



Move People & Goods | Create Jobs | Strengthen Communities

MMTP Task 4 Mid / Long-term Improvements

Staff Working Group - Monthly Meeting

September 29, 2022

Meeting Agenda

- Status
 - Future Meeting Dates
- Discussion: Plan Themes
 - Initial Analysis for Connectivity
- Discussion: Plan Themes → Project Locations
- Next Steps
- Q & A
- *Time Permitting... Examples of Pedestrian Bridges*

Meeting Goal:

1. Consensus on Plan Themes
2. Consensus on Roadways

Project Schedule: Task 4 Meetings





Task 4: Project Locations

Cleary Blvd, from University Dr to Hiatus Rd Greenway

County-Owned = Hiatus Rd & Pine Island Rd

State-Owned = University Dr

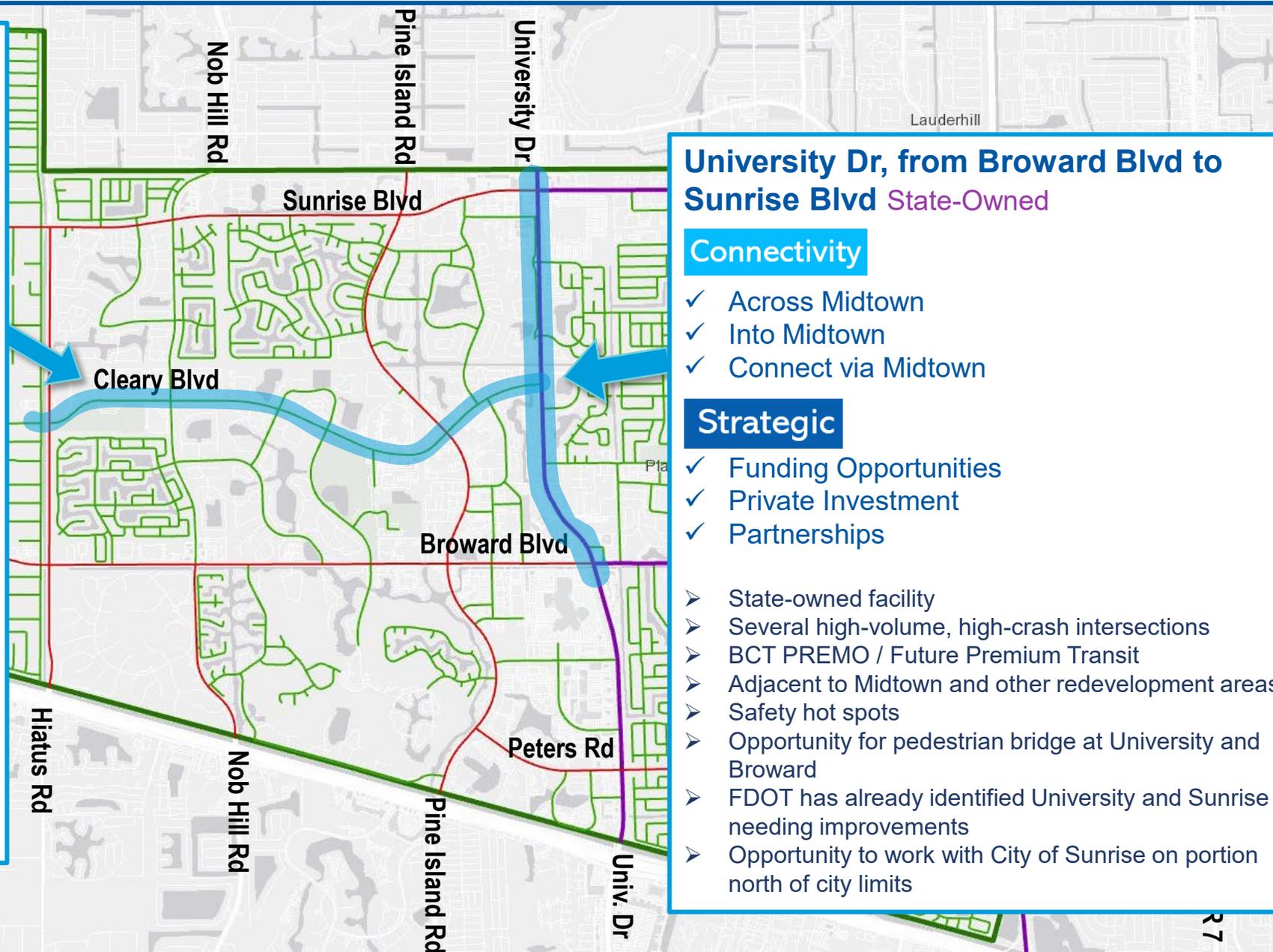
Connectivity

- ✓ Into Midtown
- ✓ Connect via Midtown

Strategic

- ✓ Funding Opportunities
- ✓ Private Investment
- ✓ Partnerships
- Adjacent to several community facilities, senior community, & public school.
- An entire Corridor
- County Surtax projects for Pine Island Rd and Hiatus Rd
- Community Support
- Most of roadway is under full City control
- Great opportunity for east-west connectivity

BC_City_Boundaries



University Dr, from Broward Blvd to Sunrise Blvd State-Owned

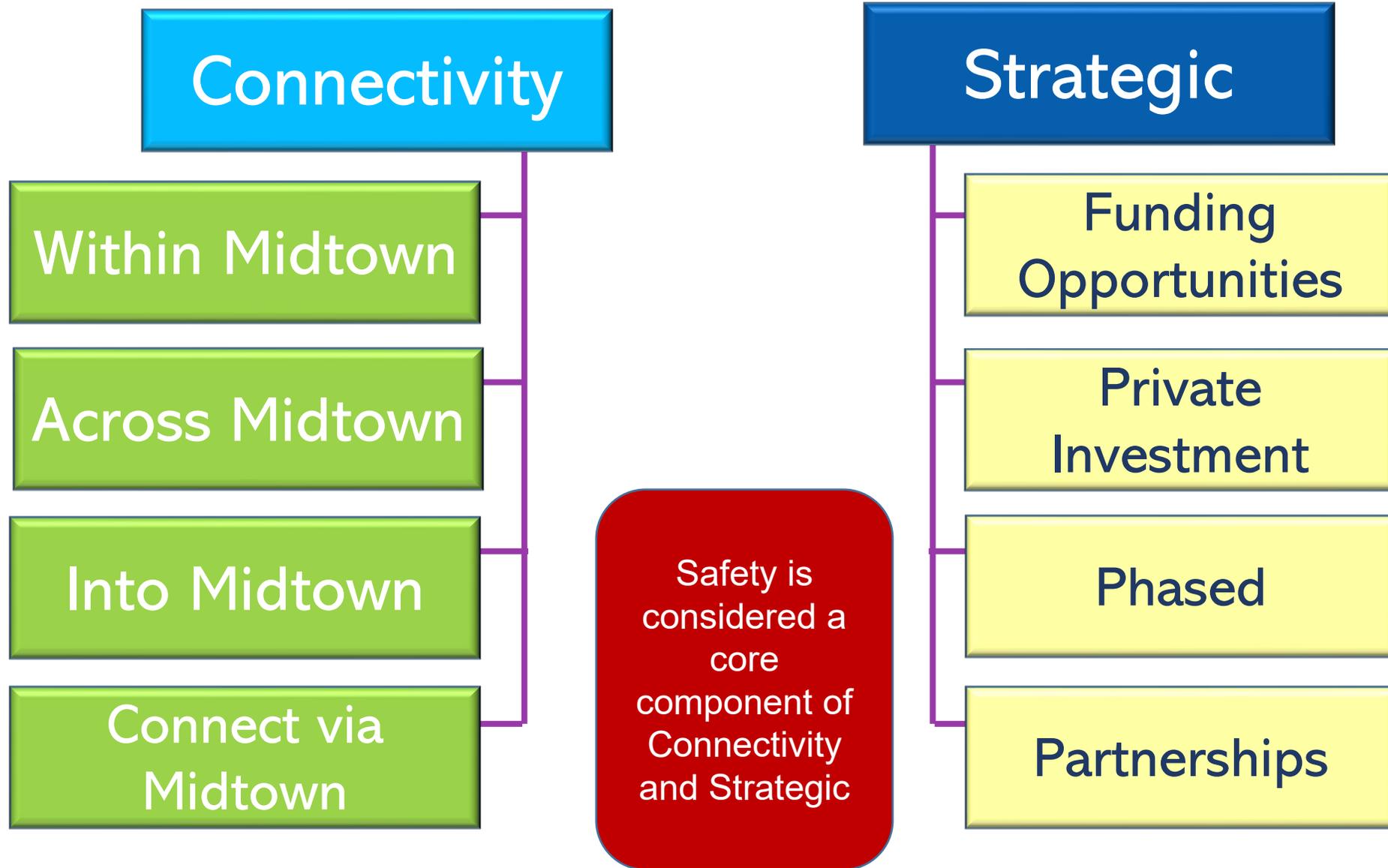
Connectivity

- ✓ Across Midtown
- ✓ Into Midtown
- ✓ Connect via Midtown

Strategic

- ✓ Funding Opportunities
- ✓ Private Investment
- ✓ Partnerships
- State-owned facility
- Several high-volume, high-crash intersections
- BCT PREMO / Future Premium Transit
- Adjacent to Midtown and other redevelopment areas
- Safety hot spots
- Opportunity for pedestrian bridge at University and Broward
- FDOT has already identified University and Sunrise as needing improvements
- Opportunity to work with City of Sunrise on portion north of city limits

✔ Task 4: Plan Themes



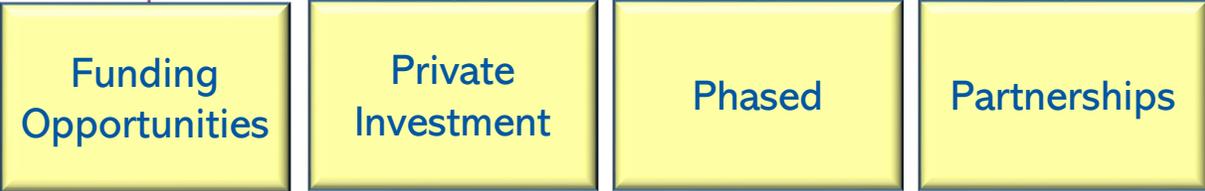
Plan Themes → Needs Assessment

Connectivity



- Strava Analysis / Existing Ped & Bike Routes
- University Dr & Cleary Bl = Crash Trends
- Intersections = Crash Trends
- Intersections = Missing Facilities
- University Dr Access Roads = Facilities
- Pedestrian Generators / Origins and Destinations

Strategic



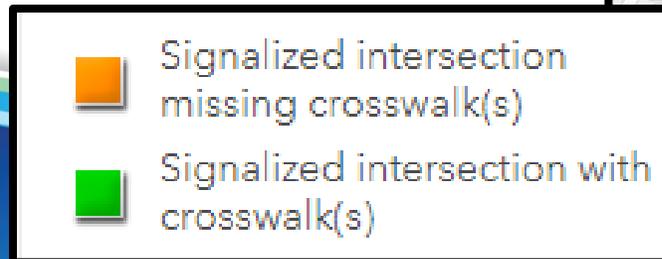
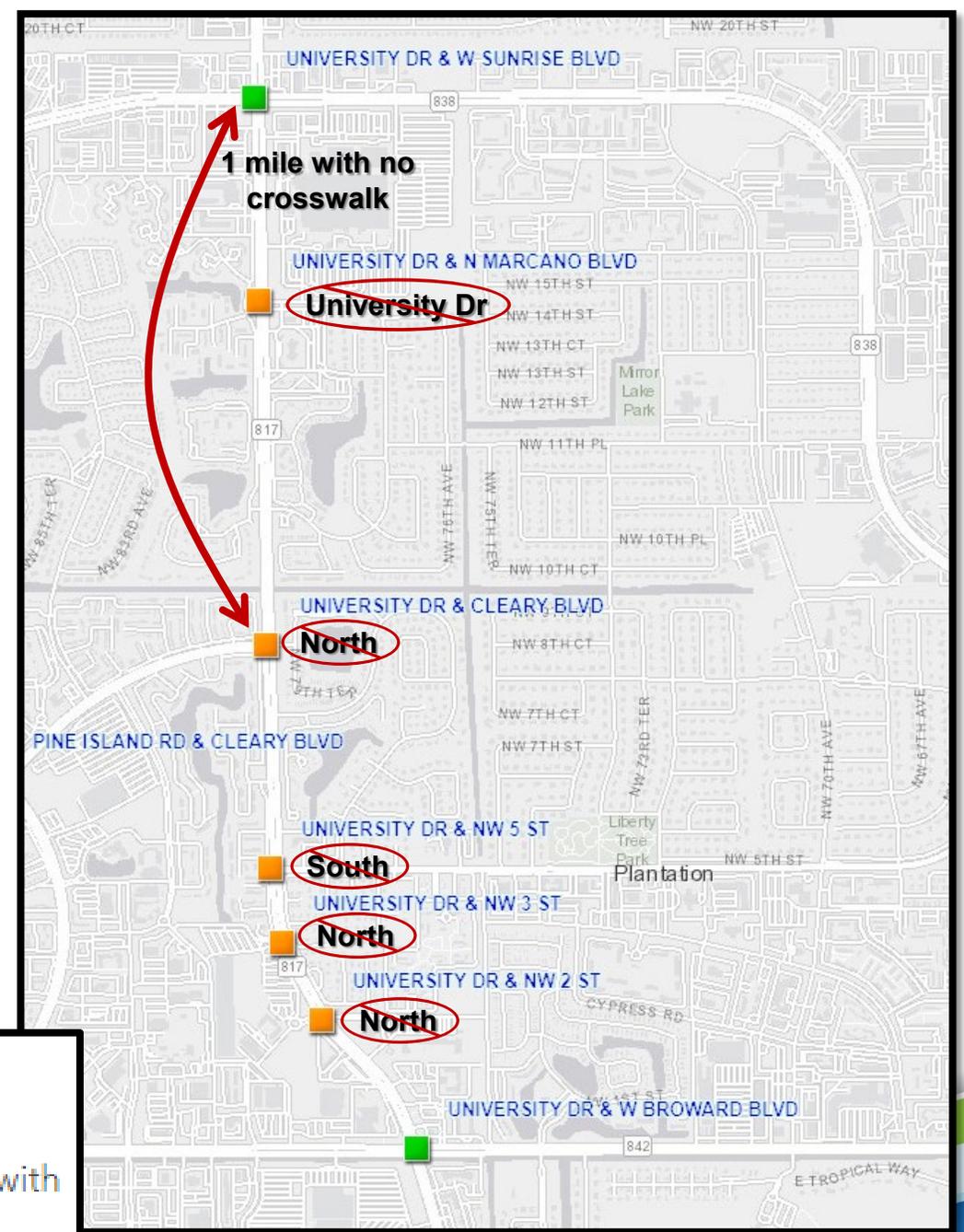
- University Dr Mobility Study Assessment
- FDOT Plans for University Dr & Broward Blvd
- Adjacent Redevelopment
- Broward County, FDOT, City of Sunrise Plans
- Equity Areas
- Crash Trends

N. University Dr

Broward Blvd to Northern City Limits ● 120 ft ROW ● Broward County
Trafficways = 200 ft Arterial ● 2.1 miles ● 6 travel lanes ● 45 MPH ● BCT
Routes 2 and 81 (22 and 36) ● LOS C

University Dr: Signalized Intersections

- 7 signalized intersections
- 2 intersections (Broward Blvd and Sunrise Blvd) have crosswalks on all intersection legs.
- The other intersections are missing at least 1 crosswalk.
- There are no crosswalks between Sunrise Blvd and southern leg of Cleary Blvd.



University Drive: Crash Maps

2015 to 2021

150 ft south of Broward
Blvd to Northern City
Limits

- **All Crashes:** crashes are most predominant at intersections, particularly arterial intersections
- **Injury crashes:** centered at intersections with Sunrise Blvd & Broward Blvd
- **Severe Injury & Fatal Crashes:** dispersed throughout roadway
- **Fatal Crashes:** more predominant at minor intersections

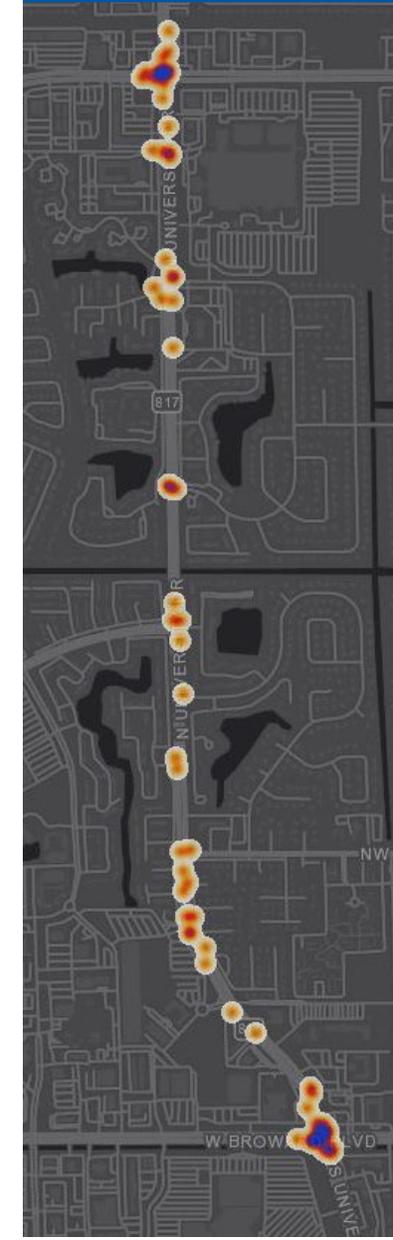
Heat Map of *All*
Crashes



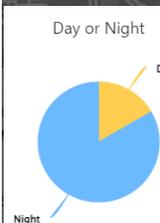
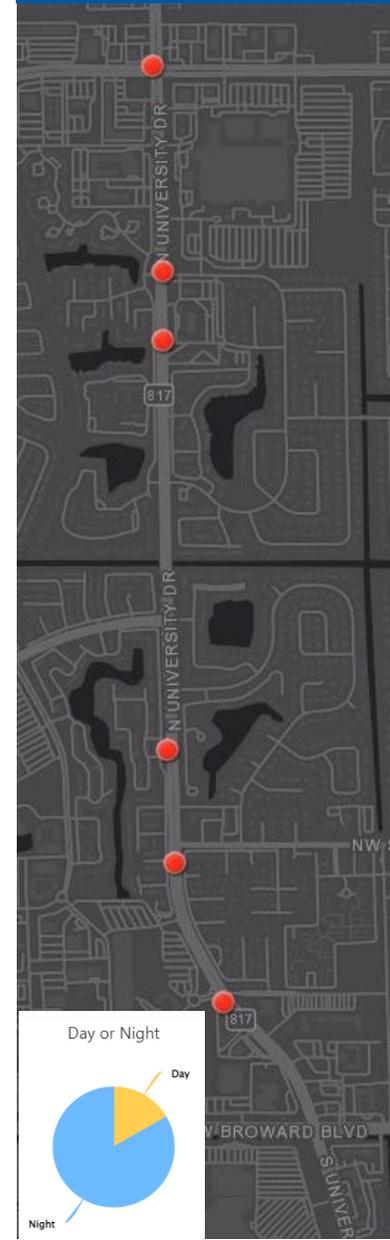
Heat Map of
Injury Crashes



