Section H

Plan Study Area Review Table

Plan Study Area Review Table (Page 1)

Category		North/South Roadways					East/West Roadways				
		Powerline Rd	Andrews Av	NE 6 Av	Wilton Dr	N. Dixie Hwy	NW 29 St	NE 26 St	NW / NE 24 St	NW / NE 21 Ct	NE 20 St
Roadway Owner		FDOT	Broward County	Broward County	FDOT	City / FDOT	City	City/County	City	City	City
BMPO High Injury Network 2017-2021	High	▪ OP Blvd to NW 29 St ▪ NW 9 Te to southern city boundary	OP Blvd to NW 27 Dr	No	NE 22 St to NE 9 Av	NE 25 St to northern city boundary	NW 3 Av to Andrews Av	NE 14 Av to 5-Points	No	No	No
	Highest	OP Blvd to NW 30 St	OP Blvd to NW 29 St	No	NE 6 Av to NE 9 Av	5-Points to northern city boundary	No	No	No	No	No
	Bike / Ped	No	OP Blvd to NW 29 St	No	NE 6 Av to NE 9 Av	No	No	No	No	No	No
Adjacent: Park or Community Facility		▪ Mickel Park (Ped Entrance) ▪ Snook Creek Park	▪ Andrews Av Park ▪ Rachel Richardson Park	▪ WM Library ▪ Island City Park Preserve	▪ Richardson Park ▪ City Hall / Hagen Park ▪ Jaycee Park	Equality Park	Donn Eisele Park	WM Library	WM Library	▪ City Hall / Hagen Park ▪ Richardson Park ▪ ME Depalma Park ▪ Equality Park	▪ City Hall / Hagen Park ▪ Richardson Park ▪ Equality Park
Adjacent: School / Childcare		School crossing guard at NW 29th St	▪ Somerset Academy ▪ School crossing guard at NW 24th Av	▪ KIDS ▪ Little Flowers Mont. ▪ School Speed Zone	Ft Laud High School	Busy Bees Day Care	▪ Somerset Academy ▪ School Speed Zone	▪ WM Elem School ▪ Little Flowers Mont. ▪ KIDS ▪ School Speed Zone	▪ WM Elem School ▪ School Crossing Guard ▪ School Speed Zone ▪ Busy Bees	No	Ft Laud High School
Grocery Store / Pharmacy		No	▪ Publix ▪ Dollar General	▪ Sprouts	Publix	Publix	▪ Dollar General	● Publix ▪ CVS	▪ CVS	No	No
Entertainment / Nighttime Areas		No	▪ No	● Scandals ▪ Wilton Dr	Wilton Dr	Theater District	▪ No	▪ From NE 6th Av to NE 15 Av	▪ Wilton Dr ▪ Dixie Hwy / Theater District	Wilton Dr	Wilton Dr
Roadway cross-access (number of lanes)		▪ 4-lane Arterial (Principal) ▪ Regional roadway, from Sunrise Blvd past Broward County	▪ 4-lane Arterial (Minor) ▪ Regional roadway with access to downtown Ft Lauderdale	▪ 2-lane Collector (Major) ▪ Roadway terminates at Wilton Dr	▪ 2-lane Arterial (Minor) ▪ Roadway transitions to NE 4th St, with access to downtown Ft Lauderdale	▪ Transitions from 2-lane to 4-lane at 5-Points	▪ 2-lane local road	▪ Transitions from 2-lane to 4-lane Collector (Major) at 5-Points ▪ Roadway terminates at Andrews Av	▪ 2-lane local road in residential neighborhoods	▪ 2-lane local road in residential neighborhoods	▪ 2-lane local road in residential neighborhoods
Crosswalks		▪ Signalized Crosswalks at OP Blvd & NW 29th St ▪ Mid-block crosswalk with RRFB south of NW 26 St	▪ Off-set intersections ▪ Signalized Crosswalks at OP Blvd, NW 29 St, NW 24 St, & 21 Ct ▪ Planned Crosswalk at NE 26 St	▪ Signalized crosswalks at NE 26 St & Wilton Dr	▪ Frequent crosswalks from NW 20th St to NW 6 Av	▪ Signalized crosswalks at 5-points. ▪ Raised / Marked Crosswalks with 1-side RRFB at NE 24 St and NE 20 Dr	▪ Signalized crosswalks at Powerline Rd, Andrews Av, & mid-block near Somerset ▪ Numerous raised intersections	▪ Signalized at NE 6 Av, Dixie Hwy, and NE 15 / 16 Av	▪ Raised / Marked Crosswalks with 1-side RRFB at Dixie Hwy & NE 15 Av	▪ Signalized Crosswalk at Wilton Dr	▪ Signalized Crosswalk at Wilton Dr ▪ Raised / Marked Crosswalks with RRFB at Dixie Hwy
Seniors		No	Yes (Hidden Palms)	No	No	Yes (Equality Park)	No	Yes (Manor Pines, Williamsburg Landing, Windsor Place)	Yes (Manor Pines)	Yes (Equality Park)	No
Tourists		No	No	Yes	Yes	Yes	No	Yes	No	No	No
BCT Stop		BCT Route 14	BCT Route 60	Only at crossroads	BCT Route 50	North of 5-Points / BCT Route 50	Only at crossroads	East of NE 15 Av/ BCT Route 20	Only at crossroads	Only at crossroads	Only at crossroads
BCT Premium Transit		Yes / Shortlisted	No	No	No	Yes / Shortlisted	No	No	No	No	No
Planned Redevelopment / TOC Land Use		No	▪ TOC West ▪ Vacant Properties north of 29th St	▪ TOC West (between river and OPB) ▪ Adjacent – Sprouts property	▪ Activity Center ▪ WILMA	TOC	TOC West	▪ TOC West ▪ TOC ▪ Holy Mackerel Site ▪ Church site at 15th Av	▪ TOC ▪ Holy Mackerel Site	No	No

Plan Study Area Review Table (Page 2)

Category		North/South Roadways					East/West Roadways				
		Powerline Rd	Andrews Av	NE 6 Av	Wilton Dr	N. Dixie Hwy	NW 29 St	NE 26 St	NW / NE 24 St	NW / NE 21 Ct	NE 20 St
Planned / Requested Roadway Improvements		▪ FDOT recently posted reduced speed limit signs ▪ City submittal for MTP 2050 Call for Projects: Add traffic calming measures	▪ County Surtax Project: Mobility Improvements ▪ Broward County improvements for intersection at NE 26 St (new crosswalk) ▪ City submittal for MTP 2050 Call For Projects: Redesign to add medians, lighting, and landscaping	▪ BMPO FLM Study "Bicycle Blvd" ▪ WDID requested FDOT for Scramble Intersection at Wilton Dr ▪ City submittal for MTP 2050 Call For Projects: Wilton Dr / Roundabout	▪ FDOT presented Protected Intersection at City Commission ▪ WDID requested FDOT for Scramble Intersection at NE 6 Av ▪ City submittal for MTP 2050 Call For Projects: NE 6 Av / Roundabout	City submittal for MTP 2050 Call For Projects: Bridge over South Fork of Middle River (replace bridge, all lighting)	▪ CSLIP project under construction ▪ Westside Neighborhood Traffic Calming Study – Misc Improvements	▪ Ongoing Surtax project, east of 5-points ▪ Broward County improvements for intersection at Andrews Av (new crosswalk) ▪ BMPO FLM Study	▪ Completed Surtax project - Intersection at NE 15 Av converted to raised intersection ▪ (NW) Westside Neighborhood Traffic Calming Study – Neighborhood Gateway Feature	(NW) Westside Neighborhood Traffic Calming Study	▪ FDOT presented Protected Intersection at City Commission
Survey Q5: Streets to have better walkability	Overall Ranking	7	2	3	1	4	8	4	Not Listed	Not Listed; 9 General Comments selecting this roadway for Priority	Not Listed
	Ranked as #1	10% Rank as #1	15% Rank as #1	11% rank as #1	26% rank as #1	8% rank as #1	3% rank as #1	22% rank as #1	Not Listed	Not Listed	Not Listed
Survey Q7: General Comments (approx. # of comments & General themes)		▪ 6 comments ▪ Intersections noted: NW 29th St, Mickel Park entrance ▪ Most common topics: Speeding, issues with bike lane placement ▪ Overall summary: Cars are driving too fast on Powerline Rd. No one is using the new bike lanes.	▪ 4 comments (Additional 7 comments about Westside)	▪ 5 comments ▪ Intersections noted: OP Blvd ▪ Most common topics: Bike facilities are lacking, ped issues (lighting, sidewalks) ▪ Overall summary: Need better bike facilities. More lighting should be installed. The sidewalks need to be wider.	▪ 18 comments ▪ Intersections noted: NE 7th Ave, 5 Points ▪ Most common topics: Lack of shade, sidewalk gaps, pedestrian safety ▪ Overall summary: More crosswalks and shade trees are needed. Cars are speeding.	▪ 6 comments ▪ Intersections noted: NE 26 St, OP Blvd ▪ Overall summary: Need better connectivity to the city Oakland Park. Bike facilities are needed on Dixie Hwy	▪ 7 comments for the Westside	▪ 18 comments ▪ Intersections noted: by Wilton Station, 5 Points, Federal Highway, NE 14th Ave ▪ Most common topics: Speeding cars, lack of crosswalks, pedestrian safety issues ▪ Overall summary: More crosswalks and sidewalks are needed.	▪ 2 comments	▪ 18 comments ▪ Intersections noted: Andrews Av, NW 25 St, Wilton Dr, NW 5 Av ▪ Most common topics: Signal issues, sidewalk gaps ▪ Overall summary: NE 21st Ct should be a priority roadway. There are a lot of sidewalk gaps	▪ 1 comment
Community Meeting Feedback (approx. # of comments & General themes)		▪ 22 comments ▪ List of intersections: NW 25th Ct, NW 29th St, NW 9th Terr ▪ Most common topics: Pedestrian, Crosswalk ▪ Overall summary: There should be better connectivity to Mickel Park. There are a lot of pedestrian safety/crosswalk needs.	▪ 43 comments ▪ List of intersections: NE 24th St, NE 26th St, NW 20th St, NW 21st Ct, NW 25th St, NW 29th St ▪ Most common topics: Priority, pedestrian/crosswalk, intersection safety ▪ Overall summary: Andrews Ave should be a priority roadway. There are lack of crosswalks and intersection safety concerns for pedestrians.	▪ 2 comments, though often discussed in conjunction with Wilton Dr	▪ 18 comments ▪ List of intersections: City Hall, Belle Isle to 5 points, NE 20th St, NW 7th Ave ▪ Most common topics: Pedestrian, Crosswalk, Signals ▪ Overall summary: There is a lot of jaywalking, due to crosswalk placement. Signals take too long.	▪ 15 comments ▪ List of intersections: 5 points, NE 24th St, NE 26th St ▪ Most common topics: Safety, Pedestrian ▪ Overall summary: There are several safety comments. There are crosswalk needs and pedestrian safety issues.	▪ 2 comments	▪ 35 comments ▪ List of intersections: 5 Points (east, Andrews Ave, NE 6th Ave, NE 8th Ave ▪ Most common topics: Priority, Shade, Pedestrian ▪ Overall summary: A lot of pedestrian safety concerns and crosswalk needs, NE 26th St is lacking shade and should be a priority roadway	▪ 1 comments; though often discussed in conjunction with Andrews Av	▪ 3 comments; though often discussed in conjunction with Andrews Av	▪ Discussed in conjunction with Andrews Av

Section I

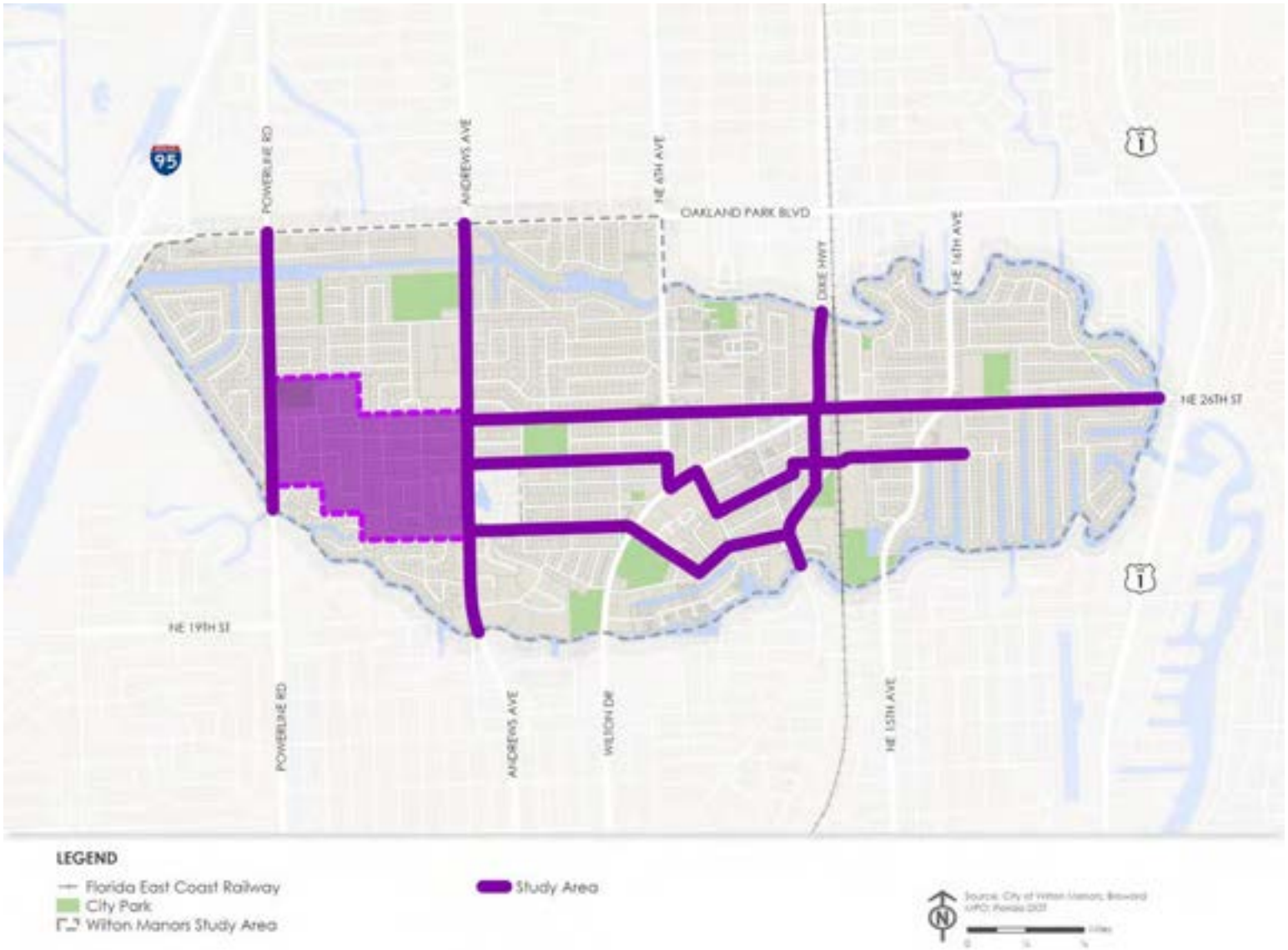
Existing Conditions Assessment Map Series

Wilton Manors Transportation Master Plan

FINAL EXISTING CONDITIONS ASSESSMENT

SEPTEMBER 2023

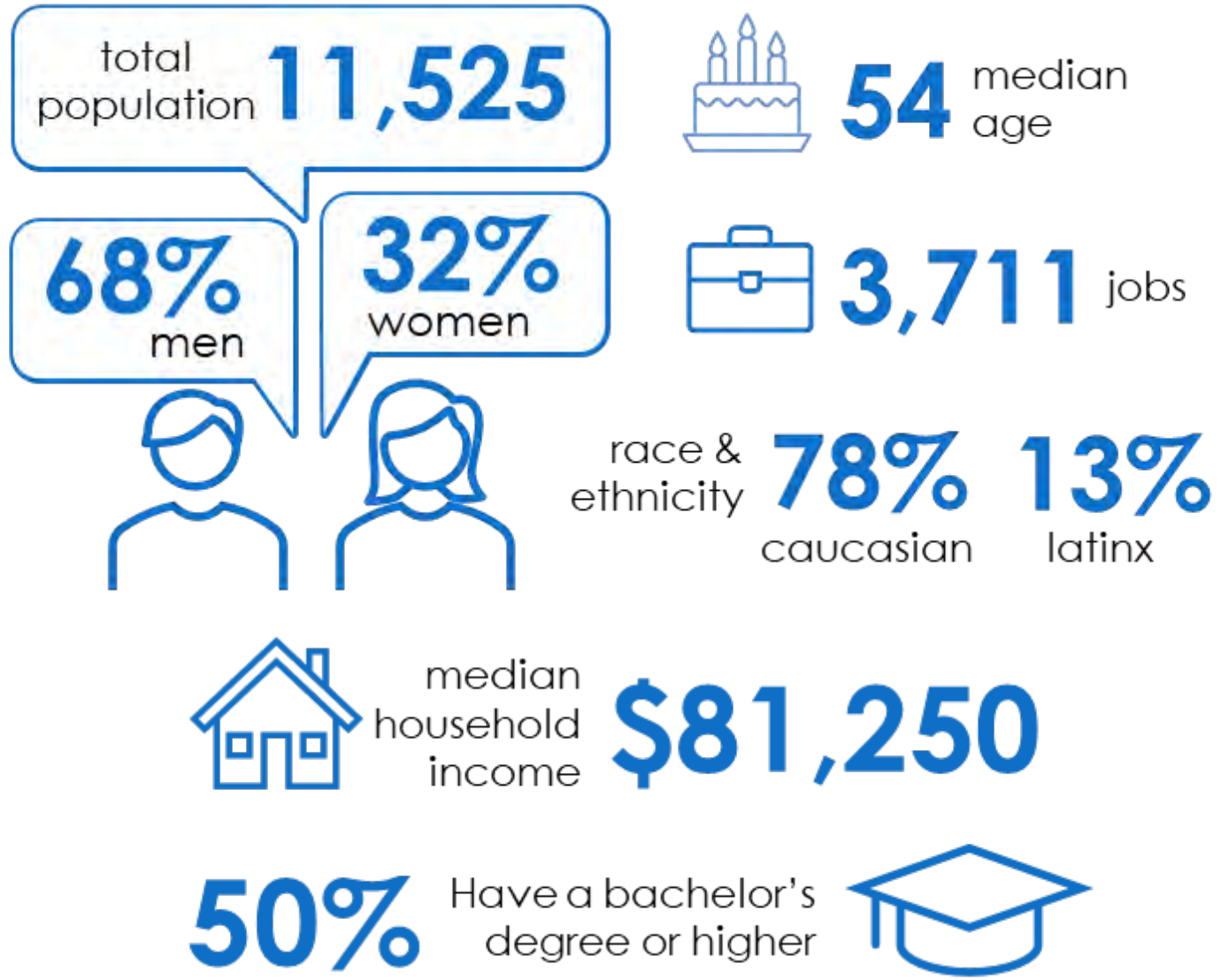
Study Area


95
POWERLINE RD
ANDREWS AVE
NE 6TH AVE
OAKLAND PARK BLVD
DIXIE HWY
NE 14TH AVE
NE 26TH ST
NE 19TH ST
POWERLINE RD
ANDREWS AVE
WILTON DR
NE 15TH AVE
LEGEND
Florida East Coast Railway
City Park
Wilton Manors Study Area
Study Area

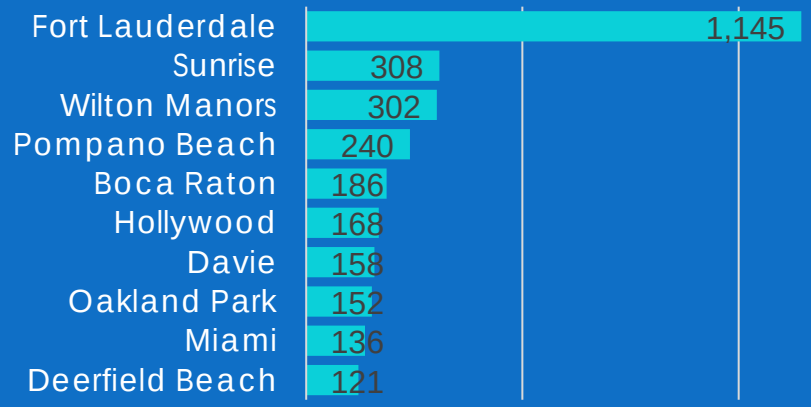
We Are Wilton Manors

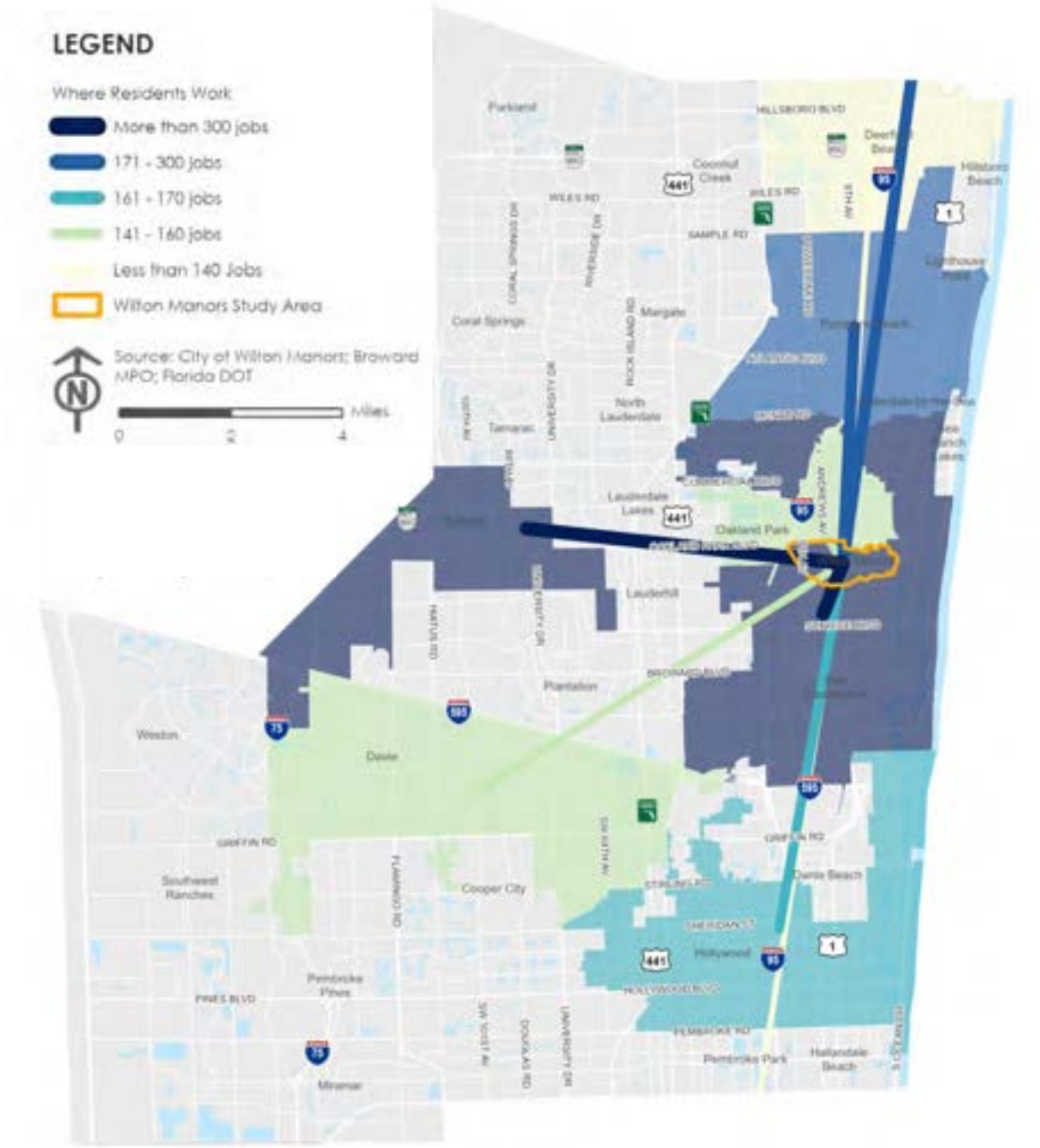
Compared to Broward County, People in Wilton Manors Are:

- Older (County Average: 41)
- 39% more likely to be male
- Wealthier (County Median: 65,747)
- More educated (36% of County residents have a Bachelors or higher)
- Whiter:
  - Caucasian Population is 2.5x higher
  - Black population is >9x lower
  - Hispanic/Latinx population is 2.5x lower

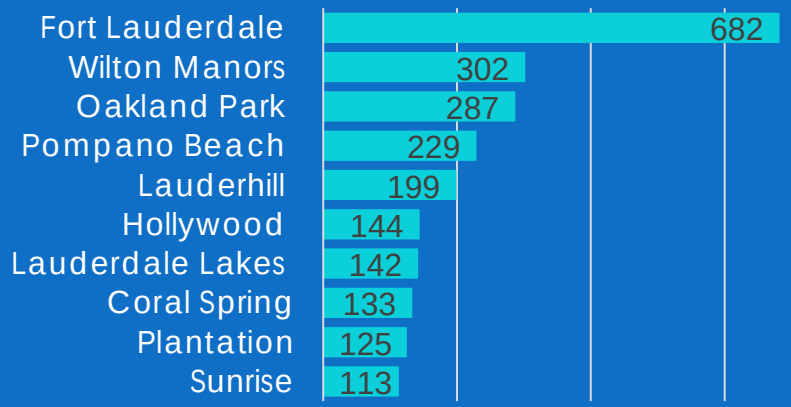


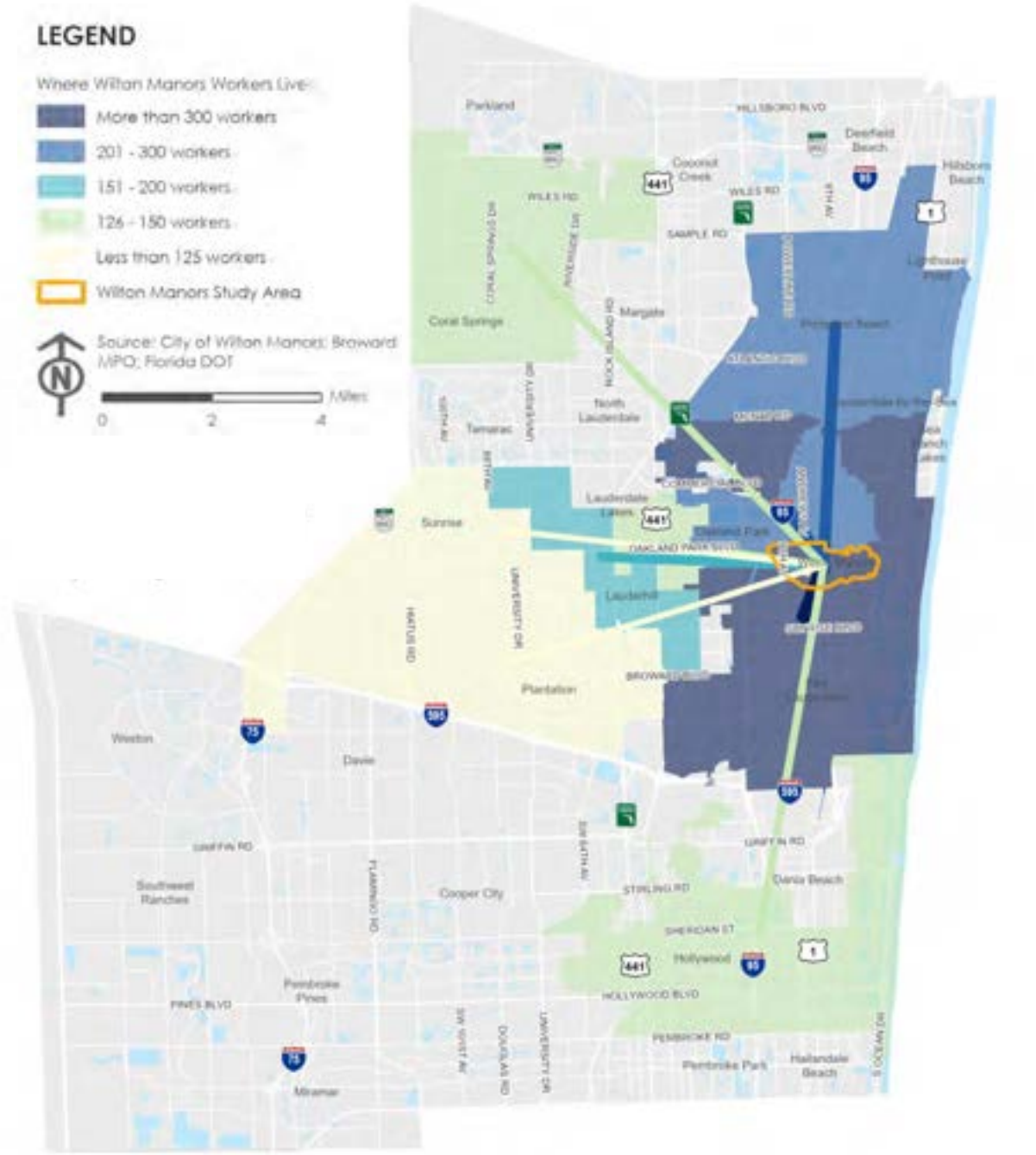
Where We Work





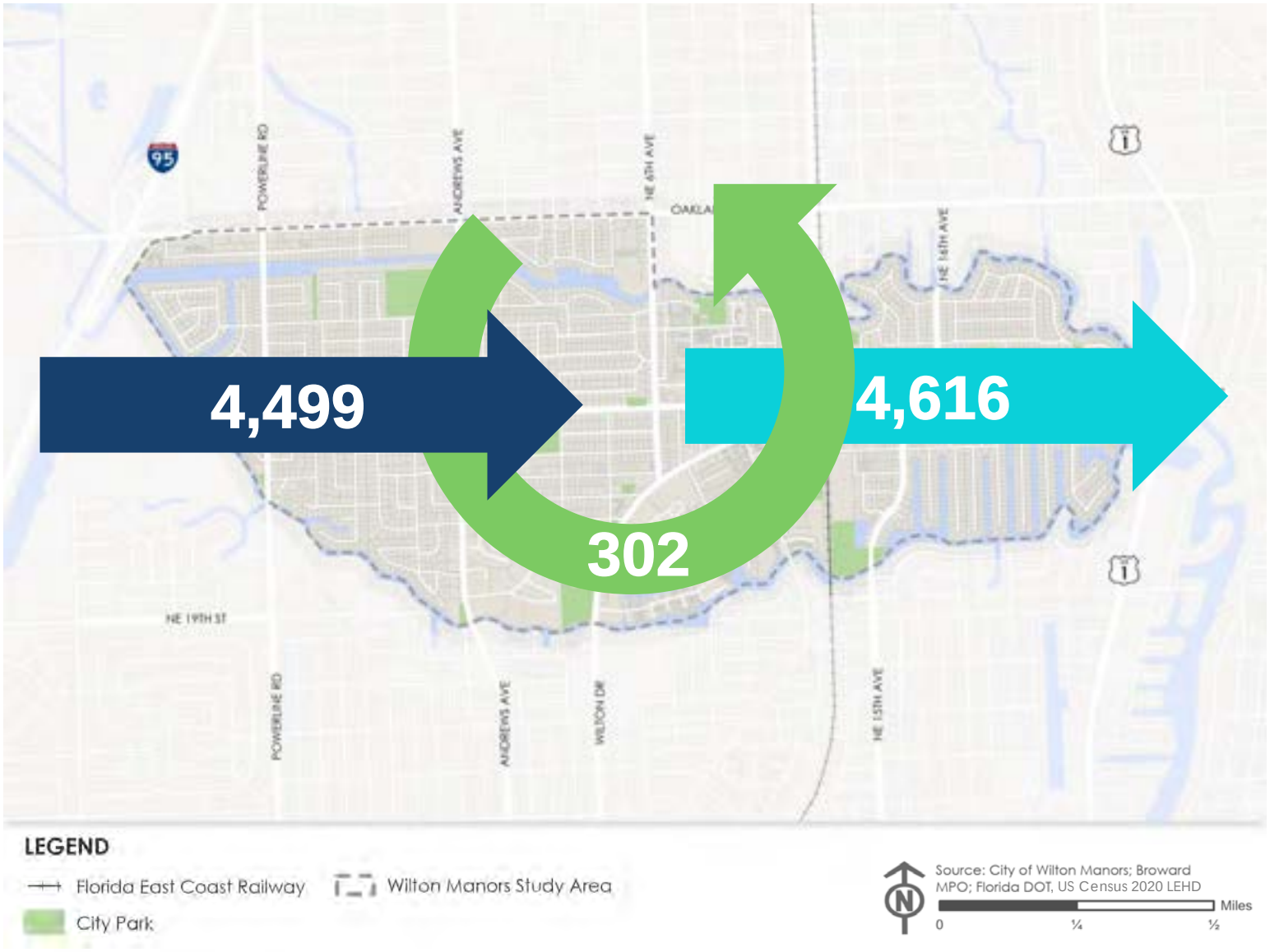
Where WM Workers Live





In Flow & Out Flow

- Most residents commute out of Wilton Manors for work and most workers in Wilton Manors commute in for work
- Only 3.2% of all workers work and live within Wilton Manors



Replica Data

- Replica is a software that uses a variety of sources to create a simulation of an area's travel patterns
- Replica Sources:
  - US Census Bureau
  - Mobile location data
  - Land use
  - Economic activity
  - and others

Getting to Work

All trips that end at a person's workplace (including commute trips and things like a trip back from lunch).

