

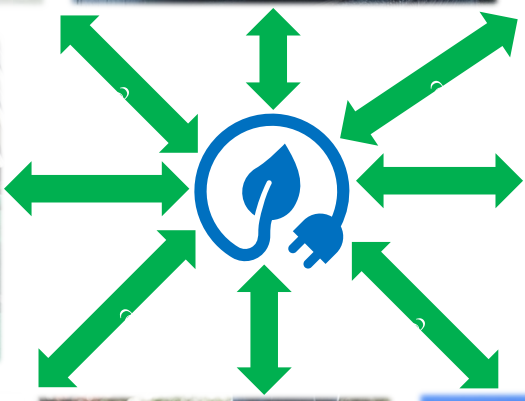


St. Lucie
Transportation Planning Organization

Automated Connected Electric and Shared-Use
Sustainable Transportation Plan
August 2023

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Engineers • Planners • Program Managers • Environmental Scientists
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Introduction

The St. Lucie TPO continues to be at the forefront of planning for efficient and sustainable mobility services. Mobility strategies of all transportation modes, technology, land use and the economy will need to work in coordination to form a sustainable mobility network that will have low impact on the environment, and will include walking, cycling, transit, carpooling, car sharing, and low carbon footprint vehicles that are Automated, Connected, Electric and Shared-use (ACES).

The 2045 Smart Moves Long Range Transportation Plan (2021) called for the development of an ACES vehicle network along major highways that considers infrastructure improvements that more efficiently and sustainably use existing roadway capacity as an alternative for building more capacity. The TPO has also developed and updated in 2023 its Electric Vehicle Charging Station Plan. The purpose of this plan is to identify the location of public charging stations for electric vehicles that allow for rapid charging and to assess the need for additional stations.

The TPO now will continue to leverage and unify prior, current, and planned efforts to further develop the Smart Moves LRTP ACES plan by identifying the most immediately relevant infrastructure needs through the St. Lucie TPO Sustainable Transportation Plan.

The most readily implementable infrastructure from the perspective of public need, technology acceptance, investor readiness, and public funding potential is Electric Vehicle Supply Equipment (EVSE), commonly called charging stations. There are three types of charging stations: Level 1, Level2 and Direct-Current (DC) Fast Charging, with Level 2 focused more on parking places, and Level 3 focused more on pull-through stations. Leveraging EVSE infrastructure with transit and micro mobility networks, a critical infrastructure component will become Mobility Hubs that bring all of the transportation modes and technologies together, allowing coordinated transfers and introducing greater numbers of single-occupant vehicle drivers to the new mobility. The focus of the Sustainable Transportation Plan is on building an ACES enabling network of Mobility Hubs that unite ACES infrastructure into a mobility network that is ready for continued future adaption to ACES vehicles.

This study is short-range in scope to coordinate existing efforts and identify new opportunities toward immediately "shovel-ready" projects that are eligible for priority funding and/or coordination with new development.

Conceptual example of urban mobility hub incorporated in an employment center

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1 Review of Existing Plans

Introduction

The purpose of this section is to identify and review the existing plans that are related to developing an ACES network of infrastructure in St. Lucie County. There is a particular focus on intermodal hub plans, as well as EV fleet and infrastructure plans as these are the components of ACES that currently have more activity. This section also includes an inventory of existing land uses and development to identify possible ACES gap and opportunity locations that meet the criteria for people to have greater intermodal mobility access, as well as access to EV charging infrastructure within proximity to major roadways and enroute locations for private, shared, and public EV, reducing range anxiety and improving acceptance and adoption of more sustainable transportation options.

1.1 Plans Review

Smart Moves 2045, St Lucie TPO Long Range Transportation Plan

St. Lucie TPO; adopted February 3, 2021

"*Smart Moves 2045*", the St. Lucie TPO Long Range Transportation Plan (LRTP) is the plan through the horizon year 2045 for the TPO to identify and address the needed improvement to the transportation network in St. Lucie County, including the City of Port St. Lucie, St. Lucie Village, the City of Fort Pierce, and unincorporated St. Lucie County. More than identifying and coordinating needs, the LRTP provides a financially constrained long-term investment framework to address the current and future transportation challenges, and support and guide community development in the county. The Smart Moves 2045 LRTP called for the development of an ACES vehicle network along major highways that considers operational improvements as an alternative for addressing capacity issues. In addition, several projects in the Multimodal Needs Plan are important to the EVSE Update and are listed below.

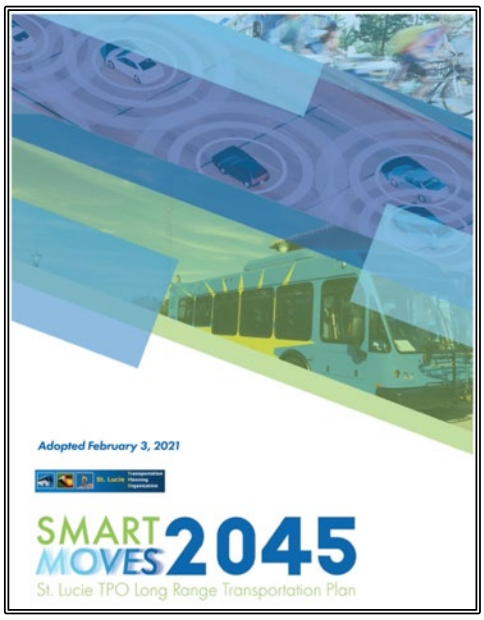


Table 1.1
Electric Vehicle Charging Station Relevant Projects from the St. Lucie TPO LRTP

Project Name/Type		Location	Description	Status	Relevance
4226814	**Jobs Express Terminal Park & Ride Lot**	Gatlin Boulevard at Brescia Street	Jobs Express Terminal at the south side of Gatlin Boulevard east of I-95, is a high-priority regional multi-modal mobility asset developed to support regional commuter trips in St. Lucie County. The Jobs Express Terminal includes:	Complete	The Jobs Express Terminal is located within 1 mile of the I-95 Gatlin Blvd. interchange and is a relevant location for deployment of Level 3 DCFS

Project Name/Type		Location	Description	Status	Relevance
			• parking capacity for 162 vehicles • sheltered bus stop bays for 6 buses • Level 3 electric vehicle charging stations • Secure environment with lighting and ADA accessibility		consistent with the Florida EVMP.
Needs Plan ID 101	**New SIS Interchange**	Florida's Turnpike at Midway Road	New tight diamond interchange, estimated at $89.07-million with assumed revenue sources from "State, Other Roads, construction and ROW" funds. (new project added since 2040 LRTP)	Cost Feasible Plan	New interchange changes the driveshed for the DCFC SIS and the NHFN networks by adding a new node.
Needs Plan ID 102	**New SIS Interchange**	Fl Turnpike at Northern Connector	New interchange for a private developer-built road that is considered one project with project ID 103.	Private Funding	New interchange changes the driveshed for the DCFC SIS and NHFN networks by adding a new node.
Needs Plan ID 103	**New SIS Interchange**	I-95 at Northern Connector	New interchange for a private developer-built road that is considered one project with project ID 102.	Private Funding	New interchange changes the driveshed for the DCFC SIS and NHFN networks by adding a new node.
Needs Plan ID 105, 106	**Airport Connector**	From I-95 to Kings Highway	New 4-lane roadway that is in two segments: I-95 to Johnston Road and Johnston Road to Kings Highway, with cost estimate at $61.91-million.	Cost Feasible Plan	New spur extends driveshed for DCFC SIS and also connects to airport as a DCFC location that fulfills implementation of the Florida EVMP.
Needs Plan ID 155	**ACES Network**	I-95 at Becker Road	Addition of DCFC – specifics TBD	Unfunded	Additional location for Level 3 DCFC fulfills implementation of the Florida EVMP
Needs Plan ID 156	**ACES Network**	I-95 at Midway Road	Addition of DCFC – estimated at $16.17-million	Cost Feasible Plan	Additional location for Level 3 DCFC fulfills implementation of the Florida EVMP.
Needs Plan ID 157	**ACES Network**	Okeechobee Road between Florida's Turnpike & I-95	Addition of DCFC – estimated at $16.17-million	Cost Feasible Plan	Additional location for Level 3 DCFC fulfills implementation of the Florida EVMP.
Needs Plan ID 158	**ACES Network**	I-95 at Indrio Road	Addition of DCFC – specifics TBD	Unfunded	Additional location for Level 3 DCFC fulfills implementation of the Florida EVMP.
Needs Plan ID 168	**ACES Network**	I-95 at Crosstown Parkway	Addition of DCFC – specifics TBD	Unfunded	Additional location for Level 3 DCFC fulfills implementation of the Florida EVMP.
Needs Plan ID 416	**Port St. Lucie City Center Transit Hub Phase II**	395 Deacon Avenue across from the City municipal Complex and PSL Community Center	The project is to make the Port St. Lucie Intermodal station as an enjoyable and secure destination that will both serve existing riders and attract new ones.	Unfunded In design phase	Additional location for Level 3 DCFC fulfills implementation of the Florida EVMP.

ACES: Automated Connected Electric Shared-Use
DCFC: Direct Current Fast Charger
SIS: Florida Strategic Intermodal System
NHFN: National Highway Freight Network
EVMP: Florida Electric Vehicle Master Plan

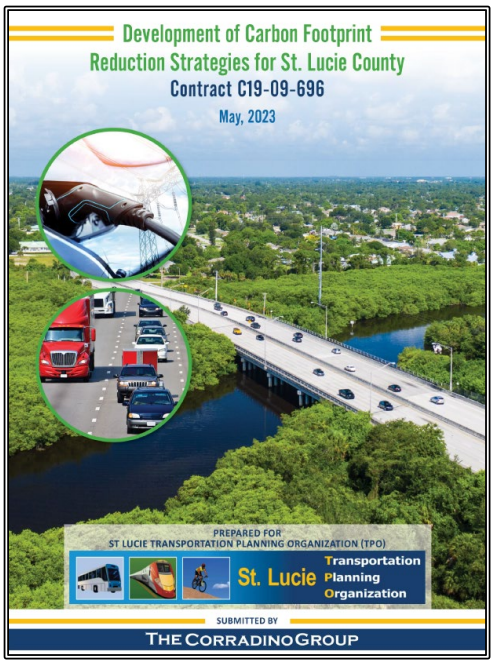
The LRTP Appendix B, *Study Area Data Review and Analysis* contains a summary of the "*FDOT Guidance for Assessing Planning Impacts and Opportunities of Automated, Connected, Electric and Shared-Use Vehicles, 2018. (pp. 9-12)* Listed as potential ACES-supportive projects, specific to EV infrastructure, are:

- Curb space value capture policy plans
- Activity center master plans to guide the conversion of parking
- Conversion of public parking facilities
- ACES priority parking
- Electric vehicle charging stations and related support systems
- Mobility hubs

Development of Carbon Footprint Reduction Strategies for St. Lucie County

St. Lucie TPO; received 2023

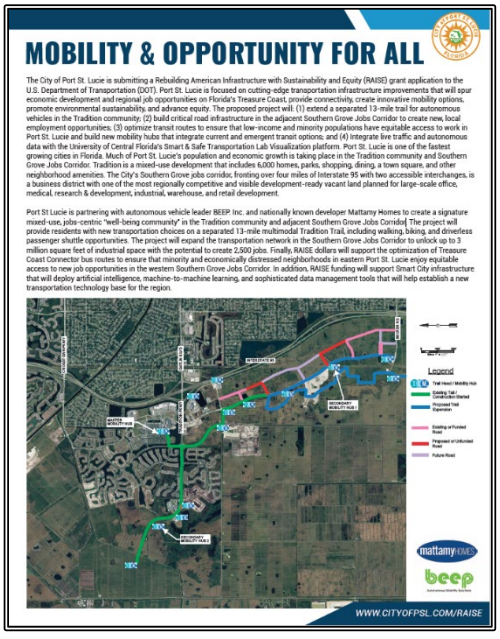
This study addresses means for carbon footprint reduction in St. Lucie county by reducing greenhouse gas emissions from passenger vehicle traffic. The study defines and demonstrates locally actionable strategies that will reduce emissions generated by automobile traffic. The four major strategies recommended by this study are: 1) encouragement of mixed-use/ multimodal neighborhoods, 2) development of more high-density neighborhoods, 3) greater participation by employer and employees in telecommuting, and 4) development of multimodal assets for greater travel choices in the County mobility network.



Mobility for All Fact Sheet

City of Port St. Lucie; 2022

The City of Port St. Lucie is developing a plan and grant application for infrastructure improvements that focus on cutting-edge infrastructure improvements to spur economic development and job opportunities. The planned improvements are directly related to ACES infrastructure in that they include: 1) extension of a separated 13-mile trail for autonomous vehicles in the Tradition community; (2) optimization of transit routes to ensure that low-income and minority populations have equitable access to work in Port St. Lucie with new mobility hubs to integrate emergent transit options; and 3) integration of live traffic and autonomous data with the University of Central Florida's Smart & Safe Transportation Lab Visualization platform. The planning is in partnership with private equity sources including autonomous vehicle leader BEEP. Inc. and developer Mattamy Homes to create a mixed-use, jobs-centric "well-being community" in the Tradition community and adjacent Southern Grove Jobs Corridor.



Micro-Mobility Study

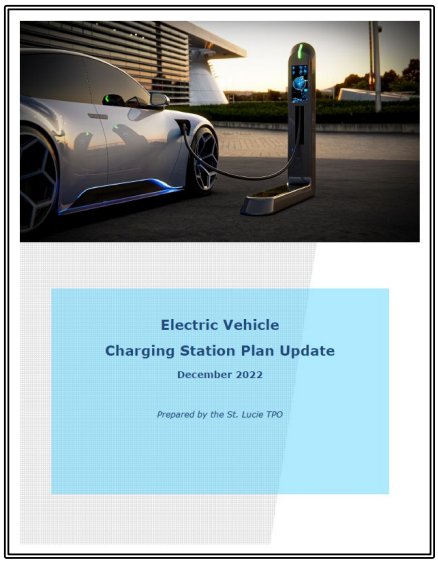
St. Lucie TPO ; adopted May 2022

This study reviewed the needs and characteristics of different modes of micro-mobility, including autonomous micro-transit, shared bicycle, shared scooter, and low-speed electric vehicles. The analysis then compared the needs to existing conditions in the transportation network, land development patterns and demographics for three distinctly different study areas, including Tradition / Gatlin, Torino, and Downtown Ft. Pierce. Using lessons learned, the study developed recommendations for each area that are reproduceable throughout the County that the TPO can implement or coordinate to promote more widespread and greater density of micro-mobility options to improve short-distance mobility, first-last mile connectivity, and increased use of public transportation resources.

EV Charging Station Plan Update

St. Lucie TPO; 2022

The *Electric Vehicle Charging Station Plan Update* developed criteria for siting electric vehicle charging stations and identified appropriate locations based on the criteria, with a secondary objective to raise awareness of the need to incorporate EV charging station planning into major planning efforts. The plan summarizes the types and need for public EV charging stations, as well as a brief overview of how they are operated and consumer cost ranges. The Plan reviews the benefits of planning for equitable deployment of federally funded investments in historically disadvantaged and marginalized communities within St. Lucie County and the relevance to EV charging station deployment locations. The Plan maps extended-hour public facilities as potential DCFC locations, including 24-hour gyms, Walmart Supercenters, hospitals, the St. Lucie West hotel district, and South Hutchinson Island near Jetty Park. Funding and funding criteria, ownership, operation, risks of technology advancement and equipment obsolescence and impact on road (gasoline) tax revenue are summarized.



ACES Vehicles for Transit Study Update

St. Lucie TPO; 2022


St. Lucie Transportation Planning Organization

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ACES Vehicles for Transit Study Update
(Automated, Connected, Electric, and Shared-Use)

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Kreyol Ayisyen: Si ou ta renmen resevwa enfòmasyon sa a nan lang Kreyòl Ayisyen, tanpri rele nimewo 772-462-1593.

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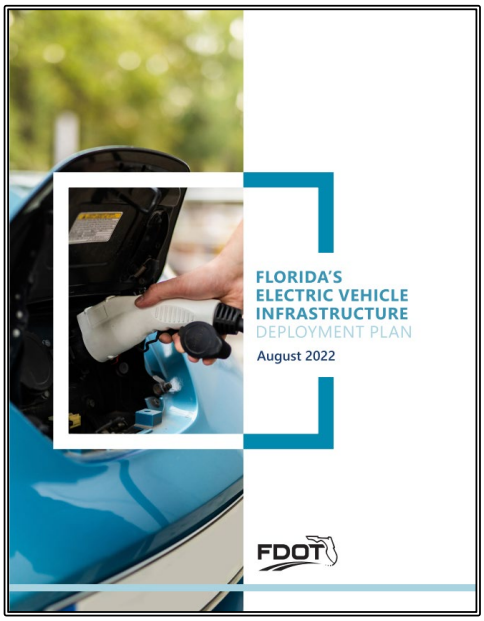
Transportation Planning for Fort Pierce, Port St. Lucie, St. Lucie Village and St. Lucie County

The ACES Vehicles for Transit Study Update provided considerations with regard to the future electrification of St. Lucie County public transit, called Area Regional Transit (ART) . The Plan summarizes existing conditions of the bus fleet that at this time does not include electric vehicles. The Plan also summarizes the ACES-relevant infrastructure of the major intermodal centers in Fort Pierce and Port St. Lucie, and the status of planning for the new Transit Operations and Maintenance Center. The plan provides: a summary of the benefits of transitioning to electric transit vehicles; the infrastructure opportunities and challenges; federal and state requirements; and considerations and steps for further study toward future implementation. The study provides background about the potential adoption of electric and automation technologies that could impact the future requirements of mobility hub programming to include bus enroute charging equipment.

Florida's Electric Vehicle Infrastructure Deployment Plan

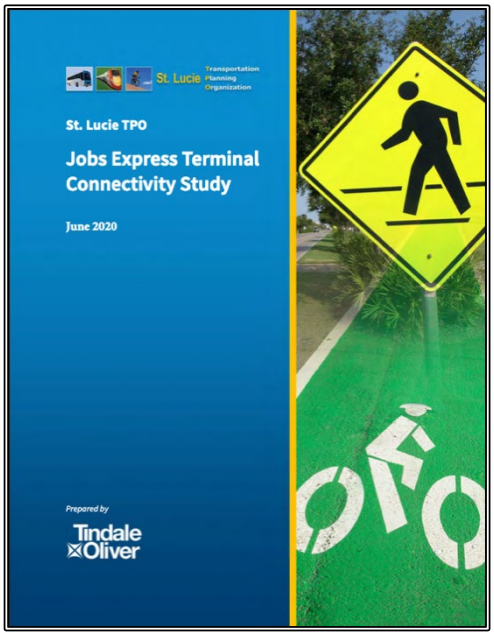
Florida Dept. of Transportation; approved September 14, 2022



The *Florida Electric Vehicle Infrastructure Deployment Plan* is a five-year plan that supports the State's long-range transportation plan and the State's Electric Vehicle Master Plan (EVMP). The plan focuses on supporting the National Electric Vehicle Infrastructure (NEVI) program, and outlines NEVI-fundable infrastructure criteria and evaluation with background growth estimates of need; summarized descriptions of eligible equipment; locational criteria; risks and challenges; electric infrastructure capacity and readiness; emergency preparedness and resiliency; equitable investment ("Justice 40" areas); and strategies for collaboration and partnerships for implementation.

Jobs Express Terminal Connectivity Study

St. Lucie TPO ; adopted June 2020



The Jobs Express Terminal at the south side of Gatlin Boulevard east of I-95, is a high-priority regional multi-modal mobility asset developed to support regional commuter trips to and from St. Lucie County. In furthering its purpose, the Jobs Express Terminal provides environmental, traffic and economic benefits to St. Lucie County residents and businesses. The Jobs Express Terminal includes:

- connection to the roads and areas to the east
- parking capacity for 162 vehicles
- sheltered bus stop bays for 6 buses
- pedestrian lighting, landscaping & ADA accessibility
- bicycle racks
- electric vehicle charging stations

The Jobs Express Terminal has many of the components of an ACES Hub and is well positioned for further improvements for increased use of transit automation, electrification, and connectivity, as well as a potential location for shared-use mobility connections for first-last-mile use.

St. Lucie Bike Share Review

Provided by Zagster to the City of Fort Pierce, February 2019

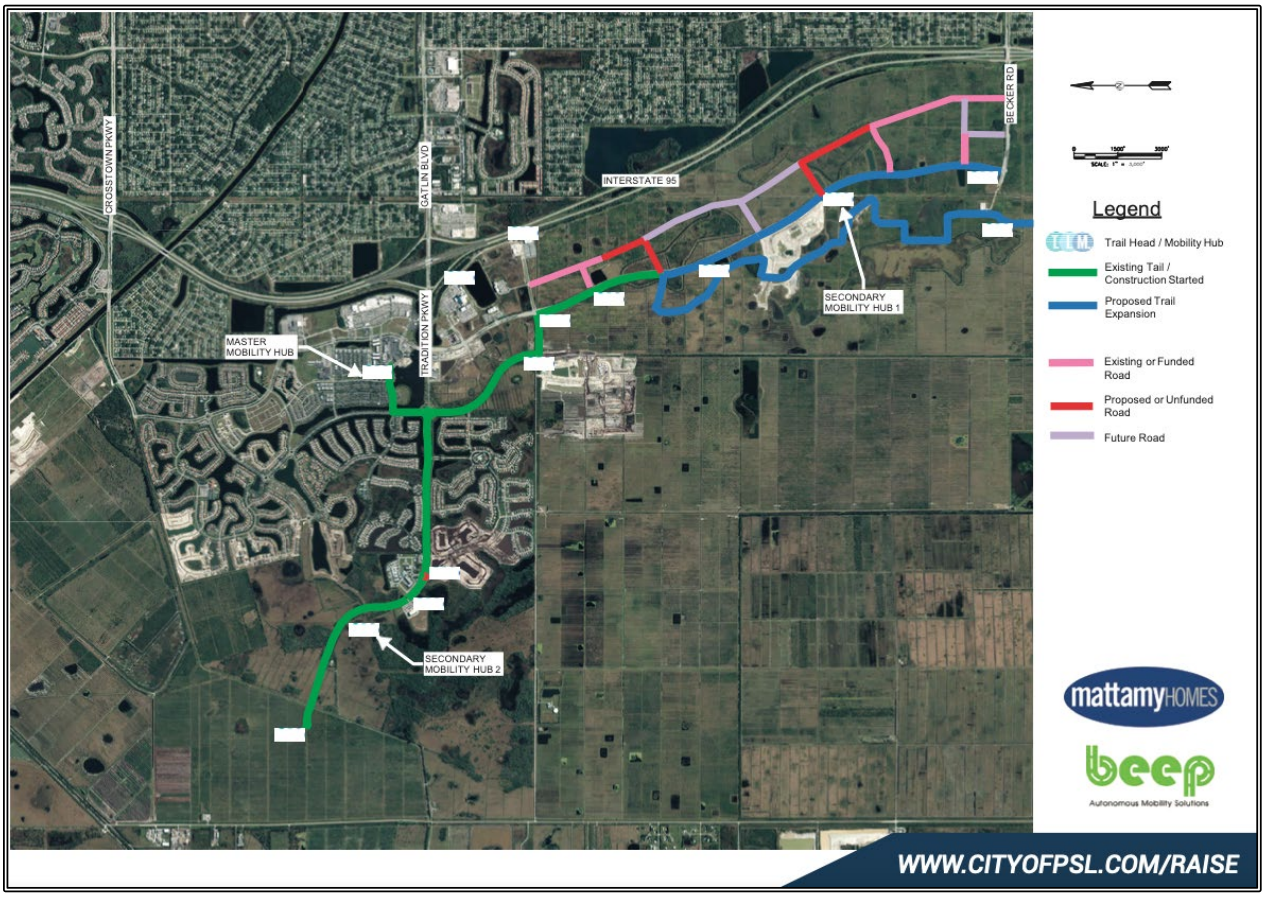
Zagster, established in 2007, was a national company that built and operated bike sharing programs for cities, campuses, hotels, and residential communities. The company provided its customers with bike sharing infrastructure, technology, and operation using local maintenance staff to service bikes, perform repairs and rebalance the system.

Zagster bike sharing commenced in downtown Fort Pierce, January 2018 and operated in until 2020. Prior to the COVID-19 pandemic, it published a review of operations as a resource for its Fort Pierce partner. The report provides a pre-pandemic snapshot of operations. Shared mobility as a service is a critical part of the ACES network of mobility infrastructure that provides the important first and last mile assets that increase the viability of other public transportation options.

1.2 ACES Mobility Hubs

One of the most important and on-point ACES-supportive projects in the LRTP is the planning for mobility hubs in St. Lucie County. The first proposed project will: 1) extend a separated 13-mile trail for autonomous vehicles in the Tradition community; 2) build critical road infrastructure in the adjacent Southern Grove Jobs Corridor; 3) optimize transit routes to enable mobility to new employment centers; and 4) build new mobility hubs that integrate current and emergent transit options; and 5) integrate a live traffic and autonomous data platform.

The proposed Port St. Lucie Mobility Hub is to be funded through a Rebuilding American Infrastructure with Sustainability and Equity (RAISE) grant application to the U.S. Department of Transportation. The City is partnering with autonomous vehicle leader, BEEP. Inc. to provide autonomous vehicle infrastructure and service in conjunction with the University of Central Florida's Smart & Safe Transportation Lab to operate the autonomous data control and visualization platform.



Mobility hubs are ideal partner projects to further ACES priorities by providing intermodal opportunities to incorporate infrastructure to support vehicle automation, support electric vehicle deployment, and provide physical connectivity for people and goods that to support intermodalism.

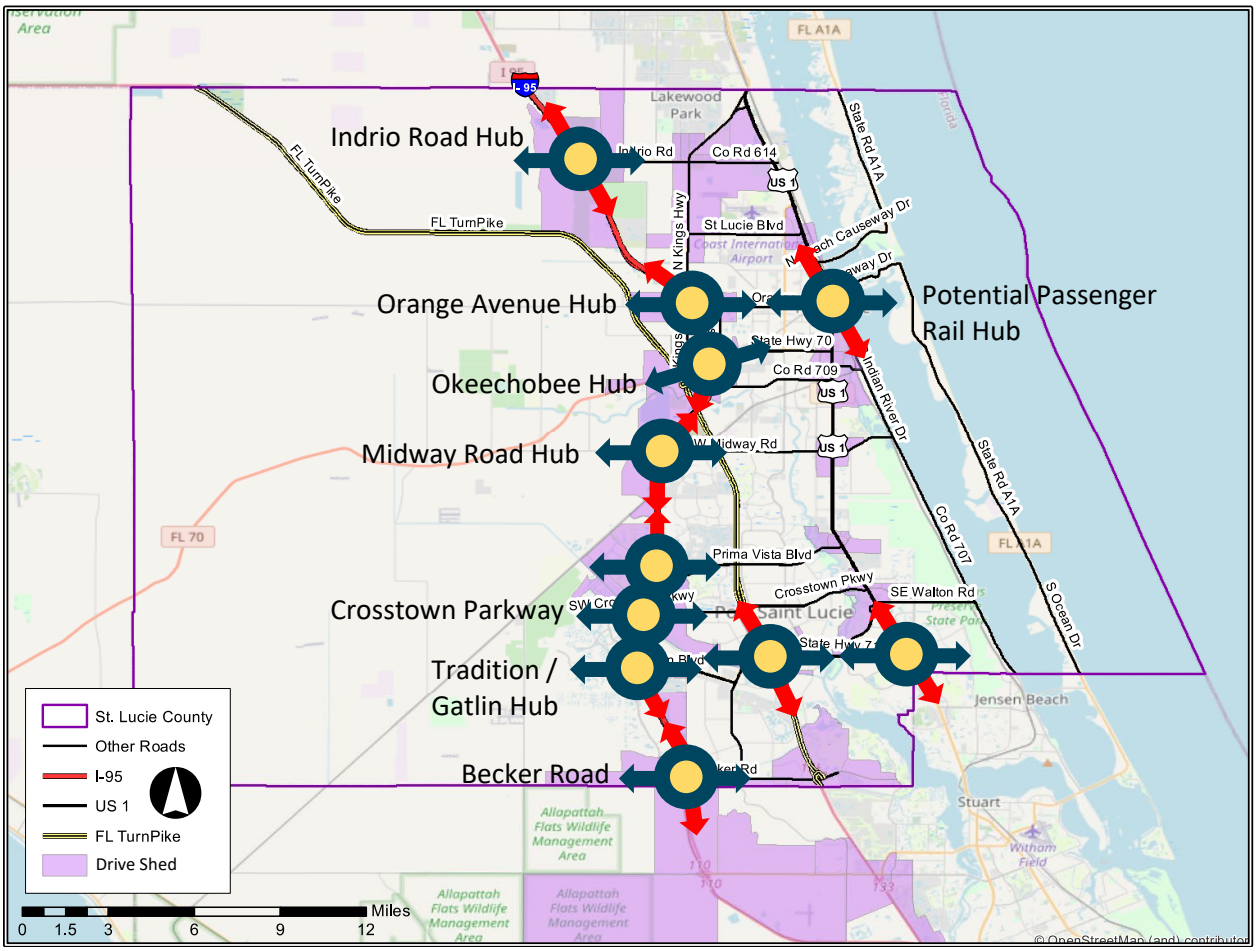
A network of ACES intermodal hubs in in the County centered along the spine of I-95 at major east-west connections, as well as a rail-centric hub in Fort Pierce to build a more ready environment for a future potential station of the Brightline high speed rail service are identified for further development in Sections 3 and 4 of this plan. The concept for the St. Lucie ACES Intermodal Hubs Network, as illustrated

in Map 1.1, includes hub locations at SIS interchanges and at major intermodal locations such as a potential intercity / commuter rail location. The ACES hubs network map shows the general locations that will be evaluated and prioritized in Sections 2 and 3 of this plan.

Drivesheds are the distance that most drivers are willing to drive off of a limited access freeway to refuel while enroute to a further destination. They represent the willingness of a driver to go off-route, especially in an unknown area. The concept is also applicable to EV charging and a one-mile drive distance is used assuming that information is provided to the driver by smart-phone or the vehicle information system. The concept is behavioral rather than related to vehicle technology; therefore, additional services or destination attractions at a hub can have an effect on increasing driveshed distance.

