



MAY  
2017

# 17TH STREET

## CORRIDOR MOBILITY PLAN



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Prepared for the City of Fort Lauderdale by:







# **BACKGROUND & INTRODUCTION**

# Background & Introduction

## Introduction

SE 17th Street is a major regional corridor in Fort Lauderdale. It provides access to the beach, the Broward County Convention Center, Port Everglades, and Fort Lauderdale-Hollywood International Airport and is a major entry point for visitors from around the world. It is also a retail and commercial hub for the region, and serves as a backbone to several residential neighborhoods.

Further adding to the importance of the corridor, the Port, Airport, and Convention Center are embarking on expansion projects. The area is also attractive to developers, with new development and redevelopment in high demand. Along with economic benefits, these projects will bring more people to the corridor. While most trips are currently made by car, the City of Fort Lauderdale is looking to help ease congestion and support overall mobility by creating a better multimodal environment.

The corridor is currently congested, and because of the auto oriented nature of past development projects, there are many conflicts for pedestrian, bicycle, and vehicle movement. As redevelopment and economic activity occurs, the increased density and mix of uses along the corridor is encouraging more walking and biking. In fact, a 2014 study by the City of Fort Lauderdale found that over 17,000 passengers disembark from cruise ships at Port Everglades on Saturdays, and many of them walk to the shops and restaurants along SE 17th Street.

The corridor will continue to be critical to local and regional mobility, with potential premium transit service that will also require safe and comfortable pedestrian access. Even so, the existing pedestrian and bicycle facilities are not comfortable or adequate to support the activity along the corridor. There are critical safety issues that need to be addressed on SE 17th Street, and the corridor ranks in the top five corridors in the City when considering crashes per mile.

In recognition of these needs, the City of Fort Lauderdale initiated the SE 17th Street Corridor Mobility Plan to balance mobility in the area. The study is intended to evaluate the multimodal environment in and around the corridor and to develop short, mid, and long term solutions to improve mobility for all modes.

## History

The 17th Street study area has always been an important part of Fort Lauderdale. Fort Lauderdale was founded in 1911 and Port Everglades opened 17 years later in 1928. Early on, Fort Lauderdale recognized the need for a southern connection to the beach, with the southernmost connection being Las Olas Boulevard. In 1925, construction started on the original south side causeway, later known as Jackknife Bridge. The causeway was located north of the current bridge and was initially planned to connect at 15th Street. However, a hurricane in 1926 knocked down the bridge and the plans were abandoned until traffic on Las Olas Boulevard sparked the need again in the 1950s. To address this, a new bridge was built and opened in 1956 and eventually reconstructed and raised in 1992. The opening of the bridge encouraged increased development in the area, and then the Broward County Convention Center opened in 1991. Since then, Port Everglades has become one of the busiest ports in the world, and the SE 17th Street area has become a key element of Fort Lauderdale's economy.<sup>1</sup>



## The Study

Over the past several years, the City of Fort Lauderdale has made great strides in becoming "The City that you never want to leave". Starting from the big picture perspective, the City developed **FAST FORWARD FORT LAUDERDALE 2035**, a vision plan built on intensive community engagement and the community's widespread desire for "a fully connected multimodal city." The Vision identified transportation and sustainability as its top two goals. The feedback received in the visioning process called for a connected City that is easy and safe to

<sup>1</sup> MyFortLauderdaleBeach.com (23 October, 2014). "The Story of the 17th Street Causeway Bridge." <http://myfortlauderdalebeach.com/my-ftlb-blog/story-17th-street-causeway-bridge/>



move through by walking, biking, and public transportation. Since the adoption of the vision plan, the City has taken clear and assertive steps toward achieving the goal of multimodal excellence.

In order to push forward this vision, the City has continued to strategically plan its streets and neighborhoods. In 2016, SE 17th Street was noted as the top priority for consideration due to the mobility challenges that it faces and its importance as an economic backbone of the city. This mobility plan is intended to help move forward the goals of **PRESS PLAY FORT LAUDERDALE**, the City's 2018 Strategic Plan. Some of these include:

- **GOAL 1: BE A PEDESTRIAN FRIENDLY, MULTIMODAL CITY.**
- **GOAL 2: BE A SUSTAINABLE AND RESILIENT COMMUNITY.**
- **GOAL 7: BE A WELL-POSITIONED CITY WITHIN THE GLOBAL ECONOMIC AND TOURISM MARKETS OF THE SOUTH FLORIDA REGION, LEVERAGING OUR AIRPORTS, PORT, AND RAIL CONNECTIONS.**

The following plan was developed in conjunction with and with continuous participation from the community. It focuses on strategies to improve mobility for all people in and around SE 17th Street with a keen eye towards being sensitive to the character of the adjoining neighborhoods.

## Study Area

The City of Fort Lauderdale has undertaken the SE 17th Street Corridor Mobility Plan to objectively evaluate options for multi-modal mobility, access, and safety improvements for approximately 2 miles along SE 17th Street from US 1 eastward to the Mercedes River crossing and approximately 1.5 miles along US 1 from north of Eller Drive to Davie Boulevard.

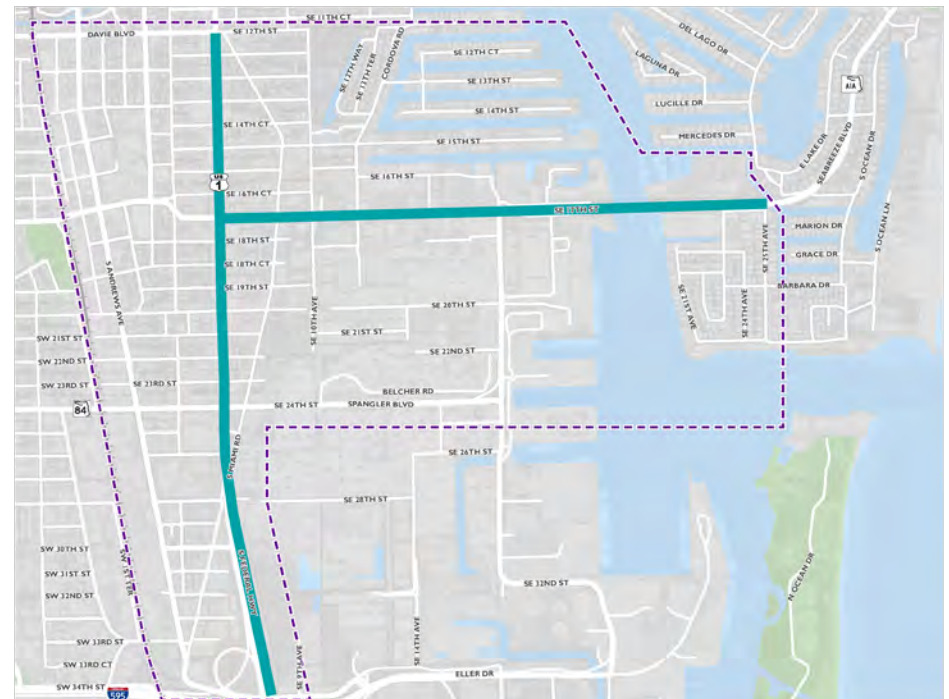
Recognizing that any improvements made to SE 17th Street will have impacts to the surrounding area, a study influence area was also identified. The study influence area represents the portion of the network that would most likely be impacted by changes to the SE 17th Street corridor. Therefore, this study also considers improvements within the study influence area that would support changes to the SE 17th Street corridor. The study corridor and area of influence can be seen in Figure 1.

## Report Organization

This report is broken into seven sections, as follows:

1. **Background & Introduction:** Introduces the study area and intent of the study.
2. **Planning Context:** Describes the current and past planning efforts in the study area.
3. **Public Engagement:** Discusses the community engagement and discussions leading up to the selection of recommended strategies and solutions.
4. **Existing and Future Conditions Evaluation:** Considers the multi-modal conditions in the study area.
5. **Goals and Recommendations:** Discusses and evaluates the study goals and recommended solutions.
6. **Next Steps:** Suggests next steps for plan implementation.

**Figure 1 | Study Corridor**









# **PLANNING CONTEXT**

# Current + Approved Projects

A number of projects are already occurring in the study area or are approved to begin in the next several years. Figure 2 graphically depicts the projects approved and underway in the study area as of the beginning of this project. They are further described in this section. Other development projects were also reviewed as part of this study. A full description of those projects can be found in the **DATA COLLECTION TECHNICAL MEMORANDUM**.

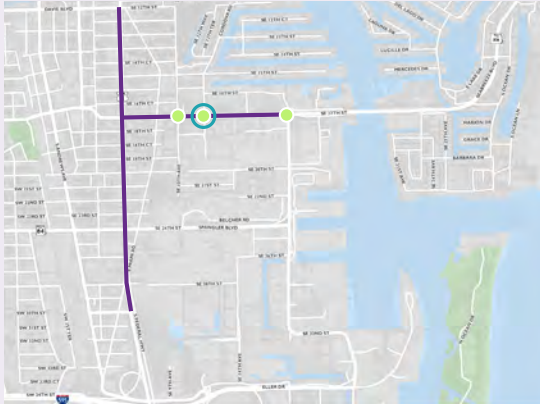
## SE 17th Street Safety & Signal Studies

FDOT worked with Broward County and the City of Fort Lauderdale to improve traffic flow and enhance multimodal safety in the study area. The improvements include:

- Changing signal length in peak hours
- Prioritized & protected pedestrian movements
- Improved intersection

Based on post-analysis, the changes resulted in:

- One minute decrease in delay on 17th Street
- Six minute decrease in delay on US 1

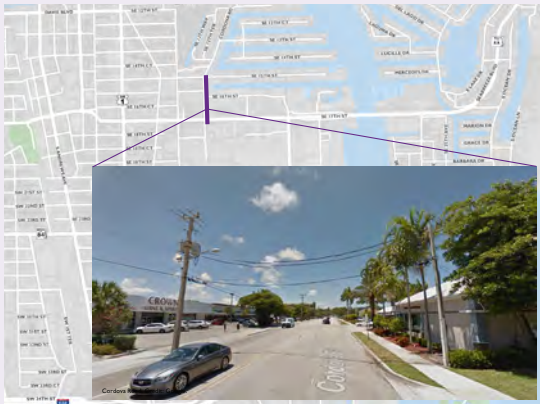


## Cordova Road Transportation Alternative Program (TAP) Grant - 2015

Neighbors noted that crossing the street on Cordova Road is difficult, although there are destinations on both sides. This was supported through crash data and pedestrian counts.

The City was awarded a TAP grant to help fund the construction of bicycle lanes and streetscaping improvements on Cordova Road Between SE 17th Street and SE 15th Street.

The City will work with the community to determine the desired street design. Pedestrian crossings locations will be determined and high visibility crossings will be constructed through the grant as well.



## The Convention Center Expansion

The Broward County Convention Center is currently planning an expansion. A traffic study will be conducted to determine impacts and mitigations once a final design is determined for the expansion.

## LauderStreet

The City of Fort Lauderdale developed an interactive map to provide location-specific information about road closures. It is intended to help the public avoid congestion and find alternative routes.

## Advanced Transportation Management System

FDOT is working to integrate technology to improve the flow of vehicle traffic and improve safety. Traffic data from cameras and other sources will flow live into a Transportation Management Center. Using this data, technicians can take immediate actions such as:

- Traffic rerouting
- Signal timing changes
- Messaging travel conditions
- Other active traffic flow improvements

## SE 3rd Ave & Andrews Ave Improvements

FDOT, the Broward MPO, and Fort Lauderdale are working to transform Andrews Avenue and SE 3rd Avenue into complete streets. Potential changes include:

- Adding bicycle facilities
- Improving drainage
- ADA improvements

Both projects are on hold until the completion of the Wave construction in order to mitigate potential impacts of construction.

## The Wave Extension

The Wave is a modern streetcar being planned in Fort Lauderdale. It will eventually connect SE 17th Street to Downtown and the Airport.

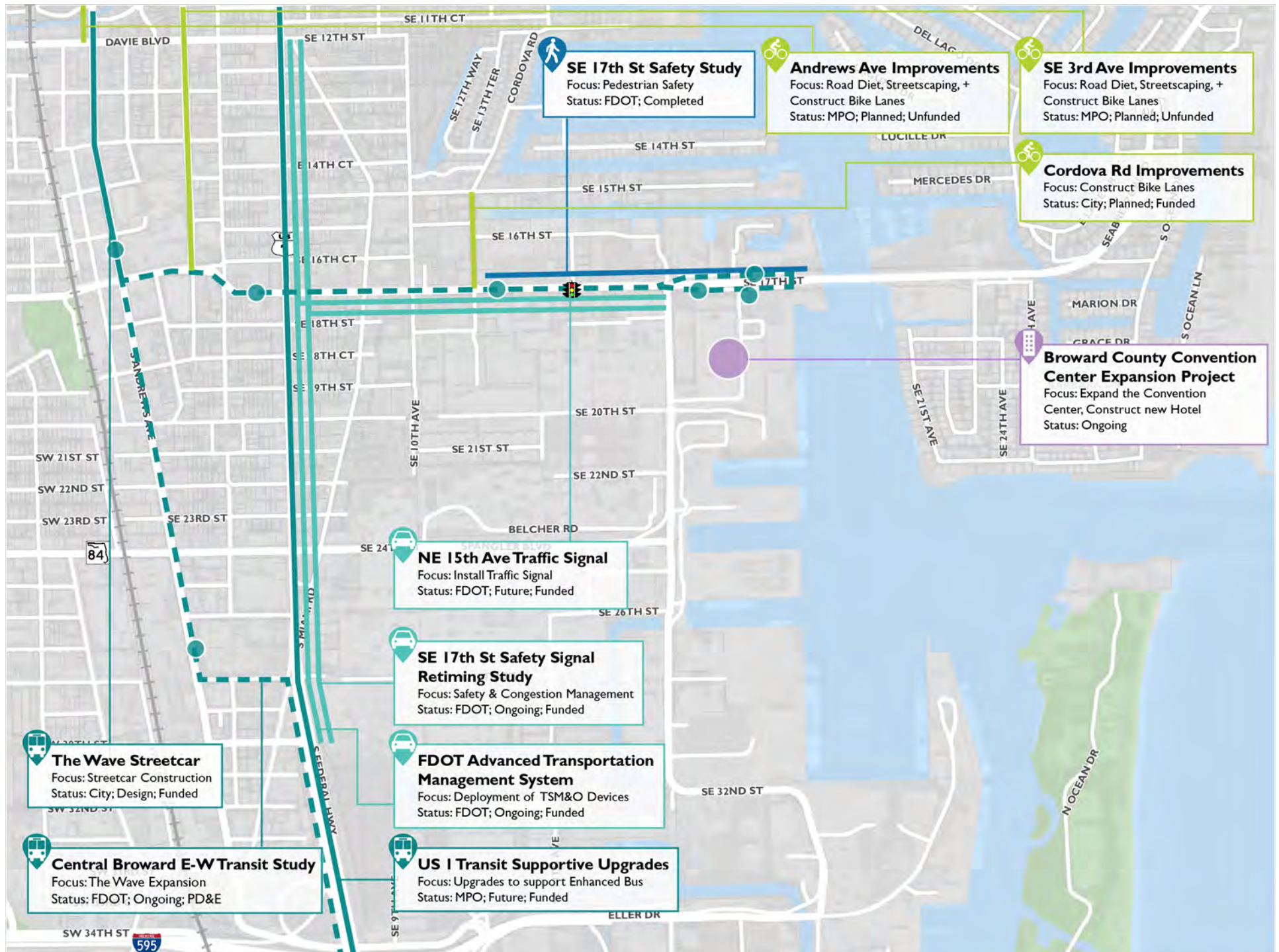
**Figure 2 | Current + Approved Projects**

### Legend

#### Project Types

- |   |            |   |                     |
|---|------------|---|---------------------|
|  | Pedestrian |  | Vehicular           |
|  | Bicycle    |  | Development         |
|  | Transit    |  | Potential Wave Stop |









# **WORKING GROUP ENGAGEMENT**



# Project Advisory Working Group

The study was guided by input from a Project Advisory Working Group (PAWG) that met four times over the course of this study. This group of technical advisors served as a forum for review and overall guidance. Throughout the study, the group discussed important issues and opportunities as well as provided critical information, and feedback.

PAWG members represented a diverse cross section of community interests and included staff from the City of Fort Lauderdale, the Florida Department of Transportation (FDOT), Broward County, and the Broward Metropolitan Planning Organization (MPO):

<b>City of Fort Lauderdale</b>	Transportation and Mobility
	Department of Sustainable Development
	Finance Department
	Public Works Department
<b>Broward County</b>	Traffic and Engineering
	Transit Division
	Public Works
	Planning and Redevelopment
	Highway Construction & Engineering
	Convention Center
	Port Everglades
<b>Florida Department of Transportation</b>	School Board
	Operations
	Office of Modal Development
	Planning
<b>Broward Metropolitan Planning Organization</b>	Design
	Livability Planning
	Bicycle and Pedestrian Planning

The working group met four times throughout the study:

## PAWG MEETING 1 – WALKSHOP AND PROJECT KICK-OFF | September 14, 2015

The meeting involved a kick off presentation, a walking audit, and a survey of current projects. A walking audit is a hands-on exercise that evaluates the walking and biking environment. This type of audit is primarily used to identify pedestrian and bicyclists related issues (such as safety, access, connectivity, comfort, and convenience) as well as to identify potential alternatives or solutions (such as engineering treatments, policy changes, or education and enforcement measures).

To gain a better understanding of the 17th Street Corridor and how roadway design impacts various users the PAWG was broken down into three teams. Each team was given a different scenario to complete as a walking audit. The scenarios required each team to fill the role of a specific roadway user and complete a common daily task.

## PAWG MEETING 2 – EXISTING CONDITIONS | December 10, 2015

The preliminary existing conditions findings and public involvement results were discussed at this meeting. Based on the findings, PAWG members developed a consensus on the study goals for evaluating alternatives.

## PAWG MEETING 3 – STRATEGIES | March 9, 2016

Based on the previous meetings, the project team developed a series of strategies for consideration by the PAWG. At the PAWG, the project team presented a summary of the previous studies, cross sections and other relevant information to help the PAWG members in their discussion of the strategies presented. The PAWG members then worked through the list of strategies to highlight those that are feasible and determine which are not feasible.

## PAWG MEETING 4 – FINAL RECOMMENDATIONS AND PRIORITIZATION | Oct. 15, 2016

The purpose of this meeting was to review the matrix of recommended strategies, confirm next steps, lead agencies, and coordinating partners. The meeting was a group discussion format that encouraged the entire PAWG to interact and discuss the recommendations as a whole.

# Public Meetings and Involvement

Public participation was a central facet of this project and took place throughout its entirety. The primary purpose of which was:

- To promote a broad-reaching, critical review of the existing facilities;
- To engage stakeholders and members of the general public in the discussion of alternative transportation improvements;
- To achieve a high degree of interest in and understanding of the alternative transportation improvements ; &
- To facilitate meaningful discussion and to make informed decisions.

Given that the SE 17th Street corridor is a strategically important corridor in Fort Lauderdale, there are many entities involved and many needs that must be met. In order to incorporate the involvement of public officials and key stakeholders in a more formal manner, additional meetings were arranged for public officials.

There were two public officials meetings, three public workshops, and online engagement conducted throughout the study:

## PUBLIC OFFICIALS MEETING 1 | April 25, 2016

This meeting included a discussion of many of the same topics discussed at the 17th Street Public Meeting 2. The meeting was held at the City of Fort Lauderdale's Transportation and Mobility office, and the intention was to involve public officials and key stakeholders in gathering feedback on strategies, issues, and opportunities in a formal setting.

## PUBLIC OFFICIALS MEETING 2 | September 12, 2016

This meeting was intended to further discuss the issues raised in the first meeting. The meeting was held at the City of Fort Lauderdale's City Hall. The following details were discussed in the meeting:

- Convention Center expansion
- Operating hours on Eller Drive and Spangler Drive
- Local port bypass options
- Event management strategies
- Set taxi fares for airport - port transportation
- SE 20th Street access
- Harbor Shop access management
- Pedestrian facilities



### PUBLIC WORKSHOP 1 – ISSUES & OPPORTUNITIES | November 9, 2015

The community helped us to identify existing issues and opportunities regarding transportation, land use, development, shade, comfort, flooding, lighting, and others. They also let us know what their vision was for the corridor, which the project team used as input.

### PUBLIC WORKSHOP 2 – STRATEGY REVIEW | April 25, 2016

Based on analysis and public input from meeting 1, community transportation, policy, and other strategies to improve 17th Street were shown. The project team collected input on potential strategies and identified issues that were outstanding.

### PUBLIC WORKSHOP 3 – FINAL SOLUTIONS & PRIORITIZATION | Dec. 15, 2016

Taking into account community input from both meetings, the project team developed final recommendations and collected additional feedback on community priorities. The top 5 improvements include:

1. Add protected bike lanes and widen sidewalk or create shared-use path by using 20' easement;
2. Create Roundabout or raised intersection at Cordova Road and SE 15th Street;
3. Create flyover to allow direct access from airport to the port;
4. Create connection between Federal Highway and Shopping Center on SW 20th Street; and
5. Create new east/west connection on the south side of 17th Street.

### ONLINE ENGAGEMENT

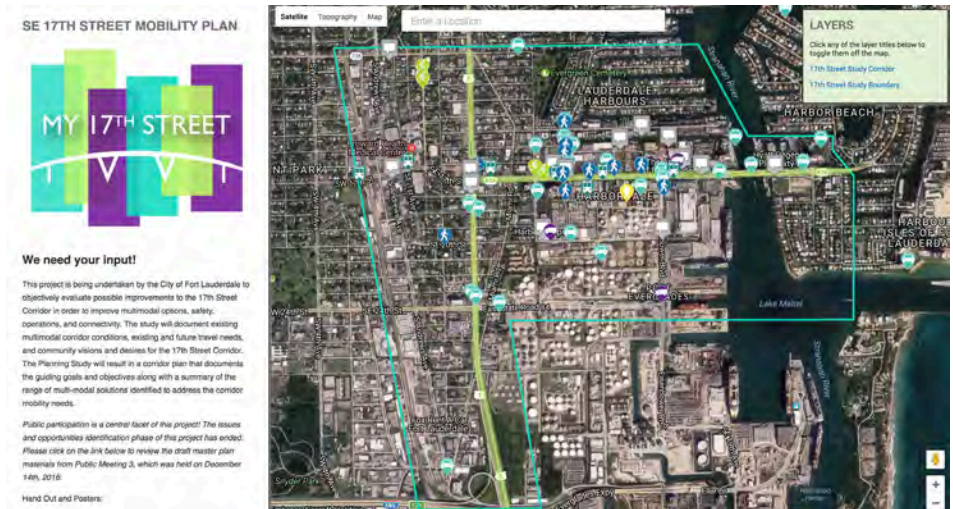
In addition to the workshops, community members were also encouraged to provide feedback on the study webpage ([maps.kittleson.com/17thStreet](https://maps.kittleson.com/17thStreet)) by leaving comments and/or “liking” comments by others on a map of the study area.

Between the website feedback and feedback collected during public meetings, the most vocalized public concerns included vehicular congestion, followed by pedestrian & bicycle improvements, and then network connectivity (see Figure 3 and Figure 4).

## More Public Involvement Information

Further descriptions of all PAWG and public involvement activities can be found in the **PUBLIC INVOLVEMENT TECHNICAL MEMORANDUM**.

