Transportation Master Plan

Proposed Solutions – Plan Study Area

Broward MPO Metropolitan Planning Organization

November 14, 2023 | City Commission Meeting

BrowardMPO.org

Contents:

Proposed Solutions Examples

The following pages have examples of Proposed Solutions.

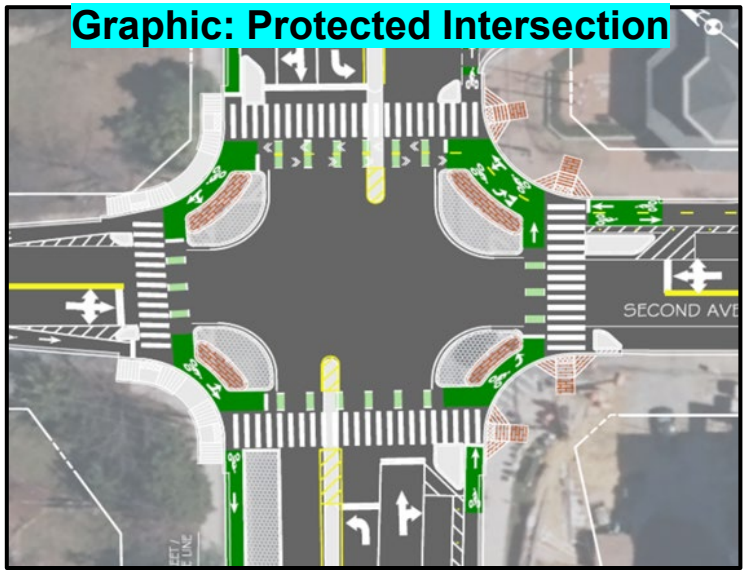
The examples are intended to provide a general depiction of transportation features and terminology listed in the Proposed Solutions for the Plan Study Area Roadways.

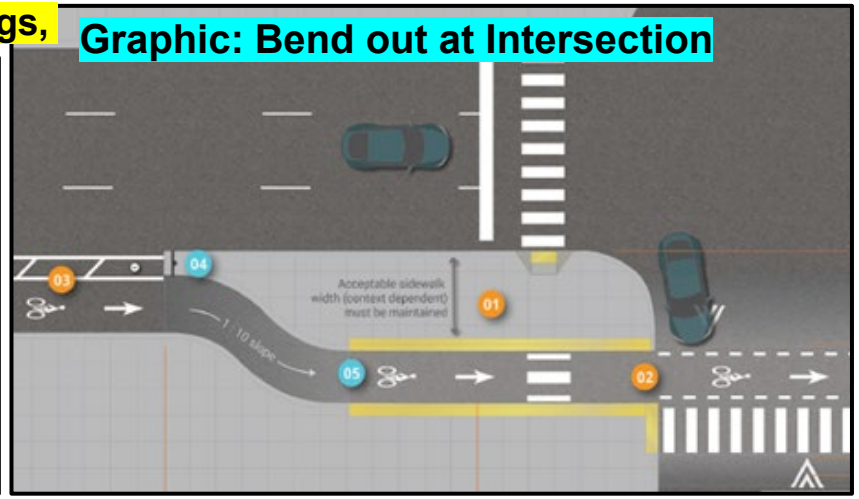
Examples labeled as “Quick-Build” are those constructed of low-cost modular materials and are recommended for the City to quickly implement ion a temporary basis.

Additional information can be found at the following websites:
National Association of City Transportation Officials Urban Street Design Guide:
https://nacto.org/publication/urban-street-design-guide/
USDOT, Federal Highway Administration “Proven Safety Countermeasures”:
https://highways.dot.gov/safety/proven-safety-countermeasures

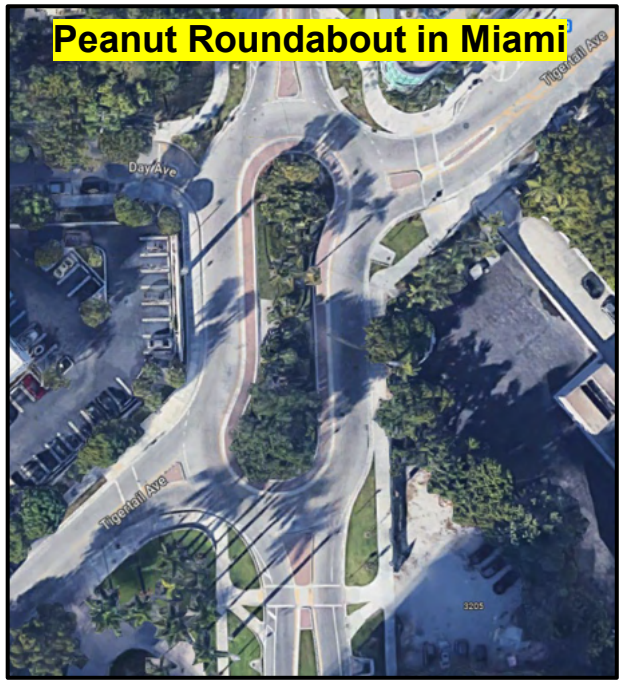
Proposed Solutions Examples:

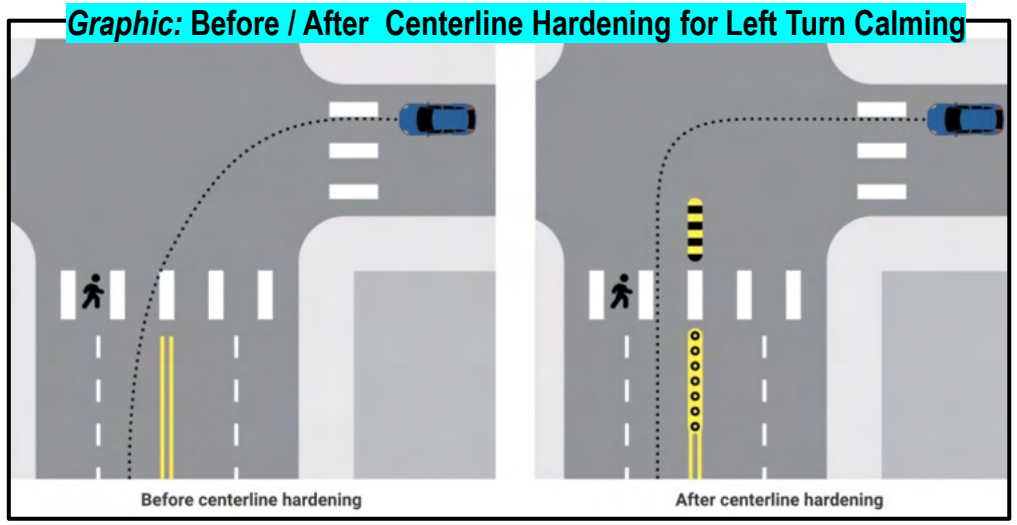
Bicycle Facilities





Proposed Solutions Examples: Intersections





Proposed Solutions Examples: Crossings

Raised Midblock Crossing with RRFB*

Intersection with All Pedestrian Crossing Phase (+ Diagonal crosswalk), Orlando

Raised Intersection with Crossing Markings

Directional Curb Ramps

Raised Midblock Crossing with PHB**, Orlando

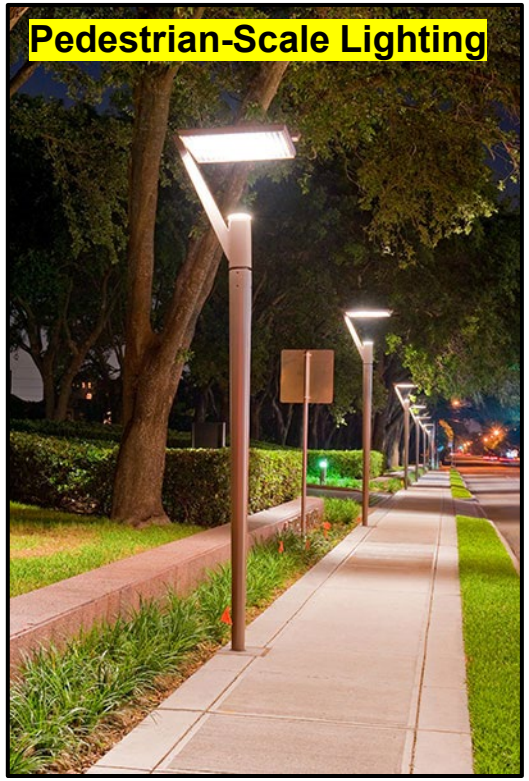
Crossing with Median Refuge, Jacksonville Beach

