

Regional Transit Study Final Report



October 2018





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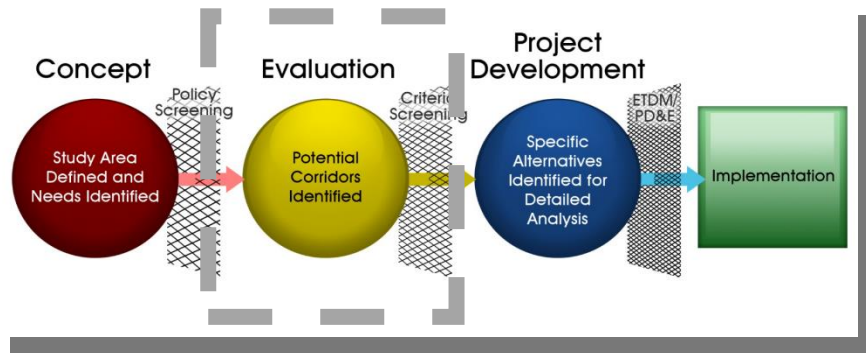
CHAPTER 1: STUDY INTRODUCTION AND PURPOSE

The Regional Transit Study (RTS) is the implementation of the fifth of nine recommendations provided by the East Central Florida Corridor Task Force (ECFCTF or Task Force) to develop a consensus-driven Regional Transit Vision that will better inform the East Central Florida Corridor Evaluation Study (ECFCES).

The Task Force was established by Governor Scott by Executive Order 13-319, November 1, 2013, and was charged with developing recommendations on future transportation corridors serving portions of Brevard, Orange, and Osceola Counties. The Task Force recommended 21 Guiding Principles that seek to balance considerations of conservation, countryside, corridors, and centers when making decisions about the future of the study area's transportation corridors. The Task Force's Action Plan included nine (9) recommendations with, as noted above, the fifth of those recommendations being to develop a regional transit system plan to identify and set priorities for long-term transit investments in the three (3) study area counties and the broader Central Florida region."

Task Force Purpose:
"evaluating and developing consensus recommendations on future transportation corridors serving established and emerging economic activity centers in portions of Brevard, Orange, and Osceola Counties"

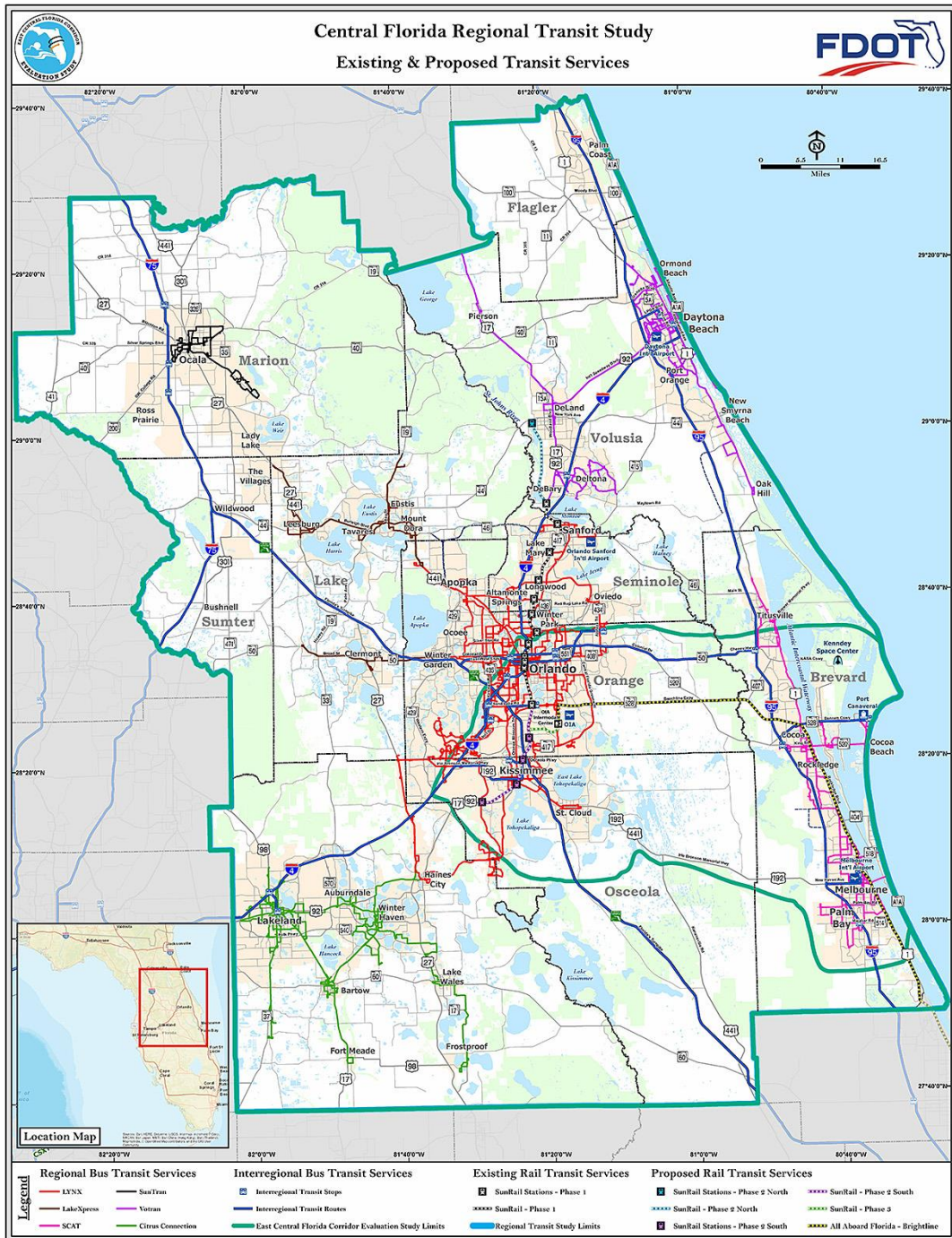
The ECFCES is the second of the three (3) stages of the "Future Corridors" planning process, which entails a more detailed evaluation study for a corridor or segment within the study area. The next stage of the process is to develop more specific recommendations through project development based on the findings of the ECFCES and the RTS. To be consistent with the ECFCES, the RTS also has the planning horizons of 2040 (interim term) and 2060 (long term).



The RTS study area expands upon the three-County study area under the evaluation by the ECFCES and consists of a 10-County region in East Central Florida comprised of the nine (9) counties of the Florida Department of Transportation's (FDOT) District Five (Brevard, Flagler, Lake, Marion, Orange, Osceola, Seminole, Sumter and Volusia) with Polk added to support a more Regional Transit Vision. Figure 1.1 presents the RTS study area with the ECFCES study area and focus corridors (existing and RTS Study Area future) also depicted.



Figure 1.1: RTS Study Area





1.1 STUDY PURPOSE AND SCOPE

The Study provides a package of appropriate information to assist the analysis and decision-making of technical staff and policy makers regarding potential cross-jurisdictional transit projects. The intent of the RTS is to support transit agencies, MPO / TPOs, and FDOT coordinate transit planning efforts and to support long range transportation plan (LRTP) development.

In more detail, the RTS Purpose consists of:

- Establishing a Base Transit Condition / Identify Cross Jurisdictional Service Gaps
- Identifying Existing and Future Funding Gaps
- Identifying Potential Funding Sources
- Analyzing Existing Local Government Transit Supportive Plans and Policies
- Estimating Regional Desire Lines
- Estimating Transit Market Demand-Patronage Forecast Ranges (2040 / 2060)
- Identifying Strong Candidate Corridors for Higher Capacity Transit
- Identifying the Conceptual Regional Transit Vision
- Identifying Interim and Long Term High Priority Transit Investments
- Developing Strategies for Advancing Conceptual Regional Transit Vision

The Study Scope consisted of five (5) tasks as noted below:

- Task 1: Data Collection
- Task 2: Transit Investment and Policy Assessment
- Task 3: Regional Travel Pattern and Market Analysis
- Task 4: Regional Transit Vision Framework
- Task 5: Study Coordination / Meetings

The Project Advisory Group (PAG) for this study consisted of executive staff members representing the six (6) MPO / TPOs in the study area as well as representatives from FDOT Districts 1, 5 and Central Office. Table 1.1 presents the RTS PAG membership. PAG and MPO Alliance meetings were held throughout the study process. RTS progress presentations and discussions were held at each of these meetings. In addition, the Study Coordination in Task 5 consisted of meetings with the regional transit providers, the MPO / TPO Technical Committees and the MPO / TPO Boards.

This effort would not have been successful without the assistance and guidance of Mr. Bob Kamm, former Executive Director of the Space Coast TPO. His contribution to this report, as well as to regional transportation efforts for the past 31 years, were instrumental. He will be missed.

Table 1.1: RTS PAG Membership

NAME	AGENCY / ORGANIZATION	TITLE
Virginia Whittington	MetroPlan Orlando	Director of Regional Partnerships
Harry Barley	MetroPlan Orlando	Executive Director



NAME	AGENCY / ORGANIZATION	TITLE
Georganna Gillette	Space Coast TPO	Executive Director
Lois Bollenback	River to Sea TPO	Executive Director
Mike Daniels	Ocala Marion TPO	Director
Mike Woods	Lake Sumter MPO	Executive Director
Ronnie Blackshear	Polk TPO	Long Range Planning Director
Jennifer Carver	FDOT Central Office Representative	Statewide Growth Management Coordinator
Brenda Young	FDOT District Five Representative	Passenger Operations Manager
Paul Simmons	FDOT District One Representative	Intermodal System Development Manager

1.2 STUDY BENEFITS

The Regional Transit Study benefits include:

- Establishing base future transit projects (2030)
- Identifying future (2040 / 2060) transit projects and gap between base and future
- Providing a reasonable method to identify "buildable" transit projects
- Providing a suggested strategy to prioritize and implement regional transit projects
- Providing information and analysis that will assist immediate projects with FTA new / small starts process (land use / finance)
- Assisting implement new MPO coordination and tourism regulations
- Identifying and coordinating cross-jurisdictional regional transit projects

1.3 COORDINATION WITH OTHER STUDIES AND PLANS

Several studies and plans were reviewed and assimilated during the RTS Data Collection phase of the scope. These include but are not limited to the following:

- MPO / TPO LRTP – Cost Feasible / Needs Networks
- Transit Agency Transit Development Plans
- East Central Florida Corridor Evaluation Study
- Districtwide Multimodal Assessment
- SIS Needs Plan
- How Shall We Grow: A Shared Vision for Central Florida
- FDOT – Intercity Bus Services
- Comprehensive Plans
- North Ranch Master Plan

FDOT's Intercity Bus Services analysis is important to note. This study documents private providers of existing regional and statewide bus services. Many of these services already provide connections



between the RTS study area activity centers. It is important to note these connections lack adequate facilities, or local transit service connections. This is addressed as part of the RTS.

1.4 RTS WORK PRODUCT

The conceptual Regional Transit Vision identifies an initial range of feasible and appropriate alternatives and technologies for the major travel corridors within the 10-County region for two (2) target years (2040 / 2060). This framework includes an identification of high priority transit investments that could be implemented in the nearer term that will support a longer-term vision. Based on this transit vision framework, a strategic work plan, including suggested potential initial investment options, is presented for advancing the conceptual Regional Transit Vision framework to the next stage. Finally, approaches and processes for advancing the intermediate and long-term elements of the framework in state, regional and local plans are presented in the plan.



CHAPTER 2: BASE CONDITIONS

Establishing base transit conditions for the RTS provides a necessary starting point for determining existing gaps and future regional transit needs. To establish the base transit conditions, data was collected and documented from MPO / TPO socioeconomic databases, traffic count data, cost feasible and needs plans from the LRTPs, as well as other studies and plans developed within the ten-County region that address transit vision, improvements, and programs. The various studies and plans developed for the region, or within specific parts of the region, provide insight into both local mobility needs and regional connections. While many of these planning efforts acknowledge the need for improved regional mobility, often solutions and improvements focus on local needs or sub-regional services at best. Understanding these perspectives and plans provides an opportunity to identify needed connections or gaps in regional / cross-jurisdictional transit access and mobility.

2.1 EXISTING TRANSIT NETWORKS

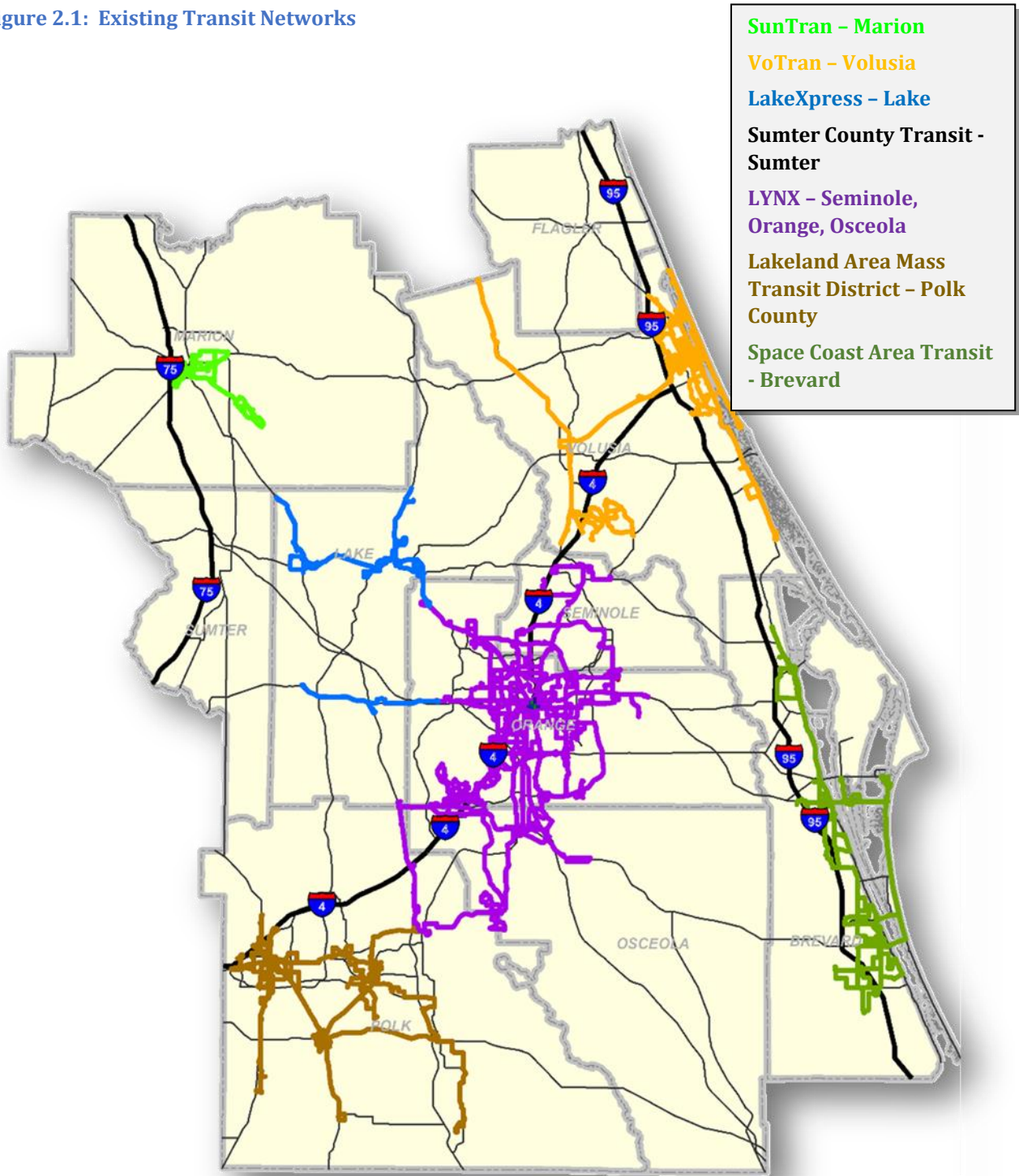
Fixed route transit and paratransit services within the ten-County study area are provided by seven (7) different transit providers (see Table 2.1). Each transit provider operates localized transit services designed to serve constituents within their defined funded service area. Minimal cross-jurisdictional transit connections occur within the region because the focus of each service provider is on serving the core urbanized areas first and regional connections second. Attempts have been made in recent years to create these transit connections with an adjacent transit service provider, either through regional services like SunRail or through extensions of existing local routes. While these connections provide the ability to travel regionally, service levels (i.e., frequency, days, and hours of service) are often minimal and underfunded, and schedules / headways are not coordinated, rendering these services unattractive and ineffective for longer haul trips. Additionally, the lack of regional transit facilities present physical and psychological challenges (e.g., safety) for passengers attempting to make transfers between these transit routes.

Table 2.1: Existing Transit Providers

Transit Provider	Counties Served	Types of Transit Services
Central Florida Regional Transportation Authority - CFRTA (LYNX)	Orange, Seminole and Osceola Counties, contracted service into Polk County	fixed route, circulator express, demand response, paratransit, vanpool
Votran	Volusia County	fixed route, paratransit, vanpool
Space Coast Area Transit (SCAT)	Brevard County	fixed route, paratransit, vanpool
Lakeland Area Mass Transit District (LAMTD)	Polk County	fixed route, paratransit
SunTran	Marion County	fixed route, paratransit
LakeXpress	Lake County	fixed route, paratransit
Sumter County Transit	Sumter County	paratransit
Flagler County Public Transit	Flagler County	paratransit



Figure 2.1: Existing Transit Networks





2.2 EXISTING PREMIUM TRANSIT SERVICES

Premium transit services are defined as those transit services that operate in dedicated or semi-dedicated right-of-way and provide competitive travel times with high-service levels. Within the 10-county study area, only two (2) types of premium transit service exist: SunRail and LYMMO. Sunrail is a regional commuter rail service, and LYMMO is a Downtown Orlando activity center based Bus Rapid Transit (BRT) service. Each of these transit services are provided with dedicated or semi-dedicated right-of-way with premium levels of service. The 61-mile SunRail corridor generally parallels Interstate 4 and US 17/92 through Central Florida. *Phase I* SunRail service (32-miles in length) currently operates between a station in DeBary on Fort Florida Road in southwest Volusia County and a station on Sand Lake Road in Orange County. Opening in summer of 2018, *Phase II South* SunRail service will extend from the Sand Lake Road station south into Osceola County, through Downtown Kissimmee, and ending at a new station in Poinciana near US 17/92 and Poinciana Boulevard. Future unfunded segments include *Phase II North* which will extend the line from the DeBary station to a station west of Downtown DeLand. See Figure 2.2 for a depiction of Phases I and II SunRail service. *Phase III* will connect the mainline SunRail service from a new station north of the Meadow Woods neighborhood to OIA at the South Terminal Intermodal Center.

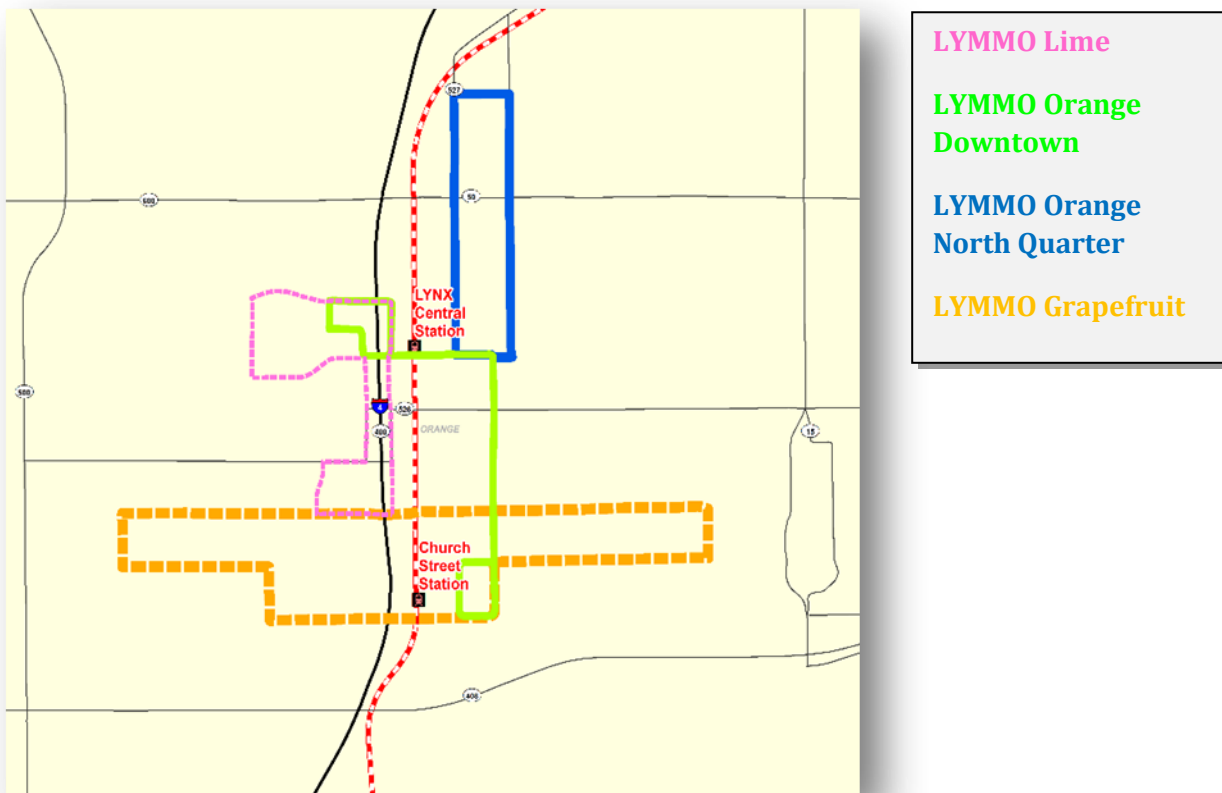


Figure 2.2: Existing Phase I / Future Phase II SunRail Service





Figure 2.3: Existing Downtown Orlando LYMMO Service



2.3 TRANSIT DEVELOPMENT PLANS

The Transit Development Plan (TDP) is a 10-year plan required by FDOT as a prerequisite to receive state funds that serves as a basis for defining public transportation needs within each transit provider's service area, as governed by Sections 339.135 and 339.155, *Florida Statutes (F.S.)*. The TDP is the transit provider's planning, development, and operational guidance document. A new TDP (referred to as a "Major Update") must be prepared on a five-year basis, depending upon changes within the local jurisdiction. While the major update is mandated every five (5) years, the Rule also requires annual updates to the TDP in years between major updates. Each of the study area transit providers have submitted TDPs recently, some as major updates, others as minor updates. Following is a summary of the TDPs within the study area.

2.3.1 Central Florida Regional Transportation Authority – LYNX TDP

LYNX developed and submitted to FDOT a Major TDP update in December of 2017 for FY 2018-2027. Although this document was considered a Major TDP update, the service plan element was unchanged from the previous edition. LYNX is currently in the process of completing a Route Optimization Study (ROS) called *LYNX Forward*. The results of this study are expected to reconfigure the transit network, placing emphasis on premium corridor service, improved service levels and greater emphasis on utilizing the SunRail service as the spine of the future transit network. *LYNX Forward* is expected to result in a Long-Term Plan with significant expansion of the existing route



network and service levels. Recommendations developed as part of the RTS consider early draft versions of this Long-Term Plan. A near-term plan will also be developed as part of *LYNX Forward* based on existing constrained financial resources. The near-term plan, plus a list of prioritized route and service improvements, will comprise the annual elements of the updated 2019 LYNX TDP submittal.

2.3.2 Votran TDP

Votran developed and submitted to FDOT their last Major TDP update in 2016 for FY 2017-2026. Recommendations include improvements to service frequency, adding Saturday and Sunday service to select routes, and extending service hours on select routes on weekdays and Saturdays. New routes include: Saxon Park & Ride to Elkcam Boulevard, Saxon Park & Ride to the DeBary SunRail station, and a Lake Helen Connector route. Municipal trolley and circulator service is proposed in Ormond Beach, along International Speedway Boulevard, New Smyrna Beach, Downtown DeLand, Edgewater, and Deltona. A key element of the capital improvement program includes a new West Side Transfer Facility near Orange City Market Place.

2.3.3 Space Coast Area Transit TDP

Space Coast Area Transit developed and submitted a Major TDP update in 2017 for FY 2018-2027. Recommendations include improvements to service frequencies and extending service hours and implementing Sunday service on all routes. Two (2) new fixed routes are proposed between Melbourne and Sebastian via US 1 and between Palm Bay-Barefoot Bay-Sebastian via US 1. Four (4) new circulator routes are proposed: Palm Bay-Malabar, Malabar-Degroodt-Bayside Lake Plaza, Malabar-San Filippo-Bayside Lake Plaza, and Minton-St. John's Heritage Parkway. New flex-route service is also proposed in Port St. John and Citrus Boulevard-Canaveral Grooves-Cocoa. A key element of the capital program includes new Park & Ride lots in the following general locations: Titusville on SR 50 (Cheney Highway), Viera near Stadium Parkway and Viera Boulevard, Eau Galle on Eau Galle Boulevard, and Palm Bay on Emerson Drive and CR 509. Emphasis is also placed on development of transit hubs; however, specific locations are not defined.

2.3.4 Lakeland Area Mass Transit District (LAMTD) / Polk TPO TDP

The Polk TPO developed and submitted a Major TDP update in 2017 for FY 2017-2026. Recommendations include improvements to service frequency, extending service hours, adding Saturday and Sunday service to select routes, and improving transit travel speeds through implementation of transit signal priority (TSP). The TDP also identifies a new route operating between Polk City and Lakeland, and a new express feeder route between the Winter Haven Terminal and the Poinciana SunRail station. A key element of the capital program includes a new Downtown Lakeland Intermodal Center and new Park & Ride facilities along the express feeder route between Winter Haven and the Poinciana SunRail station.

2.3.5 Lake~Sumter TDP

The last Lake~Sumter Major TDP update was developed in 2013 for FY 2014-2023. In 2014, a minor update was developed extending the 10-year TDP to FY 2024. The updated TDP proposed new fixed route service along SR 50, which has since been implemented as Route 5 East between Clermont and Winter Garden, and Route 5 West operating between Mascotte and Clermont. Additional



improvements proposed include weekend and weekday evening service on Route 5 East and West, and a new Route 6 – Clermont-Minneola Circulator.

2.3.6 Ocala / Marion County TPO - SunTran TDP

SunTran is the transit provider for the Ocala / Marion TPO transit service area. The Ocala / Marion TPO developed and submitted to FDOT their last Major TDP update in 2017 for FY 2018-2027. The 10-Year TDP consisted of cost feasible transit improvements and unfunded needs. Cost feasible improvements include: new Sunday service on all existing routes, a new Villages-Belleview limited express service, a new Ocala West Connector route, and a new Flex Route serving the SR 200 corridor from I-75 to SW 60th Avenue. A key element of the capital program includes establishing shared Park & Ride lots on SR 200 west of I-75, and along SW County Highway 484 and I-75 pending implementation of the realigned Orange route and the Marion Oaks Express. The needs plan of the TDP identifies doubling the frequency of existing routes, adding a new Downtown Ocala circulator route, adding a new Marion Oaks Express, and adding three (3) new Flex routes (Baseline, Marion Oaks, and On-Top-of the World). The Needs Plan also identifies a new / improved transfer facility in Downtown Ocala.

2.4 MPO / TPO Long Range Transportation Plans

The RTS study area MPO / TPO LRTPs are briefly described below. Further detail is documented in Chapter 5, which describes each MPO / TPO LRTP in the context of the region and overall transit vision. Figures 2.4 and 2.5 at the end of this section depict the regional Cost Feasible and Needs Plan major transit capital corridors found in the respective plans.

2.4.1 MetroPlan Orlando 2040 LRTP

The MetroPlan Orlando 2040 LRTP called “Blueprint 2040” includes an assessment of transit needs (*2040 Transit Blueprint*) and identification of affordable projects, identified as the Cost Feasible Transit Plan.

Cost Feasible Transit Network

The Cost Feasible Transit Network identifies projects from the 2040 Transit Blueprint; however, it aligns revenue sources to fund projects based on anticipated local funding capacity and federal and state match. The Cost Feasible Transit Network includes the highest priority transit corridors within the region and includes the *2030 LYNX Vision* corridors. Many corridors within the Cost Feasible network are anticipated to be BRT services.

Transit Needs Network

The *2040 Transit Blueprint* is composed of a mix of transit modes including: fixed route transit, express bus, demand response paratransit, BRT, FlexBus, commuter rail (SunRail), Maglev, and High-Speed Rail. Key regional transit improvements include extension of SunRail into Polk and Volusia County, High Speed Rail through the region along Interstate 4 (I-4) and SR 528 (Tampa to the east coast) and commuter rail along the northwest corridor into Lake County. Several other major transit capital improvements are contained within the plan serving corridors within the MetroPlan urban area. Although these projects do not extend outside the region, they are still considered regional in nature as they provide the urban transit network connecting regional high capacity transit service to and from localized origins and destinations.



2.4.2 River to Sea Transportation Planning Organization 2040 LRTP

The River to Sea TPO (R2CTPO) 2040 Long Range Transportation Plan provides a financially-constrained plan for the R2CTPO service area and continues to support additional funding strategies to address expanded transit needs. The TPO recognizes the need to continue the expansion of SunRail further north into Volusia County to the DeLand station. Although this extension is yet to be included in the cost feasible transportation network, the TPO is committed to this future rail extension by protecting a rail envelope in the I-4 corridor within Volusia County.

Cost Feasible Transit Network

The R2CTPO 2040 LRTP continues support for local public transit service by preserving a portion of the transportation management area (TMA) set-aside between year 2019 and 2040. This funding only provides for the continuation of existing transit services.

2.4.3 Space Coast TPO 2040 LRTP

The Space Coast TPO 2040 LRTP provides a financially-constrained plan for the Space Coast TPO service area. The LRTP also provides a vision map for major capital investments in transit within Brevard County as well as regional cross-jurisdictional connections.

Cost Feasible Transit Network

The Cost Feasible Transit Network includes the continuation of the existing Space Coast Area Transit services.

Transit Needs Network

The Transit Needs Network includes expansion of the existing fixed route transit network as well as several high capacity transit corridors. The US 1 corridor (US 1 roadway and Florida East Coast Railway, FEC) is proposed to serve as the backbone of the needs network. The plan also includes the planned intercity rail between south Florida and Orlando (Brightline) with a station in Cocoa, regional commuter rail from Micco to Mims and BRT along US 1. Additionally, the Needs Network contains two (2) express bus services with connections to Orlando, commuter rail along SR 528 to Orlando International Airport (OIA) from Port Canaveral, and commuter rail along the Pineda / Ellis / NASA Boulevard corridor between Melbourne and OIA.

2.4.4 Polk County TPO 2040 LRTP

The Polk TPO's *Polk Momentum 2040 LRTP* provides a financially-constrained plan for the TPO service area. The 2017 TDP provides an alternatives analysis that addresses the *Polk Momentum 2040* targets; however, funding is still required to complete the implementation of the 2040 transit needs plan.

Cost Feasible Transit Network

The Polk TPO 2040 Cost Feasible Plan includes the continuation and expansion of existing transit services. The plan also identifies extension of the SunRail service from the Poinciana SunRail station in four (4) phases. Phase 1 includes express feeder service from Auburndale, Lake Alfred and Haines City to the Poinciana SunRail station via US 17/92, and from Downtown Lakeland to the Poinciana SunRail station via I-4. Phase 2 extends SunRail service to Haines City and shortens the express feeder service to this station, plus new express feeder bus service from Lake Wales and Winter



Haven. Phase 3 includes extension of the SunRail service to Auburndale. Phase 4 extends SunRail service to Downtown Lakeland.

Transit Needs Networks

The 2040 transit needs network builds upon the Cost Feasible Plan by extending the SunRail service further west into Hillsborough County as well as adding High Speed Rail operating between Tampa and Orlando with a Polk County station.

2.4.5 Lake~Sumter Metropolitan Planning Organization (MPO) LRTP

The Lake-Sumter MPO 2040 LRTP relies heavily on the Lake County TDP. As previously noted, the updated TDP proposed new fixed-route service along SR 50, which has since been implemented as Route 5 East between Clermont and Winter Garden and Route 5 West operating between Mascotte and Clermont. Additional proposed improvements include weekend and weekday evening service on Route 5 East and West, and a new Route 6 – Clermont-Minneola Circulator. The 2040 LRTP includes no major transit capital investments in the Cost Feasible LRTP.

Transit Needs Networks

The Lake~Sumter MPO 2040 LRTP Needs Plan identifies several multimodal corridors within Lake County for future investments. These corridors will provide connections between activity centers within the County. Corridors include SR 50, US 441, US 27, US 19, CR 561, and CR 44.

2.4.6 Ocala / Marion County TPO 2040 LRTP

The Ocala / Marion 2040 LRTP Transit Projects Needs Assessment provides an aspiration-based transit plan for the TPO service area. The 2040 LRTP includes all improvements identified in the 2017 SunTran TDP.

Transit Needs Networks

The TPO 2040 Needs Plan Transit Network includes future opportunities for intercity bus and passenger rail service. Intercity bus service is identified from Ocala to Belleview to Sumter County / The Villages along US 301 / US 441 / US 27. Intercity rail is identified along the CSXT railroad corridor from Downtown Ocala to Wildwood, to Bushnell and beyond. Light rail service is also envisioned from Downtown Ocala to Emerald Road on the Florida Northern Railroad corridor paralleling CR 464. Finally, two (2) Park & Ride facilities are identified: one at Interstate 75 (I-75) and CR 484, and the other along SR 200 in the general vicinity of I-75 and SW 60th Avenue.

Cost Feasible Transit Network

The 2040 LRTP Cost Feasible Transit Network includes the continuation of existing fixed-route and paratransit service, improved service frequency on Routes 1-4, and American Disability Act (ADA) bus shelter accessibility improvements.



Figure 2.4: MPO / TPO LRTP Cost Feasible Transit Network

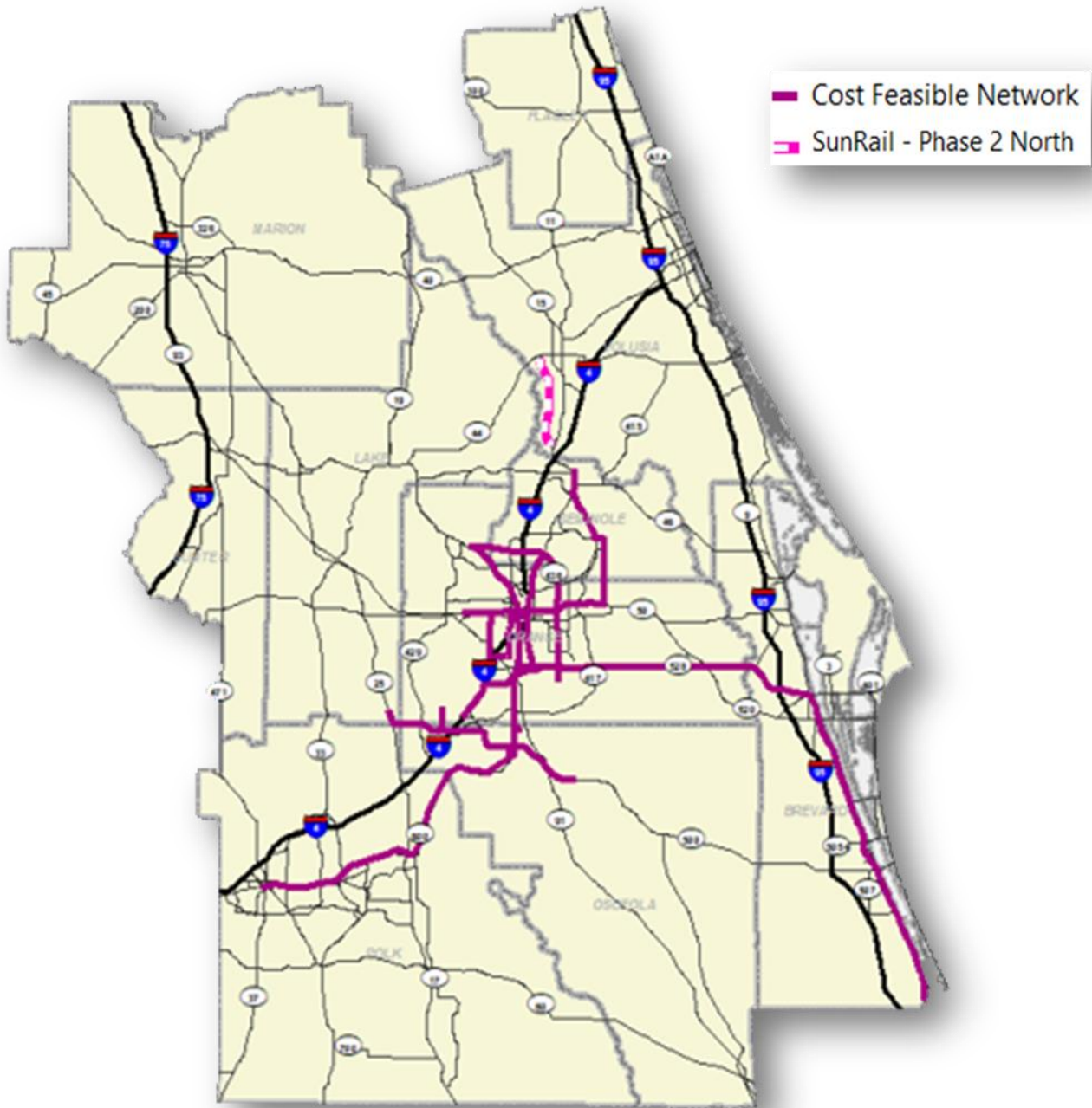
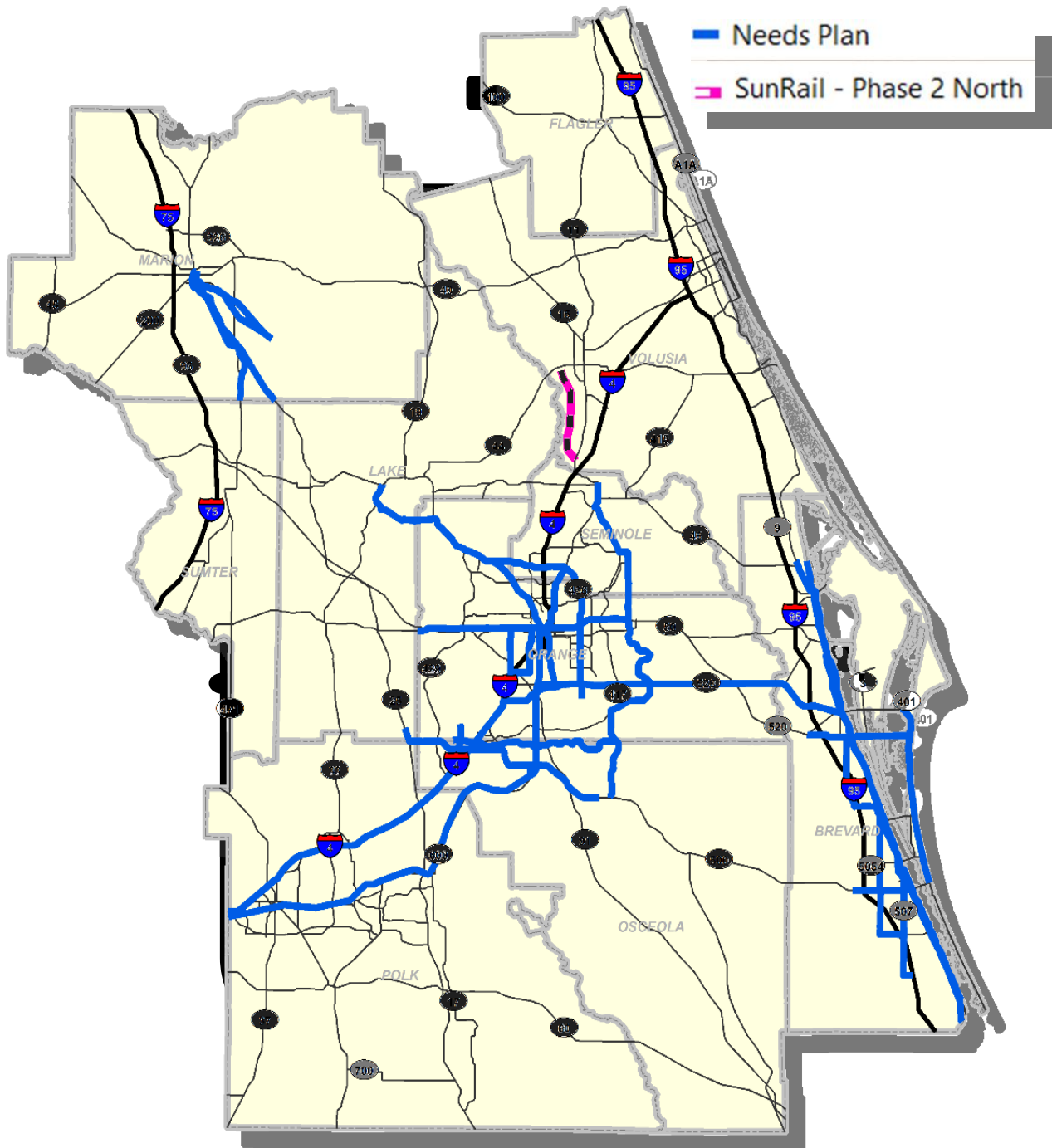




Figure 2.5: MPO / TPO LRTP Needs Transit Network





2.5 BASE FUNDING-COST FEASIBLE NETWORKS

The LRTP for each MPO / TPO in the 10-County area was reviewed to identify if transit projects are listed as part of their Cost Feasible Network. While many of the MPOs / TPOs include transit as part of their Needs Network, few transit projects have funding identified as part of the Cost Feasible Network projects. Table 2.2 outlines the Cost Feasible transit projects.

