



PALM BEACH
Transportation
Planning Agency

Transit Access Plan

**Executive Summary & General Recommendations
2019**



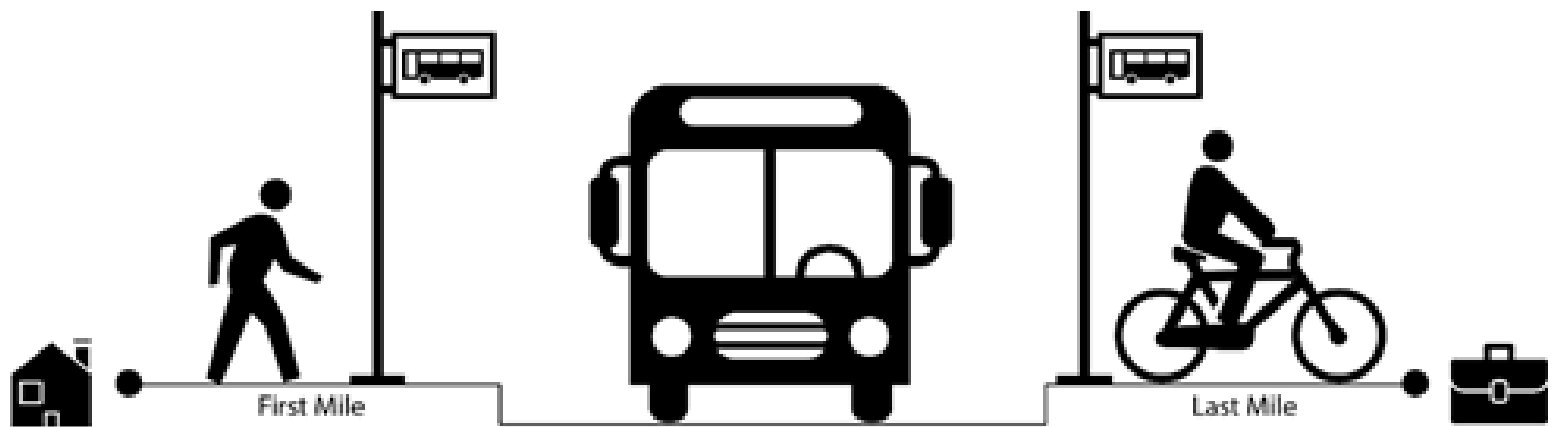
Executive Summary

The purpose of the Palm Beach Transportation Planning Agency (TPA)'s *Transit Access Plan* is to identify roadway modifications that improve pedestrian and bicycle safety and access to high ridership Palm Tran locations in Palm Beach County. In order to create a safe, efficient and connected transportation system, we must provide safe access to transit for users of all ages and abilities. Improving first and last mile connections to transit enables people of all ages and abilities to safely access destinations such as employment, education, medical facilities, and healthy foods. Creating a more walk and bicycle friendly environment can also encourage more walking, bicycling, and transit use as well as improve overall community health. The TPA initially identified 20 high ridership Palm Tran bus stops and narrowed them down to the following six (6) locations throughout the county with the most opportunity for safety improvements:

1. West Palm Beach: Palm Beach Lakes Blvd at N Congress Ave
2. Boynton Beach: Congress Ave at Old Boynton Rd
3. Belle Glade: SR-80 at Hooker Hwy
4. Boca Raton: Butts Rd at Town Center Rd
5. Riviera Beach: Military Trail at W Blue Heron Blvd
6. Delray Beach: Atlantic Ave at Military Trail

An approximate radius of 1/2 mile for each identified high ridership location was used to conduct walking field audits with the participation of planners and engineers from the TPA, its consultant (CTS Engineering, Inc.), Palm Tran, roadway owner(s) and local municipality. During the field audits, the engineer representative measured lighting at the major transit hubs during the hours prior to the sun rising and measured the width and slope of the landing pads at bus stops as well as the widths of existing sidewalks, bicycle lanes, shoulders, and vehicle travel lanes. The engineer also looked at crosswalks and infrastructure for compliance with standards, especially ADA compliance standards. Those participating in the audits walked the length of the designated corridors, took photographs and made notes of conditions along the way during the morning hours until mid-day.

Based on all the information gathered as well as current existing conditions, state and local standards and right-of-way (ROW) constraints, recommendations are provided through map overlays. Key recommendations include connecting sidewalk and bicycle facility gaps; Americans with Disabilities Act (ADA) compliant ramps and countdown pedestrian crossing signals; pedestrian scale lighting; crosswalks and midblock crossings, where appropriate; and providing facilities at high ridership bus stops for transit riders, such as benches, trash receptacles, lighting, bicycle racks and shade. Next steps will be to work with the roadway owners, local municipalities and Palm Tran to plan, prioritize and fund these recommendations.