**Figure 3 | Project website and categories for public input**



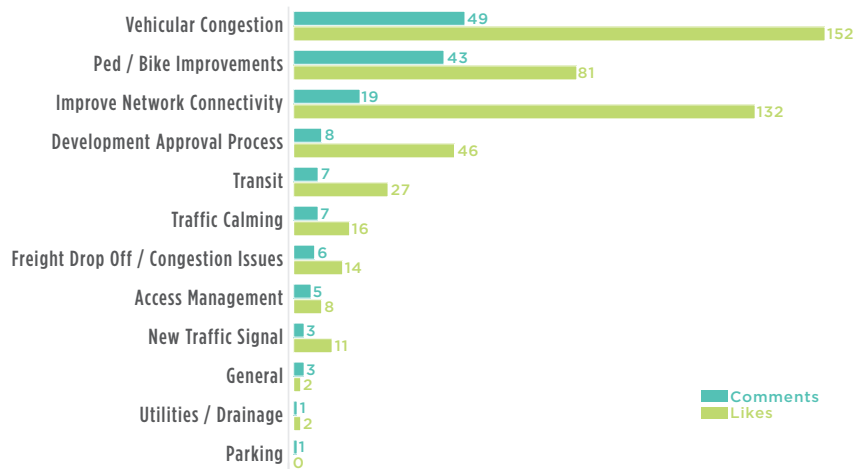




Pictures of Public Meetings.  
Credit Kittelson & Associates, Inc.



**Figure 4 | Public Workshop Priorities**









# **EXISTING CONDITIONS**

# Regional Context & Destinations

The 17th Street corridor is a regional center, serving diverse users looking for efficient multimodal options.

Amidst evolving city contexts, 17th Street serves a diverse set of users and needs. The corridor helps connect Port Everglades (one of the most diverse seaports in the United States and among the top three cruise ports in the world), the expanding Fort Lauderdale-Hollywood International Airport, a growing downtown and Fort Lauderdale's famous beaches. In fact, the roadway serves as one of a small handful of access points to Fort Lauderdale's coastline. Additionally the roadway provides access to the Greater Fort Lauderdale/ Broward County Convention Center, and is home to numerous hotels, restaurants, and maritime related businesses.

The study area is host to many different community destinations.

Aside from the many regional attractions, numerous community destinations are also located within the study area. These include residential neighborhoods and condominium towers, the Art Institute of Fort Lauderdale, Harbor Shops, Southport Shopping Center, and Harbordale Elementary (Figure 5). Many of these uses not only serve local residents and workers, but also attract users from outside the community.

SE 17th Street is one of only five beach access points in Fort Lauderdale.

Figure 6 shows the limited number of beach access points in Fort Lauderdale and the large distance between them (Commercial Boulevard to the north is not shown). Because of its role as a beach access corridor, SE 17th Street must facilitate regional travel in addition to the local access that it provides.

Figure 5 | Study Area Destinations

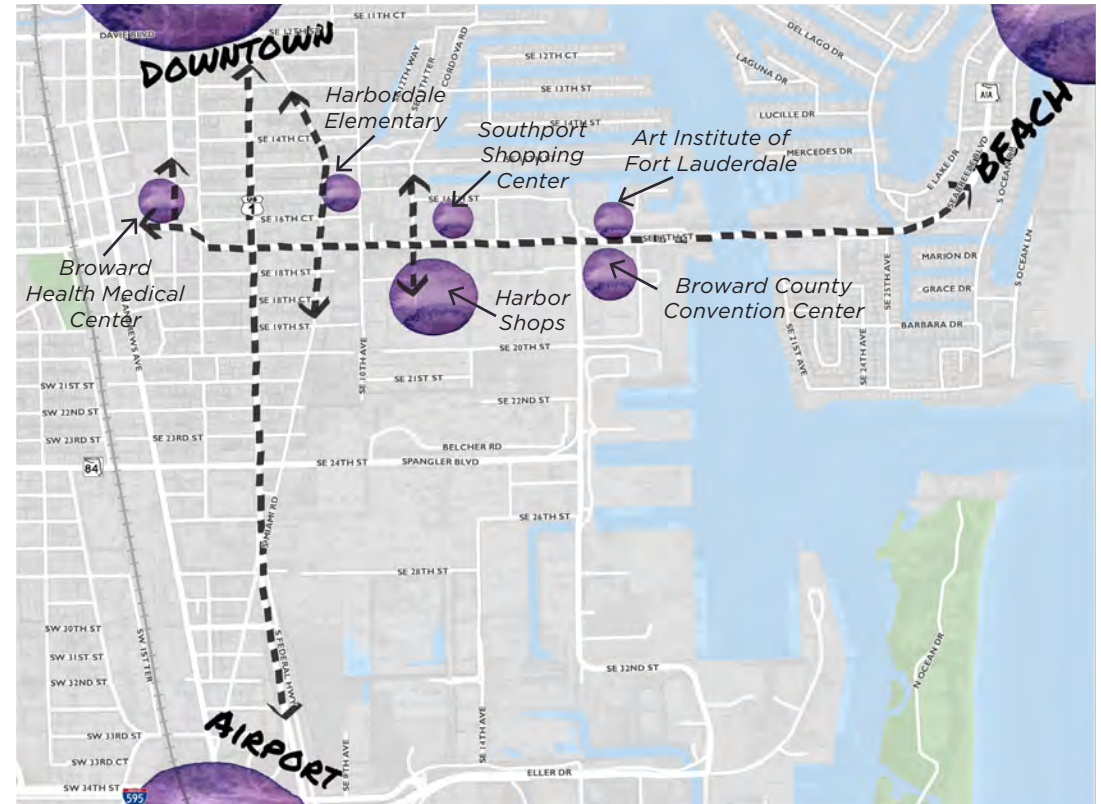
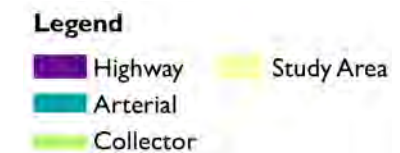
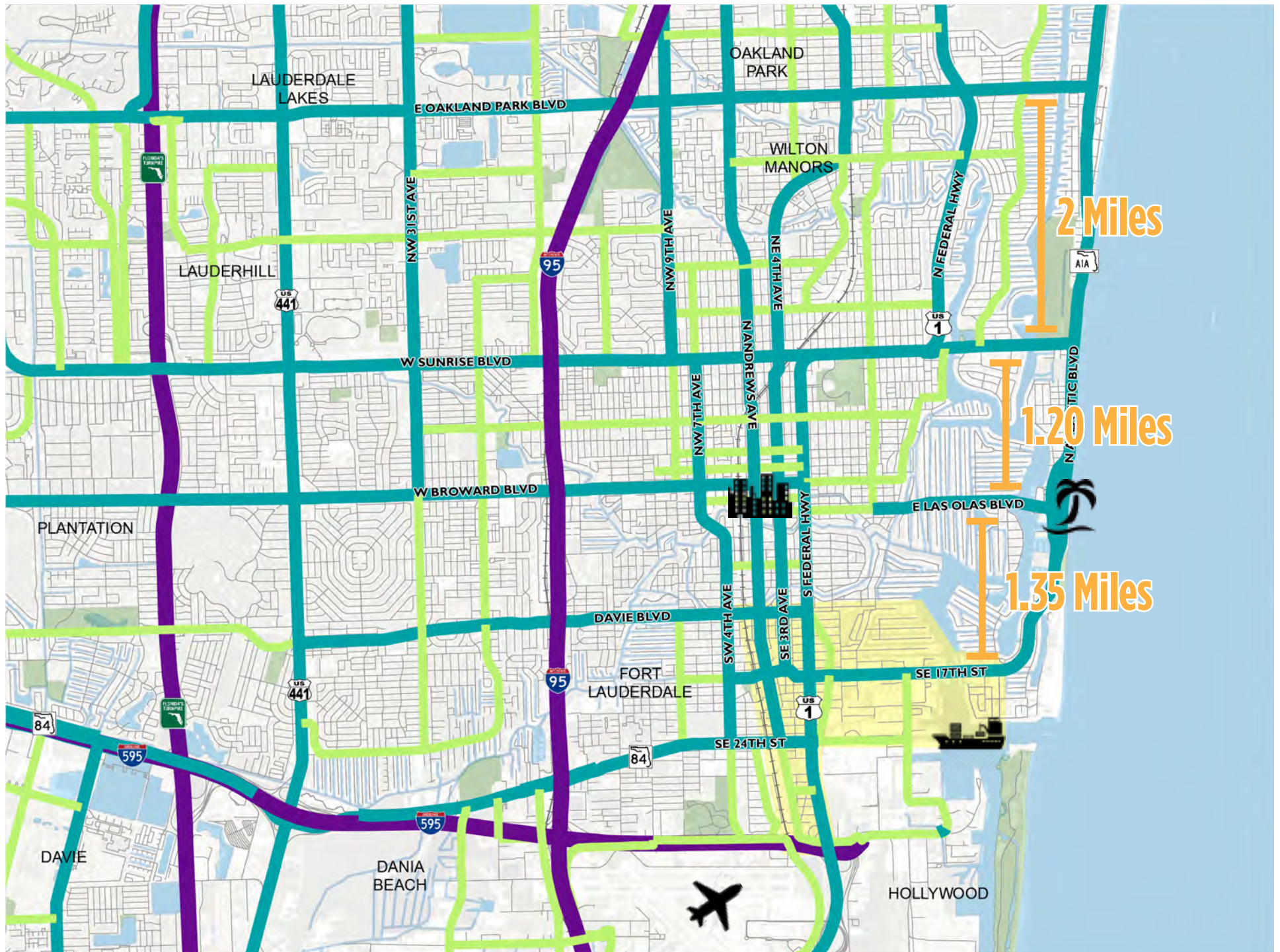


Figure 6 | Regional Planning Context (Right)









# Who Lives in the Study Area & How Do They Travel?

Although the corridor serves regional trips, it is important to understand who lives in the study area as well as how they travel. Figure 7 displays some demographic information for study area residents.

## The Corridor has significant Millennial & elderly populations.

Youth (age 17 and younger) and elderly populations (age 65 and older) tend to rely on public transportation and other active transportation modes (walking and bicycling). Nearly 35% of people living in the study area fall within these categories.

Another key population group within the corridor and throughout Fort Lauderdale is the growing Millennial population - defined as those born between 1980 and 1996 (or 18 to 34 at the time this report was written). Roughly one fifth of the Corridor and Fort Lauderdale's population is Millennials. It has been found that Millennials have more propensity to use transit and bicycle, compared to other population groups.

## Corridor residents have higher than average educational attainment levels but lower than median wages.

Seventy-two percent of study area residents have at least some college education, and 53% of residents living in the corridor study area have a college degree. City-wide, only 41% have a college degree. Despite high education levels, the median wage of working age corridor residents is \$42,000 versus \$58,000 city-wide. Most research finds that income-levels are closely correlated to transportation behavior - lower income people being more likely to walk, bike, and/or use public transit.

## A higher than average percentage of corridor residents are walking and bicycling to work.

In the study area, 12% of residents walk, bike, or take transit to work compared to 9% City-wide. This may be partially due to higher than average households without access to a vehicle. In Fort Lauderdale, 5% of households don't have access to a vehicle versus 10% of study area households. It may also be related to the relative short-distances residents are traveling to get to work; 67% of study area workers travel less than 10 miles for their commute compared to 51% of workers in Fort Lauderdale.

## DEMOGRAPHICS

88%  
WHITE

9%  
AFRICAN  
AMERICAN

1%  
ASIAN

12%  
HISPANIC

MEDIAN AGE: 44  
12% UNDER 18 | 22% 65+

POPULATION  
12,375

53%  
MEN

47%  
WOMEN



Figure 7 | Community Demographics

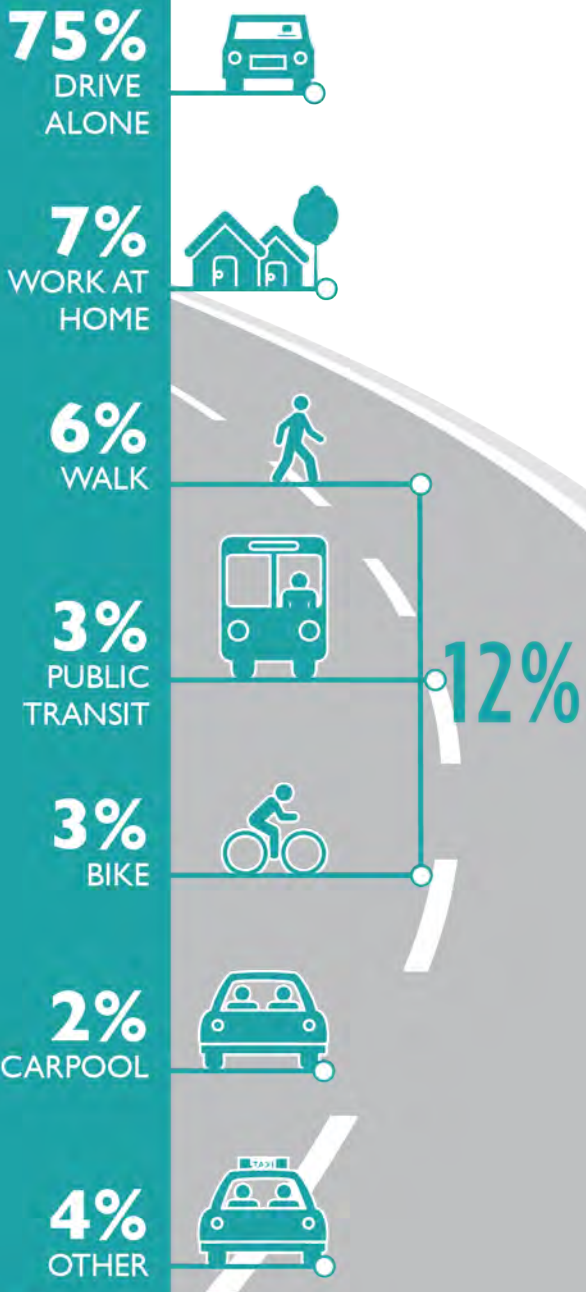
2009-2013 American Community Survey 5-Year Estimates

CAM 17-0409  
Exhibit 1  
Page 22 of 90

# ACCESS TO A VEHICLE



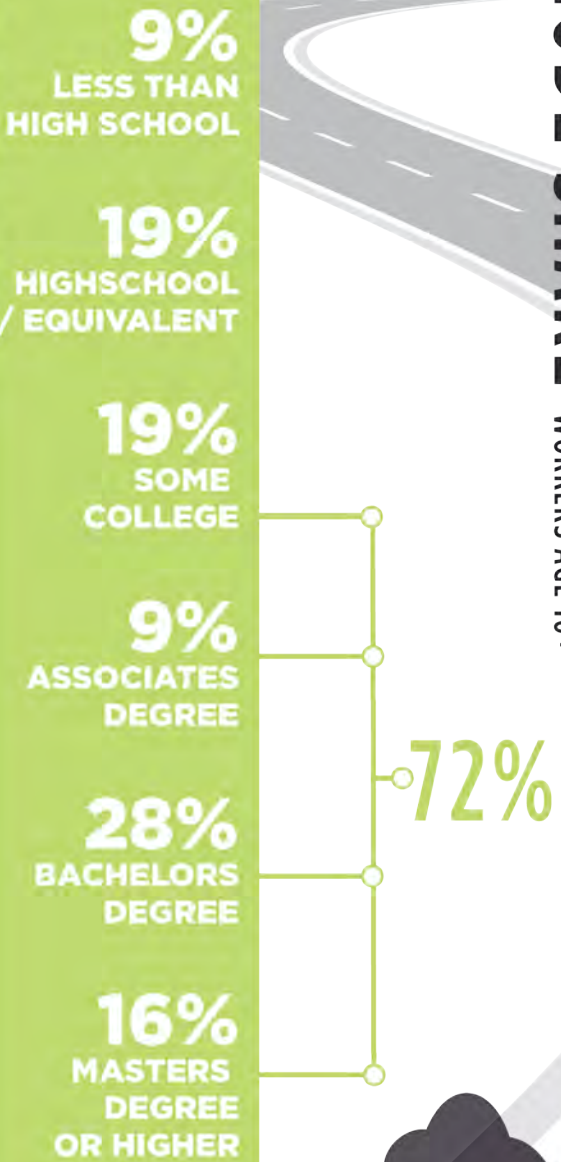
# COMMUTE DISTANCE



MEDIAN  
HOUSEHOLD  
INCOME \$42K

# MODE SHARE

WORKERS AGE 16+



# EDUCATION

AGE 25+



## Where People Work & Live

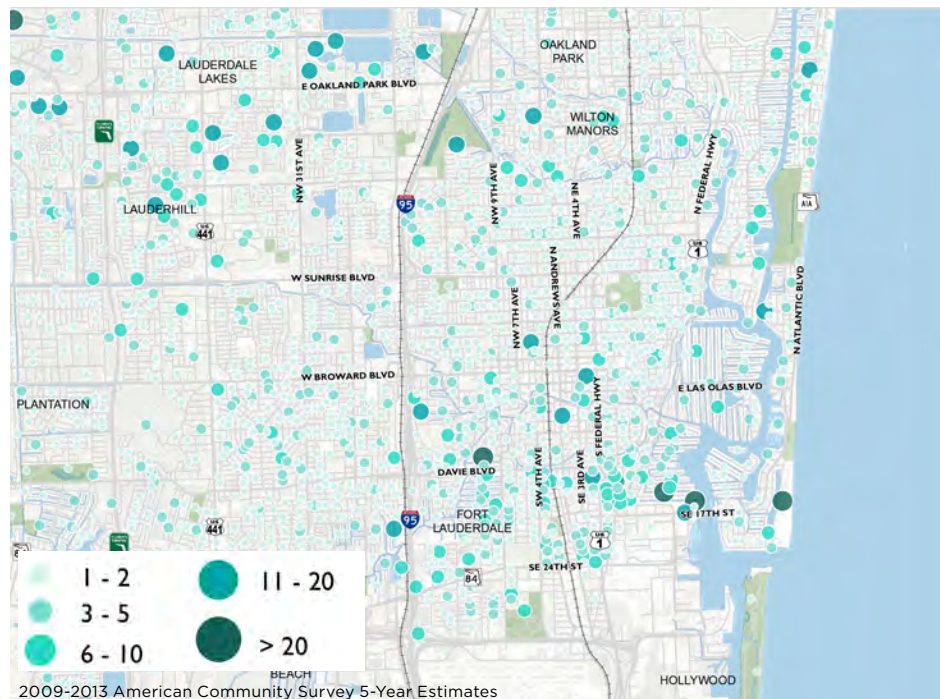
There are relatively short distances between where people live and work in the study area.

Over 16,000 people are employed in the study area and many of the people with jobs here live relatively close as well. Many of these workers are clustered in the downtown area and along 17th Street and US 1. Almost 28 percent of workers coming into the area live in Fort Lauderdale and 52% of people who work in the study area live within 10 miles (see Figure 8).

Similarly, many of the people living in the study area work nearby as well. 35% of study area residents work within the City of Fort Lauderdale and 67% of area residents work within 10 miles of their home (Figure 8 and Figure 9).

These relatively short distances between where people live and work presents a strong opportunity to enhance pedestrian, bicyclist, and transit infrastructure for local commuters because they are traveling short distances.

### Figure 8 | Work Locations of Study Area Residents



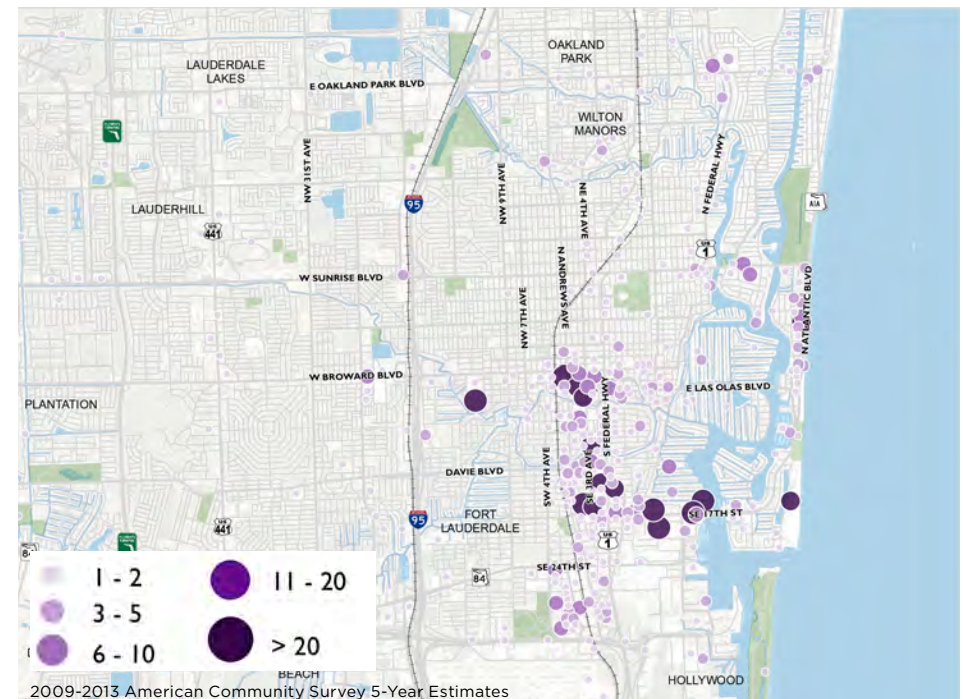
## Land Use

The 17th Street Corridor serves a variety of land uses.

Figure 10 shows the existing land use in the corridor at the parcel level. The parcels directly adjacent to major roadways including SE 17th Street, US 1, and S Andrews consist of predominantly commercial and mixed uses. Single and multi-family residential neighborhoods immediately abut these parcels in the neighborhoods beyond these roadways. Many of the single-family residential areas are located along highly sought after finger islands while others serve working-class households.

Notably, there are large swaths of industrial and institutional uses consisting of Port Everglades and the Cruise Ship terminal as well as industrial uses clustered along the Florida East Coast Rail line.

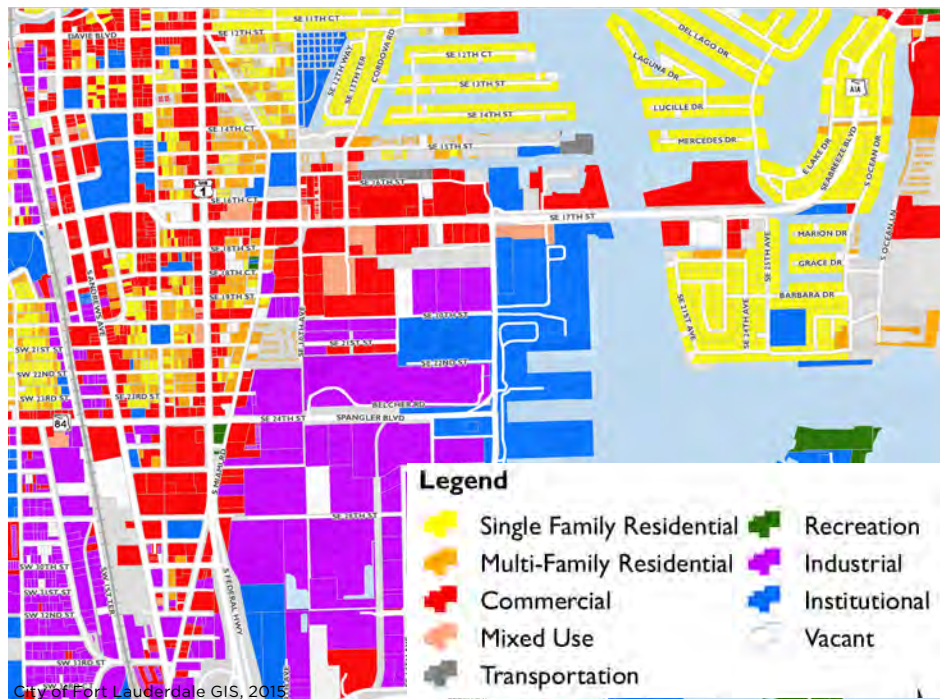
### Figure 9 | Home Locations of Study Area Employees



As the region grows and shapes a vision for the future, land uses will inevitably change in some areas.

