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1.0 INTRODUCTION

The purpose of this report is to ensure that freight mobility is accounted for as part of the Lee County 2040 Long Range Transportation Plan (LRTP). This element serves as an update to the freight element completed for the 2035 LRTP and showcases changes which have occurred in the county as well as evolving needs. This report is divided into the following sections:

- **Section 2.0 –** Freight Network of Lee County;
- **Section 3.0 –** Commodity Movements and Trends;
- **Section 4.0 –** Freight Performance Measures;
- **Section 5.0 –** Freight Needs and Issues in Lee County; and
- **Section 6.0 –** Making Freight Mobility Relevant.

Freight policy guidance was developed as part of this freight element consistent with existing MPO goals and objectives as well as those developed as part of MAP-21, the 2060 Florida Transportation Plan, and Florida's Freight Mobility and Trade Plan. Six goals, with objectives, were defined and used to guide the analysis of freight movement in the county. They are presented below.

Goal 1: A transportation system that is coordinated through local, regional and state agencies and encourages quality growth and sustainable land development practices. *(2040 LRTP Goal #7)*

Objective 1.1: Provide opportunities and define roles for all types of organizations, businesses, and/or individuals to assist in the implementation of programs and projects. *(2040 LRTP Objective #4)*

Objective 1.2: Bring business community into the transportation planning process.

Objective 1.3: Raise awareness and support for freight mobility and investment opportunities.

Goal 2: A transportation system that offers meaningful transportation choices for existing and future residents, visitors and businesses. *(2040 LRTP Goal #2)*

Objective 2.1: Provide efficient truck routes.

Objective 2.2: Identify and ensure access to key freight load centers.

Objective 2.3: Support an integrated transportation system with efficient connections between modes. *(2040 LRTP Objective #6)*

Objective 2.4: Identify and prioritize key infrastructure improvements to best enhance the freight transportation network.

Goal 3: Enhance the safety and security of the transportation system for both motorized and non-motorized users. *(2040 LRTP Goal #1)*

Objective 3.1: Reduce fatalities and serious injuries for incidents involving trucks and/or rail crossings through engineering, education and enforcement activities. *(2040 LRTP Objective #7)*

Objective 3.2: Identify critical components of the local and regional infrastructure and develop strategies to enhance safety and security.

Objective 3.3: Support commercial vehicle enforcement and ensure that penalties imposed for violations are appropriate.

Objective 3.4: Work with the Department of Homeland Security to identify key steps to take to ensure that all transportation modes including freight hubs meet national security requirements.

Objective 3.5: Assess possible freight network disruptions and develop contingency plans or principles that support the logistics industry for disaster preparedness and response.

Goal 4: A sustainable transportation system that supports the economic competiveness of the region. *(2040 LRTP Goal #5)*

Objective 4.1: Minimize congestion and increase reliability on roadways.

Objective 4.2: Collaborate with state agencies (such as Enterprise Florida and CareerSource Florida) to address transportation and logistics needs for targeted industries.

Objective 4.3: Collaborate with local agencies (such as the Lee County Chamber and Fort Myers Redevelopment Agency) to address transportation and logistics needs for the county.

Goal 5: A transportation system that is maintained, optimized and expanded using the best available technologies and innovations. *(2040 LRTP Goal #3)*

Objective 5.1: Reduce roadway congestion by maximizing ITS technologies (e.g., efficiently route traffic to alternate routes and divert around congested corridors or incidents). *(2040 LRTP Objective #10)*

Objective 5.2: Apply truck-specific design standards (lane width, ramp terminal radii, curb radii, pavement thickness) on roadways with significant truck volumes.

Objective 5.3: Utilize existing and emerging data sources to measure and monitor the performance of the transportation system.

Objective 5.4: Encourage the use of alternative energy sources (such as CNG and LNG) to maintain a healthy and environmentally conscience community.

Goal 6: A transportation system that is financially feasible. *(2040 LRTP Goal #3)*

Objective 6.1: Maximize use of available Federal funding (such as MAP-21 or TIGER grants) and training.

Objective 6.2: Maximize use of available state funding (such as SIS and TRIP funds) to promote multimodal freight transportation improvements.

Objective 6.3: Encourage and support private sector investment in the freight infrastructure through the development of facilities such as ILCs and distribution centers.

Objective 6.4: Construct and maintain multimodal infrastructure with the intent of minimizing their life cycle costs. *(2040 LRTP Objective #9)*

2.0 FREIGHT NETWORK OF LEE COUNTY

Goods are transported into, out of, within, and through Lee County by a mixture of transportation modes. The freight system consists of highways, rail, and airports within the county. Waterborne cargo must rely on seaports in adjacent communities. This section describes key freight infrastructure in Lee County.

2.1 REGIONAL HIGHWAY CORRIDORS

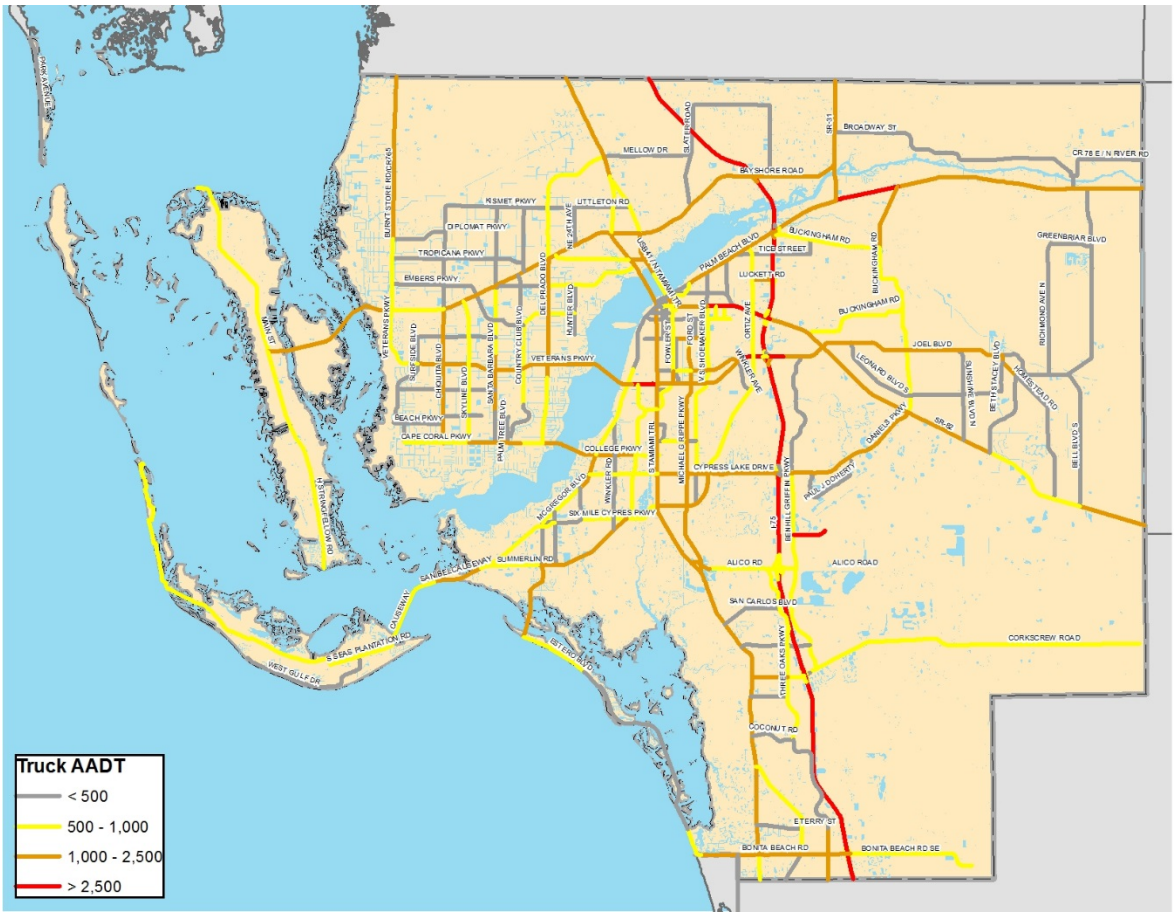
The roadways carry a significant amount of freight traffic, particularly as they serve as last mile connections for other modes. One way to identify key freight roadways is to measure and monitor the average annual daily truck traffic (AADTT) moving along the system. The Top 10 state roadway segments in the county by truck volumes are identified in Table 2.1, and the truck volume on all links is displayed in Figure 2.1. The most heavily used truck segment in Lee County is I-75. This is not surprising as I-75 is the only interstate, which passes through the County. This limited access facility allows for high volumes of traffic to move at faster speeds than local roads.

Table 2.1: Top 10 Roadway Segments Based on AADTT

Roadway	From	To	AADT	AADTT	Truck Percent
I-75	Bridge No-120090	Bridge No-120093	70,500	10,011	14%
I-75	Bridge No-120122	Bridge No-120090	74,000	9,842	13%
I-75	Bridge No-120107	Bridge No-120120	77,000	9,163	12%
I-75	Collier Co Line	Ramp 008	87,500	8,663	10%
I-75	Bridge No-120120	Bridge No-120122	75,500	8,305	11%
I-75	Ramp 008	N/A	84,500	7,943	9%
I-75	Bridge No-120093	Bridge No-120112	55,000	7,755	14%
I-75	N/A	Bridge No-120107	77,211	6,486	8%
I-75	Bridge No-120112	Charlotte Co Line	39,500	6,162	16%
Terminal Access Road	Ben Hill Griffin Parkway	SW Florida Int'l Airport	22,000	5,940	27%

Source: FDOT, 2014.

Figure 2.1: Average Annual Daily Truck Traffic in Lee County, 2014



Source: FDOT, 2014.

Another way to measure and monitor key freight roadways is through the percent of traffic comprised of trucks. Some roadways may not have a large volume of traffic on them in general, but the traffic moving on the segment may be entirely comprised of trucks, albeit in lower volumes than may be seen on the interstate, for instance. The Top 10 state roadway segments in the county based on the truck share of overall traffic are identified in Table 2.2 and the truck percentage on all links are displayed in Figure 2.2. Unlike the top truck volume segments, I-75 does not appear as one of the top corridors as it also carries a high volume of passenger cars, which drives down the truck percentage, however, some of its segments carry in excess of 10 percent. Figure 2.2 helps illustrate that several key corridors, particularly east/west, are dominated by truck movements. These are roadways that were not identified when looking only at total volume.

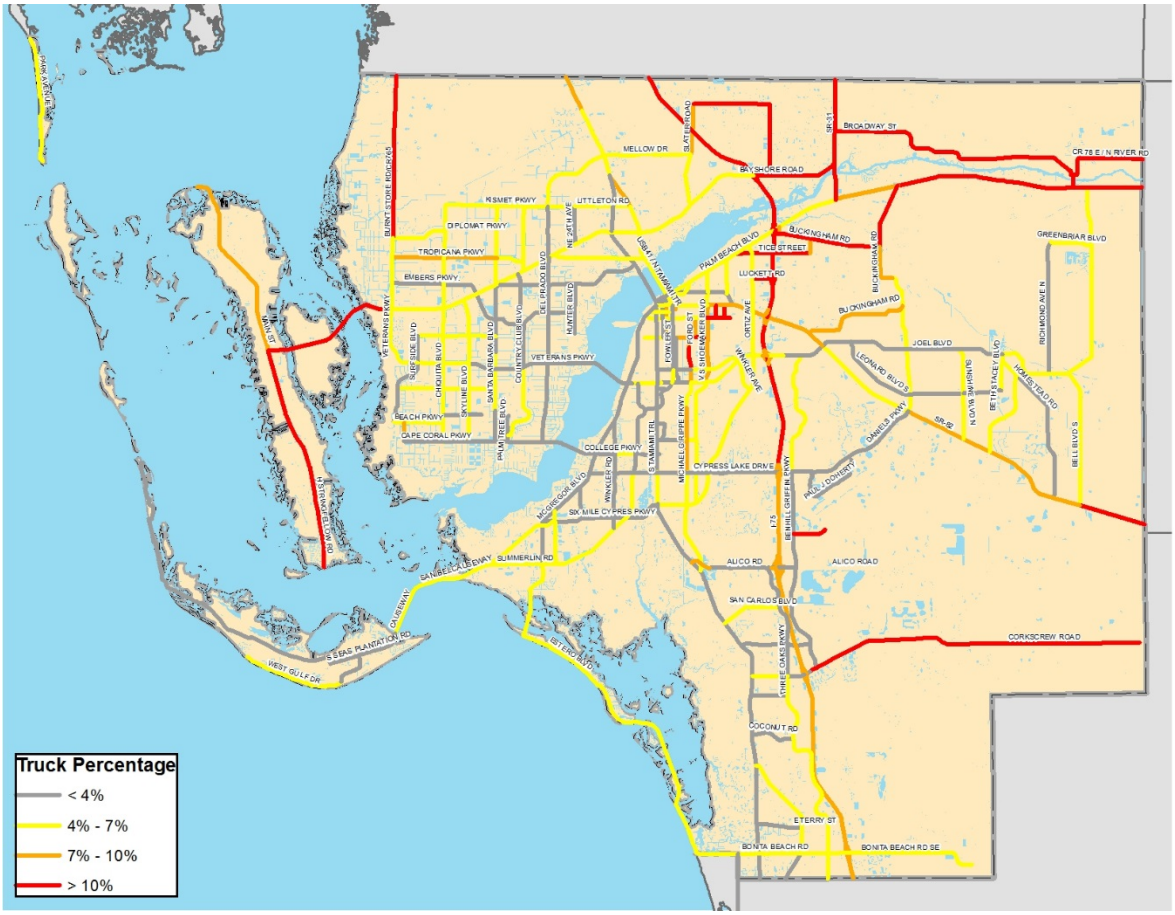
The 2035 LRTP Freight and Goods Movement Element identified a regional highway truck network as suggested by the Lee County Freight and Goods Mobility Analysis (2009). These highways were divided into two tiers: 1) SIS facilities and regional corridors that extend beyond county boundaries; and 2) regional highways which connect to the SIS, other freight corridors, or regional freight activity centers but do not extend beyond county boundaries. These facilities are listed in Table 2.3 and displayed in Figure 2.3.

Table 2.2: Top 10 Roadway Segments Based on Truck Percentage

Roadway	From	To	AADT	AADTT	Truck Percent
Terminal Access Rd	Ben Hill Griffin Pkwy	SW Florida Int'l Airport	22,000	5,940	27%
SR-31	N River Rd/CR 78	Charlotte County Line	4,653	1,256	27%
Burnt Store Rd/CR 765	NW 14th St	Vincent Ave/Charlotte County Line	6,428	1,543	24%
Rockfill Road	Edison Ave	SR-82/MLK Blvd	3,200	730	23%
SR-31	Bayshore Rd/SR-78	N River Rd/CR 78	7,200	1,476	21%
Corkscrew Road	N/A	Six L's Farm Rd	3,800	760	20%
Corkscrew Road	Six L's Farm Rd	Collier County Line/CR 850	3,800	760	20%
Edison Ave	Towles St	Arcadia Rd	2,700	535	20%
Nalle Grade Road	Slater Rd	SR-78	1,100	186	17%
Luckett Rd	Ortiz Ave	SR-93/I-75 Ctr-Line	6,000	1,002	17%

Source: FDOT, 2014.

Figure 2.2: Truck Share of Total Traffic in Lee County, 2014



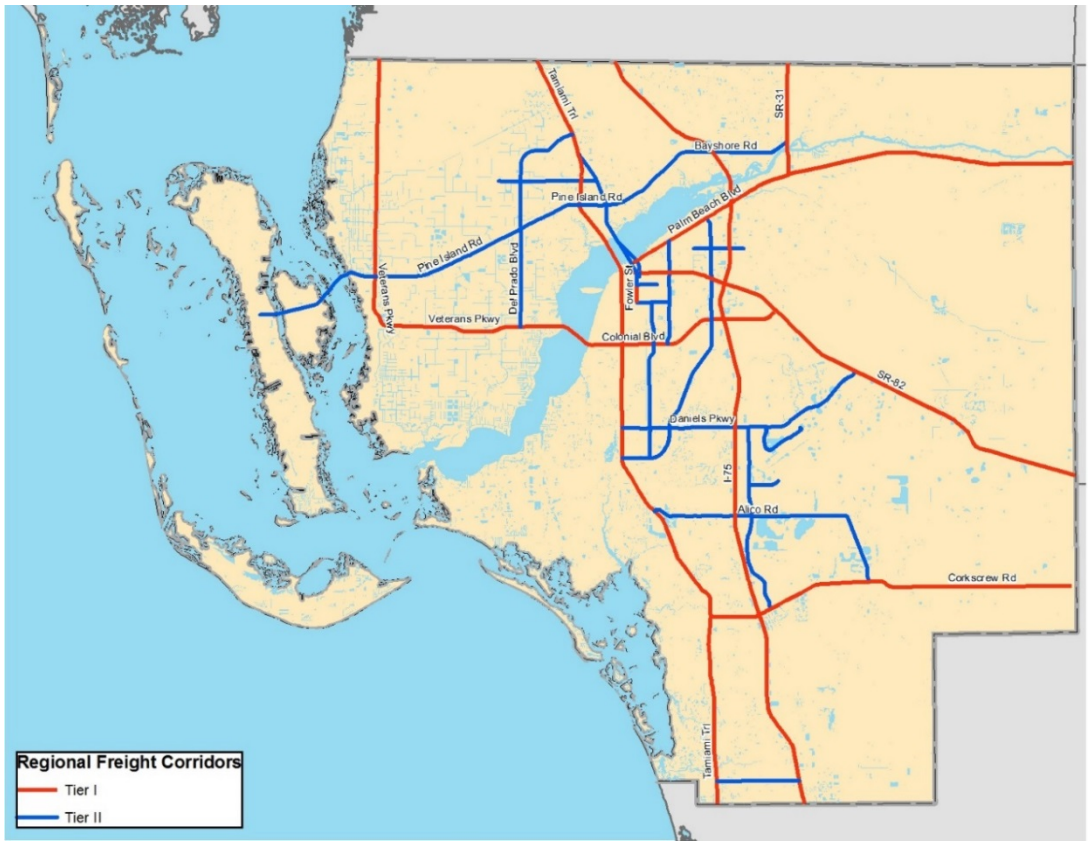
Source: FDOT, 2014.

Table 2.3: Recommended Regional Highway Truck Network

Roadway	From	To	Tier
I-75 (SIS)	Lee County Line	Charlotte County Line	I
U.S. 41	Lee County Line	Charlotte County Line	I
SR 80 (SIS)	Hendry County Line	I-75	I
SR 82 (Emerging SIS)	Hendry County Line	I-75	I
SR 31	SR 80	Charlotte County Line	I
SR 884/Colonial Boulevard	SR 82	Caloosahatchee River	I
Veterans Parkway	Caloosahatchee River	SR 78	I
CR 765/Burnt Store Road	SR 78	Charlotte County Line	I
Corkscrew Road	U.S. 41	Collier County Line	I
U.S. 41 Business	U.S. 41 Junction	Hanson Street	II
SR 78/Bayshore Road	SR 31	U.S. 41	II
SR 78/Pine Island Road	U.S. 41	Pine Island	II
Del Prado Boulevard	Veterans Parkway	U.S. 41	II
Kismet Parkway	Andalusia Boulevard	U.S. 41	II
Luckett Road	Ortiz Avenue	Country Lakes Drive	II
SR 884/Lee Boulevard	SR-82	Joel Boulevard	II
SR 873/Joel Boulevard	Lee Boulevard	SR-80	II
Veterans Parkway	SR-78	Caloosahatchee River	II
SR 82/Dr Martin Luther King Boulevard	U.S.-41	I-75	II
Fowler Street	Hanson Street	Dr Martin Luther King Boulevard	II
Hanson Street	Fowler Street	Metro Parkway	II
SR 80/Palm Beach Boulevard	I-75	U.S.-41	II
SR 889/Metro Parkway	Six Mile Cypress Parkway	Colonial Boulevard	II
Daniels Parkway	U.S.-41	SR-82	II
Alico Road	U.S.-41	Corkscrew Road	II
Treeline Road	Daniels Parkway	Alico Road	II
Airport Direct Connect	I-75	Airport	II
Six Mile Cypress Parkway	U.S.-41	Colonial Boulevard	II
CR 865/Bonita Beach Road	U.S.-41	I-75	II
Littleton Road	USB-41	Andalusia Boulevard	II

Source: Lee County MPO 2035 LRTP: Goods Movement Technical Memorandum.

Figure 2.3: Priority Freight Routes in Lee County



Source: Lee County MPO 2035 LRTP: Goods Movement Technical Memorandum.

Many of these identified truck corridors are also heavily used by other vehicular traffic leading to congestion, particularly in the winter (peak season) months. This congestion is illustrated in greater detail in the Lee County Concurrency Report. Published annually, most recently in December 2014, this report is prepared to meet the requirements of the Lee County Land Development Code to develop an inventory of the maximum, utilized and available capacity of public facilities for which minimum Level of Service standards are prescribed in the Lee County Comprehensive Land Use Plan. Public facilities included in this are:

- Solid Waste Disposal
- Surface Water Management
- Potable Water
- Sanitary Sewer
- Parks and Recreation
- Schools
- Transportation

As this accounts for projections of demand on facilities from anticipated growth, this report establishes the availability and capacity of each facility to accommodate future development. In regards to the Transportation element of this report, the focus is on roadway segments which do not meet the adopted county or state Level of Service (LOS) Standard based on the 2013 traffic counts. The roadway segments included in this report which have also been identified as part of the regional freight corridors are listed in Table 2.4. With the exception of Corkscrew Road and Daniels Parkway, all of these roadway segments have been identified as not meeting LOS Standards on an existing basis. Several of these, such as portions of U.S. 41 and Daniels Parkway, are constrained facilities and thus would rely on operational improvements (such as traffic signal coordination) versus capacity improvements.

