SR 80
Corridor
Action Plan
From US-27 to I-95

STATE ROAD 80 CORRIDOR ACTION PLAN

FINAL REPORT

FROM US-27/SR-25 TO I-95/SR-9, PALM BEACH COUNTY, FLORIDA

April 2018

STATE ROAD 80 ACTION PLAN

FROM US-27/SR-25 TO I-95/SR-9, PALM BEACH COUNTY, FLORIDA

FM No: 435162-1-12-01

Project Name: SR 80 Corridor Action Plan

Project Limits: The study corridor includes an approximately 45-mile segment of SR 80 from US 27/SR 25 to I-95 traversing nine municipalities in Palm Beach County, Florida.

County/State: Palm Beach County, Florida

Financial Management No.: 435162-1-12-01, Various

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Contents

Multiple technical memoranda were prepared as part of this Action Plan, as well as several presentations. Please visit SR80actionplan.com to view all related products.

EXECUTIVE SUMMARY

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0.0 EXECUTIVE SUMMARY

Study Background

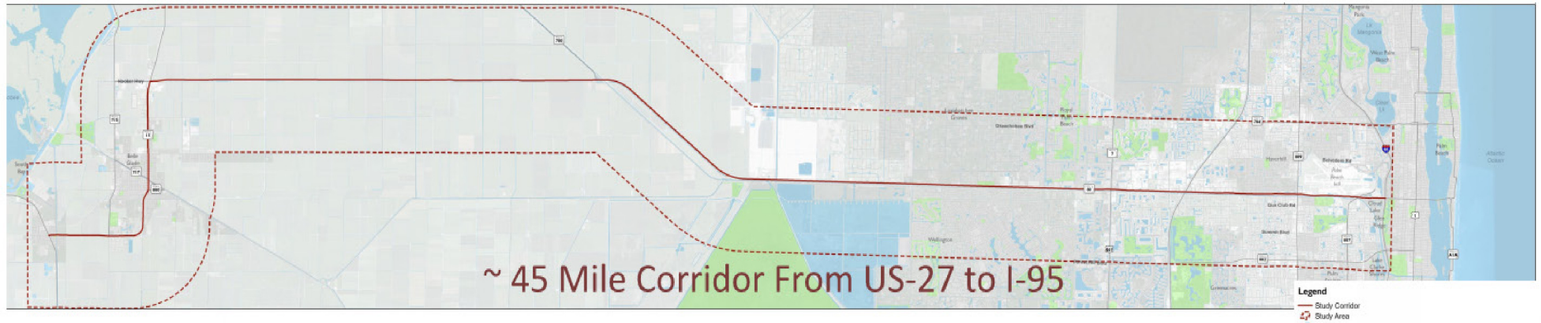
State Road (SR) 80 is a regionally significant roadway spanning the full width of Palm Beach County and continuing west to Fort Myers through Hendry County and Lee County. As a Strategic Intermodal System (SIS) highway corridor, SR 80 is among the Florida Department of Transportation's (FDOT) network of high priority transportation facilities. Between 2003 and 2008, major capacity improvements were completed along the SR 80 corridor, which included widening the roadway to provide eight lanes between Royal Palm Beach Boulevard and I-95 as well as grade-separating major intersections such as at SR-7, Jog Road, Haverhill Road, and Military Trail. In addition, SR 80 from west of Lion Country Safari Road to Forest Hill Boulevard will be widened from four lanes to six lanes starting in May 2018.

Although these improvements significantly enhance traffic conditions along the corridor, the need for additional improvement has become apparent from increases in existing traffic as well as future development plans. In recent years, many new residential, commercial, and industrial development plans were approved in communities all along the SR 80 corridor in the urban area. Traffic estimates from recently approved and planned developments show the need for additional capacity on SR 80. The cumulative effects of approved new development traffic show that estimated traffic volumes will exceed the Department's targeted level of service of "D" in the urban areas and "C" in the rural areas on SR 80.

The western portion of SR 80 primarily functions as a downtown main street through the cities of Belle Glade and South Bay connecting downtown businesses to and from residential areas. This portion of the corridor was evaluated for opportunities to implement truck bypass routes to separate local traffic from truck traffic and to improve safety for all roadway users. In addition, the potential impacts of the proposed Intermodal Logistics Center (ILC) near South Bay and US 27 was evaluated.

With the potential for even more new development traffic to come that will rely on the corridor and the complexities of these issues, FDOT initiated the SR 80 Action Plan to work with local governments to investigate a broad range of transportation alternatives and land use strategies affecting travel demand along the corridor. In conjunction with this, the Action Plan also considered options for other types of improvements, including enhancements to local roadway networks and public transportation. The Action Plan for SR-80 delivers a strategy for maintaining and improving mobility throughout the corridor in a manner that balances the preservation of the corridor's strategic intrastate functions with the need to provide access to and serve adjacent communities.

Figure 1 | Corridor Study Location Map



What communities are in the study limits?

City of South Bay
City of Belle Glade
Town of Loxahatchee Groves
Village of Royal Palm Beach
Village of Wellington
Town of Haverhill
Town of Glen Ridge
Town of Cloud Lake
City of West Palm Beach
Palm Beach County

Key Stakeholders:

Municipalities, communities, and businesses along SR 80
Palm Beach Transportation Planning Agency
Palm Tran Public Transportation
South Florida Water Management District
Palm Beach County Engineering and Public Works Department
Palm Beach County Planning, Zoning & Building Department
Florida's Turnpike Enterprise

FDOT

Character Districts

When considering the existing roadway conditions, character, and land uses, trends begin to emerge that tell the story of the corridor and its intended use. Certain areas, for example, are more rural and others are clearly commercial cores. In order to facilitate the definition of areas based on their context, needs, and desires, the SR 80 corridor was divided into character districts as shown below.

The character district of a roadway will inform FDOT's planning, PD&E, design, construction, and maintenance approaches to ensure that state roadways are supportive of safe and comfortable travel for their anticipated users. Identifying the context classification is a step in planning and design, as different context classifications will have different design criteria and standards.

Based on the analysis findings, there are three character districts in the SR 80 study area. These character districts constitute the current corridor conditions. They can be used to dictate the future land use and transportation form of the corridor in a context sensitive manner.

The character districts shown in the figure have the following characteristics:

AG - Agricultural

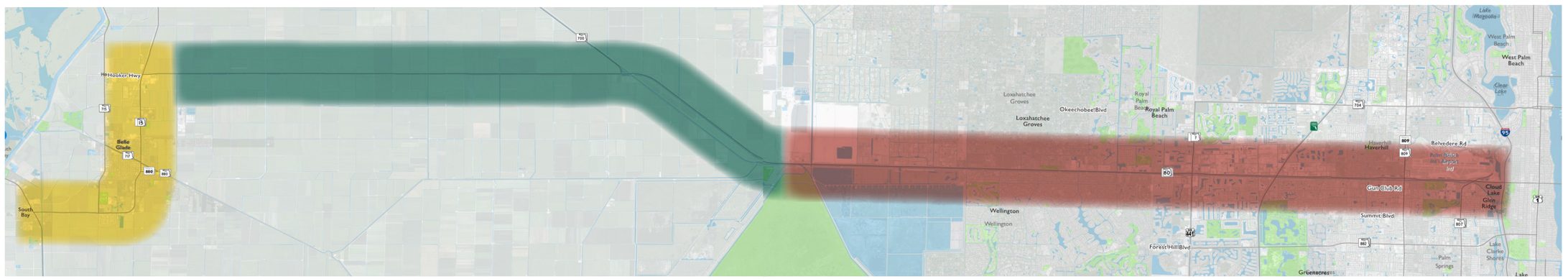
- Focused on throughput
- Mostly agriculture or conservation uses
- Few destinations
- High truck percentage
- Little access and low network connectivity

RT - Rural Town

- Desire for a complete street with a main street feel
- Highest ped/bike activity
- Mix of uses
- Slower traffic (or desire for it)
- Some on street parking
- Need to address truck/ped/bike interaction

SU - Suburban

- Auto-oriented commercial uses
- Most uses do not directly front the road (separated by swale/canal)
- Lots of destinations but spread far apart
- Likely little pedestrian activity
- Little network connectivity
- Low Density



Tiered Screening Overview and Guiding Needs/Goals

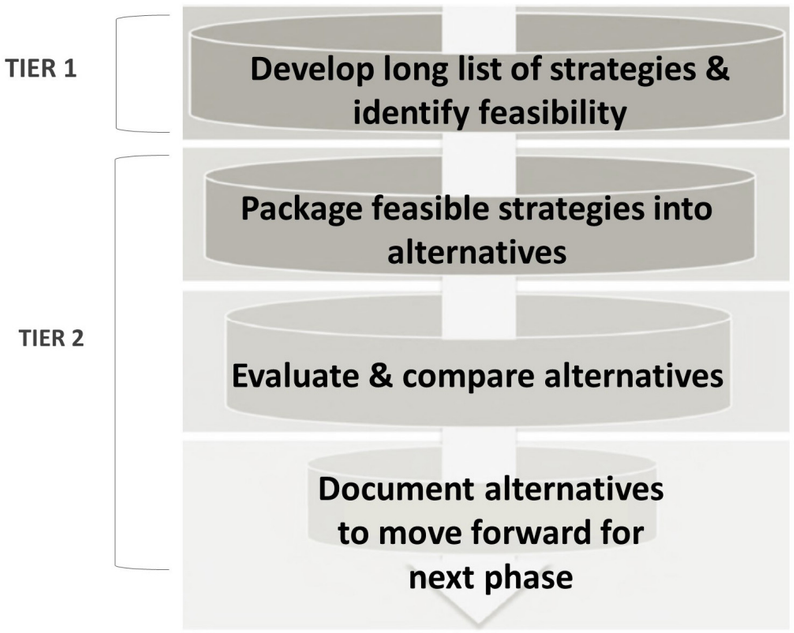
A two-tier screening process was used to identify solutions that directly address the issues identified in the SR 80 existing and future conditions assessment. The Tier 1 analysis was intended to be more qualitative in nature, while the Tier 2 analysis included more detailed analyses using quantitative measures. As described in the graphic, in Tier 1 all strategies are considered and screened against the overall needs, goals, and objectives of the corridor.

Strategies found to best meet the needs of the corridor were then moved forward into the second tier of analysis where they were packaged into alternatives and series of improvements. Each of the alternatives and series of improvements were further evaluated in the Tier 2 analysis. As a last step, recommendations were made on what investments to move forward into next phases.

In addition to qualitative and quantitative technical information, each step was vetted by the Florida Department of Transportation study team and the project's Technical Review Committee comprised of various partners. Feedback was also sought from stakeholders and the general public.

Applying the two-tier screening process described herein, evaluation criteria was developed for each segment/character area. The evaluation criteria selected per segment were used to measure and indicate how well an alternative or strategy addressed the various needs of the segment. The following summary lists each segment's needs. Subsequent evaluation criteria and findings are documented further in this report.

Figure 2 | Tiered Screening Process



Segment	Needs
Segment RT – Rural Town	• A low speed Main Street for Belle Glade that will help facilitate walking and bicycling as well as enhance economic development. • Improved safety, convenience, and functionality of facilities for walking and bicycling along and across SR 80. • A safe, comfortable, and convenient route for freight that bypasses Belle Glade's Downtown Main Street. • Good connectivity to transit, including walking and bicycling connections as well as potential locations for new transit hubs located closer to the center of population in Belle Glade.
Segment AG - Agricultural	• An additional east-west arterial is needed for emergency and evacuation purposes. • The facility needs to safely accommodate north-south crossing traffic and create higher visibility for all users. • A facility for pedestrians and bicyclists is needed to connect the LOST recreational area to the east.
Segment SU - Suburban	• Additional capacity is needed to meet the demand. • Access to transit is currently limited and should be improved upon to make it more convenient and accessible. • A more connected network is needed. • Safety should remain a priority. • Accommodating freight is critical to the economic health of the region given regional and local freight trips heavily rely on SR 80. • Access management standards are not being met. • The characteristics of the driving environment need to be more consistent.

Overview of Alternatives

Packages of strategies, referred to as alternatives, were identified for the entire corridor. Strategies from the Tier 1 screening in Section 6 were packaged into alternatives per character district. The table to the right summarizes the strategies and alternatives per character district, as well as those that are corridor-wide. For the executive summary, only one table is displayed – recommendations that FDOT would be responsible for moving forward. To see the list of recommendations for study partners to consider, see Section 8.

Figure 3 | Alternatives and Strategies for FDOTs Consideration

CHARACTER DISTRICT	ID #	STRATEGY/OBJECTIVE	LIMITS		USERS/NEEDS TO BE ADDRESSED
			TO	FROM	
Corridor-wide	A	Provide Park-n-Ride Lots, Branded Express Bus Stops, & Belle Glade Downtown Hub	Downtown Belle Glade	Existing Tri-Rail Station	Additional Multimodal Capacity; Improve Multimodal Travel and Multimodal Access to Transit
	B	Provide Regional Greenway Connection	Lake Okeechobee Scenic Trail (LOST)	I-95	Off-road walking and biking
	C	Provide Active Operations along SR 80 (i.e., Traffic Incident Management, Arterial Management, Active Transportation System Management, etc.)	Hooker Highway	I-95	Improve safety, security, and mobility
SEGMENT 1 (Rural Town) US 27 to Hooker Highway	D	Provide pedestrian and bicycle facilities as well as a downtown Belle Glade "complete street"	US 27	Hooker Highway	Improve network connectivity and enhance pedestrian/bicyclist safety; Provide multimodal access to local businesses
	E	Provide additional capacity on SR 715 to accommodate freight demand off of SR 80 in the downtown Belle Glade area	US 27	Hooker Highway	Support freight related development.
	F	Reconstruct bridge/construct concrete barrier walls to accommodate truck turning radii	SR 80/SW 1st Avenue		Improve freight mobility
SEGMENT 2 (Agricultural) Hooker Highway to 20-Mile Bend	G	Provide necessary safety- and security-related design elements such as lighting	Hooker Highway	20-Mile Bend	Improve safety and security
SEGMENT 3 (Suburban) 20-Mile Bend to I-95	H	Provide additional multimodal capacity on SR 80	Seminole Pratt Whitney	Congress Ave	Additional Multimodal Capacity; Improve Multimodal Travel and Multimodal Access to Transit
	I	Provide additional multimodal capacity on SR 80	Seminole Pratt Whitney	Forest Hill Blvd	Additional Multimodal Capacity; Improve Multimodal Travel
	J	Reduce and/or manage access along SR 80 to better align with SIS Access Classification standards	20-Mile Bend	Congress Ave	Preserve vehicle capacity and mobility of SIS
	K	Provide intersection-level operational and capacity improvements	@Forest Hill Blvd/Crestwood Blvd @SR 7 @Lyons Rd/Sansbury Way @Benoist Farms Rd @Cleary Rd		Additional Multimodal Capacity; Improve Multimodal Travel

Strategies for Gathering Feedback

In order to be inclusive, the stakeholder involvement framework involved a number of methods for gathering feedback, as follows:

Technical Review Committee (TRC)

The study was guided by input from two Technical Review Committees (TRCs). The TRCs were formed to serve as technical sounding boards and advisory groups while the study team shares findings and develops alternative strategies for the SR 80 corridor. Given the length of the study corridor, two TRCs were formed – one to represent the eastern portion of the corridor and the other to represent the western portion. The TRCs meet approximately every three months throughout the study process. The members of the two TRCs – TRC East and TRC West – are identified below:

TRC Members (common members belonging to both TRCs)

- FDOT-D4
- Florida Turnpike
- Palm Beach TPA
- Palm Beach County (PBC)
- PBC Department of Economic Sustainability
- Palm Tran
- Treasure Coast Regional Planning Council
- Port of Palm Beach
- PB International Airport
- South Florida Water Management District

West TRC Members

- City of South Bay
- City of Belle Glade

East TRC Members

- Town of Loxahatchee Groves
- Village of Royal Palm Beach
- Village of Wellington
- Town of Haverhill
- Town of Glen Ridge
- Town of Cloud Lake
- City of West Palm Beach

Stakeholder Interviews

During the initial phases of the study, more than 60 representatives from various stakeholder entities were interviewed in order to obtain information and input about concerns and opportunities, future needs, and community desires for the corridor. The interviews were organized with stakeholders that represent the diverse cross section of interests along the corridor. Stakeholders included representatives from FDOT, the South Florida Water Management District, Palm Beach County, the Palm Beach TPA, the Treasure Coast Regional Planning Council, PalmTran, Belle Glade Transit, all nine study area municipalities, local elected officials, business owners, redevelopment agency leaders, homeowners associations, police officers, and major landowners.

Two sets of meetings were held, in addition to meetings by phone as needed:

- The West Stakeholder Interviews were held in Belle Glade City Hall on December 14th and 15th, 2015.
- The East Stakeholder Interviews were held at the Royal Palm Beach Village Hall on December 16th and 17th, 2015.

In total, over 75 stakeholder interviews were held. Through the interviews, stakeholders identified issues and opportunities related to multimodal travel and access along the corridor; ongoing and future approved development along the corridor; and information about community initiatives and channels for further communication with the public about the project. The interviews were free-flowing and informal, and they allowed stakeholders to share ideas and information about all aspects of the corridor.

Palm Beach TPA Board and Supporting Committees (TAC, CAC, AND BTPAC)

The study team presented to the Palm Beach TPA Board and supporting committees on two occasions through the process. The first round occurred in December 2015 to kick-off the project and gather initial feedback. The second round occurred in September 2017 to gather feedback on the initial results prior to seeking public input. Overall, the feedback focused on providing safe, convenient transportation options in the western portion of the corridor. For the eastern corridor, a desire for a more transit focused alternative was vocalized beyond the recommendations already identified by the study team.

Additional One-On-One Outreach Efforts

Several focused efforts occurred to coordinate one-on-one with interest groups and/or partner agencies. These meetings occurred at the following dates throughout the study (all meetings had FDOT project representatives and the consultant study team in attendance):

- January 2016: Economic Roundtable Discussion
- February 2016: Chamber of Commerce of the Palm Beaches Government Affairs Committee
- March 2016: Wellington Chamber Business and Economic Development Committee
- March 2016: Palm Beach County League of Cities Ocean to Lake Trail Committee
- June 2016: Land Use Scenario 2 Discussion with Palm Beach County Engineering and Palm Beach TPA
- September 2016: Tier 1 Screening Results with Palm Beach County Engineering Division and the Palm Beach TPA
- December 2016: Tier 1 Transit Strategies Screening Results with Palm Tran, Palm Beach County Engineering Division, and Palm Beach TPA
- February 2017: Land Use Scenario Results and Transit Planning with Palm Tran and Palm Beach TPA
- February 2017: TSM&O Needs with Palm Beach County Traffic Engineering Division and FDOT Traffic Operations Office
- November 2017: Recommendations briefing with Palm Tran
- December 2017: Study Process and Results Overview with Palm Beach County (multiple divisions including planning, traffic, and design)
- February 2018: Presentation to the Central Palm Beach County Chamber of Commerce to discuss the study process, findings, and desire for premium transit

The purpose of each meeting varied as well as the conclusions of each meeting. In summary, the following succinctly summarizes meeting conclusions: access to transit was emphasized as a need; more transit-focused strategies were desired by some; management and operations were expressed as necessary across all alternatives; land use assumptions were agreed upon; and general agreement was gained on the direction and approach being taken given the limitations on future land use changes and parallel transportation network changes. An overarching common thread was to maintain mobility, have minimal impact to neighborhoods and businesses, and provide safe, convenient options for all.

Public Workshops

Public information meetings were held in the communities of Belle Glade on the western end of the study area and Wellington on the eastern end of the study area. To spread the word, a direct mailout was done for properties within 300 feet of the corridor and media releases were created and disseminated by the FDOT Public Involvement Office as well as partner agencies and the TRC members. These media releases included e-blasts, newsletters, social media, and others. The meetings were an open house format where attendees were able to walk along a series display boards to learn about the study process, data and analysis findings, and recommendations. At the workshop, attendees were asked to vote on what they thought were priority investments and also which investments they felt were the most appropriate for the corridor. They were able to ask questions with FDOT and consultant staff that worked on the study. The first meeting had 19 people sign in and 13 comment sheets were collected. The second meeting had 70 people sign in and collected 18 comment sheets.

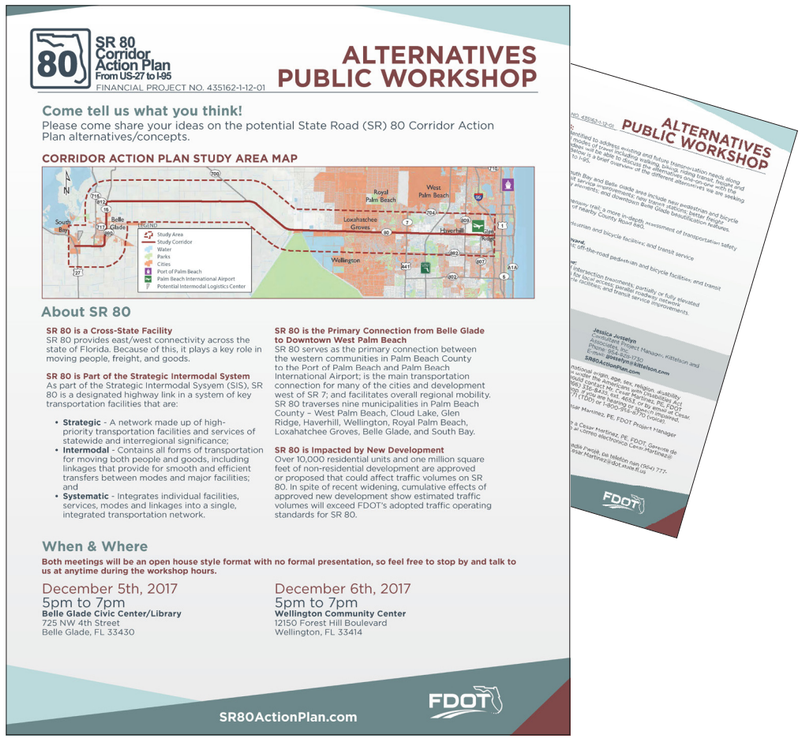
The two public information meetings were held in the following locations and times:

Public Workshop #1	**Public Workshop #2**
December 5th, 2017 5pm to 7pm	December 6th, 2017 5pm to 7pm
Belle Glade Civic Center/Library	The Wellington Community Center
725 NW 4th Street	12150 Forest Hill Boulevard
Belle Glade, FL 33430	Wellington, FL 33414

The open house materials were broken up into the following categories:

- Station 1: Welcome and purpose of the open house
- Station 2: Study Purpose and Process
- Station 3: History and Role of the Corridor
- Station 4: Corridor-wide Findings
- Station 5: US-27 to Hooker Highway Findings (Segment 1)
  - Feedback collected on proposed multimodal alternative strategies for segment 1
- Station 6: Hooker Highway to 20-Mile Bend Findings (Segment 2)
  - Feedback collected on proposed multimodal alternative strategies for segment 2
- Station 7: 20-Miile Bend to I-95 Findings (Segment 3)
  - Feedback collected on the three proposed alternatives for segment 3
- Station 8: Let's Talk Transit
  - Feedback collected re: Should the region densify and prioritize investing in premium transit?

For the rural town area alternative freight routes was the highest priority strategy. For the agricultural area, having alternative routes to SR 80 for evacuation purposes was the highest priority strategy. For the suburban area, the highest ranked alternative was for Alternative 3, Grade-Separated Access Controlled Lanes + Frontage Lanes.



Premium Transit Assessment Spotlight

Throughout the planning process, some stakeholders strongly and consistently expressed the desire for premium transit (i.e., Bus Rapid Transit, Light Rail Transit, etc.) as an alternative and/or component to the alternatives for SR 80. Because of this strongly and frequently expressed desire, the SR 80 study team conducted additional technical analysis and coordination, above what was originally intended, to evaluate the need and feasibility of a premium transit solution. Results of the technical evaluation, premium transit was not considered feasible or applicable based on numerous factors such as:

- the existing low ridership of ~900 riders per day
- the existing transportation network that is auto-oriented and not well-connected for accessing transit (i.e., long blocks, lack of north-south pedestrian and bicycle connections due to the canal)
- the future adopted land use plans that are suburban in nature and not transit supportive from an intensity and density standpoint
- Palm Beach TPA's adopted 2040 Long Range Transportation Plan that supported Express Bus along SR 80
- Palm Tran's adopted Transit Development Plan that supported premium transit investments on surrounding corridors that are more readily transit supportive
- an overall lack of funding to operate and maintain a premium level transit investment (i.e., existing funds are limited and the criteria for obtaining discretionary Federal funding would not be met under current or adopted future conditions)

The Desire for Change

During the extensive coordination conducted throughout the study, a group of stakeholders recognized that multiple parties will have to unite with the common goal of changing the factors listed above if SR 80 is to be a future premium transit corridor for Palm Beach County. The multiple parties needed for change to occur include elected officials, the business community, residents, and the land use and transportation regulatory agencies in the region. At the conclusion of the study, Central Palm Beach County Chamber of Commerce members, as well as some Palm Beach TPA Board Members, committed to advance the premium transit topic within upcoming forums and planning activities. The FDOT recognizes the stakeholders desired shift in investing in transit. As the factors above change due to actions taken by stakeholders, the FDOT commits to incorporate the new transit-supportive data and adopted plans into their transportation planning and programming process.

Next Steps

A preferred alternative was not selected at the conclusion of the SR 80 Action Plan. Instead, a set of alternatives and strategies were recommended to move forward for further assessment to determine what is most appropriate to ultimately implement. Section 8 of the report summarizes these recommendations per character district. Each recommendation has information related to potential next steps, following phases and timing and costs as well as anticipated Class of Action.

INTRODUCTION

1.1 STUDY OVERVIEW

State Road (SR) 80 is a regionally significant roadway spanning the full width of Palm Beach County and continuing west to Fort Myers through Hendry County and Lee County. As a Strategic Intermodal System (SIS) highway corridor, SR 80 is among the Florida Department of Transportation's (FDOT) network of high priority transportation facilities. Between 2003 and 2008, major capacity improvements were completed along the SR 80 corridor, which included widening the roadway to provide eight lanes between Royal Palm Beach Boulevard and I-95 as well as grade-separating major intersections such as at SR-7, Jog Road, Haverhill Road, and Military Trail. In addition, SR 80 from west of Lion Country Safari Road to Forest Hill Boulevard will be widened from four lanes to six lanes in May 2018.

Although these improvements significantly enhance traffic conditions along the corridor, the need for additional improvement has become apparent from increases in existing traffic as well as future development plans. In recent years, many new residential, commercial, and industrial development plans were approved in communities all along the SR 80 corridor in the urban area. Traffic estimates from recently approved and planned developments show the need for additional capacity on SR 80. The cumulative effects of approved new development traffic show that estimated traffic volumes will exceed the Department's targeted level of service of "D" in the urban areas and "C" in the rural areas on SR 80.

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With the potential for even more new development traffic to come that will rely on the corridor and the complexities of these issues, FDOT initiated the SR 80 Action Plan to work with local governments to investigate a broad range of transportation alternatives and land use strategies affecting travel demand along the corridor. In conjunction with this, the Action Plan considered options for other types of improvements, including enhancements to local roadway networks and public transportation. The Action Plan for SR-80 delivers a strategy for maintaining and improving mobility throughout the corridor in a manner that balances the preservation of the corridor's strategic intrastate functions with the need to provide access to and serve adjacent communities.

1.2 STUDY AREA DESCRIPTION AND BACKGROUND

FDOT conducted a corridor study along a 45-mile segment of State SR 80 in Palm Beach County. The limits of the corridor being evaluated extend from US 27/SR 25 to I-95 (Figure 4) traversing nine municipalities and a large portion of unincorporated Palm Beach County. The local governments with jurisdiction within the study area and partners to FDOT in this study are listed below (non-jurisdictional partners also participated - see Section 3):

- Palm Beach County
- City of West Palm Beach
- Town of Cloud Lake
- Town of Glen Ridge
- Town of Haverhill
- Village of Wellington
- Village of Royal Palm Beach
- Town of Loxahatchee Groves
- City of Belle Glade
- City of South Bay

The study area extends beyond the roadway to include all land and roadways within two miles on either side of SR 80. As such, the following roadways are also included for evaluation in the study to understand overall traffic patterns:

- Hooker Highway from SR-715 to SR-80/US-98
- SR-715 from Hooker Highway to SR-80
- Okeechobee Boulevard from CR-880 to I-95
- Collecting Canal Road from A Road to Folsom Road/Crestwood Boulevard
- Gun Club Road from Jog Road to I-95
- Belvedere Road from SR-7 to I-95
- Summit Boulevard from Jog Road to I-95
- Forest Hill Boulevard from SR-80 to I-95

SR 80 is a major roadway corridor in Palm Beach County connecting several communities to major commercial and employment destinations within the region. SR 80 also serves as a major truck corridor for moving freight across the state. The corridor currently serves a very important function of providing access to businesses located along the corridor while also accommodating a high-speed, high-volume through traffic. Due to the significance of this roadway, it has been designated by the FDOT as a Strategic Intermodal System (SIS) highway. SIS refers to a high-priority network of transportation facilities critical to Florida's economic competitiveness and quality of life. The FDOT targets to maintain a level of service along the SIS highways of "D" in urban areas and "C" in rural areas.

SR 80 includes a diverse set of land uses primarily developed in a suburban style where residential and other uses are separated from each other. The corridor supports two types of travel: local travel along and across SR 80 and regional travel and freight movement. While the two types of travel can both be accommodated on SR 80, there are times when their needs conflict.

The process to understand and evaluate the corridor began with engaging local agencies, community leaders and other stakeholders. The collaboration between FDOT and key stakeholders includes establishing a Technical

Review Committee (TRC) comprised of agency staff from various units of FDOT-D4, Palm Beach County, the Treasure Coast Regional Planning Council, the Cities/Towns along the corridor, and districts or agencies in the area. Separately, a broader group of stakeholders was identified for the purpose of preliminary and interim discussions about existing conditions and potential future conditions along the corridor. This broader group of stakeholders was comprised of representatives from the local community, including residents, large employers, institutions, and property owners. The study team engaged these groups to seek input into the planning process and to promote a heightened awareness of the issues and challenges of the corridor.

A clear understanding of the corridor's existing function and future vision, developed through input from community stakeholders and data analysis, pointed to a clear definition of the problem, purpose, and needs to be addressed by the study. The purpose and needs lead to the definition, screening, and selection of improvement strategies/recommendations. Recommendations were developed collaboratively with the TRC and incorporated input from key stakeholders and the public.

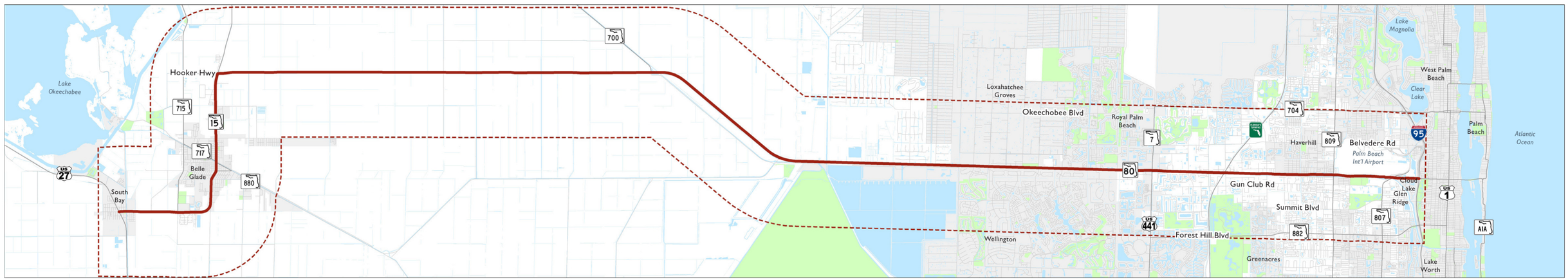
Results from the study are synthesized with recommended actions to be taken by FDOT D4. Recommendations for study partners are also summarized for their consideration. Multimodal short-term and long-term improvements necessary for SR 80 to serve the region over time are included.

1.3 REPORT ORGANIZATION

This document is the study's final report that summarizes all phases and findings for the full length of the corridor. Based on the data and information analyzed, and the additional input from stakeholders, the following items are included in this report:

2. **HISTORY** – Historical background about the corridor and other relevant plans and documents.
3. **PUBLIC INVOLVEMENT** – A comprehensive summary of the outreach conducted with all parties.
4. **EXISTING & FUTURE CONDITIONS** – A comprehensive overview of all the existing and future data collected and the results of the data analysis broken down by character area.
5. **GOALS & STRATEGIES** – A summary of the goals that guided the decision-making process and the extensive list of strategies to be explored.
6. **SCREENING PROCESS** – An outline of the process that was undertaken to identify the most appropriate strategies to move forward for further evaluation.
7. **ALTERNATIVES & STRATEGIES** – A walk-through of all strategies and alternatives developed, as well as their performance, for the entire length of the corridor.
8. **COSTS & TIMING** – A summary of the strategy and alternative costs as well as the timing for when they may be needed.

Figure 4 | Corridor Study Location Map



2 HISTORY

2.1 HISTORY

The conception and construction of SR 80 as an east-west connector stem from activity and development in and around the cities of Belle Glade and South Bay. As agricultural practices in the western portion of Palm Beach County, such as growing and milling sugar cane, developed and expanded in the 19th and 20th centuries, demand rose for secure, reliable transport of agricultural goods to eastern regional roadways as well as the Port of Palm Beach. SR 80 became the east-west connection between western Palm Beach County and regional, statewide, national, and international travelways on the Atlantic side of the state.

The route was first designated as State Road 25 in 1923, and as a result of the 1945 Florida State Road renumbering, the route became SR 80 from Fort Myers to Palm Beach. The segment between Belle Glade and the Twenty Mile Bend, known as the Kenneth C. Mock Memorial Highway, was completed in 1989. At this point. SR 80 became a four-lane divided highway between Belle Glade and West Palm Beach. Prior to this, SR 80 (and US 441) ran just to the south along what is now County Road 880. US 98 would later be rerouted onto this route beginning around 2000.

Until 2002, Southern Boulevard was a four lane road with a center left-turn lane, experiencing heavy congestion. Due to the rapidly growing western suburbs of Loxahatchee, Royal Palm Beach, and Wellington, the road also experienced a high fatality rate at that time.[1] In 2002, after many years of debate, the Florida Department of Transportation embarked on a $78 million project to upgrade and widen SR 80 from I-95 to US 441/SR 7. Between 2003 and 2008, it was transformed into a super-arterial with freeway-grade diamond interchanges at the most congested intersections, and traffic signals remaining at others.

Several independent, incorporated towns and cities are present along the corridor. Development of these communities near SR 80 over several decades has produced increased demand for east-west travel in the county. Development of new residential areas near the eastern portion of SR 80 have intensified travel demand on the highway, and rises in agricultural and industrial activity in rural areas along the corridor further influence demand on SR 80, adding more heavy trucks trips.

Today, SR 80 is a designated facility in the Statewide Intermodal System, a network of high-priority transportation facilities with economic importance to the State Department of Transportation. Several improvements have been made to SR 80 along the eastern portion of the corridor since 2003 to address rises in demand on the facility from development in several east-county communities that depend on SR 80 for local and regional access.

1 "Four Die in Crash on State Road 80". Miami Herald 23 Apr 1984: 15BR

2.2 PAST PLANNING EFFORTS

More than 30 planning documents were reviewed in order to understand the visions and priorities of municipalities along the corridor. The documents reviewed include the most recently adopted statewide transportation plan; regional transportation plan; county and local jurisdiction comprehensive plans; regional master plans; greenways and trails plans; bicycle transportation plans; freight and goods mobility plans; air and sea port master plans; transit plans; capital improvement plans; transportation improvement plans; development plans; and others. The most relevant plans are described in this section. While the capital and transportation improvement plans and selected development plans were reviewed and included in the development of the existing conditions, they are not described in this section because they do not generally contain goals or objectives that impact the guidance of this study.

Statewide Transportation Plans

A number of statewide transportation plans were reviewed, such as the 2060 Florida Transportation Plan, the Strategic Highway Safety Plan, the Florida Statewide Freight and Goods Mobility Plan; and the Strategic Intermodal System (SIS) Strategic Plan. These plans identified corridors and aspects of the region's transportation network that are critical to the state's transportation network, as well as potential future needs and areas for improvement at the state level. They all focused on utilizing statewide transportation corridors to improve livability and multimodal mobility. Because SR 80 is a SIS corridor, further details on the goals of the SIS are incorporated into Section 3: Study Context.

2040 Long Range Transportation Plans

The adopted 2040 Long Range Transportation Plans (LRTPs) for the Palm Beach Transportation Planning Agency (Directions 2040) and for the Southeast Florida region were reviewed. The plans develop goals and future projects required to meet future demand, as well as prioritizing and determining funding sources for those projects. The Regional Plan incorporated the goals, vision, and projects introduced in Directions 2040: one that develops and leverages a safe, efficient, connected, and multimodal transportation system to support a sustainable; healthy, livable, and prosperous future. The projects identified in each LRTP that are in or around the study area were included in this plan.

County Comprehensive Plan

The Palm Beach County Comprehensive Plan is one of the most critical guiding plans in the study area. Although individual municipal plans consider future land uses and the transportation system, SR 80 is a boundary for the cities along the corridor (with the exception of Belle Glade and South Bay). Because of this, most of those plans do not directly address SR 80. Rather, many of the major land use and transportation decisions along the corridor are guided by the county. Palm Beach County's Comprehensive Plan provides the framework for land use changes within the unincorporated area and mechanisms and standards through which changes should occur. The basic concept of the 1989 Plan was to permit development at urban densities in those area where urban services could be provided efficiently and economically, and to prevent urban density development in areas, which were not planned for extension of urban services. The Plan is based on an overall goal of maintaining a high quality of life in the County. Three main goals from the comprehensive plan are as follows:

1. Redirect growth to the East where services and facilities can be provided and encourage the revitalization/redevelopment of the coastal communities.
2. Through the implementation of a concurrency management system provide for orderly growth and provision of facilities and services to maintain the existing quality of life in an economical manner.
3. Implement County-wide growth management strategies while providing the opportunities for flexibility within the Plan that recognize and maintain the diversity of lifestyles.

While there has been some focus on redirecting growth to the east, the County has approved major developments near the 20-mile bend, on the western edge of the urban growth boundary. Additionally, there has been discussion of expanding the growth boundary to allow further development in the area. These discussions and development approvals not only go against the goals of the comprehensive plan, but they also place added pressure on SR 80 as the only east-west connection to Downtown West Palm Beach, the Turnpike, and I-95. This causes conflicts with the goals of the SIS, which require mobility to support economic development and livability. While some of these developments include mixes of uses, their location at the far west development boundary inherently create suburban sprawl.

Local Comprehensive Plans

The transportation element of the Comprehensive Plans for each city along the corridor were reviewed to help determine the direction. In general, municipalities along the corridor of all levels and types of authority have recognized and are embracing multimodal transportation needs and realities along and connecting to SR 80. Policies are in place to further develop the area transportation system as a multimodal system that moves people, goods, and services in a safe, efficient, environmentally sensitive, and economical manner. Some cities, such as Wellington, have made a point in their comprehensive plans to guide development in a manner that keeps local trips off of SR 80, while others have no specific policies regarding the corridor. However, the collaborative approach to planning for mobility in an area with multiple jurisdictions and stakeholders is not represented in the policies of most municipalities.

The Glades Region Master Plan

The Glades Regional Master Plan considered new and emerging economic development opportunities for the Glades Region and summarized those opportunities in an implementable plan. The project area for the Glades Regional Master Plan focused on, but was not limited to, the three municipalities along the southeastern shore of Lake Okeechobee: City of South Bay, City of Belle Glade, and City of Pahokee. The entire Glades region, including the Everglades Agricultural Area west of the City of West Palm Beach, was analyzed for economic and job-creation opportunities as well as other community stabilizing initiatives. The master plan calls for infill and redevelopment in the region; reviews the land use regulations to incentivise development and business creation; develops a community based vision for an economically sustainable region; and supports a multimodal transportation system that supports the needs of the region.

Bicycle, Pedestrian, and Trail Plans

Bicycle, Pedestrian, and Trail plans were reviewed to develop and understanding of desires for bicycle and pedestrian facilities in the study area. The plans reviewed include Florida's Greenways and Trail System Plan; the Palm Beach County Comprehensive Bicycle Transportation Plan; and the Regional Greenways and Trails Plan. The plans generally focus on the desired long distance bicycle and pedestrian infrastructure and supports improvements to help bicycling and walking become viable commuting options. This includes a trail connecting the Lake Okeechobee Scenic Trail to the beach along SR 80 and some other trails that connect to SR 80. There is also a focus on developing connected and recreational wildlife and equestrian trails in the Wellington and Loxahatchee Groves area. The planned and existing trails are discussed further in section 4.5: Transportation & Safety Context.

Transit Development Plans

The Transit Development Plan (TDP) for PalmTran and the South Florida Regional Transportation Authority (SFRTA) each consider the current transit system and any potential needs for 10 years into the future based on demographic, transportation, and economic needs. A number of projects were identified in each plan in order to improve service quality, operational efficiency, resident mobility, safety, and quality of life for Palm Beach County residents through the identification of community needs, public feedback, and available funding sources. The projects called for in the TDPs are described further in section 4.5: Transportation & Safety Context.

Airport, Seaport, and Freight Plans

The master plans for Palm Beach International Airport and the Port of Palm Beach as well as the 2040 Regional Freight Plan were reviewed. These plans identify future improvements for each port, and are important to aid in an understanding of the types of freight and cargo that will be impacting our transportation system in the future. Additionally, the 2040 Southeast Florida Regional Freight Plan prioritizes the needed freight projects in the region. These plans are further details as appropriate in section 4.5: Transportation & Safety Context.

3 PUBLIC INVOLVEMENT

3.1 STAKEHOLDER INVOLVEMENT FRAMEWORK

The SR 80 Corridor Action Plan was intended to reflect the needs and desires of those who use it. As such, meaningful and continuous stakeholder and public involvement was important throughout the development of the study. Stakeholders and the public were involved at key points throughout the study in order to make decisions regarding issues, opportunities, and alternatives.

3.1.1 Strategies for Gathering Feedback

In order to be inclusive, the stakeholder involvement framework involved a number of methods for gathering feedback, as follows:

Technical Review Committee (TRC)

The study was guided by input from two Technical Review Committees (TRCs). The TRCs were formed to serve as technical sounding boards and advisory groups while the study team shares findings and develops alternative strategies for the SR 80 corridor. Given the length of the study corridor, two TRCs were formed – one to represent the eastern portion of the corridor and the other to represent the western portion. The TRCs meet approximately every three months throughout the study process. The members of the two TRCs – TRC East and TRC West – are identified below:

TRC Members (common members belonging to both TRCs)

- FDOT-D4
- Florida Turnpike
- Palm Beach TPA
- Palm Beach County (PBC)
- PBC Department of Economic Sustainability
- Palm Tran
- Treasure Coast Regional Planning Council
- Port of Palm Beach
- PB International Airport
- South Florida Water Management District

West TRC Members

- City of South Bay
- City of Belle Glade

East TRC Members

- Town of Loxahatchee Groves
- Village of Royal Palm Beach
- Village of Wellington
- Town of Haverhill
- Town of Glen Ridge
- Town of Cloud Lake
- City of West Palm Beach

Stakeholder Interviews

During the initial phases of the study, more than 60 representatives from various stakeholder entities were interviewed in order to obtain information and input about concerns and opportunities, future needs, and community desires for the corridor. The interviews were organized with stakeholders that represent the diverse cross section of interests along the corridor. Stakeholders included representatives from FDOT, the South Florida Water Management District, Palm Beach County, the Palm Beach TPA, the Treasure Coast Regional Planning Council, PalmTran, Belle Glade Transit, all nine study area municipalities, local elected officials, business owners, redevelopment agency leaders, homeowners associations, police officers, and major landowners.

Two sets of meetings were held, in addition to meetings by phone as needed:

- The West Stakeholder Interviews were held in Belle Glade City Hall on December 14th and 15th, 2015.
- The East Stakeholder Interviews were held at the Royal Palm Beach Village Hall on December 16th and 17th, 2015.

In total, over 75 stakeholder interviews were held. Through the interviews, stakeholders identified issues and opportunities related to multimodal travel and access along the corridor; ongoing and future approved development along the corridor; and information about community initiatives and channels for further communication with the public about the project. The interviews were free-flowing and informal, and they allowed stakeholders to share ideas and information about all aspects of the corridor.

Palm Beach TPA Board and Supporting Committees (TAC, CAC, AND BTPAC)

The study team presented to the Palm Beach TPA Board and supporting committees on two occasions through the process. The first round occurred in December 2015 to kick-off the project and gather initial feedback. The second round occurred in September 2017 to gather feedback on the initial results prior to seeking public input. Overall, the feedback focused on providing safe, convenient transportation options in the western portion of the corridor. For the eastern corridor, a desire for a more transit focused alternative was vocalized beyond the recommendations already identified by the study team.

Additional One-On-One Outreach Efforts

Several focused efforts occurred to coordinate one-on-one with interest groups and/or partner agencies. These meetings occurred at the following dates throughout the study (all meetings had FDOT project representatives and the consultant study team in attendance):

- January 2016: Economic Roundtable Discussion
- February 2016: Chamber of Commerce of the Palm Beaches Government Affairs Committee
- March 2016: Wellington Chamber Business and Economic Development Committee
- March 2016: Palm Beach County League of Cities Ocean to Lake Trail Committee
- June 2016: Land Use Scenario 2 Discussion with Palm Beach County Engineering and Palm Beach TPA

- September 2016: Tier 1 Screening Results with Palm Beach County Engineering Division and the Palm Beach TPA
- December 2016: Tier 1 Transit Strategies Screening Results with Palm Tran, Palm Beach County Engineering Division, and Palm Beach TPA
- February 2017: Land Use Scenario Results and Transit Planning with Palm Tran and Palm Beach TPA
- February 2017: TSM&O Needs with Palm Beach County Traffic Engineering Division and FDOT Traffic Operations Office
- November 2017: Recommendations briefing with Palm Tran
- December 2017: Study Process and Results Overview with Palm Beach County (multiple divisions including planning, traffic, and design)
- February 2018: Presentation to the Central Palm Beach County Chamber of Commerce to discuss the study process, findings, and desire for premium transit

The purpose of each meeting varied as well as the conclusions of each meeting. In summary, the following succinctly summarizes meeting conclusions: access to transit was emphasized as a need; more transit-focused strategies were desired by some; management and operations were expressed as necessary across all alternatives; land use assumptions were agreed upon; and general agreement was gained on the direction and approach being taken given the limitations on future land use changes and parallel transportation network changes. An overarching common thread was to maintain mobility, have minimal impact to neighborhoods and businesses, and provide safe, convenient options for all.

Public Workshops

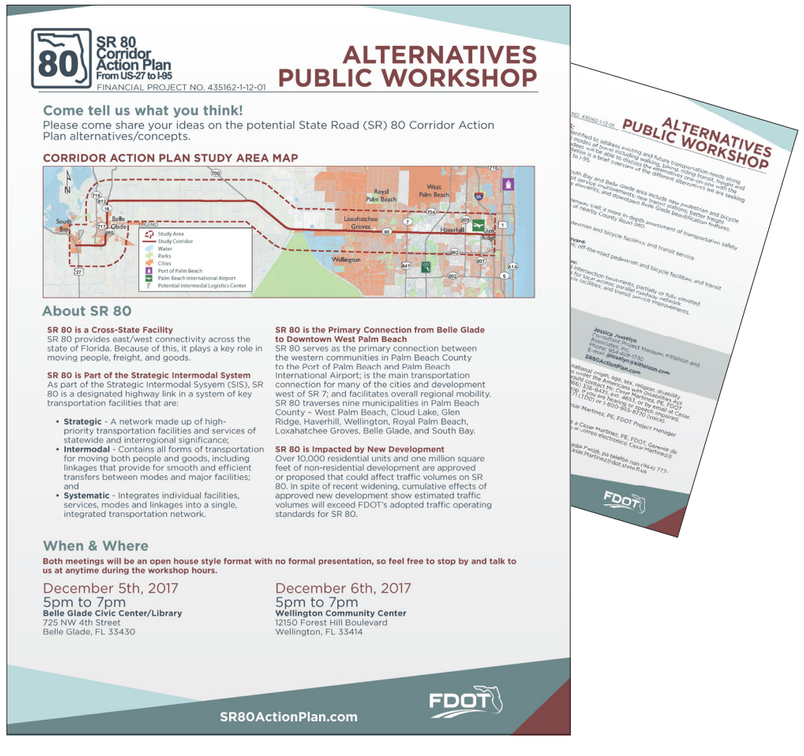
Public information meetings were held in the communities of Belle Glade on the western end of the study area and Wellington on the eastern end of the study area. To spread the word, a direct mailout was done for properties within 300 feet of the corridor and media releases were created and disseminated by the FDOT Public Involvement Office as well as partner agencies and the TRC members. These media releases included e-blasts, newsletters, social media, and others. The meetings were an open house format where attendees were able to walk along a series display boards to learn about the study process, data and analysis findings, and recommendations. At the workshop, attendees were asked to vote on what they thought were priority investments and also which investments they felt were the most appropriate for the corridor. They were able to ask questions with FDOT and consultant staff that worked on the study. The first meeting had 19 people sign in and 13 comment sheets were collected. The second meeting had 70 people sign in and collected 18 comment sheets.

The two public information meetings were held in the following locations and times:

Public Workshop #1	**Public Workshop #2**
December 5th, 2017 5pm to 7pm	December 6th, 2017 5pm to 7pm
Belle Glade Civic Center/Library	The Wellington Community Center
725 NW 4th Street	12150 Forest Hill Boulevard
Belle Glade, FL 33430	Wellington, FL 33414

The open house materials were broken up into the following categories:

- Station 1: Welcome and purpose of the open house
- Station 2: Study Purpose and Process
- Station 3: History and Role of the Corridor
- Station 4: Corridor-wide Findings
- Station 5: US-27 to Hooker Highway Findings (Segment 1)
  - Feedback collected on proposed multimodal alternative strategies for segment 1
- Station 6: Hooker Highway to 20-Mile Bend Findings (Segment 2)
  - Feedback collected on proposed multimodal alternative strategies for segment 2
- Station 7: 20-Miile Bend to I-95 Findings (Segment 3)
  - Feedback collected on the three proposed alternatives for segment 3
- Station 8: Let's Talk Transit
  - Feedback collected re: Should the region densify and prioritize investing in premium transit?



Other Strategies

Throughout the study, several other strategies were utilized to gather information and involve the public, including the following:

Project Website: A project website was created to provide information to the public and interested stakeholders. The website lists background information on the study, includes study materials, and provides contact information.

Interactive Mapping: An interactive mapping website was set up to gather feedback at a location specific level. Through this platform, public comments on vehicular, transit, bicycle, pedestrian, freight, land use, safety, and other issues along the SR 80 corridor were collected throughout the study. The website was located at:

http://maps.kittelson.com/SR80ActionPlan

Special Outreach: In accordance with Executive Order 13166: Improving Access to Services for Persons with Limited English Proficiency (LEP), and to ensure that people with LEP have meaningful participation in the study, the most pertinent study materials were translated into Spanish and Creole.

3.1.2 Phases of Involvement & Feedback

The study process included three phases of public involvement, which coordinated with phases of the study itself. The feedback in each phase collected was compiled, summarized, and organized in a manner that could inform the project team, the TRC, and FDOT on the desires of the public. This information shaped the goals of the study. Feedback was also assessed and integrated into the formulation of the alternatives where relevant. The phases are described in more detail below.

1: Informational and Project Kick-off

This phase was intended to introduce the study and determine the direction of the study. In this phase, the focus was to determine what the issues and opportunities in the study area were, what problems needed to be solved, the goals and objectives of the study, and the community needs and vision for the corridor. This phase lasted from August 2015 to February 2016. Over 250 comments were received in this phase. The following issues were and opportunities were discussed by the stakeholders, the TRC, and the public in Phase 1:

Pedestrian, Equestrian, & Bicycle Issues & Opportunities

There is poor sidewalk connectivity between SR 80 and transit stops and other destinations, which is exacerbated by the canal on the south side of the corridor. Additionally, crossing SR 80 is not comfortable on foot or by bicycle. In Belle Glade, the sidewalk network is also incomplete. Additionally, there is a desire to connect the regional trail network and add new equestrian crossings over SR 80.

For bicyclists, the bicycle lanes are narrow, too close to the travel lanes, unprotected, and perceived as dangerous. However, there are many people (especially in the western portion of the corridor) who utilize bicycles for their main form of transportation. Therefore, bicycle safety should be a priority. There is a desire for the use of off-street bicycle paths as opposed to on-street lanes.

Transit

There is poor access to the bus stops along SR 80 due to guardrails and other impediments in the built environment. It is uncomfortable wait for the bus due to lack of shelters at many of the stations, which could be utilized to help provide shade and protect people from inclement weather. Additionally, the bus pullouts are not utilized. This is a common issue with bus stops on heavily traveled, higher speed facilities, because the bus drivers are unable to re-enter the travel lane. There was also a desire to improve the transit connectivity, with more routes in the western section where transit is more heavily utilized. Many people noted a desire to consider a premium transit connection between Belle Glade and Downtown West Palm Beach and between Wellington and Tri-Rail, such as new rail service.

Safety

The main concern in the corridor regarding safety had to do with speed. The public and stakeholders shared their experiences of seeing people speed, which caused them concern knowing slower vehicles like freight trucks pull onto the road. Additionally, there is recurring fog and poor lighting in the western section of the corridor. Another challenge in the western section of the corridor is the smoke caused by the burning of the sugarcane crops. An issue was also identified for Belle Glade Residents who can be effectively cut off from the eastern section of the corridor in the event of a crash or road closure in the rural section of the corridor. Throughout the corridor, the lack of guard rails between the canal and the road were brought up as an issue in case vehicles run off the road. There were suggestions to look at the volume of crashes at the intersection of SR 80 and US 98, to add a traffic signal at the future Palm Beach State College campus, to and to widen SR 80 to accommodate freight on SR 80 and SR 715.

Traffic

Concerns were raised about the traffic volumes on SR 80 and it was noted that trucks can slow down traffic in the corridor. There was also a desire for more signalized crossing opportunities west of SR 7. There was a desire for improved synchronization of signals to improve progression along the corridor, and some felt that the speed limits were too low in the corridor. Others noted that they did not want to turn SR 80 into a freeway, and some cities are not in favor of any more overpasses along SR 80 while others stated they wanted SR 80 to become the I-595 of Palm Beach County The need for east-west alternatives and overall network connections was identified throughout the process. Finally, there was a pronounced and supported desire to transform SR 80 through Belle Glade into a main street and to create a bypass around Belle Glade for freight and other through traffic.

Freight

Freight movement is a primary function of SR 80. As such, it was noted that there was especially heavy truck traffic during the harvest season, which runs from November through April for Sugar Cane and October through March for vegetables. There were some safety concerns for freight, including difficulty turning onto or off of SR 80 and issues with adequate stopping time at the intersections. Some solutions were suggested, including further support of the designation SR 715 as a truck bypass, placing restrictions on freight during peak hours, and the addition of a truck rest area near the twenty-mile bend.

Infrastructure

Many requests for new infrastructure along SR 80 were received, and each was considered in creating the first round of alternatives. There were conflicting requests, such the desire to create a high speed freeway as opposed to the desire to maintain SR 80 as an at grade road. The alternative evaluation addresses this by considering the impacts of each solution. While all of the infrastructure requests are not detailed here, they can be categorized as follows:

- New flyovers
- Pedestrian and Equestrian overpasses
- New signals
- Widening SR 80 and/or creating a limited access freeway
- Opposition to widening SR 80 and/or creating a limited access freeway
- New guard rails
- The creation, extension, widening, and/or repair of alternative routes
- Opposition to the creation, extension, widening, and/or repair of alternative routes
- Beautification

Private Property

The project team met with a number of private property owners throughout Phase 1 of the public involvement. Their concerns largely related to their own properties, and generally focused on impacts to property access.

2: Decision Making and Development of Study Alternatives/Review

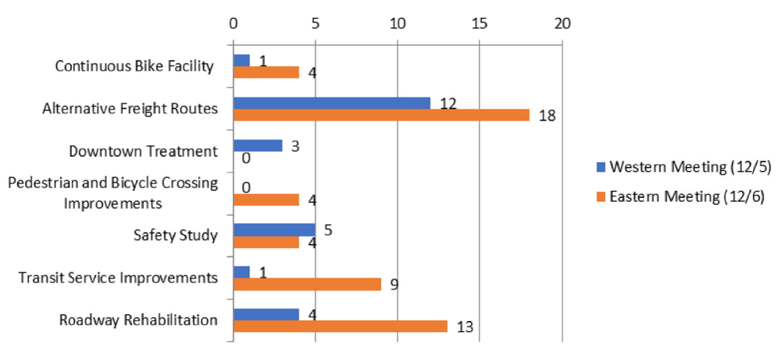
In this phase, potential solutions and alternatives were evaluated and reviewed. The focus of this phase was to inform which alternatives and solutions best meet the corridor needs and study objectives; the opportunities and constraints associated with each alternative; the potential mobility vs. livability trade-offs associated with each alternative; potential conflicts between local and regional vision for the corridor; and which alternatives promote the livability goals of the communities along the corridor. The focus was also on hearing what the public and stakeholders felt were the most appropriate solutions.