Heat Map of
Severe Injury
Crashes

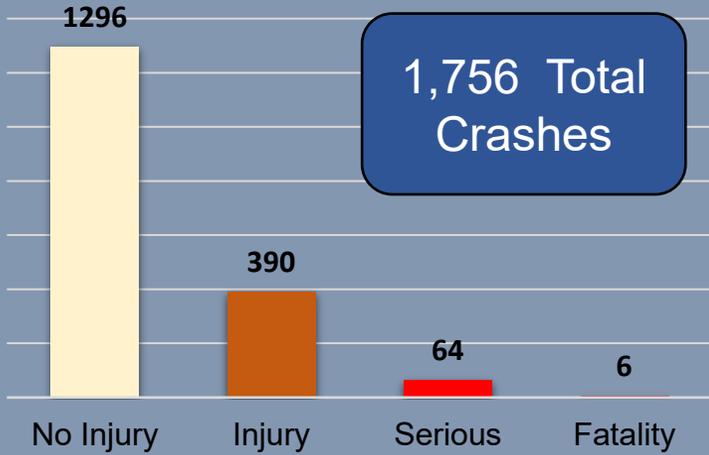


Map of *Fatal*
Crashes

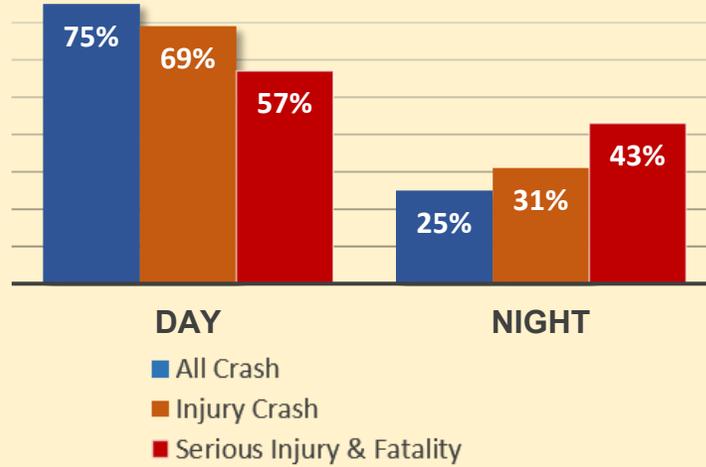


University Drive Crash Stats & Trends

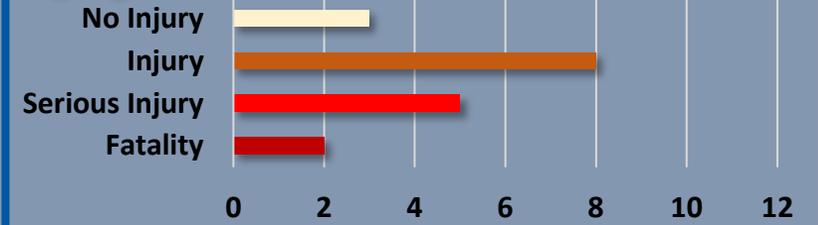
Crashes by Injury Type



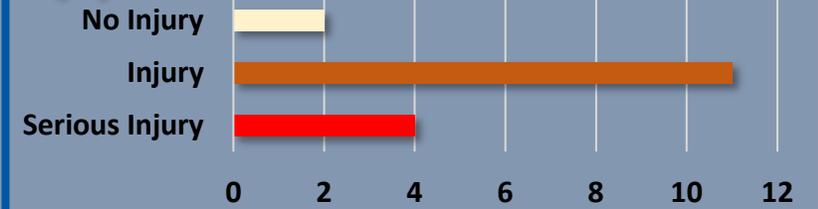
Day vs Night



Bike Crashes by Injury Type

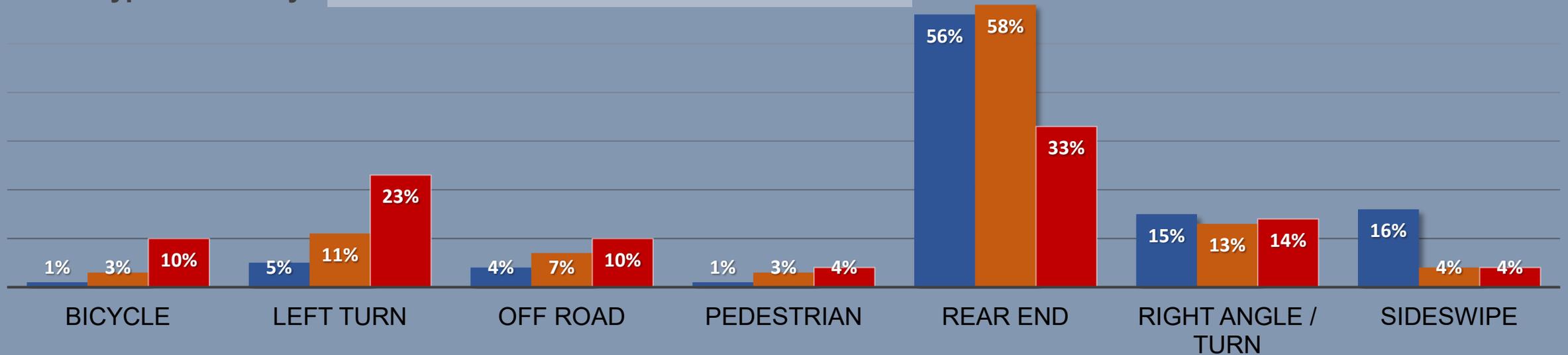


Ped Crashes by Injury Type



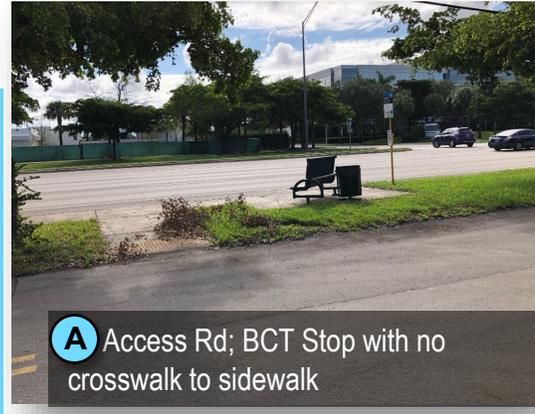
Crash Type & Severity

■ All Crashes ■ Injury Crashes ■ Serious Injury & Fatality

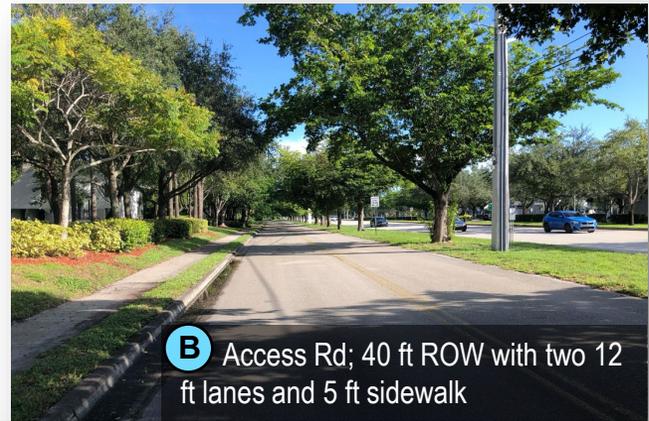


University Dr: City-owned ROW

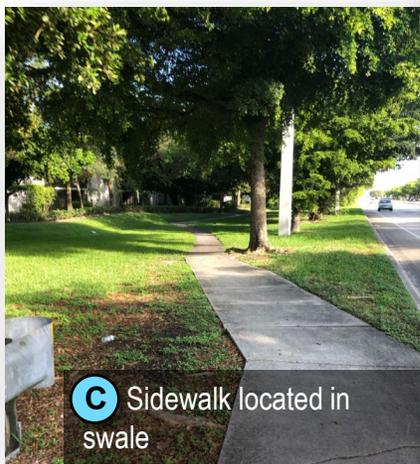
- 40 ft ROW
- Dedicated via multiple plats
- Large areas developed as Access Roads
- Other areas developed as swale with sidewalk



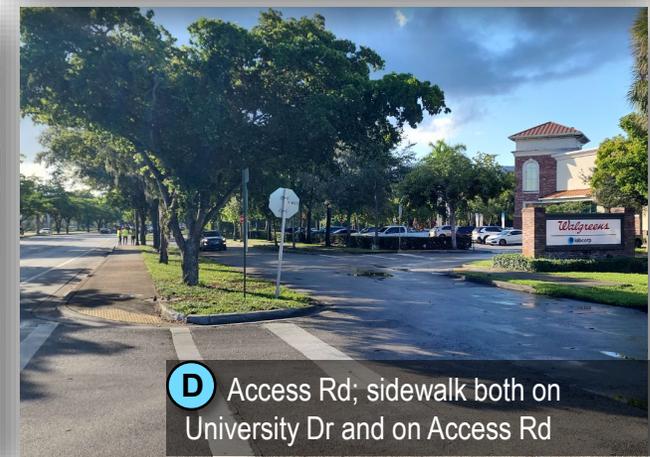
A Access Rd; BCT Stop with no crosswalk to sidewalk



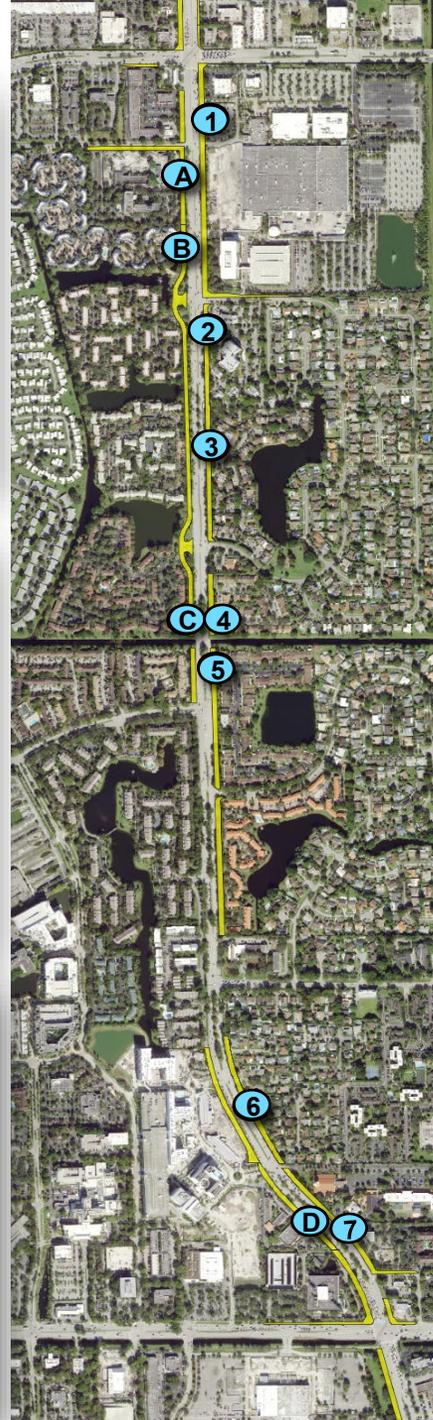
B Access Rd; 40 ft ROW with two 12 ft lanes and 5 ft sidewalk



C Sidewalk located in swale



D Access Rd; sidewalk both on University Dr and on Access Rd



1 Wide sidewalk setback from roadway; abutting new retail parcels



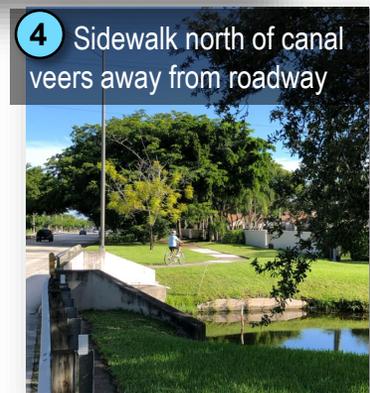
3 NW 79 Te / NW 11 Mn; sharp U-turn required



2 NW 79 Te; Missing sidewalk connections and crosswalks



5 Sidewalk south of canal at curb



4 Sidewalk north of canal veers away from roadway



6 Green Tree Lane; No sidewalk on local ROW



7 New sidewalk in front of Kaluz

University Dr Intersections

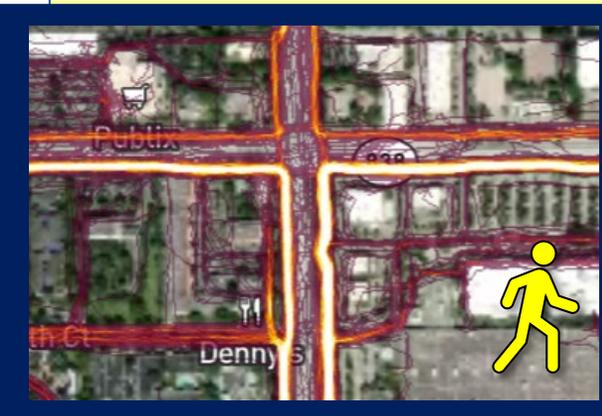
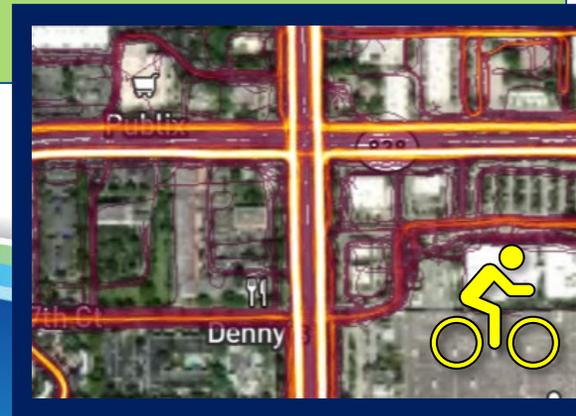
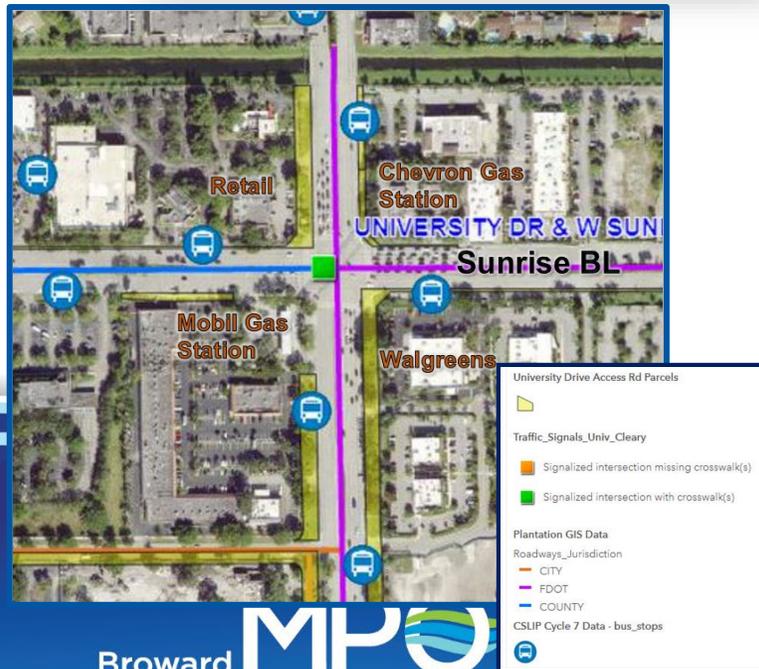


Data Observations

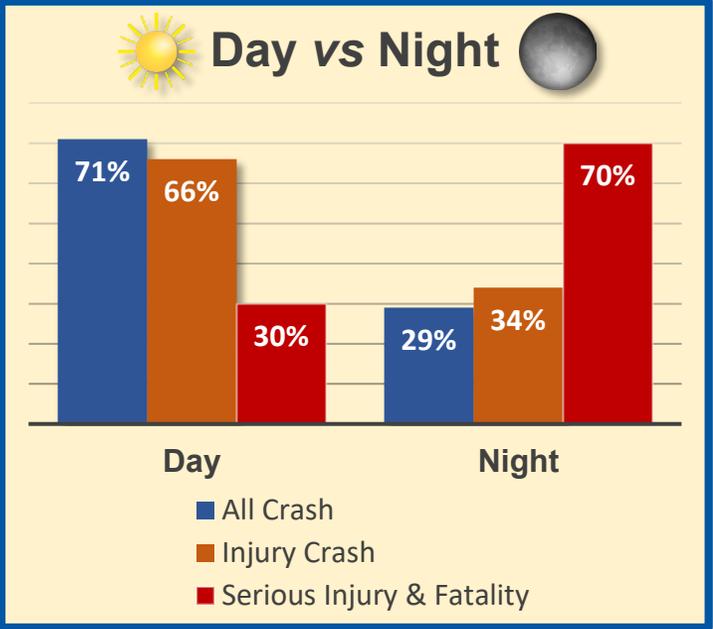
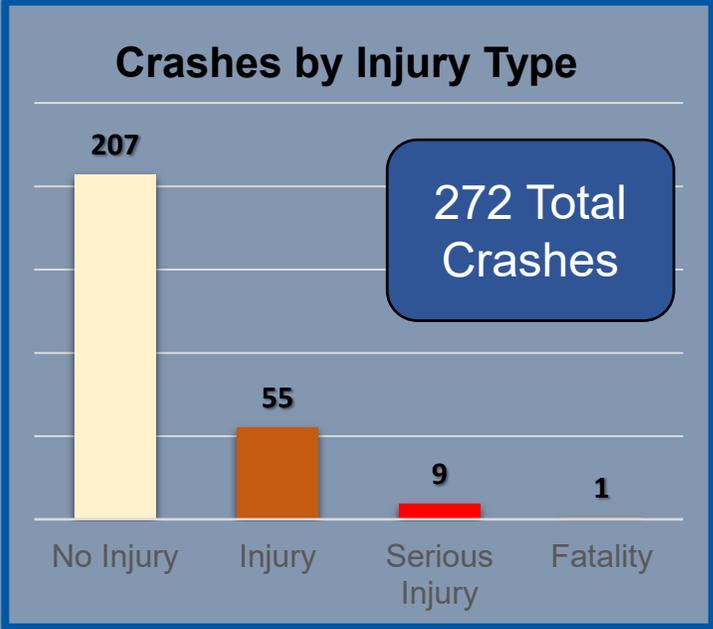
- 200 ft x 120 ft Arterials
- Signalized intersection
- U-turns prohibited on Sunrise Blvd
- High visibility markings on all crosswalks
- Ped's must cross over 9 traffic lanes
- Adjacent redevelopment is conversion from hotel or warehouse to multi-family mixed-use.
- Bus Stops located away from intersection
- Sidewalks:
 - Northwest and Southeast: Setback in city-owned ROW
 - Northeast and Southwest: at curb

Field Observations

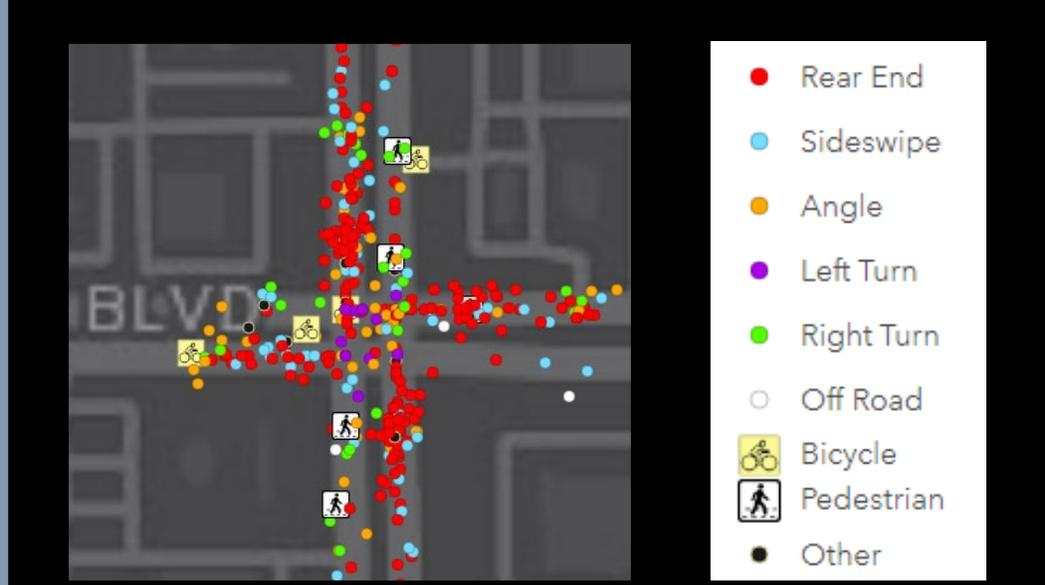
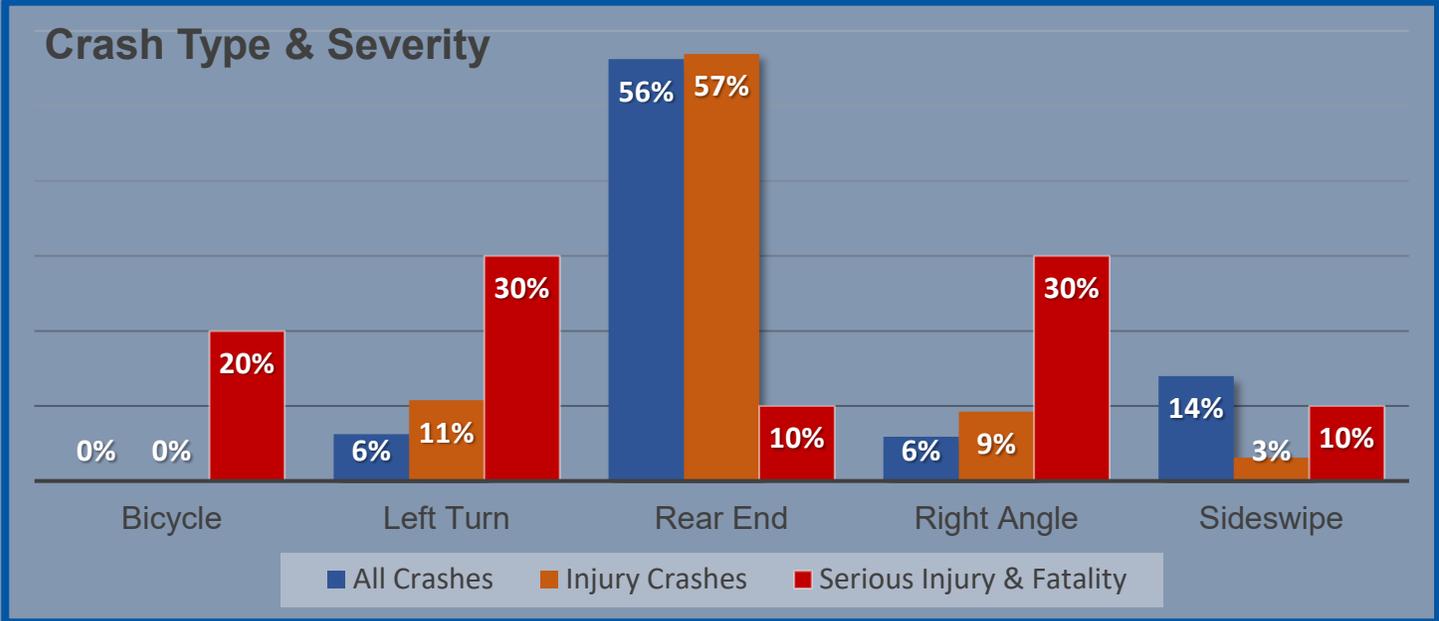
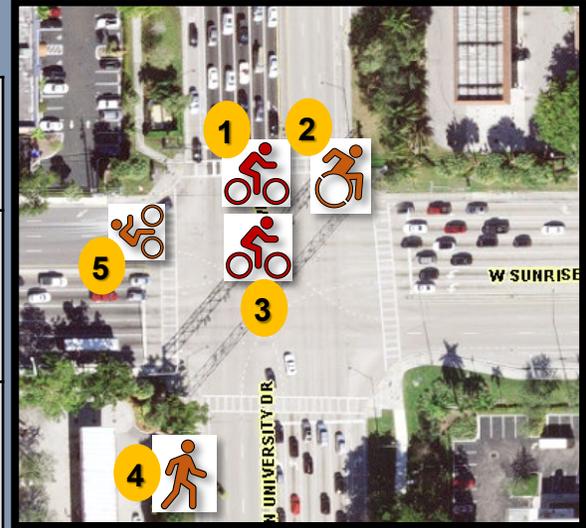
- Jaywalking observed both north and south of intersection, in adjacency to BCT Stops
- Bicyclists riding in bike lanes and sidewalks
- Some exercising observed
- NO convenient ped access to new retail at SE corner, Ped's are walking through landscaped area
- Very long crosswalk distance, with many RT vehicles
- High School students in area



University Drive & Sunrise Blvd - Crash Stats & Trends



- | | |
|---|--|
| 1 | Serious Injury • Jan 2016 • 11 am • Bike Fault: In crosswalk, rode on green |
| 2 | Injury • Motorized Wheelchair • July 2018 • 3pm • Unknown Fault • In crosswalk • Struck by NB / RT vehicle |
| 3 | Fatality • May 2016 • 5 am • Unknown Fault: Bike riding in crosswalk was struck by SB vehicle |
| 4 | Injury • Jun 2019 • 9 pm • Ped fault: Jaywalking and struck by SB vehicle |
| 5 | Injury • Apr. 2021 • 3pm • Driver Fault: Bike riding in crosswalk was struck by LT Vehicle |



Sunrise Blvd

In bike lane, in the rain!