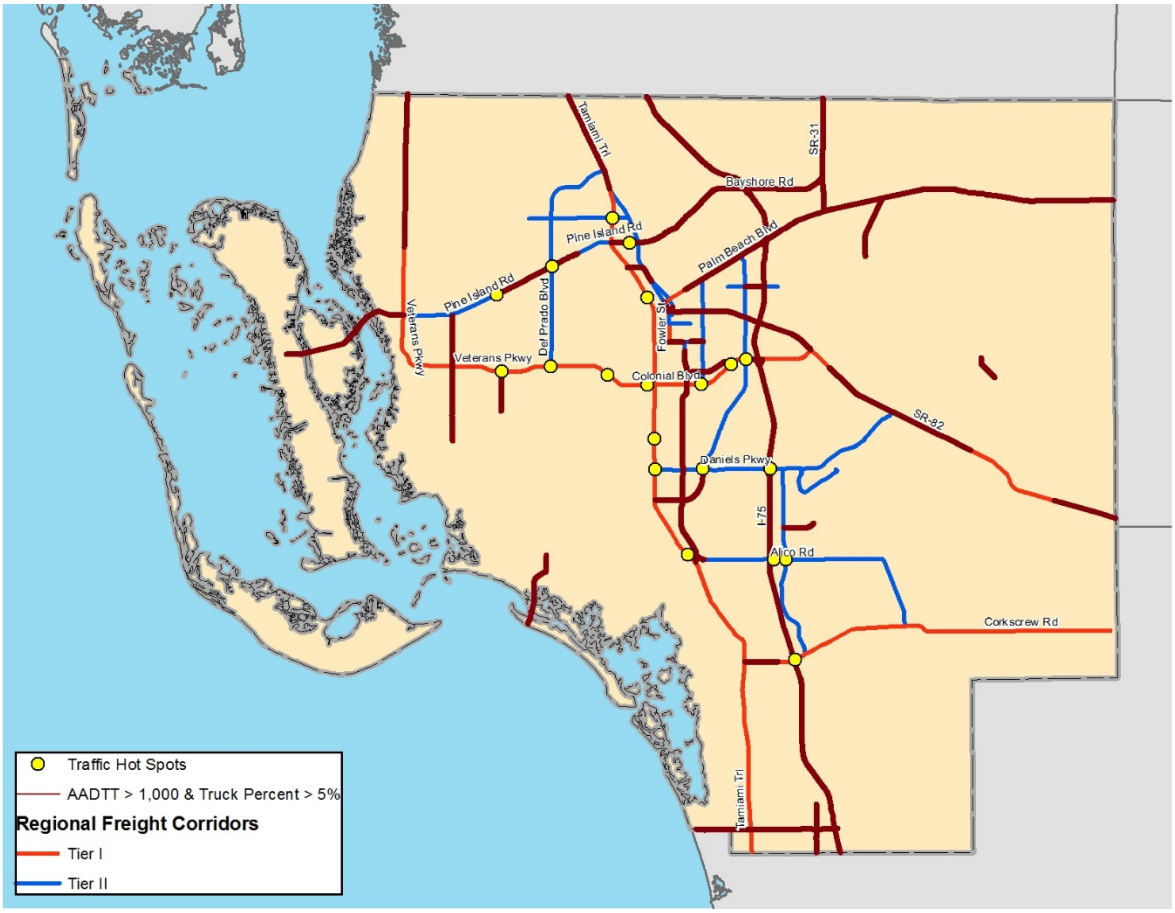
Table 2.4: Identified Low Level of Service Roadways

Roadway	From	To	Planned Improvement	Ownership
Colonial Boulevard	Summerlin Road	U.S. 41	-	County
Colonial Boulevard (SR 884)	U.S. 41	Fowler Street	–	State
Colonial Boulevard (SR 884)	Fowler Street	Metro Parkway	North Airport Road Extension in 2013/2014	State
Colonial Boulevard (SR 884)	Winkler Avenue	Six Mile Cypress Parkway	–	State
Colonial Boulevard (SR 884)	Six Mile Cypress Parkway	I-75	–	State
Martin Luther King Boulevard (SR 82)	Cranford Avenue	Highland Avenue	–	State
Martin Luther King Boulevard (SR 82)	Highland Avenue	Michigan Link	–	State
Immokalee Road (SR 82)	Colonial Boulevard	Gateway Boulevard	6 lane under design	State
Immokalee Road (SR 82)	Gunnery Road	Alabama Road	6 lane under design	State
U.S. 41	Daniels Parkway	College Parkway	Constrained Facility	State
U.S. 41	South Drive	Boy Scout Drive	Constrained Facility	State
U.S. 41	Fountain Interchange	North Key Drive	-	State
U.S. 41	North Key Drive	Hancock Bridge Parkway	-	State
U.S. 41	Hancock Bridge Parkway	Pondella Road	-	State
Corkscrew Road	Three Oaks Parkway	I-75	-	County
Daniels Parkway	Metro Parkway	Six Mile Cypress Parkway	Constrained Facility	County

Source: Lee County Concurrency Report, 2014.

In addition to these congested corridors, there also are hot spots, typically at intersections, which also cause congestion. The Lee County 2014 Congestion Monitoring Report utilized local input via first responder and bus driver questionnaires as well as a News Press Survey to garner public participation in this process. Overall, these efforts resulted in nearly 600 responses which were reviewed by MPO Staff and the Traffic Management and Operations Committee (TMOC). This Report was utilized to identify hot spots along the Regional Freight Corridors, as well as segments which had both an AADTT over 1,000 and which had more than 5 percent of total traffic comprised of trucks. This resulted in 19 hot spots throughout the county. These locations are shown in Figure 2.4 and detailed in Table 2.5, with traffic signalization issues reported most commonly. Also included in this table are the number of trucks impacted by each of these hot spots based on 2014 traffic counts. In some instances, upwards of 2,000 trucks are traversing these locations and having their movements impeded. The majority of these locations are along Veterans Parkway/Colonial Boulevard and U.S. 41. This is expected as several of these areas were also identified as congested corridors, many operating as constrained facilities.

Figure 2.4: Identified Hot Spots on Regional Freight and High Truck Use Corridors



Source: Lee County 2014 Congestion Monitoring Report.

Table 2.5: Hot Spots Identified from Congestion Monitoring Report

Roadway	Location	Number of Trucks Impacted	Nature of Problem Reported
Colonial Boulevard	At Deleon St (2 reported)	Colonial: 2,550	1) Timing for red light on Colonial is excessively long. 2) Cars coming onto Colonial from U.S. 41 off ramp attempt to cross over the two lanes to get to the WB left turn lane. 3) Inadequate WB left turn storage cause traffic back ups on through lanes
Colonial Boulevard	At Veronica Shoemaker	Veronica Shoemaker: 725; Colonial: 2,300	Signal timing
Colonial Boulevard	At Winkler Avenue	Colonial: 2,700; Winkler: 700	Signal timing
Colonial Boulevard	At Six Mile Cypress Parkway/Ortiz Avenue	Colonial: 3,150; Six Mile/Ortiz: 700	Inadequate turn lane storage for EB lefts on Colonial Boulevard to SB Six Mile Cypress Parkway cause traffic backups on the through lanes.

Roadway	Location	Number of Trucks Impacted	Nature of Problem Reported
Corkscrew	At I-75	Corkscrew: 840	1) Inadequate turn lane storage for EB lefts on Corkscrew to NB on ramp. 2) Inadequate turn lane storage for WB lefts to SB on ramp
Daniels	I-75	Daniels: 1,440	1) Inadequate turn lane storage for WB traffic on Daniels to enter SB on ramp. 2) Above situation prevents SB off ramp traffic to turn west on Daniels.
Del Prado Blvd	At Veterans Pkwy	Veterans: 1,450; Del Prado: 1,630	Signal timing
I-75	Alico Road	I-75 Ramp: 700; Alico: 1,150	Inadequate turn lane storage for NB rights at the exit ramp to Alico Road. Traffic backups to near mainline I-75 during peak hours and during high shopping activity.
Mid Point Bridge	Mid Point Bridge	Veterans: 1,600	Non steady traffic flow....not enough lanes
Pine Island Rd	At Del Prado Blvd	Pine Island: 1,700; Del Prado: 900	Signal timing, inadequate turn lane storage
Pine Island Rd	At Hancock Bridge Pkwy	Pine Island: 1,550	Traffic can only turn left from the left lane. Traffic in the right lane should turn right.
Pine Island Rd	At Piney Rd	Pine Island: 1,500	Traffic accidents, signal timing
Pine Island Rd	Pondella and Del Prado Blvd	Pine Island: 1,700; Del Prado: 900	1) Signal timing and synchronization. 2 Traffic backups on NB Pondella caused by left turning vehicles to WB Pine Island Rd
Six Mile Cypress/ Ben C Pratt	At Daniels	Six Mile Cypress: 1,250; Daniels: 1,550	Signal timing
Treeline	At Alico Road	Treeline: 715; Alico: 840	1) Signal timing. 2) Inadequate turn lane storage
U.S.-41	At Alico Rd	U.S. 41: 1,650; Alico: 1,650	Inadequate turn lanes
U.S.-41	At Crystal Dr	U.S. 41: 1,400	Light is not green long enough to allow flow of traffic
U.S.-41	At Cypress Lake/Daniels	U.S. 41: 2,200; Daniels: 1,000	1) Signal timing. 2) Too many cars
U.S.-41	At Caloosahatchee Bridge	U.S. 41: 1,400	Need more motorists to use Edison Bridges
U.S.-41/N Cleveland Avenue	At Littleton Rd	U.S. 41 800; Littleton: 300	Signal timing and flea market
Veterans Pkwy	At Santa Barbara Blvd	Veterans: 1,400; Santa Barbara: 1,100	1) Signal timing

Source: Lee County 2014 Congestion Monitoring Report.

2.2 REGIONAL RAIL CORRIDORS

The Lee County MPO conducted a rail corridor feasibility study to evaluate possible service alternatives along the existing CSX/Seminole Gulf corridor. This study was concluded in October 2013 and focused on assessing the long-term feasibility of implementing multimodal

transportation options within the existing rail corridor through Lee and the northern portion of Collier County. In addition to publically driven passenger service, the study also evaluated maintaining and possibly expanding the freight rail service on the corridor. This included assessing existing and future freight issues, determining the value of the CSX/Seminole Gulf Lease, and looking at various options of preserving the corridor including purchasing the right-of-way, negotiating new agreements, and adopting preservation policies by the local governments along the corridor. This section highlights some of the key findings from this study.

2.2.1 CURRENT USE OF THE LEE COUNTY RAIL CORRIDOR

The existing rail network in Lee County is a 37-mile long north/south corridor through the urbanized part of the county. Currently, CSX owns the land as well as the right-of-way for this corridor. Seminole Gulf Railway (SGLR) has a long-term lease to operate freight rail service on the corridor with over 30 years remaining on the lease. SGLR is responsible for the maintenance of the track, crossings, and bridges located along this corridor. Currently, this corridor is used for both freight and passenger movements. This passenger movement consists of the Murder Mystery Dinner Train operating year round five nights a week. Additional passenger services, such as a commuter line, were considered as part of the Lee County Rail Feasibility Study.

In terms of existing freight service, as will be discussed in more detail in section below regarding the assessment of commodity movements, there is a forecasted downward trend in the use of rail in Lee County. Freight service has significantly decreased during the recent recession. Prior volumes were in the range of 14,000 to 15,000 carloads annually but decreased to around 7,000 carloads in 2012, primarily due to declines in lumber and building materials. Most of the existing freight consists of frozen and refrigerated goods, scrap metal, propane, lumber and building material, and newsprint.

While there have been efforts to increase freight rail opportunities, the existing infrastructure limits operations. At of the completion of the MPO's rail study, there were only some locations where the track was maintained to allow a maximum speed of 25 miles per hour (mph) and the majority of the corridor was maintained to an allowable speed of 10 mph. There has since been improvements made to the infrastructure and now the entire segment of the rail line from Arcadia to Landing View Road has been upgraded to allow for speeds of 25 mph. The outlook for an expanded rail service is uncertain, but it remains an important component of the Lee County transportation network. Few businesses in the area rely on rail movements, but it would be difficult to abandon the service. The use of the rail system not only provides greater flexibility in terms of modal options but also eases some congestion on the roadway due to a reduction in truck movements. The attributes of this rail facility and how they impact operations are discussed in the following section.

2.2.2 EXISTING FACILITIES

The existing facilities along the rail corridor have a direct impact on the types of services available to rail users. Namely, the characteristics impacting operations include track conditions, right-of-way width, bridge condition, and terminal facilities. The attributes of these facilities as determined from the Lee County Rail Feasibility Study are described below.

Track

The FRA has established track safety standards that identify nine specific classes of track (Class 1 through 9), as well as a category referred to as Excepted Track. The difference between each track class is based on progressively more demanding standards for track structure, track geometry and inspection intervals. Each track class has a corresponding maximum allowable speed associated with it: the higher the track class, the higher the allowable speed. Each railroad makes the determination as to which track class they will maintain their track to, based on their operational and maintenance needs. Once these designations are made, the FRA and

FDOT hold the railroads accountable for maintaining their track to the standards for each particular track class.

The majority of the corridor in Lee County was previously maintained to Class 1 standards which allow maximum freight train speeds of 10 mph. This track condition was considered adequate for the current low density SGLR operations. Recent improvements to Class 2 standards (25 mph) help ensure that the track is able to handle additional cargo service. South of the SGLR yard and maintenance facility at MP 969, the track is classified as "Excepted Track" which requires inspection prior to use and allows maximum freight train speeds of 10 mph; passenger trains are not permitted to operate on Excepted Track.

Right-of-way

As part of the Rail Feasibility study, the study team assessed the physical rail line, including the rail corridor width and rail bed, drainage, utilities, rail crossings, and rail spurs. The rail corridor width was divided into three sections: South Lee County and Northern Collier County; Middle portion of Lee County; and Northern Lee County. The available row of way (ROW) is described below for each of these sections as well as illustrated in Figure 2.5.

- South Lee County and Northern Collier County: ROW is fairly consistent with an average of 130 feet. This width allows adequate distance on either side of the rail bed for a 24-foot, two-lane, two-way roadway with associated shoulders, and swales for drainage.
- Middle Portion of Lee County: ROW varies between 97 feet and 159 feet. The right-of-way varies significantly along this portion of the railway and goes through the industrial areas of Lee County.
- Northern Lee County: ROW is fairly consistent with an average width between 80 and 120 feet. This includes the portion of the line which crosses the Caloosahatchee River through a series of bridges, as well as a portion of rail which passes through undeveloped, primarily state owned, land.

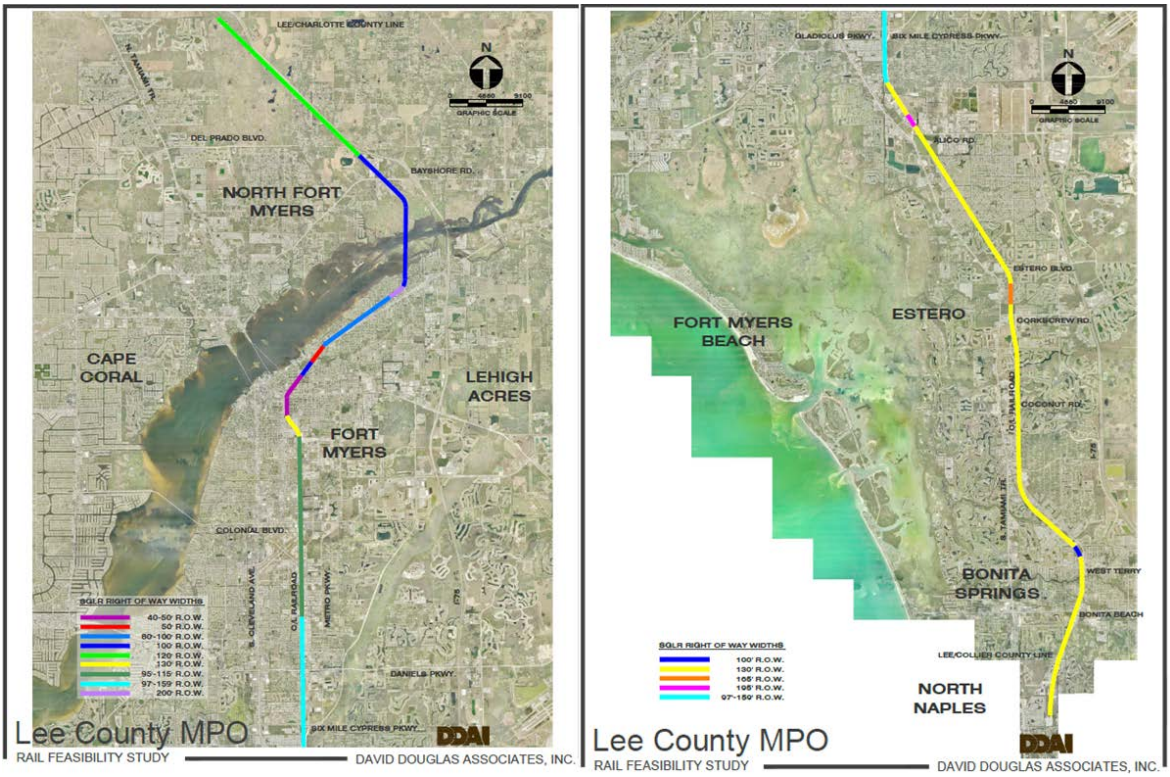
Bridges

At the time of the Rail Feasibility Study, the Seminole Gulf Railway (SGLR) would not share bridge condition or inspection reports. However, they advised that all bridges are capable of supporting rail cars weighing 286,000 pounds, the national standard car weight. The bridges are maintained in fair to good condition, which is an adequate level to support the current train operations as well as comply with the Federal Rail Administration (FRA) requirements.

There are a total of 21 bridges along the corridor within the study limits. The quantity and type of bridges are as follows:

- 9 Timber Trestles with Open Deck
- 6 Timber Trestles with Ballasted Deck
- 3 Concrete Trestles with Ballasted Deck
- 1 Steel Deck Plate Girder with Open Deck
- 1 Deck Plate Girder/Through Plate Girder Combination with Open Deck
- 1 Moveable Bridge with Open Deck (Caloosahatchee River)

Figure 2.5: Lee County and Northern Collier County Railway Right-of-way



Source: Lee County Rail Corridor Feasibility Study.

2.2.3 FUTURE RAIL NEEDS AND OPTIONS

The end product of the Lee County Rail Feasibility Study recommended seven strategies for this rail line. These recommendations, as written in that study, are presented below:

1. The Florida DOT should purchase the CSXT leased fee interest from where the rail line ends in northern Collier County to Arcadia.
2. The preferred mode of passenger travel should be determined. No specific mode of travel is recommended at this time.
3. Freight service should be maintained and improved.
4. The CSXT/SGLR corridor should be preserved for continued and expanded transportation use through amendments to existing Comprehensive Plans and transportation plans.
5. Each MPO that the SGLR corridor passes through (Collier, Lee, and Charlotte Punta-Gorda as well as possible Sarasota-Manatee) should urge FDOT to purchase outright the real estate interests of CSXT in the SGLR. They should also adopt policies and carry out plans to:
    a) Explore methods for enhancing freight capability for the corridor and add capability for transit;
    b) Commit to protecting the public interest in the rail corridor during any abandonment proceedings; and
    c) Support use of Federal rails-to-trails authority to railbank the corridor if the alternative is abandonment.
6. The Lee and Collier MPOs and Lee's Transit Task Force should take on the following tasks:
    a) The Lee MPO should explore with SGLR officials other arrangements to integrate public transit with the existing and planned freight rail operations in Lee County. The MPO should also serve as the lead agency for further technical analyses on this corridor.
    b) The Collier MPO should explore the costs and benefits of extending possible high capacity transit on the corridor to Immokalee Road in Collier County.
    c) The Lee County Transit Task Force should consider how high-capacity transit along the rail corridor could improve the effectiveness of LeeTran bus service and how it could promote the establishment of an independent transit authority or entity to construct and operate the combined system.
7. The MPO should seek legal opinions to fully understand the terms of the lease between CSXT and SGLR as well as to establish a contingency plan to protect the public interest should the abandonment of the rail line be proposed.

The majority of these recommendations revolve around three themes: 1) the development of transit, 2) the encouragement of further freight movements, and 3) contingency plans for if the rail line is abandoned. This mix of recommendations illustrates the importance of transit and freight working together to maintain and operate this line.

2.3 AIR CARGO ACTIVITY

Air cargo is a significant driver of the State of Florida's economic engine, and a critical link for local, state, and national supply chains. Florida's airports handle not only domestic cargo originating or terminating within the state, but serve as gateways for significant amounts of international trade. As a system, Florida's SIS airports process more than 2.5 million tons of air cargo annually. The Southwest Florida International Airport, or "RSW," is a key component of the region's freight system and the 9th largest air cargo market (by air cargo capacity) for the state as of 2012. Serving primarily as a freight hub for expedited carriers (FedEx, UPS), the airport is owned by Lee County and operated by the Lee County Port Authority, and serves the needs of the greater Fort Myers area. Page Field, also operated by the Lee County Port Authority, does not provide air cargo service.

2.3.1 SOUTHWEST FLORIDA INTERNATIONAL AIRPORT AIR CARGO STATISTICS

Air Cargo Capacity

The Florida Air Cargo System Plan reports information about air cargo capacity within the state. Capacity is defined as the volume of cargo space available via scheduled airline service at each airport. In total, Florida airports offer over 13.2 million pounds of air cargo lift capacity on a typical Wednesday, the busiest day in the air cargo industry workweek. Miami International Airport accounts for nearly 70 percent of this air cargo capacity with 9.4 million pounds, making it a clear leader in the state.

In 2012, domestic and international air cargo routes at RSW had about one percent of the state's total capacity, or 105,000 pounds daily (34.5 million pounds annually). Table 2.6 illustrates the change in capacity available at RSW, which has decreased by about 55 percent between 2006 and 2012. This reduction is mainly due to the elimination of air cargo service from Lufthansa, DHL, and Cape Air. Since 2006, RSW reports the following changes contributing to a reduction in air cargo capacity:

- Lufthansa discontinued its wide-body passenger route to Dusseldorf and Munich, which contributed 44,000 pounds of capacity daily;
- DHL discontinued its route to its former hub in Wilmington, Ohio, contributing 20,000 pounds capacity; and
- Cape Air discontinued its feeder route to Tampa, contributing 2,240 pounds capacity.