Feedback from Public Information Meetings

Station 5: US-27 to Hooker Highway Findings (Segment 1)

Participants were presented information on the proposed multimodal alternative strategies for the section of SR 80 between US-27 and Hooker Highway. They were asked to place a sticker next to their top two preferred strategies. Figure 5 shows responses received at this station. At both the meetings "Alternative Freight Routes" received the most votes. If should be noted that lighting and safety was also a common concern voiced by attendees.

Figure 5 | Responses to Segment 1: Preferred Multimodal Alternative Strategies

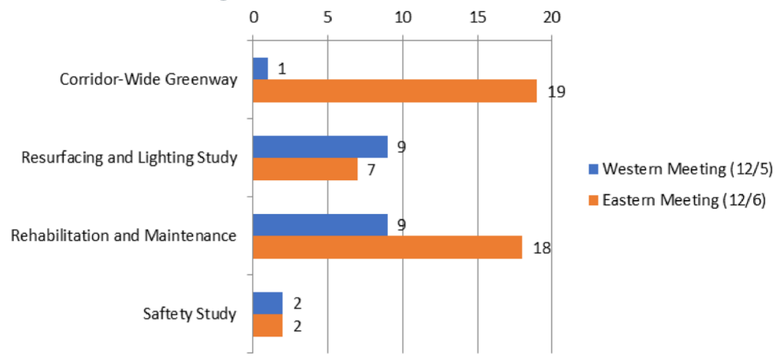


SEE SECTION 7 FOR DESCRIPTIONS OF THE ALTERNATIVES

Station 6: Hooker Highway to 20-Mile Bend Findings (Segment 2)

Participants were presented information on the proposed multimodal alternative strategies for the section of SR 80 between Hooker Highway and 20-Mile Bend. They were asked to place a sticker next to their top two preferred strategies. Figure 6 shows responses received at this station. At both the meetings "Rehabilitation and Maintenance" received strong support but "Corridor-Wide Greenway" received the most support at the eastern meeting.

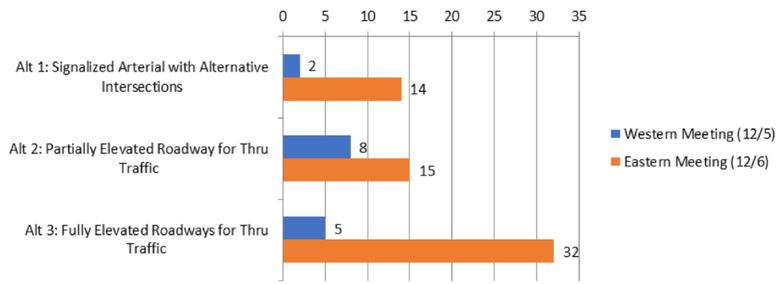
Figure 6 | Responses to Segment 2: Preferred Multimodal Alternative Strategies



Station 7: 20-Miile Bend to I-95 Findings (Segment 3)

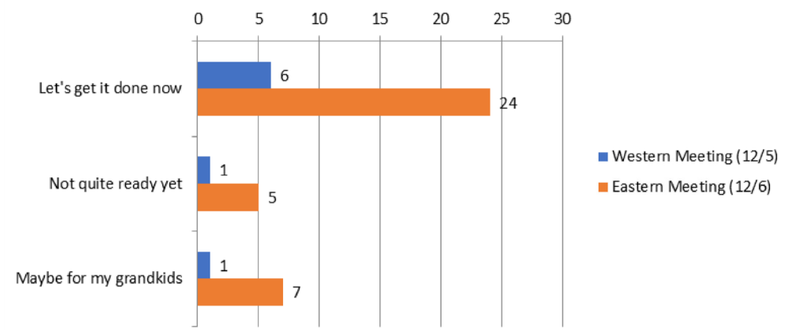
Participants were presented information on the proposed multimodal alternative strategies for the section of SR 80 between 20-Mile Bend and I-95. They were asked to place a sticker on their preferred alternative. Figure 7 shows responses received at this station. Alternative 3: Fully Elevated Roadways for Through Traffic was the preferred alternative at the eastern meeting while Alternative 2: Partially Elevated Roadway for Through Traffic had more votes at the western meeting.

Figure 7 | Responses to Segment 3: Preferred Alternative



Station 8: Let's Talk Transit

Participants were provided information on the relationship between transit and land use density. They were then asked if the region should densify and prioritize investing in premium transit. At both meetings, the majority of the support was for "Let's get it done now".



Demographics

Voluntary demographic information was collected at both public workshops. This information was used to identify what groups were reached during the public involvement efforts. This data was then compared to the 2016 US Census data for Palm Beach County.

Gender	SR 80 Participants	Palm Beach County*
Male	58%	Not Available
Female	42%	51.7%

*2016 US Census Data

Race	SR 80 Participants	Palm Beach County*
White	74%	74.5%
Black	16%	19.4%
Hispanic	6%	21.5%
American Indian	0%	0.6%
Asian/Pacific Islander	2%	2.9%
Other	2%	1.8%

*2016 US Census Data

3: Review and Selection of Recommended Actions

The final phase will occur following the submittal of this report. The report will summarize all the recommended alternatives and strategies to move forward, along with their costs, needed year of investment, and next phases. The FDOT will use this documentation to determine how to proceed with next phases and funding allocations per fiscal year.

4 EXISTING & FUTURE CONDITIONS

4.0 EXISTING AND FUTURE CONDITIONS

In order to understand the context and create a baseline for decision making, the study team compiled and considered data from a number of sources. This data included transportation, land use, demographic, environmental, and historic data which was supplemented by community input. Using this input, the study team strove to answer the following questions, among others:

- Who are the current and future users?
- What are the current and future land uses and developments?
- What are the major destinations along SR 80?
- What are the current and future travel patterns along the corridor/in the study area?
- How will future development influence travel patterns and demand along SR 80?
- What are the current travel patterns along the corridor/in the study area?
- How has SR 80 changed in the past and how will it change in the future?
- What are the current bicycling conditions in the corridor?
- What role does SR 80 play in the bike network?
- What are the current pedestrian conditions along SR 80?
- Where are the key desire lines/crossing locations for pedestrians, bicyclists, equestrians, and wildlife?
- Are there opportunities for managing access better?
- What other issues were considered in the past?
- What solutions were evaluated in the past?
- Are there issues related to speeding and, if so, where are the speeding hot spots?
- How do we define "level of service" and "congestion"?
- Where, when, for how long, and how often does congestion occur?
- How is SR 80 impacted by special events and crashes/incidents on major routes?
- What is the crash history along corridor? Where are we experiencing an over-represented number of crashes?
- Where are the pedestrian and bicycle crashes along SR 80 and how do they relate to transit, pedestrian, and bicycle infrastructure?
- What are the current conditions for transit service along the corridor?
- How are people using transit along and around SR 80?
- Are the local, county, regional, and state plans affecting SR 80 consistent?
- How connected is the roadway network and how well is it being used?
- What are the community visions for SR 80? Are they consistent?

4.0.1 Regional and Roadway Context

As previously noted in Section 1, SR 80 is a major roadway corridor in Palm Beach County connecting several communities to major commercial and employment destinations within the region. It spans the full width of Palm Beach County, from South Bay and the western county boundary to the Beach at A1A. At the highest level, the roadway is an important cross-state transportation corridor providing inter-regional connectivity for freight and people between Southeast and Southwest Florida. On a regional level, it connects the agricultural and mining industries around Lake Okeechobee to the Port of Palm Beach; provides connection to Palm Beach International Airport, I-95 and Florida's Turnpike; and, perhaps most importantly, is a "life-line" connection for the communities of South Bay, Belle Glade and Pahokee. Finally, on a local level, the roadway supports day-to-day work, shopping, school and recreational activities for the communities along the corridor.

While the study area was comprised of a 45 mile segment of SR 80, the corridor is part of a network of east/west SIS designated State Roadways, Interstates and US Highways connecting to similar north/south facilities (Figure 8 and Figure 9). It is also of vital importance to the South Central area of the State where the network becomes sparse. In total, SR 80 is 123.5 miles from US 41 in Fort Meyers to SR A1A in the Town of Palm Beach.

The corridor serves three major roles in the study area, as follows:

Downtown Main Street

SR 80 Functioning as a Main Street in Belle Glade. Credit: Marlin Engineering, Inc.

In South Bay and Belle Glade the roadway serves as the downtown main street, providing direct access to local businesses and schools. It has bicycle lanes, on street parking, landscaped medians, street lighting, and the businesses face the street. There was a conflict in Belle Glade between SR 80's role as a SIS corridor and as the "Main Street" of the community. Because of the context, freight trucks and heavy traffic compete with pedestrians attempting to cross the street and bicyclists that must navigate the area. Over the course of this study, this conflict had resulted in inconveniences such as trucks parking in the bike lane as well as tragedies such as pedestrians and bicyclists being struck and killed on and around the corridor.

SIS Facility and Cross State Freight Mover

SR 80 Functioning as a Cross State Freight Mover. Credit: Marlin Engineering, Inc.

As noted previously, SR 80 has an important role for connectivity in the state. As part of the SIS, SR 80 is a designated highway link in a system of key transportation facilities that are:

- **Strategic** - A network of facilities and services for international, national, statewide and interregional movement;
- **Intermodal** - Contains all forms of transportation for moving both people and goods, including linkages that provide for smooth and efficient transfers between modes and major facilities; and
- **Systematic** - Integrates individual facilities, modes and linkages into a single, integrated transportation system

It also enables the movement of goods and freight; serves as an evacuation route; connects the western communities to the Port of Palm Beach and Palm Beach International Airport; and facilitates overall regional mobility. These roles are of key importance and it is a state priority to maintain that mobility.

Regional Arterial

SR 80 Functioning as a Regional Arterial near Florida's Turnpike. Credit: Marlin Engineering, Inc.

SR 80 also acts as a regional arterial. Based on the FDOT Functional Classification Handbook, "the arterial system serves the highest degree of through traffic movement and largest proportion of total travel." SR 80 is classified as both and Urban and Rural Principal Arterial. According to the Handbook, some of the defined characteristics of principal arterials include:

Urban Principal Arterials

- Serve major activity centers, highest traffic volume corridors, and longest trip demands
- Carry a high proportion of total urban travel on minimum of mileage
- Interconnect and provide continuity for major rural corridors to accommodate trips entering and leaving urban area and movements through the urban area
- Serve demand for intra-area travel between the central business district and outlying residential areas

Rural Principal Arterials

- Serve statewide or interstate travel;
- Serve all or nearly all urban areas with 50,000 and over population and a large majority of urban areas with 25,000 and over population
- Provide an integrated network of continuous routes without dead ends

Figure 9 | Statewide East-West Corridors

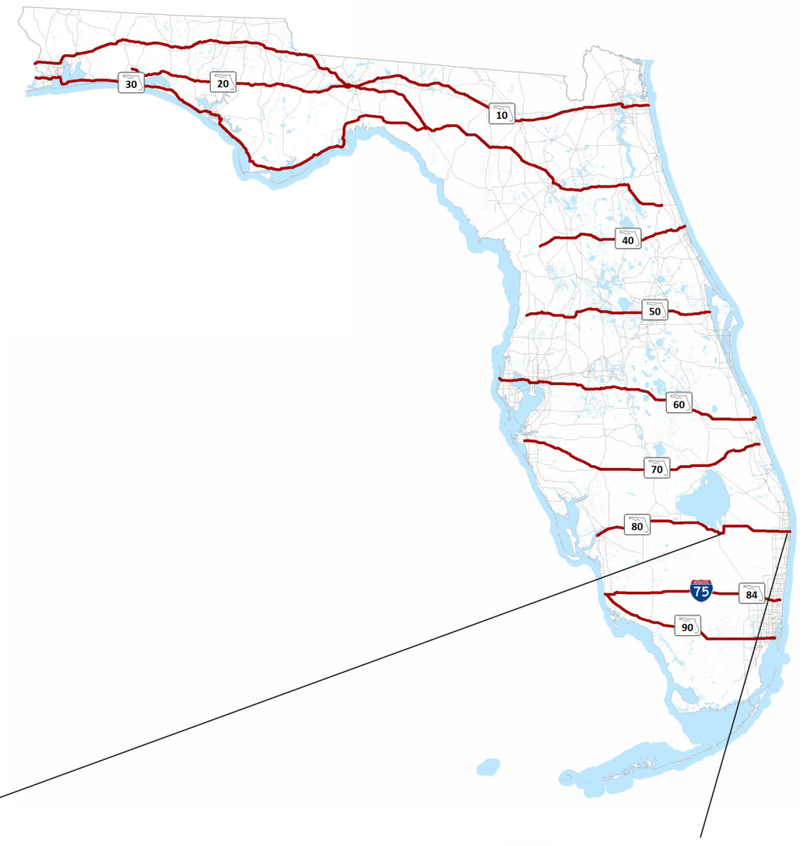
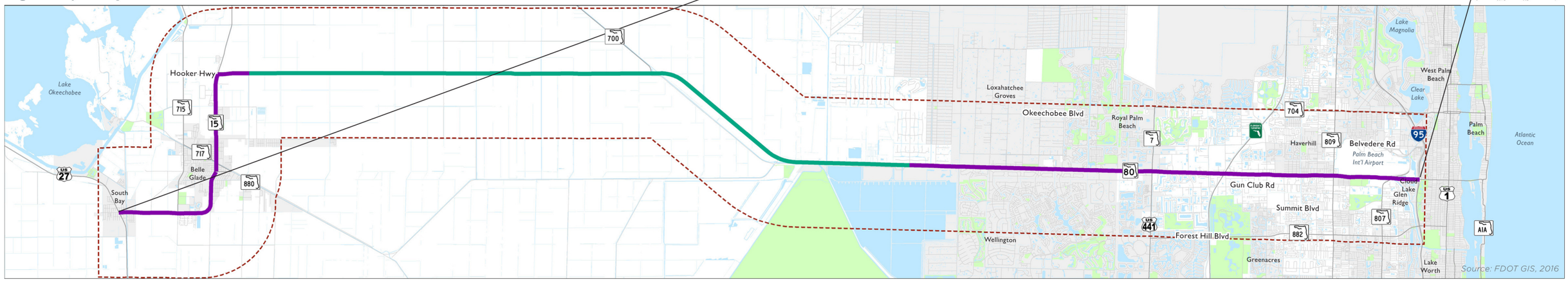


Figure 8 | Study Area Statewide Context



4.1 DEMOGRAPHICS

An analysis of the demographics in the study area was completed to understand the characteristics of the population. A number of sociocultural measures were analyzed to develop a snapshot of the community that SR 80 serves. In general, the population is diverse and some trends exist. There is a clear break in development between Belle Glade and the 20 mile bend, and there are also other differences between the eastern and western end of the corridor. This section describes the study area's demographics in terms of:

- Population + Employment Density
- Vehicle Access + Commute Patterns
- Poverty + Household Incomes
- Age
- Minorities + Language
- Propensity for Active Transportation

4.1.1 Population & Employment Density

Figure 10 shows that the population in the study area is largely concentrated in the eastern portion of the corridor and in the Belle Glade/South Bay communities. The population disperses in the Loxahatchee Groves area and densifies approaching I-95. Similar patterns can be seen in the concentrations of employment, which are largely clustered around major roads including SR 80, Florida's Turnpike, Military Trail/SR 809, Okeechobee Blvd, and I-95. The highest concentrations of employment are in downtown West Palm Beach. The current patterns are expected to hold in the future, with the areas that are already dense continuing to densify. Therefore the existing and future maps look similar. The rural areas will also densify to a lesser extent. There are several large developments occurring around the 20 mile bend and in Belle Glade that will increase population and employment density in those areas, as well.

Figure 11 displays the projected population and employment change between 2014 and 2040. In general, population is expected to increase the most in the areas where new developments are planned, such as in Belle Glade and in the Loxahatchee Groves area, as well as some established areas in parts of Wellington. Belle Glade is also expected to see a large increase in employment, largely due to the planned Intermodal Logistics Center and associated development. Some established areas in eastern Palm Beach County are also expected to see some increases in employment.

Together, these analyses show that the study area is expected to densify. As that densification occurs, current development patterns suggest that SR 80 will continue to be the main east-west corridor in the study area. Therefore, without changes to the transportation network or new transportation options, travel demand on SR 80 will continue to increase. To address this, it will be important to consider multimodal improvements to SR 80, parallel routes, and the connections in between them in the future.

Figure 10 | 2010 and 2040 Population and Employment Density

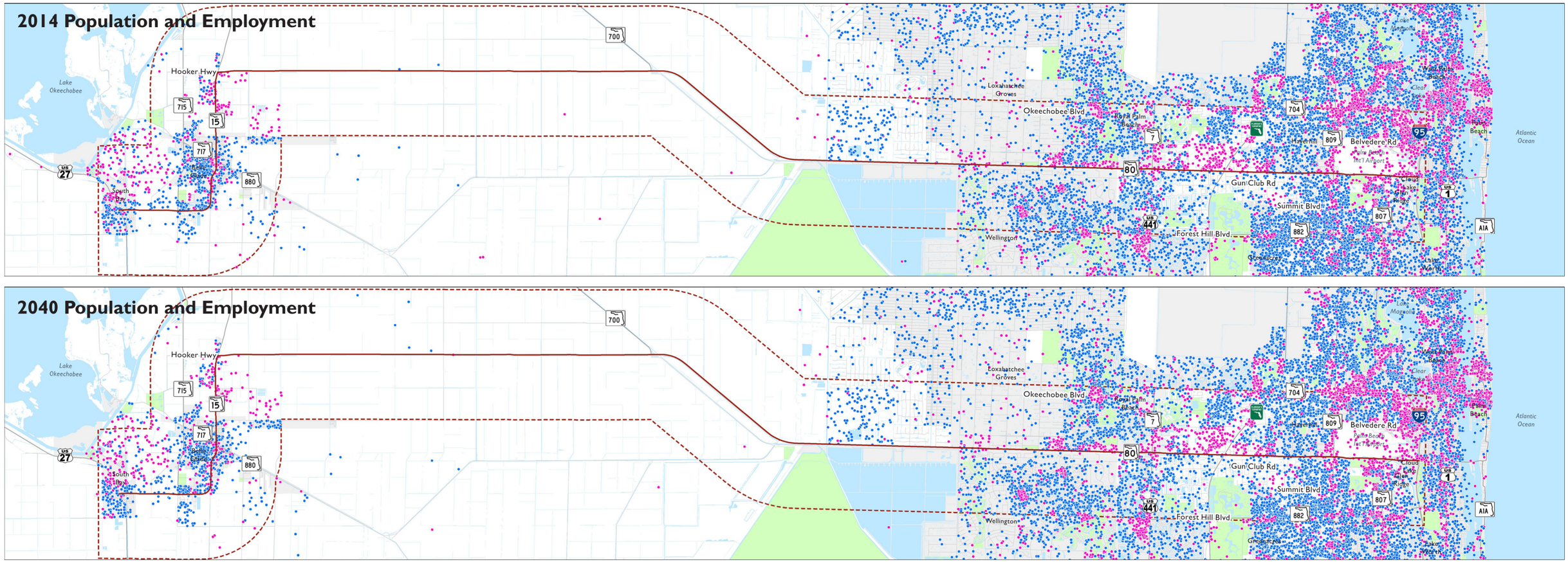
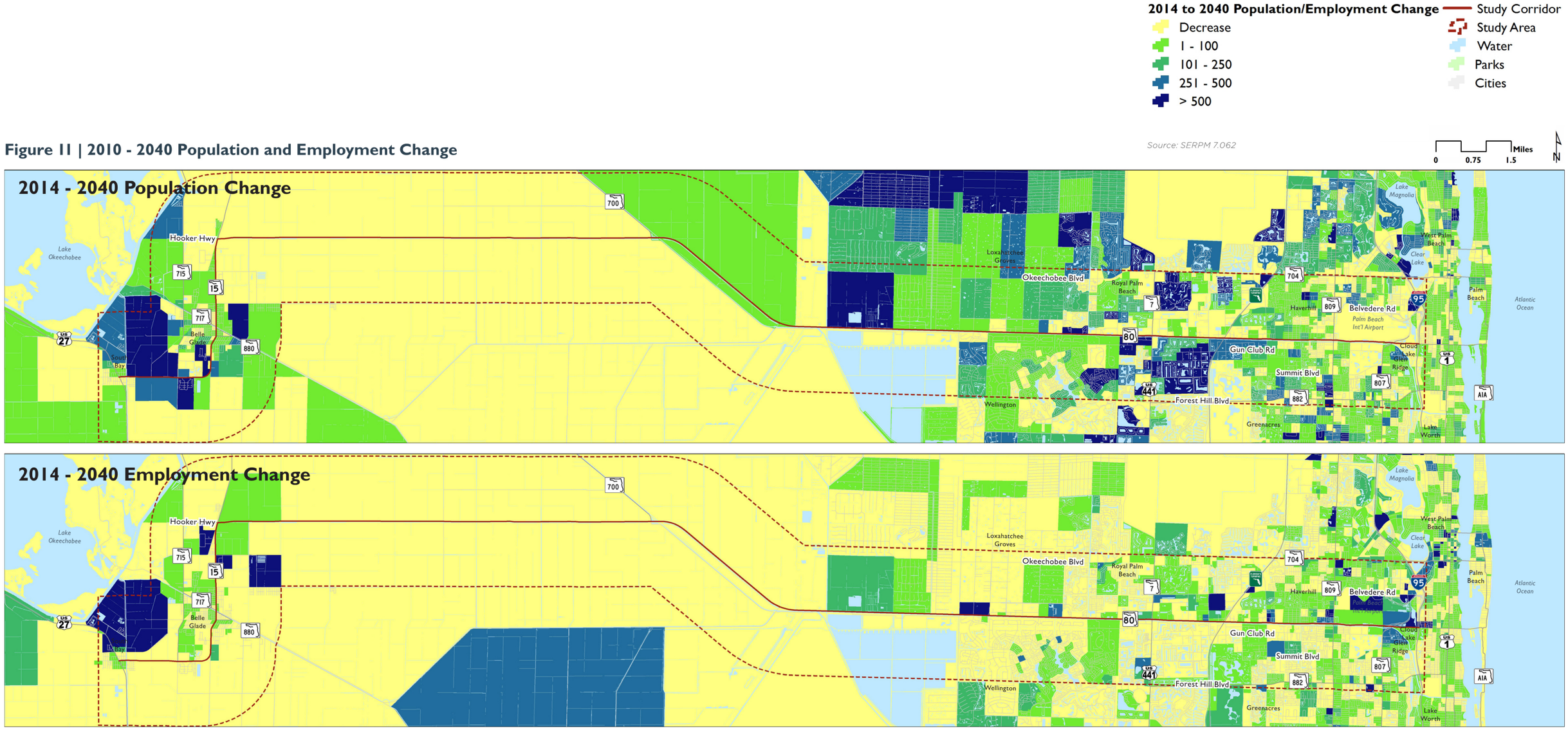


Figure 11 | 2010 - 2040 Population and Employment Change



4.1.2 Vehicle Access & Commute Patterns

Having largely developed after the advent of the personal automobile, much of South Florida has developed in an auto-centric pattern. This pattern reflects the development pattern seen across the country since the 1950s. As such, car ownership is high and the percentage of households in Palm Beach County without access to a vehicle is 6.6 percent. Even so, this is higher than the national average of 4.5 percent. Moreover, 79 percent of commute trips in the county are made via a personal vehicle. However, as can be seen in Figure 12, people are commuting via walking, biking, and transit.

Active commuting, or commuting on foot, by bike, or on transit, is practiced somewhat within the corridor. As Figure 13 displays, many households in the western section of the corridor include people who commute via transit. Likewise, concentrations of households in Haverhill to the north of SR 80 and West Palm Beach to the south of SR 80 include people who commute via transit.

The western section of the corridor also has several areas that exceed the county average for households without access to a vehicle, as illustrated by Figure 12. This coincides with the concentration of households with individuals commuting via transit or on foot. Also of note are the many households in rural parts of the western section of the corridor, which have at least one person who commutes via transit. This indicates existing demand for transit in the western section of the corridor.

In the eastern section of the corridor, concentrations of households in walk, bike, or take transit to work coincide with areas that exceed the county average of households that do not have access to a personal vehicle. This indicates where along the corridor are the concentrations of households that depend on transit and that would benefit most by improvements to transit.

The exception to this trend can be seen in Royal Palm Beach and parts of Wellington. Although almost all households have access to a vehicle in these areas, there are concentrations of people walking, bicycling, and taking transit to work. This indicates that people in these areas may be already choosing to use these forms of transportation, regardless of vehicle ownership.

Together, these metrics help to paint a picture of where demand may already exist for bicycle, pedestrian, and transit facilities.

Figure 13 | Vehicle Access and Commuting Patterns

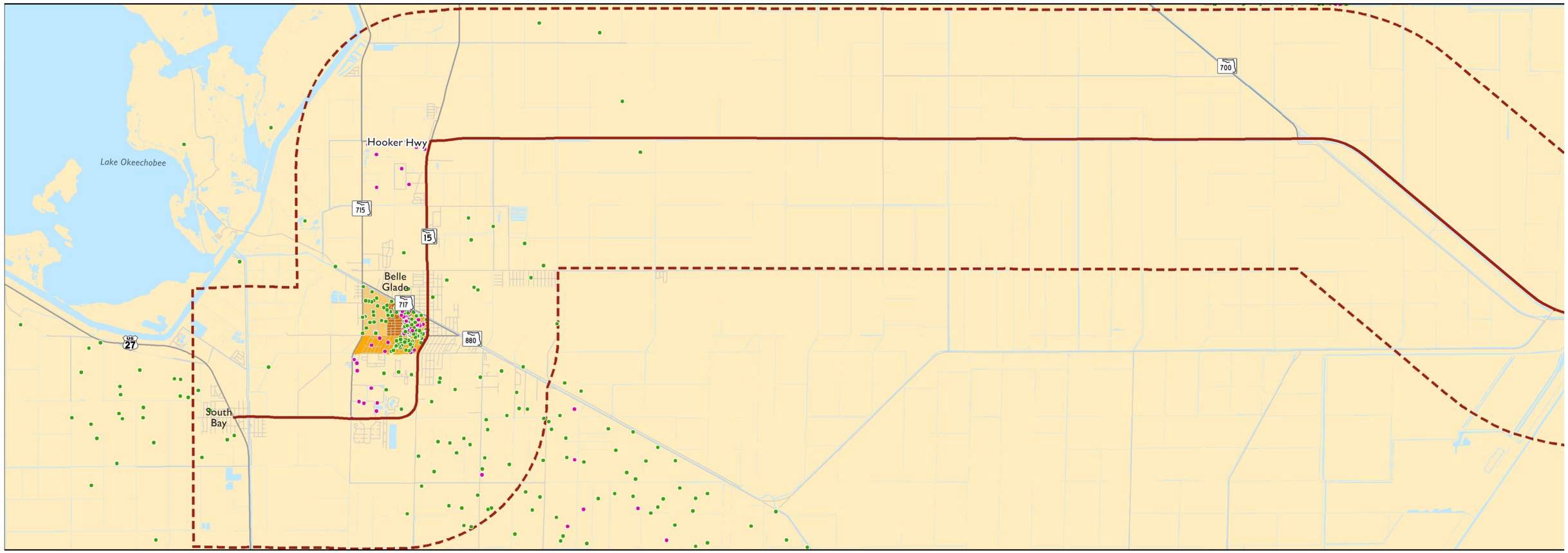
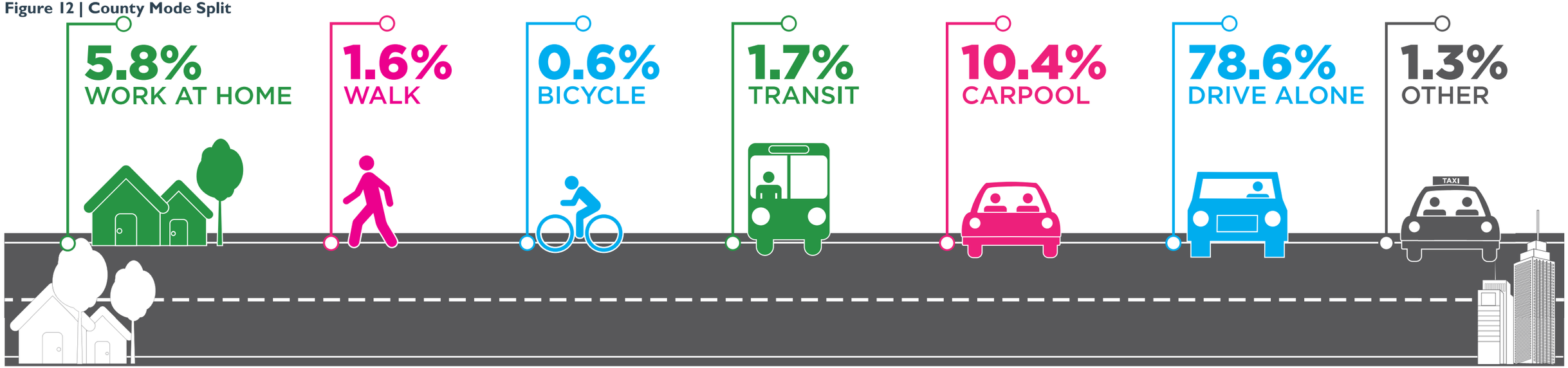
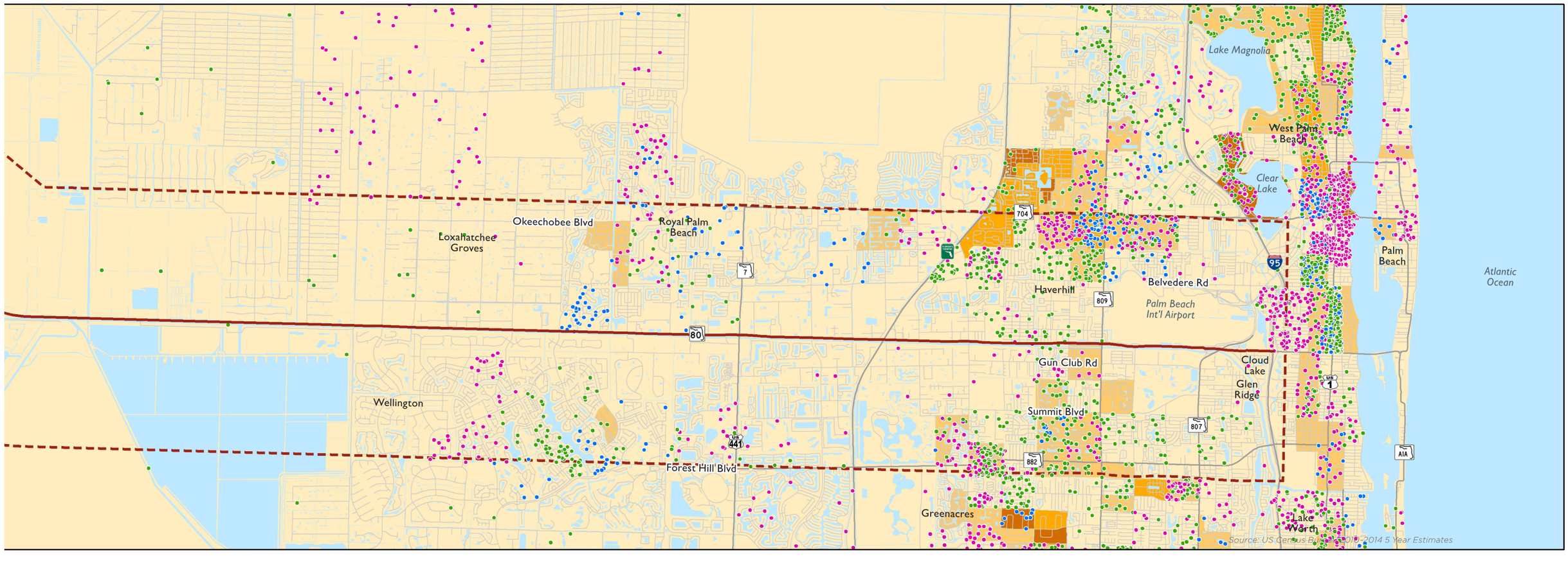


Figure 12 | County Mode Split





4.1.4 Poverty & Household Income

The median household income in the county is $52,432. This is higher than the state average of $47,212 and slightly lower than the national average of $53,482, as seen in Figure 14. Figure 15 shows that households with incomes below the countywide median are prevalent in the western section the corridor, and households in poverty are concentrated distinctly between SR 80 to the east, SR 715 to the west and SR 717 to the north in Belle Glade. Many households in this area are zero-car households, and individuals in this area commonly commute by transit or on foot.

In the eastern section of the corridor concentrations of people living below the poverty line exist mostly in Haverhill and Greenacres. Households with median incomes below the county average coincide with areas with a concentration of zero-car households and houses that commute via transit, walking, or biking. However, many low-income households appear to be in areas where automobile ownership is common, which indicates that households with limited incomes still own a vehicle.

The median household income is generally highest on the southern side of the corridor between the 20 mile bend and Florida's Turnpike. This area generally falls within the City of Wellington and is comprised of large lot, single family homes. There are few major businesses in this area.

Each city is diverse and most contain all levels of income and poverty. In some cases, high- and low- income areas are located immediately adjacent to each other. The Census Tract level analysis presents a high level picture of these relationships. However, it should be understood that this is a general representation and not a true picture of exactly where income levels change.

Figure 15 | Income and Poverty

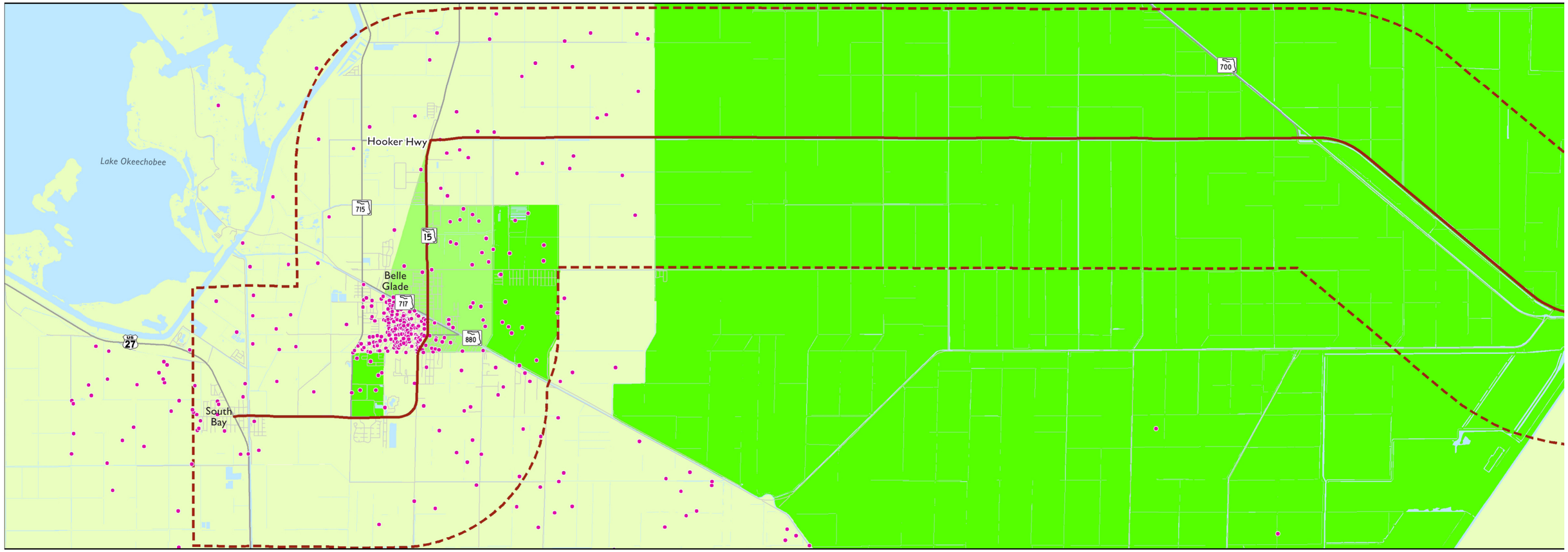
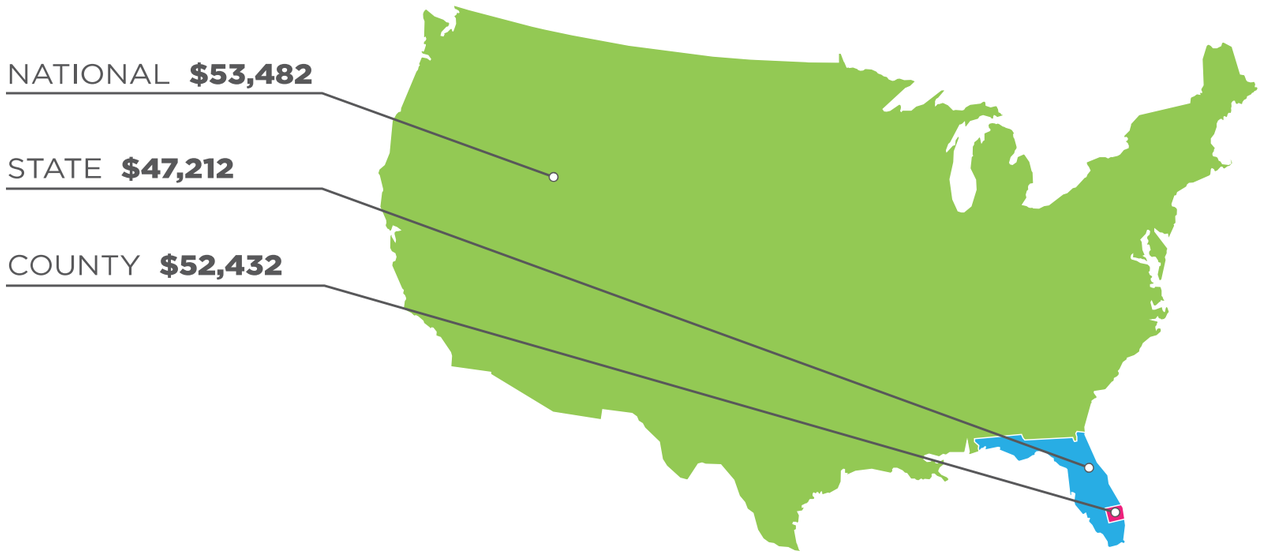


Figure 14 | Median Household Income



Legend

Households Below the Poverty Line
- 5 Households Below the Poverty Line

Median Household Income
- $0 - $35,000
- $35,001 - $52,432 (County Median)
- $52,433 - $80,000
- $80,001 - $125,000
- $125,001 - $229,375

- Study Corridor
- Study Area
- Water
- Parks
- Cities

Miles
0 0.75 1.5

N

4.1.5 Age

More than one in three households in Palm Beach County have a person aged 65 or older residing in them. Within the limits of the study corridor, elderly populations are distributed fairly evenly in the eastern and western sections, with somewhat concentrated areas on the northern side of SR 80 in the eastern section. However, just beyond the limits of the study corridor to the north, south, and east limits of the eastern section are higher concentrations of elderly populations, as illustrated by Figure 16.

At the other end of the age spectrum, households in Palm Beach County with one or more children up to age 18 represent 27 percent of all households. Households with one or more children are prevalent throughout the study area and are distributed fairly evenly.

In general, those areas with some concentration of the elderly have a lower concentration of youth and vice versa. Even so, both populations face similar issues when it comes to transportation. Both are more likely to rely on alternative forms of transportation because they are less likely to have access to a vehicle or the ability or desire to drive.

Also of note is the presence of households with children or elderly individuals in the rural area along the corridor and in the transitioning area of the eastern section of the corridor. These households represent households for whom access to services, schools, and recreation may be most reliant on public transportation due to their location away from desired destinations and due to the age of the individuals in the households.

When considering sex and age, there are more females than males in the county, as shown in Figure 17. Additionally, the senior population is skewed towards female. This is especially important to understand when considering pedestrians and bicycle accommodations, as there is a "gender gap" in perceived safety between females and males. Females tend to require greater accommodations, such as lighting, to feel safe.[1]

1 Dugan, Andrew. (Gallup). "In U.S., 37% Do Not Feel Safe Walking at Night Near Home. 24 November, 2014. http://www.gallup.com/poll/179558/not-feel-safe-walking-night-near-home.aspx

Figure 17 | County-wide Male and Female Population

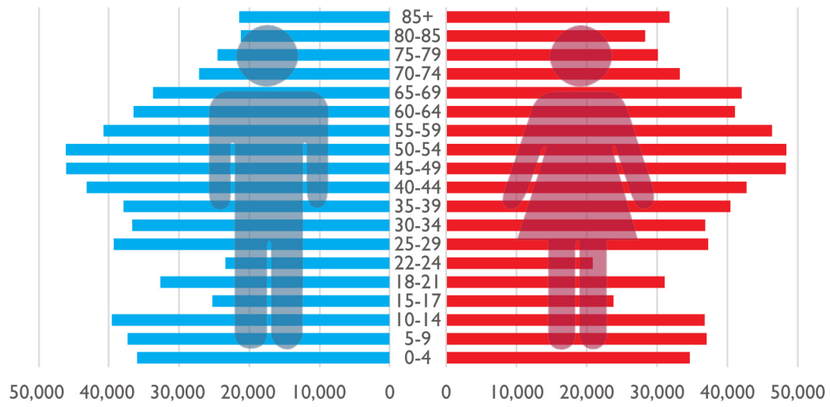
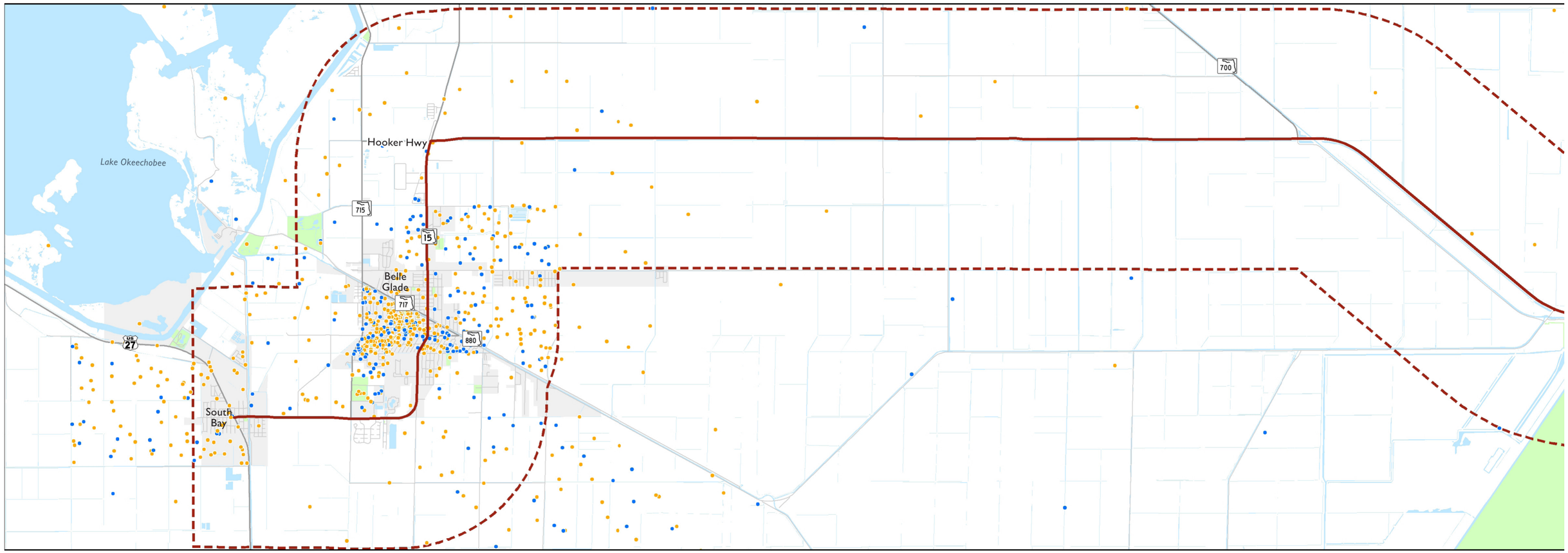
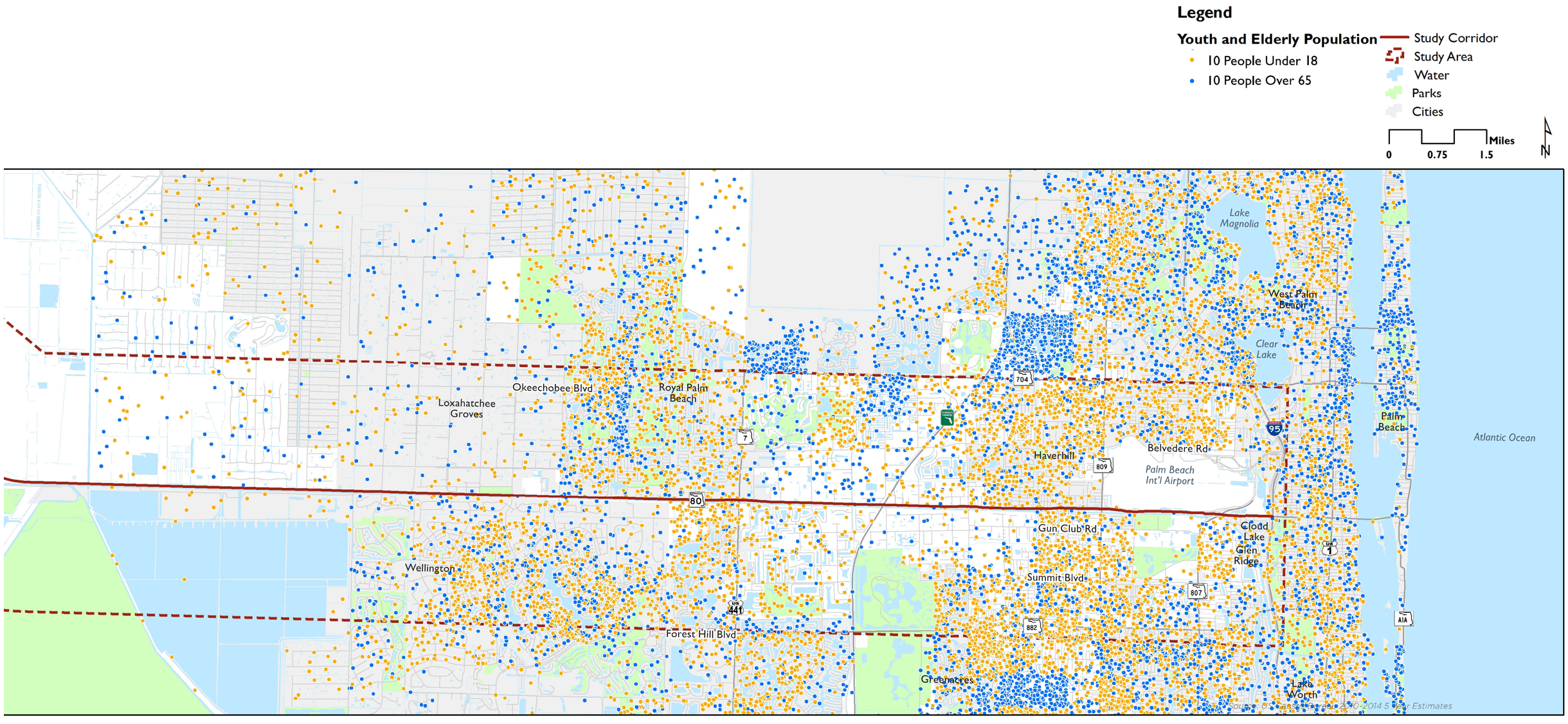


Figure 16 | Youth and Senior Populations




Legend
Youth and Elderly Population
10 People Under 18
10 People Over 65
Study Corridor
Study Area
Water
Parks
Cities
Miles
0
0.75
1.5
N
Lake Magnolia
West Palm Beach
Clear Lake
Okeechobee Blvd
Royal Palm Beach
Loxahatchee Groves
Haverhill
Belvedere Rd
Palm Beach Int'l Airport
Palm Beach
Atlantic Ocean
Gun Club Rd
Cloud Lake
Glen Ridge
Summit Blvd
Wellington
Forest Hill Blvd
Greenacres
Lake Worth
704
7
95
809
80
807
882
441
1
A1A
Source: US Census Bureau, 2010-2014 5 Year Estimates

4.1.6 Minorities & Language

Diversity of ethnicity among households is prevalent in both sections of the study corridor. Minority households are present throughout the corridor, but some areas distinctly have concentrations of minority households.

As Figure 18 displays, a high concentration of minority households exists in the western section of the corridor. This area coincides with an area that has a high concentration of households with limited English proficiency. Furthermore, this same area also has a median income below the county average and a high concentration of households below the poverty level.

The story is similar in the eastern section of the corridor. Concentrations of minority households coincide with areas that have high concentrations of households with limited English proficiency. These areas with higher numbers of minority households and households with limited English proficiency correspond to several of the areas in the eastern section where household incomes are below the poverty level or median incomes are below the countywide median income level. On the east side, these households are concentrated in Haverhill and Greenacres.

The racial and ethnic minority populations in Palm Beach County have been increasing over time, as can be seen in Figure 19 and Figure 20. Racial and ethnic minority populations are defined as: Asian American; Black or African American; Hispanic or Latino; Native Hawaiian and Other Pacific Islander; American Indian and Alaska Native; and Multiracial. Between 1980 and 2010, the racial and ethnic minority population increased from 14 percent to 39 percent, and it is expected to increase to 50 percent by 2040. The majority of the racial and ethnic minority population is composed of black and Hispanic people, and that trend is expected to continue. Because of this, it is important to consider the unique cultural differences when planning as well as to accommodate those who are not proficient in English when planning.

Figure 19 | Palm Beach County Racial and Ethnic Minority Breakdown

	WHITE	BLACK	HISPANIC	OTHER	TOTAL
2010	0.8M	0.2M	0.3M	0.0M	**1.3M**
2020	0.8M	0.3M	0.3M	0.0M	**1.5M**
2030	0.8M	0.3M	0.4M	0.1M	**1.6M**
2040	0.9M	0.4M	0.4M	0.1M	**1.7M**

M = Millions
Source: Florida Demographic Estimating Conference, February 2014 and the University of Florida, Bureau of Economic and Business Research, Florida Population Studies, Bulletin 169, June 2014

Figure 18 | Minorities and Language

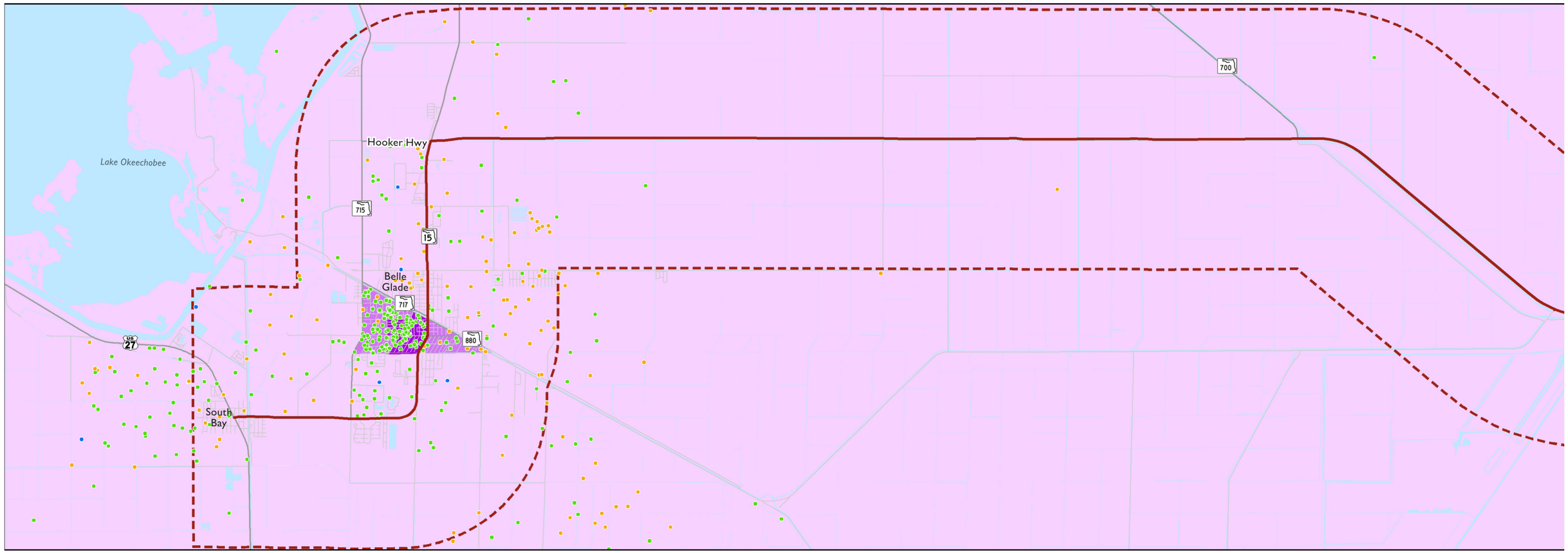
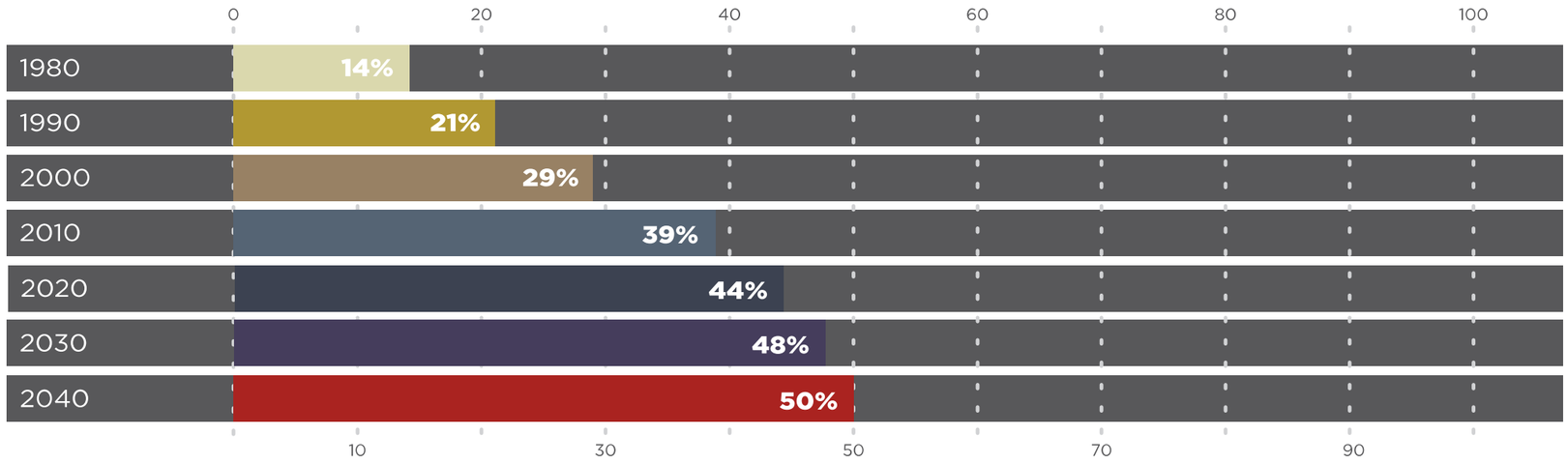
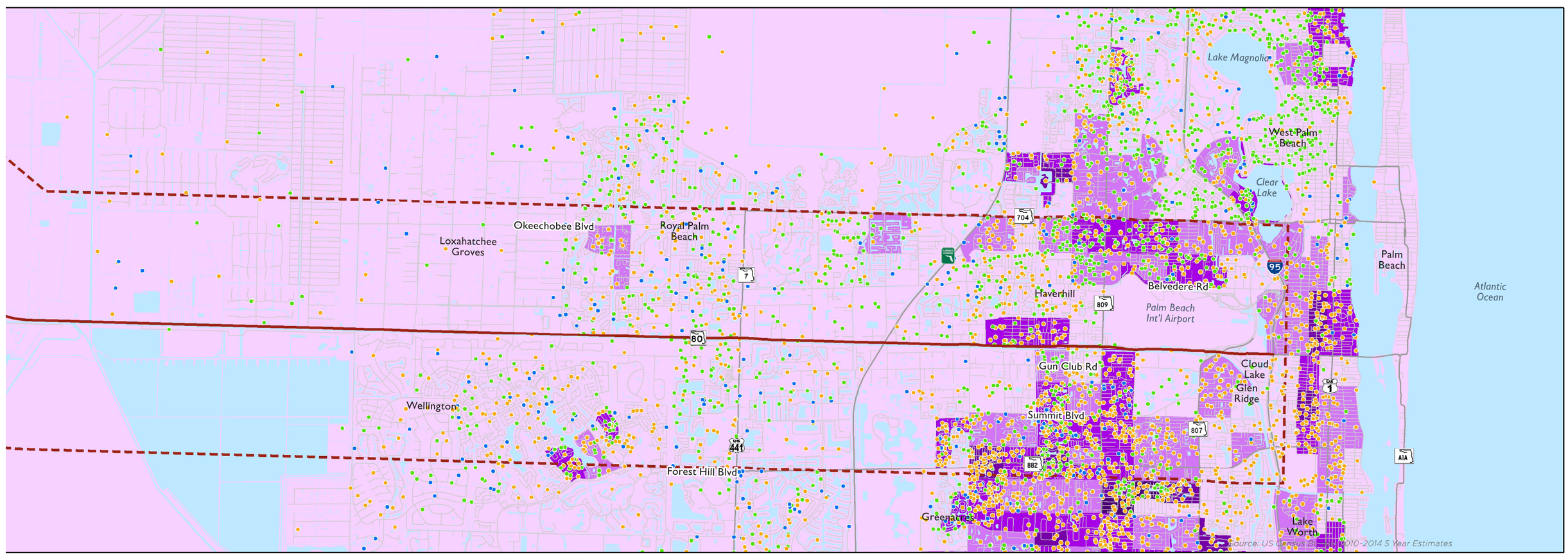


Figure 20 | Racial and Ethnic Minority Population Over Time in Palm Beach County





4.1.7 Propensity for Active Transportation

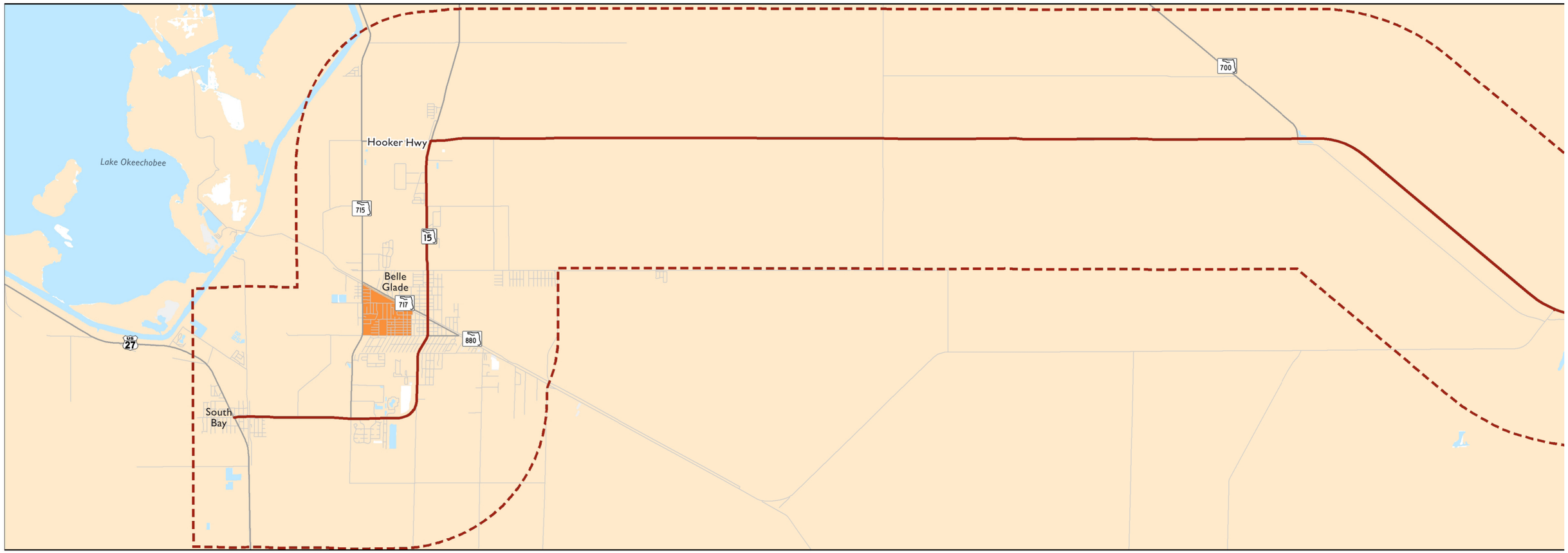
In order to understand the overall potential demand for bicycling, walking, and transit, an index was developed. The index considers populations who are less likely to travel by car utilizing US Census data. The data points considered were discussed previously throughout this section, and this score represents a synthesis of that information. They include:

- Population Density (persons per acre)
- Employment Density (number of employees per acre)
- Children (persons 18 and under per acre)
- Seniors (persons 65 and over per acre)
- Racial and Ethnic Minorities (racial and ethnic minorities per acre)
- Poverty Rate (percentage of households with income below the federal poverty line per acre)
- Zero-Car Households (households without access to a car per acre)

Figure 21 shows the results of the analysis, which was done at the county level. In general, most of the corridor has a low propensity for active transportation based on the current demographics. This reflects the conditions discussed throughout this section. In particular, the current and future planned land uses and transportation system do not support or encourage active transportation. However, there are several locations in the study area that demonstrate a higher potential need. These areas include Belle Glade and some parts of Greenacres and Haverhill. These areas are the ones that were highlighted throughout the demographic analysis and might benefit the most from multimodal investments. The photos on this page demonstrate the corridor environment.

