

NEIGHBORHOOD MOBILITY MASTER PLAN



SHADY BANKS

Shady Banks CSLIP Priority Projects

1. Raised intersections

- SW 17th Ave @ SW 12th Ct
- SW 17th Ave @ SW 14th Ct
- SW 18th Ave @ SW 14th Ct
- SW 18th Ave @ SW 15th St
- SW 15th Ave @ SW 13th Ct
- SW 15th Ave @ SW 13th St

2. Intersection Improvement

- Modify Exit @ SW 15th Ave

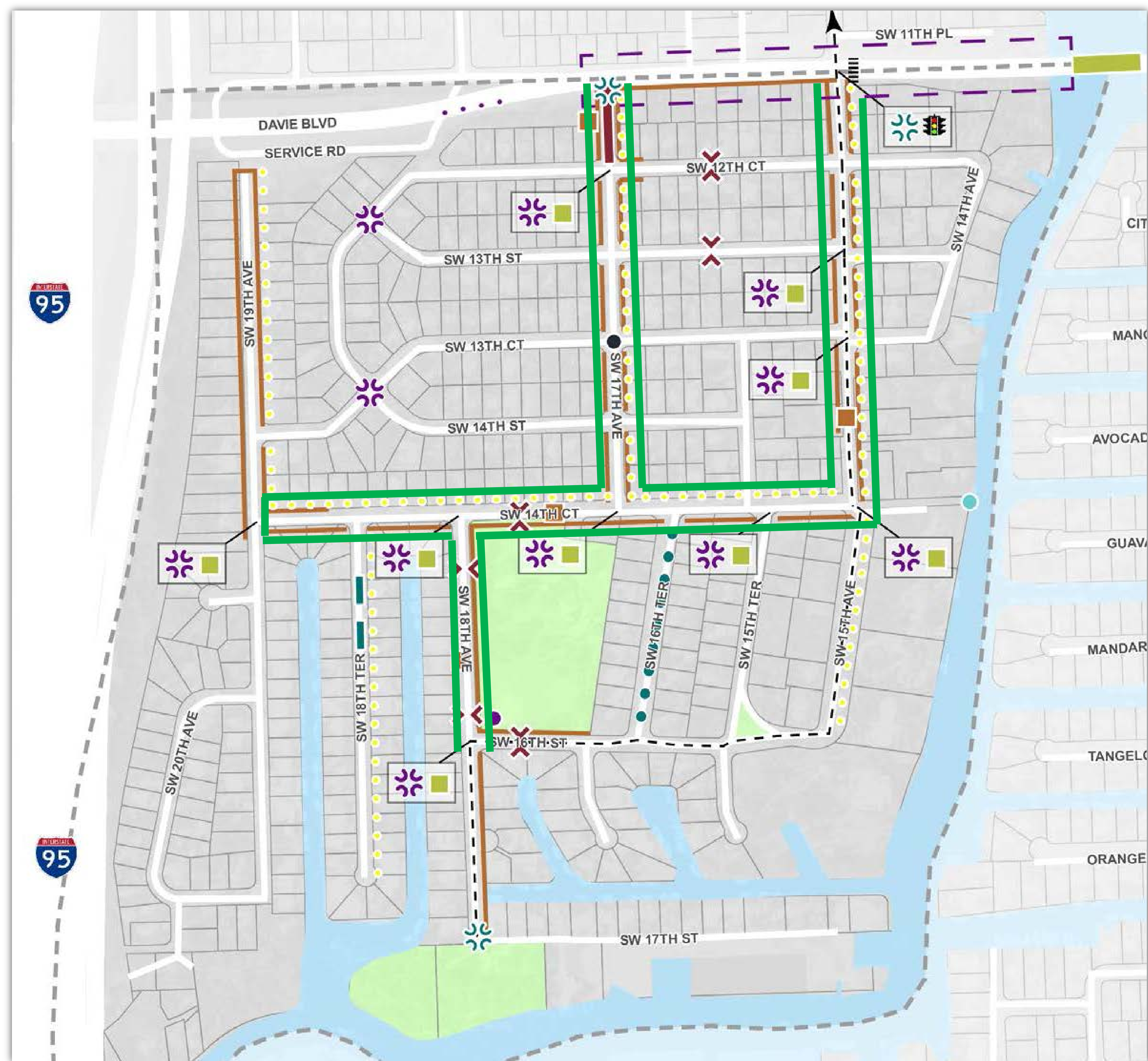
3. Bulb Out @ One Way Transition

4. Sidewalks

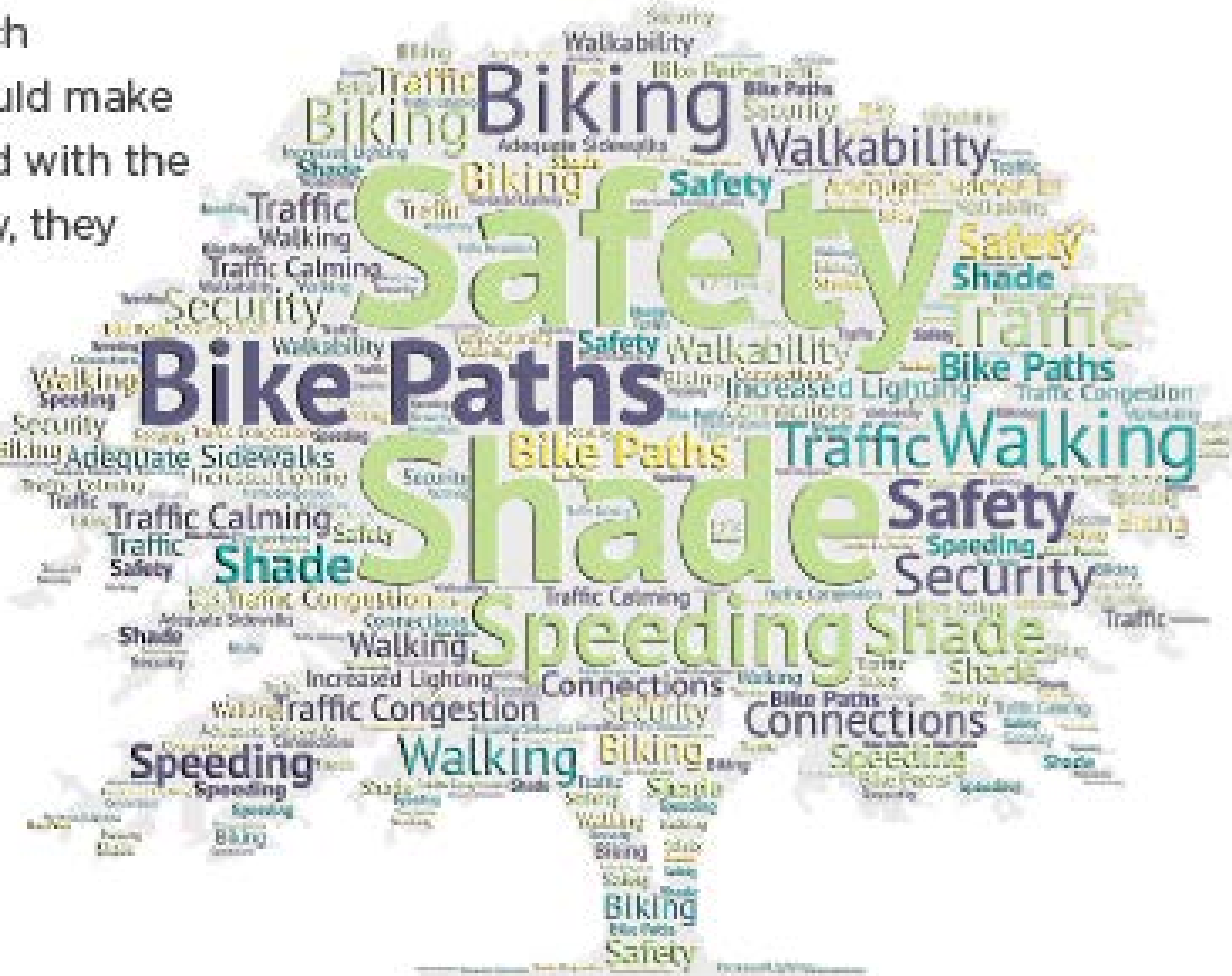
- SW 14th Ct (SW 19th Ave to SW 15th Ave south side gaps)
- SW 12th Ct (SW 15th Ave to SW 17th Ave gaps)

5. Pedestrian Lighting

- SW 17th Ave
- SW 15th Ave
- SW 14th Ct



When asked which improvement would make residents satisfied with the master plan study, they answered:



Priority 3 - Modified Intersection and Added Bike Lanes

■ RAISED INTERSECTION



The entire area of an intersection is raised above normal pavement surface level to reduce vehicle speed through the intersection and provide a better view of pedestrians and motorists.

» PINCH POINT



Pinch points narrow the travel way, requiring drivers to slow down or yield to each other to maneuver through the area. Pinch points can be created using curb extensions, landscaping, or edge islands in the street. If desired, pinch points can be designed to accommodate bicycles, as shown above.

— CONSTRUCT SIDEWALK