Premium transit can support and catalyze development on parcels that are currently vacant or are considered “underutilized”, where the improvements on a parcel are much lower than the total value of the property. For this particular study, this threshold for a property being considered “underutilized” is where the ratio of the building value is worth 40 percent or less of the total property value (land + building). Vacant and underutilized parcels in areas of high land values are often more likely to experience development/redevelopment. Figure 11 illustrates the underutilized and vacant properties along the corridor where redevelopment can occur. Large concentrations of underutilized property can be seen towards the middle of SE 17th Street where shopping centers are located and to the north east of US 1 and Eller Drive.

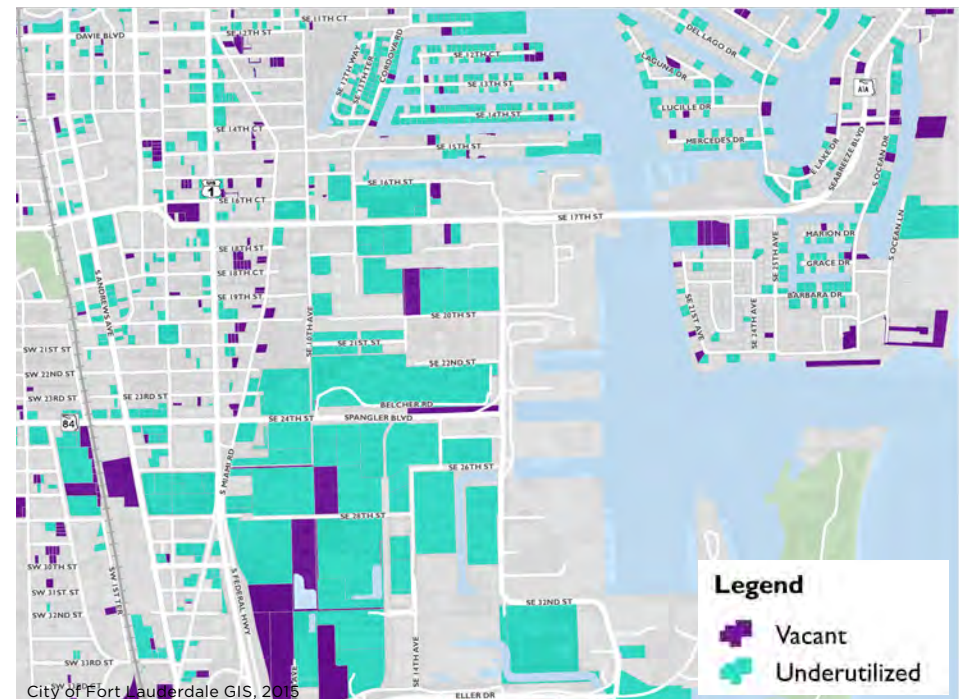
**Figure 10 | Existing Land Use**



New development has the opportunity to help improve mobility in the area.

New development is frequently occurring in the study area. Much of this development is higher density and mixed use in nature. This type of development can help to encourage people to walk and bike or take transit if the pedestrian and bicycle infrastructure is comfortable and convenient. As new development is proposed, the city also has the ability to work with the developers to determine impact fees that will help to improve the multimodal environment. While the city has tried to regularly do this, it has not always happened because new development must generate at least 1,000 vehicular trips to undergo this extra review.

**Figure 11 | Property Utilization**





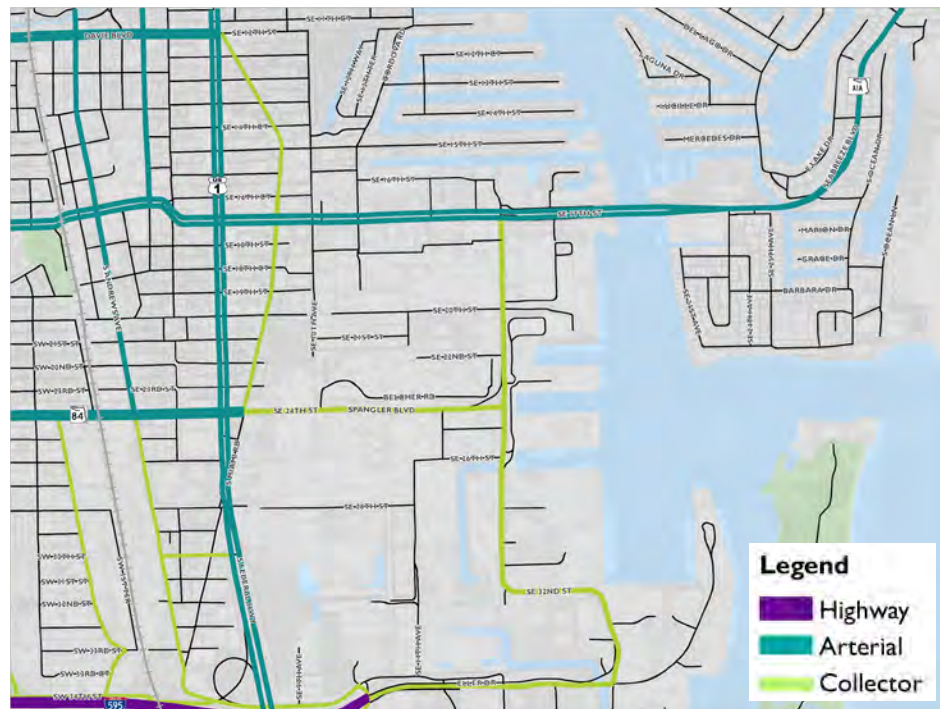
# Effective Street Network & Connectivity

## The lack of network connectivity forces SE 17th Street to serve conflicting needs.

SE 17th Street is a 6-lane, divided street with left- and right-turn lanes at most intersections. The street is owned by the Florida Department of Transportation (FDOT) and is classified as an urban minor arterial (see Figure 12). Based on the FDOT Functional Classification Handbook, “the arterial system serves the highest degree of through traffic movement and largest portion of total traffic.” However, it recognizes that minor arterials generally serve fewer trips and lower speeds than principal arterials. It notes that they are intended to serve longer trips but also to distribute traffic to smaller geographic areas and that they provide more direct access than principal arterials without penetrating identifiable neighborhoods.

SE 17th Street provides the only direct connection to the beach for miles and connects to a number of regional destinations as discussed

**Figure 12 | Street Network and Role**

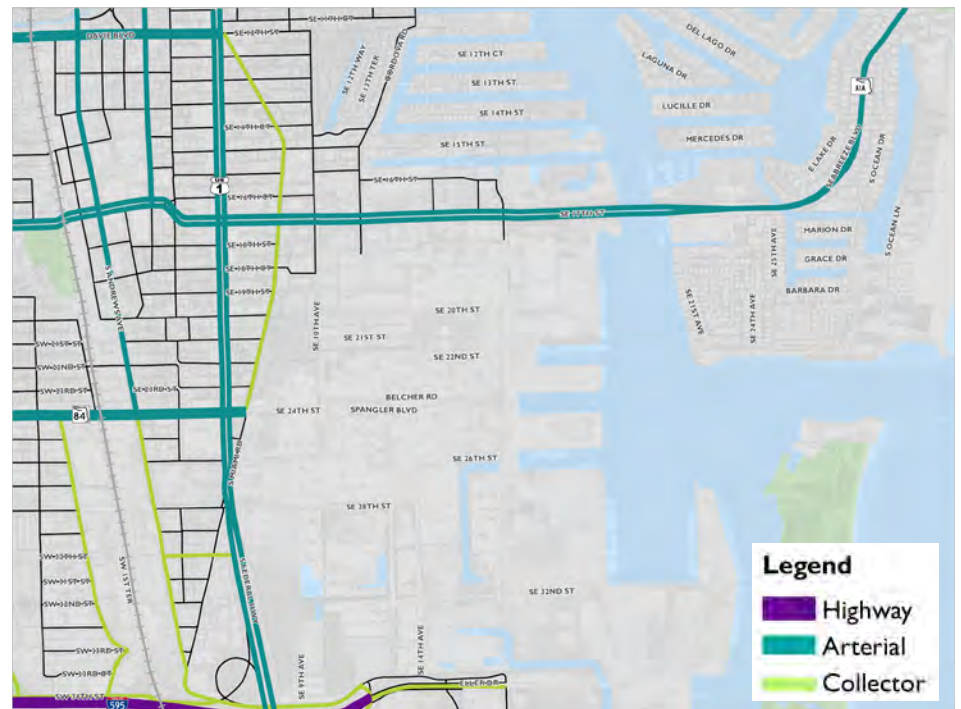


earlier. These characteristics support the urban minor arterial classification. SE 17th Street is a regional roadway, and that mobility must be preserved.

The backbone of the Study Corridor, its roadway network, is uniquely challenged. While mostly gridded, which should allow for greater accessibility, there are large areas where the road network is effectively non-functional for most users (see Figure 13). This is largely due to restricted access in Port Everglades, but not entirely. The disconnected street network and lack of alternate routes forces it to also serve some of the functions of an urban major collector, which are designed for travel at lower speeds and for shorter distances. They provide direct property access and traffic circulation in higher density residential neighborhoods and commercial and industrial areas. Collectors also tend to serve as main routes for pedestrians and bicyclists, while arterials serve more auto-oriented uses.

Many of the local roads are dead ends, serving only homes and other destinations located along them. There are also intersections that are disconnected including Miami Road at SE 24th Street and SE 17th Street

**Figure 13 | Effective Street Network**

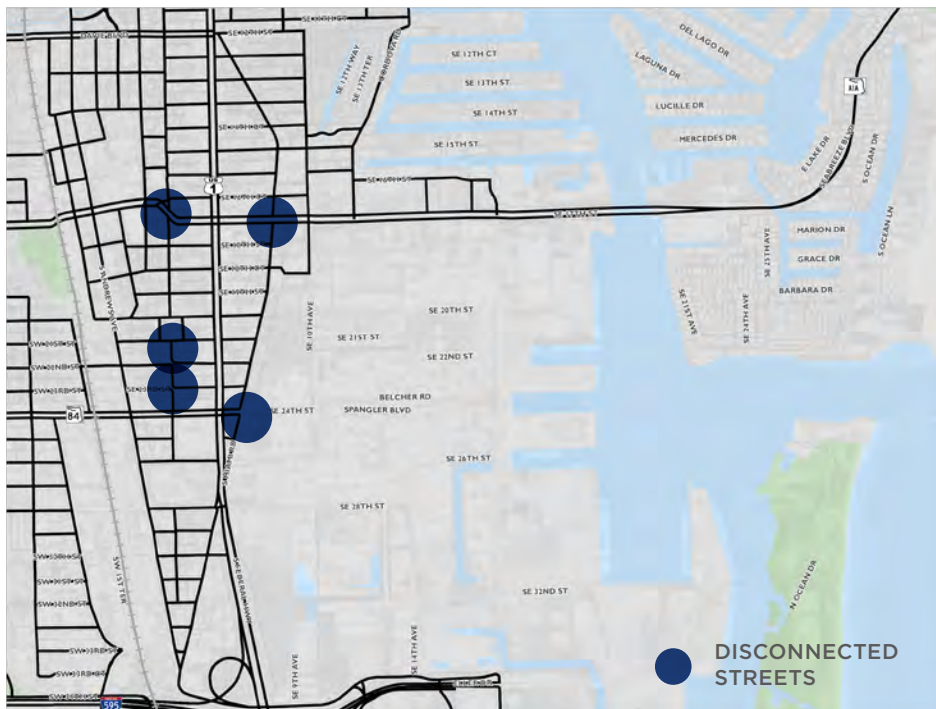


as well as SE 4th Avenue at SE 23rd Street, SE 24th Street and SE 17th Street as shown in Figure 14.

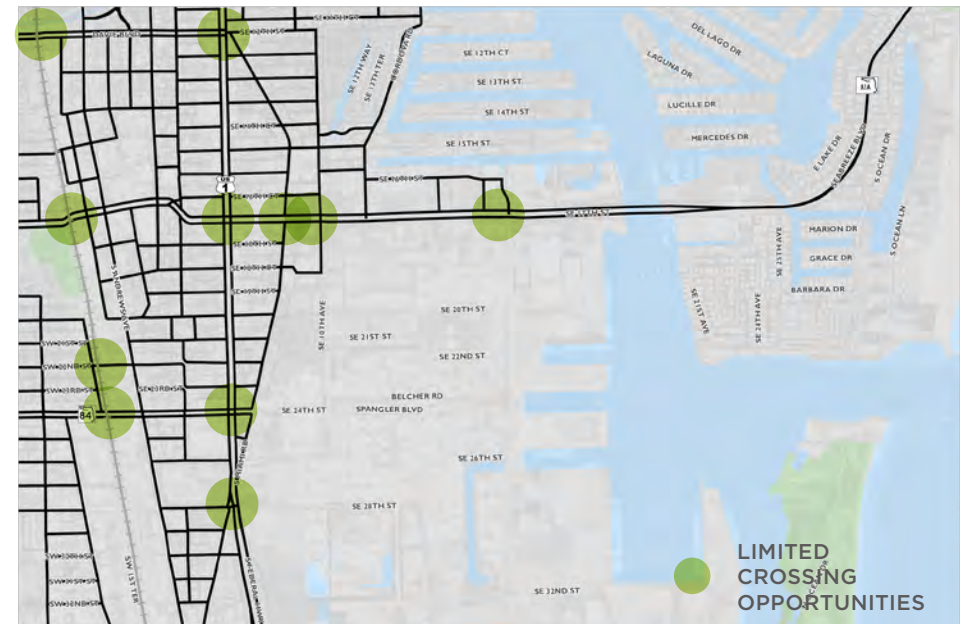
Along SE 17th Street, US 1 and the Florida East Coast Rail line there are very few marked crossing opportunities for pedestrians as highlighted in Figure 15. From Eisenhower Boulevard (where the Convention Center, a large hotel, and multi-family condos are located) there is a gap of .4 miles or an 8-minute walk until pedestrians have access to the next marked crosswalk at Cordova Road. Similarly, someone walking south from SE 17th Street on US 1 would need to walk .5 miles until the next marked crossing at SE 24th Street.

Figure 16 also highlights the limited parallel connectivity, which places a greater burden on north / south streets such as South Andrews and US 1 than may be necessary. Improvements to the roadway network within and around the Corridor for local and regional mobility could help address vehicular demand on congested sections of US 1 and SE 17th Street, while still maintaining the character of the study area neighborhoods.

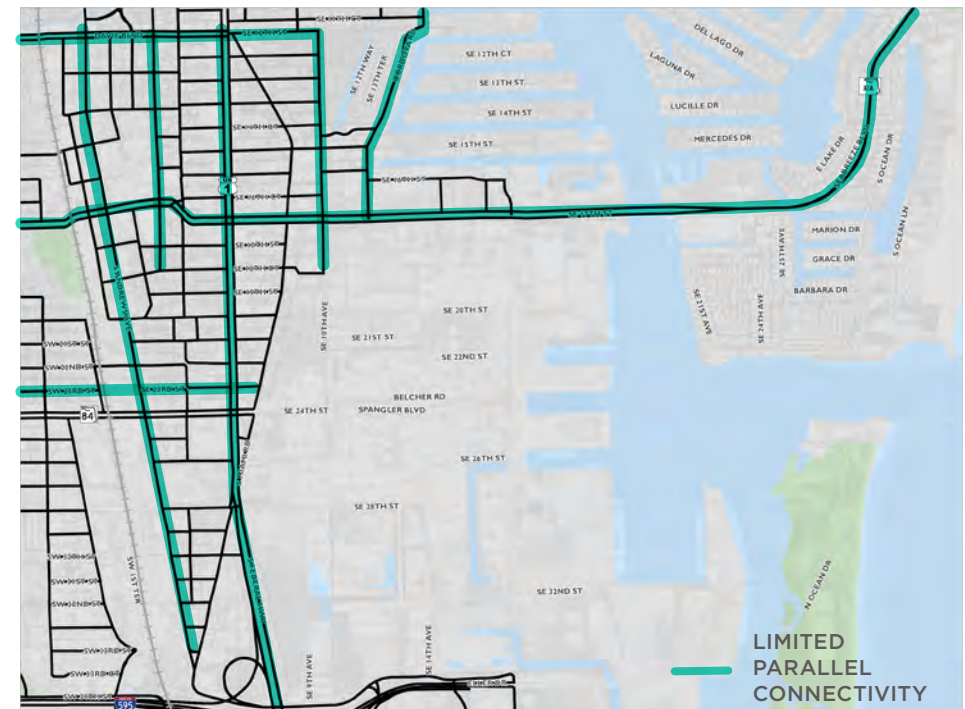
**Figure 14 | Disconnected Streets**



**Figure 15 | Limited Crossing Opportunities**



**Figure 16 | Limited Parallel Connectivity**



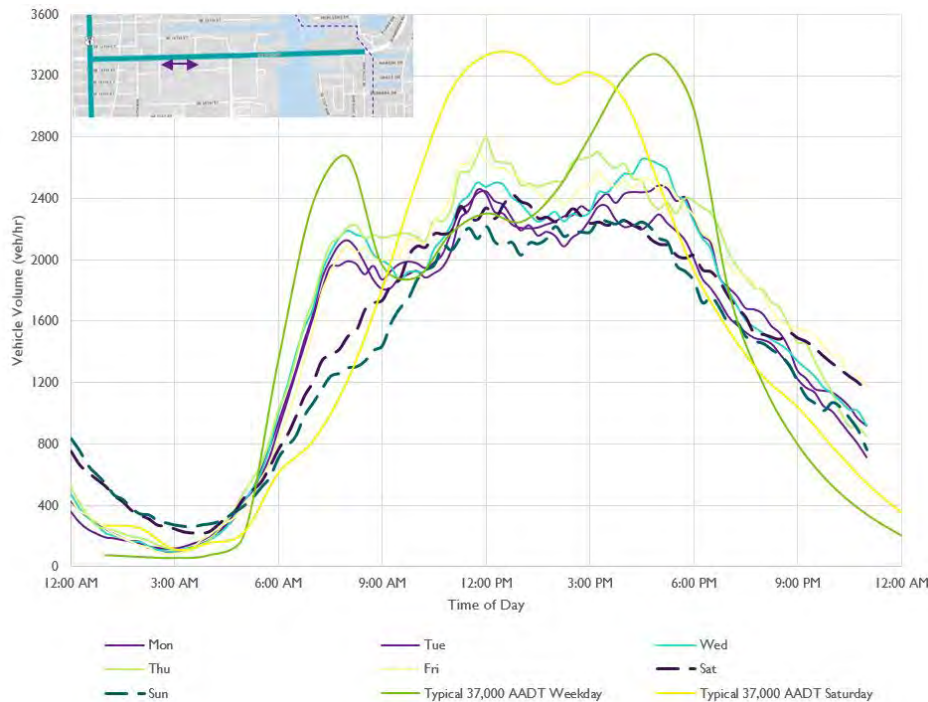


# Motorists

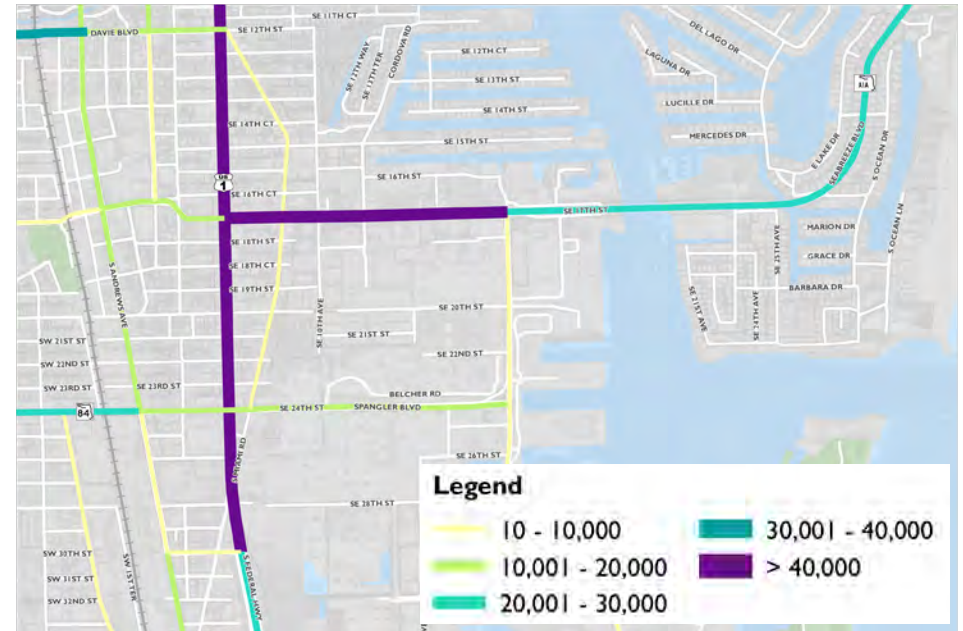
## SE 17th Street facilitates heavy vehicular traffic throughout the day.

In order to determine the extent to which congestion affects east-west mobility along the corridor, traffic volumes throughout the day were collected. Figure 17 shows that SE 17th Street facilitates approximately 40,000 to 50,000 vehicles per day between US 1 and Eisenhower Boulevard. East of Eisenhower, traffic volumes drop to around 28,500 vehicles per day. West of US 1, there is also a drop to around 12,000 vehicles per day. Although the roadway capacity (i.e., number of lanes) varies, this suggests that the traffic between US 1 and Eisenhower Boulevard is not all regional in nature. Rather, drivers may be adding to the congestion on SE 17th Street by using the corridor to access to the local destinations that might be better served by local streets. Typically, most streets experience pronounced peaking of traffic volumes during the morning and evening peak times. However, as shown in Figure 18 and Figure 19, SE 17th Street experiences a peak period that lasts from around 8:00 AM to around 6:00 PM. Events at the beach, convention center, port, and other venues can impact traffic volumes and congestion.