Mobility hubs would include key ACES features and development partnering to move the County forward towards autonomous, connected, electric and shared mobility infrastructure to create a sustainable transportation to meet the needs of future development in St. Lucie County.

Map 1.1
ACES Mobility Hubs Concept

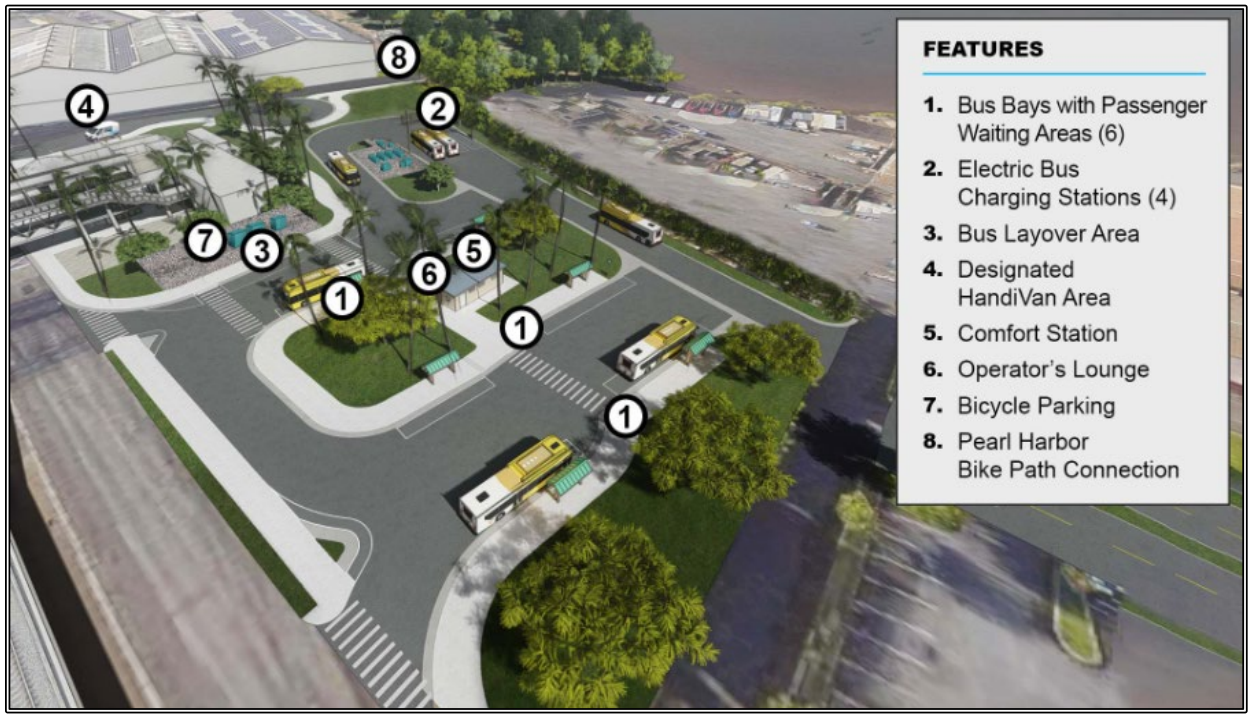


Mobility hubs are transportation intermodal facilities that are people-oriented developments for the purposes of:

1) **to enable travelers to access supportive amenities for providing services for through-trips where the hub is not the final destination;**
2) **to enable intermodalism by facilitating comfortable changes from personal vehicles or other high-capacity intercity travel modes, such as rail, to a range of mobility options for first-last-mile trips to local destinations in a convenient and sustainable way.**
3) **To provide destination with walking distance of the intermodal facility that reduce local trip making and provide for greater comfort and convenience as a short stop for through travelers, especially for time to charge EV.**

Built on a backbone of high-capacity transportation infrastructure, the hubs provide safe, comfortable, convenient, and accessible spaces to seamlessly transfer across different mobility modes. The hubs also provide for demand-responsive micro-transit operating in defined zones ranging out from the hub, thereby, extending the range of geo-fenced on-demand micro services.

Mobility hubs are an important concept to reduce transportation sector greenhouse gas emission and also increase County resiliency with a redundancy of the transportation options. Leveraging this positive impact on GHG emissions, global warming contribution and sea level rise, the ACES Mobility Hubs concept amplifies the positive sustainability benefits by also creating a hub of vehicular electric charging



Conceptual illustration of the Kalauao Mobility Hub and Project Features
source: City and County of Honolulu, Hawaii

ACES Mobility Hubs also have an important contribution to make to health of the Floridians by providing intermodal locations for people arriving by cars that are new to transit and active travel choices that can be motivated to complete their local trip by alternative mobility, and for through travelers to have comfortable and active locations to recharge their vehicles and simultaneously recharge themselves with mixed use development that is accessible and enjoyable for short active transportation circulation. Where located within or connected to an existing 15-minute walk neighborhood, mobility motivates the use of alternatives to the private car helping to embed shared transport to achieve people-centered community mobility. The menu of features for ACES Mobility Hubs to be effective as an interface among transportation modes in an ACES network and connected with the County's communities is summarized in Table 1.2, with ACES-related components highlighted in blue.

Tacoma Dome Station as an example of an ACES mobility hub built around a regional rail station (Sound Transit), connecting long distance rail (Amtrack) and Tacoma Light Rail transit, integrated in a mid-level scaled urban setting with Greyhound bus and metro bus transit connections, bicycle facilities, ride sharing, shared micro-mobility (Razor), conventional parking facilities, public EV charging, and retail commerce at the ground floor of parking facilities.

The ACES Mobility Hubs, more than an intermodal center, are an interface between transportation and the community, and should therefore include destination land use development via a public-private partnership, and include development elements that include:

- Destination retail and sit-down eateries with occupancy times that synchronize well to Level 3 vehicle charging time.
- Community service establishments to provide typical daily needs for intermodal commuters, such as post office, private postal businesses, dry cleaners, pharmacies, sundry stores, and quick marts, cafes, gyms.

- Workspaces that facilitate and emphasize flexible work hours to reduce peak demands and increase non-peak demands on transit. Membership type co-workspaces are ideal.
- Mixed use development with residential component is possible depending on environment and location to existing community.
- Package delivery lockers to reduce the number of house-level trips made by on-line retail sales.
- Comfortable weather protected non-retail waiting areas and lounges with live information and infotainment systems.
- Outdoor green spaces and plazas to relieve travelers from mechanized nature of transportation.
- Outdoor water fountains to help mask the sound of transport vehicle operations.
- Art-in-public places to visually relieve pedestrian users.
- Large and dynamic information kiosks in high pedestrian traffic areas.
- Signage and identity / branding which identifies the space as a mobility hub that is part of a wider network.

Table 1.2
ACES Mobility Hubs Mobility-Related Components

	Public Mass Transit Components	Shared Mobility Components	Personal Mobility Components	Pedestrian Components
Modes	• Local heavy rail • Intracity heavy rail • Light Rail Transit (LRT) capable • County battery-electric buses • Geofenced on-demand micro-transit	• Car sharing • E-car sharing	• Personal vehicles • Commercial vehicles	• Pedestrians • Pedestrians with disabilities
Vehicle Infrastructure	• Rail / LRT Guideway • Exclusive Bus Lanes	• Passenger car lanes • Design to safely accommodate Low Speed Electric Vehicles • Bike lanes and paths suitable for e-bikes and e-scooters	• Passenger Car Lanes • Truck Areas • Bike lanes and paths suitable for e-bikes and e-scooters	• Complete Streets where applicable in interior of hub (not access points from I-95)
Access & Egress	• Direct access and re-entry to I-95 • Rail access • Direct bus lane access	• Passenger Car Lanes • Design to safely accommodate Low Speed Electric Vehicles • Bike lanes and paths suitable for e-bikes and e-scooters	• I-95 access points exclusive to highway vehicles • Access to crosstown roadways includes bike paths and/or buffered lanes.	• I-95 access separated from walkable areas • Access to crosstown roadways is part of complete street access for pedestrians and micro modes
Pick-Up Drop-Off Space	• Dedicated train station and bus stops with shelters, information and raised platforms	• Pick-up and drop-off zones for shared car services (Uber model) • Parking pods for shared car services (Zip Car model)	• Kiss-and-ride location near transit station	• Pick-up drop-off locations and paths to them are ADA accessible
Vehicle Storage	• Bus layover areas or sufficient stop pullouts for layover time	• Shared bike docks or dockless return zones • Shared mobility kiosks • Parking pods with Level 3 charging for shared car services (Zip Car model)	• Lockable bicycle racks • Lockable bicycle lockers	• Not applicable
Vehicle Charging	• En-route inductive charging for regional buses at layover location or stops • Micro transit vehicle charging at layover location or stops	• Level 3 chargers for battery electric shared vehicles in dedicated spaces • Proprietary charging docks for shared e-bikes • Charging areas for inductive charging of shared scooters or bikes	• Level 3 chargers for personal EV • Level 2 chargers for personal EV for transit park-&-ride commuters • Level 2 chargers for personal use by workspace occupants	• Not applicable
Information Systems	• Transit smart phone application • integration with on-board bus/train information system	• Dynamic roadway sign • smart phone application • integration with car infotainment system	• Dynamic roadway sign • smart phone application • integration with car infotainment system	• Pedestrian level kiosks with live information • smart phone application
Fossil Fuel Pump islands	• Not applicable	• Not applicable	• Fueling area to allow non-EV passengers to change to electric first- and -last mile trips	• Not applicable

1.2 Funding Opportunities

When the Bipartisan Infrastructure Law (BIL), enacted as the Infrastructure Investment and Jobs Act (IIJA), Public Law 117-58 was passed on November 15, 2021, unprecedented investments in ACES infrastructure were made possible to catalyze deployment of automated, connected, electric and shared vehicles to promote consumer adoption of transportation alternatives that will: 1) reduce transportation-related greenhouse gas emissions and help put the U.S. on a path to net-zero emissions by no later than 2050; and 2) position U.S. industries to lead global transportation electrification efforts and help create family-sustaining union jobs that cannot be outsourced. The BIL created the major programs that are described below. Some of the application deadlines occurred in late 2022; however, they are provided below for tracking toward the next reauthorization of BIL funding.

Advanced Transportation Technologies and Innovative Mobility Deployment (ATTIMD) Program

Administered through the Department of Transportation (Federal Highway Administration), ATTIMD provides funding for projects to deploy, install, and operate advanced transportation technologies with the objectives to improve safety, mobility, efficiency, system performance, intermodal connectivity, and infrastructure return on investment.

National Electric Vehicle Infrastructure (NEVI) Formula Program

The $5 billion NEVI Formula Program provides funding to States to strategically deploy EV charging infrastructure and establish an interconnected network to facilitate data collection, access, and reliability. Initially, funding under this program is directed to designated Alternative Fuel Corridors to build out this national network, particularly along the Interstate Highway System. When the national network is fully built out, funding may be used on any public road or in other publicly accessible locations. Ten percent (10%) of the NEVI Formula Program will be set-aside each fiscal year for the Secretary of Transportation to provide discretionary grants to help fill gaps in the national network.

The NEVI funding for the State of Florida for the next 5 fiscal years, as sourced by the US Department of Transportation is summarized in Table 1.3. Based on the population of St. Lucie County being 1.6% of the State of Florida population, a rough order-of-magnitude estimate is made for each year's potential NEVI funding for St. Lucie County.

Table 1.3
ACES - Electric Vehicle Infrastructure NEVI Funding Availability

Fiscal Year	State of Florida Allocation	St. Lucie County Estimate
2022	$ 29,315,442	$ 469,047
2023	$ 42,185,251	$ 674,964
2024	$ 42,185,543	$ 674,969
2025	$ 42,185,579	$ 674,969
2026	$ 42,185,666	$ 674,971
Total for 5 Years	**$198,057,481**	**$3,168,920**

The criteria for the NEVI funding program are documented by the US DOT and the Florida DOT for the Florida's Electric Vehicle Infrastructure Deployment Plan.

Discretionary Grant Program for Charging and Fueling Infrastructure

The $2.5 billion Discretionary Grant Program is divided into two $1.25-billion grant programs to support EV charger deployment to ensure charger deployment supports rural charging, building resilient infrastructure, climate change, and increasing EV charging access in underserved and overburdened communities ("disadvantaged communities"):

Corridor Charging Grant Program

The Corridor Charging Grant Program will strategically deploy publicly accessible EV charging infrastructure and hydrogen, propane, and natural gas fueling infrastructure along designated Alternative Fuel Corridors. Additional guidance is forthcoming.

The Community Charging Grant Program

The Community Charging Grant Program will strategically deploy publicly accessible EV charging infrastructure and hydrogen, propane, and natural gas fueling infrastructure in communities. Additional guidance is forthcoming.

The Strengthening Mobility and Revolutionizing Transportation (SMART) Grants Program

Administered by the Department of Transportation (Federal Rail Administration), the program provides funding for projects focused on advanced smart city or community technologies and systems to improve transportation efficiency and safety.

Thriving Communities Program

The program is administered by the Department of Transportation, Build America Bureau, and provides technical assistance to help selected communities plan and develop a pipeline of comprehensive and integrated transportation, housing, and community revitalization activities.

Rebuilding American Infrastructure with Sustainability and Equity (RAISE)

The RAISE discretionary grant program is administered by the U.S. DOT to provide for investment in road, rail, transit, and port projects that promise to achieve national objectives. The eligibility requirements allow project sponsors at state and local levels to obtain funding for multi-modal projects that are more difficult to support through other DOT programs. Projects for RAISE funding are evaluated based on merit criteria, including: safety; innovation; environmental sustainability and reducing impacts of climate change; improving quality of life; economic competitiveness and creation of good paying jobs; and improving racial equity.

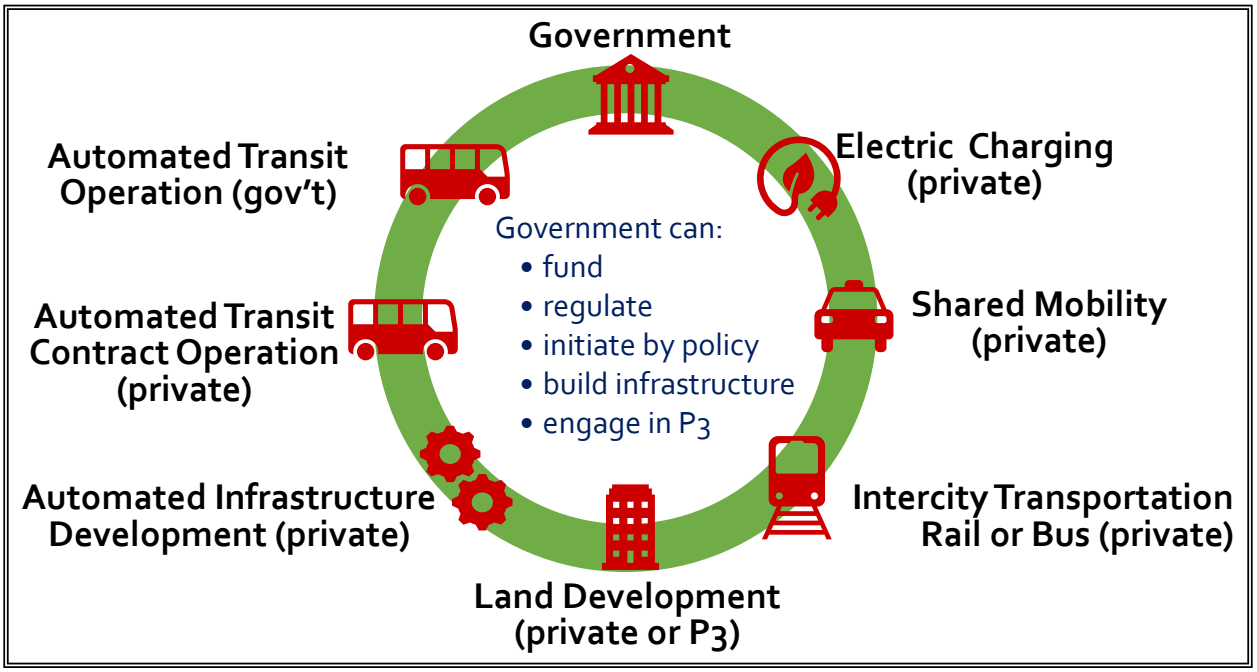
Public Private Partnerships (P3)

Traditionally, the delivery of mobility improvements has been through government funding for planning, environmental analysis, design, and construction. Deployment of ACES mobility strategies includes these mechanisms; however, the most prominent growth of automated, connected, electric, and shared mobility has been through the entry of private companies and non-government organizations into urban mobility markets.

A major subject of this report is on the development of ACES Mobility Hubs that necessarily include commercial destination uses, especially to allow time for EV charging and the create attractive walkable places that induce increased use of public transportation at these intermodal points by a population that currently does not use alternative and sustainable mobility. The real estate development that is critical to ACES Hubs is best provided by private investment.

For the purposes of governmental actions for the ACES mobility network, the emphasis is on using governmental resources to fund, regulate, build infrastructure, initiate by policy, and engage in partnerships in ways that support and foster the development of privately-owned and operated mobility options. The local match component of these projects also fosters a broad and deep base of support for the project and an appreciation of the proposed benefits to the community and return on investment to providers of those funds. Often the local match includes the dedication of public land for the purposes of developing the ACES Hub. Public land facilitates the project by controlling cost on the most important component of development and can also streamline planning and permitting. Public land in the right location is a critical part for a successful P3-developed ACES Hub project.

The critical importance of public-private partnership to implementing a County-wide ACES network is highlighted by the delivery model diagram below.



Automated, Connected, Electric, and Shared (ACES) Mobility Delivery Models

1.3 Mobility Hubs Location Criteria & Map Updates

To determine additional opportunity locations and gaps in the ACES network along major highways, the locational criteria are provided in Table 1.4. These criteria are used as the themes for the initial existing conditions map series that will guide the identification of gaps and opportunities in Task 3 after establishing priorities of the criteria in Task 2. Task 4 will finalize a project priority list of "shovel-ready" projects that are eligible for high-priority funding, coordination with new development, and other implementation methods. Among the criteria, there is an important focus on the inclusion in the mobility hubs of Level 3 Fast Charging Stations (DCFC) that are publicly available for private passenger cars at enroute locations.

The existing public EV chargers for all charger types, for DC Fast Chargers only, and for each other individual location criteria have been mapped and are included in Appendix A.

Table 1.4
ACES Hub Location Criteria

Category	Criteria	Description	Existing Condition Map Reference	Requirement Source
Geographic	**SIS Roadway Spacing**	1-mile maximum lateral travel distance from interchanges, Florida SIS includes: I-95, Florida's Turnpike, and Okeechobee Road	**Roadway System** (Appendix A Map 3)	NEVI Guidance, Florida Electric Vehicle Deployment Plan
Geographic	**SIS Roadway Shed**	1-mile maximum lateral travel distance from interchanges, Florida SIS includes: I-95, Florida's Turnpike, and Okeechobee Road	**Roadway System** (Appendix A Map 3)	NEVI Guidance, Florida Electric Vehicle Deployment Plan
Operational	**Number of Charging Ports**	Minimum of 4 DCFC plugs for simultaneous use	not applicable to locational analysis	NEVI Guidance, Florida Electric Vehicle Deployment Plan
Operational	**Electric Capacity per Charging Port**	Minimum 150kW at 480 volts	not applicable to locational analysis	NEVI Guidance, Florida Electric Vehicle Deployment Plan
Operational	**Utility Readiness**	Location has sufficient capacity or planned capacity in electric distribution network – minimum 4 DCFC plugs: 600 kW at 480 V	not mapped	NEVI Guidance, Florida Electric Vehicle Deployment Plan
Emergency & Resiliency	**Evacuation Routes**	Location along evacuations routes with redundancy	**Emergency Evacuation** (Appendix A Map 4)	Florida Electric Vehicle Deployment Plan
Emergency & Resiliency	**Mobile Charging Solutions**	Location along evacuations routes with redundancy	not applicable to locational analysis	Florida Electric Vehicle Deployment Plan

Category	Criteria	Description	Existing Condition Map Reference	Requirement Source
Emergency & Resiliency	**Hardening of DCFC Stations**	Hardening solutions to ensure safety during storms: strategies such as automatic station shut-off, waterproofing, elevated foundations, and structures.	not applicable to locational analysis	Florida Electric Vehicle Deployment Plan
Land Use	**Population Density**	Location where population densities are highest. Threshold criteria to be determined in Task 2	**Population Density** (Appendix A Maps 5 & 6)	St. Lucie TPO Smart EV Charging Station Plan St Lucie TPO Development of Carbon Reduction Strategies for St. Lucie County (Strategy 4.2)
Land Use	**Employment Density**	Location where employment densities are highest. Threshold criteria to be determined in Task 2	**Employment Density** (Appendix A Maps 7 & 8)	St. Lucie TPO Smart EV Charging Station Plan St Lucie TPO Development of Carbon Reduction Strategies for St. Lucie County
Land Use	**Mixed Use Multimodal Neighborhoods**	Location where medium density residential areas are mixed within ¼-mile of major employment land uses	**Mixed Use Development**	St Lucie TPO Development of Carbon Reduction Strategies for St. Lucie County (Strategy 4.1)
Land Use	**Retail Major Activity Centers**	Locations of large centers of compact, contiguous commercial development, including mixed use. Threshold metric such as total floor area or FAR to be determined in Task 2.	**Destinations** (Appendix A Map 9)	St. Lucie TPO Smart EV Charging Station Plan
Land Use	**Hospitals**	Locations of hospitals with minimum of Level IV Trauma Center – to be reviewed in Task 2	**Destinations** (Appendix A Map 9)	St. Lucie TPO Smart EV Charging Station Plan
Land Use	**Airports**	Locations of commercial passenger airport terminals	**Intermodal Hubs** (Appendix A Map 10)	St. Lucie TPO Smart EV Charging Station Plan
Land Use	**Rail Stations**	Locations of commercial passenger rail stations	**Intermodal Hubs** (Appendix A Map 10)	St. Lucie TPO Smart EV Charging Station Plan
Land Use	**Bus Transit & Intermodal Hubs**	Locations of bus transit hubs with multiple bus bays and park-and-ride facilities. Minimum criteria to be determined in Task 2.	**Intermodal Hubs** (Appendix A Map 10)	St. Lucie TPO Smart EV Charging Station Plan St Lucie TPO Development of Carbon Reduction Strategies for St. Lucie County (Strategy 4.4)

Category	Criteria	Description	Existing Condition Map Reference	Requirement Source
Land Use	**Shared Vehicle Pods**	Locations of publicly located shared vehicle pods. Criteria to be reviewed in Task 2.	no shared vehicle pods in St. Lucie County	St. Lucie TPO Smart EV Charging Station Plan
Land Use	**Publicly Owned Vacant Land**	As a practical criterion, an ACES Hub can be developed through public funding and development, as a P3, or by regulating to require hubs for major development. The availability of sufficient vacant land is critical for public development or P3 means.	**Shown on Hub Location Aerials**	Practical consideration for development. Refer to Section 1.2 regarding P3 funding mechanisms.
Equity	**Disadvantaged Community Investment**	U.S. Department of Transportation (USDOT) Justice40 (J40) is an opportunity to address gaps in transportation infrastructure and public services by working toward the goal that at least 40% of the benefits from many FDOT grants, programs, and initiatives flow to disadvantaged communities. As a criterion for ACES Mobility Hubs, serving TAZs that are identified as J40 helps to serve future demands, , provides economic development support, provides greater equity, and increases funding opportunity.	**Disadvantaged Community Investment** (Appendix A Map 11)	NEVI Guidance, Florida Electric Vehicle Deployment Plan

2 ACES Hub Areas Prioritization

Introduction

A plan for the St. Lucie ACES infrastructure network and nodes is developed Based on existing conditions and plans as presented in Section 1. The first step to identifying geographic nodes that become the places in which to locate ACES Mobility Hubs, is to establish criteria priorities on the basis of:

- ability to serve population needs,
- location characteristics,
- effectiveness toward reducing the county's carbon footprint,
- effectiveness to increase adoption of ACES mobility modes and inter-modalism,
- opportunities for implementation, and
- potential for funding.

Reflecting the understanding that an ACES Mobility Hub has multiple benefits, and that each criteria can leverage one or more of these benefits, the importance of each location criteria is weighted to account for their potential for multiple benefits, which are: effectiveness to increase adoption of ACES mobility modes; fostering a seamless traveler experience through multiple modes from door to door; and potential for funding to plan, design and implement; and to leverage community and business investment.

The criteria themselves account for the importance of existing roadway infrastructure, transit services, existing park-and-ride and multi-modal terminals, land development characteristics, employment and residential populations, and the location of disadvantaged communities. Area locations will be scored based on how many criteria are met and the weighted scoring for each criterion. The prioritization is to guide efforts toward focusing planning on the locations with the better potential to leverage greater benefits to develop the ACES network of hubs. The outcome will be displayed as a map with scoring ranges to prioritize the ACES Mobility Hubs Concept (Map 1.1), to develop the ACES Mobility Hubs Concept Prioritized Hubs (Map 3.1).

2.1 Criteria Weighting for Prioritization

Prioritization discussion. Each of the criteria will be assigned a weighting based on summation of points for each of the reasons that are:

- Demand Factor: A positive factor toward increasing public adaption of private, fleet, and other commercial electric vehicles by addressing range anxiety.
- Multi-Modal: Location provides sustainability benefits beyond EV adoption toward greater public adaption to new multi-modalism for primary trips and first-last-mile trips components through ACES Mobility Hub potential, as described in Section 1.2.
- Carbon Reduction Strategy: The St. Lucie TPO has prioritized reducing the carbon footprint of transportation in the County through land use and is to be partnered with the infrastructure for an ACES intermodal system.
- State & Federal Funding: Meets eligibility requirements for state and federal funding.
- Feasibility for Implementation: The importance of vacant land in public-sector ownership, as discussed in Section 1.2, that is within the drive shed of the ACES Mobility Hub opportunity areas is critical. It has been included as an implementation criterion. It is not directly related to the weighting factors; however, it is assigned a high weighting value of 5 per parcel over 1 acre. **Where there is available land for a short-term or mid-term priority ACES Hub project, reservation of the public land is an immediate priority.**

The criteria are then geographically overlaid by summing the points for each particular criteria as a layer in the geographic information system place and represented as a heat map to illustrate the highest priorities for Near-Term, Mid-Term and Long-Term time horizons.

Most of the criteria are discrete variables; in other words, they either meet the criteria or not, and for meeting the criteria a single point is the initial score. Some of the criteria represent continuous variables, in other words having amounts such as population density, and these variables have been stratified into ranges that represent breakpoints of requiring EV charging needs and represented by 0, 1 or more points as an initial score. The initial score for each variable, binary or continuous, are then multiplied by the weighting factor to account for the importance of the three types of benefits described above. For example, if a geographic area includes a disadvantaged community that qualifies as an environmental justice community, the area is assigned a positive point and then multiplied by 2 because this criteria is important as a demand factor and is important for state and federal funding eligibility. The size of the environmental justice community does not have to be captured in this criteria, since the area is also scored in the population density category. The sum of all weighted criteria scores than is used to assign priorities.

Priority Map:

The map that follows in the column-sum analysis of ACES Hub prioritization by Transportation Analysis Zone (TAZ). Based on an initial overlay map showing the summation of criteria and weightings for each TAZ, areas have been geographically aggregated by network or land use functions, with summations of TAZ score used to determine priorities for the areas. The areas

defined by mobility centroids, such as interchanges, major intersections, and downtowns. The aggregated analysis for geographic places is described and presented in Section 3 of this Plan.