Table 2.6: Southwest Florida International Airport Daily Air Cargo Capacity, 2006-2012 (in Pounds)

Year	Average Daily Capacity	Change in Percent	Average Daily Departures
2006	235,678		10
2007	206,640	-12.3%	9
2008	190,240	-7.9%	9
2009[a]	168,907	-11.2%	9
2010[a]	147,574	-12.6%	8
2011	126,241	-14.5%	8
2012	104,909	-16.9%	7

Source: Florida Department of Transportation 2013 Air Cargo System Plan Update Exhibit 24; OAG, FAA Records, CDM Smith.

[a] Indicates interpolated data.

Air Cargo Volumes

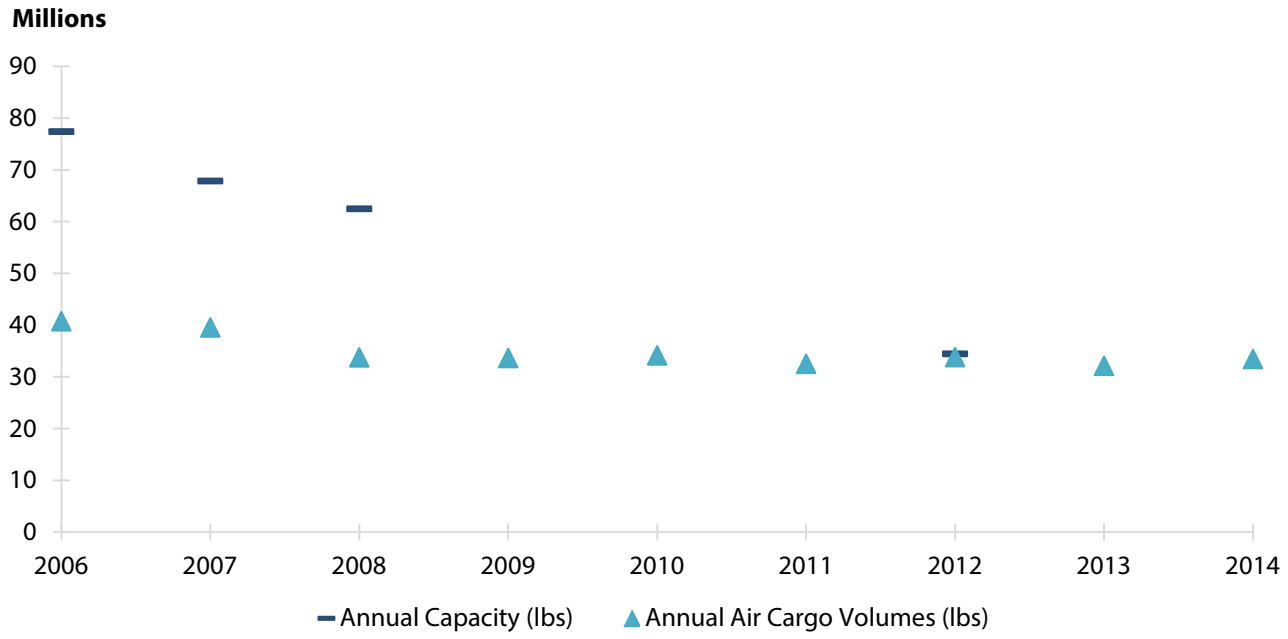
The U.S. air cargo market, and particularly domestic markets, were significantly affected by the global recession. National air cargo volumes have not regained their prerecession levels and as of 2014 remain about 7 percent lower than the 2007 peak.[1] Air cargo volumes at RSW have mirrored these trends. Volumes at RSW have dropped from a high of 41 million pounds in 2006 to 33.5 million pounds in 2014, a reduction of 18 percent. Since 2008, volumes have fluctuated by about 5 percent annually, but have not significantly decreased. Figure 2.6 shows air cargo capacity and volume at RSW between 2006 and 2014. Note with the reduction in capacity, RSW currently is utilizing the majority of available capacity.

Air Cargo Volumes by Month

Data on air freight volumes provided by RSW was analyzed for the period of October 2013 through September 2014. An average of 2.7 million pounds of freight moved each month over this period, for a total of 33 million pounds annually. The highest monthly volumes of just over 3.5 million pounds were found in December. This correlates with peak shipping seasons for expedited carriers, which make up the majority of the air freight tonnage moving through RSW. The seasonal population changes at RSW also contribute to higher volumes of packages shipped in winter months, when partial year residents are residing in the region. The lowest volumes over this time period were found in the summer months of June to September. Figure 2.7 shows the total monthly air freight volumes at RSW over this time period.

[1] 2015 Bureau of Transportation Statistics T100 Market data.

Figure 2.6: Southwest Florida International Annual Air Cargo Capacity and Volumes 2006 to 2014 (Millions of Pounds)



Source: Florida Department of Transportation 2013 Air Cargo System Plan Update; Southwest Florida International Airport Office of Public Affairs, 2015.

Figure 2.7: Southwest Florida International Airport Total Monthly Air Freight; October 2013 to September 2014 (Millions of Pounds)

Source: RSW, 2015.

Air Cargo Volumes by Carrier

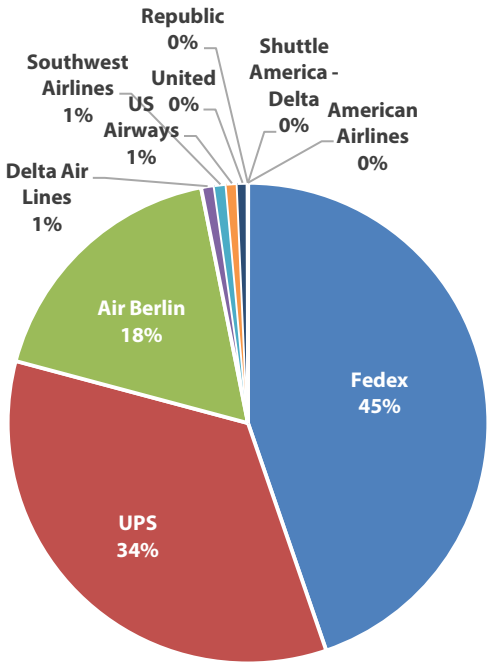
Air cargo volumes by carrier were examined over the same time period. Figure 2.8 shows the current breakdown of air cargo, by carrier, moving through RSW. The integrated carriers FedEx and UPS provide 45 percent and 34 percent of the

volumes moving through the system, respectively. Air Berlin accounts for another 18 percent of the cargo moving through the airport as belly freight; the remainder of the carriers move about 3 percent of volumes, total.

Additional information was provided to the consultant team by FedEx, the largest expedited carrier operating at RSW. FedEx provides express (overnight) service through the RSW airport, utilizing four regional sorting facilities – Naples, Bonita Springs, Fort Myers, and Punta Gorda. Second-day, or deferred, product, is trucked to the Lee County facilities from the Fort Lauderdale-Hollywood International Airport. FedEx does not have a large sorting facility available onsite at RSW.

The company reports operating one inbound and one outbound 757 aircraft five days a week out of RSW. Each aircraft carries between 38,000 to 42,000 pounds of freight, depending on the season, with additional capacity added during the winter holiday season.

Figure 2.8: Southwest Florida International Airport Total Air Freight, Percentage by Carrier; October 2013 to September 2014



Source: RSW, 2015.

2.3.2 ROAD FEEDER SERVICE

Road feeder service (RFS) is a service offered by a scheduled cargo operator that carries goods via truck instead of aircraft. It allows carriers to offer freight service to destinations not served by their fleet, and overall operates similarly to air cargo service in terms of scheduling and pricing.

According the Florida Air Cargo System Plan, in 2011, Florida airports had 11.1 million pounds of capacity each week on RFS truck routes, with Miami International averaging over 7.4 million pounds per week. This equates to 57 B747-400 aircraft per week or about nine aircraft per day, statewide. About 18 percent of the statewide capacity is related to RFS truck routes within the State of Florida and 82 percent moves to markets outside the state. The 11.1 million pounds represents a 45 percent increase over 2008 total RFS capacities. The robust growth in RFS service between 2007 and 2011 was directly tied to increases in air carrier fuel costs and modal switch from aircraft to trucks. Industry guidelines indicate trucking is typically 7 to 10 times less expensive per pound than shipping by air.

Currently, RSW does not have any RFS capacity. This is in part due to the type of freight moving through RSW, which is mostly express packages via UPS and FedEx originating or destined for the Lee County area. In contrast, airports such as Miami, Fort Lauderdale, or Orlando move a larger variety of domestic and international air freight, including exports, consumer goods, and agricultural products. Expedited carriers use a combination of ground and air shipping to serve customers using their own networks which are not typically part of road feeder service operations. FedEx does ship express packages via truck between airports, specifically Fort Lauderdale and RSW, to complement their air service to RSW.

2.3.3 AIR CARGO FACILITIES AND CAPACITY

Existing Cargo Facilities

The last RSW Master Plan Update, completed in 2004, identifies a number of cargo facilities. These

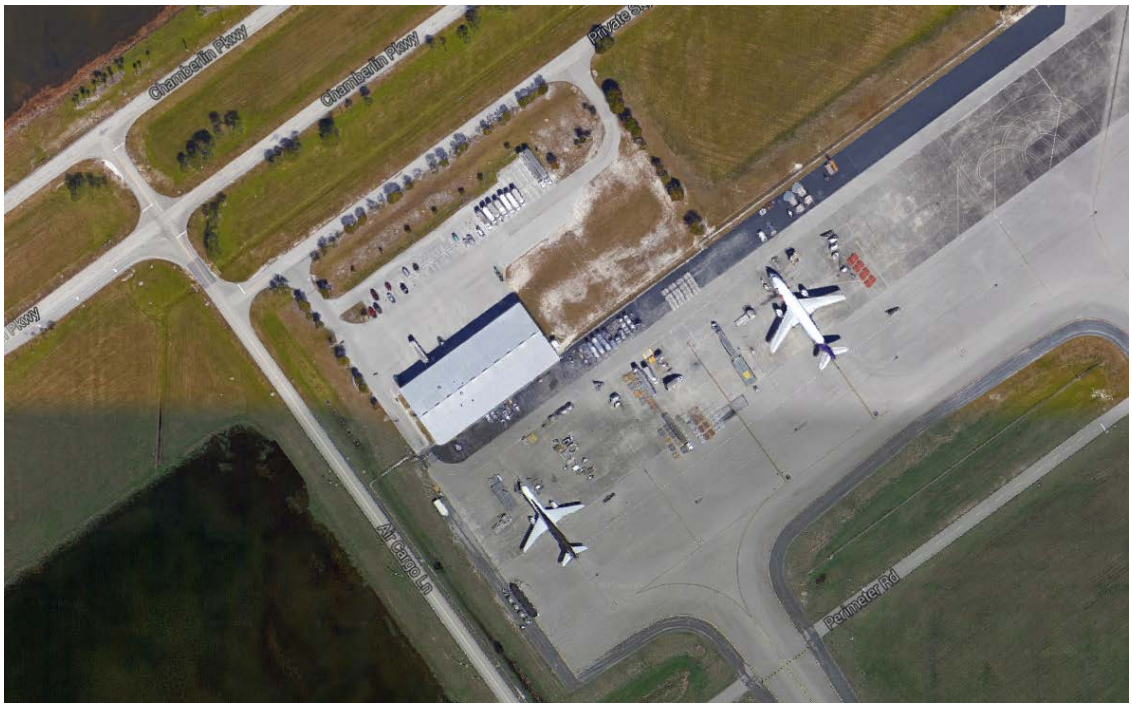
facilities are currently in existence and their current uses, as described by RSW airport personnel and industry interviewees are described here. RSW has a designated Cargo Apron on the north side of Runway 6-24 near the approach end of Runway 6. The Cargo Apron totals approximately 69,000 square yards and is capable of accommodating six large aircraft. Two taxiway connectors connect the cargo apron to Runway 6-24. Figure 2.9 shows an aerial view of the cargo apron.

The main air cargo facility was built in 1992 and is designed for expandability up to twice its current size. The structure is owned by the Lee County Port Authority and is leased out to tenants. Currently, FedEx and UPS operate out of this facility. The building has 10 cargo docks for truck supported pick-up and delivery operations. In addition, security-cleared large trucks are allowed to enter the aircraft parking apron to facilitate cargo on-load and off-load operations. The facility has direct access to Chamberlin Parkway.

The freight forwarding facility at RSW is located just north of the general aviation hangar. This structure is a common use belly-haul cargo processing facility for all the airlines. The structure is owned by the Lee County Port Authority and is leased out to tenants. Figure 2.8 above lists current airlines that carry belly cargo. Air Berlin is currently the largest conveyer of belly cargo. The facility includes five inclined-recessed loading docks for large trucks and five ground level loading docks. The southern side of the building contains eight ground-level docks to support airside cargo operations. All loading docks have associated cargo bays. Cargo is tugged between the aircraft parked on the passenger terminal ramp and the belly haul facility via the airport perimeter road. The facility is accessible via Regional Lane, which connects directly to Chamberlin Parkway.

As projected in the 2004 Master Plan Update, future cargo facilities will need to provide about a 50 percent increase from existing space. Current tenants also indicated the desire for increased cargo space and/or expansion of the existing cargo facility.

Figure 2.9: Southwest Florida International Airport Aerial View of Cargo Ramp and Facilities



Source: Google, 2015.

3.0 COMMODITY MOVEMENTS AND TRENDS

While the condition and connectivity of the underlying infrastructure is a critical component of freight movement, an understanding of the types of goods and industries that are served by this infrastructure is also important to help identify the needs and issues of the users. This section focuses on the types of commodities moving into, out of, and within the county as well as discusses key industries from a supply chain perspective to highlight how they use these facilities.

3.1 COMMODITY MOVEMENTS

In regards to commodity movements, trucks account for a large portion of traffic on the roadways of Lee County, as well as provide the last mile connection for the delivery of goods from major freight hubs. This commodity analysis predominately focuses on goods moving via truck. This was done utilizing data from TRANSEARCH, a database purchased by FDOT in order to better assess commodity flows within the state of Florida as well as determine trade flows with other states.[2] TRANSEARCH provides commodity flow data with a variety of information including origin, destination, commodity type, mode, value, and tonnage. In an attempt to recognize not only county to county flows, FDOT purchased this data at a traffic analysis zone (TAZ) level to better represent flows within a county.

Table 3.1 details the locations which provide the most goods to Lee County based on total tonnage. Currently, Lee County provides the highest number of goods to itself due to internal movements of products which are produced and consumed in the county. At present, this intracounty movement accounts for 22 percent of all goods brought into Lee County. However, there is expected to be a significant decline in this type of movement in the coming years, moving Lee County to fourth on this list. Other large trading partners include Miami-Dade, Broward, and Polk counties. These locations are due to their close proximity to Lee County as well as the major international ports of entry and distribution centers located within these counties which serve the consuming market of Lee County. Overall, all of the top trading partners for Lee County are located within the state of Florida with little anticipated change through 2040. The largest increases in tonnage are expected from Okaloosa and Collier counties with annual growth rates of 9.6 percent of 5.8 percent, respectively. The only counties which are forecasted to show declines in traffic are Lee and Polk.

Table 3.2 details the top commodities moving into Lee County, excluding those goods which move within the county. The largest commodity by tonnage is secondary traffic which comprises 26 percent of all tonnage moving into Lee County. This type of commodity is predominately goods moving through a warehouse or distribution center. For the consuming population of Lee County, having secondary traffic as the largest commodity is expected. This commodity is anticipated to grow at an annual rate of 3.3 percent through 2040, the highest growth rate of the top commodities presented here. This will increase not only the total tonnage of this commodity inbound to Lee County, but also its share of the traffic. The second most important commodity by tonnage moving into Lee County is petroleum or coal products. These products represent 20 percent of the total tonnage inbound to Lee County and are expected to grow 1.5 percent annually through 2040. The top five goods moving into the region, also including clay, concrete, glass, or stone, nonmetallic minerals, and food or kindred products, represent 78 percent of all goods moving to the region. This will remain unchanged through 2040. In actuality, no significant changes in the top goods moving into the region are anticipated between now and the forecast year of 2040.

[2] 2011 TRANSEARCH data used by FDOT to analyze commodity flows in District 1 as part of a districtwide freight program were used to summarize commodity flows for Lee County.

Table 3.1: Top Trading Partners for Imported Goods

Region	2011			2040		
	Tons (1,000)	Percent of Total	Rank	Tons (1,000)	Percent of Total	Rank
Lee County	1,833	22%	1	1,024	7%	4
Miami-Dade County	1,085	13%	2	2,064	15%	1
Broward County	1,032	12%	3	1,922	14%	2
Polk County	635	8%	4	448	3%	6
Hillsborough County	389	5%	5	494	3%	5
Collier County	256	3%	6	1,311	9%	3
Charlotte County	245	3%	7	414	3%	9
Orange County	178	2%	8	322	2%	10
Manatee County	148	2%	9	266	2%	13
Pinellas County	148	2%	10	430	3%	7
Okaloosa County	29	<1%	33	418	3%	8
All Others	2,482	29%		5,075	36%	
Total	**8,459**	**100%**		**14,189**	**100%**	

Source: TRANSEARCH.

Table 3.2: Top Commodity Types Moving Inbound to Lee County

Commodity	2011			2040		
	Tons (1,000)	Percent of Total	Rank	Tons (1,000)	Percent of Total	Rank
Secondary Traffic	1,691	26%	1	4,331	33%	1
Petroleum or Coal Products	1,358	20%	2	2,080	16%	2
Clay, Concrete, Glass, or Stone	731	11%	3	1,485	11%	4
Nonmetallic Minerals	707	11%	4	1,570	12%	3
Food or Kindred Products	663	10%	5	1,107	8%	5
Lumber or Wood Products	215	3%	6	322	2%	7
Waste or Scrap Materials	212	3%	7	306	2%	8
Chemicals or Allied Products	211	3%	8	365	3%	6
Farm Products	138	2%	9	230	2%	9
Printed Matter	104	2%	10	150	1%	11
Pulp, Paper, or Allied Products	81	1%	12	176	1%	10
All Others	516	8%		1,045	8%	
Total	**6,626**	**100%**		**13,165**	**100%**	

Source: TRANSEARCH.

Commodities moving within Lee County are examined separately as these are goods which are both produced and consumed in the county. For the most part, these goods consist of three main commodities: nonmetallic minerals; clay, concrete, glass, or stone; and waste or scrap materials as shown in Table 3.3. Currently, nonmetallic minerals is the largest commodity group by tonnage accounting for 82 percent of all tonnage moving within the county. However, looking ahead to the forecast year of 2040, this volume is expected to drop significantly to about one third of the tonnage seen today. While it continues to be the largest commodity type in 2040, the reduction in tonnage of nonmetallic minerals results in a much smaller market share of 52 percent. Growth in the remaining commodities is not enough to compensate for this loss of traffic and overall volumes are anticipating to be reduced at a rate of 2.0 percent per year.

For goods moving out of Lee County to other regions, the top trading partners are similar to those shipping goods into Lee County. The exceptions to this are the inclusion of Sarasota, Palm Beach, and DeSoto counties; and the exclusion of Polk, Orange, and Okaloosa Counties. Table 3.4 shows the outbound movements by region. For this type of movement, Lee County is also its own largest trading partner. A close second, as well as the anticipated largest in 2040, is Collier County, accounting for 20 percent of all goods moving outbound from Lee County. Once again, all of the top trading partners are counties within the state of Florida. The top 11 partners detailed here account for 78 percent of all goods moving outbound from Lee County, a volume that is anticipated to grow to 80 percent by 2040. While the overall share of these trading partners is anticipated to increase, total tonnage moving from Lee County is expected to be reduced by approximately 7 percent by 2040. This is predominately attributed to the reduction in traffic within Lee County as well as some loss of volume from Charlotte and Hillsborough counties and other smaller trading partners.

Table 3.3: Top Commodity Types Moving Within Lee County

	2011			2040		
Commodity	**Tons (1,000)**	**Percent of Total**	**Rank**	**Tons (1,000)**	**Percent of Total**	**Rank**
Nonmetallic Minerals	1,506	82%	1	537	52%	1
Clay, Concrete, Glass, or Stone	186	10%	2	260	25%	2
Waste or Scrap Materials	84	5%	3	120	12%	3
Secondary Traffic	49	3%	4	99	10%	4
All Others	7	< 1%		8	1%	
Total	**1,833**	**100%**		**1,024**	**100%**	

Source: TRANSEARCH.

Table 3.4: Top Trading Partners for Goods Moving Outbound from Lee County

Region	2011			2040		
	Tons (1,000)	Percent of Total	Rank	Tons (1,000)	Percent of Total	Rank
Lee County	1,833	29%	1	1,024	17%	2
Collier County	1,316	20%	2	1,575	26%	1
Manatee County	453	7%	3	451	8%	3
Charlotte County Polk County	328	5%	4	281	5%	6
Miami-Dade County	324	5%	5	409	7%	4
Broward County	154	2%	6	205	3%	7
Hillsborough County	145	2%	7	138	2%	9
Sarasota County	130	2%	8	306	5%	5
Palm Beach County	119	2%	9	139	2%	8
Pinellas County	113	2%	10	119	2%	11
DeSoto County	101	2%	11	131	2%	10
All Others	1,410	22%		1,179	20%	
Total	**6,426**	**100%**		**5,956**	**100%**	

Source: TRANSEARCH.

Table 3.5 details the top commodities moving outbound from Lee County, with the exception of those moving within Lee County, which were previously detailed in Table 3.3. The top three commodity groups in this instance are nonmetallic minerals, secondary traffic, and clay, concrete, glass, or stone. Presently, these three commodities account for 83 percent of all tonnage leaving Lee County. However, this share of traffic is anticipated to decrease to only 75 percent by 2040 due to a relatively stagnant growth overall in these commodities although some growth is seen by the clay, concrete, glass, or stone group. The top 10 commodities listed here account for 98 percent of all outbound traffic by tonnage and there is little change anticipated in these commodity mixes.