Sidewalks provide a minimum level of comfort for pedestrians, absent of any other features. Sidewalks are desired throughout the neighborhood but were especially supported on SW 17th Ave, SW 15th Ave, SW 14th Ct, and SW 18th Ave. A network of sidewalks will improve pedestrian comfort and accessibility. A 3' grass buffer may separate the sidewalk from the street.

... PEDESTRIAN LIGHTING



Installing pedestrian-scale lighting, especially at locations that are not fronted by homes, will create a safer and more comfortable environment for walking. These lights can be solar powered and/or LED to save energy and promote sustainability.

MASTER PLAN

Based on the analysis and community input conducted throughout the project, a number of context sensitive strategies were developed to calm traffic and enhance the pedestrian and bicycling environment in the neighborhood. Together, these strategies will enhance the accessibility, comfort, and overall livability within and around Shady Banks.

The plan presented in this report focuses on strategies to calm traffic and improve mobility within and around Shady Banks. It also considers strategies to connect Shady Banks to the rest of the City. These include strategies on Davie Boulevard; strategies concerning B-Cycle and the Water Trolley; and the proposed Bicycle Boulevard. Although these strategies are part of the overall Master Plan, the improvements will likely be funded by different sources and in a different manner than the neighborhood streets. Additionally, due to the complex nature of these streets, these improvements are intended to be high level suggestions that may change based on further analysis.