Table 2.1
ACES Hub Location Criteria Prioritization

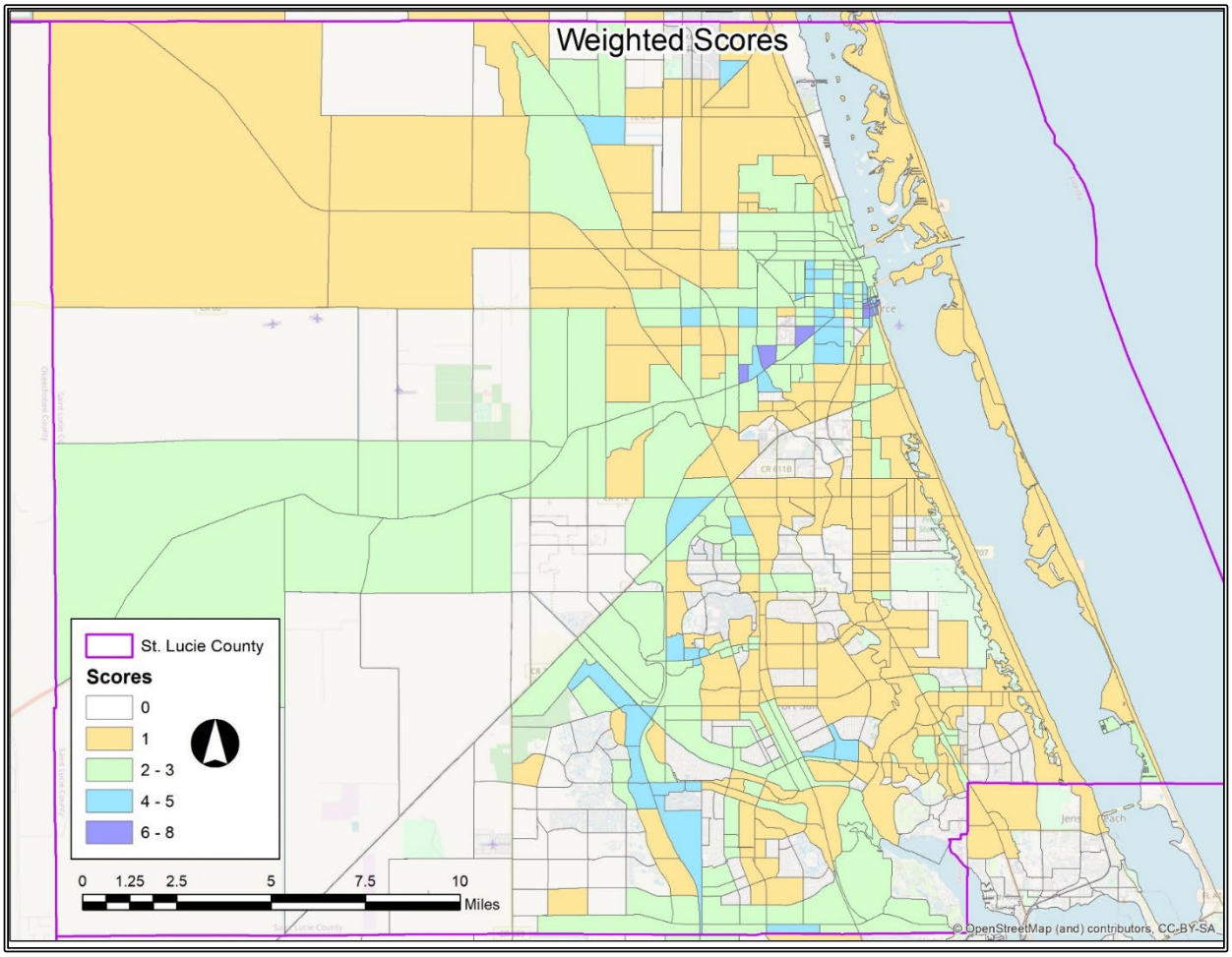
Category	Criteria	Description	Demand Factor	Multi-Modal	State & Federal Funding	Carbon Footprint Reduction	Weight Factor
Geographic	**SIS Roadway Spacing**	50 miles maximum from DCFC station to station. This consideration will be reviewed again after priority locations are determined to assure a 50-mile grid is available into the rural, agricultural, or tribal lands as well as the urbanized areas of St. Lucie County; thereby, fulfilling NEVI guidance for project eligibility.	1	-	1	-	**2**
Geographic	**SIS Roadway Shed**	1-mile maximum lateral travel distance from interchanges. In St. Lucie County, the Florida SIS includes I-95, Florida's Turnpike, and Okeechobee Road.	1	-	1	-	**2**
Operational	**Number of Charging Ports**	Minimum of 4 DCFC plugs for simultaneous use - room for 4 spaces	-	Not location criteria. These criteria are to be used for facility programming after location is prioritized			
Operational	**Electric Capacity per Charging Port**	Minimum 150kW at 480 volts	-				
Operational	**Utility Readiness**	Location has sufficient capacity or planned capacity in electric distribution network – minimum 4 DCFC plugs: 600 kW at 480 V	-				
Emergency & Resiliency	**Evacuation Routes**	Location along evacuations routes with redundancy	-	-	1	-	**1**
Emergency & Resiliency	**Mobile Charging Solutions**	Location along evacuations routes with redundancy	-	Not location criteria. These criteria are to be used for facility programming after location is prioritized			
Emergency & Resiliency	**Hardening of DCFC Stations**	Hardening solutions to ensure safety during storms: strategies such as automatic station shut-off,	-				

Category	Criteria	Description	Demand Factor	Multi-Modal	State & Federal Funding	Carbon Footprint Reduction	Weight Factor
		waterproofing, elevated foundations, and structures.					
Land Use	Population Density	10 to 15 persons per acre	1	1	-	-	2
		15 to 25 persons per acre	1	1	-	1	3
Land Use	Employment Density	10 to 20 employees per acre	1	-	-	-	1
		20 to 40 employees per acre	1	-	-	-	1
		40 or more employees per acre	1	1	-	-	2
Land Use	Mixed Use Multimodal Neighborhoods	Major developments and Developments of Regional Impact that have both residential and commercial components that create significant live wok opportunities. These are significant assets for placement of ACES Hubs; therefore, points are scaled to size: For DRI and new development; 1 point per 1,000 dwelling units, plus 1 point per 1,000 employment units. For existing neighborhoods, 3 points per existing walkable neighborhood and commercial center.	1 for existing mixed-use area 1 per 1,000 DU and 1 per 1,000 jobs for DRI	1 for existing mixed-use area 1 per 1,000 DU and 1 per 1,000 jobs for DRI	-	1 for existing mixed-use area 1 per 1,000 DU and 1 per 1,000 jobs for DRI	3 for existing mixed-use area 3 per 1,000 DU and 3 per 1,000 jobs for DRI
Land Use	Retail Major Activity Centers	Locations of large centers of compact, contiguous commercial or mixed-use development: 500,000 to 1,000,000 square feet of gross leasable area (gla)	1	-	-	1	1
		Locations of large centers of compact, contiguous commercial or mixed-use development: 1,000,000 or more square feet gla (considered a regional center)	1	1	-	1	2
Land Use	Hospitals	Locations of hospitals with minimum of Level IV (lowest) Trauma Center	1	-	-	-	1

Category	Criteria	Description	Demand Factor	Multi-Modal	State & Federal Funding	Carbon Footprint Reduction	Weight Factor
Land Use	**Airports**	Locations of commercial passenger airport terminals	1	1	-	-	**2**
Land Use	**Rail Stations**	Locations of commercial passenger rail stations	1	1	-	1	**3**
Land Use	**Bus Transit & Intermodal Hubs**	Locations of bus transit hubs with multiple bus bays and park-and-ride facilities	1	1	-	1	**3**
Land Use	**Shared Vehicle Pods**	Locations of publicly located shared vehicle pods	-	1	-	1	**2**
Equity	**Disadvantaged Community Investment**	U.S. Department of Transportation (USDOT) Justice40 (J40) is an opportunity to address gaps in transportation infrastructure and public services by working toward the goal that at least 40% of the benefits from many FDOT grants, programs, and initiatives flow to disadvantaged communities. As a criterion for ACES Mobility Hubs, serving TAZs that are identified as J40 helps to serve future demands, , provides economic development support, provides greater equity, and increases funding opportunity.	1	-	1	-	**2**
Land Use	**Vacant Public Land within the Driveshed**	Presence of vacant land that is publicly owned and not designated for environmental preservation or utilities. The score is 1 point per acre within 1 mile and ½ point per acre from 1 to 2 miles.	-	-	-	-	**1 / acre within 1 mile; ½ / acre within 2 miles**
Land Use	**Vacant Private Land within the Driveshed**	Presence of vacant land that is privately owned and part of a DRI or owned by a potentially willing entity. The score is 1 point per acre within 1 mile and ½ point per acre from 1 to 2 miles.	-	-	-	-	**1 / acre within 1 mile; ½ / acre within 2 miles**

2.2 ACES Hub Location Prioritization

Map 2.1
Priority Opportunity / Need Areas for ACES Hubs
Weighted Scores for Prioritization by TAZ



3 ACES Opportunity & Gap Areas

Introduction

In Section 3, the areas for potential ACES mobility hubs are presented and defined based on existing conditions and plans, including the ACES Mobility Hubs Concept (Map 1.1) that is presented in Section 1 and the criteria prioritization and weighting that in Section 2.

The prioritization map is at a geographic level of Transportation Analysis Zones (TAZ) which is the basic geographic unit of the St. Lucie County Transportation Model. TAZ generally represent boundaries of major and secondary roadways (respectively: highways, arterials, and collectors) and generally include areas of homogeneous development. TAZ area size also responds to levels of urbanization, population density and employment density; therefore, in downtown areas a TAZ may only be a few blocks, are several acres in a suburban area, and are very large areas of one or more square miles in agricultural and undeveloped areas. Using the scorings and the heat maps developed by TAZ, aggregations of high scoring areas have been logically assembled to create contiguous areas of gaps and opportunities for siting of ACES Mobility Hubs.

Ten areas have been defined and are provided below in a summary table. For each of the areas, a summary sheet follows that further describes the area, and the criteria rankings that identify these areas as priority areas. Each area is named around its Mobility Centroid, which is the location that initially describes a hub in the network, being at the intersection of two major transportation facilities. It is not necessarily the geographic centroid of the described area.

The interchange of I-95 and Tradition Parkway / Gatlin Boulevard was evaluated to encompass the characteristics of the Tradition and Gatlin area; however, the City of Port St. Lucie has a project underway that includes ACES Mobility Hub components in a mixed-use environment near SIS interchange access. This project (described on page 5) is in partnership with private equity sources including autonomous vehicle operators and development investors to create a mixed-use, jobs-centric mobility hub. When evaluated, this area scored very high based on the criteria in Section 2 and underscores the foresight of the City of Port St. Lucie and its partners to develop the ACES hub. This area is not included in the opportunity and gap area priority analysis because the effort is already underway.

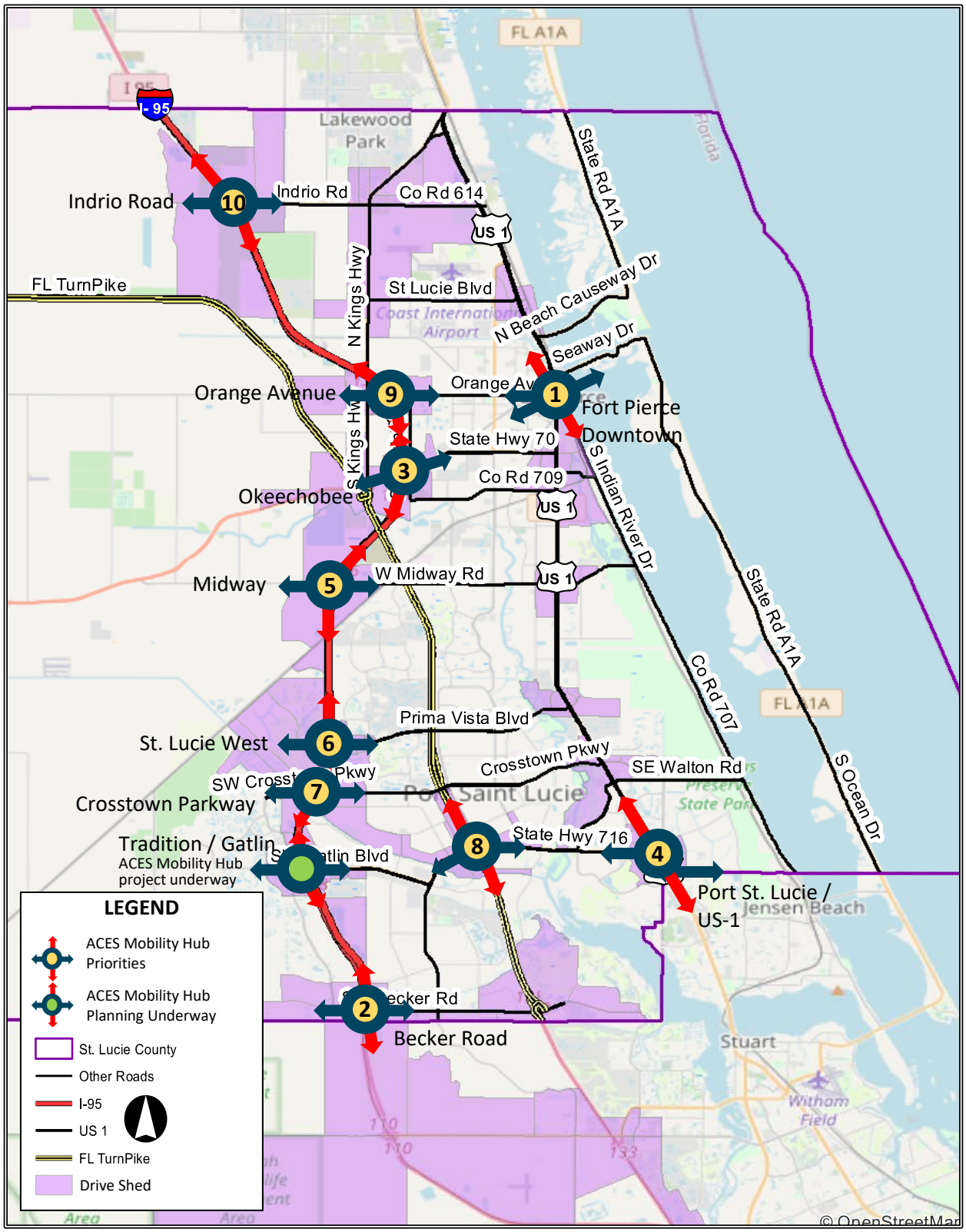
Within the highest priority areas, typical projects will be described in Section 4 for ACES Mobility Hubs to become the nodes of the future St. Lucie County ACES Sustainable Transportation network.

Table 3.1
Opportunity Areas for ACES Mobility Hubs

Place	Mobility Centroid	Report Section	Priority
Fort Pierce Downtown	Orange Avenue and FEC Railroad	3.1	1 (101 points)
Becker Road	I-95 Interchange & Becker Road	3.2	2 (73 points)
Okeechobee Road	Okeechobee Road and I-95 Interchange to Fort Pierce West	3.3	3 (64 points)
US-1 & Port St. Lucie Blvd	Intersection of US-1 & SE Port St. Lucie Boulevard	3.4	4 (43 points)
Midway Road	I-95 Interchange & Midway Road	3.5	5 (30 points)
St. Lucie West	I-95 Interchange & St. Lucie West Boulevard	3.6	6 (21 points)
Crosstown Parkway	I-95 Interchange and Crosstown Parkway	3.7	7 (21 points)
Port St. Lucie Boulevard & Airoso Boulevard	Port St. Lucie Boulevard & Florida's Turnpike / Airoso Boulevard	3.8	8 (21 points)
Orange Avenue	I-95 Interchange and Orange Avenue	3.9	9 (20 points)
Indrio Road Planned Development	I-95 Interchange & Indrio Road	3.10	10* (17 points)

* Coordination of Indrio project with proposed Indrio & I-95 and Indrio Town Center mixed-use developments may change priority and timeline.

Map 3.1
ACES Mobility Hubs Concept Prioritized Hubs



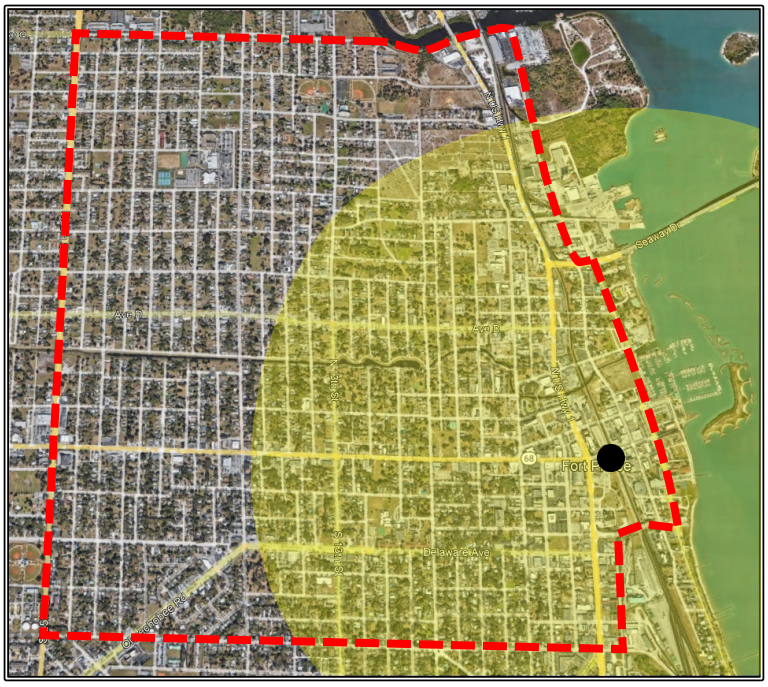
3.1 Fort Pierce Downtown

Mobility Centroid
Orange Avenue (SR-68)
& FEC Railroad

Boundaries
North: Avenue Q
South: Georgia Avenue
East: FEC Railroad
West: S. 25th Street

Area Type
Downtown: mixed-use destination and civic / business center

Major Transportation Infrastructure
US-1 (SR-5)
Orange Avenue (SR-68)
Okeechobee Road / Delaware Av.
Seaway Drive (A-1A)
Florida East Coast (FEC) Railroad



Fort Pierce Downtown
ACES Mobility Infrastructure Opportunity/Gap Area
- red dashed line = boundary of TAZs and criteria that identify area
- black dot is opportunity area mobility centroid
- yellow shaded circle is 1-mile radius around mobility centroid

Table 3.2
Fort Pierce Downtown ACES EVSE Infrastructure Opportunity Area Criteria

Criteria	Finding	Score	Comments
State Intermodal System Driveshed	No	0	nearest edge is 2.7 miles from I-95 interchange
Evacuation Route	Yes	3	US-1, Orange Avenue (SR-68), Seaway Drive
Population Density Existing	Yes	9	1 TAZ 15+ density, 3 TAZ at 10-15 density
Population Density 2045	Yes	28	6 TAZ at 15+ density, 5 TAZ at 10-15 density
Employment Density - Existing	Yes	11	1 TAZ at 40+ emp. density, 6 at 20-40, 3 at 10-20
Employment Density 2045	Yes	11	1 TAZ at 40+ emp. density, 6 at 20-40, 3 at 10-20
Major Retail Activity Center (MAC)	Yes	3	Downtown Fort Pierce (over 1,000,000 sq. ft.)
Mixed-Use Development	Yes	3	Downtown Fort Pierce
Hospitals	Yes	1	Florida Lawnwood Hospital is 1.6 mi. from centroid
Rail Station	Yes	3	Potential for Brightline Station (unconfirmed)
Transit Hubs	Yes	3	Fort Pierce Bus Terminal: Avenue D & N. 8th St.
Disadvantaged Community Investment	Yes	22	11 TAZ are identified as J40 areas
Publicly Controlled Vacant Land	Yes	1	The Depot Drive Site (3 parcels totaling 1.3 acres) has been proposed by the City of Fort Pierce for the Brightline Station site. Status is not confirmed.
Vacant Private Land P3 Potential	TBD	3	HD King Plan Site (7.2 acres) has been proposed by the City for Brightline site. Status is not confirmed.
TOTAL SCORE		**101**	

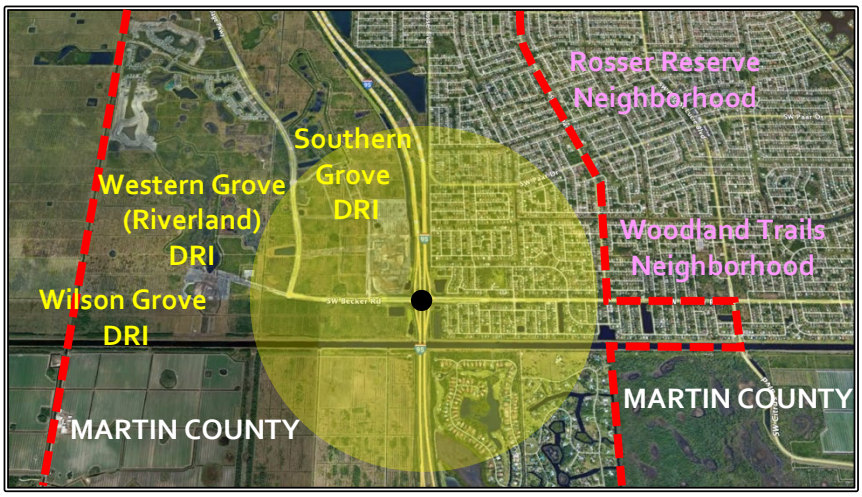
3.2 Becker Road

Mobility Centroid
I-95 Interchange and
Becker Road

Boundaries
North SW Hunnicut Avenue
South County Line
East SW Savona Blvd.
West w.o. SW Village Pkwy.

Area Type
State Highway Interchange
Rural and Suburban Edge

Major Roadways
I-95
Becker Road



Becker Road ACES EVSE Infrastructure Opportunity/Gap Area
- red dashed line = boundary of TAZs and criteria that identify area
- black dot is opportunity area mobility centroid
- yellow shaded circle is 1-mile radius around mobility centroid

Table 3.3
Becker Road ACES EVSE Infrastructure Opportunity/Gap Area Criteria

Criteria	Finding	Score	Comments
State Intermodal System Driveshed	Yes	2	I-95 interchange and Becker Road
Evacuation Route	Yes	2	I-95, Becker Road
Population Density Existing	No	0	1 TAZ at 6-10 density, 6 TAZ at 1-6 density, 19 TAZ at 0-1
Population Density 2045	No	0	7 TAZ at 6-10 density, 6 TAZ at 1-6 density, 12 TAZ at 0-1 density
Employment Density - Existing	No	0	7 TAZ at 0-10 emp. density
Employment Density 2045	Yes	0	7 TAZ at 0-10 emp. density
Major Retail Activity Center (MAC)	Yes	7	Future Retail MAC with DRIs at 1.8-million sq ft, 893,000 sq. ft., and 765,000 sq. ft.
Mixed-Use Development	Yes	50	**Southern Grove DRI**: 7,388 HH; employment, 14,069. **Western Grove DRI**: 11,700 HH; employment, 4,412. **Wilson Grove DRI:** 7,700 HH; employment, 4,412.
Hospitals	No	0	None
Rail Station	No	0	No rail station existing or planned
Transit Hubs	No	0	None
Disadvantaged Community Investment	No	0	No TAZ are identified as J40 areas
Publicly Controlled Vacant Land	Yes	3	City of Port St. Lucie owns 15.4 acres on the east side of the interchange; however, it is used for storm water retention and not suitable. The City also owns 2.9 acres along the south side of Becker Road that may be suitable, noting that it is adjacent to single family homes, so facilities must be small and low impact.
Vacant Private Land P3 Potential	Yes	9	DRI: Southern Grove, Western Grove, Wilson Grove
TOTAL SCORE		**73**	

3.3 Okeechobee Road: I-95 to Fort Pierce

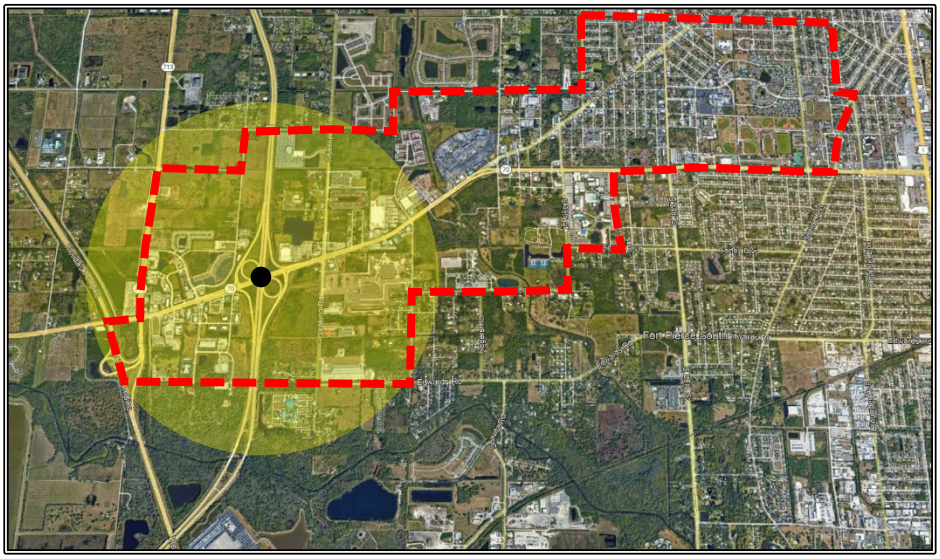
Mobility Centroid
Interchange of I-95 and Okeechobee Road

Boundaries

North	Georgia Avenue
South	Virginia Avenue Edwards Road
East	S. 7th Street SW 23rd Steet McNeil Road
West	I-95

Area Type
State Highway Interchange
Commercial Corridors

Major Roadways
I-95
Florida's Turnpike
Okeechobee Road
South Kings Highway



Okeechobee Road / I-95 / Fort Pierce West
ACES EVSE Infrastructure Opportunity/Gap Area

- red dashed line = boundary of TAZs and criteria that identify area
- black dot is opportunity area mobility centroid
- yellow shaded circle is 1-mile radius around mobility centroid

Table 3.4
Okeechobee Road: I-95 to Ft. Pierce West ACES EVSE Infrastructure Opportunity/Gap Area Criteria

Criteria	Finding	Score	Comments
State Intermodal System Driveshed	Yes	2	I-95 interchange and Fl Turnpike at Okeechobee
Evacuation Route	Yes	4	I-95, Fl. Turnpike, Okeechobee Rd (SR-70), Kings Hwy
Population Density Existing	Yes	4	2 TAZ at 10-15 density
Population Density 2045	Yes	18	2 TAZ at 15+ density, 6 TAZ at 10-15 density
Employment Density - Existing	Yes	4	1 TAZ at 20-40 emp. density, 2 at 10-20 emp. density
Employment Density 2045	Yes	6	2 TAZ at 20-40 emp. density, 2 at 10-20 emp. density
Major Retail Activity Center (MAC)	Yes	3	Walmart (220,000 sq. ft.), Indian River State College
Mixed-Use Development	No	0	Okeechobee corridor not walkable to MF residential
Hospitals	Yes	1	Florida Lawnwood Hospital is 3.1 mi. from centroid
Rail Station	No	0	No rail station existing or planned
Transit Hubs	No	0	St. Lucie ART Route 3 bus stops. No Transit hub.
Disadvantaged Community Investment	Yes	14	7 TAZ are identified as J40 areas
Publicly Controlled Vacant Land	Yes	8	One mile west, a 13-acre parcel south of Okeechobee and west of Kings Hwy with the western 3 acres used for maintenance equipment may be repurposed. On the south side of Okeechobee, Indian River State College owns a 5.7-acre vacant parcel, 1 mile from the centroid. It is designated for general commercial use. Intended use is not known.
Vacant Private Land P3 Potential	TBD	0	None
TOTAL SCORE		**64**	

3.4 US-1 & Port SE Port St. Lucie Boulevard

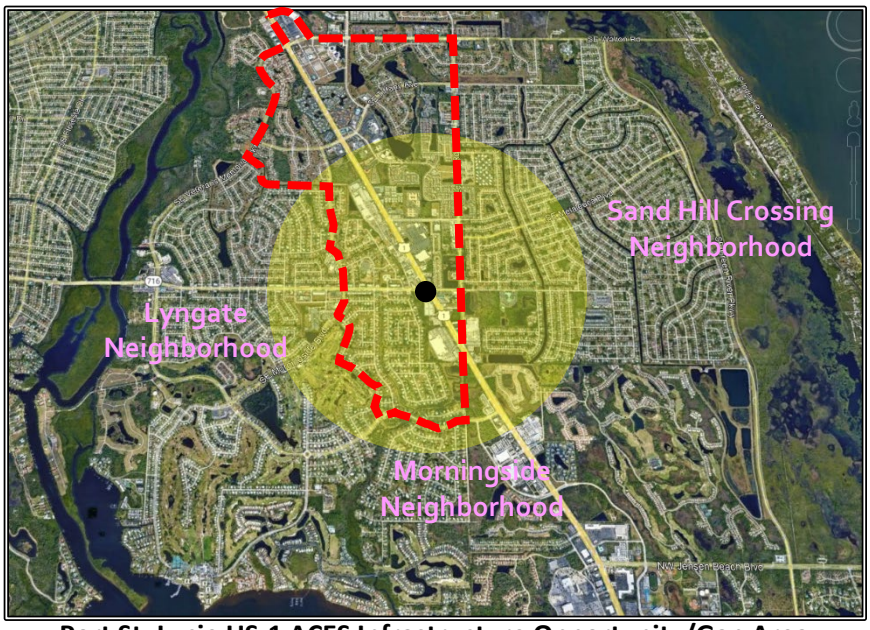
Mobility Centroid
US-1 and
Port St. Lucie Boulevard

Boundaries

North	Crosstown Parkway SE Walton Road
South	County Line
East	SE Lennard Road
West	SE Midport Road

Area Type
Commercial Corridor
Intersection with Major Arterial

Major Roadways
US-1
SE Port St. Lucie Boulevard
SE Walton Road
NW Jensen Beach Boulevard



Port St. Lucie US-1 ACES Infrastructure Opportunity/Gap Area
- red dashed line = boundary of TAZs and criteria that identify area
- black dot is opportunity area mobility centroid
- yellow shaded circle is 1-mile radius around mobility centroid

Table 3.5
US-1 & SE Port St. Lucie Blvd. ACES EVSE Infrastructure Opportunity/Gap Area Criteria

Criteria	Finding	Score	Comments
State Intermodal System Driveshed	No	0	I-95 interchange is 4.3 miles west
Evacuation Route	Yes	4	US-1, Crosstown Pkwy, SE Walton Rd, SE PSL Blvd.
Population Density Existing	Yes	6	3 TAZ at 10-15 density
Population Density 2045	Yes	11	1 TAZ at 15+ density, 4 TAZ at 10-15 density
Employment Density - Existing	Yes	5	1 TAZ at 40+ emp. density, 2 at 20-40, 1 at 10-20
Employment Density 2045	Yes	2	1 TAZ at 40+ emp. density, 2 at 20-40, 1 at 10-20
Major Retail Activity Center (MAC)	Yes	5	Treasure Coast Square (950,000 sq. ft.), Super Center, (450,000 sq. ft.) Walmart (220,000 sq. ft.)
Mixed-Use Development	Yes	6	US-1 commerce with Lyngate neighborhood to west and Sandhill Crossing neighborhood to east
Hospitals	Yes	1	HCA Florida St. Lucie Hospital
Rail Station	No	0	No rail station existing or planned
Transit Hubs	No	3	St. Lucie ART Route 1 & 4 bus stops. No Transit hub.
Disadvantaged Community Investment	No	0	No TAZ are identified as J40 areas
Publicly Controlled Vacant Land	No	0	The City of Port St. Lucie owns 7 acres of vacant land at SE Hillmoor Drive and 32 acres of land on Mariposa Avenue. All are designated for conservation.
Vacant Private Land P3 Potential	TBD	0	At 2002 SE Port St. Lucie Blvd, there is a 4.6-acre parcel belonging to Southern Bell Telephone & Telegraph and used as a communication substation. It is mostly underutilized with an 11,220 sq. ft. building and little parking. P3 potential is not determined.
TOTAL SCORE		**43**	