Getting to School

All trips to a person's school or college.

Travel for Daily Needs

All social trips and trips to places where people shop, dine, and run errands.

Getting Outside

All trips to recreational destinations like parks and trailheads (this does not include trips without a destination, like walking the dog or jogging).

How We Travel

- Most trips are taken by a personal vehicle—but is especially high for getting to work
- People walk and bike the most for getting to school and for daily needs
- Getting to school and getting outside are the shortest trips
- Transit is most used for daily needs and getting outside. On the weekends, it is also a larger portion of commuting trips.

Trips only included where Wilton Manors is the **origin**.

Weekdays

	Drive	Transit	Bike	Walk	Other	Avg Travel Time [minutes]	Avg Travel Distance [miles]
Getting to Work	91.7%	1.0%	1.8%	4.7%	0.8%	26.6	16.0
Getting to School	79.8%	0.7%	3.0%	16.3%	0.2%	15.5	3.7
Travel for Daily Needs	85.5%	0.9%	1.0%	11.3%	1.3%	23.9	11.7
Getting Outside	89.6%	0.8%	1.3%	7.1%	1.2%	21.0	9.0

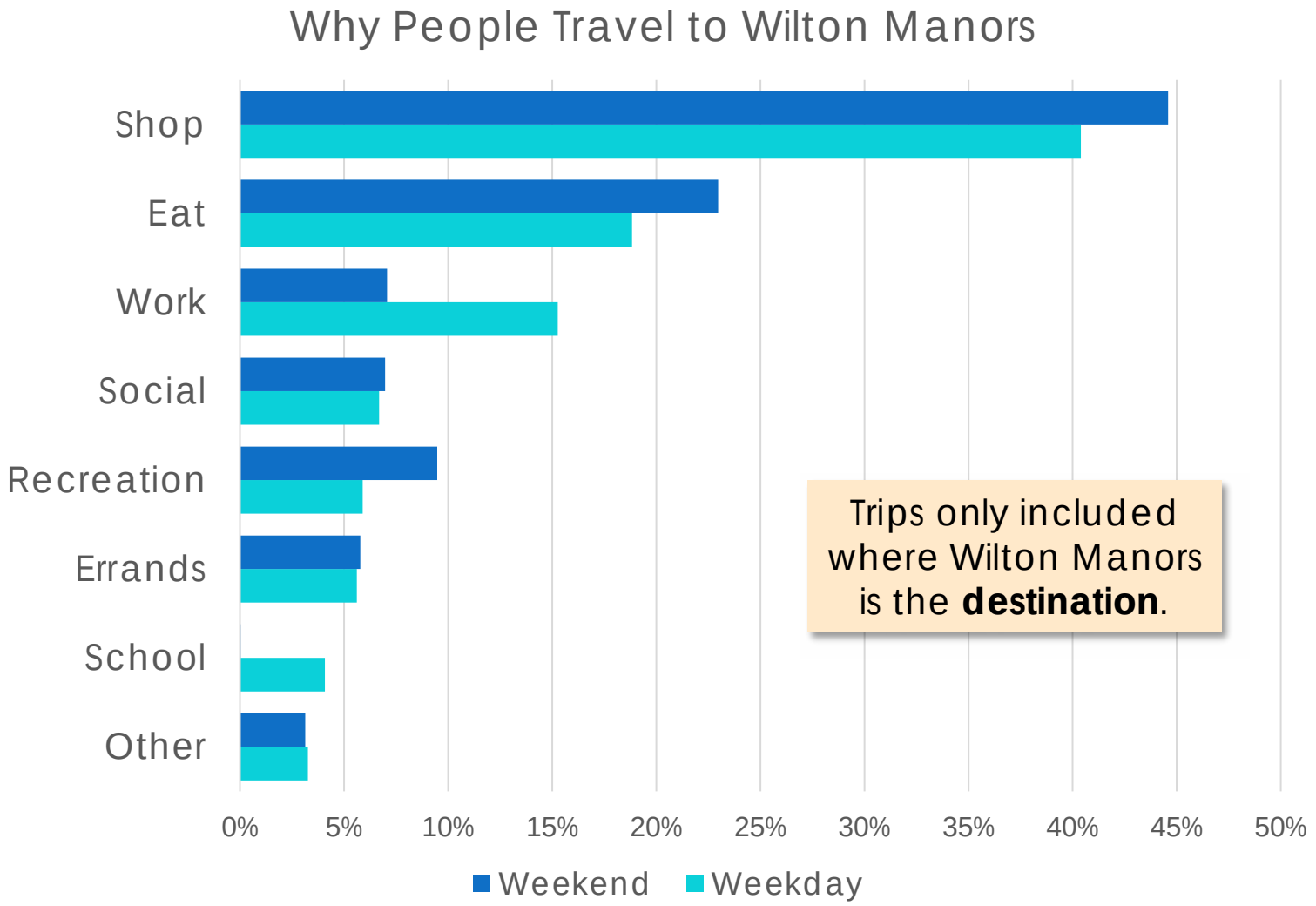
Weekends

	Drive	Transit	Bike	Walk	Other	Avg Travel Time [minutes]	Avg Travel Distance [miles]
Getting to Work	92.5%	0.3%	1.9%	3.7%	1.5%	24.5	21.2
Getting to School	97.8%	0.7%	0.0%	0.7%	0.7%	18.0	4.7
Travel for Daily Needs	87.8%	0.5%	0.8%	9.2%	1.8%	20.7	9.8
Getting Outside	92.2%	0.3%	0.6%	5.2%	1.7%	18.9	7.5

Replica, South Atlantic, Fall 2022

Why We Travel

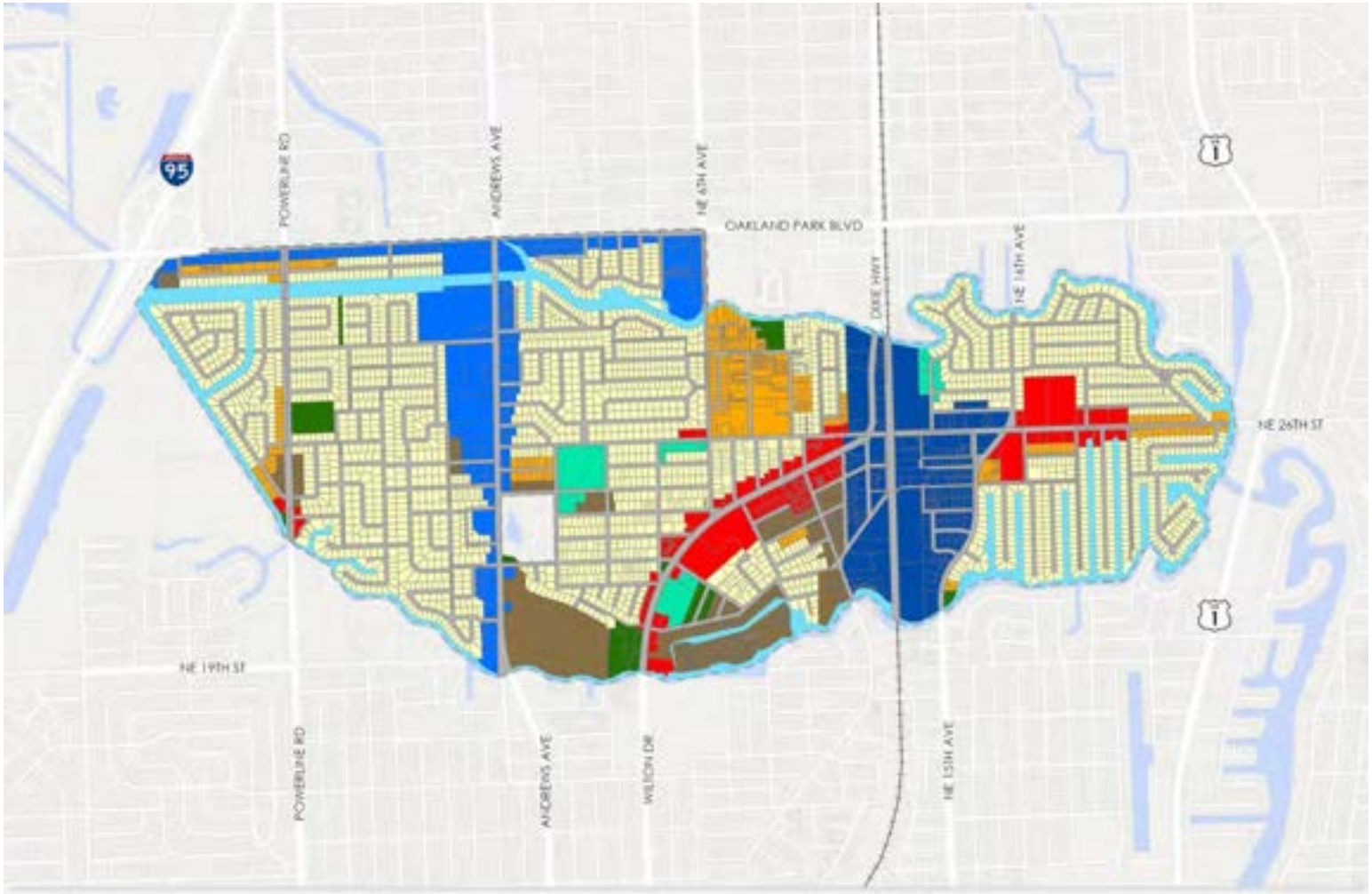
- Daily needs such as shopping and eating are the biggest reasons for travel for both Weekend and Weekdays
- Work trips are just over 15% of all daily trips on weekdays



Replica, South Atlantic, Fall 2022

Future Land Use

- Future development is expected along
  - Five Points Area
  - Wilton Drive
  - Andrews Avenue
  - NE 26th Street from 5-Points to NE 15th Avenue
  - Oakland Park Boulevard



Roadway Improvements & Potential Redevelopment

- Significant investments are being made in in-fill multi-family housing particularly around Wilton Drive and the 5-Points area
- Wilton Manors is becoming more urban with new developments increasing density and welcoming new residents

2916-2980 Andrews Avenue
20 DU Res.

The Avenue
186 DU Res.

New / Updated RRFB / Mid Block Crossings

NW 26th Street Improvements
Widen Sidewalks

Potential for Redevelopment

NW 29th Street Improvements
4' Bike Lanes | Complete Sidewalks | Replace Stamped Concrete

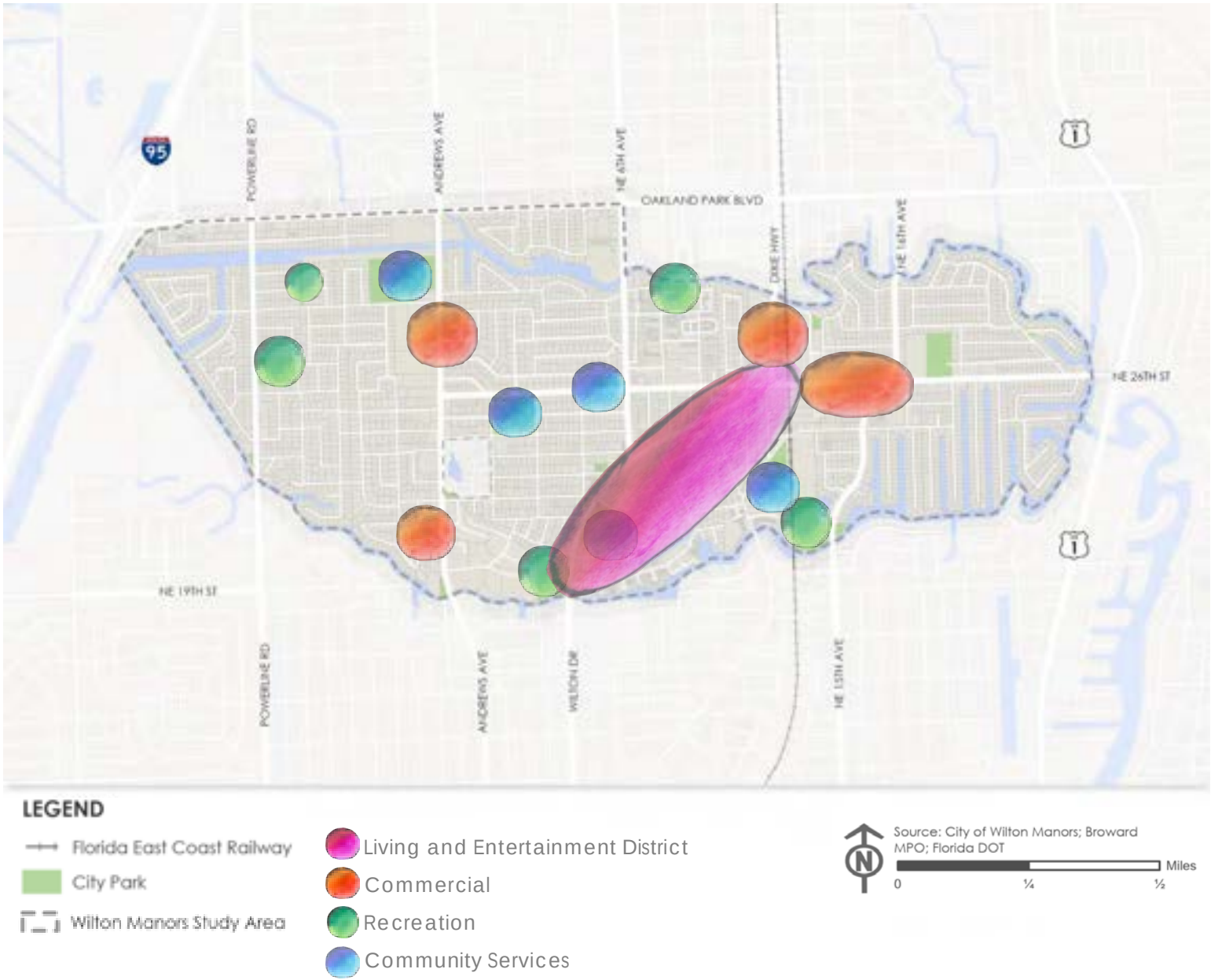
Andrews Avenue Improvements
Add Bike Lanes (in design)

WILMA
255 DU Res. | 56,000 SF Comm.

Generation
190 DU Res. | 6,000 SF Comm.

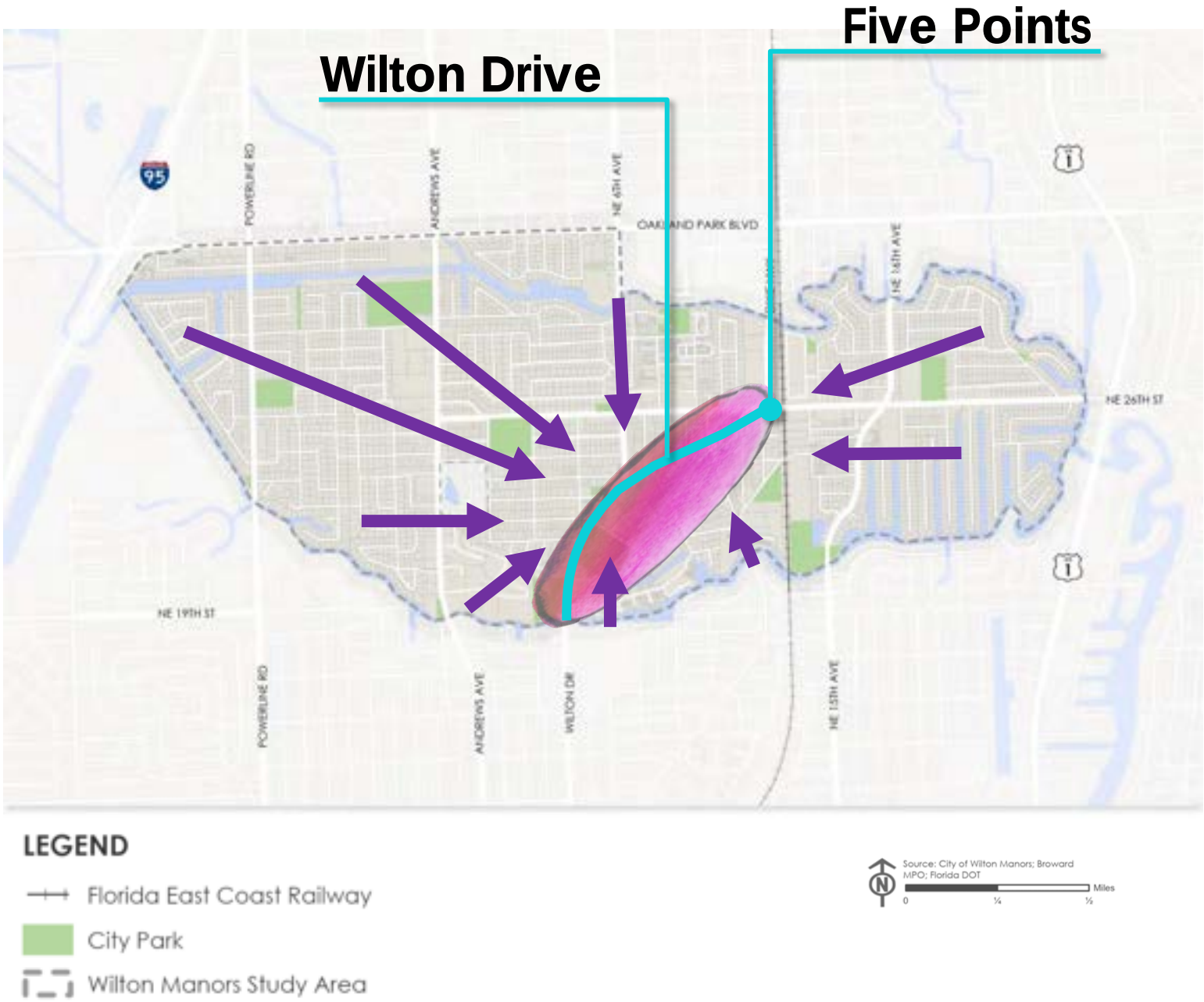
Destinations

- Wilton Drive is a local and regional attractor and is expanding with new development
- There are several parks and schools people may also want to bike or walk to



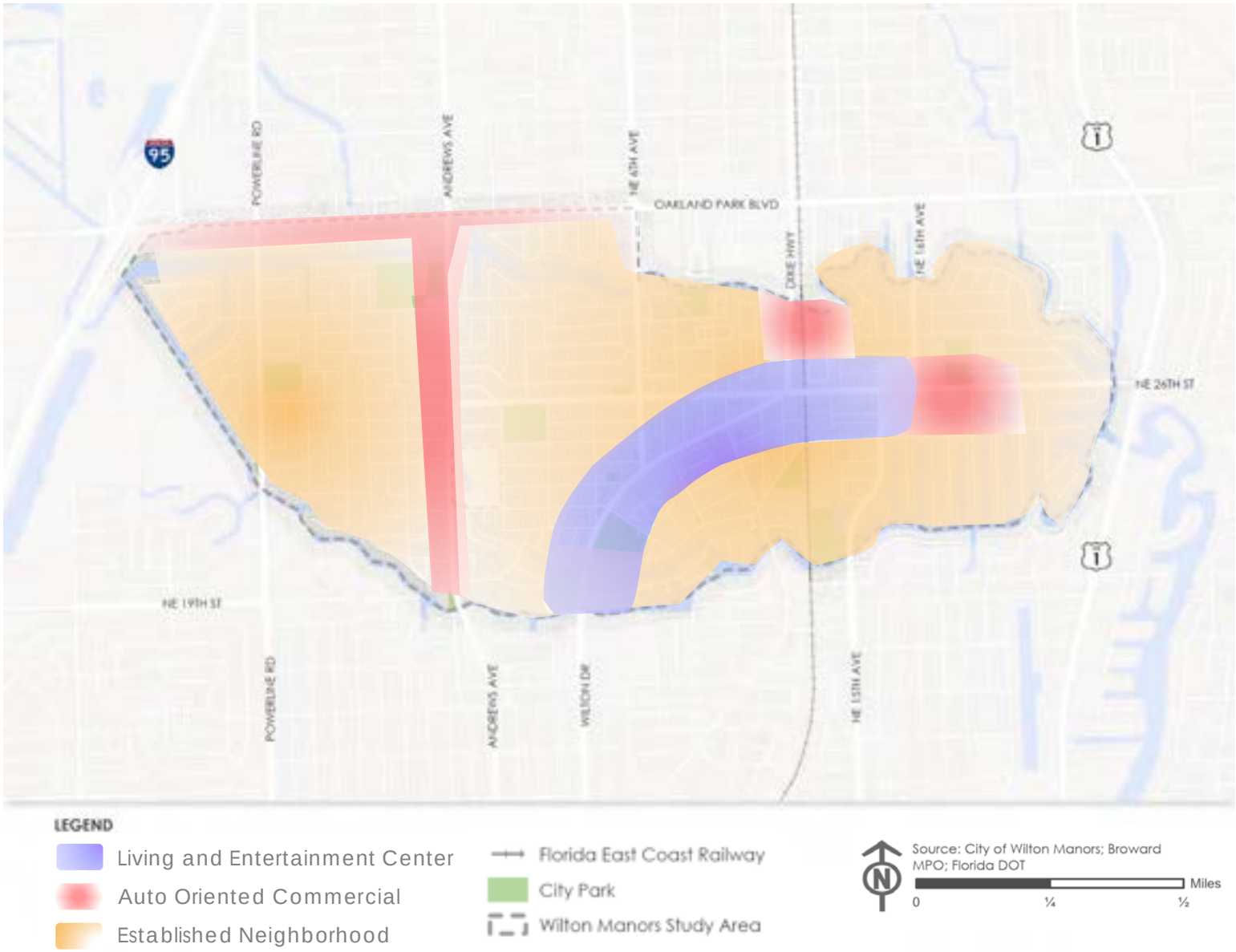
Destinations

- Wilton Drive is a major local and regional draw from around the City and Region



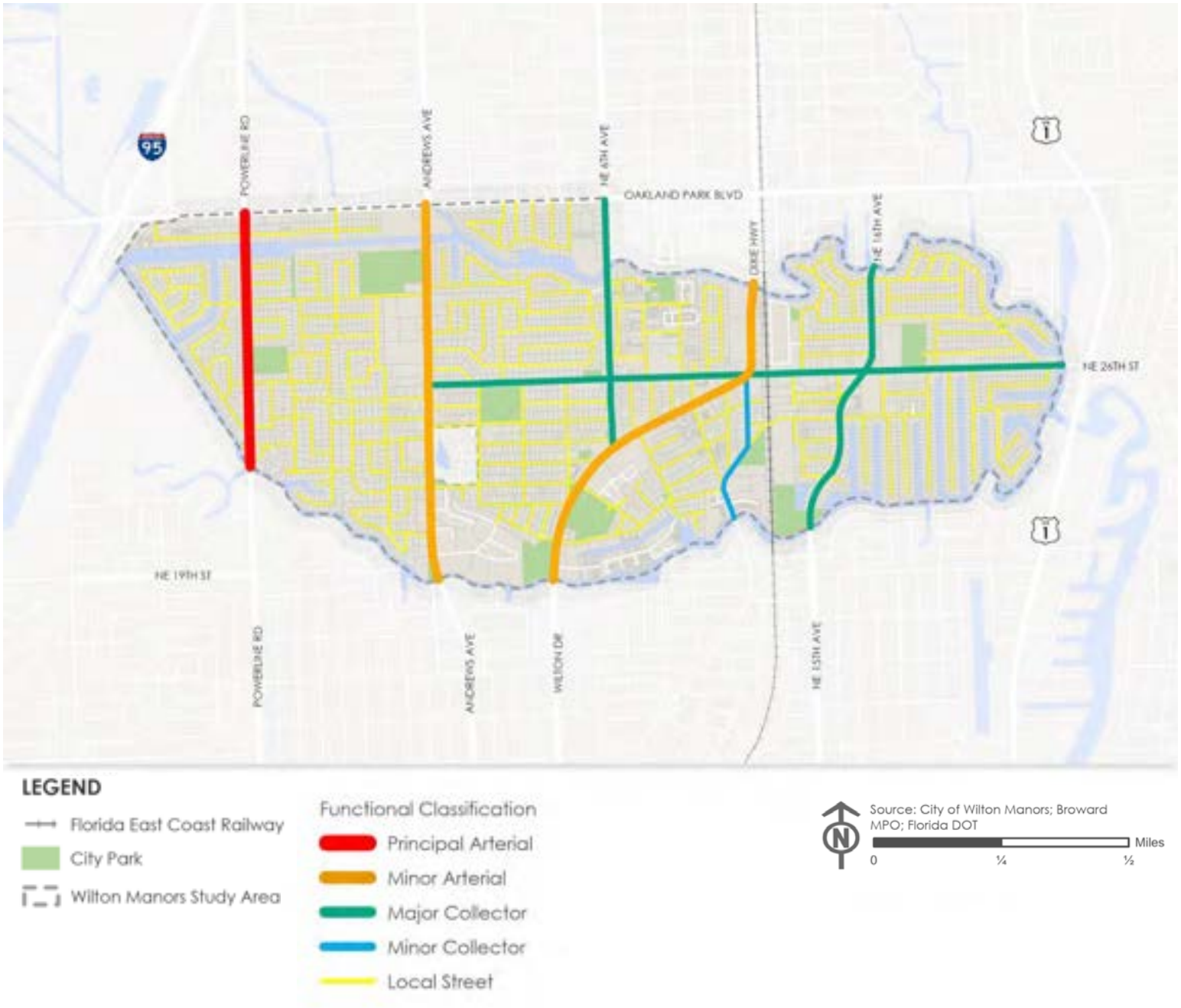
Character Areas

- Wilton Drive and the 5-points area is a special LGBTQ+ cultural hub comprised of bars, restaurants, art, and night life
- Auto-oriented development lines most corridors
- Wilton Manors is predominantly made up of residential, single-family neighborhoods



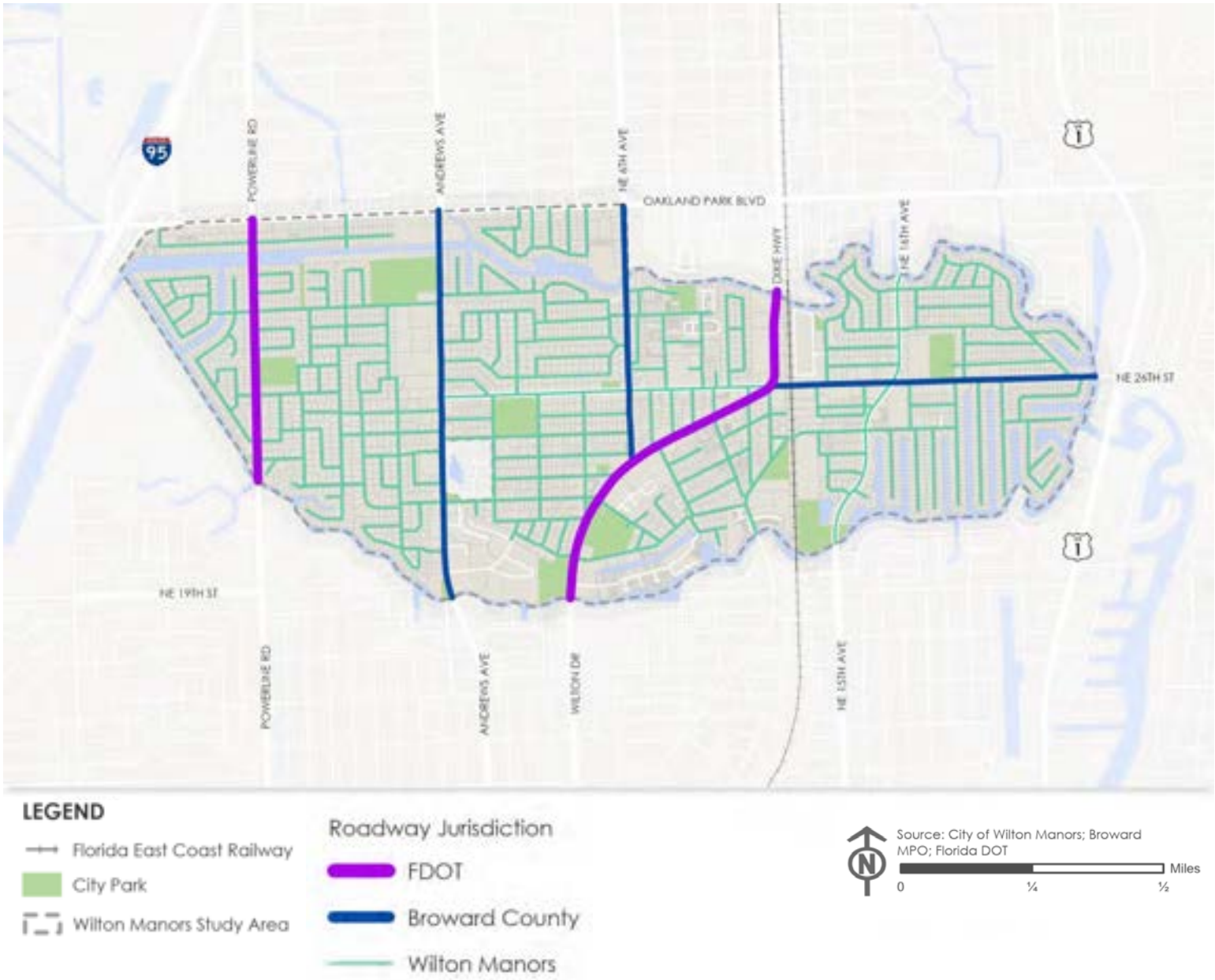
Road Network

- Dense network of local streets
- Only one east/west through street, which does not extend all the way
- Powerline Rd has regional importance
- Arterials serve both local access and through trips



Road Jurisdiction

- All arterial roads in Wilton Manors are under the jurisdiction of FDOT or Broward County
- NE 6th Avenue and NE 26th Street East of Dixie Hwy are the only Major Collectors outside of Wilton Manors jurisdiction