Another major mode of transportation for freight movements in Lee County is rail. Commodity flow data for rail movements is provided by the Surface Transportation Board's Rail Waybill Sample. Use of this data is restricted in areas with limited rail service to protect confidential information. Since there is only one rail operator in Lee County, a county level analysis of rail movements was not possible using the Waybill/TRANSEARCH resources. However, as part of the Florida Trade and Logistics Study, a statewide review of Florida's logistics industry and transportation system was conducted. This included forecasts by mode and type of freight for each of Florida's FDOT Districts. This analysis included present year flows (2010) as well as the forecast years of 2035 and 2060. While these do not align with the TRANSEARCH base and forecast years from the above analysis, they do allow for insight into rail trends in the region. Table 3.6 summarizes the modal data for FDOT District 1, as

available from the Florida Trade and Logistics Study.

Table 3.5: Top Commodity Types Moving Outbound from Lee County

Commodity	2011			2040		
	Tons (1,000)	Percent of Total	Rank	Tons (1,000)	Percent of Total	Rank
Nonmetallic Minerals	2,002	44%	1	1,793	36%	1
Secondary Traffic	917	20%	2	855	18%	3
Clay, Concrete, Glass, or Stone	870	19%	3	1,054	21%	2
Farm Products	219	5%	4	288	6%	4
Food or Kindred Products	155	3%	5	244	5%	6
Waste or Scrap Materials	132	3%	6	246	5%	5
Printed Matter	107	2%	7	53	1%	10
Lumber or Wood Products	57	1%	8	63	1%	8
Fabricated Metal Products	35	1%	9	75	2%	7
Machinery	27	1%	10	62	1%	9
All Others	73	2%		169	3%	
Total	**4,593**	**100%**		**4,932**	**100%**	

Source: TRANSEARCH.

Table 3.6: Modal Breakdown of Freight Movements in FDOT District 1[a]

		Air	Int'l Waterborne	Rail	Truck	Total
Tons (1,000)	2010	21	1,174	11,815	89,563	102,573
	2035	31	1,985	9,687	131,467	143,170
	2060	47	3,037	9,534	168,987	181,605
Percent of Total	2010	0%	1%	12%	87%	100%
	2035	0%	1%	7%	92%	100%
	2060	0%	2%	5%	93%	100%
Percent Growth	2010-2035	45%	69%	-18%	47%	40%
	2035-2060	53%	53%	-2%	29%	27%

Source: Florida Trade and Logistics Study.
[a] This tonnage includes inbound, outbound, and internal movements but does not include through movements.

As seen in this table, freight volumes in District 1 are anticipated to increase 40 percent between 2010 and 2035. This is fairly consistent with the truck trends illustrated by the TRANSEARCH data previously which suggest a 46 percent increase in truck tonnage moving to, from, and within Lee County from 2011 to 2040. However, rail freight movements are anticipated to decline 18 percent of over this same period, with a further reduction of 2 percent between 2035 and 2060. This results in a significant loss of modal share from 12 percent in 2010 to just 5 percent in 2060. Given that the rail line in Lee County ends in the northern portion of Collier County, and therefore there are minimal through movements through Lee County, this data suggests that demand for freight movements by rail is decreasing in the region. It is anticipated that the existing line will see less demand in the future than it does today based on these projections.

3.2 FREIGHT ACTIVITY CENTERS

Goods are moved into, out of, within, and through the county almost entirely by trucks on a two-tiered system of roadways. According to the Lee County Freight and Goods Mobility Analysis, rail and air freight constituted less than one half percent of total freight movements in Lee County in 2003. Tier One highways or regional corridors are used to move goods in, out, and through the county and provide connectivity beyond the county boundaries. Tier Two roads are those that function as connectors to the major freight activity centers or between the regional freight corridors. Together, these roadways provide a grid of north to south and east to west regionally significant freight mobility corridors. Below these two tiers are roads that provide connectivity for trucks to local destinations such as shopping centers, grocery stores, and big box retailers.

From a freight generation standpoint, Tier One generators are large industrial areas that send and/or receive freight in large quantities for manufacturing or for further distribution to the consumer markets. Tier Two freight generators are the consumer activity centers such as malls, shopping centers, and grocery stores that are supplied by the local delivery systems.

While freight generating activity is prevalent throughout the county, the Tier One generators are concentrated in large and small industrial and mixed-use areas known as Freight Activity Centers (FAC). FACs are the "economic engines" of the county or region. They are major contributors to the County's base employment and a key component of regional economic development plans. Generally, they are also major generators of truck trip activity, including long-haul shipments to and from areas outside of the region. The major industries located within a FAC typically have significant ties to areas outside of Lee County.

3.2.1 EXISTING AND EMERGING FREIGHT ACTIVITY CENTERS

The purpose of defining FACs is to establish their role and place in a community's vision for economic growth. Growth in these areas should be compatible with the land use and growth vision for surrounding areas. Policies and strategies that preserve these areas and provide opportunities for industrial growth are major considerations for future freight and goods movement.

Generally, FACs exhibit one or more of the following land use characteristics:

- Major industrial areas including manufacturing, warehousing, and distribution centers;
- Intermodal transshipment locations including ports, airports and their associated landside freight activities, and rail intermodal facilities; and/or
- Incubator industries that provide for future industrial growth.

Typically, FACs are located in the industrial core or near major intermodal transportation hubs such as ports, airports, and rail yards, or in outlying areas with industrial growth opportunities in close proximity to regional and strategic trade corridors.

Existing and emerging FACs, located in Lee County, were defined by the following criteria:

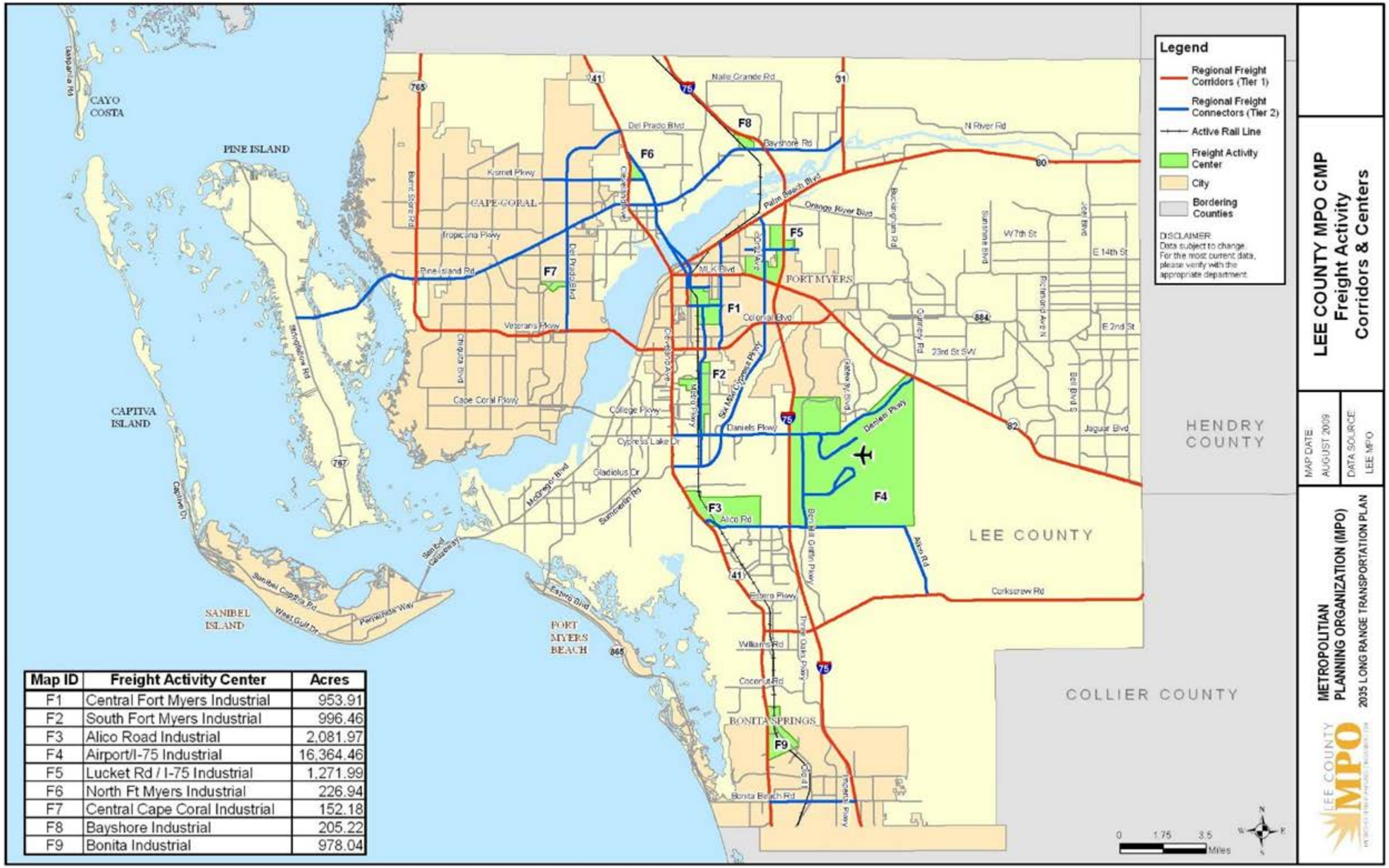
- Large, contiguous, industrial areas consisting of manufacturing, bulk processing,

warehousing/distribution activities, or intermodal transshipment locations;
- Areas with sufficient capacity (open and developable industrial zoned land) for growth;
- Industrial areas that are consistent with the local comprehensive plan; and
- Areas that have, or appear to have, an existing or emerging role in the regional economy.

Emerging FACs are those that are shifting from a local focus (small manufacturing of a local nature, repair shops, etc.) to a regional or national focus by attracting new businesses that reach beyond county borders. In some cases, these areas have relatively few businesses in place, but are designated for industrial growth with available vacant land to grow and are consistent with the local comprehensive plan.

The Lee County Freight and Goods Mobility Analysis (2009) identified virtually every business within the county with 50 or more employees. When mapped, these businesses were found to be located throughout the county, but a closer look indicated concentrations in specific areas. The approach for this Technical Memorandum was to map the Lee County Active Industrial Parks and use aerial photography and the County Property Appraiser's database to generally define boundaries, assess the types of industries located in the area, determine whether the areas are consistent with the established criteria for regional FACs, and serve as a starting point for further detailed study. Existing industrial employment locations and the industrial growth areas included in Development of Regional Impact (DRIs), and the Future Land Use Element of the Comprehensive Plans, were also considered. Based on the criteria, nine 9) FACs were identified within the county. These FACs are listed and characterized in Table 3.2 and shown on Figure 3.1. These FACs are briefly described in this section. Further evaluation of these FACs as part of future goods movement studies should be undertaken in order to better define their boundaries, obtain a detailed description of each of these FACs, the industries contained within them and the potential for truck trip generation.

Figure 3.1: Freight Activity Corridors and Centers



Map ID	Freight Activity Center	Acres
F1	Central Fort Myers Industrial	953.91
F2	South Fort Myers Industrial	996.46
F3	Alico Road Industrial	2,081.97
F4	Airport/I-75 Industrial	16,364.46
F5	Lucket Rd / I-75 Industrial	1,271.99
F6	North Ft Myers Industrial	226.94
F7	Central Cape Coral Industrial	152.18
F8	Bayshore Industrial	205.22
F9	Bonita Industrial	978.04

Figure 3.2: Freight Activity Centers within Lee County

Map ID	Freight Activity Center	Approximate Size (Acres)	Intermodal Facility	Available Transport Mode(s)				Character			Lee County Industrial Parks[1] Included within the FAC
				Truck	Rail	Air	Access	Expanding	Redeveloping	Constrained	
F1	Central Fort Myers Industrial	954	X[2]	X	X		F		X		19, 25, 26, 27, 31, 36
F2	South Fort Myers Industrial	996		X	X		F		X		7,15, 28, 33, 34, 35
F3	Alico Rd. Industrial	2,082		X	X		G	X			4, 5, 6, 37, 39
F4	Airport/I-75 Industrial	16,364	X[2]	X		X	G	X			1, 2, 3, 16, 18, 24, 38, 42, 43
F5	Luckett Road/I-75 Industrial	1,272		X			G	X			8, 10, 12, 23, 40
F6	North Fort Myers Industrial	227		X	X		G			X	17, 21, 22
F7	Central Cape Coral Industrial	152		X			F			X	14
F8	Bayshore Industrial	205	X[2]	X	X		G			X	9
F9	Bonita Industrial	978		X	X		G	X			13, 20

[1] Source Map: Lee County Southwest Florida Economic Development Office, April 2007.
[2] Potential site of rail intermodal facility (*Lee County Goods Mobility Analysis*).

Approximate Size is the area based on the boundaries established by visual inspection of aerial imagery and existing and future land use.

Intermodal facility is defined as the ability to transfer containerized freight, or piggy-back trailers, directly from rail to truck or from pipeline to truck. Currently there are no freight intermodal facilities located within Lee County, although the potential exists to develop a rail/truck intermodal yard at one of the three sites indicated in Table 3.2, as each location has rail or the possibility of extending rail into the activity center as is the case for the Airport/I-75 FAC.

Available Transport Mode refers to what modes are located within the FAC. All the FACs include truck transport, however rail is presently in use or potentially available in five of the eight FACs.

Access is rated Good, Fair, or Poor. Good means there is direct access to the Strategic Intermodal System (SIS) or regional freight corridors. Fair access refers to access to the SIS or regional freight corridors via a direct, or nearly direct, designated connecting route. Poor access means there is no direct, or nearly direct, access to the SIS or regional freight corridors.

Character refers to existing uses, condition of facilities within the FACs, and whether there is room to expand. Expanding means that the activity center has room to grow without impacting other competing land uses. Redeveloping means that the FAC includes a high percentage of older facilities that can be redeveloped into other industrial uses or is in the process of modernizing facilities. Constrained refers to areas that lack the ability to expand due to competing adjacent land uses or other barriers.

Industrial Parks were obtained from the Lee County Development Office map dated April 2007 that is posted on the County's web site (Table 3.7). Table 3.7 also shows which Freight Activity Center they are located in and the supporting regional freight corridors and connector roads.

Table 3.7: Lee County Industrial Parks

Name of Industrial Park	Location	FAC	Regional Freight Corridor	Connector Road
Airport Technology Center	Treeline Ave. S of Daniels Pkwy.	F4	I-75, Daniels Pkwy.	Treeline Ave.
Airport Woods Commerce Center	Treeline Ave. N of Daniels Pkwy.	F4	I-75, Daniels Pkwy.	Treeline Ave.
Alico Airpark Center	Alico Center Rd. @ Alico Rd.	F4	I-75, US 41	Alico Rd.
Alico Commerce Park	Alico Rd.	F3	I-75, US 41	Alico Rd.
Alico Industrial Center	Alico Center Rd. @ Alico Rd.	F3	I-75, US 41	Alico Rd.
Alico Lakeside	Alico Rd. @ Gator	F3	I-75, US 41	Alico Rd.
Andrea Lane Commercial Center	Andrea Ln. @ US 41	F2	US 41	
B.F. Industrial Park	County Lakes @ Luckett Rd. E	F5	I-75	Luckett Rd.
Bayshore Industrial Campus	SR 78 (Bayshore Rd.) @ I-75	F8	I-75, SR 78	
Benchmark Corporate Park (EZ)	SR 82 @ Ortiz Ave.	F5	I-75, SR 82	SR 82
Bernwood Industrial Park	Bonita Beach Blvd. E of I-75	None	I-75	Bonita Beach Blvd.
Billy Creek Commerce Center (EZ)	Luckett Rd. @ I-75	F5	I-75	Luckett Rd.
Bonita Springs Industrial Park	Old US 41 @ US 41	F9	US 41	Old US 41
Central Cape Industrial Park	Vicaya Pkwy. @ Del Prado Blvd.	F7	Del Prado	Del Prado Blvd.
Crystal Industrial Park	Tom Rab Ln. @ Crystal Dr.	F2	US 41, Metro Pkwy., Daniels Pkwy.	Metro Pkwy.
D-75 Commerce Center	I-75 @ Daniels Pkwy.	F4	I-75, Daniels Pkwy.	Treeline Pkwy.
East Cape Commerce Center	Pondella Rd. @ SR 78	F6	I-75, Pine Island Rd.	Pondella Rd.
Eastlinks	Daniels Pkwy. @ Gateway	F4	I-75, Daniels Pkwy.	
Eastern Industrial Park	SR 82 @ Rockfill Rd.	F1	I-75, US 41, SR 82	Veronica Shoemaker
Greyhound Industrial Park	Bonita Beach Blvd.	F9	I-75, US 41	Bonita Beach Rd.
Hancock Creek Commerce Park	SR 78 @ Corbett Rd.	F6	US 41, SR 78	Corbett Rd.
Indian Oaks	Diplomat @ Corbett Rd.	F6	US 41, SR 78	Corbett Rd.
Interstate Park 82 (EZ)	SR 82 @ I-75	F5	I-75, SR 82	SR 82

Name of Industrial Park	Location	FAC	Regional Freight Corridor	Connector Road
Jetport Interstate Commerce Park	Daniels Pkwy. @ Jetport; Commerce Pkwy.	F4	I-75, Daniels Pkwy.	Treeline Pkwy.
Kennesaw Industrial Park	Metro Pkwy. @ Kennesaw Rd.	F1	US 41, I-75	Metro Pkwy.
Metro Distribution Center	3453, 3511 Metro Pkwy.	F1	US 41, I-75	Metro Pkwy.
Metro Plantation Commerce Center	Metro Plantation @ Metro Pkwy.	F1	US 41, I-75	Metro Pkwy.
Metro Plex Industrial	Metro Plex @ Metro Plantation Rd.	F2	US 41, I-75	Metro Pkwy.
Mid Cape Business Park	Hancock Bridge Pkwy. @ SR 78	None	SR 78	SR 78
North Cape Industrial Park	Kismet Pkwy. @ Andalusia Blvd.	None	SR 78 & Del Prado Blvd.	Kismet to Del Prado Blvd.
Pearce Industrial Park	Metro Pkwy. @ Hanson St.	F1	US 41, I-75	Metro Pkwy.
Pine Island Industrial Park	Stringfellow Rd. (Pine Island)	None	SR 78	SR 78
Plantation Corporate Park	Plantation Rd. S	F2	US 41, I-75	Daniels Pkwy.
Pyramid Industrial Park	Metro Pkwy. @ Topaz Ct.	F2	US 41, I-75	Metro Pkwy.
Six Mile Commercial Park	Six Mile Pkwy. @ Independence	F2	US 41, I-75	Six Mile Cypress Pkwy.
Southside Industrial Park	Hanson St. @ Work Dr.	F1	US 41, SR 82	Fowler Ave.
South Trail Industrial Park	US 41 @ Younquist Dr.	F3	US 41, I-75	Alico Rd.
SW FL International Commerce Park	Treeline Ave. @ I-75	F4	I-75, Daniels Pkwy.	Treeline Ave
South Lee Industrial Complex	Gator Rd. @ Alico Rd.	F3	I-75, US 41	Alico Rd.
Suncoast Commerce Park	Ortiz @ Laredo	F5	I-75, SR 80, SR 82	Ortiz
Westgate Business Park	Leonard Blvd. @ Lee Blvd.	None	SR 82	Lee Blvd.
Westlake Business Park	Daniels Pkwy. @ Gateway	F4	SR 82, Daniels Pkwy., I-75	Daniels Pkwy.
Worthington Business Park	Daniels Pkwy. @ Commerce Lakes	F4	SR 82, Daniels Pkwy., I-75	Daniels Pkwy.

Source: Lee County MPO 2035 LRTP: Goods Movement Technical Memorandum.

Central Fort Myers Industrial Freight Activity Center (MAP ID F1)

The Central Fort Myers Industrial FAC is made up of 954 acres located approximately between Edison Avenue on the north, to the City Limits on the south, and between Fowler Street on the west and Veronica Shoemaker on the east. The general boundaries are shown on Figure 3.1 and are depicted as FAC F1. Included within this area are six industrial/business parks:

- Eastern Industrial park
- Kennesaw Industrial park
- Metro Distribution Center
- Metro Plantation Commerce Center
- Pearce Industrial park
- Southside Industrial park

Also located within this area is the Farmers Market, which was identified as a potential container intermodal facility by the Lee County Freight and Goods Mobility Analysis.

Transportation access is fair with no direct connection to the interstate system. The primary connecting roadways include Metro Parkway, Veronica Shoemaker, Hansen Street, Edison Avenue, Fowler Street and Colonial Boulevard, SR 82 and SR 80 that connect directly to I-75. Rail access is provided by the Gulf and Seminole Railroad, a class III regional line that extends into Lee County from its connection with the CSX Railroad at Arcadia in DeSoto County.

South Fort Myers Industrial Freight Activity Center (MAP ID F2)

The South Fort Myers FAC consists of approximately 996 acres that extend primarily along the east side of Metro Parkway from the northern boundary of Page Field to Six-Mile Cypress Parkway. There is a small westward expansion between the south side of the airport and the Hideaway Country Club, and another area that extends westward to U.S. 41 south of Daniels Parkway. Included within this freight activity center are six industrial parks:

- Andrea Lane Commercial Center
- Crystal Industrial Park
- Metro Plex Industrial
- Plantation Corporate Park
- Pyramid Industrial Park
- Six Mile Commercial Park

Transportation access is good with no direct connection to the Interstate system, however, Metro Parkway and U.S. 41 connect to Colonial Boulevard, Daniels Parkway and Six Mile Parkway, which are all regional goods movement connector corridors that provide access directly to I-75. Rail service is also available from the Gulf and Seminole Railroad.

Alico Road Industrial Freight Activity Center (MAP ID F3)

The Alico Road FAC is the area's second largest with approximately 2,082 acres that extend along both sides of Alico Road from U.S. 41 to east of I-75. This freight activity center has available vacant land for expanding and is sited in a prime location for future industrial development. Industrial parks located within this FAC include:

- Alico Commerce Park
- Alico Industrial Center
- Alico Lakeside South Trail Industrial Park
- South Trail Industrial Park
- South Lee Industrial Complex

Transportation access is good, with direct connectivity to I-75 and U.S. 41 via Alico Road. Alico Road also provides access to the SW Florida International Airport via Treeline Avenue, and to regional mining activities in the southeast portion of the county. Rail access is available from the Seminole Gulf Railroad that extends south along the east side of Old U.S. 41. Rail service currently extends along Alico Road (spur line) over to the west of the future Three Oaks Extension.