The corridor is more walkable in Belle Glade, where SR 80 has been retrofitted to meet the higher needs for active transportation with wide sidewalks, lighting, and other multimodal features.

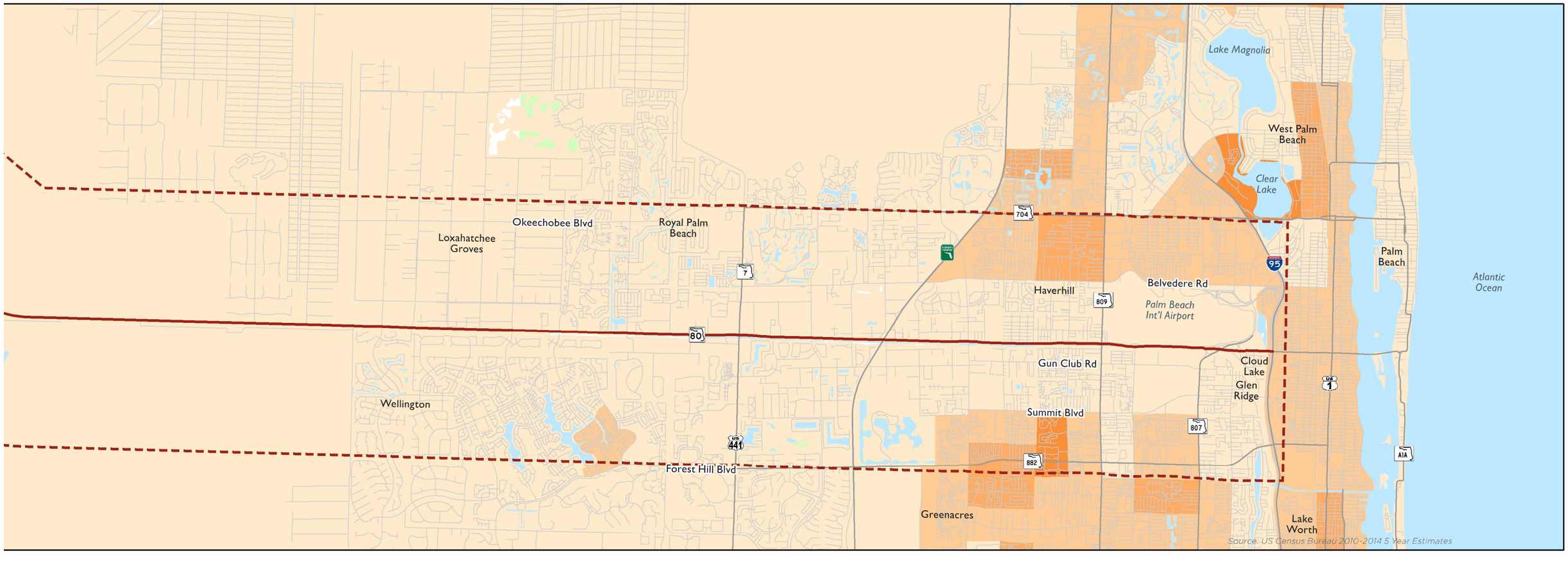
Figure 21 | Propensity for Active Transportation

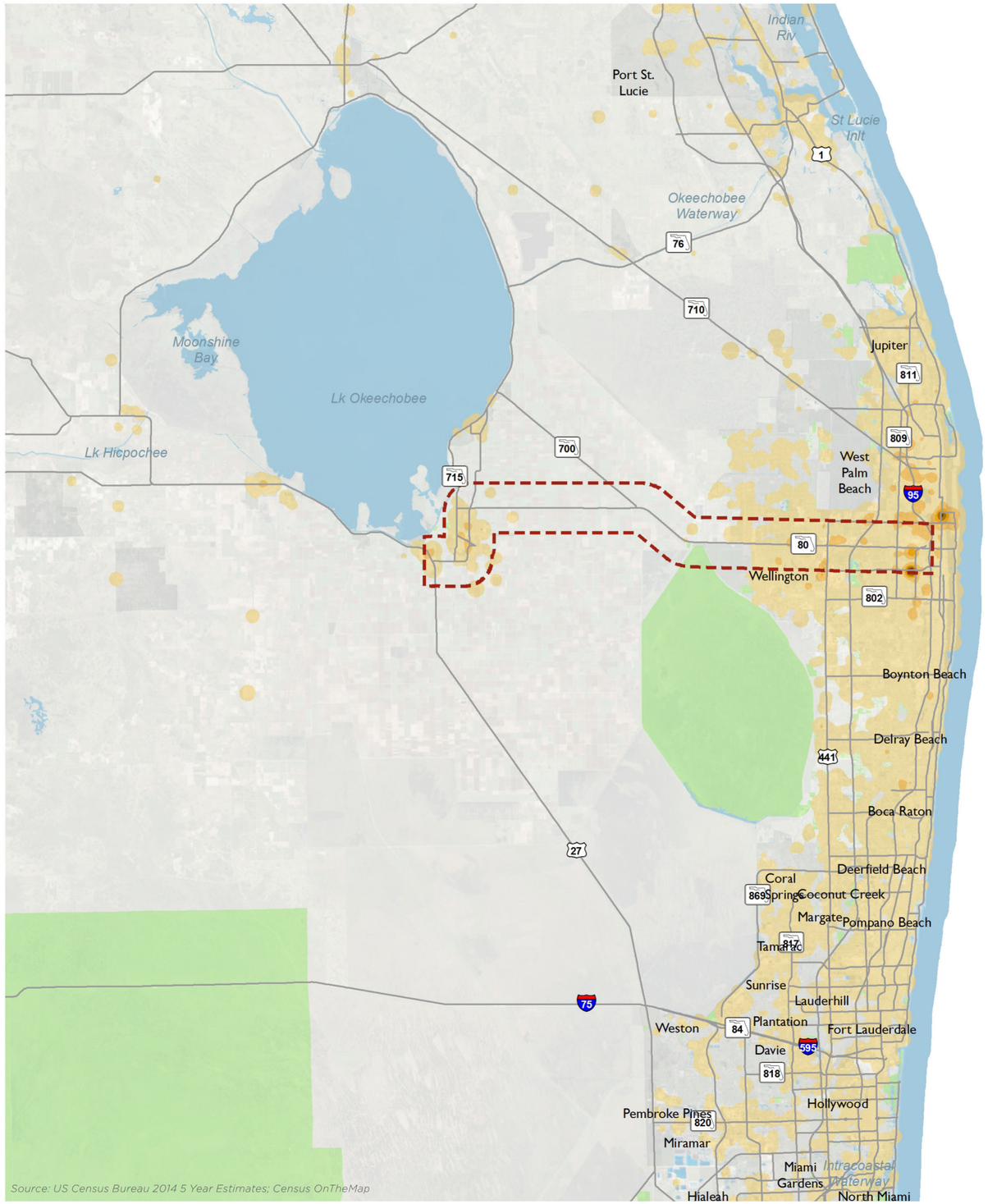


Near Loxahatchee Groves, the road does not have sidewalks or bike lanes. The wide median guarantees the cross section is very wide.

The wide intersections in the western portion of the corridor cater to drivers and are difficult to cross for pedestrians, especially without crosswalks.

The western portion of the corridor has 8 lanes in some places, like near the fairgrounds. The high speeds and wide road encourage driving.





4.2 ECONOMIC CHARACTERISTICS

The SR 80 study area is home to thousands of residents and hundreds of businesses. In order to better understand where home and work destinations are and therefore potential travel patterns, a home-to-work flow analysis was undertaken utilizing Longitudinal Employer-Household Dynamics (LEHD) and US Census Data. The analysis shows that while most of the homes and jobs of people who are employed and living or working in the study area are located in Palm Beach County, there are others spread throughout South Florida and beyond.

4.2.1 Inflow/Outflow

The analysis shows a total of over 82,500 jobs are located in the study area and that almost 76,800 people who live in the study area are employed in some manner. Figure 22 shows that more than 59,000 people travel out of the study area to go to work. This number likely would be lower if the study area included downtown West Palm Beach, a major employment center adjacent to the study area. Conversely, 65,000 people travel into the study area for work. In addition, more than 17,000 people live and work in the study area. Those who live and work in the study area may benefit the most from multimodal solutions along the corridor. Others would require network multimodal solutions.

4.2.2 Job Locations of Study Area Residents

Figure 23 shows that workers who live within the study area hold jobs across most of the South Florida urban region, although a majority share of those jobs are within Palm Beach County. They primarily work in the eastern portion of the corridor and are more specifically concentrated in Wellington, downtown West Palm Beach, and along I-95. About 46% of people living in the study area live within 10 miles of their work place, meaning that many people are not making long distance commutes to work. Additionally, because the highest employment concentration of people living in the study area is in downtown West Palm Beach, it will be important over time to look at multimodal connectivity to downtown.

Figure 22 | Employment Inflow Outflow

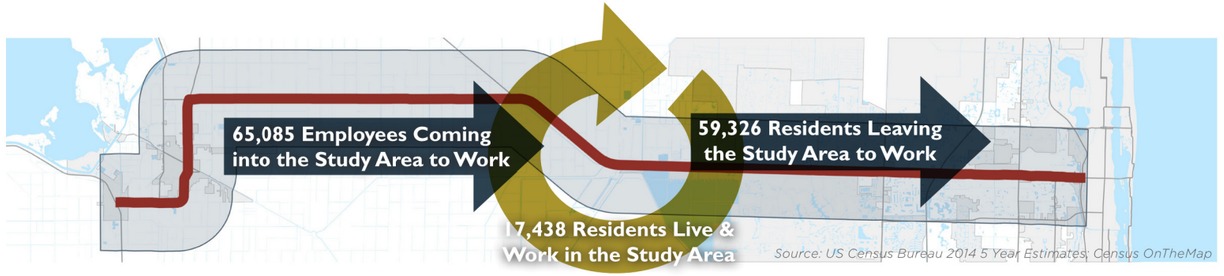
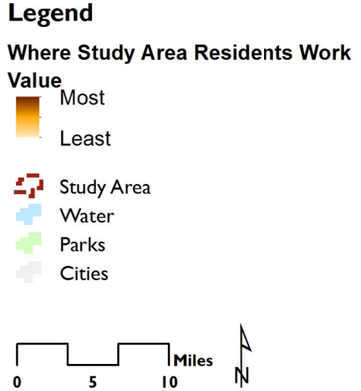
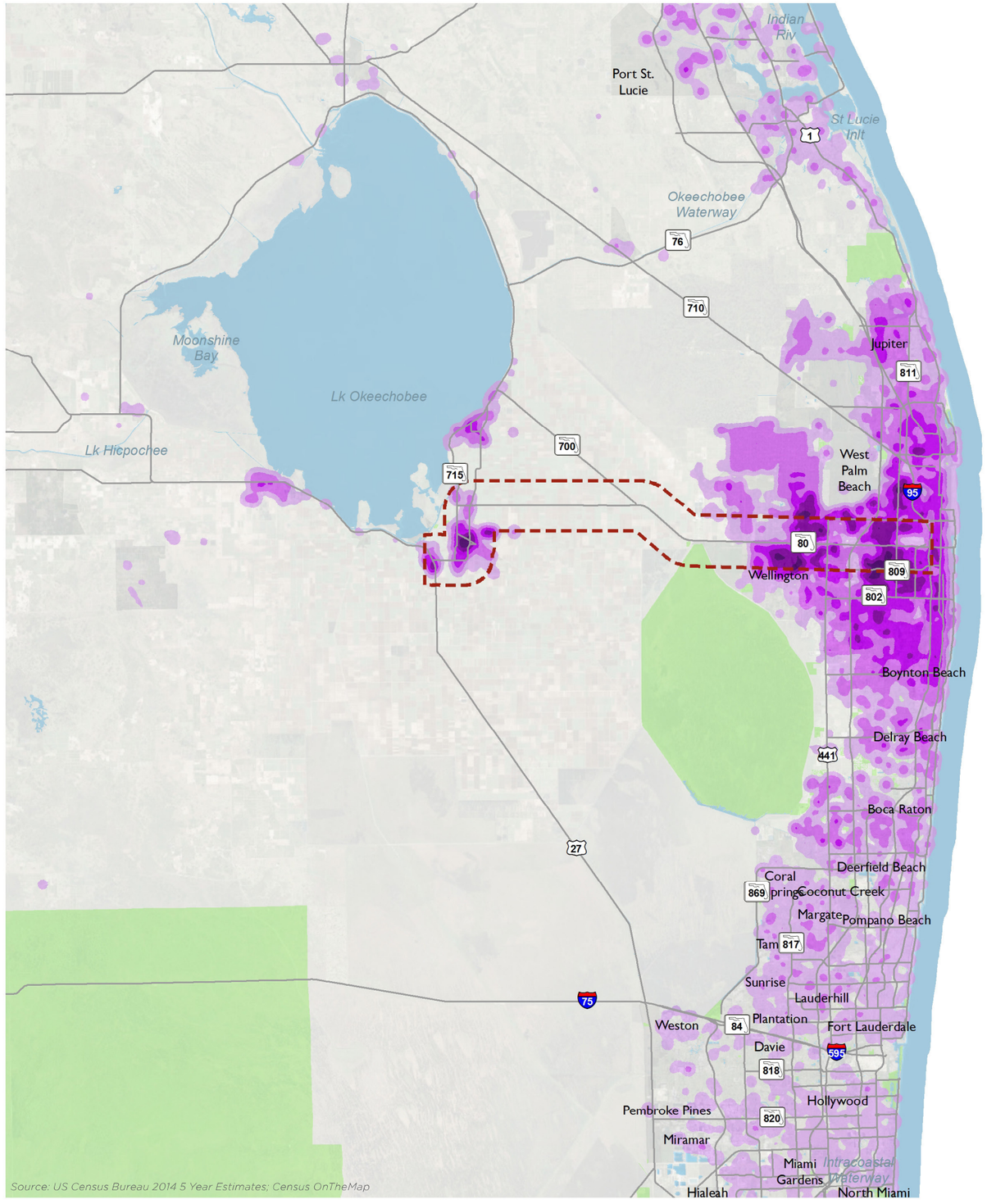


Figure 23 | Job Locations of Residents within the SR 80 Study Area



Note: the concentration of jobs south of SR 80 along Congress Ave and Forrest Hill Blvd is the location of the school district where payroll for all teachers and educational employees in the county are processed. Numbers of employment at this location are exaggerated due to these payroll practices.



4.2.3 Home Locations of People Employed in the Study Area

Similarly, Figure 24 shows that people who work in the study area mostly live in the eastern section of the corridor or within about 15 miles to the north or south of the eastern section. In the western section of the study area, there is also a concentration of people who work in the corridor living in Belle Glade, South Bay, Pahokee, and Clewiston. Additionally, almost 53 percent of people working in the study area live within 10 miles of their jobs. However, because many people working in the study area live to the north or south, it is important to consider north/south connections to facilitate those trips that are being made.

While available data do not indicate which households are associated with specific employment activities or locations, the fact that employment and residences are present in both sections of the study area points to the likely case of east-west commuter travel on SR 80. The lack of an alternative east-west route suggests SR 80 must carry a substantive share of commute traffic. Because of limited network connectivity, even people making a north/south trip may need to utilize SR 80 to connect to the east or west at some point in their trip.

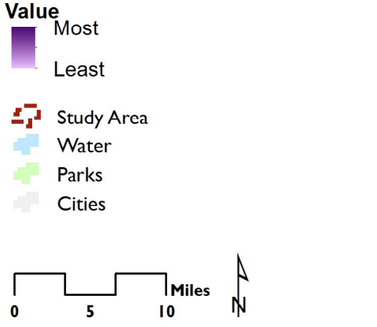
4.2.4 Potential Economic Growth Areas

State Road 80 serves as the major connection between the western rural agricultural communities and the eastern urbanized area of Palm Beach County. As such, the roadway handles much of the commerce originating in the western Glades area traveling to the Port of Palm Beach and Palm Beach International Airport for distribution to the Caribbean area and along the eastern US. SR 80 also provides access to Florida's Turnpike and Interstate 95 which facilitate the movement and distribution of goods and products from the western areas. Palm Beach International Airport is located adjacent to SR 80 at the eastern end of the corridor and is studying the possibility of adding an additional major east-west runway to handle future growth. The Port of Palm Beach is adding another slip to enable more cargo to move through the port.

Current and future residential and commercial growth in Palm Beach County will use SR 80. A number of major residential development projects with attendant commercial support facilities are planned for the area west of Florida's Turnpike and north of SR 80. Westlake, Iota, Arden and Avenir are approved for thousands of new residential units along with commercial and office activities to serve these communities and others in the area. There is also an Economic Area of Concern south of SR 80 and west of State Road 7 now undergoing review that will add more residential and commercial development within the SR 80 corridor.

Other commercial and industrial projects are proposed or planned in the SR 80 corridor. The Intermodal Logistics Center (ILC) is located in the Belle Glade area and will be a major employment center as well as a major freight hub. The City of Belle Glade also has large tracts of land available for industrial development in close proximity to SR 80. Farther east at the western edge of the urbanized area is the Central Palm Beach Park of Commerce with a proposal for a large server farm. Industrial and warehousing activities are being developed at the Florida's Turnpike interchange with SR 80. The Palm Beach International Airport has 100 acres planned for industrial uses at the western end of the airport. A new campus of Palm Beach State College is under construction on SR 80 as well as additional commercial, industrial and office activities along the corridor. Continued growth in the SR 80 corridor is a given.

Figure 24 | Home Locations of People Employed within the SR 80 Study Area



4.3 LAND USE CONTEXT

The land uses in the study area were considered to help reveal the development patterns. Land use and transportation are intrinsically related, as land uses determine where people live, work, and experience their lives and transportation networks determine how they travel between those activities. Traditional zoning patterns segregate uses, while the collector and arterial strategy for roadway development point loads the trips from different uses onto major roads. Without a strong supporting network to provide for alternate route choices or strong multimodal options with supporting land uses patterns, this can lead to congestion on the major roads.

4.3.1 Existing Land Use

Figure 25 shows that the development patterns in the SR 80 study area differ in the west and the east. In the western side of the corridor, development is largely focused in Belle Glade, with a smaller node in South Bay around the intersection of SR 80 and US 27. Land uses in this area are mixed and there is a strong grid network to support transportation connectivity. When land uses are mixed in this manner, distances between uses are shorter and it is more feasible to walk, bike, or take transit to complete daily tasks. Land uses in this area front SR 80 and these areas treat the roadway as the main street. There is also little sprawl in this area, and agricultural lands are preserved.

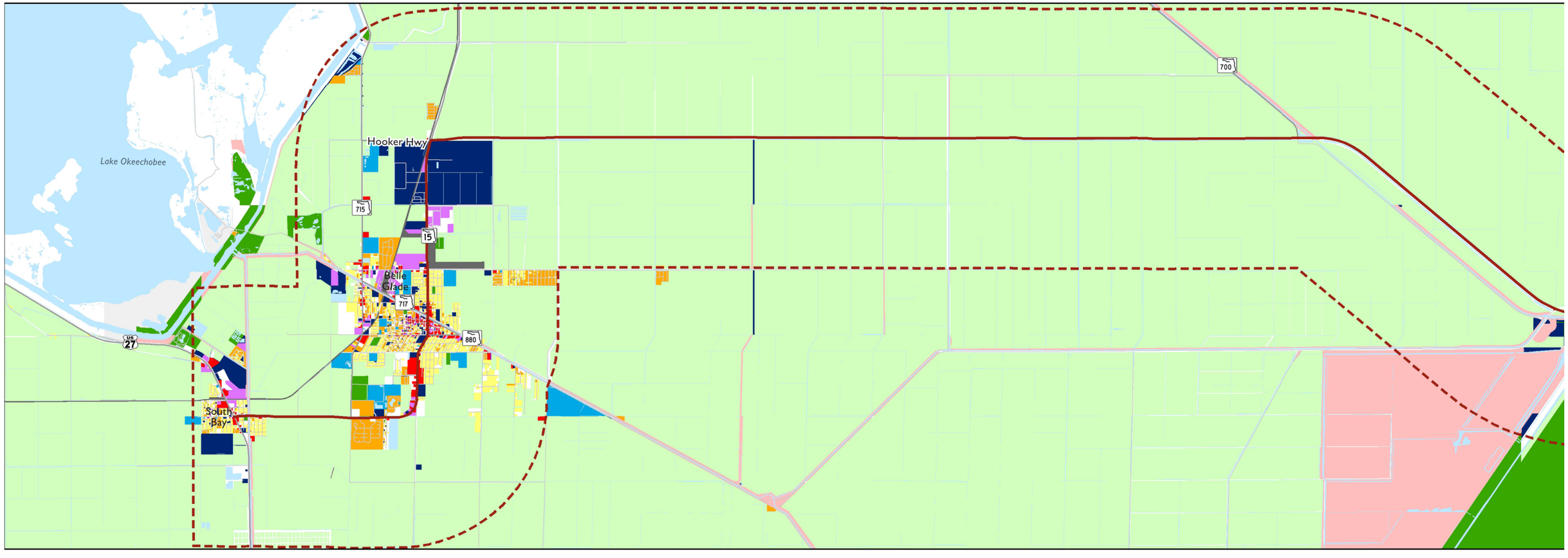
There is generally a break in development between Belle Glade and 20-Mile bend, where land use is devoted to agricultural uses. It reflects a growth boundary. East of 20-Mile bend, the land around SR 80 is much more developed. The area has developed in a traditional suburban pattern, and sprawls to the west. Densities are highest and land uses are more varied east of the Turnpike and decrease gradually into mostly large lot, single family homes towards the west. Generally, land uses on the south side of SR 80 do not face away from the corridor and there is a canal that divides them from the road. More uses on the north side of the corridor front SR 80, although there are still large areas where the adjacent properties face away from the road.

Most of the uses that directly front SR 80 include auto-oriented commercial and industrial land uses, such as new and aging strip malls and office parks; freight related businesses, and the Palm Beach International Airport. It should be noted that much of the commercial uses in the study area front SR 7 and Military Trail as well as Okeechobee Blvd. On the other hand, the industrial and freight related uses are concentrated along the north side of SR 80 between SR 7 and Jog Road and then between Military Trail and the Airport.

Much of the residential development has occurred in gated or limited access enclaves that point load onto a series of arterials and collector roads, such as Seminole Pratt Whitney Rd, Forrest Hill Blvd, Royal Palm Beach Blvd, SR 7, Lyons Rd, Jog Rd, Haverhill Rd, Military Trail, etc. All of these roads feed into SR 80 as the major east/west route to surrounding destinations. As such, in most of the eastern portion of the study area, SR 80 is the main route for connectivity between origins and destinations. Lack of network requires even people traveling between nearby destinations to utilize SR 80.

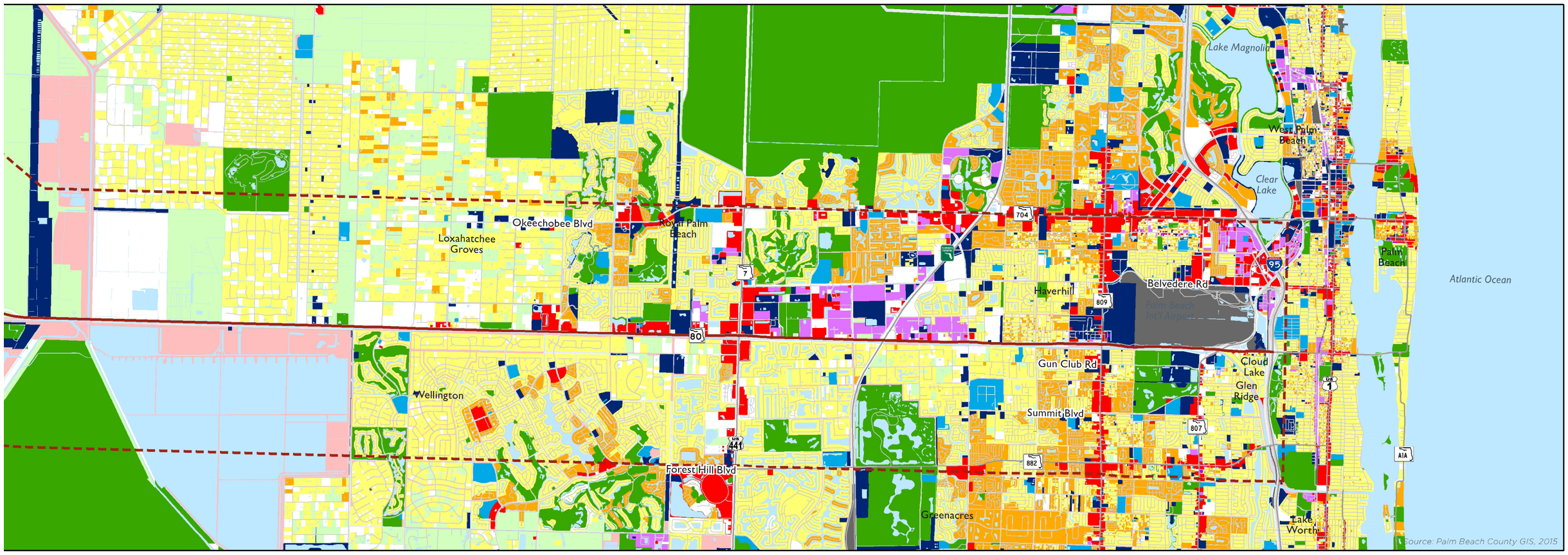
In general, because of the land development process along the corridor, access management has become a challenge for SR 80. As shown in Figure 26, developments are being approved along the corridor that require access points directly on to SR 80. As noted in section 4.0.1: Regional and Roadway Context, SR 80 is a principal arterial. These roads are meant to act

Figure 25 | Existing Land Use



as connectors between destinations. On the other hand, according to the FDOT Functional Classification Handbook, collectors and local roads are intended to provide direct property access. Developments with direct access onto SR 80 can deter the function of the road and add congestion because they allow for slower moving vehicles to enter the roadway at unsignalized locations.

Figure 26 | Example of Access Management Issues



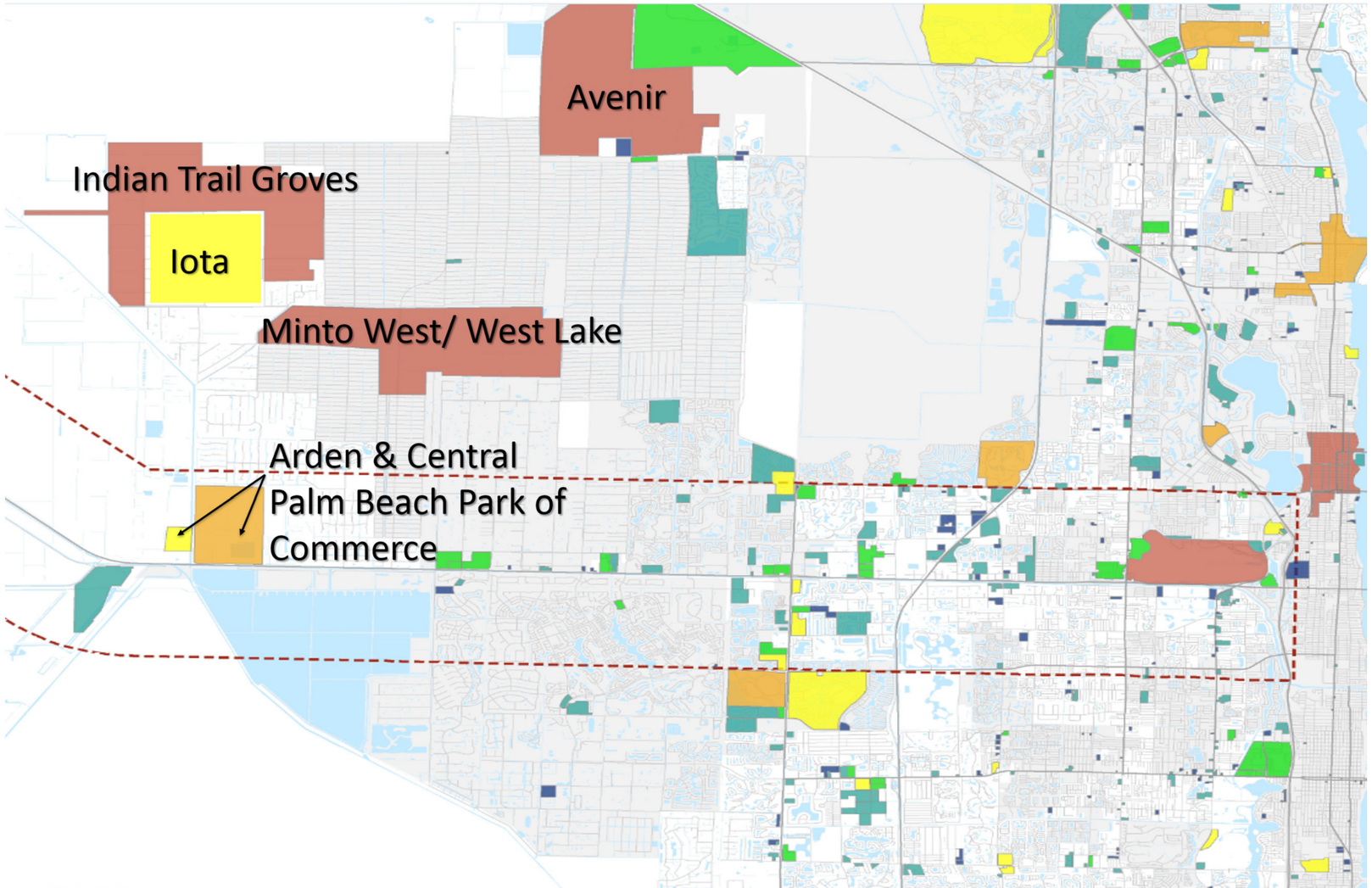
Source: Palm Beach County GIS, 2015

Growth and Travel Patterns

Significant growth is anticipated for the area with approximately ~15,000 new homes being approved in the western communities, potentially generating over 150,000 trips per day. The growth when applied to future land use plans is anticipated to yield similar travel patterns throughout the region – increasing auto demand by approximately 25% by the year 2040. The limited street network will only exacerbate the issue further over time. Figure 27 shows a snapshot in time of approved developments in the region.

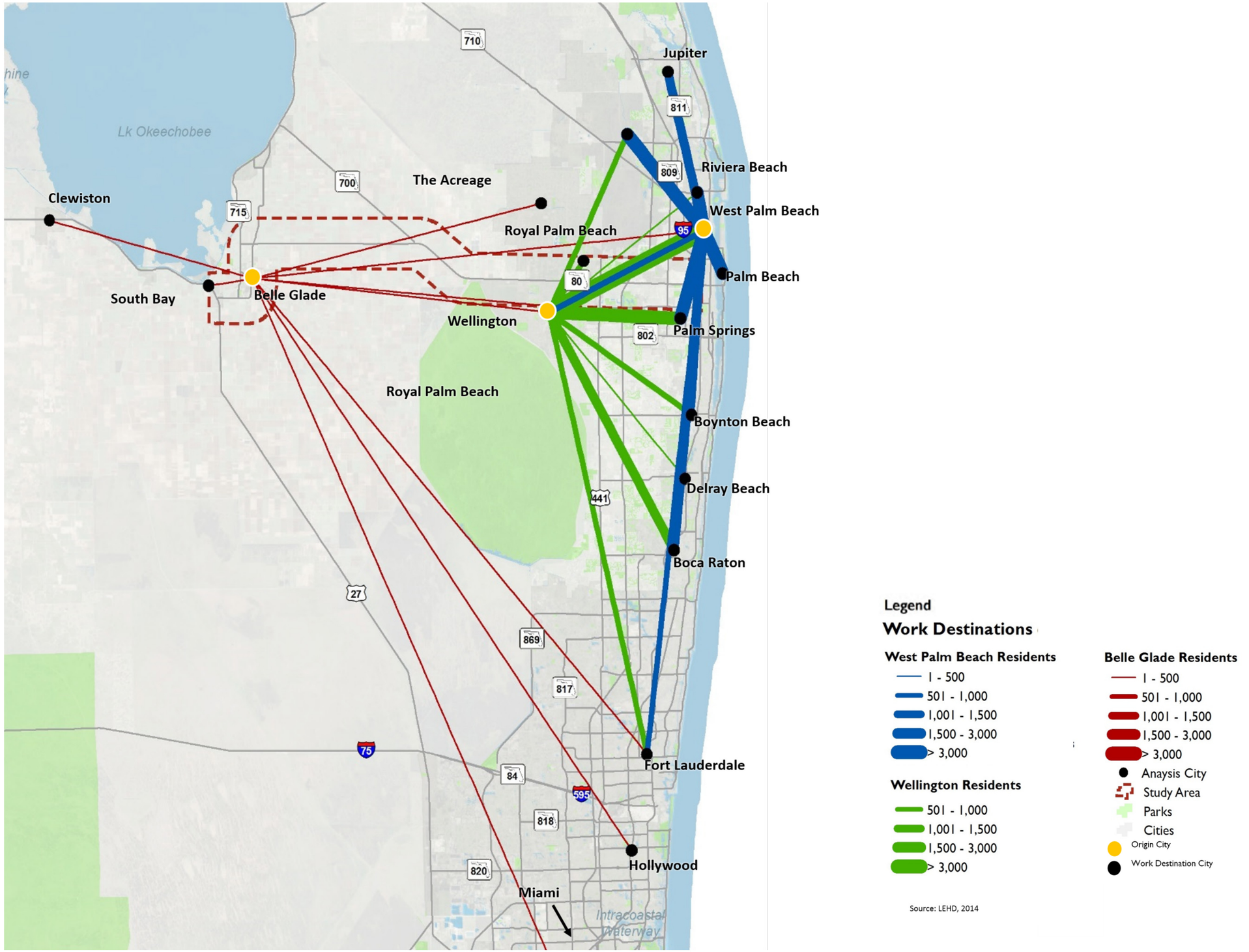
As previously noted, to better understand where home and work destinations are and therefore potential travel patterns, a home-to-work flow analysis was undertaken utilizing Longitudinal Employer-Household Dynamics (LEHD) and US Census Data. Figure 28 shows that commuting patterns from three sample residential areas are widely dispersed throughout the region.

Figure 27 | Snapshot of Approved/Proposed Development through 2016/17



Source: SERPM 7.062. Snapshot from 2015-2016; exact development plans may have since changed.

Figure 28 | Sampling of Work Destinations for West Palm, Wellington and Belle Glade Residents



Source: LEHD, 2014

4.3.2 Future Land Use

Figure 29 shows that the future land use indicates a greater level of urbanization in both the eastern and western ends of the corridor. In the western end, large new industrial areas and residential areas are planned. FDOT's Intermodal Logistics Center and South Bay's planned commerce center are intended to spur new residential development to house employees. This is represented as mostly multi-family development. The future land use also shows Belle Glade and South Bay bleeding together. Even so, the other general tenants of each city remain similar; South bay's main street and commercial focus is on US 27 and Belle Glade's remains focused on SR 80 with a secondary strip on SR 715.

Because the western end of the corridor historically has not been a major employment center, the development of new residences has the potential to add more east-west traffic to SR 80 in the form of commuter traffic. However, if plans for new industrial space come to fruition, then some of the new residential development could be offset by the provision of jobs in the western section of the corridor. Conceivably, more people could choose to live and work in the western section. However, if people chose to live in the more urbanized eastern section of the corridor, commuter traffic to and from the western side could increase in the reverse direction.

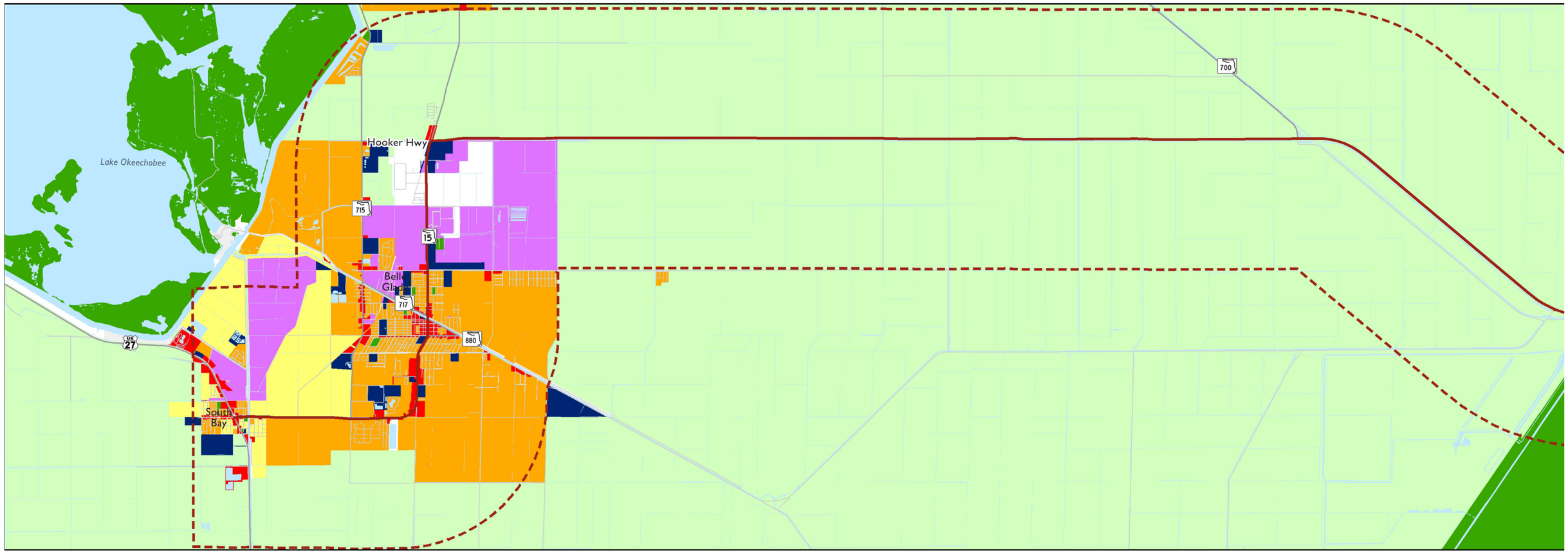
On the eastern side of the corridor, densities are also projected to increase. Especially east of the Turnpike, more multi-family and mixed use development is projected. Okeechobee Blvd is shown to have an increase in commercial development, supporting expressed desires to make Okeechobee Blvd more of a main street in some communities. Commercial development is also shown to increase along SR 7 to a lesser extent. The development directly fronting SR 80 is not shown to greatly change.

Single family uses are shown to fill out most of the eastern portion of the study area between the 20 mile bend and SR 7. People living in this part of the study area will be forced to drive east to reach shopping, dining, and employment destinations. Without increased parallel connections around SR 80, these trips will likely utilize SR 80 which will result in increased congestion. This development patten also leaves little room for conservation within the grown boundary, which comes with it's own set of environmental implications such as reduced health, reduced air quality, and others.

As noted in Section 2.2: Past Plans and Projects, many of the local and county comprehensive plans call for a walkable, economically viable, multimodal transportation system. These policies call for redirecting growth to the east, especially in the already built up areas like West Palm Beach. They call for limited- to no-grown in areas that do not have urban services. However, the County has approved major developments near the 20-mile bend, on the western edge of the urban growth boundary. Additionally, there has been discussion of expanding the growth boundary to allow further development in the area. These discussions and development approvals not only go against the goals of the comprehensive plan, but they also place added pressure on SR 80 as the only east-west connection to Downtown West Palm Beach, the Turnpike, and I-95. This causes conflicts with the goals of the SIS, which require mobility to support economic development and livability.

One example of this is Highland Dunes/Arden (Figure 30), a new development that was approved just west of Lion Country Safari. The community consists of 2,000 dwelling units that are mainly (94%) single family homes with some multifamily. It will also include farm fields, equestrian facilities, a school, and 50,000 square feet of commercial uses. However, this community is located at the edge of the growth boundary, miles away from much of the employment, entertainment, education, medical, and other destinations in Palm Beach County. Its main connection to most of these destinations will be along SR 80. This type of development is not consistent

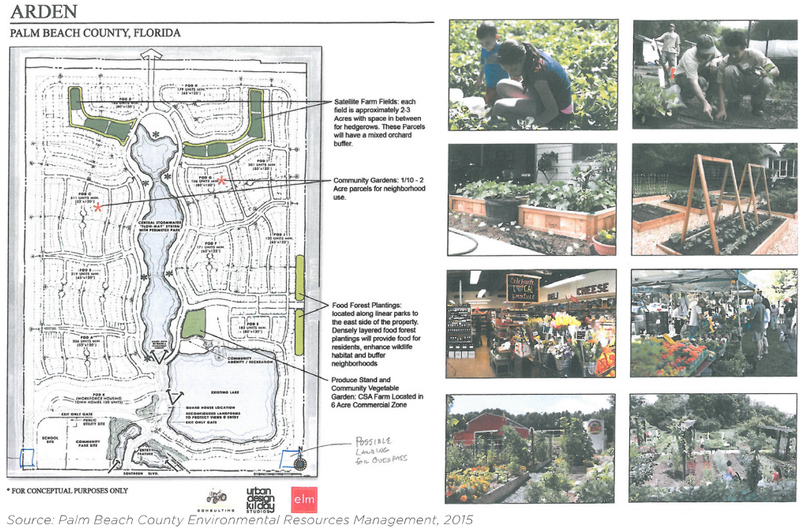
Figure 29 | Future Land Use



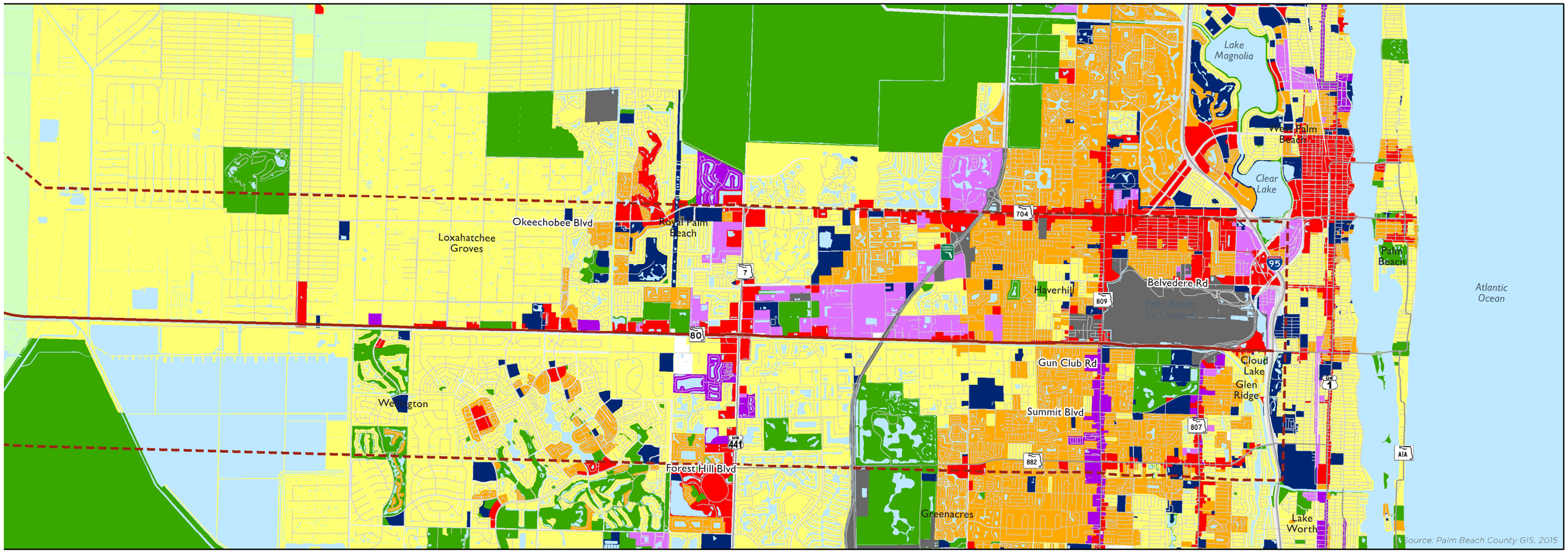
and conflicts with the infill, redevelopment, and densification in the eastern portion of the county called for in the comprehensive plan, and required an amendment to the plan to be approved. While there are provisions for pedestrians and bicycles in the development plan, the development is not occurring at a density that could support premium transit, as noted in Section 4.5.7: Transit Readiness. Therefore, it is likely that the majority of trips made to and from the community will be made by car.

The future development pattern can be modified to allow for densification in some areas and preservation in others. This can allow for better support of transit, which in turn could help to shift the system to a more multimodal one and get people out of cars. In the end, this might help to reduce congestion and travel times in the area. However, this strategy requires that the County, as well as the cities and FDOT, coordinate transportation and land use decisions and make investments that follow their agreed upon goals and vision.

Figure 30 | Arden Conceptual Site Plan (March 2015)



Source: Palm Beach County Environmental Resources Management, 2015



Source: Palm Beach County GIS, 2015

4.3.3 Destinations / Community Assets

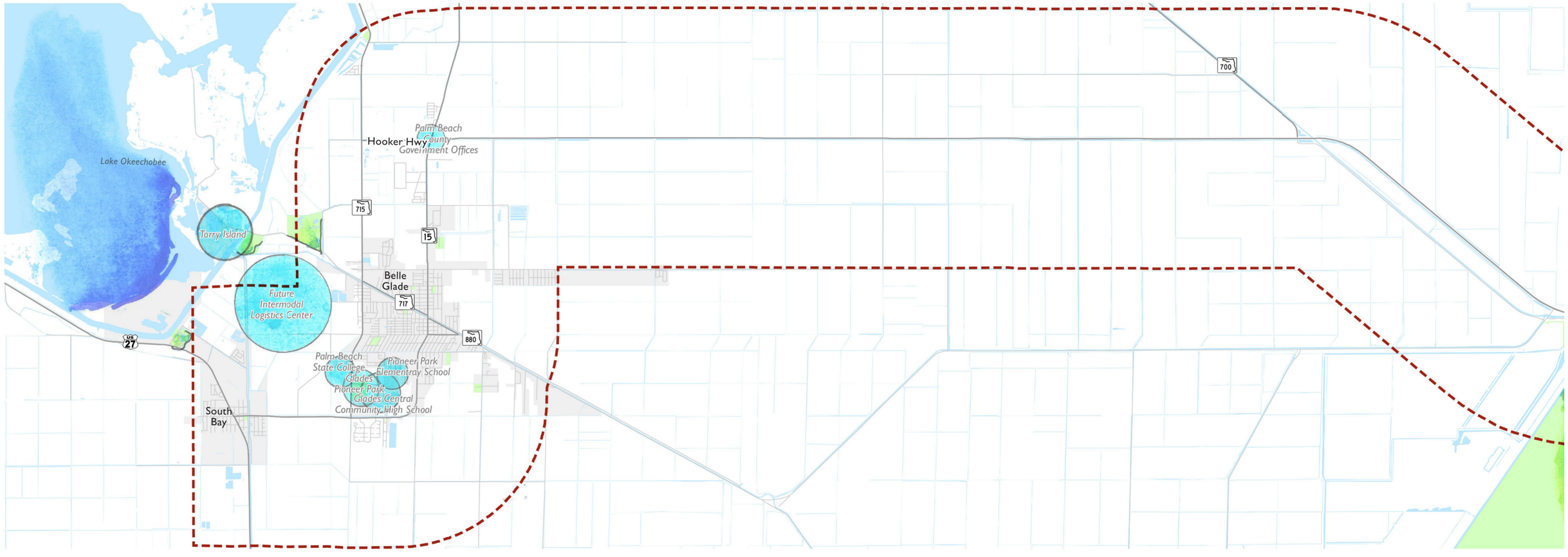
As one might expect with a corridor that is 45 miles long and spans an entire county, there are countless local community assets within the SR 80 study area. To better fit the regional scale of this study, larger regional recreational, employment, health, and educational destinations were considered to understand the potential major attractors. Their presence often supports additional services and businesses in their vicinity.

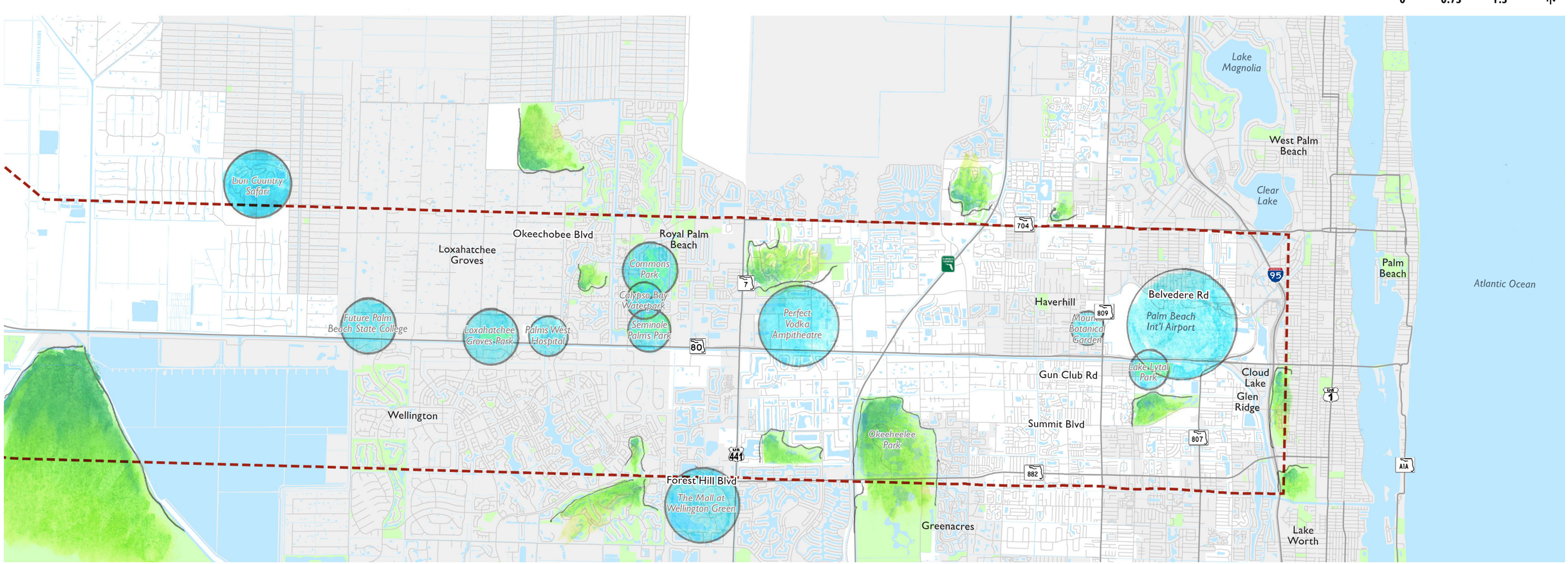
Figure 31 identifies the locations of the community assets and destinations considered. There are a number of destinations in and around Belle Glade and spread throughout the eastern portion of the study area. The cluster of schools and parks in Belle Glade point to the need for good pedestrian and bicycle infrastructure in that area. When considering the land uses, there is a need to cross SR 80 to access the residential neighborhoods that might utilize the schools and parks.

At a more regional scale, the Intermodal Logistics Center and the Palm Beach International Airport are clear freight destinations. Providing and preserving freight connectivity between these destinations will be important to the longevity and economic vitality of the area.

Finally, there are a number of major recreational and educational destinations along SR 80. These include Torry Island in the west, and Lion Country Safari, Calypso Bay Waterpark, and the Perfect Vodka Amphitheater in the east. Palm Beach State College has a location in Belle Glade and is also building a facility in Loxhatachee Groves. These destinations may all greatly benefit from multimodal connectivity based on the nature of their operations.