Quick-Build: Midblock Crossing + Median Refuge

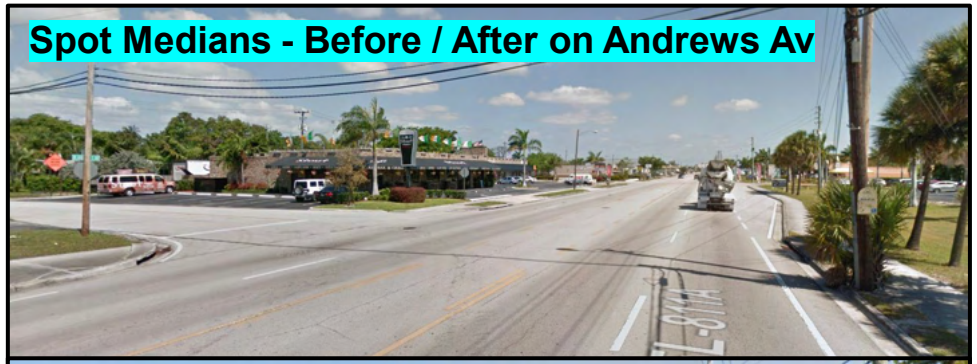
*RRFB = Rapid Rectangular Flashing Beacon
**PHB = Pedestrian Hybrid Beacon

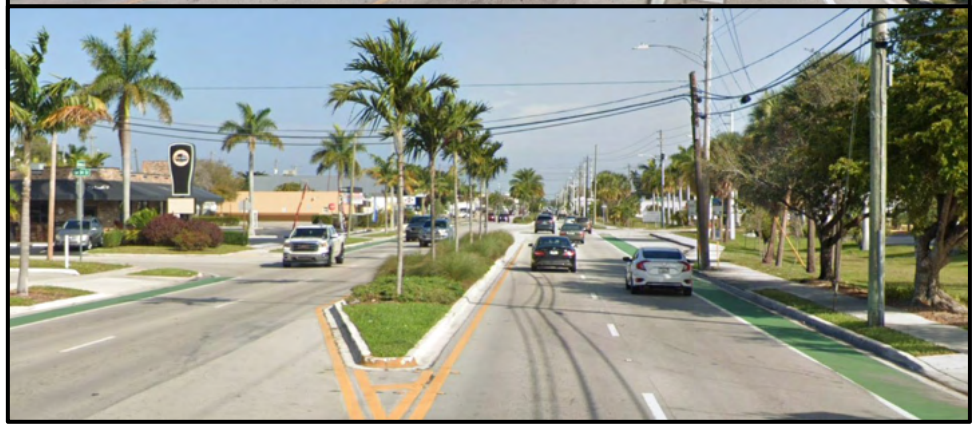
Proposed Solutions Examples: *Other*

Pedestrian-Scale Lighting

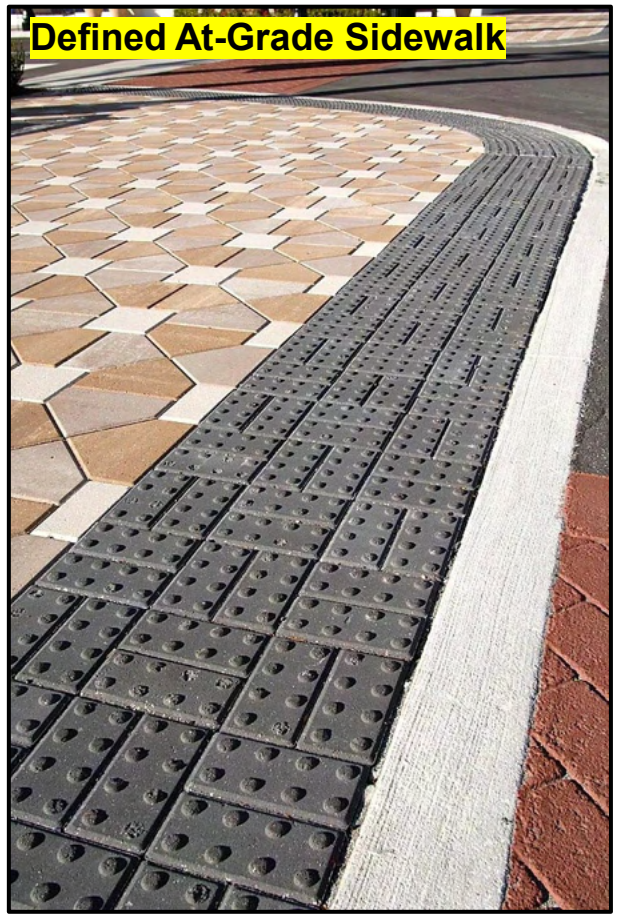


Spot Medians - Before / After on Andrews Av





Defined At-Grade Sidewalk



Median fencing (restrict crossings)

Quick-Build Speed Table

Defined Roadway Space

General Solutions for Plan Study Area

Signalized Intersections

- ✓ **Signals should be retimed** to allow for pedestrians to cross at 3.5 ft / second; where senior housing is present, they should allow crossings at 2.8 ft / second
- ✓ **Leading pedestrian interval** treatments will be considered
- ✓ **Protected left turn phases** will be considered
- ✓ **Left turn calming treatments** like hardened centerlines will be considered
- ✓ **Pedestrian refuge islands** or treatments to **reduce crossing distance** will be evaluated and included as space permits
- ✓ **Lighting** should be evaluated for both drivers and pedestrians
- ✓ Signals will be evaluated for **no right turn on red** treatments

New Crossings

- ✓ All mid-block crossings are intended to include **Rectangular Rapid Flashing Beacons (RRFBs)**
- ✓ Prior to installation, all identified mid-block crossing locations should be evaluated to see if they meet **MUTCD warrants for Pedestrian Hybrid Beacons (PHBs) or signals.***
- ✓ **On 2-Lane roads,** mid-block crossings should also be **raised**
- ✓ **On roads with 3 or more lanes, pedestrian refuge islands** should be included where space permits
- ✓ **Lighting** should be evaluated for both **drivers and pedestrians**

Powerline Rd

Proposed Solutions Sheets:

1. Goals
2. Summary of Proposed Solutions
3. Raised Bike Lane
4. Intersection Improvements at NW 29 St
5. Closed Median Access at NW 28 Ct
6. New Crosswalk at NW 28 St

Powerline Rd

Biking LTS = 4
Ped LTS = 4

Goals

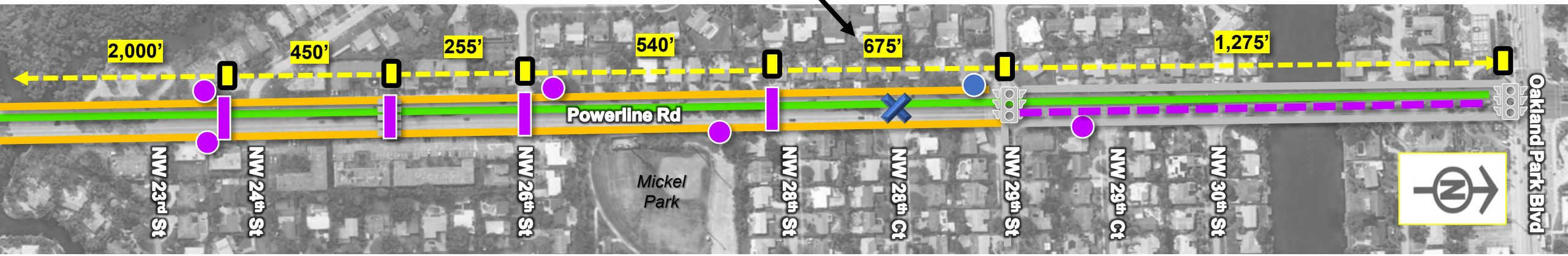
- ✓ Redesign Roadway to better match surrounding Residential Land Use
- ✓ Lower Speeds to 30 MPH
- ✓ Limit turning conflicts
- ✓ Improved Access Management
- ✓ Reduce severity of crashes
- ✓ Improve Comfort and Safety of Pedestrian and Bicycle facilities along roadway
- ✓ Improve Comfort, Safety, and Convenience of Crossings over Powerline Rd