Table 2.2: Cost Feasible Transit Projects

County Planning Organization	Cost Feasible Projects \$ Total	Noted Text from LRTP
Brevard Space Coast TPO	--	<i>It should be noted that the Cost Feasible Plan does not address any transit needs.</i>
Flagler and Volusia River to Sea TPO	--	<i>This results in an operating policy of indefinite deferral of any service expansion.</i>
Lake and Sumter Lake~Sumter MPO	--	
Marion Ocala / Marion County TPO	--	
Orange, Osceola, and Seminole MetroPlan Orlando	\$664.47M	<i>Projects outlined in the next section</i>
Polk Polk County TPO	--	<i>Expansion and transit service will be implemented as funding becomes available.</i>

MetroPlan Orlando established a policy of using up to 30% of District Discretionary Revenue (DDR) funds for premium transit projects effective in FY 2020 / 21. The estimated first-year amount available for operating premium transit under this policy is \$23.3 million. LYNX's existing fixed-route network is not considered premium transit and thus not eligible to receive DDR funds for operating expenses. As part of the FY 2021 / 22-2039 / 40 Prioritized Projects List, MetroPlan Orlando includes the premium transit projects presented in Table 2.3.



Table 2.3: MetroPlan Orlando’s Prioritized Projects List FY 2021 / 22-2039 / 40: Category A Premium Transit

PPL Ranking	Project Description	Estimated Remaining Cost (Present-Day)
#1	SunRail Phase III <ul style="list-style-type: none"> Project Development, Design, Construction: connection of SunRail south of Sand Lake Road to the Orlando International Airport (OIA) 	<i>Project Development TBD</i> <i>Design TBD</i> \$225M – <i>Construction only</i>
#2	OIA Bus Rapid Transit (BRT) <ul style="list-style-type: none"> Project Development, Design, Construction: BRT from the Orlando International Airport to the Orange County Convention Center 	\$3M – <i>Project Development</i> \$24M – <i>Design</i> \$200M – <i>Construction</i>
#3	US 192 Bus Rapid Transit (BRT) <ul style="list-style-type: none"> Design, Construction: BRT on US 192 from US 27 to US 441 	\$15.6M – <i>Design</i> \$120M – <i>Construction</i>
#4	SR 50 Bus Rapid Transit (BRT) <ul style="list-style-type: none"> Project Development, Design, Construction: BRT on SR 50 from Powers Drive to Goldenrod Road; includes express bus from Downtown Orlando to UCF 	\$540,000 – <i>Project Development</i> \$4.32M – <i>Design</i> \$36M – <i>Construction</i>
#5	Downtown Orlando Bus Rapid Transit (BRT) <ul style="list-style-type: none"> Project Development, Design, Construction: expansion of the LYMMO BRT system north and south of current service area 	\$480,000 – <i>Project Development</i> \$3.52M – <i>Design</i> \$32M – <i>Construction</i>
#6	ITS Enhanced Transit <ul style="list-style-type: none"> Capital and operations: ITS-enhanced transit service within a four-city area 	TBD

MetroPlan Orlando’s Prioritized Project List separates transit projects into four (4) categories. Category A includes premium transit projects eligible for DDR operating funds in FY 2020 / 21 (listed above). Category B features transit projects requiring feasibility studies. Category C lists enhancements to LYNX’s existing system (not premium transit projects), while Category D provides an overview of ongoing transit projects that receive federal formula funding.

2.6 FUTURE FUNDING-NEEDS NETWORKS

As noted in previous subsections of this chapter, additional transit projects are discussed in Transit Development Plans (TDPs) and LRTPs across the region. Despite having no funding tied to each project, the list reflects a potential vision for regional transit service.



Table 2.4: Potential Future Transit Projects (unfunded)

County Planning Organization / Transit Operating Agency	Project Description Project Costs
Brevard Space Coast TPO / Space Coast Area Transit	US 1 FEC Commuter Rail - US 1 BRT North, Central, South - SR 520 BRT - Fiske / Stadium BRT - Wickham / Mintor BRT - Babcock BRT - SR A1A BRT - US 192 BRT <i>\$1.9 billion capital costs - \$26,907,000 annual operating costs</i>
Flagler & Volusia River to Sea TPO / Votran	SunRail Phase II North <i>\$70 million</i>
Lake & Sumter Lake~Sumter MPO / LakeXpress, Sumter County Transit	--
Marion Ocala / Marion County TPO / SunTran	US 301 Commuter Rail - SR / CR 464 Light Rail <i>No costs outlined</i>
Orange, Osceola & Seminole MetroPlan Orlando / LYNX, SunRail	Enhancements to existing LYNX system, including Kissimmee Transit Circulator and corridor express service <i>Kissimmee circulator costs listed as TBD - Express service costs listed as \$1.6 million</i>
Polk Polk County TPO / Citrus Connection, Winter Haven Area Transit	Premium BRT along US 98 & US 92 (Bartow to Lakeland) <i>\$1.6 million for vehicles; \$10 million for "infrastructure"</i> US 17 BRT (Bartow to Winter Haven); US 92 BRT (Lakeland to Winter Haven); SunRail extension to Lakeland <i>No costs outlined</i>



CHAPTER 3: REGIONAL TRAVEL PATTERN/MARKET ANALYSIS

To support the development of the Regional Transit Vision framework, and the identification of the short term high priority transit investments for the 10-County region, regional travel patterns and markets were analyzed for a base year 2015, and future years 2040 and 2060. Specific market analysis consisted of summarizing travel flows between activity centers, counties and urbanized areas, with special emphasis on identifying opportunities for higher capacity transit investments designed to link regional activity centers.

3.1 TRAVEL FLOWS: DEVELOPMENT

The travel flows were developed using the Central Florida Regional Planning Model (CFRPM) v6.1, the adopted model for L RTPs in FDOT District Five. Travel flows were developed in three (3) steps:

1. Incorporated socio-economic data from previous Deseret Ranch planning efforts in CFRPM;
2. Developed a set of CFRPM input files for 2015, 2040, 2060 and 2080 analysis years; and
3. Ran CFRPM for the 2015, 2040, 2060, and 2080 analysis years.

Deseret Ranch is a 300,000-acres parcel of land in portions of Orange, Osceola, and Brevard counties. While it currently is one of the largest working ranches in the country, recently there have been several analyses proposing residential and employment development. This development is expected to occur gradually over the next 50-60 years resulting in a substantial suburban area that will significantly impact travel between the Orlando and Atlantic coastal areas. The scope includes incorporating the proposed Deseret Ranch development into the CFRPM so its impact can be analyzed by the RTS.

The Deseret Ranch planning consultant provided the networks and socio-economic data files for the 2060 and 2080 analysis years for this effort. Both their network and socio-economic data was based on a previous version of the CFRPM, so a zonal equivalency file was developed to transition data to the CFRPM v6.1 model. In most cases, the smaller ECFES zones were merged into a larger CFRPM zone. There were few ECFES zones which were split into smaller CFRPM V6.1 zones. The population and employment numbers for the split zones were then distributed proportionally to the residential and / or employment areas, respectively. The residential and employment areas were defined based on the aerial view obtained from the Google maps. For the zones which were outside of the study area, a simple linear extrapolation method was used to get the 2060 and 2080 socio-economic numbers.

The CFRPM v6.1 furthest horizon year is 2040. As such, the original socio-economic data was extrapolated linearly to 2060 and 2080 using growth rates between 2015 and 2040 datasets. The Deseret Ranch information was then added to this 2060 and 2080 dataset. The 2040 highway network was used for 2060 and 2080 except where the Deseret Ranch networks included additional roadways. Once these improvements were completed, the CFRPM model was run for all four (4) analysis years.



3.2 TRAVEL MARKET THRESHOLD FOR MAJOR CAPITAL INVESTMENT

For the purposes of this analysis, only travel markets with daily trip volumes over 100,000 were considered to have potential for a major capital investment in Premium Transit. With regional transit mode shares in the low single percent range, transit mode share for travel markets under 100,000 daily trips would not qualify for a major capital transit investment. For example, a 3-5% transit mode share for a daily travel market of 100,000 trips would generate 3,000 to 5,000 daily trips. It was determined early in the study process this would meet the lowest threshold possible to justify a major capital transit investment. This does not state other transit services with lower capital investment are not warranted in these travel markets.

3.3 TRAVEL FLOWS: ANALYSIS

Travel flows were created using three (3) different sets of delineations to provide a comprehensive perspective of inter-regional travel in the 10-County region: 1) MPO / TPO urbanized / non-urbanized areas; 2) County to County; and, 3) major activity centers. The MPO / TPO urbanized / non-urbanized area travel movements represent a high-level perspective of future regional travel. County to County travel movements represent a mid-level perspective of future regional travel. The major activity center travel movements represent a more granular or closer view of both future regional and sub-regional travel.

3.3.1 MPO / TPO Urbanized / Non-Urbanized Areas

Year 2040 and 2060 Person Trips developed by the final CFRPM v6.1 runs were grouped based on urbanized and non-urbanized areas within each MPO / TPO area. Urbanized and non-urbanized areas, defined by each of the six (6) MPOs / TPOs in the region (Lake~Sumter MPO, MetroPlan Orlando, Ocala / Marion TPO, Polk County TPO, River to Sea TPO, and the Space Coast TPO) for long-range planning purposes, were also used as a basis to display travel movements. Average weekday trip production from each urbanized area (UA) to other urbanized and non-urbanized areas were developed and summarized in tables and desire line maps. A program written in the R language was used to represent these flows on a GIS map as desire lines. Figure 3.1 presents an example of MPO / TPO UA travel desire lines for the year 2040 Average Weekday for the MetroPlan Orlando UA.

For the purposes of this study, travel markets with trip volumes of at least 100,000 were determined as potentially viable travel markets for future major transit investments. Year 2040 and 2060 trip pairs exceeding 100,000 daily trips between the urbanized and non-urbanized areas are identified in Tables 3.1 and 3.2. For Year 2040, a total of 16 pairs exceed 100,000 daily trips. Year 2040 trips pairs involving MetroPlan Orlando UA account for six (6) of the 16 pairs (38% of pairs, 40% of daily trips) with either the trip origin or trip destination end of the pair. For Year 2060, a total of 18 pairs exceed 100,000 daily trips. Year 2060 trips pairs involving MetroPlan Orlando UA account for eight (8) of the 18 pairs (44% of pairs, 43% of daily trips) with either the trip origin or trip destination end of the pair.



Table 3.1: 2040 Urbanized (UA) / Non-Urbanized Person Trip Pairs > 100,000

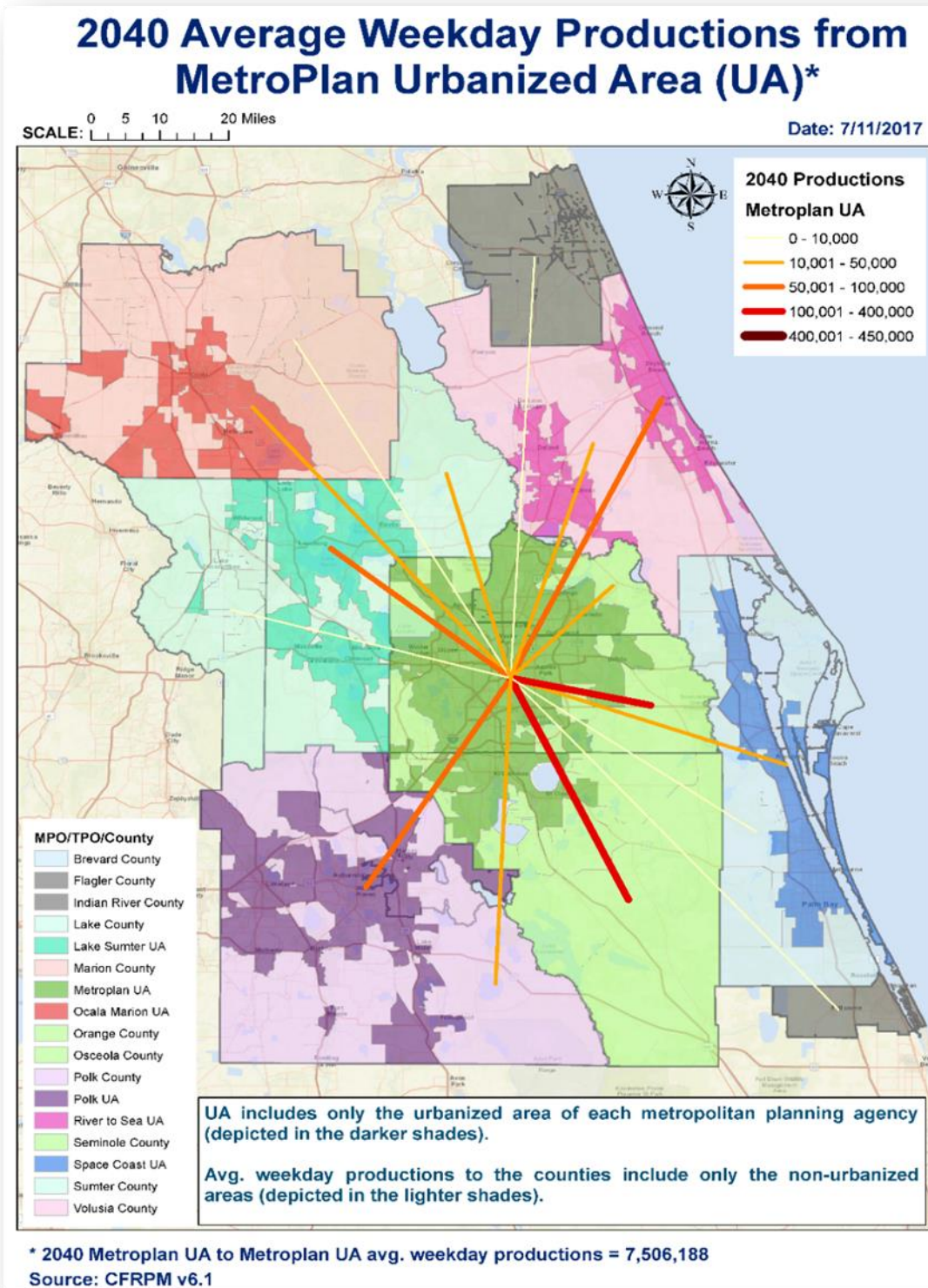
TRIPS	From UA / Non-UA	To UA / Non-UA
332,009	MetroPlan Orlando UA	Orange County
261,636	Polk County	Polk UA
249,012	Orange County	MetroPlan Orlando UA
241,206	Osceola County	MetroPlan Orlando UA
219,020	Polk UA	Polk County
212,235	Space Coast UA	Brevard County
187,301	Brevard County	Space Coast UA
181,223	River to Sea UA	Volusia County
164,532	Marion County	Ocala Marion UA
156,162	Volusia County	River to Sea UA
155,075	Ocala Marion UA	Marion County
144,588	MetroPlan Orlando UA	Osceola County
133,203	Lake County	Lake Sumter UA
111,370	Lake Sumter UA	Lake County
104,868	Lake Sumter UA	MetroPlan Orlando UA
103,374	River to Sea UA	MetroPlan Orlando UA

Table 3.2: 2060 Urbanized (UA) / Non-Urbanized Person Trip Pairs > 100,000

TRIPS	From UA / Non-UA	To UA / Non-UA
438,995	MetroPlan Orlando UA	Orange County
388,371	Orange County	MetroPlan Orlando UA
358,975	Polk County	Polk UA
305,196	Polk UA	Polk County
293,753	Osceola County	MetroPlan Orlando UA
274,057	Space Coast UA	Brevard County
233,892	Brevard County	Space Coast UA
229,856	River to Sea UA	Volusia County
216,075	Ocala Marion UA	Marion County
207,991	Marion County	Ocala Marion UA
200,937	Volusia County	River to Sea UA
194,401	MetroPlan Orlando UA	Osceola County
178,400	Lake County	Lake Sumter UA
152,239	Lake Sumter UA	Lake County
127,094	Lake Sumter UA	MetroPlan Orlando UA
120,742	Polk UA	MetroPlan Orlando UA
113,420	MetroPlan Orlando UA	Polk UA
108,747	River to Sea UA	MetroPlan Orlando UA



Figure 3.1: Example MPO/TPA Urbanized / Non-Urbanized Area Travel Movements





3.3.2 County to County

Separate desire lines were created for each of the ten (10) study area counties. Year 2040 and 2060 Person Trips developed by the final CFRPM v6.1 runs were grouped based on its origin County and destination County. Figure 3.2 illustrates the example of the desire lines as trip productions from Osceola County to all other counties for the year 2040. Darker and thicker desire lines represent more trips going from Orange County to the respective County. Lighter and thinner desire lines mean less trips are expected from Orange to that County. Appendix B contains trip tables and mapping representing MPO / TPO, County and urbanized areas.

For the purposes of this study, travel markets with trip volumes of at least 100,000 were determined as potentially viable travel markets for future transit investments. Year 2040 and 2060 trip pairs exceeding 100,000 daily trips between counties are identified in Table 3.3 and 3.4. For Year 2040, a total of nine (9) County pairs exceed 100,000 daily trips. Year 2040 trips pairs involving Orange County account for seven (7) of the nine (9) pairs (78% of pairs, 91% of daily trips) with either the trip origin or trip destination end of the pair.

Table 3.3: 2040 County Person Trip Pairs > 100,000

TRIPS	From UA / Non-UA	To UA / Non-UA
696,188	Osceola	Orange
467,545	Seminole	Orange
359,917	Orange	Seminole
235,904	Orange	Osceola
147,885	Lake	Orange
116,729	Polk	Orange
111,713	Osceola	Polk
105,708	Orange	Lake
103,247	Flagler	Volusia

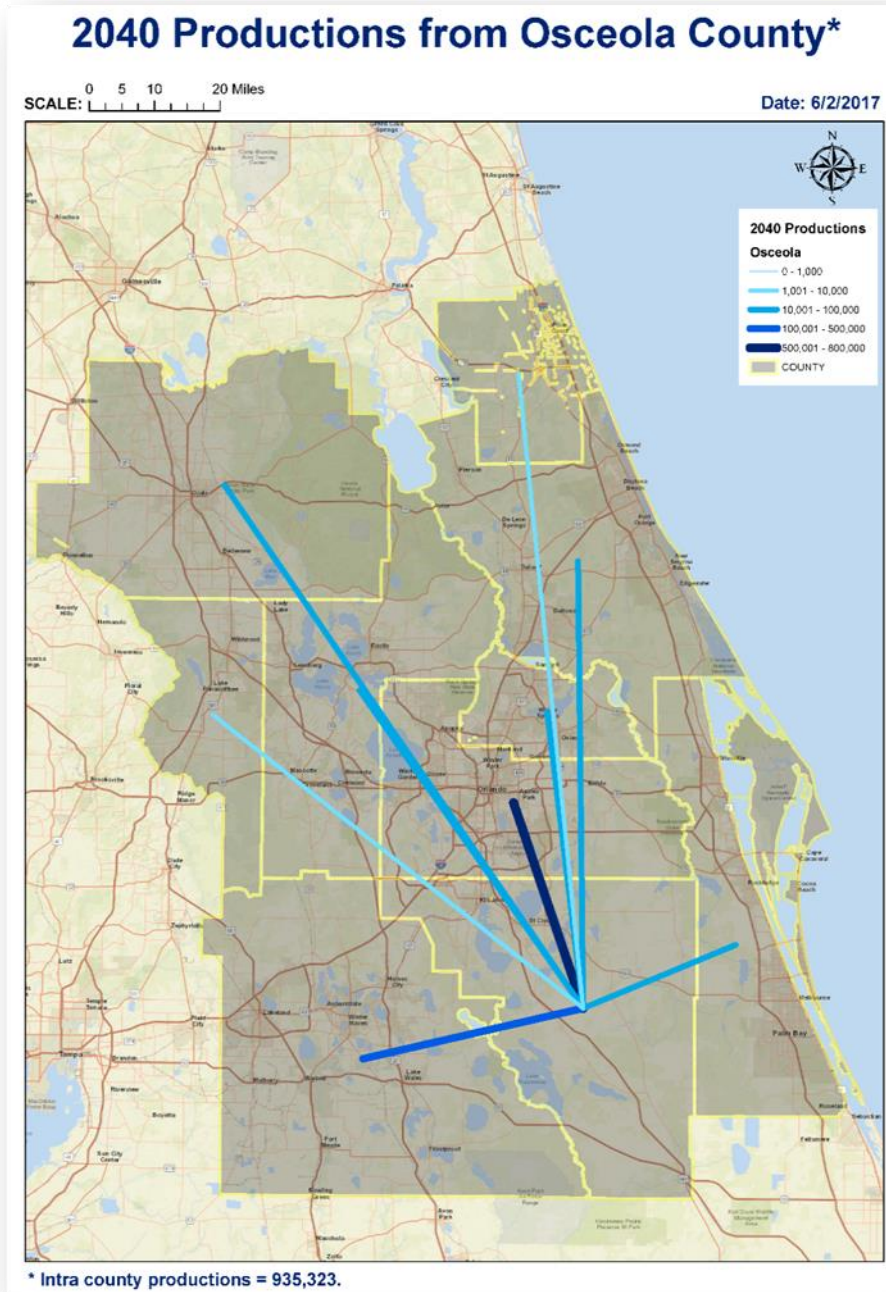
For Year 2060, a total of 12 pairs exceed 100,000 daily trips. Year 2060 trips pairs involving Orange County account for seven (7) of the 12 pairs (58% of pairs, 81% of daily trips) with either the trip origin or trip destination end of the pair.

Table 3.4: 2060 County Person Trip Pairs > 100,000

TRIPS	From UA / Non-UA	To UA / Non-UA
799,462	Osceola	Orange
507,060	Seminole	Orange
453,139	Orange	Seminole
315,795	Orange	Osceola
183,877	Lake	Orange
147,727	Polk	Orange
146,392	Osceola	Polk
133,633	Orange	Lake
123,878	Flagler	Volusia
117,627	Sumter	Lake
101,410	Volusia	Seminole
100,863	Polk	Osceola



Figure 3.2: Example County to County Travel Movements (2040 Osceola County)



3.3.3 Major Activity Centers

Major Activity Centers (MACs) were identified using city boundaries, professional judgment, and Google maps. Figure 3.3 depicts the MAC boundaries created for this study. Year 2040 and 2060 Person Trips developed by the final CFRPM V6.1 runs were grouped based on origin activity center and destination activity center. Table 3.5 identifies the top activity centers; 2015, 2040 and 2060 daily trip volumes; and percent change from the base year 2015 through year 2060. Figure 3.4



illustrates an example of the desire lines as trip productions from Orlando and Lakeland to their top twenty trip pairs for the year 2040.

Figure 3.3: Major Activity Center Boundaries

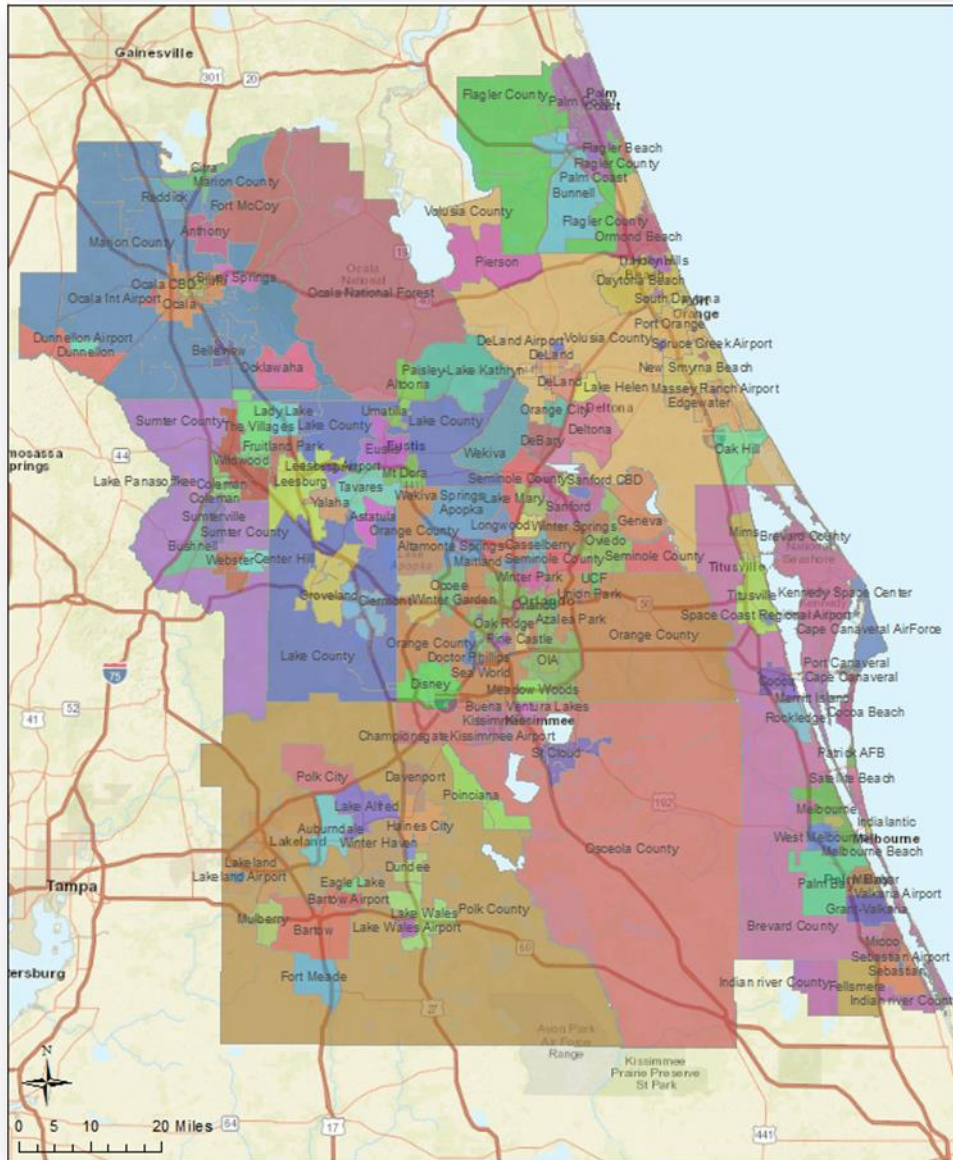


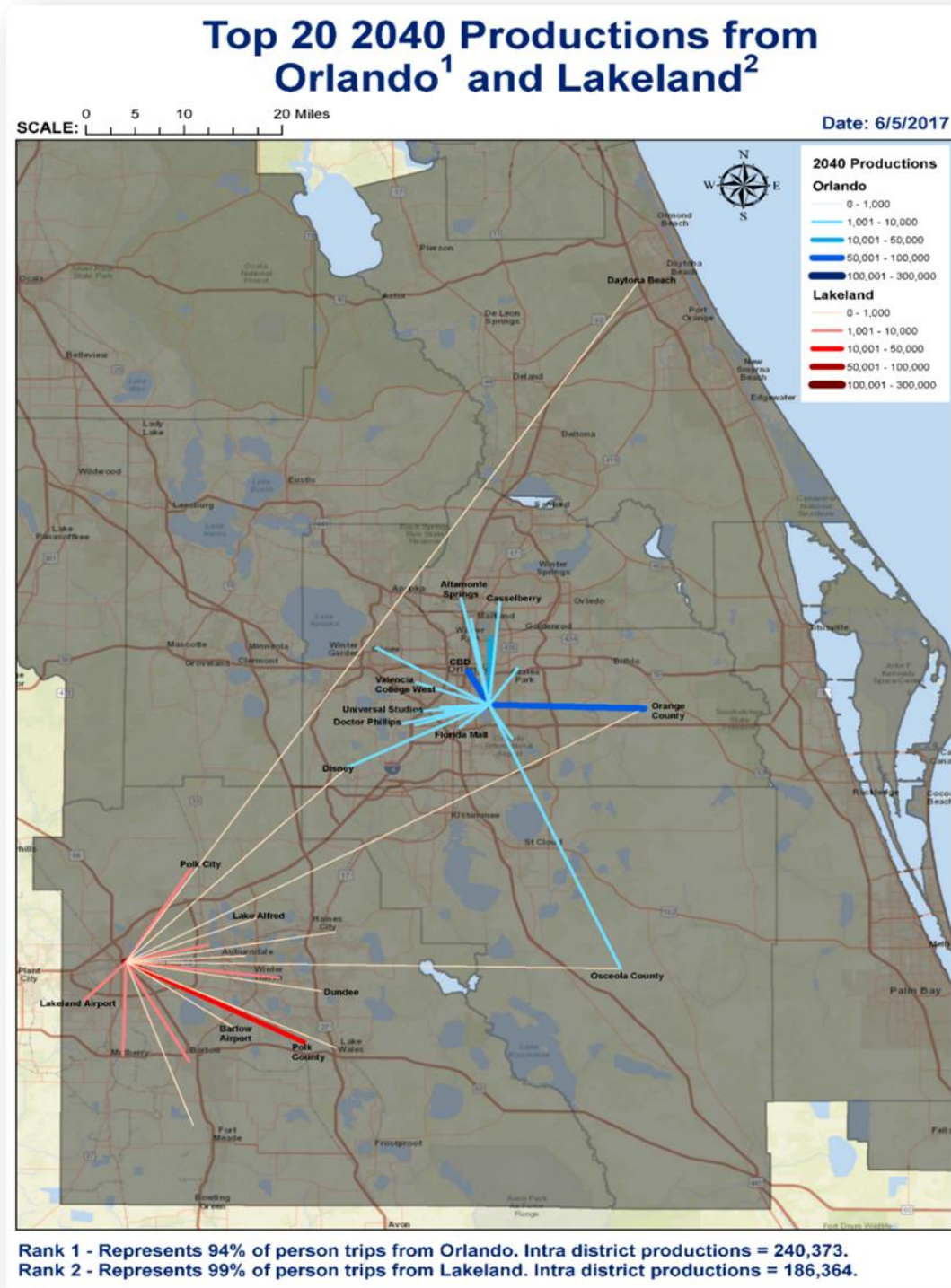


Table 3.5: Person Trip Volumes by Activity Center for Base Year 2015, Year 2040, and Year 2060

Activity Center	Year 2015		Year 2040			Year 2060			
	Rank	Total Trips	Rank	Total Trips	% Change from 2015	Rank	Total Trips	% Change from 2040	% Change from 2015
Orlando	1	1,014,344	1	1,382,194	36%	1	1,678,740	21%	66%
Lakeland	2	467,791	2	654,386	40%	2	807,978	23%	73%
Daytona Beach	3	386,416	3	539,193	40%	3	665,558	23%	72%
Disney	4	268,658	4	385,861	44%	4	470,600	22%	75%
Kissimmee	5	251,876	5	378,038	50%	5	467,901	24%	86%
Palm Bay	6	248,275	6	341,122	37%	6	412,413	21%	66%
Melbourne	7	239,709	10	264,127	10%	11	285,150	8%	19%
Winter Haven	8	219,812	7	322,807	47%	7	407,267	26%	85%
Palm Coast	9	207,807	8	294,929	42%	9	362,572	23%	74%
Ocala	10	184,369	9	283,685	54%	8	365,807	29%	98%
Leesburg	11	141,064	11	233,321	65%	10	307,919	32%	118%
Remaining Districts	n/a	10,433,817	n/a	14,956,646	43%	n/a	18,532,589	24%	78%
Total		14,063,938		20,036,309	42%		24,764,494	24%	76%



Figure 3.4: Example Activity Center Travel Movements (2040 Orlando and Lakeland)





CHAPTER 4: LAND USE POLICY ANALYSIS

Land use plays a pivotal role in the success of a transit project, and not just after the transit route is in service. Prior to the first day of revenue service, land use and other economic policy drivers (such as affordable housing) are key elements that must be in place to secure funding from the Federal Transit Administration (FTA). FTA, as part of the Capital Improvement Grant submittal evaluation process, rates the potential project for transit and economic development supportive policies. The FTA looks for transit-supportive plans and policies to be in place in growth management plans; requires transit-supportive corridor policies and supportive zoning regulations near transit stations; and evaluates local government documents to ensure there are tools in place to implement transit-supportive policies.

The following paragraphs briefly outline the cornerstones of the land use / transportation interrelationship, and the items / concepts FTA requires to receive a higher land use / economic development rating in the grant process. The presence of high quality Land Use and Economic Development policies and implementation tools are critical elements to determine which cross-jurisdictional transit projects should advance in the future.

Growth Management

Concentrating development around established activity centers and regional transit service provides a foundation for future ridership. FTA evaluates whether regional policies and agreements concentrate development around planned transit stations at densities that can support transit. The comprehensive plans, zoning, and capital improvement programs (CIP) of local governments are evaluated to ensure they implement the goals of the regional policies and agreements. In addition, land conservation and management policies should complement the efforts to concentrate growth around activity centers. Conservation policies and agreements should exist at the regional level and support local governments' conservation goals.

Transit-Supportive Corridor Policies

Corridor-specific policies that increase corridor and station area development can create an environment where transit can be successful. Both floor area ratios (FAR) and residential dwelling units per acre (DU/AC) must be sufficiently high to support transit ridership. The corridor itself should include high-trip generators, such as a university, major employer or a high density mixed use activity center.

Additionally, development guidelines to enhance the transit-friendly character of the corridor and station area development are critical. Design elements such as short building setbacks and orienting buildings to front the street and sidewalks can create a pedestrian-friendly environment. Mixed-use development with traffic-calming features are additional examples of ways to improve the built environment for the future transit rider. FTA reviews land development codes to see if these elements are present.

Improving pedestrian facilities, including accommodations for persons with disabilities, can create an environment that encourages equitable transit access. Safe and direct access throughout and beyond the transit station area can create a pedestrian network that supports connectivity to multiple



destinations. Wide sidewalks, appropriate intersection spacing and connected paths are examples of ways to improve the experience of the pedestrian.

FTA also evaluates parking in local government plans and programs. Parking policies that make driving less convenient are a critical step to build future transit ridership. Development requirements that contain parking maximums (as opposed to parking minimums), allowing shared parking, encouraging parking cash-out programs, and instituting market-rate parking fees can discourage people from driving to the activity center, thus making transit a more attractive option. Historically, developers have faced challenges identifying financing if parking is not a large part of the development footprint. Financial institutions are, however, becoming aware of the role that the provision of high-capacity transit can play in urban development.

Supportive Zoning Regulations near Transit Stations

Zoning ordinances that support increased development density in transit station areas are an important element to a secure transit ridership base. Transit-supportive overlay districts that allow for increased densities demonstrate local commitment to create a transit-friendly environment. Incentives for increased density, such as density bonuses, relaxed regulations, and expedited permit review, can facilitate the creation of a transit-supportive area. These are items that can assist in securing a higher FTA rating.

Beyond supporting increased density, zoning ordinances can enhance the transit-oriented character of the station area. Mixed-use buildings, short building setbacks, and human-scale, active facades can contribute to a transit-supportive environment. Zoning that allows for reduced parking and traffic mitigation, such as the elimination or reduction of parking minimums, is another example of supportive zoning regulations.

Tools to Implement Transit-Supportive Policies

Building a coalition among government agencies and the wider community to encourage the adoption of transit-supportive planning is an important tool. Such outreach can be supported with regulatory and financial incentives to promote transit-supportive development, including density bonuses, reduced mitigation fees, land assembly programs, and tax increment financing zones.

Another tool to implement transit-supportive policies is to engage the development community in the station area planning efforts, either through one-on-one meetings or broader efforts. These efforts are a great first step to showing FTA the project sponsors are serious about the land use / transit connection. Local agencies can sponsor transit-oriented market studies to identify barriers to development, which can provide the development community with critical information to move forward with a project.

4.1 REVIEW OF COMPREHENSIVE PLANS FOR THE RTS COUNTIES

As part of the RTS, the RTS team reviewed the Comprehensive Plans of the ten (10) counties in the study area, which include Brevard, Flagler, Lake, Marion, Orange, Osceola, Polk, Seminole, Sumter, and Volusia. This initial assessment identified existing transit-supportive policies in the respective plans and policy documents, which are summarized below.