3.5 Midway Road

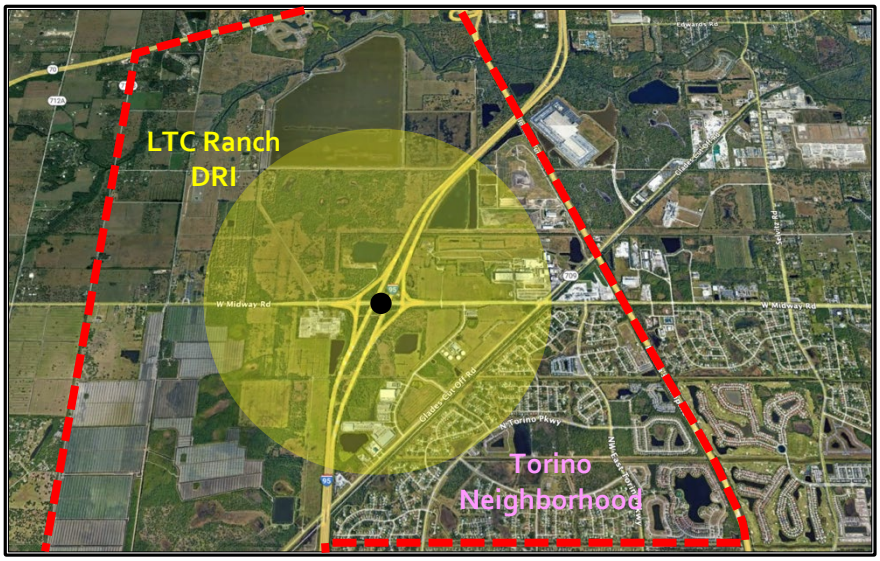
Mobility Centroid
I-95 Interchange and
W. Midway Road

Boundaries

North	approximate latitude where I-95 & Tpk cross
South	North Torino Pkwy. canal s.o. W Blanton
East	Florida's Turnpike
West	McCarty Road

Area Type
State Highway Interchange
Rural and Suburban Edge

Major Roadways
I-95
W. Midway Road



Midway Road ACES EVSE Infrastructure Opportunity/Gap Area
- red dashed line = boundary of TAZs and criteria that identify area
- black dot is opportunity area mobility centroid
- yellow shaded circle is 1-mile radius around mobility centroid

Table 3.6
Midway Road ACES EVSE Infrastructure Opportunity/Gap Area Criteria

Criteria	Finding	Score	Comments
State Intermodal System Driveshed	Yes	2	I-95 interchange and W. Midway Road
Evacuation Route	Yes	2	I-95, W. Midway Road
Population Density Existing	Yes	2	1 TAZ at 10-15 density, 18 TAZ at 1-6 density, 11 TAZ at 0-1 density
Population Density 2045	Yes	4	2 TAZ at 10-15 density,2 TAZ at 6-10 density, 19 TAZ at 1-6 density, 11 TAZ at 0-1 density
Employment Density - Existing	Yes	0	30 TAZ at 0-10 emp. density
Employment Density 2045	Yes	0	30 TAZ at 0-10 emp. density (LTC approx. 3 / acre)
Major Retail Activity Center (MAC)	Yes	0	None
Mixed-Use Development	Yes	7	**LTC Ranch DRI**, Wylder Residential Development: 2,500 HH, 980,100 sq. ft. offices, 1,275 employment. **Torino neighborhood** and **Town Center.**
Hospitals	No	0	None
Rail Station	No	0	No rail station existing or planned
Transit Hubs	No	0	None
Disadvantaged Community Investment	No	10	5 TAZ are identified as J40 areas
Publicly Controlled Vacant Land	No	0	None
Vacant Private Land P3 Potential	Yes	3	The LTC Ranch DRI is planned as a major mixed-use development encompassing 200 acres north of Midway Road and west of I-95. South of the DRI is a 46-acre parcel owned by FPL and the site of an electric substation. It is not likely for use without hindering safe operation of the substation.
TOTAL SCORE		**30**	

3.6 St. Lucie West

Mobility Centroid
I-95 Interchange and
St. Lucie West Boulevard

Boundaries

North	NW Peacock Blvd.
South	Crosstown Pkwy.
East	Country Club Drive
West	SW Visconti Way Glades Cut Off Road

Area Type
State Highway Interchange
Commercial Corridor
Suburban

Major Roadways
I-95
St. Lucie West Boulevard

St. Lucie West ACES EVSE Infrastructure Opportunity/Gap Area
- red dashed line = boundary of TAZs and criteria that identify area
- black dot is opportunity area mobility centroid
- yellow shaded circle is 1-mile radius around mobility centroid

Table 3.7
St. Lucie West ACES EVSE Infrastructure Opportunity/Gap Area Criteria

Criteria	Finding	Score	Comments
State Intermodal System Driveshed	Yes	2	I-95 interchange and St. Lucie West Boulevard
Evacuation Route	Yes	1	I-95 interchange, St. Lucie West Boulevard
Population Density Existing	Yes	2	1 TAZ at 10-15 density
Population Density 2045	Yes	2	1 TAZ at 10-15 density
Employment Density - Existing	Yes	4	4 TAZ at 10-20 emp. density
Employment Density 2045	Yes	4	1 TAZ at 20-40 emp. density, 3 at 10-20
Major Retail Activity Center (MAC)	Yes	3	Town Center at St. Lucie West (920,000 sq. ft.)
Mixed-Use Development	Yes	3	St. Lucie West neighborhoods and Town Center, and Indian River State College, Ken Pruitt Campus
Hospitals	No	0	None
Rail Station	No	0	No rail station existing or planned
Transit Hubs	No	0	St. Lucie ART Route 8 bus stops. No Transit hub.
Disadvantaged Community Investment	No	0	No TAZ are identified as J40 areas
Publicly Controlled Vacant Land	No	0	There are several large parcels east of the interchange that are owed by St. Lucie West Services District; however, they are designated for preservation/ conservation.
Vacant Private Land P3 Potential	Yes	0	None
TOTAL SCORE		**21**	

3.7 Crosstown Parkway

Mobility Centroid
I-95 Interchange and
Crosstown Parkway

Boundaries
North s.o. St. Lucie West Blvd. / Reserve Blvd.
South Tanforan Blvd. s.o. Webster Lane
East w.o. SW California Blvd.
West Novella Way
Fairgreen Road

Area Type
State Highway Interchange
Suburban

Major Roadways
I-95
Crosstown Parkway

Crosstown Parkway ACES EVSE Infrastructure Opportunity/Gap Area
- red dashed line = boundary of TAZs and criteria that identify area
- black dot is opportunity area mobility centroid
- yellow shaded circle is 1-mile radius around mobility centroid

Table 3.8
Crosstown Parkway ACES EVSE Infrastructure Opportunity/Gap Area Criteria

Criteria	Finding	Score	Comments
State Intermodal System Driveshed	Yes	2	I-95 interchange and Crosstown Parkway
Evacuation Route	Yes	2	I-95 interchange, Crosstown Parkway
Population Density Existing	Yes	0	8 TAZ at 1-6 density, 3 TAZ at 0-1 density
Population Density 2045	Yes	0	3 TAZ at 6-10 density, 6 TAZ at 1-6 density, 2 TAZ at 0-1 density
Employment Density - Existing	Yes	0	11 TAZ at 0-10 emp. density
Employment Density 2045	Yes	0	11 TAZ at 0-10 emp. density
Major Retail Activity Center (MAC)	Yes	3	Future Retail MAC with Verano
Mixed-Use Development	Yes	8	**Verano DRI**: 7,200 HH, 848,500 sq. ft. commercial, employment of 865
Hospitals	No	0	None
Rail Station	No	0	No rail station existing or planned
Transit Hubs	No	0	None
Disadvantaged Community Investment	No	0	No TAZ are identified as J40 areas
Publicly Controlled Vacant Land	No	0	The City of Port Saint Lucie owns 84.8 acres of land that is designated for electric transmission easement and designated for open space and conservation.
Vacant Private Land P3 Potential	Yes	6	Verano DRI is currently building out. Mostly single-family residential, there is a mixed-use commercial center on the northwest corner of SW Crosstown Parkway and Village Parkway. The 36.7-acre Verano Center Community Development District is located at the southwest corner of the I-95 interchange .
TOTAL SCORE		**21**	

3.8 SE Port St. Lucie Boulevard & Airoso Blvd. / Florida's Turnpike

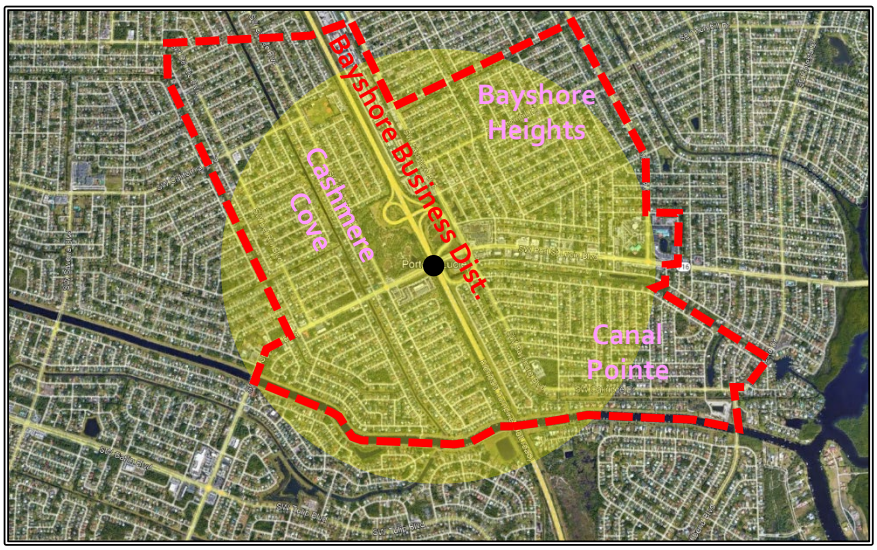
Mobility Centroid
Florida's Turnpike and
SE Port St. Lucie Boulevard

Boundaries

North	Crosstown Parkway SW Voltair Terrace
South	St. Lucie River
East	SW Airoso Blvd. SE Floresta Drive
West	SW Susset Lane SW PSL Blvd.

Area Type
State Highway Interchange
Commercial Corridor
Suburban

Major Roadways
Florida's Turnpike
SE Port St. Lucie Boulevard



SE Port St. Lucie Boulevard & Florida's Turnpike
ACES EVSE Infrastructure Opportunity/Gap Area

- red dashed line = boundary of TAZs and criteria that identify area
- black dot is opportunity area mobility centroid
- yellow shaded circle is 1-mile radius around mobility centroid

Table 3.9
SW Port St. Lucie Blvd. & Florida's Tpk. ACES EVSE Infrastructure Opportunity/Gap Area Criteria

Criteria	Finding	Score	Comments
State Intermodal System Driveshed	Yes	2	Turnpike and Port St. Lucie Boulevard interchange
Evacuation Route	Yes	2	Florida's Turnpike, SE Port St. Lucie Boulevard
Population Density Existing	Yes	2	1 TAZ at 10-15 density
Population Density 2045	Yes	2	1 TAZ at 10-15 density; significant densification in area with TAZs growing from density of 1-6 to 6-10.
Employment Density - Existing	No	0	All TAZ at 0-10 emp. density
Employment Density 2045	No	0	All TAZ at 0-10 emp. density
Major Retail Activity Center (MAC)	No	1	PSL Boulevard commercial strip
Mixed-Use Development	Yes	6	**Bayshore Business District** and **PSL Blvd commercial corridor** with neighborhoods of Cashmere Cove, Bayshore Heights and Canal Pointe.
Hospitals	No	0	None
Rail Station	No	0	No rail station existing or planned
Transit Hubs	Yes	2	Port St. Lucie Intermodal Transit Facility
Disadvantaged Community Investment	Yes	4	2 TAZ are identified as J40 areas
Publicly Controlled Vacant Land	No	0	None
Vacant Private Land P3 Potential	No	0	At the southeast corner of the interchange is a 5.8-acre parcel owned by FPL and the site of an electric substation. Part of the land is vacant, and access to the site is difficult. It is not likely for use without hindering safe operation of the substation.
TOTAL SCORE		**21**	

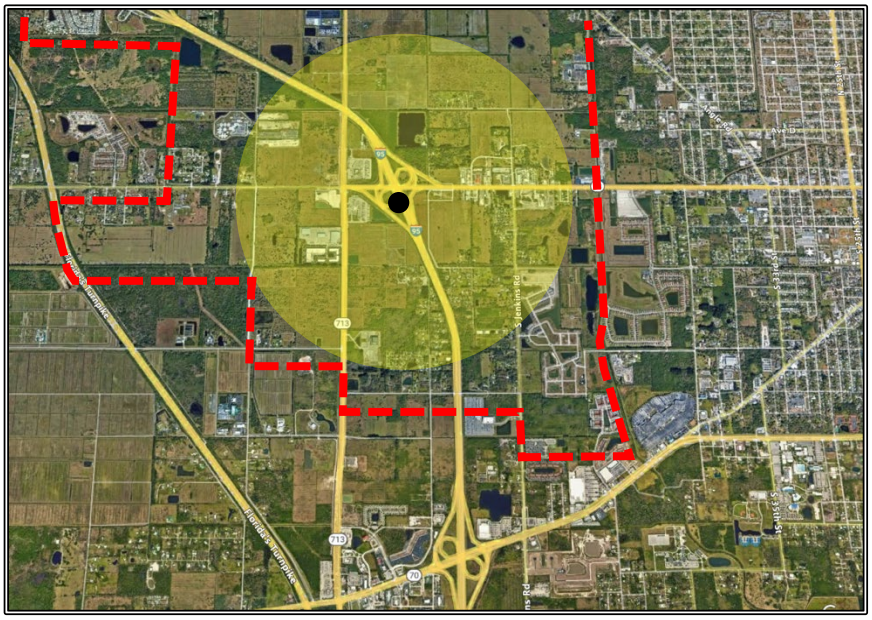
3.9 Orange Avenue

Mobility Centroid
I-95 Interchange and Orange Avenue

Boundaries
North W Angle Road
South Picos Road, Graham Road
East Panther Lane, canal
West Florida's Turnpike

Area Type
State Highway Interchange
Rural / Suburban Edge

Major Roadways
I-95
Orange Avenue
Kings Highway



Orange Avenue ACES EVSE Infrastructure Opportunity/Gap Area
- red dashed line = boundary of TAZs and criteria that identify area
- black dot is opportunity area mobility centroid
- yellow shaded circle is 1-mile radius around mobility centroid

Table 3.10
Orange Avenue ACES EVSE Infrastructure Opportunity/Gap Area Criteria

Criteria	Finding	Score	Comments
State Intermodal System Driveshed	Yes	2	I-95 interchange and Orange Avenue
Evacuation Route	Yes	3	I-95 interchange, Orange Avenue, Kings Highway
Population Density Existing	Yes	0	1 TAZ at 1-6 density, 9 TAZ at 0-1 density
Population Density 2045	Yes	0	6 TAZ at 1-6 density, 4 TAZ at 0-1 density
Employment Density - Existing	Yes	0	10 TAZ at 0-10 emp. density
Employment Density 2045	Yes	0	10 TAZ at 0-10 emp. density
Major Retail Activity Center (MAC)	Yes	0	None
Mixed-Use Development	No	0	None
Hospitals	No	0	None
Rail Station	No	0	No rail station existing or planned
Transit Hubs	No	0	None
Disadvantaged Community Investment	No	0	No TAZ are identified as J40 areas
Publicly Controlled Vacant Land	TBD	15	At 5220 Orange Avenue, FDOT owns 28.7 acres of vacant land, 2 miles east of the interchange. It is not right-of-way. The intended purpose is not known.
Vacant Private Land P3 Potential	No	0	There are large lots currently in development for industrial and logistics uses. There are no major planned mixed-use developments.
TOTAL SCORE		**20**	

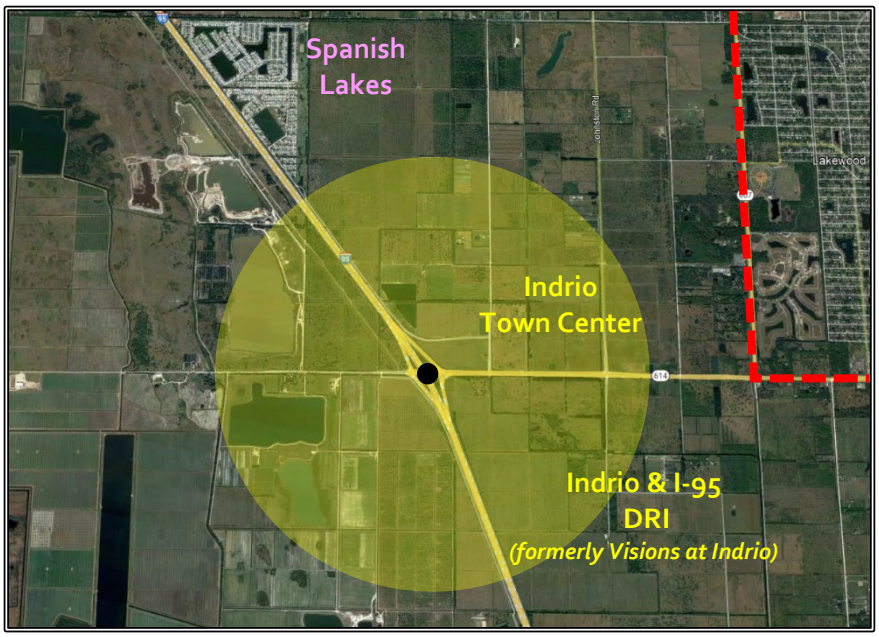
3.10 Indrio Road Planned Development

Mobility Centroid
I-95 interchange and Indrio Road

Boundaries
North 25th Street SW
South canal
East Johnston Road
West not defined

Area Type
State Highway Interchange Rural
Large Planned Mixed-Use Development

Major Roadways
I-95
Indrio Road



Indrio Road ACES EVSE Infrastructure Opportunity/Gap Area
- red dashed line = boundary of TAZs and criteria that identify area
- black dot is opportunity area mobility centroid
- yellow shaded circle is 1-mile radius around mobility centroid

Table 3.11
Indrio Planned Development ACES EVSE Infrastructure Opportunity/Gap Area Criteria

Criteria	Finding	Score	Comments
State Intermodal System Driveshed	Yes	2	I-95 interchange and Indrio Road
Evacuation Route	Yes	2	I-95 interchange, Indrio Road
Population Density Existing	No	0	All TAZ at 0-1 and 1-6 density
Population Density 2045	No	0	All TAZ at 0-1 and 1-6 density. Developer plans 2,683 homes – density is not determined.
Employment Density - Existing	No	0	All TAZ at 0-10 emp. density
Employment Density 2045	No	-	All TAZ at 0-10 emp. density
Major Retail Activity Center (MAC)	Yes	3	Future Retail MAC with I-95 and Indrio DRI
Mixed-Use Development	Yes	4	**I-95 & Indrio DRI**: 2,683 HH, 1,088,00 sq. ft. commercial, employment of 1,109.
Hospitals	No	0	None
Rail Station	No	0	No rail station existing or planned
Transit Hubs	No	0	No transit service. No Transit hub.
Disadvantaged Community Investment	No	0	No TAZ are identified as J40 areas
Publicly Controlled Vacant Land	No	0	None
Vacant Private Land P3 Potential	Yes	6	Indrio & I-95 DRI (837 acres); Indrio Town Center (111 acres). Also, most of the land near the interchange is currently in active agricultural use, with assemblages ranging from 225 acres to 1,850 acres.
TOTAL SCORE		**17**	

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4 ACES Mobility Hub Concepts

Introduction

In Section 3, eleven opportunity areas are identified as priority areas in which an ACES Mobility Hub may be located that would meet a range of different criteria that address the geography of the St. Lucie County transportation network, emergency response and resiliency considerations, land use, aggregations of population, aggregations of employment, major retail activity centers, existing or planned intermodal hubs, and development of disadvantaged com munities. The eleven areas represent a range of opportunities for linking the component of the future ACES network, ranging from a downtown to a major activity center at commercial crossroads, to more highway-focused locations that also serve the State Intermodal System, and to green-fields where major future development is planned.

Mobility Hub Facility Components

While Mobility Hubs provide a focal point in the transportation network to integrate different modes of transportation with multi-modal supportive infrastructure, they also often include place–making strategies to create activity centers to maximize first–and-last-mile connectivity and provide a destination or semi-destination for creating an attractive location for charging EV. Mobility Hub design and programming include six areas discussed below.

1. Pedestrian Facilities that are related to encouraging walking within the Mobility Hub and to and from connections to connect to existing or planned neighborhoods and commercial districts. Closely related to this are encouraging active uses that focuses on supporting mixed-use environment with quality public space. In addition, the multimodal aspects require infrastructure to ensuring safe and comfortable environment for users with information, intuitive design, comfortable and secure infrastructure, protected road crossings, waiting areas, and improved safety and security.

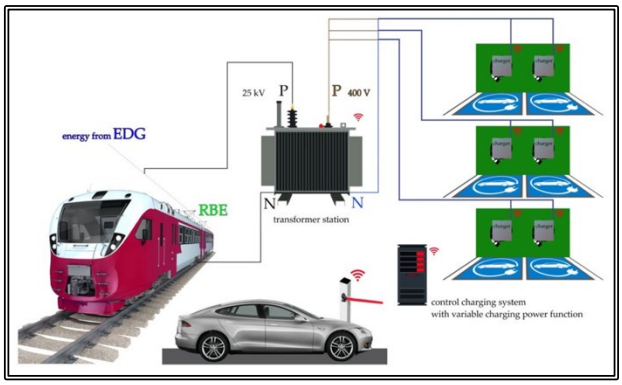
2. Bike Facilities that are related to encouraging these means as a first-and-last-mile choice to and from a mobility hub. Bike facilities include all modes that provide personal transportation that are road-legal vehicles, Low Speed Electric Vehicles, or golf carts and not pedestrian. This mode includes human-powered bikes, electric bicycles, scooters, and skateboards. Design programing should include continuous connections and storage facilities

Shared E-Bike solar-powered, charging dock
WeCycle / Sky Hook charging station, Basalt, Colorado

for both personal and shared bicycles, scooters, and skateboards.

3. Vehicle Facilities are related to encouraging and developing ride share, car share, and adoption of alternative fuel sources and green technology such as electric vehicles. This includes adequate parking for the intermodal purposes, as well as adequate capacity of electric Level 3 DC fast chargers charging capacity for EV vehicles and designated spaces for EV shared vehicles (Uber/Lyft delivery model) and short-term rental shared vehicles (Zip-Car/Car2Go delivery model). For highway-focused Mobility Hubs, truck, and other commercial vehicles EV chargers as well as conventional fueling also need to be assessed.

Transit Commuter Parking to provide sufficient EV and non-EV parking capacity to serve the intermodal functions. Whether supporting rail or bus transit, this is a day-parking capacity with little turnover. In addition to forecasting capacity, it is also necessary to have sufficient electrical capacity to provide for conversion of conventional parking spaces to EV parking spaces as EV adoption. Systems are available to control the power requirements depending on space occupancy, level of charge, and the arrival of trains or buses that will temporarily require higher electric current.



Example of electric demand control system for intermodal stations with EV charging

The car sharing EV component requires an adequate number of EV spaces that are in high-visibility priority locations both from the transit platforms and from the surrounding neighborhood or commercial district.

Example of dedicated EV car sharing spaces

Parking capacity is also necessary for the destination retail and public place components of the Mobility Hub. Retail establishments will rely on commuters and non-commuting clientele to thrive. An adequate number of parking spaces (accounting or discounting for commuters and mixed-use pedestrian traffic) is required to support these businesses. These spaces are also in more prioritized locations and include a mix of conventional and EV spaces with the capability to convert more to EV as the EV adoption rate grows.

Example of large EV parking capacity for day use

In addition to the parking needs above, there is also a need for transient EV charging stations that may be included with the retail parking. Particularly at Mobility Hubs that are within the driveshed of highways, these are priority located Level 3 DC fast chargers for travelers to stop and conveniently charge while occupied with retail and restaurant uses, while becoming more familiar with the location. This is akin to an interstate highway rest stop.

Some of the infrastructure planning for the EV automotive recharging needs include:

- Electrical supply that is needed for current and future forecast needs. High-speed DC fast charging requires 480-volt, 3-phase electrical service. The kilowatts for peak demand need to be forecast, along with peak management strategies.
- Space for the electrical infrastructure (electrical panels, remote power cabinets, conduit runs, and the charging stations themselves) in a safe location with access that meets building codes.
- Making chargers easy to find with signage and live wayfinding to an available space.
- How to serve both commercial and passenger vehicles. For most passenger vehicles, pulling or backing into a spot is the most desirable configuration. For larger vehicles, commercial vehicles or vehicles towing trailers, pull-through configurations for EV charging need to be considered.
- EV charging stations and electrical service need to be scaled up in the future.
- How will the EV charging be funded and what can impact expected returns on investment.

Example of DC Fast Charging with conventional pull-through service island

4. Bus Facilities are related to encouraging public transit bus ridership at the levels of: fixed regional routes, smaller area shuttles and trolleys and demand-responsive micro-transit. The facilities vary as the vehicle technology used by each level of transit varies:

- Regional transit buses are typically full-sized 40-foot buses, for which the fleet is running on fossil fuels and does need refueling at a Mobility Hub; however, as the fleet electrifies, enroute charging during layover time may aid the route schedule and duration. For charging in a Mobility Hub, safety will likely require inductive charging, either overhead or embedded in the road surface. and bus layover zones in particular.
- Shuttles and trolleys that travel through smaller service areas, are typically smaller buses either based on a small truck or van chassis. These vehicle fleets are also converting to battery electric propulsion and will require similar facilities as for full size buses; however, the inductive charging equipment may not be the same. In terms of facility programming, stop/layover areas for shuttles must be different from full size buses.
- Demand responsive micro-transit is trending strongly toward use of low-speed electric vehicles (LSEV) with 6 to 10 seats and door opening for each row. In addition to a distinct stop, micro-transit LSEV require an EV charging point. The LSEV technology can use assigned Level 3 EV parking spaces.

For all of the bus types, there must be separate transitway circulation in the Mobility Hub to access and depart the stops. Ideally, separated and or priority operations should be incorporated on the approach to the hub. This is necessary to provide priority to transit that will not be hindered from personal vehicle queues and is especially important near congested intersections and where hubs serve highways at locations near a limited-access highway interchange.

In ground inductive charging for buses - Momentum Dynamics, Lynx Transit

5. Rail Facilities

are related to encouraging public transit ridership at the levels of urban light rail, metro heavy rail, or intercity line-haul, heavy rail. These are appropriate discussions only where there is an existing passenger rail station, or a passenger rail station that is planned or potentially planned in partnership with a rail service operator. In addition to all of the other modes, an additional set of facilities are required that include enough linear space along an active right-of-way for the intended platform length which is related to the rail engine, livery, and number of passenger cars to be in operation at peak times. Electrical needs must be coordinated with the needs of EV charging at a mobility hub. The rail service, in addition to the platform requires a ticketing area and lounge; however, much of the lounge, retail and pedestrian transfer spaces will be shared with the Mobility Hub facilities. Rail operators have their own specific needs for their station locations, and these should be references. Relevant to St. Lucie County, there is an evaluation underway for a Brightline Station in Fort Pierce. Brightline has provided its station requirements, and these are summarized below.

Criteria for Considering Brightline Station Locations in the Treasure Coast *(not all-inclusive)*

source: Brightline Trains, LLC, provided to Treasure Coast Regional Planning Council, August 27, 2018

Ridership Potential

- Population within 30 miles of proposed station
- Population within 5 miles of station
- Proximity to key origins and destinations
- Proximity to business centers, attractions, hotels, and residential populations
- Economic and demographic data to support ridership potential
- Intermodal connections with local transit systems
- Accessibility from local street network

Development Potential

- Parcel(s) must accommodate 1000 linear feet for station platform
- Total available acreage including station
- Adjacent developable parcels and properties
- Existing land use supports residential, hotel, and business development
- Acres of vacant or underutilized parcels within ½ mile
- Nearby parking and transportation network
- Favorable wetland and floodplain conditions

Location

- Distance from other Brightline stations north and south
- Proximity and accessibility to major arterial and collector roads
- Available access points to station from frontage roads
- Proximity to airports
- Proximity to cultural and recreational and commercial destinations
- Area is walkable and compatible with early morning and evening activity
- Location allows continued fluidity of railroad operations for both freight and passenger service
- Location does not cause local vehicular traffic issues

Community Support

- Demonstration of community support for a rail station offering regular intercity passenger service connecting the Treasure Coast to South Florida, Central Florida and eventually Tampa from the proposed location
- Local incentives

6. Information, Public Communication and Data Sharing: To tie together a Mobility Hub as an ACES (Coordinated) Hub, information, public communication, and data sharing is essential. The hub physically brings together many modes into a single, walkable location. For the intermodality to be seamless for the user, efficient for providers, and productive for the County, schedules, availabilities, capacities, demands, and energy use must be coordinated and communicated via smart phone app, large well-located central kiosks within the hub, and signage at the access points outside of the hub.

Mobility Hub Typologies

Each Mobility Hub priority area presents unique opportunities and challenges based on its context and transportation functions. In order to reflect the varying mobility needs and the existing built environment, there are general tiers of Mobility Hubs: Typically, there are three types: Regional Hubs, Central Mobility Hubs, and Neighborhood Mobility Hubs. In the context of creating ACES Mobility Hubs to anchor the St. Lucie county ACES mobility network, an additional category is required to describe hubs that are important to the State Intermodal System (SIS) and Florida ACES and EV plans.

Regional ACES Mobility Hubs are the largest scale station areas in either dense urban areas or end of line stations where they connect to other regional transit providers. The Regional ACES Mobility Hub offers the most intermodal facilities including:

- direct pedestrian access;
- significant conventional parking with market-proportionate EV charging spaces (level 2 for day parking, Level 3 for shorter parking);
- secured bike parking;
- transit bus stops, shuttle bus stops, and layover zones;
- LSEV demand-responsive transit;
- EV car sharing and short-term membership-based EV car rental;
- E-bike sharing, micro-mobility;
- live wayfinding and information kiosks;
- green spaces, art and other placemaking amenities.