Figure 31 | Study Area Destinations




Legend
Major Roads
Destinations
Water
Parks
Cities
0
0.75
1.5
Miles
N
Lion Country Safari
Okeechobee Blvd
Loxahatchee Groves
Royal Palm Beach
Commons Park
Calypso Bay Waterpark
Seminole Palms Park
Future Palm Beach State College
Loxahatchee Groves Park
Palms West Hospital
Perfect Vodka Ampitheatre
Wellington
Forest Hill Blvd
The Mall at Wellington Green
Okeeheelee Park
Greenacres
Haverhill
Mounts Botanical Garden
Belvedere Rd
Palm Beach Int'l Airport
Lake Lytal Park
Gun Club Rd
Summit Blvd
Lake Magnolia
West Palm Beach
Clear Lake
Cloud Lake
Glen Ridge
Palm Beach
Lake Worth
Atlantic Ocean
7
80
441
704
809
95
807
882
1
A1A

4.4 HISTORIC AND ENVIRONMENTAL CONTEXT

Historic and environmentally sensitive sites were reviewed to develop an understanding of the preservation needs in the study area. Specifically, a detailed analysis of the historical and archaeological sites; environmentally sensitive areas; and the hydrological and natural features was undertaken. In general, there were more sensitive sites in the western portion of the corridor in and around Belle Glade. However, there are a large number of sites that have been flagged as potentially sensitive but not been analyzed in detail in the past. If any of those sites are impacted by recommendations from this study, they may need further consideration during future phases of redevelopment.

4.4.1 Historical & Archaeological Context

Figure 32 displays the historic resources along the corridor that are listed in the National Register of Historic Places (NRHP) or have been determined eligible for listing in the NRHP. There are 11 identified cultural and historic resources along the corridor, including structures such as the South Bay Railroad Workers Cottage, Glades Gas and Electric Corp property and the North New River Canal Lock; bridges such as the Belle Glade Bridge and Twenty Mile Bend Bridge; and linear resources such as canals and the Seaboard Air Line Railroad. In addition, there are three archaeological sites recorded within the buffer zone which contain human remains.

There are hundreds of cultural resources (archaeological and historic sites) 500 feet on each side of the SR 80 corridor. They were identified over time during 60+ cultural resource assessment surveys within the project area. Additionally, any building 50 years or older has the potential to be a historic resource. Based on the ages of buildings within 500 feet of the corridor, there is the potential for an additional 1,500 buildings to be designated as historic resources. While these buildings meet the age criteria to be eligible to become a historic resource, most of these resources have not been evaluated in previous studies. Because of the volume of resources that could be historic but are not yet identified as such, there is potential for cultural resources to become a critical issue as specific plans are developed for the 45 miles of corridor. Any of these buildings that might be impacted by improvements identified in this study will be evaluated to determine if it his historic and to determine how any potential impacts can be mitigated.

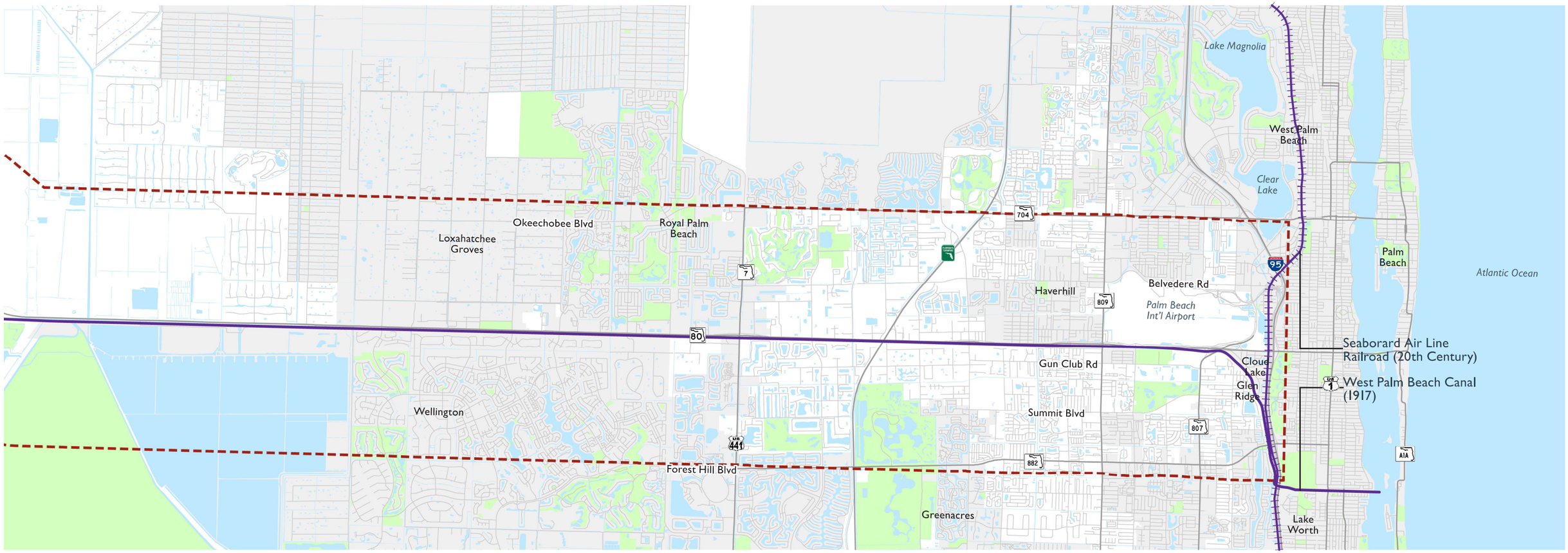
Also, it was noted throughout the study by Palm Beach County's Archaeologist that it is common for unknown prehistoric archaeological sites with or without burials to be found during reconstruction or development. These discoveries can have potential impacts on any associated future plans or efforts.

Figure 32 | NHRP Eligible or Potentially Eligible Resources

No historic highways, cemeteries, and state park or management zones were found within the entire SR 80 corridor study area. As indicated within the Sensitive Sites, some of the county and municipal parks as well as the historic and archaeological sites will need to be reviewed in later phases of projects (i.e. PD&E - CRAS, design and permitting), which will include the Determination of Section 4(f) Applicability (DOA).

Historic Bridge Summary

SITE ID	Bridge Name	Year Built	Condition	Evaluation by SHPO
PB10340	Wooden bridge a	C1945	Fair	Ineligible for NRHP
PB13511	Culvert 1	C1948	Good	Potentially eligible for NRHP
PB13512	Culvert 2	C1948	Good	Insufficient information
PB13549	Bridge 1	C1929	Fair	Potentially eligible for NRHP
PB13550	Bridge 2	C1953	Good	Ineligible for NRHP
PB13551	Bridge 3	C1948	Fair	Ineligible for NRHP
PB00231	Twenty mile bend bridge	1937	Not Available	Eligible for NRHP
PB00212	Belle Glade Bridge	1916	Not Available	Eligible for NRHP



4.4.2 Environmentally Sensitive Sites & Natural Resources

The environmental context along the corridor was evaluated to determine what environmental issues exist. A detailed Environmental Element report was prepared by the consultant team and is available on the website.

Wetlands & Surface Waters

Using ETDM Environmental Screening Tool and ArcGIS, the South Florida Water Management District (SFWMD) Land Use and Cover 2008-2009 and United States Fish and Wildlife Service (USFWS) National Wetlands Inventory GIS layers from the Florida Geographic Data Library (FGDL) were used to determine locations of wetlands and surface waters within the project corridor. Only small portions of wetlands occur; however, extensive surface water areas were located along State Road 80 (SR 80) corridor within a 500-foot buffer. In addition, several surface water areas including Lake Okeechobee were located within the Belle Glade study area.

Based on the SFWMD data, wetlands found within the 500-foot buffer corridor were primarily located east of the Twenty Mile Bend and within the eastern portion of the Bend. These wetlands are classified as Wetland Hardwood Forests (FLUCCS 6100) and are located adjacent to the Arthur R. Marshall Loxahatchee Wildlife Refuge. These wetlands should be the primary focus of avoidance since they are located adjacent to the wildlife refuge.

Based on USFWS data, the large areas of surface water identified along the entire roadway and the shoreline of Lake Okeechobee are classified as a riverine system. The extensive surface water areas located along SR 80 are most likely roadway drainage or agricultural ditches that usually provide little functional value.

With the possible exclusion of smaller wetlands and/or farmland wetlands based on the GIS layer data information, additional field work will be required to properly identify all wetlands within the project corridor as well as providing the quality and quantity of these wetlands. Additional reviews and field investigations will be addressed in later phases of projects (i.e. Project Development and Environment (PD&E) - Natural Resource Evaluation (NRE), design and permitting). All surface water and wetlands should be avoided and minimized to the greatest extent practicable especially ones with higher functional value. Permits from South Florida Water Management District (SFWMD), US Army Corps of Engineers (USACE) and local drainage districts will be required if any impacts to the wetlands and surface waters are proposed. Best Management Practices (BMPs) including the use of erosion control barriers (i.e. silt fence, hay bales and turbidity curtains) were implemented during construction following FDOT's Standard Specifications for Road and Bridge Construction.

Outstanding Florida Waters

Outstanding Florida Waters (OFW) are waters designated worthy of special protection because of their natural attributes. This special designation is applied to certain waters, and is intended to protect and maintain existing acceptable quality standards. Boundaries for Outstanding Florida Waters (OFWs) are described in Section 62-302.700, F.A.C.

The Arthur R. Marshall Loxahatchee National Wildlife Refuge is the only OFW found adjacent to the project corridor. In 1951, a license agreement between the South Florida Water Management District and the U.S. Fish and Wildlife Service, under the Migratory Bird Conservation Act, enabled the establishment of the 143,954-acre area. Arthur R. Marshall Loxahatchee National Wildlife Refuge is the only remnant of the northern Everglades in Palm Beach County, Florida. To the northwest of the refuge is the Everglades Agriculture Area which includes sugar cane farms, winter vegetables, sod farms, and cattle ranches. The land east of the refuge is predominately urban with the exception of the agricultural lands of the East Coast Buffer area. Water Conservation Areas 2 and 3, and Everglades National Park, the only remaining portions of the Everglades fresh water marsh, are located to the south and southwest of the refuge.

The refuge itself is not located within the 500-foot buffer examined; however, wetlands located adjacent to this OFW should be avoided to the greatest extent practicable to avoid any indirect impacts to this refuge.

Floodplains/Floodways

Based on the analysis performed, areas adjacent to Lake Okeechobee and along the Twenty Mile Bend to Flying Cow Road have the greatest risk of flooding. These floodplain areas should not have a significant impact to the development of the project due to the location of SR 80 and the parallel network alternatives. Future roadway projects shall not have a negative impact on flood plains along the corridor. Therefore, flood plain compensation will need to be considered in the design phase.

Farmlands

The ETDM Environmental Screening Tool and the South Florida Water Management District Land Use and Cover 2008-2009 – Agricultural Lands GIS layer from the FGDL were used to evaluate the farmlands within the Belle Glade study area and SR 80 project corridor. It was determined that cropland and pastureland primarily comprise the Belle Glade area and the 500-foot buffer of SR 80 to the eastern end of the Twenty Mile Bend. Additional croplands and pastureland are found between the eastern end of the Bend and I-95. Some rural open land, nurseries and vinelands, and specialty farms are located between the Florida Turnpike and the Twenty Mile Bend. Other nurseries and vineyards are located within Belle Glade and South Bay areas. All farmlands are classified in the FLUCCS code as 3000 Upland Non-forested.

Prime farmland soils are located throughout the project corridor. Additional review will be necessary to evaluate the farmlands in later phases of projects (i.e. PD&E and design). Determining if the farmland is subject to the Farmland Protection Policy Act (FPPA) and completing a Farmland Conversion Impact Rating Form if the project requires coordination with NRCS are main components of this evaluation.

Drainage

The existing drainage conditions were collected using information from the Florida Department of Transportation Straight Line Diagram of Road Inventory.

The locations of impaired water bodies, also referenced as verified list of waterbody Ids (WBIDs), were collected along SR 80 (urban and rural areas) and Belle Glade Area. These waterbodies fail to attain any of its designated uses and/or meet the minimum criteria for surface waters established in the Surface Water Quality Standards (62-302, F.A.C.) and the Impaired Waters Rule (IWR, 62-303, F.A.C.). These waterbodies shall be taken into consideration when developing drainage plans for projects along SR 80 corridor. If drainage is proposed within these impaired waterbodies, additional storage and treatment is required prior to discharge.

SFWMD basins located along SR 80 and Belle Glade area were also identified. Any projects that require modifications to drainage systems within these basins are required to follow SFWMD design criteria (i.e. water quality, water quantity, flood plain compensation and roadway base criteria) to obtain an Environmental Resource Permit (ERP) from the District. Any work located within a SFWMD right of way (ROW) will require a ROW permit from the agency.

Lastly, local drainage districts were also identified. Any proposed drainage, slope changes or work within ROWs of these districts will require coordination and permits where applicable.

Utilities

Utilities were identified within the SR 80 project corridor. The findings include all standard utilities found within FDOT right of way and adjacent developed areas. Utilities located within the FDOT right of way are non-reimbursable and the responsibility of the utility company to relocate them; however, any right of way acquisitions may require FDOT to relocate utilities at the Department's expense. Utility coordination shall occur during the design phase of projects. Of importance to note is a natural gas distribution line owned by Florida City Gas along the entire corridor as well as major powerlines in the eastern section of the corridor.

Noise

For the purpose of collecting noise data, the project corridor was divided into seven Noise Area (NA) segments based primarily on land use changes or patterns. The prominent noise sensitive sites that will require noise analyses are listed below for each segment.

NA 1 – Western Project Limit (Belle Glade) to SR 15

- The Belle Glade area includes an extensive composite of noise sensitive sites including medical facilities, residents, schools and religious facilities. Some of the notable receptors include:
- Lakeside Medical Center / Medical Campus
- Runyon Village Apartments
- Pioneer Park Elementary
- Lake Shore Middle
- Belle Glade Elementary
- Palm Beach State College
- Glade View Elementary
- Glades Day School
- Glades Central High School
- Redlands Christian Migrant Association (provides childcare and education)
- Belle Glade Camp – This is a census designated area with many residences
- Pioneer Park Aquatic Center / Recreation
- Reverend Leon Camel, Jr. Park – Active Park (along southern boundary adjacent to SR 80)
- Religious Facilities
- South Bay City Hall

- Clarence E. Anthony Library
- Jail Facility

NA 2 – SR 15 to SR 700/US 98
- Vacant Agricultural - No noise sensitive sites

NA 3 - SR 700/US 98 to CR 880 (NW Jog)
- Vacant Agricultural - No noise sensitive sites

NA 4 – CR 880 to US 441 (SR7)
- This section includes an extensive number of noise sensitive sites, primarily residential, on both the north and south sides with some religious and educational facilities. Notable nonresidential noise receptors include:
- Palms West Alliance Church – east of Pratt Whitney Road
- Loxahatchee Groves Park – (Active Recreation) – just west of Big Blue Trace Road
- Medical Facilities just west of Forest Hills Boulevard - on north side
- Learning Foundation of Florida (School)
- Binks Forest Elementary
- Ideal School (east of Royal Palm Bch Blvd)
- Cemetery – north side of SR 80 and east of Lamstein Lane

NA 5 – US 441 to North Jog Road
- Noise receptors consist primarily of residential sites on the south side of SR 80. The north side of SR 80 consists primarily of non-noise sensitive, mixed commercial uses.

NA 6 – North Jog Road to Military Trail
- This section includes extensive residential noise receptors on both sides of SR 80. However, east of Haverhill Road, the residential noise receptors are situated to the south of the roadway. Caroline Park located adjacent to Caroline Drive has an active tot lot which should be considered during the noise analyses.

NA 7 – Military Trail to I-95
- The West Palm Beach International Airport is situated along the entire north side of this section (non-noise sensitive). The south side of the roadway includes residential receptors mostly located at the western (Gun Club Estates) and eastern portions of the section. These receptors are exposed to an existing noisy environment due to the airport, Australian Avenue, and I-95. Lake Lytal Park is located along the south side of SR 80. This site should be considered in the noise analyses.

Based on this information, the Belle Glade area includes an extensive composite of noise sensitive sites including medical facilities, residents, schools and religious facilities. An extensive number of noise sensitive sites, primarily residential, with some with some religious and educational facilities are located between CR 880 and I-95. These noise sensitive sites will be analyzed using computer modeling and addressed in later phases of projects (i.e. PD&E - Noise Study Report, design and permitting). If any area exceeds the noise criteria of the FHWA and FDOT, noise barriers will be evaluated; however, this should not have a significant impact to the development of this project.

Contamination

Reviewing the GIS Analysis Report generated in the ETDM Environmental Screening Tool, and creating maps within ArcGIS using layers from the Florida Geographic Data Library, potential contamination sites were found within the Belle Glade study area and SR 80 project corridor both using a 300-foot buffer for all sites except for superfund sites which required a 0.25-mile buffer. These areas (Belle Glade and SR 80) with the appropriate buffers were created in ETDM and then used as a base layer within ArcGIS for analysis. The potential contamination sites that were analyzed within these areas using ArcGIS included Super Act Wells, Open Waste Cleanup Responsible Party Sites, Super Act Risk Sources, State Funded Cleanup Sites, Solid Waste Facilities, Large Generators of Hazardous Waste, Petroleum Contamination Monitoring Sites, Toxic Release Inventory Sites, Dry Cleaning Contamination Sites, Storage Tank Contamination Monitoring Sites, Superfund Sites, EPA Resource Conservation & Recovery Act Regulated (RCRA) facilities and Brownfields.

A majority of the sites were located within the town center of Belle Glade and South Bay and scattered throughout the SR 80 corridor primarily along the east portion between the Twenty Mile Bend to I-95. The western portion of the SR 80 corridor from the Twenty Mile Bend to Belle Glade is primarily agricultural lands and would need to be reviewed for any agricultural contamination (i.e. pesticides). Florida Department of Environmental Protection (FDEP) is the source for all GIS layers except for RCRA facilities and superfund sites, which are regulated by the U.S. Environmental Protection Agency (EPA).

Additional review of these potential contamination sites will be addressed in later phases of projects (i.e. PD&E - Contamination Screening Assessment Report (CSAR), design and permitting). If projects affect groundwater or soil within these potential contamination sites, soil and groundwater sample may be required and remediation may be deemed necessary. If dewatering will be necessary during construction, a SFWMD Water Use Permit will be required. Engineering controls such as hydraulic barriers, liners or control point pumping will be needed during dewatering activities. Methodologies shall be implemented to avoid and minimize dewatering within contaminated areas to prevent the movement of contaminant plumes.

Threatened & Endangered Species

Critical habitat is a specific area within the geographical area occupied by the species, which contains the physical or biological features essential to the conservation of the species and which may require special management considerations or protection. A consultation area is a geographic area that contains critical habitat for species listed under the ESA. If a project is located within a designated consultation area, informal and/or formal consultation is required to ensure federal funds are not used to fund, authorize, or permit an action that would jeopardize the continued existence of any listed species or adversely modify designated critical habitats. According to the FGDL GIS layers and the ETDM Environmental Screening Tool, the project corridor using a 500-foot buffer is located within seven (7) USFWS consultation areas and two (2) USFWS critical habitat areas of the following species:

- **Okeechobee Gourd** (Federally Endangered)
  - *Consultation Area* – north and west portions of polygon
- **Florida Grasshopper Sparrow** (Federally Endangered)
  - *Consultation Area* - north and central portion of polygon and western portion of SR 80
- **Florida Scrub-jay** (Federally Threatened)
  - *Consultation Area* - eastern third of SR 80
- **Red-cockaded Woodpecker** (Federally Endangered)
  - *Consultation Area* – eastern portion of the project corridor
- **Crested Caracara** (Federally Threatened)
  - *Consultation Area* – entire project corridor
- **West Indian Manatee** (Federally Threatened)
  - *Consultation Area* - west portion of polygon and east end of SR 80
  - *Critical Habitat* - east end of SR 80
- **Everglade Snail Kite** (Federally Endangered)
  - *Consultation Area* - entire corridor
  - *Critical Habitat* - small portion reaches south side of SR 80 east of the bend

In addition, the study area is located within the Wood Stork Core Foraging Areas (CFAs) of active nesting colonies. The wood stork is both a federally and state listed endangered species with no designated critical habitat. Core foraging area for wood storks is an 18.6-mile radius around a known wood stork nesting colony. Adequate foraging is considered important for reproductive success. Lastly, one nesting area of the delisted bald eagle is located within the northwest corner of the Belle Glade area.

Research also concludes that several other species could potentially occur within the project corridor. Field investigations and additional research will be necessary in later phases of projects (i.e. PD&E - NRE, design and permitting) to determine the presence/absence of all listed species, locate existing nests and verify habitat classification within the corridor. Active nests of bald eagles will be avoided using a 660 foot protective buffer zone, and habitats that could inhabit the protected species shall be avoided and minimized to the greatest extent practicable. During the permitting process with SFWMD and USACE, the agencies will coordinate with Florida Fish and Wildlife Conservation Commission (FWC) and U.S. Fish and Wildlife Service (USFWS) respectively for comments. Comments may include protection or mitigation measures required to protect listed species and their habitats during design and construction phases. In addition, permits will be required for takings of listed species where applicable.

4.5 TRANSPORTATION & SAFETY CONTEXT

The SR 80 Corridor Action plan focuses on improving multimodal transportation in the study area. A number of transportation and safety factors were considered to gain an understanding of the existing issues and conditions in the area today. These include vehicular safety, roadway network, right of way, roadway conditions, traffic volumes, level of service, freight conditions, transit conditions, and pedestrian and bicycle conditions and safety. In general, it was found that the lack of parallel facilities and a well connected roadway network in the study area forces traffic to utilize SR 80 as their one and only option to reach their destination. The transit, pedestrian, and bicycling environments are poor, and there are a few locations with higher frequencies of vehicular, pedestrian, and bicycle safety issues. The findings are further described in this section.

4.5.1 Vehicular Safety

The crash data for the years 2010 through 2014 was obtained from the FDOT Crash Analysis Reporting System (CARS). For the five year study period there were 2008 crashes including 20 fatal crashes and 1168 injury crashes. For the overall corridor, the highest crash type was rear end, comprising 44% of total crashes. Angle and fixed object/run off the road were the second and third highest crash types. 20 people were killed in crashes over the five year period, with 6 of them being pedestrians or bicyclists.

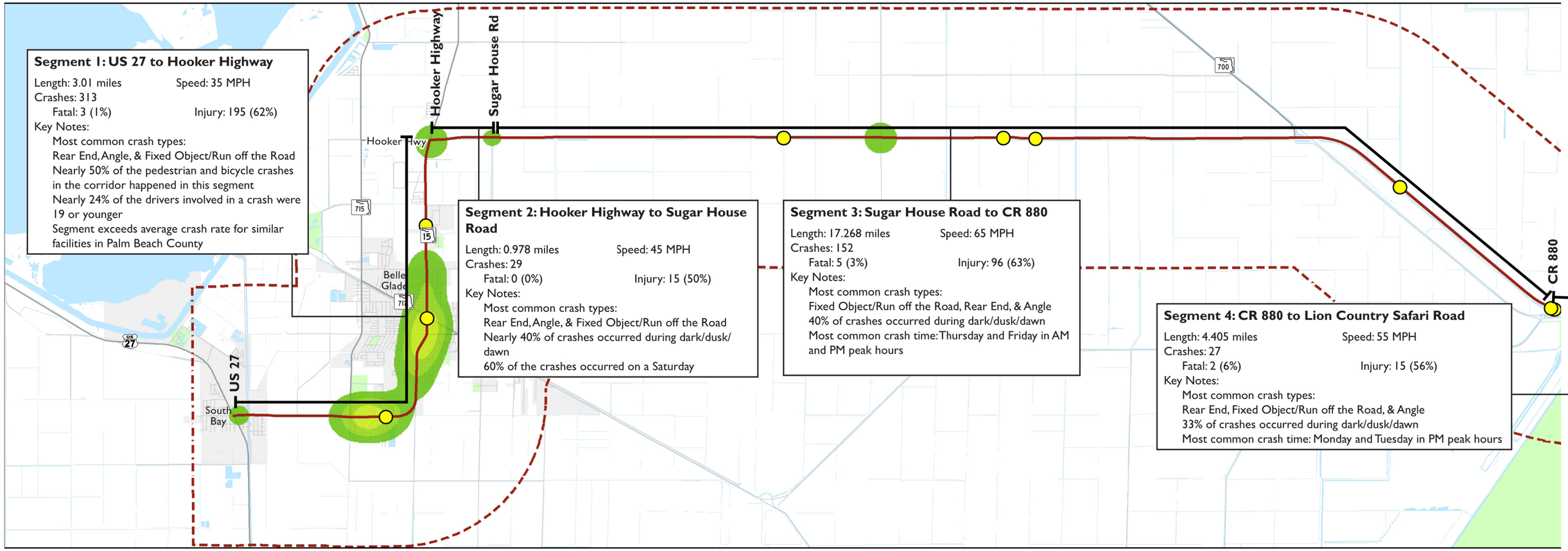
While the corridor does have some roadway lighting, approximately 32% of the crashes occurred during dusk/dark/dawn time periods with low lighting conditions. As shown in Figure 33, the annual number of crashes is generally showing a gradual increase over the five- year study period.

As can be seen in Figure 34, the safety review was broken into segments based upon roadway type and posted speed limits. Figure 31 describes the characteristics of each segment. The segment from US 27 to Hooker Highway shows the highest overall critical ratio with all five crash years exceeding the Palm Beach County average crash rate for similar facilities. This segment also had the highest number of pedestrian and bicycle crashes, which made up 17 of the corridor's 40 total pedestrian and bicycle crashes. Traffic volumes on this segment are generally lower than other segments of the corridor and result in higher accident rates.

The highest crash location along the corridor is the SR 7 interchange area with 158 crashes. The Sansbury's Way signalized intersection has the second highest number of crashes with 103 over the five- year period. The Turnpike interchange area has the third highest number of crashes with 99. These intersections are all located in analysis segment 7.

Rear-end crashes were the highest crash type and over 75% of these crash types occurred between Palms West Parkway and I-95. Angle crashes were the second highest crash type and over 65% of these crashes also occurred between Palms West Parkway and I-95. Fixed object/run off the road was the third highest crash type and had the highest number of fatalities of any crash type. A majority of the fixed object/run off the road crashes (51%) occurred

Figure 34 | Crashes and Fatalities Along SR 80, 2010-2014



between US 27 and Palms West Parkway. The high number of rear end and fixed object/lane departure crash types may indicate speed in the corridor could be a contributing factor in the crashes.

Finally, 24.2% of the crashes involved a driver under age 20 and 49.2% involved drivers under age 30. The number of crashes involving a driver under age 20 is exactly equal to the number of crashes involving drivers being age 50 or older.

Other issues identified through these analyses include:

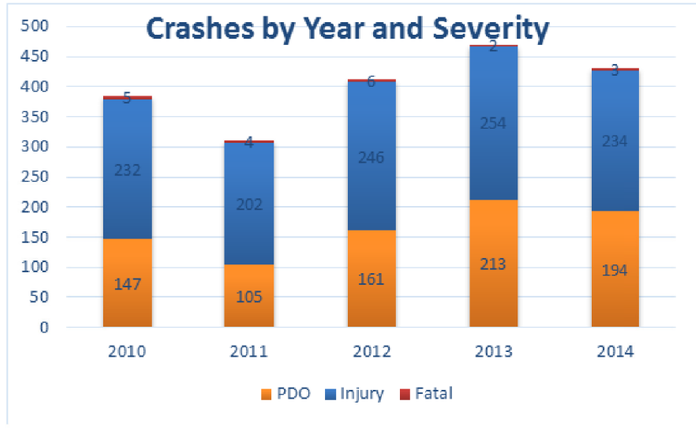
Speed differential between heavy trucks and oncoming traffic

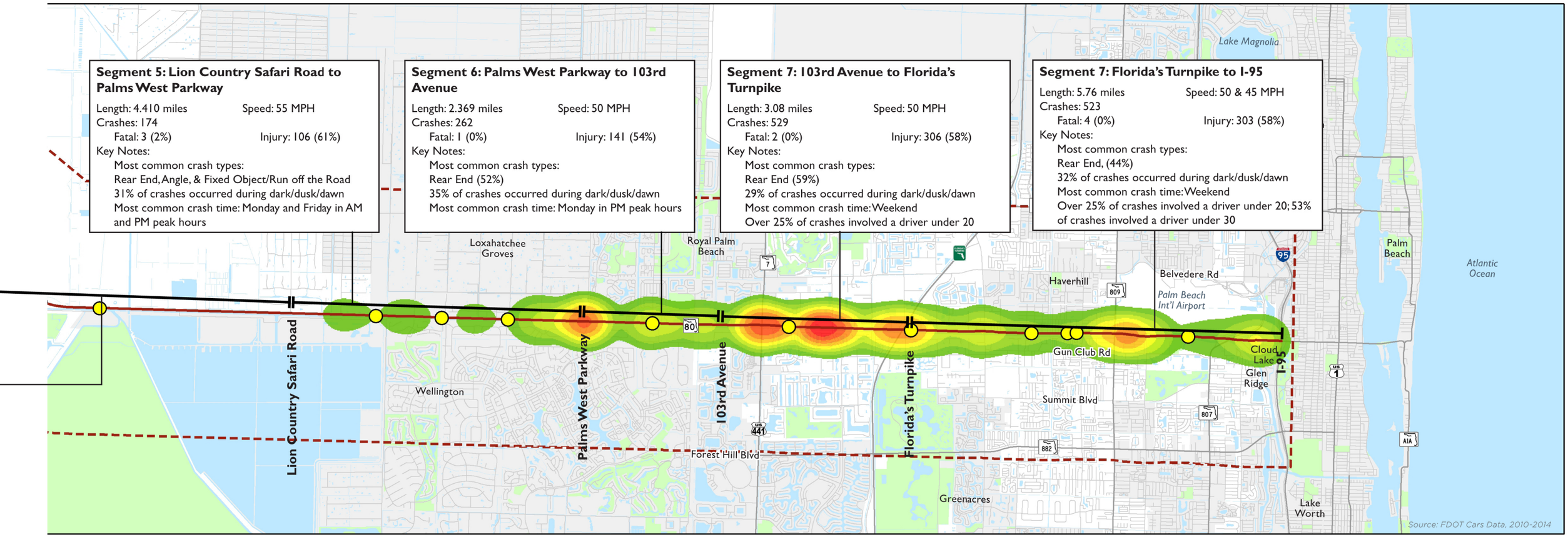
Heavy trucks enter the roadway at low speeds and must travel a long distance to accelerate to typical highway speed. The difference in speeds of trucks entering the roadway and oncoming traffic is a safety concern.

Infrastructure

Some guardrails along the corridor may be considered low in stature given the number of heavy trucks traveling SR 80. In addition, low-level or no lighting is present along rural and transitioning stretches of the corridor.

Figure 33 | Annual Crashes along SR 80, 2010-2014





4.5.2 Roadway Network & Right of Way

Figure 35 shows the existing street network in the areas to the north and south of SR 80. These areas along the corridor have developed in a traditional suburban pattern with many roads terminating at the end of housing developments, which impedes access through the greater network. Additionally, there are many gated communities, roads that only connect to themselves, and other access restrictions that limit the roadway network connectivity.

In order to better display the impact of this, Figure 36 shows the connected roads. Dead-end streets, gated communities, and streets that do not connect through to other streets are removed in order to show graphically the actual connectivity of the street network.

As illustrated by Figure 37, SR 80 is the only east-west connection between cities to the west near Lake Okeechobee and towns and cities to the east near the Atlantic, requiring all types of travelers to use SR 80 for east-west travel in this part of Palm Beach County. The street network in the eastern part of the study area has some east-west connectivity with Okeechobee Road (SR 704) to the north and Forest Hill Boulevard (SR 882) to the south. However, SR 80 is the main route for vehicular travel, which helps to explain the congestion experienced on the corridor. Improving the surrounding and parallel network could help to alleviate some of this traffic by creating alternate routes for vehicles that do not need to utilize SR 80, especially for short trips.

Figure 38 shows the existing right-of-way (ROW) along the corridor. ROW represents the amount of space dedicated to the corridor and not owned by adjacent property owners. The ROW ranges from less than 120 feet at the bridge crossing of the Hillsborough Canal in South Bay to more than 240 feet for a short distance to the east of the connection with Hooker Highway. Palm Beach County has developed typical cross sections for the major roads in the county based on existing and future land uses and roadway type. Based on that information, the county developed a thoroughfare right-of-way identification map plan that shows the needed ROW to accommodate the typical section for the roadway type. It designates all of SR 80 as needing 220' of ROW. This is an important consideration when determining future alternatives, as future redevelopment may be required to dedicate additional ROW to the corridor to meet the needs.

Figure 35 | Entire Roadway Network/Existing Network

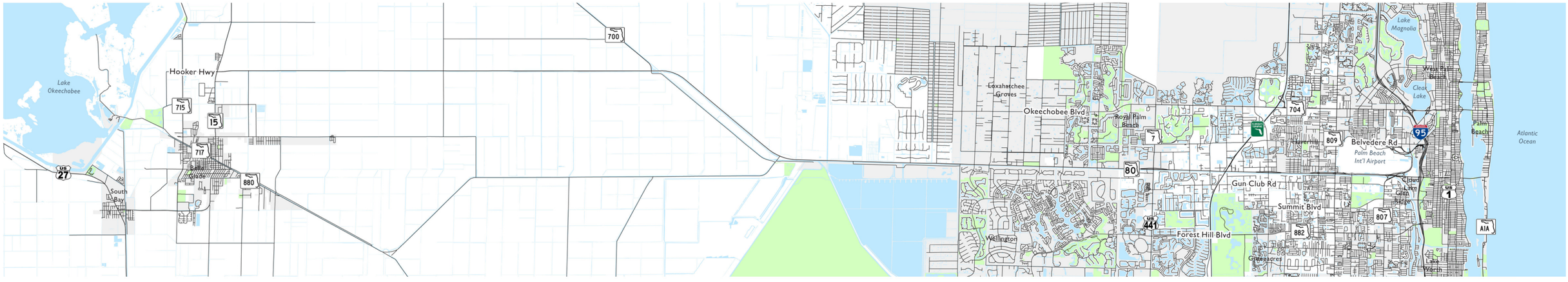


Figure 36 | Connected Roadway Network Only/Actual Effective Network (Excludes dead-end streets, gated communities, and streets that do not connect through to other streets)

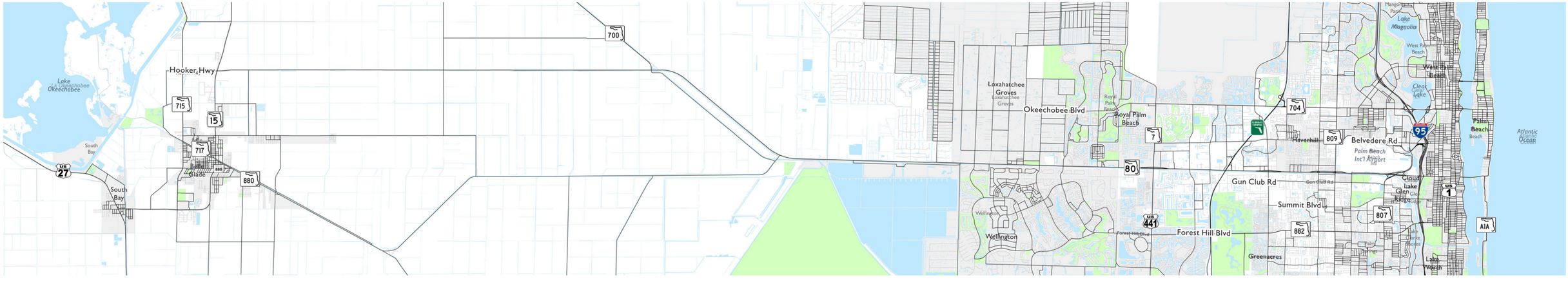
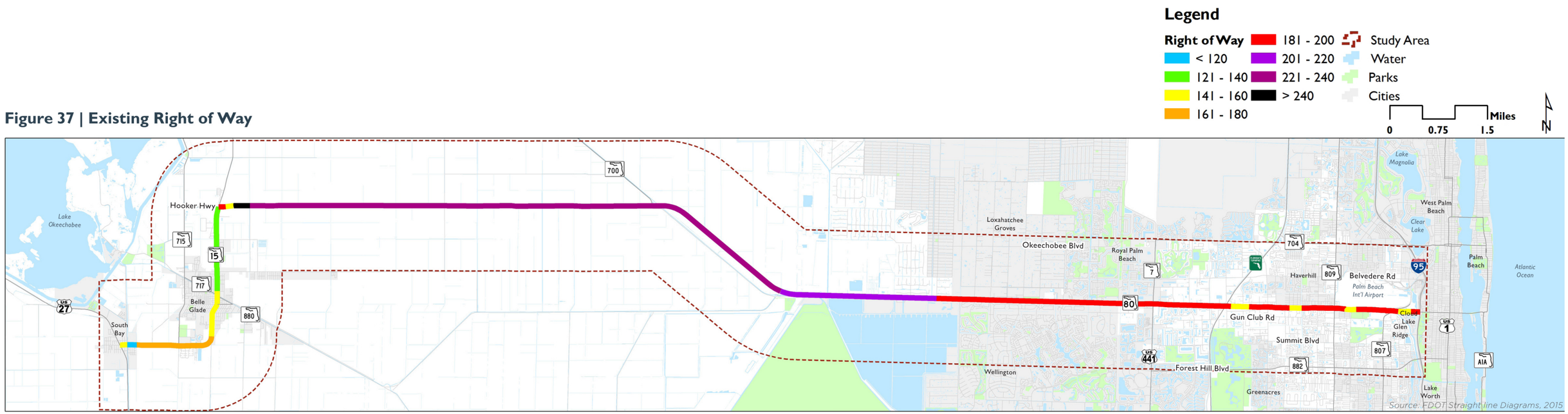


Figure 37 | Existing Right of Way



NOTE: FDOT D4 GIS Portal should be referred to for most up-to-date ROW.

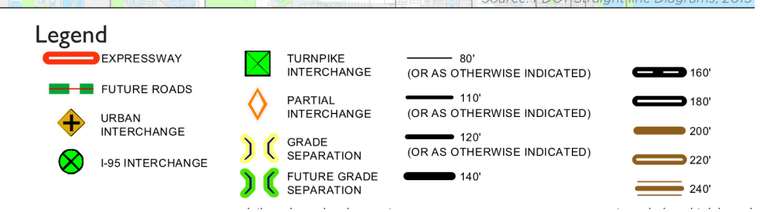
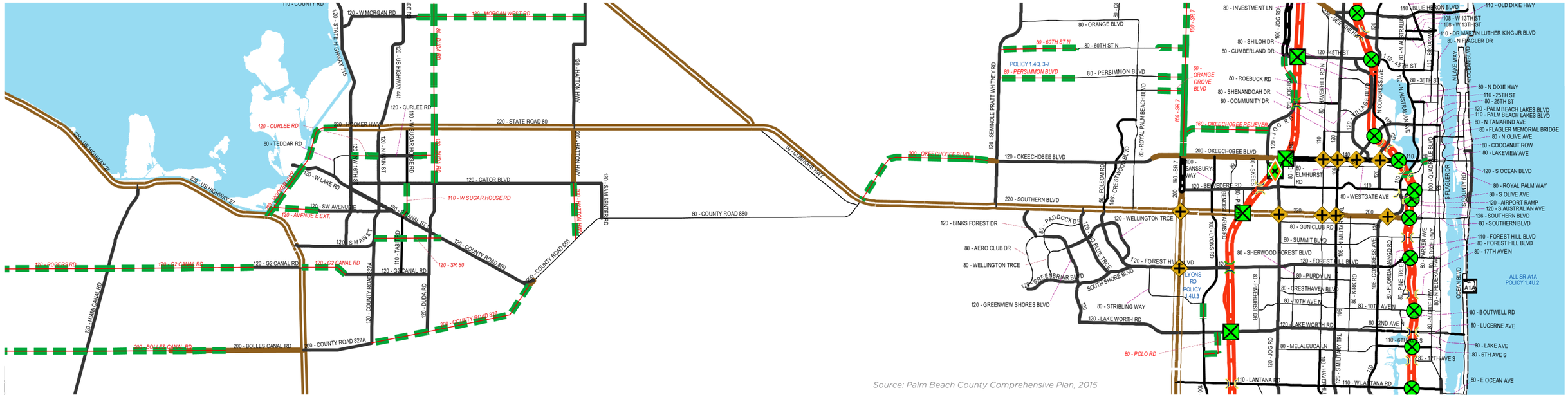


Figure 38 | Palm Beach County Thoroughfare Right of Way Identification Map



Source: Palm Beach County Comprehensive Plan, 2015

4.5.3 Existing (2014) Traffic Volumes & Level of Service

As a key regional arterial in an area of significant growth with little parallel roadway connectivity, it is not surprising that the SR 80 corridor is experiencing heavy traffic volumes. Traffic congestion impacts operating speeds and therefore affects east-west mobility along SR 80. Traffic volumes vary throughout the corridor between 8,800 and 74,000 vehicles per day.

FDOT maintains a policy and procedure addressing the operating level of service target for the State Highway System, including the SIS. The term "level of service" is defined as the system of six designated ranges from "A" (best) to "F" (worst) used to evaluate roadway facility performance. FDOT sets its LOS targets based on area type, with LOS D being the minimum target for most of the corridor during the peak hour. The LOS target is "C" for the rural portion of the corridor between Sugarhouse Road and Lion Country Safari Road. As shown in Figure 39, there are some areas in Belle Glade and Haverhill that are operating at LOS D, or "at-capacity." There is also a segment operating at LOS E or lower between Forest Hill Blvd and Cypress Head Ave. On the surrounding network, there are several sections of Forest Hill Blvd that are operating at LOS D or below, and the rest of the network seems to be operating well.

Certain segments of the SR 80 corridor serve much higher demand than others, including the segment from 1st Street to Canal Street in Belle Glade, which carries up to 21,000 vehicles per day over four lanes, with numerous access points. Other areas of the corridor experience much higher traffic volumes—up to 71,000 vehicles per day—but are six to eight lanes wide with grade-separated intersections. The section of Southern Boulevard (SR 80) in Royal Palm Beach and West Palm Beach provides access to numerous residential areas and shopping centers, as well as Palm Beach International Airport, which creates added demand in the area. The lowest volumes on the corridor are located in the rural area between Belle Glade and Loxahatchee Groves—this segment carries approximately 9,000 vehicles per day.

Due to the seasonal nature of traffic in the area, the roadways experience different traffic volumes and patterns throughout the year. A seasonal trend analysis was completed for the study area to understand the full impact of the seasonal changes in traffic and is displayed in Figure 40. It was found that areas of the roadway to the west of SR 7 experience greater seasonal trends than east of SR 7, with July experiencing 15 to 20 percent higher traffic volumes than February.

Figure 40 | SR 80 Seasonal Factors

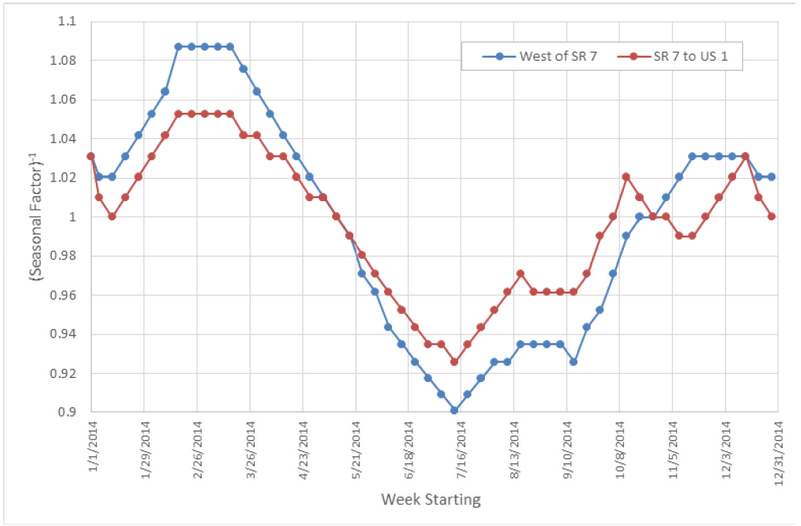
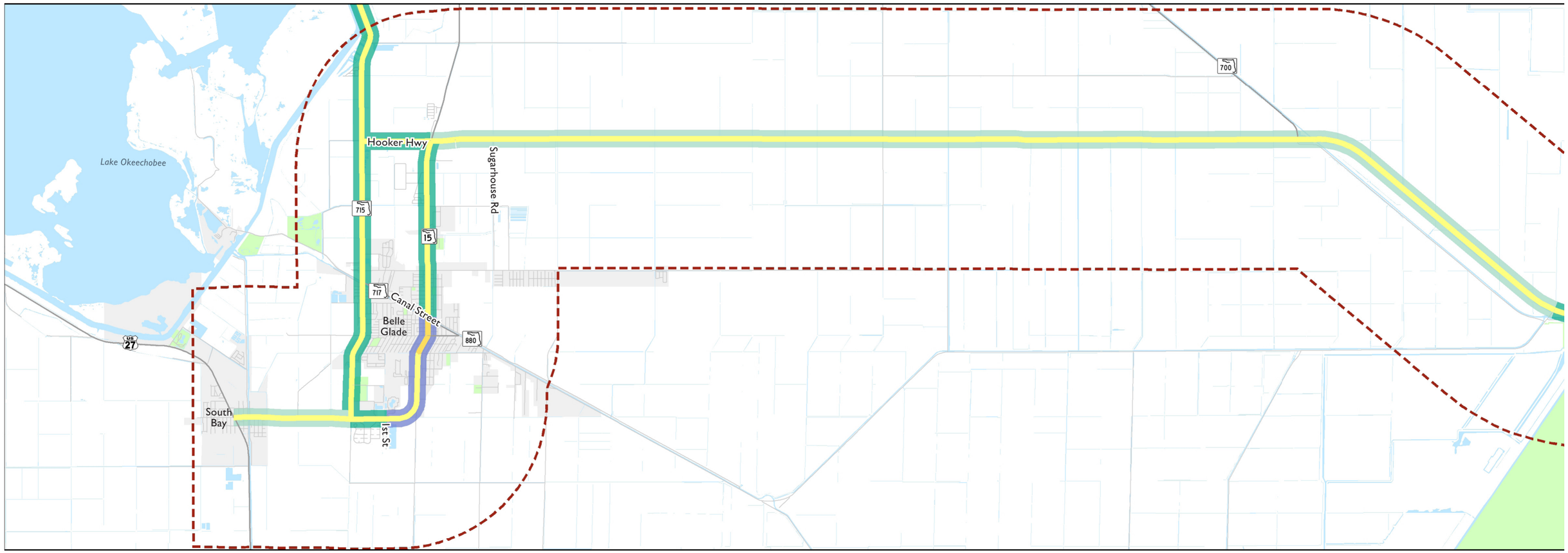
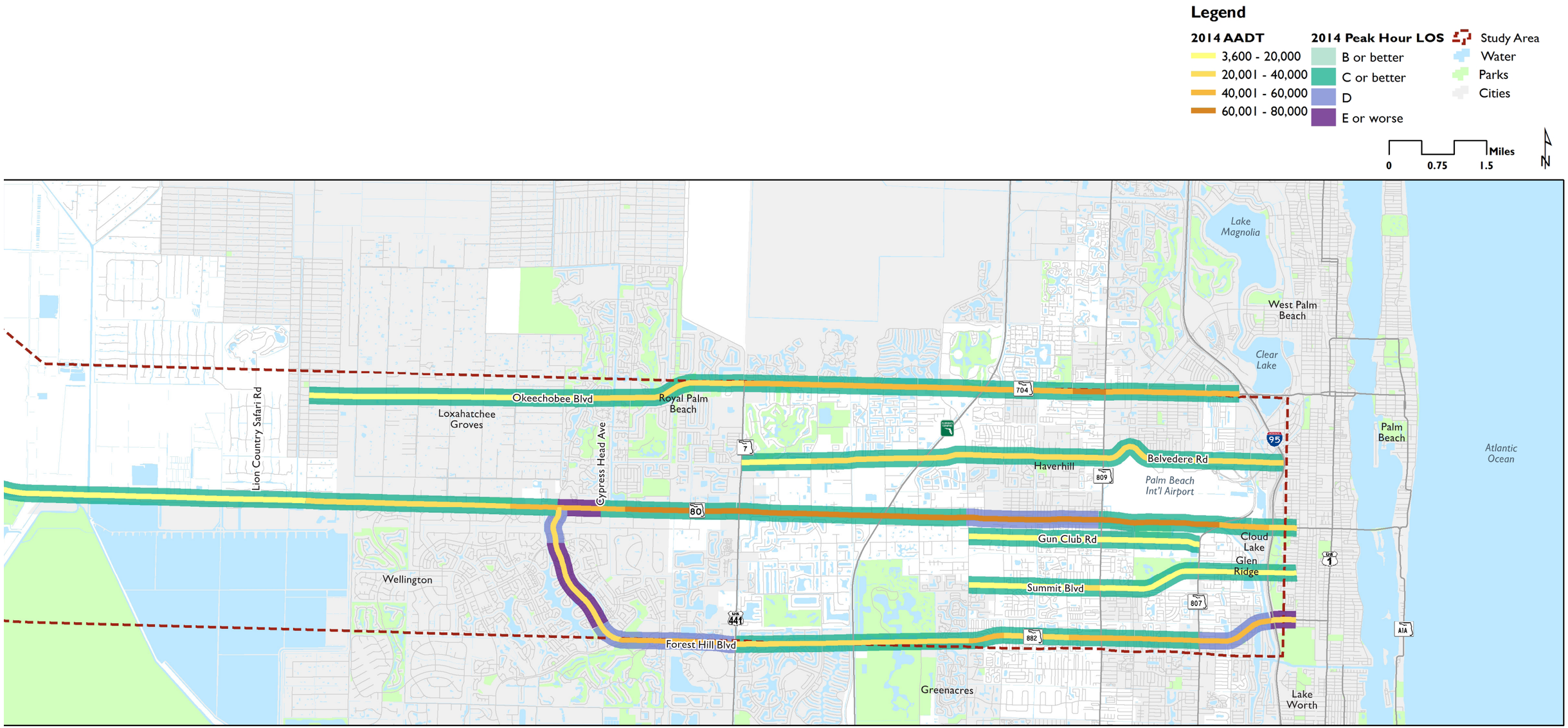


Figure 39 | 2014 AADT and Peak Hour Level of Service




Legend
2014 AADT
3,600 - 20,000
20,001 - 40,000
40,001 - 60,000
60,001 - 80,000
2014 Peak Hour LOS
B or better
C or better
D
E or worse
Study Area
Water
Parks
Cities
Miles
0
0.75
1.5
N
Lake Magnolia
West Palm Beach
Clear Lake
Palm Beach
Atlantic Ocean
Okeechobee Blvd
Royal Palm Beach
Loxahatchee Groves
Lion Country Safari Rd
Cypress Head Ave
Haverhill
Belvedere Rd
Palm Beach Int'l Airport
Gun Club Rd
Cloud Lake
Glen Ridge
Summit Blvd
Wellington
Forest Hill Blvd
Greenacres
Lake Worth
704
7
809
80
807
882
441
95
1
A1A

4.5.4 Future (2040) Traffic Volumes & Level of Service

TRAFFIC VOLUME DEVELOPMENT

In developing future year 2040 AADTs for the No-Build alternative, historic growth rates in the project vicinity, as well as growth rates forecasted by the subarea-validated version of the Southeast Florida Regional Planning Model (SERPM) were evaluated. A set of recommended growth rates were developed to compute future AADTs. These growth rates were developed for the key arterial segments within the study area.

Travel Demand Forecasting

The 2017 travel demand forecasting model for the study area is SERPM v7.051, which has a base year of 2010 and horizon year of 2040. The subarea model was prepared and validated by the FDOT based on procedures outlined in the FDOT 2014 Project Traffic Forecasting Handbook and the FSUTMS-Cube Framework Phase II: Model Calibration and Validation Standards. Modifications were made to the subarea model to apply it to this study as detailed in the *SR 80 Subarea Model Validation Report and Application Guide*. Modifications consist of updates to posted speeds, number of lanes, and traffic signal locations. For future model forecast scenario analysis the TAZ structure and roadway network were modified to be consistent with the 2010 base year validated model structure. To incorporate the latest approved future land uses, future 2040 socio-economic data was imported from the SERPM v7.061 model. After the existing and future year model results were generated, the design traffic process consisted of using the validated subarea travel demand model to develop model AADTs, and using approved traffic factors to convert daily volumes into directional design hour volumes. The following future land uses were added to the model during the study to ensure projections were accounting for approvals that occurred post the model activities being completed.

- Indian Trail Groves
- IOTA
- Avenir
- Central Park Commerce Center

It was discussed and understood throughout the study process that projections would be only quantifying an estimate of a snapshot in time and that realistically development approvals are frequently changing.

Recommended Growth Rates and Future AADTs

The development of recommended growth rates was based on comprehensive evaluation of historical trends and SERPM projected growth rates that included approved development within the county. Recommended growth rates were determined with a minimum of 0.5% growth and maximum of 6.5% growth and were developed to be consistent among large sections of roadway.

The projected 2040 truck AADT was developed by applying the model growth of truck volumes to the existing truck volumes.

YEAR 2040 NO-BUILD ANALYSIS

The year 2040 no-build analysis includes an assessment of traffic operations along the SR 80 corridor if no geometric improvements, except for programmed improvements described below, are made to the roadway.

Programmed Improvements

The FDOT 2017-2021 Five Year Work Program, FDOT 1st and 2nd 5-year SIS Work Programs and Palm Beach TPA 2017-2021 Transportation Improvement Program (TIP) were reviewed for programmed improvements to assume within the study area. The following were identified:

- The intersection improvements at the intersection of Southern Blvd SR 80 and Crestwood Blvd/Forest Hill Blvd (FM 436307-1), programmed for construction in the year 2020
- Project FM 419345-2 will widen Southern Blvd SR 80 to 6-lanes from immediately east of the Canal L-8 bridge and tie into the improvements at Crestwood Blvd/Forest Hill Blvd. This projected is programmed for construction in 2018.
- Additional turn lanes are programmed at the intersection of Southern Blvd (SR 80) and SR 7 (U.S. 441) for 2024. Preliminary Engineering is scheduled for 2021.
- Intersection improvements at Southern Blvd (SR 80) and Sansbury Way/ Lyons Rd (FM 435158-1) are programmed for construction in 2018. The 30% design plans are scheduled for submission in late 2016 and construction is funded for 2018.
- Westbound right-turn lanes with formal bicycle lanes will be added on SR 80 at both of the signalized intersections with Pike Road and the NB Ramps to Florida's Turnpike (FM 436302-1). This project is programmed for construction in 2018.
- There is an ongoing Project Development & Environment Study (PD&E) to develop the ultimate interchange design for I-95 at Southern Blvd (SR 80) (FM: 435516-1). This improvement is scheduled for construction in 2024.

LOS Target and 2040 No-Build Segment Analysis

On state highways, including SIS facilities, FDOT requires LOS D or better in urban areas and LOS C or better in rural areas.

Shown in Figure 41, 2012 FDOT Generalized Service Volumes were used to determine the 2040 no-build LOS for each segment. The 2040 no-build AADTs and corresponding LOS for SR 80 are shown in the figure. As shown in the table, no SIS or SHS segment along the SR 80 corridor from Big Blue Trace to I-95 is forecast to meet the FDOT target under the 2040 no-build volumes. More details on this information as well as the 2040 no-build AADTs and corresponding LOS for the other study area roadways are in supporting documentation. The following figure summarizes the LOS for the corridor in the year 2040.