4.1.1 Brevard County Comprehensive Plan

Brevard County's Comprehensive Plan¹ includes several references to regional transit as a potential solution for the impacts of growth, including a multi-modal transportation policy that states that transit should be "*routinely considered as an alternative to roadway widening.*" Multiple policies emphasize the importance of higher density development, with allowances up to 30 DU/AC. Notably, Concurrency Management Policy 3.4 facilitates the preservation of right-of-way for transit and pedestrian facilities. The following items are the highlights of the plan review:

- Transportation Element, Prioritization of Transportation Improvements Policy 2.1 – Transportation improvement programs should be "*multi-modal, including consideration of modes other than automobile*"; language stating that transportation projects should "*strive to incorporate a balance between mobility and quality of life*"
- Transportation Element, Concurrency Management Policy 3.4 – "...facilitate the preservation of right-of-way for transportation facilities including but not limited to roadway, transit, and pedestrian facilities"
- Transportation Element, Multi-modal Transportation Policy 4.2 – "Transit should routinely be considered as an alternative to roadway widening"; "...land development regulations should ensure accessibility to public transit"
- Transportation Element, Airport, Sea Port, and Rail Facilities Policy 5.2 – "...support the development and maintenance of a comprehensive rail system..."
- Transportation Element, Land Use and Transportation Coordination Policy 6.6 – "...land development regulations should encourage land use patterns and site planning that can be economically and conveniently served by transit, bicycle and pedestrian modes."
- Transportation Element, Intergovernmental Coordination policies 8.1 and 8.2 – Participate in and promote interagency coordination by coordinating with "...the Space Coast TPO, FDOT, the East Central Florida Regional Planning Council, and local governments to ensure an integrated and comprehensive transportation planning process...", and coordinate with the Canaveral Port Authority, Titusville-Cocoa Airport Authority, and the Florida East Coast Railway
- Transportation Element, Roadway Network Policy 10.4 – Discourages urban sprawl and encourage infill development by evaluating transportation concurrency management areas, multi-modal transportation districts, etc.
- Transportation Element, Complete Streets Policy 11.4 – Encourages "...transit stops and multi-modal access to be planned, designed, operated, and maintained..." for pedestrians, bicyclists, transit users
- Chapter XI Future Land Use Element includes Residential 30 Directive Policy 1.3 which allows the highest density allowance of up to 30 DU/AC and allowing a density bonus
- Future Land Use Element Policy 9.5, New Town: Urban Design Principles Town Center Standards encourage higher-density development that is interconnected, accessible, and designed to encourage regional transit
- Future Land Use Element Redevelopment and Regentrification Policy 11.2 Redevelopment Districts outlines a density bonus program

¹ Brevard County Comprehensive Plan, adopted December 2011



- Policies regarding the Farmton Local Plan and Platt Ranch Mixed Use Development describe a vision for traditional neighborhood design incorporating higher density, mixed use and compact development to support regional transit
- Transportation Element Policy 18.12 language states that developers shall coordinate with the County to provide transit connections to support a connective multimodal transportation system

4.1.2 Flagler County Comprehensive Plan

The Comprehensive Plan for Flagler County² places an emphasis on sustainability and the creation of bicycle and pedestrian facilities. It states that the creation of a fixed-route public transit system is dependent on increased demand and the potential for federal funding. Despite the lack of a proactive approach to developing a public transit system, the plan does include that the County will “*establish measures for the preservation of right-of-way*” for transit services. Overall, the County’s emphasis on sustainability and preserving Flagler’s natural environment presents an opportunity to align this ethos for conservation with provisions to allow “clusters” and compact development to create transit-ready communities. The transit-related highlights of the plan include the following:

- Transportation Element Policy B.1.4.5 outlines that the County shall incorporate “opportunities for the provision of ... multimodal facilities within the right-of-way requirements contained in the Land Development Regulations”
- Transportation Element Policy B.1.5.8 allows developers to receive credits for providing transit shelters
- Transportation Element Policy B.1.8.3 describes the creation of a “*seamless and safe multimodal*” network by leveraging roadway projects (e.g. resurfacing projects) to facilitate pedestrian facilities
- Transportation Element Policy B.1.11.1 states that the County will consider fixed-route transit when “*service demand and Federal financial subsidy produce economic feasibility*”
- Transportation Element Policy B.1.11.3 states that the “*County will establish measures*” to preserve right-of-way for existing and future transit stops/services
- Transportation Element Policy B.1.11.4 outlines a provision to require future developments to plan for transit facilities and access
- Intergovernmental Coordination Element Policy I.2.1.1 describes the intent of the County to work with local jurisdictions to develop a Smart Growth Implementation Plan
- Intergovernmental Coordination Element Policy I.2.1.2 states that the County shall cooperate with cities if they establish any incentive or performance-based density bonus programs

4.1.3 Lake County Comprehensive Plan

The need to discourage urban sprawl and direct development to urban areas is a recurring theme in the Lake County Comprehensive Plan 2030³ Future Land Use Element. While there is language outlining support for growing their fixed-route transit system, it focuses on a commitment to collaborate with the Lake~Sumter MPO and to encourage development in *Public Transit Zones*. In several sections, the County’s plan acknowledges that transit-oriented development along existing

² Flagler County Comprehensive Plan, Adopted July 6, 2011

³ Lake County Comprehensive Plan 2030, Adopted July 26, 2011



rail and transit corridors can help achieve their broader community goals, which include preserving and increasing traffic flow. The representative policies include the following:

- Future Land Use Element Policies I-1.1.3-4 commit the County to direct growth to existing urban areas and conserve rural lands
- Future Land Use Element, *Protection of Neighborhoods*, Policy I-7.2.5, *Roadway Compatibility*, instructs the adoption of Land Development Regulations (LDRs) that incorporate transit oriented design principles
- Future Land Use Element Policy I-7.2.7, *Location of Higher Density Residential and Age Restricted Communities*, states that the County shall encourage higher density and age-restricted housing near transit routes
- Future Land Use Element Policy I-7.6.2, *Reduction of Emissions from the Transportation Sector*, and Transportation Element Policy VIII-1.9.7, *Reduce Vehicular Pollutant Emission Levels*, include adopting reduced parking requirements to reduce vehicle miles traveled (VMT) and pollutants
- Conservation Element Policy III-1.1.4, *Encourage Alternative Modes of Transportation*, describes the County’s interest in promoting “private / public mass transit” and other transportation options
- Public Facilities Element – *Aquifer Recharge* Policy VI-1.7.14, *Establish Public Transit Zones and Fixed Route Public Transit*, states that the County will help create “Transit Supportive Areas” and coordinate with other regional transit providers
- In the Transportation Element section of the Comprehensive Plan, Policy VIII-1.5.2, *Neighborhood Connectivity*, describes the need to adopt land development regulations to increase transit access and pedestrian connections
- Transportation Element Policy VIII-3.3.9, *Designation of Future Enhanced Transit Corridors*, instructs the County to evaluate the “feasibility of the designation of future enhanced high capacity mass transit corridors”
- Transportation Element Policy VIII-3.3.10, *Identification of Future Enhanced Transit Corridors*, instructs the County to evaluate rights-of-way for use as future corridors for multiple uses

4.1.4 Marion County Comprehensive Plan

Marion County’s Comprehensive Plan 2035⁴ outlines 12 planning principles that would collectively contribute to the creation of compact, mixed-use *Regional Activity Centers* (RGACs) with a variety of multimodal options, while also accounting for the conservation of undeveloped land. Eight (8) of the policies that support this concept include the following:

- Future Land Use Element Policy 1.1.5 *Higher Density / Intensity Uses* requires higher density development inside or outside of the Urban Growth Boundary
- Transportation Element Policy 2.3.3 *Maximizing Residential and Employment Uses for Transit* states that the County will encourage transit-oriented design to “enhance the ... viability of transit performance”
- Transportation Element Policy 2.3.1 *Multimodal* encourages mixed-use development that would support multi-modal transportation

⁴ Marion County Comprehensive Plan 2035, Adopted May 8, 2014



- Transportation Element Policy 6.1.3 *Regional Activity Centers* recommends the inclusion of Park & Ride facilities for regional transit systems in all new or expanding RGAC
- Transportation Element Policy 6.1.4 *Transit Facility Development* describes the potential to require transit facilities, such as transit signal prioritization and bus-only lanes, in roadway design proposals
- Transportation Element Policy 6.1.6 *Development Specific Design Standards* may require site designs to coordinate with public transit to include pedestrian access to facilities
- Future Land Use Policy 10.3.2 *Development Mix and Form for RGAC* promotes a compact urban form that fosters less dependence on automobiles
- Future Land Use Policy 10.4.2 *Transit-Oriented Design (TOD)* describes the County's commitment to encourage transit-oriented design to support public transit ridership

4.1.5 Orange County Comprehensive Plan

Orange County's Comprehensive Plan, *Destination 2030*⁵, describes the *Urban Service Area* as the primary focus for urban uses and mixed-use development, including the establishment of *Mixed-Use Corridors* (MUC). There are exceptions made for the *Horizon West Village* and *Innovation Village Overlay* areas, though policy language directs these developments to "accommodate future linkage with the regional transit system." The International Drive Activity Center policies include the development of a transit plan in coordination with LYNX and the creation of a *Mass Transit Utility District*.

Orange County policies include adopting revisions to parking regulations (including shared parking and reduced parking) to reflect principles of Smart Growth. The importance of transit service is recognized in several policies, with an emphasis placed on development designed to enable multiple transportation options with sufficient density to support transit ridership. Providing a walkable, pedestrian-friendly environment is described in several policies, acknowledging the impact this has on potential transit ridership.

Orange County may provide land and rights-of-way for future transit stations and corridors under their Mixed-Use Development Activity Center (MXDAC) policies. Regarding rights-of-way acquisition for toll roads and arterial roadways, Future Land Use (FLU) Policy 4.3.2 indicates that long-range plans for mass transit should be taken into consideration when planning for new or expanded roadway facilities. In the International Drive Activity Center, 15-feet of right-of-way is to be reserved for transit on each side of the roadway. For Innovation Way, a "dedicated transit envelope" is described as part of the area's roadway network.

⁵ Orange County, Florida, Comprehensive Plan 2010 – 2030. *Destination 2030*, adopted May 2009, amended February 6, 2018, Effective March 30, 2018



Highlights of the Orange County plan include the following policies:

- Future Land Use Policy FLU1.1.2(B) allows for future residential densities up to 50 DU/AC
- Future Land Use Policy FLU2.2.2 states that the “County shall use parking standards to better integrate adjoining land uses and to cluster development near available transit service, to provide flexibility to implement smart growth strategies, and to use land efficiently...”
- Future Land Use Policy FLU2.2.9 provides for the development of infill parcels and redevelopment of greyfield sites to create a mix of interconnected land uses
- Future Land Use Policy FLU2.3.11 encourages transit-oriented development “...in order to reduce urban sprawl, decrease trip lengths, promote internal capture and promote multimodal travel...”
- Future Land Use Policy FLU3.1.1(E), *Multimodal Transportation Design*, outlines that residential neighborhoods should be located within 1,600 feet of transit stops
- International Drive Activity Center Element Policy ID1.3.1 indicates that the County shall pursue “a direct transit connection from the International Airport” and International Drive
- Multiple policies outline a commitment to funding transit such as Policy ID2.2.5, which outlines that the County shall pursue “all available transit system funding sources;” and Transportation Element Policy T1.3.9, which states the County shall “support mass transit through the appropriate of funds”
- International Drive Activity Center Element Policy ID2.2.8 allows for density bonuses in exchange transit stations or Park & Ride lots on the outskirts of the International Drive corridor
- Transportation Element Policy T3.3.1 states that the County supports BRT, light rail, commuter rail, and other high-capacity transit service
- Economic Element Policy E3.2.1 supports the “expansion of commuter rail stations to major employment centers, such as OIA, International Drive, and Central Florida Research Park”

4.1.6 Osceola County Comprehensive Plan

The Osceola County Comprehensive Plan 2025⁶ describes the County’s *Urban Growth Boundary* (UGB) is described as “fundamental” to the County’s long-term growth plans, with transit-oriented development within the UGB a key element of these plans. When developing future roadways or expanding existing major roadways, Transportation Element Policy 3.2.2, *Future Transit Corridors*, ensures that these facilities be designed as “future transit corridors” and built to accommodate many types of users and modes.

The County’s policies for *Mixed-Use Districts* extend to the *North Ranch Planning Area*, with a goal of achieving a 1.4:1 ratio of jobs-to-housing by 2080. The North Ranch Element of the Comprehensive Plan describes a primary urban center with the most intense development around a rail transit hub. BRT, light rail, commuter rail, and local bus service are outlined, with the goal of at least 30-minute frequency, creating “transit neighborhoods” in premium transit station areas. On limited access facilities, policies state reserving 50 to 100 feet for a “transit envelope”. On multimodal corridors, 30 to 50 feet is recommended. Highlights of the plan include the following items:

⁶ Osceola County Comprehensive Plan 2025, Adopted April 30, 2018



- Future Land Use Policy 1.3.3, Mixed-Use Districts, states the County “shall provide for the creation of complete communities”
- Future Land Use Policy 3.2.1, Existing and Planned Transit Routes Within the Urban Growth Boundary, outlines the County’s commitment to financially support and / or promote transit routes within the UGB
- Future Land Use Policy 4.3.1, Encourage Mass Transit, commits the County to encouraging mass transit for work and discretionary trips
- Transportation Element Policy 1.1.2, Implementation of New Vision, describes new values within the County’s planning philosophy, which seeks to reduce reliance on automobiles and achieve a 1:1 jobs to housing ratio
- Transportation Element Policy 2.2.6 SunRail Corridor and Station Coordination, is in place to promote transit-oriented development that is consistent with Future Land Use policies
- Transportation Element Policy 3.2.1, Existing and Planned Transit Routes Within the Urban Growth Boundary, commits the County to continue to financially support transit service within the UGB
- Transportation Element Policy 4.3.1, Transit Productivity, indicates the County will focus transit service on “high-use areas”
- Transportation Policy 4.3.2, Transit Coverage, describes the provision of a “transit network feeder system designed to serve the entire area...”
- Transportation Policy 4.3.3, Transit Integration, commits the County to focusing on direct transit connections to high employment areas
- North Ranch Policy 1.16, Workforce Housing in Transit Station Areas, states that the County will encourage housing development near premium transit service, offering incentives to developers that range from density bonuses to expedited permitting
- North Ranch Element Policy 2.3, Amendment of Transportation Element Map Series, commits the County to following the 21 Guiding Principles recommended by the East Central Florida Corridor Task Force
- North Ranch Element Policy 2.5, Limited-Access Facilities and Fixed Transit Locational Standards, states that commuter or light rail shall service each neighborhood center
- North Ranch Element Policy 4.5, Transportation System of First Conceptual Master Plans / Detailed Specific Area Plans (CMP/DSAP), indicates that right-of-way should be reserved for transit prior to initial approvals
- North Ranch Element Policy 5.1.2, Regional Transit Network, indicates that the County will coordinate with several agencies – including the Space Coast Transportation Planning Organization (TPO) – on the creation of a regional passenger rail and trail plan, and a plan to fund the transit system
- North Ranch Element Policy 5.1.4, Subregional Transit Network, clarifies that the County, the local transit agency, and private developers shall be responsible for the local fixed-route bus system and demand-responsive service



4.1.7 Polk County Comprehensive Plan

The *Polk Vision*, adopted in 2004, guided the Polk County Comprehensive Plan⁷ towards *Transit Supportive Development Areas* (TSDA) and *Urban-Growth Areas* (UGA). Development within the TSDAs is required to provide access to transit, feature elements common to “healthy communities,” and have mixed-use development. Multiple policies indicate the County’s support of rail service, including the expansion of commuter rail to Polk County.

Highlights of the Polk County plan include the following items:

- Future Land Use Element Policy 2.104-A6(a), *General Incentives*, states that the County shall allow increased densities within the Transit Corridors and Centers Overlay District
- Future Land Use Element Policy 2.124-A3, *Design Principles*, and Future Land Use Element Policy 2.124-A7, *Development Standards*, describe a series of transit-supportive site design requirements, including reduced or shared parking and pedestrian access to transit facilities
- Future Land Use Element Policy 2.124-A4, *Overlay within TSDA*, states that the County shall provide incentives for compact, mixed-use development
- Future Land Use Element Policy 2.124-A11 *Public-Private Partnerships* outlines that “P3s” may be used to develop transit hubs
- Transportation Element, *Multimodal Transportation System and Level of Service Standards*, Policy 3.202-A3 states that the County will support “future funding mechanisms” for a Countywide transit system

4.1.8 Seminole County Comprehensive Plan

Seminole County’s Comprehensive Plan⁸ focuses on redevelopment as a way to create energy-efficient land uses, primarily in *Mixed Development* (MXD), *Higher Intensity Planned* (HIP) *Development*, and *Energy Conservation Overlay* areas. The plan outlines possible ways to incentivize such development, including density / intensity bonuses; reducing required minimum parking; shared parking; and reduced building setbacks. The Transportation Element of the Comprehensive Plan calls out that rural areas are protected by focusing redevelopment on urban areas.

As an implementation tool, the County funds some of the LYNX service through Tax Increment Financing (TIF) as part of the US 17/92 *Community Redevelopment Agency* (CRA) corridor; the funding improves headways from 30-minute service to 15-minute service on that corridor. Highlights of the Seminole County plan include the following:

- Future Land Use Element Policy FLU 1.16, *Encourage More Efficient Land Use Patterns*, outlines the County’s commitment to financially support both LYNX and SunRail; Future Land Use Element Policy FLU 15.4, *Continue to Fund and Support Successful LYNX Routes*, repeats this commitment, with a specific focus on Link 434; a commitment to funding transit is also included in Future Land Use Element Policies FLU 16.3, *Continue Financial Support for County’s Share of SunRail Station*, and Transportation Element Policy TRA 3.4.25, *Central Florida Commuter Rail (SunRail)*

⁷ Polk County Comprehensive Plan, Adopted November 18, 1992, Revised August 2013

⁸ Seminole County Comprehensive Plan, Amended May 23, 2017



- Future Land Use Element Policy FLU 2.3, *Transportation Network and Residential Compatibility*, requires development at major intersections to include transit-supportive features
- Future Land Use Element Policy FLU 4.3, Flexible Development Standards for Infill Development, Community Development Block Grant Eligible Target Areas, and Urban Centers and Corridors Overlay Redevelopment and Energy Conservation Overlay Redevelopment permits the reduction of parking minimums along transit corridors and within a half-mile of SunRail stations
- Future Land Use Element Urban Centers and Corridors Overlay Policy FLU 5.17(E)(3), Mobility and Access, prescribes that “[d]evelopments must be designed to be transit-ready, whether current service is available or not”
- Future Land Use Element Policy FLU 14.3, Adopt Creative Development features for MXD and the Urban Centers and Corridors Overlay Supportive of Transit and Bicycle Use and Complete Streets states that the County will incorporate the latest recommendations and innovations to improve the “ease of transit”
- Future Land Use Element Policy FLU 15.2, Incentive Program for Transit Passenger and Pedestrian Amenities on US 17/92 describes an effort to create an incentive program to encourage property owners to improve transit shelters (e.g. adding lighting); Transportation Element Policy TRA 2.3.8, Require Multi-Modal Facilities, further supports this idea, stating that parcels on current or future transit corridors that are redeveloped shall include a transit stop or shelter
- Future Land Use Element Policy FLU 15.5, *Coordinate with and support Altamonte Springs Flex Bus*, expresses the County’s intent to ensure that the proposed service areas are “transit ready”
- Future Land Use Element Policy FLU 15.6, Coordinate with and support LYNX NeighborLink serving the Cities of Oviedo and Sanford, specifically calls out the on-demand flexible service stating that the County is supporting that service by funding the connecting routes
- Future Land Use Element Policy FLU 16.2, *Long Term Efforts to Seek Public-Private Partnership for Commuter Rail Station Passenger Incentive Opportunities*, states that the County shall consider the feasibility of issuing a Request for Proposals (RFP) for construction at commuter rail stops
- Future Land Use Element Policy FLU 19.1, Economic Development Target Areas, states that the County will “maintain the balance of employment and residential opportunities within targeted areas”
- Transportation Element Policy TRA 1.1.10, Alternative Land and Mobility Development Proposals, allows the County to evaluate a proposed development outside of the *Transportation Concurrency Exception Area (TCEA)* if a “*transit-related mobility project*” is included, such as a transit station or a Park & Ride facility
- Transportation Element Policy TRA 1.3.11, Livable Transportation System, states that the County “*will strive*” to provide a mobility options that allow residents to “*reach one’s destination in a timely fashion*”
- Transportation Element Policy TRA 2.2.6, Promote Shared and Reduced Parking, states the “County shall adopt and enforce performance frameworks, policies, and land development regulations that encourage and incentivize shared parking and reduced parking requirements within mixed use centers and major transit development / redevelopment corridors as a part of development approvals...”
- Transportation Element Policy TRA 2.2.15, Seminole Way Land Use / Transportation Coordination, states that “*funding and implementation of transit service*” would be investigated in relation to proposed future land use changes



- Transportation Element Policy TRA 3.1.3, *Evaluation of Rights-of-Way and Building Setback Policies, Regulations*, outlines that the County shall continue to review and revise policies to include provisions to protect “*mass transit rights-of-way and designated rail / mass transit corridors*”
- Transportation Element Policy TRA 3.3.6, *Promote Increased Funding Support*, states that the County “shall request the Legislature to support legislative initiatives to establish dedicated sources of revenue for the provision of transit services without a requirement for a local referendum”
- Transportation Element Policy TRA 3.4.26, *Development of Station Area Plans*, commits the County to coordinate with cities in the development of areas around SunRail stations (Longwood, Lake Mary, Sanford, and Altamonte Springs) to create transit-supportive land uses

4.1.9 Sumter County Comprehensive Plan

Sumter County’s Comprehensive Plan⁹ encourages development focused in urban areas, allowing for the preservation of rural areas and natural resources. When it comes to transportation and transit, the focus is placed on coordinating with cities, the Withlacoochee Regional Planning Council (WRPC), and the FDOT. Highlights of the plan include the following elements:

- Transportation Element Policy 2.2.1, *Promote Compact Growth*, states that the County and cities support compact growth as a way to “*support an efficient public transportation system, including transit...*”
- Transportation Element Policy 2.2.5, *Public Transit*, outlines the County’s commitment to develop a transit development plan (TDP) and support public transit by promoting appropriate land uses stating the “*County shall maintain a transit system that meets residents’ mobility needs in a cost effective and efficient manner.*”

4.1.10 Volusia County Comprehensive Plan

Volusia’s Future Land Use Element of its Comprehensive Plan¹⁰ focuses on the pattern of land use and location of urban growth for Volusia County through 2025. The County focuses on the “*Urban Service Concept*,” concentrating growth in existing areas or adjacent to major cities. There are several localized and neighborhood plans within the Comprehensive Plan. The Farmton Local Plan, which covers approximately 47,000 acres in southwest Volusia County (as well as 12,000 acres in north Brevard), seeks to reflect the MyRegion.org’s regional vision. *Farmton’s GreenKey* (GK) land use designation identifies at least two-thirds of the area for conservation. The *Farmton Sustainable Development Area* (SDA) includes four (4) land use districts, each of which will reflect an urban form in line with transit oriented development. At buildout (2060), the jobs-to-housing ratio for the Farmton Local Plan will be 1:1.

The Volusia County Growth Management Commission (VGMC) reviews traffic impacts from proposed developments in the *Halifax Activity Center* (HAL) and the *Southeast Activity Center* (SE). The *Southwest Activity Center* (identified broadly as the I-4 / SR 472 intersection) is described as a “focal

⁹ Unified Sumter County / Center Hill / Webster Comprehensive Plan, Revised May 24, 2016

¹⁰ Volusia County Comprehensive Plan, Updated January 31, 2018



point” for development in southwest Volusia County, with the intent to compete with employment centers in Seminole and Orange counties. While the Osteen Local Plan (southwest Volusia County) describes a “*mixed use, neo-traditional, development pattern*,” there are no policies regarding transit or multi-modal options.

The *SunRail DeLand Area Activity Center* will reflect transit-oriented design, including a mix of uses to create a compact, pedestrian-friendly neighborhood center. Two (2) development districts are identified for this activity center, including the *TOD Core District* which allows a maximum density of 30 DU / AC.

Policies regarding shared parking are cited throughout the policy documents, although the purpose is directed towards reducing impervious surfaces and are not specifically highlighted for their transit-supportive impacts (except for within the *SunRail DeLand Area Activity Center*). Highlights of the Volusia County plan include the following:

- Future Land Element FLU Policy 1.1.3.4 states that new urban development shall have direct access to mass transit routes
- Future Land Use Element, Highridge Neighborhood Plan, HR Policy 1.3.4 indicates that transit connections should be maintained between the Highridge Neighborhood and the Halifax area as population increases in the area
- Future Land Use Element, *Halifax Activity Center*, HAL Policy 1.7.1; *Southeast Activity Center*, SE Policy 1.5.1; and *Southwest Activity Center*, SW Policy 1.7.1 state that the County shall “*seek to promote*” transit connections to these activity areas
- Future Land Use Element, Southwest Activity Center, SW Policy 1.7.2 states that mixed-use development within the *Southwest Activity Center* is intended to “*provide internal trip capture*”
- Future Land Use Element, Southwest Activity Center, SW Policy 1.7.6 discusses working with FDOT to identify a “*multi-model transportation facility*” that could serve regional mass transit
- In Future Land Use Element, Farmton Local Plan, FG Policy 3.1, Principles of Sustainability, Section B states that the Sustainable Development Area (SDA) districts “shall be designed with principles of Smart Growth, Traditional Neighborhood Design (“TND”), and / or Transit Oriented Development (“TOD”) ... to foster connectivity and pedestrian mobility ... including transit”
- Future Land Use Element, Farmton Local Plan, FG Policy 3.4, Section G, outlines for the SDA Gateway District that “connection and continuation of the Restoration DRI transit ready corridor system is a high priority”
- Future Land Use Element, Farmton Local Plan, FG Policy 3.6, Section H states that a transit station and Park & Ride lot will be included within the *SDA Town Center District*
- Future Land Use Element, Farmton Local Plan, FG Policy 3.7, Section I states that a transit stop with a bicycle rack shall be included within each *SDA Village Center district*
- Future Land Use Element, Farmton Local Plan, FG Policy 4.1 describes districts with higher density and mixed-use development to “*support regional mass transit*”
- Farmton Local Plan policies under Objective 5.0 describe a commitment to an energy-efficient transportation system, the result of which is an emphasis on providing quality pedestrian facilities.



- Future Land Use Element, Farmton Local Plan, FG Policy 5.5, states that transit-supportive features will be incorporated, including transit stops and local transit service that connects to “external transit line routes.”
- Future Land Use Element, Farmton Local Plan, FG Policy 5.9 indicates that “...provision should be made for accommodating state-of-the-art travel modes (both for on-site facilities and access to off-site facilities) as they evolve throughout the development of the Farmton Local Plan...” and the developer “...shall extend the transit ready corridor” to Brevard County
- Future Land Use Element, SunRail DeLand Area Activity Center, SR Policy 1.1.1 states that the TOD Core of this district will ensure “*use of transit*”
- Future Land Use Element, SunRail DeLand Area Activity Center, SR Policy 1.1.7 allows for shared parking or other alternate parking requirements
- Future Land Use Element, SunRail DeLand Area Activity Center, SR Policy 1.3.3 recognizes the need for a transit connection from the SunRail DeLand Activity Center to Downtown DeLand
- Transportation Element Policy 2.1.5.3 outlines that the County shall include guidelines from Votran’s TDP to ensure that new developments include access to transit
- Transportation Element Policy 15.2.5.1 states that the County shall implement a program to increase “operational support for all forms of mass transit”

4.2 NEXT STEPS

One of the primary challenges for Central Florida will be to coordinate land use planning, which takes place for the most part on the local level, with transportation plans that are developed on a statewide and regional basis. The MPO / TPOs and the region’s transit agencies can work with counties and municipalities to encourage an environment wherein the region becomes more open to a system that prioritizes regional investments to assure that the individual and collective actions of individual counties and cities result in enhancing the region’s economic competitiveness through the provision of higher capacity interregional transit.

Regional, county, and local governments have several tools at their disposal to help coordinate land-use investments with transit investments. There are two (2) basic types of incentives available to government bodies to create transit-friendly communities: public investment incentives and public policy incentives. Public investment incentives are perhaps the most valuable tool local governments have to shape the form of development in their community. Much of our region has been formed by public investment decisions in infrastructure, some of which encouraged sprawl, while others encouraged focused development. How and where a local or county government invests its resources in infrastructure (schools, parks, sewers, roads, etc.) informs future private development. A local government can invest in transit, as an example, by building transit facilities, investing public works in areas already served with transit, building multimodal / Complete Streets, focusing density in urbanized areas, and building structured parking facilities to encourage compact development.

As a first step, however, county and local governments can create strong incentives for private sector investment by improving development approval processes and creating legally-adopted plans that align with community quality of life and mobility needs. The above analysis has indicated that all of the counties within the study area have a good basis from which to start this critical effort. Comprehensive plans should take a strong position on the role of transit in a community. The



comprehensive plan should establish the patterns of development by defining the community's development corridors, centers, and neighborhoods. If transit can play a significant role in the community, the comprehensive plan should direct development to identified centers along transit corridors.

All major transit stops and station areas in the Regional Transit Vision should be planned by the local government in conjunction with the local transit agency. In anticipation of high-capacity transit investments, high quality and detailed master plans should be completed that create investment confidence by articulating the consensus vision for an area. A master plan should establish the vision, create buy-in and build consensus for an area, thereby inviting the private sector to invest with lower-associated risks. A master plan should also offer strong recommendations concerning which existing regulations must be changed for the transit vision or project to be realized.

Local comprehensive plans and zoning codes should be used to implement and enable master plans and station area plans. Historically, most county and local zoning codes did not permit the type of development required to support transit; the parking requirements, setback requirements, and density limits contained in many zoning codes create development patterns that weaken transit markets. Transit-supportive development is, however, starting to be permitted and encouraged in Central Florida, and not just in Downtown Orlando. The MPO / TPO's should continue to encourage county and local comprehensive plans and zoning codes to be tailored to create stronger transit markets along designated corridors.



CHAPTER 5: REGIONAL TRANSIT VISION

The Conceptual Regional Transit Vision Framework identifies an initial range of feasible and appropriate alternatives and technologies for the major travel corridors within the 10-county region for two (2) target years (2040 / 2060). This framework includes an identification of high-priority transit investments that could be implemented in the nearer-term that will support a longer-term vision. Based on this transit vision framework, a strategic work plan, including suggested potential investment options, is presented for advancing the Conceptual Regional Transit Vision Framework to the next stage. Finally, approaches and processes for advancing the intermediate and long-term elements of the framework in state, regional, and local plans are presented in the plan.

As defining a transit vision for a diverse 10-county, six (6) MPO study area can be somewhat daunting, it was determined that a reasonable approach was to outline an overarching strategy for the region, then present improvements on an MPO-by-MPO basis. Thus, the suggested regional framework of a southern extension of SunRail, coupled with financial and strategic cooperation with the private sector in the form of Brightline (formerly All Aboard Florida, AAF) and the private intercity bus service providers is first presented, followed by an analysis and selection of critical major regional transit improvements in each MPO area.

5.1 REGIONAL FRAMEWORK

The regional travel pattern analysis previously presented during this study indicates that, with a few exceptions, the estimated 2040 and 2060 MPO-to-MPO transportation demand and travel desire lines does not warrant major transit capital investments linking the metropolitan areas within the 10-county study area. This does not negate the potential for transit projects that run between adjacent counties within differing MPOs, as seen in following analysis of MPO / TPO plans. The exception to the statement regarding the potential for a major capital investment is the anticipated travel demand between Brevard County and the Orlando Metropolitan area, and between the Orlando Metropolitan area and Polk County. These two (2) potential linkages are addressed below. In addition, the private sector currently provides longer distance intercity bus service within the study area, as well as to other metropolitan areas outside the study area. One concept FDOT has been exploring that should be advanced after the completion of this study is partnering with these private entities to provide services between the various cities and counties within the 10-county region. This approach is also outlined in the following paragraphs.

5.1.1 SunRail

SunRail is the name for the commuter passenger rail service that operates entirely at grade, sharing tracks owned by FDOT on a 61-mile segment with freight service provided by CSXT and Florida Central Railroad (FCEN) and with Amtrak intercity passenger rail service. The SunRail alignment generally parallels I-4 and US 17/92 through Central Florida. The Phase I service, which commenced in May 2014, is on a 32-mile long corridor extending from Fort Florida Road (DeBary) in Volusia County to Sand Lake Road in Orange County. Twelve stations were constructed for Phase I and approximately 17 miles of additional 2nd track and a new railway operations signal system were added to the existing 11 miles of double track. Additional improvements included grade crossing enhancements, station platforms, canopies and Park & Ride lots. The Vehicle Storage and



Maintenance Facility (VSMF) that includes the corridor's Operations Control Center (OCC) and Service and Inspection (S&I) Shop were constructed as part of the Phase I Project. The VSMF is located adjacent to the CSXT Rand Yard in Sanford, Florida.

The *Phase II South* project, currently under construction and opening summer 2018, consists of a new 17.2-mile southern extension to the existing 32-mile SunRail commuter rail line. *Phase II South* SunRail service will extend along the railroad ROW south of the current Sand Lake Road station through Kissimmee to unincorporated Osceola County. The project includes four (4) new commuter rail stations and the construction of a Vehicle Storage and Light Maintenance Facility (VSLMF). The project scope also includes two (2) locomotives, three (3) cab passenger cars, and one (1) coach passenger car, additional second track and realignment of existing track, a new railway wayside signal and communication system, grade crossing upgrades, station platforms and canopies at all four (4) stations, and Park & Ride lots at four (4) stations. A proposed VSLMF adjacent to the proposed Poinciana Station will serve as an end of the line fueling and layover facility for up to four (4) train sets. Train wash services and heavy vehicle maintenance will continue to be provided at the existing Amtrak Auto Train Yard in Sanford.

In association with Volusia County, there are plans for SunRail to be extended from the DeBary Station of Phase I to the DeLand Amtrak Station, a distance of approximately 12 miles. This project is commonly referred to as *Phase II North*. The advancement of *Phase II North* is contingent on securing the necessary federal funding to move the project forward into construction. The extension of SunRail north to DeLand defines the Full Build Alternative which was evaluated under the federal NEPA process in the Environmental Assessment (EA).

Currently, SunRail service headways are 30 minutes in the weekday peak period and 120 to 150-minute headway service in the midday and evening periods. There is no weekend service or service on designated holidays. Service headways in the Horizon Year (2030) are anticipated to be 15 minutes in the weekday peak period, 30 minutes in the weekday off-peak, 60 minutes in the weekday evenings, and 120 minutes on weekends.

The SunRail project, when complete, will provide a key north-south transit spine for the metropolitan Orlando area and a viable commuting option to the I-4 corridor. Enhanced local and commuter bus operations currently complement the system by providing transfer opportunities to the LYNX and Votran networks, ultimately increasing connectivity throughout the region. The SunRail project could serve as the beginning of a regional rail network that can be potentially expanded throughout the state.

One potential expansion of the SunRail system is to Polk County. The potential is evident for many reasons. First, the estimated transportation demand and anticipated travel desire line analysis conducted for this study indicate a strong future travel connection between Polk County and Osceola County, as well as to Orange County. Second, the Polk TPO long range transportation planning documents and the local transit agency transportation development plans include both interim and long-term transit service improvements to Osceola and Orange County. These improvements include existing local bus, future express bus and eventual commuter rail connections. Finally, for over 30 years, the public and private sector have attempted to initiate high speed ground transportation between Tampa and Orlando, with stations (depending on the time period) at OIA, International



Drive, Disney, Lakeland, Plant City and Tampa. Thus, it is not surprising there still exists an intercity market between the Orlando and Lakeland metropolitan areas.

The extension of the SunRail commuter rail system into Polk County, with future stations at Haines City, Auburndale, and Lakeland, will complete the north-south spine of the Regional Transit Vision Framework. Based on travel demand analysis completed as part of this study, independent analysis by FDOT District Five on SunRail in Volusia County and by the River to Sea TPO as part of the LRTP, the extension of SunRail beyond DeLand is not envisioned to be warranted by the 2060 timeframe.

5.1.2 Brightline

All Aboard Florida – Operations LLC (now known as Brightline) has proposed to construct a privately-owned and operated intercity passenger railroad system to connect Orlando and Miami, with intermediate stops in Fort Lauderdale and West Palm Beach, Florida. This would include approximately 40-miles of new dedicated rail corridor parallel to Florida State Road 528 connecting to the existing FEC, which has supported freight and / or passenger service on a continuous basis for more than 100 years. The project also includes infrastructure improvements to the existing FEC rail corridor between Cocoa and Miami.

This Brightline passenger rail project is designed to provide safe, convenient travel to and from Florida’s most highly trafficked commercial, entertainment, and recreational destinations. The initial phase of the project consists of a new passenger rail service along the 66.5 miles of the FEC Corridor connecting West Palm Beach, Fort Lauderdale, and Miami, and including three (3) stations and associated infrastructure improvements. Brightline then proposes to extend that service to Orlando with *Phase II*. The total project will consist of a 235-mile intercity passenger rail service with an anticipated three-hour travel time between Miami and Orlando. Brightline is responsible for financing the development, construction, operation, and maintenance of the passenger rail system.

The Federal Rail Administration (FRA) was the lead agency for the National Environmental Policy Act (NEPA) review process for the Brightline project. FRA issued a Finding of No Significant Impact (FONSI) for *Phase I* of the project on January 30, 2013. Subsequently, on April 15, 2013, FRA published in the Federal Register a Notice of Intent to prepare an Environmental Impact Statement (EIS). Although the Draft EIS was initiated for *Phase II* of the Brightline project, the document analyzes the cumulative effects of both phases of the project since train operations will cover the full corridor between Miami and Orlando. The FRA issued the Draft EIS on September 19, 2014. FRA issued the Final EIS on August 4, 2015. FRA issued a Record of Decision December 15, 2017.

The Brightline project’s planned service between Orlando and Miami would consist of 16 revenue round-trips leaving hourly in each direction from 5:00 AM to 9:00 PM, with planned stops at the two (2) intermediate stations in West Palm Beach and Fort Lauderdale. The last Orlando-bound revenue train would arrive in Orlando at 12:10 AM and the last Miami-bound revenue train would arrive in Miami at 11:10 PM. To support the NEPA analysis, AAF and FEC developed forecasts for future freight operations and travel times for passenger and freight operations. Total scheduled travel time, including stops, is anticipated to be three (3) hours, 10 minutes between the terminal stations. Station to station travel time would be one (1) hour, 50 minutes from Orlando to West Palm Beach, and one (1) hour, 20 minutes from West Palm Beach to Miami. The planned operating speed has three (3) components: a maximum speed of 125 mph from Orlando to Cocoa; a maximum speed of



110 mph from Cocoa to West Palm Beach; and a maximum speed of 79 mph from West Palm Beach to Miami. The east-west corridor from OIA to Cocoa would be a dedicated-use corridor with only passenger service and no grade crossings, while the north south corridor would be a shared-use corridor with freight and passenger service and grade crossings. From Cocoa to West Palm Beach, Brightline plans to build and maintain track conditions in accordance with FRA safety standards that permit maximum passenger train speeds of 110 mph and maximum freight train speeds of 75 mph (FRA, 2012b and 2012c). Speed limits are restricted in certain locations due to track curves, junctions, bridges, or other infrastructure.

This intercity passenger rail service will operate with new diesel-electric locomotives and single-level coach trains. The rolling stock will consist of 10 train sets. Eight (8) train sets would be required to be in concurrent operation along the route to deliver regularly scheduled, hourly-service frequency. Each train set would be comprised of two (2) locomotives, and seven (7) coach-type passenger cars (2 business cars, a café / economy car, 4 economy coach cars). In addition, Brightline intends to procure one (1) spare locomotive and one (1) spare café car. The two-locomotive arrangement provides redundant push / pull operation and would assure smooth operations up to the maximum speed of 125 mph even with an expansion of the train set to nine (9) cars, if needed. The fleet and all facilities (stations and maintenance) are designed to accommodate expansion to nine-car trains. Five (5) train sets would be stored in the Vehicle Maintenance Facility (VMF) near Orlando International Airport with the remaining five (5) train sets being stored at the West Palm Beach VMF or Miami Station. Initially, the fleet will operate out of the West Palm Beach VMF.

According to the environmental documents, the ridership analysis forecasts that passenger rail ridership would total approximately 3.5 million annual riders in 2019. Of these, approximately two (2) million annual riders would be making short-distance trips using *Phase I* of the project (Fort Lauderdale-Miami, West Palm Beach-Miami, West Palm Beach-Fort Lauderdale). *Phase II* of Brightline, connecting Orlando to West Palm Beach, would add approximately 1.5 million riders making long-distance trips (Orlando-Southeast Florida). Brightline projects that total annual ridership would exceed 4 million by year 2030. These ridership estimates predict that the Brightline rail service will capture 7.2% of the long-distance market share (Orlando to Miami) and 5.6% of the combined long-distance and short-distance market share. Rail ridership will be drawn from the following modes:

- 69% of the forecast riders will shift from long distance automobile travel;
- 10% of the forecast riders will shift from airline travel;
- 10% of the forecast riders will shift from bus travel;
- 2% of the forecast riders will shift from Amtrak rail services; and
- 9% of the forecast riders will be from new or “induced” trips.

The South Florida Regional Transit Authority (SFRTA) serves the West Palm Beach to Miami corridor with commuter rail service between Mangonia Park in West Palm Beach and Miami (approximately 70 miles), called “Tri-Rail.” The northernmost station, Mangonia Park, is within the Orlando to West Palm Beach study area. Tri-Rail operates on the South Florida Rail Corridor (CSX) and serves 17 stations with 25 southbound (SB) and 25 northbound (NB) trains per weekday, and 15 SB / 15 NB trains per weekend day. The travel time between West Palm Beach and Miami is one (1) hour, 40 minutes. Tri-Rail has a zone based fare system which ranges from \$2.50 to \$6.90 per trip. Fare



discounts are available. Average daily ridership for 2013 according to the National Transit Data Base is 17,641.

The SFRTA and FDOT have been studying for the past 10 years, a new 85-mile commuter rail service from Miami to Jupiter as an integrated extension of Tri-Rail, called the Tri-Rail Coastal Link. The new commuter rail line would have 20 to 25 stations, with an estimated ridership forecast of 25,000 per day. This service would share the FEC corridor tracks with FEC freight, Brightline, and the Tri-Rail *Downtown Miami Link* (DML), and have co-located Brightline stations in Miami, Ft. Lauderdale and West Palm Beach. The proposed service is in the Planning and Project Development (PD) Phase which is a study that is being funded by FDOT. Phased implementation of the project is likely based on availability of local matching funds. There is a 2013 Memorandum of Understanding (MOU) signed by the project partners outlining responsibilities for the project study and implementation. Entering the project into PD was submitted to FTA in 2014. The project is currently on hold pending critical issues, which include track access negotiations, indemnification and liability, development of a financial plan, local funding commitments for capital and operations and maintenance (O&M), and adoption of the project's Locally Preferred Alternative into the LRTPs of the affected MPOs / TPOs.

