



FINANCIAL PROJECT NO. 435162-1-12-01

## ALTERNATIVES PUBLIC WORKSHOP





THE FLORIDA DEPARTMENT

OF TRANSPORTATION
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WITH VARIOUS

NON-DISCRIMINATION LAWS
AND REGULATIONS,
INCLUDING TITLE VI OF THE
CIVIL RIGHTS ACT OF 1964

Public participation is solicited without regard to race, color, national origin, age, sex, religion, disability or family status.

Persons wishing to express their concerns about Title VI may do so by contacting either:

Florida Department of Transportation District Four District Four Title VI Coordinator
Shavon Nelson
Title VI Program Office
3400 West Commercial Boulevard
Fort Lauderdale, Florida 33309-3421
(954) 777-4190
shavon.nelson@dot.state.fl.us

Florida Department of Transportation
Statewide Title VI Coordinator
Jacqueline Paramore
Equal Opportunity Office
605 Suwannee Street, MS 65
Tallahassee, Florida 32399-0450
(850) 414-4753
jacqueline.paramore@dot.state.fl.us



EI DEPARTAMENTO DE TRANSPORTE DE LA FLORIDA TIENE LA OBLIGACIÓN DE CUMPLIR CON VARIAS LEYES Y REGLAMENTOS DE NO-DISCRIMINACIÓN, INCLUYENDO EL TÍTULO VI DE LA LEY DE DERECHOS CIVILES DE 1964

La participación del público se solicita, sin distinction de raza, color, origen nacional, edad, sexo, religión, discapacidad o estado familiar.

Las personas que deseen expresar sus comentarios acerca del Título VI pueden comunicarse con:

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DEPATMAN TRANSPÒ FLORID DWE RESPEKTE DIVES

LWA AK REGLEMAN KI ENTÈDI DISKRIMINASYON, TANKOU

TIT VI LWA POU DWA SIVIL 1964 LA

Nou mande patisipasyon popilasyon an san diskriminasyon ras, koulè po moun, peyi kote moun soti, laj moun, fi oswa gason, relijyon, andikape oubyen sitiyasyon fanmi.

Tout moun ki gen yon bagay pou di sou afè Tit VI la, kapab kontakte youn nan 2 kote sa yo:

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## STATION 1 – WELCOME!

#### The purpose of the SR 80 open house is to:

- Introduce you to the study
- Share the issues and challenges identified
- Present the types of improvements being considered
- Collect feedback and input

#### What happens after today?

- The project team will use the feedback collected today as input into the final report for the study scheduled to end January 2018.
- Final activities include prioritizing projects, programming funds, and setting implementation schedules.



Thank you for taking the time to talk with us! Your feedback is important!

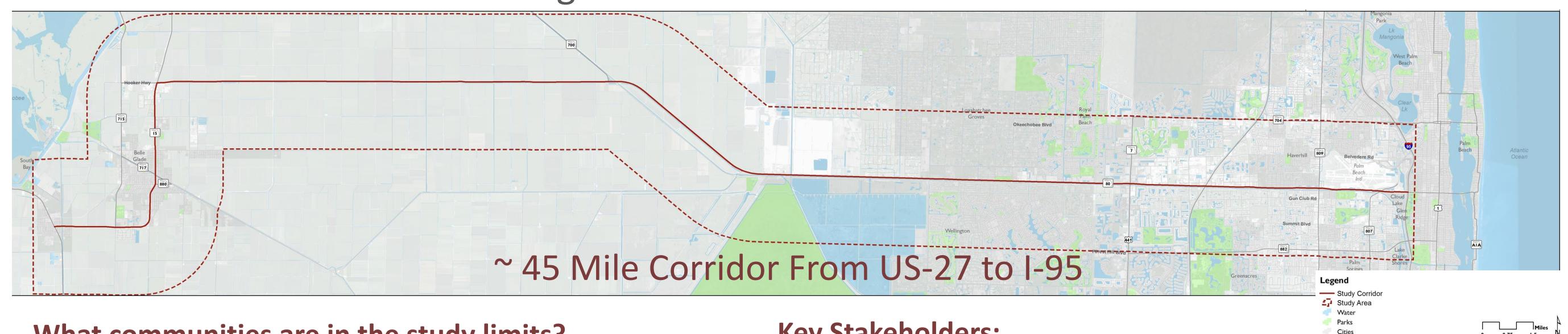




## STATION 2 – STUDY PURPOSE & PROCESS

### STUDY PURPOSE

The purpose of the study is to identify and recommend actions to be taken by FDOT, County agencies, local governments, and other stakeholders to protect mobility and enhance multimodal access along the SR 80 corridor for all users.



#### 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





### STUDY PROCESS





## STATION 3 – HISTORY & ROLE OF THE CORRIDOR

#### Why is SR 80 Important?

#### **SR 80 is a Cross-State Facility**

SR 80 provides east/west connectivity across the state of Florida. Because of this, it plays a key role in moving people, freight, and goods.

#### SR 80 is Part of the Strategic Intermodal System

As part of the Strategic Intermodal Sysyem (SIS), SR 80 is a designated highway link in a system of key transportation facilities that are:

- **Strategic** network made up of high-priority transportation facilities and services of statewide and interregional significance;
- 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, services, modes and linkages into a single, integrated transportation network.

#### SR 80 is a Primary Connection from Belle Glade to Downtown West Palm Beach

SR 80 serves as the primary connection between the western communities in Palm Beach County to the Port of Palm Beach and Palm Beach International Airport; is the main transportation connection for many of the cities and development west of SR 7; and facilitates overall regional mobility. SR 80 traverses nine municipalities in Palm Beach County – West Palm Beach, Cloud Lake, Glen Ridge, Haverhill, Wellington, Royal Palm Beach, Loxahatchee Groves, Belle Glade, and South Bay.

#### **SR 80 is Impacted By New Development**

Over 10,000 residential units and one million square feet of non-residential development is approved or proposed that could affect traffic volumes on SR 80. In spite of recent widening, cumulative effects of approved new development show estimated traffic volumes will exceed FDOT's adopted traffic operating standards for SR 80.

#### What Do We Know Now About SR 80?

When comparing the findings throughout the corridor, several conclusions can be drawn at the corridor level and at the local level. These conclusions were drawn based on a thorough analysis of the existing and future conditions in the study area and 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.

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

Throughout the corridor, the bicycle and pedestrian environment is inadequate and uncomfortable. 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.

#### 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 a Need for Better Coordination Between Transportation and Land Use

Development has traditionally been approved in a leapfrog pattern, expanding further and further 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.

## 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 further away from employment centers. Regular congestion also occurs during special events at the Perfect Vodka Amphitheater.

### 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.

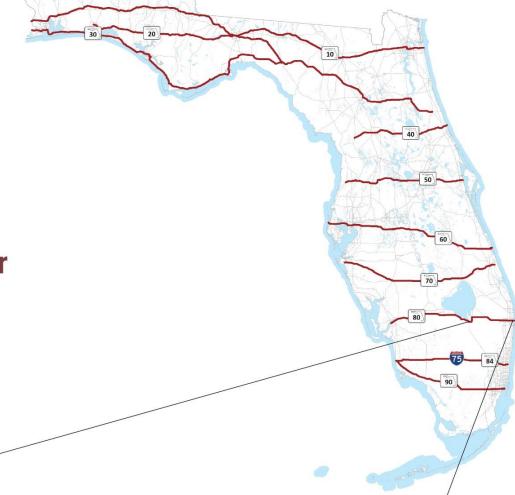
When crashes or other congestion occurs, the western communities are effectively cut off. In the east, the roadway network has generally been developed in a disconnected pattern as gated communities, disconnected shopping centers, office parks, and other development has occurred. This has forced traffic onto SR 80 that might not have otherwise needed to travel on the corridor.

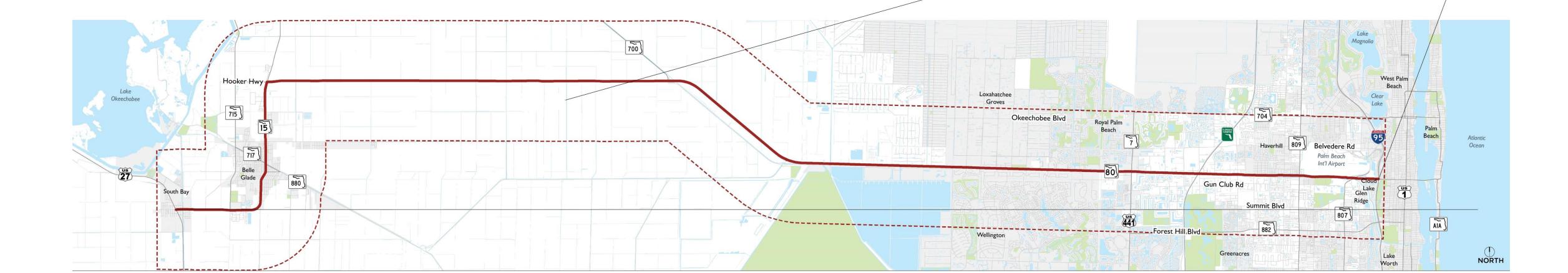
### The Context of the Corridor Changes from the West to the East

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 treats SR 80 as the front door. Between Belle Glade and Loxahatchee Groves, SR 80 is primarily an agricultural corridor. Further east, the corridor transitions between suburban auto-oriented uses into more of a high-speed facility condition.

### There is a Need for Better 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, but needs a long-term funding source. 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.



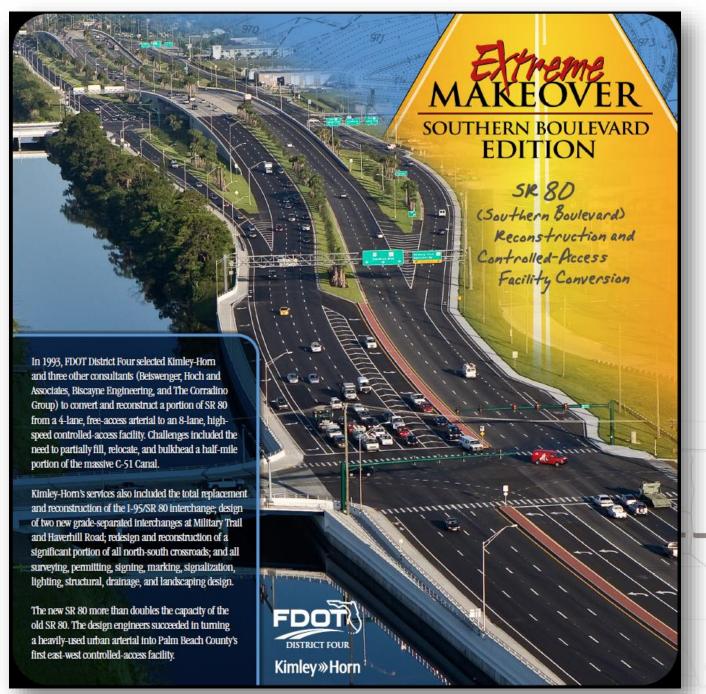




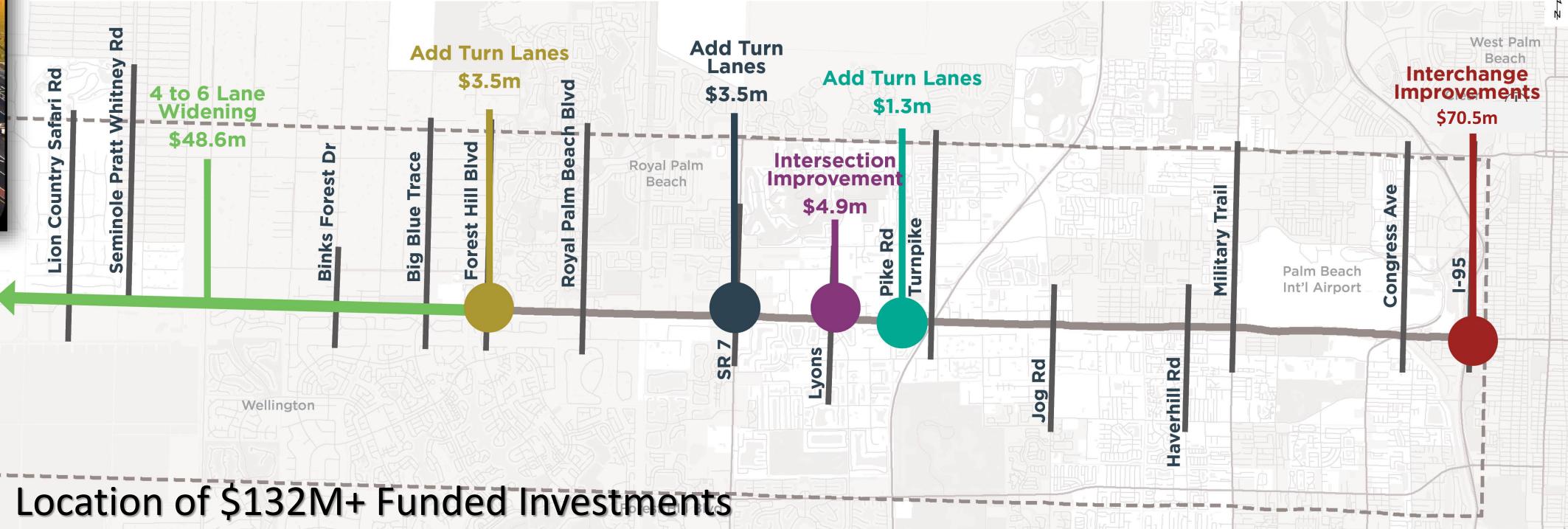


### HISTORY AND ROLE OF THE CORRIDOR

Over the years, FDOT has been working to try and protect the mobility of SR 80.