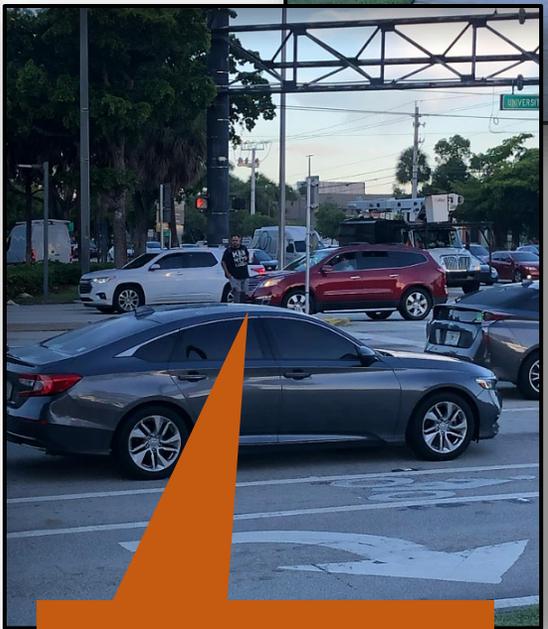
Jaywalking to BCT Stops



HS Students



Riding on sidewalk



Crossing on Red



Shortcut through landscaping



Skateboard

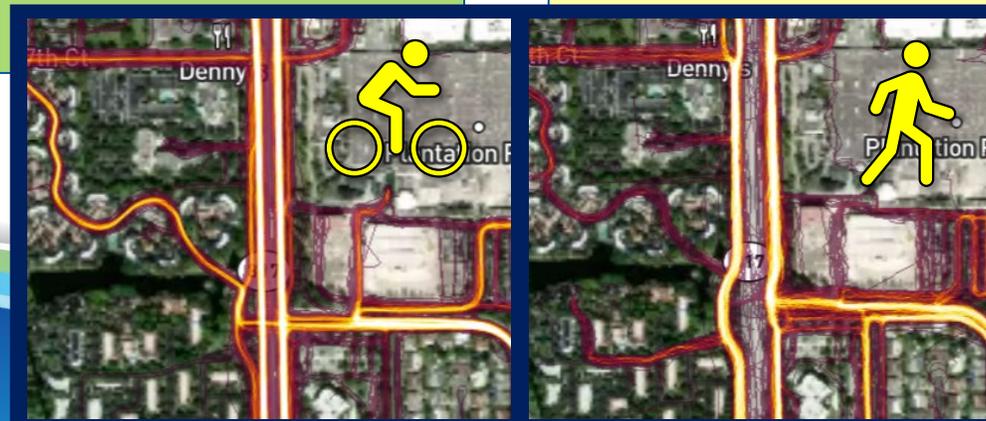
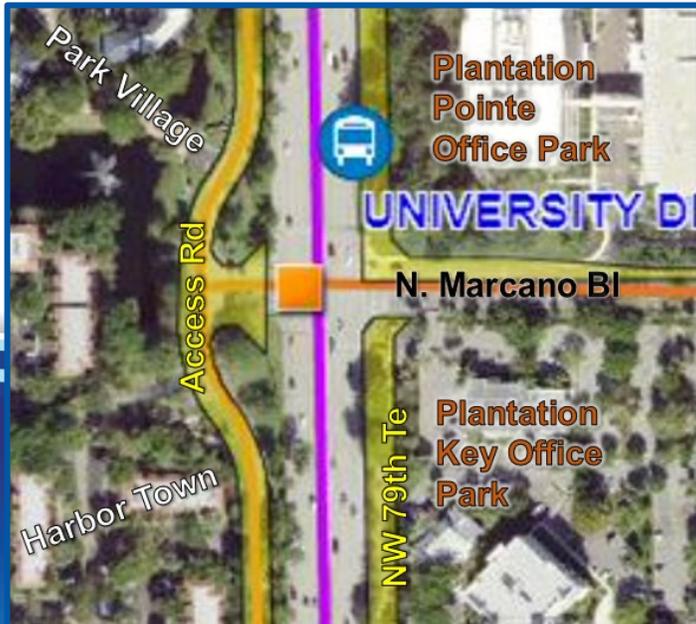


Data Observations

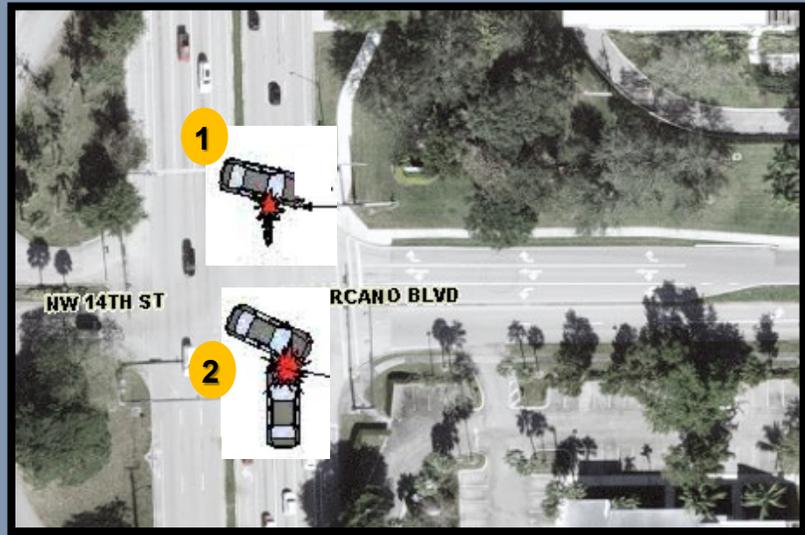
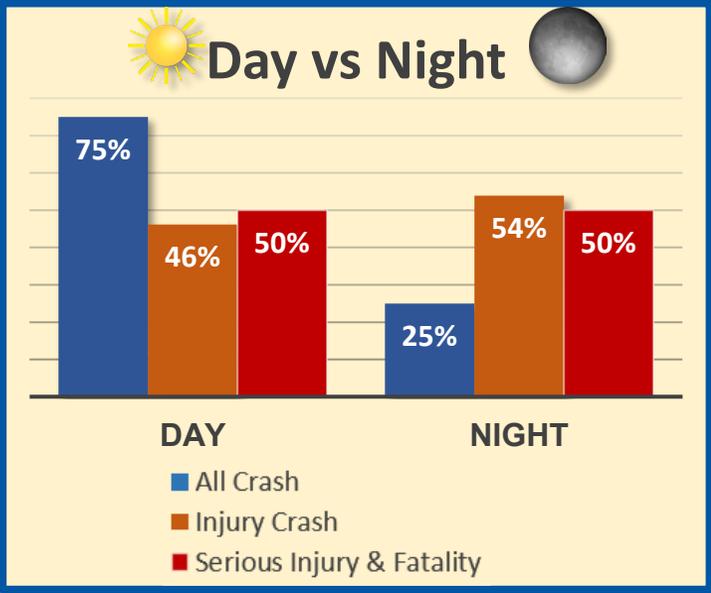
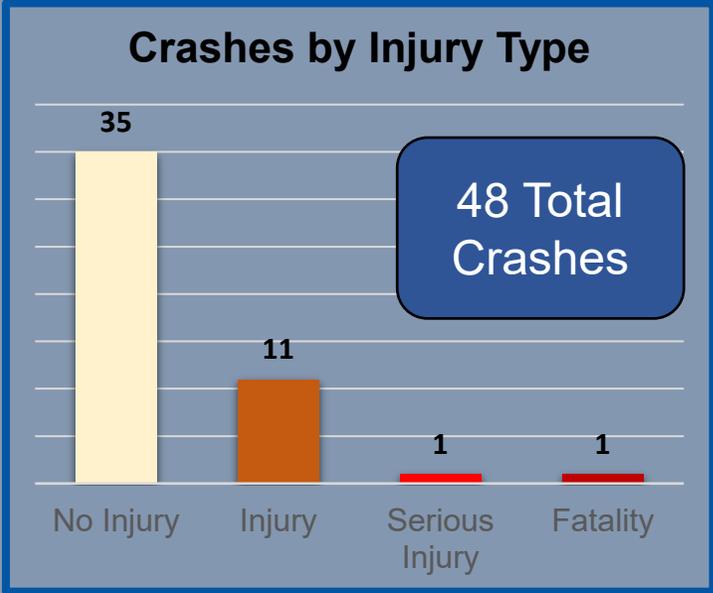
- N. Marcano Blvd not on Trafficways Plan
- Signalized intersection
- 1 Crosswalk - eastern leg
- No crosswalk over University Dr.
- City-owned ROW on all four corners
- 1 bus stop in area
- Sidewalks:
 - West: Only on west side of Access Rd.
 - Southeast: Only on east side of City-Owned access road (NW 79th Te)
 - Northeast: Within city-owned swale (15 ft from curb)

Field Observations

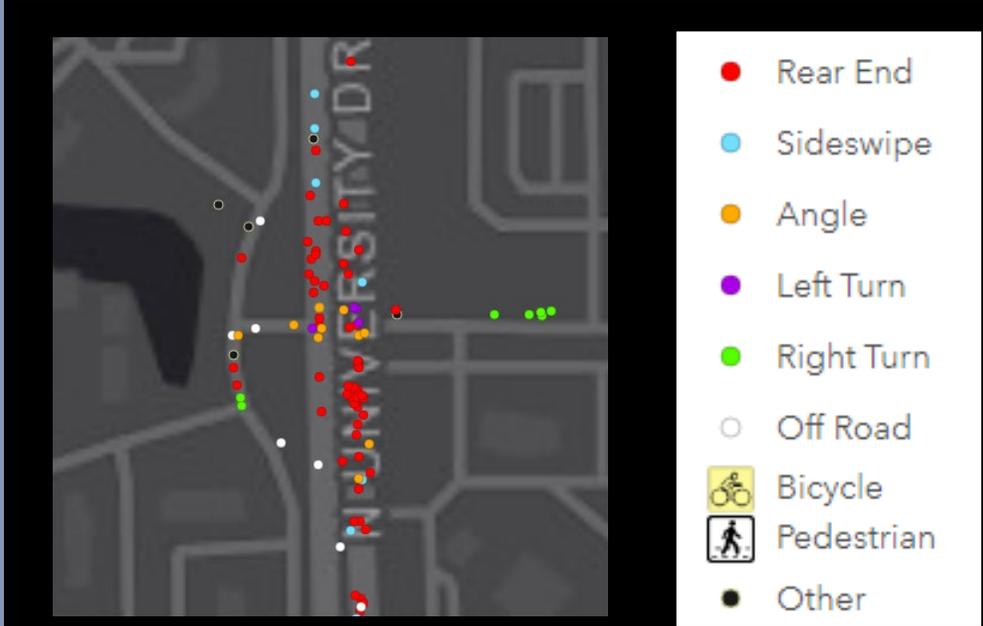
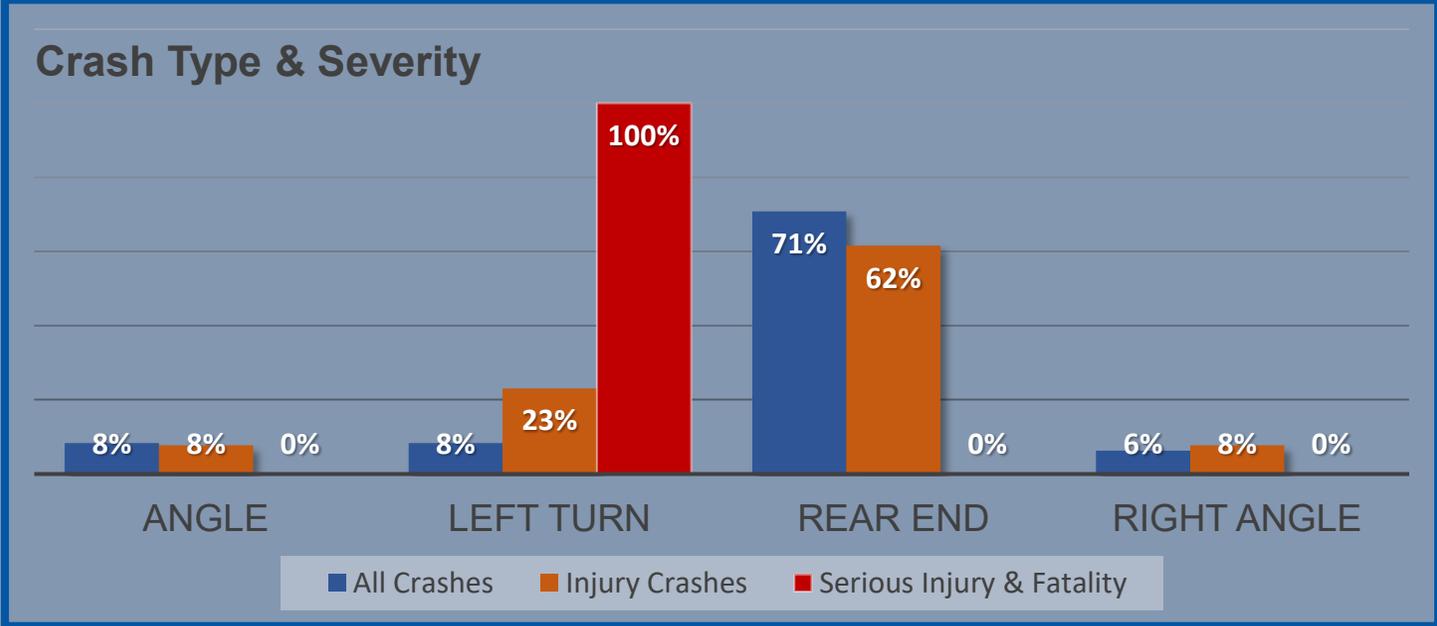
- No connectivity from western Access Road to intersection (no crosswalks)
- No lighting within western or eastern Access Roads
- Sidewalk on SE corner leads to drive aisle
- NW 79th Te *feels* like private property and is designed as a parking lot drive aisle. No continuous sidewalks, no lighting, no crosswalks
- New sidewalk on northeast side is nicely setback and shaded



University Drive & N. Marcano BI - Crash Stats & Trends



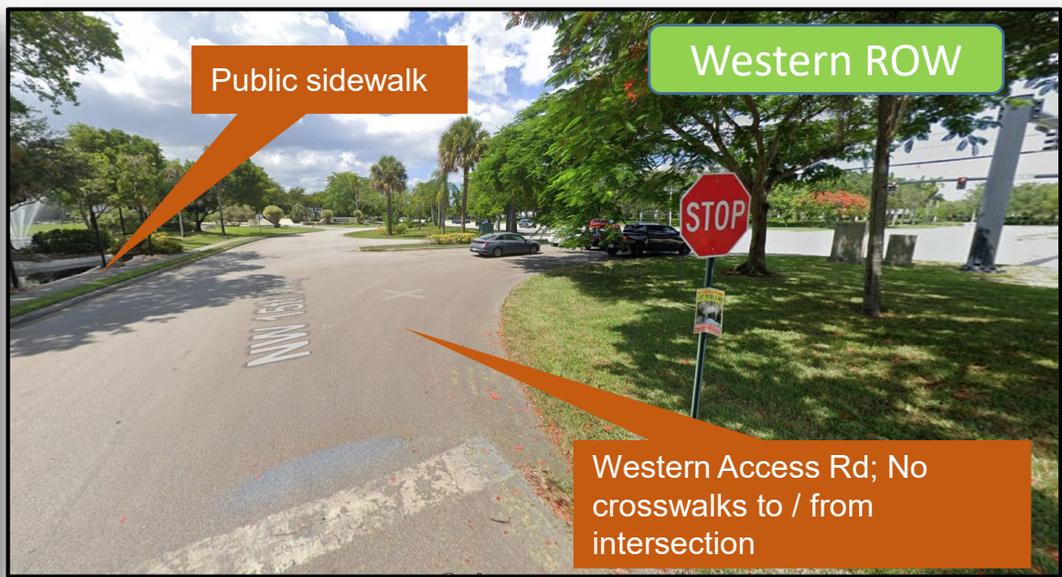
- 1** **Fatality** • Motorcyclist • Jan. 2018 • 12 am • Motorcyclist was excessive speeding • Struck by **SB / LT vehicle**
- 2** **Serious Injury** • Nov. 2018 • 8:30 am • **SB / LT vehicle** turned on yield only light • Struck by NB vehicle



N. Marcano Blvd



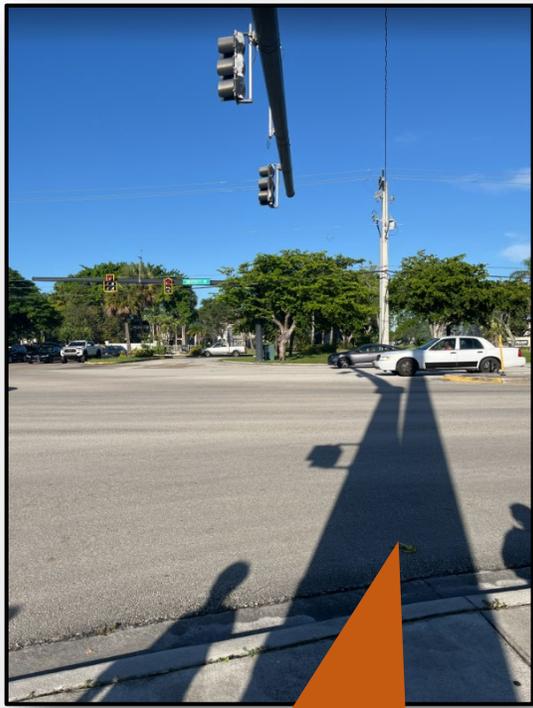
BCT stop; uncovered



Public sidewalk

Western ROW

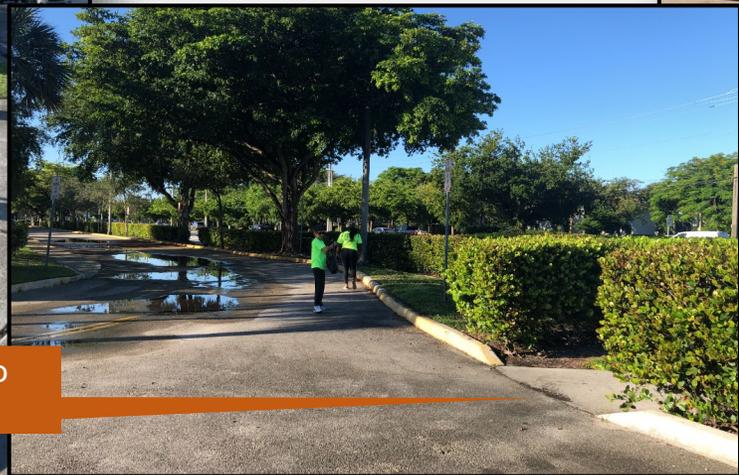
Western Access Rd; No crosswalks to / from intersection



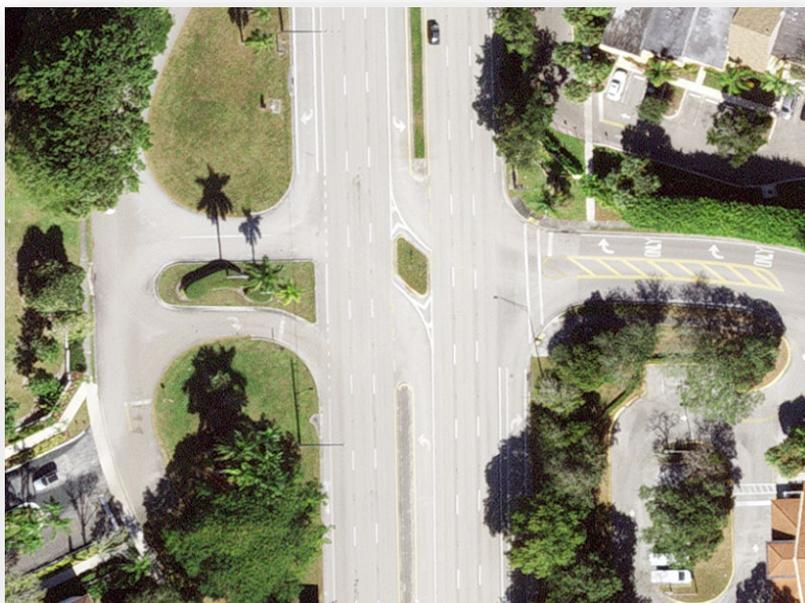
No crosswalk over University Dr



Sidewalk ends; directs to Office Park drive aisle



No continuous sidewalk system in city-owned eastern Access Rd / NW 79 Te

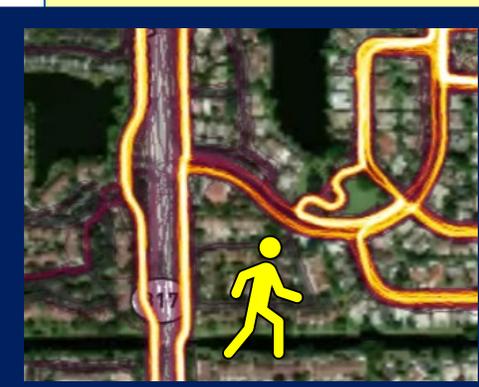
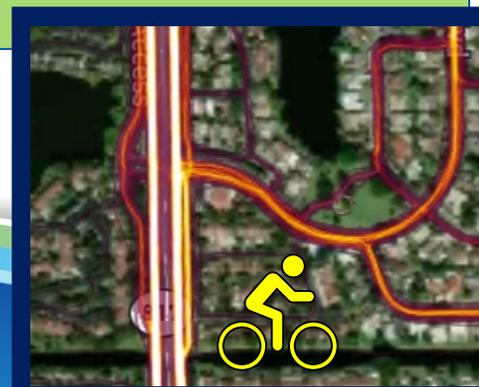
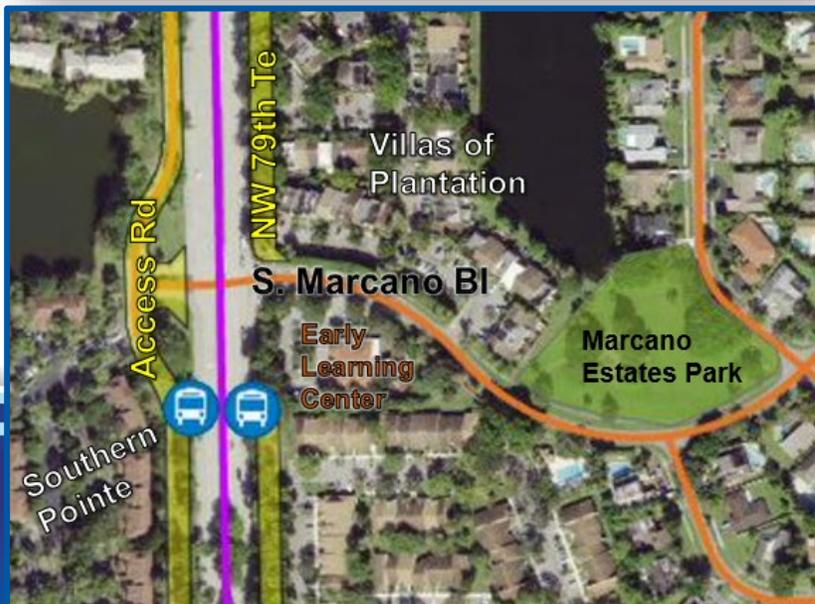


Data Observations

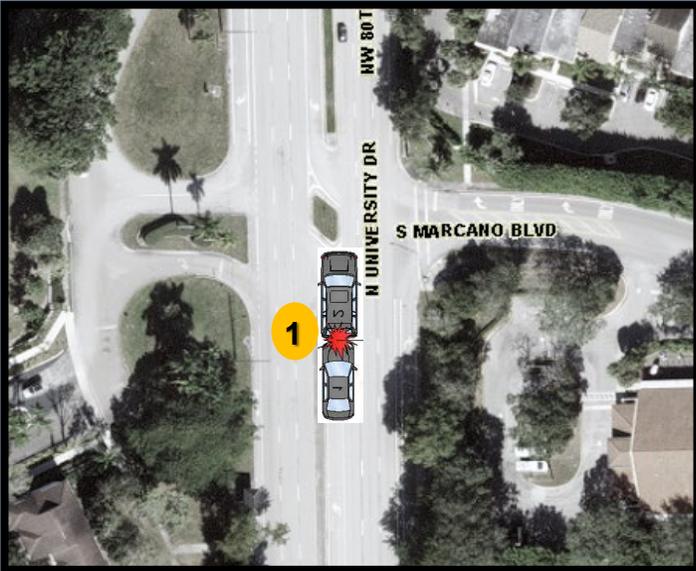
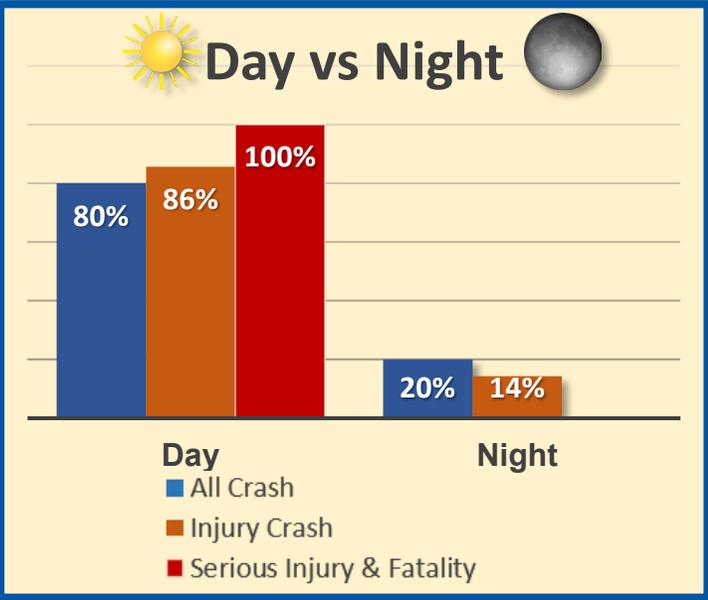
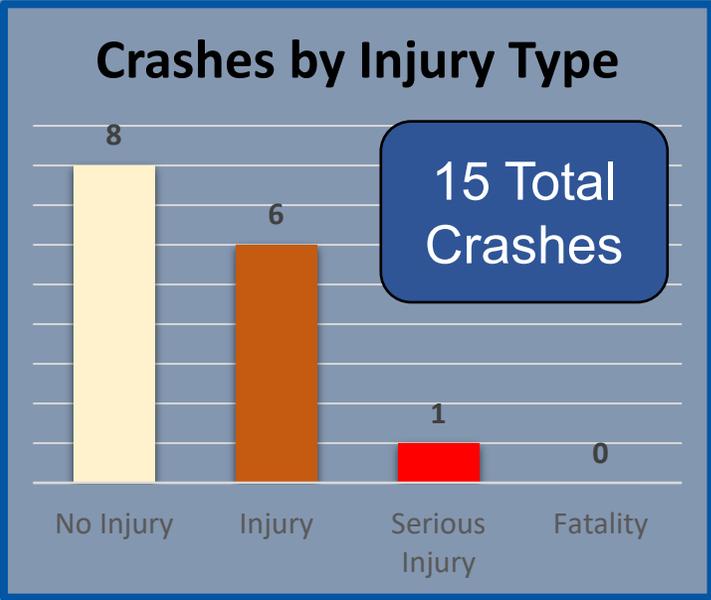
- Unsignalized intersection
- Directional median prohibits left turns out of S. Marcano and from Access Rd
- 1 Crosswalk on eastern leg
- No crosswalk over University Dr.
- City-owned swale on 3 corners
- 2 bus stops south on intersection
- Very close to Marcano Estates Park
- Sidewalks:
 - West: Only on western side of Access Rd.
 - Northeast: Only on east side of City-Owned access road (NW 79th Te)
 - Southeast: Within city-owned swale (15 ft from curb)