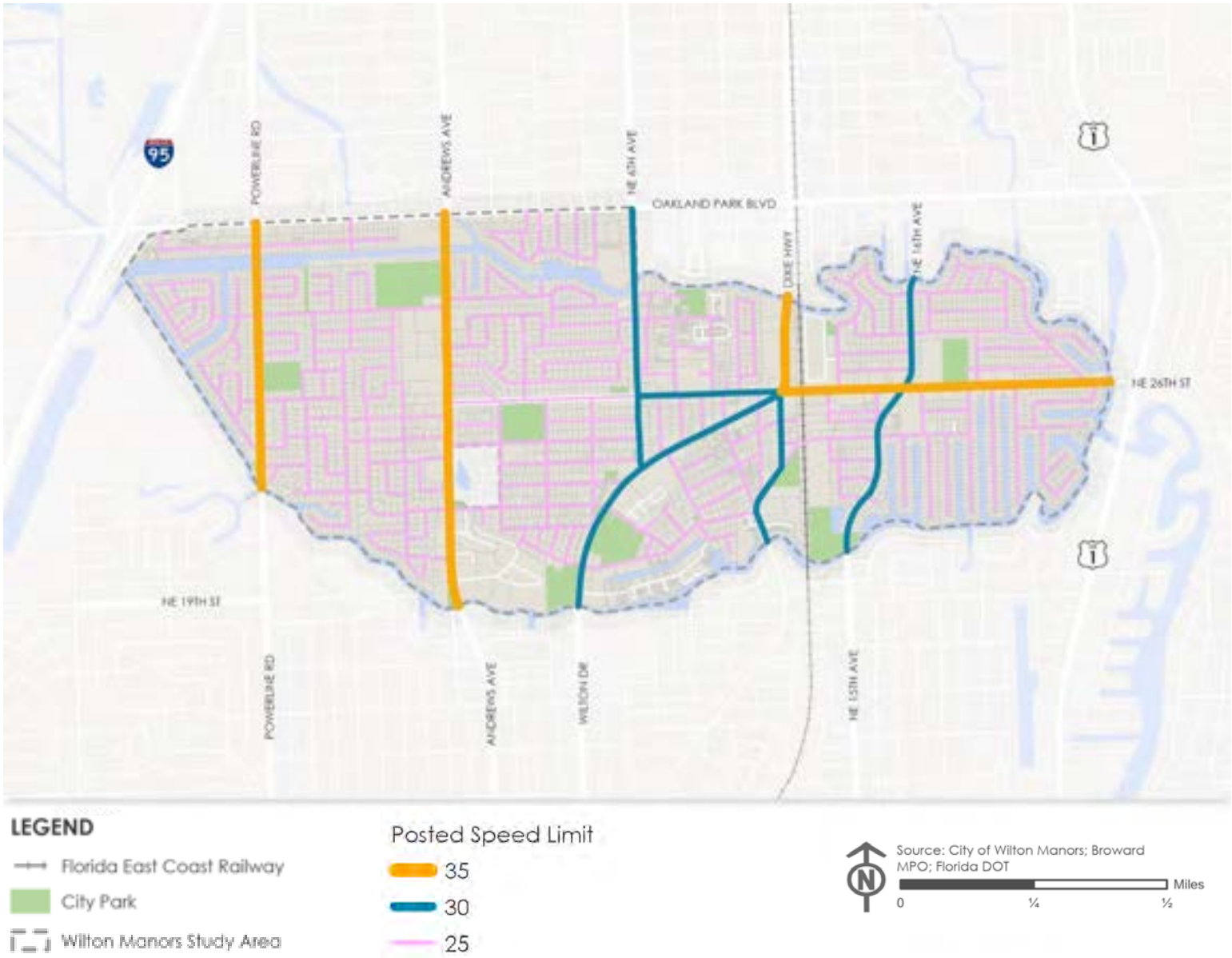


Daily Volumes

- Highest volumes on north-south streets

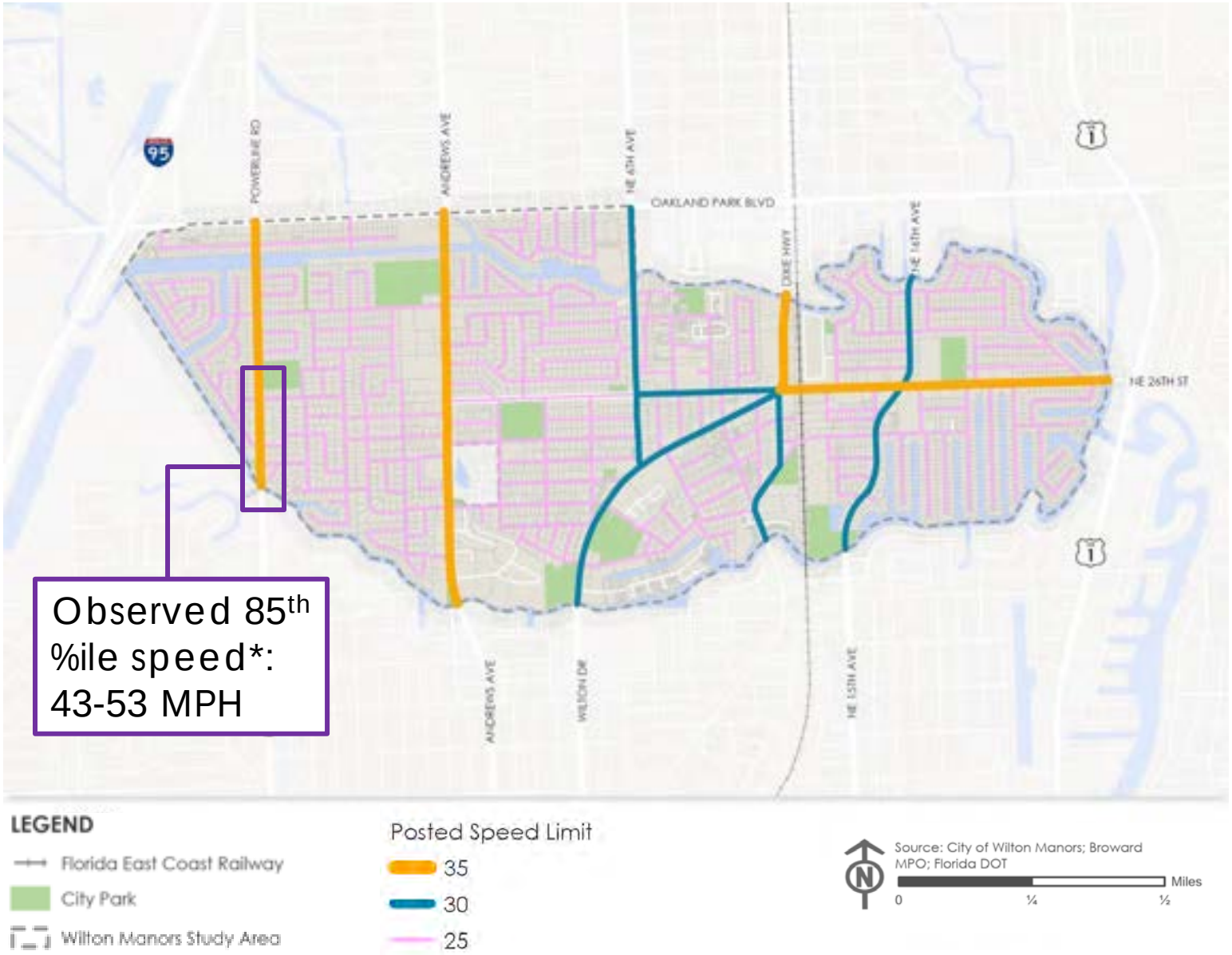
Posted Speed Limits

- Higher speeds create barriers to crossing
  - Powerline Rd
  - Andrews Avenue
  - Dixie Hwy (n of NE 26th ST)
  - NE 26th St
- Speed limit was reduced from 40 MPH to 35 MPH on Powerline Road north of NW 29th Street in early 2023



Roadway Speeds

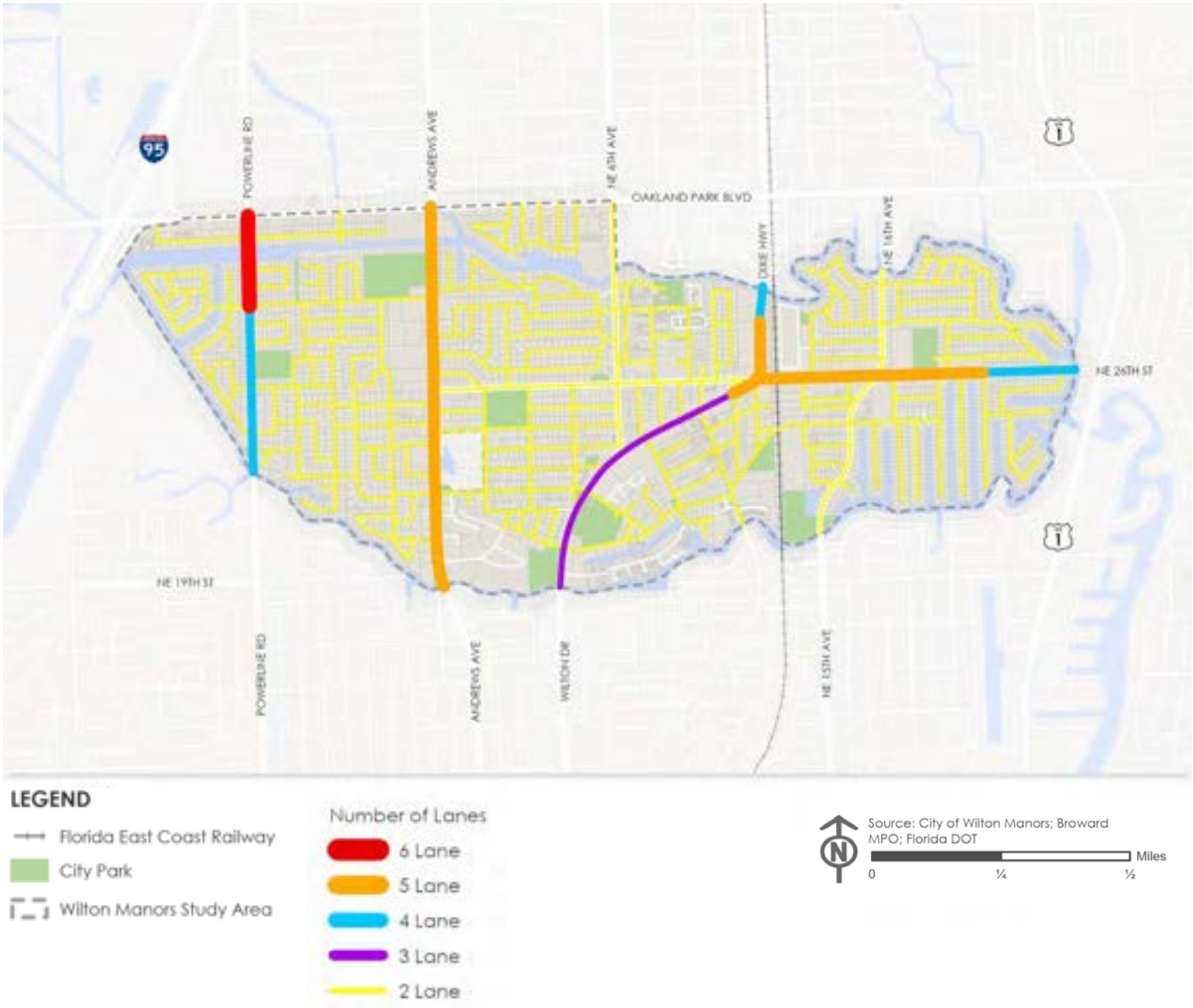
- Higher speeds create barriers to crossing
  - Powerline Rd
  - Andrews Avenue
  - Dixie Hwy (n of NE 26th ST)
  - NE 26th St



*Source: FDOT Powerline Road RSA | 2021

Number of Lanes

- Continued evaluation comparing number of lanes to traffic volumes



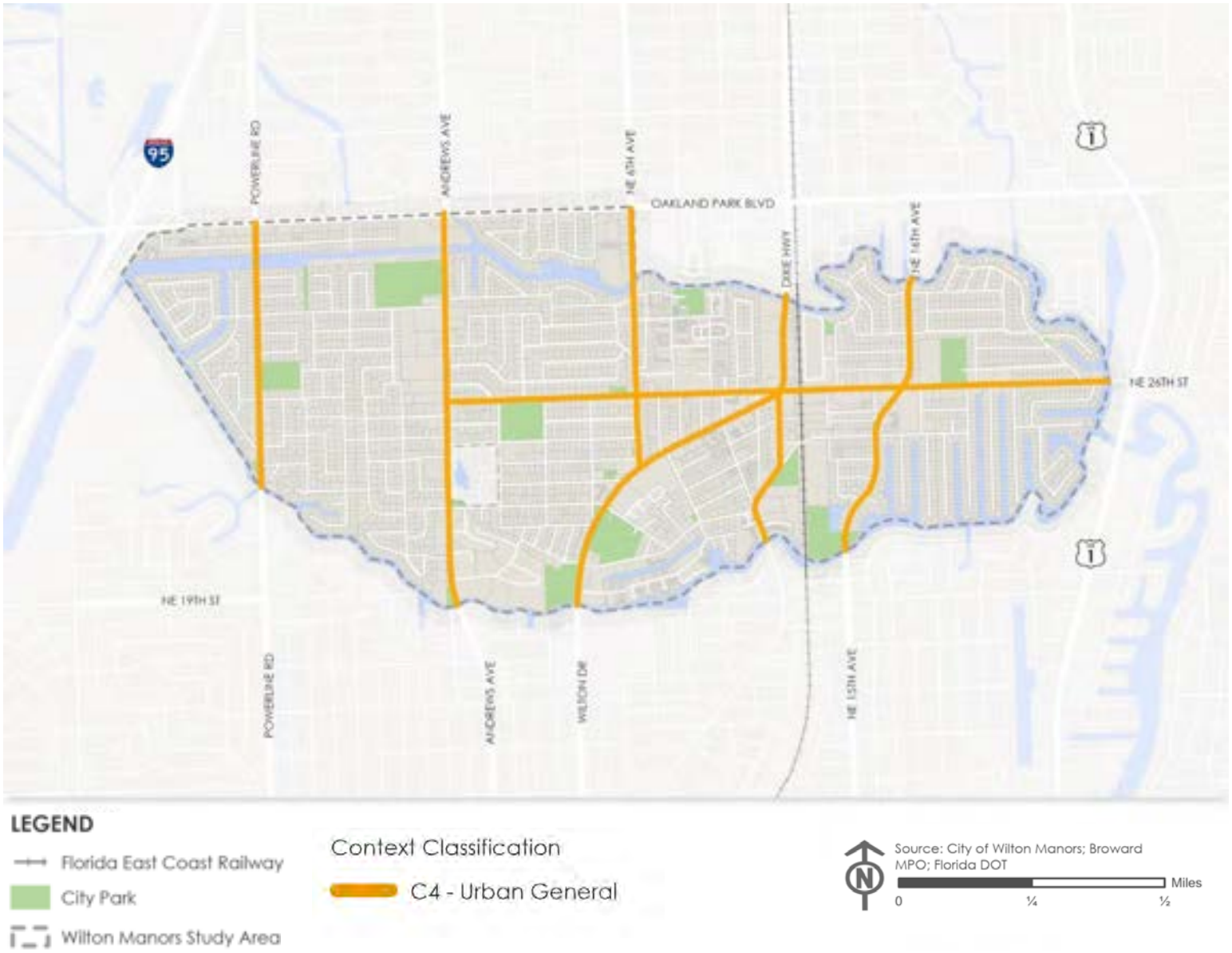
Street Safety (2018 - 2022)

- Total Crashes: 1,353
- Crash analysis considers segments with 5 crashes or more
- Weighted Crashes
  - Fatal: 100 points
  - Severe Injury: 75 points
  - Injury: 25 points
  - Non-Injury: 1 point
- Highest crash corridors:
  - Powerline Road
  - Andrews Avenue
  - NE 26th Street
  - Wilton Drive
  - NE 15th Avenue
  - Dixie Highway

Data Source: SignalFour Analytics, 2018-2022

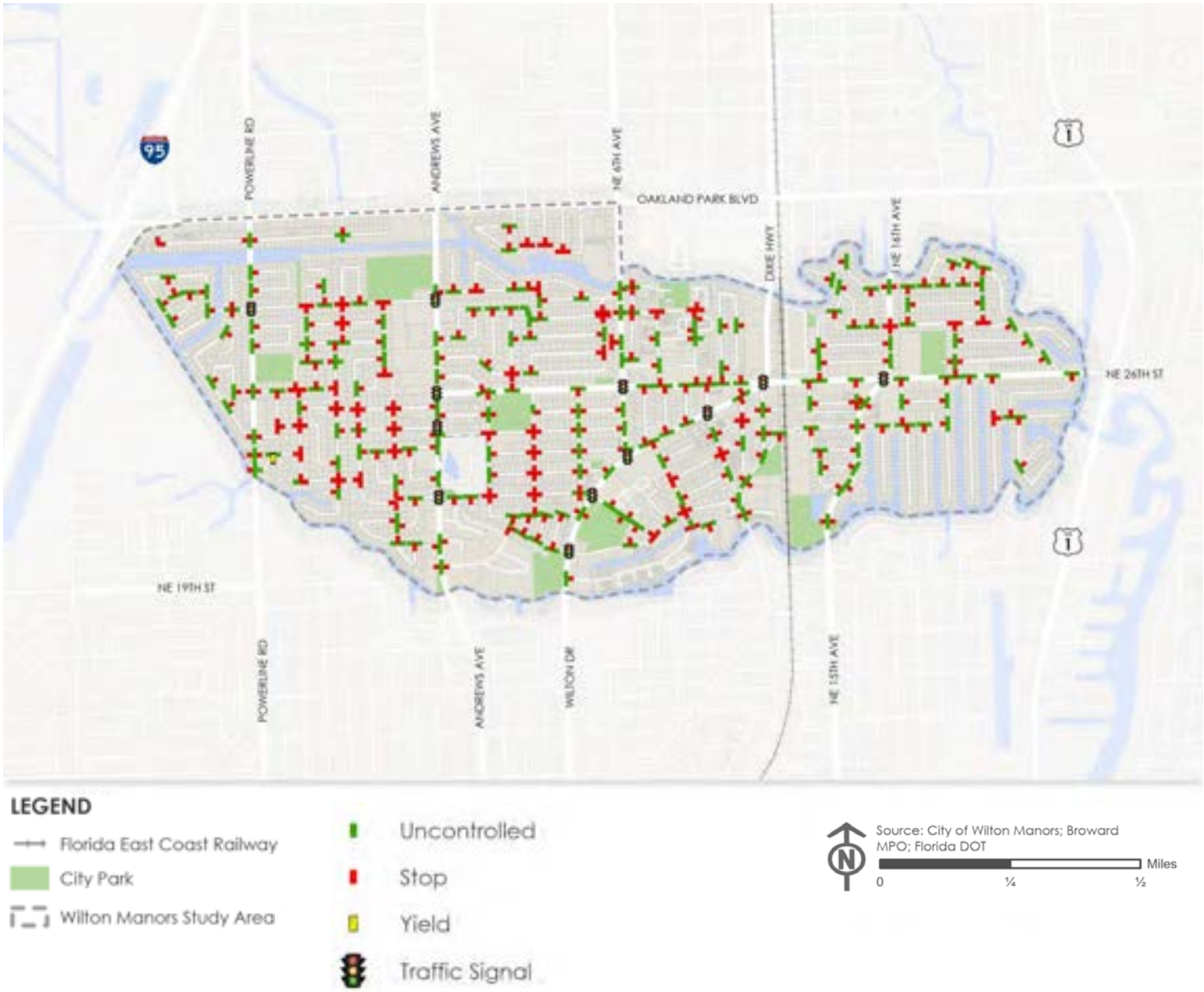
Context Classification

- Note: Context Classification developed by FDOT District 4. Wilton Drive may be more appropriately classified as C5..
- Further information on Context Classification can be found in the FDOT Context Classification Guide
- https://fdotwww.blob.core.windows.net/sitefinity/docs/default-source/roadway/completestreets/files/fdot-context-classification.pdf



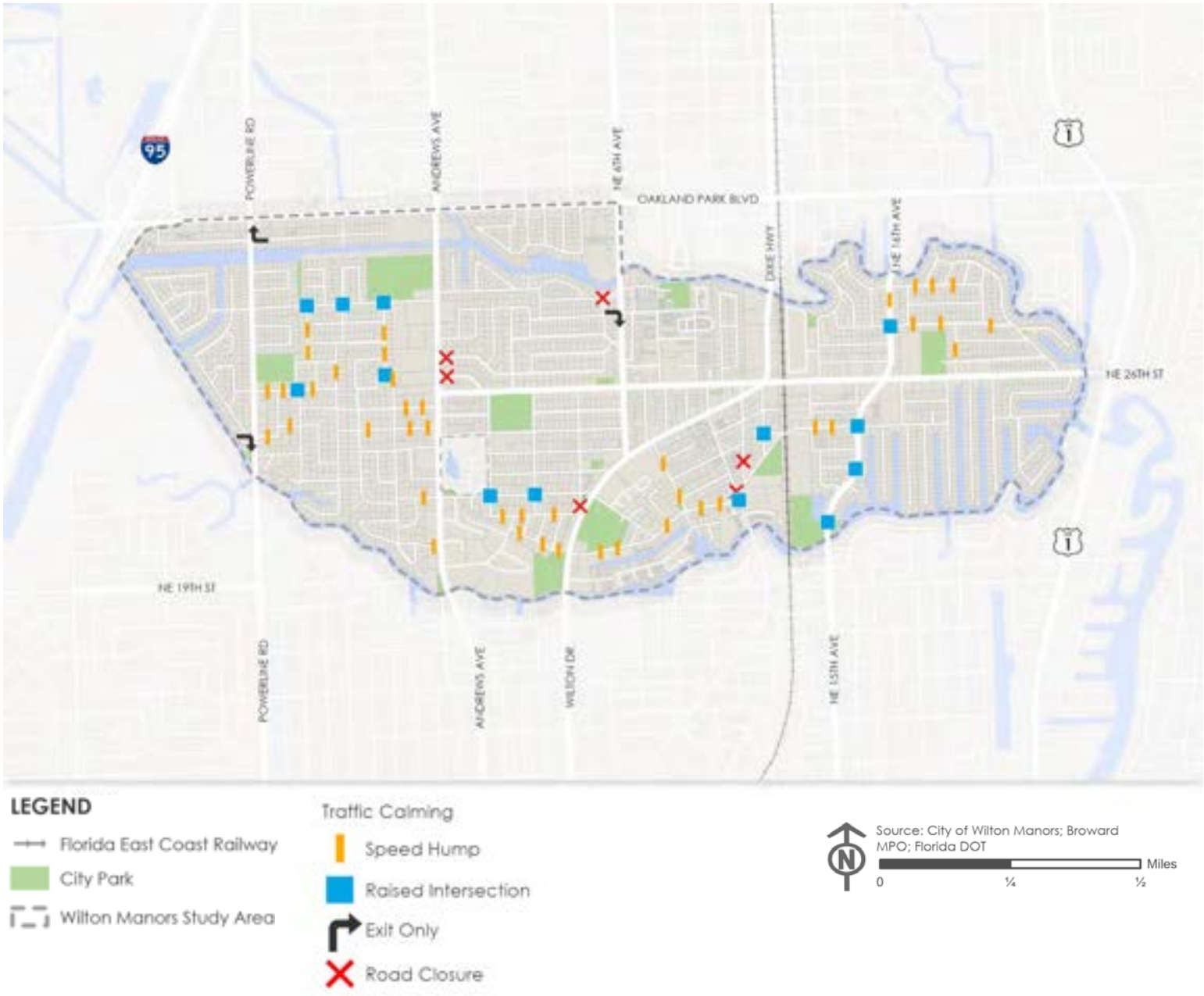
Intersection Control

- Most local streets stop controlled
- Signals at many key junctions
- Consider intersection design for further comfort



Traffic Calming

- Several residential neighborhoods already have significant traffic calming measures implemented
- A recent study recommended additional traffic calming elements for the West Side (west of Andrews Avenue)



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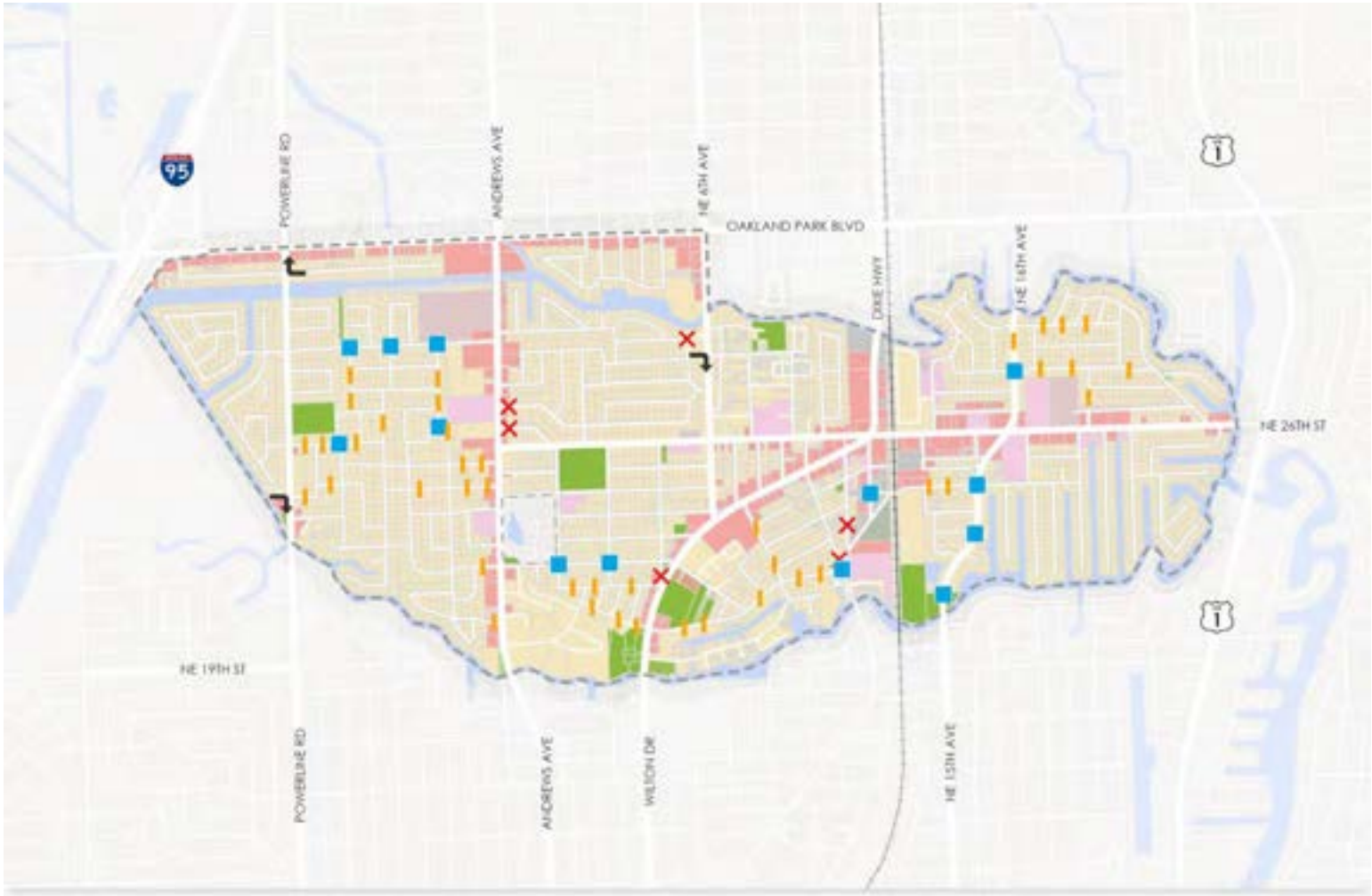

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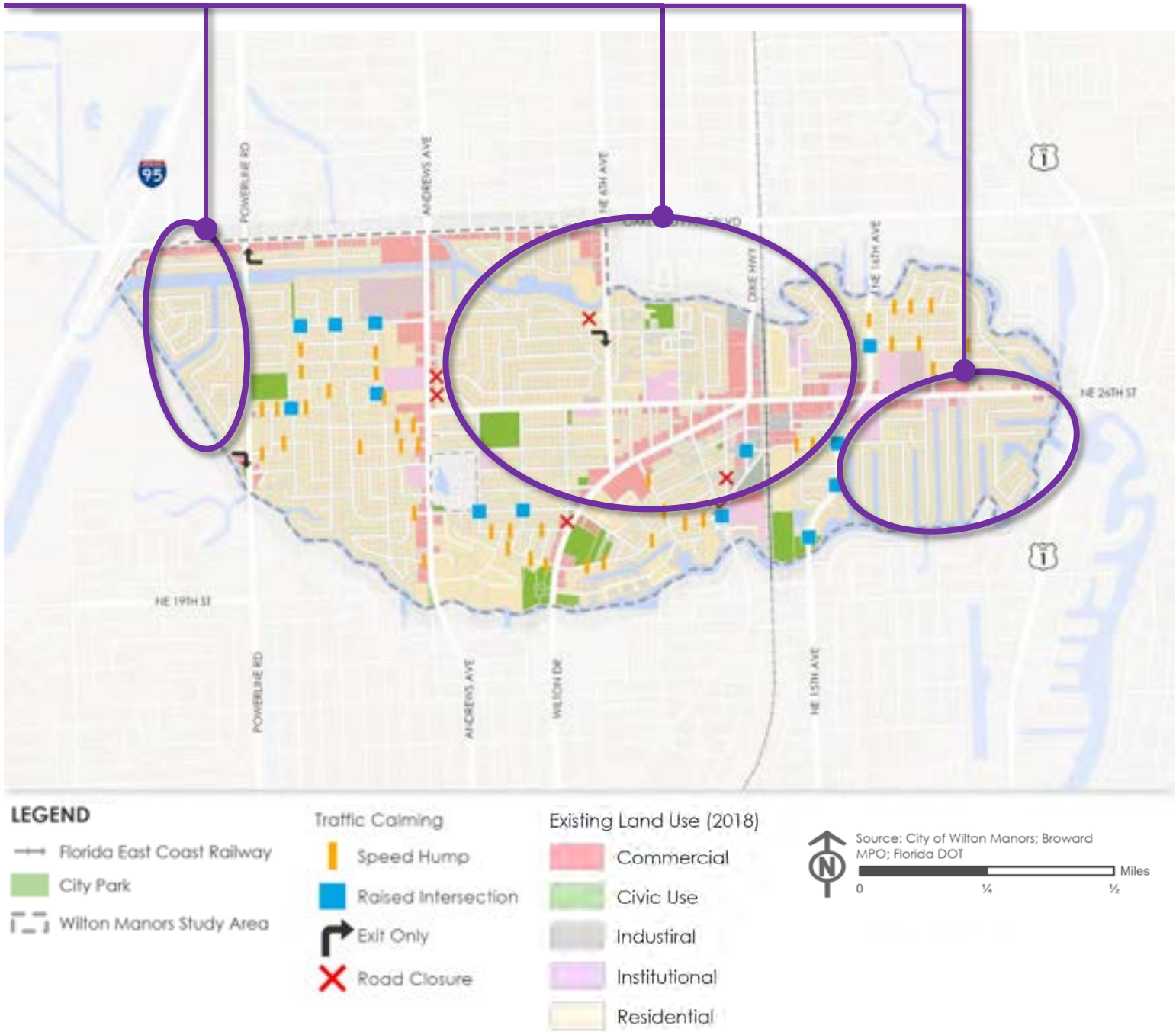
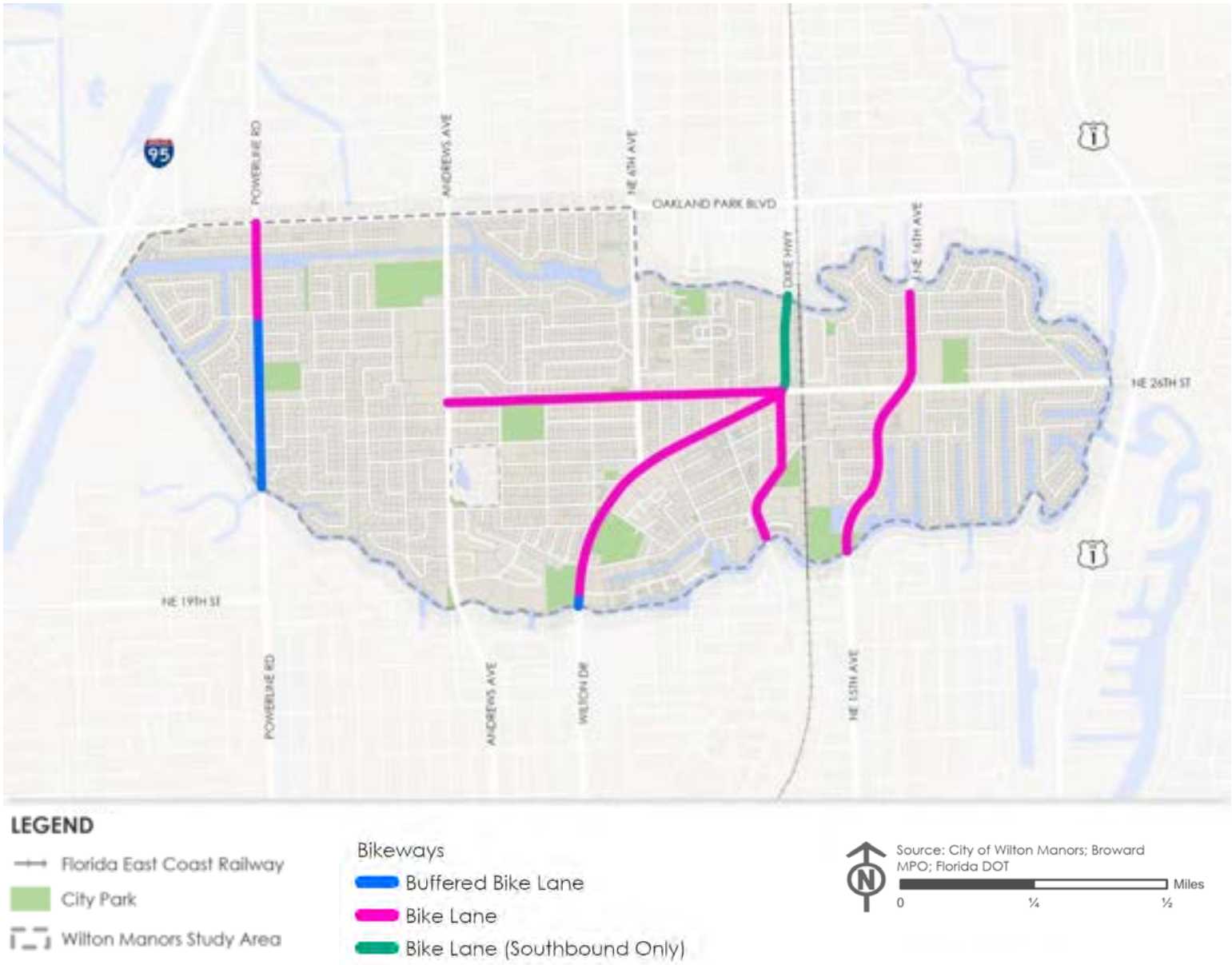
Areas with Fewer Traffic Calmed Streets