Figure 41 | 2040 No-Build Segment Analysis

Roadway	From	To	2014 AADT	Applied Growth Rate	2040 No-Build AADT	K-factor	D-factor	Est. Peak Hour Vol – 2040 No-Build	Area Type	2040 Num. of Lanes	LOS Standard	(Pk Hr) Std Svc Vol Threshold	2040 No-Build LOS (Est. Pk Hr)
SR 80	US 27	SR 715	16,600	0.5%	19,000	9	57.8	990	Urban	4	D	3,240	B
SR 80	SR 715	1st St	14,200	0.5%	16,000	9	57.8	830	Urban	4	D	2,000	C
SR 80	1st St	S Ave G	16,800	0.5%	19,000	9	57.8	990	Urban	4	D	2,000	C
SR 80	S Ave G	Canal St S	20,500	0.5%	23,000	9	57.8	1,200	Urban	4	D	1,630	D
SR 80 / SR 15	Canal St S	Airport Rd	17,400	0.5%	20,000	9	57.8	1,000	Urban	4	D	2,000	C
SR 80 / SR 15	Airport Rd	US 98 / Hooker Hwy	12,600	0.5%	14,000	9	57.8	730	Urban	4	D	2,000	C
SR 80	US 98 / Hooker Hwy	Belle Glade Service Center	8,900	6.5%	24,000	9.5	57.8	1,300	Rural	4	C	2,100	B
SR 80	Belle Glade Service Center	SR 700 / Conners Hwy	8,800	6.5%	24,000	9.5	57.8	1,300	Rural	4	C	2,100	B
SR 80	SR 700 / Conners Hwy	CR 880 / 20-mile bend	13,100	6.5%	35,000	9.5	57.8	1,900	Rural	4	C	2,100	C
SR 80	CR 880 / 20-mile bend	Lion Country Safari Rd	13,100	2.5%	22,000	9	57.8	1,100	Urban	4	D	2,560	D
SR 80	Lion Country Safari Rd	Seminole Pratt Whitney Rd	18,500	2.5%	31,000	9	57.8	1,600	Urban	6	D	3,020	C
SR 80	Seminole Pratt Whitney Rd	Binks Forest Dr	28,500	2.5%	47,000	9	57.8	2,400	Urban	6	D	3,020	C
SR 80	Binks Forest Dr	Big Blue Tr	30,000	2.5%	50,000	9	57.8	2,600	Urban	6	D	3,020	C
SR 80	Big Blue Tr	Forest Hill Blvd	41,500	2.5%	68,000	9	57.8	3,500	Urban	6	D	3,020	F
SR 80	Forest Hill Blvd	Cypress Head Ave	56,000	1.5%	78,000	9	60.3	4,200	Urban	6	D	3,020	F
SR 80	Cypress Head Ave	Royal Palm Beach Bl	52,000	1.5%	72,000	9	57.8	3,700	Urban	6	D	3,020	F
SR 80	Royal Palm Beach Bl	Lamstein Ln	66,500	1.5%	92,000	9	59.5	4,900	Urban	8	D	4,040	F
SR 80	Lamstein Ln	SR 7	67,000	1.5%	93,000	9	60.3	5,000	Urban	8	D	4,040	F
SR 80	SR 7	Fla Turnpike entrance	69,500	1.5%	97,000	9	60.3	5,300	Urban	8	D	4,040	F
SR 80	Fla Turnpike entrance	Jog Rd	61,000	1.5%	85,000	9	60.3	4,600	Urban	8	D	4,040	F
SR 80	Jog Rd	Haverhill Rd	73,500	1.5%	102,000	9	60.3	5,500	Urban	6	D	4,860	F
SR 80	Haverhill Rd	SR 809 / S Military Tr	71,000	1.5%	99,000	9	60.3	5,400	Urban	6	D	4,860	F
SR 80	SR 809 / S Military Tr	SR 807 / S Congress Ave	70,500	1.5%	98,000	9	60.3	5,300	Urban	8	D	4,040	F
SR 80	SR 807 / S Congress Ave	Gem Lake Dr	59,500	1.5%	83,000	9	60.3	4,500	Urban	8	D	4,040	F
SR 80	Gem Lake Dr	Lang Rd	49,000	1.5%	81,000	9	60.3	4,400	Urban	8	D	4,040	F
SR 80	Lang Rd	I-95	58,000	1.5%	81,000	9	60.3	4,400	Urban	8	D	4,040	F
SR 80	I-95	Parker Ave	31,500	1.0%	40,000	9	60.3	2,200	Urban	4	D	2,000	F

4.5.5 Freight

SR 80 is an important corridor for regional economic development and the movement of freight and goods. The communities in the Lake Okeechobee Area are reliant upon an agricultural and mining economic base with truck transportation as a fundamental need. Maintaining and improving SR 80 as a reliable statewide and regional transportation facility is critical to the quality of life in Belle Glade, Pahokee and South Bay. SR 80 provides access to statewide, national, and international markets via I-75 on the west coast of Florida and US 27, Florida's Turnpike, and I-95 within the study area. The corridor also provides a direct connection to Palm Beach International Airport and access to international markets via the Port of Palm Beach.

The predominant commodities moved on the corridor are sugar, molasses, vegetables, and aggregate. Reliable access to the Port of Palm Beach is critical to the sugar, molasses, and vegetable industries, and access to I-95 and Florida's Turnpike is critical to the aggregate industry.

The importance of SR 80 and freight connections to the Port of Palm Beach, Florida's Turnpike and I-95 is fundamental in understanding existing operations in the corridor. The truck volumes and percentages include a base of line haul freight activity from the western mines, farms and refineries moving through the developed areas to connect to the Port, Turnpike and I-95. Because of this, traffic on SR 80 has a major impact on freight movement and on the economy. Freight industry experts noted that as congestion has grown on SR 80 and Seminole Pratt Whitney Road the molasses movers working day has extended an additional two hours. In response, the Port had to extend hours for access to facilities.

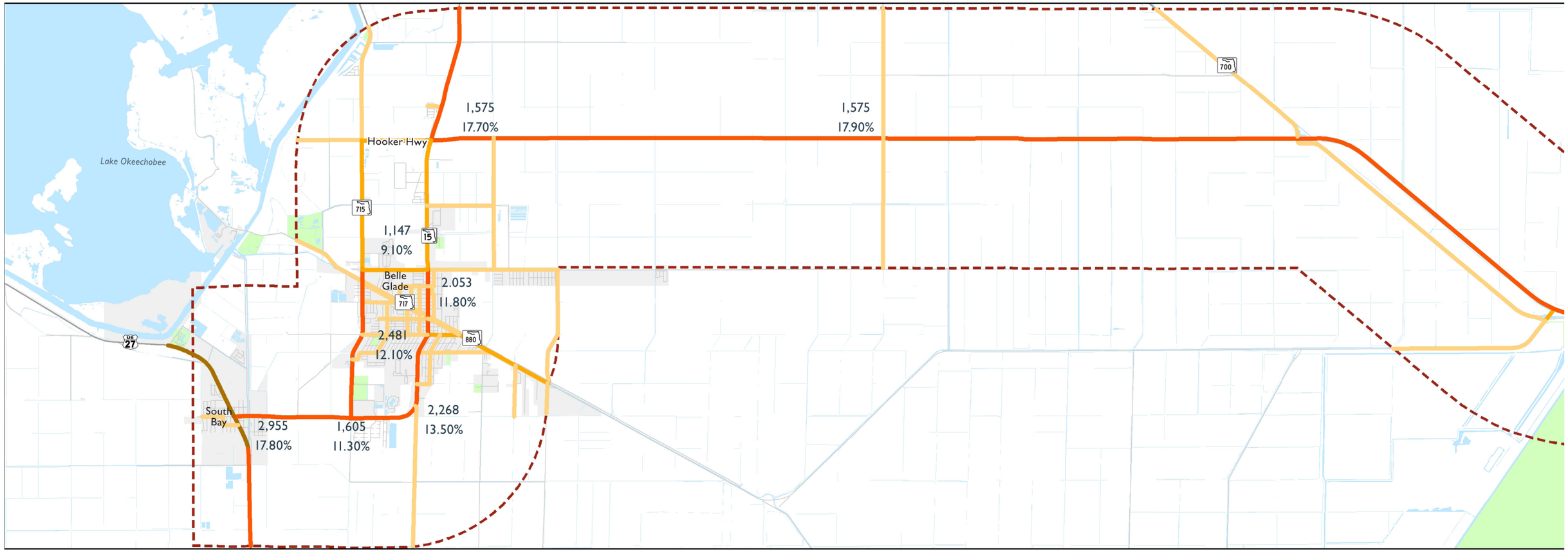
As shown in Figure 42, there is typical rural versus urban freight activity in the corridor. The more rural areas in the western half of the corridor, have lower volumes of all vehicles, including trucks, but the percent of all vehicles that are trucks is higher. In Belle Glade, where SR 80 also acts as a main street, this can cause safety and quality of life conflicts as trucks, vehicles, and people share the street. Additionally, in the agricultural areas, there is conflict between the slow moving farming vehicles and trucks that cross SR 80 and the high speeds of vehicles using SR 80. The more urbanized areas in the eastern half of the corridor, have higher volumes of all vehicles, but lower percentages of trucks.

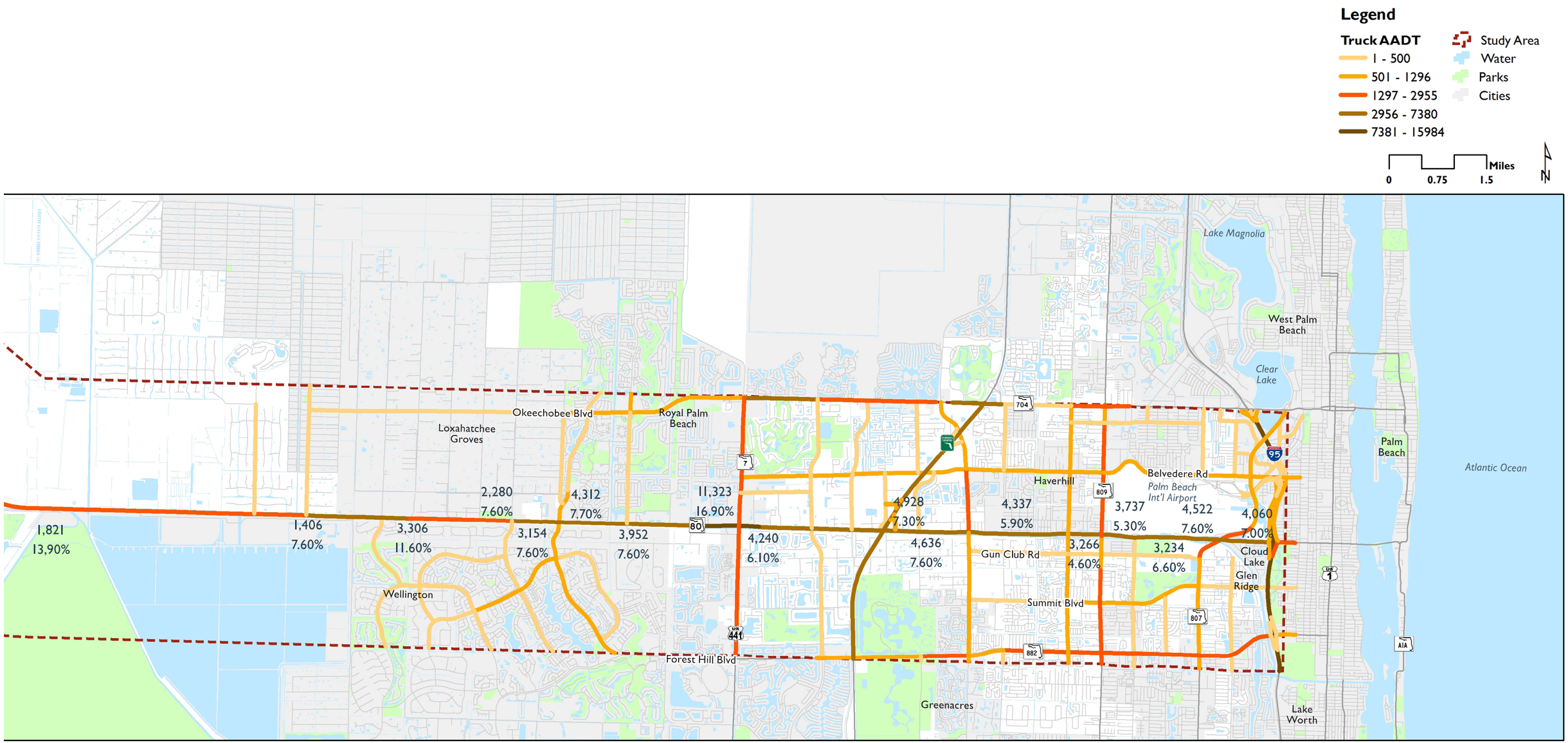
There are two peak trucking seasons: the vegetable harvest peak from October to April and the sugar/molasses peak from November to February. The freight peaks overlap with the holidays in November and December and the peak tourist season from January to February.

On a daily basis, most truck traffic occurs in the daytime between typical commuter peak periods, further adding to congestion. However, in the eastern section of the corridor, the highest truck activity is experienced mid-day. This most likely reflects consumer goods deliveries to the commercial properties coming from distribution centers around the region in addition to the base line haul traffic between the western communities, the Port, I-95, and the Turnpike.

Freight volumes are anticipated to continue to grow as development occurs and have already changed from those shown in Figure 42. This is especially true when considering the very large planned/proposed developments focused on logistics and trade, such as the Intermodal Logistics Center (ILC) in the Belle Glade area. Section 4.7.2 has a visual graphic showing where the ILC is planned. Therefore, freight will continue to be an important component of the corridor, and future improvements will need to accommodate freight needs.

Figure 42 | Truck Volumes and Percentage




Legend
Truck AADT
1 - 500
501 - 1296
1297 - 2955
2956 - 7380
7381 - 15984
Study Area
Water
Parks
Cities
0
0.75
1.5
Miles
N
Lake Magnolia
West Palm Beach
Clear Lake
Palm Beach
Atlantic Ocean
Okeechobee Blvd
Royal Palm Beach
Loxahatchee Groves
Wellington
Haverhill
Belvedere Rd
Palm Beach Int'l Airport
Gun Club Rd
Summit Blvd
Cloud Lake
Glen Ridge
Forest Hill Blvd
Greenacres
Lake Worth
1,821
13.90%
1,406
7.60%
3,306
11.60%
2,280
7.60%
3,154
7.60%
4,312
7.70%
3,952
7.60%
11,323
16.90%
4,240
6.10%
4,928
7.30%
4,636
7.60%
4,337
5.90%
3,266
4.60%
3,737
5.30%
3,234
6.60%
4,522
7.60%
4,060
7.00%
7
80
441
704
95
809
807
882
1
A1A

4.5.6 Transit Context

Transit service in the SR 80 study area is provided by several agencies. Palm Tran is the main transit provider in Palm Beach County and operates five routes (Routes 40, 43, 47, 48 and 52) on segments of SR 80 within the study limits. It also operates other north/south routes that touch the study area at some point. The City of Belle Glade provides specialized transit planning support in coordination with Palm Tran to operate local circulators in Belle Glade and South Bay. These include the City of Belle Glade Purple and Green Routes. The routes have been funded by a grant for the past six years, however, the grant expires in 2016. As of the time of the development of this report, there is no dedicated funding for the upcoming fiscal year and the routes face elimination in July 2016. The Lee County Community Transportation Coordinator (CTC) also provides connecting service between Clewiston and Belle Glade through Good Wheels Inc., a non profit that provides for the transportation disadvantaged in Lee, Hendry and Glades Counties.

Figure 43 shows the transit routes and ridership on SR 80. Route 40 is the main service on SR 80 and provides limited stop service between West Palm Beach, Belle Glade, and the cities in-between. There are also three park and ride lots along the route, with the largest one located at Wellington Green Mall. Route 40 traverses along most of the corridor but diverts off of SR 80 between SR 7 and Forest Hill Boulevard to serve the Wellington Green Mall, a major employment center. However, there is a desire for service that does not divert to the mall, as this diversion increases trip time. The Palm Tran Transit Development Plan and the Palm Beach Long Range Transportation Plan identify a need for direct express service on SR 80 that does not divert to the Wellington Mall.

Weekday service for Route 40 is provided for 15 hours a day at 1 hour headways. The FDOT Transit Capacity and Level of Service Manual indicates that services at 1 bus per hour can be classified as Level of Service (LOS) D, however it can be said that industry standards for Limited Stop at 1 hour could be satisfactory. Saturday and Sunday service have shorter hours of service at 14 hours and 8 hours. Sunday service is truncated, providing service between Belle Glade and the Wellington Mall only. In general, daily ridership is low at only a little over 900 per day with 468 traveling eastbound and 454 traveling westbound.

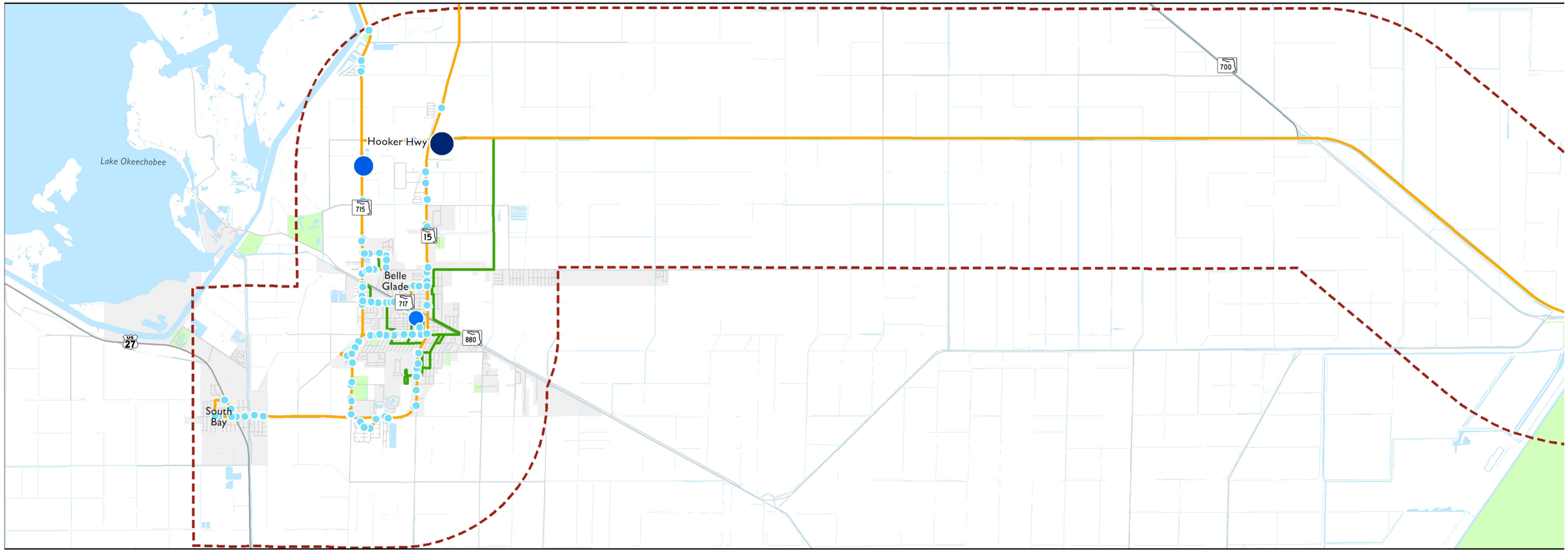
Routes 47 and 48 provide service in the South Bay/Belle Glade and Pahokee area and operate in coordination with the City Routes. Routes 47 and 48 carry approximately 832 and 550 passengers per day, respectively.

Routes 52 and 43 provide very little service on SR 80. Route 52 serves a stop at SR 80/Lamstein Lane and both Routes 52 and 43 serve the SR 80/SR 7 stop connecting to Route 40. Route 52 only operates in the westbound direction as part of a loop. Passenger activity on these routes is very low.

In general, transit in the corridor is not well utilized. This is likely a result of the lack of development dense enough to support transit, the poor pedestrian access to bus stops, and the overall poor pedestrian environment. Even so, transit is well utilized in the Belle Glade area.

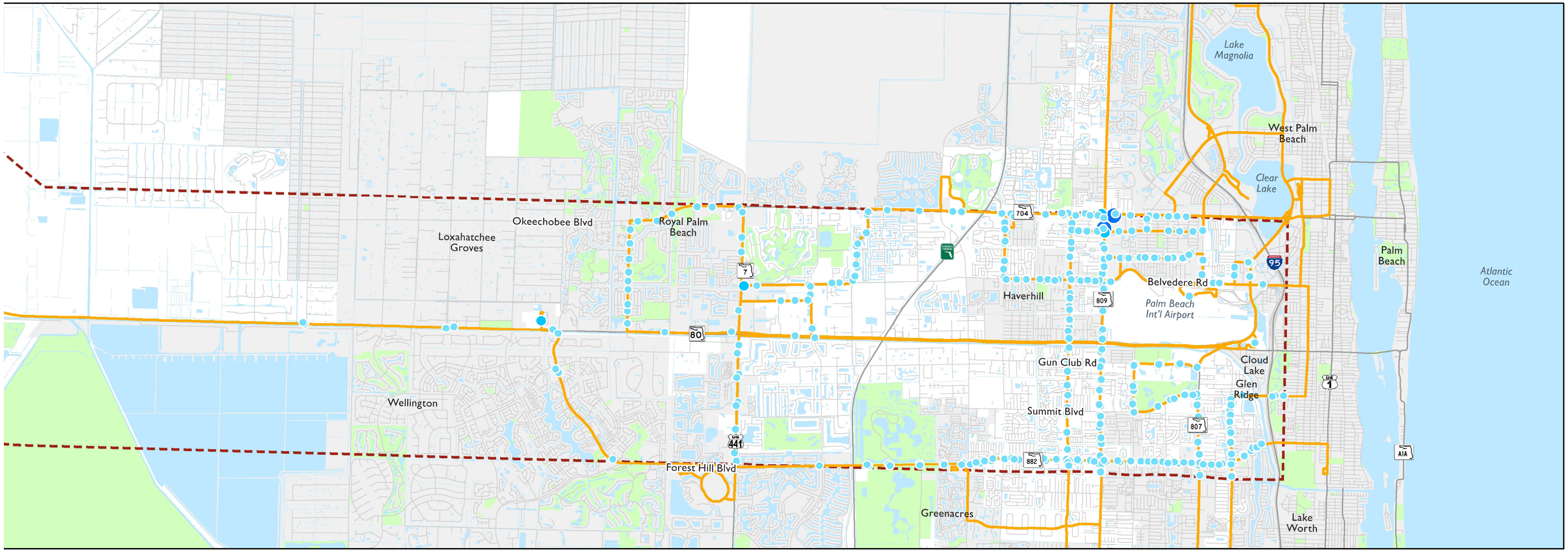
The Belle Glade Routes are critical to the communities of Belle Glade, South Bay and Pahokee as they provide circulators within the community connecting to the Palm Tran Routes 40, 47 and 48. There are 4 City Routes with the Purple and Green Routes actually operating on SR 80 as part of their service. The overall City system averages 2,900 riders per day. As noted earlier, the routes are now facing a funding crisis and may be discontinued in upcoming months.

Figure 43 | Transit Routes and Ridership on SR 80



Looking north on SR 80 in northern Belle Glade, the bus stop shown in the picture has no pedestrian access to the stop or to the land uses behind the canal.

In other areas, there are better transit amenities provided. This stop between SW 3rd Avenue and SW 1st Avenue in Belle Glade has a shelter, seating, garbage disposal, and a wide sidewalk.



4.5.7 Transit Readiness

In order for transit to be successful, there needs to be certain population densities and land use patterns in place. Higher population densities increase the number of people who can use transit, which raises revenue that can help to pay to keep the service in operation. FDOT has published the Florida TOD Guidebook to act as a guide for cities that are planning for transit oriented development (TOD). This book references research done on minimum densities for transit with the following results:

TOD Supportiveness	Type of Transit Service	Density Threshold (dwelling units/acre)	Density Threshold (people/acre)*
Non TOD-Supportive	Local Bus (1 bus/Hour)	4-5	10-13
TOD Supportive	Intermediate Bus (1 bus/30 Min)	7	18
	Premium Bus (1 bus/10 Min)	15	38
	Light Rail	20-30	50-75

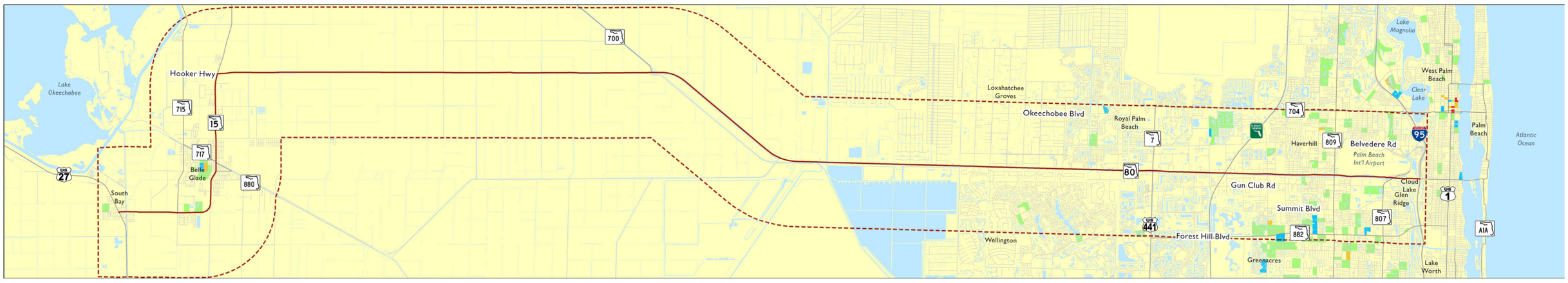
Figure 44 show the population densities in the study area. As can be seen, most of the study area only supports local bus. Although densities increase in the future, they generally do not, on their own, show the potential to support more premium modes of transit.

Land use plays an important role in the support of transit. As noted in FDOT's TOD Guidebook, the densities need to be located in a compact area to really support premium transit. When densities are compact, uses can be mixed and areas can become more walkable. This is critically important to transit use, as transit is generally accessed via walking or bicycling. In the low-density, single use, and sprawling areas seen throughout much of the corridor, there is generally greater distances between uses that encourages automobile use.

Various mode and technology options exist to connect the region's destinations in the future. as shown in Figure 45. The following modes and technologies are being considered in the region although they may not be applicable along SR 80. If the community desires, development patterns can be changed in the future to better support transit making premium transit modes more fitting. The ranges and information presented are high level and based on international experience, and may not reflect current local implementation practices.

*Note: population conversion assumed an average of 2.5 persons per household based on 2010 Census Data

Figure 44 | 2014 Population Per Acre



CIRCULATOR BUS

- Route Length within Defined Campuses/Downtowns
- 8 to 30 Passengers Per Vehicle
- Operated and Funded by Self-taxing Districts, Transit Agencies, Business Owners, Etc.
- Flexible or Fixed-route Service or Schedule Service
- Typically Curb-to-curb Service
- Can be Used to Connect to other Transit Modes- I.E. Regular City Bus, Commuter Rail, Etc.
- No Minimum Density

STREETCAR

- Route Length less than 5 Miles
- Exclusive Lanes or Mixed Traffic
- Runs on Embedded Steel Rail Tracks
- Historic Trolleys or Modern Streetcar
- Typically Slower in Speeds than LRT, but Modern Streetcars are Faster than Historic Streetcar
- Minimum Density: 15 du/ac

LIGHT RAIL TRANSIT

- Route Length 5 to 25 Miles
- Electric Powered Rail Cars Propelled by Overhead Catenary Wires
- Exclusive Lanes, At-grade or Grade-separated
- Dedicated Stations; Off-vehicle Ticketing
- Steel Rail Tracks, Can Run within Road Row
- Minimum Density: 20 du/ac

RAPID/ENHANCED BUS AND EXPRESS BUS

- Route Length Varies
- Up to 120 Passengers Per Vehicle
- Branded Service
- Runs In Mixed Traffic
- Fewer Stops; Farther Apart
- May Have Enhanced Stations and/or Transit Signal Priority
- Regular Buses or Larger Buses
- Peak Periods or All-day Service
- Minimum Density: 15 DU/ac

BUS RAPID TRANSIT

- Route Length Varies
- Operates Like Rail
- Some Portion in Exclusive Lanes and Some in Mixed Traffic
- Enhanced Stations & Ticketing
- Transit Signal Priority
- Modern Vehicle Design, but Rubber Tire Vehicles
- Minimum Density - 20 DU/ac

LOCAL BUS

- Route Length Varies
- 40 to 75 Passengers Per Vehicle
- Most Common Type of Transit in Southeast Florida
- Generally a Mix of Federal and Local Funding
- Fixed-route & Fixed-schedule
- Minimum Density: 4-6 du/ac

COMMUTER RAIL

- Route Length 5 to 60 Miles
- Exclusive Lanes
- Diesel Powered Locomotives
- Longer Distance, "Commuting" Travel
- Can Cross Streets but Typically Separated from Roadway Row
- Typically Shares or Uses Freight Corridors
- Minimum Density: 20 DU/ac

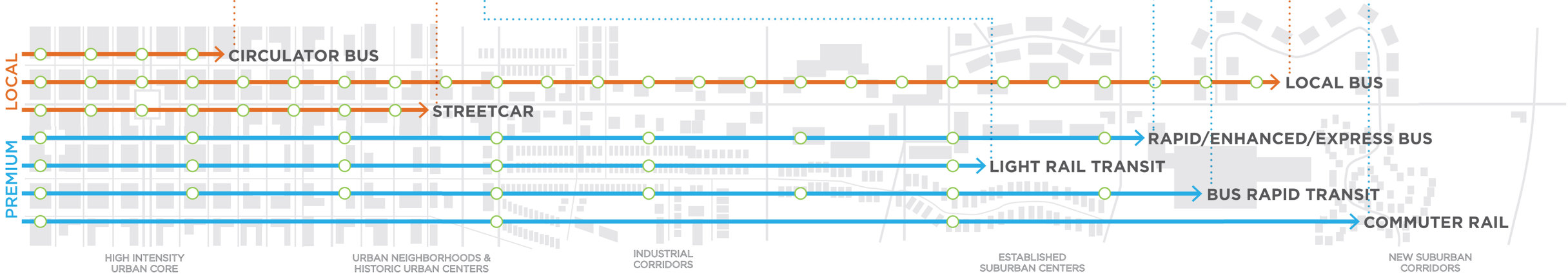


Figure 45 | Transit Technology Types

4.5.8 Walking & Cycling

The SR 80 corridor is generally not comfortable or inviting for walking or cycling. Although sidewalks run adjacent to the roadway for much of its length (as shown in Figure 46), their design is inadequate to attract significant numbers of pedestrians given the high traffic volumes and travel speeds of the corridor in addition to numerous driveways. Additionally, sidewalk coverage is not consistent in some locations. For example, there is no sidewalk on the north side of the corridor from SE 1st Ave to Glen Glades Road. Concurrency requirements for sidewalks were fulfilled for the most part as the corridor developed in the 1980s and 1990s. However, a physical arrangement of land uses on either side of the corridor that favors automobile traffic, narrow sidewalks, lack of shade, large intersections, and wide, frequent curb cuts contributes to a degraded walking environment.

Bicycle facilities are generally not present throughout much of the middle section of the corridor. There are buffered bike lanes in Belle Glade that were put in recently as part of a streetscaping project. However, freight trucks and other vehicles were seen parking in the bike lanes, rendering them unusable. In other parts of Belle Glade, there are bike lanes with the buffer on the inside between the bicycle lane and the sidewalk. This design does not provide any extra level of comfort or protection to bicyclists.

On the eastern end of the corridor, bike lanes are too narrow to be reasonably utilized based on high speeds and volumes of traffic. Much of that section of the corridor functions as a highway, and therefore physical separation of the bike lanes is necessary to provide a level of comfort for bicyclists.

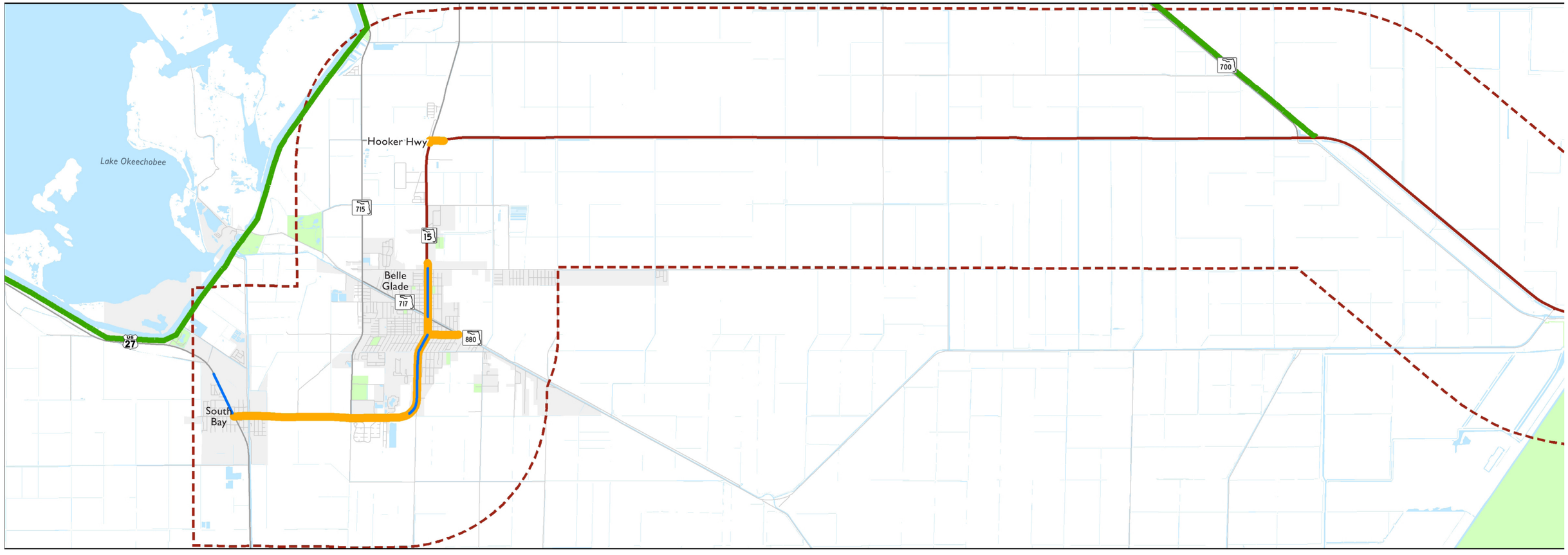
There is also a series of greenways along the corridor, although they are not connected. A newly connected greenway along SR 80 could provide a needed regional connection and could also connect Lake Okeechobee to the beach. The Lake Okeechobee Scenic Trail (LOST) was another greenway that was brought up multiple times by the western communities as a well used trail. It is missing a connection that needs to be constructed to complete the trail.

The series of photos to the right visually describe the bicycle and pedestrian environment in the corridor.

Looking east on SR 80 from US 27, the south curb lane is very wide and has a 10' buffer. The additional lane width and the buffer are adequate to shift the median and provide bike lanes on both sides of the road.

Downtown Belle Glade serves a main street function, with landscaping, wide sidewalks, and on street parking. The lanes are still wide and bicycle facilities are inconsistent.

Figure 46 | Sidewalks, Greenways, and Bicycle Lanes on SR 80

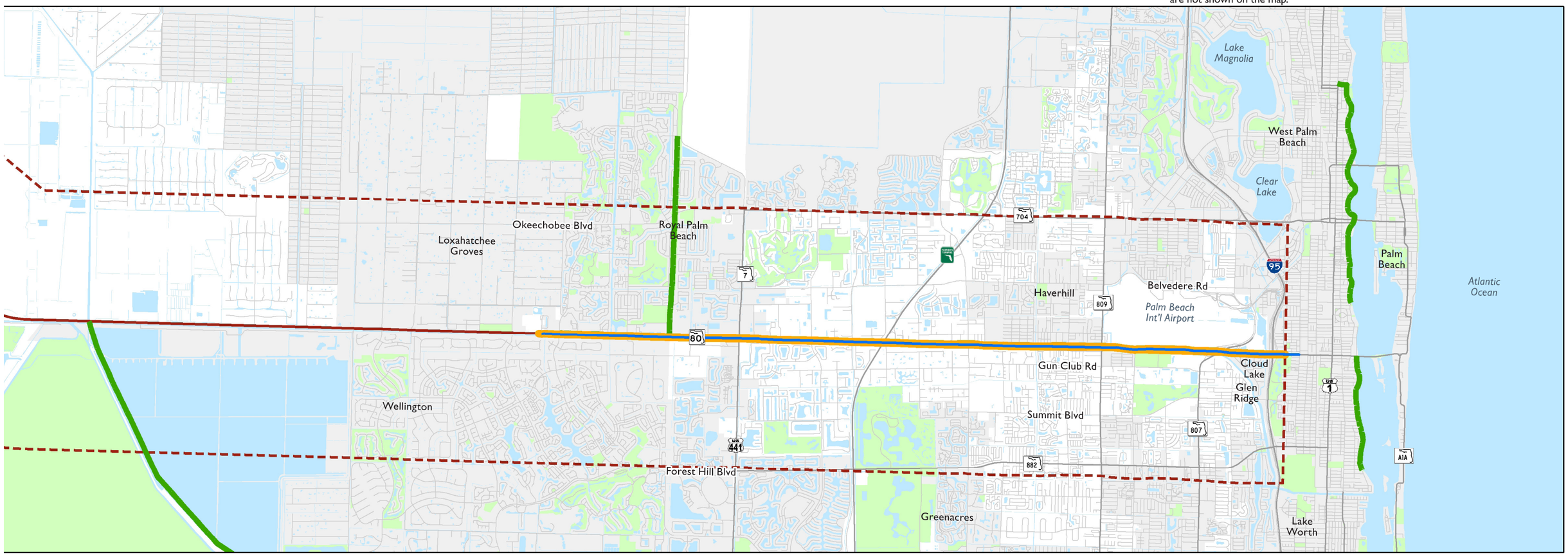


There is a 7' wide bike lane with a 3' foot buffer on SR 80 in Southern Belle Glade. The buffer provides more comfort to bicyclists, however a barrier could provide an added level of safety.

It was observed while visiting the site that vehicles park in the bike lane, as shown in the above picture.

North and south of downtown Belle Glade, there is a painted bike lane with a buffer between the lane and the sidewalk. Flipping the bike lane and buffer could create a more comfortable bicycling environment.

While bike lanes are sometimes provided at turn lanes in the form of a keyhole (pictured to the left), other times they drop off leaving the cyclist to mix in with vehicular traffic.



4.5.9 Pedestrian & Bicycle Safety

In total there were 42 recorded crashes involving pedestrian and bicyclists from 2010 to 2014. Seven of those resulted in deaths. Of those fatal crashes, one bicyclist and six pedestrians were killed. During the process of this study, another bicyclist was killed in Belle Glade.

In general, the pedestrian and bicycle crashes occurred in the developed areas of the corridor. There is very little "clustering" of crashes where incidents are occurring in proximity to each other except for the Main Street section of SR 80 in Belle Glade. Outside of that location, the crashes are occurring sporadically along the corridor and mostly at intersections or driveways.

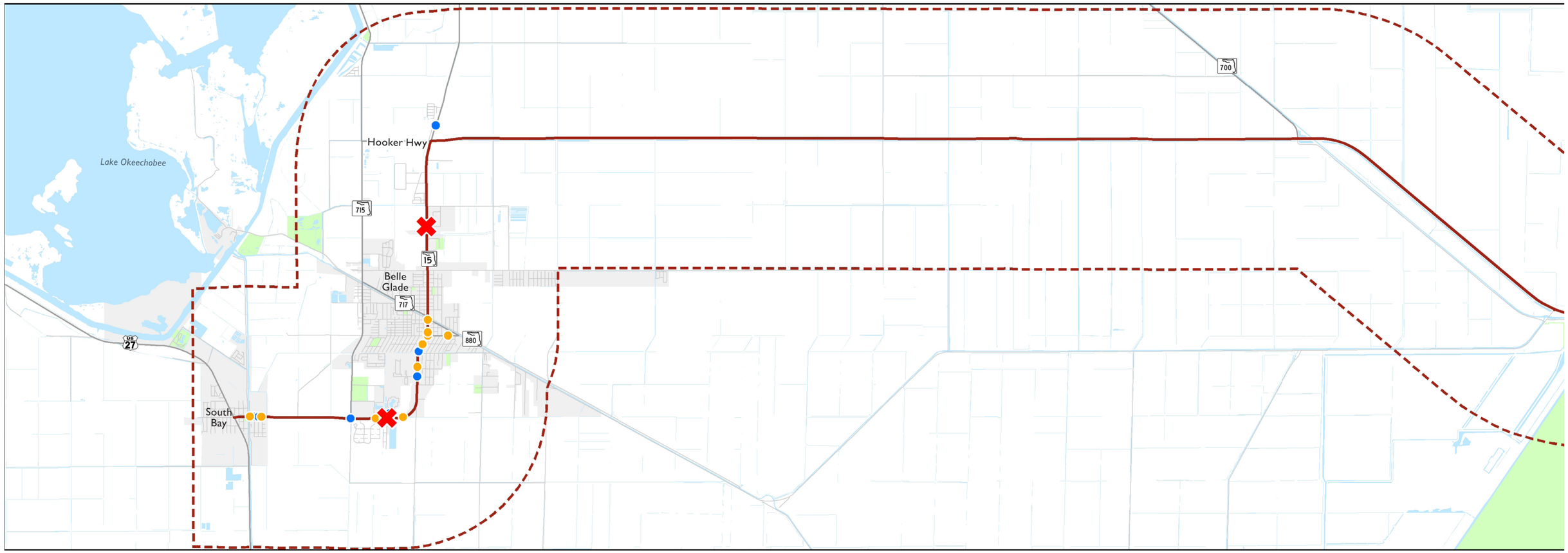
There are no identified crash "clusters" for bicycles, however there are two cluster locations identified for pedestrian crashes. Clusters are identified through a geospatial analysis of crashes to identify locations where multiple crashes of the same type are occurring within 150' feet of each other within a 5 year period.

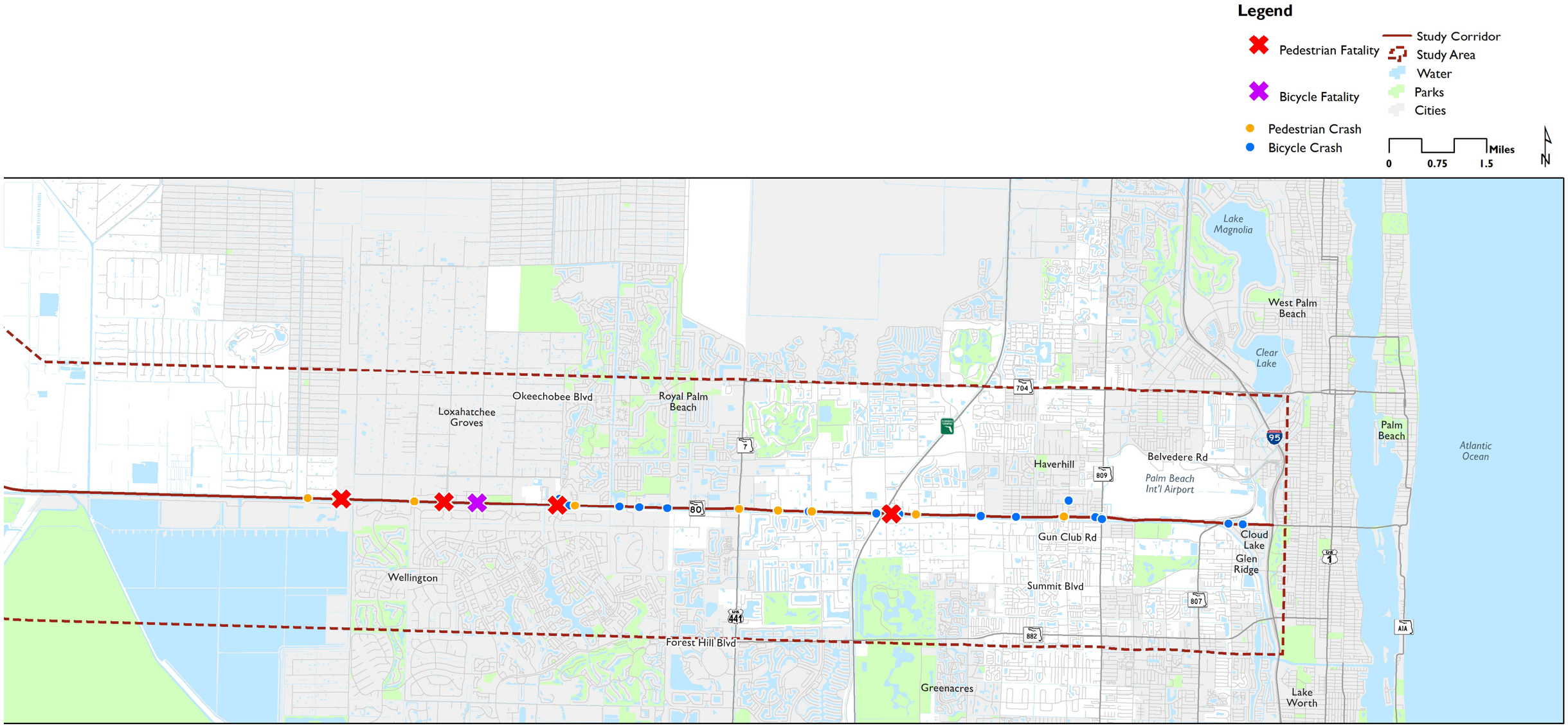
It should be noted that vehicle travel speed is a key factor contributing to pedestrian safety. This is an important consideration when developing "Main Street" design alternatives for downtown Belle Glade, where speeds currently range from 35 to 45 MPH. Research suggests that 55% of pedestrians will survive an accident with a vehicle traveling at 30 mph, while 95% of pedestrians will survive an accident at 20 mph.[2]

As can be seen throughout the spread, three fatal pedestrian/bicycle crashes have occurred within the study area since this study began. Two of those occurred on SR 80 in Belle Glade and the other was on SR 7 at Belvedere Road.

2 United Kingdom Department of Transportation

Figure 47 | Pedestrian and Bicycle Crashes on SR 80 (2010-2014)




Legend
Pedestrian Fatality
Bicycle Fatality
Pedestrian Crash
Bicycle Crash
Study Corridor
Study Area
Water
Parks
Cities
0
0.75
1.5
Miles
N
Lake Magnolia
West Palm Beach
Clear Lake
Okeechobee Blvd
Royal Palm Beach
Loxahatchee Groves
704
7
Haverhill
809
Belvedere Rd
Palm Beach Int'l Airport
95
Palm Beach
Atlantic Ocean
80
Gun Club Rd
Cloud Lake
Glen Ridge
US 1
Wellington
Summit Blvd
807
US 441
882
A1A
Forest Hill Blvd
Greenacres
Lake Worth

4.6 2040 NO BUILD NETWORK

The following table summarizes projects already identified for SR 80 or it's surrounding facilities. The FDOT Work Program as well as the Palm Beach TPA's 2040 LRTP were reviewed. The Cost Feasible Network from the LRTP that is coded in the SERPM travel demand model was assumed as the baseline network for analysis purposes.

Type	Projects	Location	Description
Capacity Additions (excludes bridge replacements and intersection improvements)	SR 7	From Okeechobee Blvd to 60th St	Widen from 2 lanes to 4 lanes
	SR 80/Southern Blvd	W Of Lion Country Safari To Forest Hill/Crestwood	Widen from 4 lanes to 6 lanes
	FL Turnpike	From Lake Worth Road to Okeechoee Blvd	Widen from 4 lanes to 8 lanes
	Roebuck Road	SR 7 to Jog Rd	4 lanes
	Roebuck Road	Jog Rd to Haverhill Road	5 lanes
	SR 7 & SR 80 Interchange Modifications	SR 7 & SR 80	Interchange Modifications as recommended by the PD&E Study
	I-95	@ SR 80	Interchange Improvement
	Turnpike Mainline	From Okeechobee Blvd/Jog Rd to PGA Blvd	Widen 4L to 6L
	Okeechobee Blvd Extension	From SR 80/CR 880 Intersection to Seminole Pratt Whitney Rd	New 2L
	Okeechobee Blvd	From Crestwood Blvd to W of Royal Palm Beach Blvd	Widen 4L to 6L
	Okeechobee Blvd	From Seminole Pratt-Whitney Rd to W of Crestwood Blvd	Widen 2L to 4L
	SR 7	From Okeechobee Blvd to Belvedere Rd	Widen 4L to 6L
	Turnpike Mainline	From Boynton Bch Blvd (Mile Post 86) to Okeechobee Blvd	Widen 2L to 4L
	Hooker Hwy/SR 812	From SR 715 to US 441	Widen 2L to 4L
	SR 715	From S Main St to Hooker Hwy	New 2L
	Avenue E Extension	From US 27 Connector to SR 715	New 2L
	US 27 Connector	From SR 80/US 27 to SR 715	New 2L
	Jog Road Extension	From Roebuck Rd to 45th St	New 4L
Resurfacing/Maintenance	SR 80/Southern Blvd	Railroad Tracks to CR 880	Install street lighting / resurfacing
	Hooker Hwy / SR 80	SR-715 to SR-15/US-441	Resurfacing
	SR 715	W Canal St/SR 717 to SR 15/US 441	Resurfacing
	CR 880	From Main Street to SR 80	Rehabilitation/heavy maintenance
	CR 880 (Old SR 80)	Over C-51 Canal	Bridge Replacement
	Glades Area Repair and Renovation	Multiple locations	resurfacing of county roads and guardrails replacement/installation
	120th Avenue South	From 50th Street South to Lake Worth Road	Paving, drainage and canal bank improvements
	D Road	From Southern Blvd to Collecting Canal Rd.	Pave road
	F Road	From Southern Blvd to Collecting Canal Rd.	Pave road

Intersection improvements were not included in this summary, but several intersections improvements are planned for the corridor and were assumed in place for year 2040 analysis purposes.
*SPW = Seminole Pratt Whitney Road

Type	Projects	Location	Description
Transit	Palm Tran	Route 43 (Wellington to WPB)	Install transit signal priority system
	Palm Tran	Route 62 (Wellington to Lake Worth)	Install transit signal priority system
	Belle Glade Express	City of Belle Glade	Community shuttle routes in Belle Glade
	Express Bus via SR 7/Okeechobee Blvd	From Mall at Wellington Green to WPB Intermodal Center	New express bus service
	Express Bus via Military Tr	From Boca Intermodal Center to WPB Intermodal Center	New express bus service
	Express Bus via SR 80/ Australian Ave	From Glades Area Intermodal Center to WPB Intermodal Center	New express bus service
	New Tri-Rail Station	PBIA WPB	Additional Tri-Rail Station on CSX Corridor
	Glades Area Intermodal Center	@SR80/US441/Hooker Hwy/Main St	Proposed passenger intermodal center
	Express Bus via Persimmon Blvd /SR 7/Okeechobee Blvd	From SPW/Persimmon Blvd to WPB Intermodal Center	New express bus service
	Express Bus via SPW* Rd/Northlake Blvd/Military Tr/PGA Blvd	From SPW/Persimmon Blvd to Palm Beach Gardens Station	New express bus service
Pathways	SR 15/ US 441	Shirley Dr to E 5th St	Install 10-ft+ shared use pathway
	Flying Cow Road		Construction of new multi-use path
	Aeroclub Multi-use Pathway	Greenbriar Blvd from Aeroclub Drive	2.1 miles of 8' wide asphalt multi-use pathway
	Partridge Walkway Improvements		Increase width of walkway from 6 ft to 8 ft., Add 8 ft wide walkway
	Crestwood Blvd. North Improvements	From Royal Palm Beach Blvd to Saratoga Blvd	8-foot sidewalk, on-street bike lane, add curb and streetscape
	Sparrow Pathway	From Sweet Bay Lane to Royal Palm Beach Blvd	10-foot pathway along south side; ped/bike bridge over M-1 canal
Miscellaneous	Fiber Optic Cable Installation	Seminole Pratt - SR 80 to Northlake Blvd,	Install fiber optic communication cable
	SR 80	At CR 880	Install street lighting
	Okeechobee Blvd	Folsom Road to SR 7	Lighting
	Palm Beach International Airport		Cargo facilities access improvements
	Flying Cow Road	From Wellington Environ Preserve to S. of SR 80	Sidewalk
	Pierson Road Realignment	From Santa Barbara to Southfields	Shift road north to continue bridle trail
	SR 7/US 441	Within Wellington City Limits	Corridor landscape Improvements
	Okeechobee Blvd. Lighting	From SR 7 to Folsom Road	Installation of pedestrian lighting and roadway lighting
	Proposed Intermodal Logistic Ctr	From W of SR 715 to US 27	Freight Logistic Facility

4.7 KEY FINDINGS

When comparing the findings throughout the corridor, several conclusions can be drawn at the corridor level and at the local level. This section describes those conclusions.

4.7.1 Context Synthesis

Synthesis is the process of combining materials, thoughts, ideas, and data in order to draw conclusions. In this case, the "layers" of existing conditions were combined with the public input and stakeholder comments received throughout the project. By considering the transportation and land use analysis as a whole, a synthesis was developed that pointed to several conclusions regarding the study area. The summary of major issues is graphically depicted in Figure 48 and more specifically below.

There is a Need for Better Bicycle and Pedestrian Infrastructure, Access, and Connectivity

Throughout the corridor, the bicycle and pedestrian environment is poor. However, that does not mean people are not traveling along SR 80 by foot or bicycle. This is evidenced by the injuries and deaths that have occurred prior to and during this study. Throughout the corridor, there is a desire to create a safe and comfortable pedestrian and bicycle environment, including safe crossings, separated facilities, and regional recreational connections.

There is Little Coordination Between Transportation and Land Use in Decision Making

Development has traditionally been approved in a leapfrog pattern, expanding farther and farther west. Typically, this has occurred in auto-oriented and single use forms, requiring people to drive to complete even short trips. Coupled with a lack of parallel roadway connectivity, this has caused traffic to be point loaded on to SR 80. Together, these decisions have created environmental, economic, social, and other ramifications.

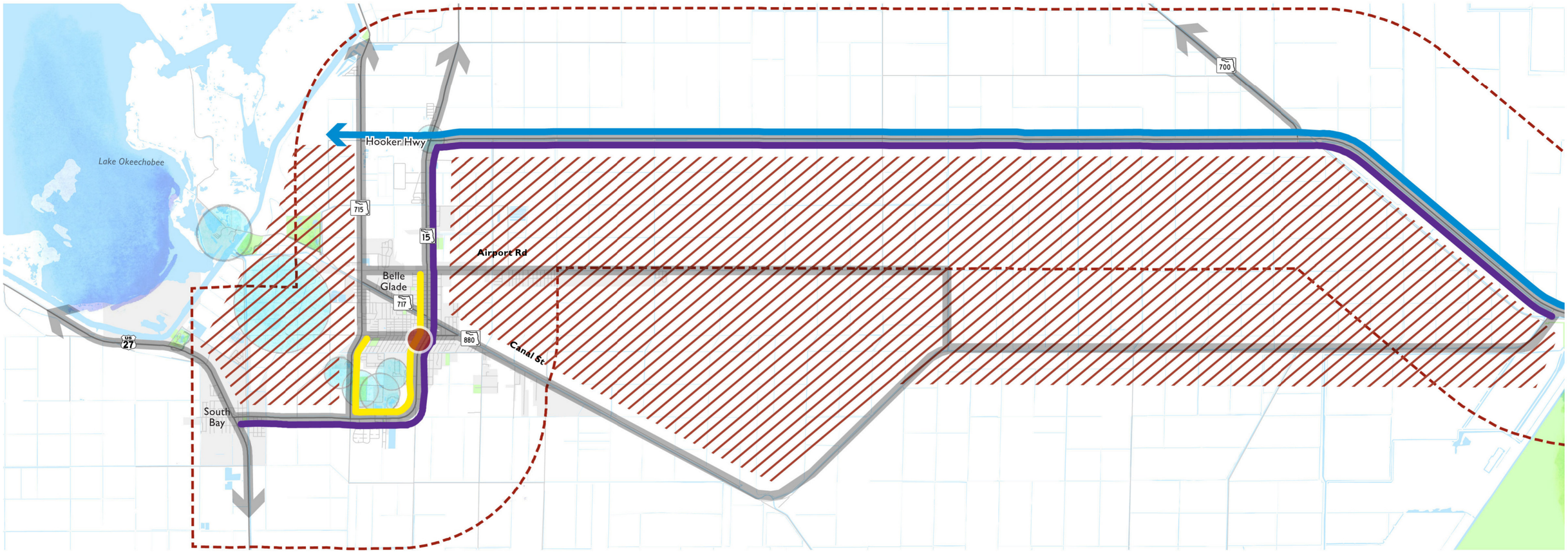
Freight is an Important Component of the Corridor

SR 80 plays a very important role as a freight connector between Lake Okeechobee/the agricultural and industrial uses in the west and the Port and airport in the east. It is heavily traveled by freight, and increases in congestion impact the economy through freight operations delays.

There is Recurring Congestion in the Corridor that will Increase in the Future

Especially in the eastern portion of the corridor, there is congestion during the peak hours as people utilize SR 80 to get to and from work. This has economic impacts and is frustrating for drivers. Without a change, congestion will continue to increase as more land is developed farther away from employment centers. Regular congestion also occurs during special events at the Perfect Vodka Amphitheater.