- Over \$346 Million of improvements invested since 2005
- Over \$132 Million of future investments funded and programmed

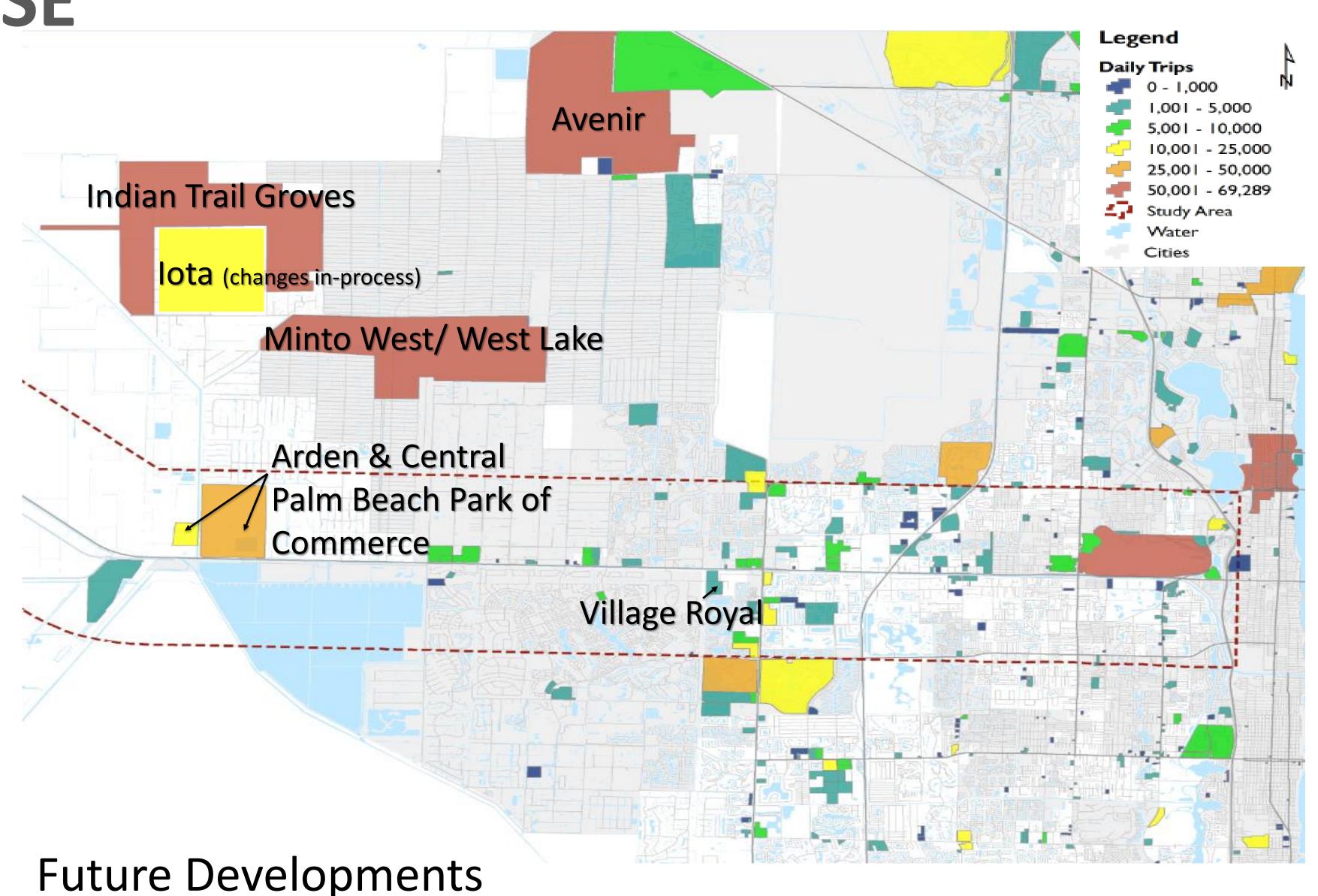




## STATION 4 – CORRIDOR-WIDE FINDINGS

### GROWTH AND LAND USE

- Significant population growth is anticipated by 2040
- ~15,000 new homes have been approved in the western communities, potentially generating over 150,000 trips per day
- Current and future land use is low density and spread out creating more auto demand on SR 80.



Snapshot from 2015-2016; exact development plans may have since changed.





### GROWTH AND TRAVEL PATTERNS

Legend

— I - 500

**501 - 1,000** 

> 3,000

**501 - 1,000** 

1,001 - 1,500

1,500 - 3,000

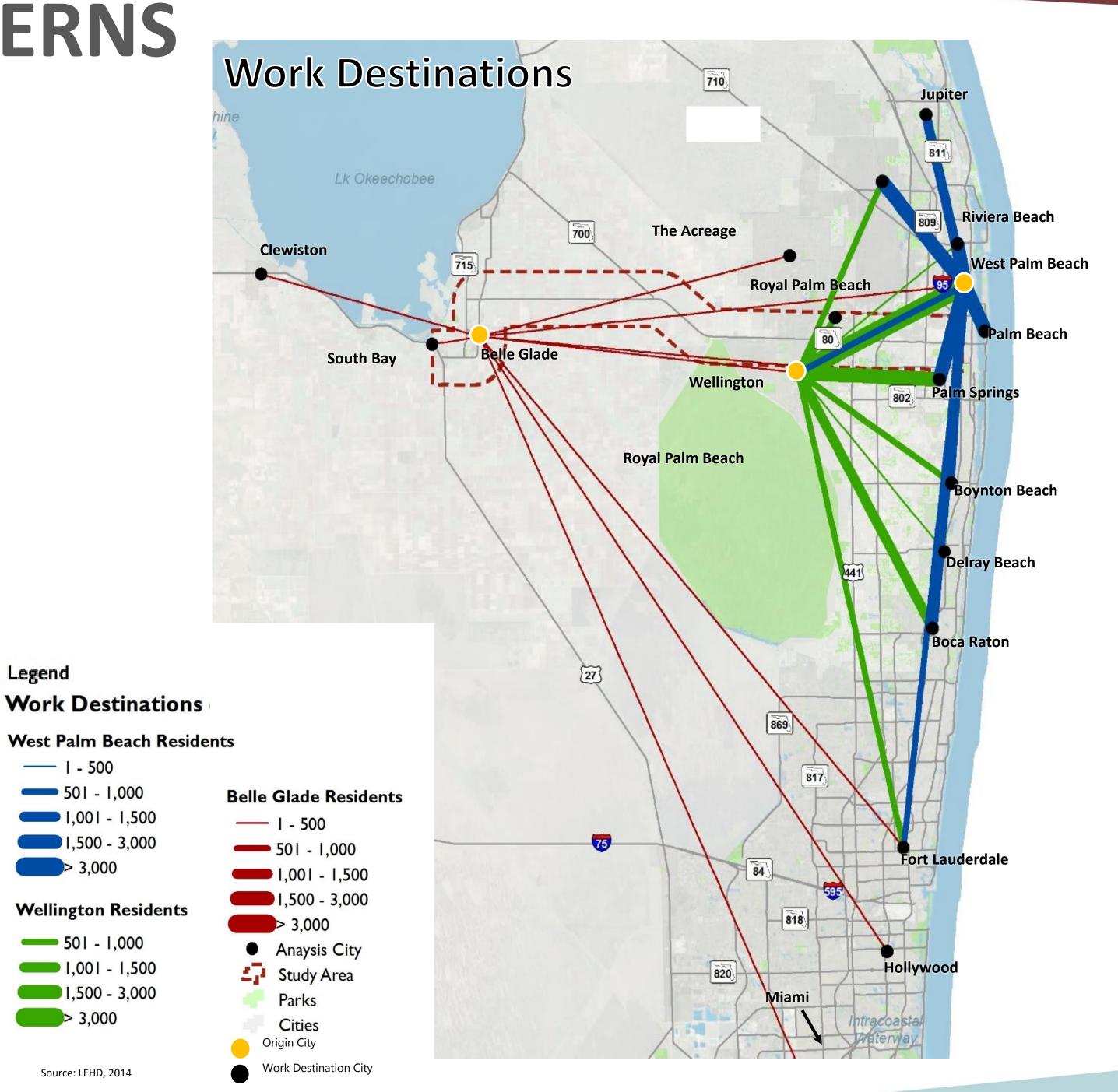
> 3,000

Source: LEHD, 2014

1,001 - 1,500

1,500 - 3,000

- Up to a 25% increase in auto demand by 2040
- Commute patterns are scattered throughout the county and beyond
- Limited street network connectivity forces both local and regional trips onto SR 80