Airport/I-75 Industrial Freight Activity Center (MAP ID F4)

The Airport/I-75 freight activity center is the largest, with 16,364 acres, but also the most loosely defined area. While a large portion of the FAC is occupied by the SW Florida International Airport complex, there are several industrial/business parks that have developed between I-75 and Treeline Avenue located west of the airport and along Daniels Parkway, which

borders the north side of the airport. Alico Road provides the general southern boundary while the eastern boundary is generally defined as a line extending north from Alico Road to intersect with SR 82 at Shawnee Road. Within this general area there is room to develop additional industrial areas south and east of the airport. The Lee County Freight and Goods Mobility Analysis identified this area as a potential site for a rail intermodal terminal for both containers and petroleum fuels for aircraft and highway vehicles. The area could also be used to load bulk railroad cars for shipment out of the area. Industrial/Business parks in this area include:

- Airport Technology Center
- Airport Woods Commerce Center
- Alico Airpark Center
- I-75 Commerce Center
- Eastlinks
- Jetport Interstate Commerce Park
- SW Florida International Commerce Park
- Westlinks Business Park
- Worthington Business Park

Transportation access is good with Treeline Avenue providing north-south connectivity to two interstate interchanges via Daniels Parkway and Alico Road. Daniels Parkway also connects to SR 82 east of the airport that provides access to the Imokalee area in Lee County. The area south of the airport has been previously identified by Lee County and in the Lee County Freight and Goods Mobility Analysis as an opportunity for a possible rail intermodal location for the transfer of container cargo, aviation fuel for the airport, and possible other liquid petroleum products. However, extending the railroad east of I-75 would be problematic and costly from a right-of-way and infrastructure perspective. The primary issue would be how to get the rail east of the interstate at a reasonable cost. This could also include a pipeline from where the service ends on Alico over to this area. This opportunity will be discussed further later in this report.

Luckett Road/I-75 Industrial Freight Activity Center (MAP ID F5)

The Luckett Road/I-75 freight activity center approximately 1,272 acres and is a mixture of old and new industrial development. It generally extends from SR 82 (Dr. Martin Luther King Jr. Boulevard) north to Tice Street and between I-75 and Ortiz Avenue. On the south it extends west along SR 82 to the Michigan Avenue Link and north to approximately Ballard Road. The area appears to be a mixture of regional and local industrial businesses including commercial activities such as small repair shops. Industrial parks identified in this freight activity center include:

- B.F. Industrial Park
- Benchmark Corporate Park
- Billy Creek Commerce Center
- Interstate Park 82 (EZ)
- Suncoast Commerce Park

Transportation access is good with Ortiz Avenue providing north-south connectivity to Luckett Road and SR 82, both of which provide direct access to I-75.

North Fort Myers Industrial Freight Activity Center (MAP ID F6)

The North Fort Myers FAC is approximately 227 acres and extends from Littleton Road northward between U.S. 41 and U.S. 41 Business to their junction.

- East Cape Commerce Park
- Hancock Creek Commerce Park
- Indian Oaks

Transportation access to U.S. 41 and Business U.S. 41, a regional freight corridor is good; however, connectivity to I-75 (SIS corridor) is fair with connectivity via SR 78/Bayshore Road.

Central Cape Coral Industrial Freight Activity Center (MAP ID F7)

The Central Cape Coral Industrial FAC is generally located south of Viscay Parkway and west of Del Prado Boulevard. It is the smallest of the FACs, consisting of one industrial park and 152 total

acres. The only industrial park located within this area is the Central Cape Industrial Park.

Transportation access is good to Del Prado Boulevard, a regional freight connector corridor; however, connectivity to I-75 is only fair via Del Prado Boulevard and SR 78/Pine Island Road/Bayshore Road, a distance of 9 miles. Access to the south is also available along the Veterans Parkway/Colonial Boulevard over to I-75.

Bayshore Industrial Freight Activity Center (MAP ID F8)

The Bayshore Industrial FAC is bounded by SR 78/ Bayshore Road on the south and I-75 to the north and east and is bisected by the Gulf and Seminole Railroad. It contains 205 acres and was identified as one of three potential sites for an intermodal container facility by the *Lee County Freight and Goods Mobility Analysis*. This FAC is in an excellent location and there is plenty of vacant land to the north and west that could be used for expansion if properly zoned. In its current configuration there is not enough room to bring a 100-car intermodal train unless the area is expanded north to the proposed Del Prado Boulevard Extension and future interchange on I-75. This site is a prime location for large truck distribution centers due to its location near I-75 that could possibly be developed into a small freight village, with rail and interstate access, truck parking, fueling, rest area and restaurants. The Bayshore Industrial Campus is the only industrial park identified in the area. Truck access is good with nearly direct connectivity to I-75 approximately one mile east on SR 78.

Bonita Industrial (MAP ID F9)

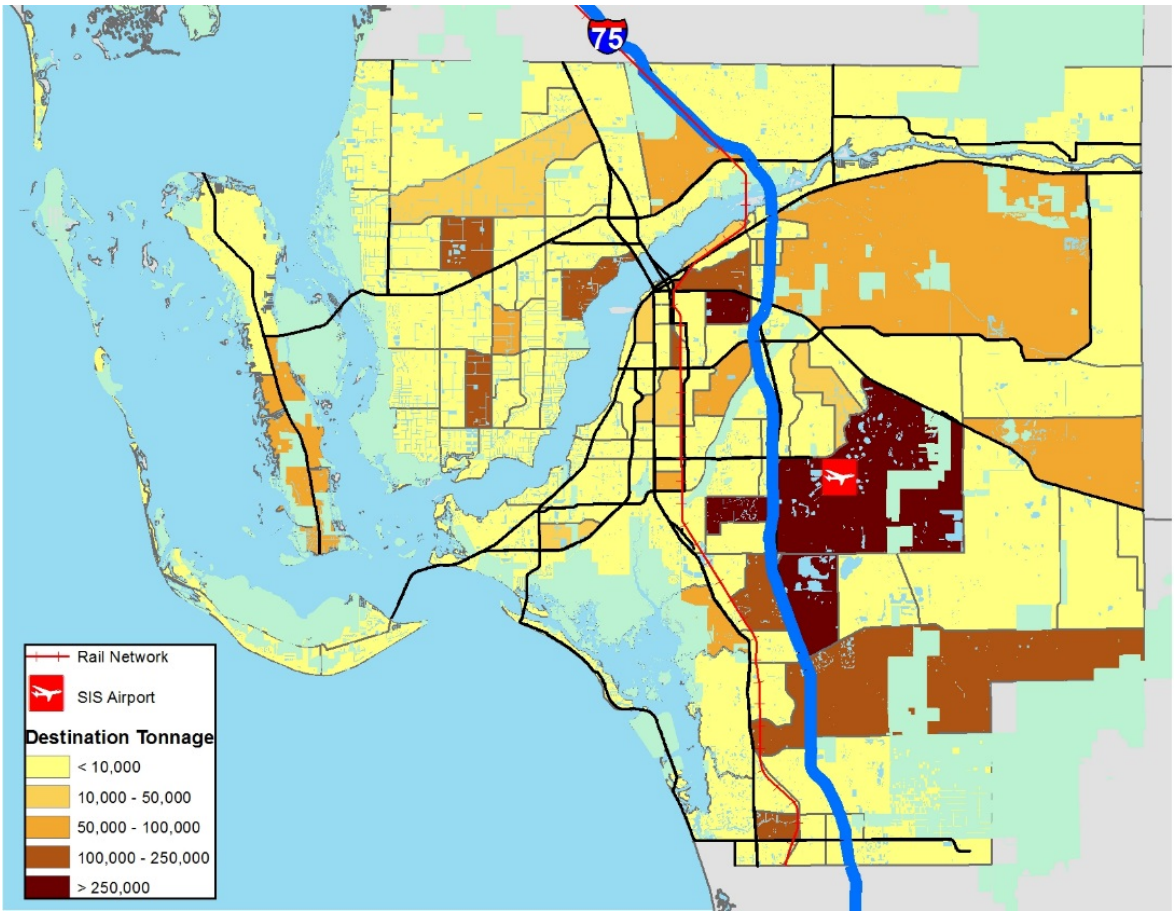
Bonita Industrial freight activity center consists of 978 acres of mixed use activities including industrial, warehousing, commercial and some residential. The area is located in the vicinity of the junction of Old U.S. 41 and U.S. 41 between Old U.S. 41 and the Seminole Gulf Railroad right-of-way. While the area is constrained, there are several vacant properties within the area that can be developed as industrial/warehousing sites. Although the railroad passes along the western side of the property the only businesses with rail service is Preferred Materials, a mineral processing plant, and S & S Pre-cast Land Development, a producer of pre-cast concrete beams and pipes. The only industrial park located within the freight activity center is the Bonita Industrial Park.

Transportation is good with nearly direct access to U.S. 41, a regional goods movement corridor, with fair access to I-75 via U.S. 41 and Bonita Beach Road.

3.2.2 TRANSEARCH CONCENTRATIONS OF INBOUND AND OUTBOUND MOVEMENTS

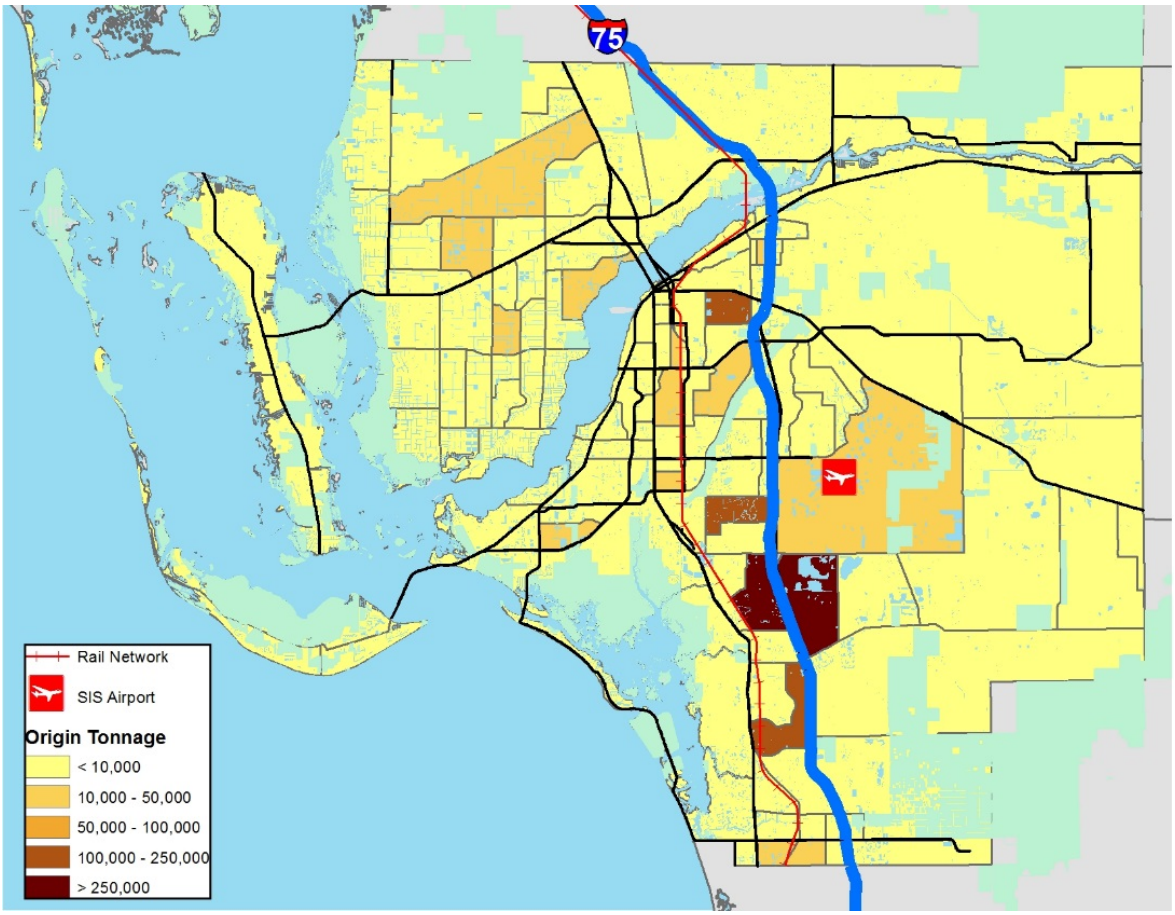
The identified freight activity centers were predominately focused on an identification of clusters of industrial parks. While these areas do have a high concentration of freight due to the businesses operating there, they are not necessarily the only locations where trucks are operating. Figures 3.2 and 3.3 showcase where the truck tonnage previously discussed is going to or coming from, respectively. A comparison of these two maps shows a much wider spread for inbound movements than outbound. This is likely due to a smaller number of outbound movements from warehouses and distributions centers to a larger number of retail locations throughout the county. Also, goods produced in the county which are then distributed elsewhere in the country are only produced in a few select locations, resulting in the more concentrated areas.

Figure 3.3: Inbound Truck Movements



Source: TRANSEARCH.

Figure 3.4: Outbound Truck Movements



Source: TRANSEARCH.

3.3 EXAMPLE SUPPLY CHAINS OF LEE COUNTY

While the analysis of TRANSEARCH data yields a high level overview of key commodity types in the region and where they are going to or from, connecting with industry partners gives a more detailed look at how an individual supply chain functions. As part of this effort, four companies were selected to participate in stakeholders interviews as representatives of the following industries:

- Beverage Distribution
- Seafood
- Fresh Produce
- Refrigerated Products

These stakeholders were asked to discuss how their product moves, what type of facilities they use, potential growth plans, advantages to operating in the region, and issues they encounter either in the region or the specific industry at large.

3.3.1 BEVERAGE DISTRIBUTOR

Distribution operations are represented by a company specializing in beverage distribution, specifically beer. Product is brought into the region utilizing the ports of Miami and Tampa for international imports. Trucks are used to move the imports from port to warehouse and for all other shipments of domestic brews. Rail is not utilized for movements as the product requires more time sensitivity than rail allows.

This product is brought into one of three facilities operated by this distributor in South Florida, namely in Fort Myers, Tampa, and Fort Pierce. Product from each supplier is only brought to one

facility directly, requiring a redistribution of the goods between facilities before they are delivered to customers. This movement occurs at night by a company owned fleet and includes not only the redistribution of new product, but also things such as empty kegs. With plans to expand the existing facility in Fort Myers, it is anticipated that the magnitude of the overnight redistribution of goods will be reduced, if not eliminated.

Once the goods are reallocated to the proper warehouse, they are then delivered to customers. From the Fort Myers facility, customers are located in several of the surrounding counties, including not only Lee but also Collier, Hendry, Glades, and Charlotte, among others. In the region, there are over 5,000 accounts, which are served on 40 to 45 various routes. On each route, a single truck will hold roughly 550 cases of beer. All told, this company delivers 20 million cases of beer each year, 7.5 million of which are distributed out of Fort Myers.

For the most part, this distributor has minimal problems with the freight network in Lee County. While there are some operational issues, such as a lack of space to load or unload trucks in Downtown Fort Myers, these are seen as things that come with the job and would be difficult to modify. The company mitigates these issues by teaching the driver what they need to do at a particular customer. They also adjust their vehicle sizes for any special size and weight considerations. Other minor operational issues involve low-hanging trees which can cause damage to the trucks as they drive around. A larger awareness of this for landscaping purposes can help to reduce this hazard. Additional operational considerations undertaken by the company include traffic monitoring to take routing actions ahead of time and optimizing delivery routes to reduce travel times and mileage. Overall, their Fort Myers location is well suited for operations as a central location for the customers served. Easy access to I-75 is also important.

3.3.2 REFRIGERATED GOODS/ PERISHABLES AND OTHER COMMODITIES

To represent the movement of refrigerated products into and out of the region, a local full service refrigeration company who does warehousing and distribution was contacted. The facility itself handles frozen foods, citrus, and juices, which are shipped both nationally and internationally. Customers drive the volume of goods handled as well as the origin and destination of these goods. These products are transported via a company truck fleet which includes refrigerated vehicles.

For other commodity types, flatbed trucks are used to provide transloading services for rail products including lumber or drywall. Other products such as scrap steel and glass cullet are also transported via rail through this facility to serve companies without rail access. The use of rail to move these goods helps to reduce the number of trucks on the roadway and improves the overall level of service. As such, expanded rail and intermodal service in the region is desirable. One of the largest components of this conversation stemmed from the need for an intermodal terminal. While Lee County is located near the new intermodal terminal developed by CSX in Winter Haven, a terminal here would help serve a more localized area, roughly within a 150-mile radius. This is not necessarily an immediate need of the region, but something which needs to be planned for on the horizon. This can yield a more efficient, standardized method of transporting freight into the region.

This stakeholder identified the need to promote freight within Lee County and was encouraged that the MPO is taking steps to keep up with the needs of freight users. While the lack of a deepwater seaport in the county results in slower growth, taking steps such as developing an intermodal facility as well as preserving the existing rail corridor will help to ensure that Lee County has a well connected and efficient freight system.

3.3.3 SEAFOOD

The seafood industry of Lee County is represented by a company specializing in shrimp. They are among the largest in the State of Florida, moving over 15 million pounds of shrimp each year. Product is captured and brought in on vessels after which a large amount is moved to Tampa to a processing facility there. To understand the importance of this facility, it is necessary to think of how shrimp are captured versus how they are sold. A single vessel can capture millions of shrimp in a single trip, however, they are a wide variety of sizes. Shrimp are typically sold by a specific size (i.e., "jumbo" versus "small"). To properly sort and package this product, a processing facility is needed. For this reason, product is predominately shipped to Tampa as well as Texas, but can vary based on where the best price is found. These movements are all done via truck, usually with a company owned fleet.

A significant challenge for this industry comes from foreign imports. The United States shrimp industry faces significant competition from farm raised shrimp from countries such as China, Thailand, and Vietnam, among others. This has driven the price of shrimp down significantly in the United States and could feasibly result in domestic layoffs in this industry. This issue has been at the forefront of the industry for many years, including a lawsuit filed by American shrimpers in 2002 against multiple countries as well as counter-lawsuits by China and Thailand.

Opportunities for this industry include upgrades to outdated facilities, an expansion of mode types used, and trade opportunities with Cuba.

One of the limitations for the shrimp industry in regards to customers which can purchase the product lies in the need for a processing facility. The processing facility in Lee County which was previously used for this is now outdated and in need of upgrades. The redevelopment of this facility has the potential to not only allow the company to be more cost competitive but also to add both full and part-time jobs for the region.

As mentioned, all product for this company is shipped to customers via truck. While the small company owned trucking fleet is normally adequate, a larger than average catch can result in the need for the company to depend upon a third-party logistics provider. One opportunity for this industry to combat this problem is to rely more heavily on rail transport. For many industries, rail is

not an option due to slower shipping times than truck. However, for shrimp, this offers an opportunity. As technology has evolved, so too has the shelf-life of shrimp as it can be frozen directly on the boat and stay fresh for weeks, allowing the slower transit mode to be viable, albeit in refrigerated equipment. This would open up additional customers to sell product to as well as most likely reduce the overall cost of transportation.

The last opportunity mentioned for this industry as a whole lies in the opening of trade with Cuba. While there are still several issues which need to be sorted out with opening trade with this country, the current political atmosphere suggests that this may soon be a reality. Ideally, smaller supply boats would export shrimp to Cuba, which would then in turn bring Cuban products back as imports on the return trip. This opens up an additional market for this industry to participate in, allowing for the possible growth of existing operations.

3.3.4 FRESH PRODUCE

Agriculture is a significant industry throughout the entire state of Florida encompassing oranges, tomatoes, sugar cane, and a variety of other fruits and vegetables. This industry has an impact on Lee County as well. A local grower was contacted. Farms are located throughout the state, but the main facility for this company is located in Immokalee, Florida, to the east of Lee County.

The process of growing fresh vegetables and fruit is a multi-step process and requires a significant amount of sourced products. Prior to growing season, fertilizer must be brought to the farms in order to facilitate growth. This fertilizer is mostly acquired from Port Tampa Bay as well as some which is railed in from Canada. However, all fertilizer is delivered to the farms via truck.

During the growing season, truck movements are relatively minimal as there is no product to move. However, once the produce is harvested, the truck movements begin again. All products are brought to the facility in Immokalee for packaging before being shipped throughout the United States.

For the most part, these movements are done by company owned trucks with some third-party providers depending on the movement type. Truck movements not only include the fertilizer and products mentioned here, but also the packaging material used, associated trash, and other materials needed for production. Overall, this results in several thousand truckloads per year.

As all movements for this particular stakeholder are done using truck, a well operating roadway network is key for smooth operations. Given that Immokalee is at least 20 miles from the nearest interstate, adequate connections to access these high-capacity facilities are critical. From the vantage point of Immokalee, a widening of SR 82 to four lanes would be most beneficial. Another potential option discussed would be a bypass for I-75 around Fort Myers connecting to Naples through Immokalee which would help all growers along this route.

3.3.5 ADDITIONAL STAKEHOLDER INPUT

While the discussions with county stakeholders were meant to yield a glimpse into specific supply chains for these industries, some of the issues mentioned impact more than a single industry. Most notably, the minimal selection of truck fueling and parking stations was mentioned. While this may not impact some local operators who are aware of the situation or who may be able to provide parking for their fleet, it leaves the trucking community at a disadvantage. With few truck parking or refueling locations, drivers do not have an opportunity for competitive prices and also risk violating hours of service laws or local violations should they not be able to find an appropriate location to rest. It was recommended that an additional facility be developed in the county to accommodate both local and long-distance truck operators.

4.0 FREIGHT PERFORMANCE MEASURES

4.1 TRUCK-FRIENDLY DESIGN STANDARDS

Due to the importance of goods movement to the local economy, policies must be developed to ensure the efficient movement of freight over the designated network. The *Lee County Freight and Goods Mobility Analysis* had included a recommendation for incorporating truck friendly highway geometric designs.