Powerline Rd

Summary of Proposed Solutions

Existing/Committed Facilities

- Bike Lane
- Mid-Block Crossing
- Signal
- Bus Stop



Corridor Wide Strategies

Add Conflict Markings at Intersections & Driveways

- Limits turning conflicts
- Alerts drivers & bicyclists to potential conflict

Evaluate Lighting at Crossings

- Address nighttime crashes

Narrow Side Street Curb Radii

- Slows drivers
- Limits turning conflicts

Turning Wedges at Unsignalized Left Turns

- Slows drivers
- Limits turning conflicts

Speed Reduction Strategies

Lower Speed to 30 MPH

New Raised Crossing with RRFB (Evaluate for PHB / Signal)*

- At bus stops, Mickel Park, & across Powerline Rd
- *Quick-Build at grade crossing*

*FDM allows raised crosswalks at 30 MPH or lower design speed.

Convert to Raised Bike Lane or Shared Use Path

- South City Limits to NW 29 St
- Deters parking in bike lane
- Slows traffic
- *Quick-Build protected bike lanes on east side, bollards at intersections on west side.*

Close Median Access at NW 28 Ct

- Limits turning conflicts
- Access becomes right in / right out

Evaluate Lane Repurposing

- NW 29 St to Oakland Park Blvd
- Allows for protected bike lanes and bus islands

Evaluate Relocating BCT Stop

- Far side stops preferred for bus operations

Convert to Bus Bulb

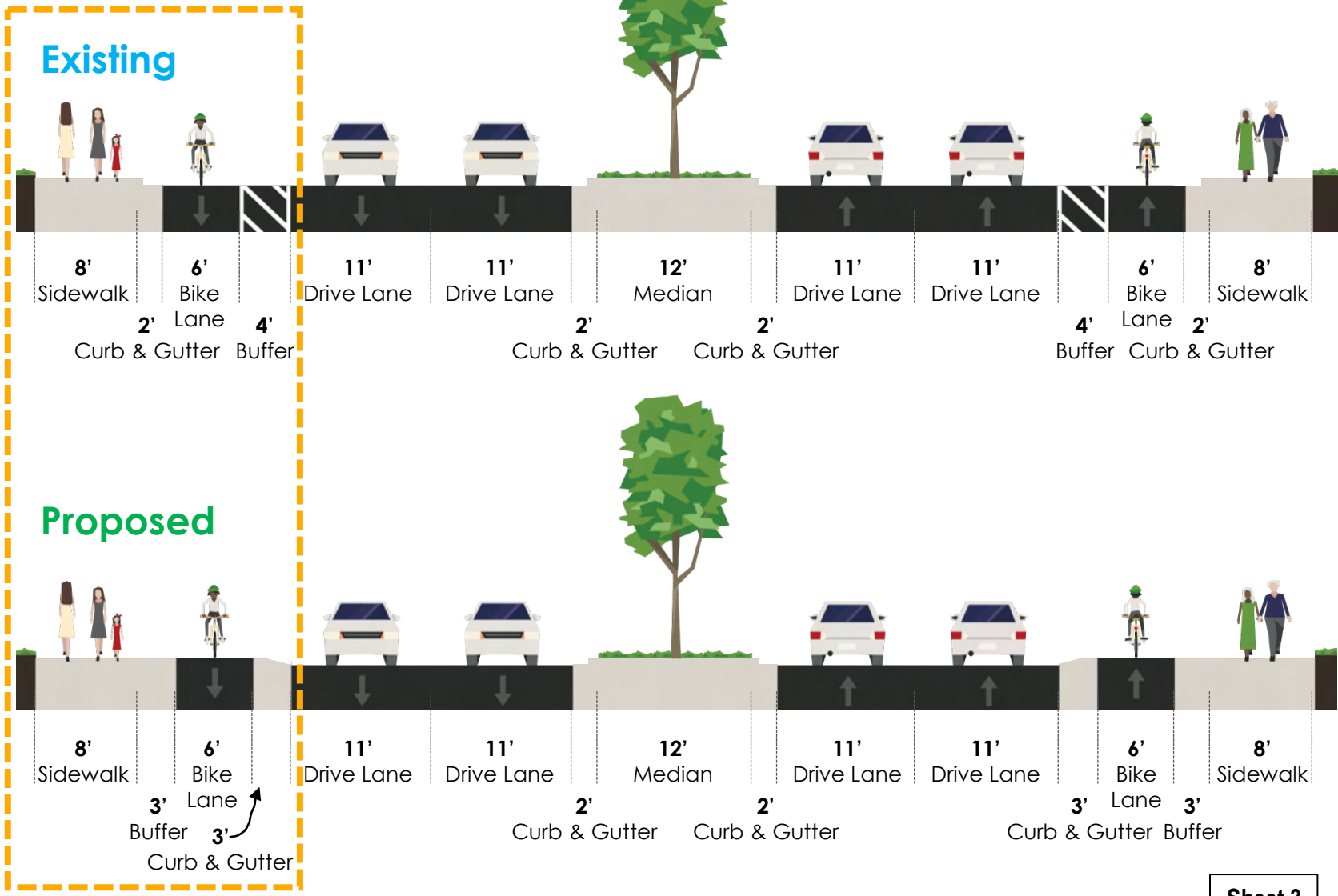
- Improves stop comfort
- Bikeway goes behind stop
- Reduces bus / bike conflict

Powerline Rd

Raised Bike Lane

Recommendations

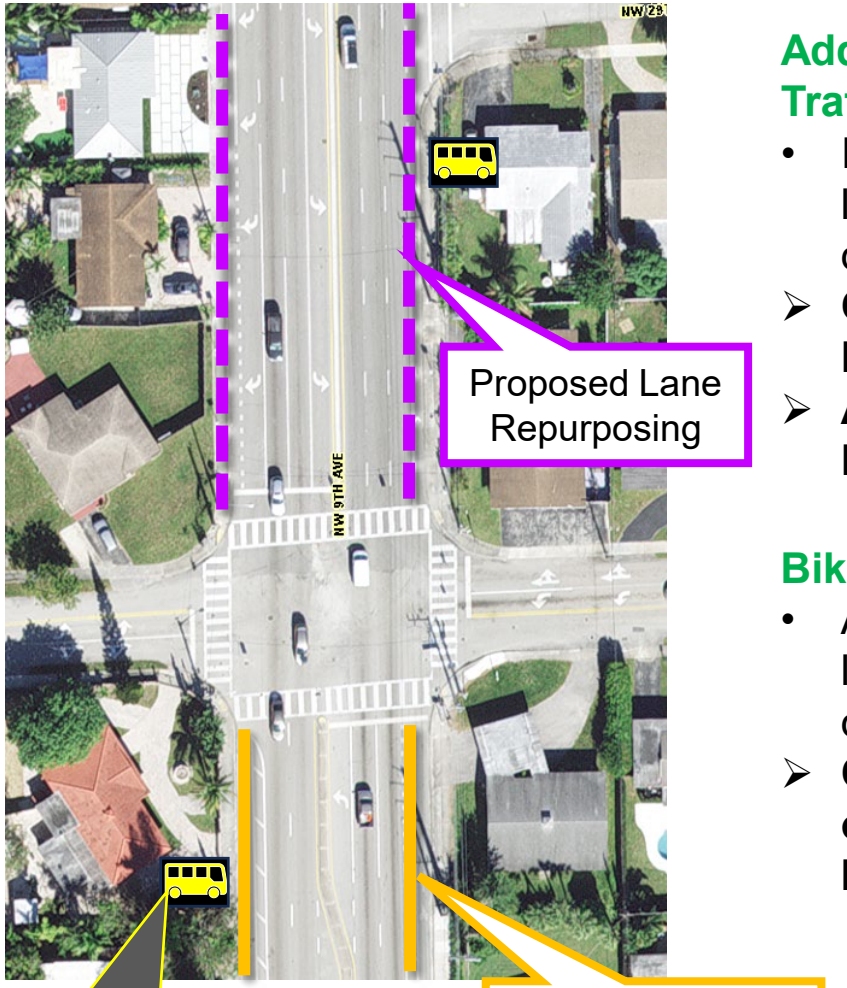
- **Redesign Powerline Road to reduce vehicle speeds to 30 MPH.**
- Better match residential context form New River to Oakland Park Blvd.
- Sample treatments: raised crossings, narrowed roadways with vertical elements, defined space for nonmotorized users.