Transit Access Plan: Location 1

Location:

Palm Beach Lakes Blvd. @ N Congress Ave.
West Palm Beach, Florida
Palm Tran Stop: 603

Legend:

-  Top Ridership Stop
-  Existing Bicycle Facilities
-  No Bicycle Facilities
-  Existing Sidewalks
-  No Sidewalks
-  Study Area

Background:

Roadway Owner(s): *County*
Municipality: *West Palm Beach*

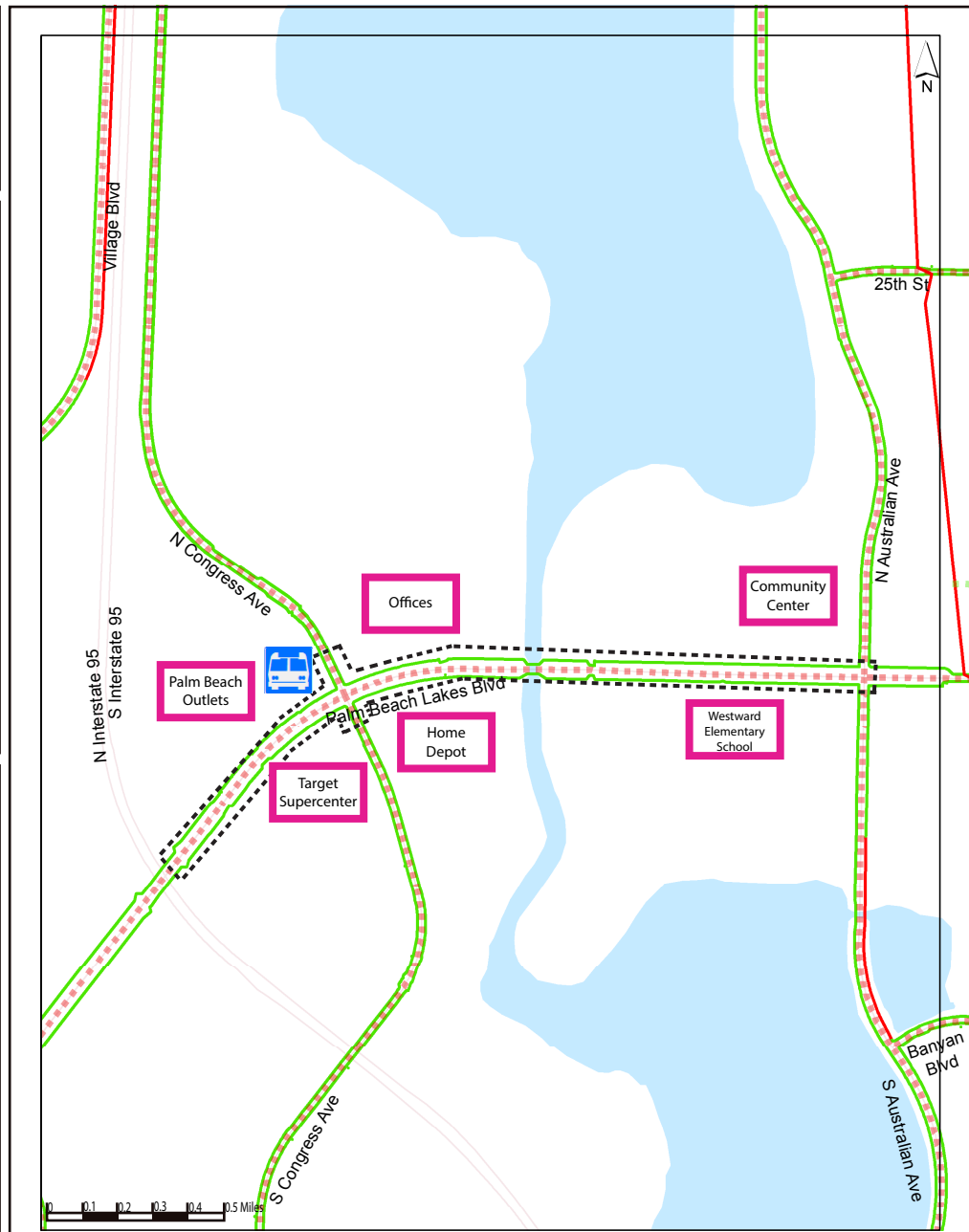
Speed Limit:

Palm Beach Lakes Blvd. - 40 MPH
ROW Width: *120 ft*

TPA Design Guidelines: *Suburban*
FDOT Context: *C4 - Urban General*

2040 Peak Traffic Volume: *32,580 vphpd*

Bus Route(s): *2, 33, 49*



Recommendations:

Location	Limits		Description
	From	To	
Palm Beach Lakes Blvd.	I-95	Bridge over Lake Mangonia	Install 7' buffered bike lanes by reducing all travel lanes to 11' and right turn lanes to 10' via a combination of restriping and minor widening. Highlight conflict areas in green color.
Palm Beach Lakes Blvd.	I-95	Bridge over Lake Mangonia	Reconstruct sidewalk to 10' wide on the north side of roadway and 12' wide shared use path on south side of roadway.
Palm Beach Lakes Blvd.	I-95	Bridge over Lake Mangonia	Add pedestrian level lighting. Consider retrofitting existing roadway lights with pedestrian lights. Reposition lights that are blocked by overhead signage to maximize illumination of crosswalk areas.
Palm Beach Lakes Blvd.	Bridge over Lake Mangonia	Australian Ave	Add pedestrian lighting along frontage road sidewalks.
Palm Beach Lakes Blvd.	I-95	Australian Ave	Install special emphasis crosswalk markings at all signalized intersections.
All crosswalks crossing Palm Beach Lakes Blvd.	Executive Center Drive	Forum Way	Extend median noses to create a pedestrian refuge area.
Palm Beach Lakes Blvd.	Bridge over Lake Mangonia	Australian Ave	Transition bike lane onto frontage roads.
Palm Beach Lakes Blvd. frontage roads	7th Street	Australian Ave	Install shared use lane markings along both frontage roads.
Palm Beach Lakes Blvd. at Golf Ave	Golf Ave (southbound)	Golf Ave (northbound)	Install a signalized midblock crossing Palm Beach Lakes Blvd. frontage roads and Palm Beach Lakes Blvd. to make a north south connection for the linear Westward Park within the median of Golf Ave. Use raised unsignalized raised crosswalks over the frontage roads.
Palm Beach Lakes Blvd. Bus Stops	I-95	Australian Ave	Install boarding and alighting pads, bus shelter pads, bus shelters, benches, route maps, bike racks and trash receptacles at all stops located along Palm Beach Lakes. Connect all bus stops to existing sidewalks and crosswalks.
Sidewalks along Palm Beach Lakes Blvd. frontage roads	Bridge over Lake Mangonia	Australian Ave	Fix broken, cracked and uneven sidewalks existing due to tree roots in close proximity to sidewalk areas. Consider flexible materials and flex joint systems for sidewalks in this area.