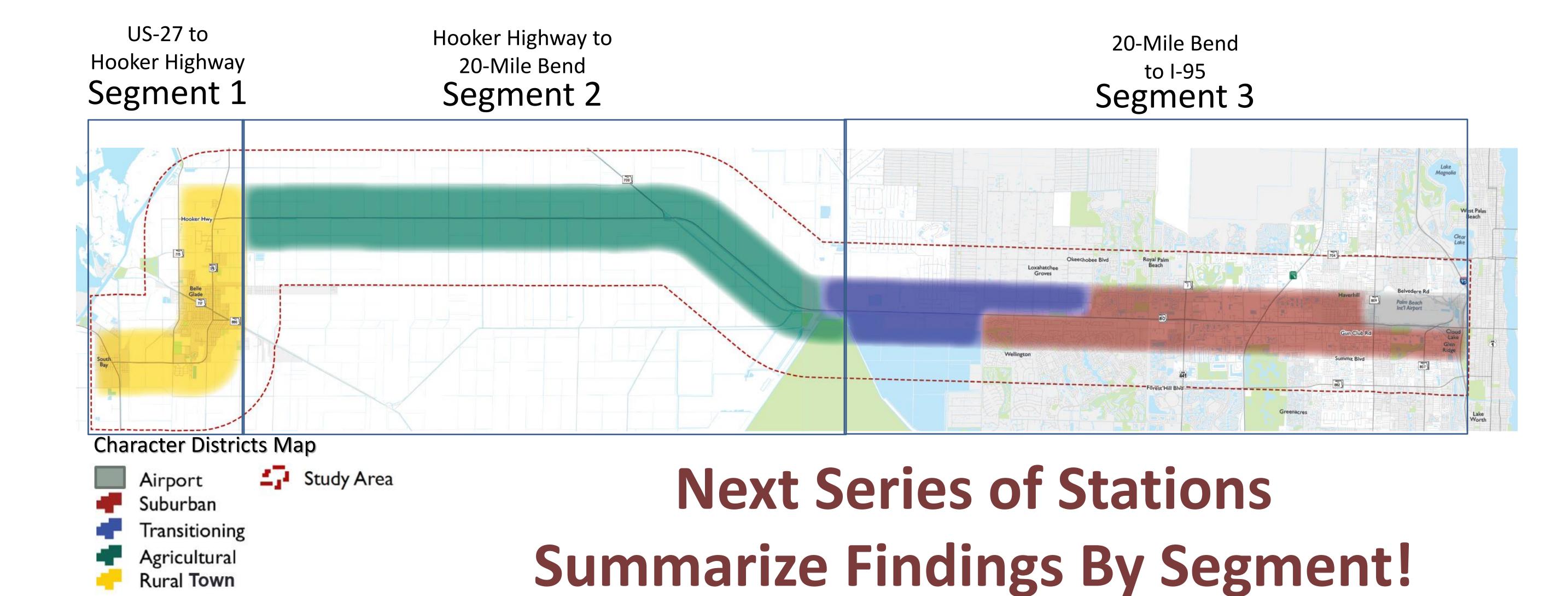




### CORRIDOR SEGMENTS

**Rural Town** 

#### Corridor characteristics vary in each segment



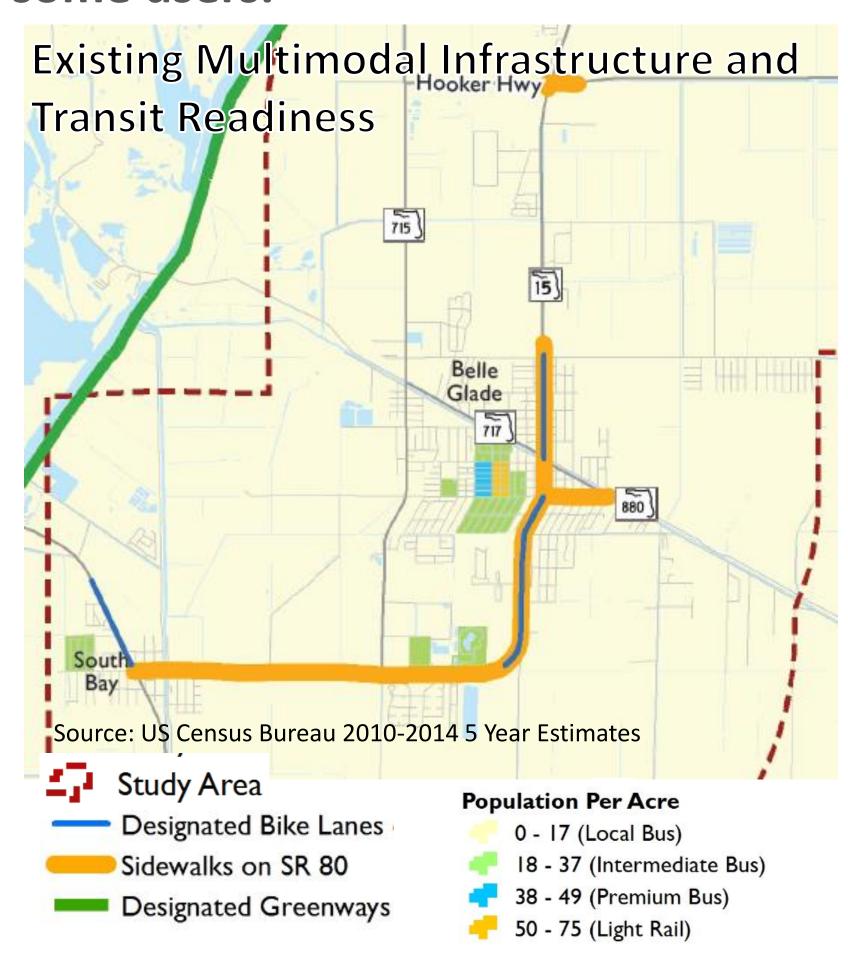


## STATION 5 – US-27 TO HOOKER HIGHWAY FINDINGS

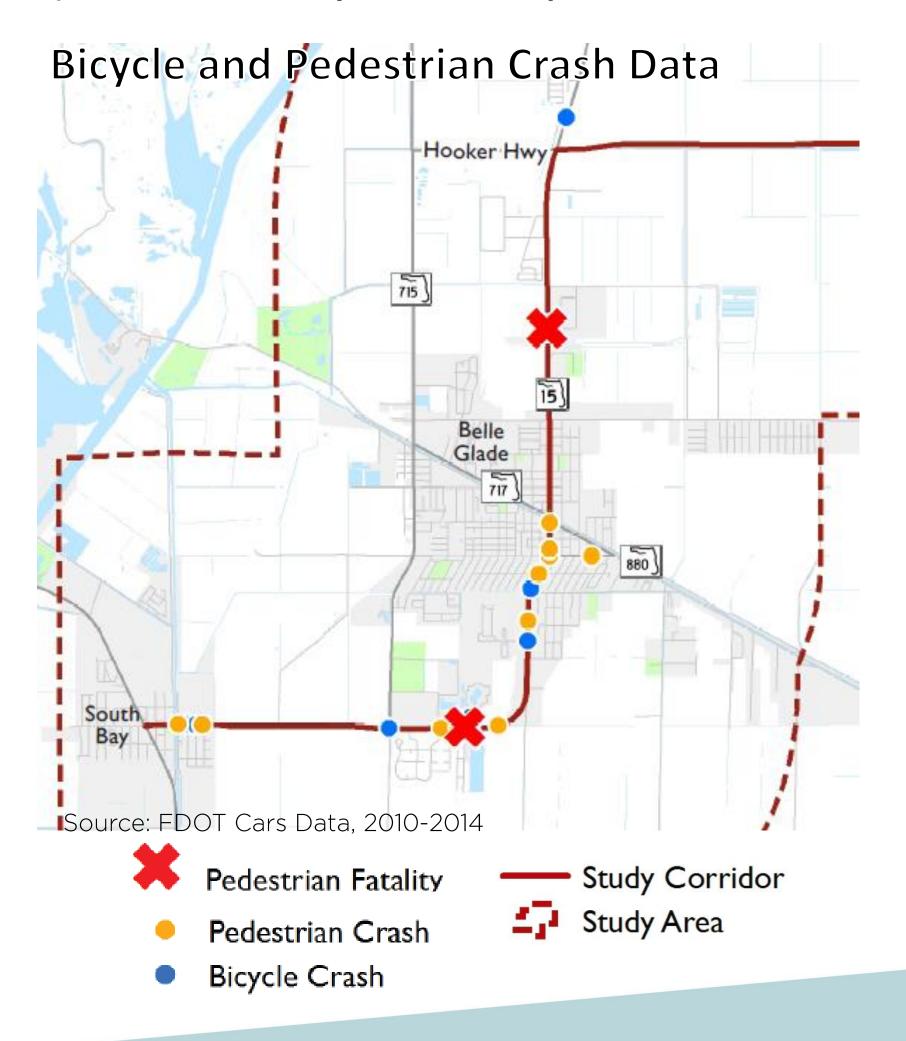
### SEGMENT 1 CHARACTERISTICS

#### Walking and Biking

 Bicycle facilities and sidewalks are not continuous and may not be comfortable for some users.



• 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)



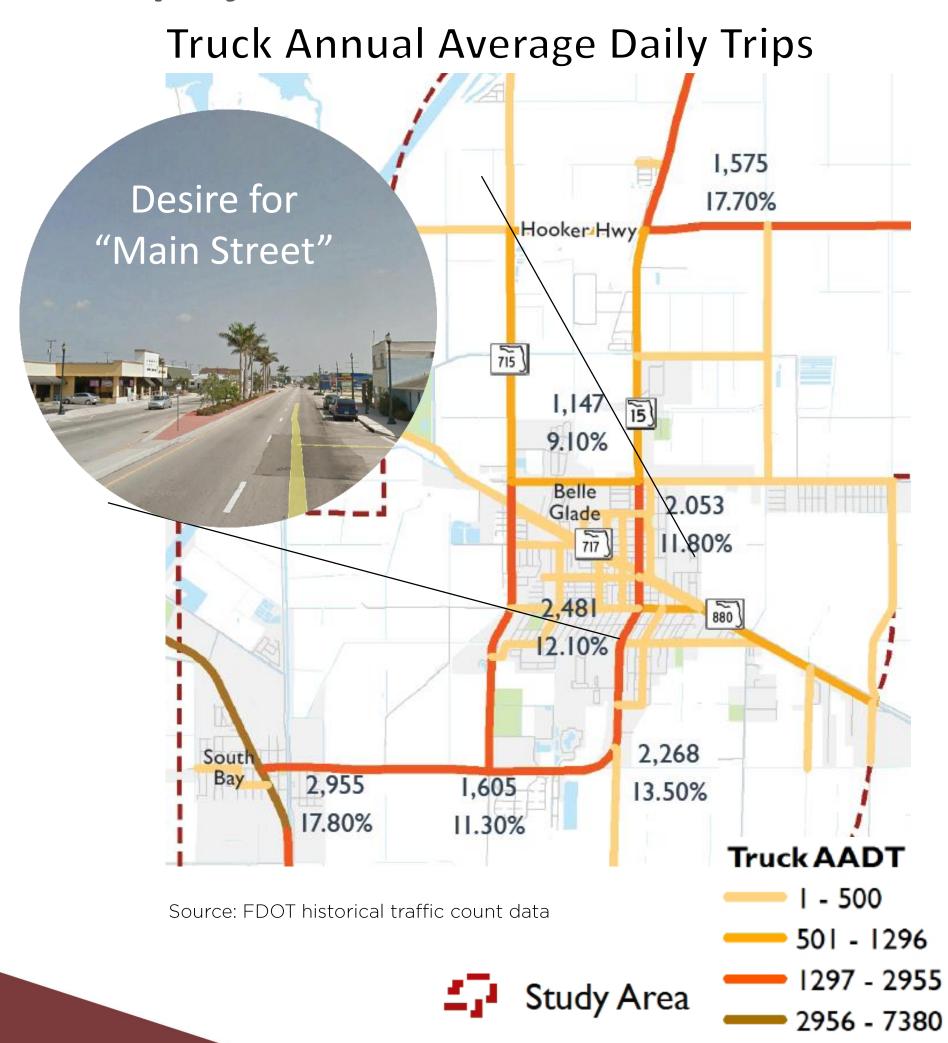




### SEGMENT 1 CHARACTERISTICS

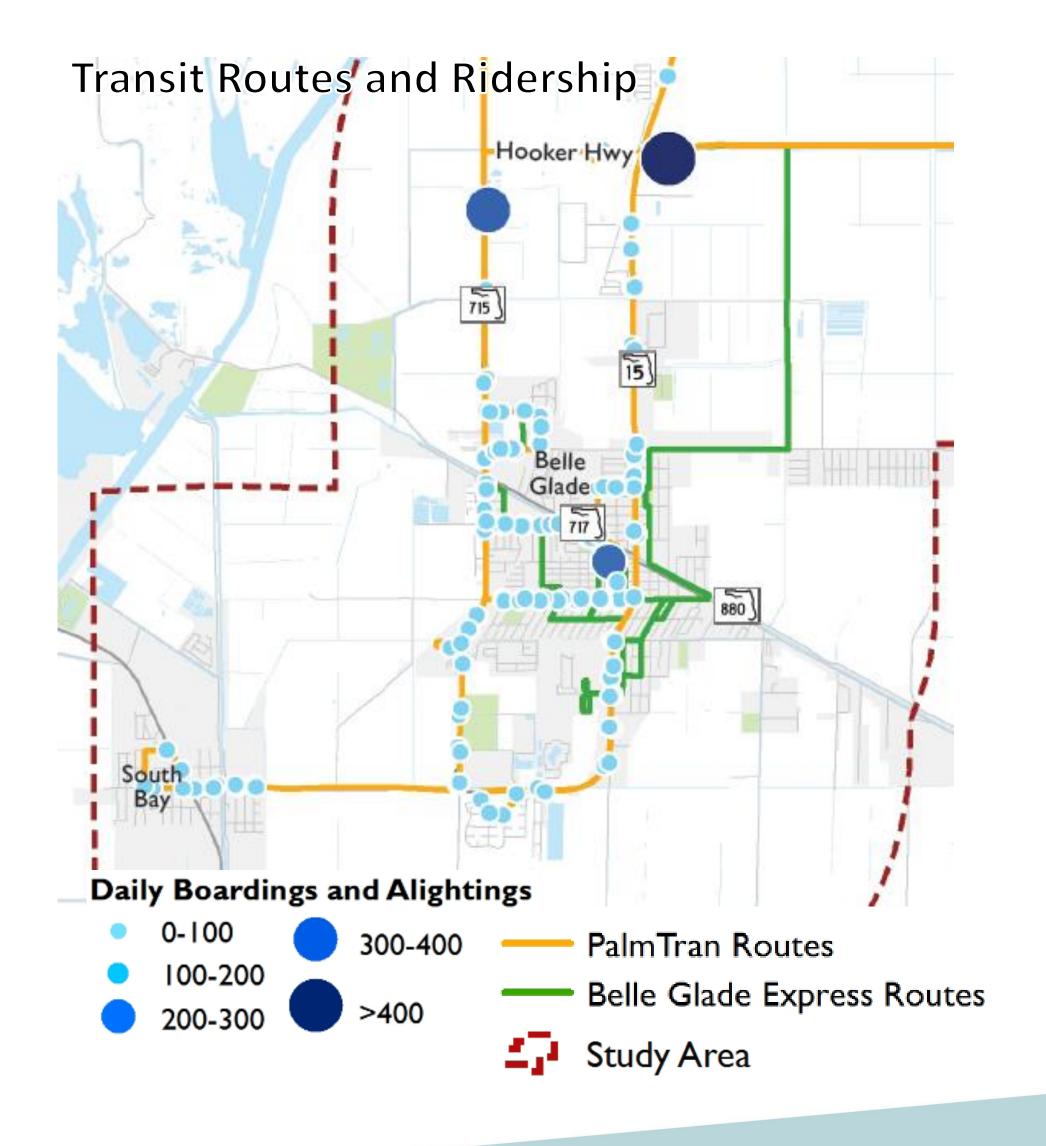
### Freight & Traffic

- Local and regional travel must be accommodated while maintaining local downtown streets.
- Future traffic will be accommodated with already planned projects.



#### **Transit**

• Transit ridership is highest in this segment of the corridor and access should be more convenient.







#### SEGMENT 1 OVERVIEW OF TIERED ALTERNATIVE DEVELOPMENT PROCESS

Develop long list of strategies & TIER 1 identify feasibility Package feasible strategies into alternatives TIER 2 **Evaluate & compare alternatives Document alternatives** to move forward for next phase

Screening Results Based On Identified Issues:

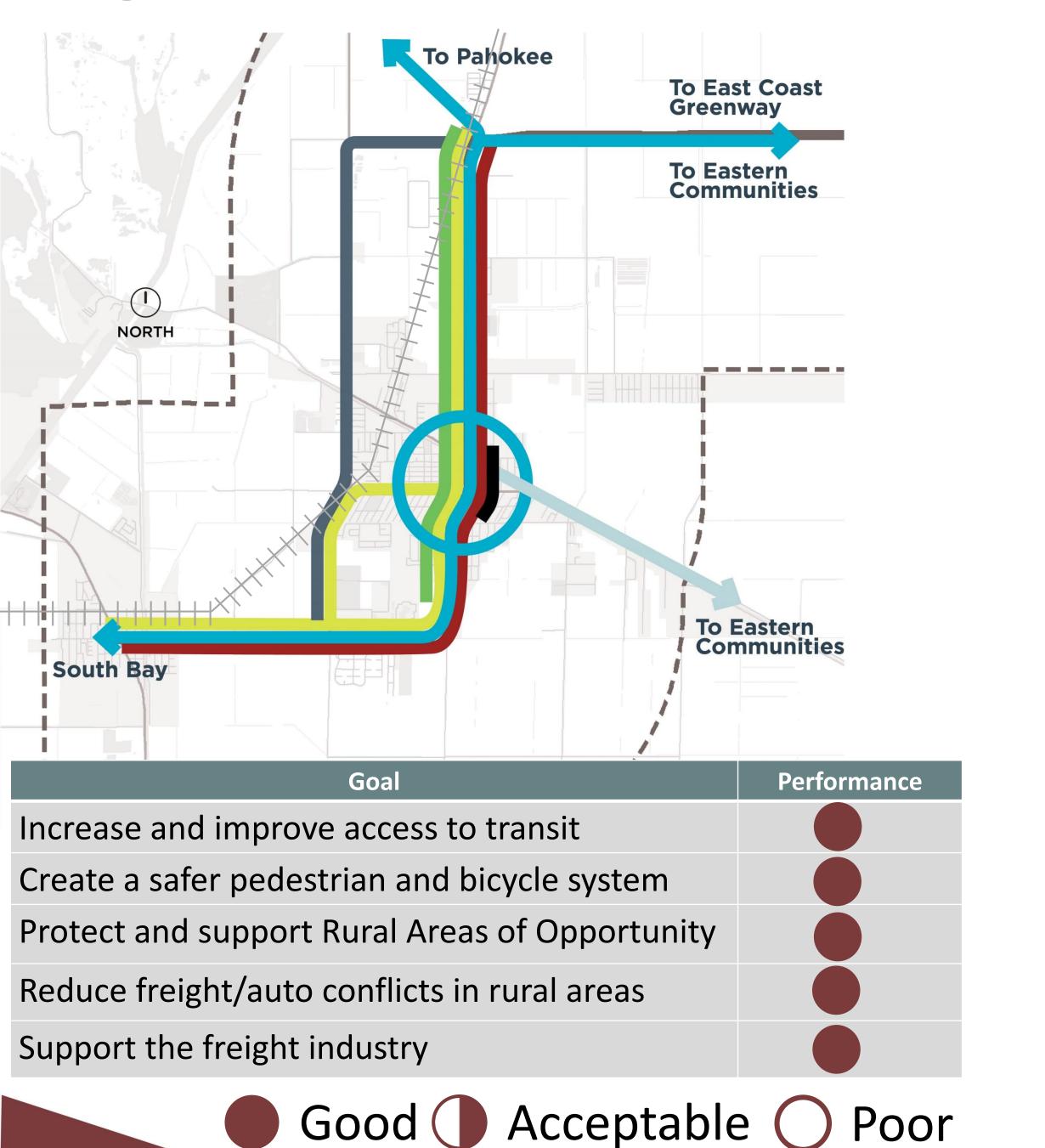
Strategies that did not move forward in the study process for US-27 to Hooker Highway:

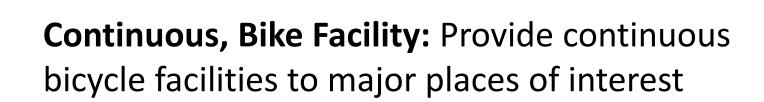
- Major roadway capacity changes
- Premium transit (e.g., Light Rail Transit or Streetcar)





## Segment 1 Multimodal Alternative Strategies





Alternative Freight Routes: Provide a freight route that does not go through the downtown of Belle Glade

**Downtown Treatment:** Provide a downtown feel through design

Pedestrian and Bicycle Crossing
Improvements: Provide frequent and
conveniently located crossing opportunities

**Safety Study:** Conduct a more in-depth safety study with a focus on pedestrian and bicycle travel

**Transit Service Improvements:** Provide more convenient and accessible transit including a downtown transit hub

Roadway Rehabilitation: Support County rehabilitation efforts to provide a reliable secondary access point



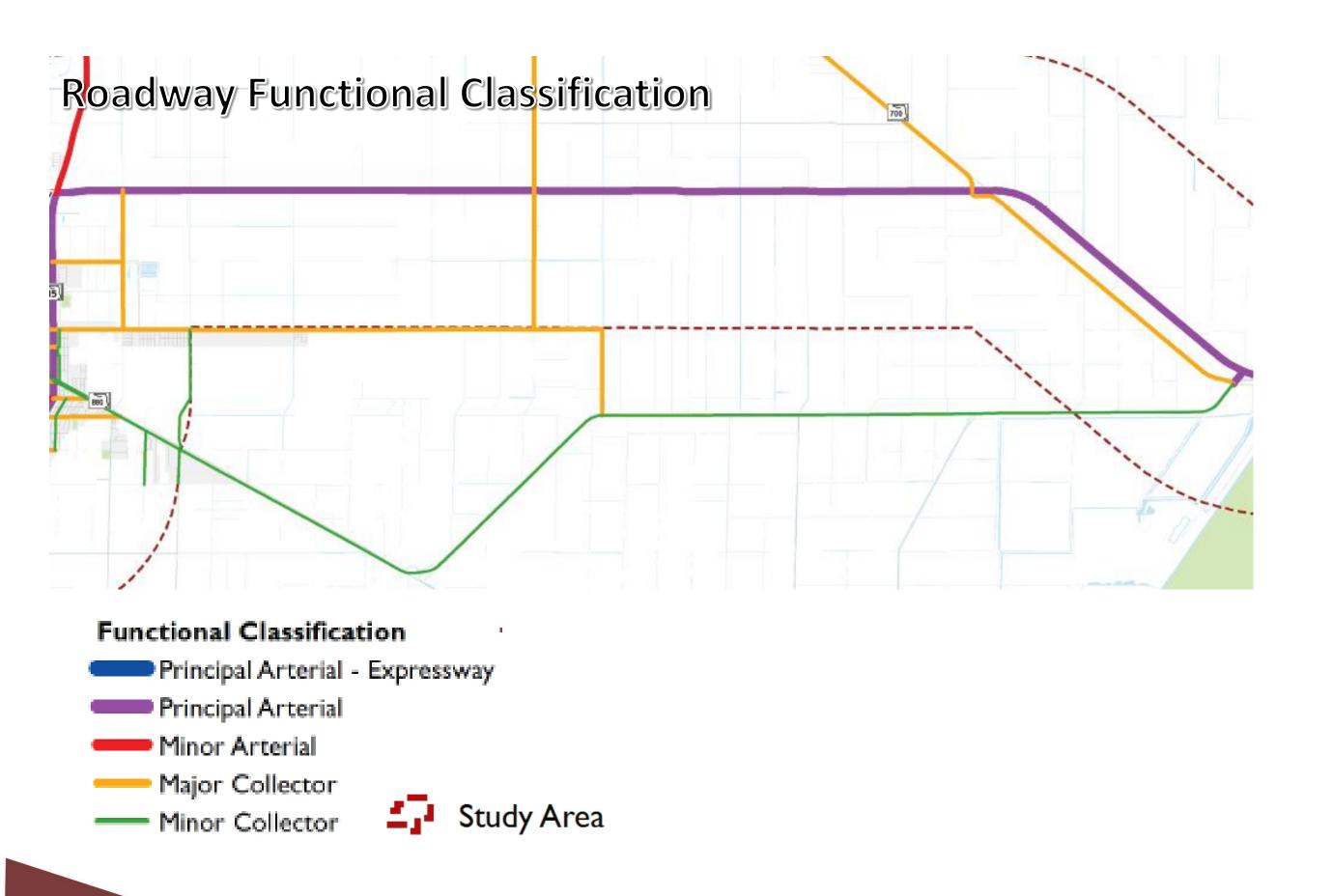


### STATION 6 – HOOKER HIGHWAY to 20-MILE BEND FINDINGS

### SEGEMENT 2 CHARACTERISTICS

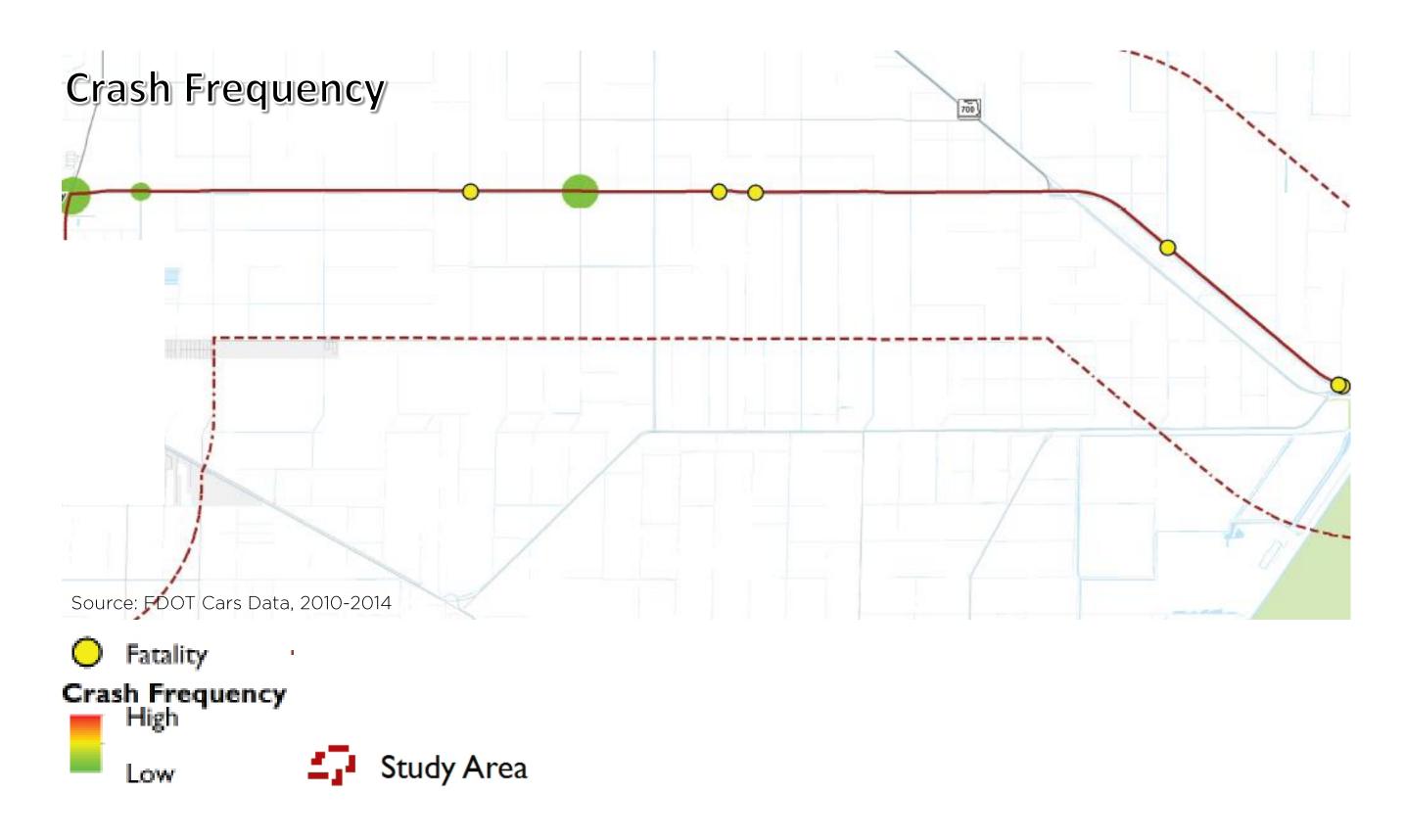
### Regional Connection

 An additional east-west arterial is needed for emergency and evacuation purposes.



### Safety

 The facility needs to safely accommodate northsouth crossing traffic and create higher visibility for all users.







#### SEGMENT 2 OVERVIEW OF TIERED ALTERNATIVE DEVELOPMENT PROCESS

Develop long list of strategies & identify feasibility

Package feasible strategies into alternatives

TIER 2

Evaluate & compare alternatives

Document alternatives to move forward for next phase

Screening Results Based On Identified Issues:

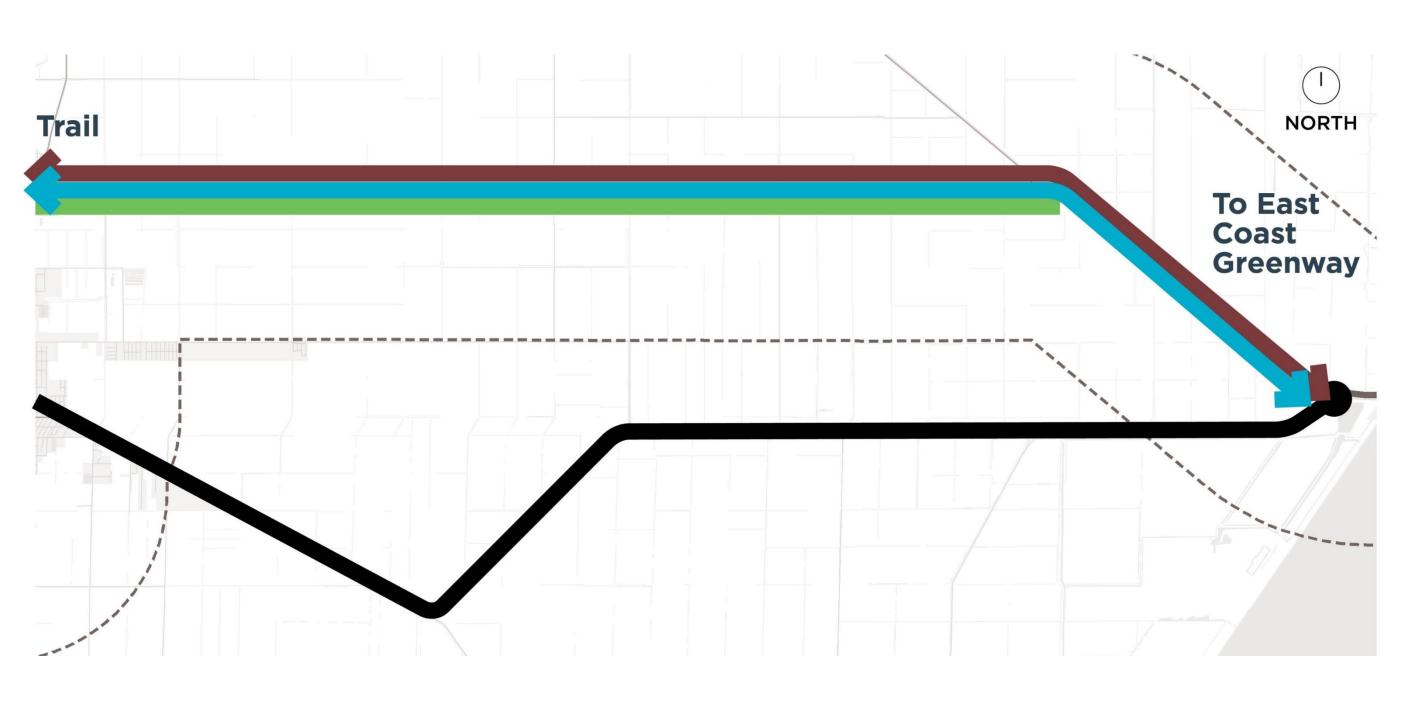
Strategies that did not move forward in the study process for Hooker Highway to 20-Mile Bend:

- Roadway capacity changes
- Premium transit (e.g., Light Rail Transit or Bus Rapid Transit)





## Segment 2 Multimodal Alternative Strategies



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 O Poor				

#### **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 indepth safety studies as needed to accommodate all users including freight and agricultural uses

#### Place Sticker On Your Top Two



## STATION 7 – 20-MILE BEND to I-95 FINDINGS

### SEGMENT 3 CHARACTERISTICS

#### Population and Employment

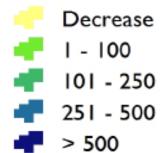
 Population increases to the west and employment increases to the east create more SR 80 trips.