Powerline Rd

Intersection Improvements @ NW 29 St

- Proposed Raised Bike Lane starts at southern end of intersection
- Proposed Lane Repurposing starts at northern end of intersection
- Only 4-way crossing on Powerline Rd



Addressing Turning Movements Traffic Speed

- Implement protected / permissive left turn signal phase for all directions
- ➢ **Consider removing SB right turn lane**
- ➢ **Add hardened centerlines on Powerline Rd**

Biking Improvements

- Add green conflict paint in bike lanes at intersections and driveways
- ➢ **Construct protected intersection or install bend outs and bike boxes**

Supporting Transit Riders

- Consider relocating stops (to allow for bus bulbs)
- ➢ **Construct bus bulbs** *(shared bus stop option or conflict striping at bus stop options for constrained areas)*

Walking Improvements

- Restripe crosswalks
- Lengthen signal for pedestrian crossing
- Add leading pedestrian intervals
- Upgrade to directional curb ramps
- ➢ **Construct median refuge islands (as space permits)**

Evaluate Lighting and improve as needed

Powerline Rd

Close Median Access @ NW 28 Ct

Close median opening at NW 28 Ct to prohibit LT in / Out

NW 28 Ct entrance converted to Right In / Right Out only

Residents living on NW 28 Ct would be able to make LT in and out of NW 28 St

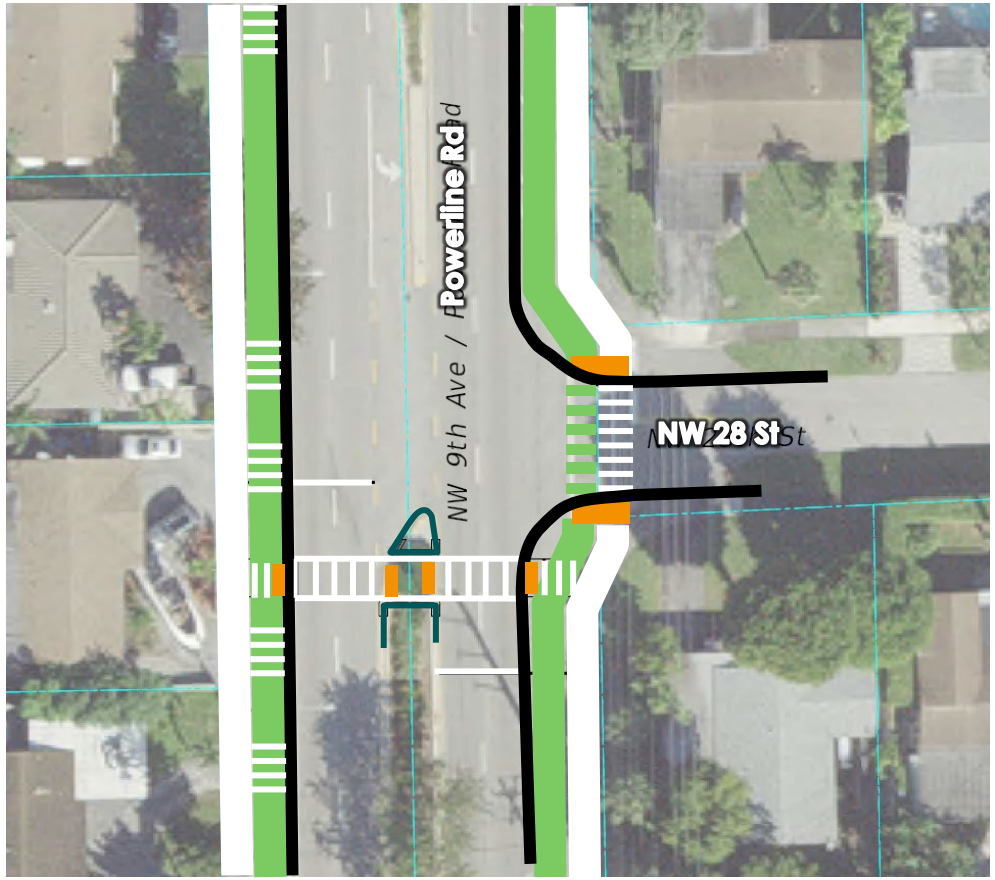
Access Management Improvements

- NW 28 Ct is in close proximity to NW 29 St signalized intersection (~225 ft)
- Reduce potential conflicts with NB drivers from uncontrolled left turns from NW 28 Ct
- Benefit for NB Pedestrian & Bike activity (NB / Right turn drivers will focus more on NB activity – including NB ped & bike activity)

Next LT (both in / out) is 275 ft south (@ NW 28 St)

Powerline Rd

New Crosswalk @ NW 28 St



Walking Improvements

- Location is approximately 150 ft to Mickel Park's pedestrian-only entrance
- Construct Raised crosswalk over Powerline Rd
- Construct median refuge islands
- Curb extension via raised bikeway shortens crossing distance
- Directional curb ramps improve walking experience for people with disabilities
- Evaluate lighting and improve as needed

Biking Improvements

- Bikeway bends away from the road at intersection to increase visibility
- Add green conflict paint in bike lanes at intersections and driveways
- Raised bikeway is more comfortable for users

- Graphic depicts proposed Raised Bike Lane
- All new crossings to include RRFB's, also be evaluated for PHB's

Andrews Av

Proposed Solutions Sheets:

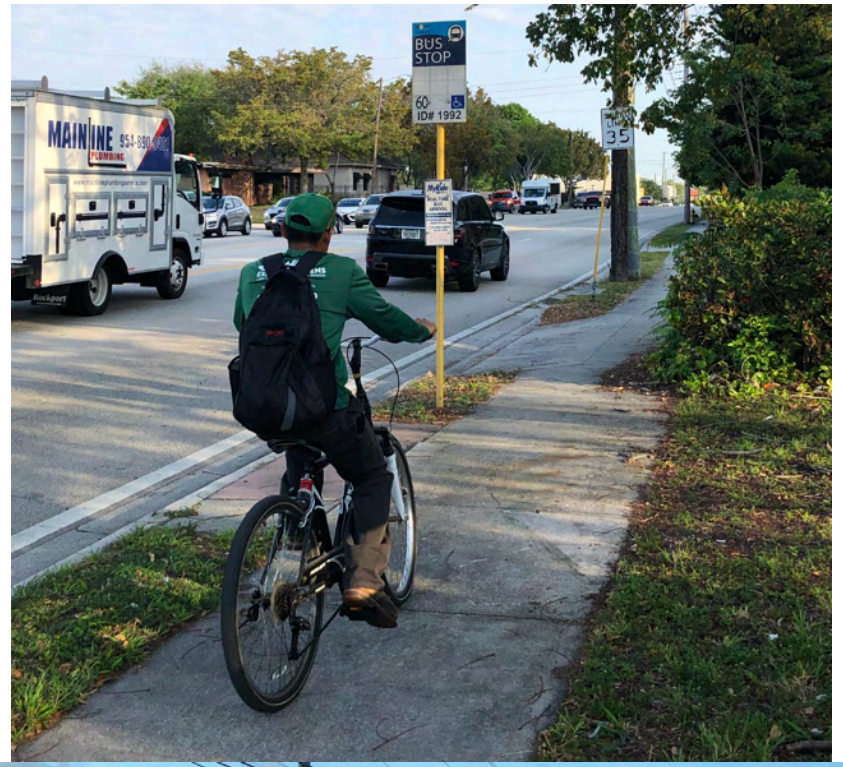
1. Goals
2. Summary of Proposed Solutions
3. Proposed Shared Use Path
4. Intersection Improvements at NW / NE 24 St
5. Intersection Improvements at NW / NE 21 Ct
6. Define Roadway Space at 1901 block