Transit Access Plan: Location 2

Location:

Congress Ave. @ Old Boynton Rd.
Boynton Beach, Florida
Palm Tran Stop: 688

Legend:

-  Top Ridership Stop
-  Existing Bicycle Facilities
-  No Bicycle Facilities
-  Existing Sidewalks
-  No Sidewalks
-  Study Area

Background:

Roadway Owner(s): *County*
Municipality: *Boynton Beach*

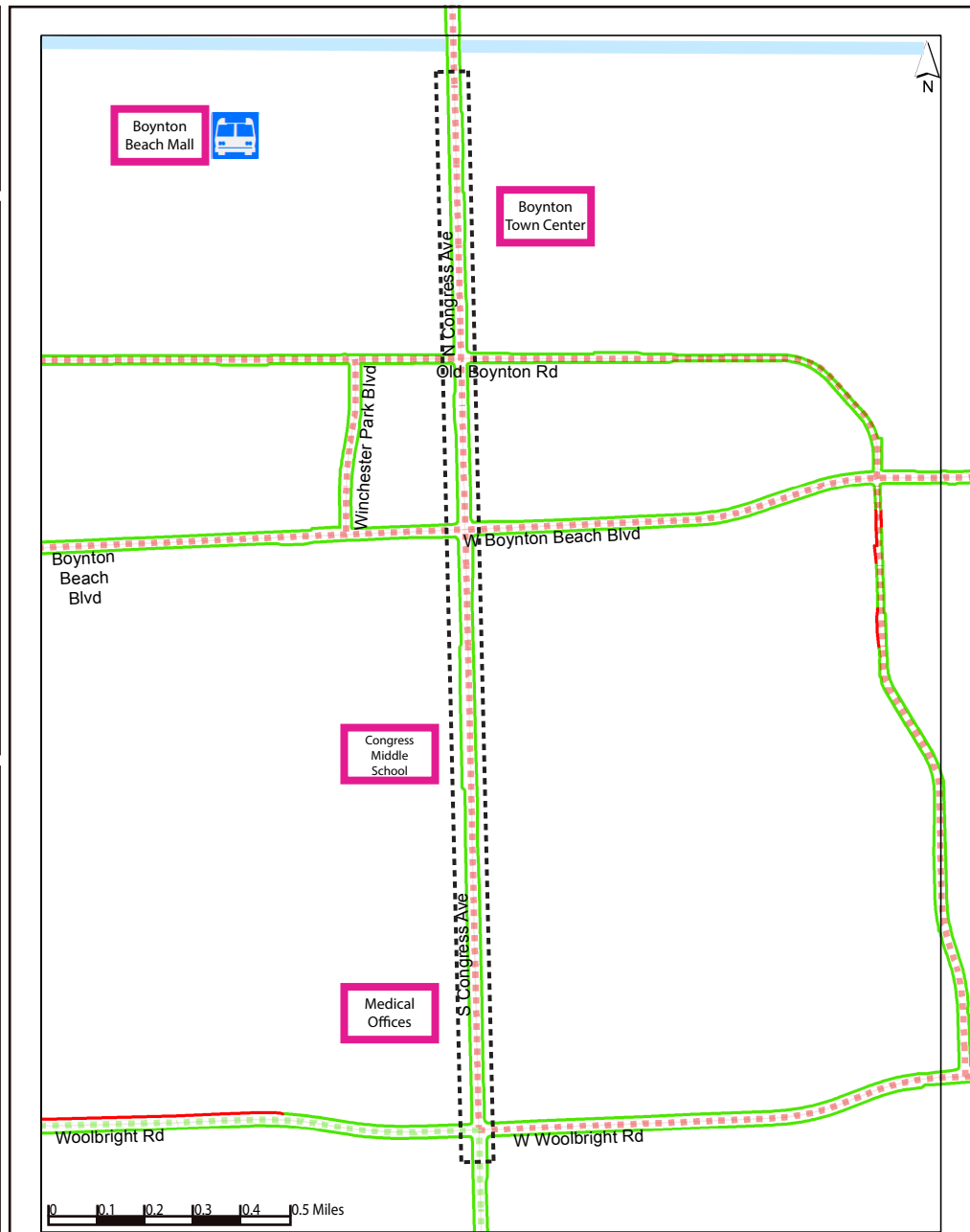
Speed Limit:

S. Congress Ave. - 45 MPH
ROW Width: *120 ft*

TPA Design Guidelines: *Suburban*
FDOT Context: *C4 - Urban General*

2040 Peak Traffic Volume: *52,233 vphpd*

Bus Route(s): *2*



Recommendations:

Location	Limits		Description
	From	To	
Congress Ave.	Boynton Beach Blvd	Woolbright Rd.	Recommend lane elimination for the outside through lanes in order to fit 7' buffered bike lanes and 12' shared use paths in both directions.
Congress Ave.	Boynton Beach Blvd	Savannah Lakes Dr.	Recommend reducing median width from 20' to 15.5'-16' in order to fit 7' buffered bike lanes and 10' shared use paths for both northbound and southbound. This improvement may need access management changes at Congress Ave and the Boynton Beach south Mall Entrance.
Congress Ave.	Woolbright Rd.	Savannah Lakes Dr.	Install special emphasis crosswalk markings at all signalized intersections.
Just south of Ocean Drive	Congress Ave	Congress Middle School Parking Lot	Install sidewalk connection to Congress Middle School parking lot.
Boynton Beach Mall entrances	South Entrance to Boynton Beach Mall	North Entrance to Boynton Beach Mall	Install sidewalks on both sides of the 3 Boynton Beach Mall Entrances. Also create an accessible path leading up the perimeter sidewalk of the mall.
Sidewalk connection from Javert St (neighborhood west of mall)	Javert Street	West side of Boynton Beach Mall	Install accessible route from Javert St to the west side of the Boynton Mall. Include crosswalk across Mall perimeter road and accessible route through parking lot.
Bus Stop 687 (Boynton Beach Mall)	-	-	Consider replacing bike rack with more secure bicycle lockers at this high ridership stop.
Congress Ave. bus stops	Woolbright Rd.	Savannah Lakes Dr.	Install minimum required 8' x 5' boarding and alighting pad at all bus stop locations. Pads must be adjacent to curb and connected to sidewalks. Also install all missing amenities such as shelters, benches, bike racks, route map signage, and trash receptacles at each stop.

Transit Access Plan: Location 3

Location:

SR-80 at Hooker Highway
Belle Glade, Florida
Palm Tran Stop: 3253

Legend:

-  Top Ridership Stop
-  Existing Bicycle Facilities
-  No Bicycle Facilities
-  Existing Sidewalks
-  No Sidewalks
-  Study Area

Background:

Roadway Owner(s): *FDOT*

Municipality: *Palm Beach County*

Speed Limit: *SR-75 - 35 MPH*

SR-80/Hooker Hwy - 45 MPH

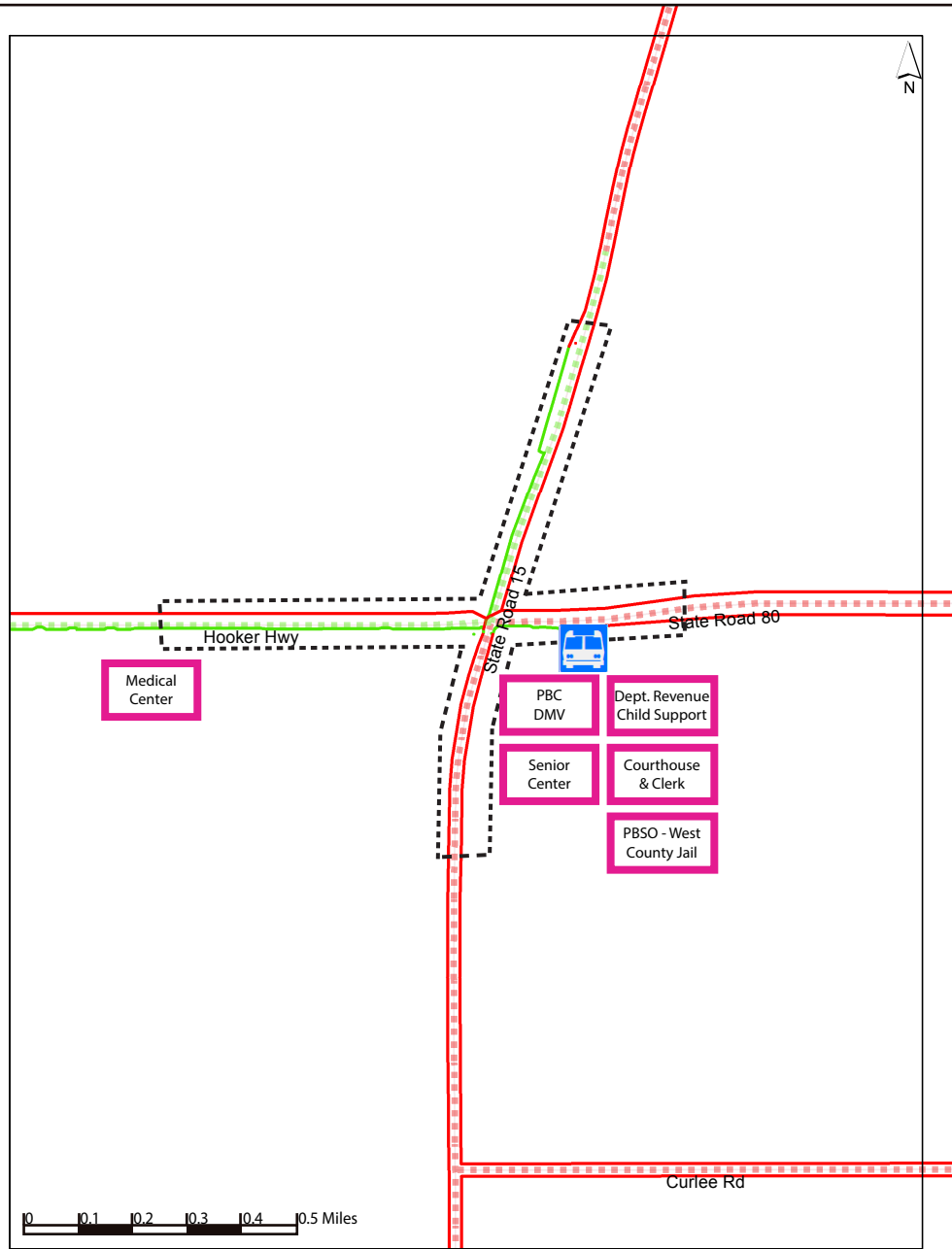
ROW Width: *220 ft*

TPA Design Guidelines: *Rural*

FDOT Context: *C3C - Suburban Commercial*

2040 Peak Traffic Volume: *13,165 vphpd*

Bus Route(s): *47*



Recommendations:

Location	Limits		Description
	From	To	
Bus Stops 4825 & 4888 at Runyon Village	-	-	Install busbays for both north and southbound and midblock crossing with signal since sidewalks and residences are located on the west side of SR-15 only.
SR-15	North of Runyon Village	SR 80	Widen shoulders to accommodate 8' separated bike lanes. Route bike lanes around the back of bus stops to avoid bike/bus conflict area.
Throughout study limits at bus stop locations and along all existing and proposed sidewalk connections	-	-	Due to lack of lighting along roadway, install pedestrian level lights at bus stop locations and along all existing and proposed sidewalks.
Bus Stop 3253 (Fl. Dept of Children & Families)	-	-	Install sidewalks along SR-80 and make connections through the adjacent parking lot to provide an accessible route to bus stop 3253
SR-15	SR-80	South of Poinciana Ave.	Widen shoulders to install separated bike lanes. Widen northbound shoulder all the way to face of existing guardrail.
SR-15	Runyon Village	South of Poinciana Ave.	Add 6' to 8' sidewalk on west side of SR 15 south of SR-80 to Poinciana. Add 10' shared use path on east side of SR-15 between SR-80 and Runyon Village
Bus Stop 3253 (Fl. Dept of Children & Families)	-	-	Reconstruct bus landing pad
Bus stop upgrades. All within study limits.	-	-	Install boarding and alighting pads, bus shelter pads, bus shelters, benches, route maps, bike racks and trash receptacles at all stops located along Palm Beach Lakes. Connect all bus stops to existing sidewalks and crosswalks.
SR-80	SR-15	Lakeside Medical Center	Widen shoulders to install 8' separated bike lanes.

Transit Access Plan: Location 4

Location:

Butts Rd @ Town Center Rd
Boca Raton, Florida
Palm Tran Stop: 746

Legend:

-  Top Ridership Stop
-  Existing Bicycle Facilities
-  No Bicycle Facilities
-  Existing Sidewalks
-  No Sidewalks
-  Study Area

Background:

Roadway Owner(s):