In order to accommodate trucks, all regional and connecting truck corridors should incorporate truck-friendly design standards whenever a roadway is improved. The purpose of incorporating truck-friendly design on certain regional and local roads is to encourage trucks to use these facilities to reduce delay and save time. It approaches freight mobility from a positive perspective by encouraging the use of certain corridors rather than restricting trucks from corridors and local streets. Good truck-friendly design standards also reduce the risk of infrastructure damage such as crushed curbs and sidewalks and damaged signs and utility structures. Making it easier for trucks to maneuver and reducing the number of times trucks must stop along a corridor ultimately improves the corridor for all users. In addition, congested freight activity areas should also include adequate road widths for on-street deliveries where appropriate and when off-street parking is not available. These standards, at a minimum, include:

- Travel lane width of > 10 feet (12 feet preferred and standard for SIS facilities);
- Hard shoulders width of 10 feet;
- Corner turning radius sufficient to accommodate a WB-66 tractor trailer unit (53 feet trailer plus tractor unit);
- Left-turn storage lanes of sufficient length to accommodate all turning vehicles without blocking/interrupting through lane traffic;
- Directional median openings with left turn storage that will accommodate large trucks reducing through lane interruption;
- Dedicated right-turn lanes and acceleration merge lanes at major intersections;
- Advanced signal timing that maximizes truck flow and minimizes the number of stops for trucks;
- Minimized interactions between bicycle and pedestrian movements and truck movements;
- Truck way-finding signage (similar to points of interest signage) to direct trucks to key intermodal, rail and distribution facilities via the most direct route; and
- Designated on-street truck parking during established delivery times in the downtown commercial and congested freight activity centers.

To ensure truck-friendly design standards are included on all truck routes, the county and municipalities, working with the MPO, should develop and formally adopt countywide minimum standard truck route typical sections to be used on all future capacity improvements on designated regional and local truck routes. It is recommended that the District 7 *Freight Roadway Design Considerations* Report be reviewed. This report was developed as part of the Tampa Bay Regional Strategic Freight Plan to help agencies apply context-sensitive solutions for effective and efficient goods movement in the region.

In order to ascertain the state of "truck friendliness" within Lee County, it is recommended that the MPO, in cooperation with the county and municipalities, undertake a "freight corridor screening program" that will help evaluate each corridor against a standardized freight- screening checklist. Once a baseline is established on the goods movement corridors, the number of miles or percent of corridors that meet the standards could be used as a systemwide performance measure until all routes have been improved.

4.2 RECOMMENDED PERFORMANCE MEASURES

Performance measurement to assess freight movements have come to the forefront of

planning efforts due to MAP-21 requirements. Specifically, state and MPOs were charged with establishing performance measures in the following areas:

- Pavement condition on the Interstate System and on the remainder of the National Highway System (NHS);
- Performance of the Interstate System and the remainder of the NHS;
- Bridge Condition on the NHS;
- Fatalities and serious injuries by both number and rate per vehicle mile traveled on all public roads;
- Traffic Congestion;
- On-road mobile source emissions; and
- Freight movement on the Interstate System.

In order to meet the requirements for MAP-21 reporting, the state of Florida initiated a Mobility Performance Measures (MPM) program within FDOT. The *Florida Multimodal Mobility Performance Measure Source Book* is published annually and represents data and analysis primarily for the State Highway System (SHS) and includes the SIS. This document encompasses all major modes of transportation within the state of Florida including automobile, aviation, bicycle, pedestrian, transit, truck, rail, and seaport. The freight-specific performance measures identified as part of this program are detailed in Table 4.1. Note that seaport measures monitored by FDOT are not included here since Lee County does not have a deepwater seaport.

Table 4.1: Freight Measures Identified in the Florida Multimodal Mobility Performance Measures

Name	Truck	Aviation	Rail
Quantity	Combination Truck Miles Traveled ☐	Tonnage 👁	Tonnage 👁
	Truck Miles Traveled ☐	Value of Freight 👁	Value of Freight 👁
	Combination Truck Tonnage 👁		
	Combination Truck Ton Miles Traveled 👁		
	Value of Freight 👁		
Quality	Travel Time Reliability ◔ ◕ ☐		
	Travel Time Variability ◔ ◕ ☐		
	Combination Truck Hours of Delay ☐		
	Combination Truck Average Travel Speed ◔ ◕		
Accessibility		Highway Adequacy (LOS) ◔ ◕	Highway Adequacy (LOS) ◔ ◕
			Active Rail Access 👁
Utilization	% Miles Severely Congested ◔ ◕		
	Vehicles Per Lane Mile ◔		
	Combination Truck Backhaul Tonnage 👁		

Source: Florida Multimodal Mobility Performance Measures Source Book.
Reporting Periods: ◔ – Peak Hour, ◕ – Peak Period, ☐ – Daily, 👁 – Yearly.
Bold – FDOT MAP-21 Recommended Measure, *Italicized* – Measure added in 2015.

A key strategy of this Program is to conduct consistent outreach. In particular, the Program seeks to have regular meetings with Stakeholders, namely the FDOT Districts and Modal Offices one to two times per year. MPOs may also be included in this process but on a by-request basis. It is recommended that the MPO work with this Program on an annual basis to acquire relevant data sets and analysis for these measures which are already monitored.

In addition to the mobility performance measures discussed above, additional freight related performance measures have been identified based on best practice research to help the Lee MPO meet MAP-21 requirements as well as local county needs. These measures address the following areas:

- Safety;
- Economic;
- Environmental;
- Asset (pavement, bridges);
- Human Resources; and
- Production.

Specific measures to address include: pavement conditions, bridge conditions, fatalities and serious injuries, and emissions. Fortunately, the majority of these measures are monitored by FDOT or other state agencies which allows for a consistent glimpse at historical trends of these measures. The exception to this is the emissions component. Without specific monitoring locations, emissions are typically calculated as an average based on vehicle types and vehicle miles traveled. As such, this measure is typically harder to monitor unless a specific program is put into place, such as those seen in California.

These additional measures can be monitored on a consistent, straightforward basis which allows for a comparison from year to year. In regards to pavement conditions, the FDOT Pavement Condition Unit conducts annual surveys of SHS to support FDOT's Pavement Management Program. This data is used to assess the condition and performance of the roadways as well as predict future rehabilitation needs. This data is reported on an annual basis by roadway segment but is also provided as a GIS shapefile that is updated weekly. This frequency of reporting can make assessing the network on a consistent basis a more difficult task. However, pavement does not typically deteriorate overnight. In addition, based on data from September 2015, pavement conditions are of a minor concern in Lee County at present. Only five roadway segments totaling roughly 3.5 miles were identified as being in "Poor" condition. None were identified as being in "Very Poor" condition. Of these segments, identified in Table 4.2, only one has existing data for truck movements. A & W Bulb Road has approximately 180 trucks (or 2.5 percent of total traffic) on average per day. Note that this roadway was recently resurfaced and should no longer be indicated as "Poor" condition in future datasets. This short list of roadways suggests that pavement conditions are not a significant issue for truck drivers in the county.

Table 4.2: Roadways Rated as Poor Condition in Lee County

Roadway	From	To	Length (Miles)
A & W Bulb Road	Gladiolus Drive	Lake Cove Drive	1.0
Market Street	Central Avenue	Fowler Street	0.1
Meadow Road	Homestead Road S	Hedgewood Street	0.9
Meadow Road	Naples Avenue	Kirkwood Street	1.2
Union Street	Broadway	Central Avenue	0.2

Source: FDOT.

Bridge conditions are provided by the National Bridge Inventory (NBI) compiled by the Federal Highway Administration (FHWA). This database contains information on bridges and tunnels which have roads passing above or below. Bridges which have been identified as deficient may result in routing issues for trucks by imposed weight limits or added congestion. For this aspect, there are two different types of classifications: Functionally Obsolete and Structurally Deficient. Functionally Obsolete is used to describe bridges

which are no longer functionally adequate for their task. This may include not having enough lanes or not enough space for emergency shoulders. It does not suggest that there is a structural issue on the bridge. On the other hand, Structurally Deficient bridges do have an issue. This status describes bridges which have one or more structural defects requiring attention.

Table 4.3 details the number of bridges in Lee County which are listed as having one of these statuses. Roughly 21 percent of all bridges within the county qualify as functionally obsolete, with none defined as structurally deficient in 2014. Note that 20 bridge projects have been identified by the county and are included in the cost feasible plan of the LRTP. Similar to the pavement conditions, however, not all bridges are pertinent for freight movements. Table 4.4 details the top 10 functionally obsolete bridges in the county based on truck volumes. Note that these volumes, most commonly from 2011, are provided from the data from FHWA, rather than the latest FDOT counts. These identified bridges tend to appear as sets of pairs. Most likely, this is due to them being built at the same time with the same volumes of traffic in mind. As mentioned, these bridges are functionally obsolete, meaning that the design is no longer functionally adequate, not that the bridge has structural issues. All bridges listed here are open with no restrictions.

Table 4.3: Structurally Deficient and Functionally Obsolete Bridges

Year	Bridge Count	Structurally Deficient	Functionally Obsolete	Total
2014	375	0	80	80
2013	376	1	79	80
2012	370	0	80	80

Source: FHWA.

Table 4.4: Top 10 Functionally Obsolete Bridges by Truck Count

Structure Number	Facility Carried	Location	ADT	Truck Percent	TADT
124063	Del Prado Blvd SB	1.5 mi S of Hancock Pkwy	53,000	10	5,300
124064	Del Prado Blvd NB	1.5 mi S of Hancock Pkwy	53,000	10	5,300
124061	Del Prado Blvd SB	0.5 mi S of Veteran Memorial Pkwy	42,800	10	4,280
124062	Del Prado Blvd NB	0.5 mi S of Veteran Memorial Pkwy	42,800	10	4,280
120093	I-75 SB (SR-93)	2.2 mi S of SR-78	34,000	12	4,080
120094	I-75 NB (SR-93)	2.2 mi S of SR-78	34,000	12	4,080
124044	College Parkway WB	0.7 mi E of Del Prado	37,957	10	3,796
124101	CR 865 Bonita Beach Road	1.5 mi W of U.S.-41	13,065	10	1,307
124102	CR 865 Bonita Beach Road	1.9 mi W of U.S.-41	13,065	10	1,307
125638	Country Club Blvd	100 ft N of 10th St	17,900	5	895

Source: FHWA National Bridge Inventory, 2013.

The last consideration is the number of incidents involving commercial vehicles. The Florida Department of Highway Safety and Motor Vehicles (DHSMV) publishes an annual Traffic Crash Facts summarizing the number of incidents occurring within each of the counties in a given year. Incidents are categorized by type of driver and the severity of the incident. For the purposes of this reporting system, a commercial motor vehicle (CMV) is defined as one of the following:

- Vehicle Body Type of Bus (Code of '8' on the Crash Report) or Vehicle Body Type of Medium/Heavy Truck (Code of '20' on the Crash Report); or
- Is transporting hazardous materials and is required to be placarded (Hazmat Placard Indication of '2' on the Crash Report); or
- Commercial Motor Vehicle Configuration was completed on the Crash Report; or
- Has a gross, declared, or actual weight rating of 10,001 pounds or more; or
- Commercial indicator on the Crash Report is marked as 'Y' (True)

While Table 4.5 details the last three years of CMV-related incidents, a direct comparison between years is difficult. There was not, most likely, a significant increase in CMV incidents between 2011 and 2012 as this data shows. Rather, reporting requirements changed beginning in 2012. Changes to FS 316.066 required that all crashes involving a CMV must be reported to DHSMV. This resulted in a corresponding increase in the number of reported CMV crashes beginning in 2012.

Table 4.5: Commercial Motor Vehicle Crashes in Lee County

	2011	2012	2013
Total Crashes	4,417	6,084	7,955
Total Fatalities	75	64	92
Total Injuries	4,135	4,951	5,472
Total Property Damage	1,616	2,762	4,155
CMV Crashes	190	545	645
CMV Fatalities	5	7	9
CMV Injuries	182	224	227
CMV % Crashes	4%	9%	8%
CMV % Fatalities	7%	11%	10%
CMV % Injuries	4%	5%	4%

Source: DHSMV.

A more realistic approach to examining this data is to compare it with statewide totals until a more controlled trendline can be determined. Compared to Florida crash statistics as a whole, CMV crashes were a significantly lower percentage of overall crashes in Lee County over these three years. For instance, CMV incidents accounted for 8 percent of overall crashes in Lee County in 2013, but statewide they accounted for 10 percent in this year. The only instance in which Lee County had a higher rate than statewide was for CMV fatalities in 2012. Additional data sources which the MPO may use for this monitoring are the Signal Four Analytics and the Florida's Integrated Report Exchange System (FIRES) to query and analyze crash data.

5.0 FREIGHT NEEDS AND ISSUES IN LEE COUNTY

With the passage of MAP-21, freight planning has been awarded a greater emphasis over the past few years. As a result, there have been a significant number of planning efforts focused on freight needs and issues at the local, regional, state, and national levels. With multiple planning efforts undertaken, often at the same time, some identified freight needs end up only being captured in select instances. This results in an incomplete picture of the true needs of a county or region. Often times, projects have been left off of one list, or repeated multiple times. As part of this Freight Mobility Element, efforts were made to identify Lee County projects across these multiple plans to best capture all identified projects. Examined plans included the following:

- SIS 5 Year Adopted Plan (2014 and 2015);
- SIS 2nd 5 Year Adopted Plan (2014 and 2015);
- 2040 SIS Cost Feasible Plan (2014);
- 2040 SIS Multimodal Unfunded Needs Plan (October 2011);
- Statewide Freight Trade and Mobility Study; and
- FDOT Rail System Plan (2010).

In addition to identifying these projects, it is also important to establish project priorities to determine which are most critical to the continued success of the freight community of Lee County. Priorities for this freight element were determined based on the priorities identified through the prior planning efforts. These projects have gone through multiple iterations of planning processes which worked to establish their own priority rankings and this element seeks to reflect those ideas. Priorities were based on the following, in descending weight order:

- Construction underway;
- Identified funding sources;
- FMTP Priority Status (i.e., "Very High Priority" takes precedence over "High Priority"); and
- Priorities from other plans.

5.1 RAIL IMPROVEMENTS

Rail improvements projects identified in prior plans are listed in Table 5.1. As mentioned in the overview of the rail infrastructure of Lee County, preserving the rail corridor is a critical concern for the region to ensure that there are multiple modal options for freight movement. At present, the Southwest Florida Rail Corridor Preserve is the only rail project with identified funding, resulting in a higher ranking. The majority of the remaining rail projects have been included as part of the FMTP process and are listed based on their planning horizon identified as part of the 2010 FDOT Rail System Plan. The most identified project, however, is an Intermodal Transfer Terminal which underscores the need for such a facility in the region.

One project listed here that was not identified in prior plans is the Lee County Port Authority Rail Study. However, the scope of this project is covered in one of the components to be studied as part of the Southwest Florida Multimodal Corridor Study. The MPO and Port Authority staff have agreed to study all three components should FDOT decide to include only one study in the Work Program either as a Lee MPO SIS funded study or a Port Authority PTO funded project. The three components which will be studied are as follows:

- Study the feasibility of a rail connection from RSW to the Florida Fuel Connection Petroleum Products Logistics and Distribution Facility in Clewiston, Hendry County for the shipping of aviation fuel;
- Study the feasibility of a rail connection between the Seminole Gulf Railroad in Lee County with the South Central Florida Railroad Express to enable the movement of freight between Southwest and Southeast Florida; and
- Evaluate the transportation and economic impacts of the Intermodal Logistics Center (ILC) at Winter Haven, Polk County on inbound

and outbound rail and truck freight into Lee County.

Table 5.1: Rail Improvements Identified in Prior Planning Efforts

	SIS 5 Year Adopted Plan (July 2014)	SIS 5 Year Adopted Plan (July 2015)	2040 Multimodal Unfunded Needs Plan (October 2011)	Statewide Freight Trade and Mobility Study	2010 FDOT Rail System Plan
Southwest Florida Rail Corridor – Preserve	ROW – 2016	ROW – 2016			
Southwest Florida Multimodal Corridor Study		Study - 2017			
CSX/SGLR at Lee County Intermodal Transfer Terminal (Capacity Upgrade)			Unfunded – Short Term	Unfunded – Very High Priority	Near Term (1-5 Years)
Lee County Rail Intermodal Yard				Unfunded – Very High Priority	Near Term (1-5 Years)
Southwest Florida International – Rail Intermodal Yard				Unfunded – Low Priority	Near Term (1-5 Years)
SGLR Infrastructure Improvements – Phase 1				Unfunded – Very High Priority	Mid-Term (6 – 10 Years)
SGLR Infrastructure Improvements – Phase 2				Unfunded – Very High Priority	Mid-to-Long-Term (11 – 20 Years)
CSX/SGLR from Arcadia, Desoto County to Lee County (Right-of-way)			Unfunded – Mid-Term	Unfunded -Medium Priority	
Railway Bridge at the Caloosahatchee River			Unfunded – Long-Term		
Lee County Port Authority Rail Study					

Source: See above referenced plans.

5.2 AIR CARGO IMPROVEMENTS

Recommended projects from the 2004 Master Plan Update include a relocation of the cargo facility to the space occupied by the previous terminal, east of the current facility. (See Figure 5.1). This alternative was recommended above other options in the master plan as it would free up considerable expansion potential for general aviation while allowing considerable all-cargo facility expansion westward from its new location. It would also efficiently reuse the apron space previously occupied by the passenger terminal. The Master Plan also mentions the possibility of developing a multimodal facility on or near the airport, which could serve to draw more cargo activity to the airport. The plan notes that access points and truck movement areas would need to be modified to allow for large truck activity. The airport currently does not have a timeline for cargo facility related expansion or relocation; these remain long term, unfunded projects.

Other long-term projects related to freight in the Master Plan include a 9,100-foot parallel runway and associated infrastructure to increase capacity at the airport. This project would include a relocated air traffic control tower, apron expansion, crossfield taxiway system, mitigation activities and FP&L electrical line relocation. The apron expansion and crossfield taxiway system were completed in late 2013. The tower relocation is currently in the design phase. The entire project is estimated to cost $454 million. Phase I of this project is included in the 2015 to 2019 SIS Grant Program.

The airport has recently and is currently undertaking several capital projects, which are briefly described in this section and in Tables 5.2 and 5.3. Many of these projects involve airside pavement rehabilitation and construction of connector taxiway infrastructure to serve the relocated terminal and the future additional runway. Rehabilitation of roadways north of the airport, especially Chamberlin Parkway, Paul J. Doherty, and Fuel Farm Roads are currently programmed.

Figure 5.1: Southwest Florida International Airport Aerial View of Proposed New Cargo Ramp Location at the Site of the Old Terminal Building

Source: Google, 2015.

Table 5.2: Air Improvements Identified in Prior Planning Efforts

	SIS 5 Year Adopted Plan (July 2014)	SIS 5 Year Adopted Plan (July 2015)	2040 Multimodal Unfunded Needs Plan (October 2011)	Statewide Freight Trade and Mobility Study	RSW Input
RSW – Parallel Runway 6R/24L Phase 1	SIS Grant 2015-2019	SIS Grant 2016-2019	Unfunded – Short Term		
RSW – Expand Midfield Entrance Road	SIS Grant 2015	SIS Grant 2020	Unfunded – Short Term	Unfunded – Very High Priority	Funding from FAA for Design, FDOT for construction
Airfield Signage					Upgrades Underway from FAA/FDOT funds
RSW – Airport Capital Improvement	SIS Grant 2017				
RSW – APT Design, Permit and Const Dual TW SYS to RW		SIS Grant 2017			
Tower Relocation					Under Design, Funded by FDOT
RSW – Airside Pavement Rehabilitation				Unfunded – High Priority	Funding from FDOT
RSW – Pavement Rehabilitation of Roads				Unfunded – High Priority	Programmed in Work Program by FDOT
RSW – Realign Chamberlin Parkway				Unfunded – High Priority	Unfunded – Low Priority
RSW – Infrastructure Development				Unfunded – Medium Priority	

Source: See above referenced plans.

Table 5.3: Air Improvements Identified in Prior Planning Efforts – Completed

	2040 Multimodal Unfunded Needs Plan (October 2011)	RSW Input
RSW – Airside I Apron Expansion	Unfunded – Short Term	Complete
RSW – Design/ Construct Cross Field Connector Taxiway	Unfunded – Short Term	Complete
RSW – Cross Field Connector Taxiway to Terminal Ramp	Unfunded – Short Term	Complete
RSW – Design and Construct Widening of FBO Taxiway	Unfunded – Short Term	Not Moving Forward

Source: See above referenced plans.

Additionally, a direct connection between I-75 and the airport main entrance was completed in early 2015, which allows airport-related traffic to avoid local streets and access the freeway directly at Exit 128 on I-75. This new roadway provides important access to the expedited carriers operating out of RSW, as they can more efficiently access local highways. Plans are underway to expand the terminal access road to six lanes although this project is yet unfunded. Additionally, a $16 million Airport Rescue and Fire Fighting facility opened in 2013. [3]

Announced in July 2015, Florida Fuel Connection is building a distribution facility in Hendry County that will bring in fuel via rail, increasing options available for fuel service to RSW.[4] Currently, fuel is brought in via truck to a Swissport fueling facility on the northeast side of the field. The fuel is then transferred to the terminal area for use by airlines using an underground hydrant fuel system. There is also a general aviation fueling farm operated by Private Sky Aviation.

Due to increases in tourism and commercial business, there has been increasing desire for suitable industrial and commercial development opportunities in the vicinity of the airport. The airport is designated as a foreign trade zone, allowing for special advantageous customs procedures to U.S. companies embarking in international trade. The "Skyplex" area – a parcel of land owned by the port authority with over 1,100 acres of land zoned for commercial and aviation related uses located north of the airport, has been approved by the county for marketing and is currently seeking tenants for commercial and light industrial use.[5] Identified in the 2004 Master Plan, this area has long been a target for development by the airport to increase the airport's role as a land lease agent and increase the financial stability of the airport. However, previous attempts to develop this area, such as the Madden Research Loop project developed by Gulf Coast Technology Center, Inc. in 2008, have not succeeded in the long-term.[6] Nevertheless, leasing agreements remain attractive to airports as the funds received through such projects can be used to fund additional airport improvement projects. Additionally, the airport serves as a location convenient for the distribution of goods to nearby residential, commercial, and tourism areas. FedEx Ground, taking advantage of the benefits of this area, has announced a new distribution center on the west side of Treeline Avenue near RSW. The proposed 213,508 square foot facility will sit on 21.91 acres and employ 216 employees at al times.

