# MULTIMODAL CORRIDOR STUDIES: SR 80/SOUTHERN BOULEVARD 

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FINANCIAL PROJECT NO. 435162-1-12-01

## ALTERNATIVES PUBLIC WORKSHOP

THE FLORIDA DEPARTMENT OF TRANSPORTATION S REQUIRED TO COMPLY WITH VARIOUS

## NON-DISCRIMINATION LAWS

 AND REGULATIONS, INCLUDING TITLE VI OF THE CIVIL RIGHTS ACT OF 1964Public 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

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Fort Lauderdale, Florida 33309-342
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Las personas que deseen expresar sus comentarios acerca del Titulo Vi pueden comunicarse con
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## FDOT

DEPATMAN TRANSPO FLORID DWE RESPEKTE DIVES

## LWA AK REGLEMAN KI

 ENTĖDI DISKRIMINASYON, TANKOU TIT VI LWA POU DWA SIVIL 1964 LANou mande patisipasyon popilasyon an san diskriminasyon ras, koule 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



Analysis + Alternatives Development

## Project Development Process (~10-20 Years)

Segment and Prioritize Projects, Program
Funds, and Set Implementation Schedule


Preliminary Engineering and Environmental Analysis
~2-3 Years Min

Design

~2-3 Years Min

Construction ~2-4 Years Min

## 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



- Strategic - network made up of thigh-rioinity transoportion facilities and sericies of statevide and interegional siginiticance;
- Internodal - Contains all forms of transporataion for moving both pepple and goodss inculuing linkages that rovidie for snooth and efficient transeres between modes and mjoid facilities; and
Sysiematic- - Interarates indiviulul facilities, serices, modes and linkages into a
SR 80 is a Primary Connection from Belle Glade to Downtown West Palm Beach
SR 80 serves as the pimary comenection exween the western connunities in Palm Beach County to the Perot of Palm Beach and Palm Beach literanaional Airport; is the main transportation comenection of many of the e ities and develogment west of SR 7 ;and facilitedes overall regional mobility.SR 8 B traversess nine muncicalities Palm Beach County - West Palm Beach, Clowd lake, Glen Ridge, Huventilt,
SR 80 is Impacted By New Development
 developmentis spproveded or roposesed that could dffect traffic volumes on SR 8 8. I spite of recent widening, cumulative effects of approved new development show SR 80.


## What Do We Know Now About SR 80?

When comparing the findings throughout the corridor,
several conclusions can be drawn the toridor leval
several conclusions can be drawn at the corridor level and at the local level. These conclusions were drawn based on 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 does not mean people are not traveling along SR 800 by foot or bicycle. This is evidenced by the injuries and deaths that have occurred pior 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,

Freight is an Important Component of the Corridor
SR 80 plays a very important role as a freight connector between Lake Okeechobeethe 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 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 $S$ S 80. Together.these decisions have ecreated environmental these decisions have created environmental, economic
social, and other ramifications. social, and other ramifications.
There is Recurring Congestion in the Corridor that will Increase in the Future
sppecially in the eastern portion of the corridor there is congestion during the peak hours as people utilize SR 80 o getto and from Work. This has economic impacts and is costratinue to io increase as as more and is deverongestion will continue to increase as more land is developed further away from employment centers. Regular congestion also occurs
during special events at the Perfect Vooka 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 roadwa)

 network has generally been developoed in a disconnectedpattern as agted communties disconnected shoning 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 wes people walk inke, take transit and drive to shops and other devel opment treats SR 80 as the front door. Between Belle Clade 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 Bo, 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.



## Future Developments

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

## GROWTH AND TRAVEL PATTERNS

- 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

Corridor characteristics vary in each segment

US-27 to
Hooker Highway
Segment 1


Hooker Highway to 20-Mile Bend
Segment 2

20-Mile Bend
to l-95
Segment 3

## Character Districts Map

## Next Series of Stations

 Summarize Findings By 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.
Existing Multimodal Infrastructure and


Source: US Census Bureau 2010-2014 5 Year Estimates

## $\underset{\sim}{\square}$, Study Area

- Designated Bike Lanes
$\longrightarrow$ Sidewalks on SR 80
- Designated Greenways
-50-75 (Light Rail)
- 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 ${ }^{\sim} 45$-mile corridor) Bicycle and Pedestrian Crash Data



## 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.

Truck Annual Average Daily Trips


## Transit

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

Daily Boardings and Alighting
- 0-100$300-400$ $\qquad$
$>400$
$\stackrel{\bigwedge}{\wedge}$ Study Area


## SEGMENT 1 OVERVIEW OF TIERED ALTERNATIVE DEVELOPMENT PROCESS

| TIER 1 | Develop long list of strategies \& identify feasibility | Screening Results Based On Identified Issues: |
| :---: | :---: | :---: |
|  | Package feasible strategies into alternatives | Strategies that did not move forward in the study process for US-27 to Hooker Highway: |
| TIER 2 | Evaluate \& compare alternatives | - Major roadway capacity changes |
|  | Document alternatives to move forward for next phase | - Premium transit (e.g., Light Rail Transit or Streetcar) |

## Segment 1 Multimodal Alternative Strategies



Continuous, Bike Facility: Provide continuous bicycle facilities to major places of interest

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.