The Miami Dade MPO approved the Strategic Miami Area Rapid Transit (SMART) Plan in 2016. The SMART Plan will expand the current Metrorail system in Miami-Dade County with rapid transit options along six (6) critical corridors that are linked to local, regional, national, and global economic markets. Another critical component of the SMART Plan will be a network of Express Buses, known as Bus Express Rapid Transit (BERT), which will connect the SMART rapid transit corridors on limited access facilities, promoting the active expansion of South Florida's Express Lanes network with the implementation of six (6) identified BERT express lane concepts. This approach effectively expands the reach of transit in Miami-Dade County and beyond. The rapid transit corridors include the Beach Corridor, East-West Corridor, Kendall Corridor, North Corridor, Northeast Corridor, and South Corridor.

The Northeast Corridor is a subset of the above mentioned Tri-Rail Coastal Link project. The project's corridor length is 13.5 miles and will run from Downtown Miami to the City of Aventura near the Miami-Dade / Broward County line along the same FEC corridor. This route extends through the historic core of the county developed along the FEC railroad and links the business districts and will have stations in Aventura, North Miami, North Miami Beach, the Design District and Miami. As mentioned, the project utilizes the existing FEC tracks, thus no additional major transit right-of-way is required for service.

The Brightline *Phase I* 2013 FONSI required Brightline to coordinate with the FDOT and SFRTA to develop a plan for integrated passenger rail services in the South Florida region. Until access and operating agreements can be negotiated and the necessary local, state, and federal funding has been secured, the operation of Tri-Rail commuter service was not reasonably foreseeable in the corridor. With the passage of the SMART Plan and the availability of transit tax funds in Miami-Dade County, however, Brightline and Miami-Dade have initiated negotiations for Brightline to provide the commuter rail service, with the possibility of five (5) additional "commuter only" stations. Many agreements would be required, including but not limited to administrative, liability, operating and capital agreements, as well as the establishment of fares. This proposal and negotiation is to move forward after Brightline initiates service in the West Palm Beach to Miami Corridor.



From a commuter fare standpoint, this may also be a cost-effective alternative for the traveling public. For example, a current passenger yearly contract with Brightline for service between Ft. Lauderdale and West Palm Beach provides for roundtrips daily for seven (7) days a week plus approximately 10 “buddy” passes plus a parking pass for the station in Ft. Lauderdale. Seating is in the premium coach (called “Select”). The cost is \$3,600. Based on commuting five (5) days a week for 52 weeks a year, that amounts to \$13.85 roundtrip. For comparison, the same trip on Tri-Rail is \$9.70. The 2017 IRS Standard Mileage Rate calculates as \$24.61 for this approximately 46-mile trip if taken by car.

The above option should be considered for this Regional Transit Vision. From a local standpoint, with regard to commuter rail along the FEC corridor, the Brevard TPO plan proposes regional commuter rail stops at the County’s original rail stations in Titusville, Cocoa, Eau Gallie, Melbourne and Palm Bay. The plan also suggests new station locations at Melbourne International Airport and the Space Coast Regional Airport in Titusville. Brevard County should consider working with Brightline to potentially provide and operate this long range proposed commuter rail service. With regard to a potential Brightline intercity rail station in Brevard County, nine candidate stations were identified by the County. The highest ranked location was near Clearlake Road in Cocoa, which was found to have good highway access, developable land, is near Port Canaveral, and allows for potential rail expansion to the north (Jacksonville).

For the Regional Transit Vision, there would be a future Brightline station near Cocoa (possibly at the Clearlake Road location), and another near midpoint along SR 528 to serve the Northeast Sector development. This midpoint location would be an intermodal station where local fixed guideway and local bus service from the Deseret Ranch development would connect to the Brightline intercity rail service. These services would also connect to the intermodal Station at OIA, and would provide the transit backbone for the Northeast Sector and Deseret Ranch development.

Over the past decade, Florida’s leaders have pursued a unified effort along the east coast to re-introduce passenger rail to the north-south spine of the FEC corridor from Jacksonville to Miami. Originally, this was contemplated as an Amtrak service, as they were the only intercity passenger rail service in operation in the United States. As part of a statewide effort, the FEC corridor was identified as part of a potential future statewide intercity and higher speed rail system. Subsequently, Amtrak conducted a nation-wide assessment of expansion opportunities and listed this FEC corridor service from Jacksonville to Miami as their highest priority for expansion. The State of Florida programmed funds for a portion of the capital infrastructure needed for re-introduction of the service. Discussions were also underway regarding potential operating assistance when Amtrak dropped all future expansion plans nationwide.

Subsequently, a private sector firm, Florida East Coast International (FECI), announced plans to implement commercial higher speed rail in Florida (under a subsidiary operation currently named Brightline-see above). Early maps continued to show the potential for expansion of the Brightline Miami to Orlando segment north to Jacksonville and west to Tampa. Currently, the focus of Brightline has been on constructing and launching a successful service. Nothing in this plan precludes expansion of higher speed rail along Florida’s east coast or the I-4 corridor to Tampa. In fact, the plan calls for transit services that would support higher speed rail service. These expansion plans, if pursued, will likely be led by the private sector, with planning and support facilities required from



the public sector. While not physically drawn on the interim or long term vision graphic, this study is supportive of future higher speed rail expansion and recognizes the broad interest of the public and policy makers in this potential expansion.

5.1.3 Private Intercity Bus

FDOT has recently analyzed intercity bus services within the state. In a report entitled *Intercity Bus Service in Florida* (November 2017), intercity bus service is defined as "regularly scheduled bus service for the general public which operates with limited stops over fixed routes connecting two or more urban areas not close in proximity, which has the capacity for transporting baggage carried by passengers, and which makes meaningful connections with local transit if such service is available." According to Chapter 341, F.S., intercity bus service has to be regularly scheduled, have the capacity to carry luggage, and cannot primarily serve commuters. These services generally use the interstate highway system and other limited access highways for the majority of their routes. The primary funding program for intercity services is the Federal Section 5311(f) program. Eligible recipients and sub-recipients include states, federally recognized Indian Tribes, state or local government authorities, nonprofit organizations, and operators of public transportation or intercity service.

According to the report, intercity bus is the fastest growing transportation mode in the country. This private expansion into the intercity market, however, is mostly limited to "express" services in already-crowded markets. As an added complication, first and last-mile connections to and from the intercity bus may be a challenge in areas that do not have an adequate local public transportation connections. Part of the popularity is the cost, especially as compared to auto or air transportation. These intercity bus services are generally operated by numerous private, for-profit companies, which creates competition and results in lower costs for the consumer.

There are two (2) types of private intercity service, terminal and corporate curbside service. The terminal service operates out of designated stations or terminals, and the coach picks up and drops off passengers at those locations on a scheduled route. The terminals have basic amenities for the waiting customers, provides ticketing and restrooms and is typical of service provided by Greyhound or Peter Pan. Corporate curbside service does not operate out of a terminal, but has pick up and drop off at retail establishments such as Walmart or McDonalds. Ticket purchasing is on-line, and the service can be considered either premium, or discount. Examples include MegaBus and Red Coach.

According to the *Intercity Bus Service in Florida* report, there are nine (9) intercity bus services in the Florida: Greyhound, Red Coach USA, The Florida Express Bus, Megabus, Jet Set, All Tour, HBCU Shuttle, GMG Transport, and La Cubana. The following is a brief description of the intercity bus services, as well as the general stop or terminal locations within the 10-county study area for the Regional Transit Study.

- **Greyhound:** Founded in 1914, this terminal bus service is one of the largest providers of intercity bus transportation across North America, with more than 1,200 buses in total and 18 million passengers per year. Greyhound has upgraded their fleet, with more than 85% of the buses being brand new or refurbished. This fleet provides passenger amenities such as free Wi-Fi, extra legroom, and power outlets. With the addition of the Greyhound Express in 2010, this bus service provides efficient travel, and provides discounts to students, children, veterans, senior citizens,



and military citizens. Greyhound has station stops in Daytona Beach, Kissimmee, Lakeland, Melbourne, Ocala, Orlando, and Titusville.

- **Red Coach:** Red Coach USA (Red Coach) is a division of Group Plaza. Although operating in South America for more than 50 years of experience. Red Coach, launched in May 2010, has transported more than 350,000 passengers throughout Florida. It is the only intercity bus service that is considered premium curbside, providing drop off and pickup locations along curbside locations, such as Walmart and McDonalds. Red Coach offers three (3) tiers of service: first class, business class, and economy class. First class offers either 38 maximum seats or 27 maximum seats, allowing extra leg room and availability for passengers to recline up to 140 degrees. Other amenities with this fleet include a foot rest, power outlets, table tray, free Wi-Fi, onboard entertainment system, security camera, and GPS tracking system. Business class provides the same amenities except table trays, and has smaller seats to fit more passengers. This bus service offers first and last mile travel options. A shuttle service is available at the Orlando and Miami Airport stations, offering safe and convenient shuttle services to nearby hotels. Red Coach has station stops in Ocala and Orlando.
- **Florida Express Bus:** The Florida Express Bus provides services such as intercity bus, minibus and shuttle van services. They provide discount curbside bus services and provides discounts to groups that desire to travel in a private shuttle. This service operates with self-ticketing with instant confirmations and guaranteed service. The Florida Express Bus offers daily scheduled shared shuttles to 29 Florida destinations, including drop-offs and pick-ups at three cruise ports, including Port Canaveral, Port Everglades, and Port of Miami. This service also offers door pick-up and door drop-off services for a small additional fee. The express service provides Orlando International Airport, Miami International Airport, and Fort Lauderdale International Airport transfers as regularly scheduled services to many cities in Florida and tourist attractions such as the Fort Lauderdale Beach and hotels, Orlando Convention Center, Disney World Resorts, Downtown Orlando, International Drive hotels, the SeaWorld area and Universal Studios. The Florida Express Bus has station stops in Cocoa Beach, Daytona Beach, Kissimmee, Lakeland, Melbourne, Ocala, Orlando, Palm Bay, and Port Canaveral. It appears that the company has recently discontinued the Ocala service location.
- **Megabus:** Megabus is a subsidiary of Coach USA, one of the largest transportation companies in North America. This service is a discount curbside intercity travel option in the Florida since 2006, this company provides transportation services throughout the United States and Canada and has served over 40 million customers throughout more than 120 cities. Since Megabus expanded services to Florida, Orlando has become the 14th Megabus hub in North America. Megabus operates in six (6) Florida metro areas, which covers than 70% of Florida residents. In each service location, Megabus provides service at or near a local intermodal transportation facility, providing customers with additional convenient, inexpensive local transportation options. Megabus is notable for using curbside bus stops instead of the traditional stations and low fares starting at \$1. Since 2010, this bus service has focused on transitioning from a traditional spoke-and-hub system to a point-to-point network of routes with buses making few stops en route to destinations and operating only a few hubs. The luxury single and double decker



buses offer free Wi Fi, at-seat power outlets, and panoramic windows. Megabus has a station stop in Daytona Beach, Lakeland and Orlando.

- **Jet Set:** Jet Set Express (Jet Set) was founded in 1996, and provides service to individuals and small groups traveling between Central and South Florida. A brand new, state of the art terminal in Orlando was recently constructed in 2014 to offer better experiences for customers. There is an 1,500-sq-ft waiting area provides complimentary wireless internet, power outlets, beverage and snack vending machines, and an outdoor loading area with a 1,800-sq-ft canopy to protect against the elements. The primary motor coaches are 45-foot 2014 Vanhools that provide numerous amenities for passengers such as DVD players, a P.A system, panoramic windows, reclining seats, air conditioning, restrooms, 24-hour dispatch service and roadside assistance, and individual reading lights. Within the study area, Jet Set has a station stop in Orlando and Kissimmee.
- **Alltour (aka Bus Line Orlando Miami):** Alltour America Transportation (Alltour) provides daily service to passengers between Orlando and Miami. For the past decade, Alltour has provided service to all the Central Florida attractions including Disney World, Universal Studios, SeaWorld, Legoland, and recently is providing transportation services to the I-Drive 360 Orlando Eye. All of the buses provide a GPS tracking system, audio / video system, reclining seats and some of the buses provide free Wi-Fi and power outlets. Within the study area, Alltour has a station stop in Orlando and Kissimmee.
- **HBCU:** HBCU Shuttle is a transportation service that provides customized coordinated shuttle service for students who live in Florida. The fleet consists of five (5) contracted 57 passenger motor coach buses- equipped with a/c, global positioning system, on board DVD-video system, restroom, reclining seats, overhead luggage racks and two (2) 15 passenger vans. Services are available only during back to school and end of school year periods, Thanksgiving and Christmas, as well as Spring Break and weekends. Weekend transportation is available on the third weekend of every month from the Florida Gulf Coast University and Bethune-Cookman University to and from South Florida. Drop-off and pick-up locations are provided throughout Florida including Ft. Lauderdale, Miami, West Palm, Orlando, Tampa, Ft. Myers, Jacksonville and many universities including FGCU, UWF, FSU, UF, UNF and other colleges. Charter services are also available to football games and other university events. HBCU has a stop in Orlando along Florida's Turnpike at Turkey Lake Plaza.
- **GMG:** Founded in 1983, GMG Transport (GMG) provides intercity bus transportation services. Originally developed for students needing to travel home from college, the system began with a small 15-passenger van traveling from Gainesville to South Florida. GMG now offers transportation to USF, FSU, UCF, and FIU students, family members, friends, and university faculty/staff. Pick up and drop off locations are available from South East Florida (Miami) to Tallahassee. These stop locations are located along the Florida Turnpike at the Orlando, Ft. Pierce, West Palm, and Pompano Beach service plazas. Services operate primarily on the weekends and during holidays, scheduled to cater university students. GMG's 17 buses provide free Wi-Fi and approximately 50 passenger seats. GMG has two stop locations in Orlando and one in Ocala.



- **La Cubana.** Omnibus La Cubana (La Cubana) is a family owned corporation that has offered full service transportation between Miami and New York since 1978. With many stops between and all throughout Florida. Each bus is equipped with a clean restroom, flat screen TVs with movies shown throughout the trip and reclining seats. Within the study area, the service has a stop in Deltona and in Orlando.

The 2015 *Fixing America's Surface Transportation (FAST) Act* made many key changes to Sections 5303 and 5304 (Metropolitan and Statewide Transportation Planning) to include intercity bus service. Specifically, MPOs and State Departments of Transportation are required to “provide for the development and integrated management and operation of transportation systems and facilities (including accessible pedestrian walkways, bicycle transportation facilities, and intermodal facilities that support intercity transportation, including intercity buses and intercity bus facilities and commuter vanpool providers) that will function as an intermodal transportation system for the metropolitan planning area and as an integral part of an intermodal transportation system for the State and the United States” (Metropolitan Planning §5303 (c)(2)).

MPOs are required to identify intercity bus facilities; consider the role intercity bus service plays in reducing congestion, pollution, and energy consumption; and list strategies to preserve and enhance intercity bus service. Both State DOTs and MPOs are also required to intercity bus providers (both private and non-profit companies) an opportunity to comment on transportation plans (Metropolitan and Statewide Planning, § 5303 & 5304).

The Regional Transit Vision Framework outlines various strategies to assist in the utilization of private intercity bus services to address regional travel demand in the 10-county study area. Specifically, this report suggests that working cooperatively with the intercity bus community with joint facilities and other incentives will help to address non-automotive regional travel demand. This is especially true in the Ocala to Orlando, Daytona to Orlando, Daytona to Brevard, Lake County to Orlando, and Polk County to Orlando markets. The subsequent sections of this report address where and how the private intercity providers can assist in the mobility of the region. In order to accomplish this cooperative effort, funding, planning and market issues will need to be addressed by the public sector.

At the federal level, the main source of funding to support intercity service is the Section 5311(f), *Intercity Bus Service* grant. Other federal funding sources include Section 5339, *Bus and Bus Facility* funds, flexible funds under Surface Transportation Program (STP) and Congestion Mitigation and Air Quality (CMAQ), and the Rural Transportation Assistance Program (RTAP). In Florida, there could be a diversity of funds available to assist in implementing facilities that could be utilized by the private (and public) providers.

Section 341.031, *F.S.*, defines an eligible bus carrier as a private company that has operated defined bus service in the state...for a minimum of two (2) years. Priority is given to projects that connect rural communities to urban centers. Applicants may apply for either operating, or capital, or both under the Section 5311(f) program. In order to receive funds in the state, proposed projects must support intercity service between urbanized and rural areas. Eligible activities include: planning and marketing for intercity transportation; capital grants for shelters, joint-use stops and depot;



operating grants; user-side subsidies and demonstration projects; and coordination of rural connections between small transit operations and intercity carriers.

Other states that have implemented an intercity bus system tend to focus on rural-to-city service rather than city-to-city service. The advantage in providing rural-to-urban service is that federal funds, such as Section 5311(f), may be used to help pay for these routes. Strictly, urban area to urban area service is not eligible for federal funds. Unfortunately for the 10-county study area, the urban to urban service is what is needed to address demand.

The next step to implement the intercity bus service within the 10-county study area starts with coordination. This coordination involves route design to place intercity bus stops in or near major public transportation stops and the sharing of bus schedules between agencies. The partnership should also include funding for capital projects to rehabilitate, upgrade, or expand public transportation terminals and Park and Ride lots to include bays and possibly counter space for intercity bus service. Building intermodal facilities help to further address first-mile/last-mile challenges faced by transit customers and lowers the operating costs of terminal carriers by allowing them to operate like curbside carriers. Intermodal facilities can be funded through a variety of programs, such as 5311(f), and have a significant impact in providing access to other modes of transportation. In addition, the state of Florida definition of intercity service should be revised to include those routes that are considered essential links as found in other state's definition. The inclusion of essential links would allow Florida to support routes that connect the major cities, with stops in rural areas along the route.

5.1.4 Individual MPO / TPO Plan Elements

The following subsections of the report outline the elements of the individual MPO / TPO plans that contribute to the Regional Transit Vision. For each MPO / TPO, an overview is presented of the documents reviewed for this effort. This is followed by a discussion of the public and private transit related services provided in the MPO / TPO service area. A brief discussion of the travel demand analysis is presented to report the assessment of travel desire lines, both existing and future, between counties and metropolitan areas within the 10-county study area. Finally, the subarea component of the Regional Transit Vision framework is presented in terms of interim range and long range elements. These items are further subdivided into potential transit improvements that are local in nature (but will provide support to the Regional Transit Vision) and regional in scope. Figure 5.1 presents the Interim Term Vision for the study area. The Long Term Vision is presented in Figure 5.2.



Figure 5.1: Interim Term Vision

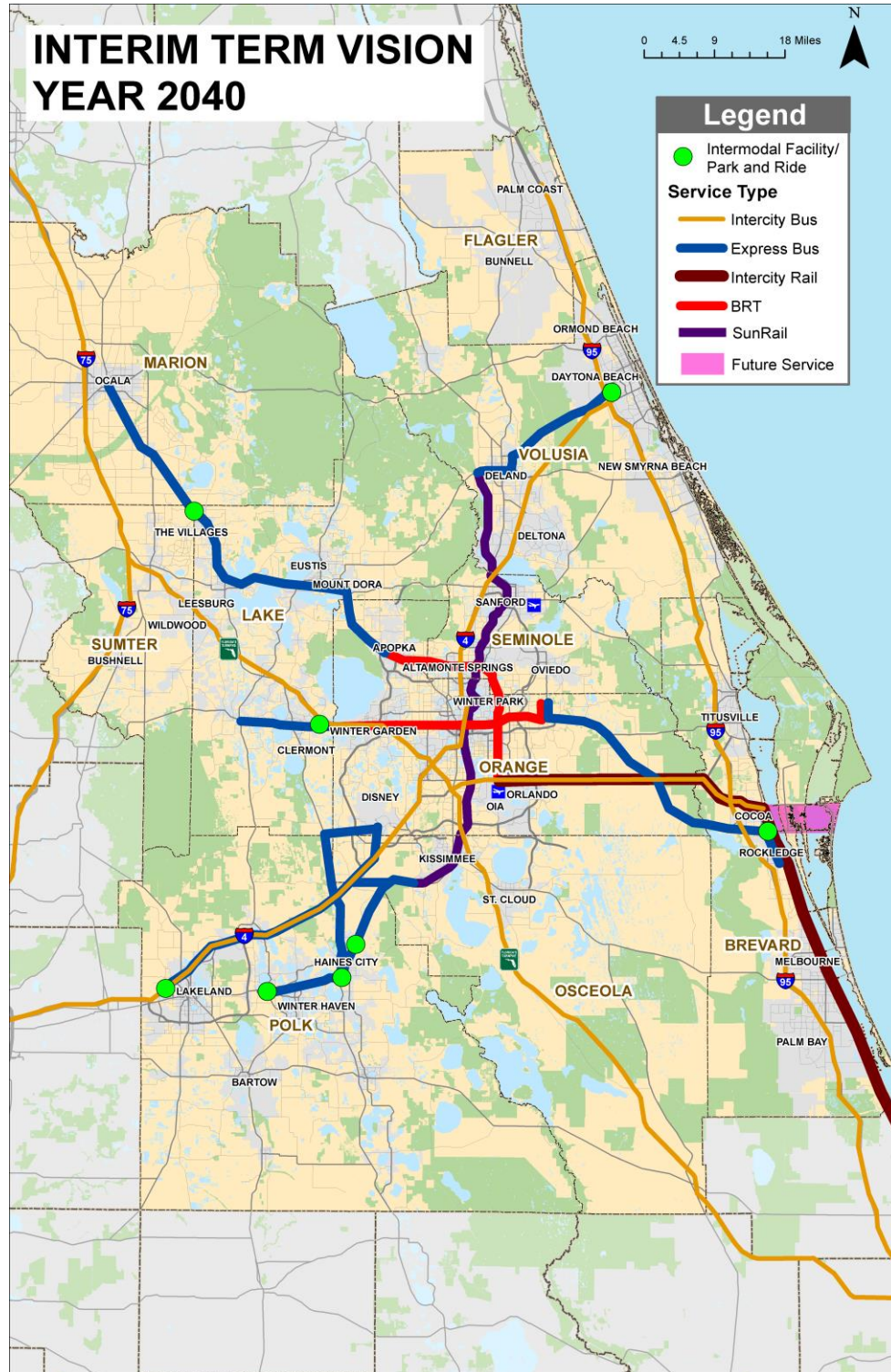
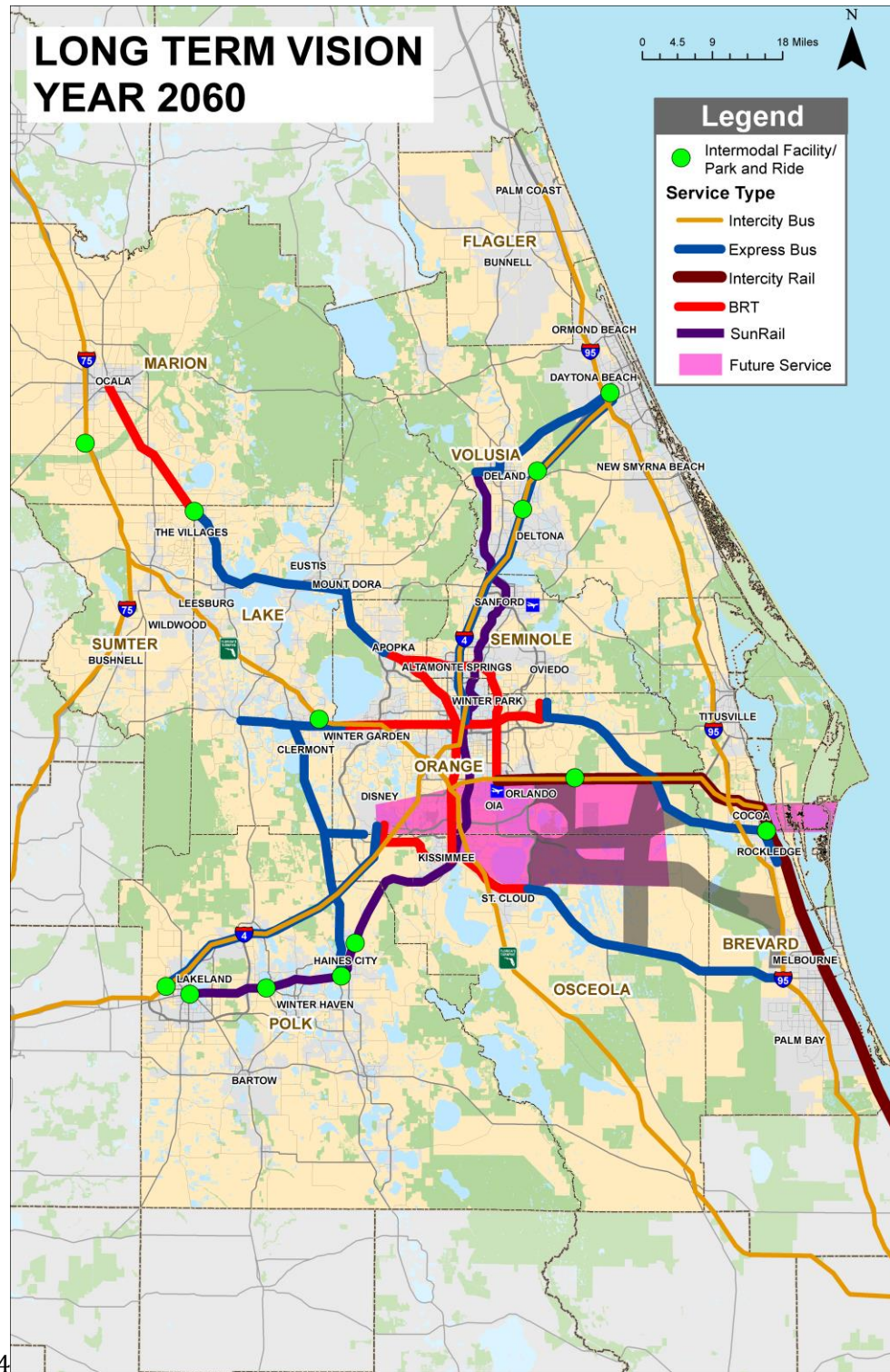




Figure 5.2: Long Term Vision





5.2 OCALA / MARION COUNTY

For the Ocala / Marion County TPO portion of the Regional Transit Vision Framework, several current planning sources were utilized to assist in developing an interim and long term vision. First, from a planning standpoint, the TPO's *2035 and 2040 Long Range Transportation Plan Transit Project Needs Assessment* provided an aspiration based transit plan for the TPO service area. Based on the *2012 and 2017 SunTran Transit Development Plans (TDP)* and an evaluation in the 2035 and 2040 LRTPs, future transit service improvements were identified in the LRTP and divided into two categories for service expansion; improvements to existing routes and new routes / services.

5.2.1 Public Services

SunTran provides transit service in Ocala and Marion County. McDonald Transit Associates (MTA) has been contracted by the TPO as the firm to operate SunTran's fleet of vehicles. The transit service improvements outlined in the Needs Assessment of this Regional Transit Study included improved headways and increased operating hours on the six (6) existing routes operated by SunTran. Headways on four (4) of the routes would improve from 70 minutes to 45 minutes, while the remaining three (3) routes would improve from 120 minutes to 60 minutes. The goal would be to have 30 minute service on all of the existing routes. In addition, the 2040 Needs Assessment called for new fixed route service with 60 minute headways along SR 200, express service with 30 minute headways from the Marion Oaks area to Ocala, and five (5) circulator service areas (SR 200 North, SR 200 / Marion Oaks, East Ocala, Belleview and South Ocala) which would have on-call transit service for access to the fixed route system.

In addition to the above identified bus service improvements, the TPO has also identified potential opportunities for future intercity bus and passenger rail service. With regard to intercity bus, the Needs Assessment identified a connector service from Ocala to Belleview to Sumter County / The Villages, running along US 301 / US 441 / US 27 with 75-120 minute headways. There are also several identified interim and long term fixed guideway improvements. The longer term improvements include a proposed intercity rail project (commuter rail) from Downtown Ocala to Wildwood, Bushnell and beyond generally paralleling US 301 along the existing CSXT railroad corridor; and a proposed light rail project from Downtown Ocala to the Emerald Road area generally paralleling CR 464 along the existing Florida Northern Railroad corridor. The interim (or potentially long term) improvements include a dedicated bus lane along US 301 / US 441 / US 27, and a dedicated bus lane along CR 464.

The Needs Assessment outlines two Park & Ride facilities: one (1) at I-75 and CR 484 in south Marion County; and one (1) along SR 200, in the general vicinity of an area between I-75 and SW 60th Avenue. As indicated in the TDP, Park & Ride facilities provide collection points for travelers to transfer from auto to transit or between autos (from a single-occupant vehicle to a carpool or vanpool). When conveniently located and carefully planned and implemented, Park & Ride facilities are integrated into the overall transportation network and can encourage a shift from single-occupant vehicles to transit or other alternative modes. The location of these planned lots could be important to this Regional Transit Vision Framework.

The TDP recommends the TPO and SunTran explore the possibility of improving its main transfer center at the Union Station in Downtown Ocala or establishing a new transit center for SunTran at a



more central location in Downtown. Additionally, the TDP recommends that SunTran explore improving other existing transfer locations and / or establishing new transfer facilities that may be needed with an improved route network. This item could also be important to the Regional Transit Vision Framework.

While the above discussion is encouraging for local and regional transit within the TPO, due to funding constraints, the 2040 Cost Feasible Plan for transit is less than what is identified in the 2040 Needs Plan and the 2017 TDP. While service improvements were considered for all existing SunTran routes that would reduce (improve) the headway to 30 minutes, due to limited funding, service improvements included in the Cost Feasible Plan are limited to reducing the frequency to 45 minutes on the four routes (Blue, Green, Orange, Purple) to begin in 2031. In addition to the service improvements, the Cost Feasible Plan also includes continued operation of the existing fixed route and ADA service and \$2.41 million for ADA bus shelter accessibility improvements.

5.2.2 Private Services

FDOT has recently analyzed intercity bus services within the state. In the report entitled *Intercity Bus Service in Florida*, several intercity services are listed that would have a potential impact on regional transportation service to and from Ocala / Marion County. The following is a list of the companies that provide intercity service to the TPO area, and the location of their major station or pick up point.

- **Greyhound:** 4032 Hwy 326 W, Ocala, Florida. This station is located north of the Downtown, behind the Pilot Travel Center, just off of I-75.
- **Red Coach USA:** 2020 SW 135th St I-75 & FL 484 Exit 341, Ocala, Florida. This station is located south of the Downtown, at the Pilot Travel Center, just off of I-75.
- **GMG Transport:** I-75. Mile Marker # 346 – Marion County Rest Area. This station is located south of SR 200 and north of CR 484 along I-75.

5.2.3 Demand Analysis

To assess current commuter trends and patterns, the 2017 TDP presented an analysis using 2014 Longitudinal Employer-Household Dynamics (LEHD) Origin-Destination Employment Statistics (LODES) data provided by the US Census Bureau. The information for geographic patterns of jobs by their employment locations and residential locations is based on composite information of local unemployment insurance earnings data, Quarterly Census of Employment and Wages data concerning where workers live and work, and firm characteristics such as industry, Census, and survey data. The TDP presents Marion County commuter outflows and inflows by the top 10 counties using 2014 LODES data.

Almost half of the residents in Marion County commute outside of the county, almost evenly dispersed to the nearby counties. Orange and Lake Counties are the top two (2) destinations, accounting for 5.5% (5,988 workers) and 5.1% (5,528 workers) of commuter trips, respectively. Most of these commuters drive to Orlando, The Villages, or Lady Lake.

With regard to commuter inflow data for the 10 counties having the most commuters traveling to Marion County for work, Citrus County had the highest percentage of commuter inflow into Marion County in at 4.1%, followed by Lake County at 2.9% (2,671 workers) and Orange County at 2.5% (2,348 workers).



For the purposes of the Regional Transit Study, regional and interregional trips were analyzed. Travel flows were developed using the CFRPM v6.1, the adopted model for L RTPs in FDOT District Five. Travel flows were created using three (3) different sets of districts – counties, sub-county districts and urbanized / non-urbanized areas – to provide a comprehensive perspective of inter-regional travel in the 10-county region. Tables and desire line maps showing person trip movements were created for each set for the 2015 (base year), 2040 and 2060 analysis years (*Regional Transit Study – Regional Travel Pattern and Market Analysis Report*).

Within the 10-county study region, Marion County is projected to account for 7% of all trips both in Year 2040 and 2060, 1.3 million and 1.7 million daily trips, respectively. Marion County projected travel by trip purpose (Table 5.1) reflects an overall increase of 450,000 daily trips (52%) by year 2040, and 813,000 daily trips (94%) by year 2060.

Table 5.1: Marion County Projected Travel by Trip Purpose

Year	HBW	% HBW	HBO	% HBO	NHB	% NHB	Total	% Change
2015	155,351	18%	429,646	50%	276,068	32%	861,065	n/a
2040	224,403	17%	632,218	48%	453,992	35%	1,310,613	n/a
2060	279,910	17%	794,137	47%	599,723	36%	1,673,770	n/a
Net / % 2015 to 2040	69,052	44%	202,572	47%	177,924	64%	449,548	52%
Net / % 2015 to 2060	124,559	80%	364,491	85%	323,655	117%	812,705	94%
Net / % 2040 to 2060	55,507	25%	161,919	26%	145,731	32%	363,157	28%

Regional travel and market analysis reflects 92% of 2015 trips originating in Marion County remain within the County (93% for Year 2040 and 94% for Year 2060). Of trips departing Marion County, 4% end in Lake County and 2% end in Sumter County (see Table 5.2). All other counties amount to less than 1% of trips originating in Marion County. Year 2040 and 2060 trend remain consistent with the base year 2015. Trips originating within the City of Ocala account for 283,685 (23%) and 365,807 (22%) of projected “intra-county” trips in year 2040 and 2060, respectively.



Table 5.2: Marion County Travel to Study Area Counties

Marion County To:	Year 2015	Year 2040	Year 2060
Marion County	793,429 (92%)	1,223,820 (93%)	1,566,559 (94%)
Lake County	31,848 (4%)	38,591 (3%)	46,286 (3%)
Sumter County	21,241 (2%)	33,078 (3%)	43,378 (3%)
All Other Counties	14,547 (<1% per County)	15,124 (<1% per County)	17,547 (<1% per County)
Total	861,065 (100%)	1,310,613 (100%)	1,673,770 (100%)

5.2.4 Subarea Regional Transit Vision Framework

Based upon the Ocala / Marion County TPO's plans and programs, as well as the demand analysis and the analysis contained in the Long Range Transportation Plan, an interim and long term vision has been outlined for consideration by both the Central Florida MPO Alliance and the Ocala / Marion County TPO. This vision contains a local element and a regional element. The local element is anticipated to have the greatest impact on local transportation conditions, whereas the regional element could affect transportation customers that travel across MPO / TPO jurisdictional boundaries. The Ocala / Marion County TPO Regional Transit Vision Framework is outlined below.

- **Interim Term Vision**

- **Local:** The local element of the shorter-term vision consists of improvements to the local bus system, SunTran, as identified in the LRTP and the TDP. These include improving the headways of the current routes, as well as new routes to locations within the service area.
 - Improved Headways on four (4) of the six (6) existing routes from 60 minutes to 45 minutes.
 - Improve existing services by realigning existing routes beginning in 2018.
 - Add Sunday service on all existing routes.
 - Implement the Ocala West Connector with 60-minute headways, similar to the existing network.
 - Implement the SR 200 Flex to service the SR 200 corridor from I-75 to SW 60th Avenue.
- **Regional:** The regional element of the shorter term plan includes new cross jurisdictional service.
 - A Belleview / Villages Limited Express service from Ocala to Belleview to Sumter County / The Villages, running along US 301 / US 441 / US 27 with weekday 120-minute headways. This route should terminate at the Lake County Transit Spanish Springs Station.

- **Long Term Vision**

- **Local:** The local element of the long term vision continues improvements to the local bus system's headways, as well as includes the development of local fixed guideway transit corridors. These corridors ultimately could be BRT, modern streetcar or light rail transit. These improvements would provide local mobility on or near major state and county roadway facilities.



- Establish a new or improved Downtown transfer center to accommodate an expanded SunTran system, including new routes, increased headways and potential fixed guideway service.
- Improve the headway on all existing and future SunTran routes to 30 minutes.
- Implement improvements that include a dedicated bus lane along US 301 / US 441 / US 27 from Downtown Ocala to the Wildwood area, and a dedicated bus lane along CR 464 from Downtown Ocala to Emerald Road.
- **Regional:** The regional element of the long-range vision potentially includes commuter rail and light rail, as well as increased cooperation with the private transit providers at alternative locations.
 - Establishment of a Park & Ride facility and transit center at I-75 and CR 484 in south Marion County. This facility should be designed to accommodate both the SunTran local transit service, Park & Ride / car pool / express bus services and private intercity services. This would be a joint Transportation Center location to serve SunTran, Greyhound, Red Coach and GMG Transport as an intermodal hub.
 - Establish a Park & Ride facility along SR 200, in the general vicinity of an area between I-75 and SW 60th Avenue.
 - Extension of the two (2) dedicated bus lanes projects along US301 / US 441 / US 27 and along CR 464 into Lake County, and treatment of the projects as true BRT service. The termini of both facilities would be located in Lake County, where Lake County transit services would provide connecting service.
 - The longer term improvements (beyond 2060) could include a proposed intercity rail project (commuter rail) from Downtown Ocala to Wildwood, Bushnell and beyond generally paralleling US 301 along the existing CSXT railroad corridor; and a proposed light rail project from Downtown Ocala to the Emerald Road area generally paralleling CR 464 along the existing Florida Northern Railroad corridor.

5.3 LAKE / SUMTER COUNTY

For the Lake~Sumter MPO portion of the Regional Transit Vision Framework, several current planning sources were utilized to assist in developing an interim and long term vision. First, from a planning standpoint, the MPO's *2035 and 2040 Long Range Transportation Plans* provided an aspiration based plan for the MPO service area. In addition, the *2013 and 2014 TDPs* evaluation of current and future transit service improvements was utilized to assist in developing the interim and long term transit vision.

5.3.1 Public Services

Lake County's Public Transportation Division is responsible for scheduled bus service (LakeXpress) as well as the paratransit service (Lake County Connection). The Sumter County Board of County Commissioners serves as the designated Community Transportation Coordinator (CTC) for adjoining Sumter County, providing both door-to-door paratransit and deviated shuttle service Monday through Friday, in Sumter County and The Villages area of Lake County. Transit service is provided by a contractor, Ride Right, LLC.

The transit needs assessment across the two county region focuses on maintenance and enhancement of the accessibility for all users including the young, elderly, the economically-



disadvantaged and the disabled. Currently, the public transit and para-transit services provide transportation for citizens who typically cannot drive, but because of the existing system's coverage, transit service is increasingly being seen as a viable option for riders who may have access to an automobile. Capitalizing on this, the 2040 LRTP seeks to enhance and expand transit service as part of its long term multimodal mobility strategy.

The 2040 Plan relies heavily on the Lake County TDP. The County is currently transitioning from its designation as a rural transit service provider to a small urban designation, and there are newly designated urbanized areas in south Lake County. The TDP attempts to proactively address the current needs of residents and to anticipate future demands. The TDP identifies needed improvements to the existing transit system as well as several expansions that address weekend service, increased hours of operation, and increased frequency. The TDP also identifies the need to commence new service along SR 50 in the south Lake region, a newly designated urbanized area part of the Orlando UA expansion into Lake County. Based on the TDP, the 2040 Plan identifies several corridors where a combination of transit, management and operations, bicycle and pedestrian improvements will be targeted in the future. These corridors include, but are not limited to SR 50, US 27, US 44, CR 19, CR 561, and CR 44.

The TDP's final recommendations focused on betterments to the existing service in terms of headways, hours of operating and adding weekend service. In addition, it recommended extensions to existing service as well as restructuring routes and a new circulator. The following outline presents the recommended TDP 10 year implementation plan. The SR 50 Spine Service, and restructuring of the Golden Triangle service and Route 2 have been implemented by the county.

- Restructure Routes 1 and 3 (Golden Triangle service); Restructure Route 2
- SR50 Spine Service (Rt. 5)
- Weekend Service Routes 1-5 (Note: currently, there is no weekend service)
- Evening Service Routes 1-5 (Note: the system currently operates from 6 am to 8 pm)
- Clermont-Minneola Circulator (Rt. 6)
- Double Frequency Routes 1-6 (Note: current headways are approximately 60 minutes)

In addition to these recommended transit improvements, the TDP also explored several alternatives; one of which that may have a potential impact to regional transit travel is the Clermont to Disney Employee Entrance Express. This commuter express route would travel between the existing Clermont Park & Ride and the Disney World employee entrance. The service would provide transit access for Disney World employees. Based on the MetroPlan Orlando portion of this Regional Transit Vision, this route should potentially be modified to connect to the Disney Transportation Center or the Disney Springs Transit Center to meet with the LYNX and Polk County related corridor services.