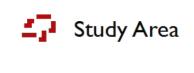




Source: SERPM 7.062

2014 to 2040 Population/
Employment Change

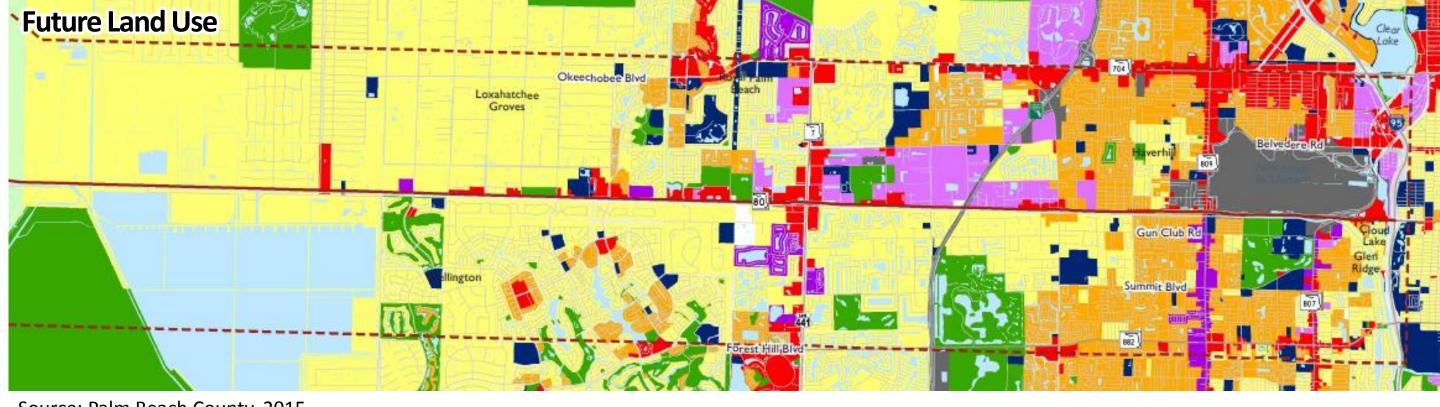


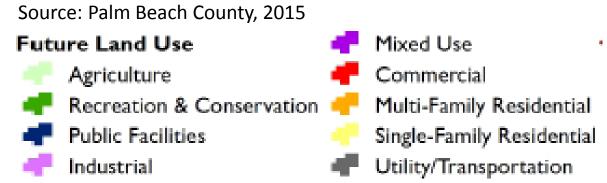


#### Land Use and Development

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







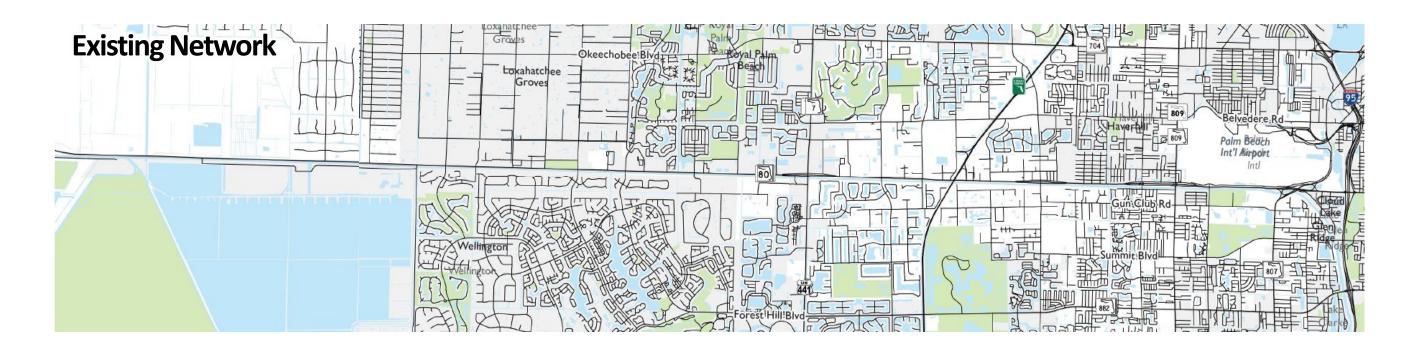




### SEGMENT 3 CHARACTERISTICS

#### Network

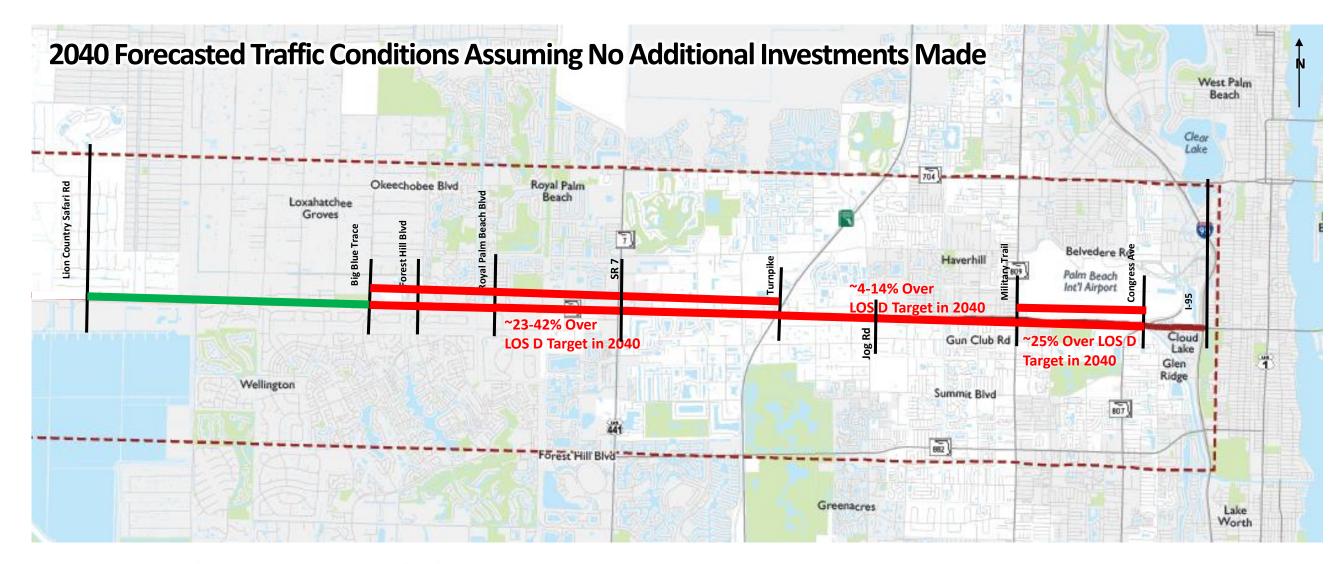
- East-west connections are limited to the north and south of SR 80.
- A limited east-west network forces a majority of trips in the area to use SR 80.





### Safety & Traffic

- This segment is not on FDOTs high crash list, but there is potential to make it safer.
- Congestion is expected to exceed the level-of-service D target.



- Forecasted to Meet LOS D Standard in 2040
- Forecasted to Not Meet LOS D Standard in 2040
- % = % over LOS D Service Volume



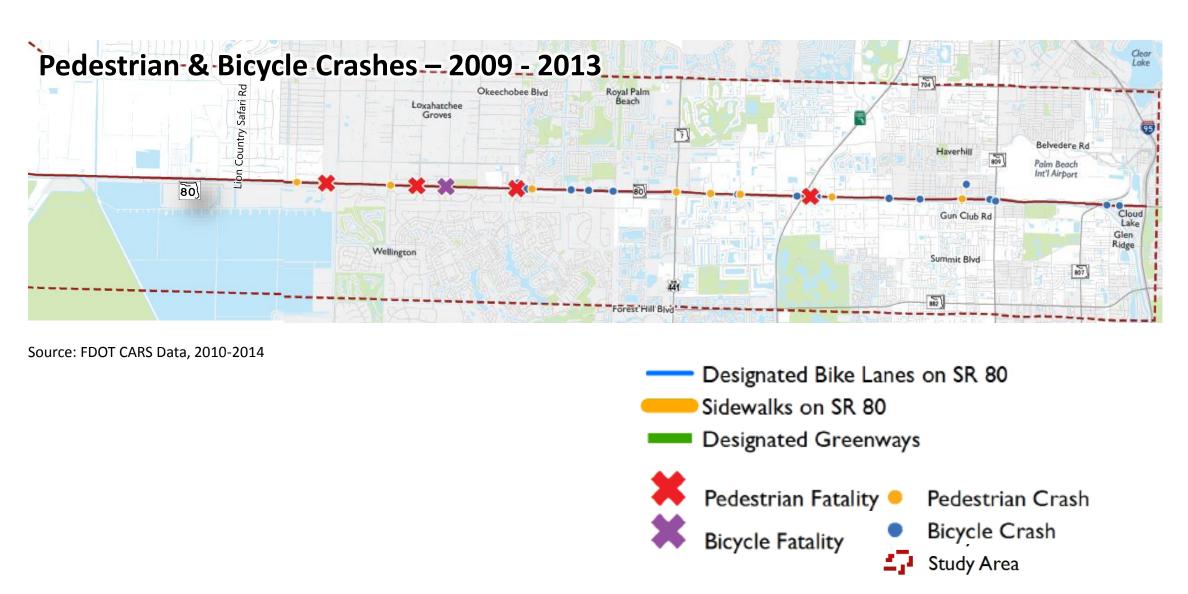


### SEGMENT 3 CHARACTERISTICS

### Walking and Biking

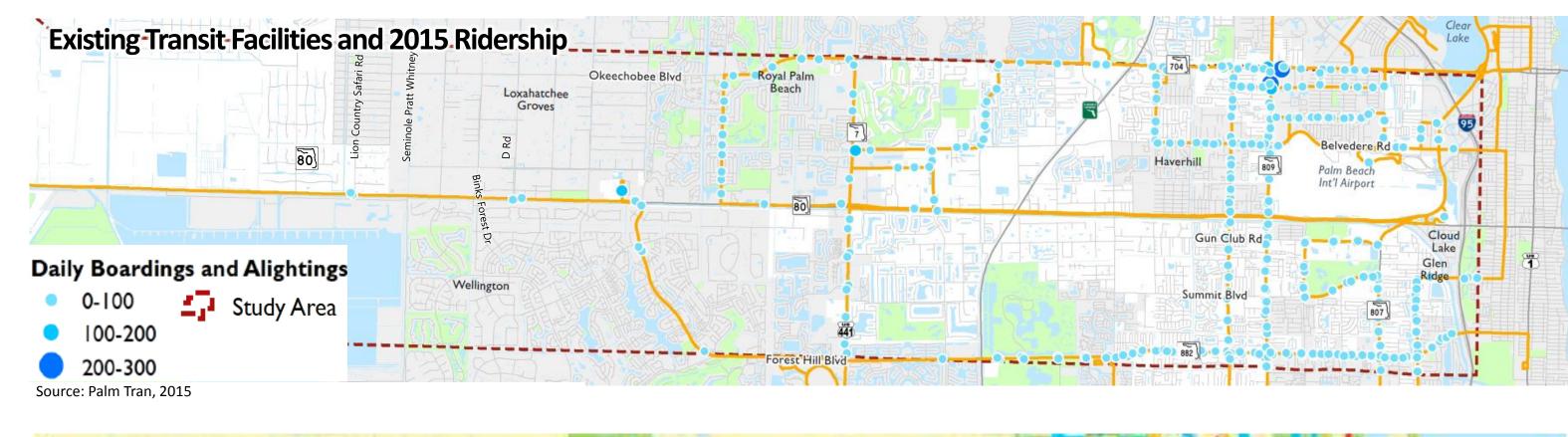
• 50% of pedestrian & bicycle crashes resulted in a fatality.