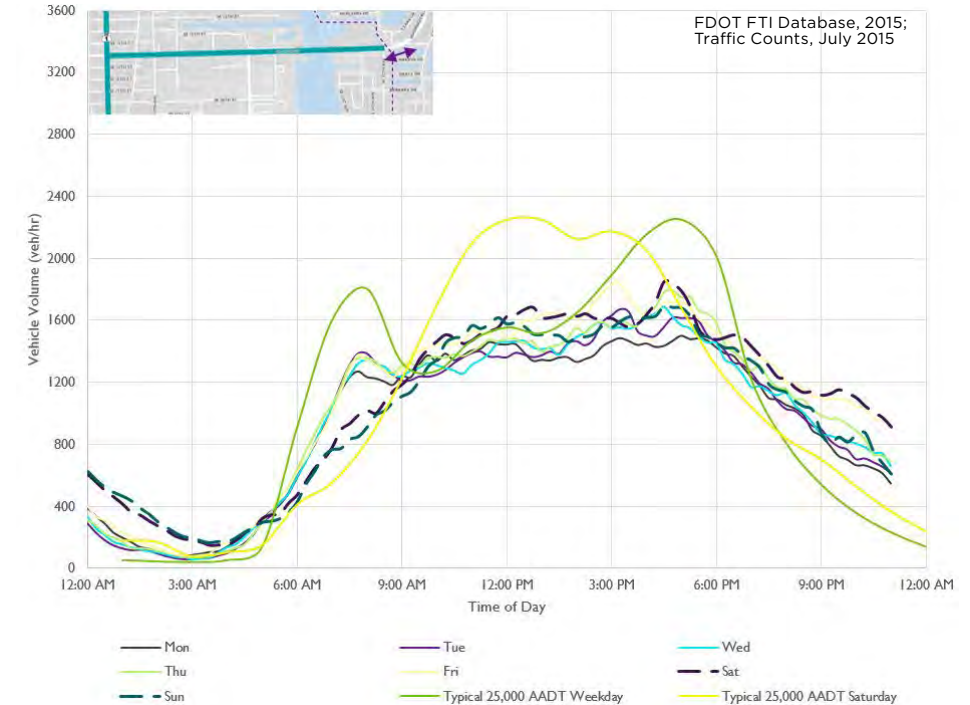
**Figure 18 | Hourly Traffic Volumes Between Cordova Street and SE 15th Avenue**



**Figure 17 | Annual Average Daily Traffic**



**Figure 19 | Hourly Traffic Volumes Between Harbour Inlet Drive and Mayan Drive**



### Volumes along SE 17th Street have not fluctuated much.

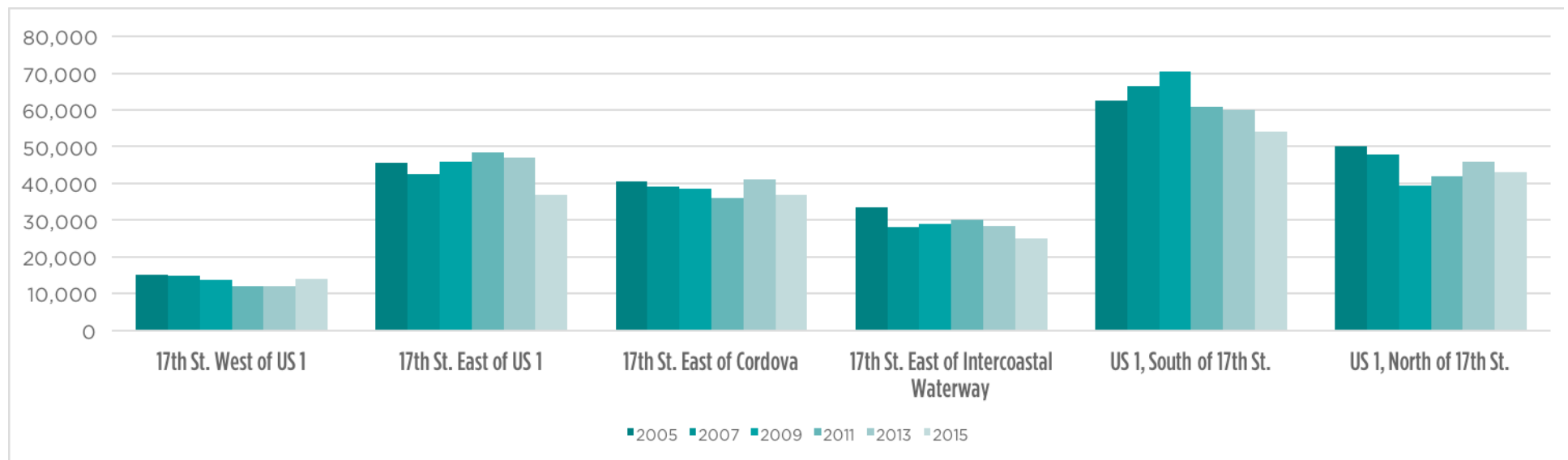
As seen in the historical Average Annual Daily Traffic shown in Figure 20, traffic volumes along SE 17th Street in the past 10 years have been sporadic and decreasing over time in some areas. This has happened during a time when Fort Lauderdale's population grew by 26% (from 141,307 to 178,587 according to American Community Survey Estimates). This demonstrates that, although Fort Lauderdale's population is projected for continued growth, the traffic along the Corridor may not respond in a similar manner.

Similar data was also analyzed for US 1 (shown in Figure 20). As on SE 17th Street, traffic volumes have remained steady or decreased in the last 10 years. Again, this occurred when Fort Lauderdale experienced a population growth of 26%, further demonstrating that population increase may not lend to a proportional increase in traffic. This is especially true as the City continues to provide greater mobility options.

### There remains a strong desire among stakeholders to maintain an acceptable level of vehicular mobility.

SE 17th Street is a gateway to the beach and the first place many visitors experience. The corridor currently serves and will continue to serve multimodal trips for local residents and workers as well as tourists and visitors. Stakeholders expressed that any potential improvements to SE 17th Street should consider the safe and efficient movement of vehicular traffic in and around the area.

**Figure 20 |** Historic Traffic Volumes



## Drivers are exceeding the speed limit in many areas along the corridor.

The posted speed limit along SE 17th Street is 35 miles per hour. However, as shown in Figure 21, the prevailing speed of drivers exceeded 40 and even 45 miles per hour in some locations. A similar problem occurs along US 1, where drivers are exceeding the speed limit as well. This suggests that the roads are designed in such a way that makes drivers feel comfortable exceeding the speed limit. Wide travel lanes, development spaced far from the street, and lack of landscaping to provide a sense of enclosure are some factors that can facilitate this. While the wide lanes and additional turn lanes along both roads can help to facilitate higher volumes of traffic, they can propose problems to pedestrians and bicyclists because of the higher speeds.

## Traffic congestion is an issue along SE 17th Street.

The traffic volumes and level of service (LOS) were analyzed to gain a better understanding of how congestion affects mobility in the study area. The results are displayed in Figure 22 and Figure 23. The FDOT level of service (LOS) standard on urban state roadways is LOS D, for analysis of segments and intersection approaches along the State Highway System.

In general, the segment analysis shows that there are significant variations in LOS from segment to segment along the corridor. There are also several intersections that are over capacity. This is particularly an issue on SE 17th Street between US 1 and Eisenhower Boulevard and on US 1 south of SE 17th Street. In general, the intersection of US 1 and SE 17th Street is a bottleneck and can cause traffic to back up along SE 17th Street. Furthermore, southbound traffic congestion can prevent vehicles from turning on to US 1, which can exacerbate traffic on SE 17th Street. These issues are worse in the afternoon than in the morning, with much of the traffic headed south.

**Figure 21 | Posted and Observed Vehicular Speeds**

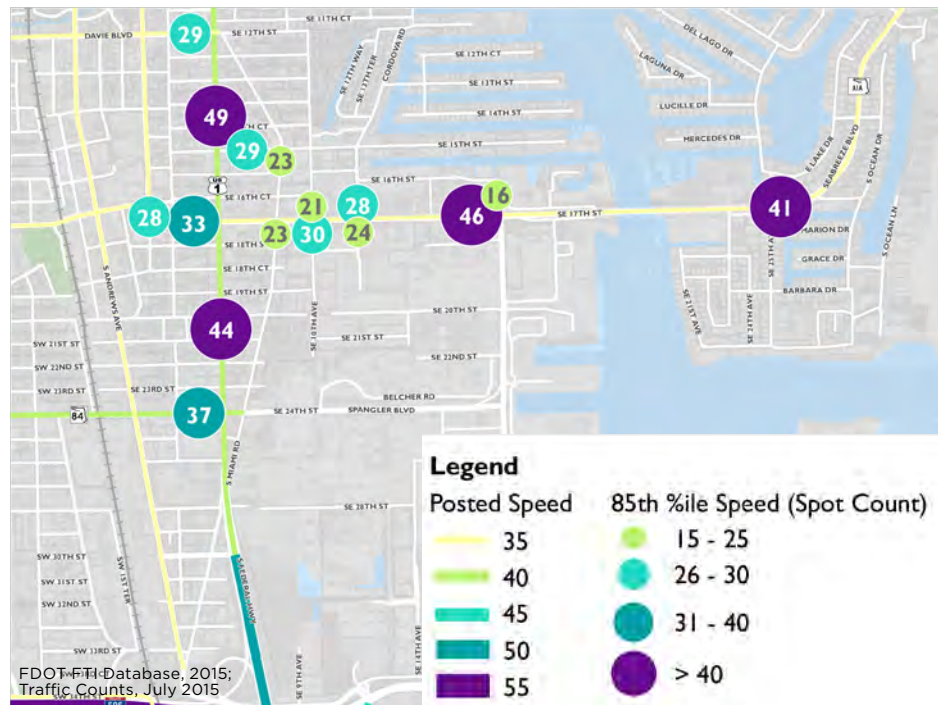




Figure 22 | Segment Level of Service (Auto) AM Peak Hour

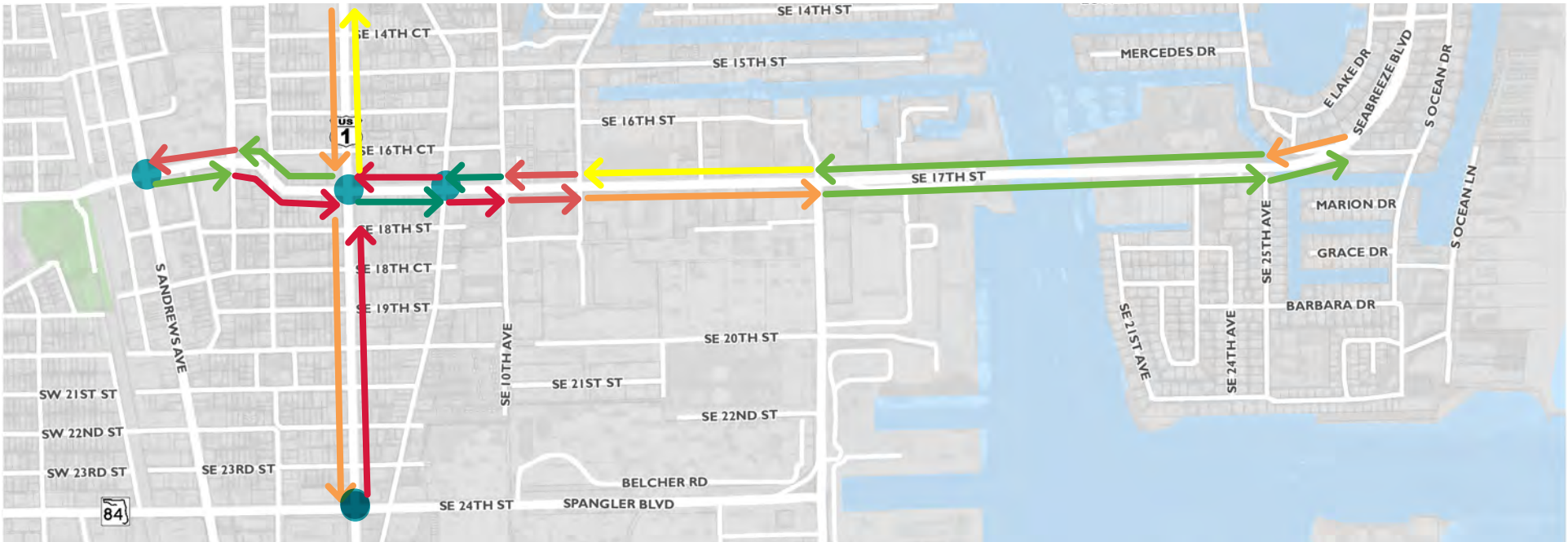
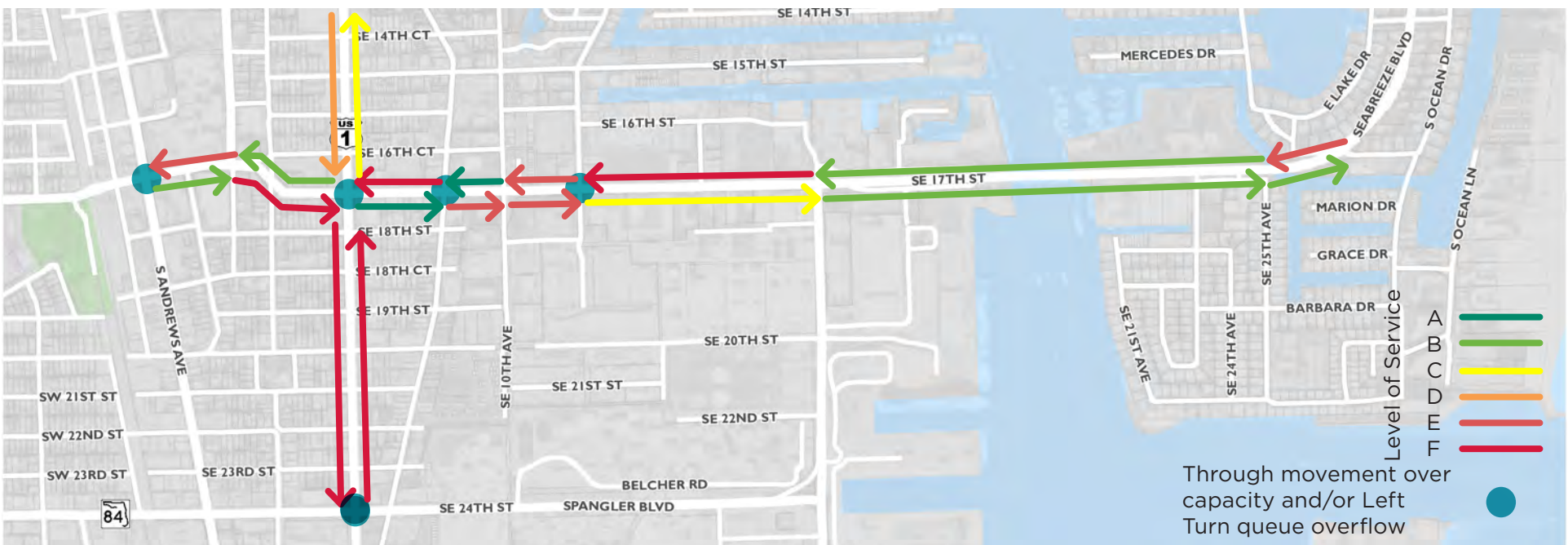


Figure 23 | Segment Level of Service (Auto) PM Peak Hour



# Pedestrians & Bicyclists

There is a clear desire and need to improve pedestrian accessibility, connectivity, and comfort along the Corridor and on surrounding streets.

As previously noted, crossing opportunities along the Corridor are extremely limited; there are large gaps between marked crossings including sections that are as long as .4 and .2 miles or 8- and 4-minute walks. Similarly, limited crossing facilities are in place for users trying to cross US 1 as well as on Cordova Road (particularly from SE 15th Street to SE 17th Street).

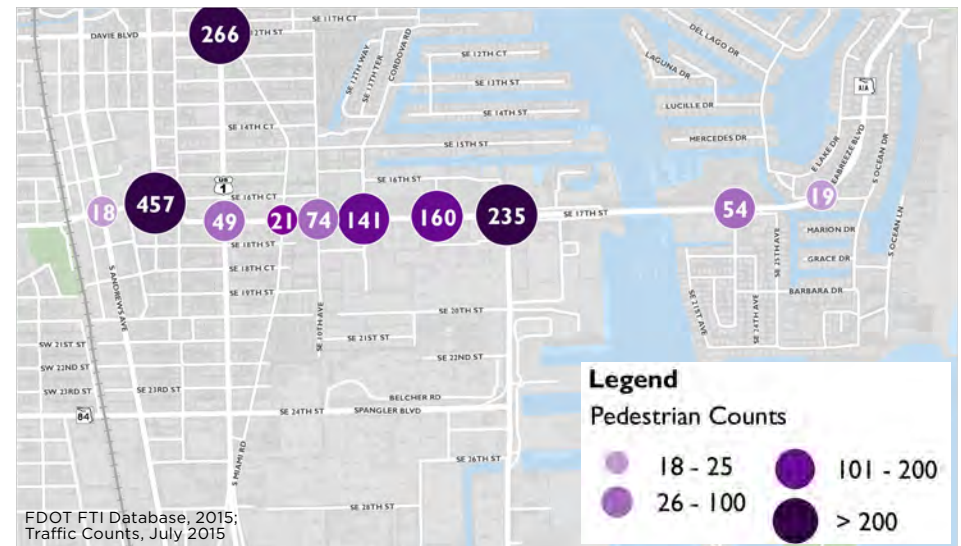
During community meetings and PAWG workshops, stakeholders noted that crossing facilities along the Corridor are poor, have long wait times, confusing signage and ADA compliance issues. Sidewalks are often narrow and lacking connectivity. Additionally, there is a notable lack of comfort elements including shade, lighting, and seating.

Despite limited accessibility, connectivity and comfort for pedestrians, there are still high levels of foot traffic. During peak periods in July, over 1,000 pedestrians were observed crossing at intersections along SE 17th Street between Eisenhower Boulevard and Andrews Avenue with especially high concentrations at both Andrews Avenue and Eisenhower Boulevard. Pedestrian activity is also high at US 1 and Davie Boulevard where during peak periods over 265 pedestrians were observed crossing (see Figure 24).

Many of these pedestrians accept small gaps to dash across the 6-lanes of traffic at unmarked intersections. For example, as shown in Figure 24 and the image to the right, 160 pedestrians crossed at SE 17th Street and SE 15th Avenue where no crossing facilities or traffic signal are in place across the 6-lanes. In order to address this, a new signaled crossing is being installed at that location.

As observed through field reviews, input from Corridor stakeholders, and pedestrian count data collected, pedestrian connectivity, accessibility, and comfort are very important concerns to address in the SE 17th Street study area.

**Figure 24 | Pedestrian Counts**





There is a clear desire and need to improve bicycle accessibility, connectivity, and comfort along the Corridor and on surrounding streets.

During peak periods in July, over 60 cyclists were observed at intersections along SE 17th Street between Andrews Avenue and Mayan Drive (see Figure 25). These numbers are considerably lower than the corresponding pedestrian counts. This could be correlated to a shortage of bicycle facilities. Throughout the entire study area, there are only two segments of designated bike lanes (see Figure 26). These segments are not connected to each other or any other bike facilities. The section on SE 17th street consists of 1.25 miles of unprotected 5-foot lanes (4 feet with 1 foot of gutter) which just meets the minimum accepted standards.

At the first public meeting, the most frequent comment related to pedestrian and bicycle issues was the need for a protected bicycle network that provides safe access to various destinations within the study area as well as connects cyclists to Downtown and the airport. Feedback from the public comment website also suggested that there is a clear desire and need to improve bicycle accessibility, connectivity, comfort and safety both along the Corridor as well as on surrounding streets.

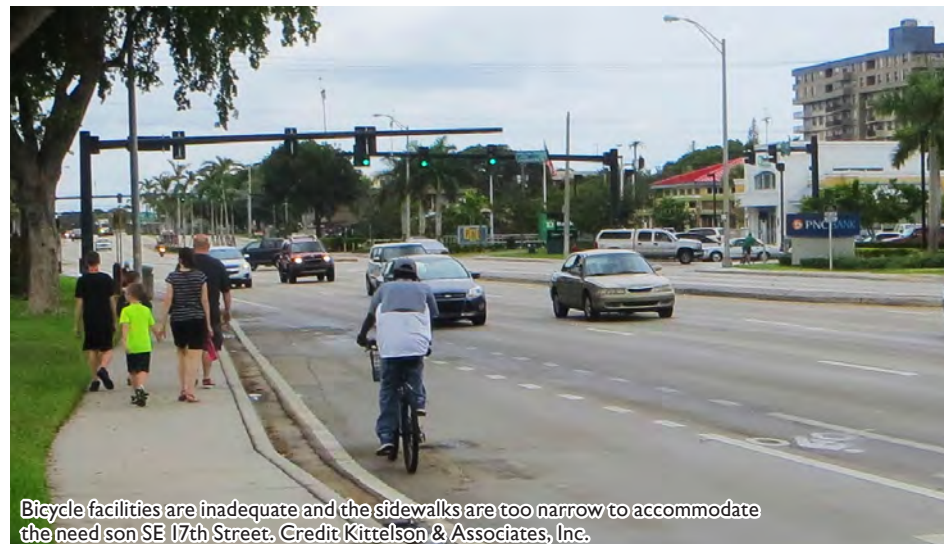


Figure 25 | Bicycle Counts

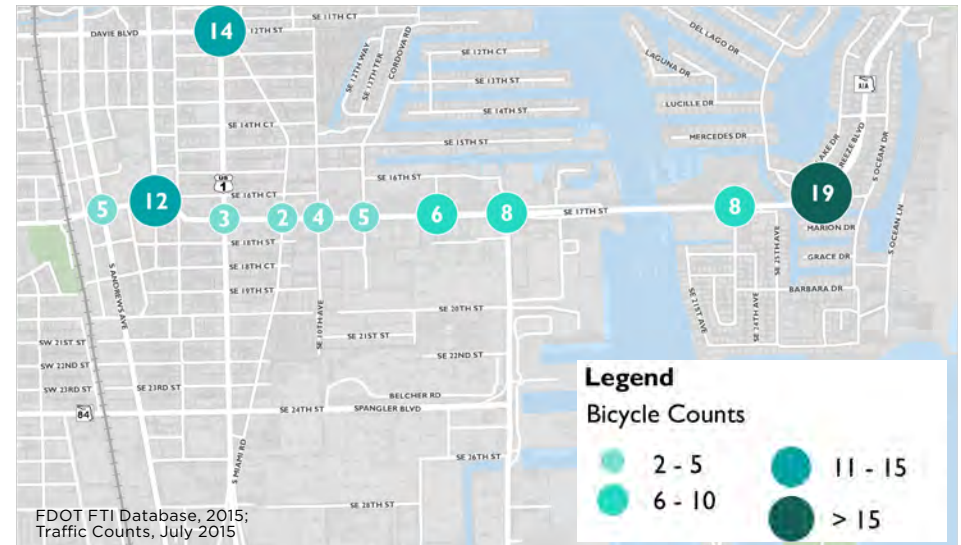
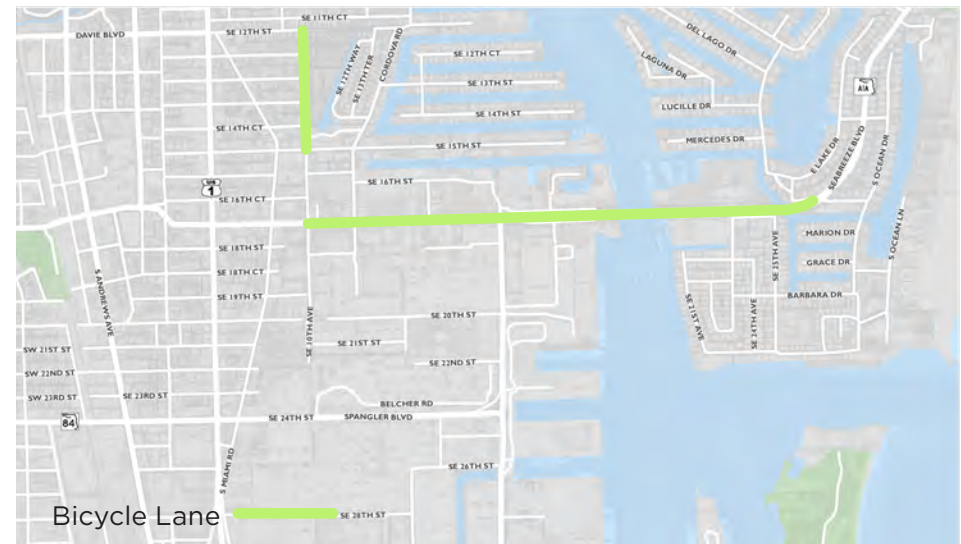


Figure 26 | Bike network





## Sidewalks along SE 17th Street are narrow and in need of repair.

While the sidewalks on the 17th Street Corridor and surrounding streets generally meet minimum standards of 5'-6', they are barely wide enough to accommodate pedestrians comfortably, particularly anyone with a stroller or using a wheelchair. This is exacerbated by street furniture, poles, and fire hydrants placed in the middle of the walkway. The sidewalks are also not buffered, placing pedestrians directly next to motorist traffic.