Military Trail - County

Butts Road - City of Boca Raton

Glades Road - FDOT

Municipality: *Boca Raton*

Speed Limit: *Military Trail - 45 MPH*

Butts Road - 30 MPH

Town Center Road - 30 MPH

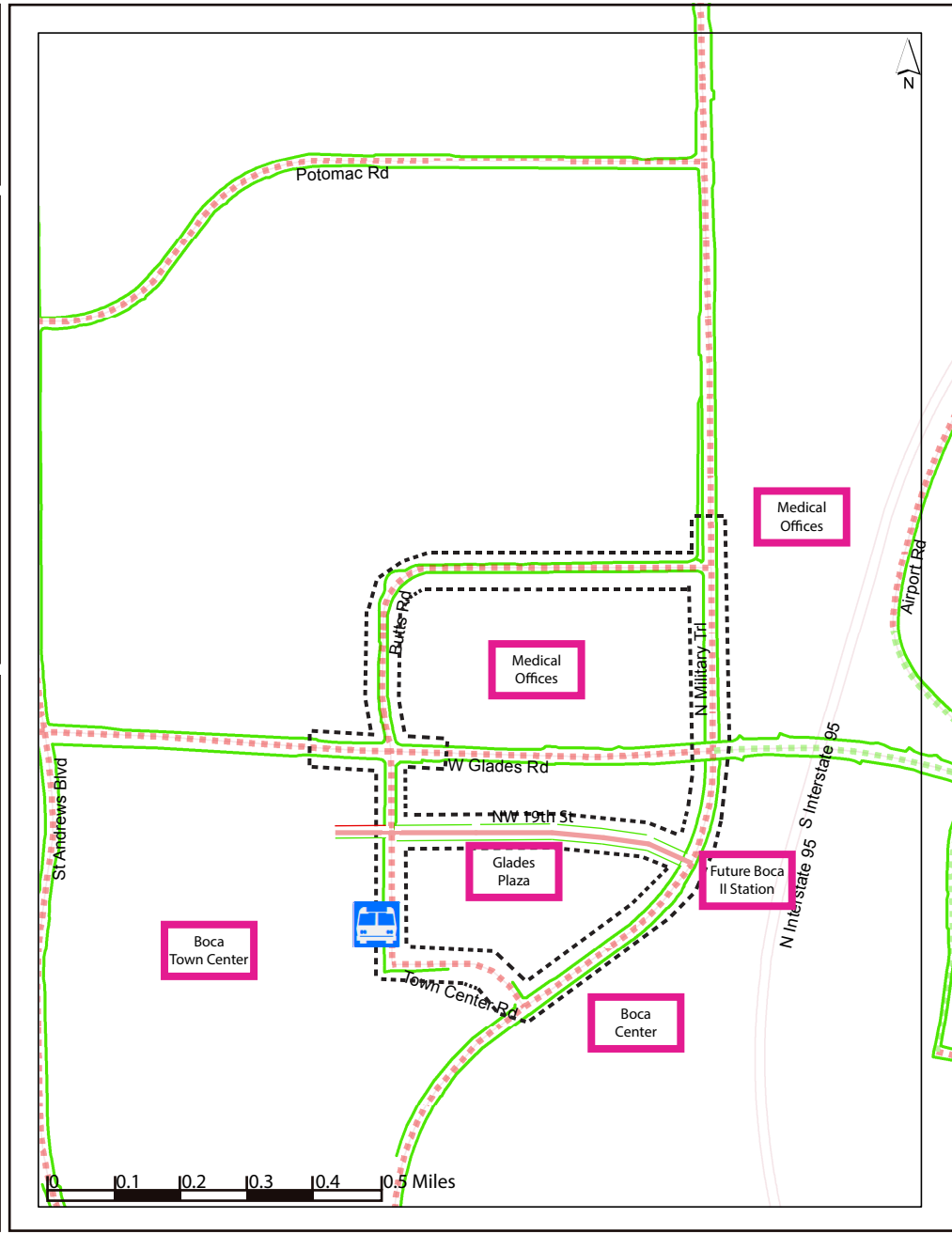
TPA Design Guidelines: *Urban General*

FDOT Context: *C4 - Urban General*

2040 Peak Traffic Volume: *27,060 vphpd*

ROW Width: *120 ft*

Bus Route(s): *2, 3, 91, 92*



Recommendations:

Location	Limits		Description
	From	To	
Town Center Road	Butts Rd	Military Trail	Eliminate a lane in the eastbound and westbound direction to provide 8' buffered bike lanes and connect to existing north/south shared use path on west side of Butts Rd.
Town Center Road & Butts Rd	Military Trail	Glades Rd	Install 8' to 10' sidewalk along north/east side of roadway. Install crossing at intersection of Butts and Town Center Rd. Includes lighting.
Bus stop upgrades. All within study limits.	-	-	Install boarding and alighting pads, bus shelter pads, bus shelters, benches, route maps, bike racks and trash receptacles at all stops located along Palm Beach Lakes. Connect all bus stops to existing sidewalks and crosswalks. Includes relocation of stop 8544
Military Trail	Town Center Rd	NW 19th Street	Restripe lanes to 11' and provide 4' designated bike lane. South of Town Center Road there seems to be enough pavement width to do this same treatment. North of NW 19th St does not have enough pavement width and bikes should be routed onto the sidewalks.
South west quadrant of Military Trail and Glades Rd overpass.	Military Trail	Glades Rd	Provide sidewalk connection from Military Trail just south of the Glades Rd overpass to Glades Road sidewalk. This is similar to the connection existing on the north side of the overpass. Add lighting to both sidewalk connections and also under the overpass.
All throughout study limits at the signalized intersections.	-	-	Install special emphasis crosswalk markings at all signalized intersections.
Butts Rd path along north/west side	Military Trail	Town Center Rd	Consider reconstructing existing 8' path to a 12' shared use path. The minimum width for a shared use path is 10', however, 12' is preferable if space is available. Also consider adding landscaping to provide shade along the path.

Transit Access Plan: Location 5

Location:

Military Trail at W. Blue Heron Blvd.
Riviera Beach, Florida
Palm Tran Stop: 1015

Legend:

-  Top Ridership Stop
-  Existing Bicycle Facilities
-  No Bicycle Facilities
-  Existing Sidewalks
-  No Sidewalks
-  Study Area

Background:

Roadway Owner(s): *FDOT*

Municipality: *Riviera Beach*

Speed Limit:

Blue Heron - 40 MPH

N Military Trail - 45 MPH

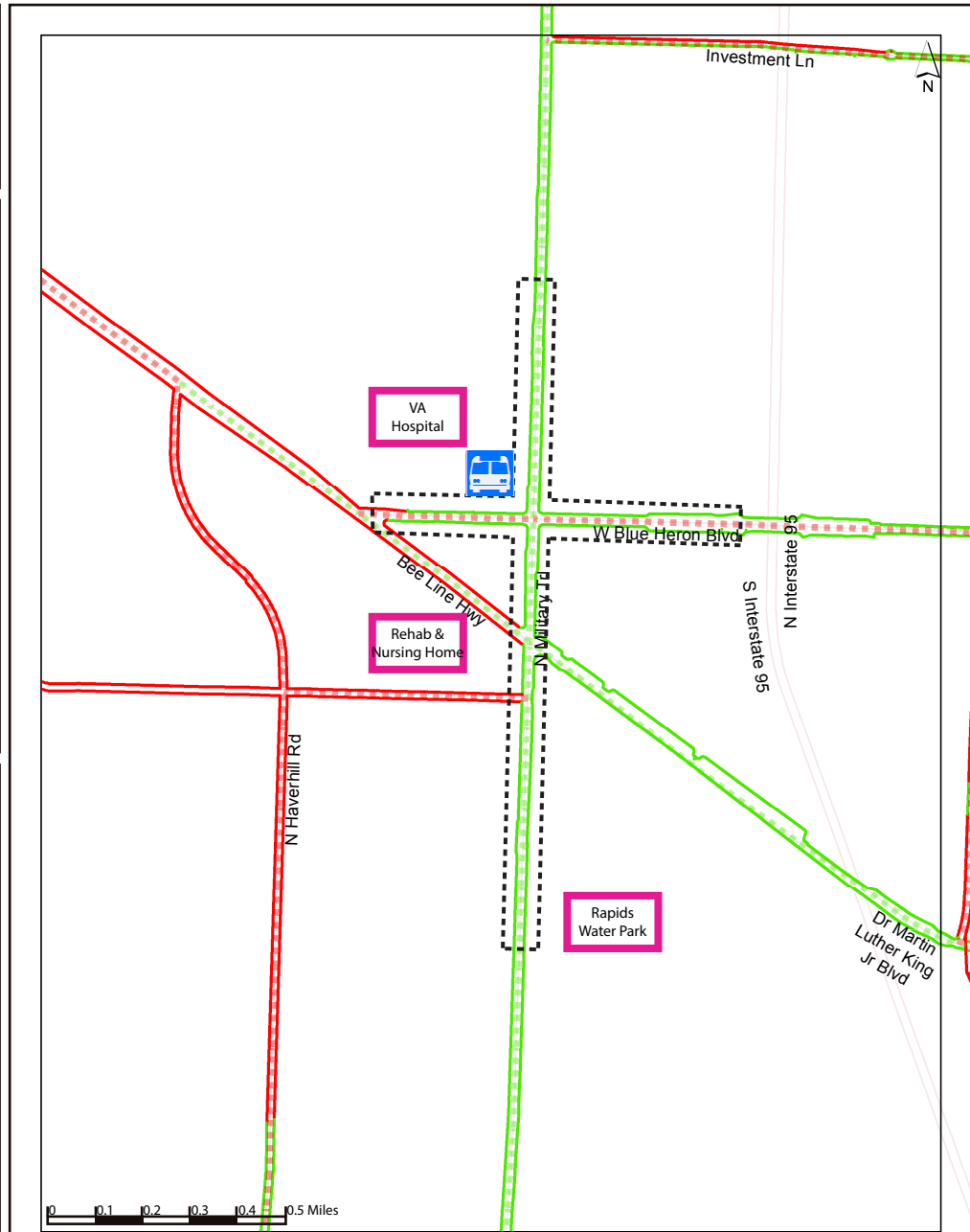
ROW Width: 120 ft

TPA Design Guidelines: *Suburban*

FDOT Context: C3C - *Suburban Commercial*

2040 Peak Traffic Volume: *32,515 vphpd*

Bus Route(s): *2, 3, 30, 31*



Recommendations:




Location	Limits		Description
	From	To	
North of Blue heron Blvd. at the existing Fire Station emergency crossing.	-	-	Recommend adding a crosswalk to work in conjunction with the existing emergency signals such that it would operate as a signalized midblock crossing together with the pre-emption programmed for the emergency vehicles.
Bus stop 1015 at the VA Medical Center	-	-	Consider reconstructing bus stop using half-saw toothed style bus bays. This will allow for boarding and alighting to occur on the sidewalk areas rather than from the narrow median as some of the buses do currently. This style also allows easier ingress and egress of buses since they won't stack up directly behind one another, and will have more room to maneuver around each other.
Bus stop 1015 at the VA Medical Center	-	-	Add crosswalk on east leg of roundabout and also add sidewalk to connect the bus stop to the existing sidewalk to the east and south.
Bus stop upgrades. All within study limits excluding stop 1015.	-	-	Install boarding and alighting pads, bus shelter pads, bus shelters, benches, route maps, bike racks and trash receptacles at all stops located along Palm Beach Lakes. Connect all bus stops to existing sidewalks and crosswalks. For bus stop 2863 on NW corner of Blue heron and 42nd Way - Create concrete sidewalk bulb out and stripe right turn lane as a bus-bay/right turn lane combo. Consider adding a shelter also.
Blue Heron Blvd	I-95	SR-710/Beeline Hwy	Restripe lanes to 11' to accommodate 6.5' buffered bike lanes.
All throughout study limits at the signalized intersections.	-	-	Install special emphasis crosswalk markings at all signalized intersections.
Military Trail	Blue Heron Blvd	S of Port W Blvd	Restripe lanes to 11' to accommodate 7' buffered bike lanes.
Military Trail at Beeline Hwy Intersection	-	-	Add missing east/west crosswalk along north leg of intersection. Also, for the westbound approaching bike lane, place green skip pavement markings across intersection to guide cyclists to the crosswalk since there is no bike lane to the west.
All throughout study limits at the signalized intersections where bike lanes existing on approaches with no turn lane. Along Military Trail : NB approach to Leo Lane, NB and SB approach to Dyer Rd., NB approach to Westroads Drive. Along Blue Heron: EB approach to Military Trail, EB approach to 42nd Way N.	-	-	Consider adding bike boxes to increase the visibility of bikes to right turning vehicles.
Military Trail at Port W intersection	-	-	Consider adding a signal at this intersection for the purpose of providing a pedestrian crossing. The signal would operate as a pedestrian actuated only. If signal is added, a bike box should be installed for the NB approach.