Page Field, although not currently serving air cargo, also does have land available for industrial facilities. Page Field Commons is 40 acres of

[3] www.flylcpa.com/uploads/newsfiles/file299.pdf

[4] http://www.flgov.com/2015/07/28/gov-scott-announces-florida-fuel-connection-will-create-50-jobs-in-south-florida/

[5] http://www.skyplexrsw.com./leasing/

[6] http://archive.news-press.com/article/20110824/BUSINESS/108240365/Tech-park-crumbles-Southwest-Florida-International

airport property leased to private companies for commercial development including retailers and restaurants such as Best Buy and Panera Bread. North of this area is another leased parcel of land called the Page Field Medical Village, a series of three buildings occupied by Lee Memorial Health System. Finally, a third parcel is leased to Racetrack Petroleum.

5.3 HIGHWAY IMPROVEMENTS

Highway improvements are significantly more encompassing than projects identified for the railway or airport due to the large roadway network. For this mode, the methodology is slightly different. As before, those projects included in prior planning efforts are listed and prioritized. However, also included is a ranking of the roadway network in the county to help better establish which segments are the most critical for freight movements.

5.3.1 PREVIOUSLY IDENTIFIED HIGHWAY FREIGHT PROJECTS

On the highway side, there are multiple projects listed as part of both the first and second 5-Year SIS Plans. These predominately focus on the widening of SR 82 as well as interchange modifications along I-75. The majority of the projects along SR 82 have SIS funding identified for construction through 2022; whereas, the I-75 projects have only identified funding for Preliminary Engineering (PE) or right-of-way (ROW) at most.

Table 5.4 details these SIS-funded projects as well as other projects identified in these prior planning efforts. Additional projects are located along Colonial Boulevard, U.S. 41, Metro Parkway, and Edison Avenue, and include further interchange modifications along I-75. The majority of these projects were identified through the FMTP or the 2040 Multimodal Unfunded Needs Plans.

5.3.2 CRITICAL HIGHWAY CORRIDORS

While these various planning efforts have documented a significant number of freight projects, they are not always all-encompassing. Plans such as the Freight Mobility and Trade Plan have a broader focus at the statewide level and are less concerned about, say, a single turning lane on a local road. While this may be important in the area, it would not have a significant impact on statewide freight movements. Similarly, the SIS Adopted Plans only look at SIS facilities, not other roadways important for the movement of goods and freight.

To accommodate for the local planning effort, a prioritization of roadways in the county was developed. This methodology, shown in Table 5.5, was developed as part of the Goods Movement Element of the Lee County 2035 LRTP. The following components are included in this process:

- Access to key economic generators;
- Type of freight facility;
- Percent of truck use and AADTT; and
- Prevalence of hot spots.

This methodology was reapplied to more recent operating conditions to better reflect which roadways are utilized in the county. Figure 5.2 shows which roadways met the initial criteria for prioritization. These roadways have at least 1,000 in average annual daily truck traffic and at least 5 percent of the traffic on the roadway is comprised of trucks. Table 5.6 ranks these roadways from the highest scoring to the lowest scoring segments meeting this criteria. This table should be used as a reference for any planning and design criteria for roadway improvements or capacity upgrades to determine the importance of a particular corridor to freight mobility in Lee County.

5.4 MULTIMODAL NEEDS

The most recent Lee County Freight and Goods Mobility Analysis identified issues and opportunities impacting freight operation in the county. Those issues and opportunities are shown in Table 5.7. The list is not restricted to highway operations but includes all components of the goods movement system. The list is not project specific but rather provides current and future opportunities that should be considered in the development of a regional freight plan.

Table 5.4: Roadway Projects Identified in Prior Planning Efforts

	Statewide Freight Trade and Mobility Study	SIS 5 Year Adopted Plan (July 2014)	SIS 5 Year Adopted Plan (July 2015)	SIS 2nd 5 Year Adopted Plan (July 2014)	SIS 2nd 5 Year Adopted Plan (July 2015)	2040 SIS Cost Feasible (Sept 2014)	2040 Multimodal Unfunded Needs Plan (October 2011)
SR 82 (Immokalee) at Homestead Road (ATL)		PE/ROW/CON – 2015-2016	PE/CON – 2016				
SR 82 from CR 884 (Lee Boulevard) to Shawnee Road (A4-6)	Unfunded – Very High Priority	PE/ROW/CON – 2015-2018	PE/ROW/CON – 2016-2018	PE – 2020	CON – 2021		
SR 82 from Shawnee Road to Alabama Road S (A4-6)	Unfunded – High Priority	PE/ROW – 2015-2016	PE/ROW – 2016	CON – 2022	CON – 2022		
SR 82 from Alabama Road S to Homestead Road S	Unfunded – High Priority	PE/ROW – 2015-2018	PE/ROW – 2016-2020	CON – 2022	CON – 2022		
SR 82 from Homestead Road S to Hendry County Line (A2-4)		PE – 2015	ROW – 2016	ROW – 2021			
I-75 at SR 884/Colonial Boulevard (M-INCH)	Unfunded – High Priority	PE – 2015	PE – 2016				Unfunded – Mid-Term
I-75 at Corkscrew Interchange (M-INCH)	Unfunded – Medium Priority	PE – 2015	PE – 2016				
I-75 from S of Corkscrew Road to S of Daniels Parkway (A2-6)		PE – 2015	ROW – 2016				
I-75 at Daniels Parkway Interchange (M-INCH)	Unfunded – High Priority	PE – 2015					
SR 82 from Homestead Road S to Hendry County Line (A4-6)	Unfunded – High Priority					Cost Feasible Plan 2024-2040	
Edison Avenue from Palm Ave to Fowler Street	Unfunded – Very High Priority						
I-75 at Luckett Road (M-INCH)	Unfunded – High Priority						Unfunded – Mid-Term
Colonial Blvd at Summerlin Road	Unfunded – High Priority						
U.S. 41 at Alico Road	Unfunded – High Priority						
I-75 at SR 78 (M-INCH)	Unfunded – Medium Priority						Unfunded – Mid-Term
I-75 at Bonita Beach Road (M-INCH)	Unfunded – Medium Priority						Unfunded – Mid-Term
I-75 at SR 82 (M-INCH)	Unfunded – Medium Priority						Unfunded – Mid-Term
Metro Parkway from Daniels Parkway to South of Winkler Avenue	Unfunded – Medium Priority						
SR 82 from Lee Boulevard in Lee County to SR 29 in Collier County	Unfunded – Medium Priority						
I-75 from CR 846/ Immokalee Road to Luckett Road (A2-SUL)							Unfunded – Mid-Term
SR 80 from SR 31/Arcadia Road to Buckingham Road (A2-6)							Unfunded – Mid-Term
SR 82/Dr. MLK Jr. Boulevard from Michigan Avenue to CR 865/Ortiz Avenue (A2-6)							Unfunded – Long-Term
SR 82/Immokalee Road from Bell Boulevard to Lee/Hendry County Line (A2-4)							Unfunded – Long-Term

	Statewide Freight Trade and Mobility Study	SIS 5 Year Adopted Plan (July 2014)	SIS 5 Year Adopted Plan (July 2015)	SIS 2nd 5 Year Adopted Plan (July 2014)	SIS 2nd 5 Year Adopted Plan (July 2015)	2040 SIS Cost Feasible (Sept 2014)	2040 Multimodal Unfunded Needs Plan (October 2011)
SR 82/Immokalee Road from Homestead Boulevard to Lee/Hendry County Line (A2-6)							Unfunded – Long-Term
I-75 at New Del Prado Boulevard (M-INCH)							Unfunded – Long-Term
I-75 at SR 80 (M-INCH)							Unfunded – Long-Term
I-75 from CR 886/ Goldengate Parkway to Luckett Road (A4-SUL)							Unfunded – Long-Term

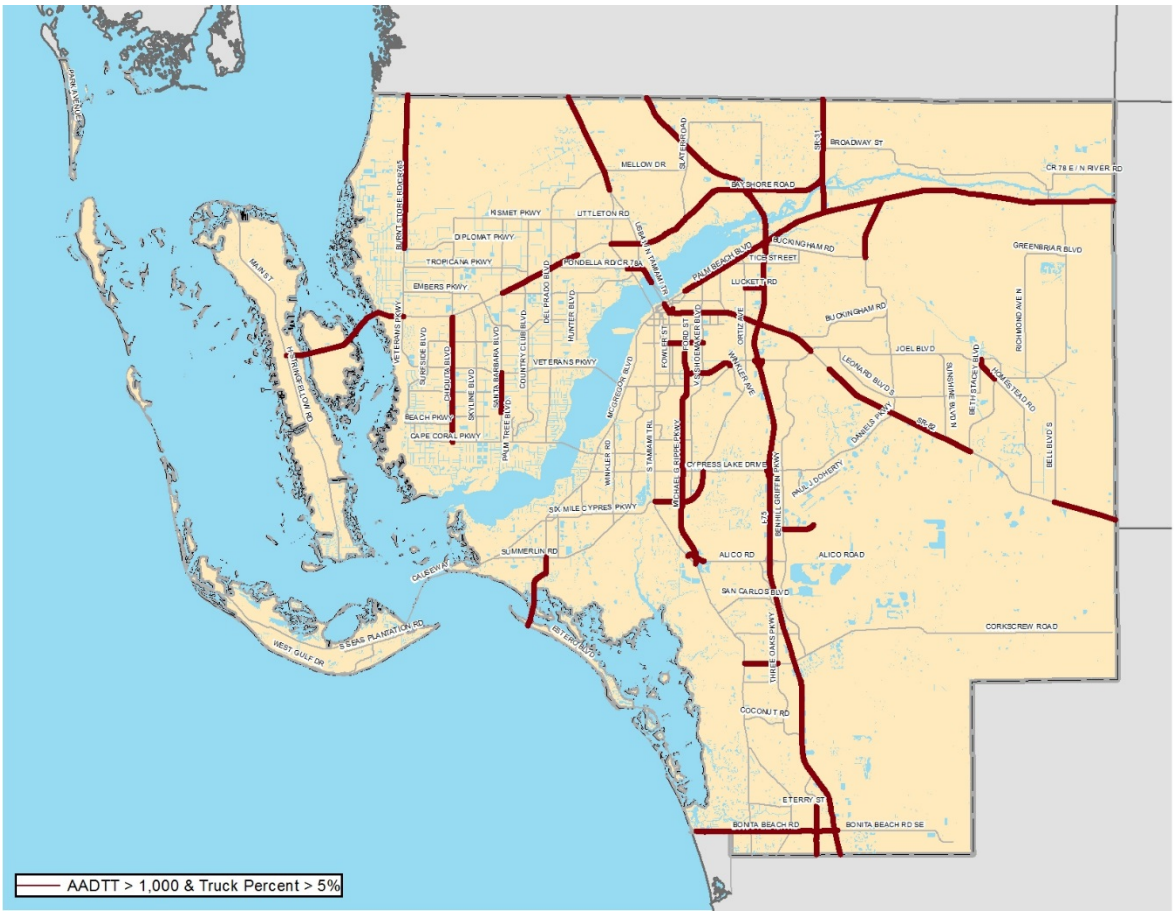
Source: See above referenced plans.

Table 5.5: Freight Needs and Prioritization Factors: Access

	Score	Comment
Access		
SIS Facilities/Regional FACs/ Mines/Agricultural Production Areas	3	Provides connectivity between the SIS Intermodal Freight Facilities on Regional FACs and the SIS or Regional Goods Movement Corridors; or between the aggregate mines and major users as well as connectivity to areas of significant agricultural production.
Regional/Local Distribution Centers	2	Local direction connection to major distribution centers not included in Regional FACs. Distribution centers are those large warehouse/distribution facilities that support the regional and local economy but are not located within one of the designed FACs.
Commercial Activity Centers	1	Local direct connection to commercial centers, e.g., malls, large shopping centers, etc.
Corridor		
SIS	4	Corridor is listed in FDOT SIS Plan.
Designated Regional Goods Movement Corridors	3	Corridor is listed as part of the designated freight corridors presented previously.
Designated Congestion Management Plan Roads	2	Corridor is listed in the Lee County Congestion Management Plan.
Local Routes Used Primarily to Connect to Commercial Centers	1	Local direct connection to commercial centers, e.g., malls, large shopping centers, etc.
Percent Trucks		
> 12%	5	Significant truck use.
10 – 12%	4	High truck use.
7 – 10%	3	Moderately high truck use.
5 – 7%	2	Moderate truck use.
< 5%	1	Moderately low truck use.
AADTT		
> 10,000	5	Significant truck use.
7,501 – 10,000	4	High truck use.
5,001 – 7,500	3	Moderately high truck use.
2,501 – 5,000	2	Moderate truck use.
1,000 – 2,500	1	Moderately low truck use.
< 1,000	0	Low truck use.
Hot Spot		
Intersection	1	One point for each identified intersection hot spot.
Railroad Crossing	1	One point for each identified railroad crossing hot spot.

Source: Goods Movement Element of the Lee County 2035 LRTP.

Figure 5.2: Roadways with 1,000 AADTT and 5 Percent Truck Traffic



Source: FDOT, 2014.

Table 5.6: Prioritized Roadway Segments with 1,000 AADTT and 5 Percent Truck Traffic

Name	From	To	SIS	RGMC	% Trucks	Truck AADT	Freight Hot Spots	Access	Corridor	% Truck	Truck AADT	Hot Spot	Weighted Total
I-75	Bridge No-120090	Bridge No-120093	X	X	14.2%	10,011		3	4	5	5		17
I-75	Bridge No-120093	Bridge No-120112	X	X	14.1%	7,755		3	4	5	4		16
I-75	Bridge No-120122	Bridge No-120090	X	X	13.3%	9,842		3	4	5	4		16
I-75	Bridge No-120112	Charlotte Co Line	X	X	15.6%	6,162		3	4	5	3		15
I-75	Bridge No-120120	Bridge No-120122	X	X	11.0%	8,305		3	4	4	4		15
I-75	Bridge No-120107	Bridge No-120120	X	X	11.9%	9,163		3	4	4	4		15
Terminal Access Rd	Ben Hill Griffin Pkwy	SW Fla Int Airport		X	27.0%	5,940		3	3	5	3		14
I-75	Ramp 008	N/A	X	X	9.4%	7,943		3	4	3	4		14
I-75	Collier Co Line	Ramp 008	X	X	9.9%	8,663		3	4	3	4		14
Palm Beach Blvd	CR 884/Joel Blvd	Hendry Co Line	X	X	13.6%	1,782		3	4	5	1		13
Palm Beach Blvd	Buckingham Rd/CR 80A	Hickey Creek Rd	X	X	12.0%	2,184		3	4	5	1		13
I-75	N/A	Bridge No-120107	X	X	8.4%	6,486		3	4	3	3		13
Luckett Rd	Ortiz Ave	SR 93/I-75 Ctr-Line		X	16.7%	1,002		3	3	5	1		12
Bayshore Road	Old Bayshore Rd	SR 31		X	14.0%	1,022		3	3	5	1		12
SR 82	Mine Ent	Hendry Co Line	X	X	11.2%	1,030		3	4	4	1		12
Hanson St	Ford St	Veronica S Shoemaker Blvd		X	13.4%	1,072		3	3	5	1		12
Bayshore Road	N/A	Old Bayshore Rd		X	12.0%	1,200		3	3	5	1		12
SR 31	N River Rd/CR 78	Charlotte Co Line		X	27.0%	1,256		3	3	5	1		12
SR 31	SR-80	Bayshore Rd/SR 78		X	14.9%	1,296		3	3	5	1		12
Bayshore Road	CR 767/H Stringfellow	CR 884/Veterans Pkwy		X	12.8%	1,389		3	3	5	1		12
SR 31	Bayshore Rd/SR 78	N River Rd/CR 78		X	20.5%	1,476		3	3	5	1		12
Burnt Store Rd/CR 765	NW 14 St	Vincentave/Charlott		X	24.0%	1,543		3	3	5	1		12
Palm Beach Blvd	Hickey Creek Rd	CR 884/Joel Blvd	X	X	10.9%	1,700		3	4	4	1		12
Palm Beach Blvd	SR 31/Arcadia Rd	Buckingham Rd/CR 80A	X	X	9.2%	2,714		3	4	3	2		12
Alico Road	SR 45/U.S.-41/S Tamiami	Indy Dr		X	8.3%	1,635	X	3	3	3	1	1	11
SR 82	Buckingham Rd	CR 884/Colonial Blvd	X	X	7.2%	1,836		3	4	3	1		11
SR 82	Daniels Pkwy	Unsigned	X	X	8.4%	2,119		3	4	3	1		11
SR 82	12075025 On	Buckingham Rd	X	X	7.8%	2,282		3	4	3	1		11
SR 82	Ortiz Ave	12075025 On		X	9.8%	3,185		3	3	3	2		11
SR 82	Michigan Link Ave	Ortiz Ave		X	9.0%	3,465		3	3	3	2		11
SR 82	Veronica S Shoemaker Blvd	Michigan Link Ave		X	9.5%	3,468		3	3	3	2		11
SR 82	Griffin Dr	Daniels Pkwy	X	X	6.7%	1,012		3	4	2	1		10
SR 82	Gateway Blvd	Griffin Dr	X	X	5.9%	1,038		3	4	2	1		10
Ford St	Fowler St	Metro Pkwy/SR-739		X	8.5%	1,190		3	3	3	1		10
Bayshore Road	SR 45/N Cleveland/U.S. 41	SR 739/U.S. 41B/N Tamiami		X	5.8%	1,508	X	3	3	2	1	1	10
Bayshore Road	Del Prado Blvd	Hancock Creek Blvd		X	5.9%	1,534	X	3	3	2	1	1	10
S Tamiami Trl	Sun Seekers Rv Pk En	Charlotte Co Line		X	9.0%	1,593		3	3	3	1		10
Palm Beach Blvd	N/A	SR 31/Arcadia Rd	X	X	5.9%	1,639		3	4	2	1		10
Ortiz Ave	Metro Parkway/SR 739	Daniels Pkwy		X	6.1%	1,830	X	3	3	2	1	1	10
Bayshore Road	Santa Barbara Blvd	Del Prado Blvd		X	5.0%	1,925	X	3	3	2	1	1	10
Palm Beach Blvd	SR 80/Seaboard St	Veronica S Shoemaker Blvd		X	5.6%	1,019		3	3	2	1		9

Name	From	To	SIS	RGMC	% Trucks	Truck AADT	Freight Hot Spots	Access	Corridor	% Truck	Truck AADT	Hot Spot	Weighted Total
Fowler St	SR 82/U.S. 41B/MLK Jr	SR 80/Second St		X	5.7%	1,026		3	3	2	1		9
Corkscrew Rd/CR 850	SR 45/U.S. 41	Three Oaks Pkwy		X	5.4%	1,075		3	3	2	1		9
Park Ave	SR 82/ M L King Jr	Thompson St		X	6.7%	1,139		3	3	2	1		9
Fowler St	SR 80/Second St	SR 80/First St		X	5.5%	1,155		3	3	2	1		9
Six Mile Cypress Pkwy	Estero Blvd	CR 869 N/Summerlin Rd		X	5.2%	1,182		3	3	2	1		9
Palm Beach Blvd	Veronica S Shoemaker Blvd	CR 80B/Ortiz Ave		X	5.5%	1,183		3	3	2	1		9
Bayshore Road	Coon Rd	N/A		X	5.9%	1,190		3	3	2	1		9
Bonita Beach Rd	Barefoot Bch Blvd	Arroyal Rd		X	5.2%	1,269		3	3	2	1		9
Palm Beach Blvd	CR 80B/Ortiz Ave	N/A		X	6.2%	1,364		3	3	2	1		9
U.S. 41B/N Tamiami Tr	U.S. 41B/SR 739	Cardinal Dr		X	5.8%	1,499		3	3	2	1		9
Bonita Beach Rd	N/A	Rp 12075003		X	5.9%	1,623		3	3	2	1		9
SR 82	Evans St	Palm Ave		X	6.5%	1,625		3	3	2	1		9
Six Mile Cypress Pkwy	S Tamiami Trail/U.S. 41	Metro Pkwy		X	5.2%	1,716		3	3	2	1		9
S Tamiami Trl	U.S. 41/U.S. 41B Split	Del Prado Blvd		X	6.3%	1,733		3	3	2	1		9
Bonita Beach Rd	Arroyal Rd	N/A		X	5.0%	1,775		3	3	2	1		9
Bayshore Road	New Post Rd	Coon Rd		X	6.7%	1,843		3	3	2	1		9
Bayshore Road	SR 739/U.S. 41B/N Tamiami	New Post Rd		X	6.0%	1,950		3	3	2	1		9
S Tamiami Trl	Del Prado Blvd	Sun Seekers Rv Pk En		X	6.4%	2,080		3	3	2	1		9
SR 82	Palm Ave	Veronica S Shoemaker Blvd		X	6.7%	2,111		3	3	2	1		9
I-75 NB Off Ramp	I-75/SR 93 NB	SR 78 EB			13.1%	1,153				5	1		6
I-75 SB On Ramp	SR 78 EB	I-75/SR 93 SB			13.1%	1,179				5	1		6
I-75 NB Off Ramp	I-75/SR 93 NB	SR 80 EB			13.1%	1,376				5	1		6
I-75 SB On Ramp	SR 80 EB	I-75/SR 93 SB			13.1%	1,441				5	1		6
Buckingham Rd	Buckingham Rd	SR 80/Palm Beach Blvd			11.8%	1,076				4	1		5
Michael G Rippe Pkwy	Winkler Ave	N/A			10.8%	1,296				4	1		5
I-75 On Ramp	Ramp 12075020	I-75/SR 93 SB			9.6%	1,104				3	1		4
I-75 Off Ramp	I-75/SR 93 NB	SR 884 EB			9.6%	1,104				3	1		4
Santa Barbara Blvd	SE 38th Ter	Veterans Pkwy			5.2%	1,144	X			2	1	1	4
Michael G Rippe Pkwy	Colonial Blvd/SR-884	Winkler Ave			7.8%	1,170				3	1		4
I-75 Off Ramp	I-75/SR 93 NB	Daniels Pkwy			9.6%	1,248				3	1		4
I-75 On Ramp	Daniels Pkwy EB	I-75/SR 93 SB			9.6%	1,296				3	1		4
Michael G Rippe Pkwy	Daniels Pkwy	Crystal Dr			7.2%	1,663				3	1		4
Michael G Rippe Pkwy	Crystal Dr	Idlewild St			7.2%	2,196				3	1		4
Pondella Rd/CR 78A	U.S. 41/N Cleveland Ave	SR 739/U.S. 41B			5.4%	1,026				2	1		3
Michael G Rippe Pkwy	Idlewild St	Colonial Blvd/SR 884			6.7%	1,045				2	1		3
Michael G Rippe Pkwy	Six Mile Cypress	Daniels Pkwy			5.2%	1,092				2	1		3
Three Oaks Pkwy	Collier Co Line	E Terry St			6.2%	1,135				2	1		3
Chiquita Blvd	N/A	N/A			6.4%	1,155				2	1		3
Winkler Ave	Metro Pkwy	Colonial Blvd			5.3%	1,166				2	1		3
Homestead Road N	Leeland Hts Blvd	Lee Blvd			5.2%	1,326				2	1		3
Michael G Rippe Pkwy	U.S. 41/S Tamiami Trl	Six Mile Cypress			6.7%	1,407				2	1		3

Source: FDOT and Cambridge Systematics supplemental analysis.