Community members frequently commented on the need for better designed and maintained pedestrian facilities including wider sidewalks, lighting, shading, crosswalk timing and crosswalk markings. Crossings on 17th Street and intersections on Cordova Road (particularly from 15th Street to 17th Street) are particularly problematic for pedestrians.



There are drainage issues and this bench in the sidewalk reduces the amount of usable sidewalk space. Credit Kittelson & Associates, Inc.



Narrow sidewalks do not accommodate families and other needs. Credit Kittelson & Associates, Inc.



Sidewalks immediately adjacent to the street can be uncomfortable to walk along. Credit Kittelson & Associates, Inc.





Objects frequently block the sidewalk.  
Credit Kittelson & Associates, Inc.



SE 17th Street serves many users with differing purposes.  
Credit Kittelson & Associates, Inc.



Lack of shade and narrow sidewalks make walking uncomfortable.  
Credit Kittelson & Associates, Inc.



Maintenance issues can cause trip hazards in the sidewalks.  
Credit Kittelson & Associates, Inc.



# Safety

The speed along SE 17th Street directly contributes to pedestrian comfort and safety.

Vehicle travel speed is a key factor contributing to pedestrian safety. 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.<sup>2</sup> This is directly related to a driver's cone of vision at varying speeds. As shown in Figure 27, a driver's fixation point at 40 mph and 30 mph is farther down the road (greater than 200') relative to slower speeds, decreasing chances that the driver will notice a crossing or waiting pedestrian.<sup>3</sup> As speeds decrease, the driver's nearer fixation point and increased cone of vision allows for better awareness of pedestrians and other vulnerable road users in the public right-of-way. As 17th Street is being asked to support more significant multimodal travel, the posted and operating speeds along the Corridor should be a focus of discussion.

The posted speed limit on the Corridor is 35 MPH however 85% of vehicles at the locations measured were between 33 MPH and 49 MPH. Many of these high speed locations are also areas of high pedestrian activity (see Figure 28). When people drive slower they

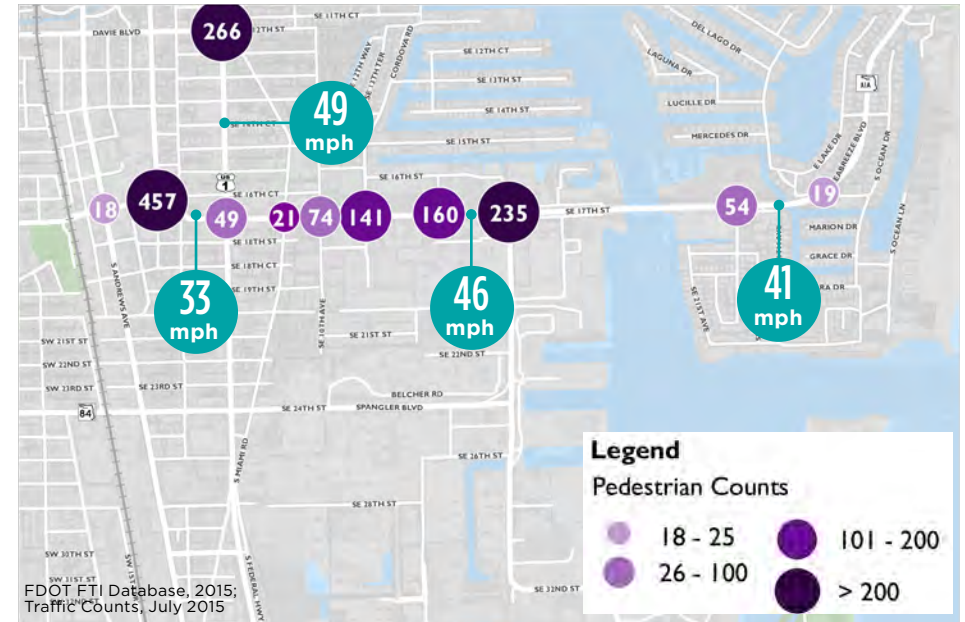
<sup>2</sup> United Kingdom Department of Transportation

<sup>3</sup> Hamilton, J.R. & Thurstone, L.R., 1937. Safe Driving: Human Limitations in Automobile Driving. Doubleday, Foran, and Company, Inc.

**Figure 27 | Driver's Cone of Vision by Travel Speed**



**Figure 28 | Vehicle Speeds Near Pedestrian Crossings**



are more likely to notice their surroundings. This can make the street safer for pedestrians and bicyclists while also providing an economic development benefit as people stop to go into stores and restaurants that might catch their eye.



There is a clear need to address safety for all roadway users to reduce crashes throughout the study area.

There are critical safety issues that need to be addressed on SE 17th Street. The corridor ranks in the top five corridors in the City when considering crashes per mile.

Figure 29 shows that between 2010 and 2015 there were over 2,600 crashes throughout the study area; 95% of these were vehicular, 3% were pedestrian and 2% were bicycle crashes. In all, 24% of the crashes resulted in injuries while 5 in total resulted in fatalities. Figure 30 shows that while pedestrian and bicycle crashes occurred throughout the study area, many were concentrated at the intersection of SE 17th Street and US 1, as well as along both SE 17th Street and US 1.

Reduction in crashes and safety for all roadway users is addressed through **Vision Zero Fort Lauderdale**, a response to citizens' concerns about safety for the traveling public, whether walking, biking, riding a bus or train, or driving a car. Vision Zero Fort Lauderdale incorporates the City's vision into specific objectives and strategies developed to achieve a zero fatality transportation network with the following guiding principles:

**Principle 1:** There is not an acceptable level of fatality or injury on our streets.

**Principle 2:** Traffic deaths and injuries are not accidents but preventable crashes.

**Principle 3:** The public should expect safe behavior on city streets and actively participate in efforts to make them safer.

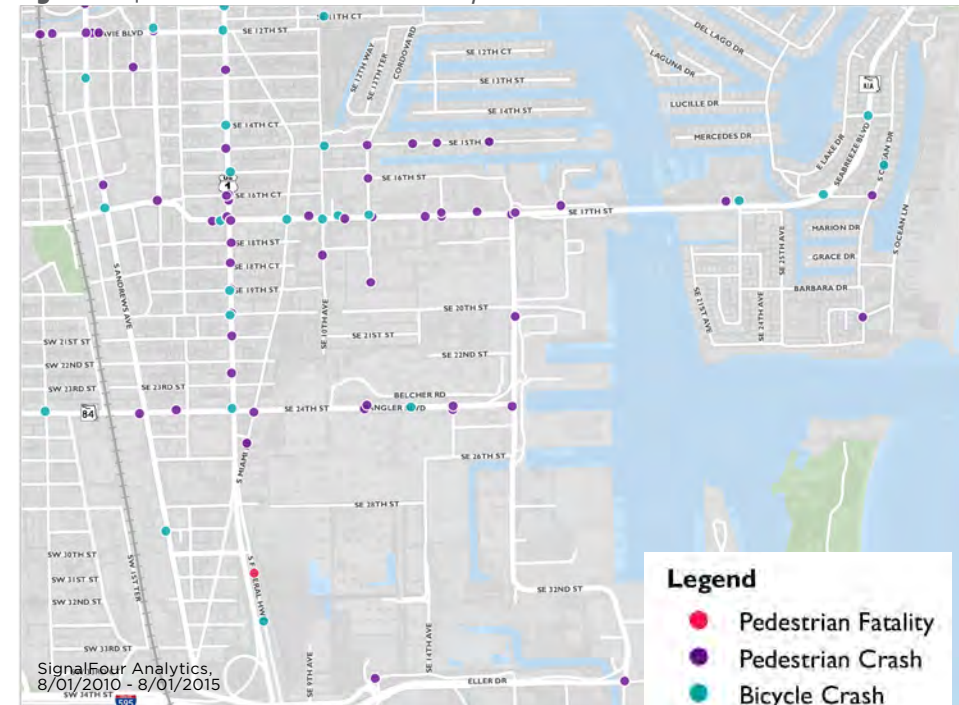


A number of comments at community engagement meetings were received regarding the safety of pedestrians and cyclists throughout the corridor. This further supports the need for better pedestrian and bicycle facilities.

**Figure 29** | 2010 - 2015 Study Area Crashes



**Figure 30** | 2010 - 2015 Pedestrian and Bicycle Crashes



# Transit

SE 17th Street is served by many transit options, and the options are expanding.

The study area is well served by transit. The routes and ridership information are shown in Figure 31. Five Broward County Transit (BCT) bus routes run in the area: Routes 01, 30, 40, 101, and 112 connecting the area to destinations like Downtown Fort Lauderdale, the Broward Central Terminal, the beach, the airport, and others. In addition to BCT service, Fort Lauderdale runs a local trolley service, the Sun Trolley. The Sun Trolley is a circulator bus service where riders can flag down buses anywhere along a route. It runs every 15 to 20 minutes, and connects riders to many destinations around the city.

All of the transit routes converge along SE 17th Street between Andrews Avenue and US 1. This becomes apparent when considering the BCT ridership data. The highest ridership in the area is in this segment, which is also a transfer point. This area also had some of the highest pedestrian counts in the study area.

In addition to bus service, there is also a B-Cycle station and several water taxi stops. B-Cycle is Fort Lauderdale's bicycle-sharing program. It is a membership-based service that allows members to buy an annual membership or pay a fee to pick up a bicycle at any B-Cycle station and drop it off later at any other B-Cycle station. The service is expanding, and it can help visitors and transit riders access Fort Lauderdale destinations without a car.

The Fort Lauderdale Water Taxi connects SE 17th Street to downtown, northern Fort Lauderdale, and Hollywood. Water Taxi service operates on a day-pass fare system. Winter service hours begin at 9:30 a.m. and end at 10:00 p.m., with roughly 75 minutes between service at most stops.

Finally, there is an ongoing study to extend the Wave, Fort Lauderdale's upcoming streetcar, along SE 17th Street and to the airport. The Wave Study is not complete, but the streetcar is intended to run along the SE 17th Street median in mixed traffic. It will provide another option for moving people in the area, further encouraging residents and visitors alike to choose to travel by modes other than a car.

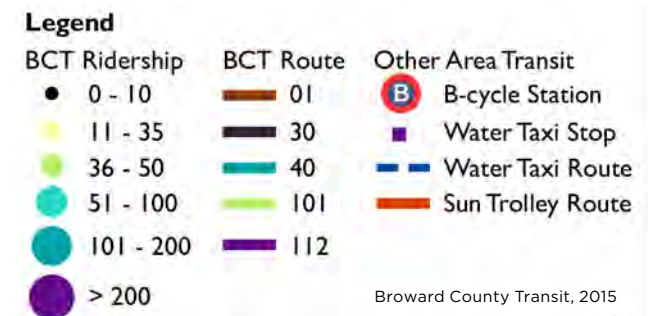
# Freight

There are freight delivery issues throughout the study area, including parking and circulation.

Overall, freight traffic does not comprise a large portion of the vehicular volumes along SE 17th Street. Historic FDOT data shows that "heavy vehicle traffic" makes up around 3-4% of the total traffic on a given day. Based on observations, these are mostly local freight deliveries to businesses, restaurants, and shops. While some port freight traffic might travel along SE 17th Street, the port has made significant efforts to direct that traffic along Eller Drive and SR 84.

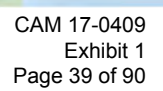
Even though freight does not make up a significant portion of the vehicular traffic in the study area, there are some issues noted by residents and business owners. Mainly, they noted that trucks sometimes park along side streets or in other locations that can block traffic.

**Figure 31 | Transit Routes & Ridership**



Broward County Transit, 2015







# Summary of Issues & Opportunities

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

## Context Synthesis

The existing conditions analysis, field review findings, and community outreach were layered to draw key findings and conclusions. The summary of major issues is graphically depicted in Figure 32. The issues that have been described throughout this chapter can be broken into six categories, as follows:

### Congestion

**Traffic and congestion was the number one issue identified by community members particularly on US 1 and SE 17th Street.**

### Inadequate Pedestrian & Bike Facilities

**Pedestrian and bicycle facilities are lacking in connectivity, safety features, and comfort.**

### Network Connectivity

**Lack of network connections forces traffic on to SE 17th Street, creating more congestion.**

### Access Management

**Encouraging business to provide better cross access could improve connectivity and congestion.**

### Traffic Calming

**Traffic calming is needed and desired by the community in residential areas.**

### Freight Drop Off Issues

**Local freight deliveries to businesses, restaurants, and shops sometimes block traffic**

**Figure 32 | Issues & Opportunities Synthesis**

#### Legend

Public Comment Summary

Ped/Bike Connectivity

Traffic Calming

Congestion

Access Management

Freight Drop Off Issues

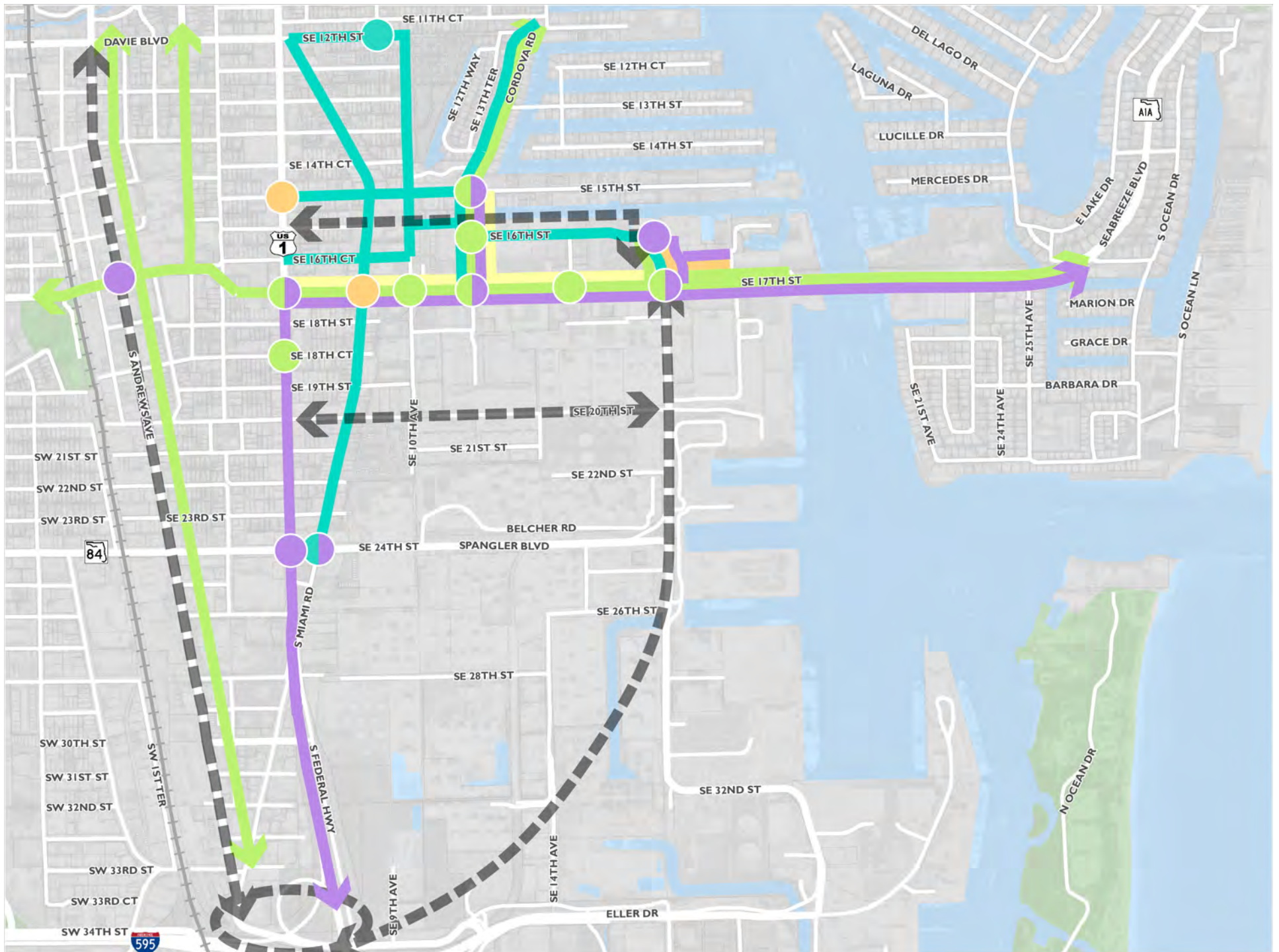
New Network Opportunities

Ped/Bike Connectivity

Traffic Calming

Congestion

New Signal









# **STUDY GOALS & RECOMMENDATIONS**

# Goals & Strategy Development

Based on the review of the previous plans and studies; case studies; the existing and future conditions analysis; and discussions with the PAWG and the public, five goals were created to guide the strategy development. Strategies were then developed to address the issues identified. Each strategy aims to improve the multimodal environment in and around SE 17th Street. The strategies were grouped into four

major categories based on the issues they address. The relationship of the strategies to the issue types and project goals is displayed below, along with a high level gauge of the volume of public input received for each strategy type. The following section begins with key study recommendations, continues a graphic depiction of all of the strategies developed, and includes supporting examples and definitions where

## Category

### Pedestrian, Bicycle, Transit, & Complete Streets

These strategies aim to improve the walking, bicycling, and transit environment and create Complete Streets. They include network changes; upgrades to facilities; new mobility options; and improvements to safety and comfort.

### Network & Access Management

These strategies include changes to the street network and roadway. Network strategies aim to provide safe alternative routes to local destinations. Access management strategies look at improving safety and mobility through changes to driveways and turning movements.

### Vehicular Operations

These strategies aim to improve driving and traffic. They include modifying traffic signals to create more efficient movements and better facilitating movement in and out of the area.

### Wayfinding, Policy & Other Strategies

These strategies support the transportation improvements. Land use changes can encourage development that is better for walking, bicycling, and transit. Policy and Wayfinding help to change how people navigate the area.



## Project Goals

### Preserve & Enhance the Existing Neighborhood

Match improvements made in the area with the character of the surrounding neighborhoods and the vision of the city and the community. Existing neighborhood character should be preserved or enhanced by the solutions.

### Balance Mobility Needs

Create a transportation system that balances the needs of all users and activities found along the corridor. Improve multi-modal mobility & access to local destinations while continuing to accommodate through traffic.

### Improve Multimodal Safety & Comfort

Improvements should help to increase the level of safety for all users and all modes of travel.

### Develop District Identity

Develop a more coherent and cohesive identity for the area that will help to make it a recognizable place for residents and visitors and improve its status as a regional destination.

### Be Economically, Socially, & Environmentally Sustainable

Changes to the corridor should help to support the vitality and sustainability of the area for businesses, employees, and residents.

CAM 17-0409

Exhibit 1

Page 44 of 90

# Key Recommendations to Move us Forward

appropriate. It is organized based on the major categories and includes descriptions of the types of issues addressed. For more information, including details of each strategy, time frames, feasibility, next steps, benefits, issues, lead agencies, and coordination partners, please see the **APPENDIX**.

Many of the recommendations from the SE 17th Street Mobility Plan can be completed separately and will create small improvements. However, there are a few key recommendations that can help to significantly change the corridor. They are described on the next three pages.

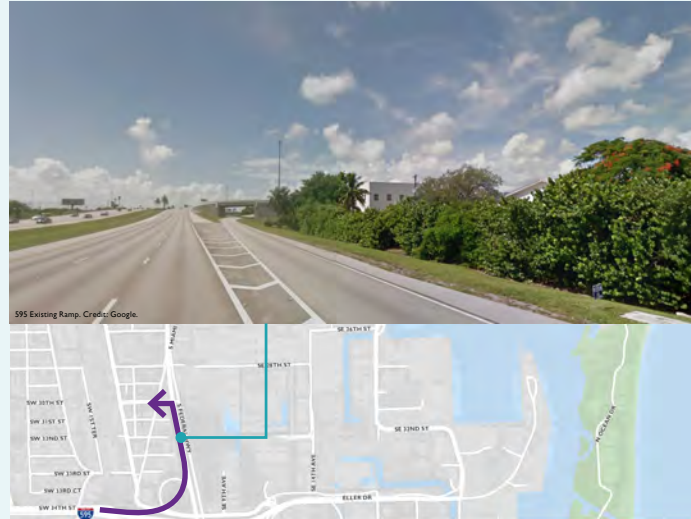
## 595 On-ramp Widening Study

Key issues noted by neighbors & study team:

- The exiting ramp to 595 only has one lane
- Traffic backs up on Federal Highway to SE 17th Street

Solution:

- Based on concerns raised in this study, FDOT initiated a study to assess the potential to widen the ramp to two lanes
- Initial findings show that widening is feasible and will help to address ramp-related congestion



## Development Review Changes

Key issues noted by neighbors & study team:

- Development review (in some cases) did not address impact of new development
- Money may not be spent directly on or around 17th Street

Solution:

- Reduce the threshold for the requirement of traffic studies related to development projects.
- Identify policy changes needed to ensure that any fee collected from development related traffic studies are used in the influence area of the development





# Key Recommendations to Move us Forward, Continued

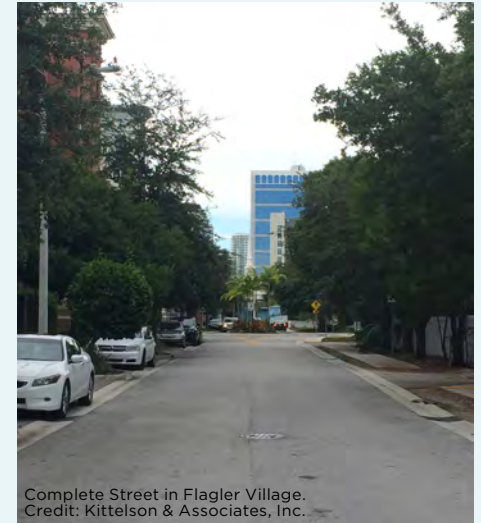
## Local Connectivity Improvements

Key issues noted by neighbors & study team:

- Local traffic is forced to use SE 17th Street for most trips due to lack of street connectivity

Solution:

- Determine routes that can be used to improve local connectivity around the 17th Street area
- Design and construct complete street treatments on the identified routes
- Include traffic calming treatments to maintain low speeds and volumes on local streets



## Walking & Bicycling Path Along SE 17th Street

Key issues noted by neighbors & study team:

- Bicycling in the street is not safe
- Bicyclists & pedestrians do not fit on the sidewalk
- The sidewalk is not wide enough for the volume of pedestrians

Solution:

- Work with businesses to gain approval to create separate walking and bicycling paths with landscaping in existing 20' buffer
- May be completed through the Wave Streetcar Extension Project or other new development and projects

### Before

Development set far from sidewalk  
Lights focused on streets

Lacks Shade

Bike lanes are narrow with no separation from traffic

No separation between sidewalk and street



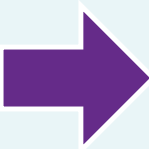
### Phase I

Pedestrian focused lighting

Trees provide shade

Separate, comfortable space for bicyclists and pedestrians

Bicyclists can travel in both directions



## Wayfinding Signage

Key issues noted by neighbors & study team:

- Current signage does not encourage drivers to take optimal routes to destinations

Solution:

- Better sign Andrews and 3rd as routes to Downtown and Las Olas
- Better sign SR 84 & Eller Drive as access to Port
- Better sign SE 10th Ave as access to Harbor Shops

## Event Management Plan

Key issues noted by neighbors & study team:

- Major events at the Port, Convention Center, Beach, and other 17th Street destinations can disrupt traffic in the study area
- Residents are not always informed of traffic impacts from events

Solution:

- Develop a process to notify residents of events that will impact SE 17th Street & ensure traffic management plans are created and implemented

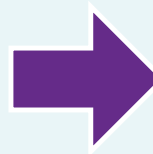


### Phase II

Permit mixed uses that provide a range of apartments, retail, and office

Development fronts the street and provides direct access

Space provided for sidewalk dining

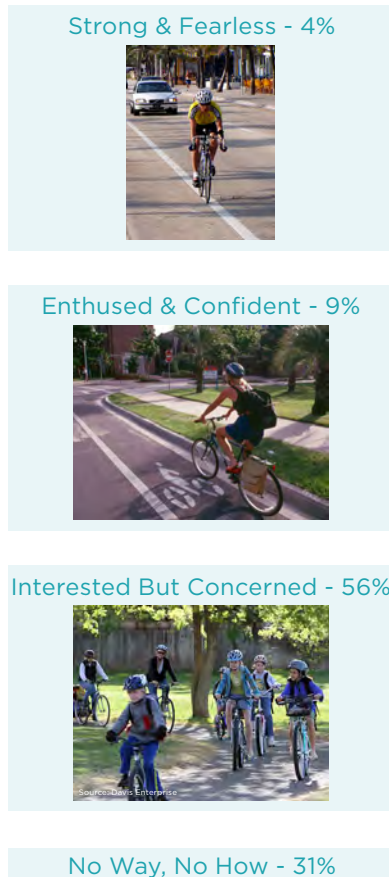




# Pedestrian, Bicycle, Transit, & Complete Streets Projects

## Potential Bicycle Treatment Types

### Types of Cyclists



### Types of Bicycle Facilities



## Complete Streets Improvements

### What Are Complete Streets?

"A street where the entire right-of-way is planned, designed, and operated for all modes of transportation and all users regardless of age or ability."