In order to achieve the neighborhood's goals, the Neighborhood Mobility Master Plan recommends intersection, mid-block, and street focused traffic calming strategies as well as enhancements to the pedestrian and bicycling network. **FIGURE 15** presents a comprehensive summary of the recommendations. The images and descriptions on the following pages provide various details and examples for each strategy.

A NOTE ON IMPLEMENTATION

Many of the strategies in this plan will require further study prior to implementation. This will include coordination with the neighbors who live in close proximity to the improvement location and technical analysis to determine the most appropriate design, location, and signage for the strategy.

For example, it may be determined that a pinch point with two edge islands or a chicane with three alternating edge islands is preferable to a mini median islands to narrow the road based on the surrounding neighbor's desires. Another example would be the creation of a raised intersection in place of a mini roundabout based on available space and other considerations.

FIGURE 15
NEIGHBORHOOD MOBILITY
MASTER PLAN

- New Water Trolley Stop
- New B-Cycle Station
- Add Pedestrian Lighting
- Add Street Trees
- Add Plastic Bollards
- 🚦 Adjust Signal Timing
- 📏 Adjust Bridge Timing
- ⚙️ Tighten Turning Radii
- 🚧 Speed Signage Program
- 📏 Construct Raised Intersect
- 🔗 Construct Pinch Point
- Construct Mini Median Isla
- - - Create Bicycle Boulevard
- Construct Sidewalk
- Construct Mini Roundabout
- ⚙️ Change Geometry
- 🚧 Install Gateway Treatment
- ▤ Paint Crosswalk
- 📏 Conduct Safety Study



NEW WATER TROLLEY STOP



The Water Trolley connects to Downtown and Las Olas free of charge. A new stop at on SW 14th Court could provide better access for Shady Banks neighbors by allowing them to leave their cars behind when headed to many of the desired destinations.

NEW B-CYCLE STATION



A new B-Cycle station in Hortic Park could provide access to bicycles for Shady Banks residents. This could help to provide better bicycle access to surrounding destinations. It could also encourage visitors to Hortic Park and Bill Keith Preserve to bike instead of driving, reducing neighborhood traffic.

PEDESTRIAN LIGHTING



Installing pedestrian-scale lighting, especially at locations that are not fronted by homes, will create a safer and more comfortable environment for walking. These lights can be solar powered and/or LED to save energy and promote sustainability.

ADD STREET TREES



Street trees help create a sense of enclosure along the road, narrowing a driver's field of vision and thus encouraging lower vehicle speeds. They can also help provide a buffer between pedestrians and vehicles. They also help to lower temperatures, provide shade for pedestrians, and absorb stormwater and airborne pollutants.

ADD PLASTIC BOLLARDS



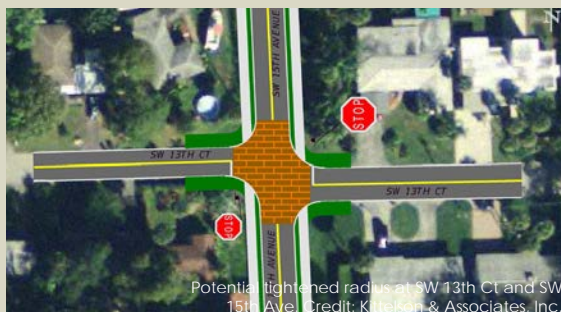
Neighbors noted that people drive through the striped portion of Davie Blvd west of SW 17th Avenue, which leads directly into the turn lane into Shady Banks. Adding plastic bollards to the striped safety zone could help to deter people from using it to speed through and could deter cut through traffic within the neighborhood.

ADJUST BRIDGE & SIGNAL TIMING



Traffic backs up on Davie Blvd. when the bridge opens. Adjusting the schedule could help ease traffic. Also, the signal at SW 15th Ave does not allow westbound traffic through when the bridge is up. Adjusting the signal timing to better work with the bridge timing could help ease traffic.

✿ TIGHTEN TURNING RADII



Large turning radii facilitate faster vehicle turning movements and increase crossing distance for pedestrians. Reducing the curb radii will aid in slowing vehicles and improve pedestrian safety. It may also discourage truck cut-through traffic.

■ SPEED SIGNAGE PROGRAM



Electronic speed signs use radar detection to alert drivers of their speeds as they pass by. They are generally installed as a temporary measure, although they may be permanent. They can be placed in the marked locations for one month at a time to help alert drivers to slow down. Other neighborhoods around the country have found success with neighborhood led signage programs, such as "Isabella" cut outs and "Children at Play" signs that neighbors can put up on their own. "No Outlet" signs on SW 18th Avenue could also help limit cut through.

■ RAISED INTERSECTION



The entire area of an intersection is raised above normal pavement surface level to reduce vehicle speed through the intersection and provide a better view of pedestrians and motorists.

✂ PINCH POINT



Pinch points narrow the travel way, requiring drivers to slow down or yield to each other to maneuver through the area. Pinch points can be created using curb extensions, landscaping, or edge islands in the street. If desired, pinch points can be designed to accommodate bicycles, as shown above.