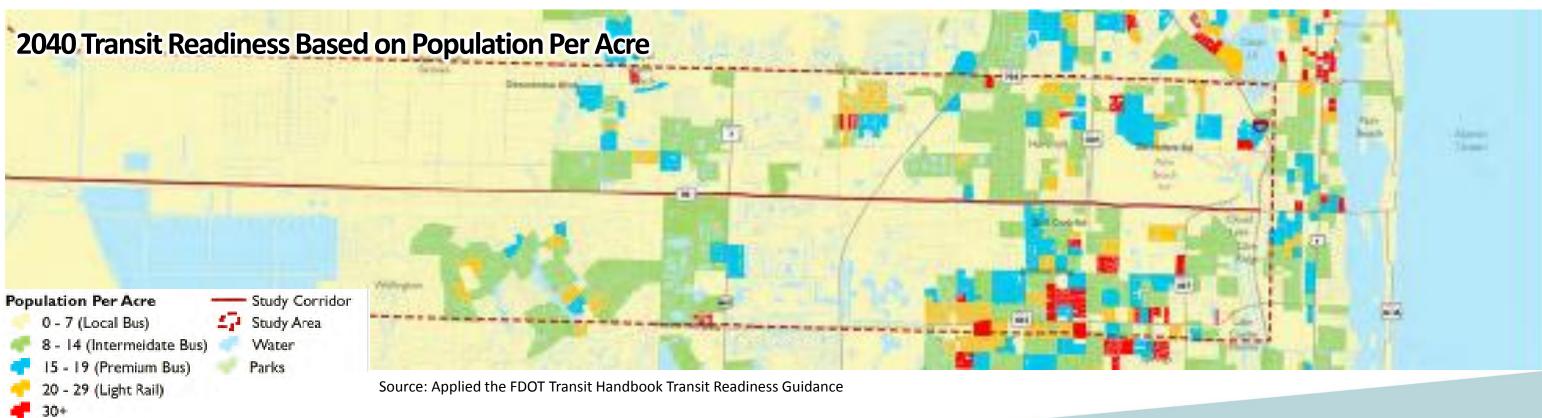




#### **Transit**

- This section of the corridor is not ready for premium transit (e.g., Bus Rapid Transit, Light Rail Transit, etc.) given existing and adopted future land uses.
- Access to transit is currently limited and should be improved upon to make it more convenient and accessible.





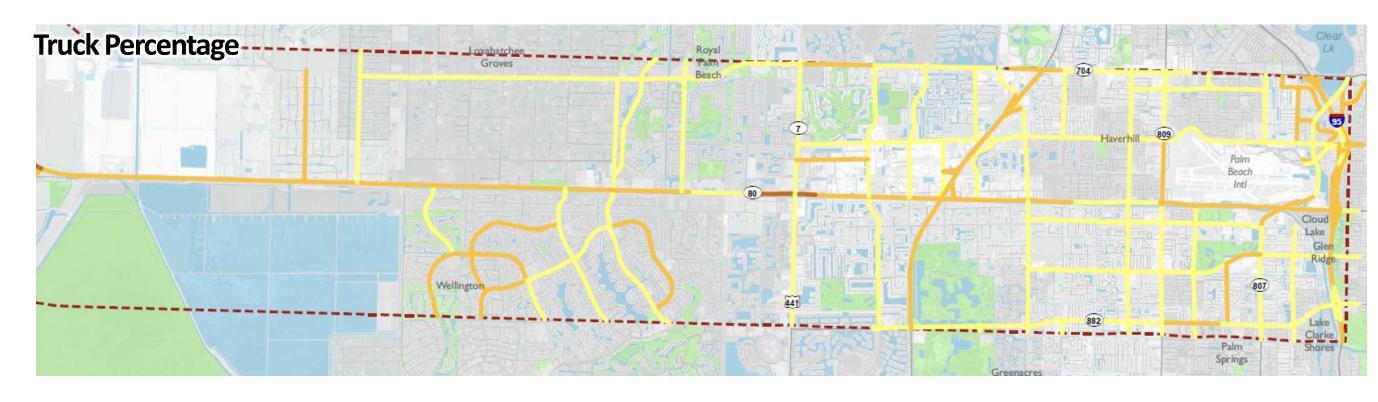


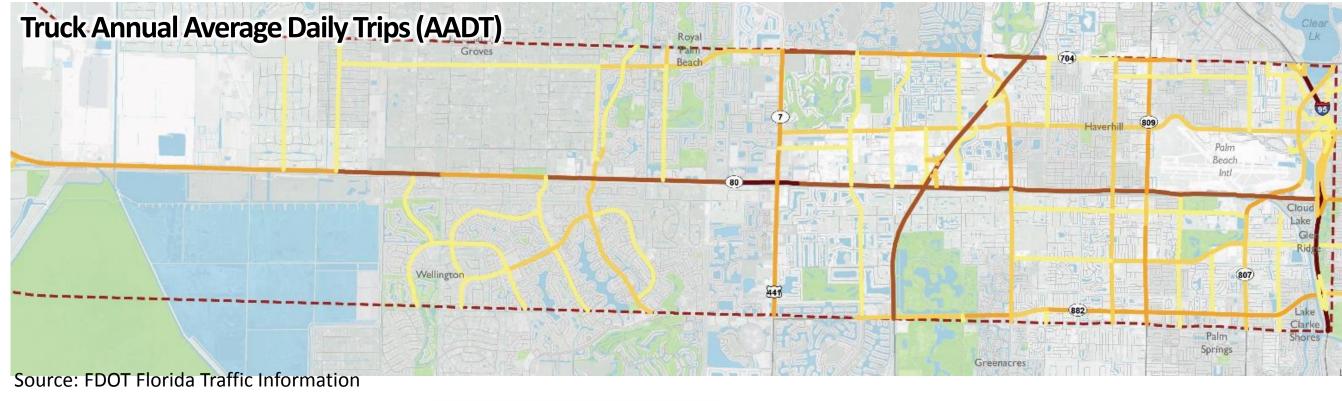


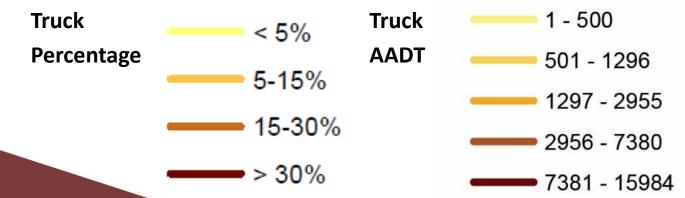
### SEGMENT 3 CHARACTERISTICS

#### Freight

 Regional and local freight trips heavily rely on SR 80.

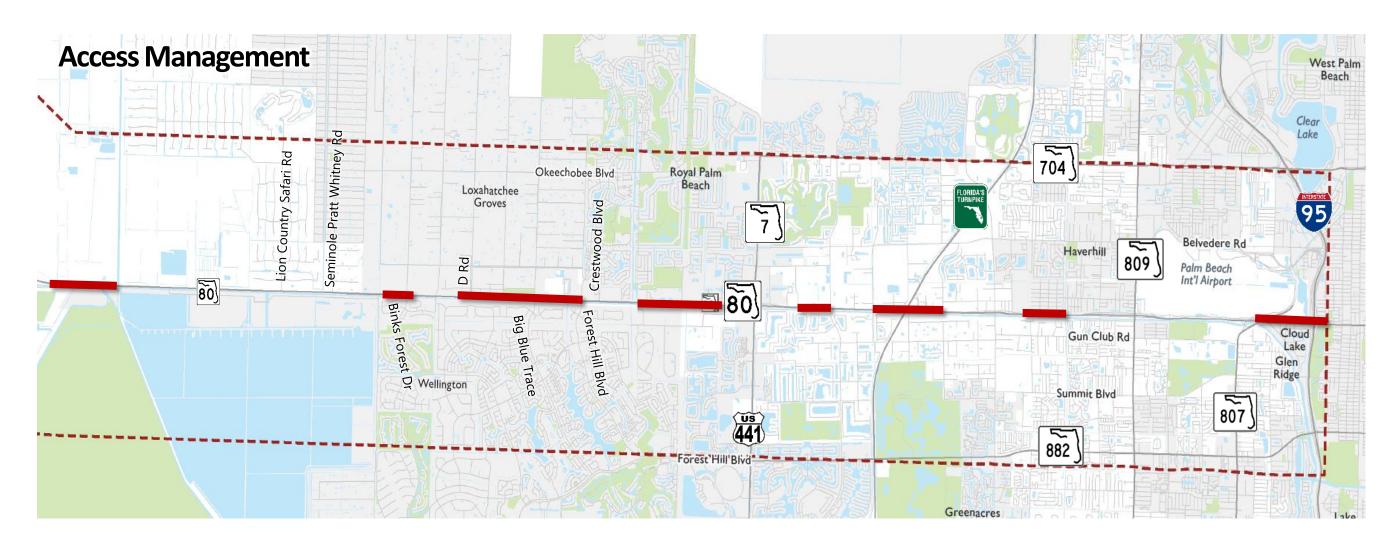






#### Access Management

- 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.



- Sections that Do Not Meet FDOT Access Classification 3 Requirement
- Study Area





#### SEGMENT 3 OVERVIEW OF TIERED ALTERNATIVE DEVELOPMENT PROCESS

TIER 1

Develop long list of strategies & identify feasibility

Package feasible strategies into alternatives

TIER 2

**Evaluate & compare alternatives** 

Document alternatives to move forward for next phase

Screening Results Based On Identified Issues:

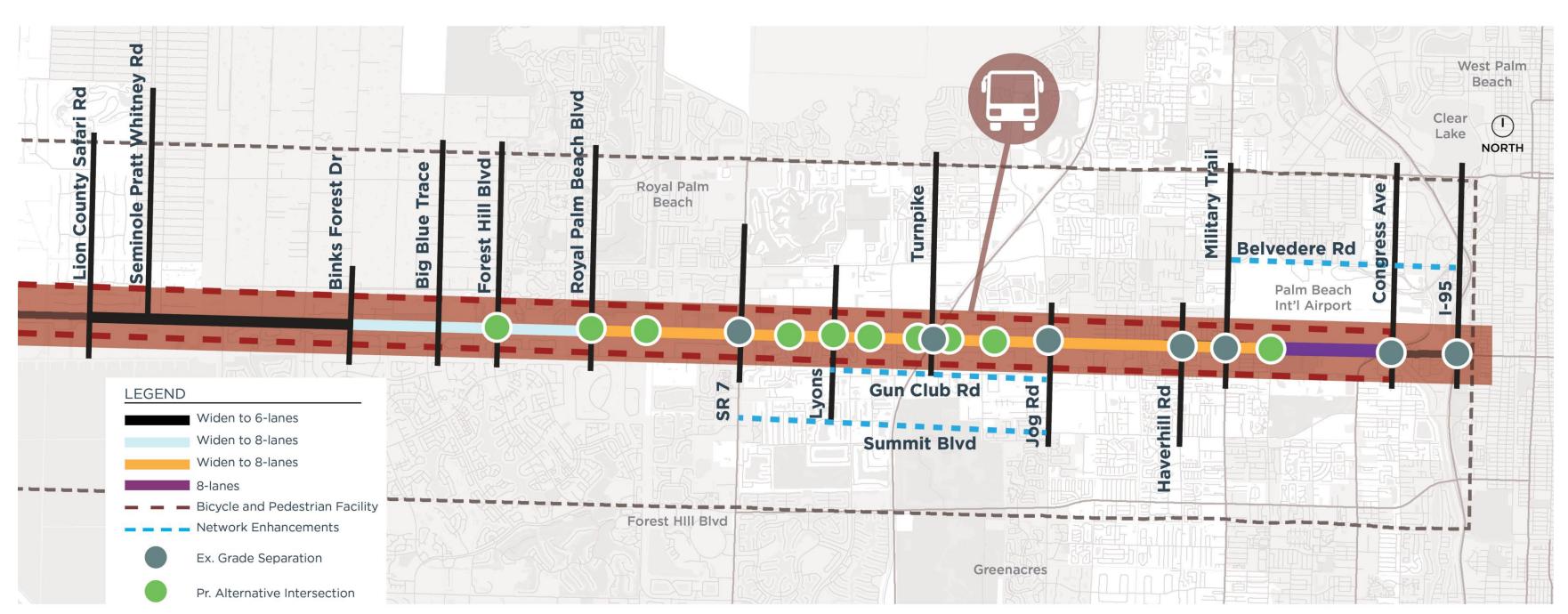
Strategies that did not move forward in the study process for 20-Mile Bend to I-95:

- General widening (e.g., a 10-lane version of what exists today)
- Reversible lanes
- Premium transit (e.g., Light Rail Transit or Bus Rapid Transit)





### Alternative 1 - Signalized Arterial with Alternative Intersections



#### **Locations of Grade Separated Intersections:** None

Limited Stop Bus Service

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

**Examples of** 

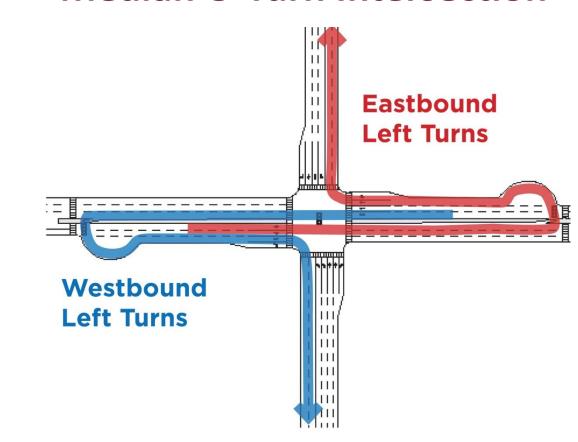
Intersections

**Alternative** 

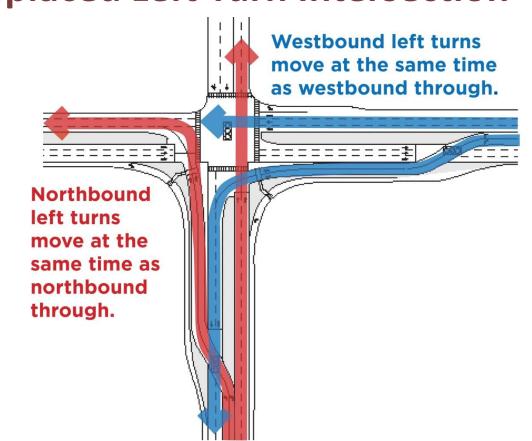
#### **Locations of Alternative Intersection Forms:**

