use decisions, such as where to develop new residential neighborhoods or locate new shopping centers, have significant impacts on the I-75 corridor and are typically made by local governments. As a result, it is important to continue to strengthen the linkages between land use and transportation planning. Examples of the relationship between modal options and proposed alternatives follow: Strengthening the linkages between land use decisions and transportation planning can improve parallel corridors and divert local trips from I-75. Identifying opportunities to incorporate Intra-Regional Transit Services and Transportation Demand Management Programs into future and/or existing development areas along the corridor can alleviate congestion. Addition of capacity to I-75 and/or new and existing parallel corridors can assure emergency management and homeland security efforts do not decline with the growth of residential development locations and density efforts.

Modal Options

The ability to expand the I-75 corridor is limited in some areas, as build-out of the corridor in these areas is constrained by adjacent land uses that prohibit the ability to expand the right-of-way. While corridor expansion options are appropriate in some areas, other types of investments can be made in relieving physical and operational bottlenecks. Investments in the I-75 corridor should focus on a combination of alternatives to provide greater modal choices, both in terms of passenger and freight movements.

Examples of the relationship between modal options and proposed alternatives follow:

- Incorporating Intra-Regional Transit Services and Transportation Demand Management Programs into the planning process will conserve right-of-way in areas along the corridor where expanding the I-75 is prohibited due to constraints of adjacent land uses.
- Enhanced transportation options such as passenger rail, marine highways, and freight rail investments could eliminate bottlenecks and unnecessary delays, reduce travel time, and improve reliability along the corridor.
- Development of new or existing parallel corridors are important in providing modal options, as development densities are not great enough in non-urbanized portions of the corridor to support some of the modal alternatives.













Safety and Security Considerations

Safety and security considerations must be integrated into any alternative considered for implementation in the I-75 corridor. All aspects of transportation planning should address safety and security concerns during the development of alternatives while at the same time continuing to improve passenger and freight mobility. Passenger safety and security is critical for successful implementation of new transportation alternatives, and the security of the I-75 corridor's freight transportation system is crucial for the continued economic development of the corridor.

Examples of the relationship between safety and security considerations and proposed alternatives follow:

- Effective network management and coordination along the corridor can facilitate efficiency during emergency evacuation events and minimize incident response times.
- Real-time emergency response times along the corridor can be improved by adding capacity to the I-75 corridor and parallel corridors and by the development of new corridors.
- Policies that consider managed lanes such as truck-only lanes can promote a reduction in passenger vehicle and heavy truck conflicts.
- Utilization of the regional traveler information signs to inform travelers of transportation system updates can be a significant aid to public safety along I-75.



Implementation and Coordination

While some alternatives will be developed at the local or regional level to serve a specific purpose, the alternatives as a group should be integrated together to form a complete, corridor-wide transportation system. The development and integration of alternative options will require a high level of coordination among all of the planning and implementing agencies along the I-75 corridor.

Examples of the relationship between implementation and coordination processes and proposed alternatives follow:

- Local and statewide coordination is crucial for the development of some of the alternative options for the I-75 corridor such as statewide passenger rail services.
- As Transportation System Management and Operations (TSM&O) continue to grow, more system coordination will have to occur between the different agencies which manage these operations.
- Coordination between employers and commuting employees is required for growth in Transportation Demand Management Programs which reduce congestion during peak hour traffic levels.

Funding

Revenue for transportation expenditures is generated from multiple sources. While there are many funding sources available, funds generally come from state and federal sources or other funding mechanisms. While these traditional funding sources struggle during this present economic climate, funding for the development of alternative options along the I-75 corridor will be a challenge and may require alternatives to generate revenue from user fees to help support the operating and maintenance costs.

Examples of the relationship between funding initiatives and proposed alternatives follow:

- Alternative options along the corridor such as managed lanes could generate revenue from user fees.
- Policies should consider lower cost alternatives to incorporate along the corridor.
- Freight oriented alternatives that may positively impact the state's economy should be identified. Examples include Intermodal Logistics Centers, marine highways, and parallel freight rail corridors.





SUMMARY

The I-75 corridor is one of the State's most important transportation facilities, providing for the movement of people and freight along the west coast of Florida and through north Florida. The 15 counties along the study corridor are home to just over 4.5 million residents or 24 percent of Florida's total population.

The purpose of the study was to assess the travel demand from people and freight moving along the I-75 corridor in the State of Florida against four measures: transportation, emergency management, homeland security, and economic development. Additionally, the study identified cost effective strategies to alleviate congestion, facilitate emergency and security response, and foster economic development in the State of Florida.

All of the ten alternatives considered for implementation provide a positive impact in terms of mobility, emergency management, homeland security, and economic development. All of the identified alternatives improve mobility in some form, either for passenger movements, freight movements, or a combination of the two. All of the alternatives also improve economic development to some degree, typically in terms of improving efficiencies of goods movement, job creation, spurring new businesses or commercial developments, or a combination of factors. None of the alternatives can address all of the needs and issues identified for the I-75 corridor on its own. To effectively address these issues, transportation solutions will require a blend of alternatives implemented throughout the corridor.

Through the process of identifying the alternative options, several policy implications emerged for consideration in conjunction with the implementation of the alternatives. These policy implications were summarized in five major policy initiatives, including:

- Land Use Decisions
- Modal Options
- Safety Considerations
- Interregional Coordination and
- Funding

The policy implications identified in relation to the I-75 corridor are consistent with the goals and objectives from the Florida Transportation Plan.



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- Florida Division of Emergency Management (FDEM)
- Florida Fish and Wildlife Conversation Commission (FWC)
- Florida Highway Patrol (FHP)
- Florida Division of Strategic Business Development (FDSBD)
- Enterprise Florida
- Florida Metropolitan Planning Organizations Advisory Council (MPOAC)
- Five Regional Planning Councils (RPCs) along the I-75 Corridor
 - North Central Florida Regional Planning Council
 - Withlacoochee Regional Planning Council
 - Tampa Bay Regional Planning Council
 - Central Florida Regional Planning Council
 - Southwest Florida Regional Planning Council
- Ten Metropolitan Planning Organizations (MPOs) along the I-75 Corridor:
 - Gainesville Metropolitan Transportation Planning Organization
 - Ocala/Marion County Transportation Planning Organization
 - Lake-Sumter Metropolitan Planning Organization
 - Hernando County Metropolitan Planning Organization
 - Pasco County Metropolitan Planning Organization
 - Hillsborough County Metropolitan Planning Organization
 - Sarasota/Manatee Metropolitan Planning Organization
 - Charlotte County-Punta Gorda Metropolitan Planning Organization
 - Lee County Metropolitan Planning Organization
 - Collier County Metropolitan Planning Organization

- RACECs (Rural Areas of Critical Economic Concern) not represented by an MPO
 - » DeSoto County
 - Columbia County
 - Suwannee County
 - » Hamilton County
- Multiple offices within the Florida Department of Transportation (FDOT)
 - » Districts One, Two, Five, and Seven
 - State Traffic Engineering and Operations Office
 - Office of Policy Planning
 - Emergency Management Office
 - » Environmental Management Office
 - Office of Freight, Logistics, and Passenger Operations, and
 - Systems Planning Office









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