Bike Network

- Disconnected network
- Andrews Avenue, NE 6th Avenue missing infrastructure
- No formal E/W route through City
- Bike lanes generally don't match context
- Potential for comfortable bike boulevard network



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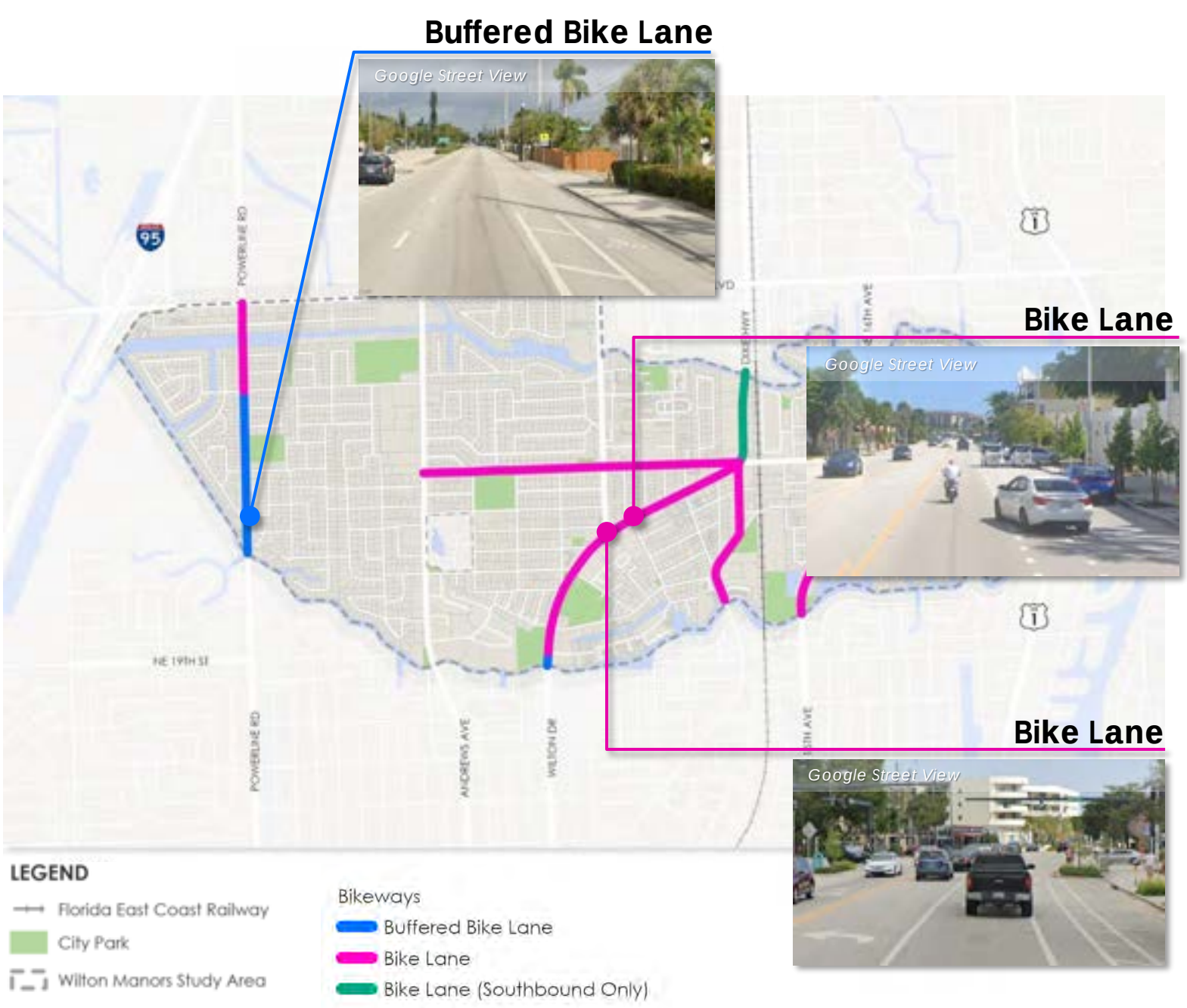


Walking & Biking Safety (2018 - 2022)

- Total Crashes: 86
- Weighted Crashes
  - Fatal: 100 points
  - Severe Injury: 75 points
  - Injury: 25 points
  - Non-Injury: 1 point
- East / West Crossings
  - Powerline Road
  - Andrews Avenue
  - Dixie Highway
- North / South Crossings
  - Wilton Drive
  - NE 26th St

Note: Crash data is based on police reporting at the scene and not severity as determined by a trained medical professional. For this and other reasons, crashes involving people walking and biking, and particularly reports of injury severity are often underreported.

Data Source: SignalFour Analytics, 2018-2022

Where People Bike

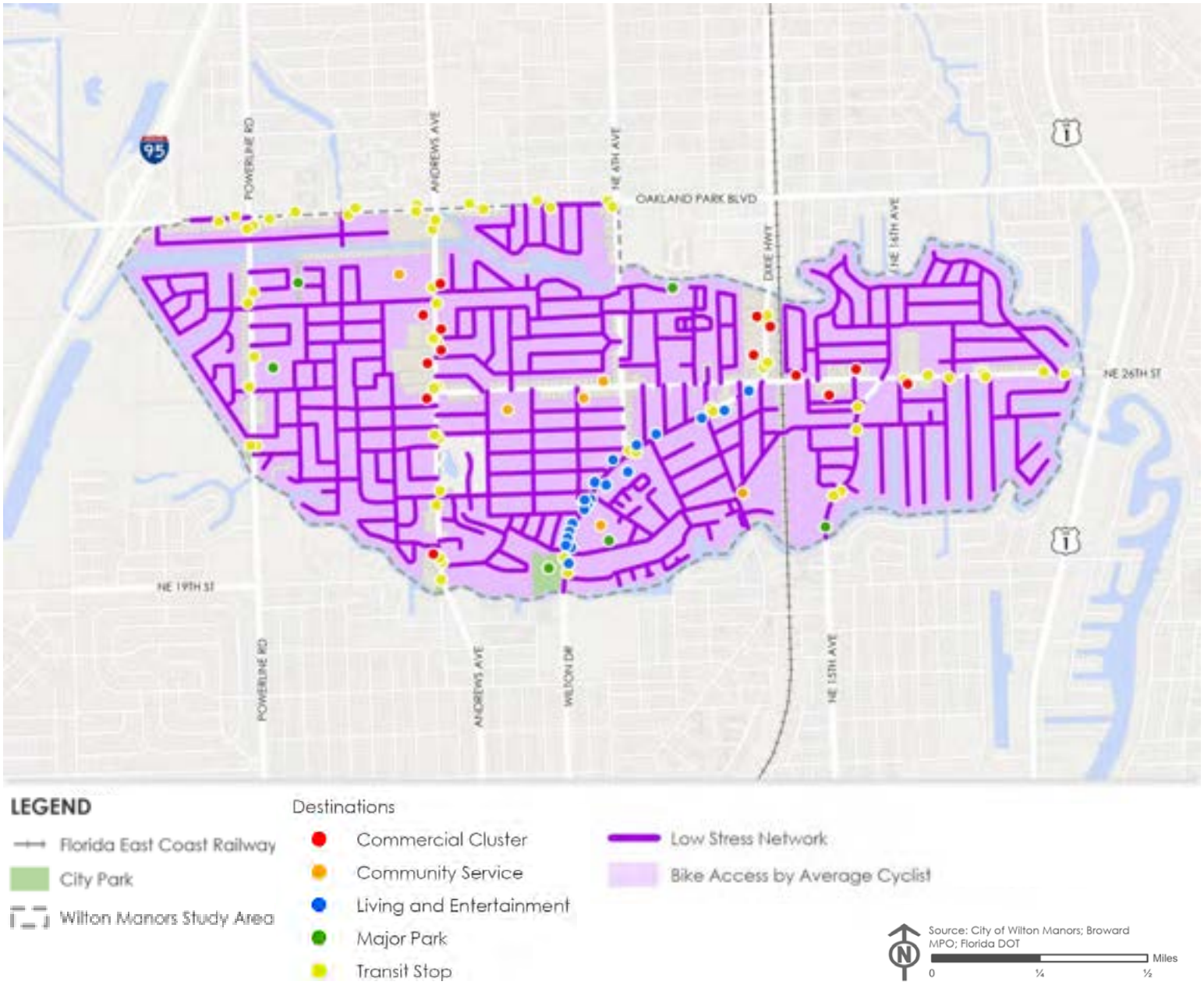
- Popular Biking routes include:
  - NE 26th Street
  - Wilton Drive
  - Andrews Avenue
  - NE 6th Avenue
  - Dixie Highway
  - NE 25th Street
  - NE 20th Street to NE 21st Court

Fewer Bike Trips — **More Bike Trips**

Strava Global Heat Map from bike trips recorded from June 2022 - 2023.

Bike Access to Destinations

- Most of Wilton Manors has bike access to at least one destination

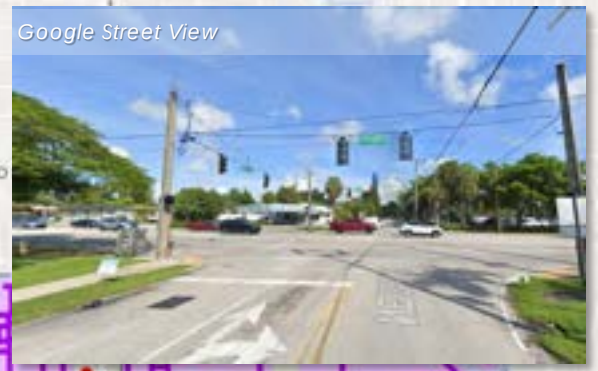


Limited East-West Bike Crossings

- Only **one** signalized east-west crossing on Powerline Road and Andrews Avenue
- Existing signalized crossings have no dedicated bike signalization or infrastructure

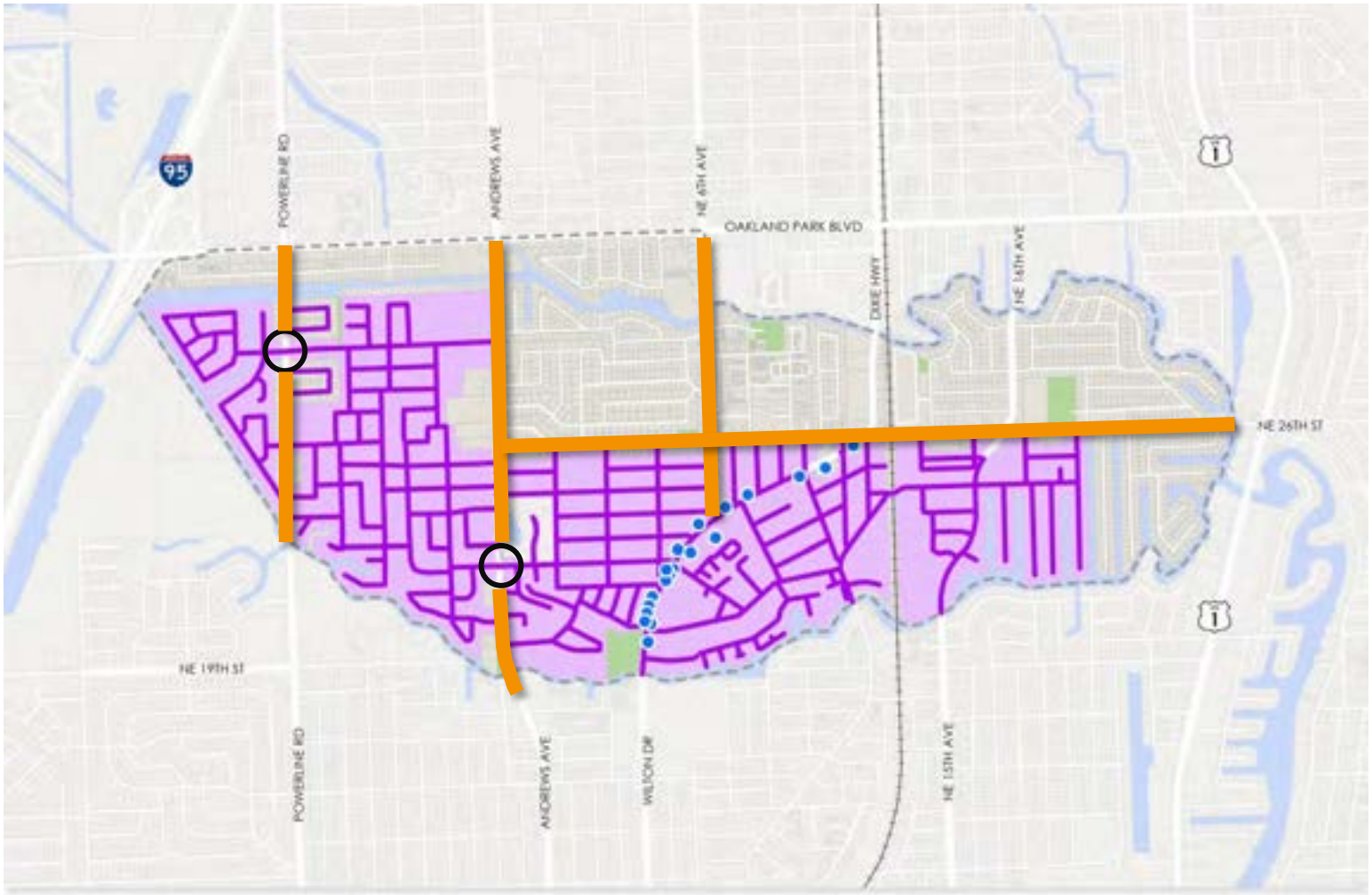
Powerline Road and 29th St

Andrews Avenue and 21st Ct



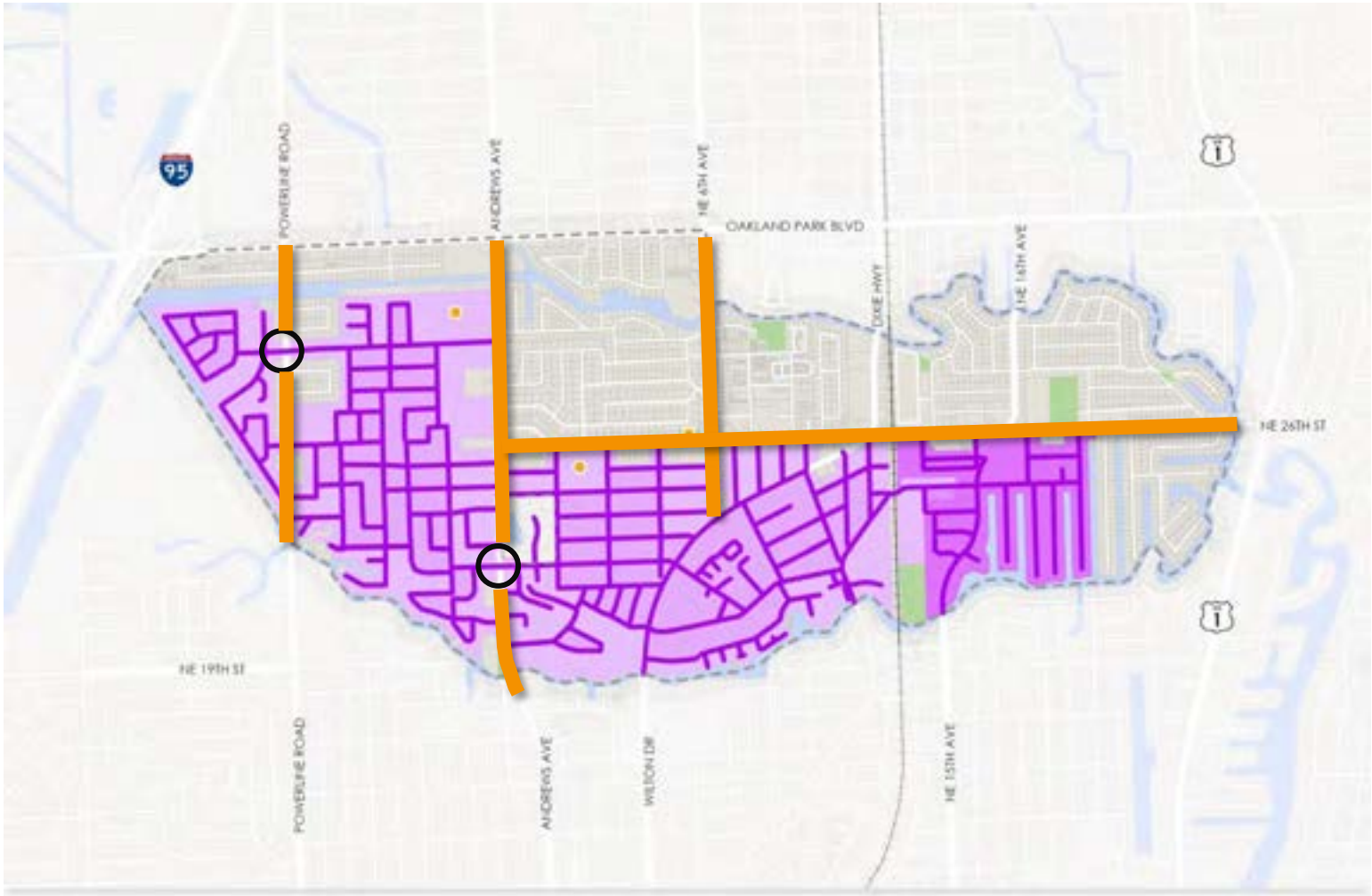
Bike Access Wilton Drive

- Very few direct east-west routes to Wilton Drive
- Northern Wilton Manors has no access to Wilton Drive despite being close
- NE 18th Avenue and eastward do not have access to Wilton Drive



Bike Access to Schools

- Very few direct routes to schools
- Even neighborhoods adjacent to schools cannot access as there is a lack of safe crossing points
- Residents living North of NE 26th Street east of NE 18th Avenue and eastward do not have access to schools by bike
- Residents between the rail line and NE 17th Street would need an eBike or ride faster than the average cyclist to have access to schools



Biking in Wilton Manors

- LTS does not account for gaps that occur in existing bike lanes due to:
  - Obstructions
  - Lack of comfortable crossing opportunities
  - Driveways
  - Approaching and through intersections

Bike lanes are obstructed by parked cars and cars turning right at intersections. Garbage cans are observed frequently blocking both sidewalks and roadways.

Bike riders have been observed using sidewalks when a bike lane is available.

Example of bike riders traveling against traffic which may be due to discomfort in crossing the roadway.

Biking in Wilton Manors

- LTS does not account for gaps that occur in existing bike lanes due to:
  - Obstructions
  - Lack of comfortable crossing opportunities
  - Driveways
  - Approaching and through intersections

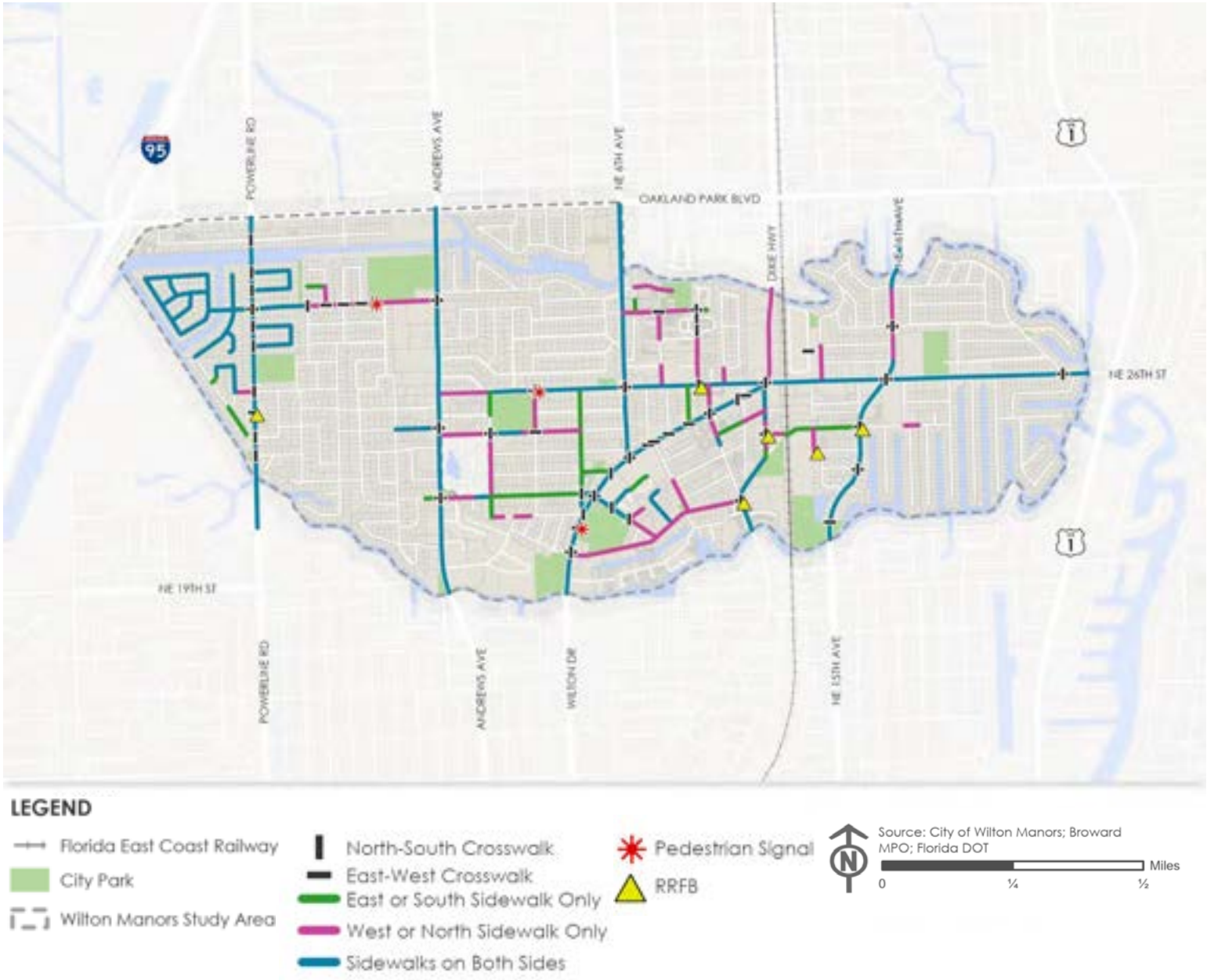
People may not feel comfortable riding in exiting bike lanes.

Cyclist using pedestrian infrastructure to cross a road.

Most people would not feel comfortable sharing the lane with fast moving traffic.

Walking Network

- Sidewalks missing on many streets
- Sidewalks on one side may or may not meet needs
- Crosswalks at major junctions
- City is working to build future sidewalk connects to create a full network



Crossing with a Mobility Device

- According to the FHWA someone with a mobility device travels at 3.5 ft/s
- Someone with a mobility device would not be able to cross Powerline Road nor Andrews Avenue within the pedestrian phase allotted

Note: This analysis was only conducted for full traffic signals; RRFBs are not considered

Crossing as an Elderly Person

- According to the FHWA someone with a mobility device travels at 2.8 ft/s
- An elderly person would not be able to cross Powerline Road nor Andrews Avenue within the pedestrian phase allotted

Note: This analysis was only conducted for full traffic signals; RRFBs are not considered

Where People Walk or Jog

Popular walking or jogging routes include:

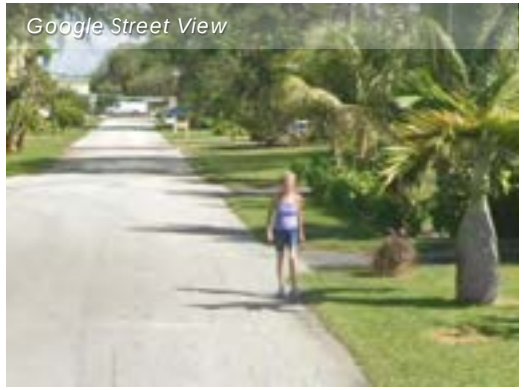
- Dixie Highway south of NE 26th Street
- NE 9th Street, NE 7th Avenue, between Wilton drive and NE 20th Street
- NE 26th Street between Andrews Avenue and Dixie Highway
- From NW 21st Court to NW 22nd Street, to NW 7th Avenue, to either NW 24th Street or up to NW 8th Avenue and to Mickel Park
- NW 3rd Avenue, NW 29th street, NW 9th Terrace, NE 6th Avenue, NE 21st Court, NE 20th Street, and around Jenda Isle among others.

Fewer Walking or Jogging Trips — **More Walking or Jogging Trips**

Strava Global Heat Map from walking or jogging trips recorded from June 2022 - 2023.

Walking on Local Streets

- Local streets are generally narrow—many with traffic calming treatments—that make walking inviting to residents
- Lack of formalized sidewalks may still limit accessibility for some residents



Person walking along 3rd St

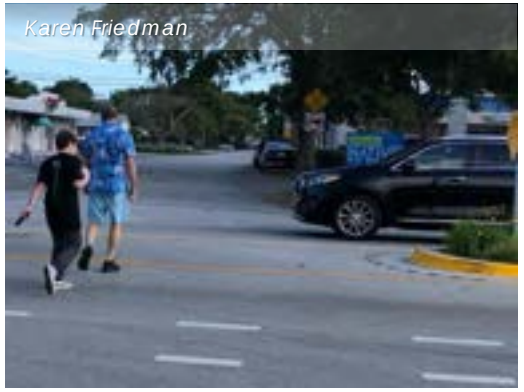
Person walking dogs along 21st St

Person walking along 20th St

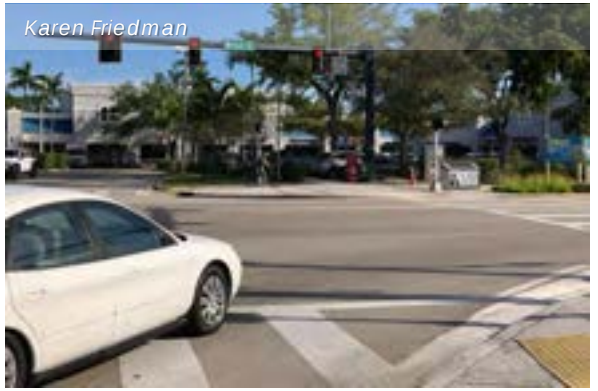
Walking on Wilton Drive

- Sidewalks along Wilton Drive act as a public gathering space in addition to facilitating walking
- Sidewalks become crowded at times
- Pedestrian crossings are not frequent enough to meet the demands of people and to service the surrounding street context
- Drivers are entering into crosswalks before it is safe to proceed creating conflicts between pedestrians and vehicles

Wilton Drive at 7th Avenue being used as a public gathering space



Examples of people crossing Wilton Drive outside of marked crosswalks



Cars stopped in crosswalks along Wilton Drive

Transit Network

- Many stops do not have a signalized pedestrian crossing nearby
- No direct east-west transit connection from east Wilton Manors to west Wilton Manors

Key Conclusions

- Wilton Drive is a major Local and Regional Destination
- Some roadways make it difficult to traverse the City and reach destinations
- Existing intersections are not comfortable for people walking and biking
- Existing walking and biking networks are not comfortable for some users
- Limited accessibility for people walking and biking to Wilton Drive

Intersections Are not Comfortable

No dedicated infrastructure for people biking

At least one pedestrian phase is too short for people 65 or older or people using mobility devices to cross comfortably