5.3.2 Private Services

Several private intercity services could have a potential impact on regional transportation service to and from Lake / Sumter County. The following is a list of the companies that provide intercity service through the MPO area. Currently, there are no stations or pick up points within the Lake~Sumter MPO area.



- **Greyhound:** The primary route through the MPO area is along I-75. A potential station would improve connections between Lake / Sumter County and Ocala as well as the Tampa area.
- **Red Coach USA:** The primary route through the MPO area is along I-75 and the Turnpike. A potential station would improve connections between Lake / Sumter County and Ocala as well as Orlando.
- **Florida Express Bus:** The primary route through the MPO area is along I-75. A potential station would improve connections between Lake / Sumter County and Ocala as well as the Tampa area.
- **GMG Transport:** The primary route through the MPO area is along I-75 and the Turnpike. A potential station would improve connections between Lake / Sumter County and Ocala as well as Orlando.

Finally, there are several private operators that have express services between The Villages and Orlando in smaller buses or vans, especially service to Orlando International Airport as well as to major shopping destinations.

5.3.3 Demand Analysis

The TDP contains information that is helpful in assessing work trip origins and destinations. According to the 2010 American Community Survey (ACS), nearly 80% of Lake County commuters drive to work alone and 13% carpool. Approximately 40% of Lake County residents travel to other counties for employment. As indicated in the TDP, the journey-to-work flows from Lake County are 24.55% to Orange County (28,670 persons), 3.04% to Seminole County (3,555 persons), 2.72% to Sumter County (3,175 persons), 2.36% to Osceola County (2,175 persons) and 6.47% to other counties (7,554 persons). Approximately 24% of Lake County employment comes from other counties. The journey to work flows to Lake County are 5.45% from Orange County (5,095 persons), 1.39% from Seminole County (1,295 persons), 6.23% from Sumter County (5,820 persons), 0.77% from Osceola County (715 persons) and 10.10% from other counties (9,434 persons).

According to the 2010 ACS, nearly 76% of Sumter County commuters drive to work alone and 16% carpool. Approximately 37% of Sumter County residents travel to other counties for employment. As indicated in the TDP, the journey-to-work flows from Sumter County are 16.8% to Lake County (5,820 persons), 2.9% to Pasco County (1,025 persons), 2.2% to Hernando County (750 persons), 1.7% to Citrus County (605 persons), 7.4% to Marion County (2,565 persons), 0.6% to Polk County (195 persons) and 5% to other counties (1,739 persons). Approximately 9,480 jobs in are filled from other counties. Of that number, the journey-to-work flows to Sumter County are 33.49% from Lake County (3,175 persons), 6.65% from Pasco County (630 persons), 7.75% from Hernando County (735 persons), 10.97% from Citrus County (1,040 persons), 40.08% from Marion County (3,800 persons), and 1.05% from Polk County (100 persons). This information from both counties was used in the TDP to identify potential commuter markets for transit, including fixed bus routes within the respective county and Park & Ride services between Lake, Sumter, and other counties.

For the purposes of this Regional Transit Study, regional and interregional trips were analyzed. Travel flows were developed using the CFRPM v6.1, the adopted model for LRTPs in FDOT District Five. Travel flows were created using three (3) different sets of districts – counties, sub-county districts and urbanized / non-urbanized areas – to provide a comprehensive perspective of inter-regional travel in the 10-county region. Tables and desire line maps showing person trip movements



were created for each set for the 2015 (base year), 2040 and 2060 analysis years (*Regional Transit Study – Regional Travel Pattern and Market Analysis Report*).

Lake County

Within the 10-county study region, Lake County is projected to account for seven (7) percent of all trips both in Year 2040 and 2060, 1.4 million and 1.7 million daily trips, respectively. Lake County projected travel by trip purpose (Table 5.3) reflects an overall increase of 488,121 daily trips (56%) by year 2040 and 880,047 daily trips (101%) by year 2060.

Table 5.3: Lake County Projected Travel by Trip Purpose

Year	HBW	% HBW	HBO	% HBO	NHB	% NHB	Total	% Change
2015	147,744	17%	439,063	51%	282,282	32%	869,089	n/a
2040	234,739	17%	691,890	51%	430,581	32%	1,357,210	n/a
2060	302,611	17%	894,092	51%	552,433	32%	1,749,136	n/a
Net / % 2015 to 2040	86,995	59%	252,827	58%	148,299	53%	488,121	56%
Net / % 2015 to 2060	154,867	105%	455,029	104%	270,151	96%	880,047	101%
Net / % 2040 to 2060	67,872	29%	202,202	29%	121,852	28%	391,926	29%

Regional travel and market analysis reflects 75% of 2015 trips originating in Lake County remain within the County (75% for both Year 2040 and 2060, respectively). Of trips departing Lake County, 12% end in Orange County, 3% end in Sumter County, and 3% end in Marion County (see Table 5.4). All other counties amount to 2% or less of trips originating in Lake County. Year 2040 and 2060 trends remain consistent with the base year 2015. Trips originating within the City of Leesburg account for 233,321 (17%) and 307,919 (18%) of projected “intra-county” trips in year 2040 and 2060, respectively.

Table 5.4: Lake County Travel to Study Area Counties

Lake County To:	Year 2015	Year 2040	Year 2060
Lake County	655,450 (75%)	1,020,053 (75%)	1,308,740 (75%)
Orange County	106,322 (12%)	147,885 (11%)	183,877 (11%)
Sumter County	27,208 (3%)	52,681 (4%)	69,691 (4%)
Marion County	23,968 (3%)	42,493 (3%)	56,847 (3%)
All Other Counties	56,141 (<3% per County)	94,098 (<3% per County)	129,981 (<3% per County)
Total	869,089 (100%)	1,357,210 (100%)	1,749,136 (100%)



Sumter County

Within the 10-county study region, Sumter County is projected to account for 3% of all trips both in Year 2040 and 2060, 544,000 and 776,000 daily trips respectively. Sumter County projected travel by trip purpose (Table 5.5) reflects an overall increase of 293,000 daily trips (117%) by year 2040 and 525,000 daily trips (209%) by year 2060.

Table 5.5: Sumter County Projected Travel by Trip Purpose

Year	HBW	% HBW	HBO	% HBO	NHB	% NHB	Total	% Change
2015	39,314	16%	136,674	54%	75,321	30%	251,309	n/a
2040	88,353	16%	292,266	54%	164,097	30%	544,716	n/a
2060	124,187	16%	416,870	54%	235,118	30%	776,175	n/a
Net / % 2015 to 2040	49,039	125%	155,592	114%	88,776	118%	293,407	117%
Net / % 2015 to 2060	84,873	216%	280,196	205%	159,797	212%	524,866	209%
Net / % 2040 to 2060	35,834	41%	124,604	43%	71,021	43%	231,459	42%

Regional travel and market analysis reflects 73% of 2015 trips originating in Sumter County remain within the County (74% and 75% for Year 2040 and 2060, respectively). Of trips departing Sumter County, 18% end in Lake County and 7% end in Marion County (see Table 5.6). All other counties amount to 1% or less of trips originating in Sumter County. Year 2040 and 2060 trends remain consistent with the base year 2015.

Table 5.6: Sumter County Travel to Study Area Counties

Sumter County To:	Year 2015	Year 2040	Year 2060
Sumter County	183,114 (73%)	405,125 (74%)	579,620 (75%)
Lake County	44,976 (18%)	87,156 (16%)	117,627 (15%)
Marion County	18,344 (7%)	38,166 (7%)	51,911 (7%)
All Other Counties	4,875 (<1% per County)	14,269 (<1% per County)	27,017 (<1% per County)
Total	251,309 (100%)	544,716 (100%)	776,175 (100%)

5.3.4 Subarea Regional Transit Vision Framework

Based upon the Lake~Sumter MPO's plans and programs including the TDP, as well as the demand analysis and the analysis contained in the LRTP, an intermediate and long term vision has been outlined for consideration by both the Central Florida MPO Alliance and the Lake~Sumter MPO. This vision contains a local element and a regional element. The local element is anticipated to have the greatest impact on local transportation conditions, whereas the regional element could affect transportation customers that travel across MPO / TPO jurisdictional boundaries. The Lake~Sumter MPO Regional Transit Vision Framework is outlined below.



- **Interim Term Vision**

- **Local:** The local element of the interim term vision consists of improvements to the local bus system, LakeXpress, as identified in the LRTP and the TDP. These include improving the headways of the current routes, extending service to evenings and weekends and restructuring several routes.
 - Weekend Service Routes 1-5 (Note: currently, there is no weekend service)
 - Evening Service Routes 1-5 (Note: currently, the system operates from 6 am to 8 pm)
 - Clermont-Minneola Circulator (Rt. 6)
 - Double Frequency Routes 1-6 (Note: current headways are approximately 60 minutes, although Route 4 has 120-minute service)
- **Regional:** The regional element of the interim term plan includes improvements to existing cross-jurisdictional service, potential co-location of needed transit facilities with the private sector, and investigation of new cross-jurisdictional services.
 - The Regional Transit Vision framework contains future SunTran bus connector service from Ocala to Belleview to Sumter County / The Villages, running along US 301 / US 441 / US 27 with 75-120-minute headways. LakeXpress Route 1A current services The Villages Spanish Springs Station with service to Leesburg on 60-minute headways. Currently, there are no available transfer points between SunTran and LakeXpress service. While part of the Lady Lake-The Villages urbanized area extends into Marion County, Sun Tran's fixed route services do not enter that urbanized area. The two (2) respective agencies should work together to make a connection, and to coordinate service plans to make a transfer between counties seamless.
 - LakeXpress Route 4 currently provides 120-minute service on SR 19 / US 441 between Altoona and Zellwood in Orange County via Eustis and Mt. Dora. In Zellwood, this service meets LYNX's Link 44, which provides 60-minute service between Zellwood and the Silver Star / Hiwassee Road intersection via the Apopka Superstop. These routes are long, serve multiple activity centers and have differing headways. The two (2) respective agencies should work to establish a coordinated service plan to serve the longer distance customer, focusing on improving service between Mt. Dora and the Apopka Superstop and coordinating consistent headways.
 - LakeXpress recently extended SR 50 spine service from Clermont to Mascotte via Route 50W, which has 60-minute service. This route meets the SR 50E service at the Clermont Park & Ride lot on US 27 south of SR 50. SR 50E runs to the Winter Garden Regional Shopping Center on 60 minute headway, and connects with LYNX Link 105. The LYNX route provides 30 minute service (except evenings) to Downtown Orlando on SR 50 via the West Oaks Mall. The two (2) respective agencies should work to establish a coordinated service plan to serve the longer distance customer, focusing on improving through service between Clermont and the Downtown Orlando.



- **Long Term Vision**

- **Local:** The local element of the long term vision continues improvements to the local bus system's headways and service coverage. These improvements would provide local mobility on or near major State and county roadway facilities.
 - Currently, there are no connections between Sumter County and Lake County. Within Sumter County, the Orange Shuttle operates Monday, Wednesday, and Friday in the communities of Center Hill, Webster, Sumterville, and Bushnell. There is a morning run departing Center Hill at 7:45 a.m. and returning at 11:20 a.m. and an afternoon run, departing at noon and returning at 3:30 p.m. The potential ten (10) mile extension of this service to Mascotte to connect to the LakeXpress SR 50W service should be explored in the future.
 - Sumter County currently operates The Villages Shuttles (referred to as the Shopper Shuttles). The shuttles are comprised of three color-coded shuttle routes within The Villages community, operating at various times throughout the day Monday, Wednesday, Friday, and Saturday. The Green Route serves the northern portion of The Villages, the Blue Route serves the southern portion of The Villages, and the Purple Route provides a connection between north and south. Riders can transfer from the Green Route to LakeXpress Route 1 at Spanish Springs Station. Sumter County also operates the Wildwood Circulator, which operates Monday, Wednesday, and Friday between the Villages Service Center and Publix at Southern Trace with a single northbound trip in the morning, departing at 9 a.m., and a southbound trip in the afternoon, departing at 12:25 p.m.
 - The Lady Lake-The Villages Urbanized Area (UA) encompasses The Villages in the northeast corner of Sumter County, Lady Lake in the northwest corner of Lake County, and southern Marion County. Both Sumter County Transit and LakeXpress operate within the UA making them jointly eligible for federal transit funding allocated to the UA. In order to better service the residents of The Villages, as well as the employees that provide services to those residents, a comprehensive analysis of routes and route structure should be conducted by Lake, Sumter and Marion Counties to better service that part of the three-county area.
- **Regional:** The regional element of the long-range vision potentially includes commuter rail and light rail connections to Marion County; increased connections to Orlando, and increased cooperation with the private transit providers.
 - Sumter / Lake County and LakeXpress should work with the surrounding MPO / TPO's and their respective transit agencies on developing long term corridor bus projects on critical travel corridors. Thus, as LYNX starts to develop the SR 50 corridor with a mixed use BRT project as well as an east west Express service from Winter Garden to the University of Central Florida, LakeXpress should work with them to enhance bus travel in the Lake County portion of the corridor. Likewise, LakeXpress should work with LYNX to prioritize bus related improvements along the north US 441 corridor to improve bus travel times and customers experience. At the north end of the Lake~Sumter MPO area, LakeXpress should work with SunTran to provide consistent bus service and improve the US 441 / US 301 corridor between Ocala, The Villages, and Leesburg.



- The longer-term improvements in the Ocala / Marion TPO plan include a proposed intercity rail project (commuter rail) from Downtown Ocala to Wildwood, Bushnell and beyond generally paralleling US 301 along the existing CSXT railroad corridor; and a proposed light rail project from Downtown Ocala to the Emerald Road area generally paralleling CR 464 along the existing Florida Northern Railroad corridor. Lake~Sumter MPO should work with the Marion TPO to investigate these projects in the future.
- One bus route explored in the TDP that may have a potential impact to regional transit travel is the Clermont to Disney Employee Entrance Express. This commuter express route would travel between the Clermont Park & Ride and the Disney World employee entrance. The service in the TDP would provide service for Disney World employees. Based on the MetroPlan Orlando portion of the Regional Transit Vision, this route should potentially be modified to connect to the Disney Transportation Center or Disney Springs Transit Center to meet with the south Orlando / Kissimmee related corridor services. Another variation would be to have limited stop service in the segment between the Park & Ride lot and the eastern end of Hartwood Marsh Road.
- None of the private long distance providers have a stop or station within the Lake / Sumter County MPO area. One concept which might benefit middle Lake County and west Orange County is a potential establishment of a Park & Ride facility and transit center at the Turnpike and SR 50. This facility could be serviced by LYNX and LakeXpress local routes, as well as by Read Coach USA and GMG Transport. An alternative location would be at the Turnpike and Main Street in Wildwood. However, this location is very close to the recommended location in Marion County, and has limited local public bus service (Wildwood Circulator). Inversely, it is closer to The Villages and that potential market.

5.4 POLK COUNTY

For the Polk TPO portion of the Regional Transit Vision Framework, several current planning sources were utilized to assist in developing an interim term and long-term vision. First, from a planning standpoint, the TPO's *Polk Momentum 2040 Long Range Transportation Plan* provided a financially-constrained plan for the TPO service area. Additionally, the *2013, 2015 and 2017 Transit Development Plans (TDP)* evaluation of current and future transit service improvements was utilized to assist in developing the interim and long term transit vision.

5.4.1 Public Services

Until recently, there were three transit services operating in Polk County: Polk County Transit Services (PCTS), Citrus Connection, and Winter Haven Area Transit (WHAT). There were two transit agencies including Polk County / WHAT, which administered and operated the PCTS system and WHAT, and the Lakeland Area Mass Transit District (LAMTD), which administered and operated Citrus Connection. These services are now administered and operated by the LAMTD, which is the designated recipient of FTA grant funding and Florida Public Transit Block Grant Program (PTBG) funding.



As with the previous MPO / TPO LRTPs, the Polk TPO plan relies heavily on the TDPs. As such, *Polk Momentum 2040 LRTP* presents a target of providing fixed-route transit to all 17 Polk municipalities. Citrus Connection service is currently available in 16 out of the 17 municipalities. In order to reach this target, the plan outlines existing and future transit needs, and identifies those for which funding is still needed. Funding currently exists to maintain the existing fixed route services. Funding expansion is needed to increase frequency, hours, and days of service; add new fixed routes, flex, express, and 'call and ride' services. The Polk TDP is consistent with these targets and strategies outlined in *Polk Momentum 2040 LRTP*. In particular, the TDP emphasizes investments in existing fixed routes, for which funding already exists, and focusing on efficiency and effectiveness measures.

The most recent TDP (2017) also provides alternatives analysis that address the *Polk Momentum 2040 LRTP* targets, including local features such as the US 98 corridor and the Lakeland Transit Signal Priority (TSP) projects, as well as existing and planned interregional projects such as fixed route bus service, Park & Ride lots, cross jurisdictional express services and potential expansion of SunRail commuter rail from Poinciana in Osceola County to Lakeland. These are briefly described below.

- **US-98 Corridor Premium Transit:** The 2012 TDP called for the implementation of premium bus services along a portion of the US 98 corridor in the City of Lakeland between the Lakeland Square Mall to South Lake Parker Road and express bus service south of Lake Parker Road to Bartow. A subsequent Transit Design Analysis proposed phased implementation of Bus Rapid Transit (BRT), beginning with signal priority implementation and access management, and finally moving towards major corridor reconstruction and station development to facilitate exclusive running lanes. Phasing, like design, differs for each segment of the corridor. The 2017 TDP explored signal prioritization as a strategic technological intervention that can meet the phasing requirements recommended in the Transit Design Analysis.
- **Central Lakeland TSP:** The purpose of the Central Lakeland Transit Signal Feasibility Study project was to determine the need and effectiveness of a TSP system and / or bus queue jump lanes while evaluating the ability to implement either or both on three (3) state highway corridors in the City of Lakeland. The corridors analyzed include:
 - SR 37 (South Florida Avenue) from the vicinity of the Pipkin Road / Lake Miriam Drive intersection to Main Street in Downtown Lakeland
 - SR 35, 700, US 98 (North Florida Avenue) from Main Street to the vicinity of the Lakeland Square Mall
 - SR 33 (Lakeland Hills Boulevard) from Memorial Boulevard to the vicinity of the Socrum Loop Road

Transit travel times could be improved along all three (3) state highway corridors if the overall signalization system was optimized through retiming and TSP implemented. Of the 41 intersections analyzed, 17 were recommended for implementation. Lakeland Area Mass Transit District (LAMTD) Route 1 (Florida Avenue Corridor) and Route 3 (Lakeland Hills Corridor) are within the TSP study area. To implement a schedule-based TSP system, all LAMTD buses servicing Routes 1 and 3 will need to have equipment installed.



- **Inter-County Fixed Route Transit Service:** Currently, LYNX provides, under contract to Polk County Board of County Commissioners and the North Ridge Community Redevelopment Agency, fixed route bus service between Osceola and Polk Counties on Links 416 and 427. LYNX provides Link 416 fixed route service between the Haines City Plaza and the Poinciana Walmart along CR 580 / Cypress Parkway Monday through Friday on 150-minute headways from approximately 10:40 a.m. to 7:00 p.m. Link 427 is fixed-route service that operates Monday through Friday on 120-minute headways from approximately 6:25 a.m. to 7:12 p.m. from the Haines City Plaza to Legacy Boulevard via the Four Corners area of Lake / Orange / Polk / Osceola at US 27 and US 192. Additionally, LYNX provides NeighborLink 603 service Monday through Friday from 6:00 a.m. to 6:00 p.m. to The Villages 3, 4, 7 and 8 of Poinciana in Northeast Polk County. This schedule ahead pick-up service connects at the Poinciana Walmart area to LYNX Links 26, 306, 416, 426, and NeighborLink 601. The TDP indicates that the NeighborLink 601 service is to be continued, and the headway on Link 427 is to be increased to 60 minutes, the hours of operation are to be extended and weekend service is to be added within the next five (5) years.
- **Park & Ride:** The proposed feeder route to the future Poinciana SunRail station (see below) is associated with five (5) proposed Park & Ride facilities, three (3) of which have been budgeted for new construction in this 10-Year TDP Needs Plan. The facilities are integral to the success of the feeder route as a regional transit mode. The locations for the Park & Ride facilities include Lake Alfred, Haines City, and Davenport.
- **Express Services and Potential Expansion of SunRail:** Through the three (3) separate TDP processes and the two (2) recent TPO long range planning efforts, there has been a general strategy developed by Polk County with regard to express bus service connections to Orlando and Tampa, as well as a potential incremental expansion of SunRail commuter rail service from the soon current termini at Poinciana in Osceola County to Lakeland. These steps are briefly described below.
 - **Implement express bus service from Park & Ride locations in Polk County to the SunRail Poinciana station:** Park & Ride facilities should be considered for Haines City, Auburndale, Lakeland and possibly Winter Haven. Express routes from Haines City and Auburndale to the SunRail station would use US 17/92. Express service from Lakeland would use I-4 for a major portion of the trip. The new Park & Ride lots should be in close proximity to potential future commuter rail station locations.
 - **Extend SunRail commuter rail service to a new station at Haines City, with feeder express bus service from Auburndale, Lakeland and Winter Haven Park & Ride locations:** This will be an approximately 15-mile southern extension to the SunRail system. There are typically only five (5) freight trains per day, both presently and well into the future, on this segment of the CSX A Line.
 - **Extend SunRail commuter rail service to an additional station at Auburndale, with feeder express bus service from Park & Ride locations, including Lakeland:** This would amount to an additional 13-mile extension from Haines City (28 miles from Poinciana).
 - **Extend SunRail commuter rail service to Lakeland, with feeder bus service:** Extending service from Auburndale to Lakeland is an additional 11 miles from



Auburndale, or a total of 39 miles from Poinciana. It should be noted that this segment of the CSX between Auburndale and Lakeland currently sees 20 freight train movements per day rising to an estimated 27 daily freight trains in 2030. This activity of freight operations, would make this extension substantially more difficult to implement.

Both the TDP and the LRTP contain a Transit Needs map, which was developed should additional funding become available. The map includes existing bus routes, flex service and existing Park & Ride / Transit Super Stop locations. The map also displays unfunded transit infrastructure such as BRT routes, Express Routes, enhanced bus service routes, Call and Ride Service, proposed Park & Ride / Transit Super Stop locations, SunRail and LYNX Fixed-Route connections. This map indicates potential express services between Bartow and Lakeland, Winter Haven and Lakeland, Lakeland and Orlando (both Disney and possibly Downtown Orlando), and Lakeland and Tampa.

5.4.2 Private Services

Several intercity services could have a potential impact on regional transportation service to and from Polk County. The following is a list of the companies that provide intercity service through the TPO area, including station or pick up points within the TPO area.

- **Greyhound:** The primary route through the TPO area is along I-4. There are three stations in the TPO area including at 303 N. Massachusetts Avenue in Lakeland; 2885 Havendale Boulevard in Auburndale; 555 Avenue E NW in Winter Haven at the Winter Haven Transportation Center; and 20500 US 27 in Lake Wales. The Lakeland station is near the Lakeland Amtrak Station. The Winter Haven station is at the Transportation Center, which is good for intermodal connections. Locating the other stations with transit connections as well as Park & Ride facilities would improve connections between Polk County and Orlando as well as the Tampa area.
- **Red Coach USA:** The primary route through the TPO area is along I-4, with no station in Polk County. A potential station in Lakeland would improve connections between Polk County and Tampa as well as Orlando.
- **Florida Express Bus:** The primary route through the TPO area is along I-4. There is a station at the McDonalds at 3420 US 98 North. The McDonald's is located off of Interstate 4 Exit 32. A potential co-located station with a Park & Ride or other private and public providers would improve connections between Polk County and Orlando as well as the Tampa area.
- **HBCU Shuttle:** The primary route through the TPO area is along I-4, with no station in Polk County. A potential station in Lakeland would improve connections between Polk County and Tampa as well as Orlando.

5.4.3 Demand Analysis

Almost 82% of the workers in Polk County drive alone to work, which is slightly higher than the journey-to-work mode split for the state as a whole. Compared to the overall state distribution, a smaller proportion of people in Polk County use public transit to access work (0.5%) and a higher percentage uses carpool (11%).

According to the 2017 TDP, approximately 260,000 workers reside within Polk County. Polk County hosts an estimated 210,000 jobs. LEHD data shows that a majority (61%) of jobs in Polk County (128,710 jobs) are held by county residents, and the remaining 39% (81,000 jobs) are held by



workers from other parts of the state. The journey to work flows to Polk County are 8.1% from Hillsborough County (17,059 persons), 3.5% from Orange County (7,071 persons), 2.4% from Pasco County (5,051 workers), 2.3% from Osceola County (4,946 persons) and 2.2% from Pinellas counties (4,643 persons).

Approximately 50% of Polk County residents (131,290 workers) travel to other counties for employment. As indicated in the TDP, the journey-to-work flows from Polk County are 25.2% to Orange County (33,088 persons), 22.8% to Hillsborough County (29,974 persons), 5.6% to Osceola County (7,393 persons), 4.6% to Pinellas County (6,100 persons) and 2.4% to Pasco County (3,124 persons).

For the purposes of this Regional Transit Study, regional and interregional trips were analyzed. Travel flows were developed using the CFRPM v6.1, the adopted model for LRTP in FDOT District Five. Travel flows were created using three (3) different sets of districts – counties, sub-county districts and urbanized / non-urbanized areas – to provide a comprehensive perspective of inter-regional travel in the 10-county region. Tables and desire line maps showing person trip movements were created for each set for the 2015 (base year), 2040 and 2060 analysis years (*Regional Transit Study – Regional Travel Pattern and Market Analysis Report*).

Within the 10-county Study region, Polk County is projected to account for 14% of all trips both in Year 2040 and 2060, 2.8 million and 3.6 million daily trips, respectively. Polk County projected travel by trip purpose (Table 5.7) reflects an overall increase of 950 thousand daily trips (51%) by year 2040 and 1.7 million daily trips (93%) by year 2060.

Table 5.7: Polk County Projected Travel by Trip Purpose

Year	HBW	% HBW	HBO	% HBO	NHB	% NHB	Total	% Change
2015	477,288	26%	818,391	44%	557,238	30%	1,852,917	n/a
2040	716,194	26%	1,261,942	45%	824,751	29%	2,802,887	n/a
2060	894,359	25%	1,634,358	46%	1,046,343	29%	3,575,060	n/a
Net / % 2015 to 2040	238,906	50%	443,551	54%	267,513	48%	949,970	51%
Net / % 2015 to 2060	417,071	87%	815,967	100%	489,105	88%	1,722,143	93%
Net / % 2040 to 2060	178,165	25%	372,416	30%	221,592	27%	772,173	28%

Regional travel and market analysis reflects 92% of 2015 trips originating in Polk County remain within the County (91% for both Year 2040 and 2060, respectively). Of trips departing Polk County, 4% end in Orange County and 2% end in Osceola County (see Table 5.8). All other counties amount to 1% or less of trips originating in Polk County. Year 2040 and 2060 trend remain consistent with the base year 2015. Trips originating within the City of Lakeland account for 654,386 (23%) and 807,978 (23%) of projected “intra-county” trips in year 2040 and 2060, respectively.



Table 5.8: Polk County Travel to Study Area Counties

Polk County To:	Year 2015	Year 2040	Year 2060
Polk County	1,700,826 (92%)	2,554,116 (91%)	3,241,335 (91%)
Orange County	79,751 (4%)	116,729 (4%)	147,727 (4%)
Osceola County	33,159 (2%)	72,641 (3%)	100,863 (3%)
All Other Counties	39,181 (<1% per County)	59,401 (<1% per County)	85,135 (<1% per County)
Total	1,852,917 (100%)	2,802,887 (100%)	3,575,060 (100%)

5.4.4 Subarea Regional Transit Vision

Based upon the Polk TPO's plans and programs including the TDP, as well as the demand analysis and the analysis contained in the Long Range Transportation Plan, an interim and long term vision has been outlined for consideration by both the Central Florida MPO Alliance and the Polk TPO. This vision contains a local element and a regional element. The local element is anticipated to have the greatest impact on local transportation conditions, whereas the regional element could affect transportation customers that travel across MPO / TPO jurisdictional boundaries. The Polk TPO Regional Transit Vision Framework is outlined below.

- **Interim Term Vision**

- **Local:** The local element of the interim term vision consists of improvements to the local bus system, the Citrus Connection, as identified in the Long Range Transportation Plan and the TDP. These include improving the headways of the current routes, extending service to evenings and weekends and introducing new routes. There are also many capital improvements projects in the TDP that will improve transit in Polk County, including but not limited to new buses, passenger amenities such as bus stops and shelters, a new intermodal facility in Lakeland and an east Polk maintenance facility. In addition to the service improvements, there are several local projects that will assist in the provision of a higher quality transit service. These include, but are not limited to the following items:
 - The *US 98 Corridor Transit Design Report* outlines phasing and design decisions for premium bus service along US 98. Initial investment should focus on signal priority and access management and later move to station construction and corridor redevelopment. This project will connect I-4 and Downtown Lakeland until such time that SunRail is expanded to Lakeland.
 - Central Lakeland TSP Feasibility Study Provides financial and technical justification for TSP / bus queue jump lanes on three (3) state highways in Lakeland. The report identifies 17 signalized intersections that should be the focus of TSP implementation.
- **Regional:** During the agency participation element of this study, the Polk TAC requested that Chapter 341.302, *F.S.*, pertaining to the Florida Rail Enterprise Act and rail analyses conducted throughout Central Florida be noted in the recommendations. The TAC requested that the language in the Statutes guide FDOT Districts One and Five in current and future studies to better coordinate rail investments, particularly passenger rail



projects that support the needs that have been identified through Years 2040 and 2060. The TAC noted that addressing the co-existence of passenger and freight rail will be important to ensure that both types of rail service are viable in the future.

- The regional element of the interim term vision includes improvements to existing cross jurisdictional service, potential co-location of needed transit facilities with the private sector, implementation of Park & Ride facilities and a new cross jurisdictional service.
 - The Link 427 headway should be increased to 60 minutes, with the hours of operation extended and weekend service added within the next five years. This service should be coordinated with other LYNX as well as LakeXpress services.
 - Implementation of Park & Ride facilities at Winter Haven, Haines City, and Davenport to support Polk County and bus interregional services.
 - A proposed feeder route from Winter Haven and the above mentioned Park & Ride facilities to the future Poinciana SunRail Station should be implemented within the next five (5) years.
 - Investigation of, and if feasible, implementation of express service between Lakeland and Disney, to connect with planned LYNX and LakeXpress services; and express service between Lakeland and the Poinciana SunRail station.
 - FDOT's upcoming *I-4 Managed Lanes Master Plan* through Polk County (and those that are underway in Districts Seven and Five) should incorporate intercity express bus operations that support more timely / efficient transit service until intercity and / or high-speed rail is implemented in the future.
 - Investigation into a joint I-4 Park & Ride facility that would contain a Transportation Center for public transit service and the private operators such as Greyhound, Red Coach, Florida Express Bus and HBCU Shuttle. This Park & Ride facility could also be used for the Lakeland to Disney, and Lakeland to Poinciana express service.
 - An Intermodal Planning Study will be conducted for a potential new facility in Downtown Lakeland that could include a parking garage, relocated transit terminal, potential Greyhound service and an overpass to the Downtown Amtrak Station. The garage could be designed with additional capacity to support a future commuter / intercity rail / intercity bus service to / through Lakeland.
- **Long Term Vision**
 - **Local:** The local element of the long term vision continues improvements to the local bus system's headways and service coverage, and includes new routes and corridors as identified in the TDP and the LRTP.
 - **Regional:** The regional element of the long range vision potentially includes commuter rail connections to the MetroPlan Orlando area; increased connections to Orlando and Tampa, and increased cooperation with the private transit providers.
 - One bus route explored in the TDP that may have a potential impact to regional transit travel is the Lakeland to Disney Express. This commuter express route would travel between a Lakeland Park & Ride and the Disney Transportation Center or Disney Springs Transit Center. Based on the MetroPlan Orlando, and Lake~Sumter MPO portion of the Regional Vision Plan, this route would connect to the Disney Transportation Center to meet with the US 192 corridor service and the US 27 corridor service.



- The 2017 TDP contains a technical memorandum which evaluates the possible extension of SunRail into Polk County, in support of the 2040 Long Range Transportation Plan Update. The memorandum covers potential phasing alternatives, station site considerations, feeder bus services, and institutional challenges. The memo also provides estimates of 2040 ridership, and capital and operating costs.
- The report identifies four (4) viable locations: two (2) in Haines City, and in one (1) each in Auburndale and Lakeland. The report also outlines the issues and opportunities regarding implementation of the SunRail extension, including but not limited to low ridership projections and high potential capital costs. The report identifies several institutional challenges, including the complexity of the existing interlocal agreements.
- The report provides a list of action steps that might address these potential barriers. Key recommendations include: developing a plan for bus connections to Poinciana SunRail station; monitoring existing ridership from Polk residents and periodically updating ridership forecasts; at the appropriate time, undertake a PD&E study of alternatives; and initiate discussions with key local and state entities such as CFCRC, FDOT, and CSX. Should these efforts be successful, the next steps would include developing planning, environmental and engineering documents, and making application for federal New Starts funds (or successor program).
- As indicated in the analysis, the 2017 TDP outlines a logical program for an alternatives scenario in which fixed route bus connections are extended to the Poinciana SunRail station in Osceola County, then SunRail is logically extended in a city by city manner. This logical extension concept is one of the backbones of the Regional Transit Vision Framework.

5.5 SPACE COAST (BREVARD COUNTY)

For the Space Coast TPO portion of the Regional Transit Vision Framework, several current planning sources were utilized to assist in developing an intermediate term and long term vision. First, from a planning standpoint, the TPO's *2040 Long Range Transportation Plan (LRTP)* provided a financially-constrained plan for the TPO service area. The LRTP also provided an illustrated vision for the Brevard County transportation system in the future, including transit and cross jurisdictional connections. This vision map is not constrained by financial resources or the plans of surrounding counties. In addition, the *2018-2027 Space Coast Area Transit-Transit Development Plan Major Update* (August 2017) evaluation of current and future transit service improvements was utilized to assist in developing the intermediate and long term transit vision. Finally, the TPO recently completed the *Passenger Rail Station Location Study* (March 2016), the recommendations of which have a potential impact on cross jurisdictional service, and were utilized in this report.

5.5.1 Public Services

As noted in the TDP, Space Coast Area Transit (SCAT) currently operates buses on 19 local routes, one dial-a-bus, paratransit service, vanpools, and the Volunteers-In-Motion program. A majority of the routes operate Monday through Saturday. Service spans from approximately 6:00 a.m. to 11:30 p.m., with an average of 60-minute frequencies and seven of those routes operating at 30-minute



frequencies during the peak period. SCAT operates limited Sunday service and limited later evening routes.

The LRTP continues to provide financial support for local public transit service. This support stems from public comments and local plan review. Both are consistent on the importance of supporting SCAT and emphasis of public transportation as an alternative transportation mode. According to the LRTP document, there is also demonstrated support for the improvement of transit-related infrastructure such as bus stop amenities like shelters and benches. In addition to bus transit, there is local plan and public support for examining the possibility of passenger rail routes on the FEC Railway or Amtrak railway, as well as improving access to rail facilities to improve intermodal access. Connections to surrounding regional activity centers outside of Brevard County are also outlined in local plans and programs. However, the funding in the cost feasible plan is limited to supporting only the continuation of existing service. The plan indicates the TPO will continue to seek additional transportation funding strategies that will support the expanded transit needs of Brevard County.

The Space Coast TPO LRTP goes into extensive detail regarding the future of transit, Brevard County, and the region. It outlines a detailed plan for not only highway improvements, but bike / pedestrian, complete streets and new fixed route and fixed guideway transit facilities. The US 1 corridor, including the US 1 roadway and the FEC railroad, is the backbone of the future transit system plan. The potential transit configuration includes intercity rail provided by All Aboard Florida (now Brightline) with a station in Cocoa, regional commuter rail extending from Micco on the south to Mims on the north, and Bus Rapid Transit (BRT) along US 1. The plan also indicates connections to Orlando via two express bus services, as well as future commuter rail service along SR 528 from OIA to Port Canaveral and another service along the Pineda / Ellis / NASA Boulevard corridor from OIA to the planned Melbourne multi-modal regional hub.

With a locally-proposed stop at Cocoa, the Brightline / FEC corridor provides high speed passenger rail connections to Miami, Fort Lauderdale and West Palm Beach to the south, Orlando to the east via SR 528, and a potential future connection to Jacksonville to the north via the FEC. With regard to commuter rail along the FEC corridor, the plan proposes regional commuter rail stops at the county's original rail stations in Titusville, Cocoa, Eau Gallie, Melbourne and Palm Bay. The plan also suggests new station locations at Melbourne International Airport and the Space Coast Regional Airport in Titusville. The concept relies on BRT along US 1 to provide connections from commuter rail stations to locations in between.

It should be noted that the Space Coast 2040 LRTP was based, in part, on the 2012 SCAT TDP. SCAT recently completed a major update of the TDP (2017), which contains updated local transit plans and projects, as well as the identification of unmet transit needs. Much like the LRTP, the SCAT TDP identifies transit system needs and estimates the future revenue streams available. The TDP's cost feasible plan includes the maintenance of the existing fixed route system and related paratransit service. The additional transit service included in the 10-year cost feasible plan includes only one (1) new route, the Heritage Parkway, which adds service in West Palm Bay. The capital program includes the replacement of and additional vehicles; engineering and design associated with facility upgrades for a new operations and maintenance facility / operating base; improved infrastructure at bus stops, including benches, shelters, bicycle storage facilities, ADA accessibility, and other infrastructure; security upgrades; improvements to existing operations and maintenance facilities; update and



replace hardware and software systems used in the administration, operation, planning, management, and maintenance of transit services; procurement of an integrated information system to support vehicle location, operations and dispatch management; and operations planning studies designed to provide both focused service improvements as well as comprehensive restructuring of the existing transit network to achieve better, more cost-effective service to meet growth in mobility demand .

The unfunded needs outlined in the SCAT TDP include service improvements such as enhancements to existing routes related to frequency (better headways), extended service hours (early and late hour service), and / or providing additional days of service (adding Saturday / Sunday service). This also includes service expansion, including new routes. Based on a transit demand assessment, public involvement activities and the 2040 LRTP, the TDP contains recommendations for new services. The new services are designed to capture emerging and underserved transit markets, and provide connectivity throughout Brevard County. With regard to cross-jurisdictional travel, the TDP proposes two (2) new fixed route services to Barefoot Bay and Sebastian. These new services would travel along US 1 and into Indian River County with service ending at the Walmart Super Center on US 1 in Sebastian, and operate seven (7) days a week with a 120-minute headway. It should be noted that the total round trip distances for these services are 50 miles (Melbourne to Sebastian via US 1) and 40 miles (Palm Bay-Barefoot Bay-Sebastian via US 1). The TDP also contains four (4) new proposed circulator services, as well as new flex services in rural areas that would provide connections to existing transit service. Potential capital / infrastructure improvements that are unfunded in the TDP include the new vehicles to support the new service; additional bus stop infrastructure; construction of a new bus operations center; construction of new transit / transfer hubs; construction of new Park & Ride lots; technology improvements; and transit signal priority.

Finally, the SCAT TDP makes note of cross jurisdictional services. For example, the document indicates that areas which could present opportunities for express service include connections to the Kennedy Space Center, Melbourne Airport, to and from Orlando, and access to the beach. The TDP notes that work commuter trips flowing into and out of the county are dispersed throughout north, central, and south Florida, making it difficult to create an efficient route for public transit to service these neighboring areas. The TDP further notes that the need for regional connection by bus transit has not been identified in recent Brevard County plans or programs, and mentions that the 2040 LRTP identifies rail as the best mode for future development within the county and region. Both bus and rail connections to surrounding counties are beyond the ten-year horizon for the SCAT TDP. The TDP, however, notes that as the County continues to grow and after Brightline is operational from Miami to Orlando, the cross jurisdictional issue should be revisited and coordinated with neighboring MPOs and transit providers.