Amenities include walkable mixed-use development and on-site amenities built into the Mobility Hub itself. The hub may be a campus design of multiple buildings or have a single multi-story structure consistent with the surrounding development and land cost considerations.

Central ACES Mobility Hubs are typically located in a more suburban context, often at a retail major activity centers (MAC) and at the crossroads of two major mobility facilities. The intermodal facilities may encompass:

- a bus station with one or more bus stops;
- sheltered transfer platforms or lobby to transfer to shuttles and demand responsive micro-transit services;
- a bus EV charging layover facility;
- E-bike sharing and other micro-mobility dock or pod;
- Safe, low stress bicycle paths or buffered lanes leading into and out of the Mobility Hub;
- surface parking that is likely shared with the commercial parking and includes a grouping of several EV charging spaces (level 2 for day parking, mostly level 2 for commuters);
- pedestrian access that safely and comfortably connects to the retail center(s) and the sidewalk network with pedestrian protected, signalized, and marked crossings;
- live wayfinding and information kiosks;
- green spaces, art and other placemaking amenities.

The amenities may be spread throughout the surrounding intersection, while still within easy walking distance from the station itself.

SIS Central ACES Mobility Hubs are a special type of Central Mobility Hub that focuses on providing a resting and recharging location for enroute travelers on the State Intermodal System while providing retail amenities scaled for this market and express connections to the Regional Mobility Hub, a major activity center or a downtown. They may also function as park-and-ride facilities to alleviate traffic congestion to downtowns by providing safe and convenient express transit to downtowns and major activity centers. The SIS ACES Mobility Hubs are located within the 1-mile driveshed of and interchange along I-95 or Florida's Turnpike. The intermodal facilities include:

- Level 3 DC Fast Chargers for through travelers and commercial vehicles in pull-through configurations;
- fossil fuel service stations that can be transitioned to more EV chargers;
- a bus station with one or more bus stops;
- sheltered transfer platforms or lobby to transfer to shuttles and demand responsive micro-transit services;
- a bus EV charging layover facility;
- E-bike sharing and other micro-mobility dock or pod depending on location;
- Safe, low stress bicycle paths or buffered lanes leading into and out of the Mobility Hub if there are bicycle facilities programmed;
- commuter surface parking that includes a grouping of several EV charging spaces (level 2 for commuters);
- safe, separated, pedestrian circulation throughout the facility;
- pedestrian access depending on location;
- live wayfinding and information kiosks
- green spaces, art and other placemaking amenities.

The amenities are arranged in a campus configuration with pedestrian circulation throughout.

Neighborhood Mobility Hubs are smaller ancillary station areas generally found in lower density neighborhoods or at the entrance to planned are developments. They offer a few basic amenities including wayfinding, bike share and bike parking areas. All these amenities are generally immediately visible from the station stop, and generally located across the street or within the same block.

- a bus sheltered station with one or more bus lines serving it;
- transfer to shuttles and demand responsive micro-transit services;
- E-bike sharing and other micro-mobility dock or pod;
- safe, low stress bicycle paths or buffered lanes leading into and out of the Mobility Hub;
- Small off-street surface parking that includes a grouping of two EV charging spaces;
- pedestrian access that safely and comfortably connect to the sidewalk network with pedestrian protected, signalized, and marked crossings;
- live wayfinding and information kiosks;
- green spaces, art and other placemaking amenities.

Table 4.1 summarizes mobility hub components and amenities for planning in terms of necessity for the type of ACES Mobility Hub. For each component or attribute, there is an indication of whether it is vital (green circle), optional (blue triangle),or not included (red square).

Table 4.1
ACES Mobility Hub Components & Attributes

Mobility Mode	Infrastructure	Neighbor-hood ACES Mobility Hub	Central ACES Mobility Hub	SIS Central ACES Mobility Hub	Regional ACES Mobility Hub
Pedestrian Connections	continuous pedestrian path to and from ACES Mobility Hub	●	●	▲	●
	walkable environment within ACES Mobility Hub	●	●	●	●
	placemaking green spaces, plazas, and points of interest	▲	●	●	●
Bicycle & Personal Modes Connections	continuous bike path to and from ACES Mobility Hub	●	●	▲	●
	bicycle racks	●	●	■	●
	bicycle lockers	●	▲	●	▲
	shared bicycle docks	●	●	▲	●
	shared E-scooter docks/area	●	●	▲	●
Vehicle Connections	access separated from transit, pedestrian, and bicycle ways	▲	▲	●	●
	commuter long-term day parking	●	●	●	●
	commuter long-term day spaces for Level 2 EV charging	●	●	●	●
	short-term priority parking for retail patronage	■	●	■	●
	pick-up drop-off areas for Uber/Lyft type car sharing	●	●	●	●
	priority EV parking for Uber/Lyft type car sharing (L3)	■	●	▲	●
	priority EV parking for short-term rental car sharing (L3)	■	●	▲	●
	Level 3 DC Fast Chargers in pull-through configuration	■	■	●	■
Bus Infrastructure (Express, Regional, Shuttles)	sheltered bus station area with multiple bus stops	■	●	●	●
	single bus stop with shelter and amenities	●	■	■	■
	raised platform waiting and boarding area at stop	▲	●	●	●
	EV charging bus layover zone	■	●	●	●
Demand Responsive Transit	sheltered waiting area with amenities (may be shared with bus stop)	●	●	●	●
	dedicated LSEV charging space for layover/ wait time	▲	●	●	●

Mobility Mode	Infrastructure	Neighbor-hood ACES Mobility Hub	Central ACES Mobility Hub	SIS Central ACES Mobility Hub	Regional ACES Mobility Hub
Passenger Rail	sheltered station area with platform length and width per rail service requirements	■	■	■	●
	raised platform	■	■	■	●
Information & Coordination	large information kiosks in high pedestrian traffic areas	▲	●	●	●
	real-time schedule information	●	●	●	●
	wi-fi / smartphone real-time information and wayfinding	●	●	●	●
	parking coordination for space and EV charger availability	■	●	●	●
	public information messaging for safety and other concerns	●	●	●	●
	power management for hub EV charging to manage peaks	■	▲	●	●
Support Infrastructure and Active Uses	pedestrian connected waiting areas	●	●	●	●
	retail and eateries with occupancy times that synch-ronize to DC Fast charging	■	●	▲	●
	community service retail to provide typical daily needs for intermodal commuters	■	●	●	●
	Co-workspaces	■	●	▲	●
	mixed use development within 5-minute walkshed	■	●	▲	●
	package delivery lockers to reduce home delivery trips	▲	▲	▲	●
	waiting areas and lounges with information & infotainment	▲	●	●	●
	green spaces and plazas	▲	●	●	●
	water fountains to help mask the sound of transport vehicles	▲	▲	▲	▲
	art-in-public places to visually relieve pedestrian users	▲	▲	▲	▲
	signage for identity / branding	●	●	●	●

Key: Vital ● Optional ▲ Not required or not applicable ■

The typologies that are appropriate for each of the eleven areas are summarized in Table 4.2.

Table 4.2
ACES Mobility Hub Typologies for the Ten Opportunity Areas

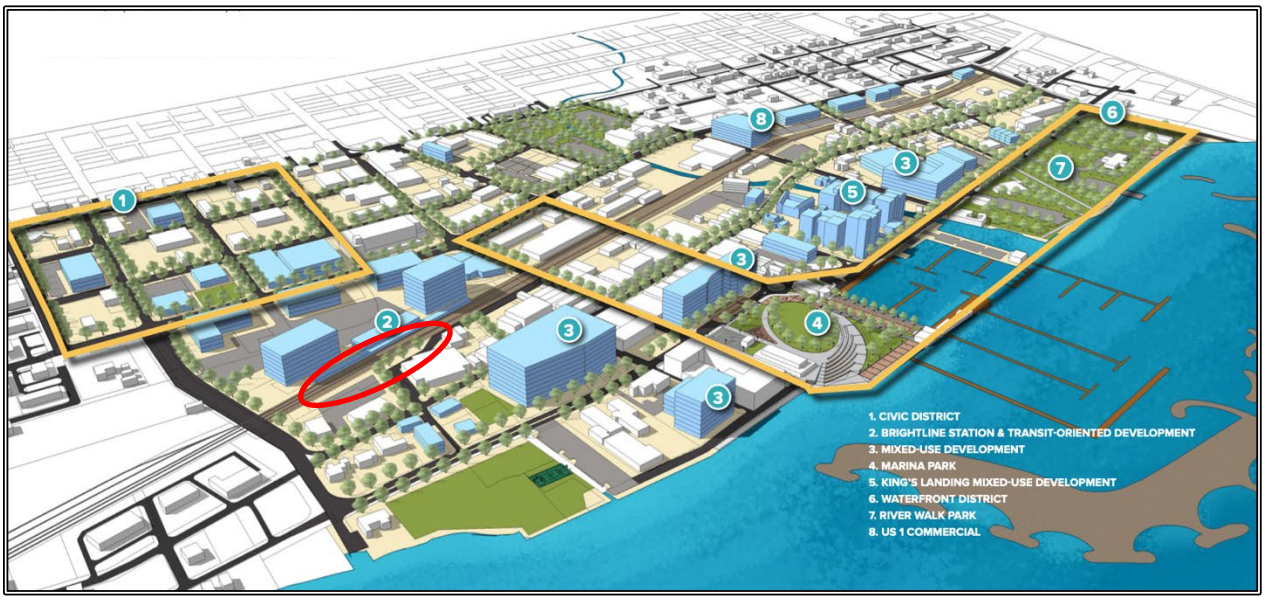
Place	Mobility Centroid	Priority	Mobility Hub Typology
Fort Pierce Downtown	Orange Avenue & FEC Railroad	1	Regional
Becker Road	I-95 Interchange & Becker Road	2	SIS Central
Okeechobee Road	Okeechobee Road: I-95 to Fort Pierce West	3	SIS Central
US-1 & Port St. Lucie Blvd	US-1 & SE Port St. Lucie Boulevard	4	Central
Midway Road	I-95 Interchange & Midway Road	5	SIS Central
St. Lucie West	I-95 Interchange & St. Lucie West Boulevard	6	SIS Central
Crosstown Parkway	I-95 Interchange and Crosstown Parkway	7	SIS Central
Port St. Lucie Boulevard & Airoso Boulevard	Port St. Lucie Boulevard & Florida's Turnpike / Airoso Boulevard	8	SIS Central
Orange Avenue	I-95 Interchange and Orange Avenue	9	SIS Central
Indrio Road Planned Development	I-95 Interchange & Indrio Road	10	SIS Central

In the following sections, the typologies are applied to the top four Mobility Hub priority areas that were identified in Section 3. Each provides an example of how the ACES Mobility Hub attributes can be applied to specific areas to help determine typology, siting, infrastructure, and components. Each represents a different typology of ACES Mobility Hub.

Specific sites are suggested as ideal locations within the area; however, Mobility Hub site selection must be determined with further analysis of public and privately available land within each area, land costs, acreage, access and utilities, area compatibility, land development regulations, and specific opportunities for public-private partnerships. Site selection also goes hand-in-hand with forecasting capacities of the infrastructure components which requires demand forecasting analysis and relevant pro-forma analysis, after which decisions regarding horizontal or vertical development will help determine required land area required and specific location.

Section 1.2 of this report provides some visual examples of urban vertically developed mobility hubs in urban settings (Tacoma Dome Station, Tacoma Washington, p. 12) as well as more suburban horizontally developed mobility hubs. (Kalauao Mobility Hub, Honolulu metropolitan area, Hawaii, conceptual drawing) Additional photo examples are provided for each typology from other areas in the country. Most are also in conceptual or planning stages.

4.1 Fort Pierce ACES Mobility Hub Concept



Fort Pierce Downtown Vision Plan, potential site for Brightline Station a potential site for the Fort Pierce ACES Mobility Hub (indicated by red oval) Source: Fort Pierce Downtown Master Plan, November 2022

The City of Fort Pierce is well-positioned to be selected as a location for a Brightline Station intercity passenger rail station. The *Fort Pierce Downtown Master Plan* has identified several parcels of underutilized and vacant property directly adjacent to the rail corridor that could provide a location for the future Brightline Station as well as provide redevelopment opportunities for mixed-use development. The Brightline Train station will serve as a catalyst for walkable, transit-oriented downtown redevelopment, and connect people by electrically-powered regular passenger service to Orlando, West Palm Beach, Fort Lauderdale, and Miami.

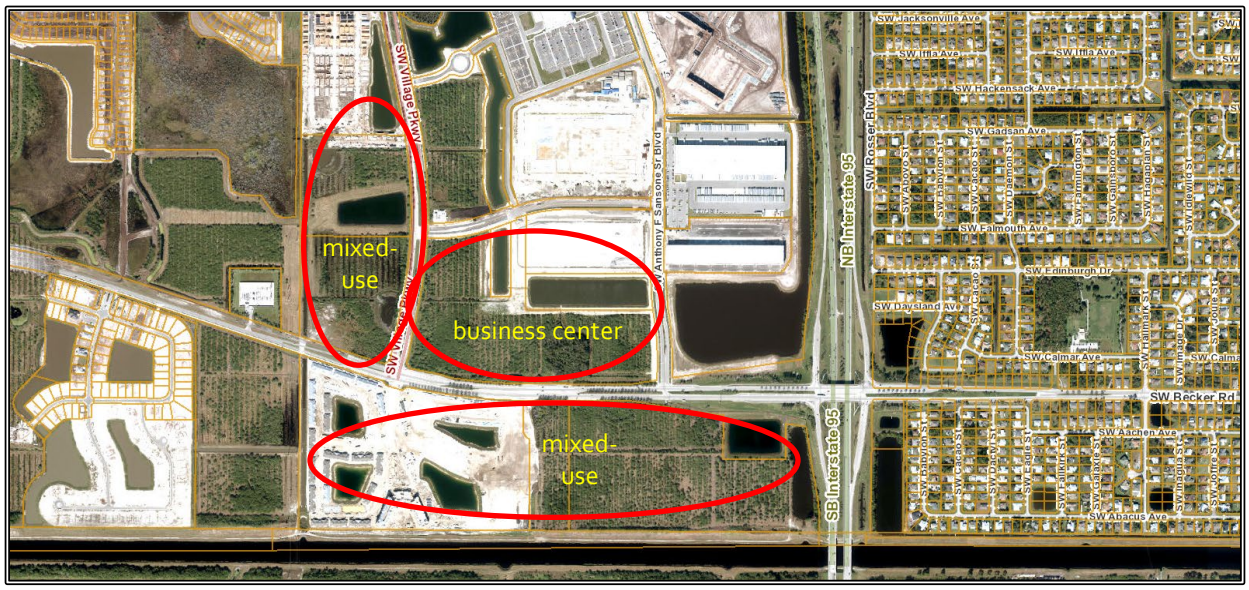
This area is priority #1 as an ACES Mobility Hub. The focus of this ACES Mobility Hub is intercity rail service that can also enable long-distance commuter travel which in turn spins off economic development in down-town Fort Pierce as an employment destination and housing market. The existing waterfront downtown is compact, walkable, and includes restaurants, small shops and a center of government offices and legal services. It is well suited for micro-mobility, transit, and other alternative mobility, for which the rail service establishes an effective hub.

Concept planning for rail station mobility station in Sacramento, California – illustration by Perkins + Will

Table 4.3
Fort Pierce ACES Mobility Hub Components

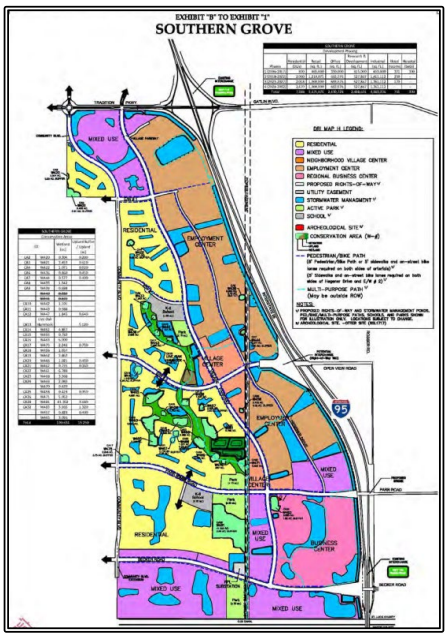
Aces Mobility Hub Type	Regional
City	Fort Pierce
Setting	Urban Downtown
Primary Transportation Mode	Passenger Rail – Intercity
SIS Links	not applicable
Transit	• St. Lucie County Area Regional Transit Routes 1, 2, 3, 7, and 8 • Ft. Pierce Downtown Tram
Demand Responsive Modes	• micro transit (currently provided by City of Ft. Pierce Freebie) • shared micro-mobility
Site	Suggested by Ft. Pierce Economic Development: former HD King Site and Depot Drive Site
Design Concept	Vertical development with transit transfer, micro-mobility, parking, and EV charging on site with mixed-use amenities in downtown within a 5-minute walk.
On-Site Mobility Amenities	• public parking • public pull-in EV charging spaces • shared EV service spaces – membership short-term rentals • shared ride pickup and drop-off zone • shared ride priority EV DC fast charger pull-in spaces • public bicycle racks • shared use bicycle, E-bike • shared-use scooter docks / pods
On-Site Information and Connectivity Amenities	• large information kiosks in high pedestrian traffic areas • real-time schedule information • wi-fi / smartphone real-time information and wayfinding • parking coordination for space and EV charger availability • public information messaging for safety and other concerns • power management for hub EV charging to manage peaks
On-Site Amenities	• pedestrian connected waiting areas • waiting areas and lounges with information & infotainment • limited snack take-away food and beverage services • package delivery lockers to reduce home delivery trips • signage for identity / branding
Off-Site Support Infrastructure and Active Uses	• existing pedestrian network • plan for enhanced pedestrian crosswalks with protected pedestrian crossing phases within the Mobility Hub walkshed • complete bicycle network (planned) • mixed-use development including retail, office employment centers, hotels and future residential uses within 5 minute walk

4.2 Becker Road ACES Mobility Hub Concept



Aerial view of the US-1 & Becker Road SIS Central ACES Mobility Hub area showing initial development of regional business center and employment center between I-95 and SW Village Parkway

The attributes of the I-95 and Becker Road area is suburban single-family neighborhoods to the east, with small vacant publicly owned vacant parcels along Becker Road. To the west of the interchange, the land is under development pursuant to the approved Southern Grove DRI, with the Western Grove, Riverland, and Wilson Groves DRI immediately adjacent to the west and north. In sum, planned and under-construction development includes over 26,000 new households, and approximately 3.5-million square feet of commercial space (retail, office, light industrial and logistics) representing over 22,000 jobs. Based on these characteristics, this would be an SIS Central ACES Mobility Hub type, with emphasis on its functions to intercept highway vehicles and express transit and facilitate intermodal connections to shared-use EV, micro-transit, micro-mobility, and walking. As an SIS Central type, mobility options and amenities will be oriented to integrate into the planned mixed-use in either the "business center" (pink) area or "mixed-use" (purple) area of the DRI Master Plan along Village Parkway or Becker Rd, developed via a P3 agreement.

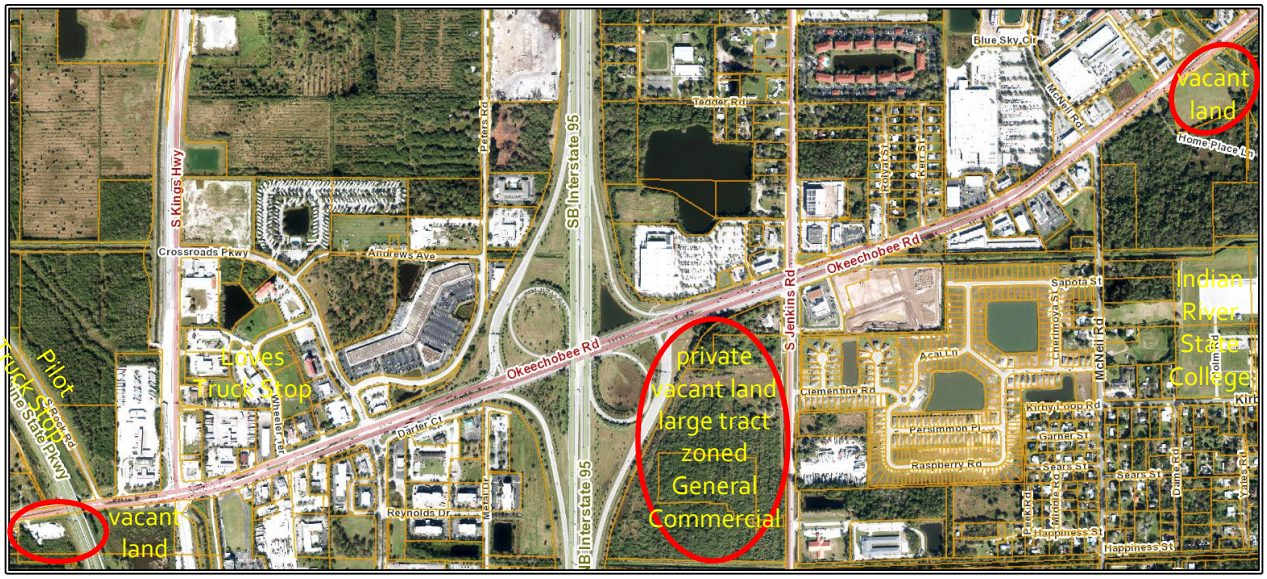


Above: Southern Grove DRI Master Plan land uses
Below: conceptual suburban mobility hub integral with mixed-use

Table 4.4
Becker Road ACES Mobility Hub Components

Aces Mobility Hub Type	SIS Central
City	Port St. Lucie
Setting	Suburban new community development: residential, neighborhood commercial, employment center, regional business center
Primary Transportation Mode	Automobile: private EV, shared EV
SIS Links & Evacuation Network	I-95
Transit	St. Lucie County Area Regional Transit Route 5
Demand Responsive Modes	• shared micro-mobility: ART On-Demand • extension of Tradition In Motion(TIM) autonomous micro transit
Site	in the "business center" area or "mixed-use" area of the Southern Grove DRI along Village Parkway or Becker Road, developed via P3 agreement
Design Concept	horizontal or mixed-use vertical development with transit transfer, micro-mobility, parking, and EV charging on single site
On-Site Mobility Amenities	• public parking • public pull-in EV charging spaces • pull-though Level 3 DC fast chargers • shared EV service spaces – membership short-term rentals • shared ride pickup and drop-off zone • shared ride priority EV DC fast charger pull-in spaces • public bicycle racks • shared use bicycle, E-bike • shared-use scooter docks / pods
On-Site Information and Connectivity Amenities	• large information kiosks in high pedestrian traffic areas • real-time schedule information • wi-fi / smartphone real-time information and wayfinding • parking coordination for space and EV charger availability • public information messaging for safety and other concerns
On-Site Amenities	• pedestrian connected waiting areas • waiting areas and lounges with information & infotainment • package delivery lockers to reduce home delivery trips • retail and eateries with occupancy times that synchronize to EV charging time • community service retail for daily needs of intermodal commuters • signage for identity / branding
Off-Site Support Infrastructure and Active Uses	• existing pedestrian network • existing bicycle network • plan pedestrian protected and enhanced pedestrian crossings • mixed-use including retail, office employment, and residential uses within a 5 to 10-minute demand-responsive-transit and micro-mobility coverage area

4.3 Okeechobee Road SIS ACES Mobility Hub Concept



Aerial view of Okeechobee Road Corridor between Florida's Turnpike and I-95 showing potential locations for redevelopment of an ACES Mobility Hub

The Okeechobee Road area has unique attributes as a nexus of major transportation roadways in the State highway system and is within a 5-mile trip to Downtown Fort Pierce. (10 minutes by express transit). It is already a major crossroads for commercial truck traffic and stopovers at the existing Loves and Pilot truck stop. Located at the fringe of existing suburban development, the area is described as exurban and there are within the area privately owned vacant lands as well as publicly owned vacant lands. This area, based substantially on its characteristics of a state and county transportation nexus and the short connection to downtown Fort Pierce is the Priority 3 location for an ACES Mobility Hub. The focus of this hub is weighted more to ACES transportation functions and a quick, frequent, and reliable express transit connection to downtown Fort Pierce, Indian River State College, Massey Campus, and Lawnwood Hospital.

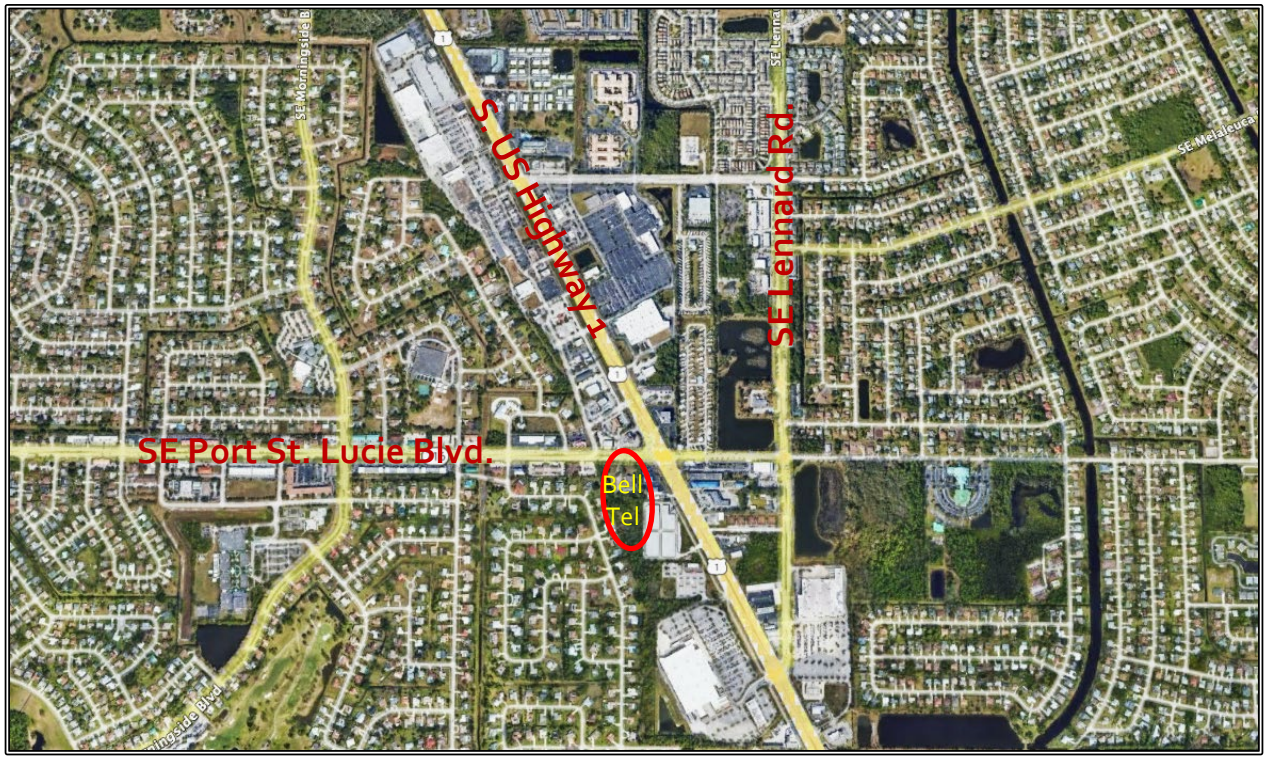
The context of the area with high-speed, multilane roads and high levels of truck traffic is not well suited for micro-mobility and pedestrian use. Instead, the critical express transit connection would serve to provide amenity functions for EV charging time, introduce travelers to downtown Ft. Pierce, and would also function as an interceptor ACES park-and-ride to reduce traffic congestion in Fort Pierce. There would also be a connection to the existing truck stops as freight transportation layover places.

Conceptual Suburban Mobility Hub, Bend, Oregon

Table 4.5
Okeechobee Road & I-95 ACES Mobility Hub Components

Aces Mobility Hub Type	SIS Central
City	Fort Pierce (Fort Pierce South)
Setting	exurban corridor within 1-mile driveshed of I-95 and Florida's Turnpike
Primary Transportation Mode	State Intermodal System
SIS Links	I-95, Florida's Turnpike, Okeechobee Road (SR 70), Kings Hwy (SR 713)
Transit	• St. Lucie County Area Regional Transit Route 3 • Express bus route along Okeechobee Road to downtown Ft. Pierce, Lawnwood Hospital (employment center), and the Indian River State College, Massey Campus.
Demand Responsive Modes	micro transit coordinated with or instead of express route along Okeechobee Road
Site	potential sites in vacant land and underutilized commercial development
Design Concept	horizontal development with transit transfer, parking and EV charging on site. Limited retail amenities and transit connection to suburban corridor and downtown Fort Pierce
On-Site Mobility Amenities	• public parking • public pull-in EV charging spaces • pull-though Level 3 DC fast chargers • conventional fueling (gasoline, ethanol, diesel) • shared EV service spaces – membership short-term rentals • shared ride pickup and drop-off zone • shared ride priority EV DC fast charger pull-in spaces
On-Site Information and Connectivity Amenities	• large information kiosks in high pedestrian traffic areas • real-time schedule information • wi-fi / smartphone real-time information and wayfinding • parking coordination for space and EV charger availability • public information messaging for safety and other concerns
On-Site Amenities	• pedestrian connected waiting area internal to site • pedestrian connections to existing and planned sidewalks • waiting areas and lounges with information & infotainment • limited snack take-away food and beverage services • signage for identity / branding
Off-Site Support Infrastructure and Active Uses	• shopping along Okeechobee Road Corridor east toward downtown Ft. Pierce to be accessed by transit connection (Walmart) • employment centers (Lawnwood Hospital) along the Okeechobee Road Corridor east toward downtown Ft. Pierce. • Indian River State College, Massey Campus • mixed-use development including retail, office employment centers, hotels, and future residential uses in downtown Ft. Pierce to be accessed by transit connection

4.4 US-1 & Port St. Lucie Boulevard ACES Mobility Hub Concept



Aerial view of the US-1 & SE Port St. Lucie Boulevard Central ACES Mobility Hub area

At the crossroads of US-1 and SE Port St. Lucie Boulevard is the retail and commercial Major Activity Center (MAC) Port Saint Lucie. It is suburban, with commercial development along the major corridors and mostly built-out single-family and low density multi-family development behind the commercial corridors. For the existing context of the area, the southwest site is relatively underutilized from the perspective of community functionality, occupied by single-story mini-storage and a Southern Bell Telephone and Telegraph facility (non-retail) with 3 to 4 acres of underutilized vacant land behind it, and could potentially be a good site for an ACES Mobility Hub located on one of the four corners of the major intersecting roads. The area is located at the intersection of two of the major cardinal direction roads in Port St. Lucie and being the location of a Retail Major Activity Center serving the large residential communities of Lyngate, Sand Hill Crossing, and Morningside. It is the Priority 4 location for an ACES Mobility Hub in the County. The focus of this ACES Mobility Hub is to serve surrounding communities and support the large amount of commerce and employment with multimodal ACES transportation alternatives.