Figure 48 | Issues and Opportunities



There is a Need to Improve Roadway Network Connectivity

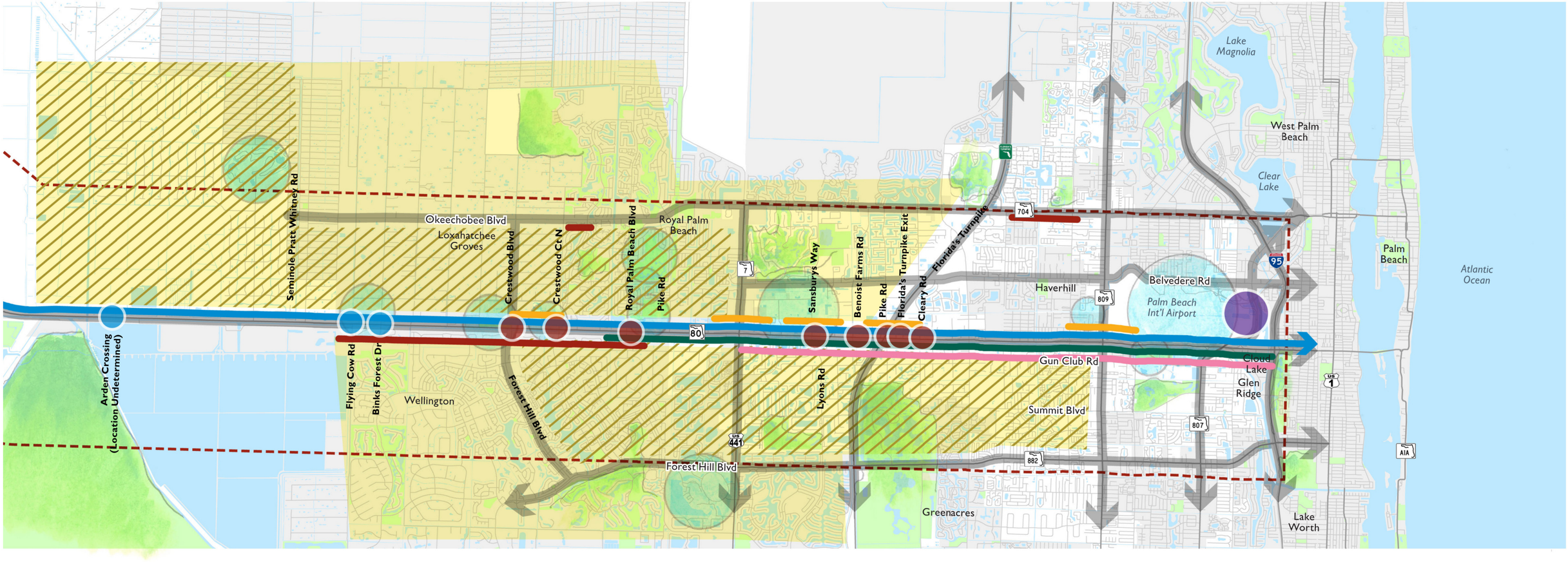
The connectivity issues are different in the west and the east, In the west, SR 80 is the only convenient connection from Belle Glade to the urban area in the east. When crashes or other congestion occurs, the western communities are effectively cut off. In the east, the roadway network has generally been developed in a disconnected pattern as gated communities, disconnected shopping centers, office parks, and other development has occurred. This has forced traffic on to SR 80 that might not otherwise needed to travel on the corridor.

The Context of the Corridor Changes from the West to the East

The corridor serves different roles as it moves from west to east. In Belle Glade, it acts as a main street where people walk, bike, take transit, and drive to shops and other development treating SR 80 as the front door. Between Belle Glade and Loxahatchee Groves, SR 80 is primarily an agricultural corridor. Farther east, the corridor transitions between suburban auto-oriented uses into more of a freeway condition.

There is Poor Transit Access and Connectivity in the Corridor

Transit access is almost nonexistent in the corridor. While there are some bus stops along SR 80, they are not well used and access to them is poor. In Belle Glade, transit is well utilized and needed, however it may become unavailable soon due to funding. There is a future plan to provide premium transit from the western communities to the east, but proper densities will need to be achieved to ensure the route's success.



4.7.2 Corridor Character

When considering the existing roadway conditions and land uses, trends begin to emerge that tell the story of the corridor and its intended use. Certain areas, for example, are more rural while others are commercial cores. In order to facilitate the definition of areas based on their context and needs, character districts were defined for the corridor.

The character district of a roadway will inform FDOT's planning, Project Development & Environmental (PD&E), design, construction, and maintenance approaches to ensure that state roadways are supportive of safe and comfortable travel for their anticipated users. Identifying the character district is a step in planning and design, as different character districts will have different design criteria and standards. During this study, FDOT adopted systemwide context classifications as shown in Figure 49. Those should be used for all future related phases.

There are three character districts in the SR 80 study area. These character districts constitute the current corridor conditions. They can be used to dictate the future land use and transportation form of the corridor in a context sensitive manner. The character districts are shown in Figure 50 and have the following characteristics:

AG - Agricultural

- Focused on throughput
- Mostly agriculture or conservation uses
- Few destinations
- High truck percentage
- Little access and low network connectivity

RT - Rural Town

- Desire for a complete street with a main street feel
- Highest ped/bike activity
- Mix of uses
- Slower traffic (or desire for it)
- Some on street parking
- Need to address truck/ped/bike interaction

SU - Suburban

- Auto-oriented commercial uses
- Most uses do not directly front the road (separated by swale/canal)
- Lots of destinations but spread far apart
- Likely little pedestrian activity
- Little network connectivity
- Low Density

Figure 50 | Corridor Character

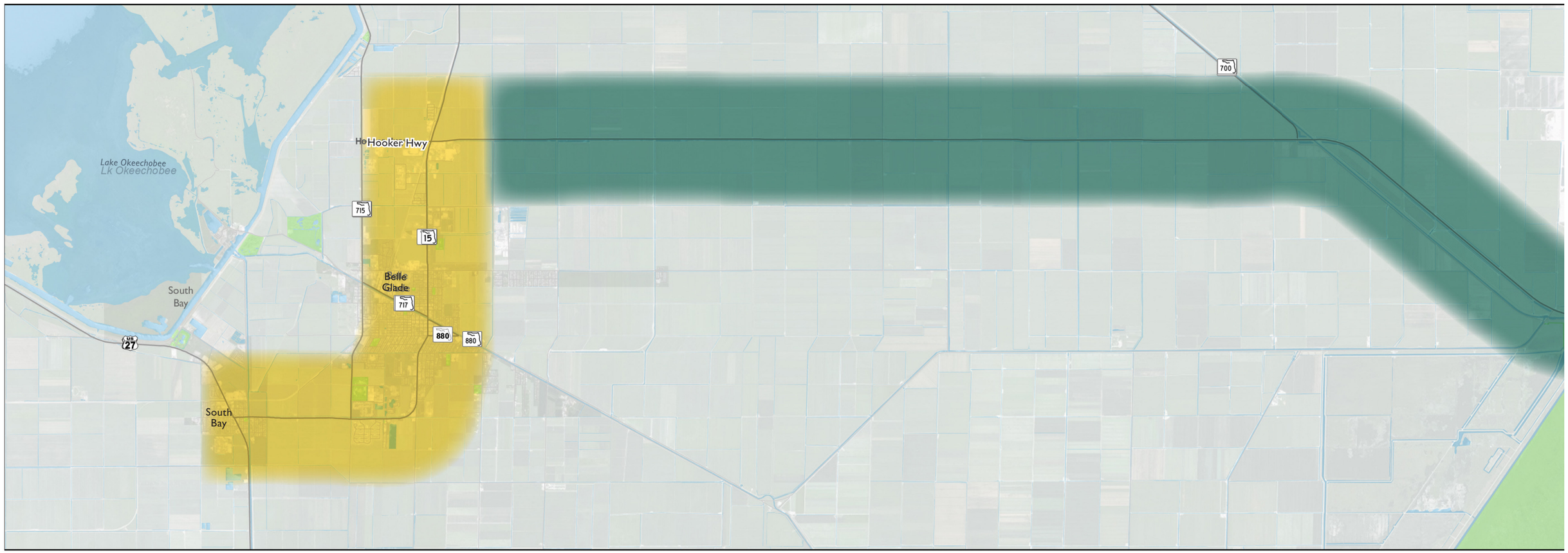


Figure 49 | FDOT Context Classifications

C1-Natural
Lands preserved in a natural or wilderness condition, including lands unsuitable for settlement due to natural conditions.

C2-Rural
Sparsely settled lands; may include agricultural land, grassland, woodland, and wetlands.

C2T-Rural Town
Small concentrations of developed areas immediately surrounded by rural and natural areas; includes many historic towns.

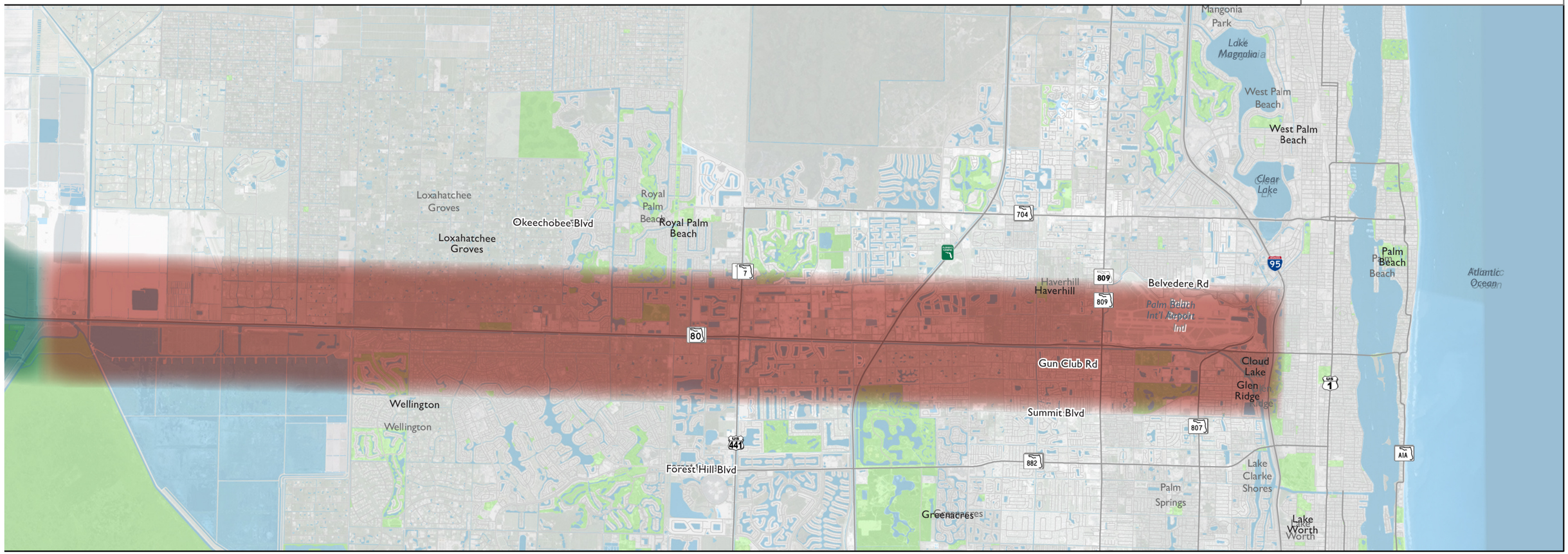
C3R-Suburban Residential
Mostly residential uses within large blocks and a disconnected or sparse roadway network.

C3C-Suburban Commercial
Mostly non-residential uses with large building footprints and large parking lots within large blocks and a disconnected or sparse roadway network.

C4-Urban General
Mix of uses set within small blocks with a well-connected roadway network. May extend long distances. The roadway network usually connects to residential neighborhoods immediately along the corridor or behind the uses fronting the roadway.

C5-Urban Center
Mix of uses set within small blocks with a well-connected roadway network. Typically concentrated around a few blocks and identified as part of a civic or economic center of a community, town, or city.

C6-Urban Core
Areas with the highest densities and building heights, and within FDOT classified Large Urbanized Areas (population >1,000,000). Many are regional centers and destinations. Buildings have mixed uses, are built up to the roadway, and are within a well-connected roadway network.



RT - Rural Town - US 27 to Hooker Highway

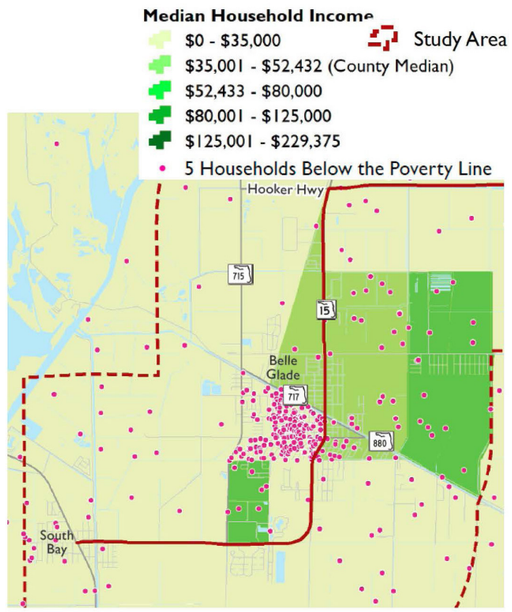
The Rural Town character area encompasses Belle Glade and South Bay and runs from US 27 to Hooker Highway. It includes areas that are currently developed as well as those intended for future development. The needs and goals uncovered in this area are as follows:

Demographics

Need: Social equity & economic development are critical in Belle Glade

- **69%** of residents identify as racial / ethnic minorities (PBC: 25%)
- **18%** Unemployment (PBC: 9%)
- **33%** Living Under the Poverty Rate (PBC: 15%)

Sources used: US Census Bureau 2010-2014 5 Year Estimates

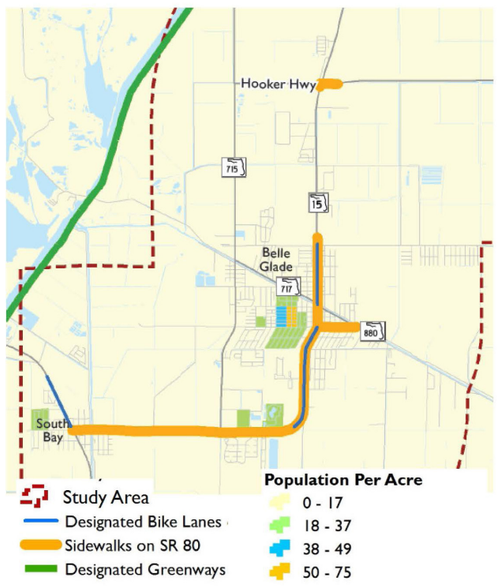


Multimodal Travel & Infrastructure

Need: Multimodal access is critical, but facilities need to be better connected and more comfortable for all users.

- **8%** Taking Transit, Walking, or Biking to work (PBC: 4%)
- **8%** Don't Have Access to a Vehicle (PBC: 3%)
- **1** in **4** People are Under 18 or Over 65
- Bicycle facilities and sidewalks are not continuous and may not be comfortable for some users.

Sources used: US Census Bureau 2010-2014 5 Year Estimates

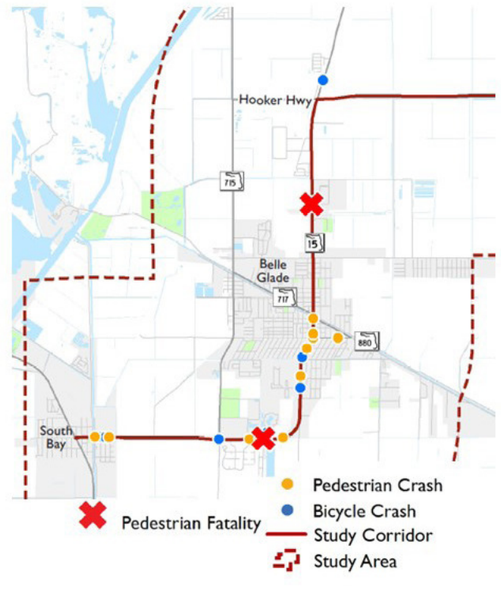


Safety & Crashes

Need: Improve travel safety for people (with an emphasis on the most vulnerable users) traveling along and across SR 80.

- This segment **exceeds** the average crash rate for similar facilities in Palm Beach County
- Nearly **50%** of the entire corridor's pedestrian & bicycle crashes happened in the Belle Glade/South Bay area (this area only makes up 14% of the ~45-mile corridor)

Sources used: FDOT Cars Data, 2010-2014

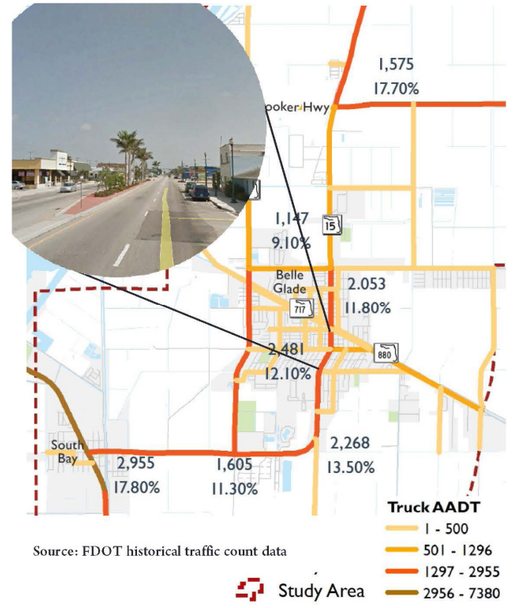


Community & Freight

Need: The system needs to be designed to safely accommodate local and regional travel.

- Good mix of uses, urban form, and connected street grid in Downtown Belle Glade
- Designated a high growth area based on ILC
- **~2 trucks/minute** traveling through Downtown Belle Glade in the Peak Hour
- Regional freight trips are happening in a downtown urban environment, creating potential **ped/bike conflicts**

Sources used: Source: FDOT historical traffic count data



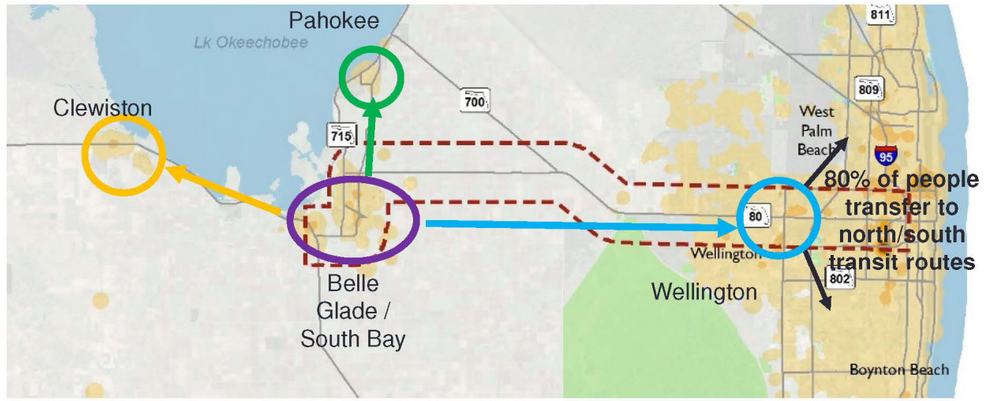
Source: FDOT historical traffic count data

Transit

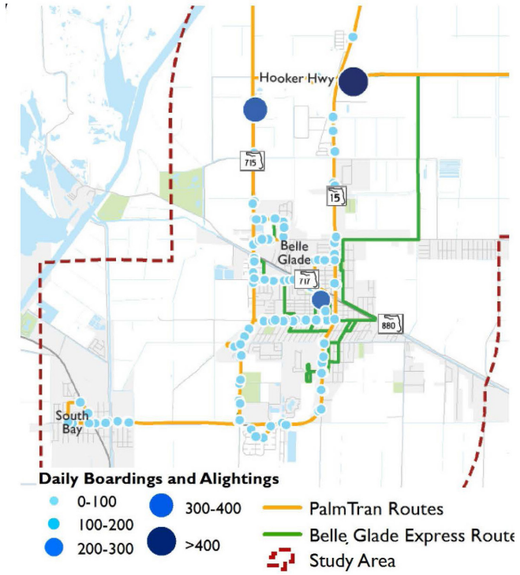
Need: Transit is a lifeline for residents and access to transit should be more convenient.

- The **highest** transit activity in the corridor is in Belle Glade
- Key transfer points are **inaccessible** by foot or bike
- Route 40 has **limited hours** on weekends
- Circulators do **not have guaranteed long term funding**
- There is not enough transit capacity to satisfy demand; some trips are **standing room only for >20 miles**
- **Express Bus Service** is planned between the western communities and the eastern urbanized area

Sources used: Palm Tran, 2015; LEHD 2010-2014



Different colored circles imply different areas of transit needs.

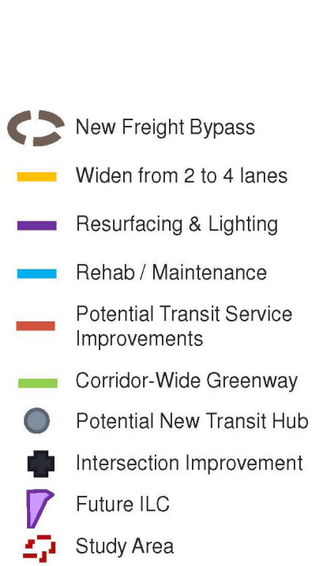


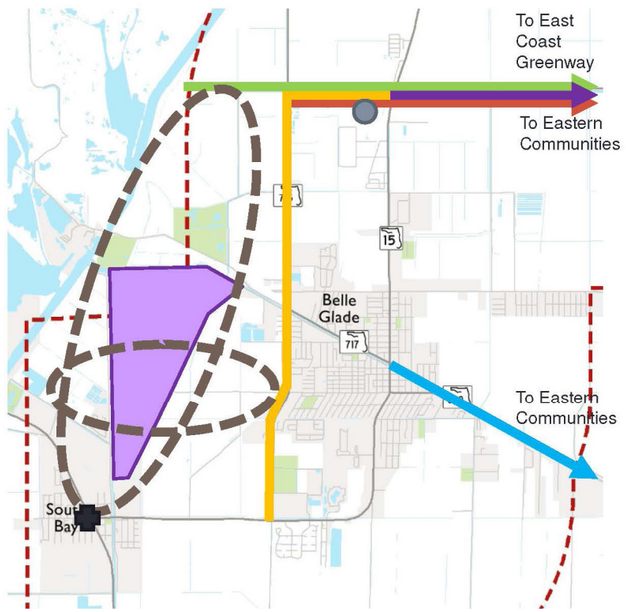
Traffic and Planned Improvements

Need: Mobility remains important and planned investments should move forward as growth occurs.

- ILC is expected to generate growth
- Capacity related investments are **either planned or programmed**
  - Truck Bypass
  - SR 715 widening
  - Transit Access & Improvements
  - Intersection Improvement
  - Express bus service & a new transit hub are proposed
- Under existing and 2040 conditions, the existing and future planned system **meets** the SIS automobile LOS D target (2040 forecasts ~14,000-26,000 AADT)

Sources used: Palm Beach TPA 2040 LRTP, FDOT Quality/Level of Service Handbook





AG - Agricultural - Hooker Highway to 20-Mile Bend

The agricultural character area encompasses the undeveloped agricultural area and runs from Hooker Highway to the 20-Mile Bend. The needs and goals uncovered in this area are as follows:

Regional Connection

Need: Alternate east-west connectivity is critical for emergency and evacuation purposes.

- SR 80 is the **major connection** between the western communities to the jobs, healthcare, education, and other destinations of eastern Palm Beach County
- In the event of a road closure, there is only one other east-west option (CR 880)
- Mobility is focused on **throughput**; no destinations
- Almost **1** in **5** trips are freight related.

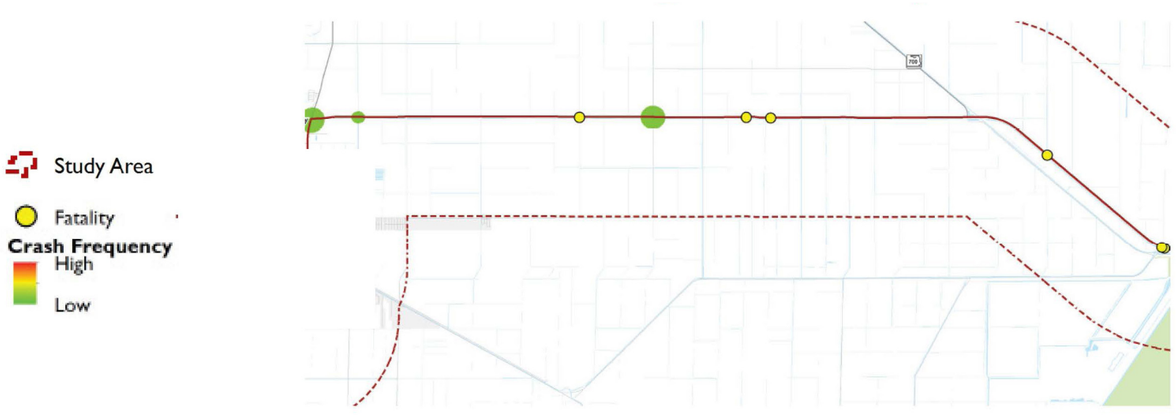
Source: FDOT historical traffic count data

Safety

Need: The facility needs to safely accommodate north-south crossing traffic and create higher visibility for all users.

- **40%** of crashes occurred at night, dusk, or dawn
- Slow speed vehicles **are crossing** a facility with higher speed traffic
- **Fog** and **smoke** are common, especially when agricultural fields are being burned

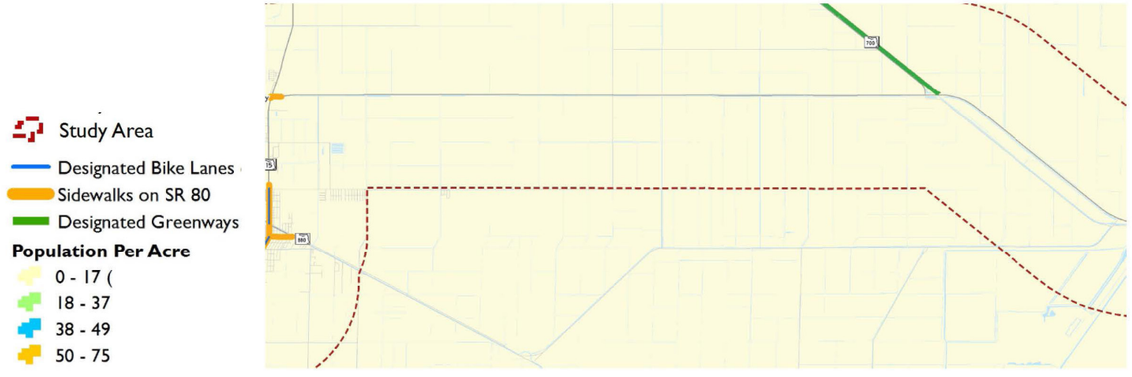
Source: FDOT Cars Data, 2010-2014



Multimodal, Traffic, and Planned Improvements
Need: Vehicular capacity is sufficient, although facilities for pedestrians and bicyclists are lacking.

- Under existing and 2040 conditions, the existing and future planned system **meets** the LOS D target
- There are **no pedestrian** or **bicycle facilities** in this area
- There are **no transit stops** in this area

Source: FDOT Cars Data, 2010-2014



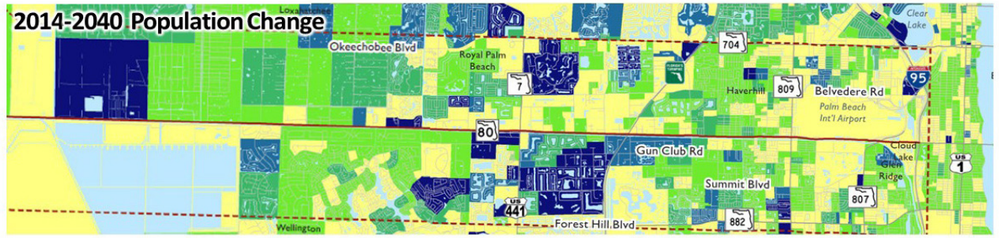
SU - Suburban

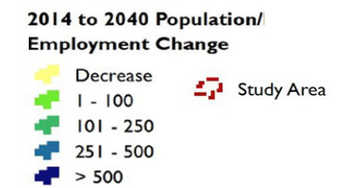
The Suburban character area encompasses the residential and commercial area from 20-Mile Bend to I-95. The needs and goals uncovered in this area are as follows:

Population and Employment

Need: Population increases to the west and employment increases to the east create more SR 80 trips resulting in a need for more capacity.

Source used: SERPM 7.062

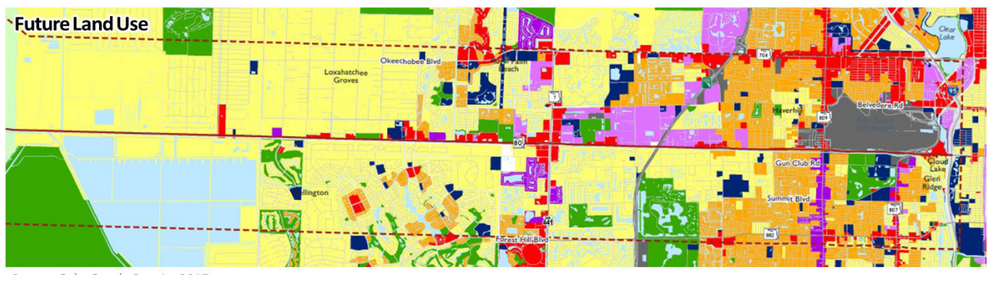


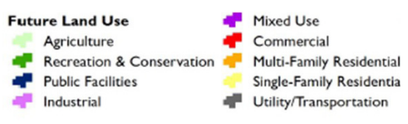


Land Use and Development

Need: Emerging development patterns are auto-oriented and will create more auto demand on SR 80 in the future.

Source used: Palm Beach County Adopted Land Use Plans, 2015

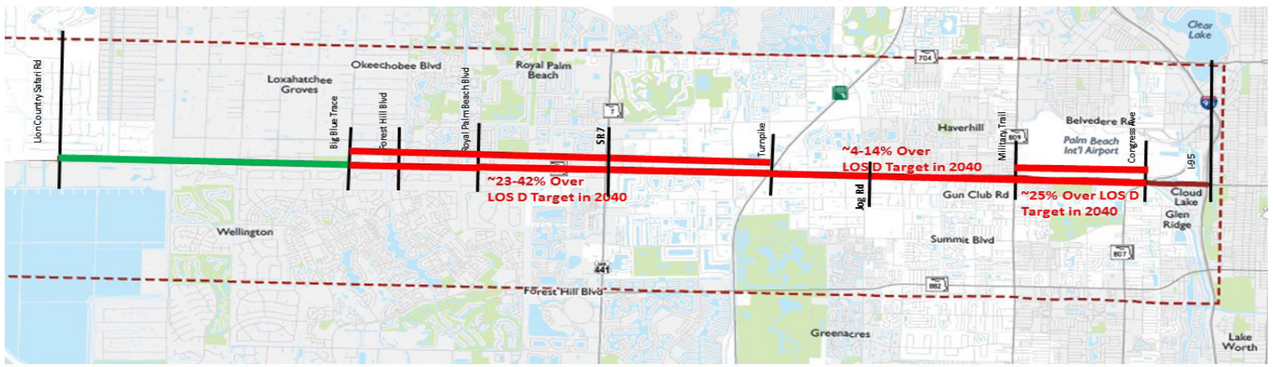




Traffic

Need: Congestion is expected to exceed the level-of-service D target even with planned improvements in place.

Source used: SR 80 Traffic Memorandum, 2017



Network

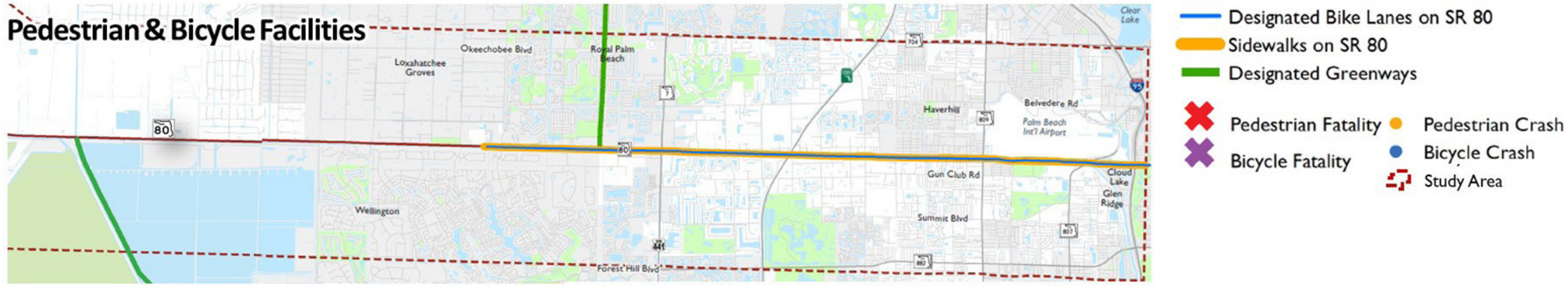
Need: East-west connections are limited to the north and south of SR 80 forcing a majority of trips in the area to use SR 80.

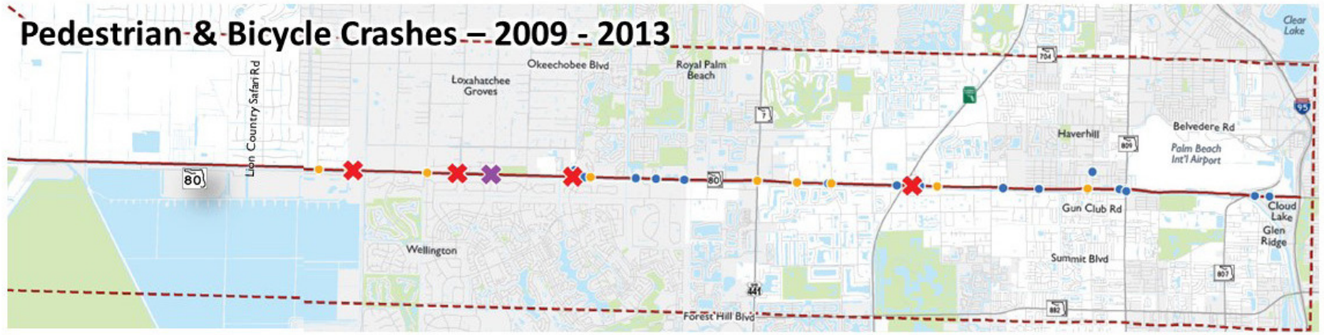
The existing street network shows all roads. The actual effective network excludes roads that are dead-end streets, gated communities, and streets that do not connect through to other streets. They are removed to visually show the connectivity (or lack thereof) of the street network.

Walking and Biking

Need: 50% of pedestrian & bicycle crashes resulted in a fatality.

Source used: FDOT CARS Data, 2010-2014

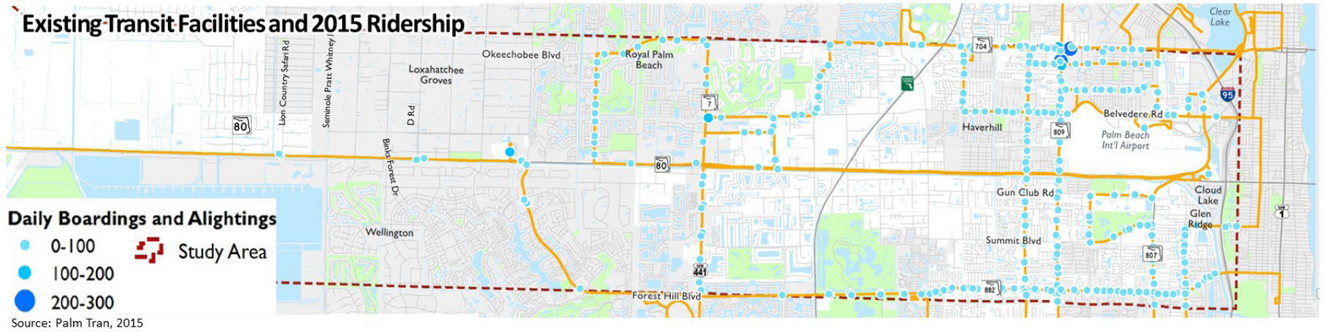




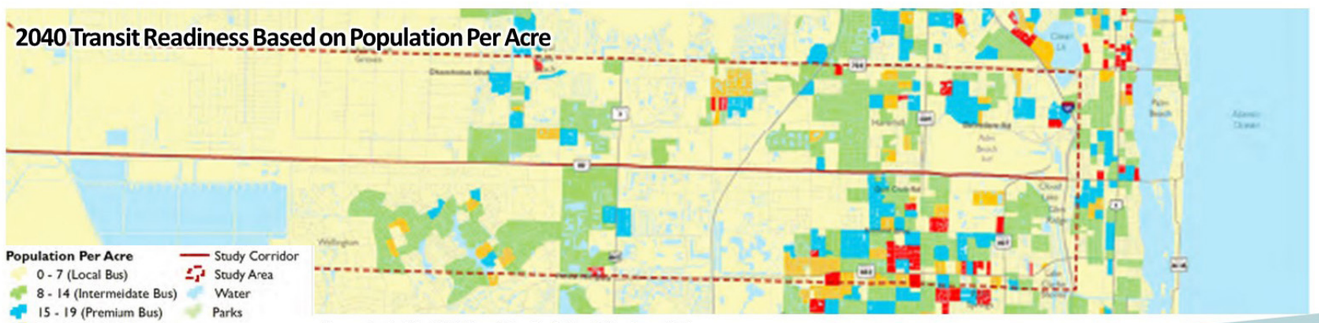
Transit

Need: Access to transit is currently limited and should be improved upon to make it more convenient and accessible.

Sources used: Palm Tran, 2015; Applied the FDOT Transit Handbook Transit Readiness Guidance



Source: Palm Tran, 2015

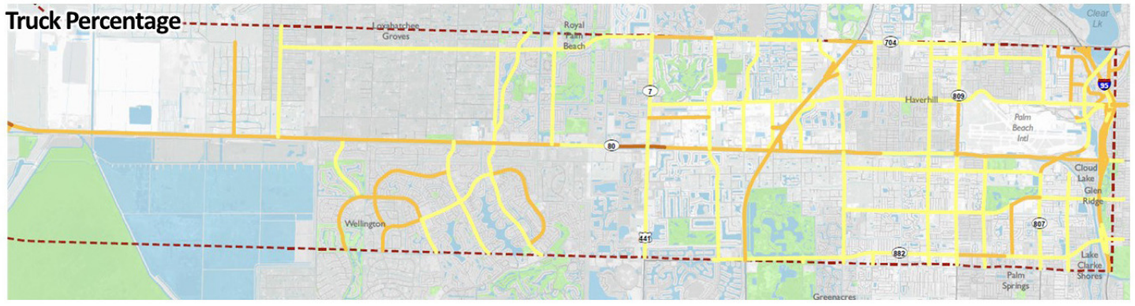


Source: Applied the FDOT Transit Handbook Transit Readiness Guidance

Freight

Need: Regional and local freight trips heavily rely on SR 80.

Source: FDOT Florida Traffic Information

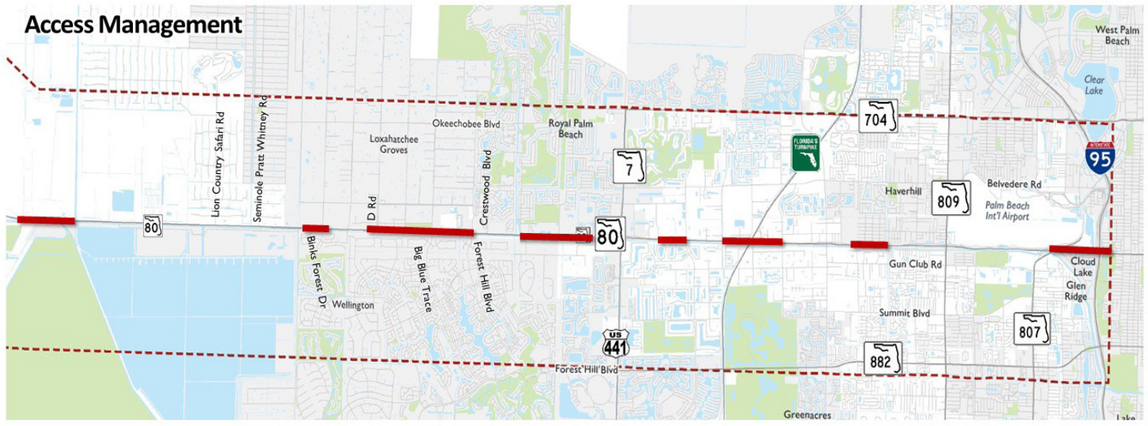


Source: FDOT Florida Traffic Information

Access Management

Need: 35% of the corridor does not meet access management standards from 20-Mile Bend to Forest Hill Boulevard. 47% of the corridor does not meet access management standards from Forrest Hill Boulevard to I-95; therefore, limiting mobility.

- SR 80 currently blends freeway/highway and arterial functional classifications which creates an inconsistent driving environment, reduces potential mobility, and decreases safety. An access management technical memorandum was prepared as part of the Action Plan and has more detail related to access management issues and needs.



5 GOALS & STRATEGIES

5.0 GOALS & STRATEGIES

Based on the existing and future conditions analysis and a consideration of the context, character, and desires of the stakeholders, corridor needs and goals as well as strategies were identified.

5.1 SR 80 Goals / Needs

The goals are intended to ensure that future plans and improvements to the corridor are context sensitive, and reflect the needs and desires of the community. They are listed below.

Maintain adopted targets for vehicular mobility & safety

SR 80 is an important corridor to the state due to its cross-state facilitation of freight and vehicular travel. Increased congestion can impede the corridor from fulfilling it's role as such an important connection. Planning decisions should consider the needs of the SIS in order to maintain mobility, including maintaining LOS D vehicular operating targets.

There are safety hot spots along SR 80, and it is not a comfortable corridor to walk, bicycle, or wait for transit along. Therefore, multimodal travel is not desirable. Improving the safety and comfort level for all modes will help to support the transportation and economic activity in the study area.

Integrate transportation & land use

Transportation and land use are intrinsically connected. Land use decisions can add more traffic to the corridor or can be made in a manner that supports transit usage and multimodal transportation. Ensuring that these decisions are integrated in the future can help to improve mobility for all.

Increase the attractiveness of transit & non-single occupant vehicle trips

The current land use and development patterns; the transit routing and technology; and the spacing of destinations do not encourage trip making outside of single occupancy vehicles. This results in congestion due to the inefficient nature of single occupancy vehicles. Roadway, transit, and land development decisions should consider potential impacts to trip making in order to encourage transit ridership, carpooling, and other types of trips.

Provide appropriate facilities for walking & bicycling

SR 80 serves an important function as a key vehicular corridor in Palm Beach County. However, it also serves freight, transit, pedestrians, bicyclists, and even equestrians in certain areas. In many cases, these needs compete, which can create safety and comfort issues. All of these needs should be considered in planning decisions to ensure that one mode is not served at the expense of others.

Strengthen the coordination needed between decision-making partners

There are a number of government, development, and business ventures that have interests in the study area. Strategic partnerships should developed to promote coordinated implementation of solutions. This could also help to leverage local and state public investments as well as private investments along SR 80.

5.2 Implementation Strategy Types

In order to implement the guiding principles, a number of types of strategies are being considered. Each strategy type has the potential to meet several goals, as illustrated below.

Transportation System Management & Operations (TSM&O)

TSM&O is an integrated program to optimize the performance of the existing infrastructure through the implementation of multimodal, cross-jurisdictional systems, services, and projects. The implementation of TSM&O strategies look to preserve capacity and improve system efficiency, safety and reliability.

Arterial Management

Arterial management involves the implementation of policies, strategies, and technologies to minimize congestion (and its side effects), improve safety, and enhance overall mobility. This includes enhancements to the signal system.

Emergency / Incident Management

Emergency management provides users with a safe and efficient transportation system during an emergency situation. Incident management involves verifying, responding to, and clearing traffic with as little disruption to the system as possible.

Special Event Management

Special event management provides users with a safe and efficiently managed transportation system during a planned special event.

Travel Demand Management

Travel demand management aims to provide travel choices that can shift or reduce the demand for travel in congested conditions.

Capacity Improvements

Capacity improvements seek to add capacity to the roadway system, which allows more vehicles to move through the system.

Roadway Widening

Roadway widening involves adding lanes to one or several roads in the transportation system. Any new lanes may be eligible for a managed system or special use lanes. Roadway widening is a temporary fix that works for a short time to relieve congestion, however the added capacity tends to be taken up over time as people shift travel patterns based on the added capacity.

Network Improvements

Network improvements involve adding streets to the network or connecting existing streets. This can be done at a local level to provide people access to local destinations without utilizing SR 80. This can be done at the regional level to provide alternate routes to SR 80 for longer distance trips.

Limiting Access

Limiting access to SR 80 would create a more freeway-like condition, which enables more traffic to move faster. However, this added capacity would eventually be fully utilized. It could be done by limiting driveway connections to SR 80 through access management or by creating new over passes to bypass traffic signals.

Pedestrian & Bicycle Improvements

Pedestrian and bicycle improvements aim to create a safe, comfortable, and convenient network to provide for and facilitate walking or bicycling along the corridor.

Sidewalks & Multi-Use Paths

Sidewalks provide a minimum level of pedestrian comfort. Because of the speeds, volumes, and size of SR 80, any sidewalks should be wider than average and buffered from the street. They can be created as multi-use paths to provide a facility that can also be utilized by bicyclists.

Buffered Bike Lanes

Bike lanes provide a minimum level of comfort for bicyclists. However, due to the size, speed, freight activity, and traffic volumes along SR 80, any bike lanes should be buffered and potentially protected to provide added separation.

Complete Streets

Complete streets involve creating a street that balances and provides for the needs of each user. They can also involve beautification and economic benefits. This is especially relevant in Belle Glade, where SR 80 acts as the Main Street.

Pedestrian / Equestrian Bridges

SR 80 is wide and difficult to cross for pedestrians. There is also wildlife and high equestrian activity near the 20 Mile Bend, where a bridge could help connect trails and destinations on either side of SR 80.

Intersection Improvements

SR 80 intersections are wide and difficult to cross for pedestrians. Intersection improvements such as signal timing, high visibility crosswalks, pedestrian refuge islands, and others could help to improve this.

Connect to Regional Greenways and Trails

There are a number of greenways in the study area, however there is no connection between them. A well designed greenway connection along SR 80 could help to facilitate and promote regional pedestrian and bicycling activity.

Transit Improvements

Transit improvements aim to better connect, provide access to, and operate the transit system along the corridor to support those who currently ride transit and encourage new people to ride transit.

Provide Desired Transit Connections & Nodes

New premium transit connections between Belle Glade and downtown could help to connect people to jobs. Funding and operating local circulators helps to connect people from stops to destinations ("the Last Mile").

Improve Transit Amenities

Transit stops should be comfortable to wait in, especially considering the heat and weather conditions in south Florida. This could include shelters, shade, seating, lighting, and other amenities.

Improve Transit Access

Transit should be easily accessible from destinations. Sidewalks should connect to stops and connections should be provided between businesses and destinations. Stops should not be too far from intersections so that riders can cross the street if needed.

Transit Operations and Management

Transit operations and management involves the implementation of policies, strategies, and technologies to improve operations of the transit system in a safe and efficient manner.

Land Use & Policy Improvements

Land use and policy improvements aim to create a development pattern that supports the transportation system, protects the environment, and responds to the context and desired character of the area.

Create a Regional Land Use Vision

A regional land use vision could help to determine where development should occur and at what densities. If done properly, pockets of density can support premium transit and create walkable environments that do not require the use of the car.

Coordinate Transportation and Land Use Decisions

Land use policies can have a major impact on the transportation system. Single use zoning creates more of an impact than mixed use zoning and gated communities force traffic on to arterials. Land use and transportation decisions should be coordinated in order to implement the regional land use vision.

Education & Outreach

Public support is an important component in initiating and implementing plans and policies. Helping the public understand transportation and land use decisions can generate interest and desire to support a land use vision. Additionally, educating decision makers can help to ensure land use decisions support the transportation system.

Measure the Impact

Traditional engineering practices focus on impacts to roadway level of service when evaluating new developments or land use changes. However, there are many other factors that can provide a measure of the total impacts to the community as opposed to just impacts to roads.

Freight Improvements

Freight improvements aim to maintain and/or improve freight and goods movement through the region in a safe and efficient manner.

Improve Connections

While regional freight does travel along SR 80, freight trips utilize the entire transportation network. Ensuring that these connections support freight by providing bypasses where needed and creating rail to rail connections is important in supporting freight mobility.

Freight Management

Freight management aims to move goods safely, efficiently, and reliably throughout the region. Solutions aim to improve travel time and satisfy freight drivers, employers, and retriever's needs.

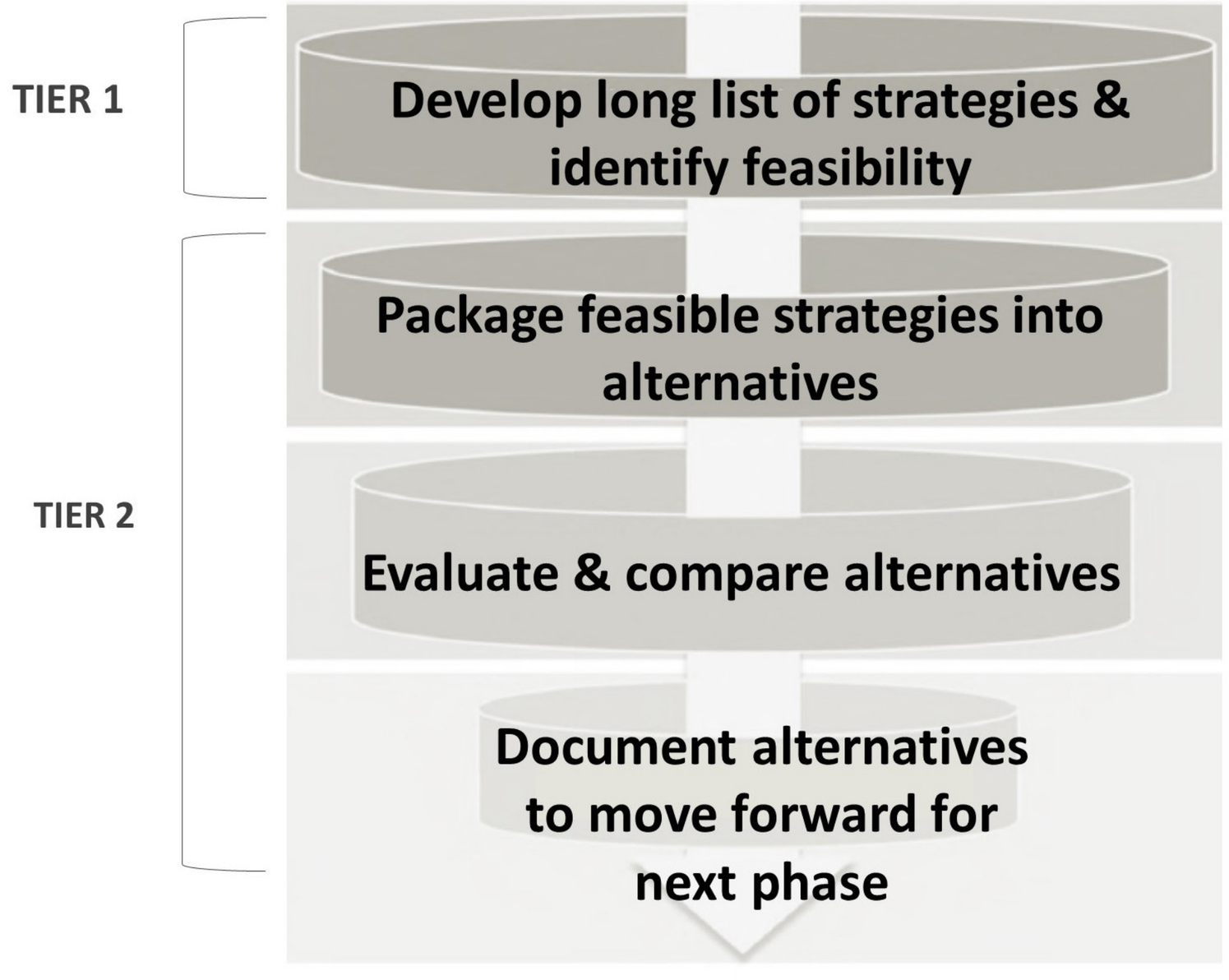
Freight Vehicle Crossings

Freight vehicles frequently need to cross SR 80, however high speeds along the corridor can create an unsafe condition. Improvements to freight vehicle crossings aim to help improve the visibility and safety for these crossings.

6 SCREENING PROCESS

A two-tier screening process was used to identify solutions that directly address the issues identified in the SR 80 existing and future conditions assessment. The Tier 1 analysis was intended to be more qualitative in nature, while the Tier 2 analysis included more detailed analyses using quantitative measures. As described in the graphic, in Tier 1 all strategies were considered and screened against the overall needs, goals, and objectives of the corridor. Strategies found to best meet the needs of the corridor were then moved forward into the second tier of analysis where they are packaged into alternatives and series of improvements. Each of the alternatives and series of improvements were further evaluated in the Tier 2 analysis. As a last step, recommendations were made on what investments to move forward into next phases.

In addition to qualitative and quantitative technical information, each step was vetted by the Florida Department of Transportation study team and the project's Technical Review Committee comprised of various partners. Feedback was also sought from stakeholders and the general public.



Evaluation Criteria

Applying the two-tier screening process described herein, evaluation criteria was developed for each segment/character area. The evaluation criteria selected per segment were used to measure and indicate how well an alternative or strategy addressed the various needs of the segment. The following summary lists each segment's needs and subsequent evaluation criteria that support the overarching guiding principles of the corridor.

Segment	Needs	Evaluation Criteria
Segment RT - Rural Town	• A low speed Main Street for Belle Glade that will help facilitate walking and bicycling as well as enhance economic development. • Improved safety, convenience, and functionality of facilities for walking • and bicycling along and across SR 80. • A safe, comfortable, and convenient route for freight that bypasses Belle Glade's Downtown Main Street. • Good connectivity to transit, including walking and bicycling connections as well as potential locations for new transit hubs located closer to the center of population in Belle Glade.	• Increase and improve access to transit • Create a safer pedestrian and bicycle system • Protect and support Rural Areas of Opportunity • Reduce freight/auto conflicts in rural areas • Support the freight industry
Segment AG - Agricultural	• An additional east-west arterial is needed for emergency and evacuation purposes. • The facility needs to safely accommodate north-south crossing traffic and create higher visibility for all users. • A facility for pedestrians and bicyclists is needed to connect the LOST recreational area to the east.	• Create a safer pedestrian and bicycle system • Protect and support Rural Areas of Opportunity • Reduce freight/auto conflicts in rural areas • Support the freight industry
Segment SU - Suburban	• Additional capacity is needed to meet the demand. • Access to transit is currently limited and should be improved upon to make it more convenient and accessible. • A more connected network is needed. • Safety should remain a priority. • Accommodating freight is critical to the economic health of the region given regional and local freight trips heavily rely on SR 80. • Access management standards are not being met. • The characteristics of the driving environment need to be more consistent.	• Protect the mobility of the SIS and provide capacity to serve future economic and population growth of the region • Increase and improve access to transit • Encourage non-single occupancy auto trips • Preserve mobility for regional trips • Create a safer pedestrian and bicycle system • Support adopted future growth plans • Identify cost-effective investments • Minimize impacts to the environment • Minimize impacts to the business community

Segment RT - Rural Town Tier 1 Screening Results

All strategies listed in the previous section were considered as potential solutions for SR 80 from US 27 to Hooker Highway. The screening process resulted in not moving forward major roadway capacity or premium transit (e.g., Light Rail Transit or Streetcar) strategies. Major roadway capacity strategies were not further considered because future travel needs are forecasted to be met. Premium transit strategies were not further considered because the future ridership demand could be met by more cost-effective transit technologies.

Strategies that moved forward in the study process for US-27 to Hooker Highway:

- Pedestrian and bicycle facilities
- New and upgraded transit amenities and stations/hubs
- Increased transit service
- Complete Street treatments
- Increased network/capacity for freight
- Infrastructure upgrades for freight

Segment AG - Agricultural Tier 1 Screening Results

All strategies listed in the previous section were considered as potential solutions for SR 80 from Hooker Highway to 20-Mile Bend. The screening process resulted in not moving forward roadway capacity and premium transit (e.g., Light Rail Transit or Bus Rapid Transit) strategies. Roadway capacity strategies were not further considered because future travel needs are forecasted to be met. Premium transit strategies were not further considered because the future ridership demand could be met by more cost-effective transit technologies.

Strategies that moved forward in the study process for Hooker Highway to 20-Mile Bend:

- Pedestrian and bicycle facilities
- Safety and security related infrastructure
- Evacuation route upgrades

Segment SU - Suburban Tier 1 Screening Results

All strategies listed in the previous section were considered as potential solutions for SR 80 from Hooker Highway to 20-Mile Bend. The screening process resulted in not moving forward general widening (e.g., a 10-lane version of what exists today), reversible lanes, and premium transit (e.g., Light Rail Transit or Bus Rapid Transit) strategies. General widening was not further considered because a majority of the segment has already maximized it's footprint as an 8-lane signalized arterial. Reversible lanes were not further considered because the existing peak period traffic did not show a significantly favored directionality. Premium transit strategies were not further considered because the future ridership demand could be met by more cost-effective transit technologies.