Finally, the TPO recently completed the *Passenger Rail Station Location Study* (March 2016), the recommendations of which have a potential impact on cross jurisdictional service. The purpose of the study was to support the County's transit vision (as identified in the 2040 LRTP), and identify, evaluate and select potential passenger rail stations for local and regional rail corridors. With regard to a potential Brightline intercity rail station in Brevard County, nine candidate stations were identified. The highest ranked location was near Clearlake Road in Cocoa, which was found to have



good highway access, developable land, is near Port Canaveral, and allows for potential rail expansion to the north (Jacksonville).

5.5.2 Private Services.

Several intercity services could have a potential impact on regional transportation service to and from Brevard County. The following is a list of the companies that provide intercity service through the TPO area, including station or pick up points within the TPO area.

- **Greyhound:** The primary routes through the TPO area are along I-95. There are four stations in the TPO area including at gas stations in Titusville, Rockledge, and Melbourne. Locating the other stations with transit connections as well as Park & Ride facilities along I-95 would improve connections between Brevard County and Daytona Beach areas, as well as to south Florida.
- **Florida Express Bus:** The primary route through the TPO area is along I-95. They pick up and drop off at all cruise terminals at Port Canaveral. A recent FODT study indicated there were pick up locations at McDonald's in Cocoa Beach and Palm Bay, but the service web site does not currently list those locations. A potential co-located station with a Park & Ride or other private and public providers would improve connections between Brevard County and Orlando as well as the Daytona Beach area.

5.5.3 Demand Analysis

The TDP contains information that is helpful in assessing work trip origins and destinations. According to the TDP, approximately 92% of Brevard residents both live and work within the county, with only 7% traveling to other counties for employment (primarily Orange County). The primary mode of transportation to work in Brevard County is driving alone in a private vehicle (81%), followed by carpooling (7.2%), working at home (6.4%), other means (3.6%), walking (1.3%) and public transportation (0.6%). Approximately half of the residents travel 20 minutes or more for work, with 29% traveling a distance of 30 minutes or more.

As indicated in the TDP, the journey-to-work flows from Brevard County are 8.9% to Orange County (18,936 persons), 2.1% to Hillsborough County (4,457 persons), 2.0% to Seminole County (4,160 persons), 1.9% to Duval County (4,088 persons), 1.7% to Indian River County (3,672 persons), 1.7% to Palm Beach County (3,660 persons), 1.7% to Broward County (3,534 persons), 1.5% to Miami Dade County (3,287 persons), 1.5% to Volusia County (3,236 persons) and 11.3% to other counties (24,089 persons). The journey-to-work flows to Brevard County are 3.9% from Orange County (7,235 persons), 1.9% from Volusia County (3,634 persons), 1.6% from Osceola County (2,985 persons), 1.6% from Indian River County (2,957 persons), 1.4% from Seminole County (2,657 persons), 1.3% from Hillsborough County (2,434 persons), 1.2% from Palm Beach County (2,212 persons), 1.1% from Polk County (2,091 persons), 1.0% from Broward County (1,862 persons) and 10.7% from other counties (20,085 persons). Of the employed residents of Brevard County, approximately 139,000 of the 212,500 residents (65.6%) work in Brevard County.

For the purposes of this effort, regional and interregional trips were analyzed. Travel flows were developed using the CFRPM v6.1, the adopted model for LRTPs in FDOT District Five. Travel flows were created using three (3) different sets of districts – counties, sub-county districts and urbanized / non-urbanized areas – to provide a comprehensive perspective of inter-regional travel in



the 10-county region. Tables and desire line maps showing person trip movements were created for each set for the 2015 (base year), 2040 and 2060 analysis years (*Regional Transit Study – Regional Travel Pattern and Market Analysis Report*).

Within the 10-county Regional Transit Study region, Brevard County is projected to account for 10% of all trips both in Year 2040 and 2060, 1.9 million and 2.3 million daily trips, respectively. Brevard County projected travel by trip purpose (Table 5.9) reflects an overall increase of 450 thousand daily trips (31%) by year 2040 and 799 thousand daily trips (55%) by year 2060.

Table 5.9: Brevard County Projected Travel by Trip Purpose

Year	HBW	% HBW	HBO	% HBO	NHB	% NHB	Total	% Change
2015	274,063	19%	681,272	47%	499,117	34%	1,454,452	n/a
2040	362,734	19%	919,161	48%	622,857	33%	1,904,752	n/a
2060	414,386	18%	1,109,626	49%	729,393	32%	2,253,405	n/a
Net / % 2015 to 2040	88,671	32%	237,889	35%	123,740	25%	450,300	31%
Net / % 2015 to 2060	140,323	51%	428,354	63%	230,276	46%	798,953	55%
Net / % 2040 to 2060	51,652	14%	190,465	21%	106,536	17%	348,653	18%

Regional travel and market analysis reflects 95% of 2015 trips originating in Brevard County remain within the County (92% for both Year 2040 and 2060, respectively). Of trips departing Brevard County, 2% end in Orange County and 1% end in Indian River County (see Table 5.10). All other counties amount to 1% or less of trips originating in Brevard County. Year 2040 and 2060 trend remain consistent with the base year 2015. Trips originating within the City of Palm Bay account for 341,122 (18%) and 412,413 (18%) of projected “intra-county” trips in year 2040 and 2060, respectively. Trips originating within the City of Melbourne account for 264,127 (14%) and 285,150 (13%) of projected “intra-county” trips in year 2040 and 2060, respectively.

Table 5.10: Brevard County Travel to Study Area Counties

Brevard County To:	Year 2015	Year 2040	Year 2060
Brevard County	1,376,595 (95%)	1,748,370 (92%)	2,028,648 (90%)
Indian River County	16,438 (1%)	55,907 (3%)	79,318 (4%)
Orange County	22,999 (2%)	29,737 (2%)	42,209 (2%)
All Other Counties	38,420 (<1% per County)	70,738 (<1% per County)	103,230 (<1% per County)
Total	1,454,452 (100%)	1,904,752 (100%)	2,253,405 (100%)

5.5.4 Subarea Regional Transit Vision Framework

Based upon the Space Coast TPO's plans and programs including the SCAT TDP, as well as the demand analysis and the analysis contained in the LRTP, an intermediate and long-term vision has



been outlined for consideration by both the Central Florida MPO Alliance and the Space Coast TPO. This vision contains a local element and a regional element. The local element is anticipated to have the greatest impact on local transportation conditions, whereas the regional element could affect transportation customers that travel across MPO / TPO jurisdictional boundaries. The Space Coast TPO Regional Transit Vision Framework is outlined below.

- **Interim Term Vision**

- **Local:** The local element of the interim term vision consists of improvements to the SCAT bus system, as identified in the LRTP and the TDP. These include improving the headways of the current routes, extending service to evenings and weekends and introducing new routes. There are also many capital improvements projects in the TDP that will improve transit in Brevard County, including but not limited to new buses, passenger amenities such as bus stops and shelters, and a new administrative, operations and maintenance facility.

In addition to the service improvements, there are several local projects that will assist in the provision of a higher quality transit service, and pave the way for interregional service. These include, but are not limited to the following items.

- The US 1 BRT from Mims to Micco (32 miles), should be incrementally implemented, with initial investment focused on signal priority and access management. The project would later move to station construction and corridor redevelopment.
- The Fiske / Stadium BRT (8 miles) would run from the intermodal terminal in Downtown Cocoa to a new intermodal terminal at Viera Government Center.
- The SR 520 BRT (9 miles) would run from Clearlake Road to a new intermodal terminal at SR A1A. The initial investment should be focused on TSP and access management and later move to station construction and corridor redevelopment.
- **Regional:** The regional element of the intermediate term vision includes station improvement to the Brightline intercity rail service, new express routes and potential co-location of transit facilities with the private sector.
 - Brevard County should work with Brightline intercity rail system to locate an intermodal station at Clearlake Road near SR 528 / FEC and US 1.
 - Brevard County should work with FDOT and Port Canaveral to develop a multi-modal connection between US 1 and the port facilities.
 - Considerations should be given to co-locating private and public services, as well as Park & Ride at that station / terminal. This facility would contain a transit center for public transit service and the private operators such as Greyhound and Florida Express Bus, as well as existing and proposed SCAT services.
 - Two (2) new express bus services should be initiated, including the Eastern State College campuses to UCF express, which would connect to a proposed LYNX intermodal center at UCF; and a new express between Brevard County and OIA, to connect to the proposed LYNX intermodal center at OIA.

- **Long Term Vision**

- **Local:** The local element of the long-term vision continues improvements to the local bus system's headways and service coverage, and includes new routes and corridors. The



major improvements listed in the *Year 2040 Long Range Transportation Plan* should be considered for implementation, described as follows.

- A commuter rail system along the FEC that would connect Mims to Sebastian. This connection would serve several previous community train stations, new stations as well as the new Brevard / Cocoa Brightline station. The previous stations include ones in Titusville, Cocoa, Eau Gallie, Melbourne and Palm Bay. Additional stations would include, but not be limited to the Intermodal station at Clearlake Road in Cocoa and a Melbourne International Airport station.
- The SR A1A BRT from Port Canaveral to Melbourne (25 miles) should be incrementally implemented, with initial investment focused on signal priority and access management. The project would later move to station construction and corridor redevelopment.
- The Wickham / Minton BRT (27 miles) would run from the intermodal terminal at Viera Government Center to US 1 and Malabar Road. This project should be incrementally implemented, with initial investment focused on signal priority and access management. The project would later move to station construction and corridor redevelopment.
- The Babcock BRT (9 miles) would run from Downtown Melbourne to a new intermodal terminal at Emerald City.
- The US 192 BRT (8 miles) would run from Downtown Melbourne to a new intermodal terminal at St. John's Heritage Parkway.
- **Regional:** The regional element of the long range vision potentially includes implementation of rail service to Orlando. The 2040 LRTP identifies two commuter rail connections, both from Brevard County to the Orlando International Airport. One is proposed to run along SR 528 between Port Canaveral and the Orlando International Airport. The other is proposed to run between the Melbourne multimodal hub and OIA via the Pineda Extension / I-95 / Ellis Road / NASA Boulevard. Presumably, the corridor would extend through the Ranch area of Orange County (Northeast Sector Plan area of Osceola County) and connect to OIA.

One key to the Regional Transit Vision framework is the extension of the Brightline intercity rail service to OIA, with local stations strategically placed to allow for commuter rail service to run between intercity rail service. This concept would replace the proposed commuter rail service along SR 528 between Cocoa and OIA, but not between Cocoa and Port Canaveral. In order to serve the Deseret Ranch area of Orange County, there could be an intermediate stop on SR 528. Should the Brightline concept be advanced and implemented, a multi-modal connection would be required between the proposed Cocoa / Brevard intermodal station at Clearlake / US 1 and the Port to replace the proposed SR 528 commuter rail system. This could take the form of a host of modal options such as, but not limited to, commuter rail, BRT, automated people mover, light rail transit, streetcar, limited service bus or enhanced express bus.

Regarding the Pineda Extension / I-95 / Ellis Road / NASA Boulevard commuter rail system between Melbourne and OIA, there is some question as to whether the demand



between Brevard County and Orange County is enough to warrant intercity rail and two commuter rail lines. As indicated on the map, this corridor between Melbourne and OIA should be preserved should the demand be exhibited beyond 2060. One potential strategy is to run enhanced express bus between these two (2) points to build ridership demand, and then transition to another fixed guideway facility such as commuter rail, or light rail transit, or continue enhanced express bus.

5.6 RIVER TO SEA (VOLUSIA / FLAGLER COUNTIES)

For the River to Sea TPO portion of the Regional Transit Vision Framework, several current planning sources were utilized to assist in developing an intermediate term and long-term vision. First, from a planning standpoint, the TPO's *2040 Long Range Transportation Plan (LRTP)* provided a financially-constrained plan for the TPO service area. In addition, the *2017-2026 Transit Development Plan (TDP) Major Update* evaluation of current and future transit service improvements was utilized to assist in developing the intermediate and long-term transit vision. The Flagler County *2016-2025 Transit Development Plan (TDP)*, and the *2016 TDP Annual Update* were utilized for this analysis. Finally, FDOT recently completed the *Volusia County Connector Study* (February 2017), the recommendations of which have a potential impact on cross jurisdictional service, and were utilized in this report.

5.6.1 Public Services

Votran, established in 1975, is the transit service provider for Volusia County Government. Votran provides public transportation to the urban areas of the County with 25 fixed routes, two (2) flex routes, three (3) SunRail peak hour routes, and paratransit Gold Service for older adults and persons with disabilities. A majority of Votran's fixed routes operate Monday through Saturday with an average of 60-minute headways. Votran operates limited night and Sunday service. Service spans from approximately 6 a.m. to 7 p.m. extending to around 12 a.m. for routes with late evening service. Votran also functions as the CTC, providing services under the Transportation Disadvantaged (TD) program, rural trips, and agency-sponsored trips. McDonald Transit Associates (MTA) has been contracted by Volusia County as the firm to operate Votran's fleet of vehicles.

As stated in the LRTP, the River to Sea TPO LRTP continues to provide support for local public transit service by reserving a portion of the TMA set-aside to provide funding of roughly \$31 million between 2019 and 2040. This funding is limited to supporting only the continuation of existing service. The River to Sea TPO, however, indicates it will continue to seek additional transportation funding strategies that will support the expanded transit needs of this planning area. The long range planning efforts of the TPO also recognize the need to continue the implementation of SunRail service. SunRail *Phase II North*, which is an extension from the existing DeBary station to the proposed DeLand Amtrak station, is anticipated to be funded within the initial five-year period. Additionally, there are two (2) highway-related projects which would support the SunRail extension to DeLand within the LRTP's Financially-Constrained Network. These include \$19 million for miscellaneous improvements to SR 44 to improve access to the DeLand SunRail station; and \$4 million for safety improvements and paved shoulders for Old New York Avenue from SR 44 to the DeLand Station. Although other studies have been completed and are underway to consider future transit expansion, the results of these efforts are not yet ready to be included in the cost feasible transportation plan. The TPO has continued its commitment to future rail alignments by supporting the protection of the rail envelope in the I-4 corridor within Volusia County.



Transit plans and projects, as well as unmet transit needs, are identified in the individual TDPs for both Voltran and Flagler County. Much like the LRTP, the Volusia TDP identifies transit system needs and estimates the future revenue streams available. Within Volusia County, operational funding is primarily provided by the County using ad valorem tax proceeds. System improvements are determined by the Volusia County Council. Flagler County adopted a TDP in August 2015 to expand their current demand-response system. This TDP will serve as the basis for defining public transit needs and is intended to serve as a 10-year strategic planning document. Volusia County adopted in late 2016 a 10-year major update of the TDP.

Volusia service improvements include enhancements to existing routes related to frequency, extended service hours, and / or providing additional days of service. This also includes service expansion with new routes. The new routes includes new fixed route service as well as municipal trolley / circulator service. As noted in the TDP, these service improvements are currently unfunded. If over the next 10 years additional resources become available and potential efficiencies can be identified, implementing some of the suggested alternatives may come to fruition. If funding is not secured, however, these improvements may occur outside of the planning horizon or not be implemented at all. The TDP also contains a list of capital and infrastructure improvements including, but not limited to, new vehicles, bus stop and customer amenities, new transfer facilities, new administrative and operations / maintenance facilities, and technology updates.

In addition to the route modifications and connections to the DeBary SunRail station, Voltran has identified plans for express routes in the previous 10-year TDP. FDOT initiated the Intermodal Transit Station Study (ITSS) along the US 92 / International Speedway Boulevard corridor to support the development of a multimodal transportation hub. The hub is planned to connect Volusia County with SunRail, Brightline, the FEC / Amtrak rail service, and other planned local premium transit service. For the ITSS project, five locations are being reviewed, with the highest location near the Daytona Beach International Airport terminal.

Finally, the Volusia TDP makes mention of cross-jurisdictional services. Regarding regional connectors to Flagler, Seminole, Brevard, and Lake Counties, the TDP indicates that as demand increases and transit services from surrounding counties end closer to Volusia County's jurisdictional lines, there may be opportunities to provide interregional connections. The TDP suggests these regional service connections are in-line with the *2060 Florida Transportation Plan*. As with the majority of the TDP recommendations, funding would be necessary to make these regional connections.

The *Flagler County 2016-2025 TDP* outlines analysis and recommendations regarding existing transit services in Flagler County. The majority of these services are included in the TD program, run by the County's Transportation Department. This service is on-call and pre-registered. There are funds available for fixed route bus service because a portion of the County has been recently included into the Palm Coast-Daytona Beach-Port Orange UA. The Flagler TDP analyzed six (6) routes and other transit services, and recommended three (3) fixed routes services as well as three (3) zonal services. The fixed routes would operate from 6:00 a.m. to 7:00 p.m., on 50 to 75-minute headways (depending on the route), Monday through Saturday. The zonal services would operate Monday through Saturday from 6:00 a.m. to 7:00 p.m., and would be on call service.



The purpose of the *Volusia County Connector Study* was to identify and evaluate the need for premium transit service between SR 46 in Sanford and US 1 near the existing Votran Transit Plaza in Daytona Beach. The study evaluated a “No-Build” Alternative and four (4) Refined “Build” Alternatives for providing premium transit service between the major activity centers in the study area and included the development and analysis of alternatives to improve connectivity with SunRail.

While an extension of the SunRail commuter rail system from DeBary / DeLand to Daytona Beach was not recommended for immediate implementation, the study did suggest several short term and longer term premium services. For example, the study indicated that BRT should be considered for implementation in both the US 17/92 and US 92 corridors in the mid-term period after the local service improvements from the West Volusia COA and Votran TDP update are implemented. The US 17/92 BRT would run from DeBary SunRail station to Downtown DeLand, while the US 92 BRT would run from the intermodal terminal in Downtown Daytona Beach to a new intermodal terminal on the west side of town, near the International Speedway and Daytona Beach International Airport. The study also indicated that a new express bus route using the future managed lanes to be developed within I-4 would also have merit, with a direct connection to either the DeBary SunRail station or an extended route to Downtown Orlando. With such service, smaller Park & Ride facilities could initially be developed along I-4 at the SR 44 and SR 472 interchanges to complement the existing Park & Ride at Saxon Boulevard.

The ultimate improvement would be a BRT system providing service connecting southwest Volusia with DeLand, and further from DeLand to Daytona Beach. This connection would be provided with two (2) BRT services, one operating from the existing DeBary SunRail station and the other from the planned DeLand SunRail station to Daytona Beach. This improvement is envisioned as substantial premium transit service, with more frequent service and stops than an express bus service. In Daytona Beach, the services would connect with a new Westside Intermodal Station, and then continue to the existing Votran Transfer Plaza off US 1, using International Speedway Boulevard (ISB). The service from the DeBary SunRail station would operate on US 17/92 and US 92 / International Speedway Boulevard, with a total length of 36 miles. The service from a new DeLand SunRail station would operate on SR 44, US 17/92 and US 92, with a total length of 27 miles. For the DeBary to Daytona Beach BRT route, service was assumed to operate every 30 minutes during weekdays and weekends. The DeLand Station to Daytona Beach service would only operate during weekday peak periods with 30-minute frequency. Along both routes, the BRT service would operate in mixed traffic. To provide some level of priority to BRT vehicles, Business Access Transit (BAT) lanes, where BRT vehicles and right turn traffic would share the outside lane, are recommended.

5.6.2 Private Services

Several intercity services could have a potential impact on regional transportation service to and from Volusia County. The following is a list of the companies that provide intercity service through the TPO area, including station or pick up points within the TPO area.

- **Greyhound:** The primary routes through the TPO area are along I-4 and I-95. There are four (4) stations in the TPO area, including at 138 S Ridgewood Avenue in Daytona Beach; 2995 SR 44 in New Smyrna Beach (Bus Stop Only); 3336 W Indian River Blvd in Edgewater (Bus Stop Only); and 6125 E Hwy 100 in Palm Coast (Bus Stop Only). The Daytona Beach station is 0.5 miles from the



Votran Transfer Station. The other stops are at gas stations. Currently, there are no stops along I-4 outside of Daytona Beach. Locating the other stations with transit connections as well as Park & Ride facilities along I-4 would improve connections between Volusia County and Orlando as well as between the DeLand / DeBary / Deltona and Daytona Beach areas.

- **Red Coach USA:** The previously-listed primary route through the TPO area was along I-95 to I-4. Currently, there is no service through the TPO area.
- **Florida Express Bus:** There are two (2) primary route through the TPO area, one is along I-4 and the other is along I-95. There is a station in Daytona Beach at 1034 North Nova Road. The Bus Depot is on Nova Road off 6th Street. A potential co-located station with a Park & Ride or other private and public providers would improve connections between Volusia County and Orlando as well as the Brevard County area.
- **HBCU Shuttle:** The primary route through the TPO area is along I-95 to I-4. There are no stations in the Volusia County area, except during the holidays. During certain times of the year, the shuttle runs between Bethune Cookman College, the UCF-Daytona Campus, Stetson, and Embry Riddle to Miami, Pompano, West Palm Beach and Ft. Pierce.

5.6.3 Demand Analysis

The TDP contains helpful information for assessing work trip origins and destinations. According to the TDP, approximately 80% of residents both live and work within Volusia County, with approximately 19% traveling to other counties for employment (primarily Orange and Seminole Counties). The primary mode of transportation to work in the County is driving alone in a private vehicle (80%), followed by carpooling (9%). Approximately 1% of Volusia County residents use transit to travel to / from work, which is lower than the statewide average of 2.1%. The TDP indicates the average commute time in Volusia County is higher than the Florida average, with nearly 20% of residents traveling 20-24 minutes to work. The largest percentage of workers in Volusia County have a commute time of 30 minutes or more.

As indicated in the TDP, the journey-to-work flows from Volusia County are 13.2% to Orange County (25,523 persons), 9.9% to Seminole County (19,277 persons), 3.4% to Duval County (6,501 persons), 2.0% to Hillsborough County (3,951 persons), 1.9% to Brevard County (3,634 persons), 1.7% to Lake County (3,346 persons), 1.4% to Flagler County (2,672 persons), 1.0% to Polk County (2,024 persons), 1.0% to Pinellas County (1,850 persons) and 11.7% to other counties (22,795 persons). The journey to work flows to Volusia County are 3.9% from Orange County (6,097 persons), 3.9% from Flagler County (6,007 persons), 3.6% from Seminole County (5,601 persons), 2.2% from Lake County (3,387 persons), 2.1% from Brevard County (3,236 persons), 1.7% from Duval County (3,212 persons), 1.4% from Hillsborough County (2,117 persons), 1.3% from Putnam County (2,093 persons), 1.2% from Marion County (1,821 persons) and 12.7% from other counties (19,739 persons).

According to the TDP, commuter patterns within Flagler County indicate a high internal capture, with 2,400 residents traveling between Palm Coast and Bunnell. Palm Coast has over 4,600 trips that originate and end in its jurisdiction. 56% of Flagler County commuters live and work in the County, while approximately 12% of Flagler County commuters reside in Volusia County. Fewer than 6% of Flagler County commuters have an origin in Brevard, Putnam and Orange Counties. The predominate



work destination for Flagler County residents is within Flagler County. Approximately 5,317 of Flagler County residents commute to Volusia County.

The journey-to-work flows from Flagler County are 19.7% to Volusia County (5,317 persons), 9.0% to St. Johns County (2,445 persons), 8.7% to Duval County (2,365 persons), 2.9% to Alachua County (782 persons), 2.9% to Orange County (782 persons), 1.7% to Marion County (457 persons), 1.5% to Clay County (406 persons), 1.3% to Putnam County (347 persons) and 13.2% to other counties (4,004 persons). The journey to work flows to Flagler County are 12.4% from Volusia County (2,245 persons), 4.3% from St. Johns County (779 persons), 3.4% from Duval County (623 persons), 2.2% from Orange County (402 persons), 1.9% from Putnam County (352 persons), 1.5% from Brevard County (280 persons), 1.2% from Lake County (223 persons), 1.2% from Marion County (216 persons) and 15.8% from other counties (2,853 persons).

For the purposes of the Regional Transit Study, regional and interregional trips were analyzed. Travel flows were developed using the CFRPM v6.1, the adopted model for L RTPs in FDOT District Five. Travel flows were created using three (3) different sets of districts – counties, sub-county districts and urbanized / non-urbanized areas – to provide a comprehensive perspective of inter-regional travel in the 10-county region. Tables and desire line maps showing person trip movements were created for each set for the 2015 (base year), 2040 and 2060 analysis years (*Regional Transit Study – Regional Travel Pattern and Market Analysis Report*).

Volusia County

Within the 10-County Study region, Volusia County is projected to account for 9% of all trips both in years 2040 and 2060, 1.8 million and 2.2 million daily trips, respectively. Volusia County projected travel by trip purpose (Table 5.11) and reflects an overall increase of 395,000 daily trips (27%) by year 2040 and 712,000 daily trips (49%) by year 2060.

Table 5.11: Volusia County Projected Travel by Trip Purpose

Year	HBW	% HBW	HBO	% HBO	NHB	% NHB	Total	% Change
2015	249,630	17%	743,236	51%	455,795	31%	1,448,661	n/a
2040	299,646	16%	963,170	52%	580,920	32%	1,843,736	n/a
2060	330,663	15%	1,140,859	53%	689,029	32%	2,160,551	n/a
Net / % 2015 to 2040	50,016	20%	219,934	30%	125,125	27%	395,075	27%
Net / % 2015 to 2060	81,033	32%	397,623	53%	233,234	51%	711,890	49%
Net / % 2040 to 2060	31,017	10%	177,689	18%	108,109	19%	316,815	17%

Regional travel and market analysis reflects 88% of 2015 trips originating in Volusia County remain within the County (87% and 86% for Year 2040 and 2060, respectively). Of trips departing Volusia County, 5% end in Seminole County, 3% end in Orange County, and 2% end in Flagler County (see Table 5.12). All other counties amount to 1% or less of trips originating in Volusia County. Year 2040



and 2060 trend remain consistent with the base year 2015. Trips originating within the City of Daytona Beach account for 539,193 (29%) and 665,558 (31%) of projected “intra-county” trips in year 2040 and 2060, respectively.

Table 5.12: Volusia County Travel to Study Area Counties

Volusia County To:	Year 2015	Year 2040	Year 2060
Volusia County	1,270,600 (88%)	1,597,649 (87%)	1,857,134 (86%)
Seminole County	71,188 (5%)	90,816 (5%)	101,410 (5%)
Flagler County	25,225 (2%)	50,859 (3%)	72,360 (3%)
Orange County	42,479 (3%)	45,558 (2%)	52,287 (2%)
All Other Counties	39,169 (1% or less per County)	58,854 (<1% per County)	77,360 (<1% per County)
Total	1,448,661 (100%)	1,843,736 (100%)	2,160,551 (100%)

Flagler County

Within the 10-county study region, Flagler County is projected to account for 2% of all trips both in years 2040 and 2060, 459,000 and 602,000 daily trips, respectively. Flagler County projected travel by trip purpose (Table 5.13) reflects an overall increase of 186 thousand daily trips (68%) by year 2040 and 329 thousand daily trips (120%) by year 2060.

Table 5.13: Flagler County Projected Travel by Trip Purpose

Year	HBW	% HBW	HBO	% HBO	NHB	% NHB	Total	% Change
2015	51,459	19%	157,743	58%	64,206	23%	273,408	n/a
2040	88,295	19%	259,750	56%	111,775	24%	459,820	n/a
2060	109,756	18%	342,394	57%	150,420	25%	602,570	n/a
Net / % 2015 to 2040	36,836	72%	102,007	65%	47,569	74%	186,412	68%
Net / % 2015 to 2060	58,297	113%	184,651	117%	86,214	134%	329,162	120%
Net / % 2040 to 2060	21,461	24%	82,644	32%	38,645	35%	142,750	31%

Regional travel and market analysis reflects 64% of 2015 trips originating in Flagler County remain within the County (66% and 67% for Year 2040 and 2060, respectively). Of trips departing Flagler County, 26% end in Volusia County, 3% end in Orange County, and 2% end in Polk County (see Table 5.14). All other Counties amount to 2% or less of trips originating in Flagler County. Year 2040 and 2060 trends remain consistent with the base year 2015.



Table 5.14: Flagler County Travel to Study Area Counties

Flagler County To:	Year 2015	Year 2040	Year 2060
Flagler County	175,863 (64%)	305,189 (66%)	404,615 (67%)
Volusia County	70,774 (26%)	103,247 (22%)	123,878 (21%)
Orange County	8,231 (3%)	13,256 (3%)	18,492 (3%)
Polk County	5,466 (2%)	10,962 (2%)	14,027 (2%)
All Other Counties	13,074 (2% or less per County)	27,166 (<2% per County)	41,558 (<2% per County)
Total	273,408 (100%)	459,820 (100%)	602,570 (100%)

5.6.4 Subarea Regional Transit Vision Framework

Based upon the River to Sea TPO's plans and programs including the Volusia and Flagler TDPs, as well as the demand analysis and the analysis contained in the Long Range Transportation Plan, an intermediate and long term vision has been outlined for consideration by both the Central Florida MPO Alliance and the River to Sea TPO. This vision contains a local element and a regional element. The local element is anticipated to have the greatest impact on local transportation conditions, whereas the regional element could affect transportation customers that travel across MPO / TPO jurisdictional boundaries. The *River to Sea TPO Regional Transit Vision Framework* is outlined below.

- **Interim Term Vision**

- **Local:** The local element of the short term vision consists of improvements to the Votran bus system, as identified in the Long Range Transportation Plan and the TDP. These include improving the headways of the current routes, extending service to evenings and weekends and introducing new routes. There are also many capital improvements projects in the TDP that will improve transit in Volusia County, including but not limited to new buses, passenger amenities such as bus stops and shelters, a new intermodal facility in Daytona Beach and an updated administrative, operations and maintenance facility. In Flagler County, implementation of the three local fixed route bus services and three zonal services should be implemented as outlined in the TDP.

In addition to the service improvements, there are several local projects that will assist in the provision of a higher quality transit service and pave the way for interregional service. These include but are not limited to the following items.

- The US 17/92 BRT from DeBary SunRail station to Downtown DeLand, should be incrementally implemented, with initial investment focused on signal priority and access management. The project would later move to station construction and corridor redevelopment.
- The US 92 BRT would run from the intermodal terminal in Downtown Daytona Beach to a new intermodal terminal on the west side of town, near the International Speedway and International Airport. Like the US 17/92 project, the initial investment should be focused on signal priority and access management and later move to station construction and corridor redevelopment.



- Improvements in headways and service characteristics for Route 60, which runs between DeLand and Daytona, should be occur along with the implementation of the BRT projects.
- **Regional:** The regional element of the interim term vision includes improvements to the SunRail commuter rail service, and potential co-location of transit facilities with the private sector.
 - The SunRail commuter rail system should be extended from the current termini at DeBary to the planned station in DeLand. This service should be coordinated with other Votran bus services.
 - Considerations should be given to co-locating private and public services at either Votran's current Downtown terminal, or at the proposed intermodal terminal near the Speedway / Airport on the west side of Daytona Beach. This facility would contain a transit center for public transit service and the private operators such as Greyhound, Red Coach, Florida Express Bus and HBCU Shuttle. If located near I-95 and US 92, consideration should be given to inclusion of a Park & Ride facility that could also be used for: the US 92 BRT service between I-95 and Downtown Daytona Beach; for express / limited service on US 92 to DeLand via Votran Route 60 or successor route; a potential Daytona to Orlando express service; and parking for the Speedway and surrounding land uses.
- **Long Term Vision**
 - **Local:** The local element of the long term vision continues improvements to the local bus system's headways and service coverage, and includes new routes and corridors. The major improvement listed in the *Volusia County Connector Study* should be considered for implementation, described as follows.
 - A BRT system would connect southwest Volusia with DeLand, and DeLand to Daytona Beach. This connection would be provided by two BRT services, one operating from the existing DeBary SunRail station, and the other from the planned DeLand SunRail station to Daytona Beach. In Daytona Beach, the services would connect with a new Westside Intermodal Station, and then continue to the existing Votran Transfer Plaza off US 1, using International Speedway Boulevard (ISB). The service from the DeBary SunRail station would operate on US 17/92 and US 92 (ISB). The service from a new DeLand SunRail station would operate on SR 44, US 17/92 and US 92.
 - **Regional:** The regional element of the long range vision potentially includes implementation of Park & Ride facilities to compliment a new cross jurisdictional express bus service.
 - A new express bus route using the future managed lanes to be developed within I-4 from the Daytona Beach West Side Intermodal Terminal to Orlando, with a direct connection to either the DeBary SunRail station or an extended route to Downtown Orlando. With such service, smaller Park & Ride facilities could be developed along I-4 at the SR 44 and SR 472 interchanges to complement the existing Park & Ride at Saxon Boulevard. These locations could also be considered for accommodation of private services, especially at the SR 44 location.



5.7 METROPLAN ORLANDO (ORANGE, SEMINOLE, OSCEOLA COUNTIES)

For the MetroPlan Orlando portion of the Regional Transit Vision Framework, several current planning sources were utilized to assist in developing an intermediate term and long term vision. First, from a planning standpoint, the *MetroPlan Orlando 2040 LRTP* entitled "*Blueprint 2040*" provided a needs and financially-constrained plan for the central Florida MPO service area. In addition, the *LYNX Forward* evaluation of current and future transit service improvements was utilized to assist in developing the interim and long-term transit vision.

"*LYNX Forward*" is a strategic vision to advance transit services in the Central Florida region over the next 10 years and beyond. *LYNX Forward* consists of three (3) major efforts. First, is the TDP, which directs the agency over the next 10 years (2018-2028). The second is a *Route Optimization Study* (ROS). The goal of a ROS is to optimize transit service and ensure user travel patterns are served effectively while minimizing total system operating cost. This study will identify new route alignments, changes to existing route alignments and schedules, advanced integration with other travel modes, and innovative strategies for offering alternative mobility options for the region. Mobility options designed to speed regional travel such as regional express, commuter based express and limited stop services will ensure faster travel times through the service area. The components of the TDP and ROS form the basis for the *LYNX Transit Vision Plan*. This plan identifies public transportation needs over the long term horizon and how LYNX will meet the needs of the community. In addition to the *LYNX Forward* effort, there are several corridor studies finished or being conducted in the service area, including but not limited to SR 50, SR 436 and US 192. These studies were utilized in this analysis.

5.7.1 Public Services

LYNX transportation services began in the region in May of 1972 under the title of *Orange Seminole Osceola Transportation Authority* (OSOTA). The bus service became Tri-County Transit in 1984 and began doing business as LYNX in 1992. The official name was changed to Central Florida Regional Transportation Authority (CFRTA) in March of 1994. LYNX is responsible for providing and coordinating transportation services within the three (3) counties of Orange, Osceola, and Seminole. The three-county service area is approximately 2,540 square miles. Additionally, LYNX provides transit services on a contractual basis to the neighboring counties of Polk and Lake. The core service area includes 22 incorporated cities, with a mix of towns and unincorporated areas. The 2016 Census estimates reflect a population increase of 15.9% from 2010 to 2016, with 2.06 million residents living in the three-county service area.

LYNX provides directly-operated, fixed-route bus services to the Central Florida region 365 days a year. LYNX has a total of 77 bus routes (called Links) and 300 buses in the three-county area. Motorbus services include local bus service, express bus service, FastLink commuter bus service and a BRT (LYMMO) Downtown Orlando circulator service. In FY 2016, LYNX provided 26,259,736 passenger trips on Fixed Route, LYMMO, and express bus service. Most services are provided by standard 30', 35', 40' and 60' articulated transit vehicles. LYNX offers the Vanpool program which is utilized by many 5,310 sub-recipients as a means to offset the high costs of owning a paratransit vehicle or van. In FY 2016, LYNX provided 397,426 passenger trips through the Vanpool service.



LYNX also operates ACCESS LYNX and NeighborLink services that are currently performed under two separate third-party contracts with MV Transportation, which is responsible for virtually all aspects of these services: general management, trip-booking, scheduling, call center, service delivery, vehicle maintenance, data collection, and reporting. LYNX provides complementary, paratransit services to eligible individuals who are not able to use the regular fixed route bus service because of a disability or other limitations via the ACCESS LYNX service. The service is provided Monday to Sunday, above and beyond the ¾ mile service area. In FY 2016, LYNX provided 550,234 passenger trips through the ACCESS LYNX service.

NeighborLink Service began in June 2007 to offset impacts of reduced funding when traditional low performing fixed-routes were eliminated or reduced in the service area. There are currently 13 NeighborLink routes and the service is provided by a 15-passenger vehicle that operates on a route or as a demand response type service. The transportation is provided anywhere within the designated service area or to a LYNX local bus stop. In FY 2016, LYNX provided 171,441 passenger trips through the NeighborLink service. LYNX has transitioned to a Mobility Management / Broker service model in which mobility services shall be brokered by LYNX to a third-party Contractor to operate ACCESS LYNX and NeighborLink services.

MetroPlan Orlando adopted the 2040 LRTP called "*Blueprint 2040*" originally developed June 2014 and adopted January 2016. The plan includes an assessment of needs and an accounting of affordable projects, called the Cost Feasible Plan. The 2040 LRTP includes a \$15.1 billion investment of federal, state, and local dollars from 2019-2040 (not including toll roads) and about 40% of these funds will be spent on transit. A highly-connected public transportation system, envisioned in the *Blueprint 2040 Plan*, would provide residents with an array of travel options. A central component of *Blueprint 2040* is the decision to improve transit efficiency by concentrating growth along key transit corridors, which is in line with the recommendations outlined in the 2060 Plan. Other strategies that were developed and outlined in *Blueprint 2040* include:

- Developing a highly-connected public transportation system by developing bus rapid transit and passenger rail;
- Developing congestion management processes; and
- Improving freight movement.

The MetroPlan Orlando 2040 LRTP strongly correlates with the LYNX TDP by supporting LYNX's plans to improve service and focus on concentrating service along high-ridership primary corridors. Both organizations are also emphasizing the need to develop new forms of transit as well as redevelop and expand upon transit options which already exist. The LRTP identifies several corridors for transit capital development, including but not limited to SR 50, US 441, SR 436, and US 192.

5.7.2 Private Services

Several intercity services could have a potential impact on regional transportation service to and from the Orlando Metropolitan area. The following is a list of the companies that provide intercity service through the MPO area, including station or pick up points within the MPO area.

- **Greyhound:** The primary routes through the MPO area are along I-4 and US 192. There are two (2) stations in the MPO area including at 103 E Dakin Avenue in Kissimmee, immediately adjacent



to the LYNX Kissimmee Intermodal Station and SunRail Station; and at 555 N John Young Parkway, south of SR 50 in Orlando. Locating the Orlando stations near either LYNX Central Station or near a SunRail Station with transit connections would improve intermodal connections between Orlando and Daytona Beach, and Melbourne and Tampa areas.

- **Red Coach USA:** The primary route through the MPO area is along Florida's Turnpike. The Orlando station is at 1777 McCoy Road, near OIA. Locating the terminal at either the new OIA intermodal terminal, or at the Sand Lake Road or Meadow Wood SunRail Station would assist in intermodal connectivity.
- **Florida Express Bus:** There is one primary route through the MPO area, along I-4. There is a station in Kissimmee at the Walmart located at 1473 East Osceola Parkway. There are several in the Orlando area, most of which are in the visitor areas. These include 7056 S. Kirkman Road at the Grand Resort Hotel; 5419 International Drive at the corner of International Drive and Municipal Drive; 6807 Visitors Circle, off of Universal Boulevard north of International Drive; 9814 International Drive at the McDonald's located on the corner of International Drive and Hawaiian Court across from the Orlando Convention Center; and at the OIA. Co-locating an International Drive stop with the Destination Parkway Super Stop would improve intermodal connections.
- **MegaBus:** The primary route through the MPO area is along I-4. The Orlando area stops is at 902 N Semoran Blvd, at the corner of SR 436 and SR 50. Integration of that private bus stop location into a planned LYNX Superstop would accommodate intermodal connections.
- **Jet Set Line Express:** The service runs between Orlando, picking up at 3719 LB McLeod Rd, and south Florida, utilizing Florida's Turnpike.
- **BusLine Orlando-Miami:** The service picks up off international Drive at the I-Drive Grand Resort Front Desk, located at 7056 S Kirkman Road, and has an interim stop at the Kissimmee Station, located at 1471 E Osceola Parkway. Integration of the Kissimmee stop location either at the Tupperware SunRail station or at the Kissimmee Intermodal Station would assist in intermodal connections.
- **HBCU Shuttle:** The primary route through the MPO area is along I-4 and Florida's Turnpike. The only local station is at the Turkey Lake Road Turnpike Plaza.
- **GMG:** The primary route through the MPO area is along the Florida Turnpike. GMG has two (2) stop locations in Orlando; one at the Turkey Lake Road Turnpike Plaza and one at UCF.
- **La Cubana:** The primary route through the MPO area is along I-4 and Florida's Turnpike. Within the MPO area, the service has a stop in Orlando at Crazy Pollo Grill at 5756 Dahlia Drive on SR 436 between Curry Ford Road and SR 50. Integration of this stop to the planned LYNX superstop at SR 50 and SR 436 would assist in intermodal connections.