-National Complete Streets Coalition

### Who are the Users?

- Pedestrians
- Bicyclists
- Transit riders
- Motorists

of all ages  
and abilities

### Why Complete Streets?

- They're safer
- They're healthier
- They accommodate everyone
- They're equitable
- They stimulate the economy
- They're sustainable
- They're adaptable
- They operate better

### What do Complete Streets Look Like?

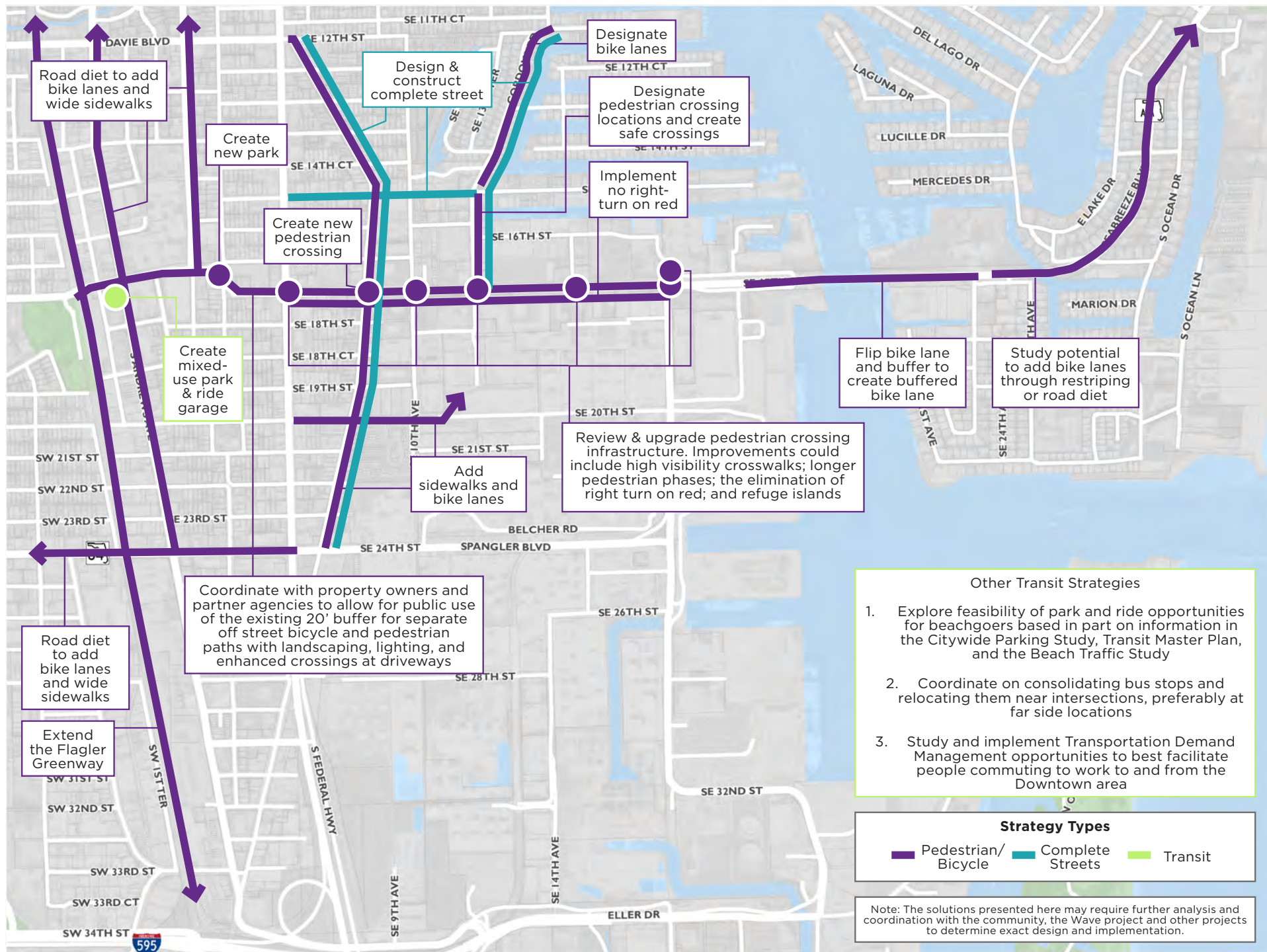
Complete Streets can look very different, depending on the context. Below are a few examples from around Florida.



## Types of Issues Addressed:







# Network Connectivity & Access Management Solutions

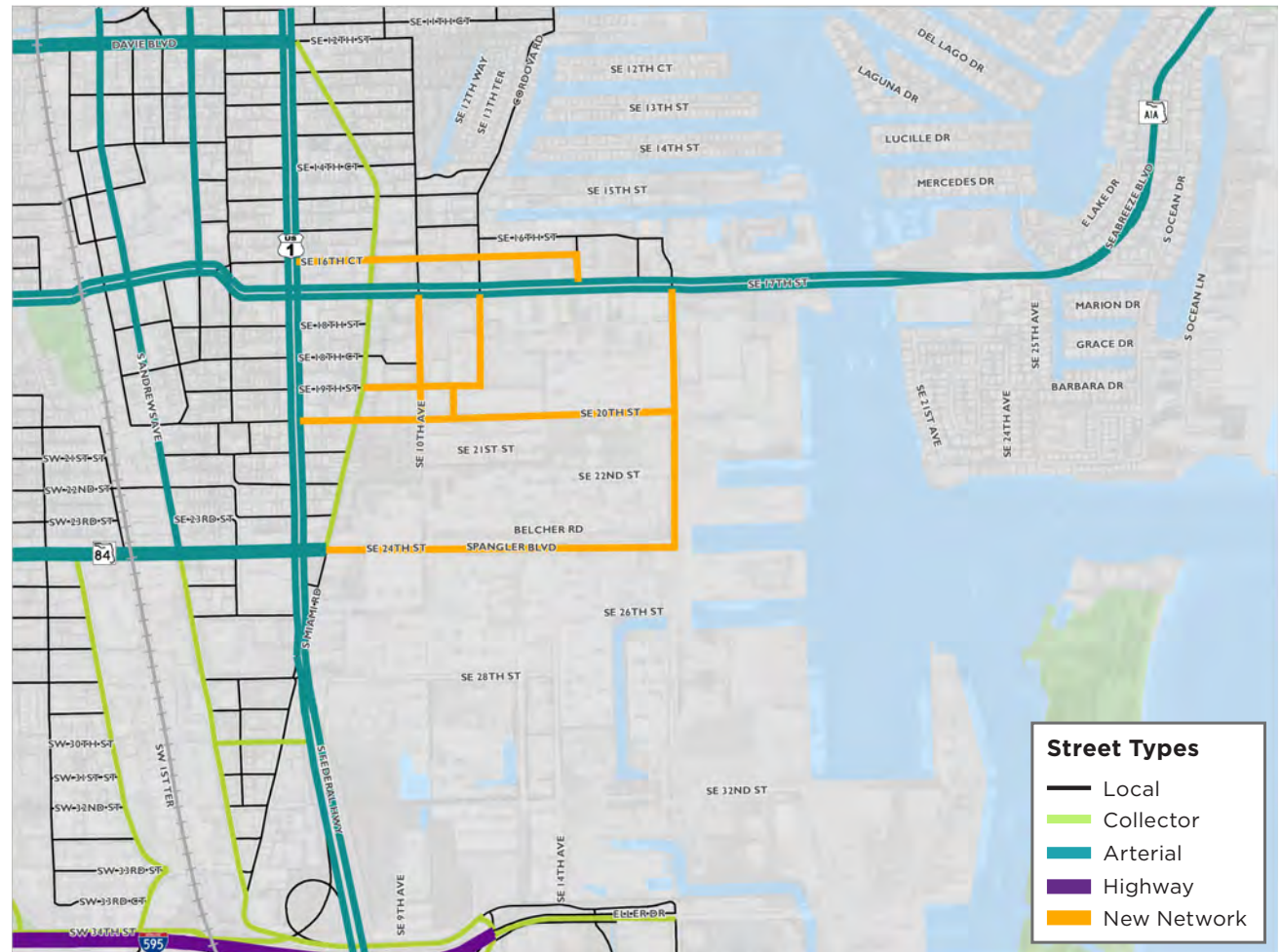
## Completing the Street Network

New network connections can help to improve mobility in the study area:

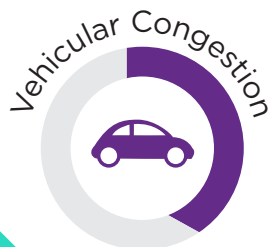
- An east-west connection on the north side of SE 17th Street can help move local traffic between designations without needing to access SE 17th Street.
- An east-west connection on the south side of SE 17th Street can help to provide easier access to Harbor Shops, alleviating an estimated and potentially to the Convention Center.

The intention of these improvements is to provide better access for local trips while being sensitive to the residential context of the surrounding area. Therefore, any new network connectivity will need to be accompanied by traffic calming solutions, to be determined in the design phase.

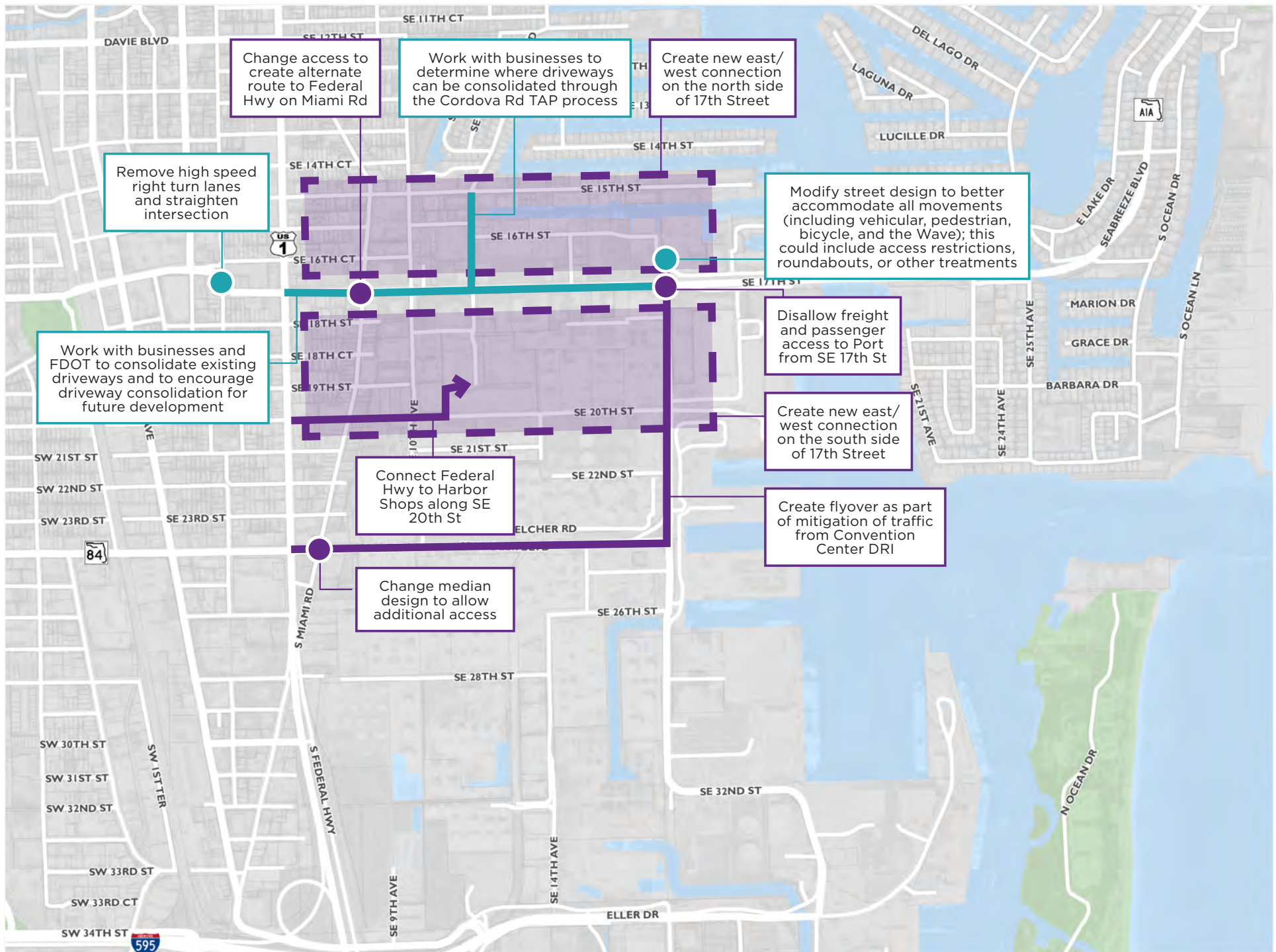
The exception to this is the proposed flyover on Spangler and Eisenhower Boulevards, which would route those making longer trips around SE 17th Street.



## Types of Issues Addressed:









# Vehicular Operations Solutions

## Signal Modifications

### Right Turn Overlaps

- Gives a green arrow to right-turning vehicles at the same time as the side street left-turning traffic
- Allows for more dedicated time for the right-turning traffic than if the overlap did not occur
- If implemented with no right-turn on red, can also be safer for pedestrians as they will have their own dedicated crossing time
- With the right-turn overlap, the traffic signal can detect the presence of a conflicting pedestrian movement and adjust based on that

### Emergency Pre-Emption

- If the signal detects an emergency vehicle, it gives it the green light in the direction that the vehicle is traveling

### Railroad Pre-Emption

- Detects when the train is coming and modifies the signal to ensure the parallel street gets the green light while the train is crossing
- After the train passes, it can give more green time to the street crossing the tracks to alleviate any traffic queues

## Projects for Coordination

### Advanced Transportation Management System (ATMS)

Ongoing

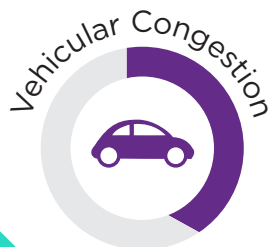
- FDOT District 4
- Design, permit, install, integrate, repair, and maintain the TSM&O devices along SE 17<sup>th</sup> St and US 1
  - Specifications being updated
  - Contract Letting – May 2016
  - NTP – June 2016
  - Contract Execution – October 2016

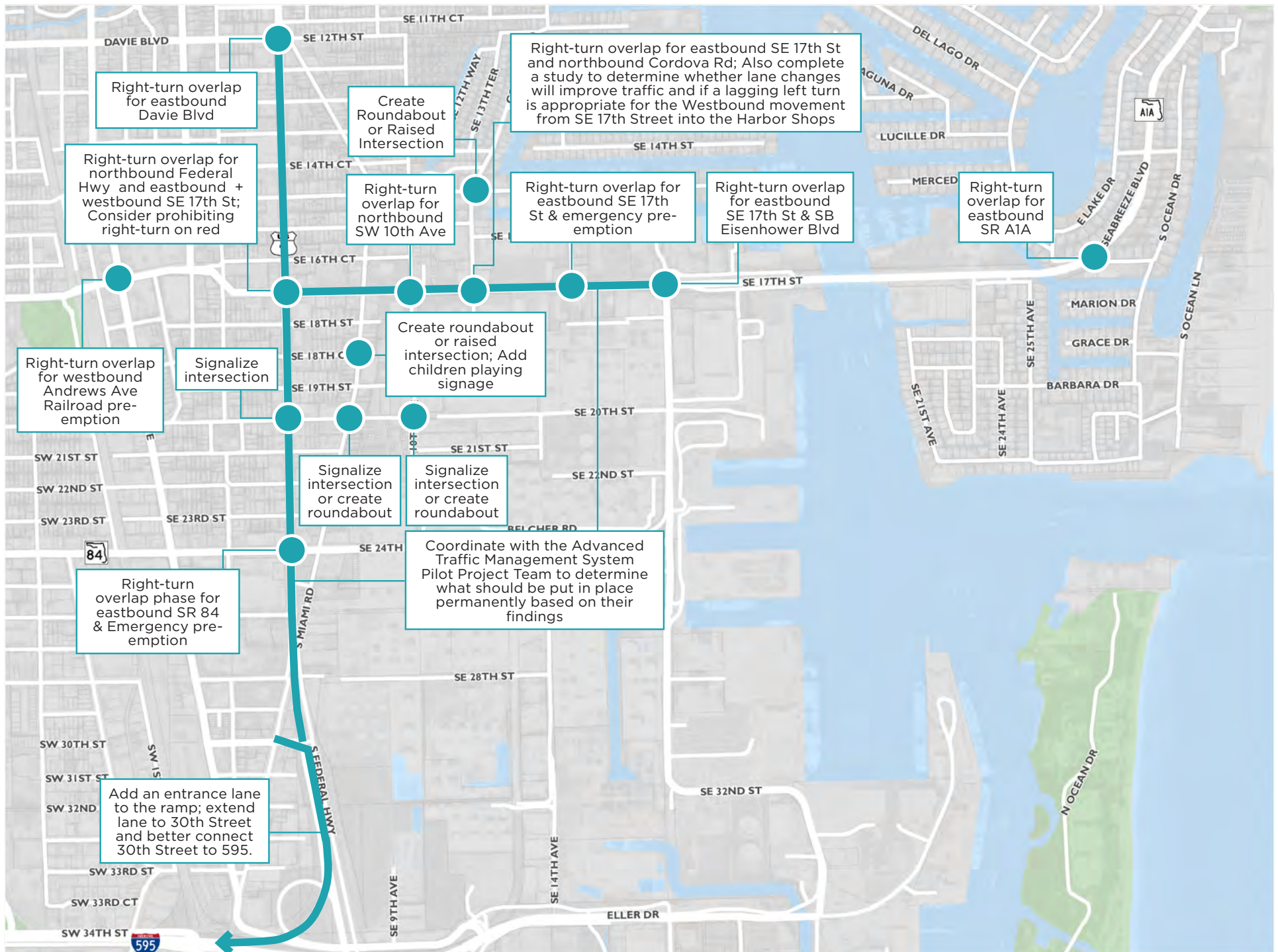
### SE 17<sup>th</sup> Street Safety Signal Timing Report

Completed Study

- Completed July 2015 for FDOT D4
- Short Term Recommendations
  - Yellow, Red, and Ped Clearance updates
  - Proposed coordinated timings
  - Minor signage installation
- Long Term Recommendations
  - Provide protected-only left turn phasing for:
    - Eastbound at SE 10<sup>th</sup> Ave
    - Eastbound and Westbound at Cordova Rd
  - Prohibit SB RTOR at Eisenhower Blvd
- Maintenance Recommendations
  - Replace ped push button signs
  - Repair ped signal indications
  - Replace signal head backplates and tunnel visors

## Types of Issues Addressed:







# Policy, Wayfinding, and Other Strategies

## Policy Solutions

Require cross access and shared driveways to reduce the need to use SE 17th Street for short trips

Require buildings to front the street

Encourage shared parking to reduce surface parking

Prohibit drive throughs

Amend the Unified Land Development Code to preclude uses that would impact the use of the 20' interdistrict corridor towards bicycle and pedestrian shared use

Require certificate of conveyance for drop off/deliveries to require set locations for pick-up and drop-off

Create a public involvement campaign to create a vision for the area

Create a public involvement campaign to inform residents of what is coming to the area in the future

Develop a process to notify residents of events that will impact SE 17th Street & ensure traffic management plans are created and implemented

## Wayfinding Solutions

Better sign Andrews and 3rd as routes to Downtown and Las Olas

Better sign SR 84 & Eller Drive as access to Port

Better sign SE 10th Ave as access to Harbor Shops

## Other Solutions

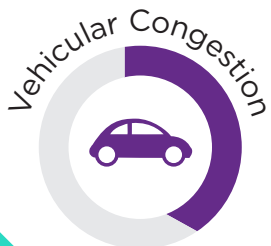
Create a work zone management plan for the Wave construction

Create a stakeholder working group to implement the recommendations from the SE 17th Street Action Plan