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

#### **Median U-Turn Intersection**



#### **Displaced Left Turn Intersection**



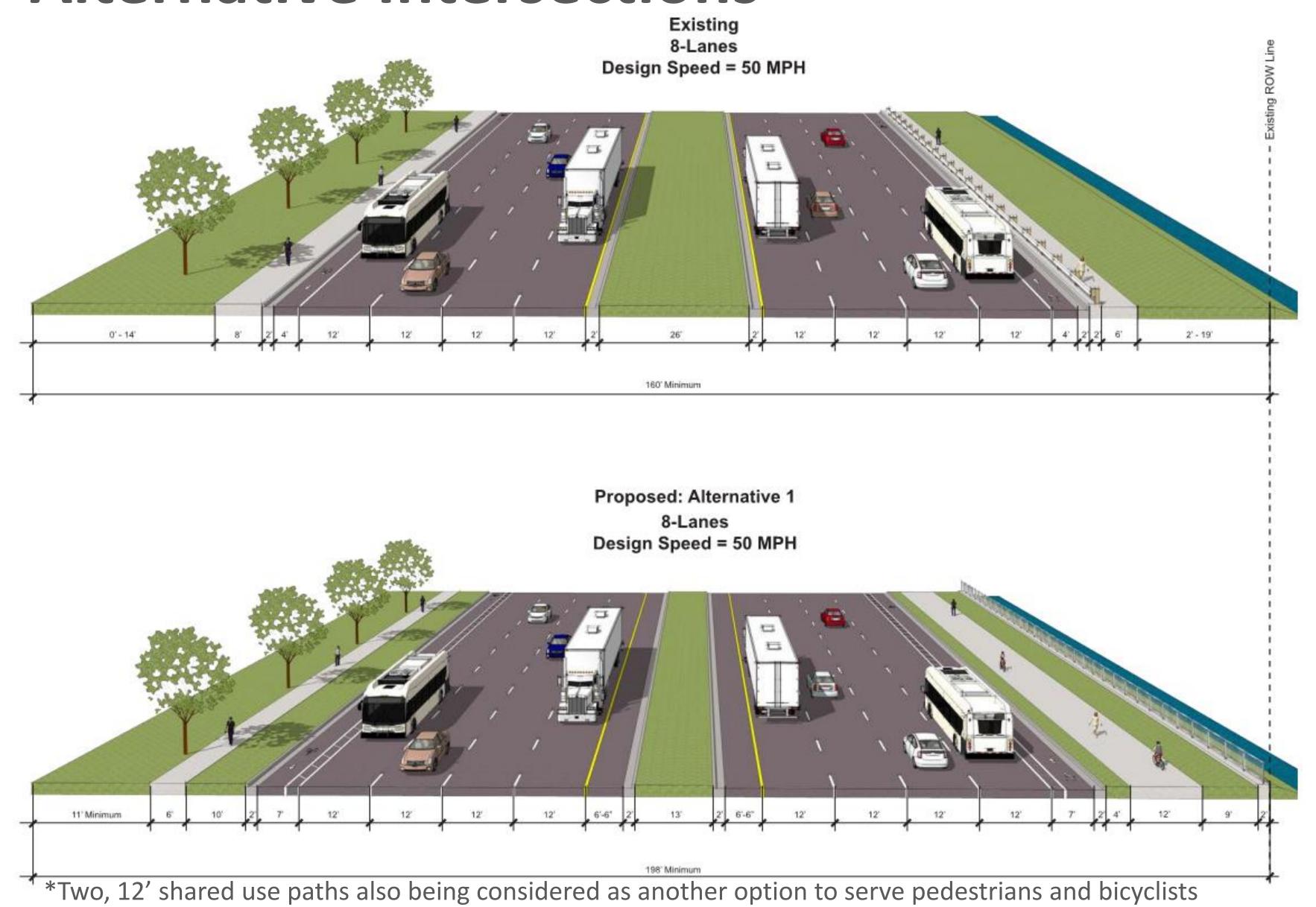
Goal **Performance** Protect the mobility of the SIS and provide capacity to serve future development Increase and improve access to transit Encourage non-single occupancy auto trips Preserve mobility for regional trips and Provide access for local trips Create a safer pedestrian and bicycle system Support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





#### SR 80 Corridor Action Plan From US-27 to I-95 FINANCIAL PROJECT NO. 435162-1-12-01

# Alternative 1 - Signalized Arterial with Alternative Intersections



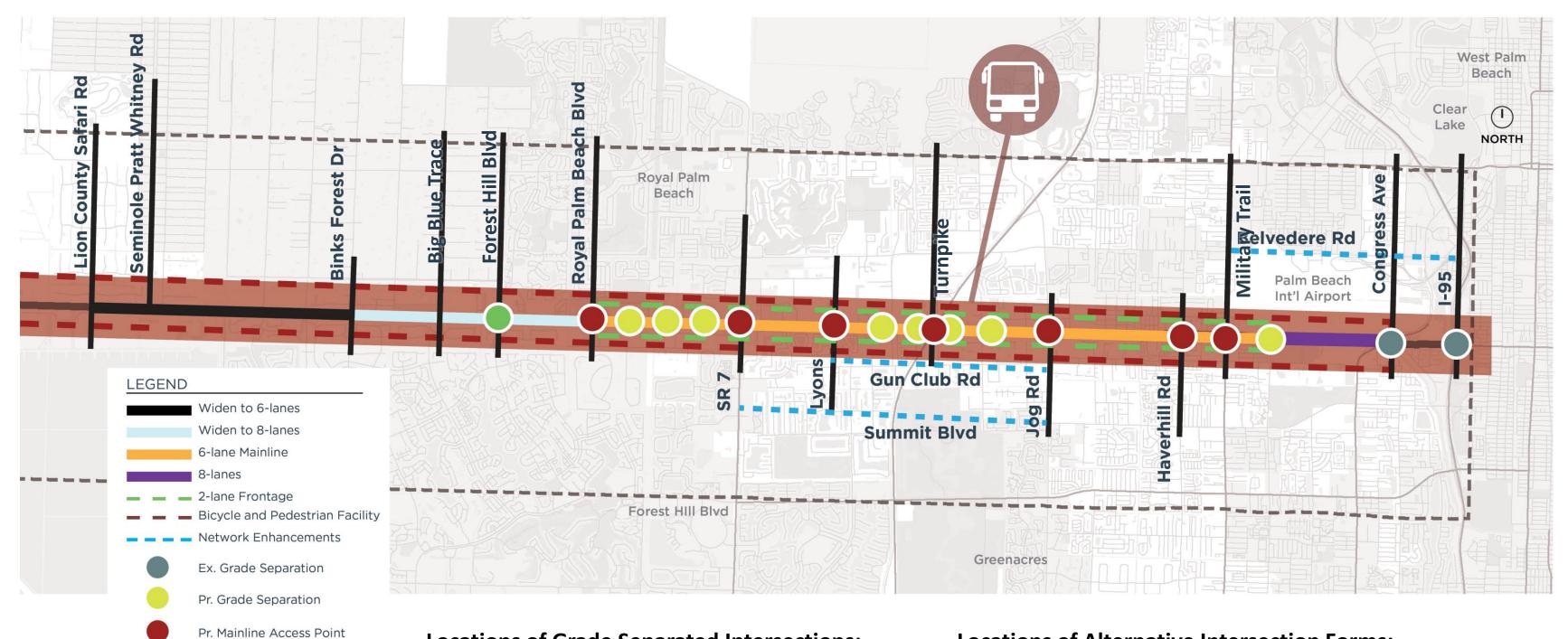
Place Sticker Here to Vote for Alternative 1

Typical Section/Vision





## Alternative 2 - Partially Elevated Roadways for Through Traffic with Frontage Roads



#### **Locations of Grade Separated Intersections: Bold** indicates direct access to mainline

#### Royal Palm Beach Boulevard

- **Royal Commerce**
- Lamstein Lane • 103<sup>rd</sup> Avenue
- SR 7

Pr. Alternative Intersection

Limited Stop Bus Service

\*Both wildlife and non-motorized

of the alternative. Specific locations and designs will be

determined in future phases.

user crossings are assumed as part

- Lyons Road
- Benoist Farm Road
- Pike Road
- Florida Turnpike
- Florida Turnpike Northbound Ramps
- Cleary Road
- Jog Road
- Haverhill Road/Military Trail
- Kirk Road