Field Observations

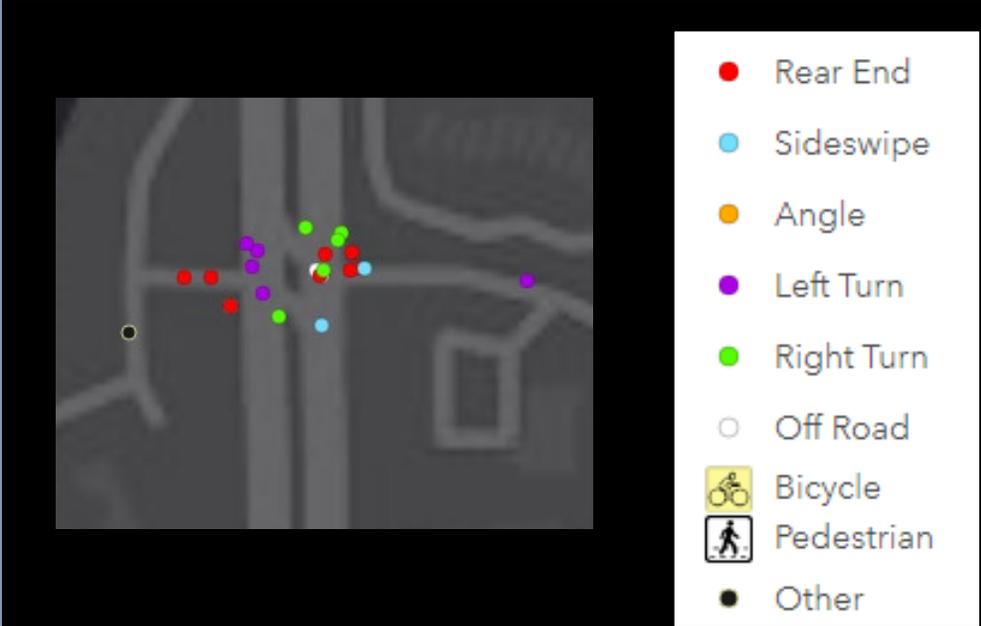
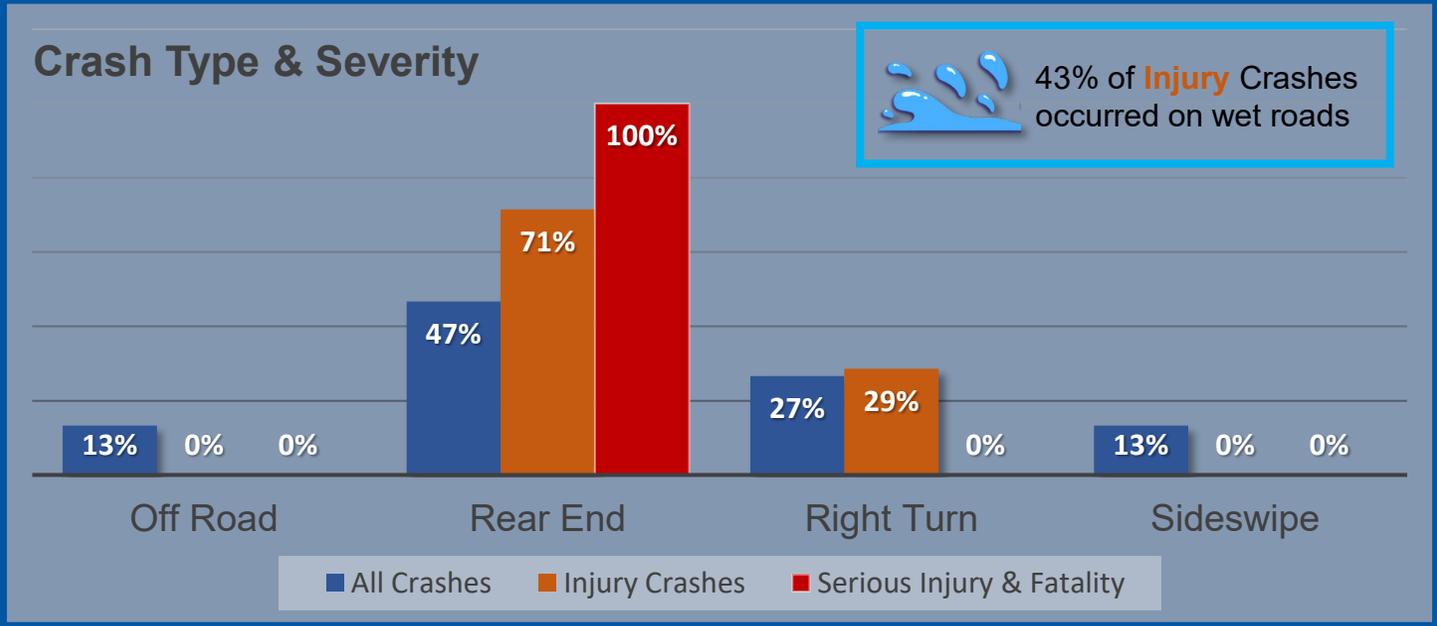
- No connectivity from western Access Road to intersection (no crosswalks)
- No lighting within western or eastern Access Roads
- Very narrow sidewalk from NW 79th Te to NE corner
- NW 79th Te *feels* like private property and is designed as a parking lot drive aisle. No continuous sidewalks, no lighting, no crosswalks
- Both bus stops are covered and have good connection to adjacent sidewalks



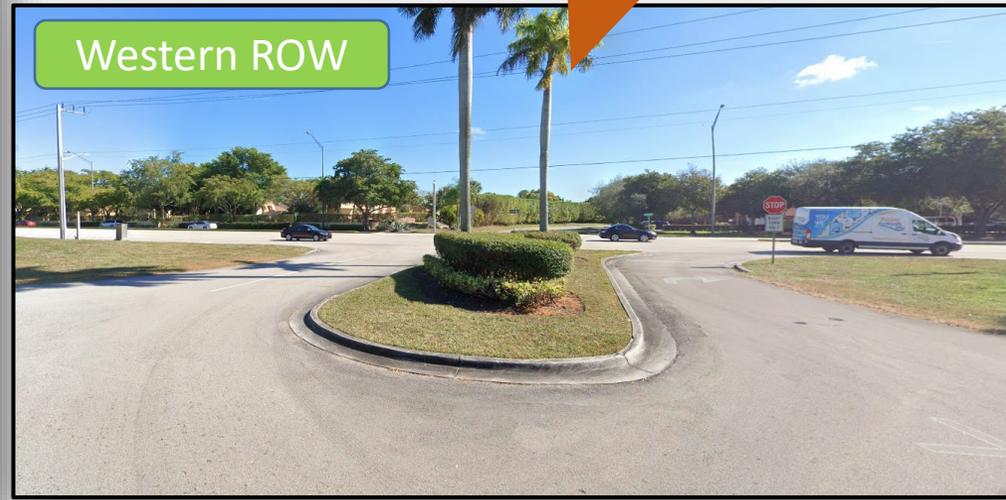
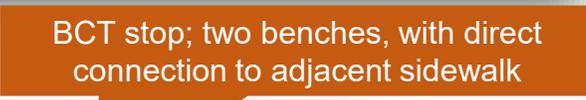
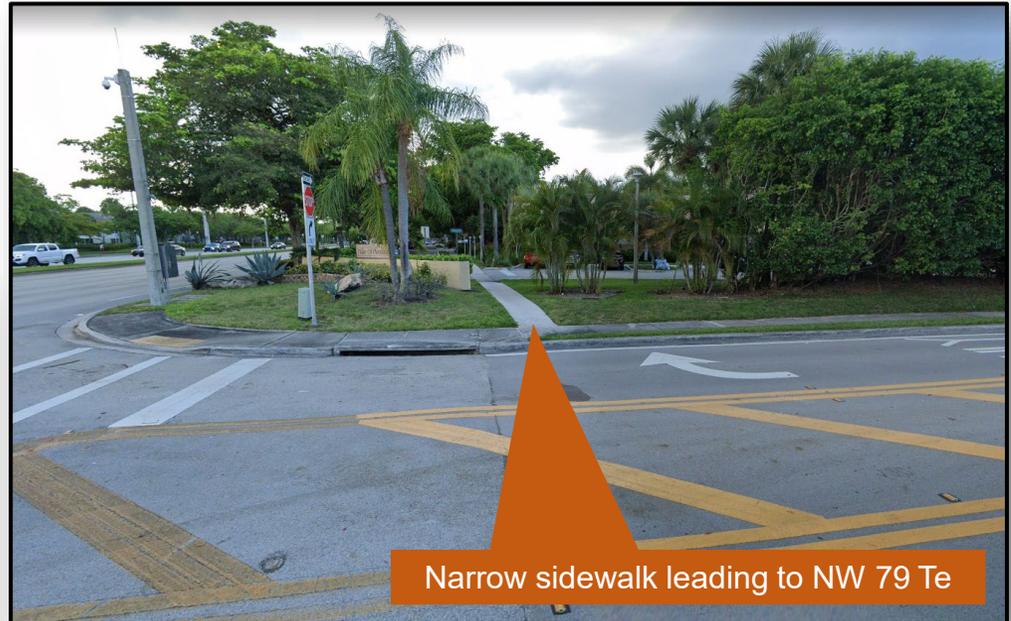
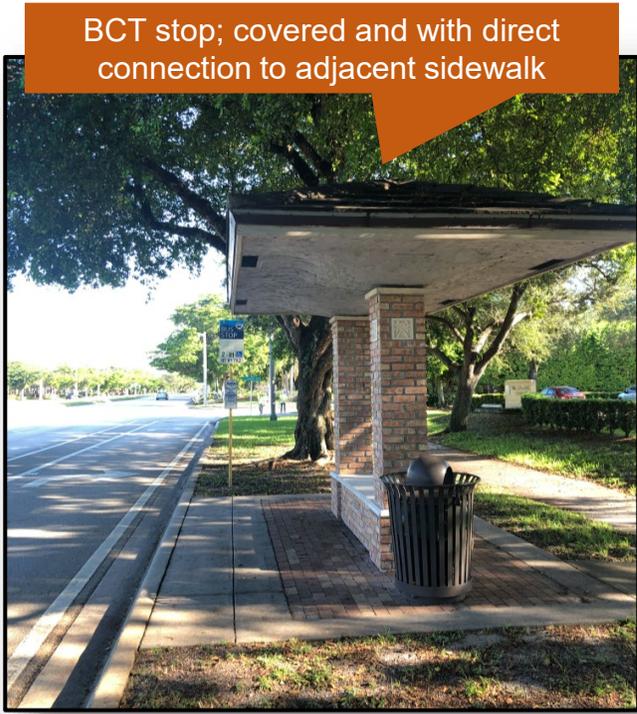
University Drive & S. Marciano Bl - Crash Stats & Trends

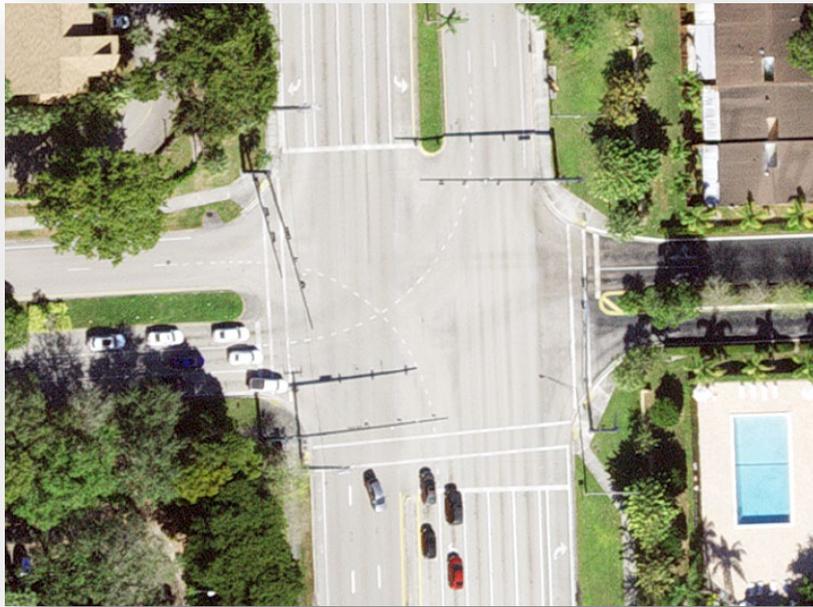


1 **Serious Injury** • Oct 2016 • 10 am • Rear End Collision in WB / LT Lane



S. Marcano Blvd



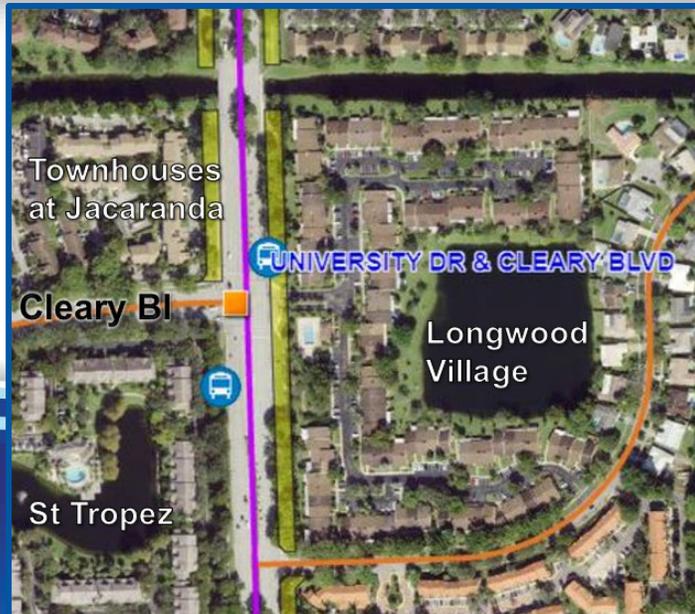


Data Observations

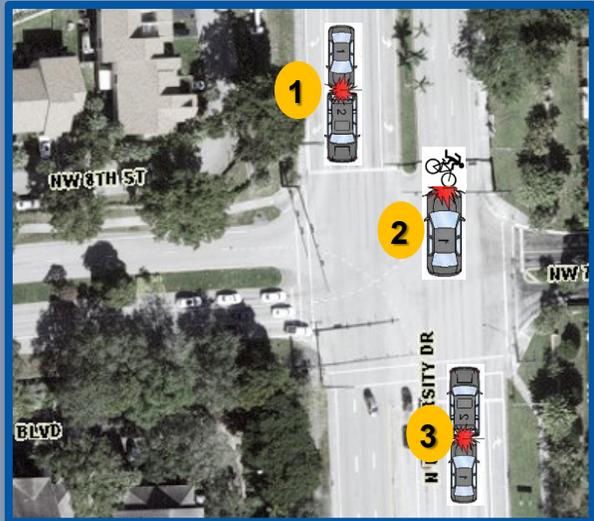
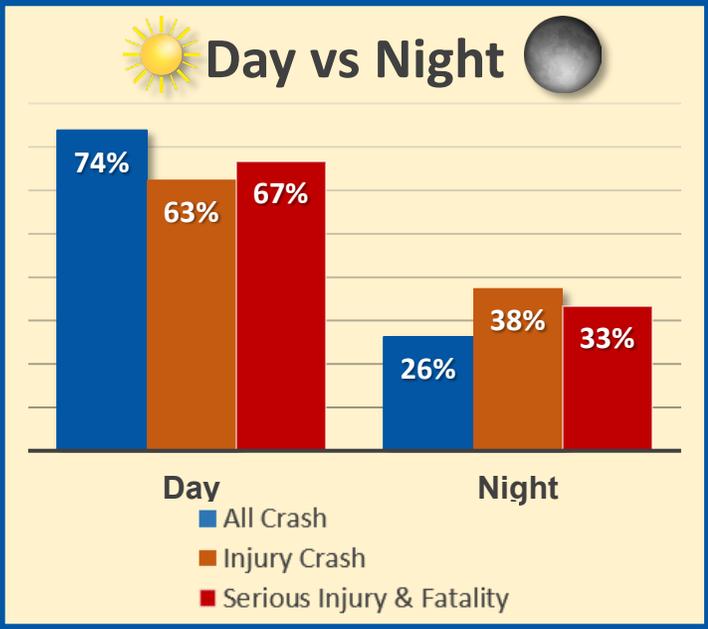
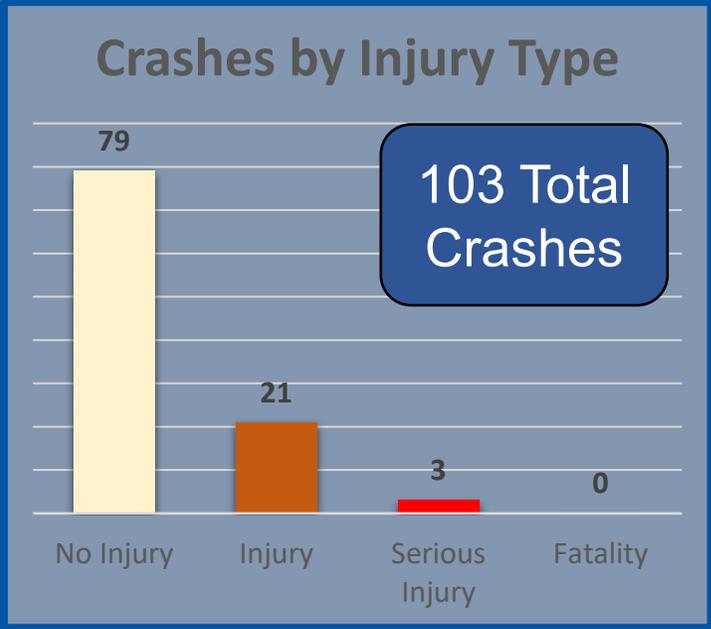
- Signalized intersection
- No crosswalk on north leg of intersection
- 1st crosswalk over University Dr south of Sunrise Blvd (approx. 1 mile)
- City-owned swale on 3 corners
- 1 bus stop NE of intersection ; 1 SW of intersection
- Intersection leads to northern entrance of Midtown
- Sidewalks:
 - Southeast: Within city-owned swale (15 ft from curb)
 - Others are at curb

Field Observations

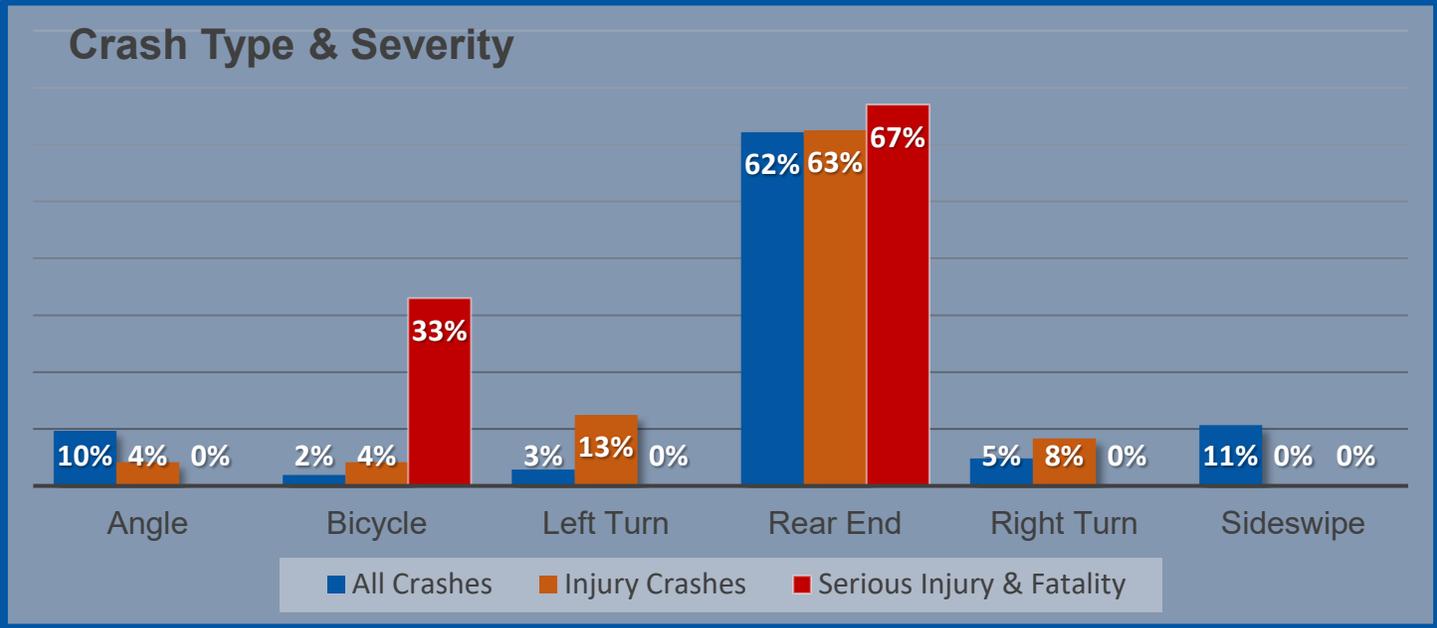
- Very deep stormwater ditch in swale NE of intersection
- Pedestrians observed during mid-morning visit, including bicyclist on sidewalk (riding next to bike lane)



University Drive & Cleary BI - Crash Stats & Trends



1	Serious Injury • Mar 2018 • 1 pm • Rear End Collision in SB Lane
2	Serious Injury • July 2018 • 8:30 pm • Bicyclist Fault: Bike riding across intersection (no crosswalk) • NB traffic had green light
3	Serious Injury • Aug. 2016 • 4 pm • Rear End Collision in NB Lane