Conceptual Suburban Mobility Hub with High Amenity Level at Bend, Oregon

Table 4.6
US-1 & SE Port St. Lucie Boulevard ACES Mobility Hub Components

Aces Mobility Hub Type	Central
City	Port St. Lucie
Setting	Suburban Major Retail Activity Center
Primary Transportation Mode	Automobile: private EV, shared EV
SIS Links	not applicable
Transit	St. Lucie County Area Regional Transit Routes 1 and 4
Demand Responsive Modes	• micro transit • shared micro-mobility
Site	among four sites at crossroads of US-1 and SE Port St. Lucie Boulevard, with initial preference for feasibility analysis at the southwest corner
Design Concept	horizontal development with transit transfer, micro-mobility, parking and EV charging on single site or shared with other sites that are interconnected with protected pedestrian paths and crossings
On-Site Mobility Amenities	• public parking • public pull-in EV charging spaces • shared EV service spaces – membership short-term rentals • shared ride pickup and drop-off zone • shared ride priority EV DC fast charger pull-in spaces • public bicycle racks • shared use bicycle, E-bike • shared-use scooter docks / pods
On-Site Information and Connectivity Amenities	• large information kiosks in high pedestrian traffic areas • real-time schedule information • wi-fi / smartphone real-time information and wayfinding • parking coordination for space and EV charger availability • public information messaging for safety and other concerns
On-Site Amenities	• pedestrian connected waiting areas • waiting areas and lounges with information & infotainment • package delivery lockers to reduce home delivery trips • retail and eateries with occupancy times that synchronize to EV charging time • community service retail for daily needs of intermodal commuters • signage for identity / branding
Off-Site Support Infrastructure and Active Uses	• existing pedestrian network • plan pedestrian protected and enhanced pedestrian crossing at the intersection of US-1 and SE Port St. Lucie Boulevard • complete bicycle network (planned) • mixed-use horizontal development including retail, office employment, and residential uses within a 5 to 10-minute demand-responsive-transit and micro-mobility coverage area

5 Implementation

Each Mobility Hub presents unique opportunities and challenges based on its context and transportation functions. A variety of partnerships, including public-private partnerships, will be identified to facilitate implementation of the prioritized list of Mobility Hubs mapped below, and listed in Table 5.1.

Map 5.1
ACES Mobility Hubs Concept Prioritized Hubs

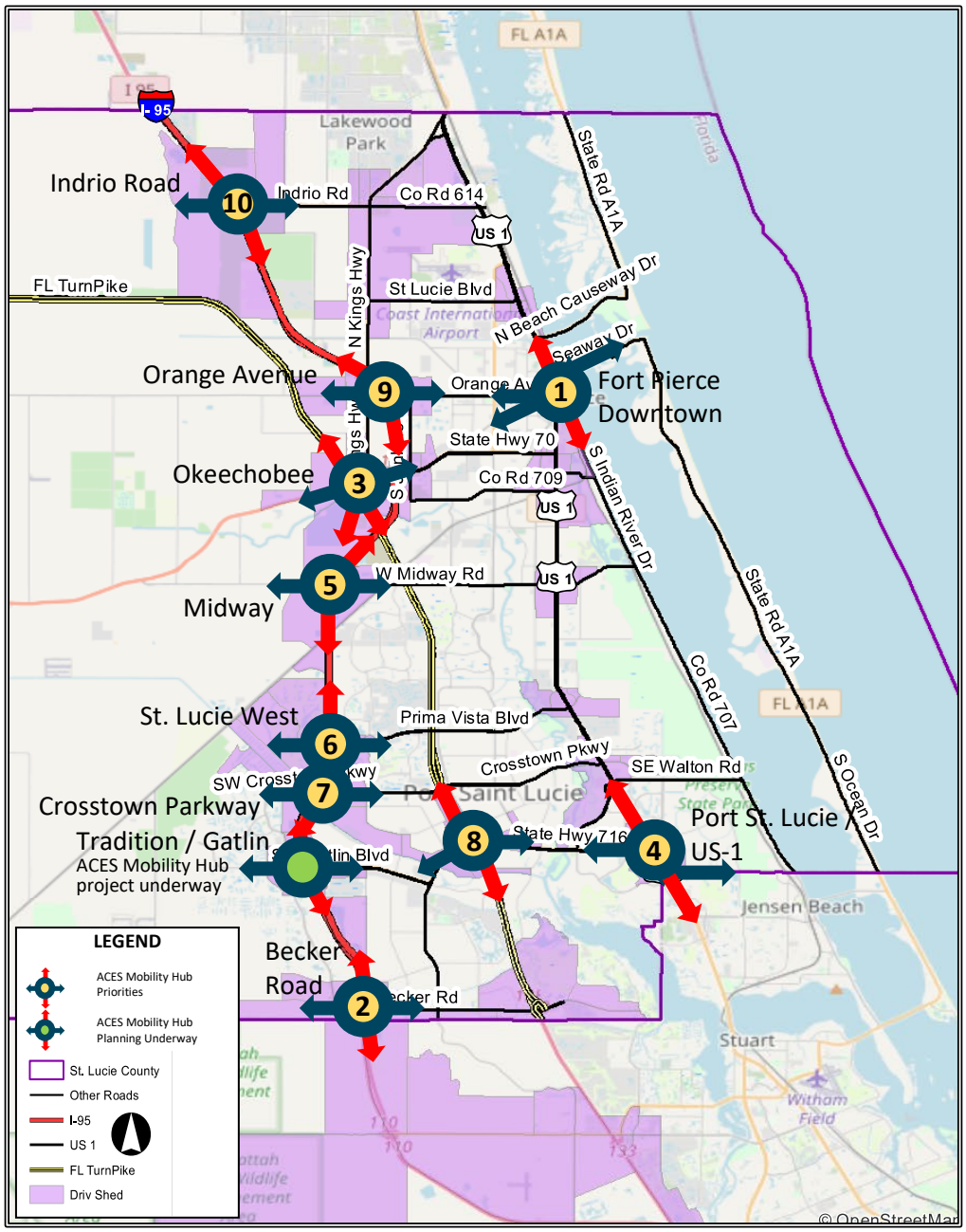


Table 5.1
ACES Mobility Hub Typologies for the Ten Opportunity Areas

Place	Mobility Centroid	Priority	Mobility Hub Typology
Fort Pierce Downtown	Orange Avenue & FEC Railroad	1	Regional
Becker Road	I-95 Interchange & Becker Road	2	SIS Central
Okeechobee Road	Okeechobee Road: I-95 to Fort Pierce West	3	SIS Central
US-1 & Port St. Lucie Blvd	US-1 & SE Port St. Lucie Boulevard	4	Central
Midway Road	I-95 Interchange & Midway Road	5	SIS Central
St. Lucie West	I-95 Interchange & St. Lucie West Boulevard	6	SIS Central
Crosstown Parkway	I-95 Interchange and Crosstown Parkway	7	SIS Central
Port St. Lucie Boulevard & Airoso Boulevard	Port St. Lucie Boulevard & Florida's Turnpike / Airoso Boulevard	8	SIS Central
Orange Avenue	I-95 Interchange and Orange Avenue	9	SIS Central
Indrio Road Planned Development	I-95 Interchange & Indrio Road	10	SIS Central

As shown in the table above, there are three categories of Mobility Hub implementation strategies:

Regional ACES Mobility Hubs - the largest scale station areas in either dense urban areas or end of line stations where they connect to other regional transit providers.

Central ACES Mobility Hubs - typically located in a more suburban context, often at a retail major activity center (MAC) and at the crossroads of two major mobility facilities.

SIS Central ACES Mobility Hubs - a special type of Central Mobility Hub that focuses on providing a resting and recharging location for enroute travelers on the State Intermodal System (SIS) located near interchanges along I-95 or Florida's Turnpike.

Each Mobility Hub will be analyzed in detail for the availability of suitable property acquisition. Priority will be given to publicly owned vacant land or publicly owned underdeveloped properties. Public land facilitates implementation by controlling land acquisition costs and possibly streamlining planning and permitting. The next property acquisition priority would be privately owned vacant or underdeveloped properties. An example would be a shopping mall with a large outparcel available for sale.

Opportunities will be sought to pair Mobility Hubs with large-scale, mixed-use development projects. For instance, the TPO is currently working with the City of Fort Pierce to prepare an initial site plan and conceptual design for a future passenger rail station in downtown Fort Pierce. The #1 priority Fort Pierce Downtown Mobility Hub will be integrated into this planning process.

The colocation of Mobility Hubs with major roadway improvements by FDOT and Florida's Turnpike Enterprise will be explored. When either agency reconfigures a highway interchange the possibility of using surplus land within the interchange right-of-way could be considered as a Mobility Hub location.

To facilitate funding of Mobility Hubs, the projects will be analyzed for inclusion in the TPO's List of Priority Projects (LOPP). The LOPP is a short-term ranking process that is completed annually. After completion, the LOPP is submitted to the Florida Department of Transportation District 4 (FDOT). The projects identified in the LOPP subsequently are funded and included in the FDOT Work Program to the maximum extent feasible. The St. Lucie TPO's Transportation Improvement Program (TIP) is then developed based on the LOPP and the FDOT Work Program. The TIP is the document that includes all the transportation improvement projects within the TPO's boundaries.

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TECHNICAL APPENDICES

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APPENDIX A
ACES Mobility Hub Area Location Criteria

Maps

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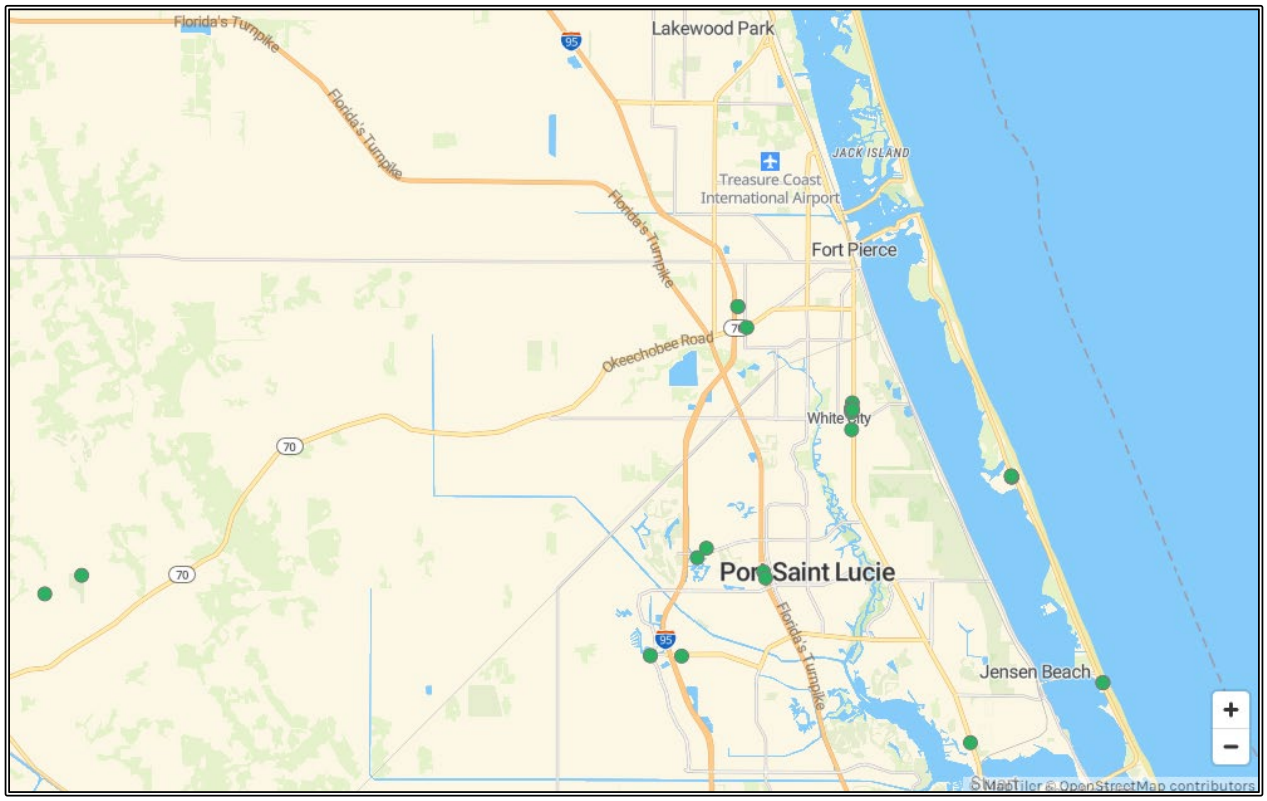
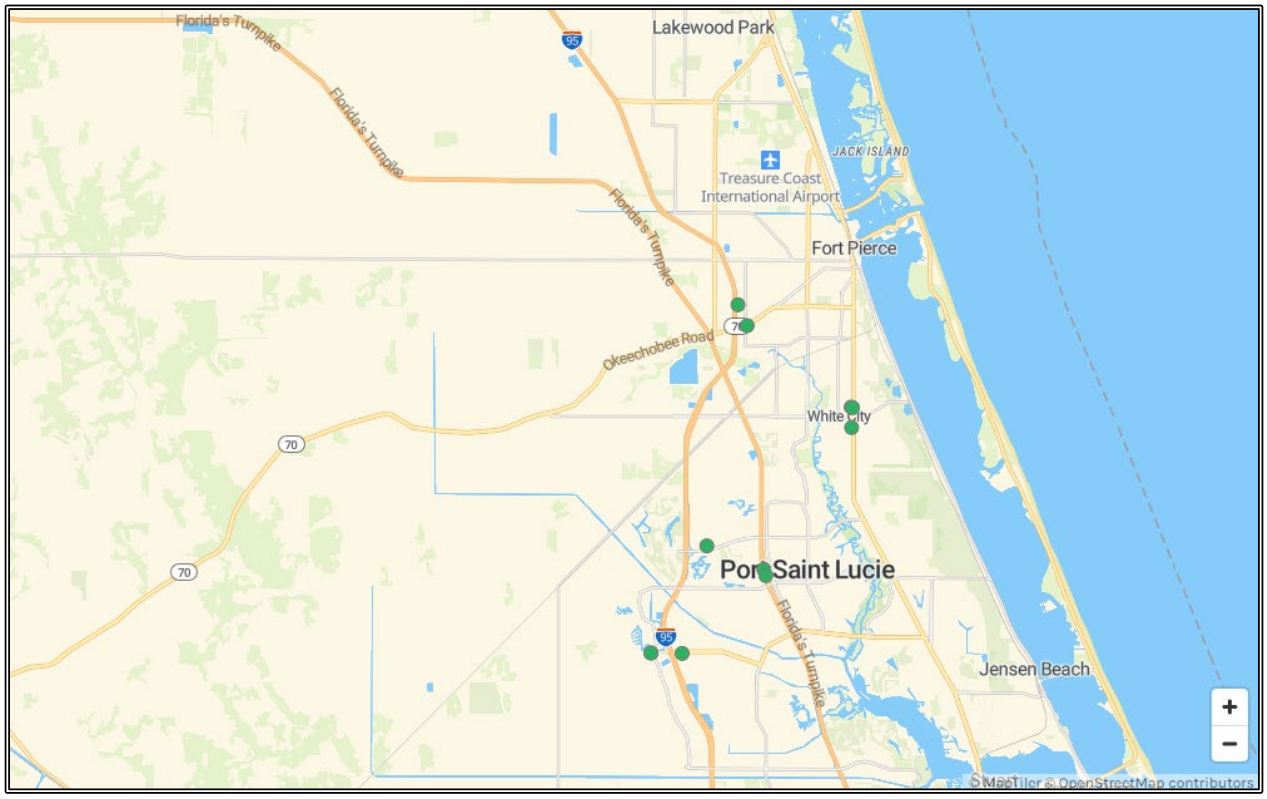
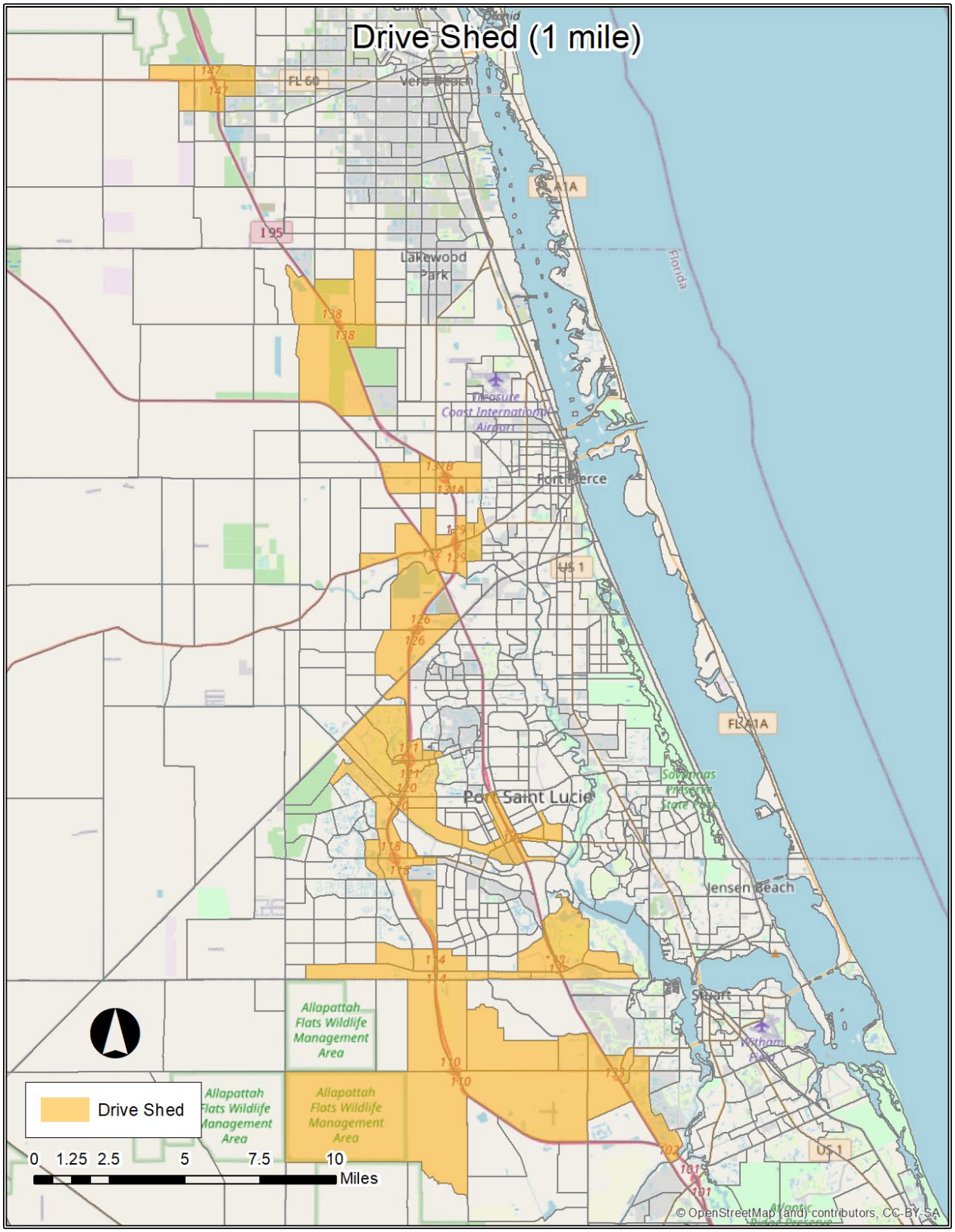
Appendix A, Map 1
Existing Electric Public Electric Vehicle Charging Stations in St. Lucie County
All Charger Types (Level 1, Level 2, DC Fast Chargers)
All Charger Connectors (J1772, CCS, CHAdeMO, Tesla)
[excerpt from US Department of Energy (DOE) Alternative Fuels Data Center (AFDC) map, March 2023]



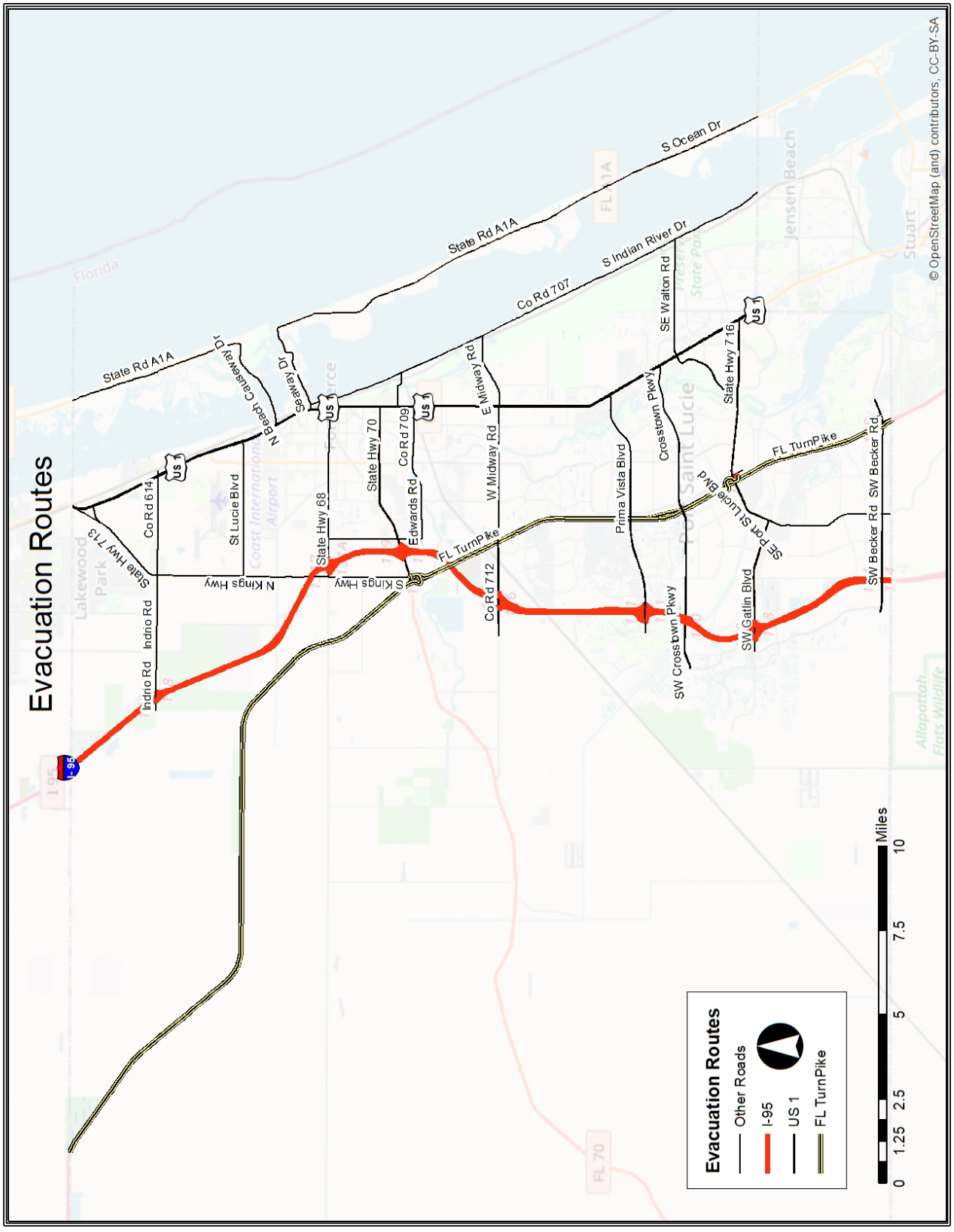
Appendix A, Map 2
Existing Electric Public Electric Vehicle Charging Stations in St. Lucie County
DC Fast Chargers Only
All Charger Connectors (J1772, CCS, CHAdeMO, Tesla)
[excerpt from US Department of Energy (DOE) Alternative Fuels Data Center (AFDC) map, March 2023]