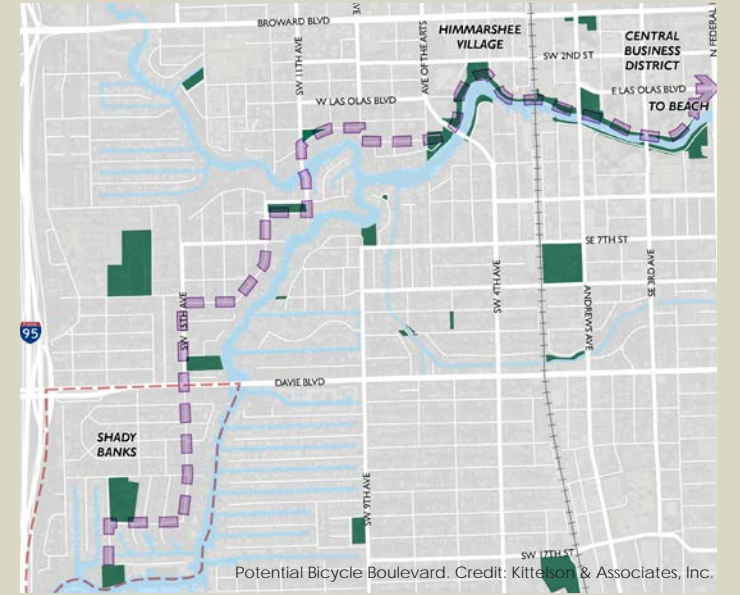
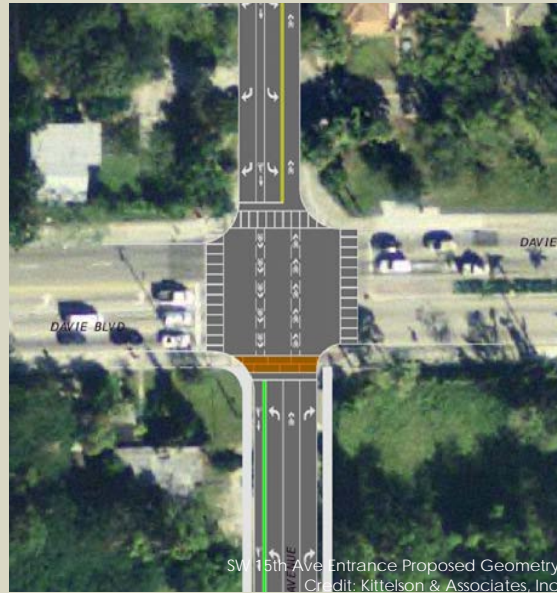
— MINI MEDIAN ISLANDS



Islands constructed between travel lanes can help narrow the lanes and slow down traffic. They may be landscaped, helping to beautify the neighborhood. Adding a raised crossing or speed table to the median island can further help to slow traffic and should be considered in the design phase.

CREATE BICYCLE BOULEVARD

There are a number of parks in Shady Banks and destinations near Shady Banks north of Davie Boulevard that are difficult to access via biking or walking due to a lack of dedicated space. A bicycle boulevard could help to address this. Bicycle Boulevards are low volume and low speed streets that have been optimized for bicycle travel through treatments such as traffic calming and traffic reduction, signage and pavement markings, and intersection crossing treatments. Shady Banks could easily be connected to the destinations to the north and east via streets that have already been or could easily be traffic calmed with small improvements, eventually connecting into the Riverwalk.



CHANGE GEOMETRY



At SW 17th Avenue, removing the high speed right turn lane and installing a brick street, a neckdown, and a raised intersection at SW 12th Court can discourage cut through, slow traffic, and better direct traffic movement.



At SW 15th Avenue, narrowing the exit lanes creates space for sidewalks and bicycle facilities and can help to reduce the number of people turning the wrong way into Shady Banks, which neighbors noted as a concern.



At the intersection of SW 18th Avenue and SW 17th Street, restriping and adding stop signs could help to address the sight distance issue caused by a wall and a sharp turn. Painting the intersection could further help to calm traffic.

CONSTRUCT SIDEWALK



5' Sidewalk with Buffer. Credit: Google

Sidewalks provide a minimum level of comfort for pedestrians, absent of any other features. Sidewalks are desired throughout the neighborhood but were especially supported on SW 17th Ave, SW 15th Ave, SW 14th Ct, and SW 18th Ave. A network of sidewalks will improve pedestrian comfort and accessibility. A 3' grass buffer may separate the sidewalk from the street.

MINI ROUNDABOUT



Shady Banks Mini Roundabout. Credit: Kittelson & Associates, Inc.

A small circular island used in the middle of intersections to force vehicular traffic to slow and negotiate around it. They also increase vehicular safety. It may be landscaped and may have mountable curbs. Raised intersections may be used in place of mini roundabouts, if desired, but may not be as effective at traffic calming.

GATEWAY TREATMENT



Potential Gateway Treatment. Credit: Cadence.

Neighbors noted that drivers speed into the entrance on SW 17th Avenue. Paving the streets with brick can help to slow vehicles. Combined with a new physical gateway feature to the neighborhood, they can help to alert drivers to be watchful for pedestrians or bicyclists. Stamped concrete could provide a cheaper alternative.