Transit Access Plan: Location 6

Location:

Atlantic Ave @ Military Trail
Delray Beach, Florida
Palm Tran Stop: 1156

Legend:

-  Top Ridership Stop
-  Existing Bicycle Facilities
-  No Bicycle Facilities
-  Existing Sidewalks
-  No Sidewalks
-  Study Area

Background:

Roadway Owner(s): *County*
Municipality: *Delray Beach*

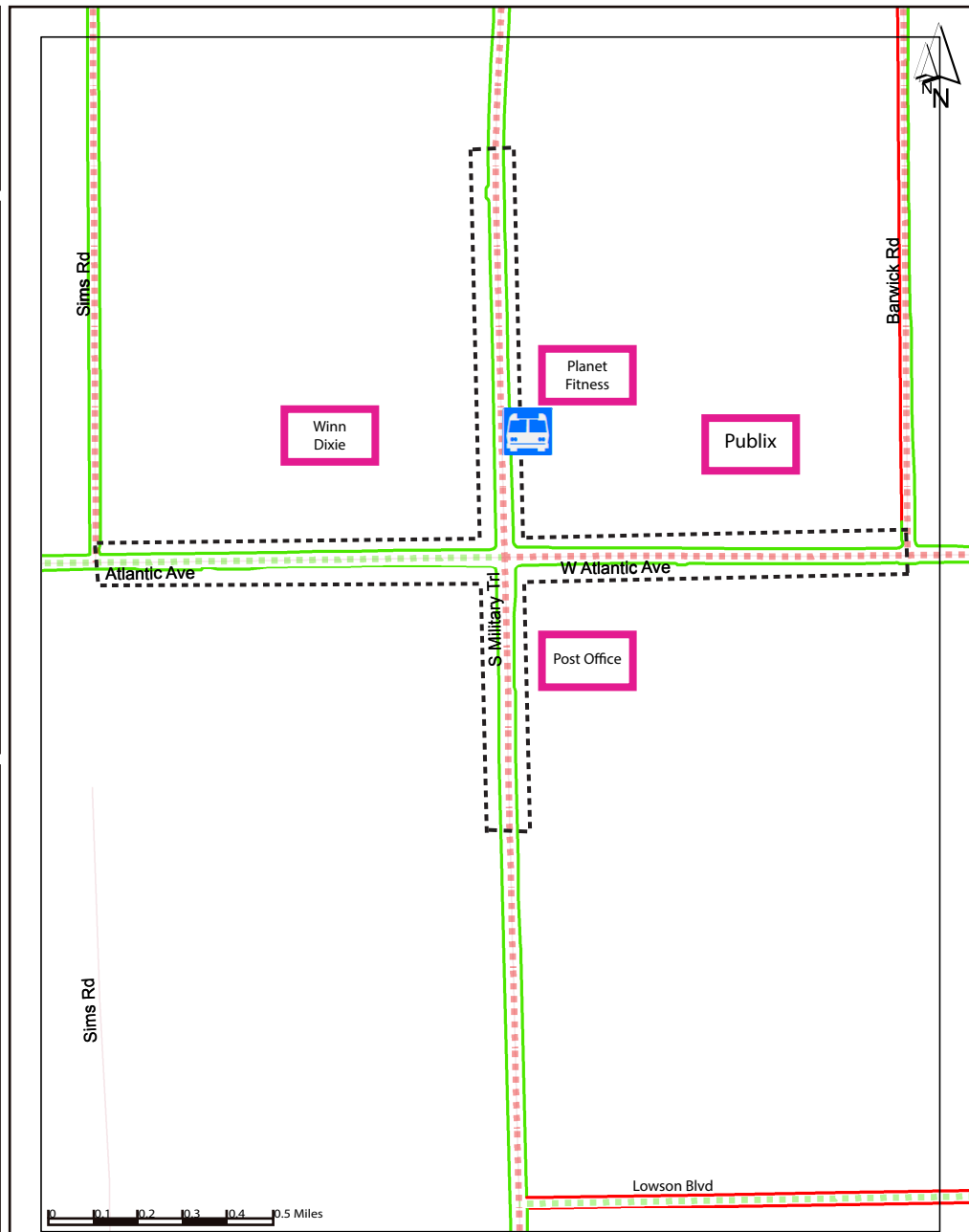
Speed Limit:

Atlantic Ave- 45 MPH
N Military Trail - 45 MPH
ROW Width: 120 ft

TPA Design Guidelines: *Suburban*
FDOT Context: *C4 - Urban General*

2040 Peak Traffic Volume: 41,704 vphpd

Bus Route(s): 3, 80, 81



Recommendations:

Location	Limits		Description
	From	To	
Atlantic Ave.	Just west of Military Trail	Barwick Rd	Consider widening 1'-2' on either side of Atlantic Ave to accommodate 4' designated bike lanes.
All throughout study limits at the signalized intersections.	-	-	Install special emphasis crosswalk markings at all signalized intersections.
Military Trail	La Sedona Circle	Gramercy Square Drive	Reconstruct existing sidewalk and paths along the west side of Military Trail to 12-feet wide to provide a shared use facility. This can help compensate for the lack of bike lanes along Military Trail in this area.
All throughout study limits at bus stop locations.	-	-	Install boarding and alighting pads, bus shelter pads, bus shelters, benches, route maps, bike racks and trash receptacles at all stops located along Palm Beach Lakes. Connect all bus stops to existing sidewalks and crosswalks.
Delray Square Shopping Center. NE corner of Atlantic Ave. and Military Trail	-	-	Provide bike and pedestrian connections from the Delray Square Shopping Center to the adjacent Palm Tran Bus Stops 1156 and 7431