Appendix A, Map 3
Roadway System SIS Drive Shed

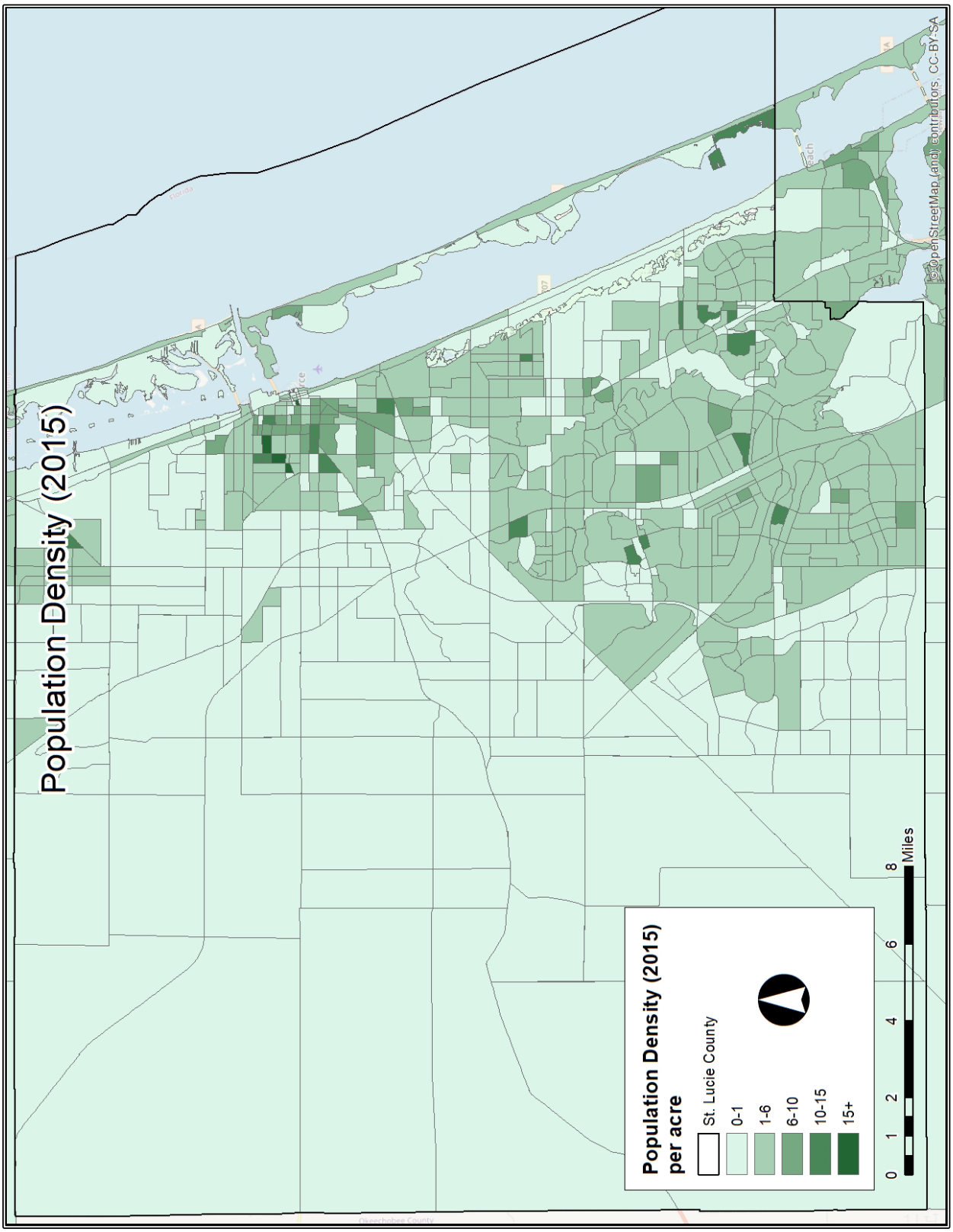


Appendix A, Map 4
Emergency Evacuation Network



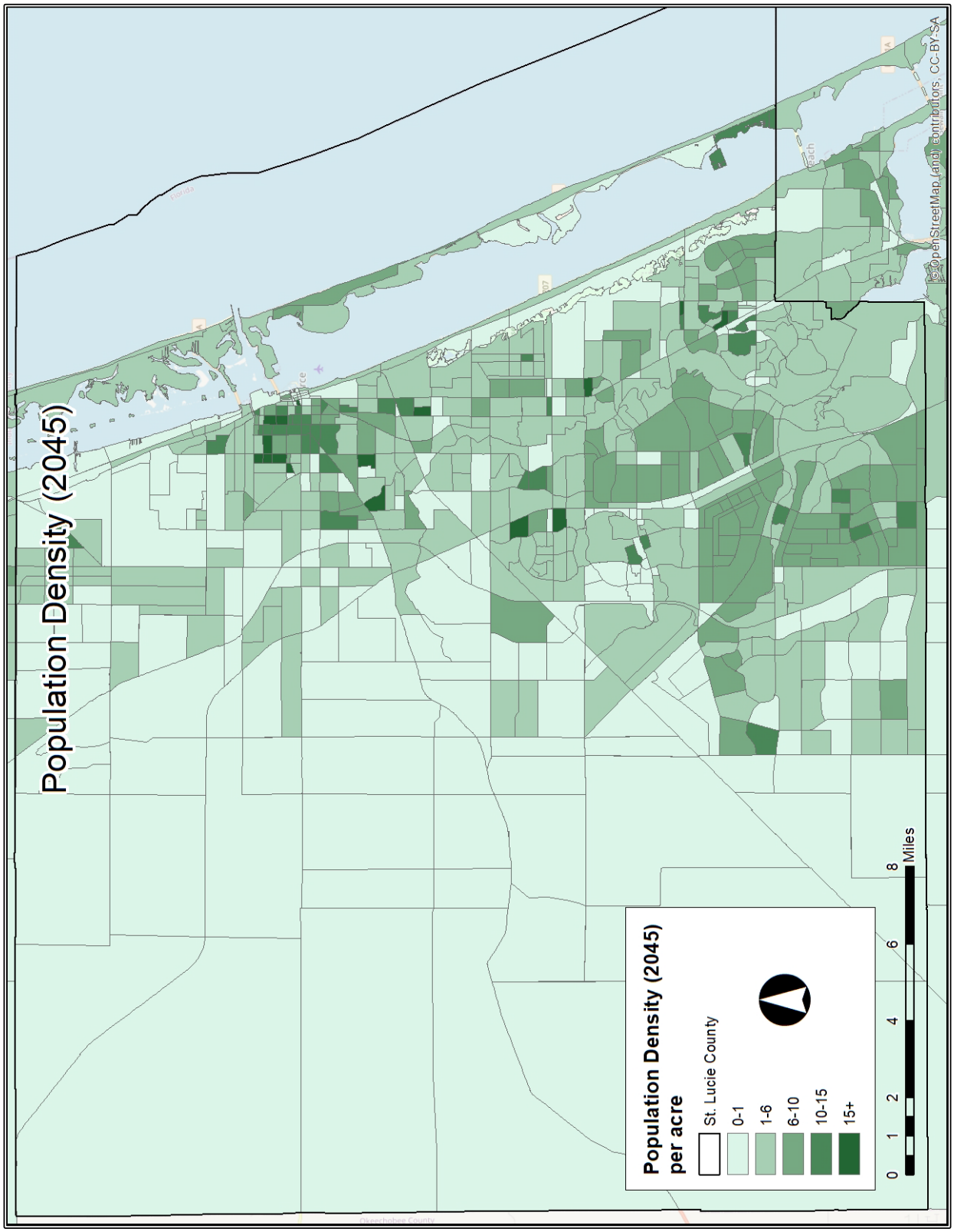
Appendix A, Map 5

Population Density 2015



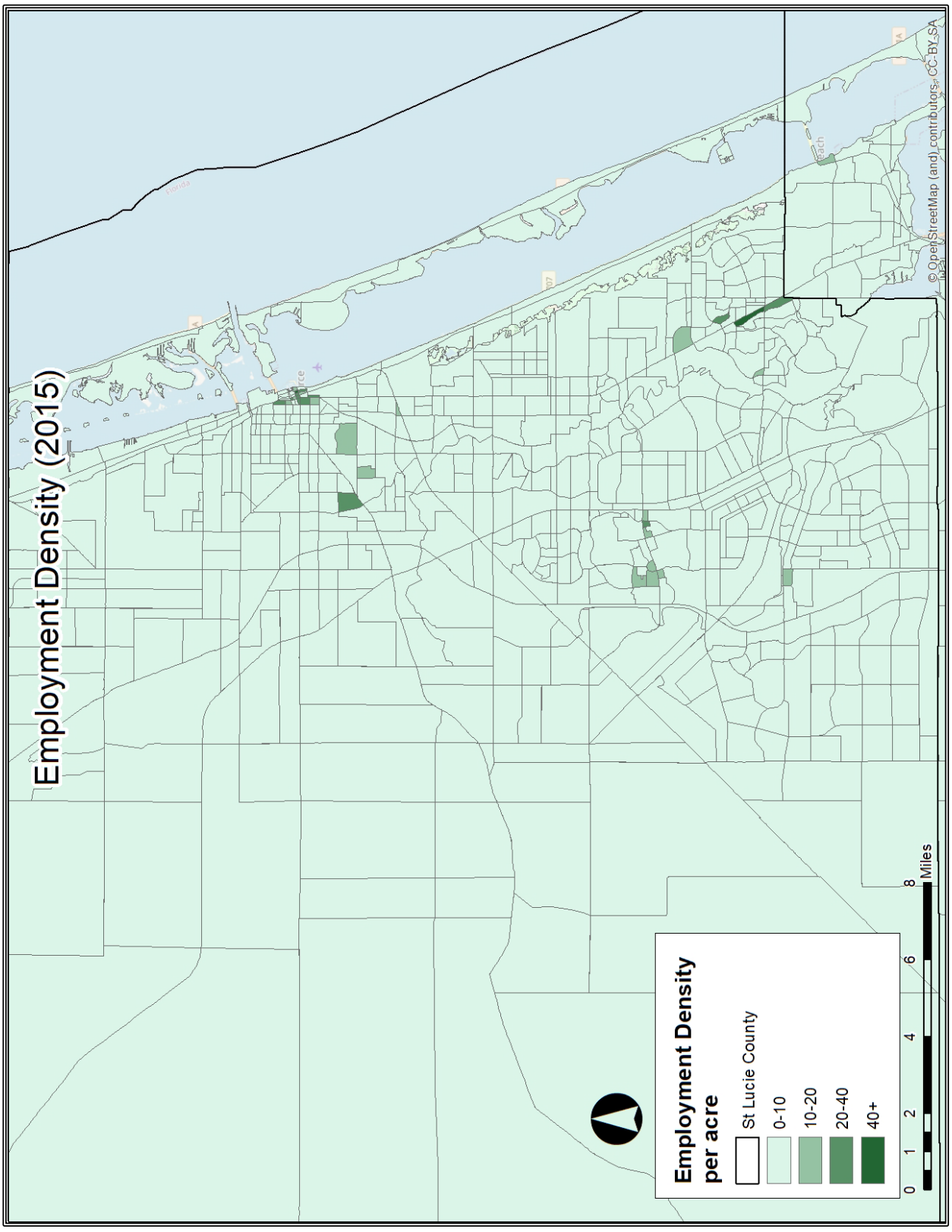
Appendix A, Map 6

Population Density 2045

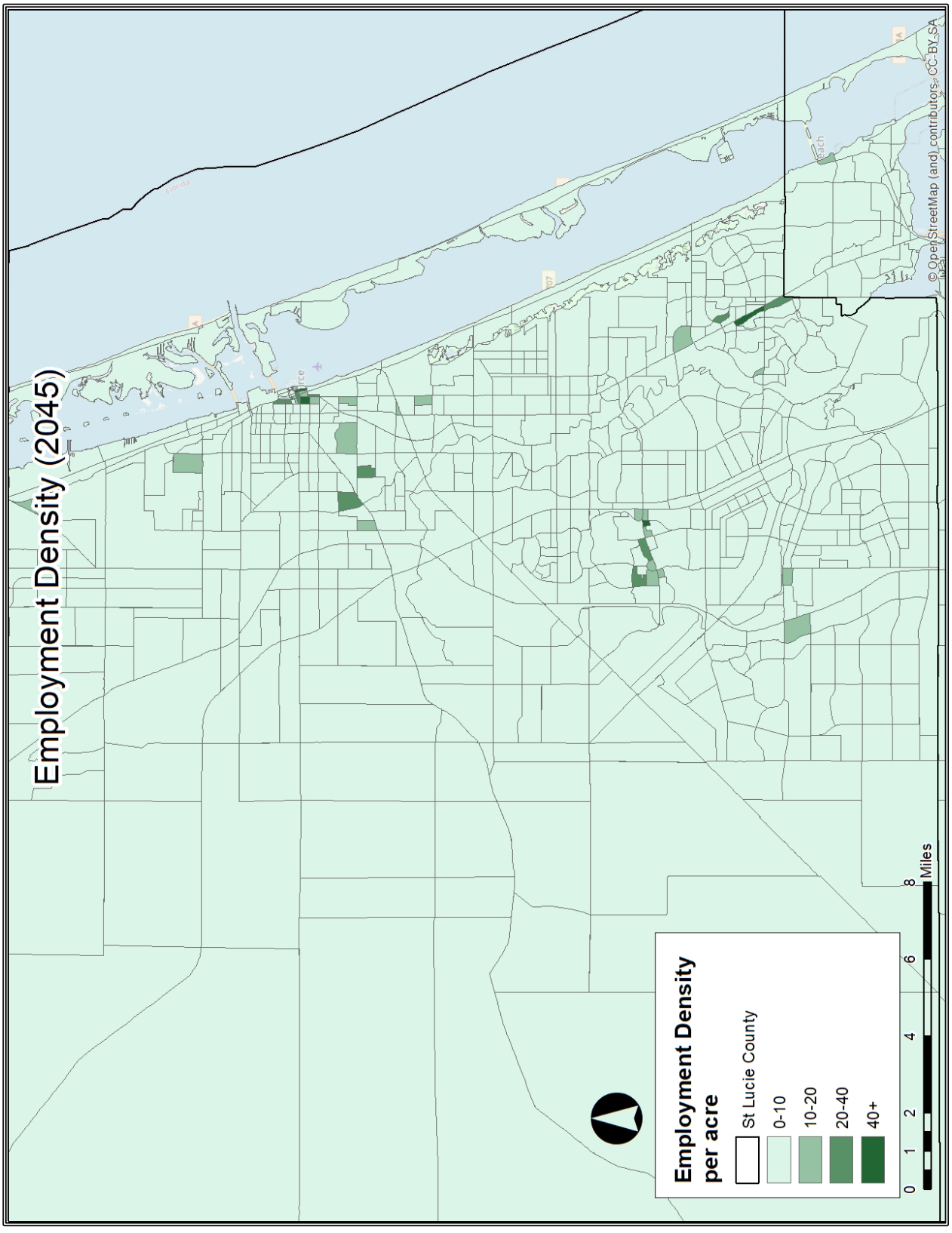


Appendix A, Map 7

Employment Density 2015

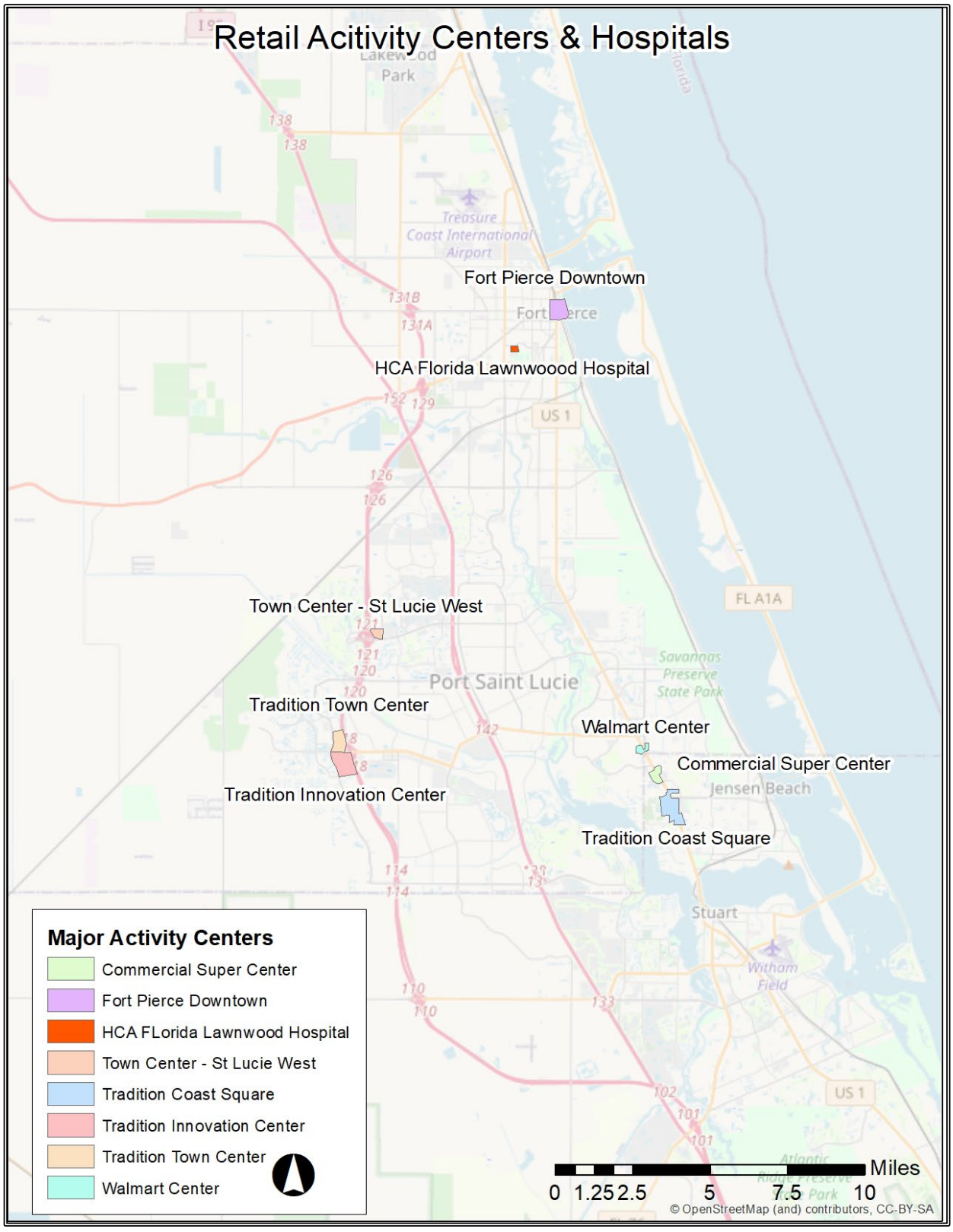


Appendix A, Map 8
Employment Density 2045

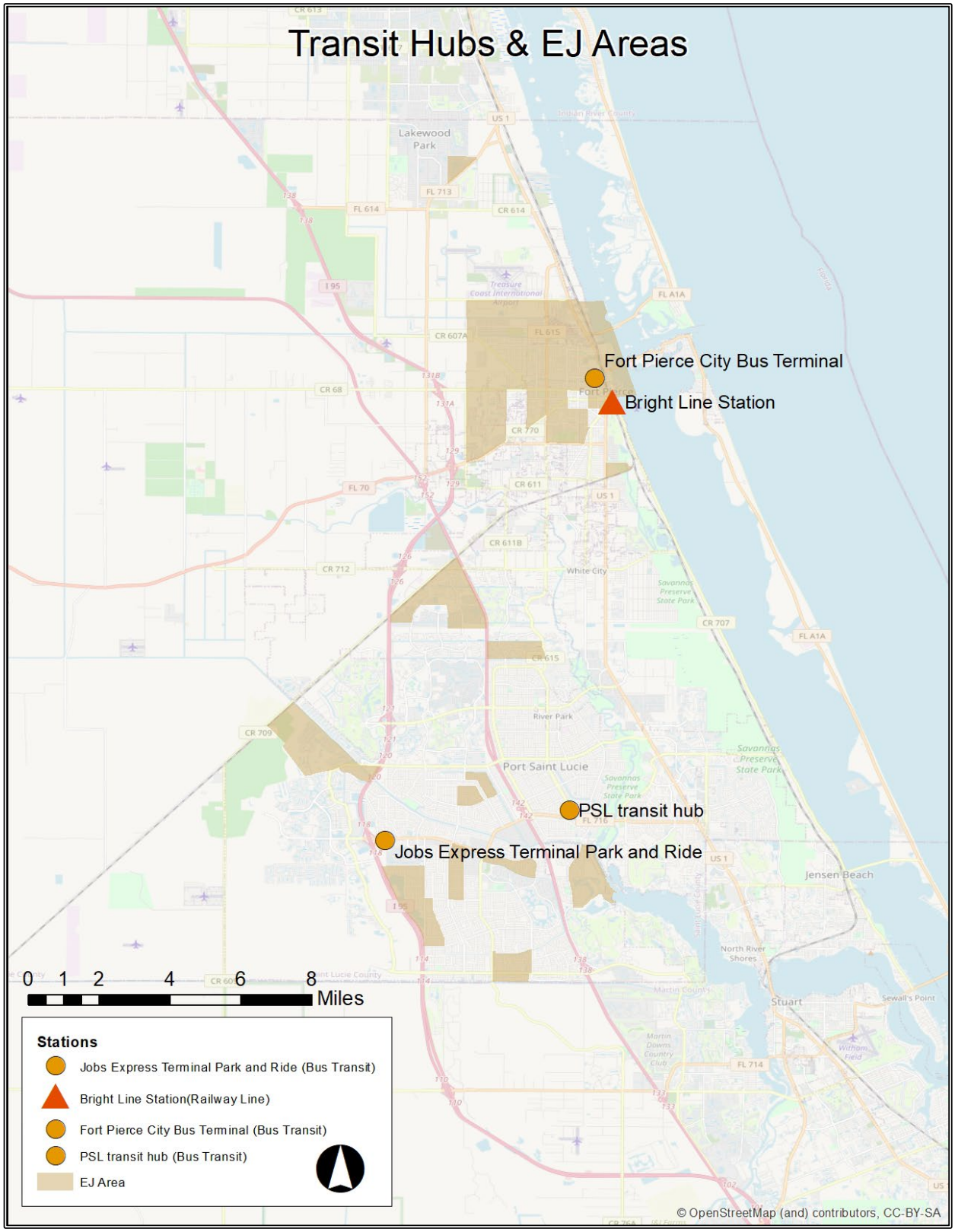


Appendix A, Map 9

Major Retail Activity Centers & Hospitals

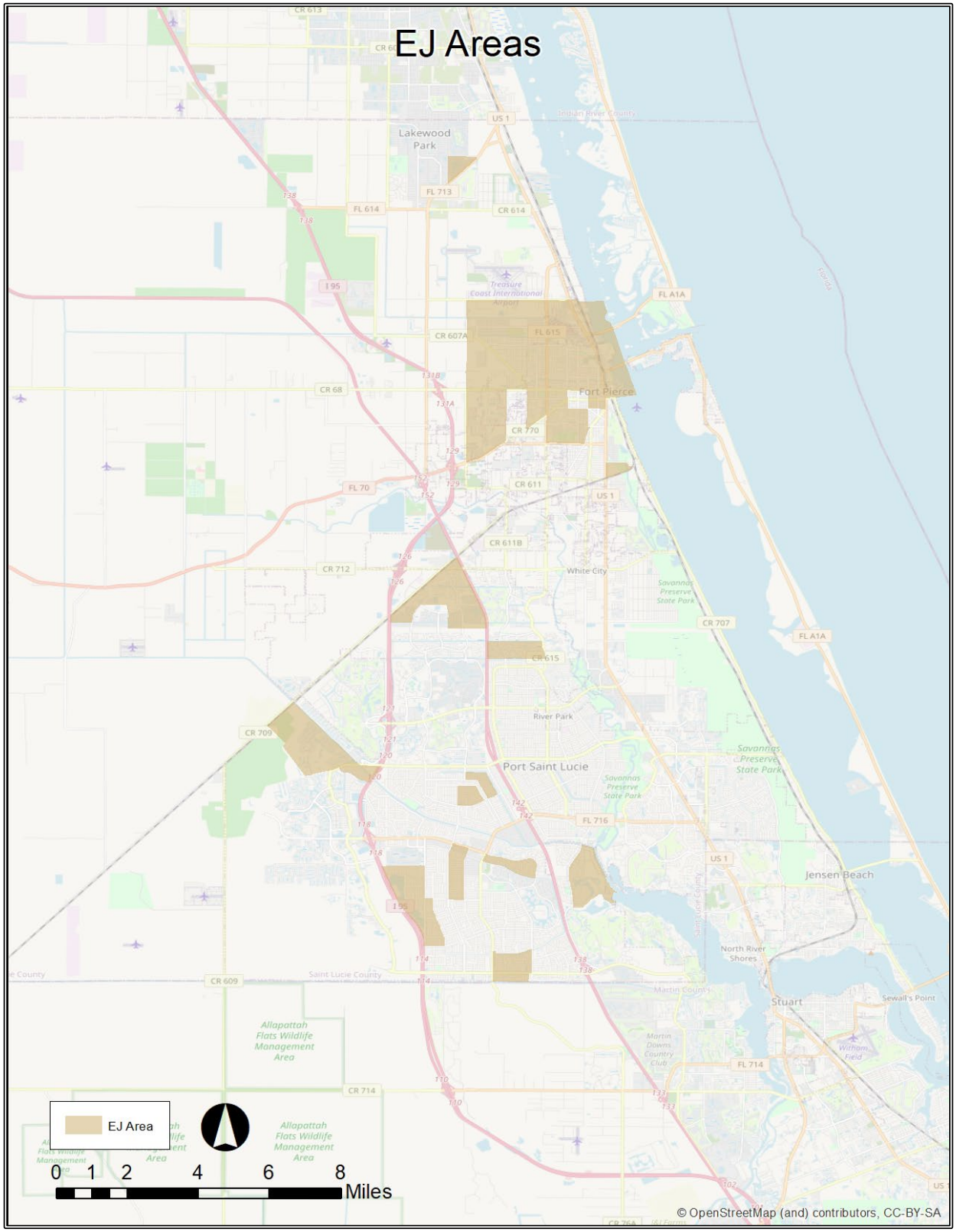


Appendix A, Map 10
Major Existing Intermodal Centers



Appendix A, Map 11

Disadvantaged Community EVSE Investment ("Justice 40" criteria)



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APPENDIX B
ACES Mobility Hub Area Prioritization

Scoring by TAZ Tables

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TAZ	COUNTY	Population Density	Employment Density	EJ	R.A.C	R.A.C Area	R.A.C Score	Drive-Shed	Population Density Score	Employment Density Score	Intermodal Score	Evacuation Route Score	Final Score
552	2	17.0	19.0	2	FPDown	1,000,000	2	0	2	1	0	1	8
613	2	0.0	41.5	2	FPDown	1,000,000	2	0	0	2	0	1	7
669	2	0.0	45.3	2	FPDown	1,000,000	2	0	0	2	0	1	7
493	2	0.0	94.1	2	FPDown	1,000,000	2	0	0	2	0	1	7
534	2	1.7	12.3	2	-	-	0	2	0	1	0	1	6
603	2	15.2	4.0	2	-	-	0	2	2	0	0	0	6
533	2	5.9	33.0	2	-	-	0	2	0	1	0	1	6
671	2	0.4	12.7	2	FPDown	1,000,000	2	0	0	1	0	1	6
484	2	0.0	19.9	2	FPDown	1,000,000	2	0	0	1	0	1	6
485	2	0.0	37.8	2	FPDown	1,000,000	2	0	0	1	0	1	6
486	2	2.7	18.5	2	FPDown	1,000,000	2	0	0	1	0	1	6
553	2	0.0	27.2	2	FPDown	1,000,000	2	0	0	1	0	1	6
487	2	0.0	24.1	2	FPDown	1,000,000	2	0	0	1	0	1	6
878	2	4.7	0.1	2	-	-	0	2	0	0	0	1	5
916	2	6.0	0.2	2	-	-	0	2	0	0	0	1	5
770	2	0.7	0.0	2	-	-	0	2	0	0	0	1	5
829	2	5.7	0.3	2	-	-	0	2	0	0	0	1	5
1004	2	5.6	0.4	2	-	-	0	2	0	0	0	1	5
535	2	8.4	8.3	2	-	-	0	2	0	0	0	1	5
529	2	1.5	1.2	2	-	-	0	2	0	0	0	1	5
616	2	11.5	7.2	2	-	-	0	2	1	0	0	0	5
607	2	10.9	2.4	2	-	-	0	2	1	0	0	0	5
816	2	0.4	17.3	0	nnovation(	750,000	1	2	0	1	0	1	5
881	2	1.3	11.8	0	-	-	0	2	0	1	1	1	5
421	2	15.2	2.0	0	-	-	0	2	2	0	0	1	5
582	2	19.4	1.4	0	-	-	0	2	2	0	0	1	5
670	2	0.0	17.7	2	FPDown	1,000,000	2	0	0	1	0	0	5
492	2	0.4	6.5	2	FPDown	1,000,000	2	0	0	0	0	1	5
490	2	0.0	31.4	2	FPDown	1,000,000	2	0	0	1	0	0	5
547	2	0.0	0.0	2	FPDown	1,000,000	2	0	0	0	0	1	5
617	2	1.2	16.0	2	-	-	0	0	0	1	1	1	5
618	2	9.6	5.9	2	-	-	0	2	0	0	0	0	4
608	2	3.2	1.3	2	-	-	0	2	0	0	0	0	4
738	2	0.0	8.2	0	enterStLuc	920,000	1	2	0	0	0	1	4
832	2	4.3	9.1	0	dTownCen	750,000	1	2	0	0	0	1	4
879	2	0.4	10.6	0	-	-	0	2	0	1	0	1	4
875	2	6.1	1.2	0	-	-	0	2	0	0	1	1	4
742	2	0.0	17.6	0	-	-	0	2	0	1	0	1	4
754	2	0.2	12.2	0	-	-	0	2	0	1	0	1	4
743	2	0.2	16.9	0	-	-	0	2	0	1	0	1	4
594	2	11.7	7.2	0	-	-	0	2	1	0	0	1	4
517	2	0.9	13.3	0	-	-	0	2	0	1	0	1	4
873	2	13.5	7.8	0	-	-	0	2	1	0	0	1	4
546	2	2.4	25.8	2	FPDown	1,000,000	0	0	0	1	0	1	4
489	2	0.4	0.6	2	FPDown	1,000,000	2	0	0	0	0	0	4
488	2	0.0	0.0	2	FPDown	1,000,000	2	0	0	0	0	0	4
491	2	0.0	0.0	2	FPDown	1,000,000	2	0	0	0	0	0	4
1026	2	14.3	0.1	2	-	-	0	0	1	0	0	1	4
605	2	10.2	3.4	2	-	-	0	0	1	0	0	1	4
612	2	6.8	11.9	2	-	-	0	0	0	1	0	1	4
545	2	11.2	2.1	2	-	-	0	0	1	0	0	1	4
551	2	13.9	0.7	2	-	-	0	0	1	0	0	1	4
465	2	27.2	2.0	2	-	-	0	0	2	0	0	0	4
472	2	16.1	2.6	2	-	-	0	0	2	0	0	0	4
668	2	0.0	25.2	2	-	-	0	0	0	1	0	1	4
401	2	12.1	0.3	2	-	-	0	0	1	0	0	1	4
462	2	17.6	0.7	2	-	-	0	0	2	0	0	0	4
463	2	17.9	2.5	2	-	-	0	0	2	0	0	0	4
464	2	16.0	0.5	2	-	-	0	0	2	0	0	0	4
542	2	30.4	5.0	2	-	-	0	0	2	0	0	0	4
480	2	4.9	30.8	2	-	-	0	0	0	1	0	1	4
797	2	6.6	2.8	0	-	-	0	2	0	0	0	1	3
813	2	3.0	0.0	0	-	-	0	2	0	0	0	1	3
812	2	4.3	5.7	0	-	-	0	2	0	0	0	1	3
810	2	14.8	6.2	0	-	-	0	2	1	0	0	0	3

TAZ	COUNTY	Population Density	Employment Density	EJ	R.A.C	R.A.C Area	R.A.C Score	Drive-Shed	Population Density Score	Employment Density Score	Intermodal Score	Evacuation Route Score	Final Score
827	2	2.6	2.7	0	-	-	0	2	0	0	0	1	3
915	2	5.5	0.1	0	-	-	0	2	0	0	0	1	3
910	2	6.9	0.1	0	-	-	0	2	0	0	0	1	3
919	2	6.1	0.3	0	-	-	0	2	0	0	0	1	3
923	2	0.3	0.8	0	-	-	0	2	0	0	0	1	3
863	2	5.6	1.1	0	-	-	0	2	0	0	0	1	3
921	2	5.2	0.1	0	-	-	0	2	0	0	0	1	3
926	2	6.4	1.1	0	-	-	0	2	0	0	0	1	3
925	2	1.4	0.1	0	-	-	0	2	0	0	0	1	3
851	2	6.2	1.0	0	-	-	0	2	0	0	0	1	3
862	2	5.3	1.0	0	-	-	0	2	0	0	0	1	3
844	2	6.6	0.7	0	-	-	0	2	0	0	0	1	3
840	2	4.4	0.1	0	-	-	0	2	0	0	0	1	3
870	2	0.2	9.0	0	-	-	0	2	0	0	0	1	3
865	2	3.5	0.2	0	-	-	0	2	0	0	0	1	3
947	2	3.3	5.8	0	-	-	0	2	0	0	0	1	3
771	2	1.6	1.8	0	-	-	0	2	0	0	0	1	3
766	2	0.4	4.3	0	-	-	0	2	0	0	0	1	3
568	2	5.7	0.2	0	-	-	0	2	0	0	0	1	3
575	2	0.3	0.0	0	-	-	0	2	0	0	0	1	3
835	2	6.5	0.2	0	-	-	0	2	0	0	0	1	3
752	2	4.7	0.2	0	-	-	0	2	0	0	0	1	3
753	2	4.3	6.5	0	-	-	0	2	0	0	0	1	3
833	2	3.3	0.1	0	-	-	0	2	0	0	0	1	3
858	2	4.6	0.9	0	-	-	0	2	0	0	0	1	3
768	2	1.8	0.3	0	-	-	0	2	0	0	0	1	3
1045	2	0.5	0.0	0	-	-	0	2	0	0	0	1	3
381	2	0.3	0.1	0	-	-	0	2	0	0	0	1	3
389	2	0.3	0.0	0	-	-	0	2	0	0	0	1	3
519	2	0.4	0.1	0	-	-	0	2	0	0	0	1	3
516	2	1.3	0.4	0	-	-	0	2	0	0	0	1	3
435	2	2.0	1.4	0	-	-	0	2	0	0	0	1	3
1041	2	0.4	0.0	0	-	-	0	2	0	0	0	1	3
585	2	2.2	7.5	0	-	-	0	2	0	0	0	1	3
590	2	1.0	3.1	0	-	-	0	2	0	0	0	1	3
523	2	0.1	3.5	0	-	-	0	2	0	0	0	1	3
596	2	5.7	4.4	0	-	-	0	2	0	0	0	1	3
434	2	0.0	1.0	0	-	-	0	2	0	0	0	1	3
524	2	0.0	0.3	0	-	-	0	2	0	0	0	1	3
530	2	1.1	1.9	0	-	-	0	2	0	0	0	1	3
595	2	2.1	2.5	0	-	-	0	2	0	0	0	1	3
602	2	6.7	6.0	0	-	-	0	2	0	0	0	1	3
583	2	0.0	1.7	0	-	-	0	2	0	0	0	1	3
769	2	3.5	0.0	0	-	-	0	2	0	0	0	1	3
836	2	0.0	0.0	0	-	-	0	2	0	0	0	1	3
526	2	0.6	2.9	0	-	-	0	2	0	0	0	1	3
527	2	0.5	0.8	0	-	-	0	2	0	0	0	1	3
522	2	0.0	4.6	0	-	-	0	2	0	0	0	1	3
513	2	0.5	0.1	0	-	-	0	2	0	0	0	1	3
856	2	3.4	8.0	0	-	-	0	2	0	0	0	1	3
842	2	7.1	3.9	0	-	-	0	2	0	0	0	1	3
580	2	1.1	0.0	0	-	-	0	2	0	0	0	1	3
900	2	6.4	0.5	2	-	-	0	0	0	0	0	1	3
831	2	6.5	0.3	2	-	-	0	0	0	0	0	1	3
446	2	0.0	3.4	2	-	-	0	0	0	0	0	1	3
476	2	7.6	1.1	2	-	-	0	0	0	0	0	1	3
481	2	0.4	7.0	2	-	-	0	0	0	0	0	1	3
449	2	1.1	9.5	2	-	-	0	0	0	0	0	1	3
1029	2	3.6	0.1	2	-	-	0	0	0	0	0	1	3
666	2	0.0	5.1	2	-	-	0	0	0	0	0	1	3
531	2	8.5	0.0	2	-	-	0	0	0	0	0	1	3
528	2	2.6	9.4	2	-	-	0	0	0	0	0	1	3
437	2	0.4	4.2	2	-	-	0	0	0	0	0	1	3
454	2	1.7	4.2	2	-	-	0	0	0	0	0	1	3
1017	2	4.0	0.0	2	-	-	0	0	0	0	0	1	3
708	2	4.5	0.3	2	-	-	0	0	0	0	0	1	3
1027	2	7.0	0.0	2	-	-	0	0	0	0	0	1	3