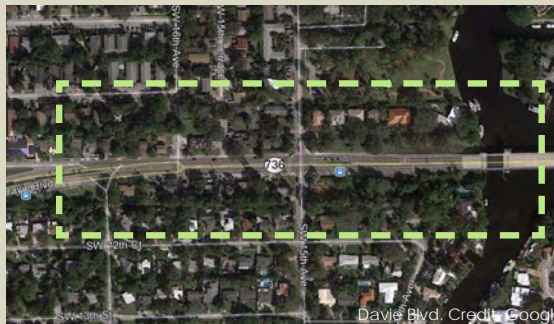
PAINT CROSSWALK



SW 15th Ave Missing Crosswalk. Credit: Kittelson & Associates, Inc.

There is no crosswalk on the east leg of the intersection of Davie Boulevard and SW 15th Avenue. However, there is a bus stop on the northeast corner of the intersection. Neighbors noted that transit riders cross on the east leg even though there is no crosswalk. Painting a crosswalk can help address this issue.

CONDUCT SAFETY STUDY



There were 193 crashes in the Shady Banks study area between June 2011 and June 2015, and 91 (47%) of them occurred on Davie Boulevard between SW 17th Ave and the Bridge. A safety study should be completed in this area to help determine solutions to reduce the number of crashes.

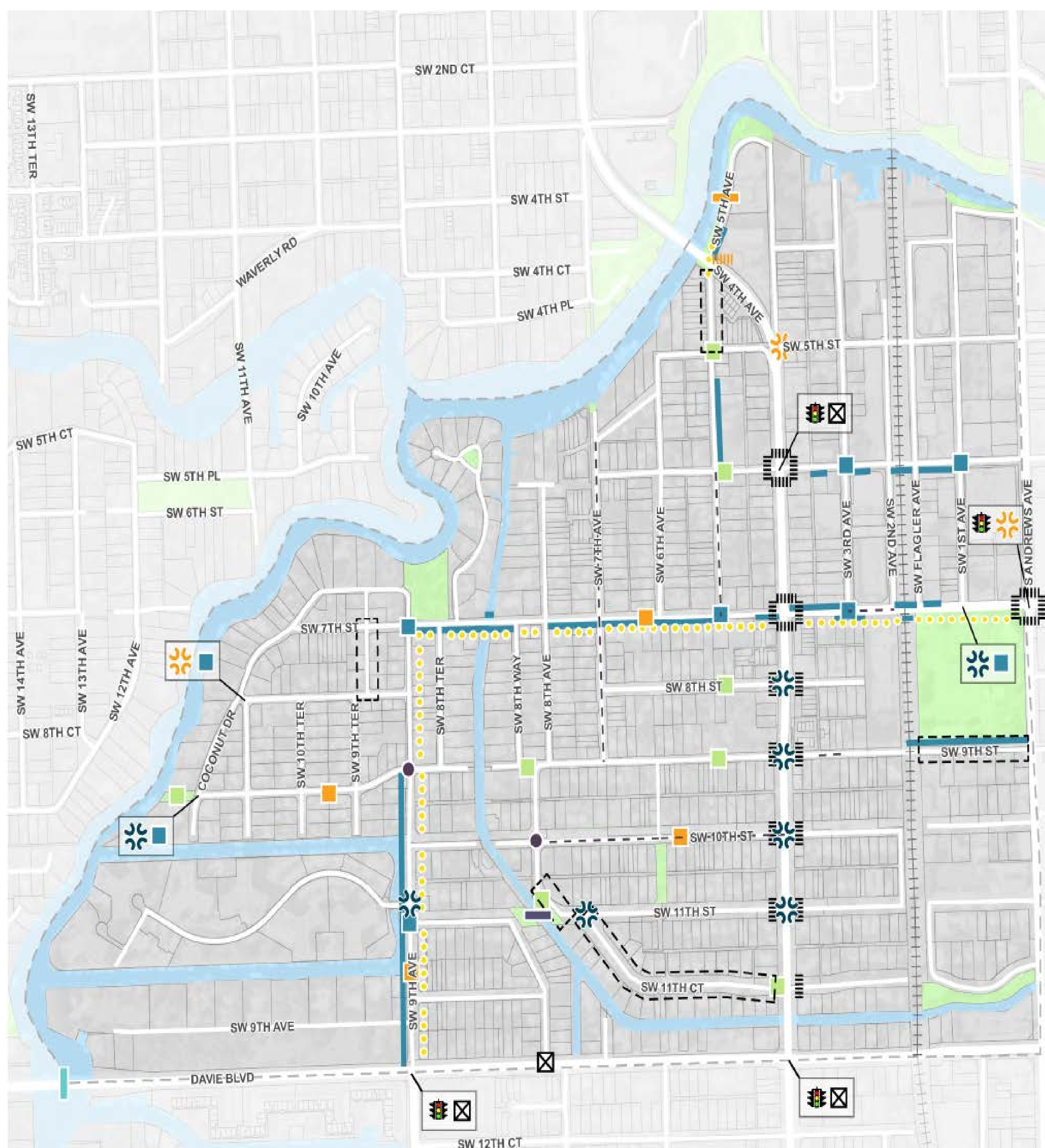
NEIGHBORHOOD
MOBILITY
MASTER PLAN

TARPON RIVER



Tarpon River CSLIP Priority Projects

1. Sidewalks
 - SW 7th Street (SW 9th Ave to Hardy Park north side)
2. Mini Round-about (SW 9th Ave & SW 9th St)
3. Pocket Park – Improved access to Riverwalk @ New River Bridge
 - (lighting under bridge and access @ SW 5th St & SW 5th Ave)
4. Raised intersection
 - SW 7th St & SW 9th Ave