Andrews Av

Biking LTS = 4
Ped LTS = 3

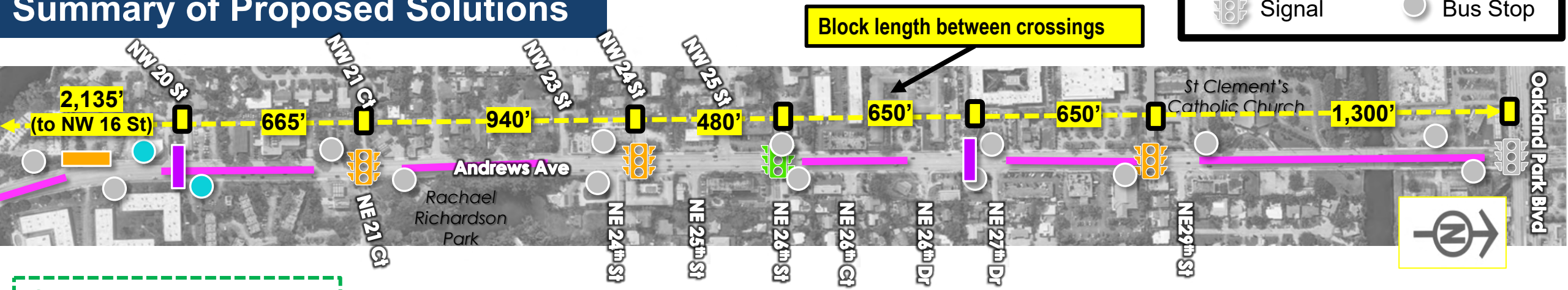
Goals

- ✓ Re/Connect “west” & “east” Wilton Manors
- ✓ Redesign Roadway to better match planned mixed-use redevelopment
- ✓ Limit turning conflicts
- ✓ Improved Access Management
- ✓ Reduce severity of crashes
- ✓ Improve Comfort and Safety of Pedestrian and Bicycle facilities along roadway
- ✓ Improve Comfort, Safety, and Convenience of Crossings over Andrews Av



Andrews Av

Summary of Proposed Solutions



Corridor Wide Strategies

Add Conflict Markings at Intersections & Driveways
- Limits turning conflicts
- Alerts drivers & bicyclists to potential conflict

Evaluate Lighting
- Address nighttime crashes and pedestrian comfort

Narrow Side Street Curb Radii
- Slows drivers
- Limits turning conflicts

Bike Facilities Strategies

Underground Utilities
- Limits sidewalk obstructions

Walk & Bike Infrastructure Options
- Require Curb Reconstruction
- Widen sidewalks to create multi-use paths
- Build protected bike lanes

Narrow Lanes to 10' – 11'
- Provides additional space for bike or walking infrastructure and slows traffic

New Mid-Block Crossing with Signal or PHB
- RRFB if does not meet warrant
- Construct Pedestrian Refuge Islands
- Improves access to bus stops and across Andrews Ave
- Encourages crossing at designated locations

Add Spot Medians
- Limits turning conflicts
- Permits left turns at designated locations

Define Roadway Space
- May help slow traffic
- Placemaking opportunity

Add Pedestrian Phase
- Including ped signals & crosswalks

Increase Pedestrian Phase
- Allow enough time for average & slower users to cross Andrews Av

Evaluate Relocating BCT Stop
- Far side stops preferred for bus operations

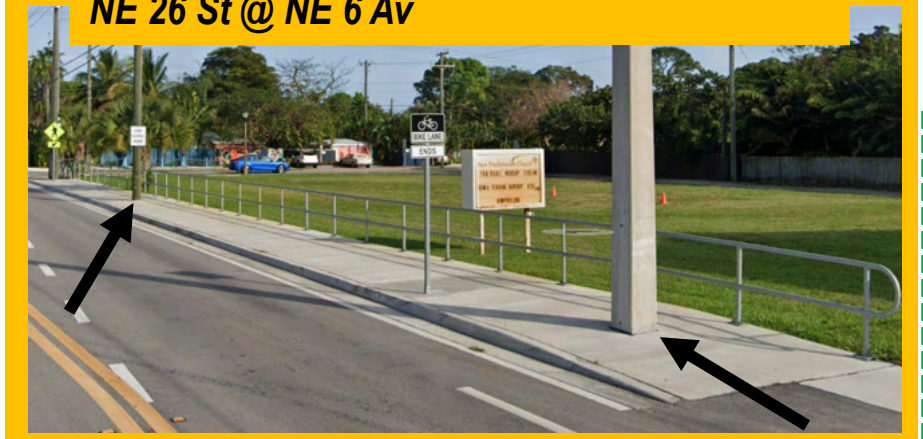
Andrews Av

Proposed Shared Use Path

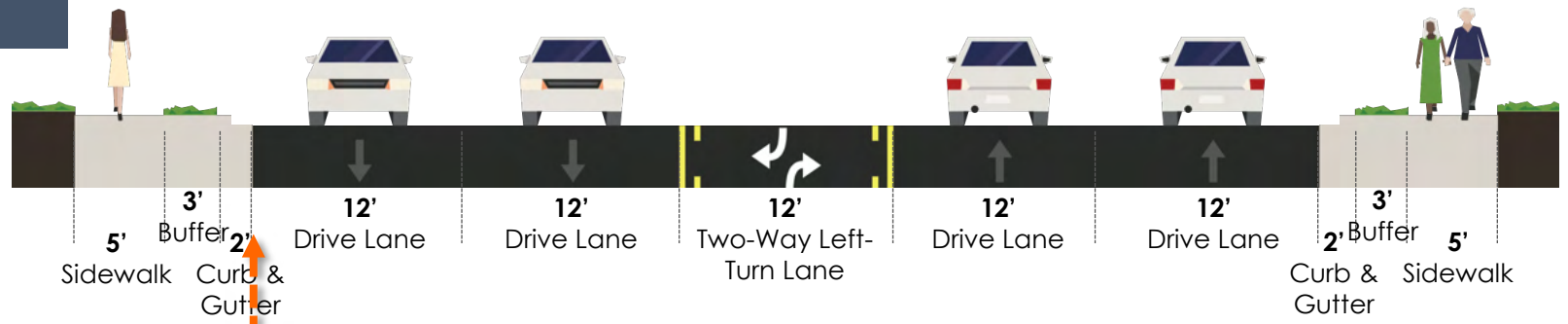
- For entire length of roadway in Wilton Manors
- Underground utilities to improve / increase space for walking and biking
- Shared Use Path to be used by pedestrians and bicyclists
- Introduce spot medians and pedestrian refuge islands to improve crossings
- Narrow lanes to slow traffic

➢ City previously identified Lane Repurposing as part of Andrews Av Land Use Study (2015)