Table 5.7: Regional Freight and Goods Mobility Opportunities

Location	Type	Category	Issue	Description	Opportunity
Countywide	Policy	Freight Planning and operations	Lack of designated truck regional and local truck routes	There are currently no designated truck routes within Lee County. The Lee County Freight and Goods Mobility Analysis report recommended establishing designated truck corridors	Develop an integrated regional and local truck route system that proactively encourages truck operations on corridors that provide connection to regional freight activity centers and local commercial centers.
Countywide	Policy	Freight Planning and operations	There are no established "Truck Friendly" design standards that can be applied to routes heavily used by trucks.	Prepare truck specific design standards and usage procedures to support safer and more efficient truck operations.	Adopt a countywide design standard for truck routes. See Lee County Freight and Goods Mobility Analysis Section 2.1.
Southwest Florida International Airport	Freight Capacity	Air Infrastructure		RSW handles in excess of 33 million tons of air cargo in 2008. This is expected to increase substantially as the economy recovers and more high value goods are shipped by air.	Expand RSW cargo facility in anticipation of future increase in air cargo.
East of I-75	Freight Capacity	Rail Infrastructure	I-75 essentially blocks connectivity to the airport. Creating a grade separation would be very expensive. Another issue is the acquisition of ROW for the rail line.	Currently the Seminole Gulf Rail Line runs south through Lee County parallel to U.S. 41, which is west of I-75. The airport area proposed for rail expansion is to the east of I-75. The shortest and least expensive route for R/W acquisition would be parallel and north of Alico Road.	Explore extending the Seminole Gulf rail line south to the Airport freight activity center.
East of I-75	Freight Capacity	Rail Infrastructure	There is currently no rail connection between the Gulf & Seminole RR and the South Central Florida Express RR which serves the interior counties and connects to CSX and the FEC on the east coast.	Connecting the two rail roads would allow for an interconnected rail system that serves both the east and west coasts that would provide the ability to ship more cargo by rail between the two coasts and from the interior counties.	Explore acquisition of ROW to provide system interconnectivity between the Seminole Gulf RR and the South Central Florida Express RR in Moorehaven. An MPO study identified in FY 2017 in the SIS First 5 Year Plan will explore the possibility of connecting these two rail systems and RSW.
Seminole Gulf Railroad	Freight Capacity	Intermodal	The primary obstacles are a sufficient number of transfers to make it a cost effective proposition for the railroad and the need for a public/private financing opportunity. Another issue is the transfer of the intermodal train from CSX to the Gulf Seminole line. Other concerns expressed by the railroad include the physical condition of the tracks, zoning, permitting, and environmental considerations.	Rail-truck intermodal transfer would aid in helping to reduce the number of trucks entering or exiting the county on I-75 and U.S. 41. The county has previously identified three potential locations for a rail intermodal yard and these locations should be studied further.	Rail freight Intermodal access. Other comments received during the recent freight study are: a great opportunity to move aggregates, rocks, stones from South Georgia to SW Florida given the current restrictions regarding issuing permits to mines to SW Florida as well as the depletion of material needed for asphalt and construction. Rail can be a great opportunity for freight movement and taking trucks off highways.
Southwest Florida International Airport	Freight Capacity	Intermodal	Aviation fuel is transported to the airport by truck from Port Tampa Bay as is all gasoline for local service stations.	The establishment of the Florida Fuel Connection facility in Hendry County yields an opportunity to change how petroleum products are delivered to Southwest Florida International Airport and the county as a whole. The option to ship aviation fuel by rail from Florida Fuel Connection's Petroleum Products Logistics & Distribution in Hendry County to RSW is a feasible solution.	The Lee County Port Authority Rail Study and the Southwest Florida Corridor Study identified in Fiscal Year 2017 in the SIS First 5 Year Plan, will access the feasibility of a rail connection with this facility for the shipping of aviation fuel. The study will also explore a rail connection to the Seminole Gulf Rail Line for shipping Aviation Fuel from the Port Tampa Bay .

Source: 2035 Lee County MPO Freight Element.

6.0 MAKING FREIGHT MOBILITY RELEVANT

Freight mobility is a key element for local and regional economic growth and a major factor in the relocation of industry either into or out of a region. Freight mobility is not only important to industries such as manufacturing and distribution, but also to commercial/retail activities and even local deliveries. There are no commodities that do not move by truck at some point from origin to destination. For this reason, it is important that freight stakeholders have a voice that advocates for improved operational efficiency of the local highway system with a place at the table that is at least equal to other established MPO committees. While the other MPO committees advocate for their special needs, none have more direct economic impact to the county and region than that of freight mobility. Without good freight transportation, there would be no economic expansion that includes new jobs and tax revenues.

Achieving freight mobility relevance is a multi-step process that involves educating both the public and private stakeholders on their roles and needs, developing positive relationships with private industry stakeholders, including Freight Operators/Stakeholders in the current MPO Committee structure within the MPO, integrating freight mobility into the MPO planning process, and finally, incorporating freight relevant investments into the LRTP and the Transportation Improvement Program (TIP).

The following sections are based on a recently published report by the Federal Highway Administration and the National Association of Regional Councils.[7]

6.1 EDUCATING PUBLIC AND PRIVATE STAKEHOLDERS AND THE PUBLIC

There is often a disconnect between the long-range goals and objectives that are part of public sector transportation planning, which are community and resource driven and, the short-range goals and objectives of the private sector industries, which are driven by the state of the local, regional, and national economies. While government worries about community cohesiveness and funding sources, private industry worries about staying in business. It is important for both sides to understand the complexities of how the other side operates, as well as the planning horizons of the private (2 to 5 years) and public (5 to 20 years) sectors.

This can be accomplished by developing a Freight Mobility Awareness Plan that includes truck route brochures, and informational brochures explaining the importance of freight to the local economy. Additionally, members from the freight advisory community must be included in workshops that inform the public about the transportation plan and other public events in which the MPO participates.

6.2 DEVELOPING AND NURTURING PRIVATE FREIGHT STAKEHOLDERS

Involving private industry freight stakeholders in the development of the LRTP should be a key element of the planning process. If interested stakeholders are not involved before the LRTP is developed, they lack influence in a key element of their business—the transportation system. At the same time, if public planners do not consider the private stakeholder needs while developing the LRTP, they miss an important element that has a major impact on the economic development of the county. When transportation planners fail to involve private stakeholders in the planning process, they often fall into insurmountable problems not only before infrastructure improvements are completed, but also in the planning and design stages.

[7] Federal Highway Administration and National Association of Regional Councils, *Building Planning Capacity Between Public and Private Sector Partners in the Freight Industry: A Resource Manual for Public and Private Freight Planning Interests*, 2009.

In addition, private freight stakeholders are a valuable resource for collecting data on the county level data on commodities, local truck generation by type of industry, preferred truck routes by commodity, and the location of freight hot spots. Developing lasting relationships with influential members of the local manufacturing and transportation industries and allowing them a seat at the table generally pays big dividends to the planning process that results in a more effective transportation system.

The county has already begun to make an effort to get the freight community more involved in the planning process. Along with the Lee County Port Authority, Charlotte County – Punta Gorda MPO, and Collier County MPO, the Lee County MPO hosted the Southwest Florida Freight Summit on October 8, 2015 to bring together regional stakeholders. Topics discussed at this summit included:

- FDOT District One Regional Freight Study and Implementation Plan;
- Lee County Port Authority Regional Overview;
- Lee County 2040 Freight Mobility Element;
- Collier County 2040 Freight Mobility Element;
- Florida's Digital Freight Opportunity;
- Lipman Produce Operation;
- Cheney Brothers Distribution Center; and
- Americas Gateway Intermodal Logistics Center.

This summit allowed for interested stakeholders to be exposed to local and regional planning efforts by the public sector as well as be briefed on some of the major undertakings by the private sector in the region. Summary information and presentations from this summit may be found on the Lee County MPO webpage.

6.3 FORMING A GOODS MOVEMENT ADVISORY COMMITTEE

The requirements for statewide and metropolitan transportation planning give the FDOT and the MPOs in the southwest Florida region broad responsibility for planning and programming transportation improvement projects, including those projects that benefit freight mobility. Unlike passenger transportation planning, however, many freight movements are not fixed to the jurisdictional boundaries of the MPOs. Further complicating planning for freight mobility is the rise of e-commerce and "just-in-time" inventory practices. Having a clear understanding of how freight movements fit into the regional transportation system is key to the success of the state and metropolitan planning process for both the county and the region.

To effectively integrate freight mobility into the transportation and comprehensive planning process, it is recommended that a "Goods Movement Management System" be established in the southwest Florida region to examine freight issues on an ongoing and comprehensive basis. A Goods Movement Management System is a systematic process that provides information on the freight transportation system to assist decision-makers to select and fund strategies/actions that facilitate the safe and efficient movement of freight. It should accomplish the following objectives:

- Provide a framework to address freight mobility issues in the transportation planning process;
- Ensure the participation of the freight industry and economic development interests in the planning process;
- Identify improvements and strategies to facilitate the safe and efficient movement of freight, accommodate projected growth, and minimize impacts to community and environmental assets;
- Identify and recommend transportation and land use policies that support freight mobility and economic development; and
- Promote and protect the county and regional intermodal capabilities and capacity.

6.3.1 REGIONAL GOODS AND FREIGHT GROUP

A regional goods and freight group or GMAC should be established to guide the freight planning initiative in the region. The regional GMAC should consist of representatives from the freight industry including trucking, railroads,

airports, and shippers; economic development interests; and the FDOT District 1 Freight Coordinator and the surrounding Counties. The GMAC will be charged with developing and implementing a regional goods movement strategy that advances economic development through transportation initiatives. Through the sharing of information and technology among the public and private freight interests, the region's goods movement capability can be maximized.

6.3.2 COUNTY STRUCTURE

An alternative to the regional structure would be to have each county develop their own GMAC. However, because many of the private sector stakeholders conduct business in both counties, this would create a duplication of effort and make it difficult ensure their long-term participation on both committees. Therefore, the regional GMAC is recommended as the preferred structure. Ideally, the MPO member on the regional GMAC would be a MPO Board member, or at least a key member of one of the other standing committees.

The MPO should also appoint a staff member to be the point of contact for freight issues, to develop relationships with the private stakeholders, and act as the MPO expert on freight- related issues and opportunities.

6.3.3 DEVELOPING A SUCCESSFUL GMAC

Initiating a successful GMAC is achievable with proper planning and commitment from both the public sector planners and the private sector stakeholders. Organizing stakeholders around freight transportation is no different than for other MPO committees, such as the Bike/Ped Committee, Citizen Advisory Committee, etc. The primary difference is that to the private sector stakeholders, "time is money." Therefore, keeping meetings short and to the point and developing projects that can be implemented in the short term, that will result in increased operational efficiencies and enhance freight movement, is the key ingredient that keeps the committee functioning. Planning for the GMAC should involve the following:

- Inviting many private freight transportation stakeholders at the onset;
- Making the stakeholders feel important–Listen to their needs;
- Bringing out their opinions on freight-related transportation issues and make every attempt to "pick the low-hanging fruit" and promptly mitigating problems through low cost fixes if possible;
- Assigning roles–Let private sector stakeholders jointly chair sub-committees with public planners/officials;
- Performing constituent services–What can we provide for committee members;
- Undertaking research focusing on improving freight movement within the region or county–Set aside funds to study problems identified by the stakeholders;
- Conducting special goods movement events;
- Include GMAC representatives at public workshops in order to present the "Freight Story"; and
- Highlight projects that improve freight mobility and update the list annually.

6.4 DEVELOPING AND INTEGRATING A FREIGHT MANAGEMENT PROGRAM IN THE PLANNING PROCESS

The FDOT and MPOs have broad responsibility for planning and programming transportation improvement projects, including those projects that benefit freight movement. Candidate freight mobility projects are identified through planning efforts with the representatives of the regional GMAC and surveys of truck drivers, dispatchers, and representatives of intermodal trans- shipment facilities. The GMAC reviews the list of candidate projects and prioritizes the projects for future funding and implementation.

The GMAC is also responsible for prioritizing needed corridor studies for freight mobility corridors and subarea studies for FACs. The emphasis of these studies will be to identify transportation and land use solutions to improve freight mobility within the corridor or subarea.

6.5 INCORPORATING FREIGHT-RELATED INVESTMENT OPPORTUNITIES INTO THE LRTP AND TIP

The movement of freight within the county has a direct impact on the local economy not only in the form of product pricing but also in attracting new businesses and jobs to the area. The old adage that "Freight doesn't vote, but commuters do" is no longer applicable, if it ever was in the first place. The industrial and freight movement sectors do vote–with their feet. If the transportation system no longer meets their needs, they simply leave town, taking with them the jobs and tax money and leaving a large dent in the local economy. Therefore, it is important to understand how the transportation affects the private stakeholders and what improvements can be justified to help increase their productivity, attract new businesses, and create more jobs.

Incorporating freight-specific investment opportunities into the LRTP and TIP requires:

- Identifying the areas of freight generation and the key industries located within these activity centers;
- Identifying the regional goods mobility corridors that carry the majority of the freight into and out of the region or county;
- Identifying the freight corridors that connect the major generation areas to the regional goods mobility corridors;
- Identifying the local roads that carry large numbers of trucks primarily to commercial centers and downtown areas;
- Identifying the freight-related issues/obstacles along the corridors by asking the stakeholders where problem areas exist;
- Validating and evaluating the impacts of the issues on the goods mobility corridors and local truck routes;
- Determining the needs that will mitigate or eliminate the issues and result in improved performance;
- Prioritizing the needs; and
- Incorporating the freight needs with other transportation needs into the LRTP.

When considering investment in a highway project, the movement of goods within a corridor or over a segment, or through an intersection should be given the appropriate priority when calculating the benefit of one project over another.

While road improvements are made to benefit the public they also directly help private trucking firms by improving traffic flow enabling the trucking firms to increase their efficiency. The result is not only a direct benefit to the trucking industry but also to the public, which also benefits from the improved roadways and lower consumer prices resulting from lower transportation costs.

Similarly, including projects that are perceived to be assisting a private railroad, should be evaluated based on the benefits to not only the railroad but also to the public. For example, funding railroad grade crossing improvements increase the safety of the public. Grade separations benefit the public by removing interruptions to the traffic flow, and reduce the potential for rail and auto/truck collisions. Improving the capacity of road corridors and intersections near rail terminal access points also improve the LOS of these facilities for the public. Public Private Partnerships can fund rail improvements such as double tracking and rail upgrades that can benefit the public by allowing the joint use of the corridor for both freight and passenger rail operations.

The Seminole Gulf Railroad, although privately owned and operated, is an asset that needs to be explored to its fullest extent. This rail line provides or could provide rail service to five of the identified freight activity centers located within Lee County and result in a reduction of trucks on congested corridors. It is essential that the county include the railroad as a key member of the GMAC to identify issues of mutual concern and develop a plan to mitigate problems and identify new opportunities that will make rail transportation attractive to business within the existing freight activity centers and attract new businesses. The opportunities that have a public benefit should be evaluated and included in the LRTP needs and financially feasible project lists as appropriate.

6.6 COLLABORATE WITH EMERGING STATEWIDE FREIGHT INITIATIVES

Since the completion of the 2035 LRTP, much has happened at the state level to advance Florida's freight program. The Freight Mobility and Trade Plan was developed consisting of a policy element and investment element. These documents illustrate FDOT's commitment to a robust freight transportation program. In addition, the Florida Chamber Foundation developed the Trade and Logistics Study (1.0 and 2.0) that identify critical investment needs, strategies, and targets for the state to emerge as a global logistics hub. The Department of Economic Opportunity developed a strategic plan and many of the state's colleges and universities have aggressively moved forward to develop supply chain and logistics programs. All of these developments provide the Lee MPO with access to best practices, resources, data, and support for ongoing freight investments in the region.

APPENDIX A. REVIEW OF PRIOR STUDIES AND PLANS

This appendix provides a high-level overview of the related freight plans and studies that were reviewed as part of this freight and goods movement element update. The table below details the plan, year completed, purpose of study, and level of application.

Table A.1: Review of Relevant Prior Studies and Plans

Plan	Year Completed	Study Purpose	Level
Lee County MPO 2035 LRTP	2010	In accordance with the Florida Department of Transportation (FDOT) MPO Program Management Handbook, the Lee County MPO is responsible for developing a Long Range Transportation Plan (LRTP) that addresses no less than a 20-year planning horizon. This LRTP process was conducted as an update to the 2030 LRTP and incorporated a freight-specific element.	County
Lee County MPO 2035 LRTP – Goods Movement	2010	This technical memorandum is the freight component of the Lee County 2035 LRTP. This document addresses freight mobility needs and priorities to facilitate the consideration, prioritization, and incorporation of freight movements into the LRTP as required by SAFETEA-LU and its predecessors. This includes long-term capacity needs, short term operational needs, and freight-related issues and opportunities. This is the study currently being updated for this effort.	County
Lee County Freight and Goods Mobility Analysis	2009	As a follow up to the Southwest Florida Freight Study conducted by FDOT District 1, this study provides a more comprehensive freight analysis at the county level for Lee County. This study completed the following objectives: identified freight transportation issues and investment needs, recommended transportation improvement strategies, described freight flows, resented key economic and demographic trends impacted freight movements, and reviewed other policies and recommendations impacting freight supply and demand.	County
Lee County Rail Feasibility Study	2013	This study analyzed the long-term feasibility of public multimodal transportation within the existing Seminole Gulf Railway Corridor, while maintaining and possibly expanding freight service. This addressed shared use of the rail corridor for public transportation use. The study focused on four major issues: existing and expanded freight operations; potential passenger service; alternative means of maintaining the corridor for long-term transportation uses; and preservation of the corridor.	County
Statewide Freight Mobility and Trade Plan – Policy Element	2013	The Freight Mobility and Trade Plan (FMTP) is the result of the 2012 Florida Legislature House Bill (HB) 599 which required the development of a plan to "enhance the integration and connectivity of the transportation system across and between transportation modes throughout the state." This Policy Element of the FMTP addresses all requirements of HB 599 and tells the "Florida Freight Story" by reviewing the existing system, identifying key freight issues, addressing policy challenges, and paves the way for the Investment Element.	State
Statewide Freight Mobility and Trade Plan – Investment Element	2014	The Investment Element of the FMTP builds off of the previously developed Policy Element. The four key elements addressed in this element are as follows: identified freight needs, identified criteria for state investments in freight, prioritized freight investments across modes, and completed the requirements of the Federal Moving Ahead for Progress in the 21st Centure Act (MAP-21).	State

Plan	Year Completed	Study Purpose	Level
Statewide Rail Plan	2010	The Statewide Rail Plan was developed in two components: the Policy Element completed in March 2009 and the Investment Element completed in December 2010. The Policy Element established a vision for both passenger and freight transportation in the state of Florida. In addition, it laid out a policy framework of goals, policies, and strategies to help guide future state rail investments and decisions. This was followed by the Investment element which identified rail needs and established priorities for these needs based on state funding and the policy framework.	State
2040 SIS Plan		The 2040 SIS Plan is a constantly evolving plan which focuses on Strategic Intermodal System (SIS) capacity improvement projects. This plan is developed as a multiple components which include a 5-Year Plan, a 2nd 5-Year Plan, a 2040 Cost Feasible Plan and a 2040 Multimodal Unfunded Needs Plan. With the exception of the multimodal unfunded needs plan, these components are updated on an annual basis to best reflect the capacity projects of the SIS.	State
Florida Statewide Aviation Economic Impact Update	2014	As an update to the study completed by the FDOT Aviation Office in 2010, this study focuses on measuring the economic benefits Florida receives from aviation. These impacts were categorized into eight separate benefit categories such as air cargo, construction, and visitors. Lee County's Southwest Florida International Airport is included as one of the major commercial airports in the state.	State
Florida Trade & Logistics Study	2010	In 2010, the Florida Chamber Foundation, in partnership with FDOT, released the Florida Trade & Logistics Study (T&L), a first-of-its- kind look at trade flows and related logistics activity in Florida. The study called upon the Governor, Legislature, and public and private leaders to take immediate actions to address the opportunity provided by the widening of the Panama Canal.	State
Florida Trade & Logistics Study 2.0	2013	As a follow up to the 2010 Trade & Logistics Study, the Florida Chamber Foundation again partnered with FDOT to further guide Florida's vision, opportunities, and strategies over the next few years. The objective of this study was to identify opportunities for Florida to become a global trade hub, developed an implementation plan to accomplish this vision, and continue to build consensus to support this vision and implementation. This study also put greater emphasis on workforce, economic development, and business climate strategies.	State