Roadways are wide requiring people walking to cross long distances

Two LTS 3 or 4 roadways intersect

Andrews Ave and 26th St

No crosswalks or pedestrian signalization

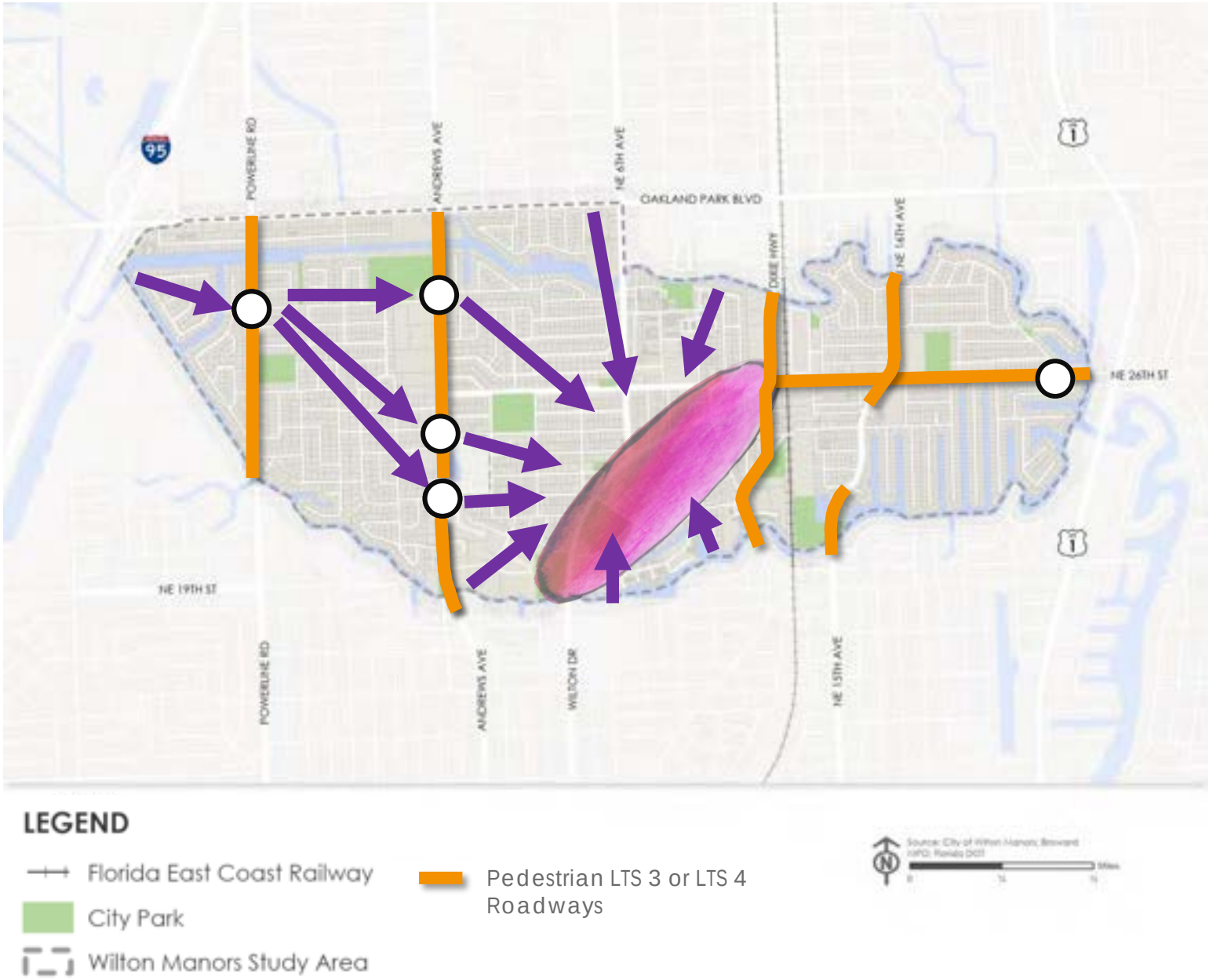
Andrews Ave and 21st Ct

Powerline Road RRFB

Powerline Road and 29th St

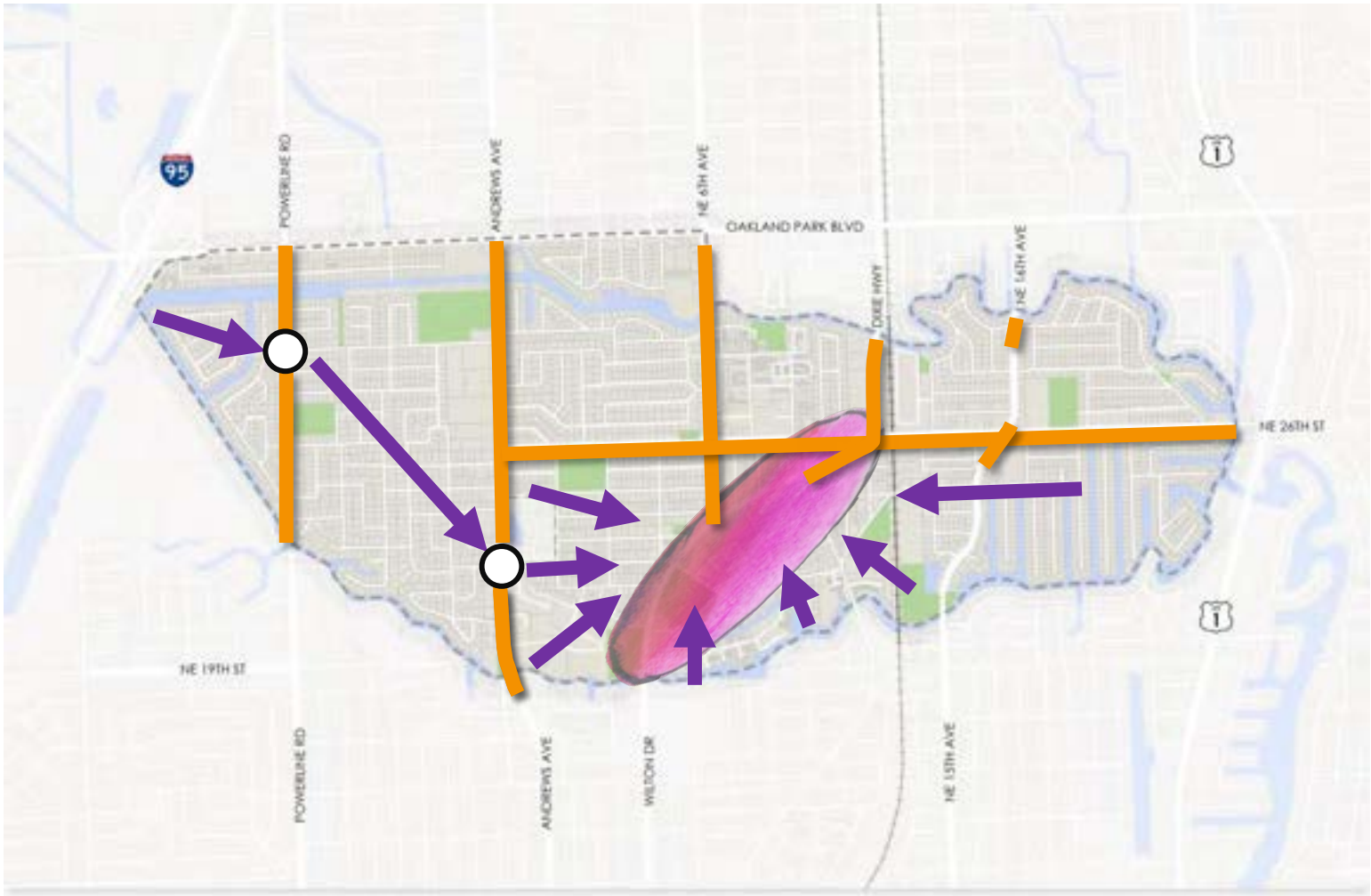
Limited Crossings for People Walking

- Signalized intersections provide places for pedestrian to cross high stress roadways and access Wilton Drive
- People walking in the eastern Wilton Manors have the fewest crossing options to Wilton Drive



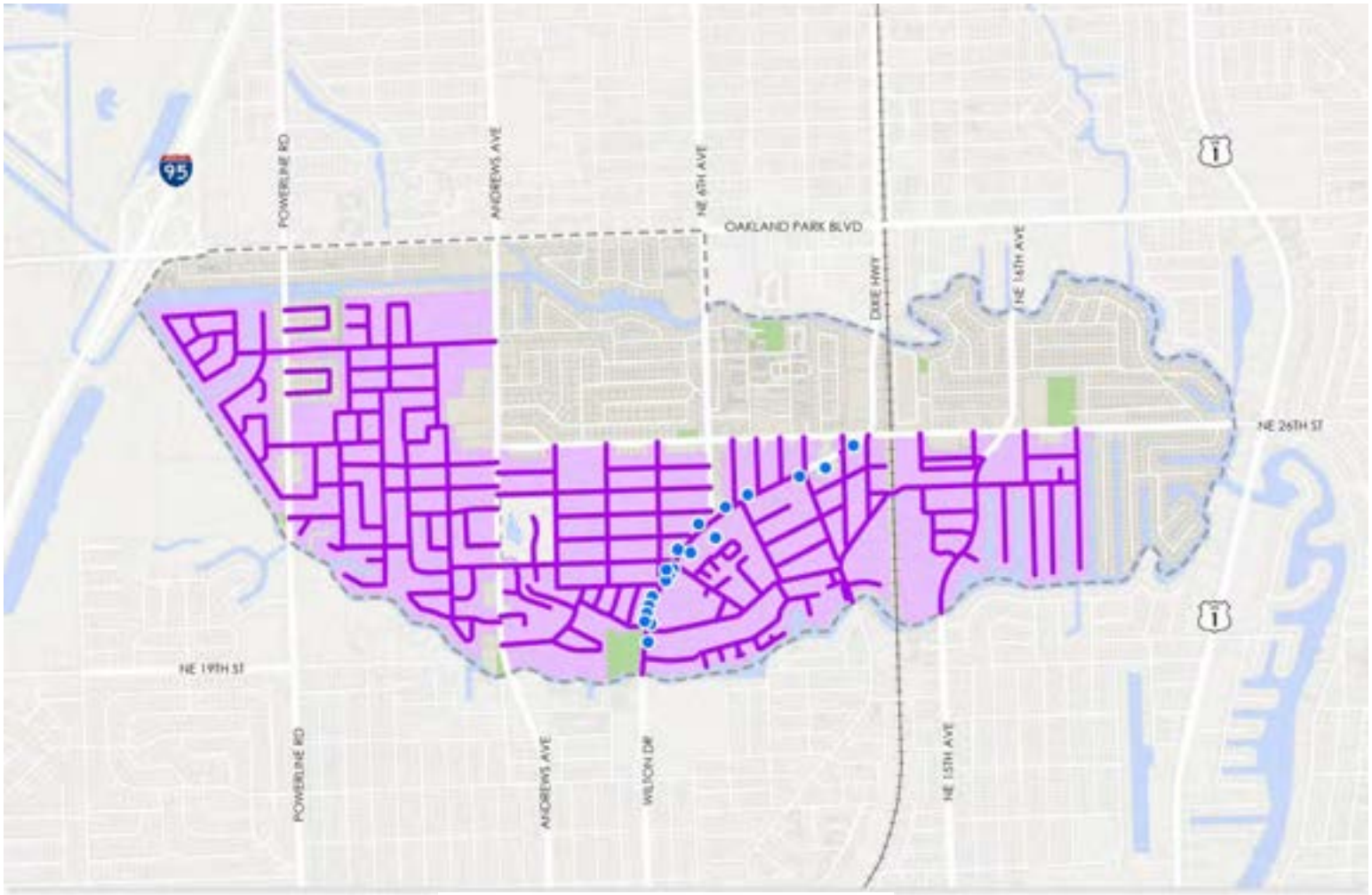
Limited Crossings for People Biking

- People biking are being **funneled** through very limited signalized east-west crossings
- Offset intersections force bikes onto high stress roadways



Limited Bike Access to Wilton Drive

Little access to Wilton Drive by residents living in northern and western Wilton Manors



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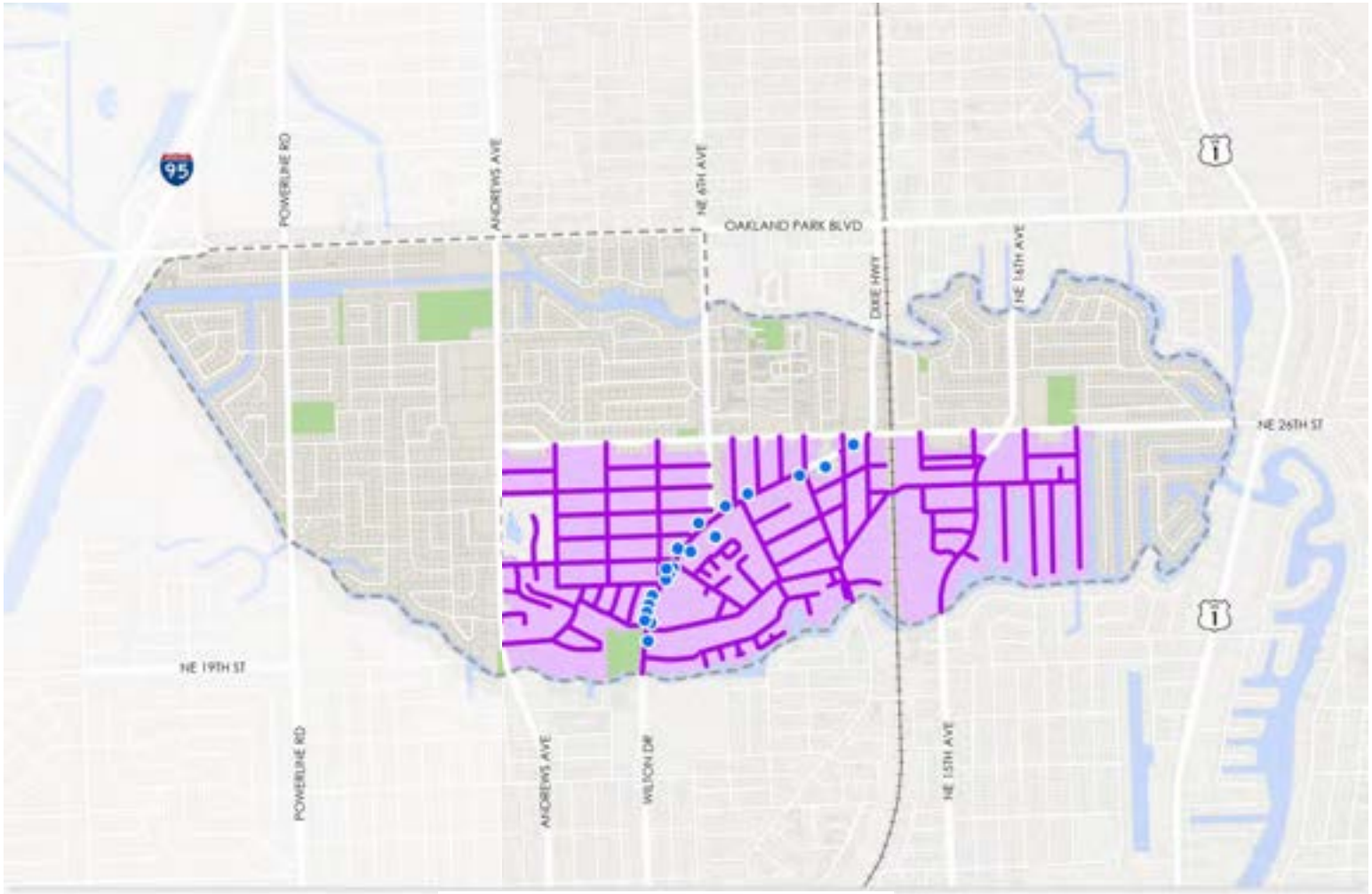

Addressing Issues on 6 Key Corridors

- **East / West Crossings**
  - **Powerline Road**
  - **Andrews Ave**
  - **Dixie Hwy**
- North / South Crossings
  - NE 26th St
  - Wilton Drive
- LTS 3 & 4 Walking / Biking Facilities
  - Powerline Road
  - Andrews Ave
  - Dixie Hwy
  - Wilton Drive
  - NE 26th St
- Neighborhood Connections
  - NE / NW 24th St
  - NE / NW 21st Ct

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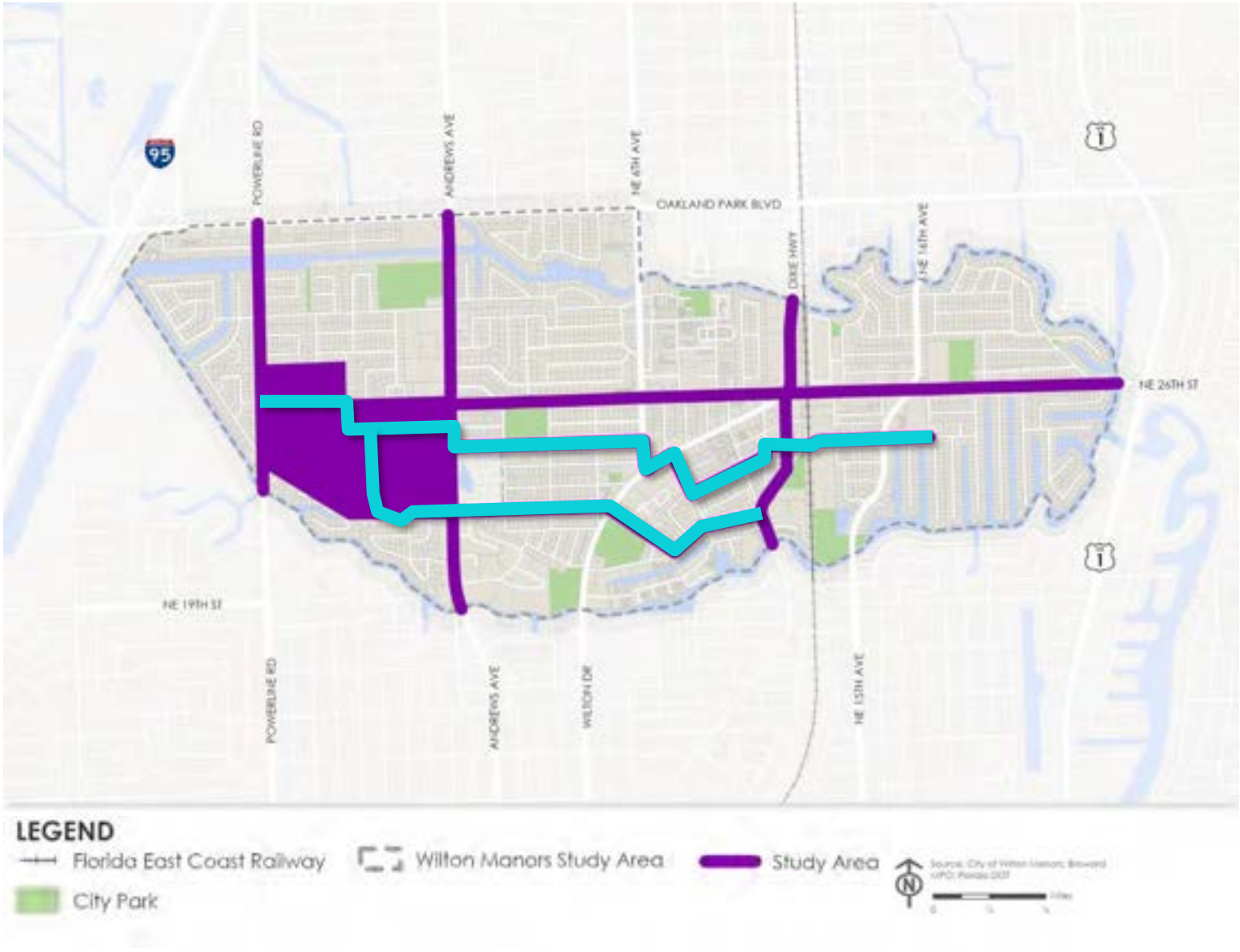


Section J

Level of Traffic Stress Map Series

KITTELSON & ASSOCIATES
6750 N Andrews Ave Suite 200
Fort Lauderdale, FL 33309
P 954.828.1730

Technical Memorandum

March 13, 2024 Wilton Manors Transportation Master Plan

To: Karen Friedman, AICP | Senior Transportation Planner
Broward Metropolitan Planning Organization
100 West Cypress Creek Road, Suite 650
Fort Lauderdale, FL 33309

From: Kittelson & Associates, Inc

RE: DRAFT Wilton Manors Transportation Master Plan Existing Conditions Methodology Memorandum

EXISTING CONDITONS METHODOLOGY MEMORANDUM

The following memorandum is intended to provide information about the sources used, data created, methodology for analysis, and other technical details related to the assessment of existing conditions for the Wilton Manors Transportation Master Plan. The following sections are included in this memorandum:

- Data Collection and Verification
- Data Creation and Coding
- Analysis Methodology

Data Collection & Verification

The Broward Metropolitan Planning Organization (MPO) provided much of the data. Supplemental data sources include Florida Department of Transportation (FDOT), U.S. Census Bureau, Replica, and others. For all data, the consultant conducted desktop reviews using Google Maps / Google Earth in combination with targeted field reviews to verify the data within the City of Wilton Manors. The following table provides a summary of the data used for the analysis. Any datasets not listed were collected directly by the consultant and digitized using google street view or based on field verification.

Table 1 Data Sources

Data Name	File or Data Type	Source (Year)
Existing Bike Facilities	Geospatial vector data (shapefile)	Broward MPO (2023*)
Existing Land Use	Geospatial vector data (shapefile)	Broward MPO (2023*)
Existing Level of Service (LOS)	Geospatial vector data (shapefile)	Broward MPO (2023*)
Existing Number of Lanes	Geospatial vector data (shapefile)	Broward MPO (2023*)
Roadway Functional Classification	Geospatial vector data (shapefile)	Broward MPO (2023*)
Parks Update	Geospatial vector data (shapefile)	Broward MPO (2023*)
Public Parks, Facilities and Schools	Geospatial vector data (shapefile)	Broward MPO (2023*)
Traffic Signals	Geospatial vector data (shapefile)	Broward MPO (2023*)
Bus Stops	General Transit Feed Specification (GTFS)	Replica (2023*)
Crash Data	Geospatial vector data (shapefile)	Signal Four Analytics (2018 – 2022)
Signal Timing Sheets	Portable document format (PDF)	Broward County (2023)
Bike and Pedestrian Frequency	Heat maps, view access only	Strava (2023)
Annual Average Daily Traffic (AADT)	Geospatial vector data (shapefile)	FDOT (2022)
Demographic Information	CSV	Census Bureau, American Communities Survey 2021 5-year estimates
Aerial Satellite Images	Image maps from 3rd party servers, view only	1. Esri ArcGIS PRO "Imagery" Basemap 2. Google Maps Satellite Layer
On-Street Existing Conditions Images	Image, view only	Google Streetview (2022 – 2023)

*Year represents the year the data was verified

Digitization & Network Creation

To perform many of the analyses utilized in the TMP, additional data was collected as noted in the previous section. Additionally, a single roadway layer was developed which combined multiple existing and new data sets. The method for creating this data layer (referred to in this document as "WiltonManors_Roadways") is described below:

- **Create a Single Centerline Shapefile:** First, a single shapefile was created by using the "Join" tool in GIS combining the existing number of lanes, existing bike facilities, functional classification.
- **Add Additional Attributes:** Additional attributes were added to this layer including:
  - **Roadway Speed Limit** – Google Streetview was used to determine roadway speed limits. Local and residential roadways were assigned values of 25 mph.
  - **Sidewalk Width Left** – A numerical value containing the width of the sidewalk if one is present. Left denotes that the sidewalk is either on the east or south side of the road. This data was collected using the Google Maps Satellite layer and measuring tool to estimate sidewalk width.
  - **Sidewalk Width Right** - A numerical value containing the width of the sidewalk if one is present. Right denotes that the sidewalk is either on the west or north side of the road. This data was collected using the Google Maps Satellite layer and measuring tool to estimate sidewalk width.
  - **Sidewalk Buffer Present** – A yes or no value denoting whether a buffer is present between the curb and the sidewalk.
  - **AADT** – The AADT volumes depicted in the FDOT AADT layer were assigned to relevant collector and arterial streets. Local streets without volume data were assumed to have a traffic volume of 2,500 AADT or less. This number was identified based on national best practice / rule of thumb data for local streets and verified against data collected from previous traffic studies and Replica estimates where available.

Analysis Methodology

Citywide Crash Analysis

A crash data analysis was conducted which considered all reported crashes in Wilton Manors as reported from Signal Four Analytics between January 1, 2018 and December 21, 2022. Crash data from Signal Four is provided as point files geolocated to a location as close as possible to where the crash was reported. The analysis followed the following steps, and a quality check was provided after each step to ensure crashes were not dropped out or double counted in the analysis:

1. **Clean the road network:** The road network is provided in GIS in individual segments, which are broken at each point where two streets cross. These segments are often too short to provide meaningful information. To clean the network:
   - The "Merge" tool in GIS was used to merge all segments with the same street name.
   - The streets were then broken into new, longer segments at any point at which they crossed a signalized intersection. For example, Andrews Avenue was broken into four segments: southern city boundary to NE 21st Court, NE 21st Court to NE 26th Street, NE 16th Street to NW 29th Street, and NW 29th Street to the northern city boundary.
2. **Assign Crashes to Roadways:** Crashes often do not align with the road network, and crash data is sometimes unclear regarding the precise roadway name. The following steps were taken to assign crashes to roads.
   - The crash points were joined to the street closest to them.
   - In the join, crash attributes were summed to provide a total number of crashes per segment. Attributes joined include the following categories:

Total crashes	Pedestrian Involved Crashes	Bicycle Involved Crashes
▪ Total crashes ▪ Total fatal crashes ▪ Total severe injury crashes ▪ Total injury crashes ▪ Total non-injury crashes	▪ Total pedestrian rashes ▪ Total fatal crashes ▪ Total severe injury crashes ▪ Total injury crashes ▪ Total non-injury crashes	▪ Total Crashes ▪ Total fatal crashes ▪ Total severe injury crashes ▪ Total injury crashes ▪ Total non-injury crashes

3. **Assign weighting to Crashes.** Because crashes impact people differently based on severity, a severity score was calculated. Using a weighted score allows each crash to aid in identifying potentially problematic locations, while

also setting an emphasis on addressing crashes that have resulted in fatalities and severe injuries. The following weights were used:

- **Fatal:** 100 points
- **Severe Injury:** 75 points
- **Injury:** 25 points
- **Non-Injury:** 1 point

4. **Evaluate crashes per mile.** Total crashes for each crash type were multiplied by the severity score to achieve at a total severity score per segment (one for all crashes, and one for walking and biking crashes). Because the segments differ in length, the total number of crashes was divided by the length of the segment (segment length is auto-calculated in GIS). This provided a crash severity score normalized by segment length, and thus enabled the study team to evaluate each segment against all other segments. The segments were broken into four categories based on quantiles to identify the top crash segments for all modes and the top crash segments for walking and biking.

Level of Traffic Stress for Walking and Biking

A Level of Traffic Stress (LTS) analysis was conducted for walking and biking comfort for every street in the City. LTS is a performance measurement that quantifies the amount of discomfort people feel when walking or biking (traffic stress). LTS considers four categories:

1. A facility that is suitable for all able-bodied users, including children and elderly people.
2. A facility that is suitable for most adult able-bodied users.
3. A facility that will be tolerated by confident users.
4. A facility that will be tolerated only by those with limited route or mode choice or enthusiasts who choose to ride under stressful conditions.

The following steps were taken to calculate walking and biking LTS.

1. **Create a Single Centerline Shapefile:** From the combined "WiltonManors_Roadways" shapefile described in **Data Creation and Coding Section**, the following attributes are needed for each of the following analysis:
   - Bike LTS Analysis Attributes
     - Number of Lanes
     - Roadway Speed Limit
     - Roadway AADT
     - Bike Facility Type
     - Bike Lane Left Width (Denoting East or South Side Sidewalk) *
     - Bike Lane Right Width (Denoting West or North Side Sidewalk) *
   - Pedestrian LTS Analysis Attributes
     - Number of Lanes
     - Roadway Speed Limit
     - Sidewalk Width Left (Denoting East or South Side Sidewalk)
     - Sidewalk Width Right (Denoting West or North Side Sidewalk)
     - Sidewalk Buffer Present

   * This attribute was added as part of the Bike LTS analysis described in **Assign Bike LTS Score**
2. **Assign Bike LTS Score**
   - Bike LTS scores were determined using the methodology described in the *FDOT Multimodal Quality / Level of Service Handbook (2023)* (FDOT Q/LOS Handbook). A summary of this methodology and criteria is provided in **Appendix A**.
   - The "Select by Attributes" tool was used to select the roadways with the criteria that matched each associated LTS score and were assigned that value. However, some segments required individual evaluation as described below:
     - As noted in the LTS methodology in **Appendix A**, bike lane width played a role in determining the final LTS score on segments meeting certain criteria. Bike lane widths were recorded only for these segments and were estimated from Google Maps Satellite Imagery and Google Map's distance measuring tool.
     - Observed speed was used to determine the LTS for Powerline Road in lieu of the posted speed limit. Observed speed was used for Powerline Road for two reasons: (1) observed speed was

available from the *FDOT Powerline Road - Road Safety Audit* (2021) and (2) the observed speed was higher than the posted speed limit.

3. **Assign Pedestrian LTS Score**
   - Pedestrian LTS scores were determined using the methodology described in the *FDOT Q/LOS Handbook (2023)*. A summary of this methodology and criteria is provided in the **Appendix A**.
   - The "Select by Attributes" tool was used to select the roadways with the criteria that matched each associated LTS score and were assigned that value. However, not all streets were evaluated due to the unique condition of existing local and residential streets in Wilton Manors:
     - Most residential streets in Wilton Manors do not have sidewalks. This condition would be categorized as an "LTS 4"—the most stressful rating—using the *FDOT Q/LOS Handbook*, but this may not be indicative of how Wilton Manors residents perceive these streets. Many residential streets in Wilton Manors are narrow, have low traffic speeds and volumes, and some also have traffic calming. These streets are currently used by those walking, biking, and who use mobility assistive devices. These streets were removed from the analysis to allow the community to have further discussion on how to treat local streets.

Bike Access

To determine what areas are accessible in Wilton Manors to people biking, an accessibility assessment was conducted to determine how far someone biking can travel in 15 minutes on the "low stress network" (Bike LTS 1 or LTS 2).

1. **Identify the Low Stress Network:** Roadways and other biking facilities with a Bike LTS 1 and 2 are considered comfortable and "low stress" for most people to bike on regardless of their skill or ability. After Wilton Manor's roadways were categorized with a Bike LTS score (see **Bike and Pedestrian Level of Stress**), a new shapefile was created that only included roadways that were assigned a score of LTS 1 or 2. This became the "Low Stress Network."
2. **Remove High Stress Intersections from the Network:** The Low Stress Network intersects with high stress (LST 3 and 4) streets and may not be comfortable to cross for most riders. At locations where the Low Stress Network intersects with high stress roads and a signalized traffic control device is not present, the intersection is considered too stressful for most people to cross and considered a gap in the Low Stress Network. These intersections were removed by editing the geometry of the Low Stress shapefile to manually create a disconnect at those intersections. The gaps indicate likely stopping points for the average person, or places people might not be willing to cross.
3. **Determine the Destinations People Want to Bike To:** There are a wide range of destinations people may want to bike to within Wilton Manors. The following are categories of locations that were evaluated and were combined into a single Destination point-file:
   - **Transit Stops –** These included all transit stops within Wilton Manors. This data was obtained by converting the GTFS downloaded from Replica to point geometry in ArcGIS Pro.
   - **Commercial Clusters –** This point file was manually generated in ArcGIS Pro by referencing Google Maps data to identify locations of strip malls and big box stores that provide multiple businesses or services in one location.
   - **Living and Entertainment –** Theatres, bars, art galleries, event spaces, and restaurants along Wilton Drive. These points were generated in the same way as **Commercial Clusters**.
   - **Community Service –** These points were provided by the Broward MPO and include schools, libraries, and community centers.
   - **Major Parks -** These points were provided by the Broward MPO and include schools, libraries, and community centers.
4. **Identify Riders** – According to an *Organ Transportation Research and Consortium (OTRC) paper Understanding and Measuring Bicycling Behavior: a Focus on Travel Time and Route Choice (2008),* the median bike ride (regardless of trip type) is 2.8 miles with 40% of all trips taken measure 2 miles or less. When looking at non-exercise trips, utility trips such as social/recreation, school, shopping, dining, etc., the median trip distance spans from 1.0 – 2.1 miles. For this reason, a 2-mile distance was considered a reasonable trip distance for the average rider, or about a 15-minute bike trip for those traveling at about 8 MPH. Electric Bikes (eBikes) allow people to travel at faster speeds, and so a separation analysis was conducted for them. Assuming a similar tolerance of about 15-minutes for the average rider, someone riding an eBike at an average of 12 MPH would travel 3 miles. Given these two rider profiles, bike sheds were developed for the following rider types:

- **eBike Rider:** Travels 12 MPH, or up to 3 miles, on a 15-minute trip. Athletic riders may also travel at a similar speed.
- **Average Rider:** Travels 8 MPH, or up to 2 miles, on a 15-minute trip.

5. **Develop Bike Sheds –** "Network Analyst, Service area analysis", a tool in ArcGIS Pro, automatically generated the bike sheds using the "Low Stress Network" polyline data, destination point data, and rider distance constraints as the inputs. These bike sheds represent locations where the rider can bike *from* and still get *to* each destination within a 15-minutes. In other words, people living within those sheds are within a 15-minute bike from those destinations and have *access* to those destinations by bike.

Pedestrian Signal Timing Analysis

Pedestrian Signal Timing was analyzed for all traffic signals within Wilton Manors to determine if it was comfortable for all people walking. Elderly pedestrians and people with disabilities need additional time to cross an intersection compared to younger and able-bodied people.

The following intersections were evaluated using the methodology described below.