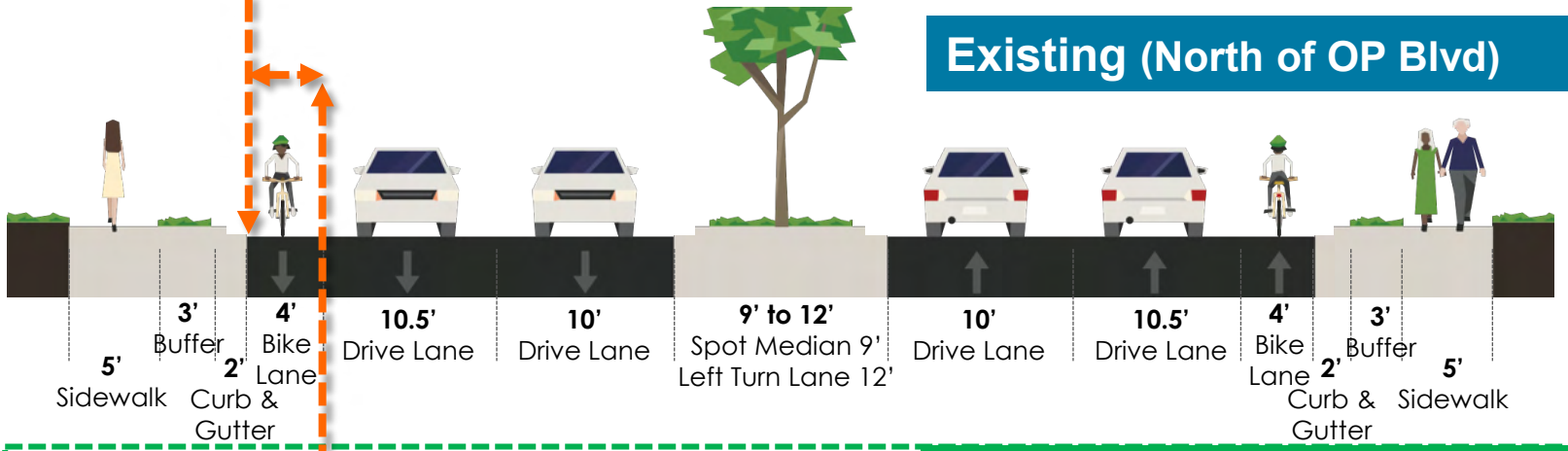
When Utilities are NOT placed underground:
NE 26 St @ NE 6 Av



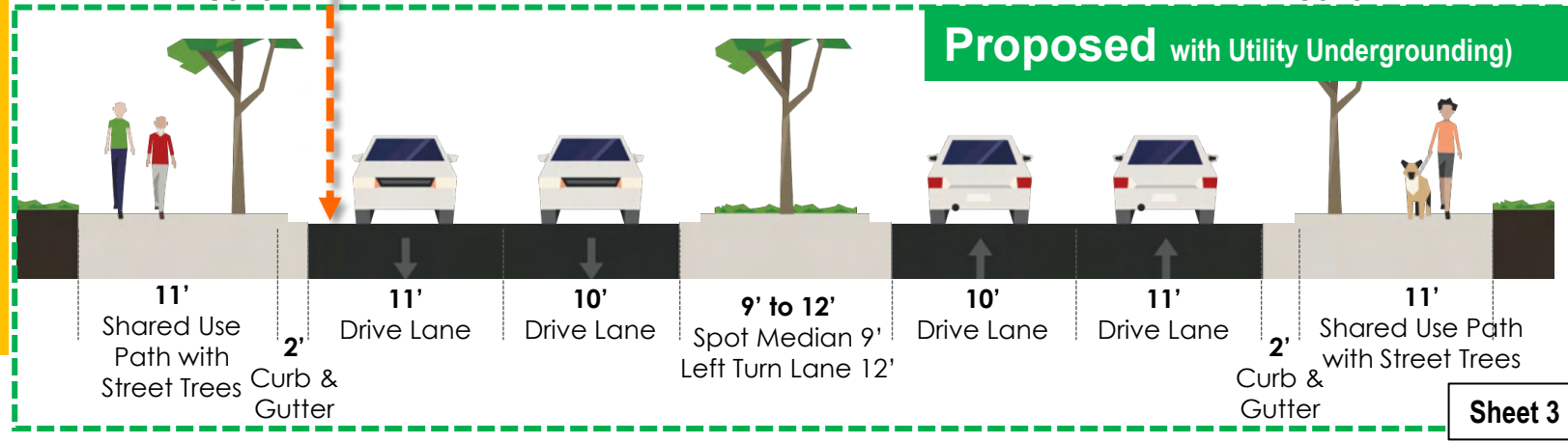
Existing (Wilton Manors)



Existing (North of OP Blvd)



Proposed with Utility Undergrounding)

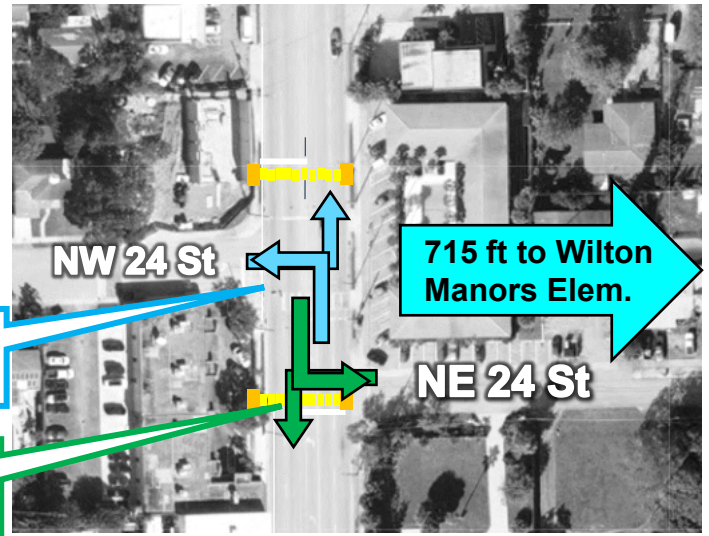


Andrews Av

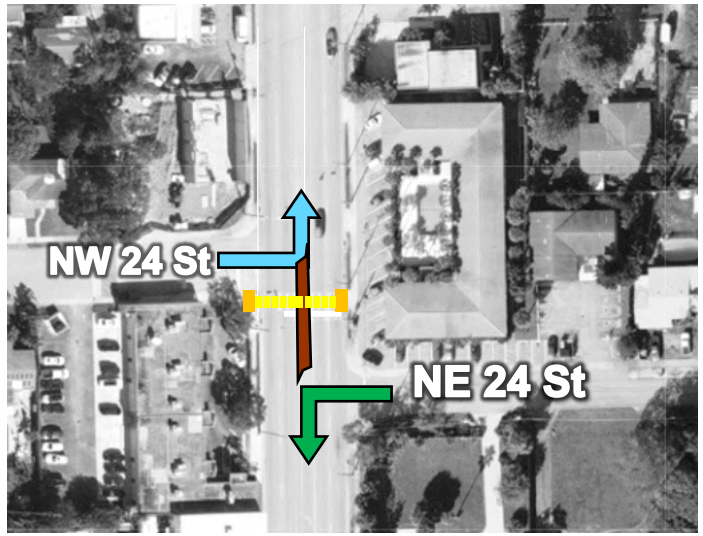
Intersection Improvements @ 24 St

Both Options (changes to left turns) require further study by Broward County to understand Traffic Operations

Option 1:
New Left Turns to & from NE 24 St



Option 2:
Left Turns ONLY from NW / NE 24 St.



Option 1 Improvements

- The existing crosswalk removed
- Place two new crosswalks (1- north leg of NW 24 St and 2 - south leg of NE 24 St)
- Continue to allow Left Turns to / from NW 24 St
- Permit / Signalize Left Turns to / from NE 24 St by bringing the extra leg into the signal