Seek new staff resource to implement SE 17th Street Action Plan recommendations

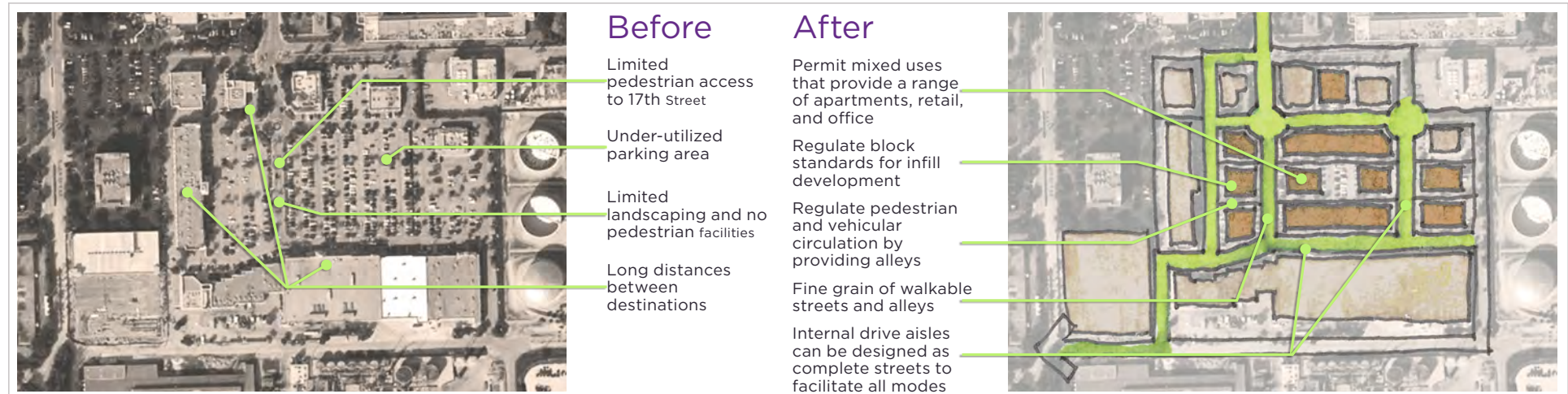
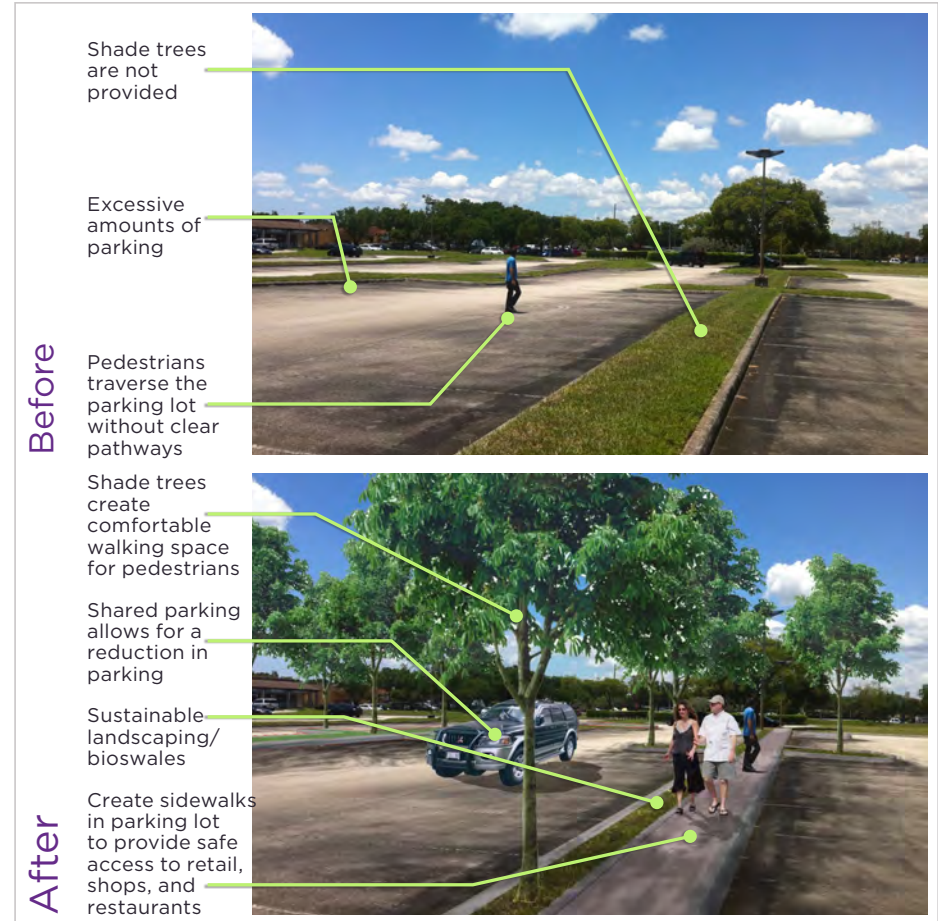
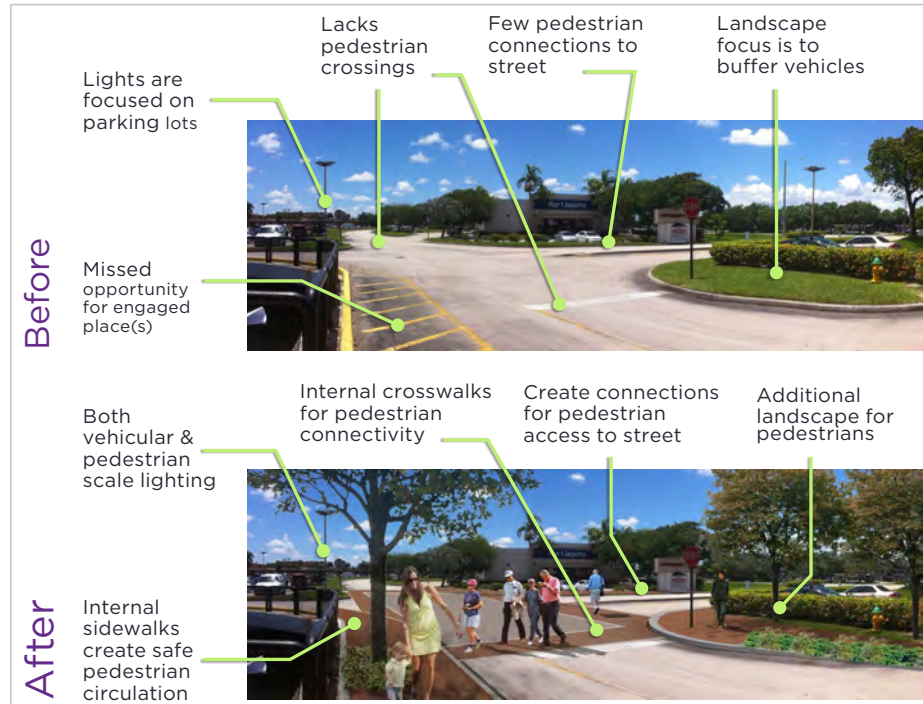
Continue improvement efforts in the area through upcoming initiatives including the Transit Oriented Development Planning Grant and Beach Traffic Study

## Types of Issues Addressed:



# Retrofitting Existing Destinations

These examples are representative of existing shopping centers along 17th Street and are intended to portray how they can be redesigned to better accommodate all modes.









# **NEXT STEPS**



## Next Steps

The following is a summary of next steps needed to move the recommendations forward.

### Hire a 17th Street Action Plan Coordinator

The implementation of this Action Plan will require multi-year coordination across many agencies. The City should be in charge of ensuring that this coordination and implementation moves forward, as they will benefit the most and have the largest stake in its success. A city employee, dedicated to this project, will need to spearhead the coordination between agencies, look for funding opportunities; advocate for the plan, and generally facilitate and manage the implementation of the plan.

### Explore Developing a 17th Street Stakeholder Working Group

A working group focused on SE 17th Street could be formalized that includes agency employees and decision makers. The working group could be responsible for advocating for and moving forward the projects in the SE 17th Street Mobility Master Plan in conjunction with other projects or on their own. This working group could also ensure that recommendations not yet fully agreed upon by all parties are further discussed and finalized. This working group could use the list of projects found in Appendix A as their guide. Appendix A also identified agency leads; all of which should sit on the working group.

### Implement Projects Over Time as Funding Becomes Available

Recommended projects vary from a timeline perspective and will be implemented in the short, mid, and long term as funding becomes available. The project implementation will include close coordination with neighbors, the business community, and local, regional, and state agencies. Various project phases are needed for the ultimate implementation of the recommendations including: operational studies, design, maintenance, etc.

## Potential Funding Sources for Implementation

The following is a summary of potential funding sources for implementation.

### Grant Funding Opportunities

The City seeks grants on a regular basis from a wide variety of sources including local, state, federal, and other funding agencies.

### Partner Transportation Agency Projects

Partner agencies conduct other studies that may fund and implement projects on and around 17th Street.

### Future Developments

Developments may help to fund improvements as part of their mitigation for transportation impacts.



Prepared for the City of Fort Lauderdale by:









# **APPENDIX STRATEGY MATRIX**

# Strategies

Strategy Category	Location		Strategy	Timeframe	Feasibility Category*	Next Steps
	Street	From To				
Access Management	Cordova Road	SE 17th Street SE 15th Street	Consolidate driveways	Varies	1	City to conduct community engagement for this during the TAP. At a minimum, it should aim to determine how to limit driveways to improve pedestrian safety, especially where new crossings are created.
Access Management	SE 17th Street	SE 4th Ave (North Side of Intersection)	Remove channelized right turn lane and straighten intersection	Short Term	2	Conduct study to determine impacts and move to design.
Access Management	SE 17th Street	SE 4th Ave (South Side of Intersection)	Remove channelized right turn lane and straighten intersection	Short Term	2	Conduct study to determine impacts and move to design.
Access Management	SE 17th Street	Federal Highway Eisenhower Blvd	Consolidate driveways	Varies	3	City to craft a letter describing intentions for access management and for the vision of the corridor and send to FDOT. FDOT will then use this information as guidance to make future decisions regarding access management on 17th Street.
Connectivity	SE 20th Street	Federal Highway Harbor Shops	Create connection between Federal Highway and Shopping Center; NOTE: this is temporarily open already	Short Term	1	TAM and DSD to do community outreach with the surrounding neighborhood. A planning study could help to provide further evidence, but the outreach should focus on the vision for the neighborhood (as per the City's comp plan) and address worries about truck access. This connection would not be for trucks and would not extend to the businesses beyond Harbor Shops.
Connectivity	North of SE 17th Street	Federal Highway Eisenhower Blvd	Create new east/west connection on the north side of 17th Street	Long Term	2	Conduct a study and public outreach to determine the preferred route and complete streets design. Potential options include SE 16th Court from SE 10th Ave to Cordova Road; SE 15th and 16th Street from Federal Highway to Eisenhower Blvd; and SE 16th Court and SE 16th Street from Federal Hwy to Eisenhower Blvd.

## \*Next Steps

1. Recommendation should Immediately be Coordinated with Ongoing or Programmed Project although further Consensus Building may be Necessary
2. To Date, General Consensus on Recommendation - Move Forward with Next Steps
3. Need to Gain Consensus Prior to Moving Forward with Recommendation
4. Fatal flaw identified - do not recommend moving forward

Benefit	Potential Issue(s)	Lead Agency	Coordination Partners	Coordination with the Wave Needed? (X=Yes)
Cordova Road has many driveways. Better cross access could help to address this.	Need to coordinate with businesses - project cannot be completed without buy in. Coordination with the TAP Grant also needed.	City	FDOT, Businesses, & TAP grant	
Improves sidewalk connection and slows traffic.		City	County	
Improves sidewalk connection and slows traffic.		City	County	
Better cross access could help to reduce driveways and therefore help to better facilitate all modes.	Need to coordinate with businesses and the Wave project.	City	FDOT, County, Businesses	X
Harbor Shops are a major study area destination. This strategy can reroute trips from 17th Street due to better connectivity.	Potential security needs Potential need for signal at SE 20th Street / Federal to facilitate connectivity Need to determine where road can connect in to shopping center.	City	Businesses/Residents	
Better connectivity could help to reroute trips from SE 17th Street.	Need to work with local businesses.	City	Businesses	



Strategy Category	Location			Strategy	Timeframe	Feasibility Category*	Next Steps	
	Street	From	To					
Connectivity	Miami Road	SE 24th Street		Change median design to allow additional access	Short Term	2	Planning study & Community Outreach.	
Connectivity	South of SE 17th Street	Federal Highway	Eisenhower Blvd	Create new east/west connection on the south side of 17th Street	Short Term	2	City to conduct a planning study to determine opportunities for connectivity on the south side of SE 17th Street in addition to or as an alternative to the SE 20th Street Connection. These include SE 19th Street from SE 10th Ave to Cordova Road and Mariner Drive from Miami Road to Eisenhower Blvd. Additionally, the City could consider connecting SE 20th Street from Federal Hwy to the Convention Center. Many of these strategies require further coordination for security clearance and should be considered further in a planning study.	
Connectivity	New Flyover	Airport	Port	Create flyover to allow direct access from airport to the port	Long Term	3	It is the obligation of the DRI to mitigate traffic caused by the convention center mitigation.	
Connectivity	Eller Drive	FEC Line		Add Overpass for truck access from 595 to the port	Long Term	3	Coordinate with partners; Planning study.	
Connectivity	Eisenhower Blvd	SE 17th Street		Disallow Port access	Long Term	3	Build Consensus; Coordinate with partners; Planning study.	
Connectivity	Eisenhower Blvd	SE 17th Street		Disallow truck access	Short Term	3	Build Consensus; Coordinate with partners; Planning study.	

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Benefit	Potential Issue(s)	Lead Agency	Coordination Partners	Coordination with the Wave Needed? (X=Yes)
People are currently circumventing the access restriction in a potentially unsafe way. Additionally, this could provide an alternative route to US 1 to access the southern destinations on SE 17th St.	Potential issue with turning movements Community may desire traffic calming measures.	City	FDOT	
Better connectivity could help to reroute trips from SE 17th Street.	Potential security needs Potential need for a new signal Traffic calming needs Business coordination.	City	Residents; Businesses; FDOT; Convention Center; Port	
Reduced traffic pressure on 17th Street west of the Convention Center.	A benefit / cost fatal flaw analysis needs to be conducted; however, based on preliminary discussions, consensus seems to exist.	FDOT	County, Port and City	
Trucks back up at railroad tracks and use SR84 instead; this would encourage use of this port entrance for cargo and support policy to remove truck traffic on SR84.	A benefit / cost fatal flaw analysis needs to be conducted; however, based on preliminary discussions, consensus seems to exist.	FDOT	FEC, City, Port	
This will help to reroute some traffic away from SE 17th Street and can help to prevent back up of cars onto SE 17th Street on days of heavy cruise activity. Access can still be granted for transit, pedestrians, and bicyclists to serve cruise passengers and convention center patrons.	Need to improve signage and messaging.	City	Port; County; FDOT	
Trucks will access Port and Convention Center via Eller Dr directly from 595 or from SR 84. This will help to reroute some truck traffic away from SE 17th Street. Trucks going to the beach or serving local needs will still utilize SE 17th Street.	Wayfinding Plan Needed.	City	Port; County; FDOT	

Strategy Category	Location			Strategy	Timeframe	Feasibility Category*	Next Steps	
	Street	From	To					
Connectivity	Miami Road	SE 17th Street		Change access configuration to create parallel N/S roads to US-1 (currently all movements are not allowed) Create new signal; right-turn overlap for northbound Miami Rd	Short Term	3	Coordinate with FDOT.	
Connectivity	Andrews Avenue	595		Create new 595 WB entrance ramp		4	N/A.	
Connectivity	Spangler Blvd	Federal Highway	SE 17th Street	Allow access for vehicles traveling through the area		4	N/A.	
Connectivity	SE 12th Street	SE 10th Ave	Cordova Road	Connect the street		4	N/A.	
Connectivity	Eisenhower Blvd, Spangler Blvd, & Eller Drive	Through Port		Allow access with Sunpass		4	N/A.	
Implementation	N/A			Create a Stakeholder Working Group to implement SE 17th Street Action Plan	Short Term	1	Determine members and duties.	
Implementation	N/A			Continue improvement efforts in the area through upcoming initiatives including the Transit Oriented Development Planning Grant and Beach Traffic Study	Short Term	1	Coordinate with other studies.	

\*Next Steps

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Benefit	Potential Issue(s)	Lead Agency	Coordination Partners	Coordination with the Wave Needed? (X=Yes)
This would allow for a parallel roadway option to Federal Highway and create better connectivity. This would require signalization.	May require access management variance Community may desire traffic calming measures The Wave study is proposing to remove the existing access on Miami Road, so this would require reopening it in the future. A Miami Road Study would need to be completed to determine the benefit and cost of this project. Public involvement and further coordination is needed.	FDOT	City, Community, County	X
Provide alternate route to 595. This could also help to provide incentive for other trips on Andrews Avenue and can help to bolster economic activity along Andrews Avenue.	Ramp spacing, vertical clearance over the railroad and impacts to the Wave.	FDOT	City and County	
Reduced traffic pressure on 17th Street west of the Convention Center.	Unfeasible due to security concerns with Coast Guard.	City	Port, County	
This could improve connectivity within the neighborhood, if desired. There is already a dirt alley through some of this area; also serves as a potential ped/bike pathway.	Overwhelming lack of community support.	City	Community, businesses	
Allowing access with SunPass would allow the Port to keep track of who moves through but may not be allowable based on heightened security needs.	Unfeasible due to security concerns with Coast Guard.	City	Port; County; FDOT	
This will help to ensure that all parties are committed and invested in seeing these action items get implemented.	One of the first steps will be to develop packages of projects and scopes for those projects.	City	All	X
This will ensure that study elements are implemented as other projects are undertaken and constructed.		City	All	X

Strategy Category	Location			Strategy	Timeframe	Feasibility Category*	Next Steps	
	Street	From	To					
Implementation	N/A			Seek new staff resource to implement SE 17th Street Action Plan recommendations	Short Term	1	Apply for approval by Commission.	
Implementation	N/A			Create a work zone management plan for the time while the Wave is under construction	Short Term	2	Work with FDOT to develop a work zone management plan.	
Ped/Bike	SE 17th Street	FEC Line	Bridge	Add protected bike lanes and widen sidewalk or create shared-use path by using 20' easement	Long Term	1	City to facilitate a conversation with business owners to determine if they support the space being utilized for a shared use path. This could potentially be incorporated into the Wave design if the support is generated. A formal design for the path would need to be completed to determine placement and alignment. A strategy meeting will also need to be conducted between FDOT and the City to determine what can be funded by FTA and what needs to be funded separately.	
Ped/Bike	SE 17th Street	East of 17th Street Causeway		Study potential to add bike lanes through restriping or road diet	Short Term	1	Coordinate with FDOT; Conduct analysis to determine how bike lanes can be incorporated.	

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4. Fatal flaw identified - do not recommend moving forward

Benefit	Potential Issue(s)	Lead Agency	Coordination Partners	Coordination with the Wave Needed? (X=Yes)
This will ensure that study elements are implemented as other projects are undertaken and constructed.		City		X
Construction for The Wave will likely affect traffic in the 17th Street area and on the other streets that connect to the beach. A work zone management plan should be create to limit that impact.	Need to consider other 'downtown to beach' roadway connections such as Las Olas Blvd, Sunrise Blvd, and Commercial Blvd and any concurrent developments along them in addition to 17th Street.	FDOT	City	X
The bicycling environment on SE 17th Street is uncomfortable, and a 4' - 5' bike lane is uncomfortable to most riders. Bicyclists ride in the sidewalk for greater comfort, which is dangerous for bicyclists when crossing driveways and creates conflicts between pedestrians and bicyclists. Additionally, the sidewalks meet minimum standards but are too narrow for the amount of pedestrians utilizing them. This is especially true near the convention center. Using the 20' easement on either side of SE 17th Street to create a shared use path or to add more space for bike lanes and sidewalks could help to address these issues, however the businesses would need to approve it. Additionally, this would expand the already large cross section, making it less desirable for pedestrian activity.	The setback is wide enough to allow for the construction of the path throughout most of the corridor, with the exception of a short stretch in front of Waxy O'Connor's and at the intersection of SE 17th Street and Federal Highway where more turn lanes are added. Therefore, design options for the south side may be more immediately realistic. The design could include a two-way cycle track to address cyclists traveling in either direction. This would need to be carefully planned at intersections and transition points.	City and FDOT	Businesses	X
Currently A1A is 5 lanes in this section with 60' between curbs. Narrowing all lanes to 10' could allow for 5' bike lanes in either direction. Alternatively, the traffic volumes are low enough that a road diet may be possible from 5 lanes to 3 or 4 lanes, this allowing for a comfortable bicycle connection to the beach. In this scenario, sidewalks could also be widened.	5' bike lanes may not be comfortable due to speed and volume; buffered bike lanes are preferable.	City and FDOT		



Strategy Category	Location		Strategy	Timeframe	Feasibility Category*	Next Steps	
	Street	From To					
Ped/Bike	Federal Highway	SE 17th Street	Improve Pedestrian Crossing	Short Term	1	Coordinate with FDOT & the Wave; Conduct analysis based on the Wave final plans.	
Ped/Bike	SE 10th Ave	SE 17th Street	Improve Pedestrian Crossing	Short Term	1	Coordinate with FDOT & the Wave; Conduct analysis based on the Wave final plans.	
Ped/Bike	Cordova Road	SE 17th Street	Improve Pedestrian Crossing	Short Term	1	Coordinate with FDOT & the Wave; Conduct analysis based on the Wave final plans.	
Ped/Bike	SE 15th Ave	SE 17th Street	Improve Pedestrian Crossing	Short Term	1	Coordinate with FDOT & the Wave; Conduct analysis based on the Wave final plans.	

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Benefit	Potential Issue(s)	Lead Agency	Coordination Partners	Coordination with the Wave Needed? (X=Yes)
Public comments indicated that crossing US 1 is difficult and uncomfortable. Long signal times and long crossing distance were some reasons discussed.	Need to determine how recent signal timing changes have impacted pedestrian crossings. Other changes could include leading pedestrian intervals; high visibility crosswalks; longer pedestrian phases; the elimination of right turn on red; modifications to create a wider median though a complete roadway redesign; and other changes may help address the problem.	City	FDOT, Broward County	X
Public comments indicated that crossing 17th Street is difficult and uncomfortable. Long signal times and long crossing distance were some reasons discussed.	Need to determine how recent signal timing changes have impacted pedestrian crossings. Other changes could include leading pedestrian intervals; high visibility crosswalks; longer pedestrian phases; the elimination of right turn on red; modifications to create a wider median though a complete roadway redesign; and other changes may help address the problem.	City	FDOT, Broward County	X
Public comments indicated that crossing 17th Street is difficult and uncomfortable. Long signal times and long crossing distance were some reasons discussed.	Need to determine how recent signal timing changes have impacted pedestrian crossings. Other changes could include leading pedestrian intervals; high visibility crosswalks; longer pedestrian phases; the elimination of right turn on red; modifications to create a wider median though a complete roadway redesign; and other changes may help address the problem.	City	FDOT, Broward County	X
Public comments indicated that crossing 17th Street is difficult and uncomfortable. FDOT is looking at adding high visibility crosswalks when this signal is installed.	Need to determine how recent signal timing changes have impacted pedestrian crossings. Other changes could include leading pedestrian intervals; high visibility crosswalks; longer pedestrian phases; the elimination of right turn on red; modifications to create a wider median though a complete roadway redesign; and other changes may help address the problem. Will require coordination with FDOT, The Wave, and Broward County.	FDOT	City, Broward County	X

Strategy Category	Location			Strategy	Timeframe	Feasibility Category*	Next Steps	
	Street	From	To					
Ped/Bike	Eisenhower Blvd	SE 17th Street		Improve Pedestrian Crossing	Short Term	1	Coordinate with FDOT & the Wave; Conduct analysis based on the Wave final plans.	
Ped/Bike	Grande Dr	All		Improve Pedestrian Crossings	Short Term	1	Coordinate with FDOT & the Wave; Conduct analysis based on the Wave final plans.	
Ped/Bike	Cordova Road	SE 17th Street	SE 15th Street	Designate pedestrian crossing locations (likely at SE 16th Street) and create safe crossings at designated locations	Short Term	1	City to conduct community engagement for this during the TAP. At a minimum, it should aim to determine how to limit driveways to improve pedestrian safety and to determine where new crossings should be created based on that information.	
Ped/Bike	Cordova Road	SE 20th Street	SE 9th Street	Add bike lanes	Long Term	2	Planning study & Community Outreach.	
Ped/Bike	SE 17th Street	SE 4th Ave		Create Park	Short Term	2	Move to design.	
Ped/Bike	SE 17th Street	Bridge		Flip bike lane and buffer	Short Term	2	Move to design.	
Ped/Bike	SE 3rd Ave	SE 17th Street	SE 6th Street	Add bike lanes and sidewalks.	Short Term	2	Move forward once the Wave construction is completed.	