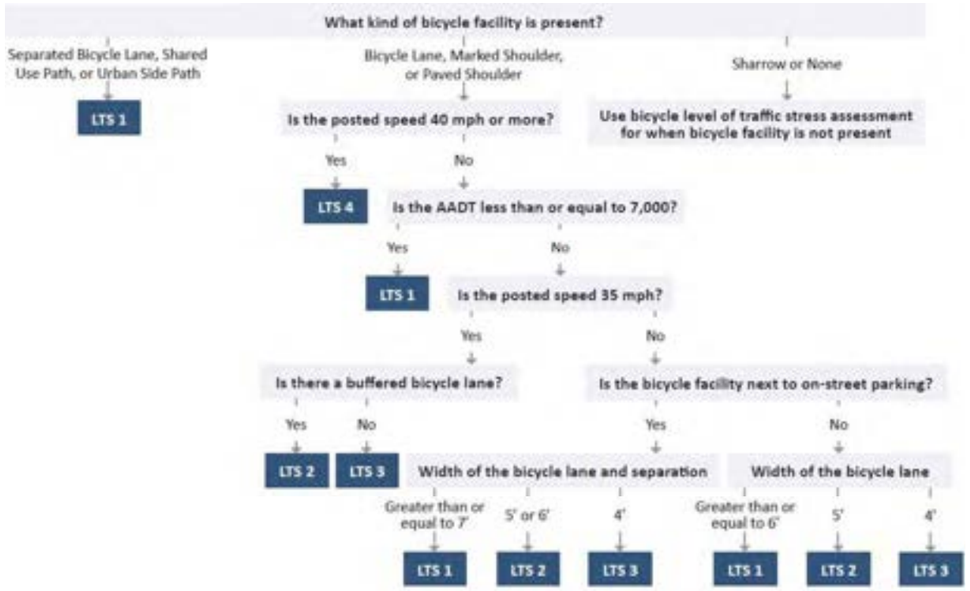
- Wilton Drive and NE 20th Street
- Wilton Drive and NE 21st Street
- Wilton Drive and NE 6h Avenue
- Wilton Drive and 9th Avenue
- Dixie HWY and NE 26th Street
- NE 26th Street and Coral Gardens Drive
- NE 26th Street and NE 15th Avenue
- NE 6th Avenue and NE 26th Street
- NE 26th Street and NE 3rd Avenue
- NE 26th Street and Andrews Avenue
- Andrews Avenue and NE 21st Ct
- Andrews Avenue and NW 24th Street
- Andrews Avenue and NW 29th Street
- NW 9th Avenue and NW 29th Street

1. **Review timing data:** For each intersection, traffic signal timing sheets were reviewed, and the total time allotted for a pedestrian to cross for each intersection leg was recorded.
2. **Determine crossing distance**: Google Satellite Images were reviewed using Google Maps and the crossing distance (curb-to-curb) was estimated using the measuring tool.
3. **Calculate the Time for People to Cross**: While FHWA[1] typically recommends a 4 feet per second walk speed be used to calculate the pedestrian clearance interval, it may not be appropriate for all populations living within Wilton Manors. FHWA suggests a 2.8 feet per second walk speed be used for people over the age of 65 and 3.5 feet per second be used for people using mobility device. The time it would take for people over 65 and for those using mobility devices were calculated and recorded for each leg of each intersection.
4. **Determine if Enough Time is Allotted**: Finally, the existing pedestrian signal phase was then compared to how long it would people over 65 and for those using mobility devices to determine if enough time was provided to allow for a comfortable crossing for these groups.

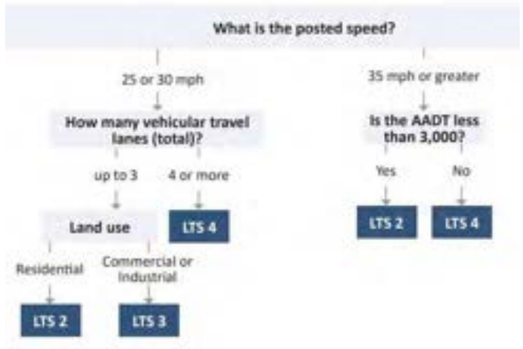
[1] Federal Highway Administration (2006). Lesson 8: Pedestrian Characteristics. *University Course on Bicycle and Pedestrian Transportation.* FHWA-HRT-05-099.

Appendix A

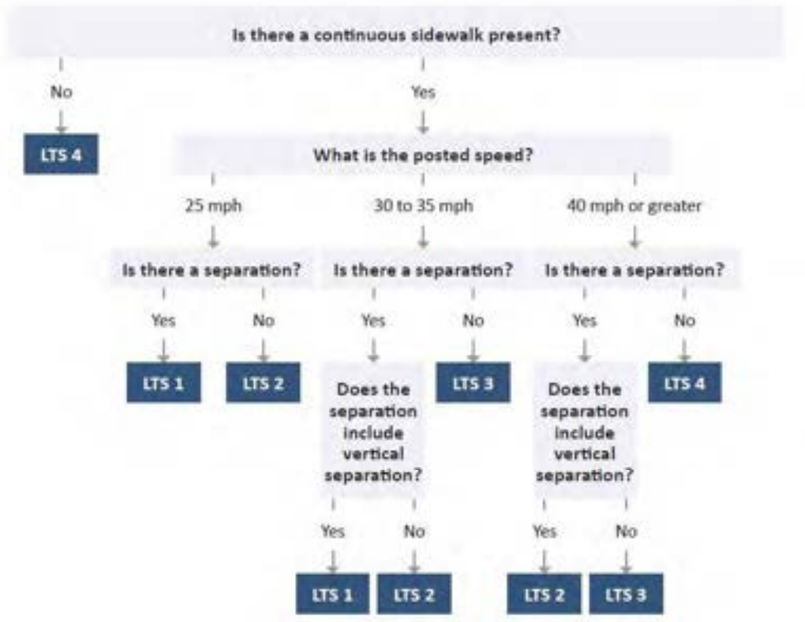
Bike Level of Traffic Stress Scoring Criteria



Bike LTS Assessment when No Bike Facility is Present

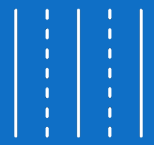


Pedestrian Level of Traffic Stress Scoring Criteria



Level of Traffic Stress (LTS)

- Measured by:



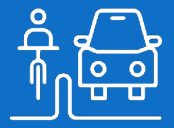
Number of Travel Lanes

Speed of Traffic

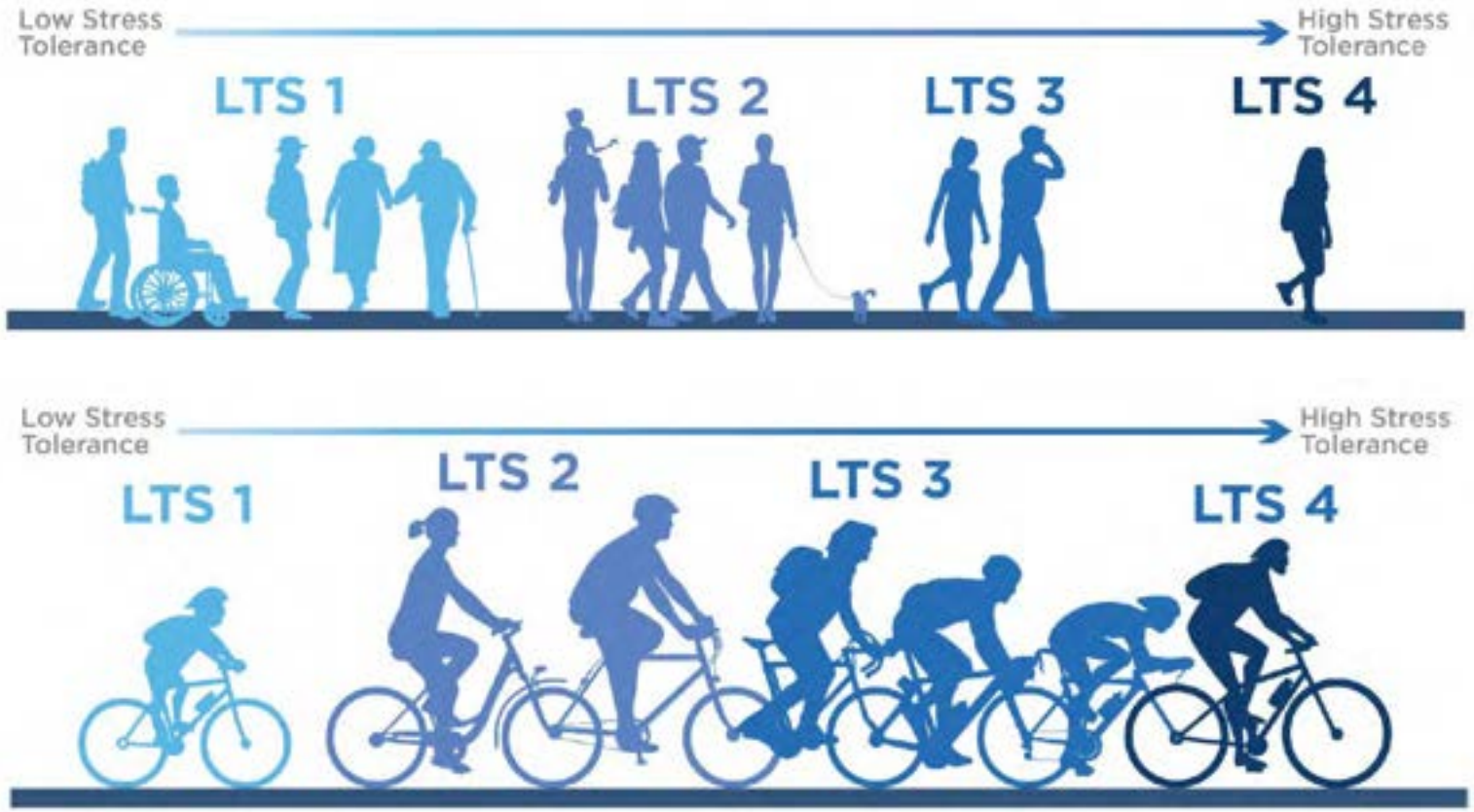
Number of Vehicles

Presence of Bike or Ped Facilities

Width of Facilities

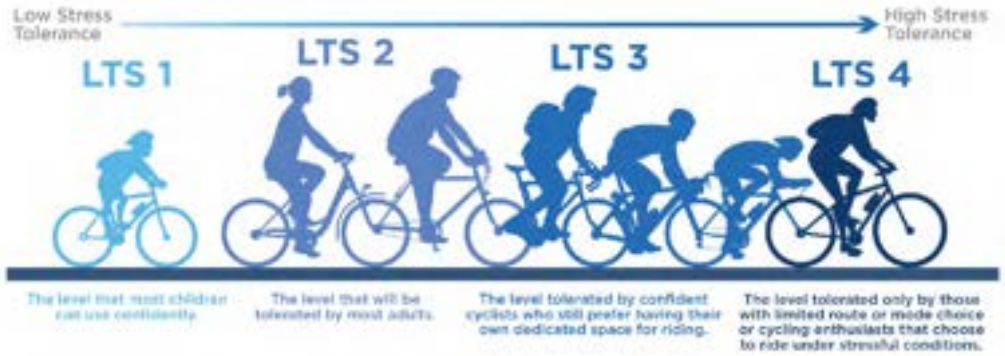


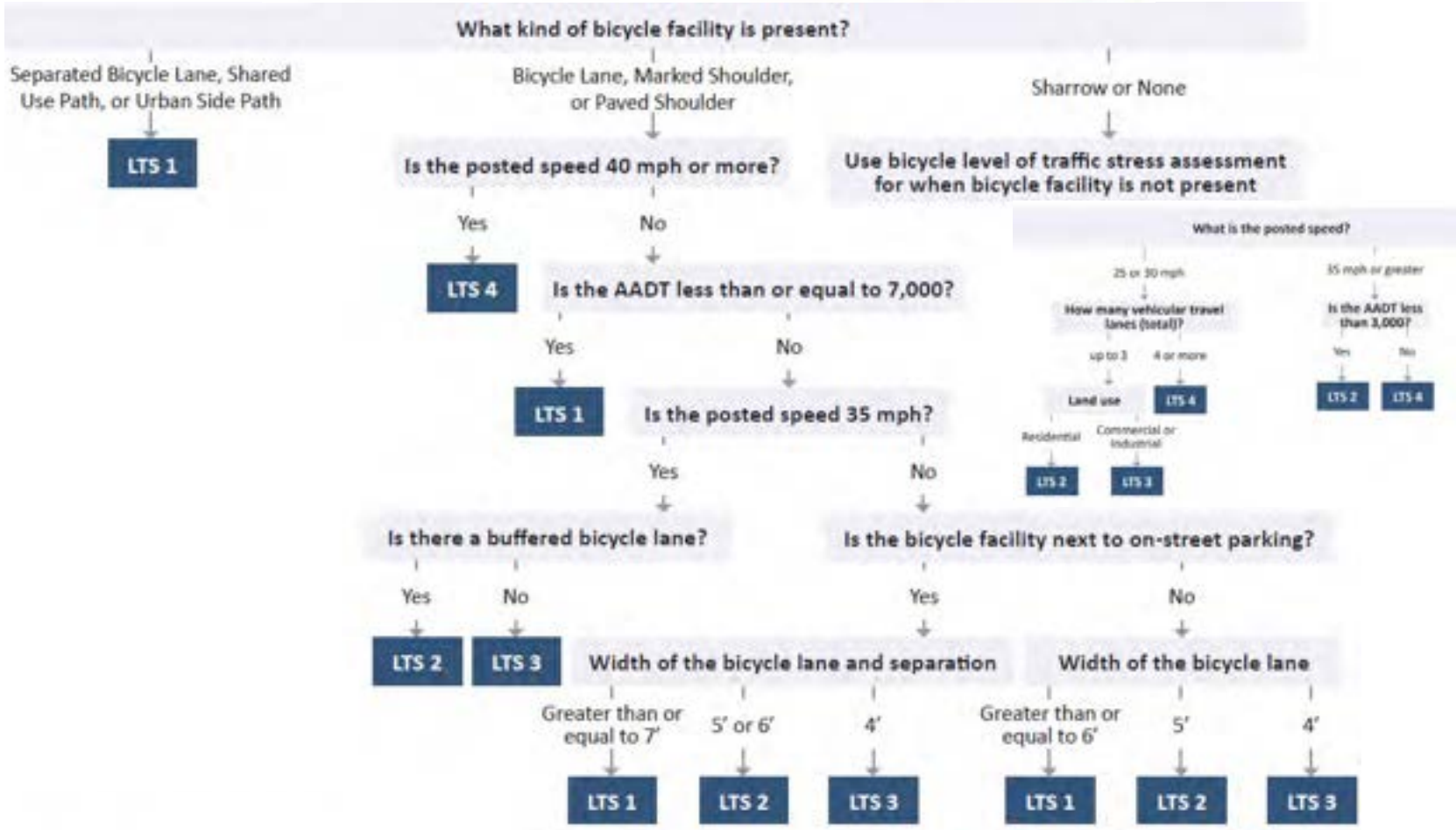
Separation from Cars



Bike LTS

- This methodology was used for evaluating LTS on FDOT managed roads

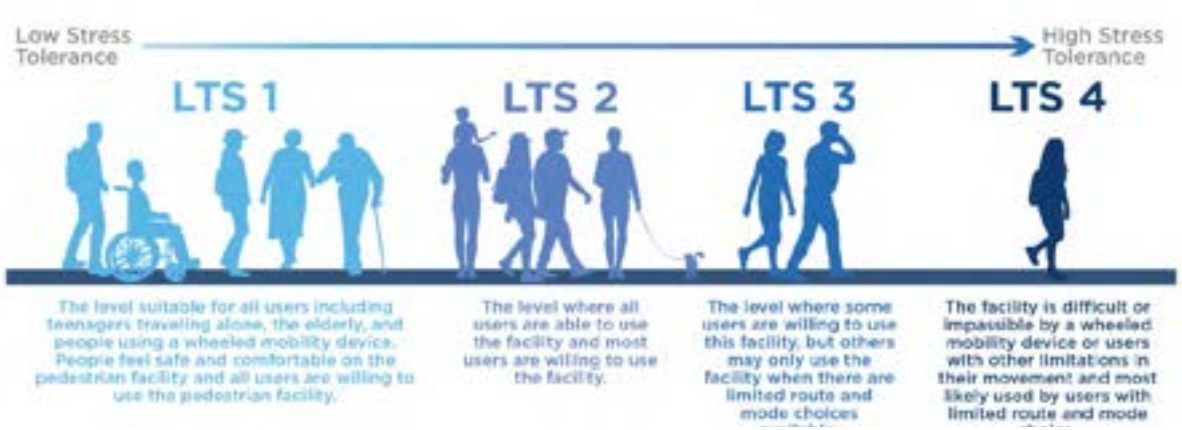


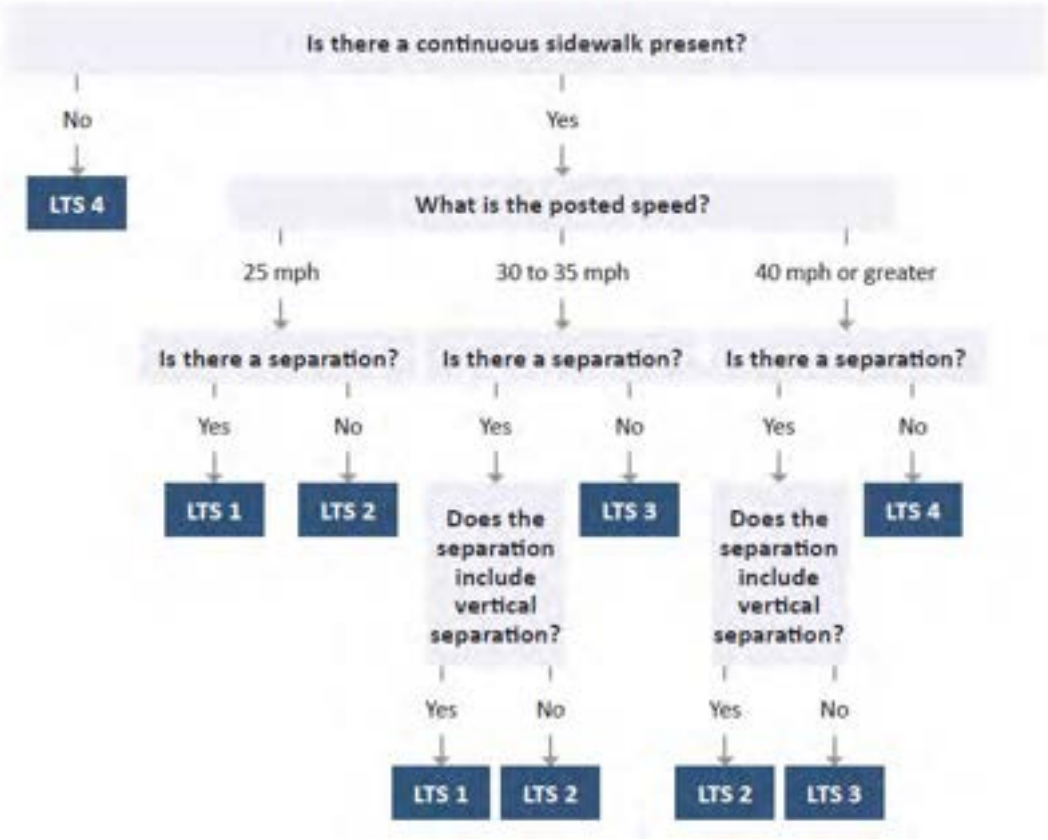


Bike LTS

- LTS 4 on most major roads due to speeds, volumes, # of lanes, and infrastructure

Pedestrian LTS





Pedestrian LTS

- Local streets not analyzed; low speeds and volumes may create comfortable conditions for people to walk on street

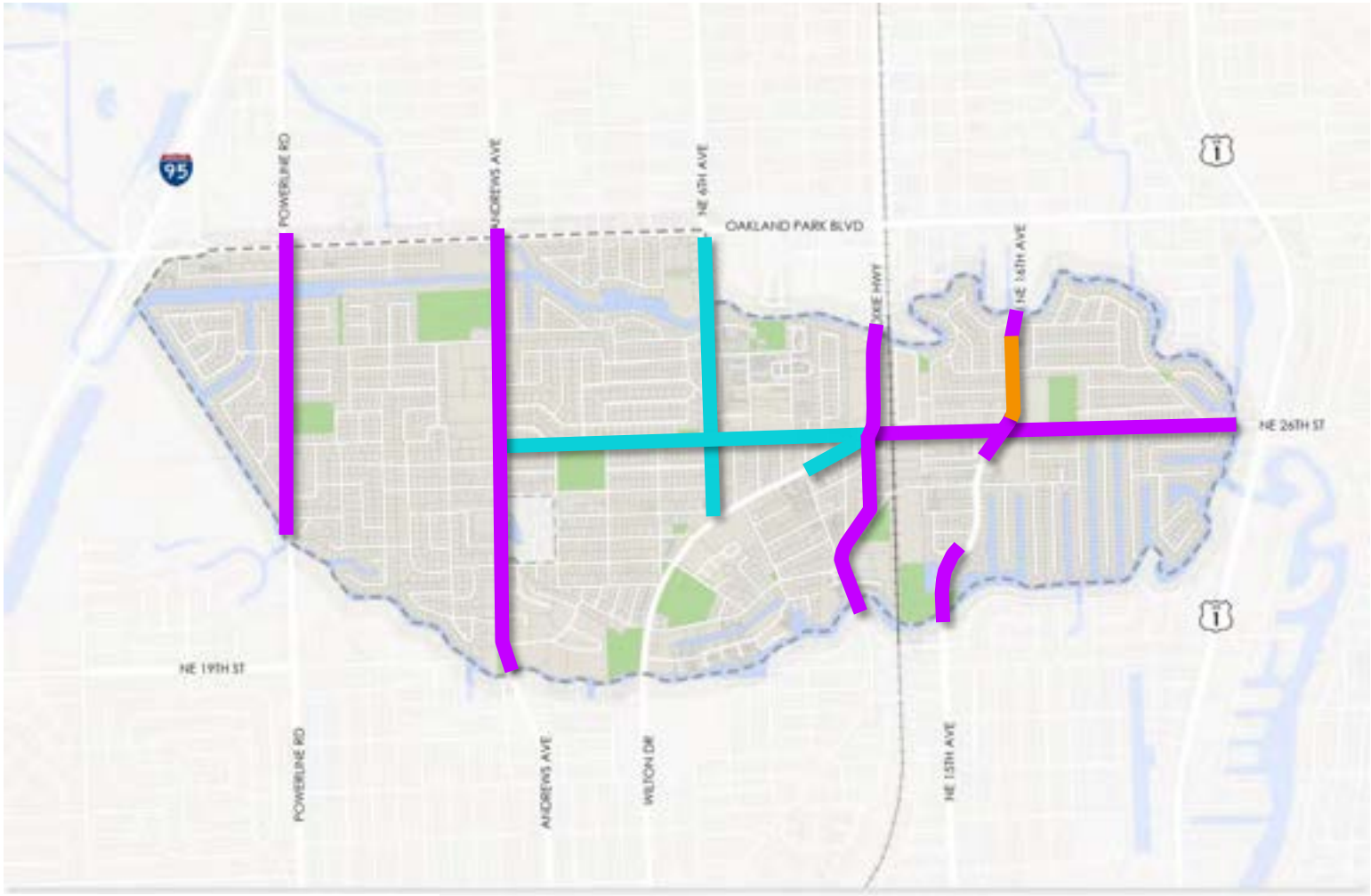
LTS 3 & 4 Streets

- Streets with a score of LTS 3 or LTS 4 act as barriers to walking and biking

LTS 3 / 4 Streets for Walking Only

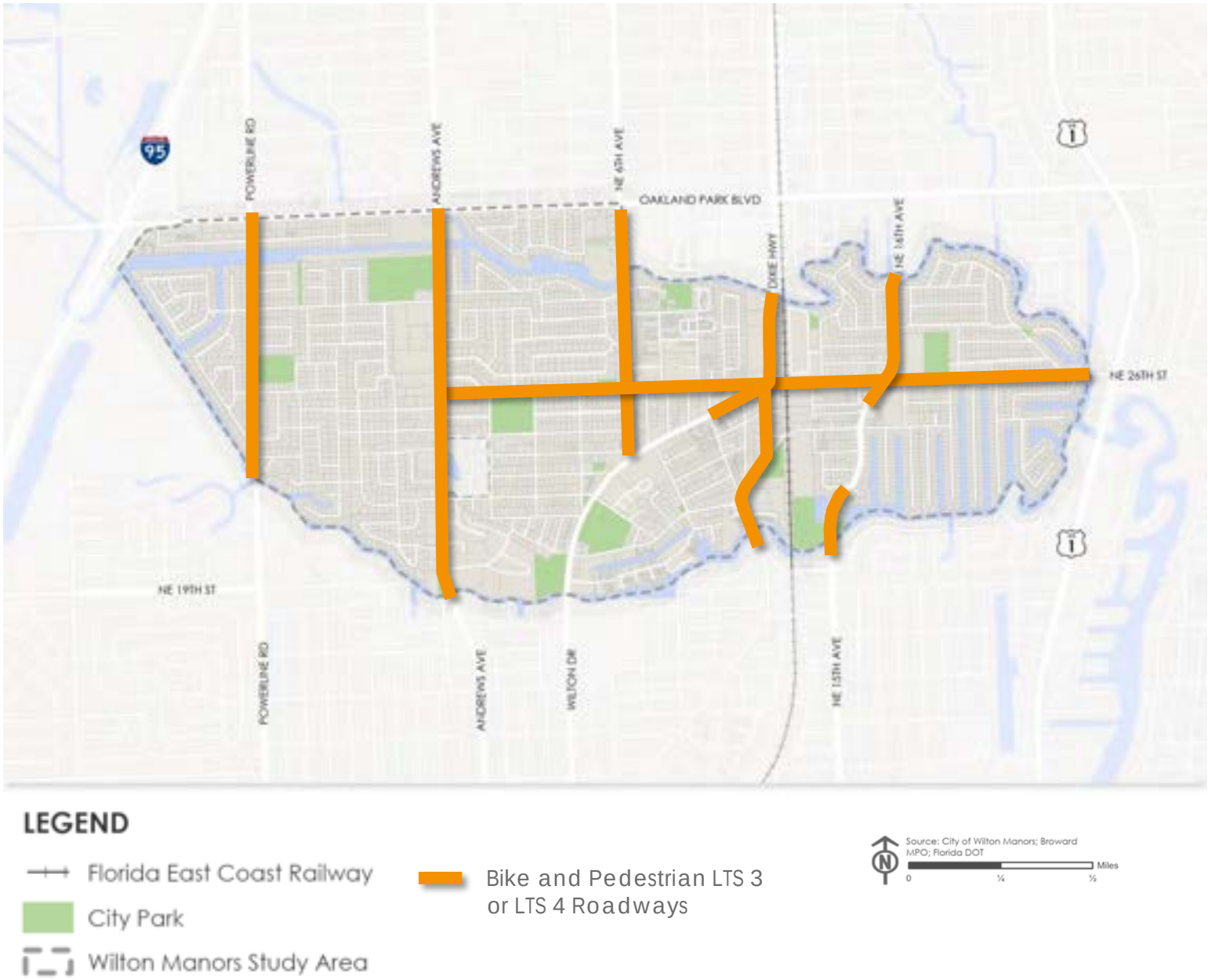
LTS 3 / 4 Streets for Biking Only

LTS 3 / 4 Streets for Biking and Walking



Barriers to Movement

- Streets with a score of LTS 3 or LTS 4 (for walking or biking) act as barriers to walking and biking

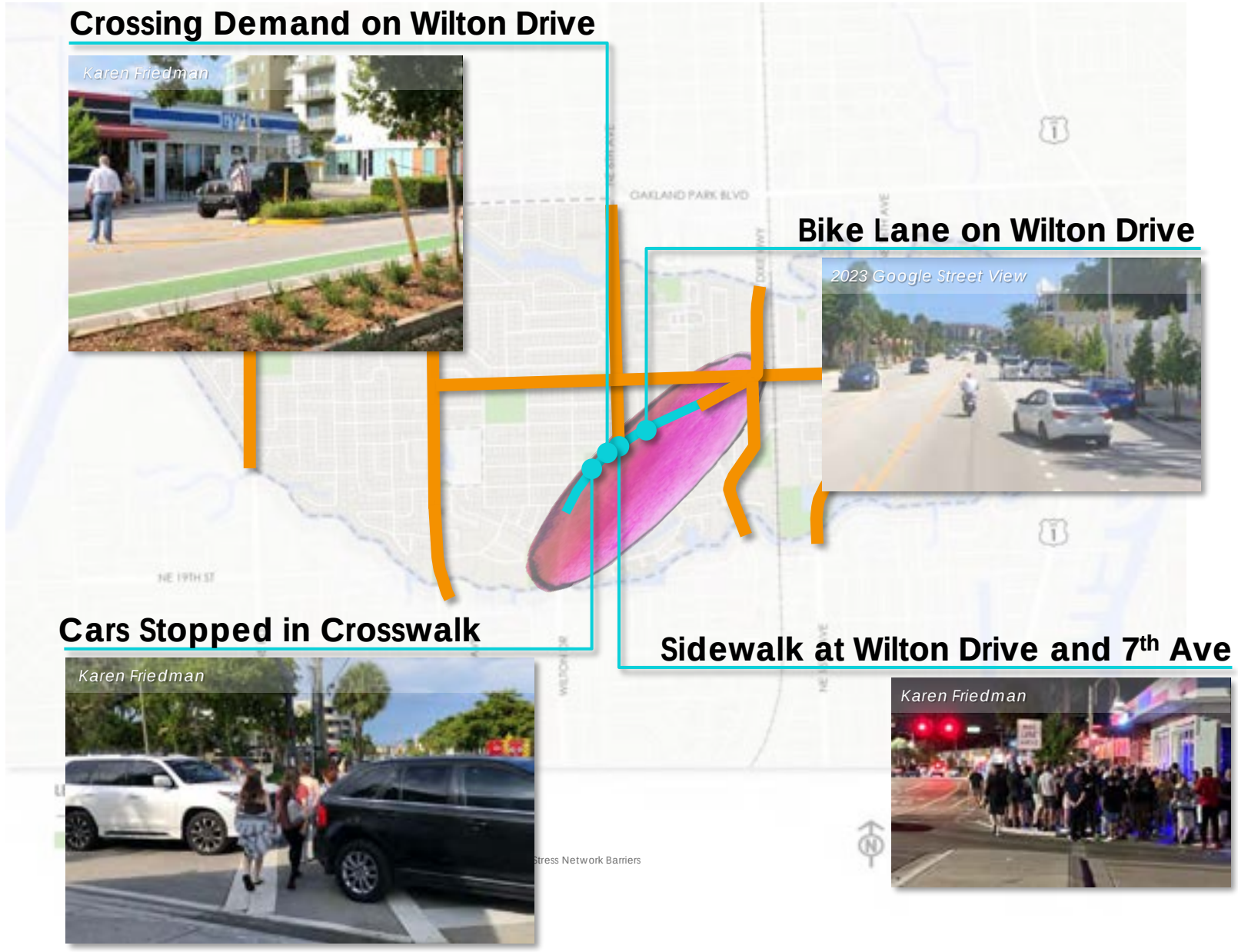


LTS Doesn't Consider All Measures

Bike lanes are narrow, drivers have to cross it to park, no buffer between bike lane and traffic, drivers park in the bike lane

Wilton Drive has some of the highest pedestrian and bicycle activity in the region but is still designed as a state highway.