Option 2 Improvements

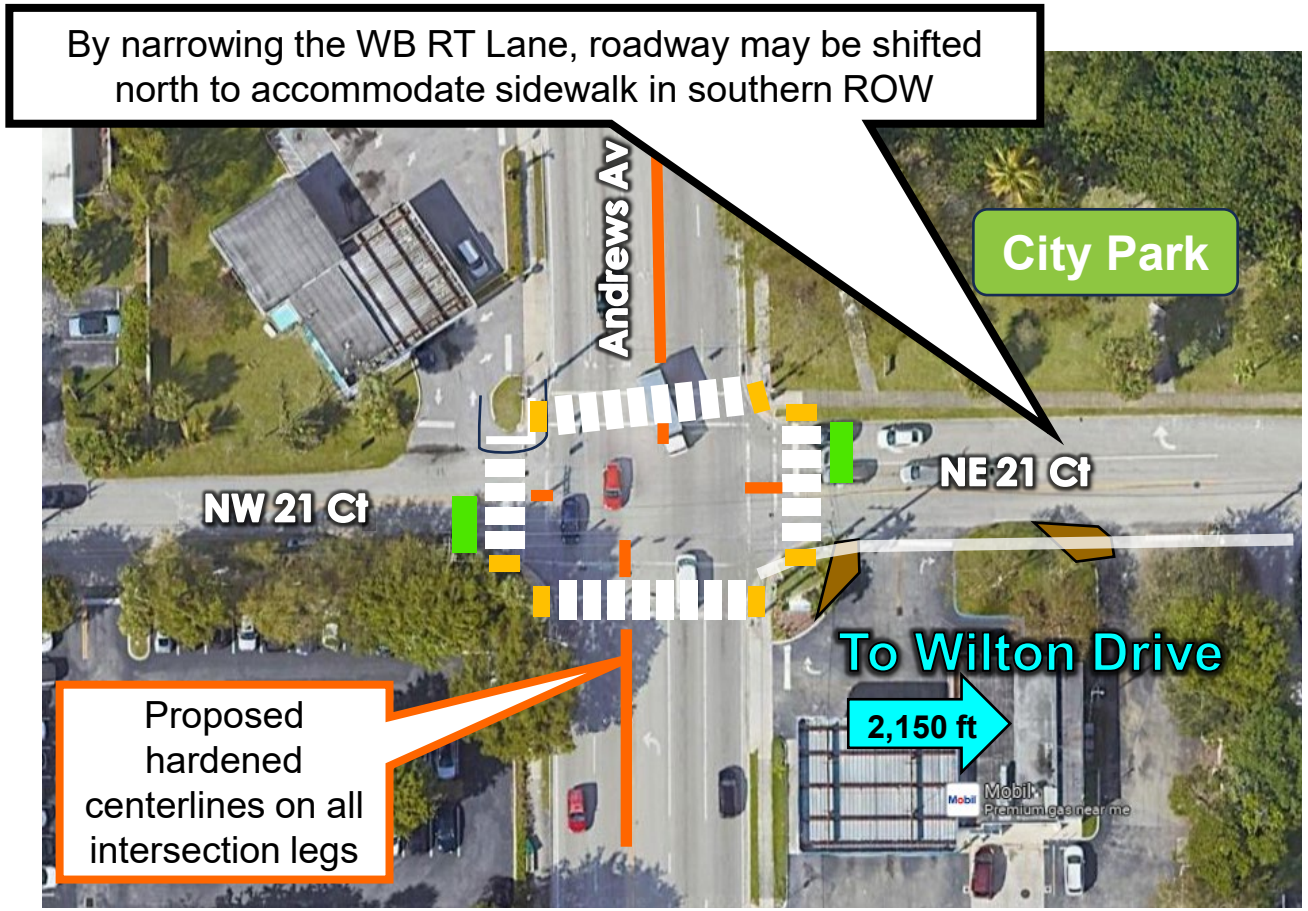
- The existing crosswalk improved with median refuge island
- Prohibit Left Turn from Andrews Av to NW 24 St
- Permit / Signalize Left Turns from NE 24 St (no left turn from Andrews Av to NE 24 St)

Improvements for both Options

- Restripe crosswalks on Andrews Ab and NW 24 St and NE 24 St to high visibility markings
- Lengthen signal for pedestrian crossing
- Add leading pedestrian intervals
- Upgrade to directional curb ramps
- Pedestrian crossing advanced signage
- Hardened Centerlines for Left Turns
- Add green conflict paint at intersections an driveways
- Evaluate lighting and improve as needed

Andrews Av

Intersection Improvements @ 21 Ct



Addressing Turning Movements Traffic Speed

- Implement protected / permissive left turn signal phase for SB to EB LT's
- ➢ **Add hardened centerlines on all intersection legs**

Walking Improvements

- Restripe crosswalks to high visibility markings
- Lengthen signal for pedestrian crossing
- Add leading pedestrian intervals
- Upgrade to directional curb ramps
- Pedestrian crossing advanced signage
- ➢ **Tighten curb radii (may require drainage improvements)**
- ➢ **Construct median refuge islands (as space permits)**

Biking Improvements

- Add green conflict paint (intersections and driveways)

Improvements on NE 21 Ct

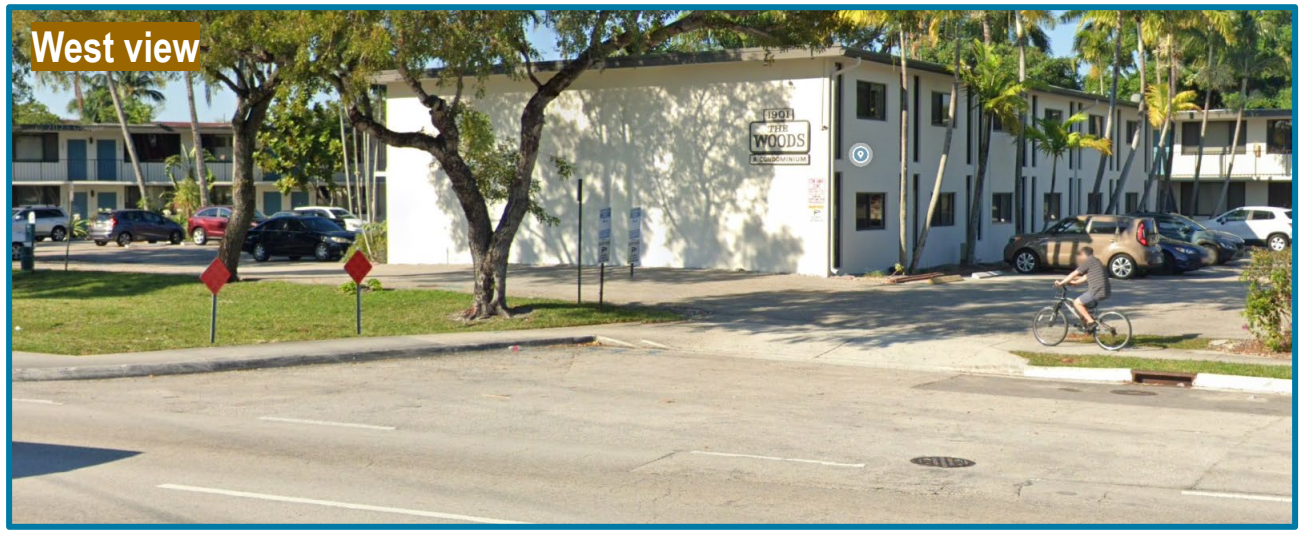
- Install **bend outs** and/or bike boxes on NE 21st Ct to support left turns
- Narrow roadway / WB RT Lane (currently is 13.5 ft wide)
- Use space from narrow roadway to add sidewalk in south ROW
- Tighten gas station's driveway openings

Andrews Av

Define Roadway Space @ 1901 Block

Definition Improvements

- Approximately 300 linear feet of paved area that abruptly ends prior to swale
- Near term is add elements such as rumble strips and wider edge lines, or other proven Roadway departure treatments
- Curb can be relocated / area converted to pedestrian space in conjunction with proposed lane narrowing and shared use path



NE 26 St

Proposed Solutions Sheets:

1. Goals
2. Summary of Proposed Solutions: West of 5-Points
3. Summary of Proposed Solutions: East of 5-Points, Lane Repurposing Option
4. Summary of Proposed Solutions: East of 5-Points, 5-Lane Option
5. Intersection at NE 6 Av
6. Bike Movement from NE 8 Te to NE 9 Av
7. Lane Repurposing East of 5-Points
8. Intersection at NE 15 /16 Av with Lane Repurposing
9. Intersection at NE 15 /16 Av without Lane Repurposing