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4. Fatal flaw identified - do not recommend moving forward



Benefit	Potential Issue(s)	Lead Agency	Coordination Partners	Coordination with the Wave Needed? (X=Yes)
Public comments indicated that crossing 17th Street is difficult and uncomfortable. Long signal times and long crossing distance were some reasons discussed. Additionally, there is a vehicular/pedestrian conflict due to the arrangement of the lanes in this area.	Need to determine how recent signal timing changes have impacted pedestrian crossings. Other changes could include leading pedestrian intervals; high visibility crosswalks; longer pedestrian phases; the elimination of right turn on red; modifications to create a wider median though a complete roadway redesign; and other changes may help address the problem. Will require coordination with FDOT, The Wave, and Broward County.	FDOT	City, Broward County	X
Neighbors noted that Pedestrian crossings are difficult on Grande Drive. The Wave may have an impact on the intersection operations at Eisenhower Boulevard, and design should consider pedestrian crossings.	Need to determine how recent signal timing changes have impacted pedestrian crossings. Other changes could include leading pedestrian intervals; high visibility crosswalks; longer pedestrian phases; the elimination of right turn on red; modifications to create a wider median though a complete roadway redesign; and other changes may help address the problem. Will require coordination with FDOT, The Wave, and Broward County.	FDOT	City, Broward County	X
Neighbors noted that Cordova Road is very hard to cross as a pedestrian due to lack of signage and markings.	Needs to be done during design phase of Cordova Road improvements.	City	Coordinate with TAP	
The would extend improvements already approved in TAP grant to connect into the northern neighborhoods.	Need to look at Right of Way & coordinate with shopping center; Sharrows may be a short term alternative.	City	Residents & Businesses	
Better utilize empty land by creating a new park that can also act as a gateway feature.		City	Residents & Businesses	
The bike lanes on the bridge could be buffered if the bike lane and shoulder were swapped.	Coordinate with FDOT.	City	FDOT	
Provides a designated, comfortable space for bicyclists.	Originally programmed in the MPO's TIP but was temporarily removed from TIP due to concerns about maintenance of traffic during Wave construction.	City	FDOT; MPO; County	

Strategy Category	Location			Strategy	Timeframe	Feasibility Category*	Next Steps	
	Street	From	To					
Ped/Bike	SE 20th Street	Federal Highway	Shopping Center	Add sidewalks and bike lanes	Short Term	2	Planning study & Community Outreach.	
Ped/Bike	Miami Road	All		Add bike lanes and sidewalks	Short Term	2	Planning study & Community Outreach.	
Ped/Bike	Miami Road	SE 17th Street		Create new pedestrian crossing	Short Term	3	Coordinate with partners and the Wave; Traffic study.	
Ped/Bike	FEC Line	All		Flagler Greenway Extension	Short Term	3	Coordinate with partners; Planning study.	
Ped/Bike	SR 84	SE 4th Ave	Andrews / US 1	Road Diet	Short Term	3	Coordinate with partners; Planning study & traffic analysis.	
Ped/Bike	SE 17th Street	Federal Highway	Eisenhower Blvd	Implement no right-turn on red	Short Term	3	Coordinate with partners; Planning study & traffic analysis.	
Ped/Bike	Andrews Avenue	Davie Blvd	SR 84	Add buffered Bike Lanes	Short Term	3	Coordinate with partners; Planning study & traffic analysis.	

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Benefit	Potential Issue(s)	Lead Agency	Coordination Partners	Coordination with the Wave Needed? (X=Yes)
This would create a new pedestrian and bicycle connection through one of the largest shopping destinations in the area.	Need to coordinate with shopping center.	City	Shopping Center	
Miami Road is zoned for mixed use but the roadway is not designed to accommodate this use.	Significant public outreach is necessary to inform the public on the future land use; residents actually want to restrict the use of this road.	City	Businesses and Residents	
There are no pedestrian crossing opportunities between Federal Highway and SE 10th Avenue, which totals 1,255 feet. 800 feet or less is a more comfortable block size to provide adequate crossings for pedestrians.	May not meet pedestrian warrant Need to change signalization The Wave study is proposing to remove the existing access on Miami Road, so this would require reopening it in the future. A Miami Road Study would need to be completed to determine the benefit and cost of this project. Public involvement and further coordination is needed.	FDOT	City	X
FEC is open to extending the Flagler greenway all through Broward and potentially regionally.		City and FDOT	FEC	
By adding bike lanes to SR 84 it could serve as connector to other planned bike routes.	Need for additional traffic volume analysis; volumes are 32,500 between SE 4th Ave and Andrews and 19,000 east of Andrews.	FDOT	City	
Safer for pedestrians and bicyclists crossing intersections.	Need to consider impact to traffic flow; Requires consensus from City, County, and FDOT	FDOT, County	City	
The ped/bike improvements that the MPO is funding could be extended to SR 84 to create better connectivity.	Need to coordinate with Wave - could create impact	FDOT, County	City	



Strategy Category	Location			Strategy	Timeframe	Feasibility Category*	Next Steps	
	Street	From	To					
Ped/Bike	SE 17th Street	FEC Line	Bridge	Add protected bike lanes & widen sidewalk or off street path by removing lanes or buying right of way		4	N/A.	
Ped/Bike	SE 12th Street	SE 10th Ave	Cordova Road	Create shared use path		4	N/A.	
Policy	N/A			Require cross access and shared driveways	Short Term	1	City to craft a letter describing intentions for access management and for the vision of the corridor and send to FDOT. FDOT will then use this information as guidance to make future decisions regarding access management on 17th Street. City to coordinate with DSD and TOD grant to create a TOD overlay that prioritizes the movement of people. This planning effort will need to include coordination with businesses.	
Policy	N/A			Require buildings to front the street	Short Term	1	Coordinate with DSD and TOD grant to create a TOD overlay that prioritizes the movement of people. This planning effort will need to include coordination with businesses.	

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Benefit	Potential Issue(s)	Lead Agency	Coordination Partners	Coordination with the Wave Needed? (X=Yes)
<p>The bicycling environment on SE 17th Street is uncomfortable, and a 4' - 5' bike lane is uncomfortable to most riders. This alternative would reduce vehicular capacity, which would need to be offset by other measures. This solution may work when combined with the alternative route strategies. This strategy could help to calm traffic and improve the pedestrian environment.</p> <p>The walking environment on SE 17th Street is uncomfortable, and a 5' - 6' sidewalk is narrow for the amount of pedestrians utilizing SE 17th Street. This alternative would reduce vehicular capacity, which would need to be offset by other measures. This solution may work when combined with the alternative route strategies. This strategy could help to calm traffic and improve the pedestrian environment.</p>	Vehicular capacity would be reduced and there is not support from the community or partners.	FDOT	City	X
This could improve bicycle connectivity in the area. This would be in place of a street connection in this location, as noted in access connections.	Overwhelming lack of community support.	City		
Cross access requirements can help to reduce the number of driveways needed and can help to better facilitate trips between adjacent uses.	All of these strategies could be implemented through a TOD overlay along and around SE 17th Street that prioritizes the movement of people. This could be done through the TOD grant or completed independently. Coordinate with businesses.	City	FDOT	
In this area, walking should be a priority. Therefore, parking should be located behind buildings and buildings should front 17th Street or other main streets.	All of these strategies could be implemented through a TOD overlay along and around SE 17th Street that prioritizes the movement of people. This could be done through the TOD grant or completed independently. Coordinate with businesses.	City		

Strategy Category	Location			Strategy	Timeframe	Feasibility Category*	Next Steps	
	Street	From	To					
Policy	N/A			Prohibit Drive Throughs	Short Term	1	Coordinate with DSD and TOD grant to create a TOD overlay that prioritizes the movement of people. This planning effort will need to include coordination with businesses. A zoning code amendment may also be required.	
Policy	N/A			Encourage shared parking	Short Term	1	Conduct a best practices study to help address the insurance requirement that can make it too costly for businesses to implement shared parking. This should be considered during the city-wide parking study.	
Policy	N/A			Develop a process to notify residents of events that will impact SE 17th Street & ensure traffic management plans are created and implemented	Short Term	1	City to work with the Convention Center and the Port to determine the best way to implement this.	
Policy	N/A			Modify policy allowing what the 20' pedestrian area can be used for; Require a Certificate of Convenience; No right on red	Short Term	2	Coordinate with partners and the Wave; Outreach to businesses; Work with DSD; Conduct a study to determine impacts of no right turn on red.	
Policy	N/A			Require certificate of conveyance for drop off/deliveries to better guide where they happen.	Short Term	2	Develop a policy requiring certificate of conveyance.	

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Benefit	Potential Issue(s)	Lead Agency	Coordination Partners	Coordination with the Wave Needed? (X=Yes)
Drive throughs encourage driving and can add to congestion.	All of these strategies could be implemented through a TOD overlay along and around SE 17th Street that prioritizes the movement of people. This could be done through the TOD grant or completed independently. Coordinate with businesses.	City		
Shared parking can help to reduce the space needed for parking and is already part of the code.	Coordinate with city-wide parking study Shared parking liability insurance requirements are sometimes too costly; look to Palm Beach Code for potential best practices.	City		
Residents noted that they are generally unaware when events are going to happen and end up getting stuck in traffic.	This can potentially be implemented through the Beach CAP process.	Convention Center, Port, and City	Residents & Businesses	
20' ped area can currently be used for a number of strategies to improve the pedestrian environment. It does not require a shared use path, which could cause a problem if the alternative suggests that.	Adding 20' for a pedestrian path and other pedestrian amenities (other than uses such as cafes, as currently allowed) encourages a more suburban form in the area. Careful consideration would need to be given to the urban design to ensure that the design does not enhance an already wide street and does not create an uninviting place. Trees, pedestrian furniture, and other elements could help solve this as well as strategic design features within the pedestrian refuge on 17th street.	City (DSD)	FDOT	X
This would help to give riders designated space to wait and remove buses and deliveries from travel lanes (including in parking lots).	Need to redesign parking lots to better accommodate these movements.	City		

Strategy Category	Location			Strategy	Timeframe	Feasibility Category*	Next Steps	
	Street	From	To					
Policy	N/A			Create a public involvement campaign to 1) create a vision for the area and 2) make sure that residents know what is coming in the area that has been zoned as mixed-use in the future.	Short Term	2	Work with DSD to conduct a vision exercise and public involvement effort; update the code if necessary.	
Policy	N/A			Reduce the threshold for the requirement of traffic studies related to development projects.	Short Term	2	Develop a policy to reduce the threshold requirement.	
Policy	N/A			Develop a policy to ensure that any fee collected from development related traffic studies are used in the influence area of the development	Short Term	2	Develop a policy that takes into account the needs of Connecting the Blocks and the City Transit Master Plan and abides by legal requirements to implement this.	
Traffic Calming/ Complete Streets	SE 15th Street	Federal Highway	Cordova Road	Complete Streets Treatment	Long Term	2	Planning study & Community Outreach.	
Traffic Calming/ Complete Streets	Miami Road	Davie Blvd	SE 17th Street	Complete Streets Treatment	Short Term	2	Planning study & Community Outreach.	

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Benefit	Potential Issue(s)	Lead Agency	Coordination Partners	Coordination with the Wave Needed? (X=Yes)
The future land use plan defines a very different area in the future than what exists currently. The residents have noted desires to maintain a neighborhood feel and to keep traffic out, however the plan calls for a more dense, mixed use area. Working with them to create a vision could help to garner the support needed to allow growth and change in a way that enhances the neighborhood.	Could be push back.	City (DSD)		
This will require more developments to complete traffic studies to mitigate potential impacts.		City		
		City		
SE 15th Street is a parallel route to SE 17th Street and neighbors noted that there is cut through traffic. Complete Streets treatment could include better definition of the street edges, traffic calming features, ped/bike facility upgrades, etc. and could help to calm traffic.	Back out parking is located along most of this street, which would need to be removed over time. The alley system located along these street could be better utilized to serve the parking needs.	City	Residents	
Miami Road is a parallel route to US 1 and neighbors noted that there is cut through traffic. Complete Streets treatment could include better definition of the street edges, traffic calming features, ped/bike facility upgrades, etc. and could help to calm traffic.	Funding needs and Community coordination and agreement.	City	Residents	



Strategy Category	Location			Strategy	Timeframe	Feasibility Category*	Next Steps	
	Street	From	To					
Traffic Calming/ Complete Streets	Cordova Road	SE 17th Street	SE 11th Court	Complete Streets Treatment	Short Term	2	Planning study & Community Outreach.	
Traffic Calming/ Complete Streets	SE 10th Ave	SE 15th Street	SE 12th Street	Convert back to two-way traffic + Complete Streets Treatment		4	N/A.	
Transit	SE Corner of 17th and Andrews			Create mixed-use park & ride garage on SE Corner of 17th and Andrews	Varies	1	Coordinate with and determine next steps based on city-wide parking study.	
Transit	N/A			Study and implement TDM opportunities to best facilitate people commuting to work from the Downtown area	Varies	2	Coordinate with partners to complete a study.	
Transit	N/A			Move bus stop locations to create better access to Wave stops and other destinations	Varies	3	The Wave project should consider placement of bus stops relative to Wave stops.	
Vehicular	SE 17th Street	Andrews Avenue		Right-turn overlap for westbound approach.	Short Term	1	Work with Wave to incorporate into PD&E. This would be an FDOT decision and would include some mast arm analysis. Additional questions to be considered include whether or not to preclude u-turns. A follow up conversation with FDOT is needed.	

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Benefit	Potential Issue(s)	Lead Agency	Coordination Partners	Coordination with the Wave Needed? (X=Yes)
Neighbors noted congestion and cut through traffic on Cordova Road. Complete Streets treatment could include better definition of the street edges, traffic calming features, ped/bike facility upgrades, access management, etc. and could help to calm traffic.	Cordova from 15th to 17th is already funding through the TAP Grant.  On Street Parking, Access Management.	City	TAP and Residents	
Neighbors noted that there was a need for traffic calming on SE 10th Ave. One -way street tend to have faster speeds than two way streets and provide better connectivity. Converting this street back to two way in a manner designed to slow traffic could help to address this.	Overwhelming lack of community support.	City		
Incentivizing people to ride transit to the beach by making beach parking expensive and providing convenient alternative locations to park could alleviate some of the traffic on the streets that connect to the beach.	Should be coordinated with City-Wide Parking Study Need to make this cheaper than parking at the beach Land acquisition potential and general coordination needs Ample or cheaper beach side parking.	City	TMA/Sun Trolley	
The largest portion of people commuting to work live in and around Downtown Fort Lauderdale. Catering to their transit needs may help ease their commute and make transit a more attractive options.	Need to better understand the timing and mode of the current trips .	FDOT	BCT, City	
All bus stop need to be ADA accessible (including routes taken to get to stops).	Does not appear to currently be within the scope of the Wave PD&E study; Could run into conflicts with turn lanes and property boundaries.	BCT	City and Businesses	X
Opportunity for right turn overlap, which could improve traffic flow.	May require upgrade of signal cabinet to accommodate R/T overlap opportunities.	FDOT, County		X

Strategy Category	Location			Strategy	Timeframe	Feasibility Category*	Next Steps	
	Street	From	To					
Vehicular	SE 17th Street	Andrews Avenue		Andrews Ave Railroad pre-emption	Short Term	1	Work with Wave to incorporate into PD&E. FDOT has not yet considered this but could.	
Vehicular	SE 17th Street	Federal Highway		Right-turn overlap for northbound Federal Hwy and eastbound + westbound SE 17th St	Short Term	1	Work with Wave to incorporate into PD&E. This would be an FDOT decision and would include some mast arm analysis. Additional questions to be considered include whether or not to preclude u-turns. A follow up conversation with FDOT is needed.	
Vehicular	SE 17th Street	SE 10th Ave		Right-turn overlap for northbound SW 10th Avenue	Short Term	1	Work with Wave to incorporate into PD&E. This would be an FDOT decision and would include some mast arm analysis. Additional questions to be considered include whether or not to preclude u-turns. A follow up conversation with FDOT is needed.	
Vehicular	SE 17th Street	Cordova Rd		Right-turn overlap for eastbound SE 17th St and northbound Cordova Rd; Also complete a study to determine whether lane changes will improve traffic and if a lagging left turn is appropriate for the Westbound movement from SE 17th Street	Short Term	1	Work with Wave to incorporate into PD&E. This would be an FDOT decision and would include some mast arm analysis. Additional questions to be considered include whether or not to preclude u-turns. A follow up conversation with FDOT is needed.	
Vehicular	SE 17th Street	SE 15th Ave		Right-turn overlap for eastbound SE 17th St & emergency pre-emption	Short Term	1	Work with Wave to incorporate into PD&E. This would be an FDOT decision and would include some mast arm analysis. Additional questions to be considered include whether or not to preclude u-turns. A follow up conversation with FDOT is needed.	

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Benefit	Potential Issue(s)	Lead Agency	Coordination Partners	Coordination with the Wave Needed? (X=Yes)
This could help improve traffic flow during a train crossing.	Railroad crossing approximately 490' from intersection; alternatively, queue detection on WB departure. Intersection adjacent to Chris Evert Children's Hospital and Broward General Medical Center The Wave will utilize this intersection to turn onto 17th Street, which may require greater priority.	FDOT, County		X
This intersection is the main point of congestion in the area. Better phasing/timing could help to improve ped crossings and vehicular operations.	NB R/T currently "tied" to the WB Movements (Ph. 8). Requires upgrade of signal cabinet to accommodate all R/T overlap opportunities.	FDOT, County		X
Opportunity for right turn overlap, which could improve traffic flow.		FDOT, County		X
Opportunity for right turn overlap, which could improve traffic flow. Could also help improve access into the Harbor Shops.		FDOT, County		X
Opportunity for right turn overlap, which could improve traffic flow.	Currently Unsignalized. Assumptions based on Contract Plans. TS2, Type 1, Size Type 6 Cabinet. 2070 ATC Controller. Construction scheduled for late 2016 (NTP 11/9/2016).	FDOT, County		X

Strategy Category	Location			Strategy	Timeframe	Feasibility Category*	Next Steps	
	Street	From	To					
Vehicular	SE 17th Street	Eisenhower Blvd		Right-turn overlap for eastbound SE 17th St & SB Eisenhower Blvd	Short Term	1	Work with Wave to incorporate into PD&E. This would be an FDOT decision and would include some mast arm analysis. Additional questions to be considered include whether or not to preclude u-turns. A follow up conversation with FDOT is needed.	
Vehicular	17th Street & US 1 Study Corridors			ATMS/ITS Strategies	Short Term	1	Coordinate with the ATMS Pilot Project Team to determine what should be put in place permanently based on their findings.	
Vehicular	AR A1A / Seabreeze Blvd	Mayan Dr		Right-turn overlap	Short Term	2	Send to County to analyze.	
Vehicular	SR 84/SE 24th Street	Federal Highway		Right-turn overlap phase for eastbound SR 84 & Emergency pre-emption	Short Term	2	Send to County to analyze.	
Vehicular	Davie Blvd	Federal Highway		Consider signal timing / phasing opportunities	Short Term	2	Send to County to analyze.	
Vehicular	SE 18th Court	SE 10th Ave		Create roundabout or raised intersection; Add children playing signage	Short Term	2	Traffic analysis & Public outreach.	
Vehicular	SE 15th Street	Cordova Rd		Create Roundabout or raised intersection	Short Term	2	Traffic analysis & Public outreach.	
Vehicular	Federal Highway	595		Add an entrance lane to the ramp; extend lane to 30th Street and better connect 30th Street to 595.	Long Term	3	Planning/Design study to determine feasibility of this strategy. Design needs to consider wayfinding and improvements on 30th Street to make this a viable connection to 595.	
Vehicular	SE 17th Street	Federal Highway	Bridge	Prohibit Right Turn on Red	Short Term	3	City would need to request this from FDOT and further analysis is necessary to determine impacts to vehicular traffic.	

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Opportunity for right turn overlap, which could improve traffic flow. Additional opportunity for improved bridge preemption operations.	Ped phases across N and S leg are not called during Bridge Preemption. Opportunity for improved bridge preemption operations. Requires upgrade of signal cabinet to accommodate all R/T overlap opportunities.	FDOT, County		X
An ATMS pilot project is currently being completed along SE 17th Street and US 1. ATMS and ITS can help to address traffic issues dynamically, and so solutions that are found to work in the Pilot study could be installed permanently.		FDOT	City; County	
Opportunity for right turn overlap, which could improve traffic flow.		FDOT, County		
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Opportunity for right turn overlap, which could improve traffic flow.		FDOT, County		
People back up at this intersection and it is located close to a park.		City		
Residents complained that traffic backs up at this intersection.		City		
This will improve access to 595 and can alleviate traffic on Federal Highway by providing an alternative route to 595.	Need to determine feasibility based on height and space requirements for FEC.	FDOT	City; County; FEC	
Vehicles turning right on red pose threats to pedestrians crossing when they have the walk signal. If a shared use path or cycle track is created, sight distance and other issues could elevate the number of pedestrians and bicyclists utilizing the corridor. Prohibiting right turns on red could help to create a safer environment for pedestrians and bicyclists.	May have adverse impacts to vehicular traffic. The City will need to determine which mode gets priority and base decisions on that.	City	FDOT	X



Strategy Category	Location			Strategy	Timeframe	Feasibility Category*	Next Steps	
	Street	From	To					
Vehicular	Federal Highway	SE 20th Street		Signalize intersection	Short Term	3	Coordinate with local businesses and community to develop consensus; Traffic analysis and planning study.	
Vehicular	SE 20th Street	Miami Rd		Signalize intersection or create roundabout	Short Term	3	Coordinate with local businesses and community to develop consensus; Traffic analysis and planning study.	
Vehicular	SE 20th Street	SE 10th Ave		Signalize intersection or create roundabout	Short Term	3	Coordinate with local businesses and community to develop consensus; Traffic analysis and planning study.	
Vehicular	SW 12th Ave	SW 12th Way		Create Roundabout		4	N/A.	
Wayfinding	I-595 Federal Highway Exit	Port		Better sign SR 84 & Eller Drive as access to Port	Short Term	1	Incorporate into Wayfinding plan.	
Wayfinding	SE 10th Ave			Better sign SE 10th Ave as access to Harbor Shops	Short Term	1	Incorporate into Wayfinding plan.	
Wayfinding	Andrews Avenue	Beach		Better sign Andrews and 3rd as routes to Downtown and Las Olas	Short Term	1	Incorporate into Wayfinding plan.	

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Benefit	Potential Issue(s)	Lead Agency	Coordination Partners	Coordination with the Wave Needed? (X=Yes)
This could help improve traffic flow east and west of Federal highway, especially if SE 20th Street is connected.	This may cause more congestion on Federal Highway. Needs to be warranted; This should only occur if 20th Street is opened to the Harbor Shops or to the Convention Center.	FDOT, County	City	
Provides for traffic calming and intersection control if connection between Federal Highway and the Harbor Shops is made.	Need coordination with local businesses; This should only occur if 20th Street is opened to the Harbor Shops or to the Convention Center.	FDOT, County and City		
Provides for traffic calming and intersection control if connection between Federal Highway and the Harbor Shops is made.	Need coordination with local businesses; This should only occur if 20th Street is opened to the Harbor Shops or to the Convention Center.	County and City		
Creates access management if SW 12th Ave becomes a street.	Overwhelming lack of community support.	City		
Helps limit trips to Port on 17th Street.	Coordination and funding.	FDOT	Port, County	
Helps to provide a new access to Harbor Shops and provides a back entrance.	Coordination and funding.	City		
Helps limit northbound turn movements onto Federal.	Coordination and funding.	City		