Exercising pedestrian; did not cross roadway



Conventional Crosswalk

3ft wide bike lane



Bicyclist riding on sidewalk

Sidewalk north of canal veers east into the swale



Deep stormwater ditch in city ROW

Sidewalk at curb, despite 40 ft wide city-owned ROW



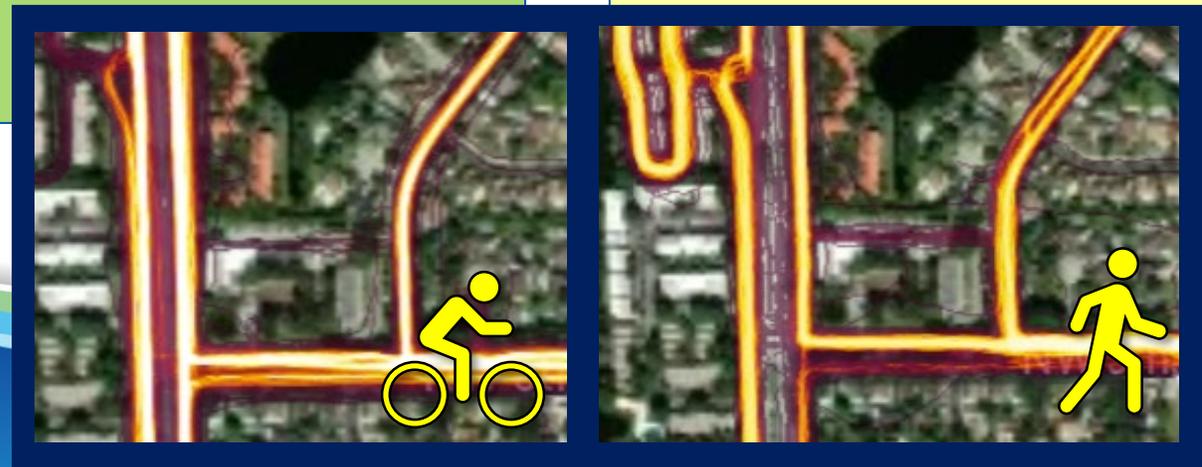
Data Observations

- NW 5th St dead ends at University Dr
- No City-owned ROW at intersection
- Crosswalks on north and eastern legs only (conventional markings)
- Northern crosswalk connects to median between University Dr & Access Rd
 - Access Rd is owned by FDOT
 - No crosswalk from median over Access Rd
 - Bus stop at western end of northern crosswalk
- U-turns prohibited on University Dr
- Sidewalks:
 - West: No sidewalks / only located along western side of Access Rd.
 - Northeast: setback approx. 12 ft
 - Southeast: at curb

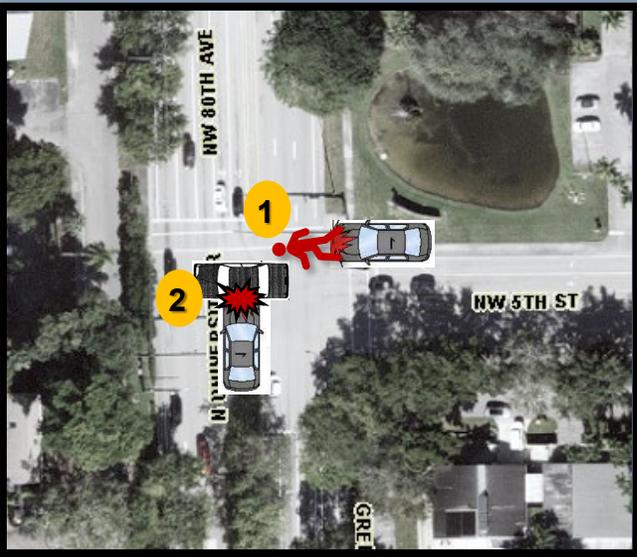
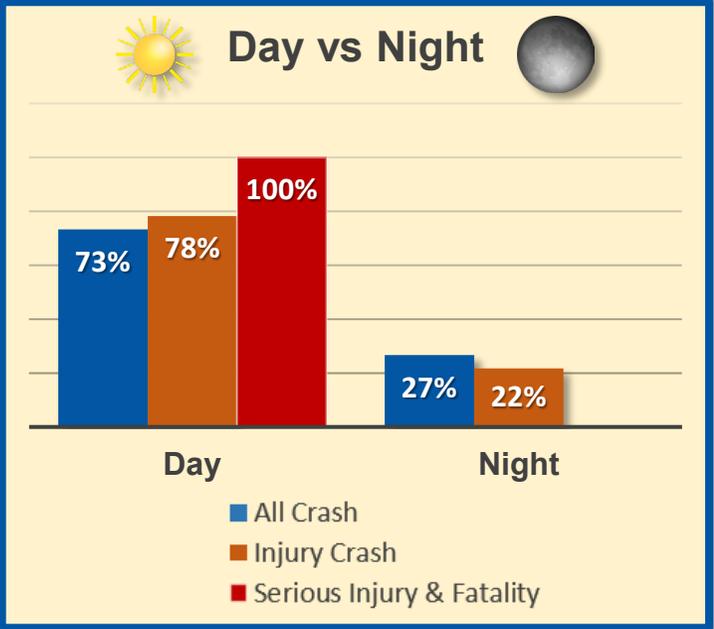
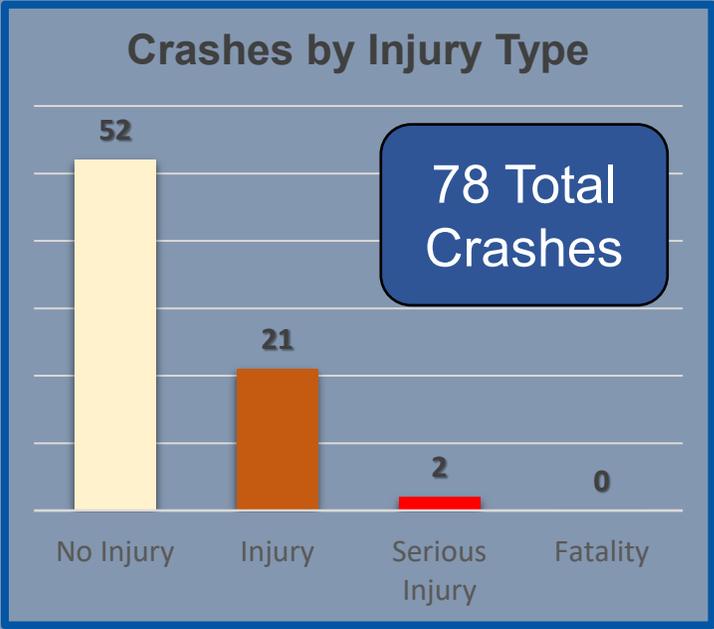


Field Observations

- Lots of shade over eastern sidewalks
- Speeding vehicles in western Access Rd
- Pedestrians observed during mid-morning visit on both sides of roadway (including western Access Rd)
- No connectivity from sidewalk within the western Access Rd to the intersection
- No lighting on Access Rd

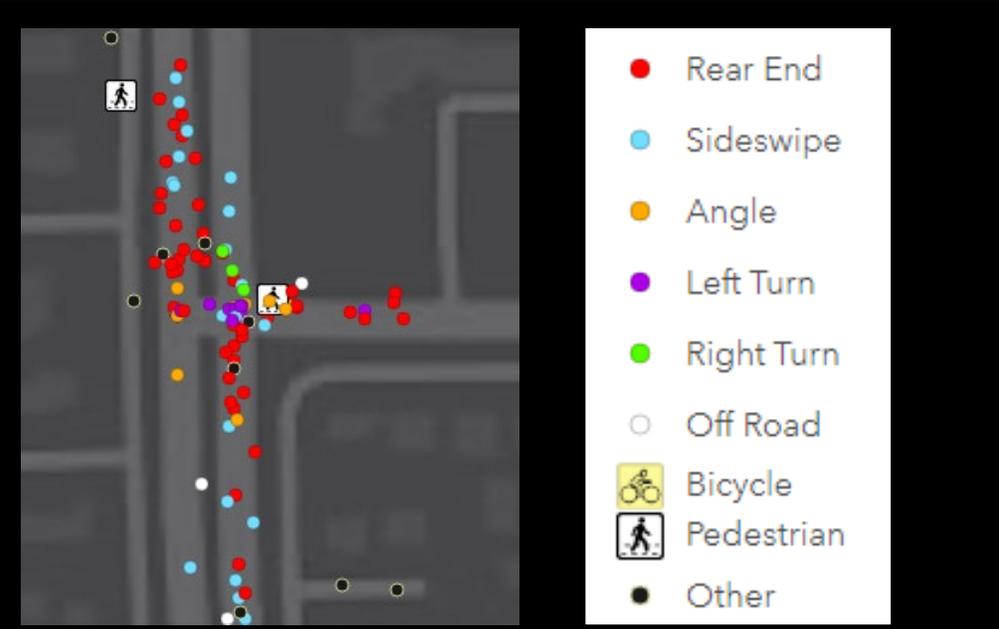
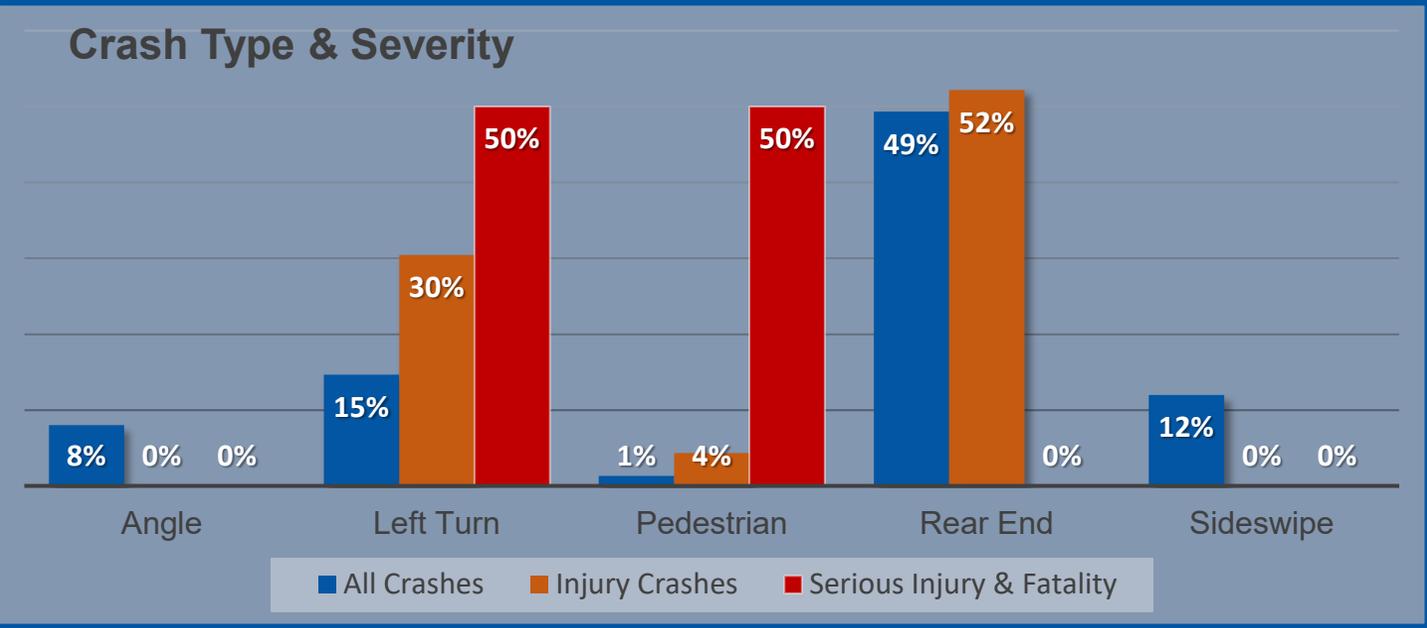


University Drive & NW 5th St - Crash Stats & Trends



30% of **Injury** Crashes occurred on wet roads

- 1 **Serious Injury** • Ped • June 2019 • 2 pm • Driver Fault: Ped was walking SB in eastside crosswalk • RT vehicle failed to yield on red light
- 2 **Serious Injury** • June 2016 • 1 pm • SB LT vehicle struck by NB vehicle



Uncovered BCT Stop, but lots of shade



No crosswalk on southern leg

Northern crosswalk leading to median, conventional markings

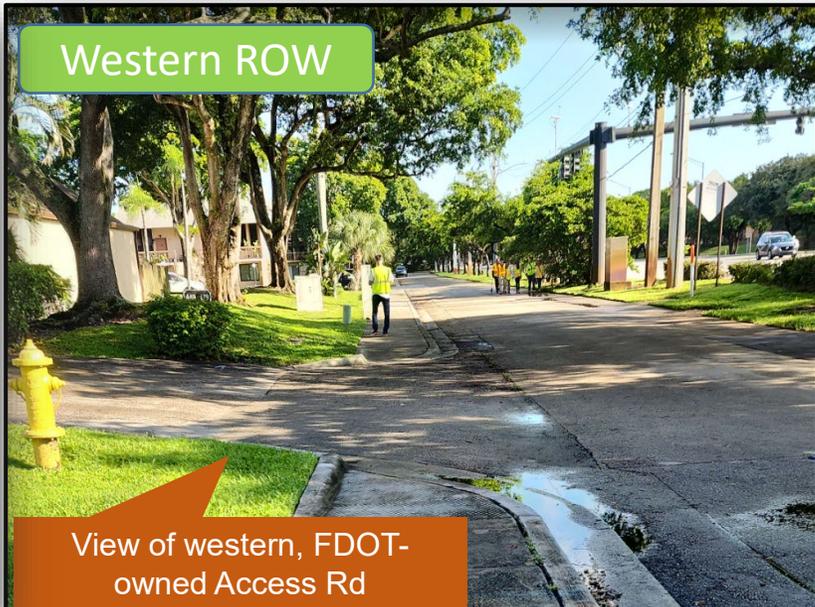


Eastern crosswalk



Sidewalk from western median dead ends

Western ROW



Western ROW

View of western, FDOT-owned Access Rd



Western ROW

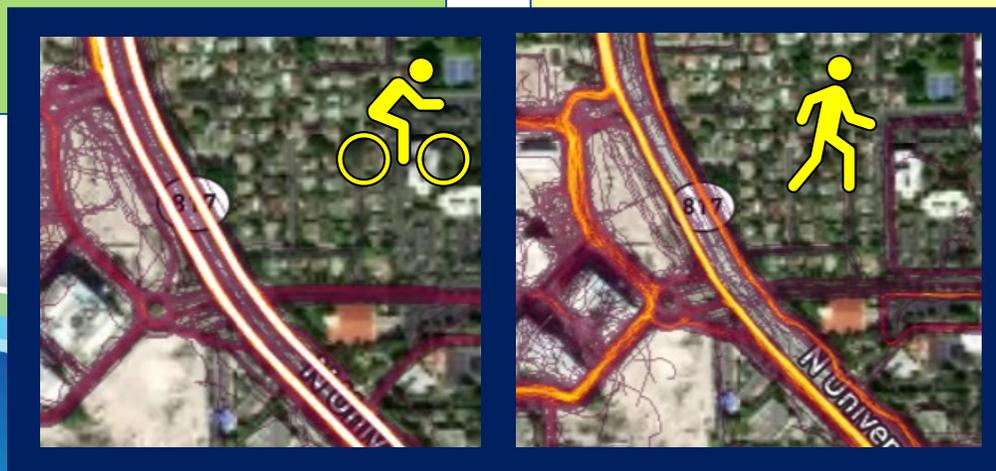
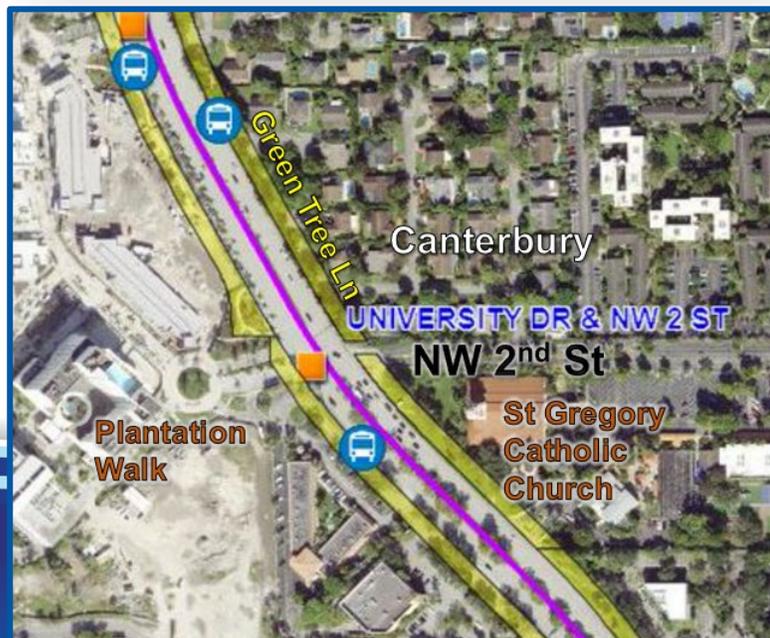


Data Observations

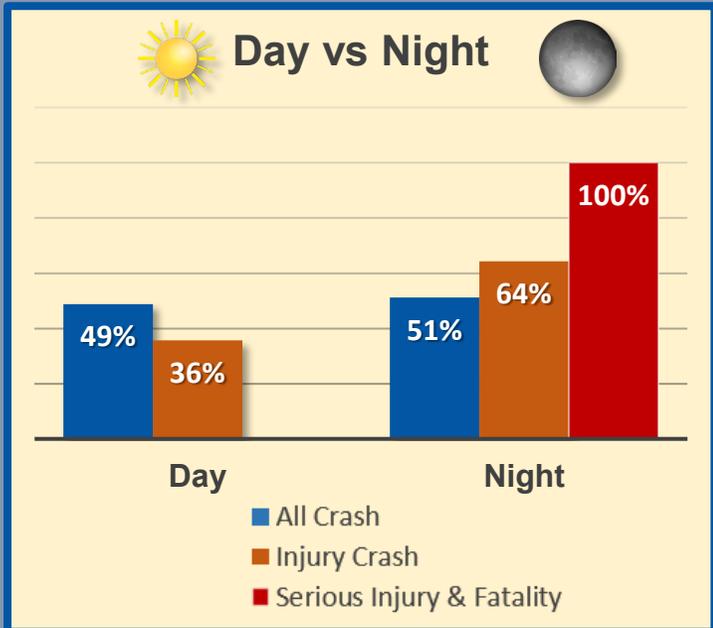
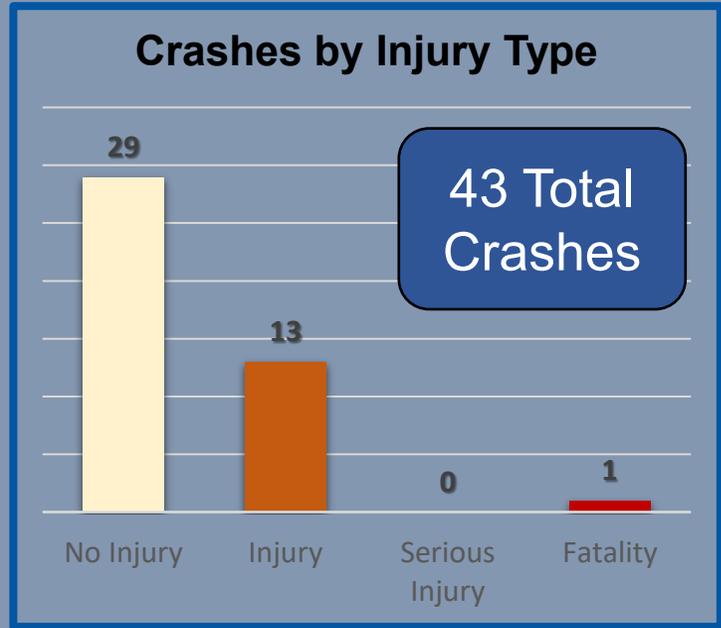
- NW 2nd Street leads directly into Plantation Walk
- City-owned ROW on all four corners
- NW 2nd Street is privately owned
- No crosswalk over northern leg
- Raised pedestrian refuge in the eastern crosswalk
- U-turns prohibited on NB University Dr
- NW 3rd Street (just north) dead ends at University Dr
- Sidewalks:
 - All at curb
 - Southeast sidewalk jogs approx. 30 ft east into swale in front of Church
 - Northwest has secondary sidewalk access into Plantation Walk

Field Observations

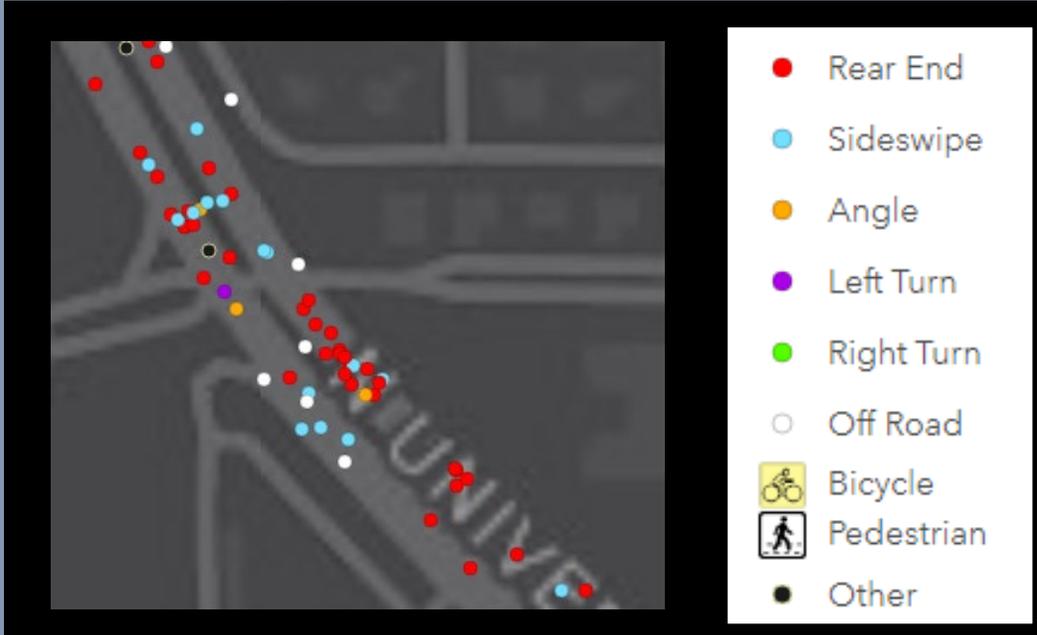
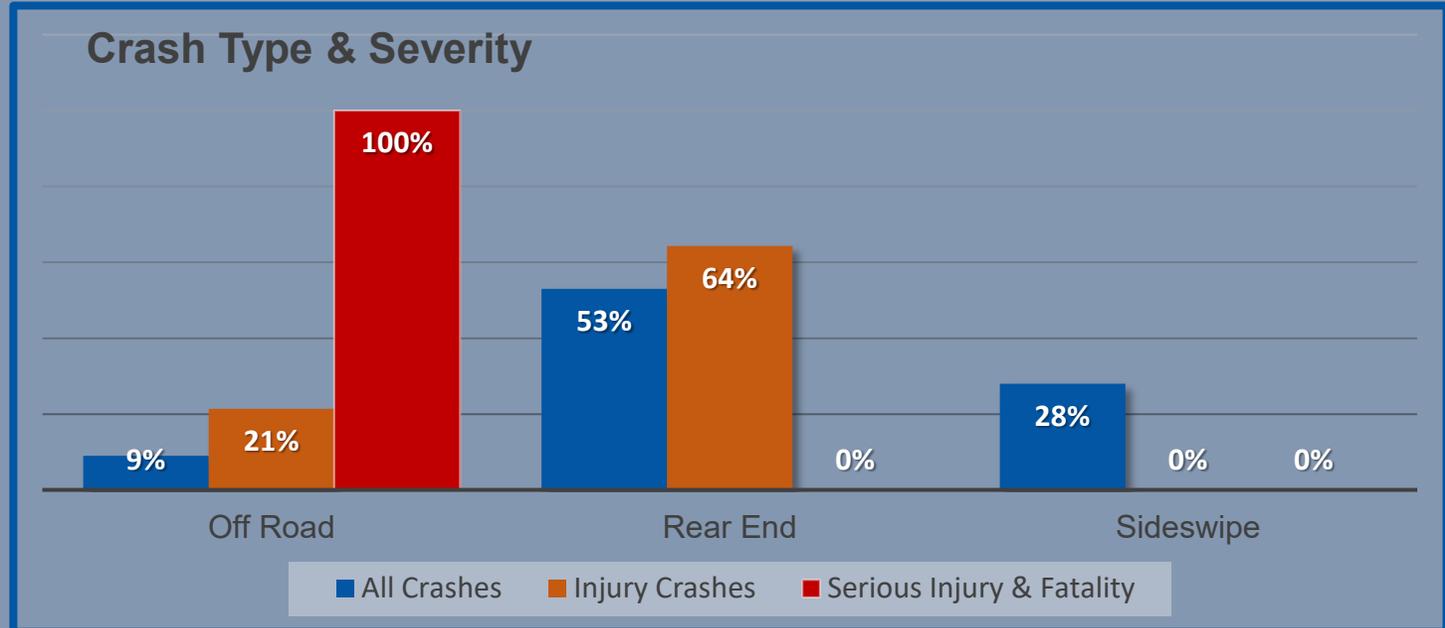
- Green Tree Lane has no pedestrian facilities and feels like a private roadway
- Lots of cut through areas on landscaping adjacent to Green tree Lane
- Narrow sidewalk abutting church, though setback and shaded
- No sidewalk facilities on NW 2nd Street