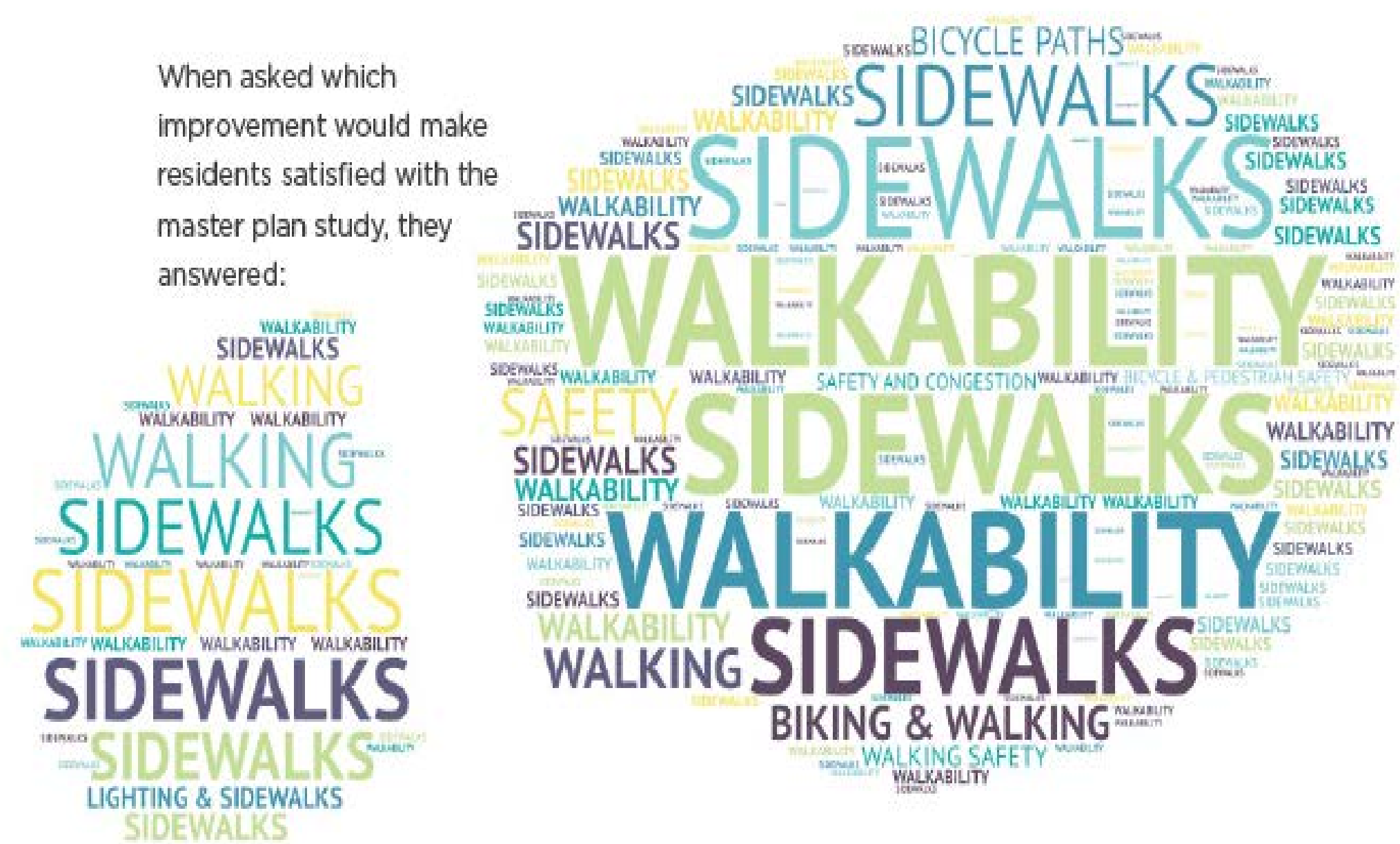


POCKET PARK WITH IMPROVED PED/BIKE CONNECTIVITY



There are a number of closed streets and small parks throughout Tarpon River that are underutilized. For example, many of the closed streets have been blocked off by narrow planters. With some small changes, they could be turned in to enhanced pedestrian and bicycle connections that also serve to improve drainage through landscape design. The Sara Horn Greenway is a narrow park adjacent to a wide street. By narrowing the street, it can be expanded to become a greater asset to the community. These changes will provide valuable aesthetic, environmental, recreational, and traffic calming improvements for Tarpon River.

When asked which improvement would make residents satisfied with the master plan study, they answered:



■ RAISED INTERSECTION



The entire area of an intersection is raised above normal pavement surface level to reduce vehicle speed through the intersection and provide a better view of pedestrians and motorists in the intersection. These are recommended in areas where driveway or roadway width prevented the use of mini roundabouts.