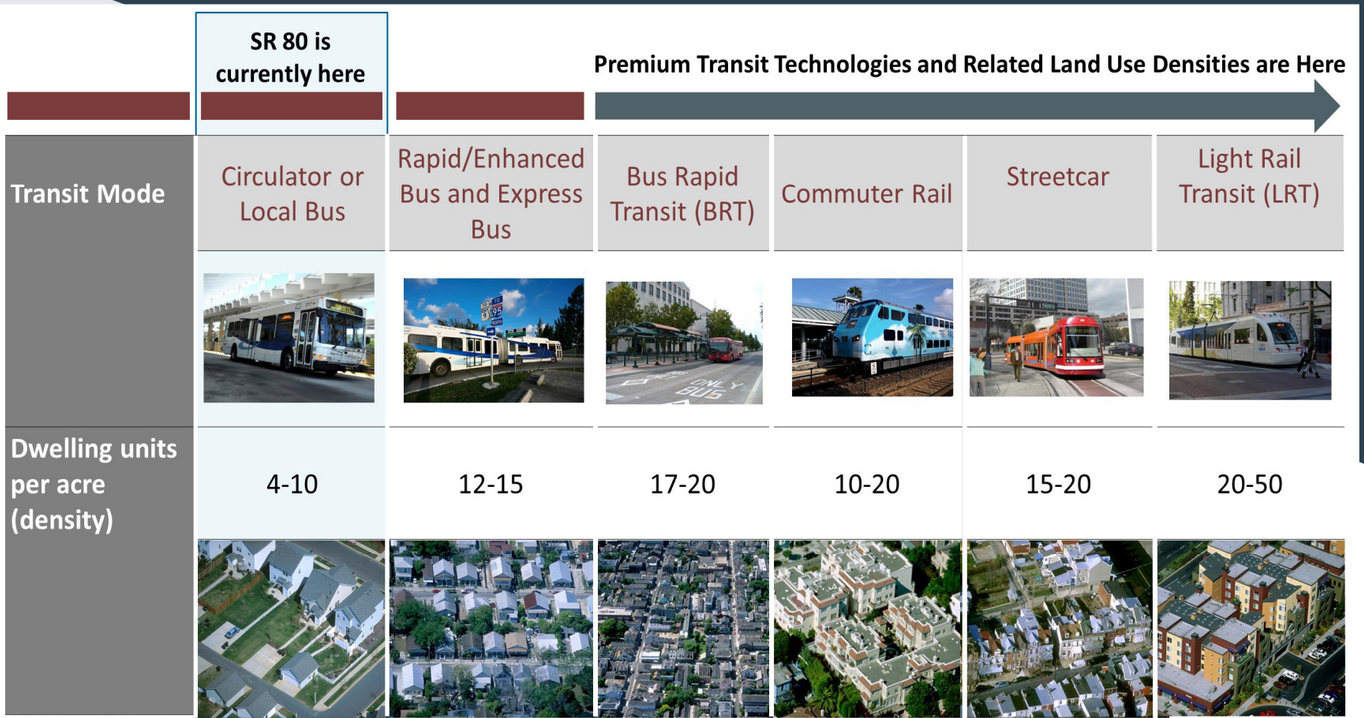
Strategies that moved forward in the study process for 20-Mile Bend to I-95:

- Branded express/limited stop transit service
- New and upgraded transit amenities and Park-n-Ride lots/stations
- Pedestrian and bicycle facilities
- Additional capacity through using grade-separated systems
- Additional capacity through alternative intersection design
- Access management
- Network improvements
- TSM&O programs
- Land use policies

Premium Transit Assessment Spotlight

Throughout the planning process, some stakeholders strongly and consistently expressed the desire for premium transit (i.e., Bus Rapid Transit, Light Rail Transit, etc.) as an alternative and/or component to the alternatives for SR 80. Because of this strongly and frequently expressed desire, the SR 80 study team conducted additional technical analysis and coordination, above what was originally intended, to evaluate the need and feasibility of a premium transit solution. Results of the technical evaluation, premium transit was not considered feasible or applicable based on numerous factors such as:

- the existing low ridership of ~900 riders per day
- the existing transportation network that is auto-oriented and not well-connected for accessing transit (i.e., long blocks, lack of north-south pedestrian and bicycle connections due to the canal)
- the future adopted land use plans that are suburban in nature and not transit supportive from an intensity and density standpoint
- Palm Beach TPA's adopted 2040 Long Range Transportation Plan that supported Express Bus along SR 80
- Palm Tran's adopted Transit Development Plan that supported premium transit investments on surrounding corridors that are more readily transit supportive
- an overall lack of funding to operate and maintain a premium level transit investment (i.e., existing funds are limited and the criteria for obtaining discretionary Federal funding would not be met under current or adopted future conditions)

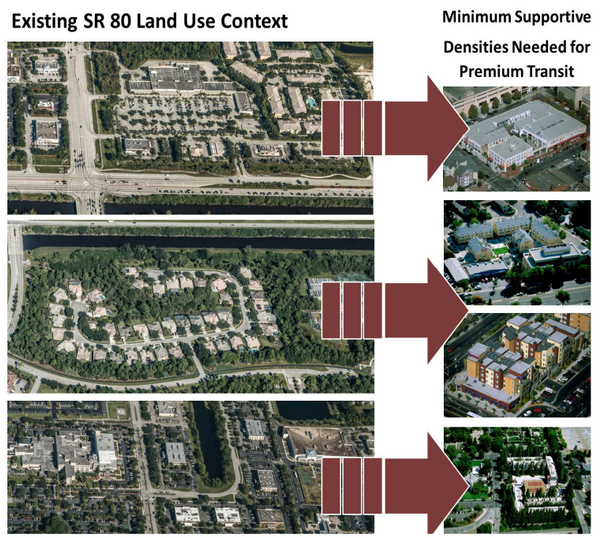


Source: http://datatoolkits.lincolninst.edu/subcenters/visualizing-density/gallery/index.aspx Lincoln Institute of Land Policy

Note: Rapid/Enhanced Bus and Express Bus was not considered premium transit although as previously shown, this technology may sometimes be classified as such throughout the country.

The Desire for Change

During the extensive coordination conducted throughout the study, a group of stakeholders recognized that multiple parties will have to unite with the common goal of changing the factors listed above if SR 80 is to be a future premium transit corridor for Palm Beach County. The multiple parties needed for change to occur include elected officials, the business community, residents, and the land use and transportation regulatory agencies in the region. At the conclusion of the study, Central Palm Beach County Chamber of Commerce members, as well as some Palm Beach TPA Board Members, committed to advance the premium transit topic within upcoming forums and planning activities. The FDOT recognizes the stakeholders desired shift in investing in transit. As the factors above change due to actions taken by stakeholders, the FDOT commits to incorporate the new transit-supportive data and adopted plans into their transportation planning and programming process. The graphic to the right is a snapshot of a public display board shown at the public workshops in December 2017. The numbers indicate the votes received from attendees and their desire for more urban style land uses and transportation investments.



SHOULD THE REGION DENSIFY AND PRIORITIZE INVESTING IN PREMIUM TRANSIT?

Number of Votes Received from the Public at the Workshops (89 attendees in total)

Let's get it done now	Not quite ready but interested	Maybe for my grandkids
30	6	8

30 out of 44 votes favored densifying the region to support transit.

7 ALTERNATIVES & STRATEGIES

7.0 POTENTIAL SOLUTIONS

As described in this report, SR 80 is a statewide east-west corridor that covers a variety of geographic and socioeconomic contexts. Therefore, the appropriate solutions for the corridor vary. In order to address this diversity, the solutions to the issues in the corridor are based on their location and character district. As described previously, there are three distinct character districts in the study area: RT - Rural Town; AG - Agricultural; and SU - Suburban.

Overview

The recommended strategies from the Tier 1 screening in Section 6 were packaged into alternatives per character district. The tables herein summarize the strategies and alternatives per character district, as well as those that are corridor-wide. Two tables are shown – one for those FDOT would be responsible for and one for those the study partners would be responsible for moving forward should they wish to do so. The sections following discuss each alternative in more detail.

Figure 52 | Potential Strategies for Consideration by Study Partners

CHARACTER DISTRICT	ID #	STRATEGY/OBJECTIVE	LIMITS		USERS/NEEDS TO BE ADDRESSED	
			TO	FROM		
Varies	A	Upgrade CR 880 as a 24/7 accessible alternative route to SR 80 for western communities such as South Bay and Belle Glade	SR 80	20-Mile Bend	Provides an additional ingress/egress point for evacuation or emergency purposes	
	B	Provide additional transit capacity and increase span of service	Belle Glade	Wellington	Alleviate overcrowded buses from Belle Glade and provide expanded hours to serve commuters	
SEGMENT 3 (Suburban) 20-Mile Bend to I-95	C	Provide grade-separated wildlife and equestrian crossings connecting recreational areas to the north and south of SR 80	20-Mile Bend	Binks Forest Dr	Provide grade-separated facilities for recreational users and wildlife	
	D	Implement development that supports transit-focused investments	20-Mile Bend	I-95	Additional Multimodal Capacity; Improve Multimodal Travel and Multimodal Access to Transit	
	E	Operate limited stop bus service from approximately SR 7 to Downtown West Palm Beach	SR 7	Tri-Rail Connection	Provides enhanced transit service to Downtown West Palm Beach and to Tri-Rail regional transit services	
	F	Provide additional capacity to the roadway network parallel to SR 80	Gun Club Road Summit Boulevard Belvedere Road	Lyons Road SR 7 Military Trail	Jog Road Jog Road I-95	Vehicle and Multimodal Mobility and Access

Figure 51 | Alternatives and Strategies for FDOTs Consideration

CHARACTER DISTRICT	ID #	STRATEGY/OBJECTIVE	LIMITS		USERS/NEEDS TO BE ADDRESSED
			TO	FROM	
Corridor-wide	A	Provide Park-n-Ride Lots, Branded Express Bus Stops, & Belle Glade Downtown Hub	Downtown Belle Glade	Existing Tri-Rail Station	Additional Multimodal Capacity; Improve Multimodal Travel and Multimodal Access to Transit
	B	Provide Regional Greenway Connection	Lake Okeechobee Scenic Trail (LOST)	I-95	Off-road walking and biking
	C	Provide Active Operations along SR 80 (i.e., Traffic Incident Management, Arterial Management, Active Transportation System Management, etc.)	Hooker Highway	I-95	Improve safety, security, and mobility
SEGMENT 1 (Rural Town) US 27 to Hooker Highway	D	Provide pedestrian and bicycle facilities as well as a downtown Belle Glade "complete street"	US 27	Hooker Highway	Improve network connectivity and enhance pedestrian/bicyclist safety; Provide multimodal access to local businesses
	E	Provide additional capacity on SR 715 to accommodate freight demand off of SR 80 in the downtown Belle Glade area	US 27	Hooker Highway	Support freight related development.
	F	Reconstruct bridge/construct concrete barrier walls to accommodate truck turning radii	SR 80/SW 1st Avenue		Improve freight mobility
SEGMENT 2 (Agricultural) Hooker Highway to 20-Mile Bend	G	Provide necessary safety- and security-related design elements such as lighting	Hooker Highway	20-Mile Bend	Improve safety and security
SEGMENT 3 (Suburban) 20-Mile Bend to I-95	H	Provide additional multimodal capacity on SR 80	Seminole Pratt Whitney	Congress Ave	Additional Multimodal Capacity; Improve Multimodal Travel and Multimodal Access to Transit
	I	Provide additional multimodal capacity on SR 80	Seminole Pratt Whitney	Forest Hill Blvd	Additional Multimodal Capacity; Improve Multimodal Travel
	J	Reduce and/or manage access along SR 80 to better align with SIS Access Classification standards	20-Mile Bend	Congress Ave	Preserve vehicle capacity and mobility of SIS
	K	Provide intersection-level operational and capacity improvements	@Forest Hill Blvd/Crestwood Blvd @SR 7 @Lyons Rd/Sansbury Way @Benoist Farms Rd @Cleary Rd		Additional Multimodal Capacity; Improve Multimodal Travel

7.1 RT - Rural Town

The Rural Town context area spans along SR 80 from US 27 to Hooker Highway, This area includes the towns of South Bay and Belle Glade. In this area, there is a desire for SR 80 to act as a Main Street. There is also new growth planned to occur, including a substantial investment in a new Intermodal Logistics Center. There are also many transit dependent households and households without access to a vehicle, as discussed throughout this report. Therefore, the solutions in this section focus on improving the area for all modes, with a special emphasis on the following:

- Creating a low speed Main Street for Belle Glade that will help facilitate walking and bicycling as well as enhance economic development;
- Improving the safety, convenience, and functionality of facilities for walking and bicycling along and across SR 80;
- Creating a safe, comfortable, and convenient route for freight that bypasses Belle Glade's Downtown Main Street; and
- Provide good connectivity to transit, including walking and bicycling connections as well as considering potential locations for new transit hubs located closer to the center of population in Belle Glade.

An overview of the solutions in this area is given in Figure 53. The solutions are arranged in eight groups, which identify how they could be implemented. Essentially, the groups pull together strategies that could be implemented at the same time and/or through the same project. They generally share some characteristic, such as geographic location or similar project types. The project numbers can be referenced to he corresponding technical memorandum, which gives more details about each project. These details include exact project extents, further comments, and cost estimates.

In addition to the general description of solutions, some require further explanation. Therefore, selected solutions are described further in this section to provide greater context to the issues and explain how and why the solutions chosen are appropriate.

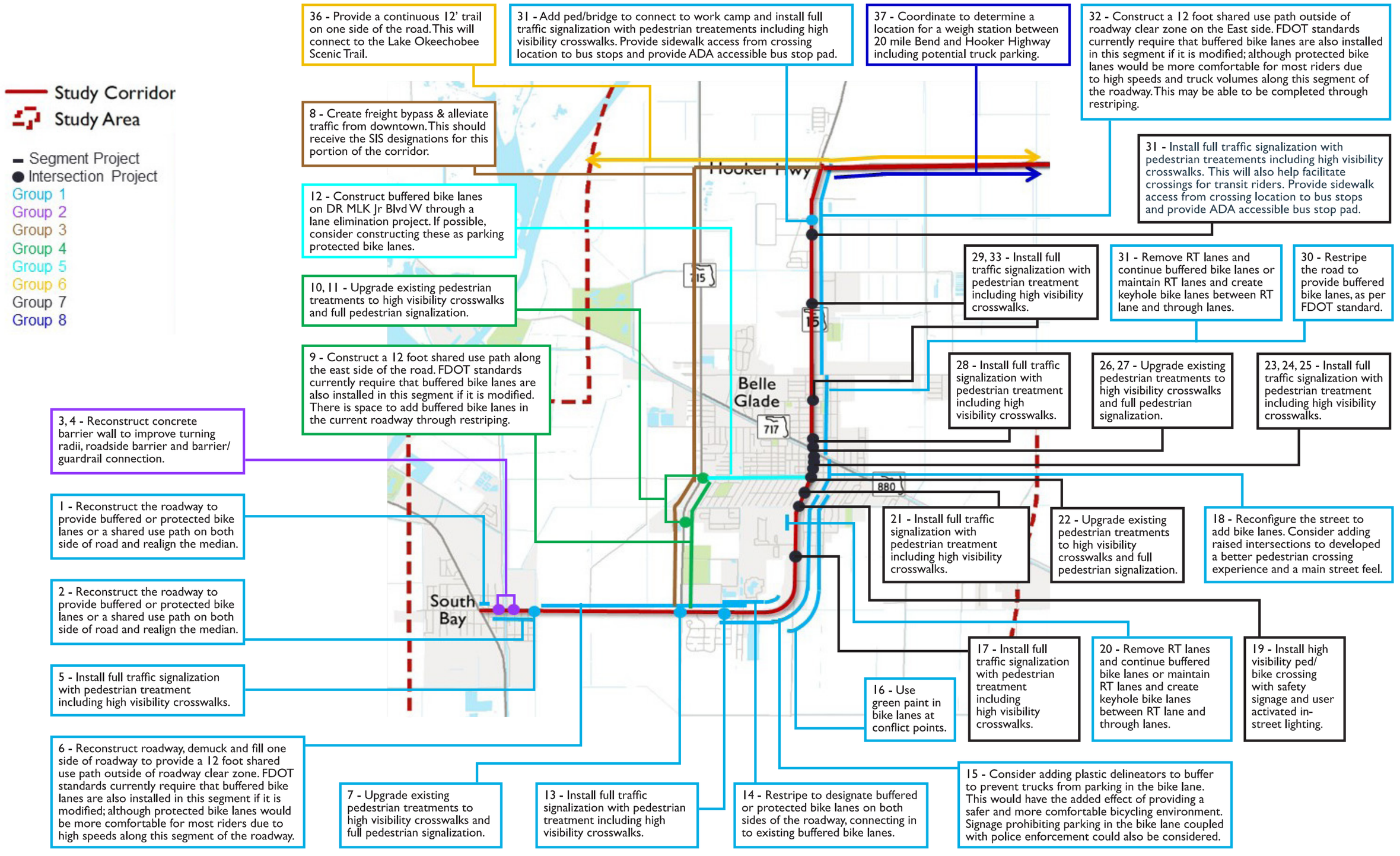
Performance of the Strategies

The set of strategies for this character area were assessed across multiple factors. Below is a table summarizing the performance of the strategies per measures.

GOAL	PERFORMANCE
Increase and improve access to transit	●
Create a safer pedestrian and bicycle system	●
Protect and support Rural Areas of Opportunity	●
Reduce freight/auto conflicts in rural areas	●
Support the freight industry	●

● Good ◑ Acceptable ○ Poor

Figure 53 | RT - Rural Town Strategies



SR 80 from US 27 to 4th Ave

Issue: Wide shoulders and no bike lanes

Solution: Convert shoulder to buffered bike lanes

SR 80 from SE 4th Ave to Glades Glen Dr

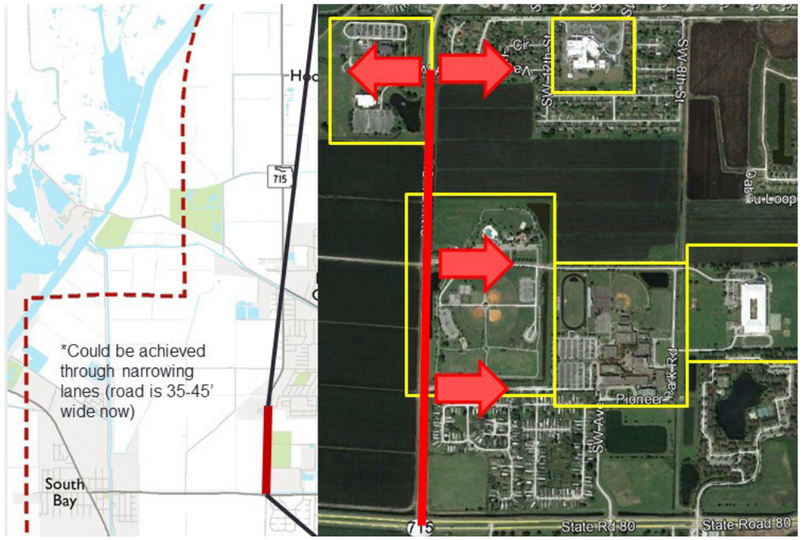
Issue: The current 8' path is good for pedestrians, however there is little space for bikes & no lighting/ shade.

Solution: Convert the path to a wider multi-use path with shade and pedestrian lighting.

SR 715 from SR 80 to SW Avenue H

Issue: Poor ped/bike access to schools and parks / across SR 715 & is the dedicated truck route.

Solution: Construct a 12 foot shared use path along the east side of the road. Alternatively, buffered bike lanes could be added through restriping.



DR. MLK JR Blvd From SR 715 to SR 80

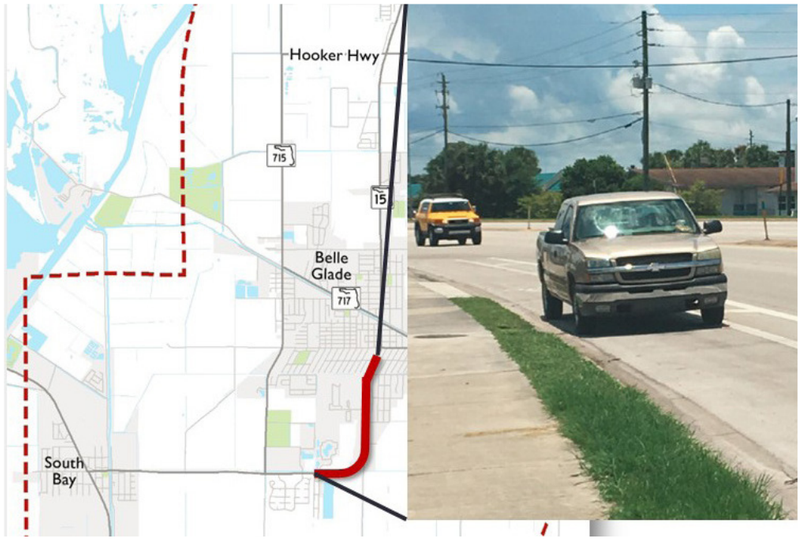
Issue: A pedestrian and bicycle connection is needed between SR 715 and SR 80 to connect destinations and into the facilities provided on both roads.

Solution: Construct buffered bike lanes on DR MLK Jr Blvd W through a lane elimination project. If possible, consider constructing these as parking protected bike lanes.

SR 80 from Glades Glen Dr to Ave F

Issue: Trucks & cars park in buffered bike lanes.

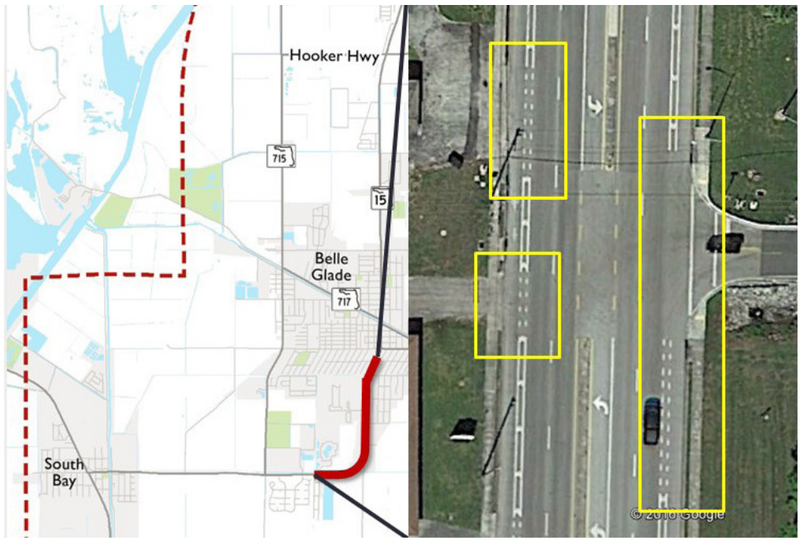
Solution: Consider adding plastic delineators to buffer to prevent trucks from parking in the bike lane.



SR 80 from Glades Glen Dr to Ave F

Issue: Bikes come into conflict with right turning vehicles at driveways.

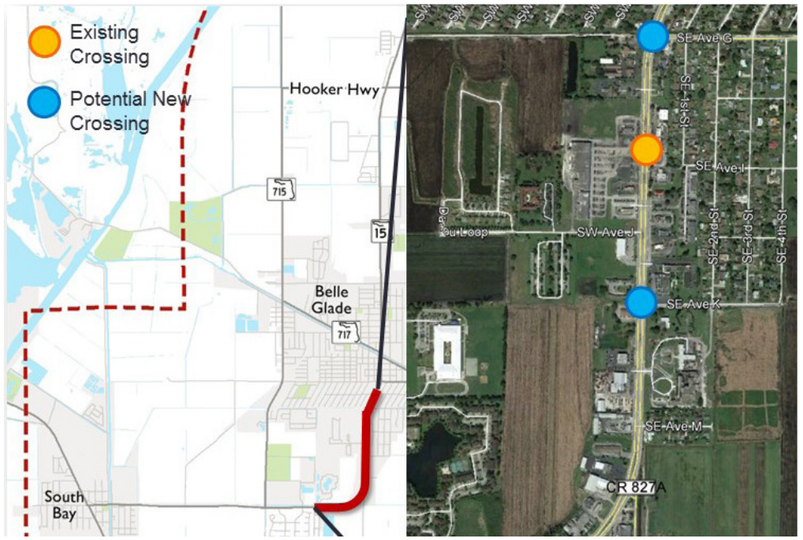
Solution: Use green paint in bike lanes at conflict points.



SR 80 from Glades Glen Dr to Ave F

Issue: There are limited pedestrian crossing opportunities.

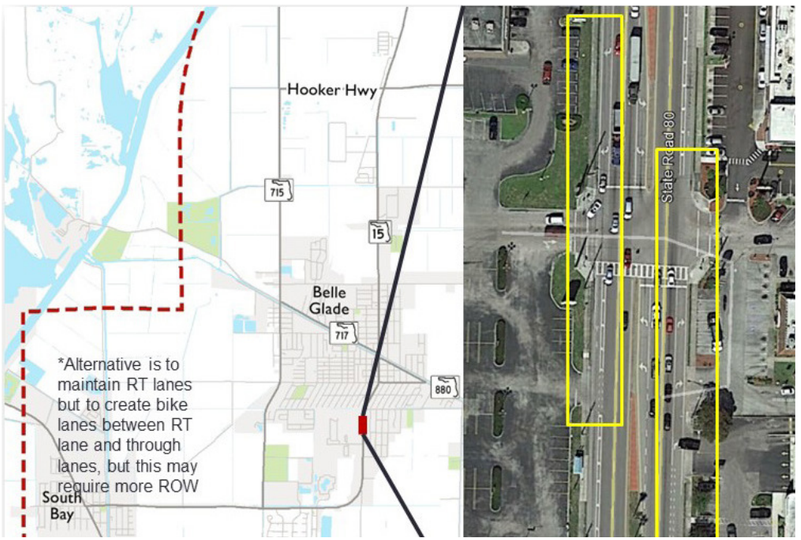
Solution: Create signalized crossings at Avenues K & G with the high visibility crosswalks for pedestrians.



SR 80 from S of Ave I to S of Ave G

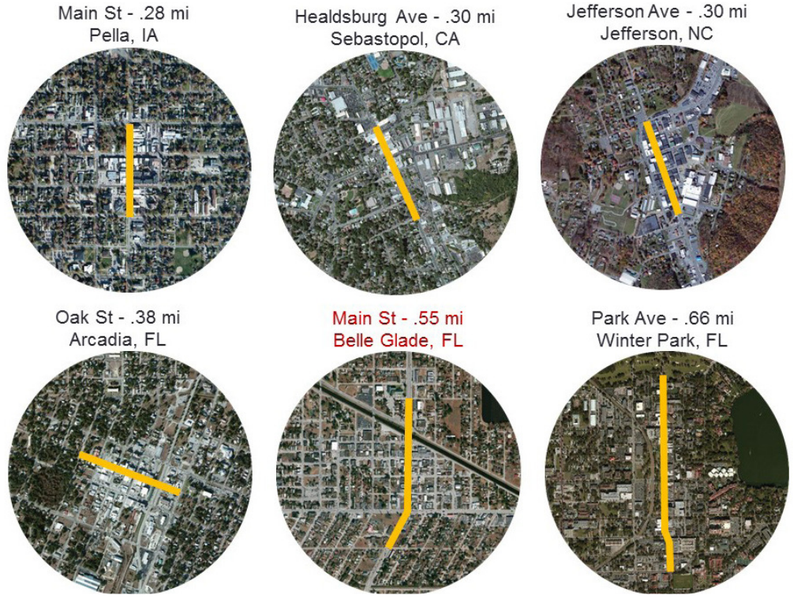
Issue: Buffered bike lanes are interrupted by turn lanes.

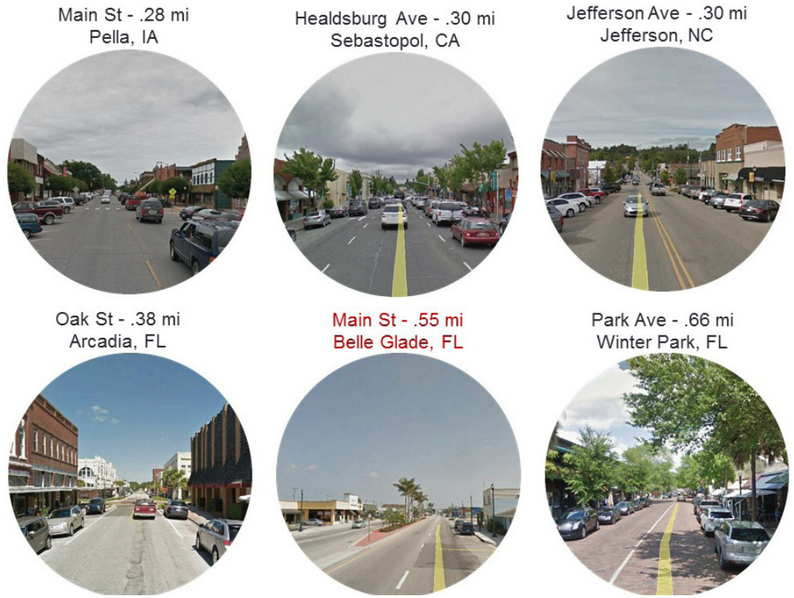
Solution: Remove RT lanes and continue buffered bike lanes or maintain RT lanes and create keyhole bike lanes between RT lane and through lanes.



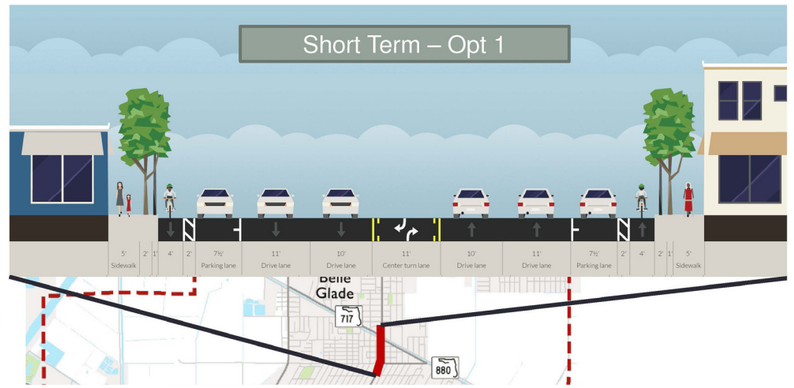
SR 80 from Ave F to Ave B (Downtown)

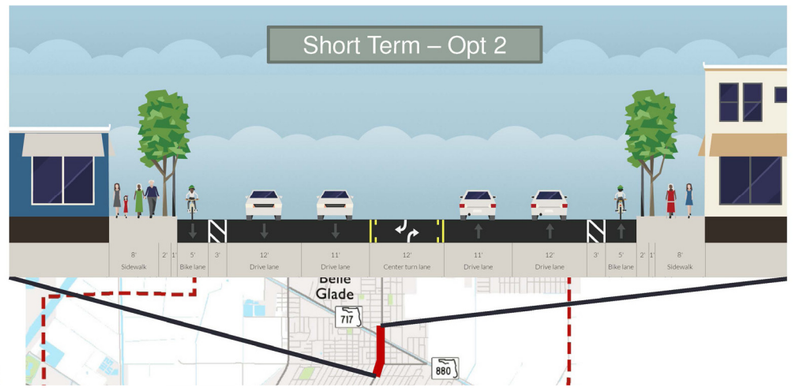
Issue: Belle Glade desires SR 80 to become a main street in the downtown area. In order to put this into context, an analysis of other small town downtowns was conducted. For the purpose of this study, the Downtown area stretches from SE Ave F to NE Ave B. As can be seen, it is somewhat longer that other such main streets. It also is much more auto-oriented.





Solution: This suggests a need to redesign the street to better suit the multimodal needs in the area. This could include streetscaping, narrowing travel lanes, adding walking and bicycling infrastructure, and other improvements. Two options are shown below, although a final preferred alternative should be determined through further study.



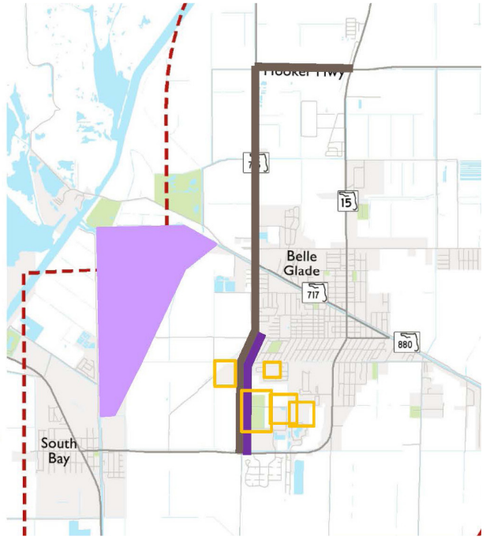


SR 80 from Ave F to Ave B (Downtown)

Issue: Freight traffic conflicts with "Main Street" goal. Trucks are frequent and pose safety and comfort issues to other modes.

Solution: Redesign SR 715 as Freight Route in the short term & alleviate traffic from downtown. This could also be configured to provide access to the ILC.

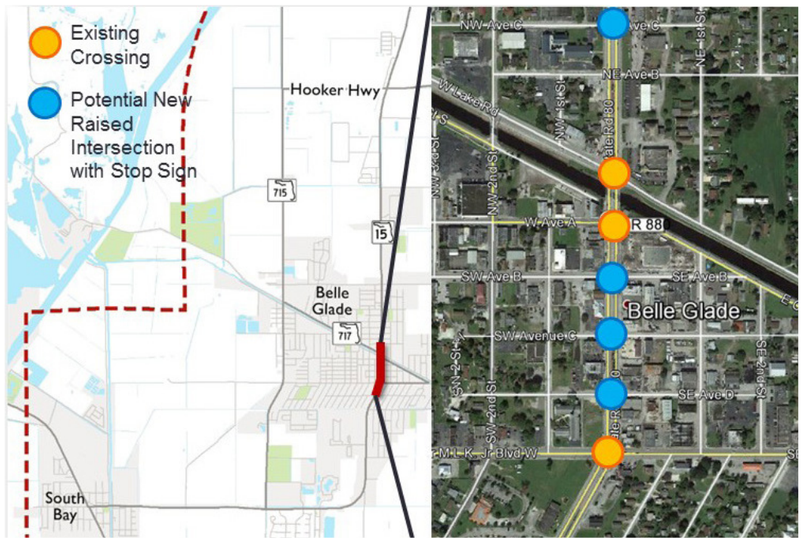
- Improve SR 715
  - 2 to 4 lane widening planned
  - Need to ensure adequate bike lanes, sidewalks, and pedestrian crossings for schools and parks are included



SR 80 from S of Ave I to S of Ave G

Issue: There are limited pedestrian crossing opportunities in the downtown area.

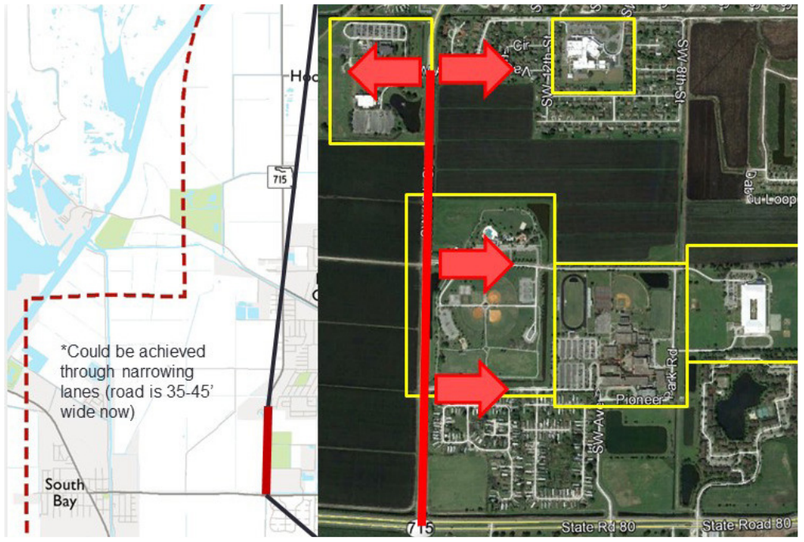
Solution: Signalize Intersections at Avenues SW F, D, C, & B, and NW C; upgrade to high visibility crossings at existing crossings.



SR 80 from Ave B to Airport Rd

Issue: The bike lane is painted on the wrong side of the buffer, so the buffer does not serve its purpose to separate bicycles from vehicles.

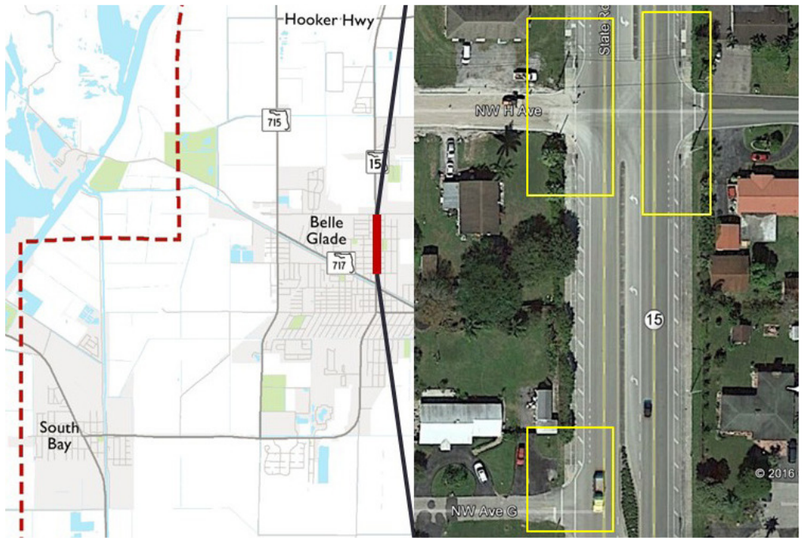
Solution: Restripe the road to provide buffered bike lanes, as per FDOT standard.



SR 80 from Ave B to Airport Rd

Issue: Bikes come into conflict with right turning vehicles at driveways.

Solution: Use green paint in bike lanes at conflict points.



SR 80 from Glades Glen Dr to Ave F

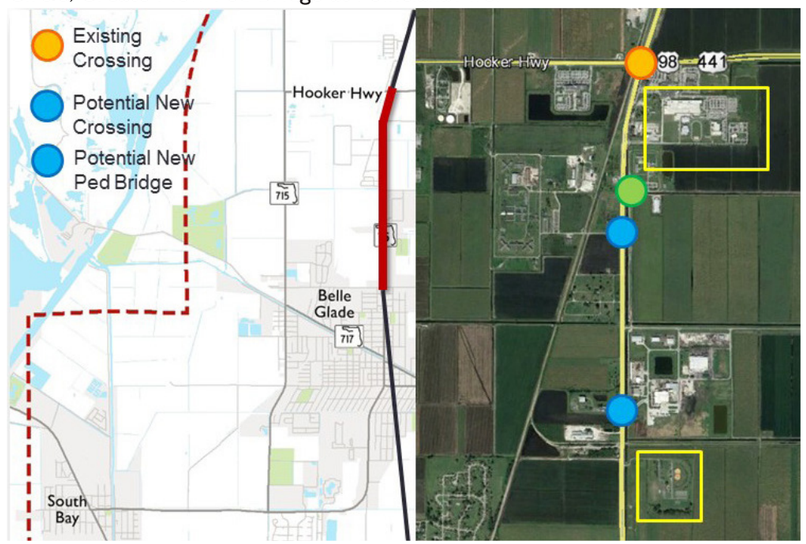
Issue: There are no pedestrian or bicycling facilities

Solution: Create multi-use path with shade and pedestrian lighting on west side.

SR 80 from Glades Glen Dr to Ave F

Issue: There are limited pedestrian crossing opportunities. There is also a canal that prevents some developments from reaching a bus stop on SR 80.

Solution: Create signalized crossings at Custard Apple Blvd and Orange Ave Circle; Create New Ped Bridge at Poinciana Ave.



7.1 AG - Agricultural

The Natural context area spans along SR 80 from Hooker Highway to 20-Mile Bend. This character area encompasses the undeveloped agricultural land and includes characteristics such as: focused on throughput; mostly agriculture or conservation uses; few destinations; high truck percentage; little access and low network connectivity.

The needs and goals uncovered in this area are as follows:

- An additional east-west arterial is needed for emergency and evacuation purposes.
- The facility needs to safely accommodate north-south crossing traffic and create higher visibility for all users.
- A facility for pedestrians and bicyclists is needed to connect the LOST recreational area to the east

Based on the needs, the solutions in this section are the following:

- Corridor-Wide Greenway: Provide greenway trail connecting the east to the Lake Okeechobee Scenic Trail (consistent with the adopted Regional Greenways Plan)
- Resurfacing & Lighting Study: Implement recommendations from future lighting studies
- Rehabilitation & Maintenance: Implement on-going County CR 880 rehabilitation project
- Safety Study: Conduct in-depth safety studies as needed to accommodate all users including freight and agricultural uses

An overview of the solutions in this area is given in Figure 54.

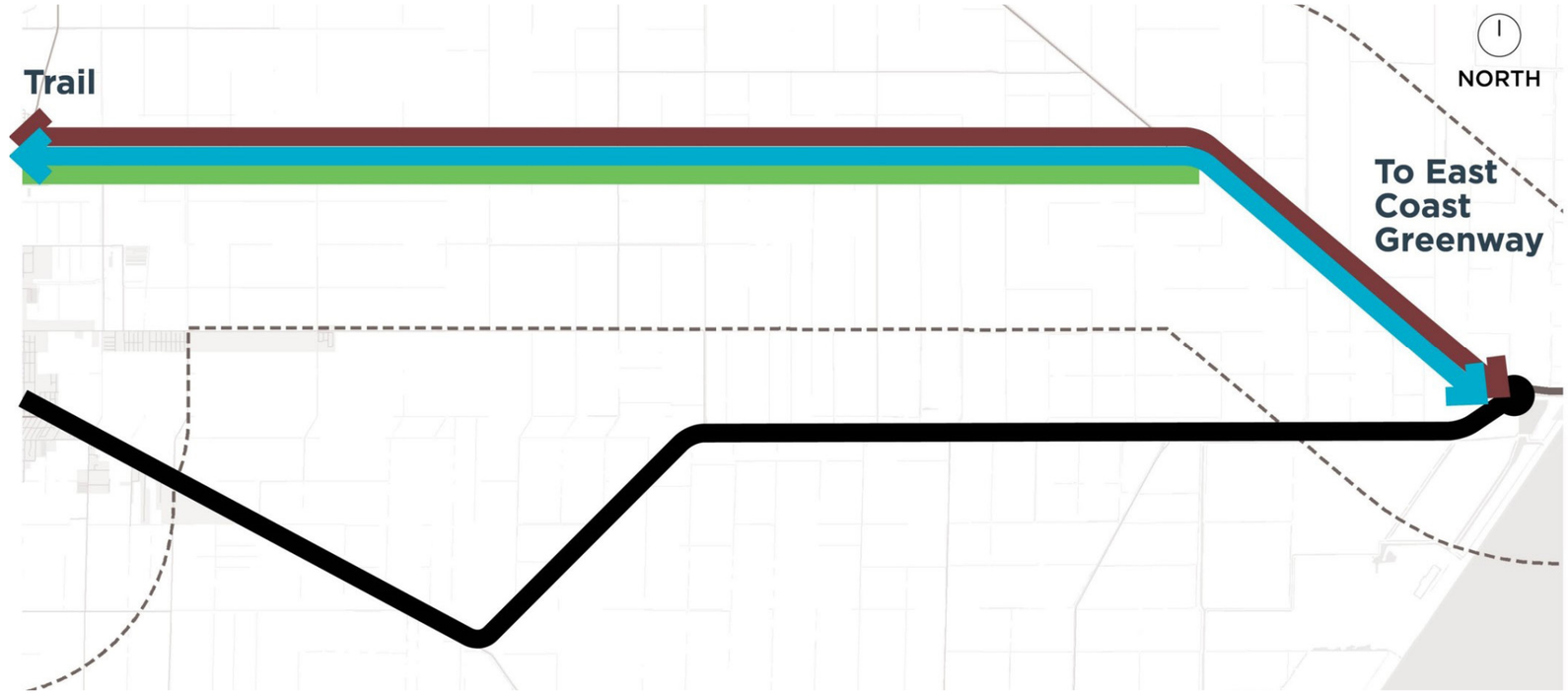
Performance of the Strategies

The set of strategies for this character area were assessed across multiple factors. Below is a table summarizing the performance of the strategies per measures.

GOAL	PERFORMANCE
Create a safer pedestrian and bicycle system	●
Protect and support Rural Areas of Opportunity	●
Reduce freight/auto conflicts in rural areas	●
Support the freight industry	●

● Good ◑ Acceptable ○ Poor

Figure 54 | AG - Agricultural Strategies



Corridor-Wide Greenway: Provide greenway trail connecting the east to the Lake Okeechobee Scenic Trail (consistent with the adopted Regional Greenways Plan)

Resurfacing & Lighting Study: Implement recommendations from future lighting studies

Rehabilitation & Maintenance: Implement on-going County CR 880 rehabilitation project

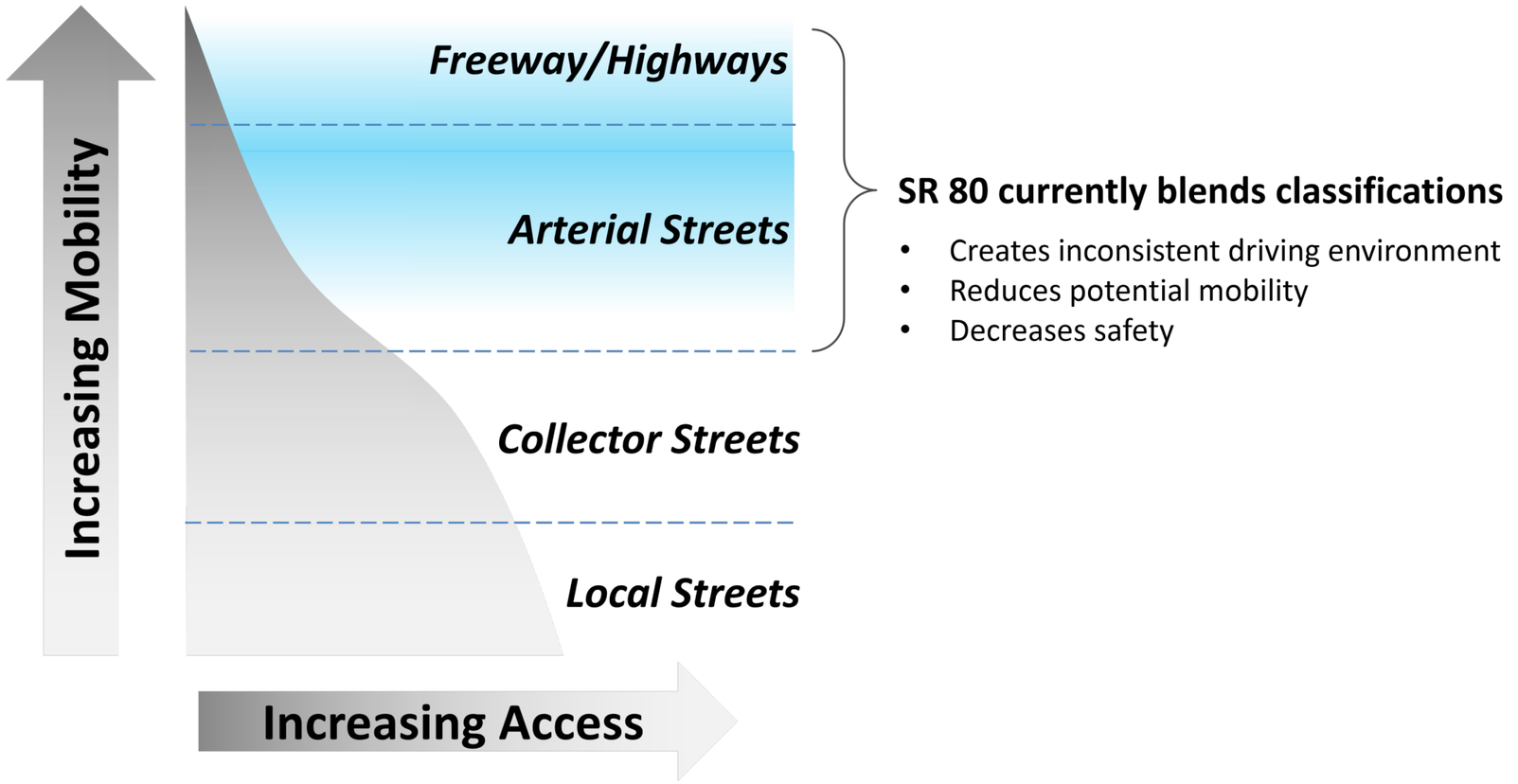
Safety Study: Conduct in-depth safety studies as needed to accommodate all users including freight and agricultural uses

7.3 SU - Suburban

The Suburban context area spans along SR 80 from 20-Mile Bend to the I-95 eastern limit of the study area. This area encompasses the residential and commercial areas and includes the following characteristics: auto-oriented commercial uses; most uses do not directly front the road (separated by swale/canal); lots of destinations but spread far apart; likely little pedestrian activity; little network connectivity; and low density.

The needs and goals uncovered in this area are as follows:

- Additional capacity is needed to meet the demand.
  - Population increases to the west and employment increases to the east create more SR 80 trips.
  - Emerging development patterns are auto-oriented and will create more auto demand on SR 80 in the future.
  - Congestion is expected to exceed the level-of-service D target.
- Access to transit is currently limited and should be improved upon to make it more convenient and accessible.
- A more connected network is needed.
  - East-west connections are limited to the north and south of SR 80.
  - A limited east-west network forces a majority of trips in the area to use SR 80.
- Safety should remain a priority.
  - This segment is not on FDOTs high crash list, but there is potential to make it safer.
  - 50% of pedestrian & bicycle crashes resulted in a fatality.
- Accommodating freight is critical to the economic health of the region given regional and local freight trips heavily rely on SR 80.
- Access management standards are not being met.
  - 35% of the corridor does not meet access management standards from 20-Mile Bend to Forest Hill Boulevard.
  - 47% of the corridor does not meet access management standards from Forrest Hill Boulevard to I-95; therefore, limiting mobility.
- The characteristics of the driving environment need to be more consistent.



Future alternatives for the SR 80 Corridor were developed to provide guidance on a holistic solution to the transportation goals of the corridor. All alternatives aimed at improving the capacity in three (3) distinct categories:

1. **Roadway** – general traffic capacity specifically on SR 80 (Southern Boulevard)
2. **Transit** – emphasis on providing improved transit service on SR 80 (Southern Boulevard)
3. **Parallel Network** – identifying parallel connections that should be improved/enhanced/developed to alleviate the demand carried by SR 80 (Southern Boulevard).

These three categories of capacity improvements are considered essential to the alternatives developed to meet the future growth and development of the SR 80 corridor.

Roadway Capacity

The existing SR 80 (Southern Boulevard) capacity issues have been addressed over time using point improvements by grade separating specific major intersections. One of the issues this presents is an inconsistent driving environment for the driver when traversing the corridor. The inconsistent environment is made up of alternating signalized and grade-separated intersections, lane adds/drops near grade separated intersections, and inconsistencies with access management of driveways and access points.

The capacity improvements considered in the analysis focused on:

- widening/adding lanes;
- increasing design speed, and/or;
- reconfiguring/reducing/eliminating traffic control delay.

Recognizing the inconsistent environment of the existing corridor presents, an objective of improving roadway capacity would be to improve consistency of intersection treatments and lane continuity.

Transit Capacity

Current ridership along the SR 80 corridor is approximately 900 riders per day. Access to transit is difficult along the corridor as well due to the canal along the south side and the overall design of the roadway, intersections and surrounding development. That said, transit is a critical component of the system providing transportation from home to jobs, school, healthcare, and more. Specific transit solutions for the SR 80 (Southern Boulevard) corridor were integrated in all alternatives developed as an "overlay". Based on the analysis and screening results, one transit alternative is proposed and should be assessed and adjusted over time as ridership grows and land uses change along the corridor and surrounding destinations.

- Limited Stop Enhanced Bus Service with Park-and-Ride
  - The service would provide enhanced Limited Stop Service by adding peak period service to the existing Route 40 Limited Stop 60 minute headway. The improved service would provide 30 minute headways for 4 hours in the morning and afternoon peak periods and be realigned, consistent with the Palm Beach TPA 2040 LRTP, eliminating the circuitous routing to the Wellington Mall to provide direct service on SR 80 between Belle Glade, Wellington and West Palm Beach. The proposal also includes implementation of a "loop" in Belle Glade providing connections to Palm Tran Routes 47 and 48, City of Belle Glade routes and ideally the Clew-Belle Route from Clewiston.

Eastbound service would begin at a proposed Belle Glade Transfer Hub and travel west on Canal Street and north on SR 715 to West Tech, then run along Hooker Highway serving Medical Center West. Once on SR 80, the route would immediately serve the West County Complex and then there would be a 20+ mile long line haul movement to a new stop at the Park of Commerce development. The service would continue east serving PBSC Loxahatchee Grove Campus, Palms West Hospital, SR 7/South Florida Fairgrounds, Palms West Shopping Center, Jog Road, Haverhill Road and Military Trail. The service then continues east to the proposed new PBIA Tri-Rail Station at I-95 and onto a stop at Okeechobee Boulevard towards its final destination at the West Palm Beach Tri-Rail/Amtrak/Greyhound Station.

The proposed Limited Stop Enhanced Bus Service will be accessed via a system of branded stops, hubs, shared use park and ride lots and a proposed Fairgrounds Hub/Park and Ride and Ride Lot. The service should also connect to the system of express bus services proposed in the Palm Tran TDP post- 2026 plan. The plan shows that the SR-80 West County Bolt has opportunities to connect to: the Okeechobee Boulevard and Forest Hill express services at the proposed Fairgrounds Hub; the Route 3 Bolt at Military Trail and the Route 2 Bolt and I-95 Express Routes at the proposed PBIA Tri-Rail Station at Southern and I-95. Finally, the post-2026 plan includes plans for a hub/park and ride lot at the Wellington Mall where 2 new Turnpike Express Services begin. Palm Tran and stakeholders may want to consider moving the hub north 2.5 miles to the Fairgrounds where for Fairgrounds where there is an opportunity to have 5 Express Bus/Limited Stop Services connect at a major hub/park and ride lot.

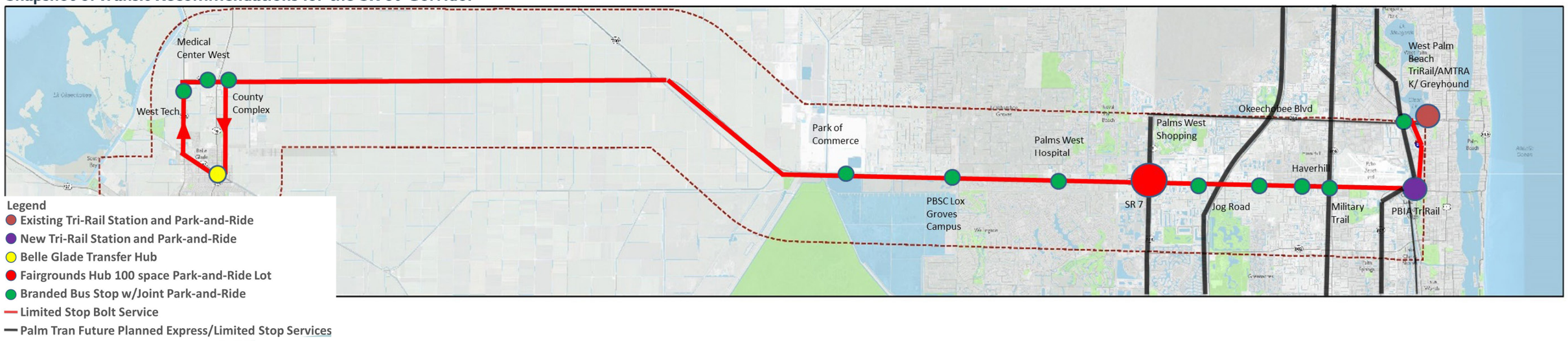
Parallel Network Capacity

One of the notable contributors to the anticipated traffic demand along SR 80 (Southern Boulevard) is the lack of a robust roadway network providing east-west connectivity in Palm Beach County. While this Action Plan does not specifically focus on roadways aside from SR 80 (Southern Boulevard), the vitality and transportation connectivity within Palm Beach County will greatly benefit from improving east-west connections to the north and south. Some existing facilities identified that could provide these enhancements include:

- Belvedere Road
  - Upgrading facility between Military Trail and Interstate 95
- Gun Club Road
  - Connection between Jog Road and Lyons Road
- Summit Boulevard
  - Connection between Jog Road and SR 7

Providing these connections/enhancements are likely to help alleviate some of the east-west demand anticipated to be carried by SR 80 (Southern Boulevard). However, additional analysis and evaluation is needed to provide definitive recommendations.