#### **Locations of Alternative Intersection Forms:**

Forest Hill Boulevard

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	





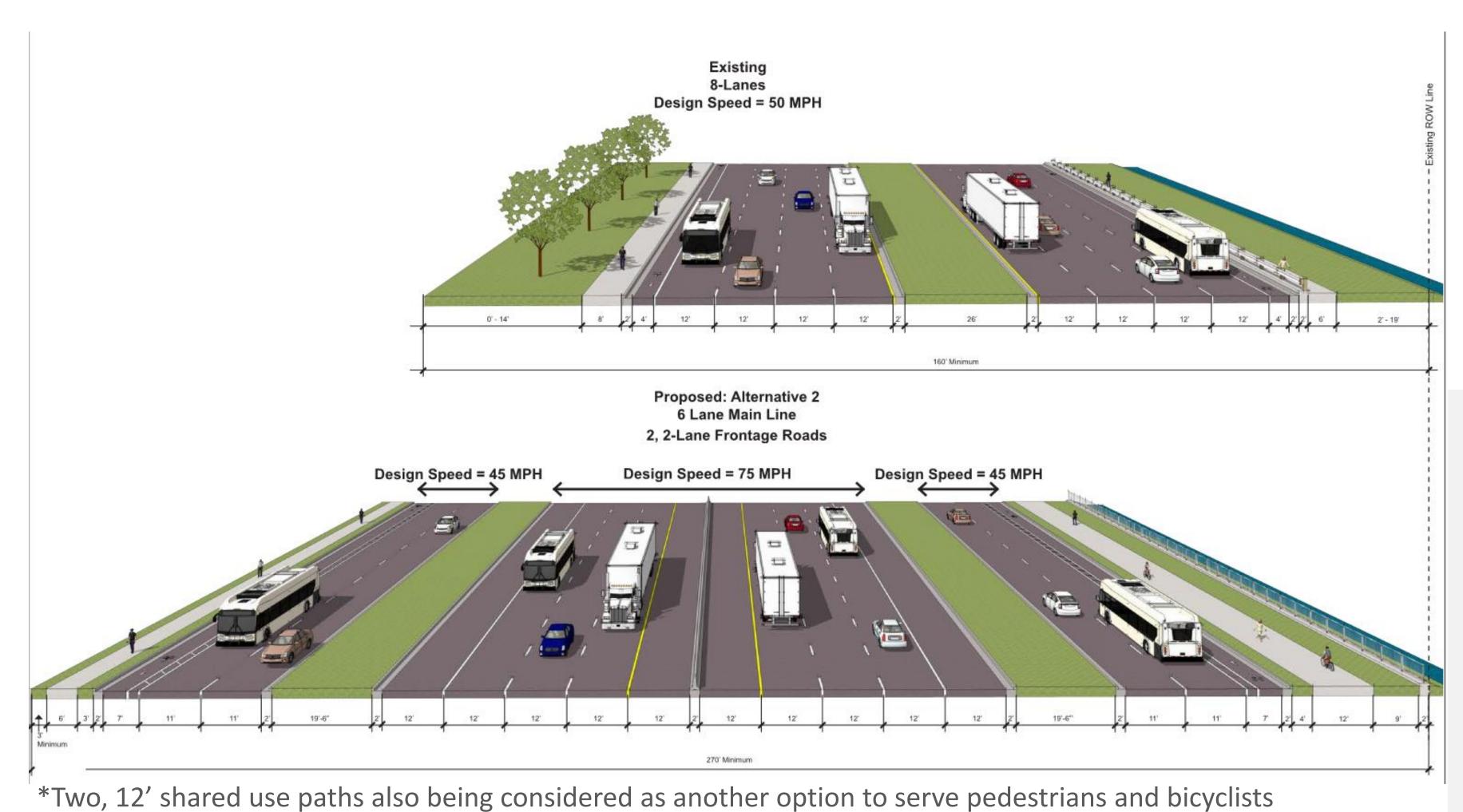
Good Acceptable Poor





#### SR 80 Corridor Action Plan From US-27 to I-95 FINANCIAL PROJECT NO. 435162-1-12-01

## Alternative 2 - Partially Elevated Roadways for Through Traffic with Frontage Roads



Place Sticker Here to Vote for Alternative 2

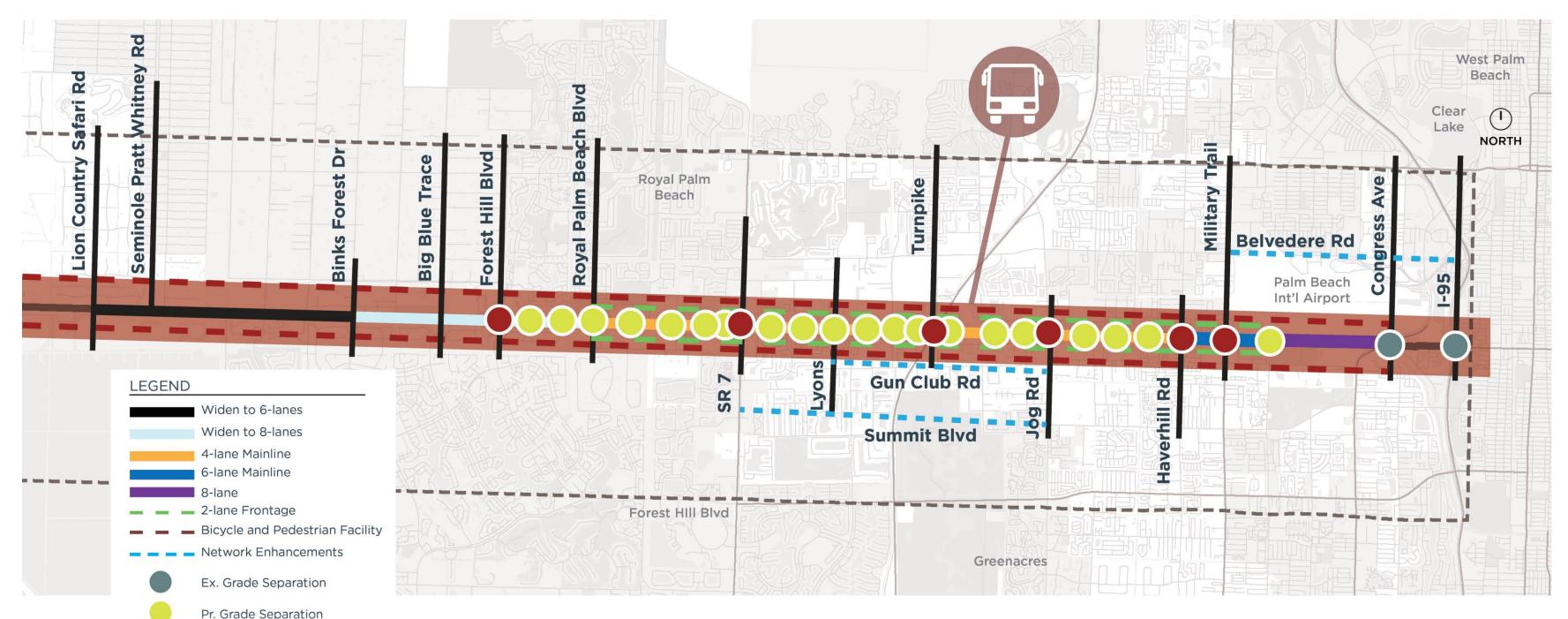
Typical Section/Vision





## Alternative 3 - Fully Elevated Roadways for

Through Traffic with Frontage Roads



Cleary Road

Jog Road

Pine Avenue

Kirk Road

Caroline Drive

• U-turn

Florida Turnpike Northbound Ramps

New Development Access

Haverhill Road/Military Trail

#### Limited Stop Bus Service \*Both wildlife and non-motorized

Pr. Mainline Access Point

user crossings are assumed as part of the alternative. Specific locations and designs will be determined in future phases.

#### **Locations of Grade Separated Intersections:**

**Bold** indicates direct access to mainline

- Crestwood Court
- Cypress Head
- Farm Credit
- Royal Palm Beach Boulevard
- Royal Commerce
- Lamstein Lane
- 103<sup>rd</sup> Avenue
- 105<sup>th</sup> Avenue
- SR 7
- Fairgrounds Road
- S Florida Fair Road
- Lyons Road
- Kelly Drive
- Benoist Farm Road
- Pike Road
- Florida Turnpike

#### **Locations of Alternative Intersection Forms:**

None

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	



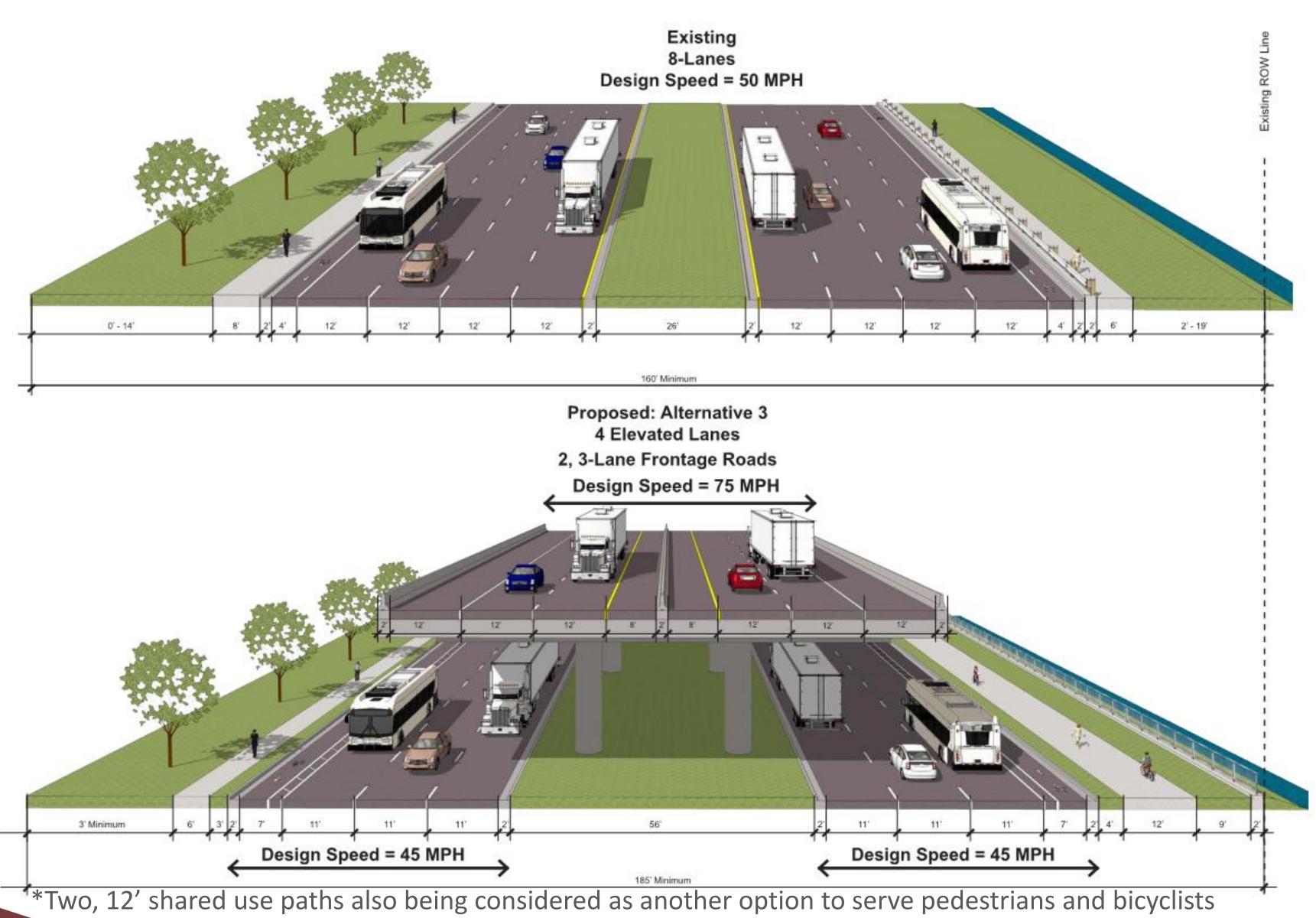


Good Acceptable Poor





## Alternative 3 - Fully Elevated Roadways for Through Traffic with Frontage Roads



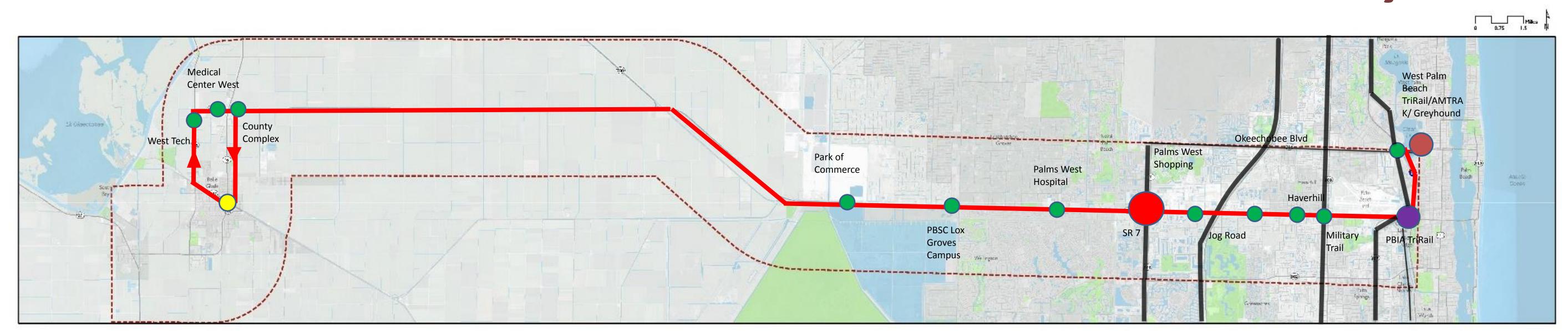
Place Sticker Here to Vote for Alternative 3

Typical Section/Vision



## STATION 8 – LET'S TALK TRANSIT!

## TRANSIT ELEMENT FOR ALL ALTERNATIVES "West County Bolt"



Description: Limited Stop Enhanced Bus Service with Park-and-Ride providing peak period Limited Stop service supplementing the existing Route 40 Limited Stop service between Belle Glade and Downtown West Palm Beach.

#### **Service Elements Ideas:**

- Hours of Operation 4 Hours AM Peak and 4 Hours PM Peak, Weekdays Only
- 30 min Headways (added to existing 60 min. service)
- 45.9 miles of Limited Stop Park-and-Ride Lot Service
- 7 60 Foot, low floor, articulated, diesel, wi-fi Buses (includes 2 spare vehicles)
- 11 Branded Stops
- 11 Joint use shared Park-and-Ride Lot Upgrades at Branded Stops
- 1 New Park-and-Ride Lot 100 spaces (Not including Right-of-way)
- Transit Signal Priority at 30 signals
- Belle Glade Loop

#### Legend

- Existing Tri-Rail Station and Park-and-Ride
- New Tri-Rail Station and Park-and-Ride
- Belle Glade Transfer Hub
- Fairgrounds Hub 100 space Park-and-Ride Lot
- Branded Bus Stop w/Joint Park and Ride
- Limited Stop Bolt Service
- Palm Tran Future Planned Express/Limited Stop Services





### TRANSIT AND LAND USE DENSITY RELATIONSHIP

	SR 80 is currently here	Premium Transit Technologies and Related Land Use Densities are Here				
Transit Mode	Circulator or Local Bus	Rapid/Enhanced Bus and Express Bus		Commuter Rail	Streetcar	Light Rail Transit (LRT)
		TO T			AD CENTRAL DE CANADA DE CA	MAX AND DATE OF THE PROPERTY O
Dwelling units per acre (density)	4-10	12-15	17-20	10-20	15-20	20-50

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

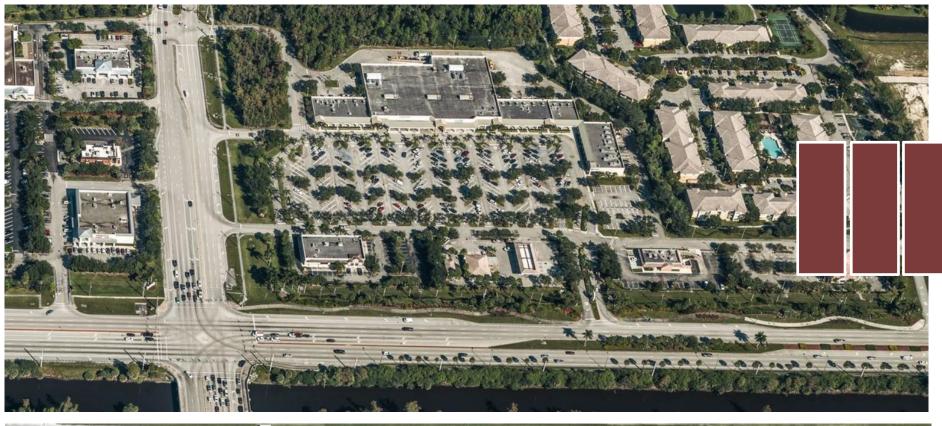
This table shows the minimum amount of dwelling units or housing density that is needed to support various forms of transit.



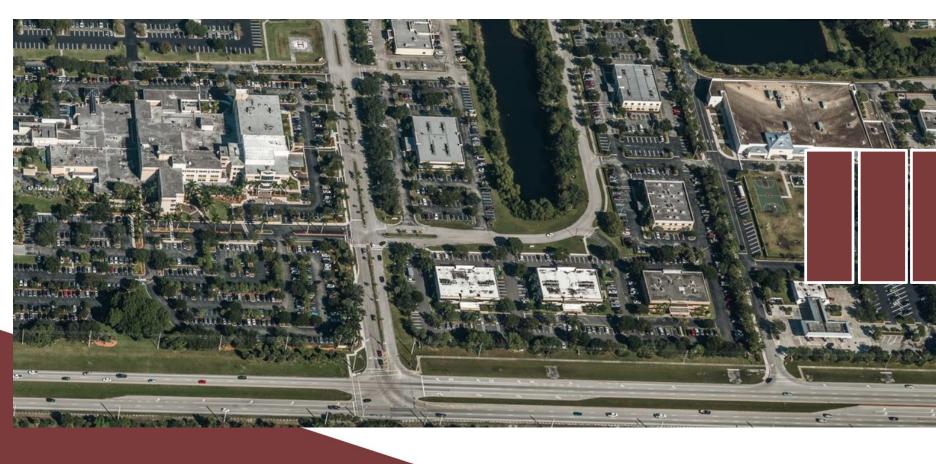


## TELL US YOUR OPINION ON TRANSIT

#### **Existing SR 80 Land Use Context**







# Minimum Supportive Densities Needed for Premium Transit









## SHOULD THE REGION DENSIFY AND PRIORITIZE INVESTING IN PREMIUM TRANSIT?

Place your sticker in the column that best represents your opinion

Let's get it done now

Not quite ready but interested

Maybe for my grandkids