University Drive & NW 2nd St - Crash Stats & Trends



29% of **Injury** Crashes occurred on wet roads



NW 2 St



Crosswalk on southside only

Raised Refuge

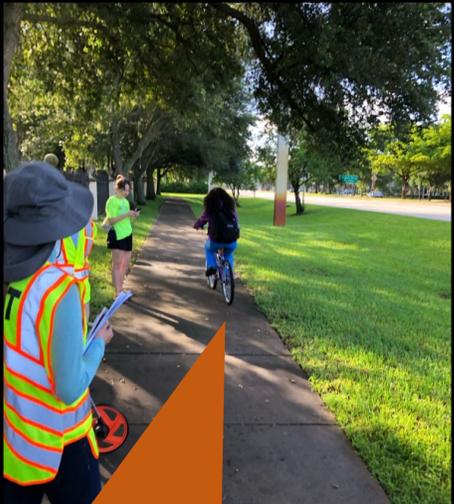


Crossing on northside of intersection (no crosswalk)

NW 3 St: Bicyclist crossing on green light

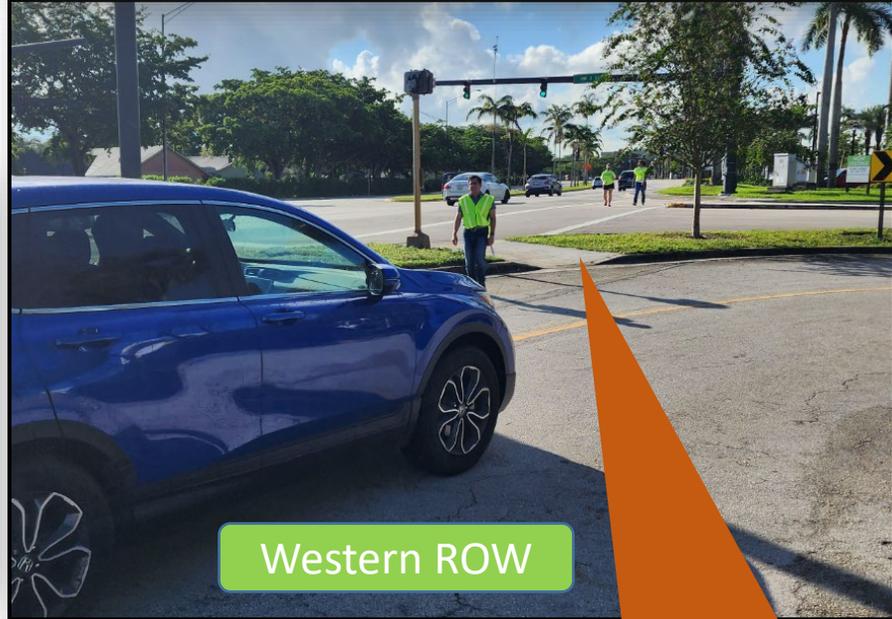


NW 3 St dead ends at Univ. Dr

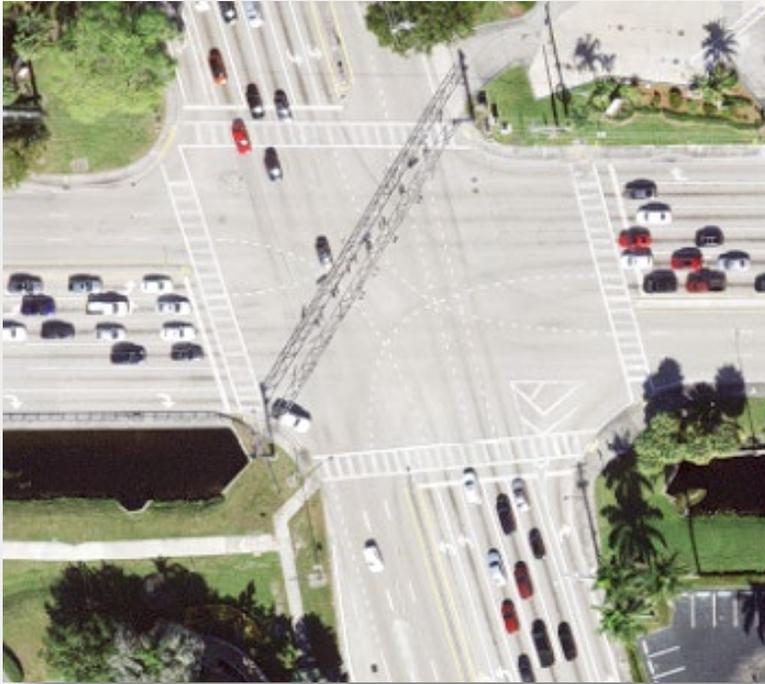


Most bicyclists riding on sidewalk

No sidewalks on NW 2nd St (private road)



Western ROW

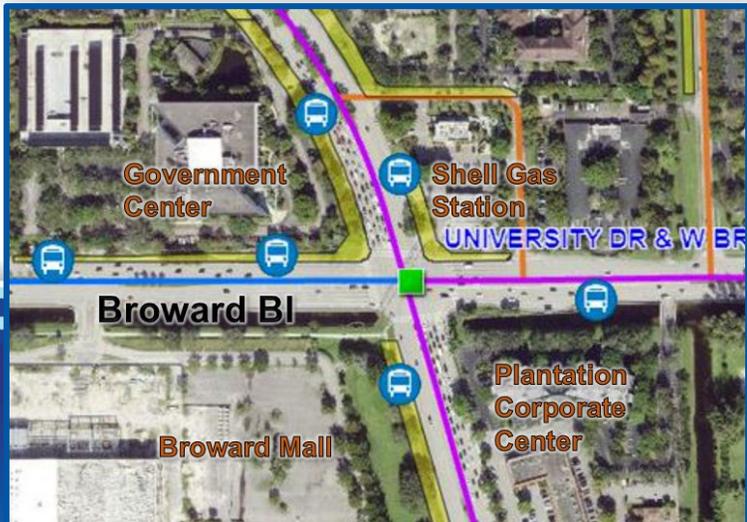


Data Observations

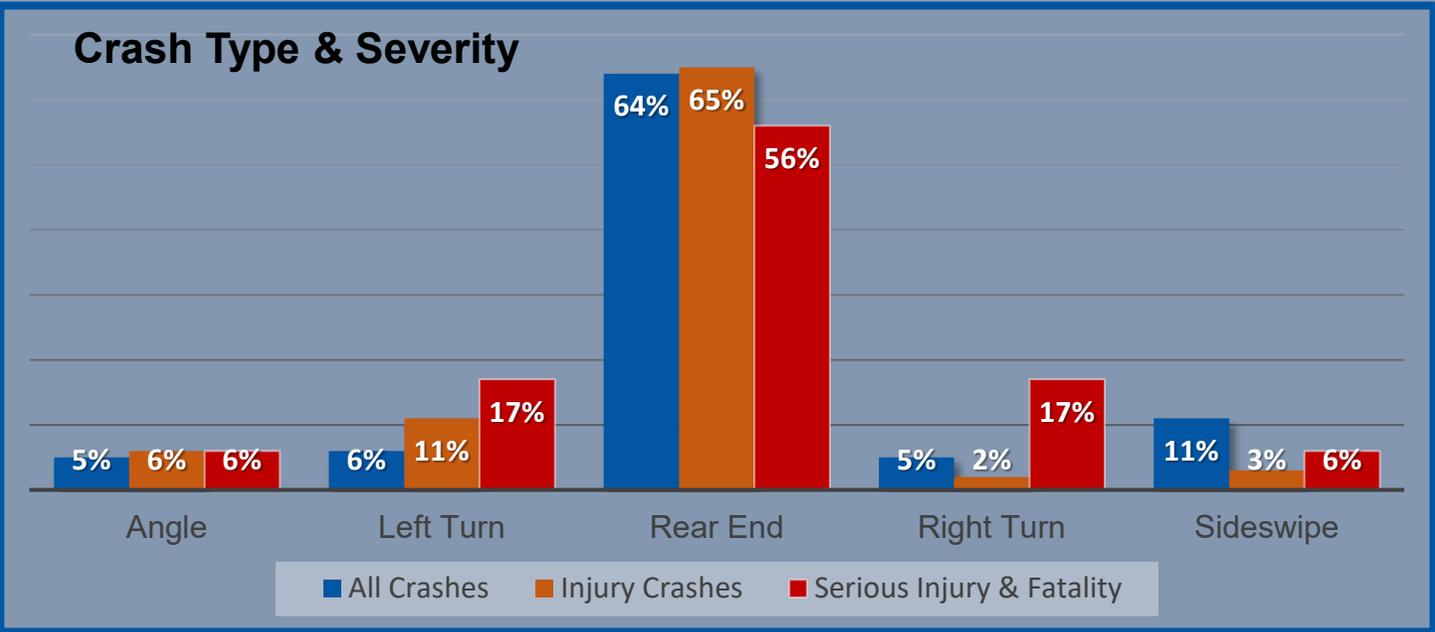
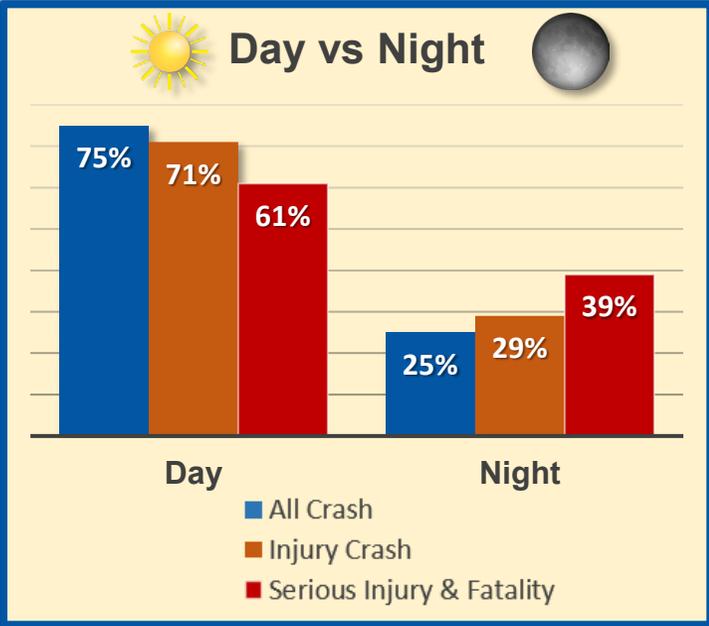
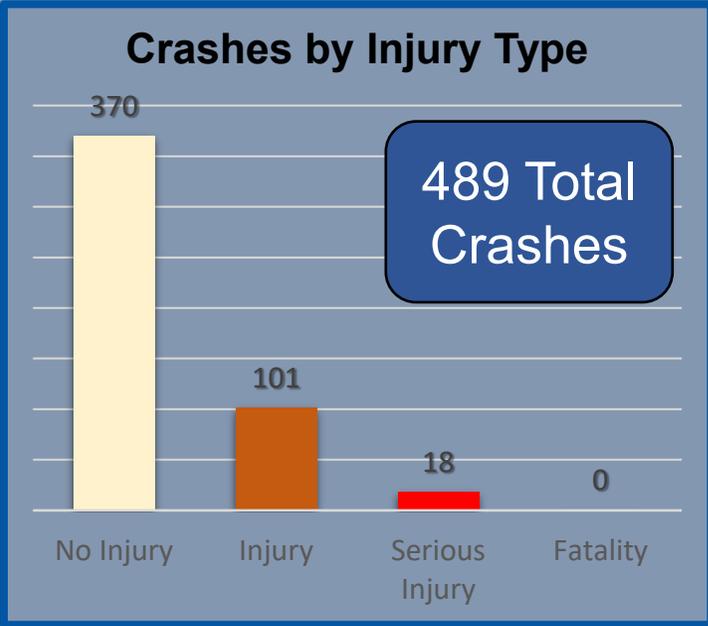
- Central entrance to Midtown
- FDOT to start construction on mobility / roadway improvements up to NW 1st St
 - University Dr median to be shifted approx. 4 ft, SW corner to be realigned
- RT slip lanes on all 4 corners
- Bus stops are located away from intersection
- City-owned swale on northern corners
- No bike path on Broward Blvd
- Sidewalks:
 - All at curb
 - No sidewalk on southwest portion of Broward Blvd (pathway is south of canal)

Field Observations

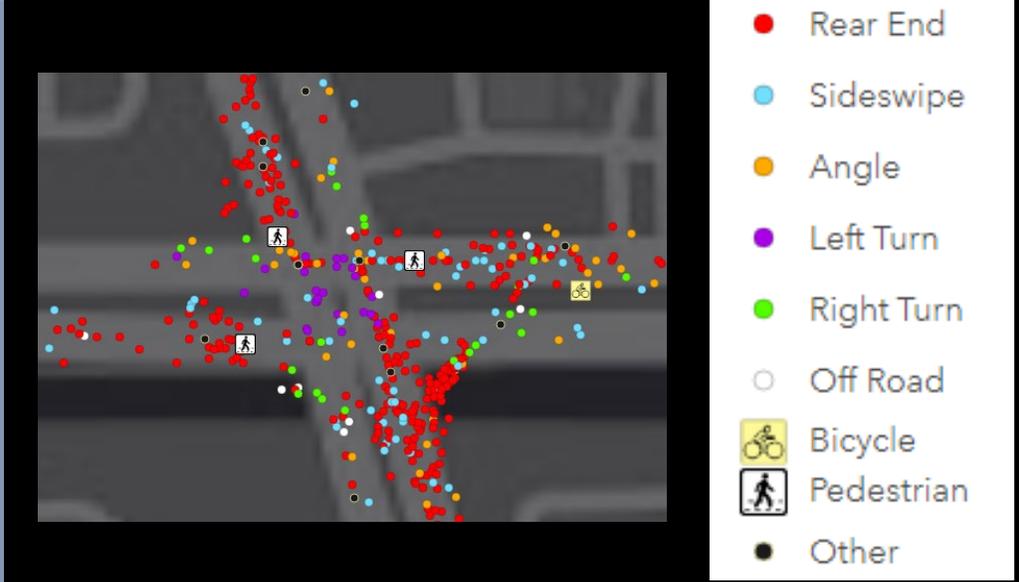
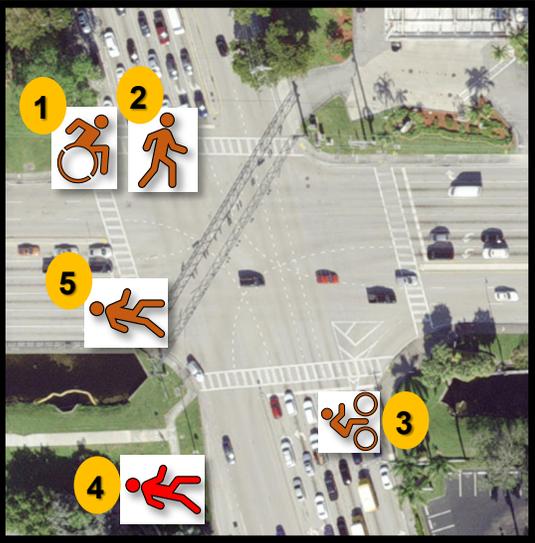
- Overground utility poles in northern ROW
- NW corner has walled berm
- In NW ROW, well-worn path in areas adjacent to hedges
- Right turn vehicles not stopping for pedestrians
- Jaywalking north of intersection, adjacent to BCT Bus Stop and to Pollo Tropical
- Jaywalking west of intersection from BCT stop on Broward Blvd to BCT stop on S. University Dr
- Bicyclists seen primarily riding on sidewalks (no bike path on Broward Blvd)



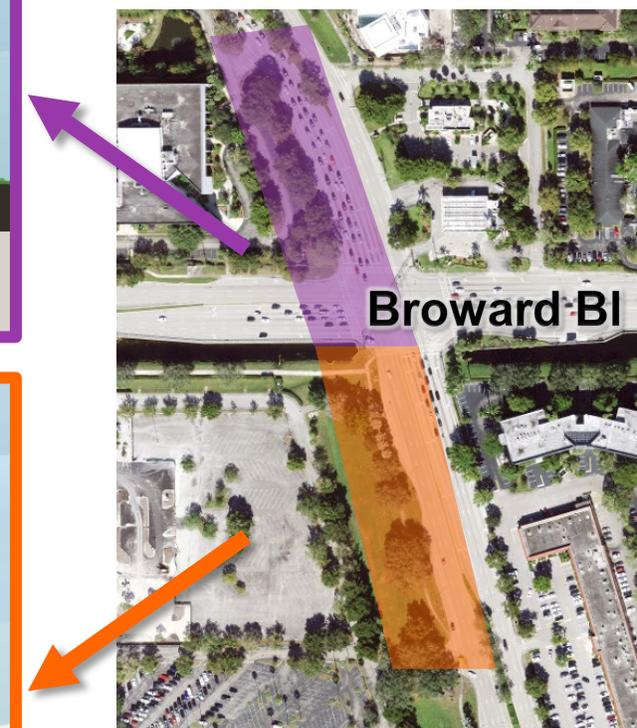
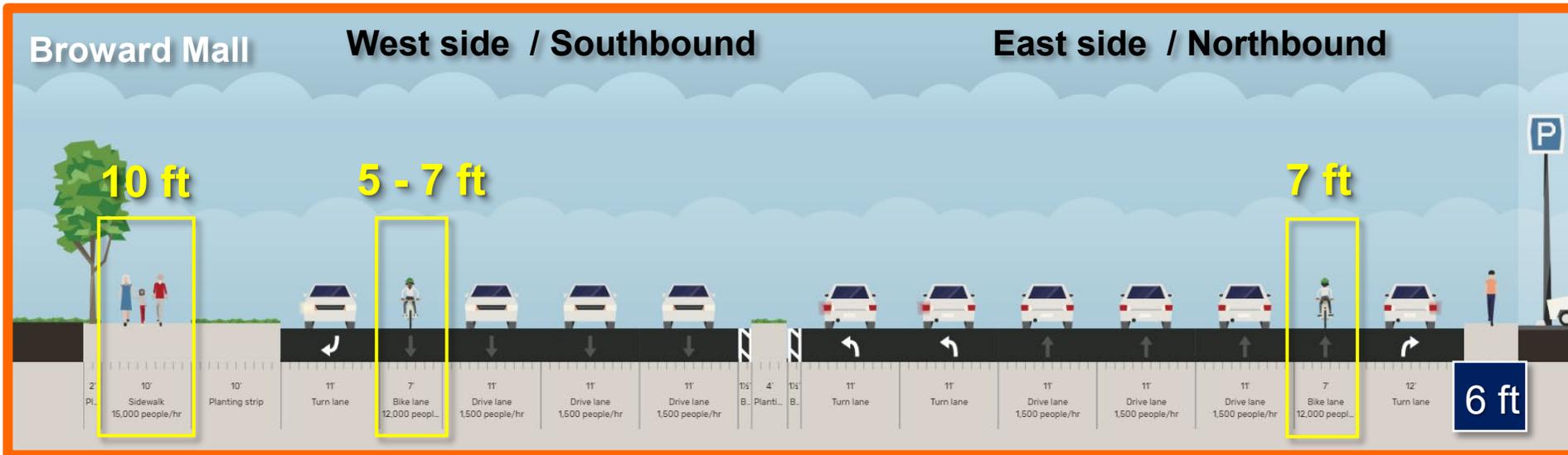
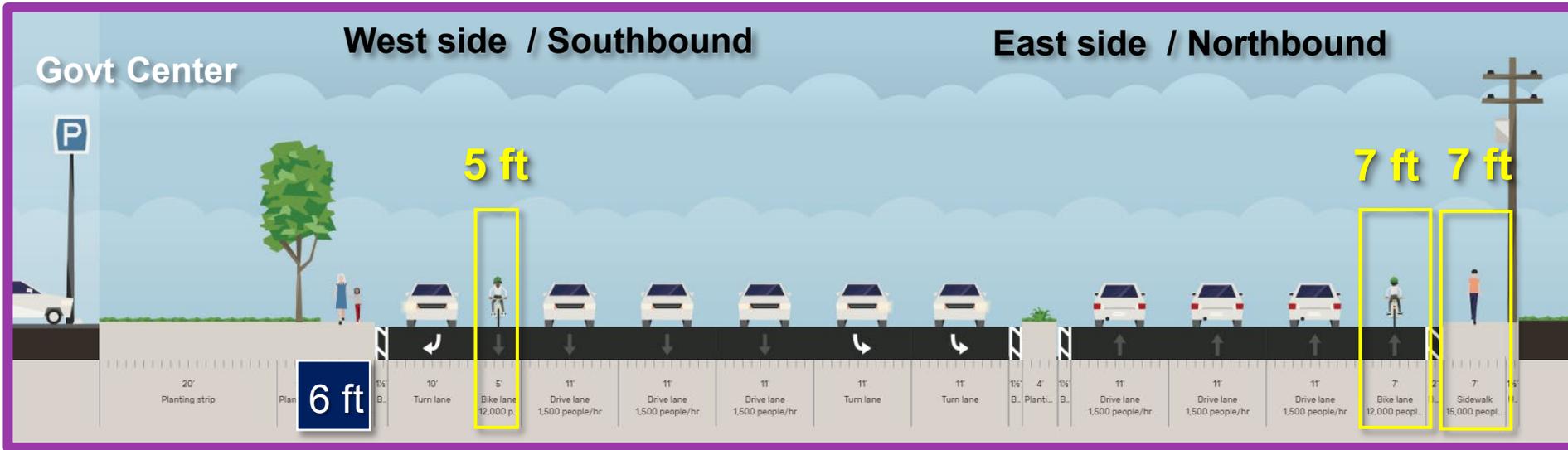
University Drive & Broward Blvd - Crash Stats & Trends



- 1 Injury • Motorized Wheelchair • Dec 2016 • 1 pm • Driver fault • **WB RT** driver failed to yield at red light and struck wheelchair in crosswalk
- 2 Injury • June 2019 • 6 pm • In crosswalk • Unknown fault • **WB RT** driver struck pedestrian
- 3 No Injury • Jan 2016 • 11 pm • Bicyclist fault • Rode in bike lane through red light
- 4 **Serious Injury** • Ped @ BCT Stop • Aug 2020 • 1 pm • **SB RT** driver ran off road and struck BCT Shelter
- 5 Injury • Dec 2018 • 7:30 am • Driver fault • **SB RT** driver struck pedestrians in crosswalk