5.7.3 Demand Analysis

For the purposes of this Regional Transit Study, regional and interregional trips were analyzed. Travel flows were developed using the CFRPM v6.1, the adopted model for LRTPs in FDOT District Five. Travel flows were created using three (3) different sets of districts – counties, sub-county districts and urbanized / non-urbanized areas – to provide a comprehensive perspective of inter-regional travel in the 10-county region. Tables and desire line maps showing person trip movements were created for each set for the 2015 (base year), 2040 and 2060 analysis years (*Regional Transit Study – Regional Travel Pattern and Market Analysis Report*).



Orange County

Within the 10-County Study region, Orange County is projected to account for 30% and 29% of all trips in Year 2040 and 2060, 6.0 million and 7.3 million daily trips, respectively. Orange County projected travel by trip purpose (Table 5.15) reflects an overall increase of 1.5 million daily trips (33%) by year 2040 and 2.8 million daily trips (62%) by year 2060.

Table 5.15: Orange County Projected Travel by Trip Purpose

Year	HBW	% HBW	HBO	% HBO	NHB	% NHB	Total	% Change
2015	635,765	14%	2,123,311	47%	1,755,418	39%	4,514,494	n/a
2040	861,676	14%	2,847,437	47%	2,300,462	38%	6,009,575	n/a
2060	1,054,296	14%	3,523,410	46%	2,718,639	37%	7,296,345	n/a
Net / % 2015 to 2040	225,911	36%	724,126	34%	545,044	31%	1,495,081	33%
Net / % 2015 to 2060	418,531	66%	1,400,099	66%	963,221	55%	2,781,851	62%
Net / % 2040 to 2060	192,620	22%	675,973	24%	418,177	18%	1,286,770	21%

Regional travel and market analysis reflects 88% of 2015 trips originating in Orange County remain within the County (86% and 85% for year 2040 and 2060 respectively). Of trips departing Orange County, 6% end in Seminole County, 3% end in Osceola County, and 2% end in Lake County (see Table 5.16). All other counties amount to 1% or less of trips originating in Orange County. Year 2040 and 2060 trend remain consistent with the base year 2015. Trips originating within the City of Orlando account for 1,382,194 (23%) and 1,678,740 (23%) of projected “intra-county” trips in year 2040 and 2060, respectively. Trips originating within Disney property account for 385,861 (6%) and 470,600 (6%) of projected “intra-county” trips in year 2040 and 2060, respectively.

Table 5.16: Orange County Travel to Study Area Counties

Orange County To:	Year 2015	Year 2040	Year 2060
Orange County	3,959,267 (88%)	5,174,696 (86%)	6,194,108 (85%)
Seminole County	268,696 (6%)	359,917 (6%)	453,139 (6%)
Osceola County	127,129 (3%)	235,904 (4%)	315,795 (4%)
Lake County	71,701 (2%)	105,708 (2%)	133,633 (2%)
All Other Counties	87,701 (1% or less per County)	133,350 (<1% per County)	199,670 (<1% per County)
Total	4,514,494 (100%)	6,009,575 (100%)	7,296,345 (100%)

Seminole County

Within the 10-county Regional Transit Study region, Seminole County is projected to account for 8% of all trips both in Year 2040 and 2060, 1.7 million and 2.0 million daily trips, respectively. Seminole



County projected travel by trip purpose (Table 5.17) reflects an overall increase of 370,000 daily trips (28%) by year 2040 and 669,000 daily trips (51%) by year 2060.

Table 5.17: Seminole County Projected Travel by Trip Purpose

Year	HBW	% HBW	HBO	% HBO	NHB	% NHB	Total	% Change
2015	236,494	18%	585,365	44%	502,515	38%	1,324,374	n/a
2040	288,426	17%	717,804	42%	688,562	41%	1,694,792	n/a
2060	325,196	16%	824,112	41%	844,118	42%	1,993,426	n/a
Net / % 2015 to 2040	51,932	22%	132,439	23%	186,047	37%	370,418	28%
Net / % 2015 to 2060	88,702	38%	238,747	41%	341,603	68%	669,052	51%
Net / % 2040 to 2060	36,770	13%	106,308	15%	155,556	23%	298,634	18%

Regional travel and market analysis reflects 62% of 2015 trips originating in Seminole County remain within the County (66% and 68% for Year 2040 and 2060, respectively). Of trips departing Seminole County, 32% end in Orange County, 4% end in Volusia County, and 1% end in Lake County (see Table 5.18). All other counties amount to 1% or less of trips originating in Seminole County. Year 2040 and 2060 trends remain consistent with the base year 2015.

Table 5.18: Seminole County Travel to Study Area Counties

Seminole County To:	Year 2015	Year 2040	Year 2060
Seminole County	824,853 (62%)	1,115,172 (66%)	1,349,554 (68%)
Orange County	420,540 (32%)	467,545 (28%)	507,060 (25%)
Volusia County	47,035 (4%)	66,316 (4%)	80,109 (4%)
Lake County	11,266 (1%)	13,693 (1%)	15,816 (1%)
All Other Counties	20,680 (<1% per County)	32,066 (<1% per County)	40,887 (<1% per County)
Total	1,324,374 (100%)	1,694,792 (100%)	1,993,426 (100%)

Osceola County

Within the 10-county study region, Osceola County is projected to account for 9% and 10% of all trips in years 2040 and 2060, respectively, which equates to 1.9 million and 2.4 million daily trips, respectively. Osceola County projected travel by trip purpose (Table 5.19) reflects an overall increase of 794,000 daily trips (74%) by year 2040 and 1.3 million daily trips (120%) by year 2060.



Table 5.19: Osceola County Projected Travel by Trip Purpose

Year	HBW	% HBW	HBO	% HBO	NHB	% NHB	Total	% Change
2015	174,734	16%	645,612	60%	253,021	24%	1,073,367	n/a
2040	295,854	16%	1,053,352	56%	518,287	28%	1,867,493	n/a
2060	321,352	14%	1,339,821	57%	703,586	30%	2,364,759	n/a
Net / % 2015 to 2040	121,120	69%	407,740	63%	265,266	105%	794,126	74%
Net / % 2015 to 2060	146,618	84%	694,209	108%	450,565	178%	1,291,392	120%
Net / % 2040 to 2060	25,498	9%	286,469	27%	185,299	36%	497,266	27%

Regional travel and market analysis reflects 42% of the 2015 trips originating in Osceola County remain within the County (50% and 52% for year 2040 and 2060, respectively). Of trips departing Osceola County, 46% end in Orange County, 6% end in Polk County, and 2% end in Volusia County (see Table 5.20). All other counties amount to 1% or less of trips originating in Osceola County. Year 2040 and 2060 trends remain consistent with the base year 2015.

Table 5.20: Osceola County Travel to Study Area Counties

Osceola County To:	Year 2015	Year 2040	Year 2060
Osceola County	449,139 (42%)	935,323 (50%)	1,234,264 (52%)
Orange County	491,651 (46%)	696,188 (37%)	799,462 (34%)
Polk County	62,087 (6%)	111,713 (6%)	146,392 (6%)
Volusia County	17,766 (2%)	28,483 (2%)	39,958 (2%)
All Other Counties	52,724 (1% or less per County)	95,776 (<1% per County)	144,683 (<2% per County)
Total	1,073,367 (100%)	1,867,493 (100%)	2,364,759 (100%)

5.7.4 Subarea Regional Transit Vision Framework

Based upon the MetroPlan Orlando's and LYNX's plans and programs, as well as the demand analysis and the analysis contained in the Long Range Transportation Plan and the LYNX FORWARD documentation, an interim and long term vision has been outlined for consideration by both the Central Florida MPO Alliance and the MetroPlan Orlando. This vision contains a local element and a regional element. The local element is anticipated to have the greatest impact on local transportation conditions, whereas the regional element could affect transportation customers that travel across MPO / TPO jurisdictional boundaries. The MetroPlan Orlando Regional Transit Vision Framework is outlined below.



- **Interim Term Vision**

- **Local**

- The local element consists of improvements to the LYNX bus system, including improvement of headways of the current routes, extending service to evenings and weekends and introducing new routes as outlined in the TDP and the current Route Optimization Study. There are also many capital improvements projects that will improve transit in the LYNX service area, including but not limited to new buses, passenger amenities such as bus stops and shelters, and new intermodal facilities.
 - The draft LYNX Vision Plan contains several corridors that will provide BRT or BRT like facilities that will have local and regional impact. In the interim term, the Disney Village to Orange Avenue via International Drive and Oak Ridge Road Corridor, the Silver Star Corridor and the Kirkman Road from Silver Star to International Drive Corridor should be advanced to address local needs.
 - Express service between International Drive and OIA should be initiated. This will have local and regional impact.

- **Regional**

- LakeXpress and LYNX should work to establish a coordinated service plan on SR 19 / US 441 (Lake Route 4 / LYNX Link 44) to serve the longer distance customer, focusing on improving service between Mt. Dora and the Apopka Superstop and coordinating consistent headways.
 - LakeXpress and LYNX should work to establish a coordinated service plan on SR 50 (Lake Routes 50E 50W / LYNX Link 105) to serve the longer distance customer, focusing on improving through service between Clermont, Downtown Orlando and UCF.
 - LYNX and SCAT should coordinate on two (2) new express bus services, including the Eastern State College campuses to UCF express, which would connect to a proposed LYNX intermodal center at UCF; and a new express between Brevard County and OIA, to connect to the proposed LYNX intermodal center at OIA.
 - The Link 427 hours of operation should be extended and weekend service added within the next five (5) years. This service should be coordinated with other Polk Transit, LYNX and LakeXpress services.
 - The draft LYNX Vision Plan contains several corridors that will provide BRT or BRT like facilities. In the interim term, it is critical for regional mobility for LYNX to advance the SR 50 (BRT and Express) and SR 436 corridors. These transit improved corridors will provide access to Lake, Brevard and Polk transit services via connections at UCF, Winter Garden, Apopka, Disney and OIA.

- **Long Term Vision**

- **Local**

- Continued improvements to the LYNX system's headways and service coverage.
 - The draft LYNX Vision Plan contains several corridors that will provide BRT or BRT like facilities that will have local and regional impact. In the long term, the Orange Avenue Corridor, and the US 17/92 North Corridor should be advanced to address local needs.



- Express service from the Poinciana Town Center Transit Center to Disney Springs via the Poinciana SunRail Station and to the Kissimmee Intermodal Station via Pleasant Hill Road should be initiated. These services will have local and regional impact as they connect to Polk Transit service.
- **Regional**
 - The draft LYNX Vision Plan contains several corridors that will provide BRT or BRT like facilities. In the long term, it is critical for regional mobility for LYNX to advance the US 192 (East and West) and US 441 (North and South) corridors. These transit improved corridors will provide access to Lake, Brevard and Polk transit services via connections at Apopka, Disney, Kissimmee, and St. Cloud.
 - Lake~Sumter MPO and MetroPlan Orlando should coordinate to develop a Park & Ride facility and transit center at the Turnpike and SR 50 near Oakland and the Lake County line. This facility could be serviced by LYNX and LakeXpress local routes, as well as by Red Coach USA and GMG Transport.
 - The key to the Regional Transit Vision Framework is the extension of the Brightline intercity rail service to OIA, with an intercity station in Cocoa, and an intermediate stop on SR 528. This stop would serve the Ranch area of Orange County / Northeast Sector Plan area of Osceola County.
 - There is some question as to whether the demand between Brevard County and Orange County is enough to warrant two (2) commuter rail lines with regard to the Space Coast TPO identified Pineda Extension / I-95 / Ellis Road / NASA Boulevard commuter rail system between Melbourne and OIA. This corridor between Melbourne and OIA should be preserved should the demand be exhibited beyond 2060. One potential strategy is to run enhanced express bus between these two (2) points to build ridership demand, and then transition to another fixed guideway facility such as commuter rail, or light rail transit, or continue enhanced express bus. Another option is to run limited stop / express bus on US 192, then transition to other forms of higher capacity transit if warranted.
 - Connections between activity centers should be evaluated for higher capacity transit to serve local and regional needs. This includes, but is not limited to the potential Brightline SR 528 Station to OIA, OIA to International Drive / Disney and sections of SR 50. These connections could take the form of a host of fixed guideway facilities such as but not limited to dedicated BRT, automated people mover, light rail transit, or enhanced express bus.



CHAPTER 6: REGIONAL TRANSIT VISION FRAMEWORK IMPLEMENTATION PLAN

This final chapter serves as a work plan and presents strategies for advancing the Regional Transit Vision as well as approaches and processes for advancing the near and long term elements of the framework in state, regional and local plans. This includes the following items:

- Identification of high priority transit investments that could be implemented in the short term that support the long term vision.
- Development of a work plan and strategies, including investment options, for advancing the Regional Transit Vision framework to the next stage.
- Document the approaches and processes for advancing the near and long term elements of the vision in state, regional and local plans.

The following paragraphs outline an implementation plan for the Regional Transit Vision Framework. A brief discussion of other vision plans nationwide is followed by an outline of the suggested critical first step regional projects for each MPO / TPO, followed by a suggested approach for advancing these elements.

6.1 COMMON THEMES / UNIQUE VISION

Currently, the Central Florida community is encountering a series of transportation challenges typical of growing urban areas that have successfully accomplished and implemented highway oriented transportation plans developed pre-year 2000. These challenges include, but are not limited to, constructing infrastructure to address severe capacity inadequacies in the core areas; developing new services to address “gentrifying” existing areas; serving new areas of regional growth; attempting to transition from the provision of highway capacity to "corridor" capacity; and maximizing existing funding sources and finding new funding sources. Those urban areas that are successful in addressing these challenges first focus on a future vision, then develop a comprehensive plan and strategy to implement that vision.

A cursory review of national, regional and local planning efforts indicated a pattern of common themes. Those common themes, which include but are not limited to sustainability, connectivity / mobility, and economic development, are also important to this Regional Transit Visioning effort. Each of these items have a direct relationship to an important goal of the region’s citizens; that is, to have a high quality of life.

Sustainability

Originally, sustainability was defined as an attempt to integrate ecological systems into cities, suburbs and new towns, in an effort to redefine settlement patterns based upon environmental concerns. As time has passed, however, and previous planning and visioning efforts have been implemented (both successfully and unsuccessfully), sustainability has come to mean much more than environmental integration.



Primarily, sustainability is about choice. Each national, regional and local visioning effort has, in part, attempted to accommodate different types of homes, neighborhoods, employment, recreational activities, transportation, and social interactions, in order to enhance the citizen's quality of life. As is evidenced by the multitude of national and local transportation study efforts, accessibility is a cornerstone of a region's sustainability. Each locality that has completed a visioning effort has attempted to promote cohesive development and transportation alternatives that connect the region with efficient and environmentally safe types of transportation, in part, to reduce sprawl and prevent unnecessary loss of open space.

Sustainability is also about equity, including the provision of an adequate supply of convenient and affordable housing, safe and clean neighborhoods and an equitable distribution of jobs, public transportation, services and amenities throughout the region and among all residents. Finally, sustainability is about community and the preservation of a strong sense of place through preservation and implementation of safe, strong and stable neighborhoods and communities.

Mobility and Connectivity

To be successful, the ultimate regional transportation system must be truly multi-modal, accommodating and providing for all modes of transportation, either as a source of mobility, or a destination. The system must account for not only the needs of the residents and students at places of higher education, but for those from outside the region that work, shop, worship, recreate or visit the region. A balanced regional transportation network with a full range of travel choices includes both a diversified high quality, reliable transit system and a functional highway system. Mobility is the key issue, not highway versus transit, as both are critical to a region's vitality. Regionally, there has been a significant increase in person trips. Most of these trips (transit and vehicle) are on the same congested highway facilities. The regional transportation plans should focus on providing facilities or techniques that provide mobility and in doing so, provide relief for highway and transit users. Fixed guideway (BRT, commuter rail, High Speed Rail) transit improvements minimize travel delay for all travelers in the region, which assists in alleviating traffic congestion.

The regional transportation system must be responsive to the type of communities desired in Central Florida, facilitating the development of a regional transit network with efficient connections between regional activity centers. As can be seen in the national and local experience, transit best serves compact urban growth, activity center development and focused regional growth. Transit is less effective when serving sprawl conditions. Designing communities so that residents are less reliant on their cars may reduce the need for additional lanes of roadway and other transportation capital investments. A study from Ottawa, Canada found that at peak load points, nearly 10,000 passengers per hour are carried on the region's busway system. If these trips were made instead by automobile, five (5) freeway lanes in each direction would be required. When walking, bicycling, and transit are considered viable transportation options, the result is fewer vehicle trips, less traffic congestion, and improved air quality. While the focus of this effort was transit, implementation of the vision cannot only address transit to be effective. Implementation must address land use and economic development. Effective land use planning and development design can do as much to reduce travel and congestion as adding highway and transit improvements.



Economic Development

Transportation means not only mobility, but economic development. As an alternative mode of transportation, transit is not only a method to address environmental concerns but is part of an investment strategy for a region. As seen by its prominence in national studies, policy makers as well as citizens have come to realize that transit not only serves land use but can become a determining factor in where land use and development is appropriately located. Thus, transit not only serves the community, but also could assist in forming how the community looks and feels and how future urban, suburban and exurbia development is ultimately designed. Transit, and in particular, fixed guideway transit such as BRT and commuter rail, has the potential to influence land development patterns. This occurs directly by presenting joint development opportunities, and by enhancing land values around transit centers and fixed guideway stations.

The economic impact of transit has been extensively documented in recent studies. Overall, every dollar taxpayers invest in public transportation generates \$6 or more in economic returns. Furthermore, every \$10 million in capital investment in public transportation yields \$30 million in increased sales and creates 300 new permanent jobs. Finally, every \$10 million in operating investment yields \$32 million in increased sales.¹¹ One of the major reasons for implementing the Regional Transit Vision Framework is for the economic return that will occur upon implementation.

6.2 SHORT TERM HIGH PRIORITY REGIONAL TRANSIT INVESTMENTS

Based upon regional corridor analysis, analysis of MPO / TPO and transit agency plans and programs, MPO / TPO Board and TAC input, MPO Alliance PAG input and field research, the following list of improvements were developed as a representative list of short-term, high-priority regional transit improvements to advance the long term Regional Transit Vision. This list contains the major interim investments for the region that will advance cross-jurisdictional transit travel. In addition to this list, it is assumed that each individual transit agency will continue to grow local service in existing or underserved markets in the future according to plans contained in the TDPs and the LRTPs. The following is a county-by-county list of representative bus service, facility, and/or fixed guideway transit improvements that would immediately advance the Regional Transit Vision.

6.2.1 Ocala / Marion County

- **Cross-Jurisdictional Service:** A Belleview / Villages Limited Express service from Ocala to Belleview to Sumter County / The Villages, running along US 301 / US 441 / US 27 with weekday 120 minute headways. This route should terminate at the Lake County Transit Spanish Springs Station. Eventually, this corridor could transition into a BRT service, as indicated in the Long Term Vision.
- **Intermodal Facility:** Establishment of a Park & Ride facility and transit center at I-75 and CR 484 in South Marion County. This facility should be designed to accommodate both the SunTran local transit service, Park & Ride / car pool / express bus services and private intercity services. This would be a joint Transportation Center location to serve SunTran, Greyhound, Red Coach and GMG Transport as an intermodal hub.

¹¹ Cambridge Systematics, Inc., Public Transportation and the Nation's Economy: A Quantitative Analysis of Public Transportation's Economic Impact, Washington, DC, October 1999



6.2.2 Lake / Sumter County

- **Cross-Jurisdictional Service.** LakeXpress Route 1A current services The Villages Spanish Springs Station with service to Leesburg on 60 minute headways. Currently, there are no available transfer points between SunTran and LakeXpress service. This service should be linked with the proposed Belleview / Villages Limited Express service, and appropriate service adjustments should be made.
- **Cross-Jurisdictional Service.** LakeXpress and LYNX should establish a coordinated service plan to serve the longer distance customer in the US 19 / US 441 corridor, focusing on improving service between Mt. Dora and the Apopka Superstop and coordinating consistent headways between LakeXpress Route 4 and LYNX Link 44.
- **Cross-Jurisdictional Service.** LakeXpress and LYNX should work to establish a coordinated service plan to serve the longer distance customer in the SR 50 corridor, with the focus on improving through service between Clermont and the Downtown Orlando. This includes improvements to LakeXpress Routes 5E and 5W, as well as LYNX Link 105, the LYNX proposed express service on SR 408 and future BRT service on SR 50.
- **Intermodal Facility.** The establishment of a Park & Ride facility and transit center near the Turnpike and SR 50 would facilitate regional travel. This facility could be serviced by LYNX and LakeXpress local routes, as well as by Red Coach USA and GMG Transport.

6.2.3 Polk County

- **Cross-Jurisdictional Service.** The Link 427 headway should be increased to 60 minutes, with the hours of operation extended and weekend service added within the next five years. This service should be coordinated with other LYNX as well as LakeXpress services.
- **Cross-Jurisdictional Service / Park & Ride Facilities.** A proposed feeder route from potential Park & Ride facilities at Winter Haven, Haines City, and Davenport to support Polk County and bus interregional services to the Poinciana SunRail Station should be implemented within the next five years. These services could serve as the precursors to the extension of SunRail into Polk County, which is part of the Long Term Vision.
- **Cross-Jurisdictional Service.** Investigation of, and if feasible, implementation of express service between Lakeland and Disney, to connect with planned LYNX and LakeXpress services; and express service between Lakeland and the Poinciana SunRail station.
- **Cross-Jurisdictional Service.** FDOT's upcoming Interstate 4 Managed Lanes Master Plan through Polk County (and those that are underway in Districts Seven and Five) should incorporate intercity express bus operations that support more timely / efficient transit service until intercity and / or high-speed rail is implemented in the future.
- **Intermodal Facility.** Investigation of a joint Park & Ride facility in Lakeland near I-4 that would contain a Transportation Center for public transit service and the private operators such as Greyhound, Red Coach, Florida Express Bus and HBCU Shuttle. This Park & Ride facility could also be used for the Lakeland to Disney, and Lakeland to Poinciana express service. As an alternative, a potential new facility in Downtown Lakeland is being explored that could include a parking garage, relocated transit terminal, potential Greyhound service and an overpass to the Downtown Amtrak Station. The garage could be designed with additional capacity to support a future commuter / intercity rail / intercity bus service to / through Lakeland.



6.2.4 Brevard County

- **Cross-Jurisdictional Service.** A new express bus service should be initiated from the Eastern State College campus to UCF, which would connect to a proposed LYNX intermodal center at UCF.
- **Cross-Jurisdictional Service.** A new express bus services should be initiated between Brevard County and OIA, to connect to the intermodal center at OIA.
- **Intermodal Facility.** Brevard County should work with Brightline intercity rail system to locate an intermodal station at Clearlake Road near SR 528 / FEC and US 1. Considerations should be given to co-locating private and public services, as well as Park & Ride at that station / terminal. This facility would contain a transit center for public transit service and the private operators such as Greyhound and Florida Express Bus, as well as existing and proposed SCAT services. This would fit into the Long Term Vision regarding both commuter rail and intercity rail.

6.2.5 Volusia / Flagler County

- **Cross-Jurisdictional Service:** The SunRail commuter rail system should be extended from the current termini at DeBary to the planned station in DeLand. This service should be coordinated with other Votran bus services.
- **Cross-Jurisdictional Service / Park & Ride Facility:** A new express bus route using the existing lanes, and then the future managed lanes to be developed within I-4 from the Daytona Beach West Side Intermodal Terminal to Orlando, with a direct connection to either the DeBary SunRail station or an extended route to Downtown Orlando. With such service, smaller Park & Ride facilities could be developed along I-4 at the S.R. 44 and S.R. 472 interchanges to complement the existing Park & Ride at Saxon Boulevard. These locations could also be considered for accommodation of private services, especially at the SR 44 location.
- **Intermodal Facility:** Considerations should be given to co-locating private and public services at the proposed intermodal terminal near the Speedway / Airport on the west side of Daytona Beach (Daytona Beach West Side Intermodal Terminal). This facility would contain a transit center for public transit service and the private operators such as Greyhound, Red Coach, Florida Express Bus and HBCU Shuttle. Consideration should be given to inclusion of a Park & Ride facility that could also be used for: the US 92 BRT service between I-95 and Downtown Daytona Beach; for express / limited service on US 92 to DeLand via Votran Route 60 or successor route; a potential Daytona to Orlando express service; and parking for the International Speedway, airport and surrounding land uses.

6.2.6 Orange, Seminole, Osceola County

- **Cross-Jurisdictional Service.** LakeXpress and LYNX should work to establish a coordinated service plan on SR 19 / US 441 (Lake Route 4 / LYNX Link 44) to serve the longer distance customer, focusing on improving service between Mt. Dora and the Apopka Superstop and coordinating consistent headways.
- **Cross-Jurisdictional Service.** LakeXpress and LYNX should work to establish a coordinated service plan on SR 50 (Lake Routes 5E 5W / LYNX Link 105) to serve the longer-distance customer, focusing on improving through service between Clermont, Downtown Orlando and UCF.
- **Cross-Jurisdictional Service:** LYNX and SCAT should coordinate on two new express bus services, including the Eastern State College campuses to UCF express, which would connect to a



proposed LYNX intermodal center at UCF; and a new express between Brevard County and OIA, to connect to the proposed LYNX intermodal center at OIA.

- **Cross-Jurisdictional Service:** Link 427 hours of operation should be extended, and weekend service added within the next five (5) years. This service should be coordinated with other Polk Transit, LYNX and LakeXpress services.
- **Intermodal Corridor Facilities:** The draft LYNX Vision Plan contains several corridors that will provide BRT or BRT light facilities. In the interim term, it is critical for regional mobility for LYNX to advance the SR 50 (BRT and Express) and SR 436 BRT corridors. These transit improved intermodal facility corridors will provide access to Lake, Brevard and Polk transit services via connections at intermodal terminals at or near UCF, Winter Garden (see Lake Sumter County), Apopka, Disney and OIA.

6.3 SHORT TERM HIGH PRIORITY VISION USES AND SOURCES OF FUNDS

Funding is the most critical factor that will impact the future success of the Regional Transit Vision. Capital and operations funding define the extent to which transit can meet regional mobility needs. First, an outline is presented of the capital and operating costs associated with the short-term, high-priority Regional Transit Vision Framework investments. Then, following that discussion, the potential funding sources are presented along with a brief analysis of those sources. Finally, a conceptual funding approach is presented that encompasses all the projects listed in the Regional Transit Vision.

6.3.1 Capital Costs

Transit infrastructure identified in the Regional Transit Vision, including but not limited to vehicles, rights-of-way, fixed guideway corridors, intermodal terminals, stations, and Park & Ride lots will require funding at levels greater than have been historically provided in this region for public transportation infrastructure. The federal, state, and local funding levels will greatly influence how much of the Regional Transit Vision Framework can be implemented.

To arrive at a reasonable and achievable transit program, detailed analysis was conducted to ascertain not only the top travel corridors within the region, but the range of appropriate technologies within those corridors. A reasonable first step program (i.e., the short term high priority regional transit investments as presented in 6.2) was developed and analyzed to produce a first phase financial plan for the Regional Transit Vision Framework. The capital cost of the high priority plan is approximately \$560 million, which is definitely "doable" from a future incremental resources standpoint over the next 20+ years. The majority of the estimated capital cost is for the proposed LYNX mixed BRT / BRT light facilities, the SunRail extension to DeLand, and the five (5) new intermodal terminals. It should be noted that these services are not currently in the financially constrained plans of the MPO / TPO's, so the financial resources needed would be above that needed for the financially constrained network.

This short term, high priority representative concept contains approximately 51 miles of BRT or BRT light, 12.2 miles of commuter rail, 90 new vehicles for new bus service and spares, 10 Park & Ride facilities, five (5) regional intermodal facilities, and 140 customer amenity facilities ranging from walk up stations to primary transit centers. Table 6.1 presents the estimated capital cost of each proposed service in 2018 dollars.



Table 6.1: Capital Cost-Short Term High Priority Regional Transit Investments

Project	Route Length	Mode	Grand Total
Ocala / Marion County			
-Ocala / Belleview / Villages Limited Express (new service)	22.1	Limited Stop	\$4,400,000
-I-75 / CR 484 Intermodal Facility	N/A	Facility	\$19,300,000
Lake / Sumter County			
-LakeXpress 1A Service and Spanish Springs Station Improvements	N/A	Enhanced Bus	\$2,300,000
-LakeExpress 4 Service and US 19 / US 441 Improvements	N/A	Enhanced Bus	\$2,300,000
-LakeXpress 5E / 5W Service Improvements	N/A	Enhanced Bus	\$2,300,000
-SR 50 / Turnpike Intermodal Facility	N/A	Facility	\$19,300,000
Polk County			
-Link 427 Service Improvements	N/A	Enhanced Bus	\$1,300,000
-Feeder Service to Poinciana SunRail / 3 Park & Ride lots (new service)	27.8	Express Bus	\$27,600,000
-Lakeland to Disney (new service)	40	Express Bus	\$4,600,000
-Lakeland to Poinciana SunRail (new service)	36.2	Express Bus	\$4,600,000
-Lakeland Intermodal Facility	N/A	Facility	\$19,300,000
Brevard County			
-Express Bus from ESC to UCF	36	Express Bus	\$9,900,000
-Express Bus from County to OIA	39.7	Express Bus	\$9,900,000
-Clearlake Intermodal Facility	N/A	Facility	\$19,300,000
Volusia County			
-SunRail Extension to DeLand	12.2	Commuter Rail	\$77,000,000
-Express Bus from Daytona to Orlando / 2 Park & Ride lots	51.6	Express Bus	\$19,300,000
-Daytona Beach West Side Intermodal Terminal	N/A	Facility	\$19,300,000
Orange / Seminole / Osceola County			
-LakeExpress 4 Service and US 19 / US 441 Improvements	N/A	Enhanced Bus	\$2,300,000



Project	Route Length	Mode	Grand Total
-LakeXpress 5E / 5W Service Improvements	N/A	Enhanced Bus	\$2,300,000
-Express Bus from ESC to UCF	36	Express Bus	\$11,000,000
-Express Bus from County to OIA	39.7	Express Bus	\$11,000,000
-Link 427 Service Improvements	N/A	Enhanced Bus	\$1,300,000
-SR 436-Apopka SuperStop to Altamonte SunRail	9.9	BRT Light	\$18,000,000
-SR 436-Altamonte Springs SunRail to OIA	18.3	BRT Light	\$29,600,000
-SR 50-Orlando Health to UCF Transfer Ctr.	22.8	Mixed BRT	\$207,400,000
-East / West Express-UCF to Turnpike / SR 50	33.1	Express Bus	\$16,800,000

6.3.2 Operations and Maintenance Costs

To estimate the projected operations and maintenance costs for the short-term, high-priority representative concept, anticipated headways and run times were estimated to develop the number of buses required for service. In addition, gross revenue hours were estimated based on anticipated hours of operation and days of service. The cost per revenue hour was estimated based on each transit agency's 2016 National Transit Data (NTD) report, inflated by 3% per year to adjust to 2018. Finally, the cost to operate and maintain an intermodal facility is based on the actual LYNX cost to maintain the 7-bay bus facility at the Kissimmee Intermodal Station and by the City of Kissimmee for the 400 space Downtown parking garage. The annual operations and maintenance cost of the region's transit system was approximately \$225 million in Year 2018. That cost would increase by approximately \$46 million with implementation of the short term high priority elements of the Regional Transit Vision, a 20% increase. Table 6.2 presents the estimated annual operations and maintenance cost of each proposed service in 2018 dollars. Most of the increase is for operating the proposed LYNX mixed BRT / BRT light facilities, the SunRail extension to DeLand, and the 5 new intermodal terminals.

Table 6.2: O&M Cost-Short Term High Priority Regional Transit Investments

Project	Mode	Estimated Annual O&M Cost
Ocala / Marion County		
-Ocala / Belleview / Villages Limited Express (new service)	Limited Stop	\$401,459
-I-75 / CR 484 Intermodal Facility	Facility	\$1,880,000
Lake / Sumter County		
-LakeXpress 1A Service and Spanish Springs Station Improvements	Enhanced Bus	\$257,556



Project	Mode	Estimated Annual O&M Cost
-LakeExpress 4 Service and US 19 / US 441 Improvements	Enhanced Bus	\$686,817
-LakeXpress 5E / 5W Service Improvements	Enhanced Bus	\$686,817
-SR 50 / Turnpike Intermodal Facility	Facility	\$1,880,000
Polk County		
-Link 427 Service Improvements	Enhanced Bus	\$450,765
-Feeder Service to Poinciana SunRail / 3 Park & Ride lots (new service)	Express Bus	\$2,366,515
-Lakeland to Disney (new service)	Express Bus	\$2,366,515
-Lakeland to Poinciana SunRail (new service)	Express Bus	\$2,366,515
-Lakeland Intermodal Facility	Facility	\$1,880,000
Brevard County		
-Express Bus from ESC to UCF	Express Bus	\$553,011
-Express Bus from County to OIA	Express Bus	\$553,011
-Clearlake Intermodal Facility	Facility	\$1,880,000
Volusia County		
-SunRail Extension to DeLand	Commuter Rail	\$6,390,000
-Express Bus from Daytona to Orlando / 2 Park & Ride lots	Express Bus	\$1,519,795
-Daytona Beach West Side Intermodal Terminal	Facility	\$1,880,000
Orange / Seminole / Osceola County		
-LakeExpress 4 Service and US 19 / US 441 Improvements	Enhanced Bus	\$718,766
-LakeXpress 5E / 5W Service Improvements	Enhanced Bus	\$718,766
-Express Bus from ESC to UCF	Express Bus	\$628,920
-Express Bus from County to OIA	Express Bus	\$628,920
-Link 427 Service Improvements	Enhanced Bus	\$359,383
-SR 436-Apopka SuperStop to Altamonte SunRail	BRT Light	\$3,053,352
-SR 436-Altamonte Springs SunRail to OIA	BRT Light	\$4,580,028
-SR 50-Orlando Health to UCF Transfer Ctr.	Mixed BRT	\$5,597,812
-East / West Express-UCF to Turnpike / SR 50	Express Bus	\$1,886,761

6.3.3 Current Potential Funding Sources

This section summarizes and analyzes the existing funding sources available for central Florida. They consist of current federal and state funding sources available to the Regional Transit Vision, as well as a summary of existing and potential local and private funding sources. The purpose of this evaluation



is to determine what existing sources would be available to support construction and operation of the recommended program.

To narrow down and select the most promising potential revenue sources, several criteria was developed:

- **Ease of Application / Implementation:** examining application requirements, competition for funds, and potential legal or institutional challenges that could impact use of each source.
- **Revenue Generation Potential:** estimating the hypothetical level of revenues that each source could potentially generate. Additionally, the relative stability of each source over time, and on its relative sensitivity and responsiveness to inflation and changes in economic conditions will be examined.
- **Local Funding Requirement:** examining potential local match requirements for federal and state funds.
- **Application Schedule:** identifying the schedule for applying for funds and determining if it is an annual formula program or discretionary program.
- **Local Acceptance:** evaluating if there is a nexus between the funding source and the capital and / or O&M costs.

6.3.4 Potential Federal Funding Sources

The potential Federal funding sources outlined in the following section are for the short-term improvements that may be constructed over the next two (2) to five (5) years. These funding options include Section 5309 funds from FTA's New Starts / Small Starts program. These funds, however, are being pursued for large transit corridor improvement projects across the state and nation. The process is very competitive, and rigorous, and the timeframes may not match up with the expectations of the project sponsors / stakeholders for quick implementation of the projects on the list.

Regardless, both FTA and Federal Highway Administration (FHWA) funds applicable to the short-term vision are ones that meet the goals of the longer term transit investments discussed. As federal funding requests are made, the most appropriate recipient for each of the federal funding opportunities should be the requesting agency. For FTA funding opportunities, the recipient should be a previously approved FTA grantee, such as FDOT or a transit agency. At the end of this section, there is an assessment of the potential federal funding sources using the above criteria.

6.3.4.1 FTA Funds

5309 New Starts

This is the most commonly used Federal funding sources for BRT and commuter rail projects. New Starts (formerly Section 5309) is the primary federal grant program for funding major transit projects in the U.S. that provides competitive grants for infrastructure such as, but not limited to new light rail transit (LRT), modern streetcar and bus rapid transit (BRT) projects. This program is funded annually at approximately \$2.3 billion. A subset of the New Starts program is Small Starts, which provide funds for smaller transit projects like the recommended BRT projects in the Regional Transit Vision. Eligible projects that successfully qualify for Small Starts funding must meet the following general requirements:



- The total project cost must be less than \$300 million and the total amount of funding sought from the Small Starts program must be less than \$100 million.
- The project should be new or extended fixed guideway and / or be a corridor based BRT system that contains significant corridor transit improvements, including:
 - Traffic signal priority.
 - Defined transit stations.
 - Unique branding of service.
 - Low floor / level boarding to expedite stops.
 - Frequent bi-directional service for a substantial portion of the weekday.

All projects seeking Section 5309 Capital Investment Program funds must be evaluated and rated according to the criteria specified in law either as a New Starts project, a Small Starts project, or a Core Capacity project. Under previous authorizing laws, projects seeking less than \$25 million in Capital Investment Program funds could be exempt from evaluation and rating if they chose to be, but that option was discontinued in MAP-21.

5339 Bus and Bus Facilities

This Federal source of funding could be utilized for bus facilities such as intermodal centers, as well as Park & Ride facilities, new or refurbished operations and maintenance facility, new buses and demand responsive vehicles, signage, and associated transit capital equipment. For the most part, this Federal source provides up to 80% of the project cost and requires a 20% state / local match. This funding program could be relied upon heavily for the transit facility portion of any capital improvement plan, as well as for buses, vans and associated capital improvements.

This source can also be used to construct bus-related facilities, including the recommended short-term improvements that are part of this report. Eligible recipients are designated recipients and states that operate or allocate funding to fixed-route bus operators. Eligible sub-recipients include public agencies or private non-profit organizations engaged in public transportation, including those providing services open to a segment of the population, as defined by age, disability, or low-income groups. Program guidance for the Bus program is found in FTA Circular 9300.1B, *Bus and Bus Facilities Instructions*. A grant for a capital project under this section may still be for 80% of the net capital costs of the project. A recipient of a grant under this section may provide additional local (non-federal) matching amounts.

5307 / 5340 Formula Funds

The Urbanized Area Formula Grants Program provides transit capital and operating assistance to urbanized areas with populations of more than 50,000. Funding is provided to transit agencies for bus and rail vehicle replacements, facility recapitalization, capital projects, planning, job access and reverse commute, operating costs in areas under 200,000 in population, and limited operating costs for areas over 200,000 (operate 100 buses in fixed route service during peak hour). Transit enhancements are removed and replaced by more narrowly defined “associated transportation improvements.” Recipients must expend at least 1% of their 5307 apportionment on these improvements. Funding provided by other government agencies or departments that are eligible to be expended on transportation may be used as local match. MAP-21 removed eligibility for the transfer of 5307 transit funds to highway projects.



The apportionment formula in the current law is, for areas of 50,000 to 199,999 in population, the formula is based on population and population density, and number of low-income individuals. For areas with populations of 200,000 and more, the formula is based on a combination of bus revenue vehicle miles, bus passenger miles, fixed guideway revenue vehicle miles, and fixed guideway route miles, as well as population and population density and number of low-income individuals. The program is funded from both the Mass Transit Account and the General Fund. The Federal share is 80% for capital assistance; 50% for operating assistance; and 80% for Americans with Disabilities Act (ADA) non-fixed-route paratransit service, using up to 10% of a recipient's apportionment.