## Functional Classification

Principal Arterial - Expressway
$\longrightarrow$ Principal Arterial
$\longrightarrow$ Minor Arterial

- Major Collector
- Minor Collector


## 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



## Segment 2 Multimodal Alternative Strategies

        To East
        To East
        Coast
        Coast
        Greenway
        Greenway
    


## 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.



## Land Use and Development

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


$$
\begin{aligned}
& \text { Source: Palm Beach County, } 2015 \\
& \text { Future Land Use } \\
& \text { Agriculture } \\
& \text { Recreation \& Conservation } \\
& \text { Pubed Use } \\
& \text { Multi-Family Residential } \\
& \text { Public Facilities } \\
& \text { Industrial }
\end{aligned}
$$

## 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.



Source: fDot CARS Data, 2010-2014
.

## 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
$s$ Study Area


## SEGMENT 3 OVERVIEW OF TIERED ALTERNATIVE DEVELOPMENT PROCESS

| TIER 1 | Develop long list of strategies \& identify feasibility | Screening Results Based On Identified Issues: <br> Strategies that did not move forward in the study process for 20-Mile Bend to I-95: |
| :---: | :---: | :---: |
|  | Package feasible strategies into alternatives |  |
| TIER 2 | Evaluate \& compare alternatives | - General widening (e.g., a 10-lane version of what exists today) |
|  | Document alternatives to move forward for next phase | - Reversible lanes <br> - Premium transit (e.g., Light Rail Transit or Bus Rapid Transit) |

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## Alternative 1 - Signalized Arterial with Alternative Intersections



Locations of Grade Separated Intersections: None
(-5) Limited Stop Bus Service
*Both wildilife and non-motorized user crossings are assumed as part of the alternative. Specific locations and designs will be
determined in future phases.

- Forest Hill Bornlevard
- Forest Hill Boulevard
- Royal Palm Beach Boulevard
- Lamstein Lane

Median U-Turn Intersection


Examples of Alternative Intersections

- Pike Road

Florida Turnpike Northbound Ramps

- Cleary Road
- Kirk Road


| 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 <br> system |
| Support adopted future growth plans |
| Identify cost-effective investments |
| Minimize impacts to the environment |
| Minimize impacts to the business <br> community |

- Lyons Road
- Benoist Farm Road


## Alternative 1 - Signalized Arterial with

## Alternative Intersections



## Place Sticker Here to Vote for Alternative 1

[^0]
## Typical Section/Vision

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## 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
- $103^{\text {rd }}$ 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

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

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



Place Sticker Here to Vote for Alternative 2
*Two, 12' shared use paths also being considered as another option to serve pedestrians and bicyclists
Typical Section/Vision

## Alternative 3 - Fully Elevated Roadways for Through Traffic with Frontage Roads <br> Pr




Locations of Grade Separated Intersections: Bold indicates direct access to mainlin

$$
\text { Crestwood Court } \quad \text { Florida Turn }
$$

## Cypress Head <br> - Cleary Road

- Farm Credit
- U-turn
*Both willdife and non-motorized user crossings are assumed as part of the alternative. Specitic
locations and designs will b locations and designs will be
determined in future phases.
- Royal Palm Beach Boulevard - Jog Road
- Royal Commerce - New Development Access

Lamstein Lane
-103 ${ }^{\text {rd }}$ Avenue

- $105^{\text {th }}$ 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

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

## Alternative 3 - Fully Elevated Roadways for

 Through Traffic with Frontage Roads

Proposed: Alternative 4 Elevated Lanes


Place Sticker Here to Vote for Alternative 3

## 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

LegendExisting Tri-Rail Station and Park-and-RideNew Tri-Rail Station and Park-and-RideBelle Glade Transfer HubFairgrounds Hub 100 space Park-and-Ride LotBranded 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


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



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

## Which one was the preferred? Comment in the chat!

Alternative 1 - Signalized Arterial with Alternative Intersections

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

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

## Q\&A

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[^0]:    *Two, 12' shared use paths also being considered as another option to serve pedestrians and bicyclists