FDOT Improvements to University Drive

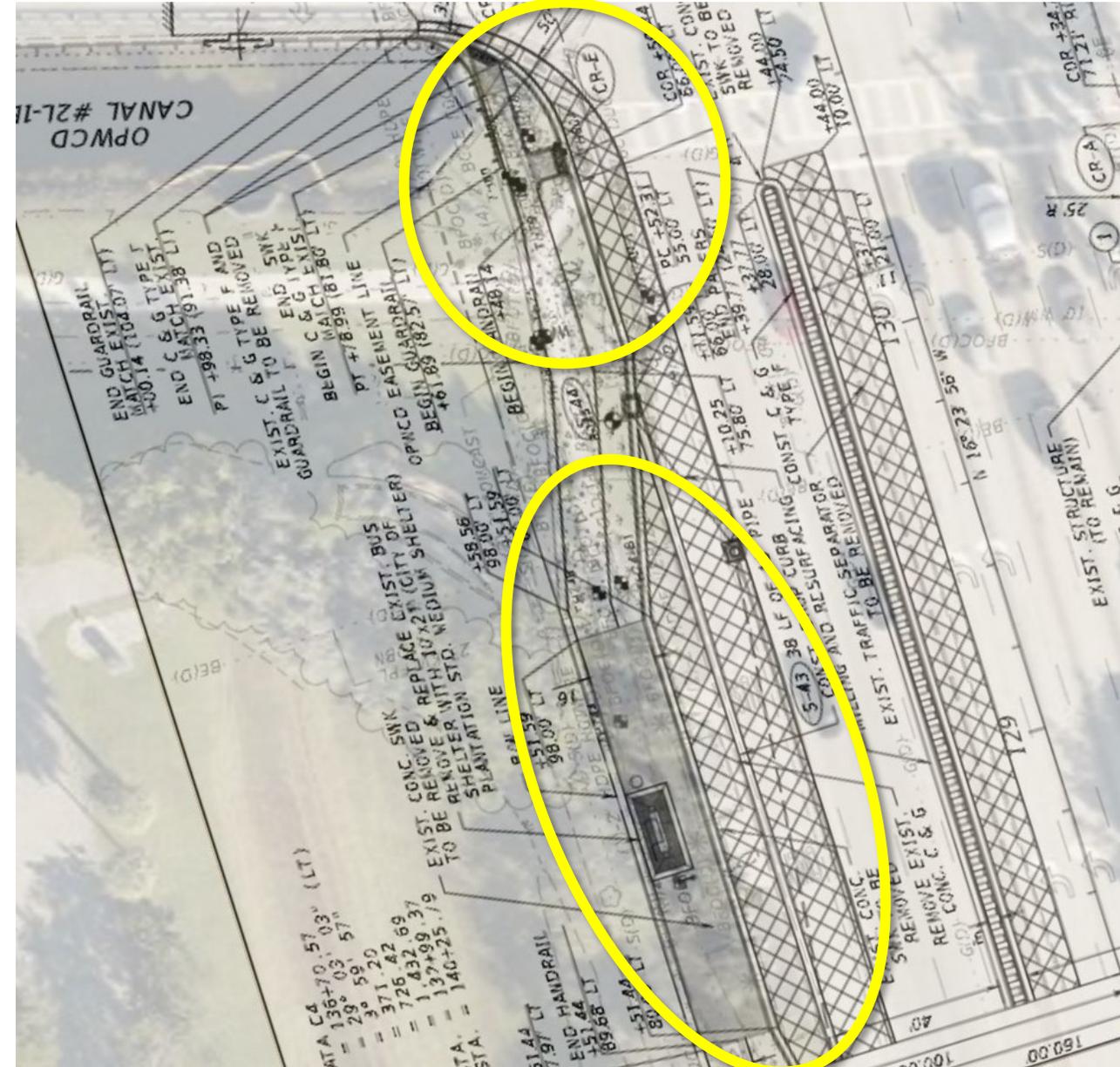


FDOT Improvements to University Drive



Most significant changes:

- Southwestern corner – roadway widened
- Raised median is shifting approx. 3 feet west
- New / realigned sidewalk leading to corner curb
- Bus bay shifts approx. 10 feet west
- Sidewalk expands to 10 ft wide



University Dr: Broward Blvd – 9/20 & 30/2022



Bicyclists riding on north sidewalk on Broward Blvd



SW Corner



Ped's crossing in western crosswalk



Walled berm at NW Corner



Jaywalking to / from BCT Bus Stops



Well-worn path within NW ROW

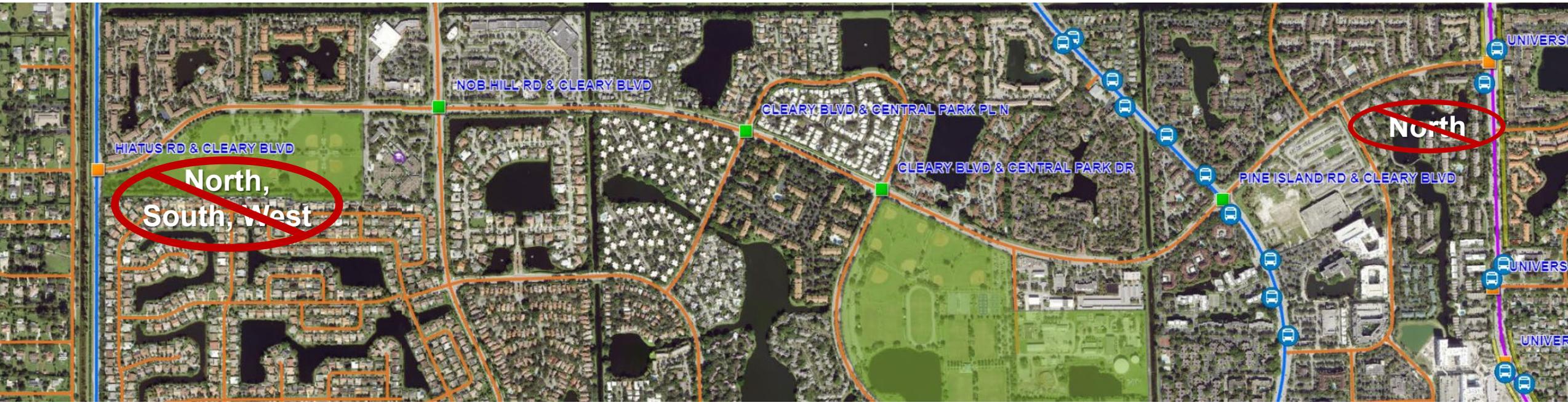


Cleary Blvd

University Drive to Hiatus Rd / C-42 Canal Trail ● 106 ft ROW ● Broward County Trafficways = 106 ft Arterial ● 2.8 miles ● 40 MPH ● BCT Routes 88 (Pine Island Rd), 2 and 81 (University Dr) ● LOS C

Cleary Blvd: Signalized Intersections

	Signalized intersection missing crosswalk(s)
	Signalized intersection with crosswalk(s)



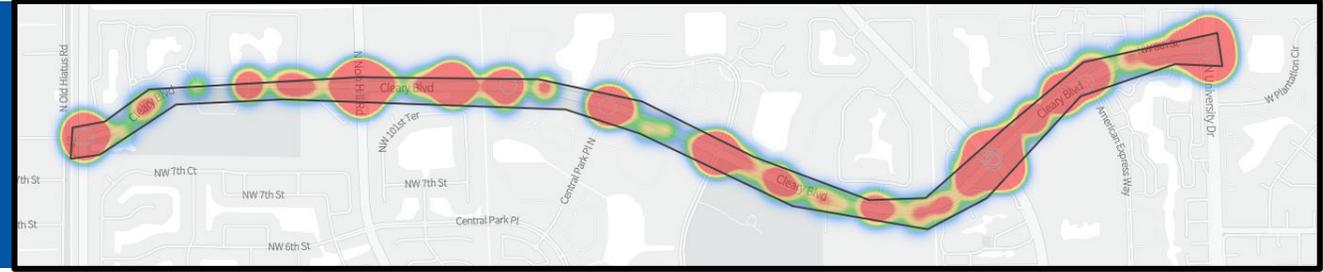
- 6 signalized intersections
- 2 intersections (Hiatus Rd and University Dr) are missing at least 1 crosswalk.
- There are no crosswalks between Sunrise Blvd and southern leg of Cleary Blvd.
- As identified in the Short-term Phase, there are several significant gaps with no crosswalks

Cleary Blvd: Crash Maps

2015 to 2021
University Dr to Hiatus Rd

- **All Crashes:** While crashes are predominant at “major” intersections, they are less correlated to intersections
- **Injury crashes:** Injury crashes are correlated to intersections, with both arterial and local roads
- **Severe Injury Crashes:** Crashes are much more common within the eastern area of the roadway
- **Fatal Crashes:** No fatal crashes

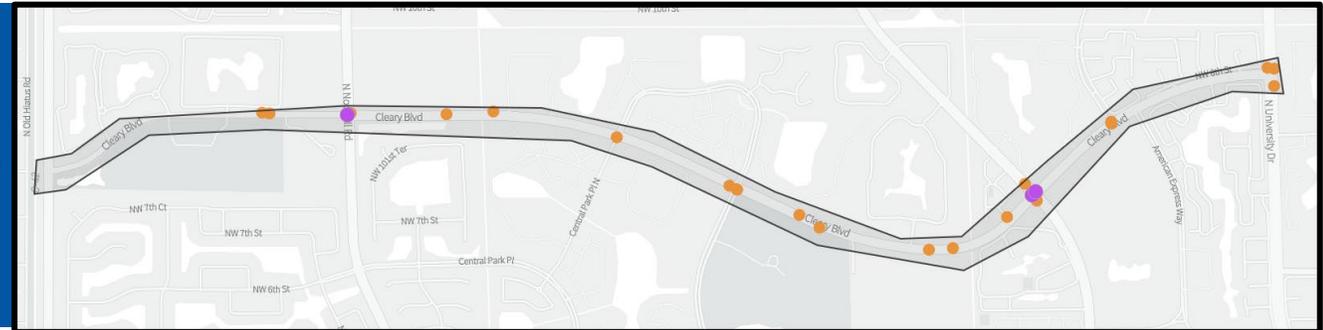
Heat Map of
All Crashes



Heat Map of
Injury
Crashes

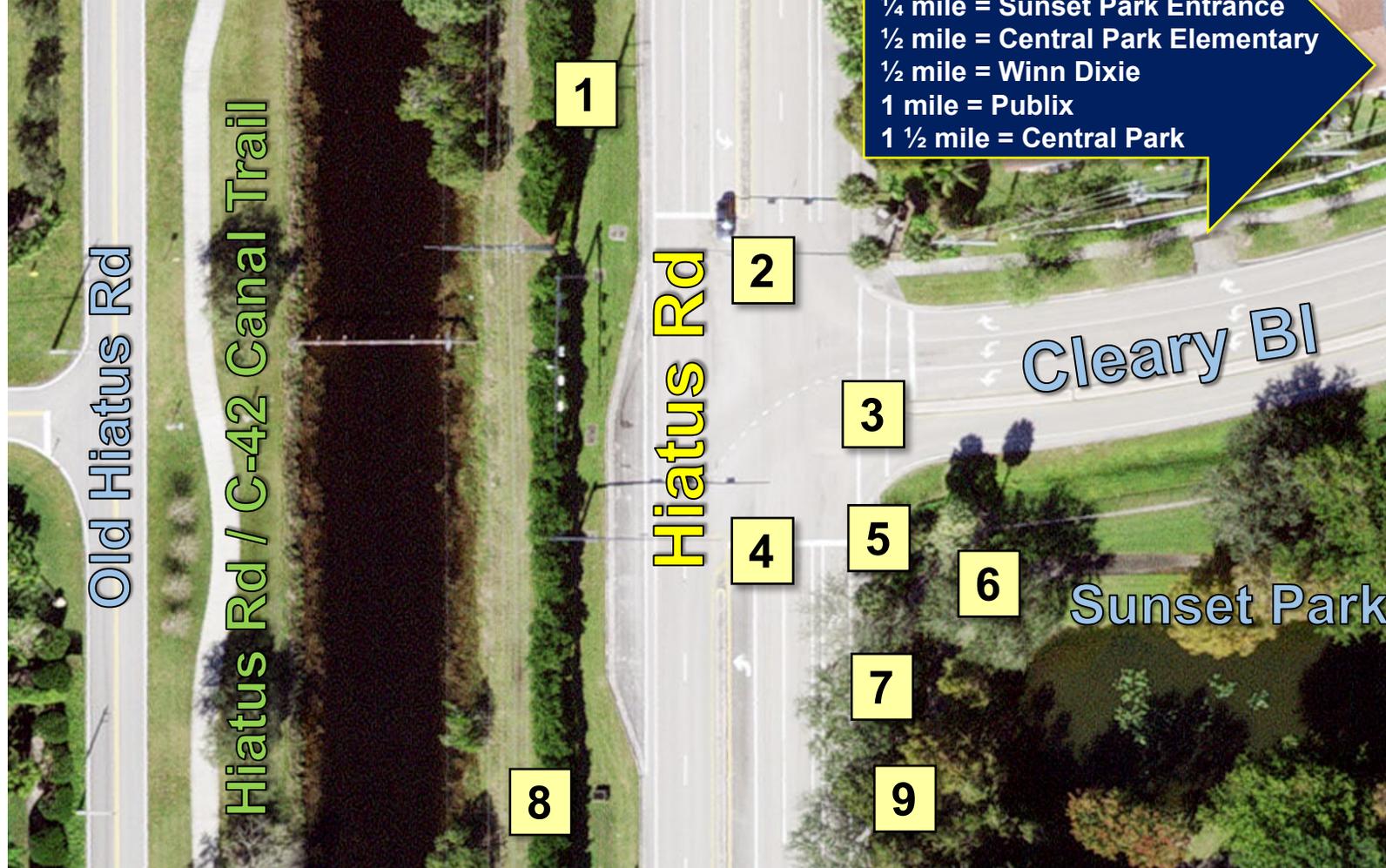


Heat Map of
Severe Injury
Crashes



Clearly BI Intersections

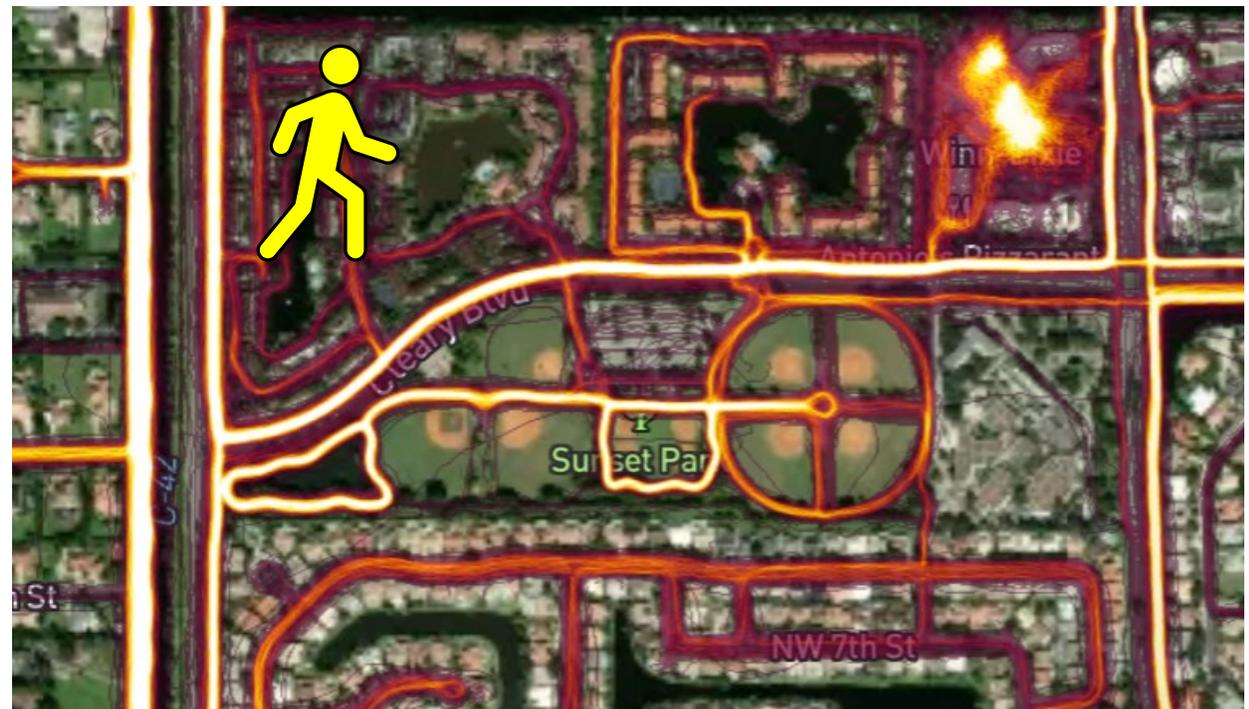
Cleary Bl: Hiatus Rd = County Owned



¼ mile = Sunset Park Entrance
 ½ mile = Central Park Elementary
 ½ mile = Winn Dixie
 1 mile = Publix
 1 ½ mile = Central Park

Observations....	
1	No sidewalk on west side of Hiatus Rd
2	No crosswalk on northern leg
3	Conventional crosswalk
4	No sidewalk on southern leg
5	No sidewalk in southern ROW of Cleary Blvd; all pedestrians must use crosswalk to access sidewalk in northern ROW
6	Sidewalk in Sunset Park is located behind park fence (no pedestrian access)
7	3-ft wide bike lane (not separated / not protected)
8	No street / pedestrian lighting
9	5 ft wide sidewalk located at curb
	Speeding!

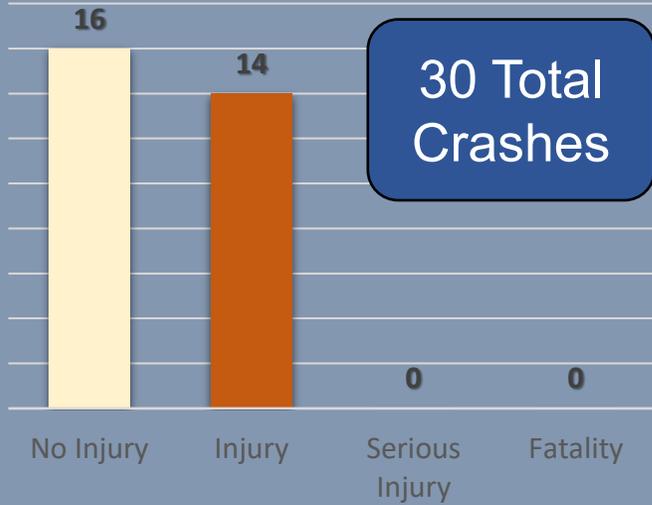
Bike Vs Ped
Aug '21 – July '22
Cleary Blvd: Nob Hill
Rd to Hiatus Rd



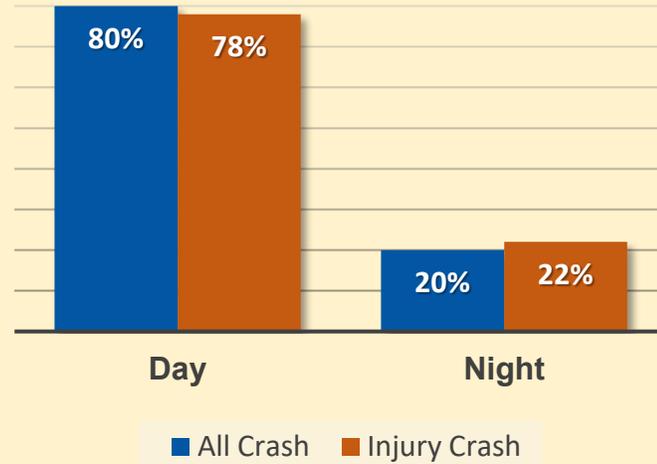
Cleary Blvd & Hiatus Rd - Crash Stats & Trends

Signal 4, 2015 to 2021, 150 ft from Intersection

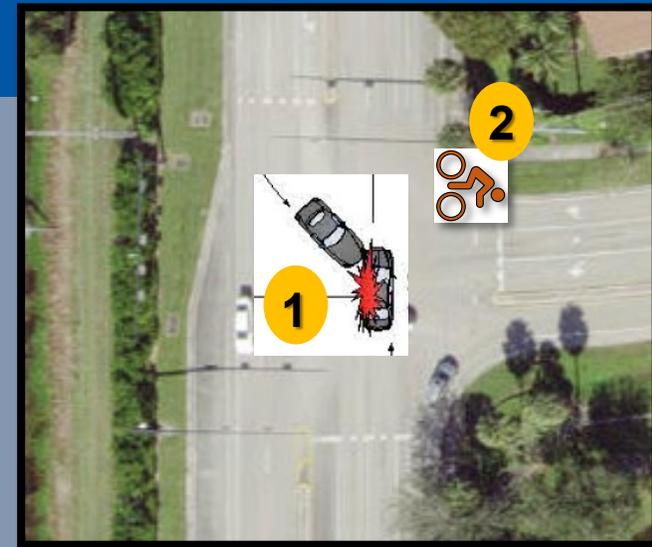
Crash by Injury Type



Day vs Night

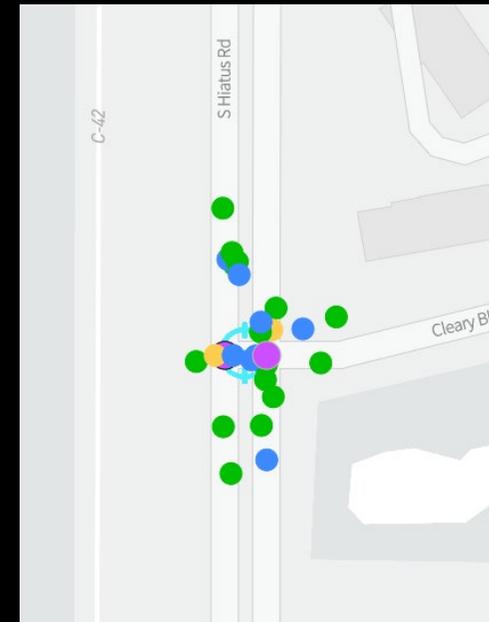
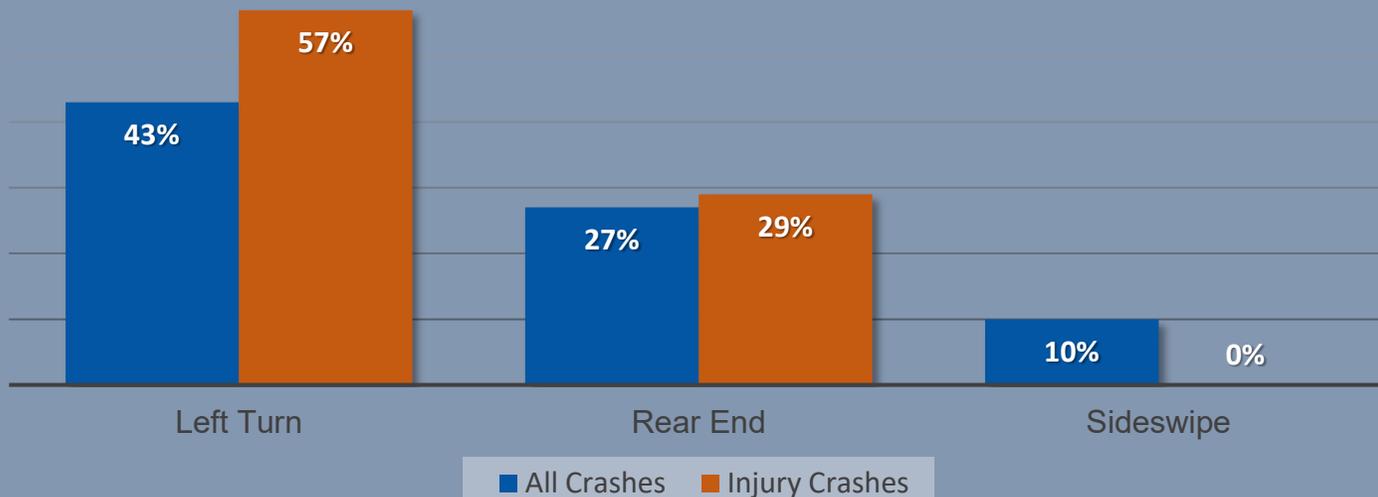