5307 / 5311 Job Access and Reverse Commute

Eligible projects include an access to jobs project or a reverse commute project. FTA defines an access to jobs project as one relating to the development of transportation services designed to transport welfare recipients and eligible low-income individuals to and from jobs and activities related to their employment. FTA may make access to job grants for:

- capital projects and to finance operating costs of equipment, facilities, and associated capital maintenance items related to providing access to jobs;
- promoting the use of transit by workers with non-traditional work schedules;
- promoting the use by appropriate agencies of transit vouchers for welfare recipients and eligible low income individuals under specific terms and conditions; and
- promoting the use of employers provided transportation including the transit pass benefit program.

FTA defines a reverse commute project as one related to the development of transportation services designed to transport residents of an urban area, urbanized areas, and areas other than urbanized areas to suburban employment opportunities. There are several requirements and factors for consideration in awarding these grants. The amount of the grant may not exceed 80% of the total project cost, and not exceed 50% of the net operating costs.

6.3.4.2 Flexible Funding Programs – Transferring Title 23 Funds from FHWA to FTA

This refers to the transfer of highway funds to FTA for eligible transit projects to be administered under Chapter 53 of Title 49 or the transfer of transit funds to FHWA for eligible highway projects to be administered under Title 23. Section 104 of Title 23 U.S.C. preserves the option for FHWA to transfer funds to FTA for transit capital projects and eligible operating activities that have been designated as part of the metropolitan and statewide planning and programming process. The project must be included in an approved STIP before the funds can be transferred. The State DOT may request, by letter, that the FHWA Division Office transfer highway funds for a transit project. The letter should include a description of the project as contained in the STIP, the amount to be transferred, the apportionment year, State, urbanized area, Federal-aid apportionment category (i.e., STP, CMAQ, TAP, NHPP) or other funding source, and indication of the intended FTA formula program (i.e., Section 5307, 5310, or 5311).

Once a written request for transfer is received, if, upon review, the FHWA Division Office concurs in the transfer, it provides written confirmation to the State DOT and FTA that the apportionment amount is available for transfer. The FHWA Division Office provides the transfer request to the FHWA



Office of Budget which transfers the funds to FTA. FHWA funds transferred to FTA will be administered under one of the three FTA formula programs with the Urbanized Area Formula program under Section 5307 is the most applicable formula program for received the FHWA flex funds.

FHWA funds transferred to FTA retain the same matching share that the funds would have if used for highway purposes and administered by FHWA. For the STP, CMAQ, and TAP programs, this Federal share is generally 80%. Certain safety projects or projects that include an air quality or congestion relief component such as commuter carpooling and vanpooling projects using FHWA transfer funds administered by FTA may retain the same 100% Federal share; however, these projects are subject to a limitation for each State of an amount equal to 10% of the sums apportioned for programs under section 104 of title 23.

Surface Transportation (STP) Funds and Transportation Alternatives Program (TAP) for Transit Projects

FHWA STP funds are eligible for a variety of highway-related activities and are also available to cover the capital cost of any public transportation projects eligible for assistance under Chapter 53, which may include vehicles and facilities (publicly or privately owned) that are used to provide intercity passenger bus service. In addition, STP funds are available for surface transportation planning projects as well as activities under the newly authorized Transportation Alternatives Program (TAP), at 23 U.S.C. 101.

TAP funds may be used to carry out a part of a program or project or used to carry out an independent program or project related to surface transportation. Eligible activities are broadly defined and with respect to transit include construction, planning and design of infrastructure-related projects and systems that will provide safe routes for non-drivers, including children, older adults and individuals with disabilities to access daily needs, and historic preservation and rehabilitation of historic transportation facilities.

Congestion, Mitigation and Air Quality (CMAQ) Funds for Transit

The CMAQ program continues to provide a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards (NAAQS) for ozone, carbon monoxide, or particulate matter—nonattainment areas—and for areas that were out of compliance but have now met the standards—maintenance areas. Transit investments, including transit vehicle acquisitions and construction of new facilities or improvements to facilities that increase transit capacity are eligible for CMAQ funds.

CMAQ funds are apportioned annually to each state according to the severity of its air pollution problems. Each state is guaranteed a minimum apportionment of the year's total funding, regardless of whether the state has any nonattainment or maintenance areas. These "flexible" or minimum apportionment funds can be used anywhere in the state for any projects eligible for either CMAQ or other STP projects. Florida does not currently contain any nonattainment or maintenance areas. This means it has a greater amount of flexibility to utilize these funds for a wider variety of transportation projects, including mobility and premium high-capacity transit. FDOT uses CMAQ funds for its annual work program projects. Eligible activities include: planning, design and construction of bicycle /



pedestrian facilities; bicycle safety and education; and sidewalk modifications to comply with the Americans with Disabilities Act (ADA). Projects are submitted to counties or regional MPOs and are selected by FDOT for inclusion in the annual Work Program.

BUILD

In 2018, the US. Department of Transportation announced a replacement for the Transportation Investment Generating Economic Recovery (TIGER) grant program. The new Better Utilizing Investments to Leverage Development (BUILD) program makes \$1.5 billion available in discretionary grant funding for road projects, bridges, transit, rail, ports, or intermodal transportation projects that promise significant local or regional impact. Key aspects of the BUILD grant program include the following:

- At least 30% of the funds will be awarded to projects located in rural areas
- The maximum grant award is \$25 million, with the restriction that no more than \$150 million will be awarded to a single state
- New criteria to qualify for funding was added, including innovation, partnerships, and “non-federal revenue” supporting the project

6.3.4.3 FHWA Funds

STP Funds

The Surface Transportation Program (STP) provides flexible funding that may be used by States and localities for projects to preserve and improve the conditions and performance on any Federal-aid highway, bridge and tunnel projects on any public road, pedestrian and bicycle infrastructure, and transit capital projects, including intercity bus terminals. This program is funded by contract authority from the Highway Account of the Highway Trust Fund. Funds are subject to the overall Federal-aid obligation limitation.

TAP

This program provides for a variety of alternative transportation projects, including many that were previously eligible activities under separately funded programs. The TAP is funded by contract authority from the Highway Account of the Highway Trust Fund. Funds are subject to the overall Federal-aid obligation limitation. An amount equal to 2% of the total amount authorized from the Highway Account of the Highway Trust Fund for Federal-aid highways each fiscal year is to be reserved for the TAP.

CMAQ

Funded by contract authority from the Highway Account of the Highway Trust Fund, these funds are subject to the overall Federal-aid obligation limitation. Once each State's combined total apportionment is calculated, an amount is set aside for the State's Congestion Mitigation and Air Quality Improvement Program (CMAQ) via a calculation based on the relative size of the State's FY 2009 CMAQ apportionment. Funds may be used for transportation projects likely to contribute to the attainment or maintenance of a national ambient air quality standard, with a high level of effectiveness in reducing air pollution and be included in the Metropolitan Planning Organization's (MPO's) current transportation plan and Transportation Improvement Program (TIP) or the current state transportation improvement program (STIP) in areas without an MPO.



Evaluation

The following table provides an analysis of the federal funding sources for the recommended projects based on the evaluation criteria presented in the introduction to this section of the report. High is good, Medium is average, and Low is not favorable.

Table 6.3: Preliminary Assessment of Federal Funding Sources

FTA Source	Ease of Application	Revenue Generation Potential	Local Funding Requirement	Application Schedule	Local Acceptance	Potential for Use / Issues
5309 New Starts	Medium. Rather long application, competition	High. Up to 50% of required funds	Medium. 50% or more local / state funding	Medium. Fall based rating process	Medium. Has been used in the region	Should be considered for BRT portions
5339 Bus Facilities	Medium. Need policy support	High. Up to 80% for some items	Medium. Depends on item	Medium. Annual appropriation	High. Previously secured	Should be considered for facilities
5307 / 5340 Formula	High. Annual	Low. Based on formula	Medium. For capitalized maintenance	High. Annual program	High. Transit agencies receive	Will support operations
5307 / 5311 Job Access	Low. Very Specific	High. 80% of program	Medium. Depends	Medium. Annual	Medium.	Could be used for express services
Flex Funds Title 23	Low. Somewhat long	High. Can be as much as 80%	High. Could be as low as 20%	Medium. On-going and as-needed	Low. Multiple Approvals	Requires region / DOT approval
STP	Medium. Given to State to allocate	Medium. Based on formula	Medium. Comparable to other programs	Medium. Annual	Low. Multiple approvals	Requires region / DOT approval
TAP	Low. Specific requirements	Medium. Same as other programs	Medium. Same as other programs	Medium. Annual	Low. Local program may not fit	May not be applicable
CMAQ	Medium. State allocations	Low. Typically used for operations	Medium. Comparable to other programs	Medium. Annual	Low. Local program may not fit	May not be applicable
BUILD	Medium. Rather long application, competition	Medium. Could fund smaller projects	Medium. Requires local / state funding	Medium. Fall based rating process	Medium. Has been used in the region	Should be considered for portions of facilities

6.3.4.4 Potential State Funding Sources

The State of Florida, through the FDOT, has many funding programs available to grantees for both transit capital and operating programs. Some programs, such as the Commuter Assistance Program, are not discussed below due to their lack of applicability. The remainder of the programs is discussed



below. At the end of this section there is an assessment of the potential state funding sources using the criteria outlined previously.

FDOT New Starts Transit Funding

The New Starts Transit Program ("NSTP") was established by the 2005 Florida Legislature to assist local governments in developing and constructing fixed guideway and bus rapid transit projects to accommodate and manage urban growth and development. A secondary purpose of the program is to leverage State of Florida funds to generate local transportation revenues and secure FTA New Starts Program funding for Florida projects. NSTP funds may be used to support final design, right-of-way acquisition, and construction projects. The NSTP will follow the selection guidelines of the FTA Section 5309 New Starts Program. To receive funding, a project must have either a Record of Decision (for an EIS) from the Federal Transit Administration or a Finding of No Significant Impact (for an EA).

Funds may be transferred from the FDOT Central Office Incentive Account to any FDOT district office and are programmed on a "dollar for dollar" basis with dedicated local funding, once a locally preferred alternative is selected. Once a project receives a "recommended" rating on its New / Small Starts Application from the FTA, a FDOT Joint Participation Agreement (JPA) with the local agency can be executed. In the absence of, or in advance of federal participation, the FDOT district office may program funds concurrent with the commitment and programming of local funds.

The state's participation of transit capital projects may not exceed 50% of the nonfederal share of a project. For individual fixed guideway projects not approved for federal funding, the maximum state share is 12.5% of the costs of final design, right-of-way acquisition, and construction. Other state funds, such as Transportation Regional Incentive Program funds or Intermodal Program funds, cannot be used as match for NSTP funds.

Intermodal Development Program

As indicated in the FDOT Transit Resource Guide, the Intermodal Development Program was developed to provide funding for major capital investments in fixed-guideway transportation systems; access to airports and other transportation terminals; and construction of intermodal or multimodal terminals. The Program is authorized in Section 341.053, *F.S.*, FDOT is authorized to fund projects within the Intermodal Development Program, which are consistent, to the maximum extent feasible, with approved local government comprehensive plans of the units of local government in which the project is located. Eligible projects include major capital investments in public rail and fixed-guideway transportation facilities and systems which provide intermodal access; road, rail, intercity bus service, or fixed-guideway access to, from, or between seaports, airports, and other transportation terminals; construction of intermodal or multimodal terminals; development and construction of dedicated bus lanes; and projects that otherwise facilitate the intermodal or multimodal movement of people and goods.

Public Transit Block Grant Program

The Public Transit Block Grant Program, as indicated in the FDOT Transit Resource Guide, was established by the Florida Legislature to provide a stable source of funding for public transit. Funds are awarded by FDOT to those public transit providers eligible to receive funding from the Federal Transit Administration's Sections 5307 and 5311 programs and to Community Transportation Coordinators. The Department of Transportation distributes 85% of the funds to FTA Section 5307



providers and to FTA Section 5311 providers who are not Community Transportation Coordinators. The Florida Commission for the Transportation Disadvantaged distributes 15% of the funds to Community Transportation Coordinators according to their own funding formula. Public Transit Block Grant funds may be used for eligible capital and operating costs of providing public transit service. Program funds may also be used for transit service development and transit corridor projects. Public Transit Block Grant projects must be consistent with applicable approved local government comprehensive plans. State participation is limited to 50% of the non-federal share of capital projects. Program funds may be used to pay up to 50% of eligible operating costs or an amount equal to the total revenue, excluding farebox, charter, and advertising revenue, and federal funds received by the provider for operating costs, whichever is less.

Transit Corridor Program

The Transit Corridor Program provides funding to Community Transportation Coordinators or transit agencies to support new services within specific corridors when the services are designed and expected to help reduce or alleviate congestion or other mobility issues within the corridor. As authorized in Chapter 341, Florida Statutes, Transit Corridor funds are discretionary and are distributed based on documented need. Transit Corridor Program funds may be used for capital or operating expenses. Eligible projects must be identified in a Transit Development Plan, Congestion Management System Plan, or other formal study undertaken by a public agency. According to the FDOT Transit Resource Guide, the FDOT Central Office annually reviews all existing Transit Corridor projects and allocates, to the respective FDOT district office, sufficient funds to cover these ongoing projects. First priority for funding under this program is for existing projects to meet their adopted goals and objectives. Any remaining funds are allocated to each of the districts by formula, based on each district's percentage of the total state urbanized population. Projects are funded at one-half the non-federal share. Projects designed to alleviate congestion in a region may receive up to 100%.

County Incentive Grant Program (CIPG)

The County Incentive Grant Program (CIPG) is codified in Section 339.2817, *F.S.* According to the FDOT Transit Resource Guide, the purpose of the program is to provide grants to counties to improve a transportation facility (including transit) that is located on the State Highway System or that relieves traffic congestion on the State Highway System. Municipalities are eligible to apply also and can do so by submitting their application through the county. CIPG funds are distributed to each FDOT district office by statutory formula. FDOT will cover 50% of eligible project costs.

Eligible projects include those that improve the mobility on the State Highway System (SHS); encourage, enhance, or create economic benefits; foster innovative public-private partnerships; maintain or protect the environment; enhance intermodalism and safety; and those that advance other projects. New technologies such as intelligent transportation systems that enhance the efficiency of projects also are eligible. CIPG is managed within the FDOT district. Each year, each district notifies the counties within its boundaries of the availability of CIPG funds and asks that applications be submitted by a certain deadline. The District ranks the projects according to the selection criteria and selects projects as funds are made available.



Transportation Regional Incentive Program (TRIP)

TRIP was created by the 2005 Legislature to improve regionally significant transportation facilities in "regional transportation areas." As indicated in the FDOT Transit Resource Guide, State funds are available throughout Florida to provide incentives for local governments and the private sector to help pay for critically needed projects that benefit regional travel and commerce. FDOT will pay for 50% of project costs, or up to 50% of the non-federal share of project costs for public transportation facility projects. This program can be used to leverage investments in regionally significant transportation facilities and must be linked to growth management objectives.

Eligible TRIP projects must be identified in appropriate local government capital improvements program(s) or long-term concurrency management system(s) that are in compliance with State comprehensive plan requirements. In addition, projects must be consistent with the Strategic Intermodal System and support facilities that serve national, statewide, or regional functions and function as an integrated transportation system. Upon funding availability, the FDOT district offices will provide district priorities for TRIP funds to the FDOT Central Office. Based on the guidance developed by the FDOT Central Office, the District Office will notify successful applicants and program those projects. Selected projects may also be eligible for revolving loans and / or credit enhancements from the State Infrastructure Bank (SIB) program. If project funding is awarded through the SIB, the funding must be matched by a minimum of 25% from funds other than the SIB. SIB loans can be made to a FDOT district office or the Turnpike Enterprise, or they can be between the Department and an entity external to the Department (e.g., County, City, or Expressway Authority).

Park & Ride Program

This program provides for the purchase and / or leasing of private land for the construction of Park & Ride lots, the promotion of these lots, and the monitoring of their usage. Specific program guidelines are provided in FDOT Procedure Topic Number 725-030-002. This program is an integral part of the commuter assistance program efforts to encourage the use of transit, carpools, vanpools and other high occupancy modes.

FDOT has established criteria for Park & Ride planning to assist in siting, sizing, and disposal of Park & Ride facilities. These criteria are contained in the *State Park & Ride Lot Planning Handbook*. Proposed plans and designs for Park & Ride lots should be reviewed and approved by the FDOT district office to ensure that FDOT Park & Ride lot guidelines have been met. Park & Ride facilities constructed by the FDOT or funded in whole or in part by the FDOT, must be sited, sized, and promoted in such a way that there is a reasonable expectation of at least an average 60% occupancy.

Local agencies may request the use of Park & Ride Lot Programs funds by filing a project proposal with the FDOT district office, which sends a project priority list to the FDOT Central Office. The FDOT Central Office determines which projects will be funded. FDOT will fund up to one-half the non-federal share of Park & Ride Lot capital projects. If a local project is in the best interest of FDOT, then the local share may be provided in cash, donated land value or in-kind services. If federal funds are involved, federal match guidelines shall be used.



Transit Corridor Development Funds

Discretionary funding allocated to specific projects by FDOT policy makers to assist in initiating new transit or rail service. Assistance can be either capital or operating grants, although operating assistance is limited to a defined timeframe – typically three years. Project must be consistent with the local comprehensive plan and be included in MPO plan and TIP. The project funding can be as much as 50% of the non-federal share of capital and operating costs. However, it should be noted that this State program has funding issues, and the competition is high for project funding. Local transit agencies submit projects to the Districts, and the Districts prioritize the projects and distribute based on ranking and available funds.

Evaluation

The following table provides an analysis of the state funding sources based on the evaluation criteria. High is good, Medium is average and Low is not favorable.



Table 6.4: Preliminary Assessment of State Funding Sources

State Source	Ease of Application	Revenue Generation Potential	Local Funding Requirement	Application Schedule	Local Acceptance	Potential for Use / Issues
New Starts Transit Program	Medium. Depends on Federal decision	High. Up to 25% of required funds	Medium. 25% or more local funding	Medium. Federal rating process	Medium. New Starts has been done in region	Should be considered with other funds for BRT
Intermodal Development Program	Medium. Parts of Vision Program applicable	High. Based on program costs	Medium. Depends on item.	Medium. Annual selection of projects	Medium. Case can be made on cross region items	Should be considered
Public Transit Block Grant Program	High. Annual, used for operations	Low. Based on formula	Medium. Supports local funding	High. Annual allocation	High. Transit agencies currently receive	Will support operations
Transit Corridor Program	Medium. Both Central office and District	High. Up to 50% of non Federal share	Medium. Depends on other funding	Medium. Annual discretionary	Medium. Depends on local competition	Should be considered
County Incentive Grant Program	Medium. Distributed to Districts	High. Can be as much as 50%	Low. Could be as high as 50%	Medium. Annual Discretionary	Low. Multiple Approvals	Requires County / DOT approval
Transportation Regional Incentive Program	Low. Based on Districts, based on SIS	High. Up to 50% of Project	Low. Could be as high as 50%	Medium. Annual Discretionary	Low. Multiple approvals	Requires region / DOT approval
Park & Ride Program	Medium. Application easy.	High. Up to 50% of the non-Federal share	Medium. Depends on Federal versus local funding	Medium. Annual allocation and application	Medium. This is an established funding source	Considered where Park & Ride part of program
Transit Corridor Development Program	High. Operations support request easy	High. Could fund operating deficit	Medium. Same as other programs	High. Could fund new route up to 3 years	High. Operations program may fit	Should be considered

6.3.4.5 Potential Local / Private Funding Sources

Local funds will be necessary to provide the local match share of the federal capital grants and the operating and maintenance costs not covered by the passenger farebox revenue and federal or state assistance for the vision plan alternative. Local funds for existing transit service and anticipated capital improvements projects can come from any available local funding source. Most transit



systems fund the local share from the general fund or with special taxes dedicated to public transportation (e.g., gas tax, vehicle registration).

Local revenue sources, including fare receipts, have a primary role in funding transit programs, and can be considered for operating future capital projects. Most communities make either additional discretionary contribution from a general fund or dedicate specific revenues to transit, especially for new capital projects. For example, some communities fund transit by dedicating a portion of hotel / motel taxes, property tax revenues or vehicle registration fees.

There are other types of local funding sources that are used throughout the country for local share of existing transit service or to fund or operate new transit projects. These include, but are not limited to: fuel tax, property tax, income tax, sales tax, real-estate transfer tax, emission fees, auto registration fees, utility excise tax, payroll / "head" tax, rental vehicle tax, parking tax, hotel / motel room tax, business licenses and fees, ad valorem tax, special-benefit assessment districts, local / business improvement districts, utility / service districts, impact fees, in-kind contributions, land transfer fees, and tax increment assessments.

Finally, there is potential for private sector participation in existing transit service as well as future projects. Typically, private financial participation in the provision of transit services primarily is limited to specific projects such as the joint development of a tract of real estate or the leasing of new equipment. Potential private fund sources typically include: advertising, joint development, concession agreements, selling surplus, Park & Ride agreements, lease equipment agreements, grant anticipation notes, revenue anticipation notes, and infrastructure banking. Recently, the private sector has been assisting in the implementation of capital projects by providing or subsidizing items such as buses or shelters, and through business associations, providing operating subsidies. Several potential local / private revenue sources for the Regional Transit Vision are outlined below.

General Revenue Contributions to Capital and Operating

This funding is currently used by the governments in the study area to provide local match to the respective transit agencies for capital expenditures such as buses and customer amenities, as well as to offset operating deficits after farebox recovery. This will continue to be an important revenue source, especially for transit operations. Another way to use general revenue is to utilize existing budget items such as public works project (signalization / intersection) in the study area for BRT projects as well as express bus projects.

Local Option Gas Tax

Often, there is an interest on the local government's part to also consider bonding other revenue sources for transportation improvements, such as the Local Option Gas Tax.

Bond / Sales Tax

Several local government have enacted, either currently, or in the past, a sales tax to fund transportation projects. Most notable is Seminole County, which has funded a robust capital program. The governments within the study area could approve a sales tax, which would fund a bond issue to finance local aspects of the transit program. According to the Florida Department of Revenue, the following is the amount of revenue generated by a 1% sales tax for the counties within the study area.



Table 6.5: Local Discretionary Sales Surtax Levies in Florida's Counties

County	Estimated County-wide Distribution @1% Tax Rate	Maximum Potential Tax Rate	Current 2018 Tax Rate
Brevard	\$90,856, 460	3	0.5
Flagler	\$12,212,034	2	0.5
Lake	\$48,456,640	2	1
Marion	\$42,282,954	2	1
Orange	\$529,239,900	3	0
Osceola	\$56,161,759	3	1
Polk	\$93,098, 696	3	0.5
Seminole	\$78,523,765	3	1
Sumter	\$15,602,955	2	1
Volusia	\$90,190,101	3	0

Special Benefit Assessment Districts

To capture benefits associated with enhanced real estate development partially attributable to improvements in transportation corridors, many jurisdictions create special assessment districts. Often called a Municipal Services Taxing Unit (MSTU) or a Municipal Services Benefit Unit (MSBU), a special assessment is charged upon real estate deriving a special benefit from a nearby capital improvement that is used to cover debt service for the improvement. Frequently, the assessment is apportioned on the basis of the front footage of the land, although other valuations such as land area or the value of the property benefited are also used. This type of assessment has been utilized to pay for special public works projects.

Right-of-Way

This source of funding becomes relevant should the project sponsors decide to pursue Federal Section 5309 funding. Should this occur, the project sponsors could utilize the non-Federal share of the purchase or donation as a “local match” for the federal funding. This number does not include state and local funds for development of conceptual plans and programs. The large capital projects would require at least a 20% local match. As part of the recommended Regional Transit Vision, it is anticipated that the right-of-way for any proposed transit facilities could be donated and used as local match.

Tax Increment Financing

Per requirements stipulated in F.S. Chapter 163, municipalities or counties may designate a Community Redevelopment Area to address the removal of slum and blight. Following a process that includes the Finding of Necessity (by resolution), the adoption of a Redevelopment Plan (by public hearing / ordinances), and the creation of a Tax Increment Trust Fund (by public hearing / ordinances), the city / county may establish a Community Redevelopment Agency (CRA). The financing instrument under this program enables the CRA to receive contributions from the affected taxing jurisdictions within the planning area. The contribution formula is based on 95% of the ad valorem tax revenues generated by each taxing entity from any new taxes generated within the CRA



area subsequent to the adoption of the Redevelopment Plan. All revenues from these contributions must be deposited into the Tax Increment Trust Fund and the monies spent on implementing programs identified in the adopted plans. The CRAs have a thirty-year “sunset” provision. However, this revenue stream takes several years to mature. Consequently, TIF revenues, or similar mechanisms that depend on the increase in property values, may be better suited as a potential source of operating funds.

Business Improvement Districts

Under Chapter 170, *F.S.*, Business Improvement Districts (BID) may be established by a municipality or county resolution. The establishment of a BID is predicated on the approval of a majority of the property owners to be included in the designated districts. The funds from the non-ad valorem assessment of the property owners can be used to promote / market the area enhance security, maintenance, beautification and transportation. The property owners must be specially benefited by the provision of the BID services and are assessed upon each such property in reasonable proportion to the benefits derived from the services. There are numerous such BIDs established throughout the State. BIDs typically rely on an assessment applied to the properties within a defined area based on assessed property values, per square foot charges, or linear frontage. The property owners must agree to the assessment. The statutes enabling the formation of BIDs provide flexibility in purpose and disposition of BID assessments. For example, the provision of mass transportation systems is specifically referenced in the law.

Advertising / Corporate Sponsorships

A growing trend in the transit industry is for local businesses, outside a formalized organization such as a CRA or BID, to provide capital and / or operating support for specialized services. This could include the donation of a bus stop or shelter, often in return for advertising rights.

Renegotiate Existing or Enter New Service Agreements

Many of the transit agencies in the study area have existing service agreements that are either current or have expired but are still in operation. There exists the potential to renegotiate these existing service agreements or enter into new service agreements to cover portions of the operations cost as well as the capital costs of the Regional Transit Vision program. For the higher capacity project such as BRT, this may include Public Private Partnerships that include capital and operations. For other projects such as express services, it may include blended rates to offset the higher costs of express services, or privatized express services with public subsidy.

Evaluation

The following table provides an analysis of the local funding sources based on the evaluation criteria. High is good, Medium is average and Low is not favorable.



Table 6.6: Preliminary Assessment of Local / Private Funding Sources

Local / Private Source	Ease of Application	Revenue Generation Potential	Local Funding Requirement	Application Schedule	Local Acceptance	Potential for Use / Issues
General Revenue	High. Currently used	Medium. Competing Priorities	N/A	Medium. Annual	High. Normal Funding	Considered with other funds
Local Option Gas Tax	Medium. Current Source	Medium. Competing Priorities	N/A	Medium. Annual	High. Normal Funding	Considered. Minor source
Bond / Sales Tax	High. Annual, current	Medium. Competing Priorities	N/A	High. Annual allocation	Low. Tax issue would need to be passed	Can be creatively utilized
MSTU / Special District	Low. Requires analysis / vote	High. Can fund parts of the program	N/A	High. Annual Budget	Medium. Existing CRAs	Can be difficult to implement
Right-of-Way	Medium. To be determined	Low. ROW needs	N/A	High. One time consideration	High. ROW is required	Based on ROW needs
Tax Increment Financing-CRAs	High. Several currently exist	Medium. Competing Priorities	N/A	Medium. Annual Discretionary	High. Several currently exist	Considered with other funds
Business Improvement Districts	Low. CRAs exist	High. Could fund project	N/A	Medium. Annual Discretionary	Low.	Difficult to implement
Corporate Sponsorship	Medium. Case by Case	Medium. Depends on items	N/A	High. Case by Case, as needed	Medium. Yet to be explored	Can be creatively utilized
Renegotiate / New Service Agreements	High. Existing Agreements	Medium. Cover part of costs	N/A	High. Negotiate as soon as possible	High. Currently exist in study area	Considered with other funds

6.4 FUNDING STRATEGY

Based on the results of capital cost and operating and maintenance cost estimates as well as the results of the existing and potential revenue source analysis, Table 6.7 presents a potential reasonable funding strategy is presented for the recommended short term high priority regional transit capital investments. As can be seen from the capital table, the short term, high priority investments would require an additional \$14 million of Federal funds per year over the next 20 years. It should be noted that the majority of these funds are for the DeLand SunRail extension and the SR 50 BRT projects. The program requires an additional \$8 million annually from the state, as well as \$6 million locally. The aforementioned projects make up a large part of the state and local share.

With regards to O&M, the regional cost would increase by approximately \$46 million over the 2018 base with implementation of the short term, high priority elements of the Regional Transit Vision, a



20% increase. However, over \$19.5 million of that cost is associated with the higher capacity DeLand SunRail extension, and the SR 50 and SR 436 BRT projects. The SunRail Phase 2 North extension O&M is the subject of a separate agreement between the local funding partners. The SR 50 and SR 436 projects, in all likelihood, will require private participation to implement, possibly through a Public Private Partnership. It is assumed that the operating cost of those programs will be part of the agreement, with a then identified source.

The remaining \$26.5 million could be funded through a multitude of existing resources, including but not limited to Federal capitalized maintenance, Federal formula funds, Federal access to work / reverse commute funds, State Block Grant funds, Transit Corridor Development funds, general revenue fund and special contracts / sponsorships.



Table 6.7: Potential Capital Funding Strategy

Project	Mode	Grand Total	Federal Share	Sources	State Share	Sources	Local Share	Sources
Ocala / Marion County								
Ocala / Belleview / Villages Limited Express	Limited Stop	\$4,400,000	\$2,200,000	5339	\$1,760,000	Corridor Dev./ Block Grant	\$440,000	General Revenue / Gas Tax
I-75 / CR 484 Intermodal Facility	Facility	\$19,300,000	\$9,650,000	5339 / BUILD	\$4,825,000	Intermodal Dev./ Park & Ride	\$4,825,000	Partner Agreements
Lake/Sumter County								
LakeXpress 1A Service / Spanish Springs Improvements	Enhanced Bus	\$2,300,000	\$1,150,000	5339	\$920,000	Corridor Dev./ Block Grant	\$230,000	General Revenue / Gas Tax
LakeExpress 4 and US 19 / US 441 Improvements	Enhanced Bus	\$2,300,000	\$1,150,000	5339	\$920,000	Corridor Dev./ Block Grant	\$230,000	General Revenue / Gas Tax
LakeXpress 5E / 5W Service Improvements	Enhanced Bus	\$2,300,000	\$1,150,000	5339	\$920,000	Corridor Dev./ Block Grant	\$230,000	General Revenue / Gas Tax
SR 50/ Turnpike Intermodal Facility	Facility	\$19,300,000	\$9,650,000	5339 / BUILD	\$4,825,000	Intermodal Dev./Park & Ride	\$4,825,000	Partner Agreements



Project	Mode	Grand Total	Federal Share	Sources	State Share	Sources	Local Share	Sources
Polk County								
Link 427 Service Improvements	Enhanced Bus	\$1,300,000	\$1,040,000	5339	\$130,000	Block Grant	\$130,000	General Revenue
Feeder Service to Poinciana SunRail /3 Park & Ride lots	Express Bus	\$27,600,000	\$13,800,000	5339 / 5307 / 5311	\$11,040,000	Intermodal Dev./ Park & Ride	\$2,760,000	General Revenue / Gas Tax
Lakeland to Disney (new service)	Express Bus	\$4,600,000	\$2,300,000	Flex / NHS / STP	\$1,840,000	Corridor Dev./ Block Grant	\$460,000	General Revenue / Gas Tax
Lakeland to Poinciana SunRail (new service)	Express Bus	\$4,600,000	\$2,300,000	Flex / NHS / STP	\$1,840,000	Corridor Dev./ Block Grant	\$460,000	General Revenue / Gas Tax
Lakeland Intermodal Facility	Facility	\$19,300,000	\$9,650,000	5339 / BUILD	\$4,825,000	Intermodal Dev./ Park & Ride	\$4,825,000	Partner Agreements
Brevard County								
Express Bus from ESC to UCF	Express Bus	\$9,900,000	\$4,950,000	5339 / STP	\$3,960,000	Corridor Dev./ Park & Ride	\$990,000	General Revenue / Gas Tax
Express Bus from County to OIA	Express Bus	\$9,900,000	\$4,950,000	5339 / STP	\$3,960,000	Corridor Dev./ Park & Ride	\$990,000	General Revenue / Gas Tax
Clearlake Intermodal Facility	Facility	\$19,300,000	\$9,650,000	5339 / BUILD	\$4,825,000	Intermodal Dev./ Park & Ride	\$4,825,000	Partner Agreements



Project	Mode	Grand Total	Federal Share	Sources	State Share	Sources	Local Share	Sources
Volusia County								
SunRail Extension to DeLand	Commuter Rail	\$77,000,000	\$38,500,000	Flex / NHS / STP	\$19,250,000	Small Starts	\$19,250,000	General Revenue
Express Bus from Daytona to Orlando / 2 Park & Ride lots	Express Bus	\$19,300,000	\$9,650,000	5339 / STP	\$7,720,000	Corridor Dev./ Park & Ride	\$1,930,000	General Revenue / Gas Tax
Daytona Beach West Side Intermodal Terminal	Facility	\$19,300,000	\$9,650,000	5339 / BUILD	\$4,825,000	Intermodal Dev./ Park & Ride	\$4,825,000	Partner Agreements
Orange / Seminole / Osceola Counties								
LakeExpress 4 and US 19 / US 441 Improvements	Enhanced Bus	\$2,300,000	\$1,150,000	5339	\$920,000	Corridor Dev. / Block Grant	\$230,000	General Revenue / Gas Tax
LakeXpress 5E / 5W Service Improvements	Enhanced Bus	\$2,300,000	\$1,150,000	5339	\$920,000	Corridor Dev. / Block Grant	\$230,000	General Revenue / Gas Tax
Express Bus from ESC to UCF	Express Bus	\$11,000,000	\$5,500,000	5339 / STP	\$4,400,000	Corridor Dev. / Block Grant	\$1,100,000	General Revenue / Gas Tax
Express Bus from County to OIA	Express Bus	\$11,000,000	\$5,500,000	5339 / STP	\$4,400,000	Corridor Dev. / Block Grant	\$1,100,000	General Revenue / Gas Tax
Link 427 Service Improvements	Enhanced Bus	\$1,300,000	\$1,040,000	5339	\$130,000	Block Grant	\$130,000	General Revenue
SR 436-Apopka SuperStop to Altamonte SunRail	BRT Light	\$18,000,000	\$9,000,000	5339 / BUILD	\$4,500,000	Corridor / Intermodal	\$4,500,000	Partner Agreements
SR 436-Altamonte Springs SunRail to OIA	BRT Light	\$29,600,000	\$14,800,000	5339 / BUILD	\$7,400,000	Corridor / Intermodal	\$7,400,000	Partner Agreements



Project	Mode	Grand Total	Federal Share	Sources	State Share	Sources	Local Share	Sources
SR 50-Orlando Health to UCF Transfer Ctr.	Mixed BRT	\$207,400,000	\$103,700,000	Small Starts	\$51,850,000	Small Starts	\$51,850,000	Partner Agreements
East / West Express-UCF to Turnpike / SR 50	Express Bus	\$16,800,000	\$8,400,000	5339 / 5307 / 5311	\$6,720,000	Intermodal Dev / Park & Ride	\$1,680,000	General Revenue / Gas Tax



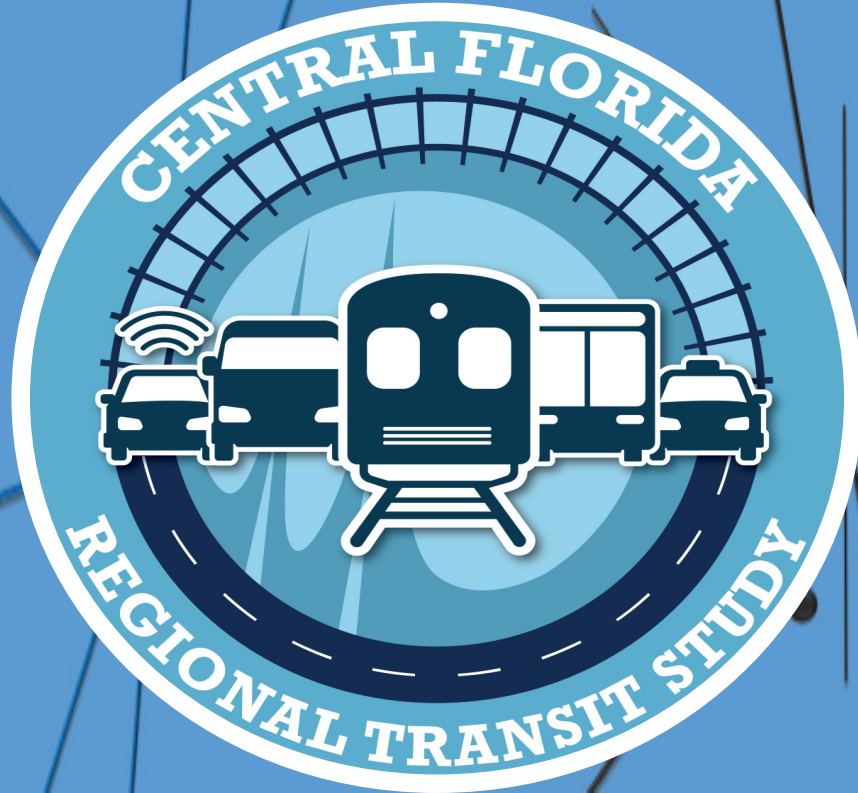
6.5 NEXT STEPS / CHALLENGES

The opportunities for a quality multimodal transportation system and effective and efficient land use in central Florida are practically limitless. As the area grows over the next several decades, transportation and land use will play a key part in maintaining and increasing the quality of life within the region. However, in order to play that role, several immediate challenges must be met. These challenges include, but are not limited to the following:

- **Long Range Regional Planning Involvement:** Transit agencies must become a player in regional planning, from both a transportation and land use standpoint. This includes working with the MPOs / TPOs to incorporate the Regional Transit Vision into the Long Range Transportation Plan updates, the Financially Constrained Networks and Transportation Improvement Program process.
- **Local Planning and Development Involvement:** Transit must play a role in the comprehensive planning, zoning, land development and master planning activities at the local government level. This includes working with the numerous counties and cities within the region to better integrate transit and land use in their respective comprehensive plans and land development / zoning codes.
- **Private Sector Participation:** Transit must actively pursue joint development at transit facility locations, as well as actively pursue joint ventures with private developers in activities such as Public Private Partnerships (P3). This should include a real estate plan and program for advanced acquisition for future transportation corridors, and station areas.
- **Regional Cooperation:** The transit agencies within central Florida must work on issues such as fare policy, fare media, and fare collection technology. In addition, coordination and cooperation on route planning, route structure and system operations are a must to advance transit regionally. This includes working with FDOT and local jurisdictions on developing a plan for use of transit priority measures on major state facilities and arterials.
- **Utilization of Technology:** In addition to the aforementioned fare collection technology, the region must begin to utilize technological advances in the Intelligent Transportation Systems arena such as Automatic Vehicle Location devices for real time travel, travel planning centers, automated vehicle maintenance programs, and CCTV for congestion management. The transit agencies should identify near term demonstration projects to showcase the Regional Transit Vision, including but not limited to autonomous vehicles, regional fare policy / media, coordinated marketing, transit priority measures and other technological advances.
- **Commitment to the Environment:** Regional use of transit friendly-development practices will lower the impact of the automobile on the environment. Implementation of clean fuel autonomous buses will assist in cleaner air, while use of existing transportation corridors for future improvements will lessen the impact on vacant or undeveloped land.



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- **Development of a Transit Amenity Program:** For existing and future corridors, the transit agencies must develop a comprehensive hierarchical transit amenity package, which includes facilities ranging from Park & Ride lots and intermodal transit centers to basic sheltered local stops. This is critical to retain existing customers as well as attract future customers.
 - **Allocation of Available and Potential Financial Resources to Meet the Transportation Needs of the Region:** This includes utilizing existing and future funding sources for cross-jurisdictional projects, fixed guideway projects, intermodal facilities and a transit amenities program. This could include the identification and establishment of a regional dedicated funding source(s) for the local match for transit projects.
 - **Cooperation in Setting Priorities.:** The first step of this Regional Transit Vision contains half a billion dollars (\$500 million) of transit capital investment scattered throughout the region. Given the current and anticipated Federal, state and local funding situation, the governmental entities within the region, as well as the transit agencies must work together to prioritize projects based upon, in part, project need, anticipated impact, area-wide benefit and local funding.



Regional Transit Study Final Report

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