People are observed walking outside of marked crosswalks



Section K

Potential Solutions Assessment Table

Evaluation Criteria

Does the Potential Solution:

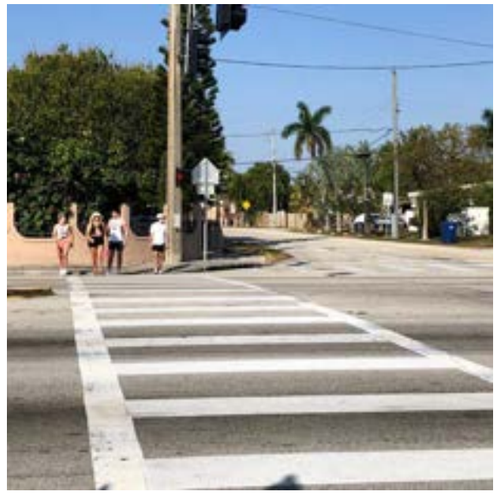
			Mini-Roundabout	Peanut Roundabout	Add a Pedestrian Phase (Marked Crosswalk)	Increase Pedestrian Phase Time	Convert to All Pedestrian Phase/Scramble Crosswalks	Add Leading Pedestrian Interval	Protected Left Turn Signal Phase	Hardened Centerlines	Raised Intersection (or Rebuild)	Rectangular Rapid Beacons (RRFBs) (2-sided/Both ends)	Pedestrian Refuge Islands	Curb Extension (into roadway)	Narrow Curb Radii (Sidestreet)	Speed Hump/Table	Raised Crossing over Roadway with RRFB (or Ped Signal)	Center Lane Median (New or Close Opening)	Convert driveway / sidestreet access to Right in/Right Out	Lane Repurposing / Lane Narrowing	Lane Definition - Center of Roadway	Lane Definition - Edge of Roadway	Protected Intersection (Bike Bulb Outs / Ins)	Bike Boxes	Raised Bike Lane or Shared Use Path	Paint 5 Bike Lane	Shared Lane Markings	Conflict Markings	Widen existing sidewalk to 8'	New sidewalk	Clearly Define Sidewalk (Driveways & Side Streets)	Adding Lighting	Relocate BCT Stop	Convert to Bus Bulb	Signage: Wayfinding / Route / Shared Road	Underground Utilities
Safety	Reduce	Crash severity?	✓	✓				✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓														
		Vehicle speeds?	✓	✓				✓		✓	✓		✓	✓	✓	✓	✓	✓		✓	✓	✓	✓														
		Crashes involving pedestrians and bicyclists?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			
Cohesive	Include	Dedicated space for pedestrians and bicyclists?	✓	✓	✓	✓	✓	✓				✓	✓	✓			✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
		Physical separation of pedestrians and bicyclists from vehicular traffic?			✓	✓		✓			✓		✓							✓				✓	✓	✓	✓	✓	✓	✓	✓					
	Improve	Safety of crossing roadways?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓					✓			✓	✓					
		Convenience of crossing (increasing frequency of marked crossing opportunities)	✓	✓	✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓			✓		✓	✓					✓				✓	✓		✓		
		Visibility of pedestrians at crosswalks?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓					✓		✓				✓				✓					✓
		Comfort of pedestrians using crosswalks?			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓			✓					✓	✓	✓	✓	✓					
		Bicycle and pedestrian routes (continuous / to destinations)?	✓	✓	✓	✓	✓	✓			✓	✓	✓	✓	✓	✓	✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓
Diversity	Include	Amenities / facilities for pedestrains with all types of ages, abilities and stress tolerances?			✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓			✓			✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Amenities / facilities for bicyclists with all types of ages, abilities and stress tolerances?			✓	✓	✓	✓	✓		✓	✓	✓	✓	✓	✓	✓			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓						✓
		Amenities / facilities for tourists and visitors?			✓	✓	✓	✓	✓		✓	✓	✓	✓	✓		✓			✓		✓		✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	
		Bike facilities at intersections?	✓	✓									✓	✓			✓			✓			✓	✓	✓	✓	✓	✓	✓			✓				
		Continuous bicycle facilities?	✓	✓					✓		✓					✓	✓			✓		✓	✓	✓	✓	✓	✓	✓	✓			✓			✓	✓
	Improve	Walkability?	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓				✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓
		Multimodal access to and from bus stops?			✓	✓	✓	✓				✓	✓	✓	✓		✓			✓		✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓		✓
		Comfort of waiting at bus stops?																													✓	✓	✓			
		Comfort and safety of walking and biking at night?			✓	✓	✓	✓	✓		✓	✓	✓				✓			✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓			✓	✓

Section L

Plan Study Area Field Audit Photos

Powerline Rd Field Audit Photographs

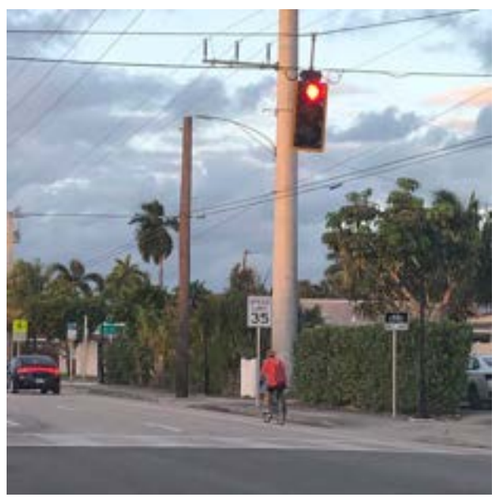








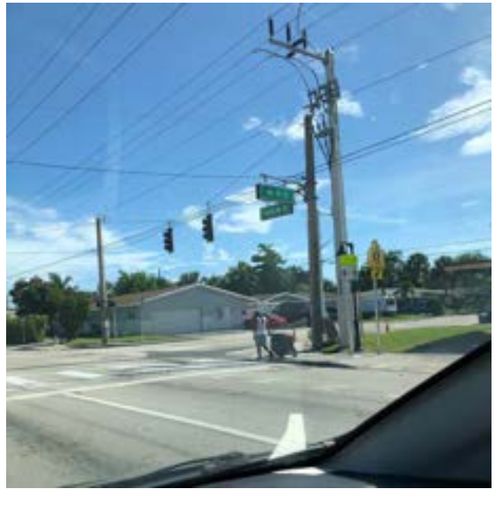


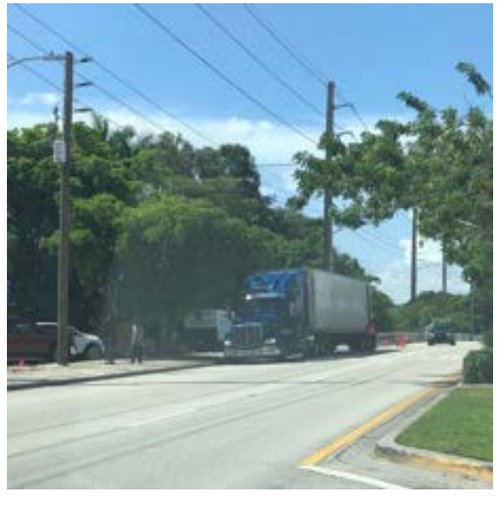



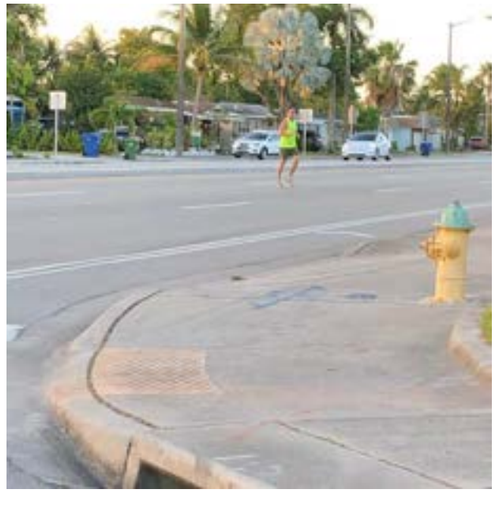

BIKE LANE

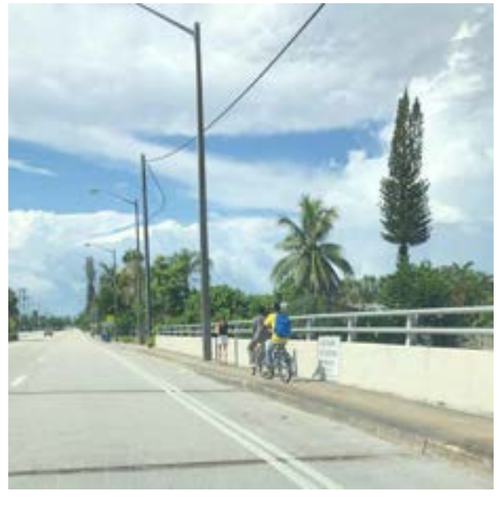

BUS
STOP
14
ID# 1192


BUS
STOP
14
ID# 4049

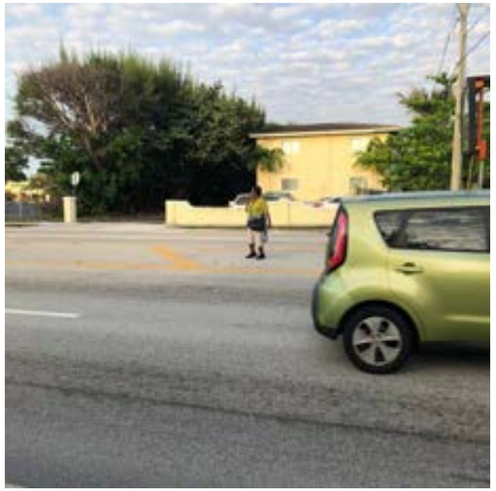


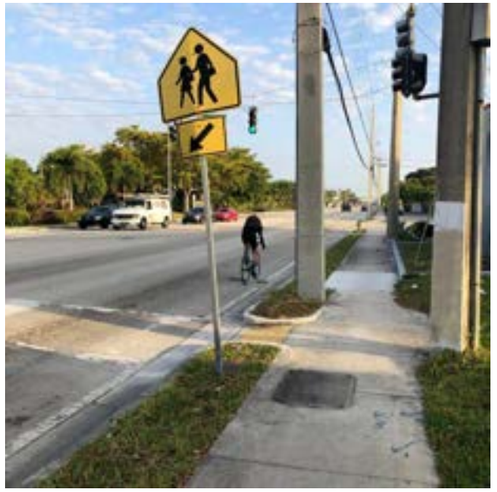
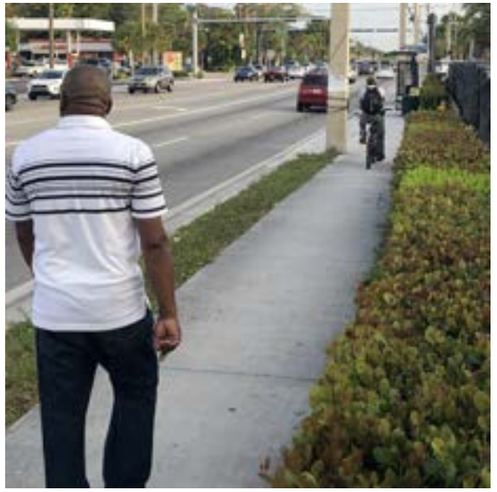






Andrews Av Field Audit Photographs

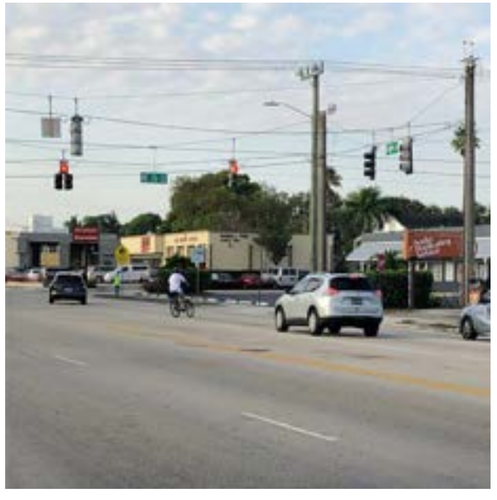








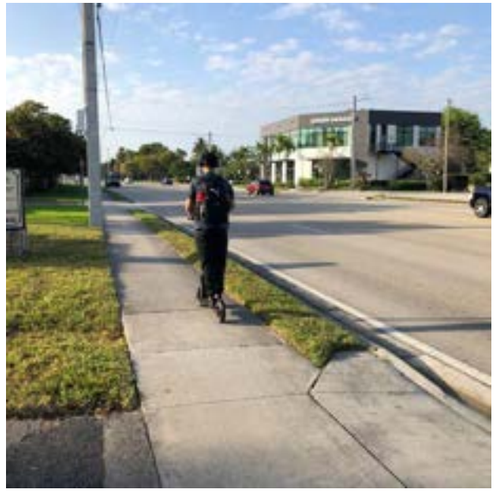


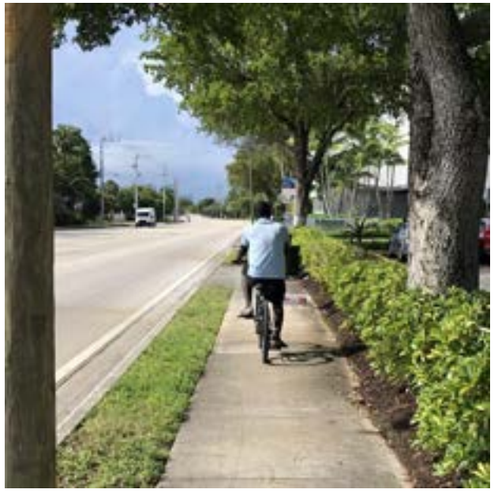


NE 24 ST

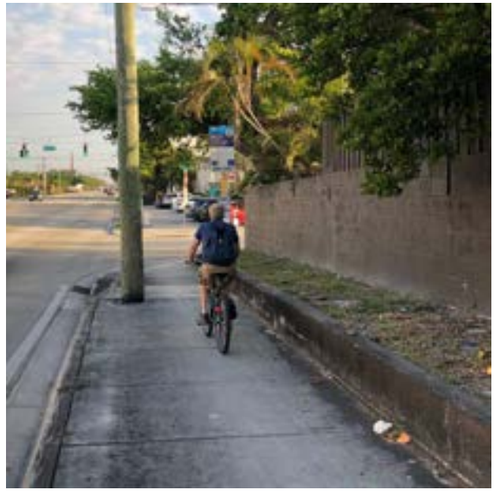

Firestone

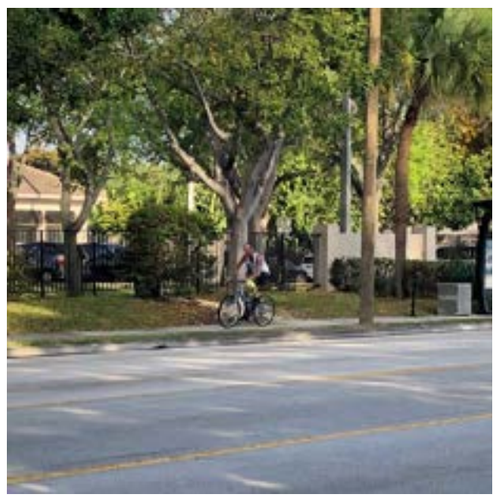

STOP
ONLY






NE 26 St





NE 26 St Field Audit Photographs





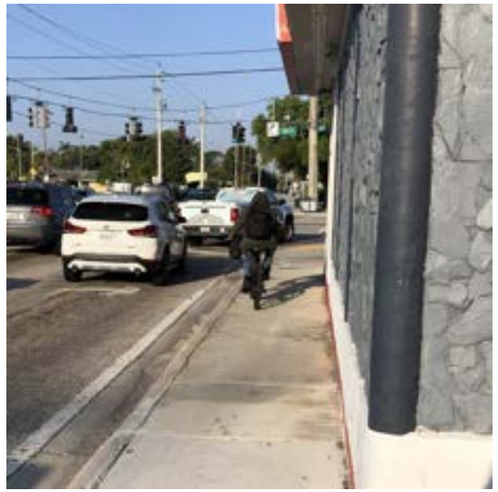


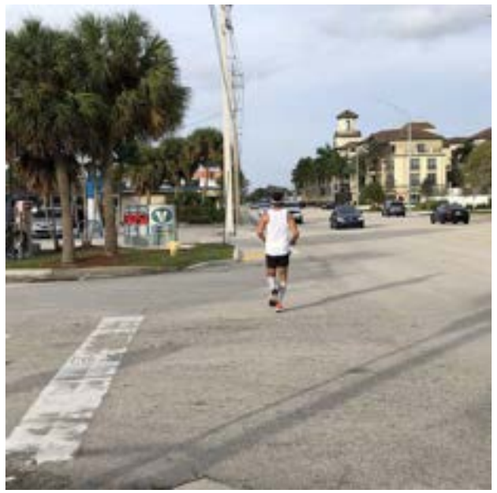


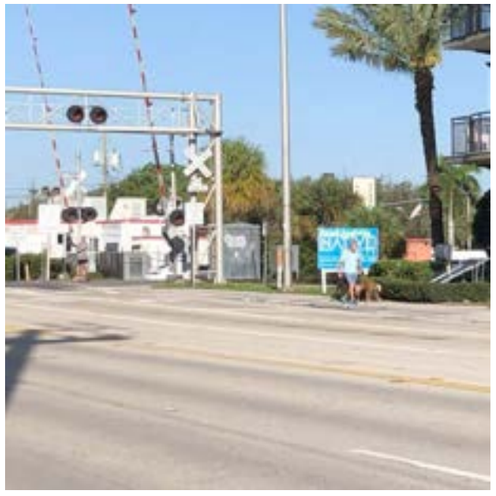




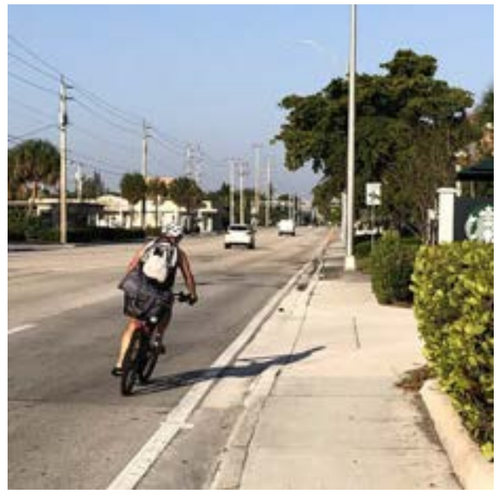












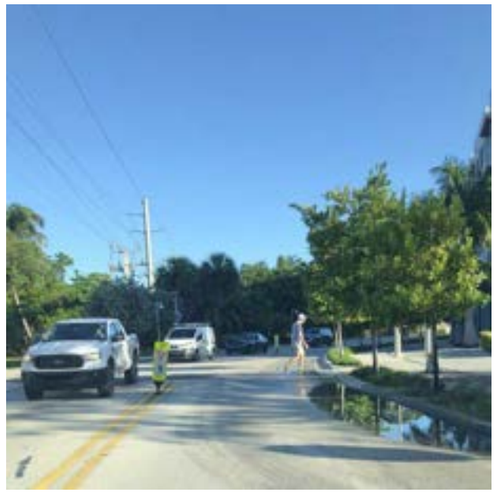


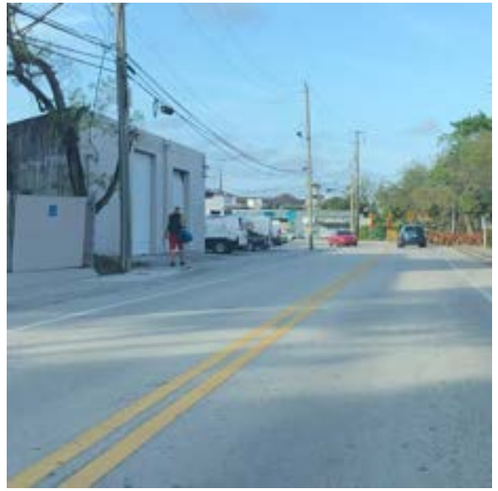

Dixie Hwy Field Audit Photographs

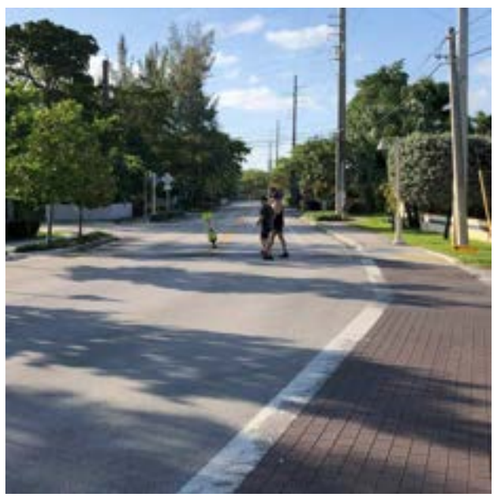


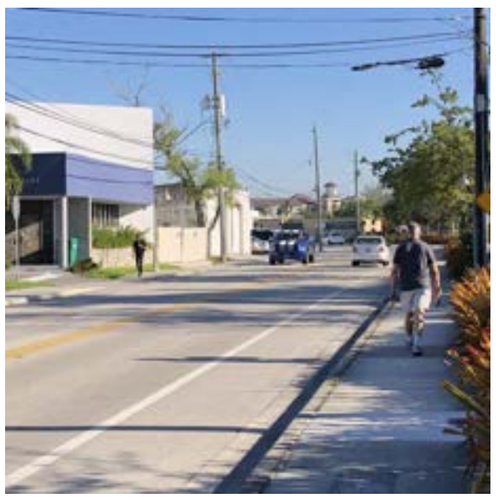
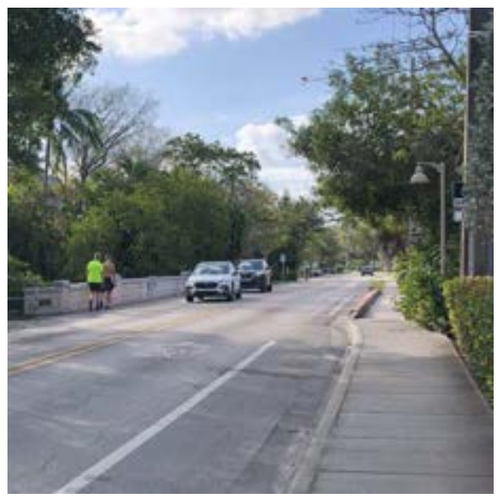




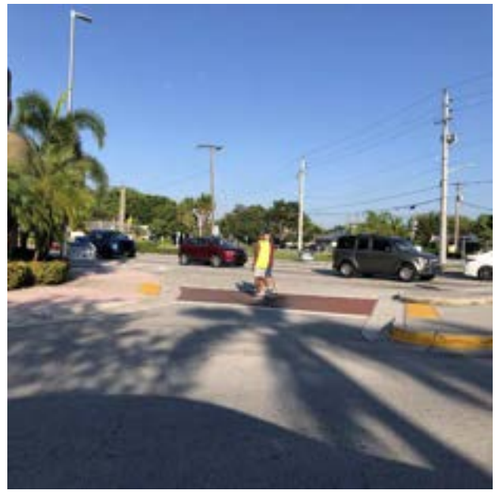


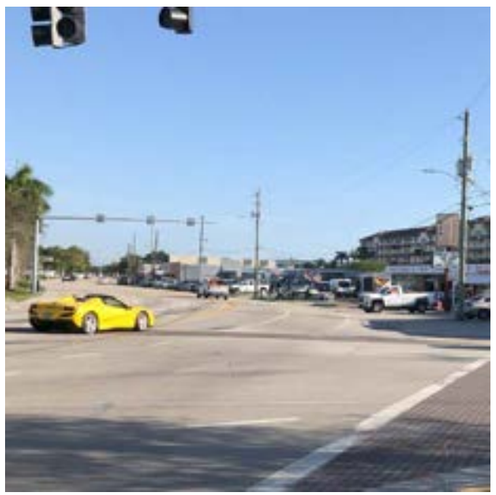





Dixie Hwy Field Audit Photographs





NE 24 St Route Field Audit Photographs












NE 24 St Route Field Audit Photographs

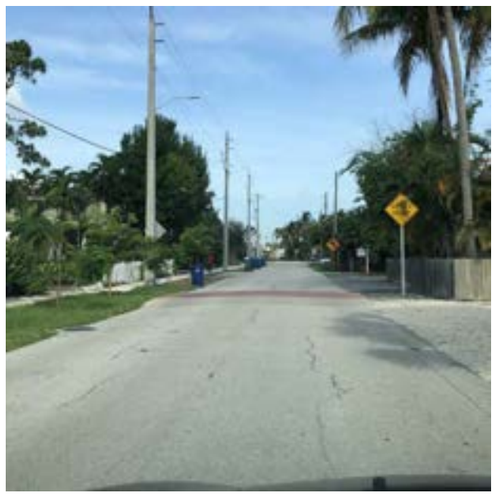






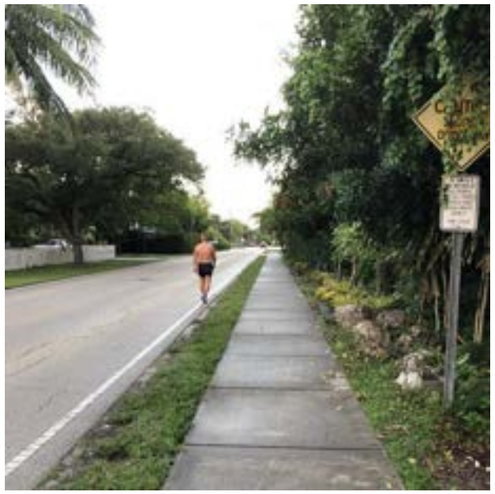


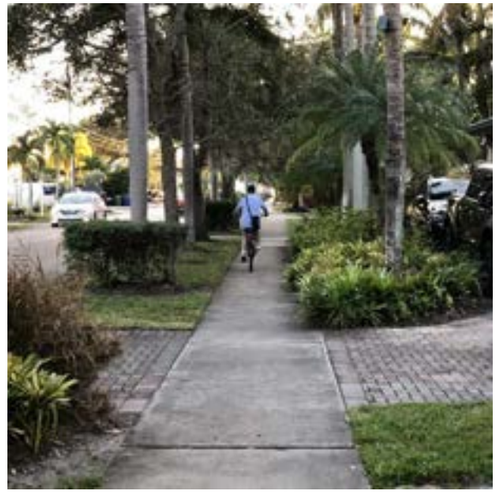






NE 21 Ct Route Field Audit Photographs





Section M

Plan Study Area 5-Year Injury Crash Tables

Powerline Rd (excluding Oakland Park Blvd) - Injury Crashes: 2018 – 2022

Crash Report No.	Date	Day of the Week	Time	Day / Night	Road Surface Condition	Light Condition	Weather Condition	Intersection Type	Crash Type	Crash Severity	Ped Involved	Bike Involved
24264754	2/4/2021	Thursday	6:23 PM	Day	Dry	Dark - Lighted	Clear	Not at Intersection	Angle	Injury	No	No
24264768	2/15/2021	Monday	7:47 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Angle	Injury	No	No
25173801	5/13/2022	Friday	10:51 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Angle	Injury	No	No
89063161	11/12/2019	Tuesday	6:06 PM	Day	Dry	Dark - Lighted	Clear	Not at Intersection	Angle	Injury	No	No
24264810	3/12/2021	Friday	1:05 PM	Day	Dry	Daylight	Clear	Not at Intersection	Bicycle	Injury	No	Yes
24448070	4/9/2021	Friday	9:09 AM	Day	Dry	Daylight	Clear	Not at Intersection	Bicycle	Injury	No	Yes
88797724	11/29/2018	Thursday	2:50 PM	Day	Dry	Daylight	Clear	Four-Way Intersection	Bicycle	Injury	No	Yes
87097373	2/23/2018	Friday	8:44 AM	Day	Dry	Daylight	Clear	Not at Intersection	Bicycle	Serious Injury	No	Yes
25173956	9/20/2022	Tuesday	2:15 PM	Day	Dry	Daylight	Clear	Four-Way Intersection	Head On	Serious Injury	No	No
24448133	5/17/2021	Monday	8:23 AM	Day	Dry	Daylight	Clear	T-Intersection	Left Turn	Injury	No	No
24448158	6/4/2021	Friday	6:00 PM	Day	Dry	Daylight	Clear	T-Intersection	Left Turn	Injury	No	No
24448391	12/3/2021	Friday	2:02 PM	Day	Dry	Daylight	Clear	Not at Intersection	Left Turn	Injury	No	No
25174104	12/22/2022	Thursday	7:23 AM	Day	Dry	Daylight	Clear	Four-Way Intersection	Left Turn	Injury	No	No
87684111	3/8/2018	Thursday	7:20 PM	Night	Dry	Dusk	Clear	Four-Way Intersection	Left Turn	Injury	No	No
87684291	6/14/2018	Thursday	11:46 AM	Day	Wet	Daylight	Rain	Four-Way Intersection	Left Turn	Injury	No	No
88797739	12/23/2018	Sunday	9:35 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Left Turn	Injury	No	No
88800222	11/21/2019	Thursday	7:44 AM	Day	Dry	Daylight	Clear	Four-Way Intersection	Left Turn	Injury	No	No
24448093	4/24/2021	Saturday	7:35 PM	Night	Dry	Daylight	Clear	Not at Intersection	Left Turn	Serious Injury	No	No
88800164	10/13/2019	Sunday	6:30 PM	Day	Wet	Daylight	Rain	Not at Intersection	Off Road	Injury	No	No
24448441	12/27/2021	Monday	2:50 PM	Day	Dry	Daylight	Clear	Not at Intersection	Pedestrian	Fatality	Yes	No
25173799	5/14/2022	Saturday	5:59 AM	Night	Dry	Dawn	Clear	Four-Way Intersection	Pedestrian	Injury	Yes	No
88800198	11/8/2019	Friday	1:20 PM	Day	Dry	Daylight	Clear	Four-Way Intersection	Pedestrian	Injury	Yes	No
24264738	1/17/2021	Sunday	7:57 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Rear End	Injury	No	No
24264749	1/30/2021	Saturday	6:10 AM	Night	Dry	Dusk	Clear	Not at Intersection	Rear End	Injury	No	No
24448157	6/4/2021	Friday	4:34 PM	Day	Dry	Daylight	Clear	Not at Intersection	Rear End	Injury	No	No
24448175	6/16/2021	Wednesday	3:00 PM	Day	Wet	Daylight	Rain	Not at Intersection	Rear End	Injury	No	No
24448360	11/10/2021	Wednesday	3:48 PM	Day	Wet	Daylight	Rain	Not at Intersection	Rear End	Injury	No	No
87684012	1/2/2018	Tuesday	1:31 PM	Day	Wet	Daylight	Rain	Four-Way Intersection	Rear End	Injury	No	No
87684062	2/4/2018	Sunday	12:50 PM	Day	Dry	Daylight	Clear	Four-Way Intersection	Rear End	Injury	No	No
87684137	3/19/2018	Monday	2:26 PM	Day	Dry	Daylight	Clear	Four-Way Intersection	Rear End	Injury	No	No
87684170	4/7/2018	Saturday	5:00 PM	Day	Dry	Daylight	Clear	Four-Way Intersection	Rear End	Injury	No	No
87684214	4/30/2018	Monday	8:15 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Rear End	Injury	No	No
87684280	5/31/2018	Thursday	5:39 PM	Day	Dry	Daylight	Clear	Four-Way Intersection	Rear End	Injury	No	No
88797647	11/2/2018	Friday	11:23 AM	Day	Dry	Daylight	Clear	Not at Intersection	Rear End	Injury	No	No
88798041	7/13/2019	Saturday	8:00 AM	Day	Wet	Daylight	Rain	Not at Intersection	Rear End	Injury	No	No
88798042	7/15/2019	Monday	10:09 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Rear End	Injury	No	No
88800462	6/12/2020	Friday	5:45 PM	Day	Dry	Daylight	Clear	Not at Intersection	Rear End	Injury	No	No
88800578	10/16/2020	Friday	5:15 PM	Day	Wet	Daylight	Rain	Four-Way Intersection	Rear End	Injury	No	No
89152684	10/30/2020	Friday	8:40 PM	Night	Dry	Daylight	Clear	Not at Intersection	Rear End	Injury	No	No
89152741	12/13/2020	Sunday	1:20 PM	Day	Dry	Daylight	Clear	Not at Intersection	Rear End	Injury	No	No
87684090	2/25/2018	Sunday	6:24 PM	Day	Dry	Dawn	Clear	Four-Way Intersection	Right Angle	Injury	No	No
88800095	8/21/2019	Wednesday	11:18 AM	Day	Dry	Daylight	Clear	Not at Intersection	Right Angle	Injury	No	No

88797811	2/4/2019	Monday	1:40 AM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Rollover	Injury	No	No
24264753	2/4/2021	Thursday	1:59 PM	Day	Dry	Daylight	Clear	Not at Intersection	Sideswipe	Injury	No	No
87684244	5/15/2018	Tuesday	4:00 PM	Day	Dry	Daylight	Clear	Four-Way Intersection	Sideswipe	Injury	No	No
88797742	12/25/2018	Tuesday	5:21 PM	Day	Dry	Daylight	Clear	T-Intersection	Sideswipe	Injury	No	No