... PEDESTRIAN LIGHTING



Installing pedestrian-scale lighting, especially at locations that are not fronted by homes, will create a safer and more comfortable environment for walking. These lights can be solar powered or LED to save energy and promote sustainability.

CONSTRUCT SIDEWALK



Sidewalks provide a minimum level of comfort for pedestrians, absent of any other features. Sidewalks are desired on SW 9th Ave and SW 7th Street. A network of sidewalks will improve pedestrian comfort and accessibility. A 3' grass buffer will separate the sidewalk from the street.

● MINI ROUNDABOUT



A small circular island used in the middle of intersections to force vehicular traffic to slow and negotiate around it. They also increase vehicular safety. It may be landscaped and may have mountable curbs. Raised intersections may be used in place of mini roundabouts, if desired, but may not be as effective at traffic calming.

MASTER PLAN

Based on the analysis and community input conducted throughout the project, a number of context sensitive strategies were developed to calm traffic and enhance the pedestrian and bicycling environment in the neighborhood. Together, these strategies will enhance the accessibility, comfort, and overall livability within and around Tarpon River.

The overall master plan is split into two parts: the Neighborhood Streets Master Plan and the External Streets Master Plan. The Neighborhood Streets Master Plan generally focuses on internal streets located within Tarpon River. The External Streets Master Plan considers the two roadways that bound Tarpon River: Cypress Creek Road and NW 31st Avenue.

NEIGHBORHOOD MOBILITY MASTER PLAN

The Neighborhood Mobility Master Plan considers strategies to calm traffic and improve mobility within and around Tarpon River.

In order to achieve the neighborhood's goals, the Neighborhood Streets Master Plan recommends intersection, mid-block, and street focused traffic calming strategies as well as enhancements to the pedestrian and bicycling network. Figure 20 presents a comprehensive summary of the recommendations. The images and descriptions on the following pages provide various details and examples for each strategy.

A NOTE ON IMPLEMENTATION

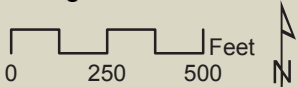
Many of the strategies in this plan will require further study prior to implementation. This will include coordination with the neighbors who live in close proximity to the improvement location and technical analysis to determine the most appropriate design, location, and signage for the strategy.

For example, it may be determined that a pinch point with two edge islands or a chicane with three alternating edge islands is preferable to a mini median islands to narrow the road based on the surrounding neighbor's desires. Another example would be the creation of a raised intersection in place of a mini roundabout based on available space and other considerations.

FIGURE 20
NEIGHBORHOOD MOBILITY
MASTER PLAN

Master Plan

- • • Pedestrian Lighting
- Speed Signage Program
- ⊠ Don't Block The Box
- Raised Intersection
- Pocket Park with Improved Ped/Bike Connectivity
- Mini Roundabout
- ⊙ Change Geometry
- ⊙ Tighten Turning Radii
- Modify Bridge Timing
- ⚡ Modify Signal Timing
- Pedestrian Bridge
- ||||| Improve Pedestrian Access
- Raised Crossing
- ||||| Paint Crosswalk
- Construct Sidewalk
- - - Mini Median Islands
- [- - -] Formalize/Study Parking



• • • PEDESTRIAN LIGHTING



Pedestrian lighting in Hagler Village. Credit: Google

Installing pedestrian-scale lighting, especially at locations that are not fronted by homes, will create a safer and more comfortable environment for walking. These lights can be solar powered to save energy and promote sustainability

■ SPEED SIGNAGE PROGRAM



Riverside Park Chicane. Credit: Elvert Barnes

Electronic speed signs use radar detection to alert drivers of their speeds as they pass by. They are generally installed as a temporary measure, although they may be permanent. They can be placed in the marked locations for one month at a time to help alert drivers to slow down. Other neighborhoods around the country have found success with neighborhood led signage programs, such as "Isabella" cut outs and "Children at Play" signs that neighbors can put up on their own.



Child at Play Sign. Credit: yajajoff.com

☒ DON'T BLOCK THE BOX



Don't Block the Box Treatment. Credit: Google

Residents have identified locations where traffic backs up through intersections. "Don't Block the Box" signs coupled with painted intersections (like the one in the image above) can alert drivers not to block the intersection.

■ RAISED INTERSECTION



Miami Road Raised Intersection. Credit: Kittelson & Associates, Inc.

The entire area of an intersection is raised above normal pavement surface level to reduce vehicle speed through the intersection and provide a better view of pedestrians and motorists in the intersection. These are recommended in areas where driveway or roadway width prevented the use of mini roundabouts.

● MINI ROUNDABOUT



Tarpon River Mini Roundabout. Credit: Kittelson & Associates, Inc.

A small circular island used in the middle of intersections to force vehicular traffic to slow and negotiate around it. They also increase vehicular safety. It may be landscaped and may have mountable curbs. Raised intersections may be used in place of mini roundabouts, if desired, but may not be as effective at traffic calming.

POCKET PARK WITH IMPROVED PED/BIKE CONNECTIVITY



Rendering of Improved Park at Sara Horn Greenway. Credit: Cadence.