TAZ	COUNTY	Population Density	Employment Density	EJ	R.A.C	R.A.C Area	R.A.C Score	Drive-Shed	Population Density Score	Employment Density Score	Intermodal Score	Evacuation Route Score	Final Score
629	2	4.9	3.0	2	-	-	0	0	0	0	0	1	3
610	2	5.3	5.1	2	-	-	0	0	0	0	0	1	3
544	2	6.5	2.5	2	-	-	0	0	0	0	0	1	3
540	2	3.3	4.4	2	-	-	0	0	0	0	0	1	3
460	2	2.9	2.0	2	-	-	0	0	0	0	0	1	3
468	2	10.2	2.7	2	-	-	0	0	1	0	0	0	3
550	2	9.4	5.5	2	-	-	0	0	0	0	0	1	3
548	2	4.1	1.6	2	-	-	0	0	0	0	1	0	3
494	2	0.1	2.2	2	-	-	0	0	0	0	0	1	3
495	2	4.5	0.2	2	-	-	0	0	0	0	0	1	3
482	2	6.0	3.9	2	-	-	0	0	0	0	0	1	3
483	2	0.0	1.1	2	-	-	0	0	0	0	0	1	3
441	2	1.8	2.5	2	-	-	0	0	0	0	0	1	3
918	2	7.1	0.1	2	-	-	0	0	0	0	0	1	3
620	2	1.8	4.5	2	-	-	0	0	0	0	0	1	3
606	2	4.9	2.6	2	-	-	0	0	0	0	0	1	3
447	2	0.7	0.2	2	-	-	0	0	0	0	0	1	3
448	2	1.3	5.9	2	-	-	0	0	0	0	0	1	3
477	2	1.8	1.9	2	-	-	0	0	0	0	0	1	3
442	2	9.7	0.4	2	-	-	0	0	0	0	0	1	3
443	2	1.4	5.4	2	-	-	0	0	0	0	0	1	3
541	2	3.2	2.6	2	-	-	0	0	0	0	0	1	3
474	2	14.1	0.6	2	-	-	0	0	1	0	0	0	3
478	2	8.8	2.5	2	-	-	0	0	0	0	0	1	3
470	2	10.1	0.5	2	-	-	0	0	1	0	0	0	3
471	2	12.3	0.6	2	-	-	0	0	1	0	0	0	3
1028	2	0.0	0.0	2	-	-	0	0	0	0	0	1	3
1018	2	4.1	1.3	2	-	-	0	0	0	0	0	1	3
758	2	0.0	41.4	0	-	-	0	0	0	2	0	1	3
963	2	0.1	61.9	0	-	-	0	0	0	2	0	1	3
949	2	16.2	9.2	0	-	-	0	0	2	0	0	1	3
975	2	15.0	0.2	0	-	-	0	0	2	0	0	1	3
732	2	16.9	0.2	0	-	-	0	0	2	0	0	1	3
927	2	0.0	0.0	0	-	-	0	2	0	0	0	0	2
572	2	0.2	0.0	0	-	-	0	2	0	0	0	0	2
574	2	0.1	0.0	0	-	-	0	2	0	0	0	0	2
765	2	1.4	0.3	0	-	-	0	2	0	0	0	0	2
578	2	0.2	0.0	0	-	-	0	2	0	0	0	0	2
579	2	0.6	0.1	0	-	-	0	2	0	0	0	0	2
581	2	0.2	0.2	0	-	-	0	2	0	0	0	0	2
509	2	0.2	0.1	0	-	-	0	2	0	0	0	0	2
508	2	0.3	0.1	0	-	-	0	2	0	0	0	0	2
576	2	0.2	0.0	0	-	-	0	2	0	0	0	0	2
555	2	0.0	0.0	0	-	-	0	2	0	0	0	0	2
557	2	0.0	0.0	0	-	-	0	2	0	0	0	0	2
501	2	0.0	0.0	0	-	-	0	2	0	0	0	0	2
537	2	0.3	3.6	0	-	-	0	2	0	0	0	0	2
507	2	0.0	0.0	0	-	-	0	2	0	0	0	0	2
503	2	0.0	0.0	0	-	-	0	2	0	0	0	0	2
505	2	0.1	0.0	0	-	-	0	2	0	0	0	0	2
510	2	0.1	0.0	0	-	-	0	2	0	0	0	0	2
850	2	6.3	0.6	0	-	-	0	2	0	0	0	0	2
888	2	8.0	0.0	2	-	-	0	0	0	0	0	0	2
928	2	2.6	0.2	2	-	-	0	0	0	0	0	0	2
924	2	3.5	0.1	2	-	-	0	0	0	0	0	0	2
838	2	6.4	0.2	2	-	-	0	0	0	0	0	0	2
846	2	7.3	1.0	2	-	-	0	0	0	0	0	0	2
619	2	7.4	0.1	2	-	-	0	0	0	0	0	0	2
820	2	5.7	0.3	2	-	-	0	0	0	0	0	0	2
452	2	3.6	1.7	2	-	-	0	0	0	0	0	0	2
532	2	6.5	0.0	2	-	-	0	0	0	0	0	0	2
458	2	4.2	0.3	2	-	-	0	0	0	0	0	0	2
455	2	4.6	1.0	2	-	-	0	0	0	0	0	0	2
1025	2	0.9	0.0	2	-	-	0	0	0	0	0	0	2
1022	2	4.4	0.0	2	-	-	0	0	0	0	0	0	2

TAZ	COUNTY	Population Density	Employment Density	EJ	R.A.C	R.A.C Area	R.A.C Score	Drive-Shed	Population Density Score	Employment Density Score	Intermodal Score	Evacuation Route Score	Final Score
706	2	5.2	0.3	2	-	-	0	0	0	0	0	0	2
461	2	3.4	1.6	2	-	-	0	0	0	0	0	0	2
549	2	9.0	1.8	2	-	-	0	0	0	0	0	0	2
479	2	9.8	1.5	2	-	-	0	0	0	0	0	0	2
444	2	4.4	0.0	2	-	-	0	0	0	0	0	0	2
450	2	4.2	0.1	2	-	-	0	0	0	0	0	0	2
459	2	0.6	3.0	2	-	-	0	0	0	0	0	0	2
456	2	4.2	0.9	2	-	-	0	0	0	0	0	0	2
457	2	4.7	0.1	2	-	-	0	0	0	0	0	0	2
438	2	3.9	0.0	2	-	-	0	0	0	0	0	0	2
469	2	8.3	0.0	2	-	-	0	0	0	0	0	0	2
473	2	1.1	0.0	2	-	-	0	0	0	0	0	0	2
445	2	4.2	0.2	2	-	-	0	0	0	0	0	0	2
451	2	4.3	2.8	2	-	-	0	0	0	0	0	0	2
604	2	0.4	6.0	2	-	-	0	0	0	0	0	0	2
475	2	8.0	0.1	2	-	-	0	0	0	0	0	0	2
466	2	5.8	1.4	2	-	-	0	0	0	0	0	0	2
467	2	4.1	0.5	2	-	-	0	0	0	0	0	0	2
543	2	6.5	0.7	2	-	-	0	0	0	0	0	0	2
1023	2	3.8	0.3	2	-	-	0	0	0	0	0	0	2
885	2	7.3	0.1	2	-	-	0	0	0	0	0	0	2
886	2	7.6	0.0	2	-	-	0	0	0	0	0	0	2
891	2	8.1	0.0	2	-	-	0	0	0	0	0	0	2
839	2	7.5	0.0	2	-	-	0	0	0	0	0	0	2
894	2	8.4	0.0	2	-	-	0	0	0	0	0	0	2
615	2	8.2	0.6	2	-	-	0	0	0	0	0	0	2
942	2	0.1	26.9	0	artSuperC	220,000	0	0	0	1	0	1	2
859	2	13.1	2.9	0	-	-	0	0	1	0	0	1	2
757	2	3.1	11.2	0	-	-	0	0	0	1	0	1	2
756	2	12.0	4.7	0	-	-	0	0	1	0	0	1	2
763	2	0.0	13.8	0	-	-	0	0	0	1	0	1	2
745	2	0.0	12.7	0	-	-	0	0	0	1	0	1	2
956	2	12.7	1.4	0	-	-	0	0	1	0	0	1	2
968	2	1.5	12.8	0	-	-	0	0	0	1	0	1	2
978	2	11.9	0.2	0	-	-	0	0	1	0	0	1	2
744	2	0.0	21.1	0	-	-	0	0	0	1	0	1	2
998	2	11.3	0.1	0	-	-	0	0	1	0	0	1	2
657	2	0.0	19.7	0	-	-	0	0	0	1	0	1	2
654	2	10.1	6.3	0	-	-	0	0	1	0	0	1	2
655	2	2.6	13.4	0	-	-	0	0	0	1	0	1	2
635	2	13.3	3.2	0	-	-	0	0	1	0	0	1	2
663	2	11.7	5.5	0	-	-	0	0	1	0	0	1	2
600	2	13.5	0.9	0	-	-	0	0	1	0	0	1	2
601	2	0.0	24.6	0	-	-	0	0	0	1	0	1	2
1012	2	14.6	0.1	0	-	-	0	0	1	0	0	1	2
623	2	3.7	11.9	0	-	-	0	0	0	1	0	1	2
627	2	0.8	2.7	0	-	-	0	0	0	0	1	1	2
611	2	11.7	4.6	0	-	-	0	0	1	0	0	1	2
426	2	0.0	2.0	0	-	-	0	0	0	0	1	1	2
430	2	0.6	11.2	0	-	-	0	0	0	1	0	1	2
913	2	10.7	0.6	0	-	-	0	0	1	0	0	1	2
404	2	0.1	12.3	0	-	-	0	0	0	1	0	1	2
857	2	1.2	14.7	0	-	-	0	0	0	1	0	1	2
959	2	0.0	18.9	0	-	-	0	0	0	1	0	1	2
960	2	12.3	0.9	0	-	-	0	0	1	0	0	1	2
801	2	12.7	1.8	0	-	-	0	0	1	0	0	0	1
825	2	11.9	1.1	0	-	-	0	0	1	0	0	0	1
795	2	1.1	2.6	0	-	-	0	0	0	0	0	1	1
811	2	0.0	4.9	0	-	-	0	0	0	0	0	1	1
897	2	4.6	0.1	0	-	-	0	0	0	0	0	1	1
912	2	3.5	0.2	0	-	-	0	0	0	0	0	1	1
917	2	7.5	0.7	0	-	-	0	0	0	0	0	1	1
902	2	1.1	3.4	0	-	-	0	0	0	0	0	1	1
901	2	5.4	0.3	0	-	-	0	0	0	0	0	1	1
909	2	3.1	0.1	0	-	-	0	0	0	0	0	1	1
922	2	3.9	0.1	0	-	-	0	0	0	0	0	1	1

TAZ	COUNTY	Population Density	Employment Density	EJ	R.A.C	R.A.C Area	R.A.C Score	Drive-Shed	Population Density Score	Employment Density Score	Intermodal Score	Evacuation Route Score	Final Score
930	2	1.8	0.0	0	-	-	0	0	0	0	0	1	1
944	2	3.8	1.8	0	-	-	0	0	0	0	0	1	1
948	2	6.7	1.6	0	-	-	0	0	0	0	0	1	1
864	2	2.1	0.6	0	-	-	0	0	0	0	0	1	1
965	2	1.7	0.2	0	-	-	0	0	0	0	0	1	1
774	2	6.6	0.2	0	-	-	0	0	0	0	0	1	1
871	2	6.4	0.3	0	-	-	0	0	0	0	0	1	1
877	2	5.7	0.4	0	-	-	0	0	0	0	0	1	1
999	2	5.5	1.8	0	-	-	0	0	0	0	0	1	1
931	2	0.1	3.8	0	-	-	0	0	0	0	0	1	1
775	2	4.8	0.0	0	-	-	0	0	0	0	0	1	1
780	2	1.1	2.7	0	-	-	0	0	0	0	0	1	1
786	2	5.0	0.4	0	-	-	0	0	0	0	0	1	1
778	2	2.9	0.1	0	-	-	0	0	0	0	0	1	1
734	2	1.2	8.6	0	-	-	0	0	0	0	0	1	1
779	2	3.2	3.4	0	-	-	0	0	0	0	0	1	1
730	2	2.6	1.3	0	-	-	0	0	0	0	0	1	1
785	2	6.3	0.9	0	-	-	0	0	0	0	0	1	1
781	2	0.0	7.4	0	-	-	0	0	0	0	0	1	1
936	2	5.7	1.5	0	-	-	0	0	0	0	0	1	1
957	2	2.3	0.4	0	-	-	0	0	0	0	0	1	1
940	2	0.2	9.4	0	-	-	0	0	0	0	0	1	1
961	2	8.8	1.2	0	-	-	0	0	0	0	0	1	1
964	2	0.7	1.9	0	-	-	0	0	0	0	0	1	1
967	2	8.4	1.6	0	-	-	0	0	0	0	0	1	1
943	2	2.7	1.7	0	-	-	0	0	0	0	0	1	1
1001	2	0.0	0.0	0	-	-	0	0	0	0	0	1	1
1002	2	1.4	0.0	0	-	-	0	0	0	0	0	1	1
761	2	4.6	0.5	0	-	-	0	0	0	0	0	1	1
755	2	2.5	1.3	0	-	-	0	0	0	0	0	1	1
747	2	3.7	2.4	0	-	-	0	0	0	0	0	1	1
845	2	6.4	0.0	0	-	-	0	0	0	0	0	1	1
762	2	0.0	2.6	0	-	-	0	0	0	0	0	1	1
946	2	6.8	0.4	0	-	-	0	0	0	0	0	1	1
869	2	4.8	0.1	0	-	-	0	0	0	0	0	1	1
764	2	0.0	0.0	0	-	-	0	0	0	0	0	1	1
1005	2	0.2	8.8	0	-	-	0	0	0	0	0	1	1
760	2	3.5	2.0	0	-	-	0	0	0	0	0	1	1
772	2	8.3	1.8	0	-	-	0	0	0	0	0	1	1
710	2	6.1	0.2	0	-	-	0	0	0	0	0	1	1
746	2	0.0	2.7	0	-	-	0	0	0	0	0	1	1
720	2	7.1	0.6	0	-	-	0	0	0	0	0	1	1
721	2	1.1	1.6	0	-	-	0	0	0	0	0	1	1
1032	2	0.0	0.0	0	-	-	0	0	0	0	0	1	1
1033	2	0.0	0.0	0	-	-	0	0	0	0	0	1	1
1047	2	0.0	0.0	0	-	-	0	0	0	0	0	1	1
1038	2	0.0	0.0	0	-	-	0	0	0	0	0	1	1
1044	2	0.7	0.0	0	-	-	0	0	0	0	0	1	1
953	2	0.4	8.9	0	-	-	0	0	0	0	0	1	1
952	2	0.0	3.5	0	-	-	0	0	0	0	0	1	1
983	2	1.2	38.0	0	-	-	0	0	0	1	0	0	1
971	2	3.3	9.0	0	-	-	0	0	0	0	0	1	1
972	2	2.6	2.4	0	-	-	0	0	0	0	0	1	1
982	2	10.9	0.1	0	-	-	0	0	1	0	0	0	1
970	2	6.6	6.3	0	-	-	0	0	0	0	0	1	1
969	2	0.0	9.3	0	-	-	0	0	0	0	0	1	1
977	2	4.4	0.1	0	-	-	0	0	0	0	0	1	1
979	2	2.8	0.8	0	-	-	0	0	0	0	0	1	1
973	2	1.7	0.0	0	-	-	0	0	0	0	0	1	1
1003	2	0.2	0.2	0	-	-	0	0	0	0	0	1	1
725	2	1.6	1.2	0	-	-	0	0	0	0	0	1	1
837	2	6.0	0.2	0	-	-	0	0	0	0	0	1	1
736	2	0.0	7.8	0	-	-	0	0	0	0	0	1	1
740	2	0.0	21.1	0	-	-	0	0	0	1	0	0	1
682	2	7.0	4.4	0	-	-	0	0	0	0	0	1	1
675	2	2.4	0.0	0	-	-	0	0	0	0	0	1	1

TAZ	COUNTY	Population Density	Employment Density	EJ	R.A.C	R.A.C Area	R.A.C Score	Drive-Shed	Population Density Score	Employment Density Score	Intermodal Score	Evacuation Route Score	Final Score
664	2	2.0	0.2	0	-	-	0	0	0	0	0	1	1
689	2	0.1	0.0	0	-	-	0	0	0	0	0	1	1
1031	2	1.1	0.2	0	-	-	0	0	0	0	0	1	1
662	2	0.3	0.7	0	-	-	0	0	0	0	0	1	1
658	2	4.5	2.4	0	-	-	0	0	0	0	0	1	1
987	2	5.2	0.1	0	-	-	0	0	0	0	0	1	1
980	2	1.3	7.2	0	-	-	0	0	0	0	0	1	1
1000	2	1.0	0.1	0	-	-	0	0	0	0	0	1	1
997	2	0.6	0.7	0	-	-	0	0	0	0	0	1	1
496	2	1.9	0.2	0	-	-	0	0	0	0	0	1	1
1030	2	3.7	0.0	0	-	-	0	0	0	0	0	1	1
499	2	4.9	0.4	0	-	-	0	0	0	0	0	1	1
636	2	4.8	0.8	0	-	-	0	0	0	0	0	1	1
632	2	5.3	1.4	0	-	-	0	0	0	0	0	1	1
656	2	1.2	2.3	0	-	-	0	0	0	0	0	1	1
633	2	7.1	1.2	0	-	-	0	0	0	0	0	1	1
659	2	0.5	4.8	0	-	-	0	0	0	0	0	1	1
653	2	13.7	3.9	0	-	-	0	0	1	0	0	0	1
631	2	7.5	1.8	0	-	-	0	0	0	0	0	1	1
410	2	1.7	0.1	0	-	-	0	0	0	0	0	1	1
411	2	4.1	0.6	0	-	-	0	0	0	0	0	1	1
382	2	3.2	0.1	0	-	-	0	0	0	0	0	1	1
393	2	4.2	0.2	0	-	-	0	0	0	0	0	1	1
413	2	0.8	0.1	0	-	-	0	0	0	0	0	1	1
402	2	0.6	1.1	0	-	-	0	0	0	0	0	1	1
422	2	0.4	0.8	0	-	-	0	0	0	0	0	1	1
400	2	0.9	1.0	0	-	-	0	0	0	0	0	1	1
830	2	7.4	2.6	0	-	-	0	0	0	0	0	1	1
1039	2	5.4	0.1	0	-	-	0	0	0	0	0	1	1
388	2	0.1	0.2	0	-	-	0	0	0	0	0	1	1
698	2	2.9	1.4	0	-	-	0	0	0	0	0	1	1
697	2	1.6	0.9	0	-	-	0	0	0	0	0	1	1
705	2	3.6	4.3	0	-	-	0	0	0	0	0	1	1
704	2	3.8	0.2	0	-	-	0	0	0	0	0	1	1
638	2	1.3	5.5	0	-	-	0	0	0	0	0	1	1
589	2	1.6	4.6	0	-	-	0	0	0	0	0	1	1
639	2	0.8	5.2	0	-	-	0	0	0	0	0	1	1
702	2	2.8	7.7	0	-	-	0	0	0	0	0	1	1
647	2	1.2	0.1	0	-	-	0	0	0	0	0	1	1
1036	2	0.1	0.0	0	-	-	0	0	0	0	0	1	1
511	2	0.3	0.0	0	-	-	0	0	0	0	0	1	1
514	2	0.8	0.1	0	-	-	0	0	0	0	0	1	1
1035	2	0.0	0.0	0	-	-	0	0	0	0	0	1	1
1040	2	0.0	0.3	0	-	-	0	0	0	0	0	1	1
432	2	1.8	0.2	0	-	-	0	0	0	0	0	1	1
415	2	0.8	0.0	0	-	-	0	0	0	0	0	1	1
417	2	1.5	0.1	0	-	-	0	0	0	0	0	1	1
412	2	5.8	0.1	0	-	-	0	0	0	0	0	1	1
722	2	1.9	3.7	0	-	-	0	0	0	0	0	1	1
724	2	5.6	1.2	0	-	-	0	0	0	0	0	1	1
727	2	6.2	1.5	0	-	-	0	0	0	0	0	1	1
733	2	2.5	3.0	0	-	-	0	0	0	0	0	1	1
729	2	5.4	2.5	0	-	-	0	0	0	0	0	1	1
680	2	0.0	8.0	0	-	-	0	0	0	0	0	1	1
681	2	2.2	0.5	0	-	-	0	0	0	0	0	1	1
674	2	6.1	4.3	0	-	-	0	0	0	0	0	1	1
649	2	2.0	1.3	0	-	-	0	0	0	0	0	1	1
661	2	4.2	3.8	0	-	-	0	0	0	0	0	1	1
660	2	6.7	5.9	0	-	-	0	0	0	0	0	1	1
665	2	4.4	2.2	0	-	-	0	0	0	0	0	1	1
586	2	3.3	0.0	0	-	-	0	0	0	0	0	1	1
525	2	0.7	0.0	0	-	-	0	0	0	0	0	1	1
520	2	1.4	1.7	0	-	-	0	0	0	0	0	1	1
453	2	0.5	0.0	0	-	-	0	0	0	0	0	1	1
436	2	0.2	0.4	0	-	-	0	0	0	0	0	1	1
592	2	4.7	0.2	0	-	-	0	0	0	0	0	1	1

TAZ	COUNTY	Population Density	Employment Density	EJ	R.A.C	R.A.C Area	R.A.C Score	Drive-Shed	Population Density Score	Employment Density Score	Intermodal Score	Evacuation Route Score	Final Score
598	2	1.0	0.2	0	-	-	0	0	0	0	0	1	1
597	2	2.3	0.5	0	-	-	0	0	0	0	0	1	1
591	2	1.3	0.2	0	-	-	0	0	0	0	0	1	1
593	2	7.2	1.0	0	-	-	0	0	0	0	0	1	1
773	2	0.2	1.9	0	-	-	0	0	0	0	0	1	1
1009	2	2.8	0.0	0	-	-	0	0	0	0	0	1	1
1010	2	4.9	1.4	0	-	-	0	0	0	0	0	1	1
584	2	0.0	0.0	0	-	-	0	0	0	0	0	1	1
748	2	0.0	3.2	0	-	-	0	0	0	0	0	1	1
709	2	2.9	1.0	0	-	-	0	0	0	0	0	1	1
626	2	6.8	5.7	0	-	-	0	0	0	0	0	1	1
667	2	1.6	4.7	0	-	-	0	0	0	0	0	1	1
634	2	5.1	6.2	0	-	-	0	0	0	0	0	1	1
628	2	3.1	0.4	0	-	-	0	0	0	0	0	1	1
630	2	3.8	1.8	0	-	-	0	0	0	0	0	1	1
625	2	8.1	2.4	0	-	-	0	0	0	0	0	1	1
609	2	8.7	3.1	0	-	-	0	0	0	0	0	1	1
428	2	1.1	3.4	0	-	-	0	0	0	0	0	1	1
538	2	0.5	3.7	0	-	-	0	0	0	0	0	1	1
424	2	2.4	0.6	0	-	-	0	0	0	0	0	1	1
425	2	2.6	2.0	0	-	-	0	0	0	0	0	1	1
423	2	0.1	2.6	0	-	-	0	0	0	0	0	1	1
427	2	0.0	0.6	0	-	-	0	0	0	0	0	1	1
1042	2	0.0	0.0	0	-	-	0	0	0	0	0	1	1
418	2	0.3	2.8	0	-	-	0	0	0	0	0	1	1
440	2	1.1	1.8	0	-	-	0	0	0	0	0	1	1
416	2	0.0	0.3	0	-	-	0	0	0	0	0	1	1
512	2	0.2	0.0	0	-	-	0	0	0	0	0	1	1
392	2	5.3	1.2	0	-	-	0	0	0	0	0	1	1
403	2	3.6	0.6	0	-	-	0	0	0	0	0	1	1
676	2	1.6	0.8	0	-	-	0	0	0	0	0	1	1
677	2	2.0	0.0	0	-	-	0	0	0	0	0	1	1
673	2	12.9	0.0	0	-	-	0	0	1	0	0	0	1
678	2	3.9	0.0	0	-	-	0	0	0	0	0	1	1
521	2	0.5	3.0	0	-	-	0	0	0	0	0	1	1
624	2	10.0	1.2	0	-	-	0	0	0	0	0	1	1
406	2	0.5	3.1	0	-	-	0	0	0	0	0	1	1
408	2	1.5	2.7	0	-	-	0	0	0	0	0	1	1
429	2	1.5	0.1	0	-	-	0	0	0	0	0	1	1
515	2	0.1	0.0	0	-	-	0	0	0	0	0	1	1
431	2	0.6	2.5	0	-	-	0	0	0	0	0	1	1
409	2	1.6	3.3	0	-	-	0	0	0	0	0	1	1
396	2	3.6	1.0	0	-	-	0	0	0	0	0	1	1
433	2	1.7	1.8	0	-	-	0	0	0	0	0	1	1
1037	2	0.9	0.3	0	-	-	0	0	0	0	0	1	1
776	2	3.4	1.1	0	-	-	0	0	0	0	0	1	1
711	2	4.8	0.0	0	-	-	0	0	0	0	0	1	1
1006	2	0.2	7.3	0	-	-	0	0	0	0	0	1	1
716	2	3.7	0.0	0	-	-	0	0	0	0	0	1	1
718	2	4.8	0.5	0	-	-	0	0	0	0	0	1	1
834	2	6.9	0.0	0	-	-	0	0	0	0	0	1	1
855	2	3.4	8.6	0	-	-	0	0	0	0	0	1	1
860	2	2.5	0.6	0	-	-	0	0	0	0	0	1	1
898	2	5.5	2.5	0	-	-	0	0	0	0	0	1	1
883	2	6.7	2.9	0	-	-	0	0	0	0	0	1	1
889	2	6.1	5.7	0	-	-	0	0	0	0	0	1	1
904	2	7.4	0.7	0	-	-	0	0	0	0	0	1	1
905	2	7.8	1.0	0	-	-	0	0	0	0	0	1	1
893	2	8.2	0.7	0	-	-	0	0	0	0	0	1	1
890	2	7.6	0.8	0	-	-	0	0	0	0	0	1	1
958	2	1.6	0.0	0	-	-	0	0	0	0	0	1	1
962	2	0.2	7.6	0	-	-	0	0	0	0	0	1	1
690	2	7.0	0.0	0	-	-	0	0	0	0	0	1	1
691	2	1.5	1.8	0	-	-	0	0	0	0	0	1	1
692	2	2.2	3.7	0	-	-	0	0	0	0	0	1	1
694	2	2.1	0.8	0	-	-	0	0	0	0	0	1	1

TAZ	COUNTY	Population Density	Employment Density	EJ	R.A.C	R.A.C Area	R.A.C Score	Drive-Shed	Population Density Score	Employment Density Score	Intermodal Score	Evacuation Route Score	Final Score
966	2	0.0	0.9	0	-	-	0	0	0	0	0	1	1
783	2	6.3	0.5	0	-	-	0	0	0	0	0	1	1
861	2	2.6	0.3	0	-	-	0	0	0	0	0	1	1
899	2	3.4	0.9	0	-	-	0	0	0	0	0	1	1
497	2	8.4	0.6	0	-	-	0	0	0	0	0	1	1
498	2	5.2	3.1	0	-	-	0	0	0	0	0	1	1
518	2	0.6	0.0	0	-	-	0	0	0	0	0	1	1
646	2	0.7	1.3	0	-	-	0	0	0	0	0	1	1
895	2	9.0	0.0	0	-	-	0	0	0	0	0	1	1
751	2	10.9	1.5	0	-	-	0	0	1	0	0	0	1
723	2	0.0	1.1	0	-	-	0	0	0	0	0	1	1
937	2	5.6	1.1	0	-	-	0	0	0	0	0	1	1
938	2	4.6	0.7	0	-	-	0	0	0	0	0	1	1
577	2	0.5	0.0	0	-	-	0	0	0	0	0	1	1
1007	2	0.3	0.3	0	-	-	0	0	0	0	0	1	1

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