Total Number of Injury Crashes	Fatality	Serious Injury	Injury	Angle	Left Turn	Rear End	Right Angle	Sideswipe	Pedestrian Involved	Bike Involved
46	1	3	42	3	9	18	2	3	3	4
% of Injury Crashes	2%	6.5%	91%	6.5%	20%	39%	4%	6.5%	6.5%	8%

Day	Night	Wet	Dry	4-Way Intersection	Not at Intersection	T-Intersection	Dark – Lighted	Dark – Not Lighted	Daylight
34	12	7	39	14	26	3	9	0	32
74%	26%	14%	86%	30%	56.5%	6.5%	20%	0%	70%

Andrews Av (*Excluding Oakland Park Blvd*) - Injury Crashes: 2018 – 2022

Crash Report No.	Date	Day of the Week	Time	Day / Night	Road Surface Condition	Light Condition	Weather Condition	Intersection Type	Crash Type	Crash Severity	Ped Involved	Bike Involved
88797608	10/6/2018	Saturday	8:15 PM	Night	Dry	Dark - Lighted	Clear	Not At Intersection	Angle	Injury	No	No
88797976	5/24/2019	Friday	9:25 AM	Day	Dry	Daylight	Clear	Not At Intersection	Angle	Injury	No	No
25173983	10/6/2022	Thursday	1:21 PM	Day	Dry	Daylight	Clear	T-Intersection	Bicycle	Injury	No	Yes
87684067	2/7/2018	Wednesday	4:15 PM	Day	Dry	Daylight	Clear	Not At Intersection	Bicycle	Injury	No	Yes
88797933	4/29/2019	Monday	12:22 PM	Day	Dry	Daylight	Clear	T-Intersection	Bicycle	Injury	No	Yes
88800480	7/12/2020	Sunday	12:33 PM	Day	Wet	Daylight	Cloudy	Four-Way Intersection	Bicycle	Serious Injury	No	Yes
88797771	1/14/2019	Monday	8:16 AM	Day	Dry	Daylight	Clear	Not At Intersection	Head On	Injury	No	No
24448145	5/26/2021	Wednesday	8:22 PM	Night	Dry	Dusk	Clear	T-Intersection	Left Turn	Injury	No	No
24448167	6/12/2021	Saturday	3:16 AM	Night	Dry	Dark - Lighted	Clear	T-Intersection	Left Turn	Injury	No	No
24448258	9/3/2021	Friday	1:04 AM	Night	Dry	Dark - Lighted	Clear	T-Intersection	Left Turn	Injury	No	No
24448327	10/19/2021	Tuesday	9:36 AM	Day	Dry	Daylight	Clear	Not At Intersection	Left Turn	Injury	No	No
24448453	1/8/2022	Saturday	5:05 PM	Day	Dry	Daylight	Clear	Not At Intersection	Left Turn	Injury	No	No
24448487	2/1/2022	Tuesday	6:53 PM	Day	Dry	Dusk	Clear	Four-Way Intersection	Left Turn	Injury	No	No
25173744	4/1/2022	Friday	11:07 PM	Night	Dry	Dark - Lighted	Clear	T-Intersection	Left Turn	Injury	No	No
25173826	6/4/2022	Saturday	4:46 PM	Day	Dry	Daylight	Clear	T-Intersection	Left Turn	Injury	No	No
25173838	6/14/2022	Tuesday	5:32 PM	Day	Dry	Daylight	Clear	Not At Intersection	Left Turn	Injury	No	No
25173970	9/27/2022	Tuesday	7:20 PM	Night	Wet	Dusk	Rain	Four-Way Intersection	Left Turn	Injury	No	No
25174069	11/29/2022	Tuesday	12:40 PM	Day	Dry	Daylight	Clear	T-Intersection	Left Turn	Injury	Yes	No
87684113	3/9/2018	Friday	4:00 PM	Day	Dry	Daylight	Clear	Four-Way Intersection	Left Turn	Injury	No	No
87684201	4/23/2018	Monday	11:31 AM	Day	Dry	Daylight	Clear	Four-Way Intersection	Left Turn	Injury	No	No
87684335	7/14/2018	Saturday	9:25 AM	Day	Dry	Daylight	Clear	Not At Intersection	Left Turn	Injury	No	No
87684357	7/27/2018	Friday	3:12 PM	Day	Dry	Daylight	Clear	Not At Intersection	Left Turn	Injury	No	No
87684362	7/29/2018	Sunday	11:58 AM	Day	Dry	Daylight	Clear	Four-Way Intersection	Left Turn	Injury	No	No
88797913	4/14/2019	Sunday	8:07 AM	Day	Dry	Daylight	Clear	T-Intersection	Left Turn	Injury	No	No
88797936	4/29/2019	Monday	3:29 PM	Day	Dry	Daylight	Clear	Not At Intersection	Left Turn	Injury	No	No
88797948	5/6/2019	Monday	11:28 PM	Night	Dry	Dark - Lighted	Clear	Four-Way Intersection	Left Turn	Injury	No	No
88797971	5/18/2019	Saturday	11:20 PM	Night	Dry	Dark - Lighted	Clear	T-Intersection	Left Turn	Injury	No	No
88797984	5/28/2019	Tuesday	9:50 PM	Night	Dry	Dark - Lighted	Clear	Not At Intersection	Left Turn	Injury	No	No
88798045	7/17/2019	Wednesday	4:10 PM	Day	Dry	Daylight	Clear	T-Intersection	Left Turn	Injury	No	No
88798057	7/26/2019	Friday	9:32 AM	Day	Dry	Daylight	Clear	Four-Way Intersection	Left Turn	Injury	No	No
88800427	5/16/2020	Saturday	3:15 PM	Day	Dry	Daylight	Clear	T-Intersection	Left Turn	Injury	No	No
88800490	7/17/2020	Friday	8:10 AM	Day	Wet	Daylight	Rain	Four-Way Intersection	Left Turn	Injury	No	No
89152760	1/5/2021	Tuesday	3:02 PM	Day	Dry	Daylight	Clear	T-Intersection	Left Turn	Injury	No	No
25173873	7/7/2022	Thursday	5:27 PM	Day	Dry	Daylight	Clear	T-Intersection	Left Turn	Serious Injury	No	No
88797788	1/22/2019	Tuesday	4:28 AM	Night	Dry	Dark - Lighted	Clear	Not At Intersection	Off Road	Injury	No	No
88800495	7/23/2020	Thursday	2:06 AM	Night	Dry	Dark - Lighted	Clear	Not At Intersection	Off Road	Injury	No	No
88800396	3/14/2020	Saturday	7:56 AM	Day	Dry	Daylight	Clear	Not At Intersection	Off Road	Serious Injury	No	No
87684344	7/19/2018	Thursday	3:20 PM	Day	Dry	Daylight	Clear	Not At Intersection	Other	Injury	No	No
88800251	12/15/2019	Sunday	8:05 PM	Night	Dry	Dark - Lighted	Clear	T-Intersection	Pedestrian	Fatality	Yes	No
24448521	3/2/2022	Wednesday	7:53 PM	Night	Dry	Dark - Lighted	Clear	Four-Way Intersection	Pedestrian	Injury	Yes	No
25173918	8/17/2022	Wednesday	7:50 AM	Day	Dry	Daylight	Clear	T-Intersection	Pedestrian	Injury	Yes	No
24448148	5/31/2021	Monday	3:10 AM	Night	Dry	Dark - Lighted	Cloudy	Four-Way Intersection	Rear End	Injury	No	No
24448216	8/2/2021	Monday	9:59 AM	Day	Dry	Daylight	Clear	Not At Intersection	Rear End	Injury	No	No
24448289	9/22/2021	Wednesday	4:40 PM	Day	Wet	Daylight	Rain	Four-Way Intersection	Rear End	Injury	No	No
24448334	10/23/2021	Saturday	3:03 PM	Day	Dry	Daylight	Clear	Not At Intersection	Rear End	Injury	No	No

25173807	5/19/2022	Thursday	3:20 PM	Day	Dry	Daylight	Clear	Y-Intersection	Rear End	Injury	No	No
25173942	9/8/2022	Thursday	9:40 AM	Day	Dry	Daylight	Clear	Not At Intersection	Rear End	Injury	No	No
25173958	9/21/2022	Wednesday	8:25 AM	Day	Dry	Daylight	Clear	Not At Intersection	Rear End	Injury	No	No
25173965	9/25/2022	Sunday	9:47 PM	Night	Dry	Dark - Lighted	Clear	Not At Intersection	Rear End	Injury	No	No
25173982	10/5/2022	Wednesday	1:39 PM	Day	Dry	Daylight	Clear	Not At Intersection	Rear End	Injury	No	No
87684040	1/17/2018	Wednesday	10:15 AM	Day	Dry	Daylight	Cloudy	Not At Intersection	Rear End	Injury	No	No
87684172	4/7/2018	Saturday	8:16 PM	Night	Dry	Daylight	Clear	Not At Intersection	Rear End	Injury	No	No
87684225	5/6/2018	Sunday	9:44 PM	Night	Dry	Dark - Lighted	Clear	T-Intersection	Rear End	Injury	No	No
87684268	5/30/2018	Wednesday	3:19 PM	Day	Dry	Daylight	Clear	Four-Way Intersection	Rear End	Injury	No	No
87684323	7/4/2018	Wednesday	10:54 PM	Night	Dry	Dark - Lighted	Clear	T-Intersection	Rear End	Injury	No	No
87684433	9/12/2018	Wednesday	2:19 PM	Day	Dry	Daylight	Clear	T-Intersection	Rear End	Injury	No	No
88797773	1/14/2019	Monday	8:24 PM	Night	Dry	Dark - Lighted	Clear	T-Intersection	Rear End	Injury	No	No
88797928	4/27/2019	Saturday	6:09 PM	Day	Dry	Daylight	Clear	Not At Intersection	Rear End	Injury	No	No
88798063	7/30/2019	Tuesday	6:20 PM	Day	Dry	Daylight	Clear	Four-Way Intersection	Rear End	Injury	No	No
88800177	10/21/2019	Monday	5:04 PM	Day	Dry	Daylight	Clear	Not At Intersection	Rear End	Injury	No	No
88800192	11/4/2019	Monday	3:42 PM	Day	Dry	Daylight	Cloudy	Not At Intersection	Rear End	Injury	No	No
88800201	11/10/2019	Sunday	7:03 AM	Day	Dry	Daylight	Clear	Four-Way Intersection	Rear End	Injury	No	No
88800583	10/21/2020	Wednesday	4:42 PM	Day	Dry	Daylight	Clear	Not At Intersection	Rear End	Injury	No	No
89152727	12/2/2020	Wednesday	8:15 PM	Night	Dry	Dark - Lighted	Clear	T-Intersection	Rear End	Injury	No	No
88798061	7/29/2019	Monday	9:17 PM	Night	Dry	Dark - Lighted	Clear	Not At Intersection	Rear End	Serious Injury	No	No
25173870	7/11/2022	Monday	1:20 AM	Night	Dry	Dark - Lighted	Clear	Four-Way Intersection	Right Angle	Injury	No	No
87684336	7/14/2018	Saturday	4:43 PM	Day	Dry	Daylight	Clear	Four-Way Intersection	Right Angle	Injury	No	No
88800307	1/14/2020	Tuesday	11:25 PM	Night	Dry	Dark - Lighted	Clear	Four-Way Intersection	Right Turn	Injury	No	No
24264765	2/12/2021	Friday	1:10 AM	Night	Dry	Dark - Lighted	Clear	Not At Intersection	Rollover	Injury	No	No
88797695	12/6/2018	Thursday	5:32 PM	Day	Dry	Dusk	Clear	Not At Intersection	Sideswipe	Injury	No	No
88797896	4/3/2019	Wednesday	5:42 PM	Day	Dry	Daylight	Clear	Not At Intersection	Sideswipe	Injury	No	No
88800324	1/25/2020	Saturday	4:23 PM	Day	Dry	Daylight	Clear	Not At Intersection	Sideswipe	Injury	No	No
24674323	8/20/2022	Saturday	12:04 AM	Night	Dry	Dark - Lighted	Clear	Not At Intersection	Single Vehicle	Injury	No	No

Total Number of Injury Crashes	Fatality	Serious Injury	Injury	Angle	Left Turn	Rear End	Off Road	Sideswipe	Pedestrian Involved	Bike Involved
73	1	4	68	2	26	23	3	3	4	4
% of Injury Crashes	1%	5%	93%	3%	35%	32%	4%	4%	5%	5%

Day	Night	Wet	Dry	4-Way Intersection	Not at Intersection	T-Intersection	Dark – Lighted	Dark – Not Lighted	Daylight
48	25	3	69	18	33	21	22	0	47
66%	34%	5%	95%	24%	45%	29%	30%	0%	64%

NE 26 St - Injury Crashes: 2018 – 2022

Crash Report No.	Date	Day of the Week	Time	Day / Night	Road Surface Condition	Light Condition	Weather Condition	Intersection Type	Crash Type	Crash Severity	Ped Involved	Bike Involved
25173855	6/28/2022	Tuesday	1:50 PM	Day	Dry	Daylight	Clear	Other	Angle	Injury	No	No
88800409	4/11/2020	Saturday	3:25 PM	Day	Dry	Daylight	Clear	Not at Intersection	Angle	Injury	No	No
88797669	11/22/2018	Thursday	10:54 AM	Day	Dry	Daylight	Clear	Four-Way Intersection	BCT Bus	Injury	No	No
87684259	5/25/2018	Friday	3:36 PM	Day	Wet	Daylight	Rain	Not at Intersection	Bicycle	Injury	No	Yes
88800383	3/4/2020	Wednesday	8:15 AM	Day	Dry	Daylight	Clear	Not at Intersection	Bicycle	Injury	No	Yes
88800517	8/21/2020	Friday	8:55 PM	Night	Dry	Dark - Lighted	Clear	T-Intersection	Bicycle	Injury	No	Yes
88797911	4/12/2019	Friday	6:43 AM	Night	Dry	Daylight	Clear	Not at Intersection	Bicycle	Serious Injury	No	Yes
24448080	4/13/2021	Tuesday	6:24 PM	Day	Dry	Daylight	Clear	Not at Intersection	Head On	Injury	No	No
24448059	4/2/2021	Friday	5:35 PM	Day	Dry	Daylight	Cloudy	T-Intersection	Left Turn	Injury	No	No
24448464	1/19/2022	Wednesday	11:16 AM	Day	Dry	Daylight	Clear	Not at Intersection	Left Turn	Injury	No	No
24448522	3/3/2022	Thursday	9:15 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Left Turn	Injury	No	No
87684018	1/6/2018	Saturday	7:15 PM	Night	Dry	Dark - Lighted	Clear	Four-Way Intersection	Left Turn	Injury	No	No
88797907	4/10/2019	Wednesday	5:33 PM	Day	Dry	Daylight	Clear	Not at Intersection	Left Turn	Injury	No	No
88800102	8/28/2019	Wednesday	12:38 PM	Day	Dry	Daylight	Clear	T-Intersection	Left Turn	Injury	No	No
24671138	6/16/2022	Thursday	10:36 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Off Road	Serious Injury	No	No
88797662	11/15/2018	Thursday	2:49 PM	Day	Dry	Daylight	Clear	Not at Intersection	Other	Injury	No	No
24448107	5/2/2021	Sunday	11:44 AM	Day	Dry	Daylight	Clear	Four-Way Intersection	Pedestrian	Injury	Yes	No
24448146	5/27/2021	Thursday	12:45 PM	Day	Dry	Daylight	Clear	Not at Intersection	Pedestrian	Injury	Yes	No
87684169	4/6/2018	Friday	3:23 PM	Day	Dry	Daylight	Clear	Not at Intersection	Pedestrian	Injury	Yes	No
87684368	8/4/2018	Saturday	10:50 AM	Day	Dry	Daylight	Clear	Four-Way Intersection	Pedestrian	Injury	Yes	No
88797908	4/10/2019	Wednesday	7:11 PM	Night	Dry	Daylight	Clear	Not at Intersection	Pedestrian	Injury	Yes	No
25173774	4/21/2022	Thursday	9:07 AM	Day	Dry	Daylight	Clear	Not at Intersection	Pedestrian	Serious Injury	Yes	No
88798016	6/21/2019	Friday	12:32 PM	Day	Dry	Daylight	Clear	Not at Intersection	Pedestrian	Serious Injury	Yes	No
89152705	11/20/2020	Friday	8:10 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Pedestrian	Serious Injury	Yes	No
88797780	1/11/2019	Friday	5:19 PM	Day	Dry	Daylight	Clear	Not at Intersection	Rear End	Injury	No	No
88797794	1/24/2019	Thursday	2:40 PM	Day	Wet	Daylight	Rain	Not at Intersection	Rear End	Injury	No	No
88800363	2/21/2020	Friday	8:30 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Rear End	Injury	No	No
24448265	9/4/2021	Saturday	7:15 PM	Night	Dry	Daylight	Clear	Four-Way Intersection	Right Angle	Injury	No	No
24448328	10/19/2021	Tuesday	10:58 AM	Day	Dry	Daylight	Clear	Four-Way Intersection	Right Angle	Injury	No	No
87684343	7/18/2018	Wednesday	4:52 PM	Day	Dry	Daylight	Clear	Four-Way Intersection	Right Angle	Injury	No	No
88797620	10/13/2018	Saturday	9:16 AM	Day	Dry	Daylight	Clear	Four-Way Intersection	Right Angle	Injury	No	No
88800561	9/30/2020	Wednesday	10:53 PM	Night	Dry	Dark - Lighted	Clear	Four-Way Intersection	Right Angle	Injury	No	No
89152704	11/20/2020	Friday	11:38 AM	Day	Dry	Daylight	Clear	Four-Way Intersection	Right Angle	Injury	No	No
24264752	2/3/2021	Wednesday	11:55 AM	Day	Dry	Daylight	Clear	T-Intersection	Rollover	Injury	No	No
88800327	1/28/2020	Tuesday	11:42 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Rollover	Injury	No	No
87684130	3/15/2018	Thursday	6:36 PM	Day	Dry	Daylight	Clear	T-Intersection	Sideswipe	Injury	No	No
88797779	1/16/2019	Wednesday	4:25 PM	Day	Dry	Daylight	Clear	Not at Intersection	Sideswipe	Injury	No	No
88800295	1/4/2020	Saturday	10:32 AM	Day	Dry	Daylight	Clear	T-Intersection	Sideswipe	Injury	No	No
88800341	2/8/2020	Saturday	10:49 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Sideswipe	Injury	No	No

Total No. of Injury Crashes	Fatality	Serious Injury	Injury	Angle	Left Turn	Rear End	Right Angle	Sideswipe	Ped Involved	Bike Involved
39	0	5	34	2	6	3	6	4	8	4
% of Injury Crashes	0%	12%	87%	5%	15%	7.6%	15%	10%	20.5%	10%

Day	Night	Wet	Dry	4-Way Intersection	Not at Intersection	T-Intersection	Dark – Lighted	Dark – Not Lighted	Daylight
27	12	2	37	10	22	6	9	0	30
69%	31%	5%	94%	25.6%	56%	15%	23%	0%	76%

Dixie Hwy- Injury Crashes: 2018 – 2022

Crash Report No.	Date	Day of the Week	Time	Day / Night	Road Surface Condition	Light Condition	Weather Condition	Intersection Type	Crash Type	Crash Severity	Ped Involved	Bike Involved
24264813	3/15/2021	Monday	9:53 AM	Day	Dry	Daylight	Clear	Not at Intersection	Angle	Injury	No	No
24264824	3/19/2021	Friday	2:33 PM	Day	Dry	Daylight	Clear	Not at Intersection	Angle	Injury	No	No
89152706	11/23/2020	Monday	11:54 AM	Day	Dry	Daylight	Clear	Not at Intersection	Backed Into	Injury	No	No
88800094	8/21/2019	Wednesday	9:03 AM	Day	Dry	Daylight	Clear	Five-Point, or More	BCT Bus	Injury	No	No
88800318	1/22/2020	Wednesday	6:21 AM	Night	Dry	Dawn	Clear	Five-Point, or More	BCT Bus	Injury	No	No
25174033	11/9/2022	Wednesday	8:20 AM	Day	Wet	Daylight	Rain	Not at Intersection	Bicycle	Injury	No	Yes
24448100	4/26/2021	Monday	6:00 PM	Day	Dry	Daylight	Clear	Not at Intersection	Left Turn	Injury	No	No
25173768	4/18/2022	Monday	11:34 AM	Day	Dry	Daylight	Clear	Not at Intersection	Left Turn	Injury	No	No
88797957	5/10/2019	Friday	8:32 AM	Day	Dry	Daylight	Clear	4-way intersection	Left Turn	Injury	No	No
87684431	9/10/2018	Monday	8:48 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Pedestrian	Injury	Yes	No
24264735	1/14/2021	Thursday	11:25 AM	Day	Dry	Daylight	Clear	Not at Intersection	Rear End	Injury	No	No
87008072	3/23/2018	Friday	12:35 PM	Day	Dry	Daylight	Clear	T-Intersection	Rear End	Injury	No	No
87684372	8/3/2018	Friday	5:10 PM	Day	Dry	Daylight	Clear	Not at Intersection	Rear End	Injury	No	No
88800415	4/22/2020	Wednesday	7:48 AM	Day	Dry	Daylight	Clear	Not at Intersection	Rear End	Injury	No	No
25173927	8/22/2022	Monday	1:27 PM	Day	Dry	Daylight	Clear	Not at Intersection	Angle	Injury	No	No
88800215	11/14/2019	Thursday	1:00 PM	Day	Wet	Daylight	Rain	Five-Point, or More	Right Angle	Injury	No	No
89777368	3/27/2020	Friday	5:00 PM	Day	Dry	Daylight	Clear	Not at Intersection	Sideswipe	Injury	No	No
87684398	8/19/2018	Sunday	10:05 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Off Road	Serious Injury	No	No
25174065	11/28/2022	Monday	8:50 AM	Day	Dry	Daylight	Clear	Not at Intersection	Pedestrian	Serious Injury	Yes	No
88797590	9/26/2018	Wednesday	5:43 PM	Day	Dry	Daylight	Clear	Not at Intersection	Pedestrian	Serious Injury	Yes	No
88798016	6/21/2019	Friday	12:32 PM	Day	Dry	Daylight	Clear	Not at Intersection	Pedestrian	Serious Injury	Yes	No

Total Number of Injury Crashes	Fatality	Serious Injury	Injury	Angle	Left Turn	Rear End	Off Road	BCT Involved	Ped Involved	Bike Involved
21	0	4	17	3	3	4	1	2	4	1
% of Injury Crashes	0%	19%	81%	14%	14%	19%	4%	9.5%	19%	4%

	Day	Night	Wet	Dry	4-Way Intersection	Not at Intersection	T-Intersection	Dark – Lighted	Dark – Not Lighted	Daylight
	18	3	2	19	1	16	1	2	0	17
	86%	14%	9.5%	90%	4%	76%	4%	9.5%	0%	80%

NE 24 St Route - Injury Crashes: 2018 – 2022

Crash Report No.	On Roadway	Date	Day of the Week	Time	Day / Night	Road Surface Condition	Light Condition	Weather Condition	Intersection Type	Crash Type	Crash Severity	Ped Involved	Bike Involved
24448081	Wilton Dr	4/14/2021	Wednesday	2:01 PM	Day	Dry	Daylight	Clear	Not at Intersection	Right Angle	Injury	No	No
24448116	NE 24 St	5/6/2021	Thursday	7:40 PM	Night	Wet	Daylight	Rain	T-Intersection	Rear End	Injury	No	No
24448140	NE 6 Av	5/22/2021	Saturday	11:42 PM	Night	Wet	Dark – Not Lighted	Clear	T-Intersection	Pedestrian	Injury	Yes	No
24448549	NE 24 St	3/24/2022	Thursday	3:44 PM	Day	Dry	Daylight	Clear	Not at Intersection	Off Road	Injury	No	No
25173885	Wilton Dr	7/18/2022	Monday	1:06 PM	Day	Dry	Daylight	Clear	4-way Intersection	Left Turn	Injury	No	No
25174001	NE 24 St	10/17/2022	Monday	6:21 PM	Day	Wet	Dusk	Rain	Not at Intersection	Left Turn	Injury	No	No
25606588	NE 24 St	6/18/2022	Saturday	6:23 PM	Day	Dry	Daylight	Clear	Not at Intersection	Bicyclist	Injury	No	Yes
88797654	NE 6 Av	11/6/2018	Tuesday	7:27 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Bicyclist	Injury	No	Yes
89152688	Wilton Dr	11/2/2020	Monday	11:00 PM	Night	Dry	Dark - Lighted	Clear	4-way Intersection	Pedestrian	Injury	Yes	No
24448499	Wilton Dr	2/6/2022	Sunday	3:03 AM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Pedestrian	Serious Injury	Yes	No
87684101	NE 6 Av	2/27/2018	Tuesday	10:44 PM	Night	Wet	Dark - Lighted	Clear	Not at Intersection	Pedestrian	Serious Injury	Yes	No
88797584	Wilton Dr	9/21/2018	Friday	5:31 PM	Day	Dry	Daylight	Clear	Not at Intersection	Bicyclist	Serious Injury	No	Yes

Total Number of Injury Crashes	Fatality	Serious Injury	Injury	Occurred Thursday thru Sunday	Right Angle	Left Turn	Rear End	Off Road	Ped Involved	Bike Involved
12	0	3	9	6	1	2	1	1	4	3
% of Injury Crashes	0%	25%	75%	50%	8%	17%	8%	8%	33%	25%

Day	Night	Wet	Dry	4-Way Intersection	Not at Intersection	T-Intersection	Dark – Lighted	Dark – Not Lighted	Daylight
6	6	4	8	2	8	2	4	1	6
50%	50%	33%	67%	17%	67%	17%	33%	8%	50%

NE 21 Ct Route - Injury Crashes: 2018 – 2022

Crash Report No.	Date	Day of the Week	Time	Day / Night	Road Surface Condition	Light Condition	Weather Condition	Intersection Type	Crash Type	Crash Severity	Ped Involved	Bike Involved
87008072	3/23/2018	Friday	12:35 PM	Day	Dry	Daylight	Clear	T-Intersection	Rear End	Injury	No	No
88800098	8/24/2019	Saturday	9:17 PM	Night	Dry	Dark - Lighted	Clear	Not at Intersection	Single Vehicle	Injury	No	No
88797690	12/4/2018	Tuesday	5:15 PM	Day	Dry	Dusk	Clear	4-way Intersection	Bicyclist	Serious Injury	No	Yes
88800283	12/29/2019	Sunday	4:03 AM	Night	Wet	Dark - Lighted	Rain	Not at Intersection	Off Road	Serious Injury	No	No
88800393	3/11/2020	Wednesday	7:00 PM	Night	Dry	Daylight	Clear	4-way Intersection	Pedestrian	Serious Injury	Yes	No
25173929	8/23/2022	Tuesday	11:23 AM	Day	Dry	Daylight	Clear	4-way Intersection	Pedestrian	Serious Injury	Yes	No

Total Number of Injury Crashes	Fatality	Serious Injury	Injury	Occurred Thursday thru Sunday	Single Vehicle	Left Turn	Rear End	Off Road	Ped Involved	Bike Involved
6	0	4	2	3	1	0	1	1	2	1
% of Injury Crashes	0%	67%	33%	50%	17%	17%	17%	17%	33%	17%

Day	Night	Wet	Dry	4-Way Intersection	Not at Intersection	T-Intersection	Dark – Lighted	Dark – Not Lighted	Daylight
3	3	1	5	3	2	1	2	0	3
50%	50%	17%	83%	50%	33%	17%	33%	0%	50%

Section N

Summary of Additional Plans and Studies

550 W Cypress Creek Road, Suite 470
Fort Lauderdale, FL 33309
P 954.828.1730

To: Karen Friedman, AICP | Senior Transportation Planner
Broward Metropolitan Planning Organization
100 West Cypress Creek Road, Suite 650
Fort Lauderdale, FL 33309

From: Kittelson & Associates, Inc

RE: Wilton Manors Transportation Master Plan Additional Plans and Studies Memorandum

ADDITIONAL RECOMMENDATIONS MEMORANDUM

The following memorandum is intended to provide guidance regarding the additional plans and studies needed to move forward certain recommendations from the Wilton Manors Transportation Master Plan.

Summary Of Additional Plans and Studies

While many project recommendations can move into design immediately when funding is received, some require additional study to confirm the treatment is feasible or to determine design options. A brief summary is included below:

- **Speed Adjustments.** Proposed speed reductions will need to be coordinated with either FDOT or the County depending on road ownership. It is recommend a speed study be coordinated with a conceptual design. Conceptually designed geometric improvements must be able to effectively reduce roadway design speed down to proposed target speed. Strategies and guidance can be found within FDOT FDM Section 202 Speed Management.
- **Signal Modifications.** Recommend collecting turning movement counts (TMCs) and preparing operational analyses for all signal modification studies. Signal operational analyses should consider potential impacts to upstream and downstream signals or the signal system and system timings should be evaluated for update. All proposed signal modifications will require coordination with either Broward County and/or FDOT for state-owned highways. Scramble crossings will require pedestrian crossing study prior to design. For all signal modification designs, recommend reviewing existing lighting at intersection.
- **Roundabout Installation.** Intersections where roundabouts are proposed may require ICE Analysis complete with benefit-to-cost analysis prior to design. A conceptual design depicting impacts will be needed for stakeholder impact and will be used for preparing opinion of probable costs.
- **Midblock Crossings**. All proposed midblock crossings must be coordinated with Broward County or FDOT. Broward County will require a pedestrian study regardless of context. Pedestrian study should follow process outlined in Florida Traffic Engineering Manual Section 5.2.6. Existing lighting must be present or lighting should be installed; lighting must adhere to FDM Section 231 Lighting Table 231.2.1.
- **Bus Stop Relocations / Modifications.** All bus stop relocations must be coordinated with BCT. See FDM Section 225 Transit for design recommendations. Recommend reviewing PROWAG for adherence.
- **Painted Bike Lanes.** Green painted bike lanes must be coordinated with FDOT on all state-owned facilities. Green paint may be applied in areas highlighted in FDM Section 223 Bicycle Facilities 223.2.1.4. The use of green-colored pavement markings on state-owned facilities requires the approval of the District Design Engineer through Project Suite's Design Approval Request Process.
- **Lighting Improvements**. It is recommended a nighttime lighting audit be completed prior to advancement of any lighting design. Lighting audit should measure existing footcandles and denote dark areas. Coordination with maintaining agencies and owners during audit is also recommended for collection of data on existing and proposed lighting fixtures.
- **Lane Repurposing.** The lane repurposing process should follow the process and guidance as outlined within FD M 126 Lane Repurposing Projects and as outlined within FDOT's Lane Repurposing Guidebook. A study should be performed in accordance with an agreed-upon methodology with the facility owner. The study should include, at minimum, existing peak hour and daily traffic volumes, forecasted traffic volumes based upon a validated subarea travel demand model, existing and future 24-hour, peak-hour, and/or peak period level-of-service analysis, an evaluation of potential network diversions caused by a lane repurposing, historical and future multimodal safety conditions with/without the lane repurposing, and a multi-faceted benefit/cost evaluation.

Required Studies by Corridor

The following table identifies the additional plans and studies needed to advance each corridor project from the Wilton Manors Transportation Master Plan based on the proposed treatments.

	Powerline Road	Andrews Avenue	NE 26th Street (West)	NE 26th Street (East)	Dixie Highway (South)	Dixie Highway (North)	NE 24th Street (West)	NE 24th Street (East)	NE 21st Court / NE 20th Street	Westside Route
Speed Adjustments	X			X		X				
Signal Modifications	X	X		X						
Roundabout Installation			X	X						X
Midblock Crossings	X	X	X	X		X		X	X	
Bus Stop Relocations / Modifications		X		X						
Painted Bike Lanes	X			X	X	X	X	X		X
Lighting Improvements	X	X	X	X	X	X	X	X	X	X
Lane Repurposing	X			X						