Rendering of Improved Park on SW 6th Street. Credit:

There are a number of closed streets and small parks throughout Tarpon River that are underutilized. For example, many of the closed streets have been blocked off by narrow planters. With some small changes, they could be turned in to enhanced pedestrian and bicycle connections that also serve to improve drainage through landscape design. The Sara Horn Greenway is a narrow park adjacent to a wide street. By narrowing the street, it can be expanded to become a greater asset to the community. These changes will provide valuable aesthetic, environmental, recreational, and traffic calming improvements for Tarpon River.

CHANGE GEOMETRY



Intersection geometry lends itself to higher vehicular speeds in some locations. This can cause issues for pedestrians crossing the street and can encourage people to run stop signs. Therefore, changes in intersection geometry are recommended at three locations. At SW 4th Avenue and SW 5th Street, the street can be skewed so that vehicles can no longer exit SW 4th Avenue at high speeds. The addition of a stop sign and a left turn will further calm traffic. At SW 8th Street and Coconut Drive, the intersection will also be brought to a 4 way stop, reducing the pavement that needs to be crossed and allowing drivers to better see each other. At SW 7th Street and Andrews Avenue, widening the westbound lane and narrowing the eastbound left turn lane could help to better facilitate turning movements.

TIGHTEN TURNING RADII



Potential tightened radius at River Reach. Credit: Killipson & Associates, Inc.

Large turning radii facilitate faster vehicle turning movements and increase crossing distance for pedestrians. Reducing the curb radii will aid in slowing vehicles and improve pedestrian safety. It may also discourage truck cut-through traffic.

MODIFY BRIDGE TIMING



Davie Blvd Bridge. Credit: Bing

Traffic backs up on Davie Blvd when the bridge opens. On weekdays, it only opens for emergencies and towing companies from 7:30-9 AM and 4:30-6 PM. However, it opens irregularly throughout the day, including from 9-10 AM when there is usually traffic on Davie Blvd. Adopting a regular schedule or further limiting use in peak hours could help ease traffic.



MODIFY SIGNAL TIMING



Davie Blvd at SW 9th Ave. Credit: Google



SW 6th Street at SW 4th Street. Credit: Google

Signal timing was raised as an issue at a number of locations. A signal timing analysis revealed that an update to the signal timing could be beneficial on Davie Blvd at SW 9th Ave and at SW 4th Ave and on SW 7th Street at Andrews Ave. The issue on SW 9th Ave could also be related to the bridge openings, which should be further studied. The signal on SW 6th Street at SW 4th Ave flashes on the weekends, which causes delays for east-west traffic and difficulty crossing the street. It is recommended that the signal timing be updated to a full signal at all times. A full signal study should be completed to determine impacts to the system from any changes.



PEDESTRIAN BRIDGE



Pedestrian Entry on NW 62nd Street. Credit: Kittelson & Associates, Inc.

Neighbors noted a lack of opportunities for crossing Tarpon River. A new pedestrian/bicycle bridge on SW 11th Street will provide connectivity on a low speed and volume street that provides good connectivity to parks in and around the neighborhood.

IMPROVE PEDESTRIAN ACCESS



Proposed Pedestrian Access Point

Existing Pedestrian Access Point

SW 4th Ave Bridge. Credit: Google

The bridge on SW 4th Avenue is a primary river crossing point for Tarpon River residents. However, the current access requires residents to walk up the ramp beginning at SW 7th Street. This is not convenient for those accessing the bridge from the Riverwalk. New stairs connecting the Riverwalk to the bridge could help improve access.

RAISED PED CROSSING



Raised Pedestrian Crossing at Intersection. Credit: Wikimedia Commons

The pedestrian crossing is raised to give motorists and pedestrians a better view of the crossing area. Because of the elevation change, traffic is slowed. The raised crossing may also be accompanied by a pinch point to reduce the crossing distance for pedestrians and further calm traffic.

PAINT CROSSWALK



Riverside Park Chicane. Credit: Kittelson & Associates, Inc.

There are three locations where crosswalks are missing at signalized intersections. It is recommended that crosswalks are painted to allow for better pedestrian accessibility. Crosswalks should also be painted along driveways on SW 4th Ave to alert drivers of pedestrians.

— — MINI MEDIANS



Mini Median Island. Credit: Google

Islands constructed between travel lanes can help narrow the lanes and slow down traffic. They may be landscaped, helping to beautify the neighborhood. Additionally, by locating at the northern entrance to the Village, a gateway feature will be created.

— CONSTRUCT SIDEWALK



5' Sidewalk with Buffer. Credit: Google

Sidewalks provide a minimum level of comfort for pedestrians, absent of any other features. Sidewalks are desired on SW 9th Ave and SW 7th Street. A network of sidewalks will improve pedestrian comfort and accessibility. A 3' grass buffer will separate the sidewalk from the street.

FORMALIZE/STUDY PARKING



Riverside Park Chicane. Credit: Kittelson & Associates, Inc.

Throughout Tarpon River, people park on the side of the street. In some locations, where the street is wide, on street parking can be formalized. This can have a secondary benefit of calming traffic. A parking study should be completed for the entire neighborhood to address the needs and opportunities.