21% of Injury Crashes occurred on wet roads



- 1 8 Injury crashes occurred from SB to EB LT Crashes
- 2 July 2019 • 7pm • Bicyclist riding in crosswalk struck by NB RT vehicle who failed to yield at red light

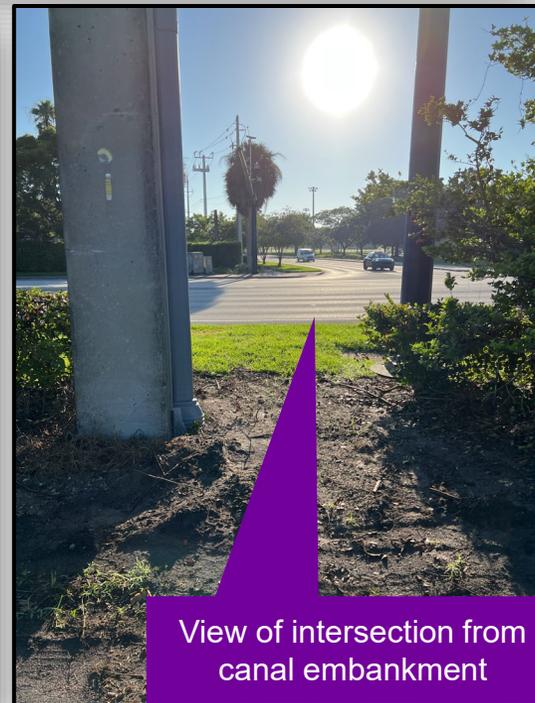
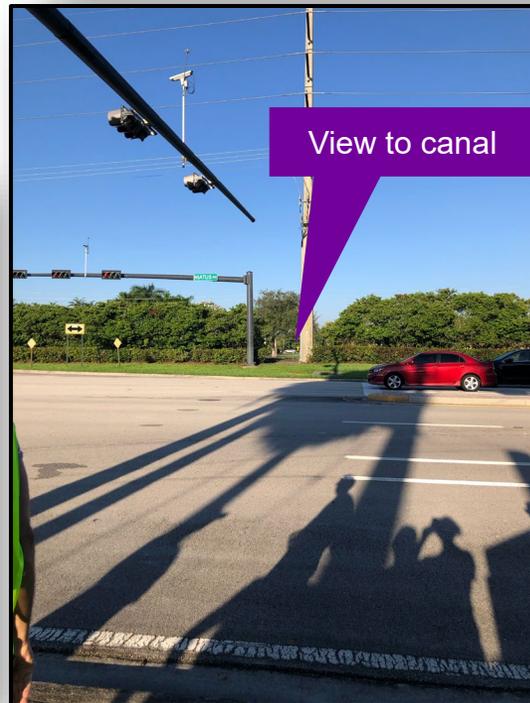
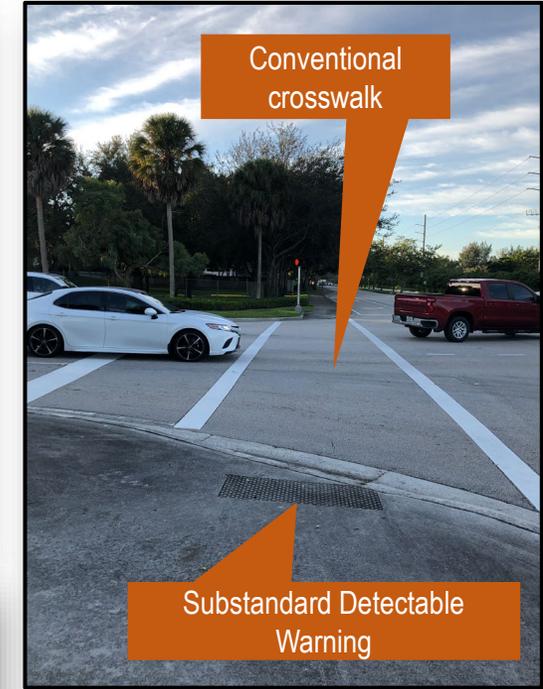
Crash Type & Severity



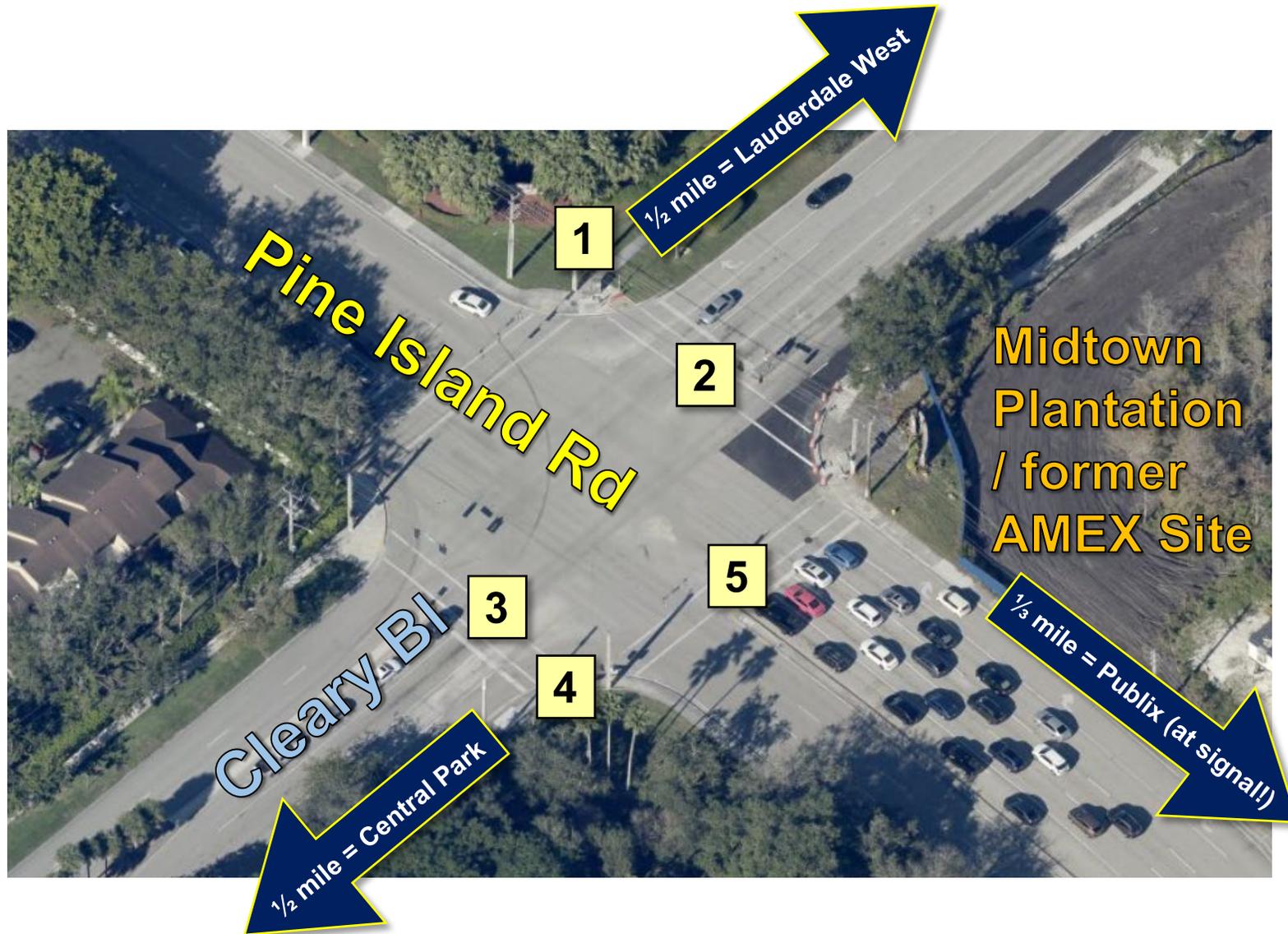
Crash Severity

- Non-Incapacitating Injury
- Possible Injury
- No Injury
- Multipoint

Cleary Bl: Hiatus Rd – 9/23/2022



Cleary BI: Pine Island Rd = County Owned

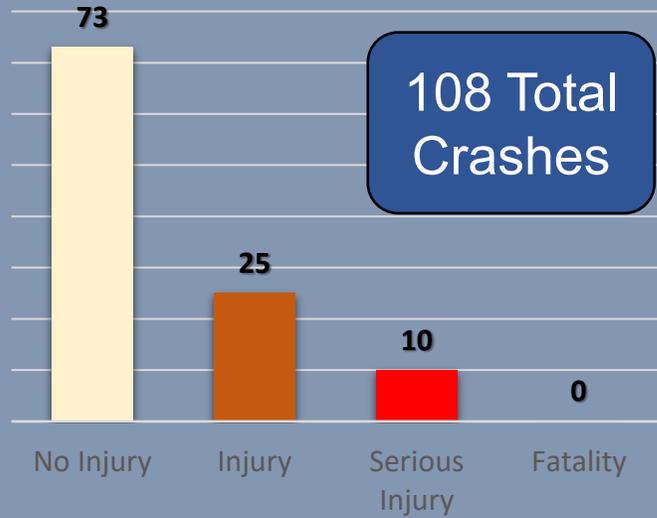


Observations	
1	Two pedestrian signals (mis-marked)
2	All crosswalks have conventional markings
3	Western crosswalk is located outside of SB drivers' visibility
4	Poor visibility of SB traffic from EB to SB right turn lane
5	Insufficient time to cross roadway
Several pedestrians observed during mid-morning visit	
Jaywalking observed south of intersection	

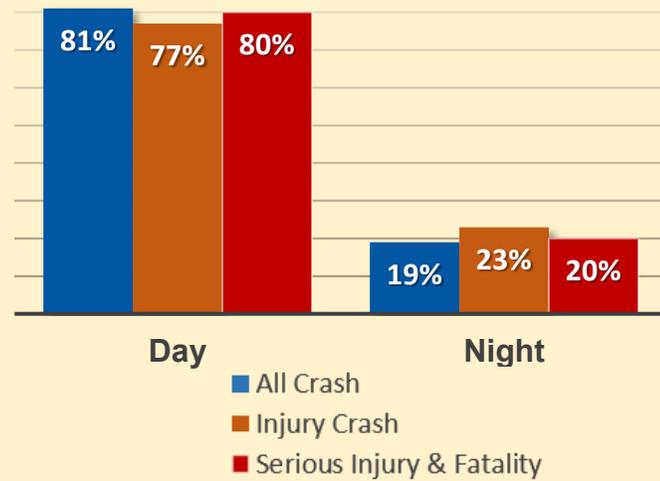
Cleary Blvd & Pine Island Rd - Crash Stats & Trends

Signal 4, 2015 to 2021, 150 ft from Intersection

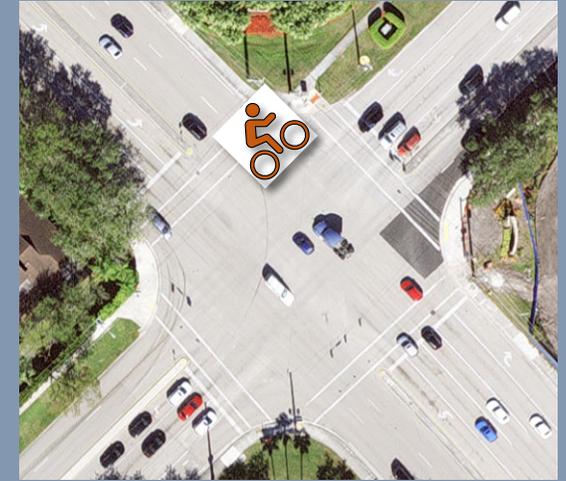
Crash by Injury Type



Day vs Night

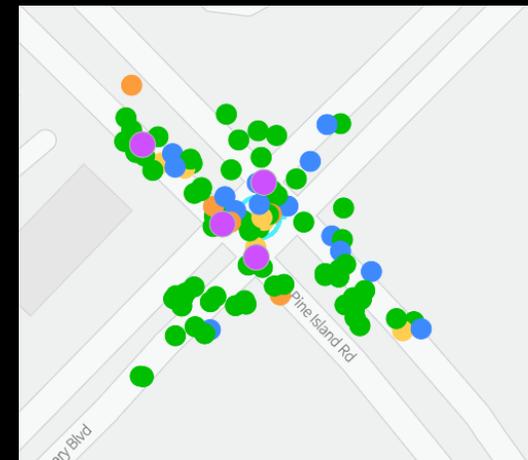
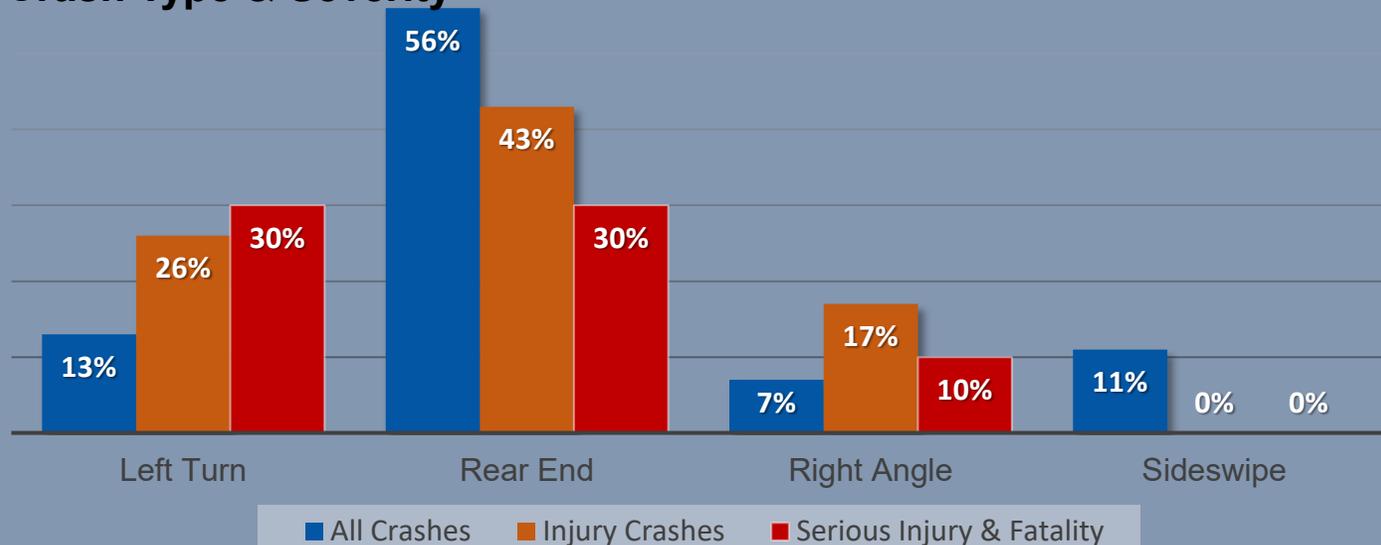


20% of Injury Crashes occurred on wet roads



Nov 2018 • 4 pm • Driver failed to yield to bicyclist • After crash the CSA inspected crosswalk signs and the signs were stuck on red hand for the east / west crossing on northern crosswalk

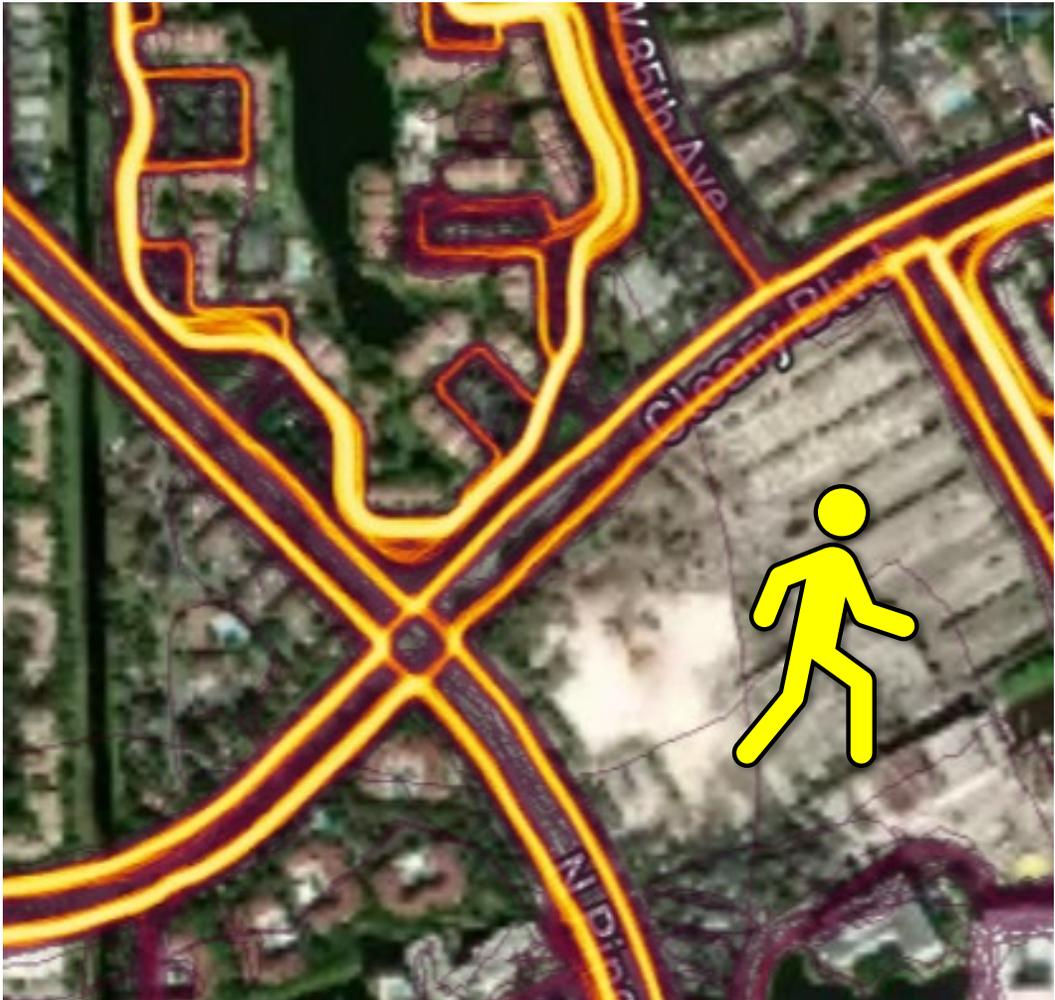
Crash Type & Severity



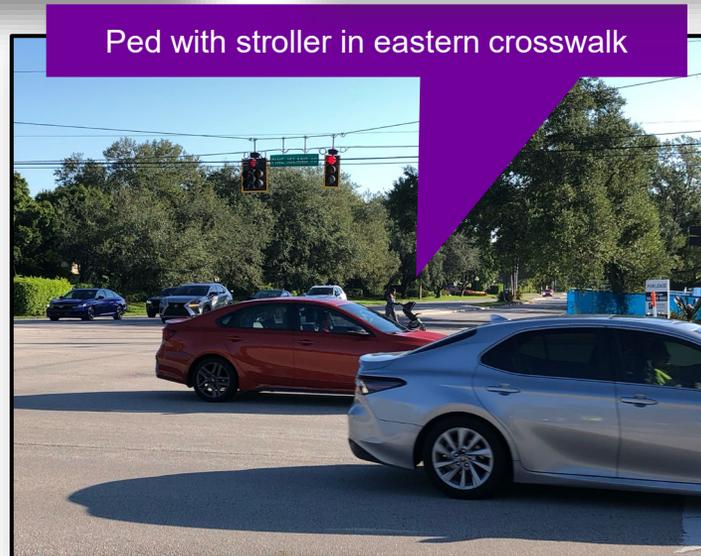
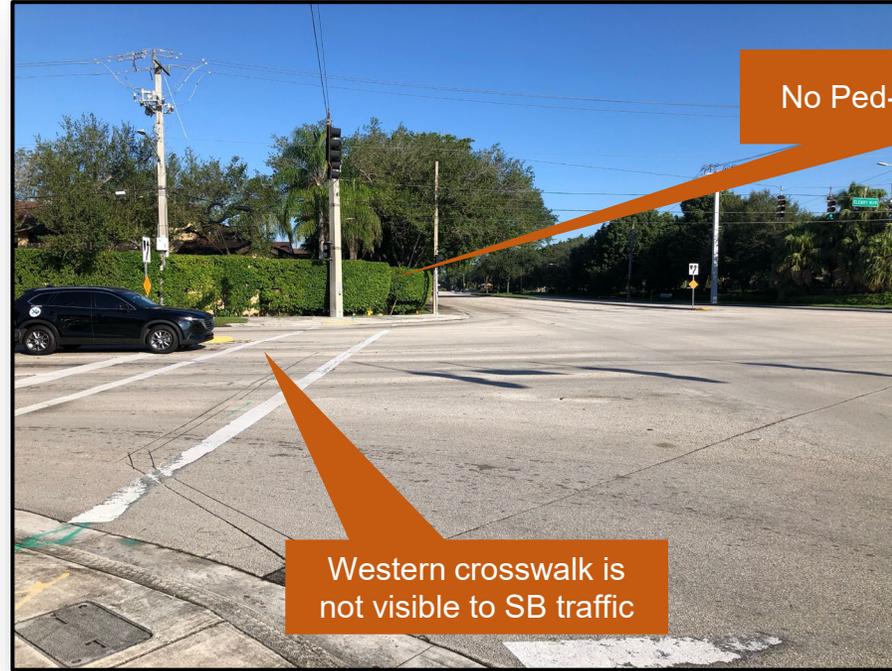
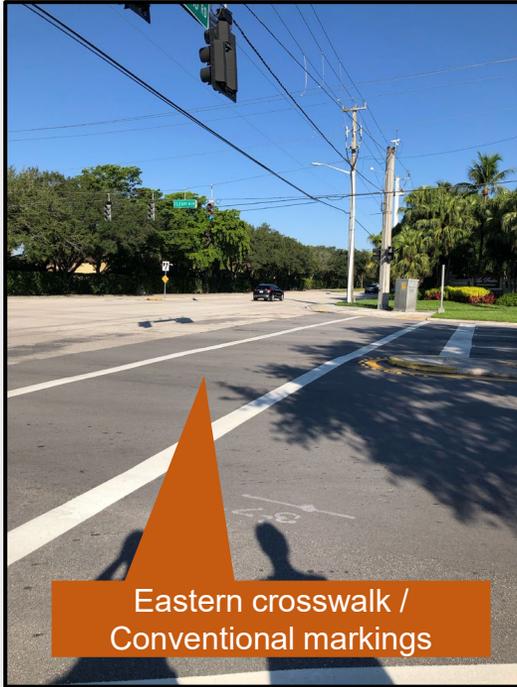
Crash Severity

- Non-Incapacitating Injury
- Possible Injury
- No Injury
- Multipoint

Bike Vs Ped Aug '21 – July '22 Cleary Blvd: Pine Island Rd



Cleary Bl: Hiatus Rd – 9/23/2022



Project Schedule: Task 4 Meetings





Move People & Goods | Create Jobs | Strengthen Communities

MMTP Task 4

Mid / Long-term Improvements

Staff Working Group - Monthly Meeting

September 29, 2022