Snapshot of Transit Recommendations for the SR 80 Corridor



Alternatives

To meet the needs of the corridor's users, the following elements are included in all alternatives:

- **Network connection enhancements** – improving parallel network capacity
- **Express/enhanced bus services** – improving transit capacity. Specifically, all alternatives assume an overlay of express/enhanced bus services along SR 80 (Southern Boulevard) that will operate in mixed traffic.
- **Pedestrian/bicycle accommodations** – improving connectivity and safety for non-motorized users. Specifically, all alternatives assume a 6-ft sidewalk to the north and a 12-ft multi-use path to the south.
- **Access management improvements** – providing the appropriate access management designated on the corridor
- **Land use policy recommendations** – develop revisions to existing land use policy and land development codes/regulations to focus on denser development and focus on more multi-modal (i.e. non-car centric) themes in development patterns; incentivize mixed-use development to foster greater traffic internalization, pedestrian trips, shorter trip lengths, and reduced vehicle miles traveled
- **Transportation Systems Management and Operations (TSM&O)/Active Operations** – providing agencies with real-time information and means of addressing specific incident and event conditions along the corridor
- **Programmed widening and intersection improvements** – assumes the currently programmed construction along the corridor will be implemented per the current design plans.

Additionally, there are two major components that are included in all alternatives presented: full interchange reconfiguration with the Florida Turnpike/SR 80 (Southern Boulevard) and the alternatives tie-in with the Interstate 95 Interchange PD&E study.

Florida Turnpike Interchange

The connections between SR 80 (Southern Boulevard) and the Florida Turnpike is currently facilitated by two toll plaza terminals: via Pike Road for southbound turnpike traffic, and via the direct connection from SR 80 (Southern Boulevard) for northbound turnpike traffic. The Turnpike currently spans over SR 80 (Southern Boulevard) between the two plaza terminals.

The Turnpike has conducted a study in 2007 anticipating the need to widen the freeway within Palm Beach County from north of Lake Worth Road to Indiantown Road. This study includes recommendations to enhance the interchanges within these limits in coordination with the widening. The recommended improvements at SR 80 (Southern Boulevard) are limited to expanding the toll plazas and widening on/off-ramps connecting the plazas to the turnpike. This most recent analysis has found that projected model volumes between SR 80 (Southern Boulevard) and the Florida Turnpike are substantial enough that intersecting the terminals as they exist today will not achieve operations of LOS D or better in the 2040 design year. The proposed mitigation for all alternatives is to fully reconfigure the SR 80 (Southern Boulevard)/Florida Turnpike into a full systems interchange; an interchange form where all movements between the facilities are directly connected via merging/diverging.

At this level, no definitive interchange form can be identified and requires more rigorous analysis to develop a solution that balances traffic demands and impacts.

Eastern Extents/Tie-in with I-95 PD&E Study

The eastern extents of all alternatives will match into the existing roadway west of Congress Avenue/Australian Avenue. The precise tie-in location will vary depending on the alternative and through preliminary design efforts.

All capacity evaluations from the tie-in location through the Interstate 95 interchange have been deferred to the ongoing PD&E Study. The PD&E study examines traffic operations at a higher level of detail and is able to vet design solutions not possible through this Action Plan.

To meet the needs of the corridor's users, the following elements are included in all alternatives:

- Network connection enhancements
- Express/enhanced bus service
- Ped/bike accommodations
- Access management needs
- Land use and policy examples
- TSM&O (including emerging technologies)
- Previously Programmed Projects

Alternative 1 – Signalized Arterial with Alternative Intersections

The focus of Alternative 1 is to maximize the potential of the existing roadway by widening the mainline to a full 8-lane divided highway and reconfiguring the major intersection using alternative intersection/interchange (A.I.I.) forms. In its finality, SR 80 (Southern Boulevard) will have a continuous 8-lane typical section from Seminole Pratt Whitney Road through the eastern extents near Congress Avenue/Australia Avenue. This includes widening the existing grade-separated intersection bridges from 6 lanes to 8 lanes at:

- SR 7;
- Jog Road;
- Haverhill Road, and;
- Military Trail.

Figure 55 shows a planning-level diagram of Alternative 1, locations of widening, region of expressed/enhanced bus implementation, and proposed A.I.I. locations.

The bridge widening and continuity of an 8-lane mainline roadway allows for maximizing the capacity by reducing lane changes and weaving maneuvers at the existing grade-separated intersections.

Alternative 1 also includes a north side 6-foot wide sidewalk and a south side 12-foot wide multi-use path. Both facilities are to accommodate non-motorized users where north sidewalk is generally for more access (given the concentration of developed land on the north side) and the south multi-use path is more for long distance and recreational trips.

Figure 56 shows the comparison between the Alternative 1 Typical Section Concept vs the existing typical section. Because the more signature elements of Alternative 1 are the intersection treatments, the typical section concept is largely similar to the existing typical section.

The specific form of the A.I.I.s proposed will need further analysis to evaluate their improvements to corridor capacity. Generally, A.I.I.s are a configuration of an at-grade intersection where (typically) left-turn movements are removed from the immediate intersection and routed through a U-turn downstream. This configuration of removing the left-turns have been found to improve mainline capacities for heavy volume arterials and SR 80 (Southern Boulevard) seems to be a good candidate for implementation. For this analysis, a generic A.I.I. form was selected and applied to all locations. Details regarding the assumptions are covered later in this report.

These A.I.I. forms tend to expand the footprint of the intersection and are likely to include right-of-way impacts. However, because each design is highly variable in the right-of-way needs, it is difficult to assess without definitive forms selected to determine the impact at this level. As an assumption, these concepts assume the implementation of an "RCUT" and is suggested to require approximately 200-feet of ROW to accommodate (Reference 1). These A.I.I.s will not likely remove signalization at these nodes, but rather allow for more efficient signal timing.

Alternative 1 heavily relies on the increased green time efficiencies at the intersection to increase its throughput of traffic demand. Therefore, ten (10) of the highest demand intersections were selected to be reconfigured into an A.I.I. form to both increase the green time efficiency intersection-to-intersection and create an environment of consistent traffic control treatments along SR 80 (Southern Boulevard).

Figure 55 | Alternative 1 Corridor Diagram

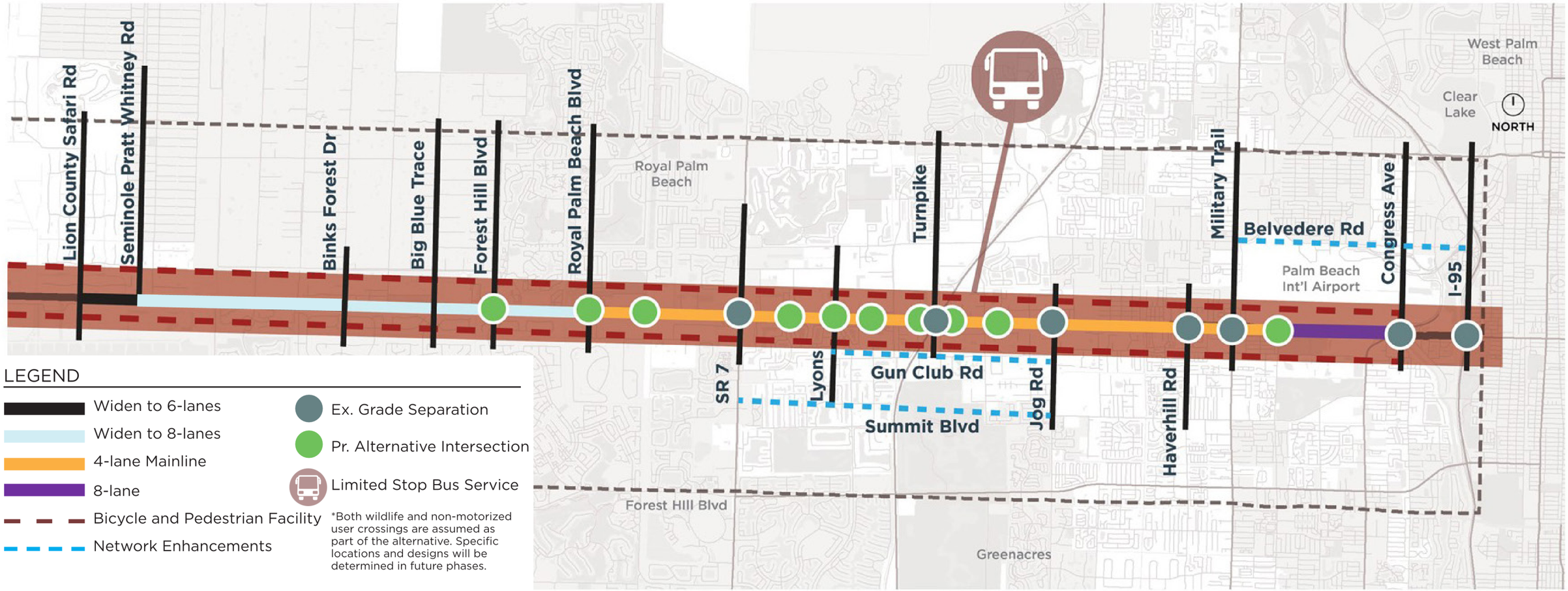
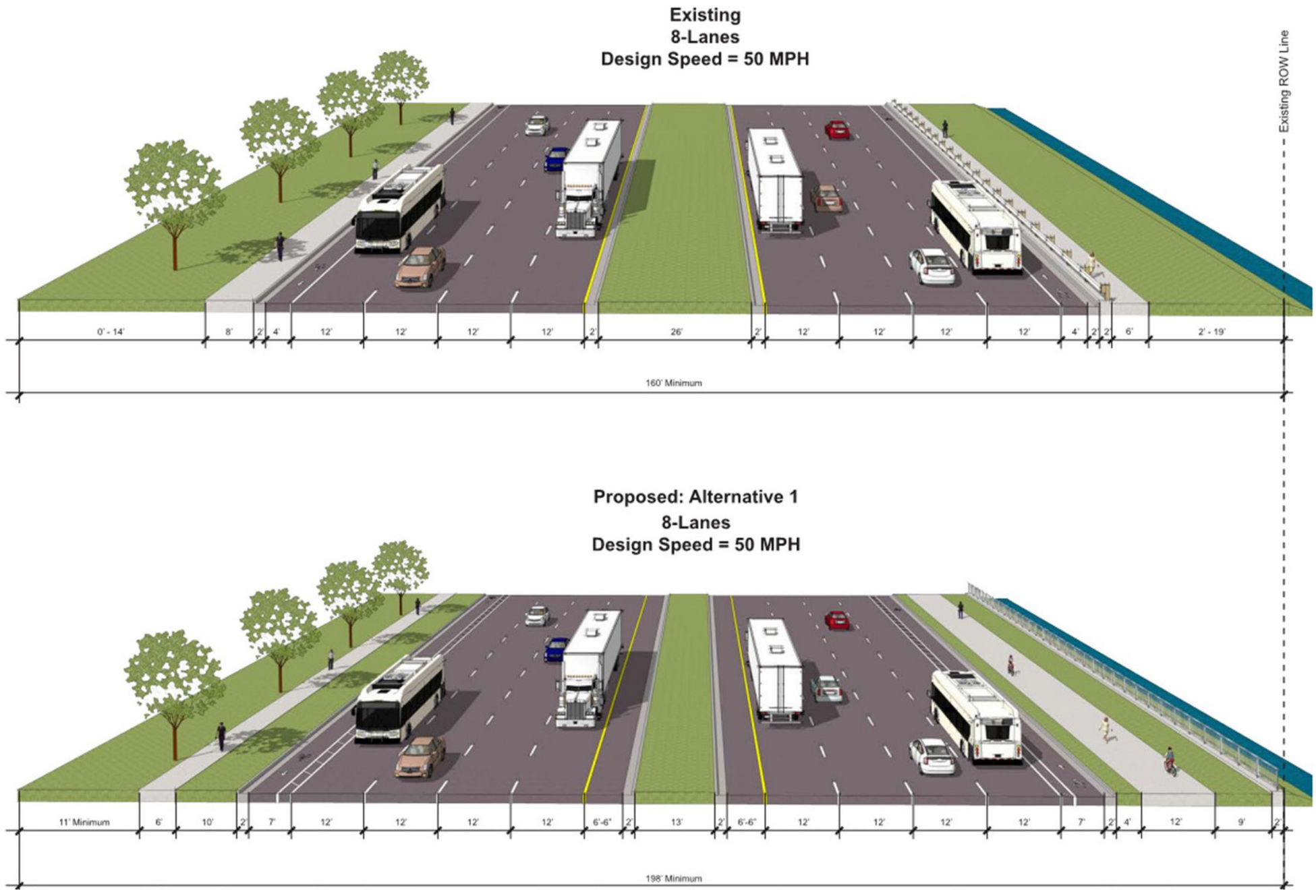


Figure 56 | Alternative 1 Typical Section Concept vs Existing Typical Section



Towards the conclusion of the study, it was requested that two, 12' multiuse paths be considered in future project phases to accommodate pedestrian and bicycle trips on the north and south side of the corridor.

Alternative 1 Summary

Concept:

- Lion Country Safari Road to Seminole Pratt Whitney Road: 6-lane typical section
- Seminol Pratt Whitney Road to Congress Avenue/Australia Avenue: 8-lane typical section with A.I.I. forms configured at major intersections.

Frontage Roads: None

Mainline: 8-lane divided signalized arterial (45-mph design speed)

Locations of A.I.I. Forms:

- Forest Hills Boulevard
- Royal Palm Beach Boulevard
- Lamstein Lane
- Fairgrounds Road
- Lyons Road
- Benoist Farm Road
- Pike Road
- Florida Turnpike Northbound Ramps
- Cleary Road
- Kirk Road

Locations of new Grade Separated Intersections:

These are cross-streets that will be routed under the new mainline configuration.

- None

Existing Crossroad Disconnections from Mainline:

These are cross-streets that will not have a connection across the new mainline configuration.

- None

Performance of Alternative 1

The set of strategies for this character area were assessed across multiple factors. Below is a table summarizing the performance of the alternative per measures.

GOAL	PERFORMANCE
Protect the mobility of the SIS and provide capacity to serve future development	◑
Increase and improve access to transit	◑
Encourage non-single occupancy auto trips	◑
Preserve mobility for regional trips and Provide access for local trips	◑
Create a safer pedestrian and bicycle system	◑
Support adopted future growth plans	◑
Identify cost-effective investments	●
Minimize impacts to the environment	◑
Minimize impacts to the business community	●

● Good ◑ Acceptable ○ Poor

Alternative 2 – Grade-Separated Access Controlled Lanes + Frontage Lanes

The focus of Alternative 2 was to upgrade the functional classification and travel speeds of the mainline to increase the capacity of the corridor. The resulting concept expands the total footprint of the typical section by developing essentially a 6-lane freeway that will utilize grade separations at existing at-grade intersections to remove delays due to traffic control. This allows for increased travel speeds and therefore increased throughput. This mainline will be supported by a 4-lane frontage road system. In its finality, SR 80 (Southern Boulevard) will have a continuous 6-lane mainline/4-lane frontage road typical section from Royal Palm Beach Boulevard through the eastern extents near Congress Avenue/Australia Avenue. Additionally, similar to Alternative 1, the segments between Seminole Pratt Whitney Road and Royal Palm Beach Boulevard will be widened to an 8-lane typical section.

This expanded right-of-way footprint can vary between 248-ft for segments and up to approximately 300-feet for interchanges.

Figure 57 shows a planning-level diagram of Alternative 2, extents of the mainline and frontage roads, region of expressed/enhanced bus implementation, and the proposed A.I.I. location.

The trade-off with this configuration is reducing the frequency of access points to/from mainline. Considering the development along SR 80 (Southern Boulevard), providing access to nearly all existing cross streets remains a priority. The resulting solution to this access is to provide a 4-lane frontage road system (2 lanes in each direction) to provide the immediate access to adjacent land uses.

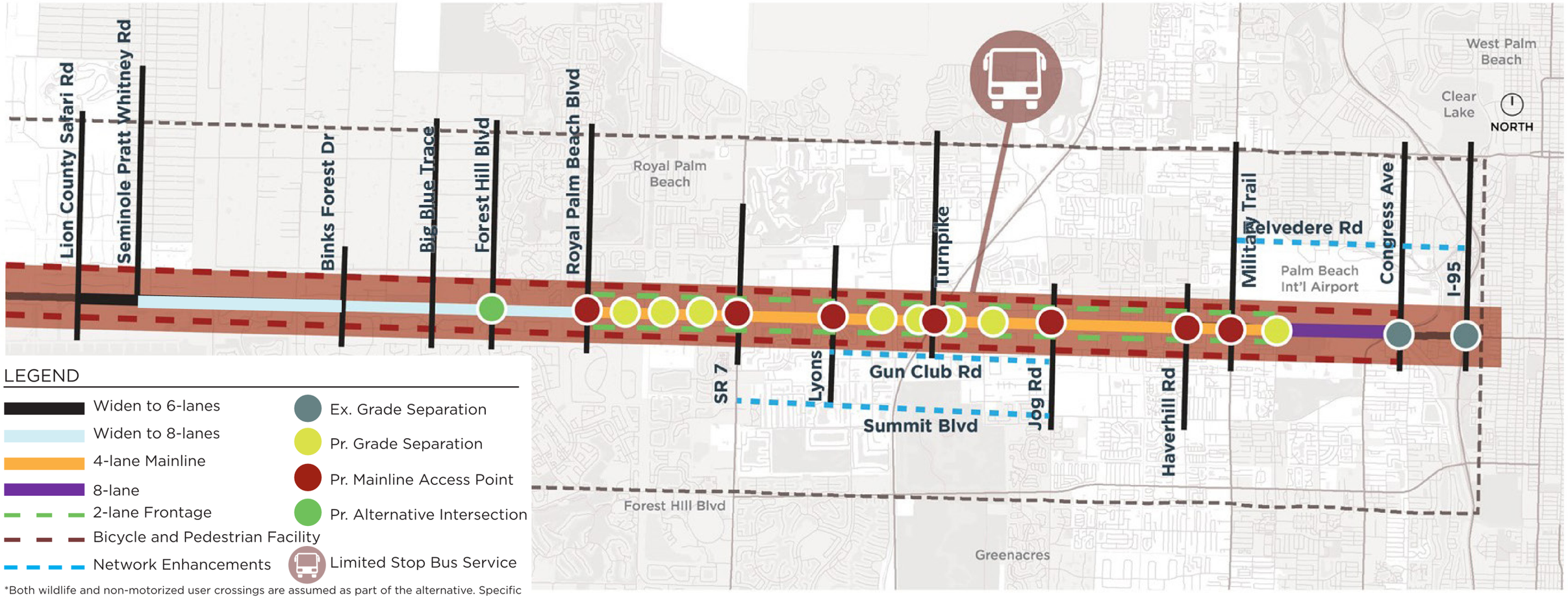
The connections to/from the frontage road and mainline for Alternative 2 need to be spaced efficiently as these will essential work like tight diamond interchanges. The spacing between these interchanges is critical for maximizing capacity and reducing excessive weaving/lane change maneuvers. From this planning level analysis, six (6) connections to/from the frontage road and mainline have been identified as:

- Royal Palm Beach Boulevard (western terminus of this configuration);
- SR 7;
- Lyons Road;
- Florida Turnpike;
- Jog Road, and;
- Haverhill Road/Military Trail (eastern terminus of this configuration).

Alternative 2 also includes a north side 6-foot wide sidewalk and a south side 12-foot wide multi-use path. Both facilities are to accommodate non-motorized users where north sidewalk is generally for more access (given the concentration of developed land on the north side) and the south multi-use path is more for long distance and recreational trips.

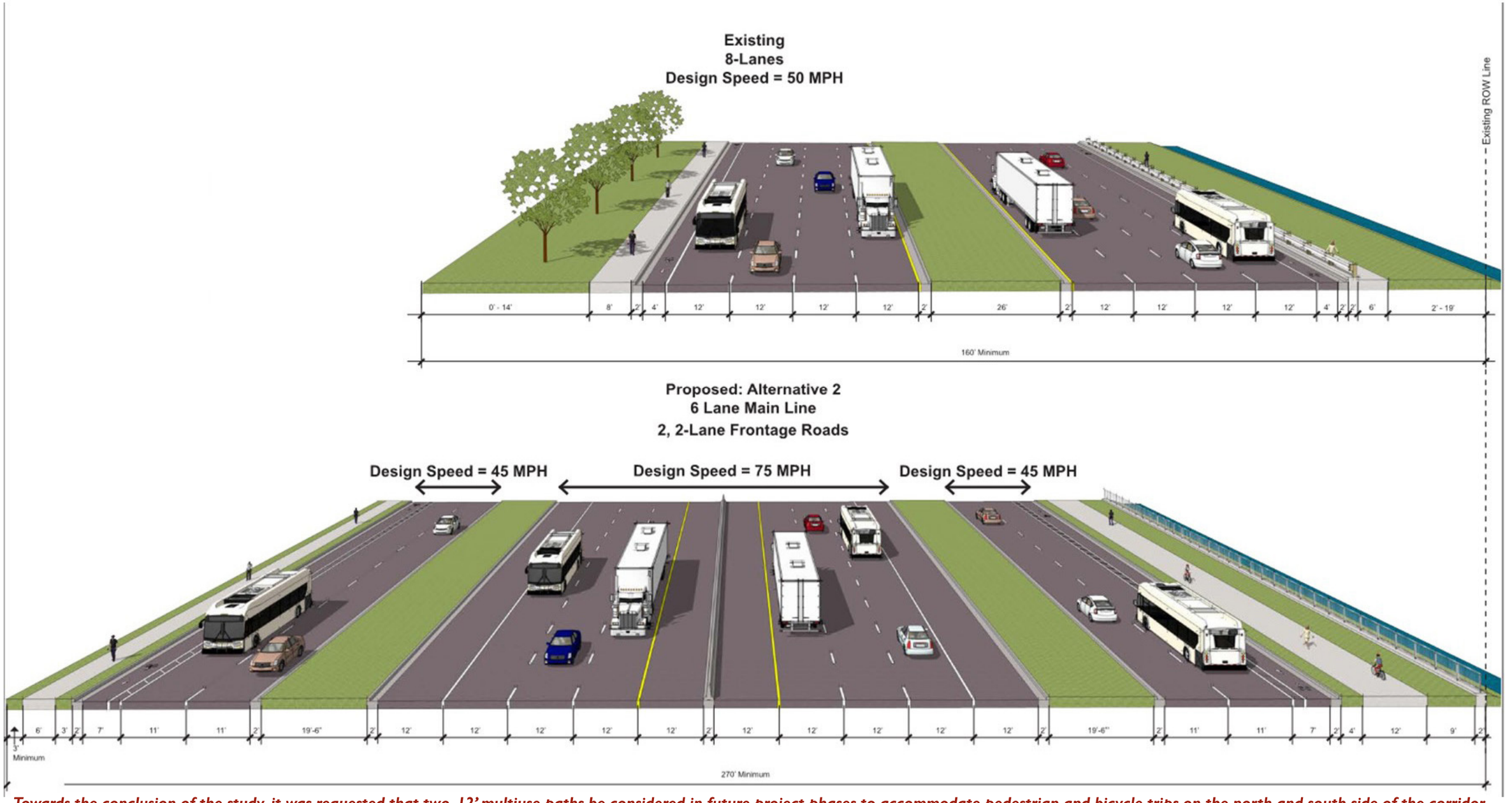
Finally, an A.I.I. is proposed for the Forest Hill Boulevard intersection to improve the capacity of the segments between Big Blue Trace and Royal Palm Beach Boulevard.

Figure 57 | Alternative 2 Corridor Diagram



*Both wildlife and non-motorized user crossings are assumed as part of the alternative. Specific locations and designs will be determined in future phases.

Figure 58 | Alternative 2 Typical Section Concept vs Existing Typical Section



Towards the conclusion of the study, it was requested that two, 12' multiuse paths be considered in future project phases to accommodate pedestrian and bicycle trips on the north and south side of the corridor.

Figure 58 shows the comparison between the Alternative 2 Typical Section Concept vs the existing typical section. The typical section shows the mainline and frontage road system separated by grass medians and includes the 6-foot sidewalk and 12-foot multi-use path.

Alternative 2 Summary

Concept:

- Lion Country Safari Road to Seminole Pratt Whitney Road: 6-lane typical section
- Seminole Pratt Whitney Road to Royal Palm Beach Boulevard: 8-lane typical section with A.I.I. forms configured at Forest Hill Boulevard
- Royal Palm Beach Boulevard to Congress Avenue/Australia Avenue: 6-lane mainline freeway grade separated from major intersections; 4-lane (2 lanes each direction) frontage road system

Frontage Roads: 4-lane (2 lanes each direction) (45-mph design speed)

Mainline: 6-lane freeway (75-mph design speed)

Locations of A.I.I. Forms:

- Forest Hills Boulevard

Locations of Grade Separated Intersections:

These are cross-streets that will be grade separated from the new mainline and connected to the frontage road system. **Bold** indicates direct access to mainline. *Italics* indicate existing grade separated intersection.

- **Royal Palm Beach Boulevard**
- Royal Commerce
- Lamstein Lane
- 103rd Avenue
- ***SR 7***
- **Lyons Road**
- Benoist Farm Road
- Pike Road
- ***Florida Turnpike***
- Florida Turnpike Northbound Ramps
- Cleary Road
- ***Jog Road***
- ***Haverhill Road/Military Trail***
- Kirk Road

Existing Crossroad Disconnections from Mainline:

These are cross-streets that will not have a connection across the new mainline configuration.

- Royal Commerce
- Lamstein Lane
- 103rd Avenue
- 105th Avenue
- Fairgrounds Road
- S Florida Fairgrounds Entrance
- Kelly Drive
- Benoist Farm Road
- Pike Road
- Florida Turnpike Northbound Ramps
- Cleary Road
- U-turn
- New Development Entrance (east of Jog Road)
- Pine Avenue
- Caroline Drive
- Kirk Road

Performance of Alternative 2

The set of strategies for this character area were assessed across multiple factors. Below is a table summarizing the performance of the alternative per measures.

GOAL	PERFORMANCE
Protect the mobility of the SIS and provide capacity to serve future development	●
Increase and improve access to transit	◑
Encourage non-single occupancy auto trips	○
Preserve mobility for regional trips and Provide access for local trips	●
Create a safer pedestrian and bicycle system	◑
Support adopted future growth plans	●
Identify cost-effective investments	○
Minimize impacts to the environment	○
Minimize impacts to the business community	○

● Good ◑ Acceptable ○ Poor

Alternative 3 – Elevated Access Controlled Lanes + Frontage Roads

The focus of Alternative 3 is a variation of Alternative 2 intended to reduce the right-of-way footprint of the design alternative. Alternative 3 upgrades the functional classification and travel speeds of the mainline to increase the capacity of the corridor. The concept generally maintains the existing right-of-way footprint by developing an elevated 4-lane freeway that remains elevated over existing intersections to remove delays due to traffic control. This allows for increased travel speeds and therefore increase throughput. This mainline will be supported by a 6-lane frontage road system which can be "tucked" underneath the edges of the elevated freeway, reducing the overall width of the typical section. In its finality, SR 80 (Southern Boulevard) will have a continuous 4-lane mainline/6-lane frontage road typical section developing between Forest Hill Drive and Crestwood Court through the eastern extents near Congress Avenue/Australia Avenue. The segments between Seminole Pratt Whitney Road and Forest Hill Boulevard will be widened to an 8-lane typical section.

While the right-of-way footprint for the segments can likely be maintained around 200-feet, the interchanges which will facilitate traffic between the mainline and frontage road system could expand the envelope up to approximately 300-feet.

Figure 59 shows a planning-level diagram of Alternative 3, extents of the mainline and frontage roads and region of expressed/enhanced bus implementation.

The trade-off with this configuration is the elevated freeway segments require fewer access points between the mainline and the frontage road system (due to differences in elevations and the space required for ramps to interchange traffic). The elevated freeway is likely to draw less demand than the mainline in Alternative 2 due to having one less access point. This shifts more demand onto the frontage road system and therefore expands the frontage roads to 6 lanes to facilitate more local trips.

The connections to/from the frontage road and mainline for Alternative 3 need to be spaced efficiently as these will essential work like tight diamond interchanges. The spacing between these interchanges is critical for maximizing capacity and reducing excessive weaving/lane change maneuvers. From this planning level analysis, five (5) connections to/from the frontage road and mainline have been identified as:

- Forrest Hill Blvd;
- SR 7;
- Florida Turnpike;
- Jog Road, and;
- Haverhill Road/Military Trail.

Alternative 3 also includes a north side 6-foot wide sidewalk and a south side 12-foot wide multi-use path. Both facilities are to accommodate non-motorized users where north sidewalk is generally for more access (given the concentration of developed land on the north side) and the south multi-use path is more for long distance and recreational trips.

Figure 59 | Alternative 3 Corridor Diagram

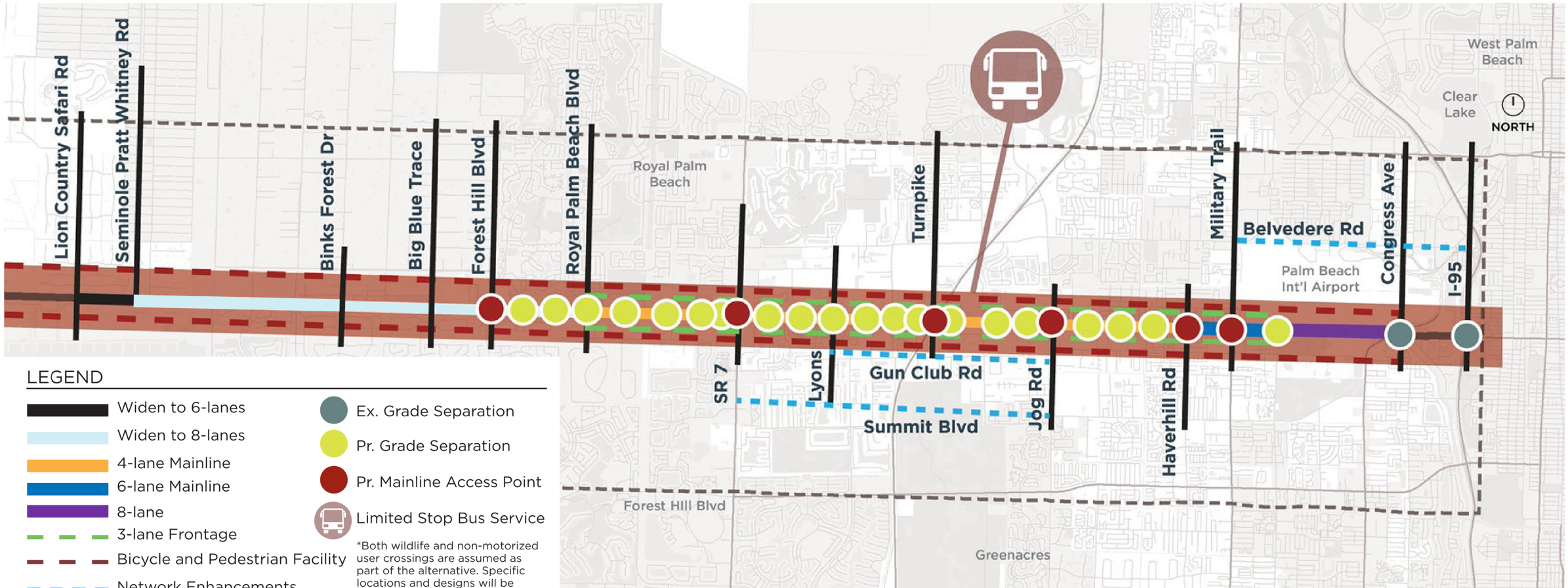
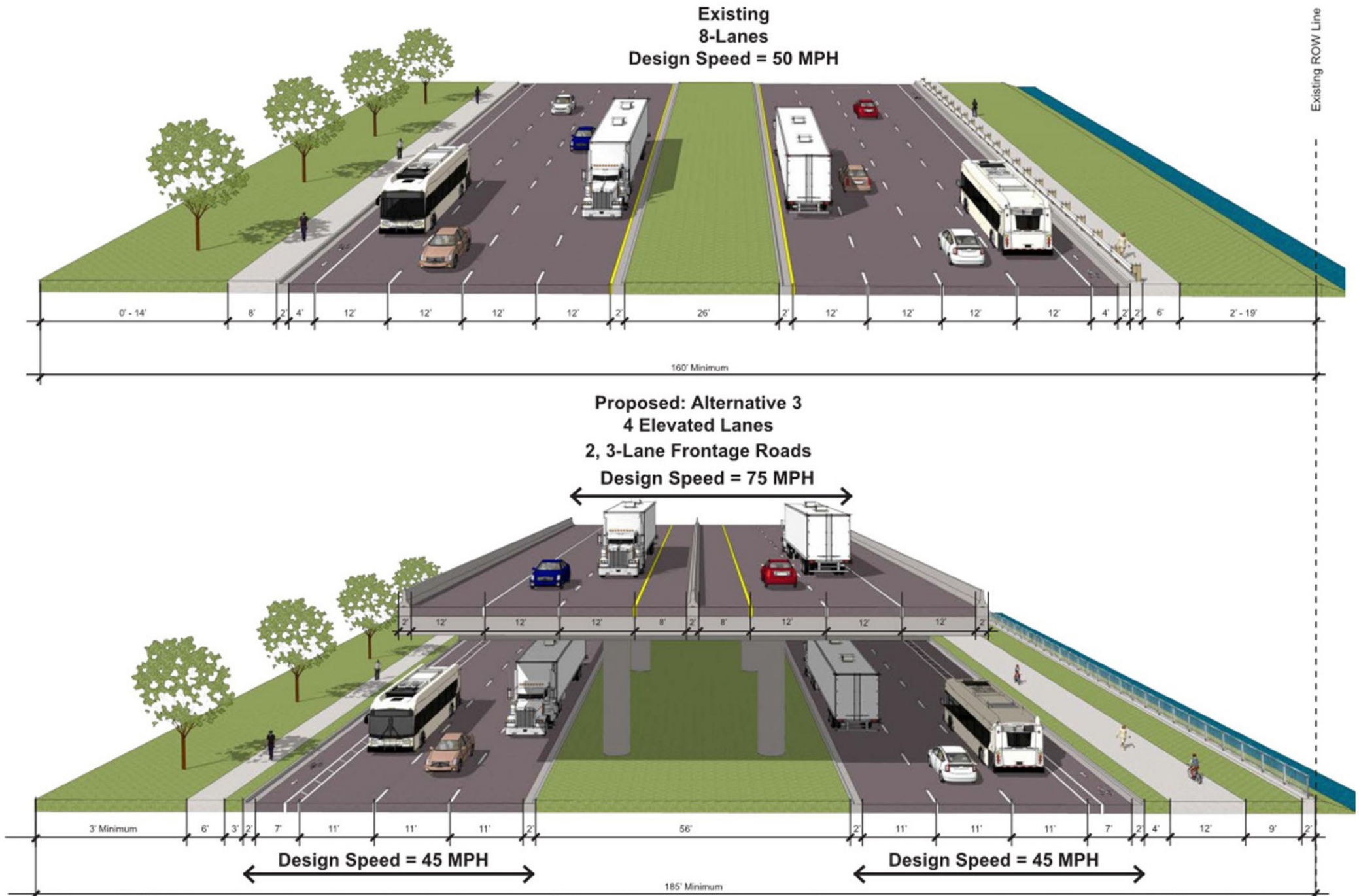


Figure 60 | Alternative 3 Typical Section Concept vs Existing Typical Section



Towards the conclusion of the study, it was requested that two, 12' multiuse paths be considered in future project phases to accommodate pedestrian and bicycle trips on the north and south side of the corridor.

Figure 60 shows the comparison between the Alternative 3 Typical Section Concept vs the existing typical section. The typical section shows the mainline elevated over the frontage road system on piers within the median and includes the 6-foot sidewalk and 12-foot multi-use path.

Alternative 3 Summary

Concept:

- **Lion Country Safari Road to Seminole Pratt Whitney Road:** 6-lane typical section
- **Seminole Pratt Whitney Road to Forest Hill Boulevard:** 8-lane typical section
- **Forest Hill Boulevard to Congress Avenue/Australia Avenue:** 4-lane elevated mainline freeway; 6-lane (3 lanes each direction) frontage road system

Frontage Roads: 6-lane (3 lanes each direction) (45-mph design speed)

Mainline: 4-lane freeway (elevated) (75-mph design speed)

Locations of A.I.I. Forms:

- None

Locations of new Grade Separated Intersections:

These are cross-streets that will be routed under the new mainline configuration. Bold indicates direct access to mainline. Italics indicate existing grade separated intersection.

- Crestwood Court
- Cypress Head
- Farm Credit
- Royal Palm Beach Boulevard
- Royal Commerce
- Lamstein Lane
- 103rd Avenue
- 105th Avenue
- **SR 7**
- Fairgrounds Road
- S Florida Fair Road
- Lyons Road
- Kelly Drive
- Benoist Farm Road
- Pike Road
- ***Florida Turnpike***
- Florida Turnpike Northbound Ramps
- Cleary Road
- U-turn
- ***Jog Road***
- New Development Access
- Pine Avenue
- Caroline Drive
- ***Haverhill Road/Military Trail***
- Kirk Road

Existing Crossroad Disconnections from Mainline:

These are cross-streets that will not have a connection across the new mainline configuration.

- Crestwood Court
- Cypress Head
- Farm Credit
- Royal Commerce
- Lamstein Lane
- 103rd Avenue
- 105th Avenue
- Fairgrounds Road
- S Florida Fairgrounds Entrance
- Kelly Drive
- Benoist Farm Road
- Pike Road
- Florida Turnpike Northbound Ramps
- Cleary Road
- U-turn
- New Development Entrance (east of Jog Road)
- Pine Avenue
- Caroline Drive
- Kirk Road

Performance of Alternative 3

The set of strategies for this character area were assessed across multiple factors. Below is a table summarizing the performance of the alternative per measures.

GOAL	PERFORMANCE
Protect the mobility of the SIS and provide capacity to serve future development	●
Increase and improve access to transit	◑
Encourage non-single occupancy auto trips	○
Preserve mobility for regional trips and Provide access for local trips	●
Create a safer pedestrian and bicycle system	◑
Support adopted future growth plans	●
Identify cost-effective investments	○
Minimize impacts to the environment	◑
Minimize impacts to the business community	◑

● Good ◑ Acceptable ○ Poor

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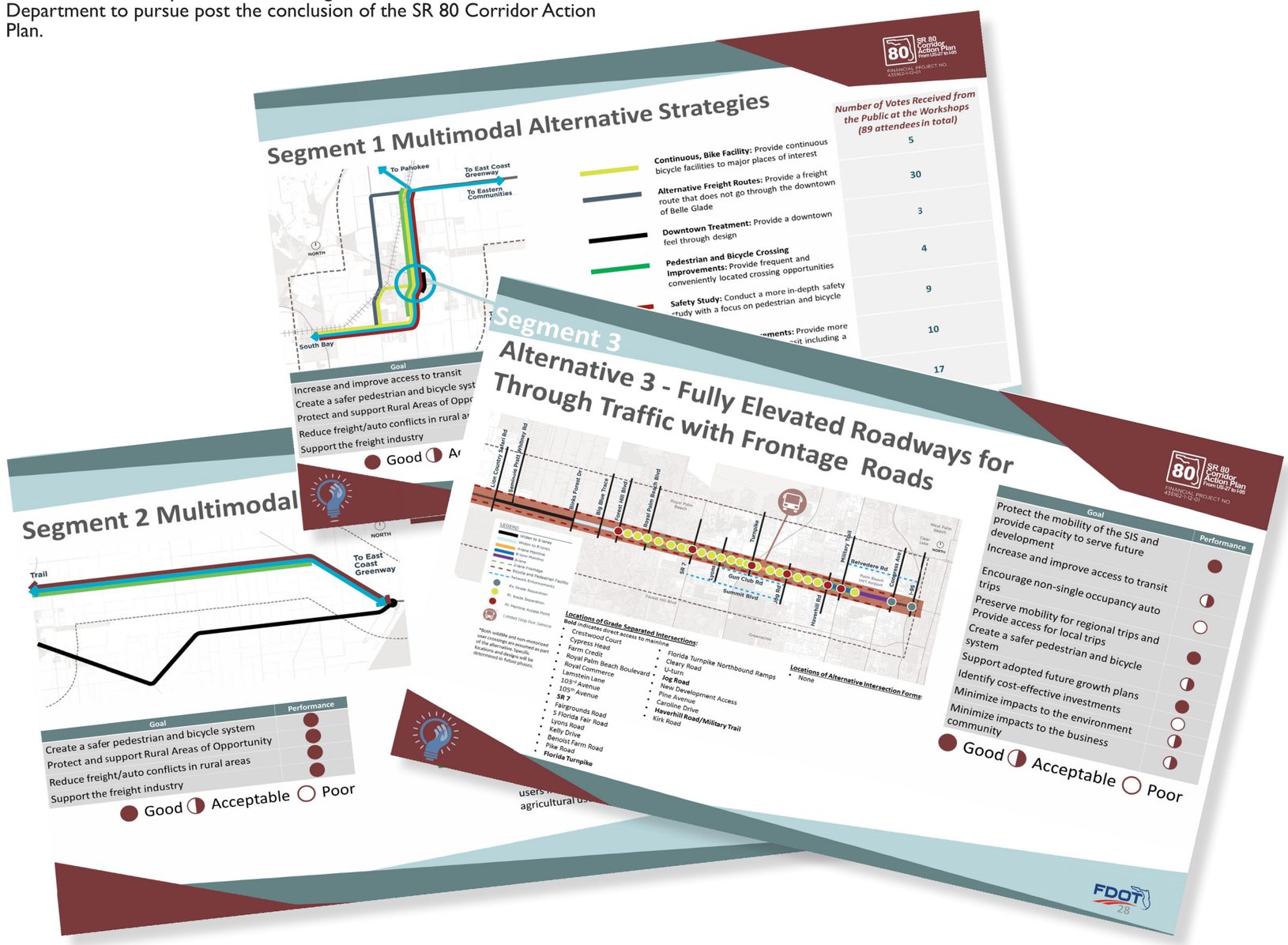
8 COSTS & TIMING

All strategies per character district have been summarized herein. The summary includes the following elements: potential next steps, phasing, potential Class of Action, planning-level cost estimates, potential opening year, and assumptions. Each strategy directly correlates to an identified SR 80 need previously summarized in the Existing and Future Conditions section. For the Suburban character district, a Long Range Estimate (LRE) was prepared for the most popular alternative, Alternative 3, as part of the 2045 Strategic Intermodal System Plan. LRE estimates may be found in supporting technical documentation located on the study website.

Overall this summary table can be recognized as a list of actions for the Department to pursue post the conclusion of the SR 80 Corridor Action Plan.

In addition to the action item list for the Department to lead, a summary of potential strategies for study partners to consider is below. These particular strategies were study findings based on data analysis and stakeholder outreach; however, they fall outside the purview of the Department. These strategies may move forward at the discretion of the study partners, but will not be lead by the Department as they are not the experts/owners of the particular strategies listed. The Department commits to be an active partner, where applicable, should the strategies move forward by the individual lead agencies.



SR 80 Potential Strategies for Consideration by Study Partners

Character District	ID #	Strategy/Objective	Limits		Users/Needs to be Addressed	**Owner** and Partners	Notes/Background
			To	From			
Varies	A	Upgrade CR 880 as a 24/7 accessible alternative route to SR 80 for western communities such as South Bay and Belle Glade	SR 80	20-Mile Bend	Provides an additional ingress/egress point for evacuation or emergency purposes	**Palm Beach County**, FDOT, Palm Beach TPA	A resurfacing project has already been programmed. However, sharing the stakeholder desire for this to be a 24/7 accessible and reliable alternate route to SR 80 for evacuation or incident management purposes is recommended.
	B	Provide additional transit capacity and increase span of service	Belle Glade	Wellington	Alleviate overcrowded buses from Belle Glade and provide expanded hours to serve commuters	**Palm Tran**, Local Governments, FDOT, Palm Beach TPA	The SR 80 Action Plan recommendations assume 5 signal priority locations and 2 new buses as part of this service enhancement. Overcrowding and limited span of service was discovered through stakeholder outreach feedback.
SEGMENT 3 (Suburban) 20-Mile Bend to I-95	C	Provide grade-separated wildlife and equestrian crossings connecting recreational areas to the north and south of SR 80	20-Mile Bend	Binks Forest Dr	Provide grade-separated facilities for recreational users and wildlife	**Local Governments**, FDOT	The wildlife and pedestrian crossings were identified as a need from the Technical Review Committee and stakeholders. This strategy was not identified through data or field reviews. Should the local governments desire this, they should coordinate with future PD&E efforts for the corridor.
	D	Implement development that supports transit-focused investments	20-Mile Bend	I-95	Additional Multimodal Capacity; Improve Multimodal Travel and Multimodal Access to Transit	**Local Governments, Palm Beach County**	Stakeholders, including the Palm Beach TPA and Chambers of Commerce, voiced their desire for transit-focused investments (specifically rail) along the SR 80 corridor. Based on the analysis findings, land use and development changes will need to occur for a premium transit investment to be successful.
	E	Operate limited stop bus service from approximately SR 7 to Downtown West Palm Beach	SR 7	Tri-Rail Connection	Provides enhanced transit service to Downtown West Palm Beach and to Tri-Rail regional transit services	**Palm Tran**, Local Governments, FDOT, Palm Beach TPA	Based on the Action Plan report findings, the land uses will need to change as well as the pedestrian and bicycle access to transit along SR 80 in order for this strategy to be effective. This strategy would need to be coordinated with any other related transit planning efforts or investments (such as Park-n-Ride lots, transit service to the western communities of Belle Glade, South Bay, and Pahokee, and other crossing transit routes with Palm Tran or Tri-Rail).
	F	Provide additional capacity to the roadway network parallel to SR 80	Gun Club Road Summit Boulevard Belvedere Road	Lyons Road SR 7 Military Trail	Jog Road Jog Road I-95	Vehicle and Multimodal Mobility and Access	**Palm Beach County, Local Governments,** FDOT, Palm Beach TPA	The SR 80 Action Plan assessed 5 parallel corridors of which only 3 of the 5 moved forward into the recommended alternatives. Two of the three facilities were extensions: Gun Club Road (from Lyons Road to Jog Road) and Summit Boulevard (from SR 7 to Jog Road). The third facility recommendation was to redesign Belvedere Road (from Military Trail to I-95) to be have a consistent typical section, access, and traffic control. Stakeholders shared that there may be additional facilities not studied within this report that could be considered to help achieve the goal of building a stronger network.

SR 80 Potential Strategies for FDOT to Move Forward

Character District	ID #	Strategy/Objective	Limits To	Limits From	Users/Needs to be Addressed	**Owner** and Partners	Potential Next Steps	Planning/Pre-PD&E Activities	Planning/Pre-PD&E Year
Corridor-wide	A	Provide Park-n-Ride Lots, Branded Express Bus Stops, & Belle Glade Downtown Hub	Downtown Belle Glade	Existing Tri-Rail Station	Additional Multimodal Capacity; Improve Multimodal Travel and Multimodal Access to Transit	**FDOT**, Palm Tran, Local Governments, Palm Beach County, Palm Beach TPA	Further evaluate Park-n-Ride lot locations and coordinate with Palm Tran TDP and D4 Office of Modal Development	Conduct Park-n-Ride lot study and coordinate with Palm Tran	Year 0
	B	Provide Regional Greenway Connection	Lake Okeechobee Scenic Trail (LOST)	I-95	Off-road walking and biking	**FDOT**, Local Governments, Palm Beach County, Palm Tran, Palm Beach TPA	Coordinate with Sun Trail opportunities	Focused trail study to determine potential limits of needs and initial staging plan	Year 0
	C	Provide Active Operations along SR 80 (i.e., Traffic Incident Management, Arterial Management, Active Transportation System Management, etc.)	Hooker Highway	I-95	Improve safety, security, and mobility	**FDOT**, **Palm Beach County**, Local Governments, Palm Tran	Coordinate with the Operations Office to integrate on-going ITS and TSM&O efforts with future next phases of the SR 80 Action Plan recommended strategies	Conduct detailed operational and safety assessments as determined through monitoring/performance dashboard results prepared by the County and Traffic Management Center	Year 0
SEGMENT 1 (Rural Town) US 27 to Hooker Highway	D	Provide pedestrian and bicycle facilities as well as a downtown Belle Glade "complete street"	US 27	Hooker Highway	Improve network connectivity and enhance pedestrian/bicyclist safety; Provide multimodal access to local businesses	**FDOT**, Belle Glade, Palm Tran	Prepare conceptual designs of pedestrian, bicycle, and complete street treatments	Prepare conceptual designs of pedestrian, bicycle and complete street treatments	Year 0
	E	Provide additional capacity on SR 715 to accommodate freight demand off of SR 80 in the downtown Belle Glade area	US 27	Hooker Highway	Support freight related development.	**FDOT,** Palm Beach County, Palm Beach TPA, Local Governments	Conduct a subarea study that explores a new or existing truck bypass route around Belle Glade and South Bay that supports freight related development from US 27, rail lines, and SR 80. SR 715 widening was the stakeholders preferred near-term solution whereas a new truck bypass related to the ILC was a more long-term option. As part of next steps, SIS designation relocation should be explored (i.e., moved from SR 80 through Belle Glade to the new truck route).	Conduct subarea study that considers truck capacity needs as well as overall multimodal design upgrades for SR 715	Year 0
	F	Reconstruct bridge/construct concrete barrier walls to accommodate truck turning radii	SR 80/SW 1st Avenue		Improve freight mobility	**FDOT**, South Bay	Conduct field assessment and coordinate with FDOT design office	-	Year 0
SEGMENT 2 (Agricultural) Hooker Highway to 20-Mile Bend	G	Provide necessary safety- and security-related design elements such as lighting	Hooker Highway	20-Mile Bend	Improve safety and security	**FDOT,** Palm Beach County, Palm Beach TPA	Coordinate with FDOT safety office, Palm Beach TPA, Palm Beach County, Belle Glade and South Bay	Further coordinate on the District Safety Studies to identify gaps and opportunities, specifically lighting. Coordinate with partners regarding long-term maintenance needs and costs. Coordinate with the Traffic Operations Office on their on-going ITS efforts.	Year 0
SEGMENT 3 (Suburban) 20-Mile Bend to I-95	H	Provide additional multimodal capacity on SR 80	Seminole Pratt Whitney	Congress Ave	Additional Multimodal Capacity; Improve Multimodal Travel and Multimodal Access to Transit	**FDOT,** Local Governments, Palm Tran, Palm Beach County, Palm Beach TPA	Conduct Pre-PD&E Activities (starting with the SR 80 Action Plan alternatives as a baseline) to inform scope, schedule and budget for the PD&E Phase	Confirm Future Conditions Context Classification with PLEMO	Year 0
								Conduct ETDM Planning Screen	Year 0
								Define Limits of Our Lady Queen of Peace Cemetery and Coordinate with Property Owner and Applicable Agencies	Years 0 and 1
								Issue Notice of Intent for EIS	Year 1
								Conduct Preliminary Feasibility Study to determine alignment options in relation to the canal that runs along the southern side of SR 80. The assessment needs to consider any major utility relocation impacts and costs that could result from the preferred alignment.	Years 0 and 1
	I		Seminole Pratt Whitney	Forest Hill Blvd	Additional Multimodal Capacity; Improve Multimodal Travel	**FDOT,** Local Governments, Palm Beach County, Palm Beach TPA	Conduct PD&E to widen SR 80 from 6 to 8 lanes	Confirm pre-PD&E activities are not warranted	Year 0
	J	Reduce and/or manage access along SR 80 to better align with SIS Access Classification standards	20-Mile Bend	Congress Ave	Preserve vehicle capacity and mobility of SIS	**FDOT**, Local Governments, Palm Beach County, Palm Tran	Use the SR 80 Action Plan's Access Management technical memorandum to inform the scope and budget of an Access Management Plan that may be tied into the PD&E from ID H & I.	-	Year 0
	K	Provide intersection-level operational and capacity improvements	@Forest Hill Blvd/Crestwood Blvd @SR 7 @Lyons Rd/Sansbury Way @Benoist Farms Rd @Cleary Rd		Additional Multimodal Capacity; Improve Multimodal Travel	**FDOT,** Local Governments, Palm Beach County, Palm Tran	Use the Action Plan's Interim Intersection Assessment and Recommendations Technical Memorandum to inform the scope and budget for next phases. Coordinate with traffic operations and concept development offices.	Conduct independent operational studies	Years 0-2

Notes: -All cost estimate details are provided in the technical memoranda of the Action Plan. Costs listed herein are planning-level cost estimates unless otherwise noted. An LRE estimate was prepared for Alternative 3 only for ID H as well as ID F, and ID J. LRE estimates are found in the study appendices
-ID J cost estimates are Long Range Estimates (LREs) supplied by PLEMO

PD&E Activities	PD&E Year	Final Design Year	ROW Year	Construction Year	Estimated Costs (in 2017$)	Potential Class of Action	Potential Opening Year Based on Needs	Assumptions	ID #	Character District
TBD once additional assessment is completed					$1,326,484	-	2019 (for Belle Glade portion) TBD for remaining portion of the corridor	11 branded stops 11 Joint Park-n-Ride Lots/Upgrades 1 New Park-n-Ride Lot/100 Spaces @ Fairgrounds 1 New Transfer Hub in downtown Belle Glade	A	Corridor-wide
TBD once additional assessment is completed					$9,339,000	EA	2021-2026	Based on Regional Greeways Plan. Costs includes eastern limit extending beyond I-95 to to A1A.	B	
Coordinate with PD&E to ensure ITS and TSM&O strategies such as Traffic Incident Management, Arterial Management, Freeway Management, and Transit & Operations Management strategies are integrated within all alternatives (and not as a standalone alternative)	Years 2-5	TBD	-	TBD	TBD	-	TBD	Supports and builds off of on-going District and County activities. Costs and year of need assumed to be determined at the conclusion of further detailed studies and performance based needs shown through monitoring and dashboards.	C	
-		Years 2-5	-	Years 6-10	$7,984,000	CE	2020-2025	Assumed existing or future context classification associated design standards would be applied in next phases. Specific locations of treatments are described in the Alternatives section of the report and cost details are found in the appendices..	D	SEGMENT 1 (Rural Town) US 27 to Hooker Highway
TBD based on findings from the planning study specific to the bypass/SR 715 widening	Years 2-5	Years 6-10	Years 10-13	Years 13-17	$39,300,000	EIS	2031-2040 per Palm Beach TPA 2040 Long Range Transportation Plan	Assumed existing context classification associated design standards would be applied in next phases. Cost was taken from the Palm Beach TPA 2040 Long Range Transportation Plan. However, cost should be adjusted per the findings from the subarea study assessing the bypass versus SR 715 widening. Stakeholders desired the SR 715 project to be advanced timewise.	E	
-		Years 1-2	-	Years 2-3	$700,000	-	2019-2020	Need was based on field observations	F	
TBD based on findings from coordination activities						CE	2022-2023	Needs are based on stakeholder feedback and field observations. Stakeholders desire lighting as soon as possible.	G	SEGMENT 2 (Agricultural) Hooker Highway to 20-Mile Bend
Conduct PD&E Study (Class of Action would likely be an EIS); evaluate No-Build and Alternatives 1, 2 and 3 from Planning Study	Years 2-5	Years 6-10	Years 10-13	Years 13-17	ROW: $87,000,000 - $191,000,000 CON+: $134,000,000 - $995,000,000	Environmental Impact Statement (EIS)	Lion Country Safari Rd to Binks Forest Dr: 2040; Binks Forest Dr to Big Blue Trace: 2032; Big Blue Trace to Forest Hill Blvd: 2032; Forest Hill Blvd to Royal Palm: 2021-2025; Royal Palm -Turnpike: 2025-2030; Turnpike - Military Trail: 2030-2040; Military Trail - Congress Ave: 2025-2030; Congress Ave to I-95: 2035	Needs are based on the year that the segment is projected to exceed LOS D (calculated by applying linear growth from projected AADT/DDHV) The assumptions made regarding which major developments to include in the growth calculations is found in the Existing and Future Conditions section of the Action Plan. Further detail is found in the appendices.	H	SEGMENT 3 (Suburban) 20-Mile Bend to I-95
Conduct PD&E for extension of 8-lane widening based on latest development growth projections	Years 2-3	Years 3-4	Years 4-5	Years 5-6	PD&E: $1,900,000 PE: $1,608,568 ROW: $2,940,300 CON+: $16,246,537 (see notes)	CE	2032	Needs are based on the year that the segment is projected to exceed LOS D (calculated by applying linear growth from projected AADT/DDHV). See ID H for development assumptions.	I	
Develop in-depth access management plan as part of the larger PD&E phase noted in ID H & I	To be determined as part of the PD&E phase					EA	2018-2040	Access management is a current issue/need that may be addressed (and has been) immediately.	J	
-		Years 2-4	Years 5-7	Years 8-10	Varies	-	Varies per intersection and strategy type	Based on intersection-level analysis and forecasted years of failure. Assumes already planned improvements are in place prior to implementing.	K	

Next Steps

A preferred alternative was not selected at the conclusion of the SR 80 Action Plan. Instead, the set of alternatives and strategies were recommended to move forward for further assessment to determine what is most appropriate to ultimately implement. Coordination with study partners, as applicable, during future next steps will occur. All technical information and costs may be found in the supporting technical memoranda on the project website.

SR 80 Corridor Action Plan

From US-27 to I-95