NE 26 St

West of 5-Points
Biking LTS = 3
Ped LTS = 1 & 2

East of 5-Points
Biking LTS = 4
Ped LTS = 4

Goals

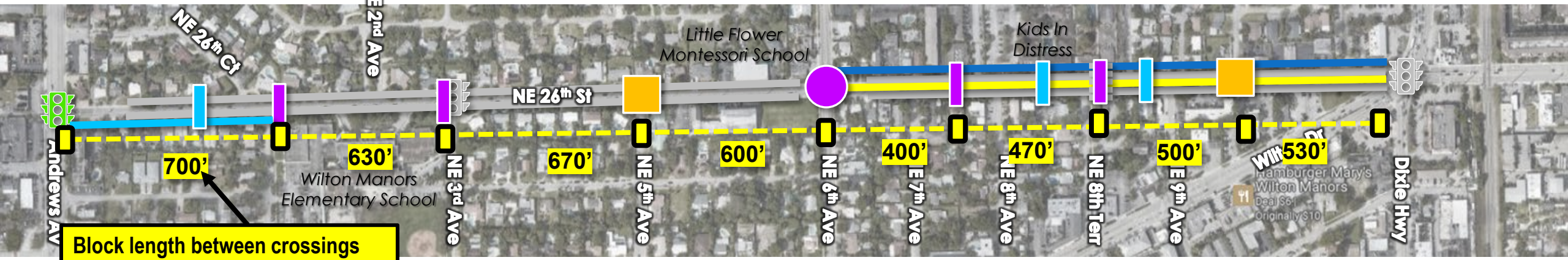
- ✓ Redesign Roadway to better match adjacent land use *(School / Childcare, Community Facilities, Retirement Homes, Low / Medium Density Residential, and Redevelopment / Mixed-use).*
- ✓ Redesign east portion of NE 26 St to have consistent (30 MPH) speed limit as west portion
- ✓ Provide dedicated Bike Facilities along entire roadway
- ✓ Limit turning conflicts
- ✓ Improve Access Management
- ✓ Reduce severity of crashes
- ✓ Improve Comfort and Safety of Pedestrian facilities along entire roadway
- ✓ Improve Comfort, Safety, and Convenience of for crossing over NE 26 St

NE 26 St: *West* of 5-Points

Summary of Proposed Solutions

Existing/Committed Facilities

- Bike Lane
- Mid-Block Crossing
- Signal



Corridor Wide Strategies

Add Conflict Markings at Intersections & Driveways

- Limits turning conflicts
- Alerts drivers & bicyclists to potential conflict

Narrow Side Street Curb Radii

- Slows drivers
- Limits turning conflicts

Add Wayfinding Signage

- Identify best routes to nearby destinations

Underground Utilities

- Limits sidewalk obstructions
- Allows for sidewalk completion from Andrews Av to Wilton Manors Elementary
- Allow for widening of sidewalk on south ROW

Traffic Calming Strategies

Construct Raised Intersection

- Slows traffic & supports pedestrian crossing

Evaluate for Mini Roundabout

- Slows traffic
- Improves safety

Construct Speed Hump/Table*

*ITE Guidelines for the Design and Application of Speed Humps recommends spacing of 260' to 500' to keep 85th percentile operating speed between 25 and 30 mph

New Raised Crossing with RRFB

- Slows traffic & supports pedestrian crossing

Evaluate Potential to Widen Sidewalk to 8'

Construct sidewalk

- Requires underground utilities

Add Pedestrian Phase

- Including ped signals and crosswalks

Evaluate Lighting from NE 6th Ave to 5 Points & at Crossings

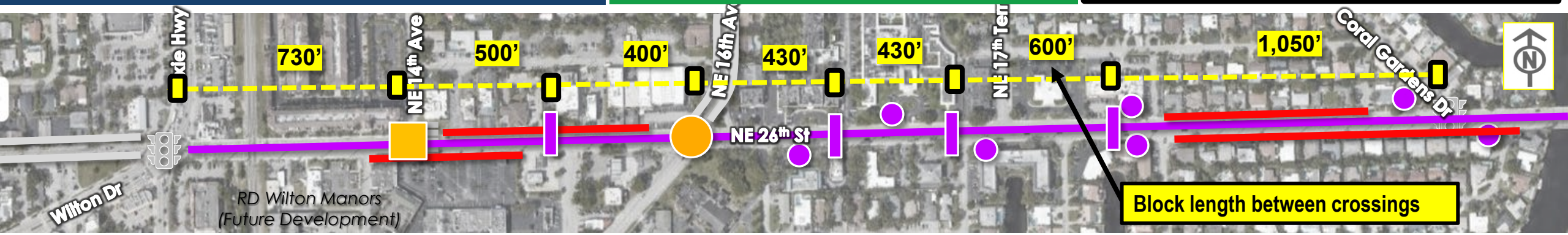
- Address nighttime crashes & visibility

NE 26 St: *East* of 5-Points

Summary of Proposed Solutions

Lane Repurposing Option

Existing/Committed Facilities
- Bike Lane
- Mid-Block Crossing
- Signal



Corridor Wide Strategies

Add Conflict Markings at Intersections & Driveways
- Limits turning conflicts
- Alerts drivers & bicyclists to potential conflict

Underground Utilities
- Limits sidewalk obstructions

Evaluate Lighting at Crossings
- Address nighttime crashes & visibility

Lane Repurposing Strategies

Explore Lane Repurposing & Lower Design Speed
- Current volumes same or lower than 2-lane segment
- One 11' lane each direction + two-way left turn center lane
- Reduce speed limit to 30 mph through redesign
- Adds space for bike, walking, and transit features
- Adds space to address back out parking
- ***Extents:*** 5 Points to US 1 or Middle River Drive (based on further analysis)

Evaluate for Peanut Roundabout
- Slows traffic
- Improves safety

Back Out Parking/Frequent Driveway Solutions
- Paint conflict paint across driveways
- Add raised bike lanes & widen sidewalks (with lane repurposing)
- Use new road space to provide space to back into
- Long term: policy to remove during redevelopment

Speed Reduction Strategies

Construct Raised Intersection*
- Slows traffic & supports pedestrian crossing (with lane repurposing)

Narrow Side Street Curb Radii / Eliminate Channelized Right Turn Lanes
- Slows drivers & Limits turning conflicts

New Raised Crossing with RRFB (Evaluate for PHB / Signal)*
- Encourages crossing at designated locations
- Quick Build: At grade crossing

*FDM allows raised crosswalks and raised intersections at 30 MPH or lower design speed.

Convert to Bus Bulb
- Improves stop comfort + Reduces bus / bike conflict
- Bikeway goes behind stop

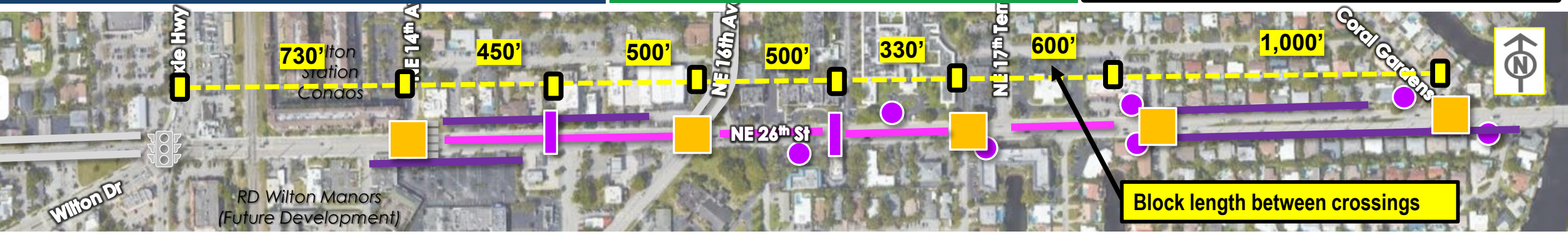
NE 26 St: *East* of 5-Points

Summary of Proposed Solutions

5-Lane Option

Existing/Committed Facilities

- Bike Lane
- Mid-Block Crossing
- Signal



Corridor Wide Strategies

Add Conflict Markings at Intersections & Driveways

- Limits turning conflicts
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Underground Utilities

- Limits sidewalk obstructions

Evaluate Lighting at Crossings

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Speed Reduction Strategies

Construct Raised Intersection*

- Slows traffic & supports pedestrian crossing

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New Raised Crossing with RRFB (Evaluate for PHB / Signal)*

- Encourages crossing at designated locations
- Quick Build: At grade crossing

*FDM allows raised crosswalks and raised intersections at 30 MPH or lower design speed.

Convert to Bus Bulb

- Improves stop comfort + Reduces bus / bike conflict
- Bikeway goes behind stop

Add Spot Medians

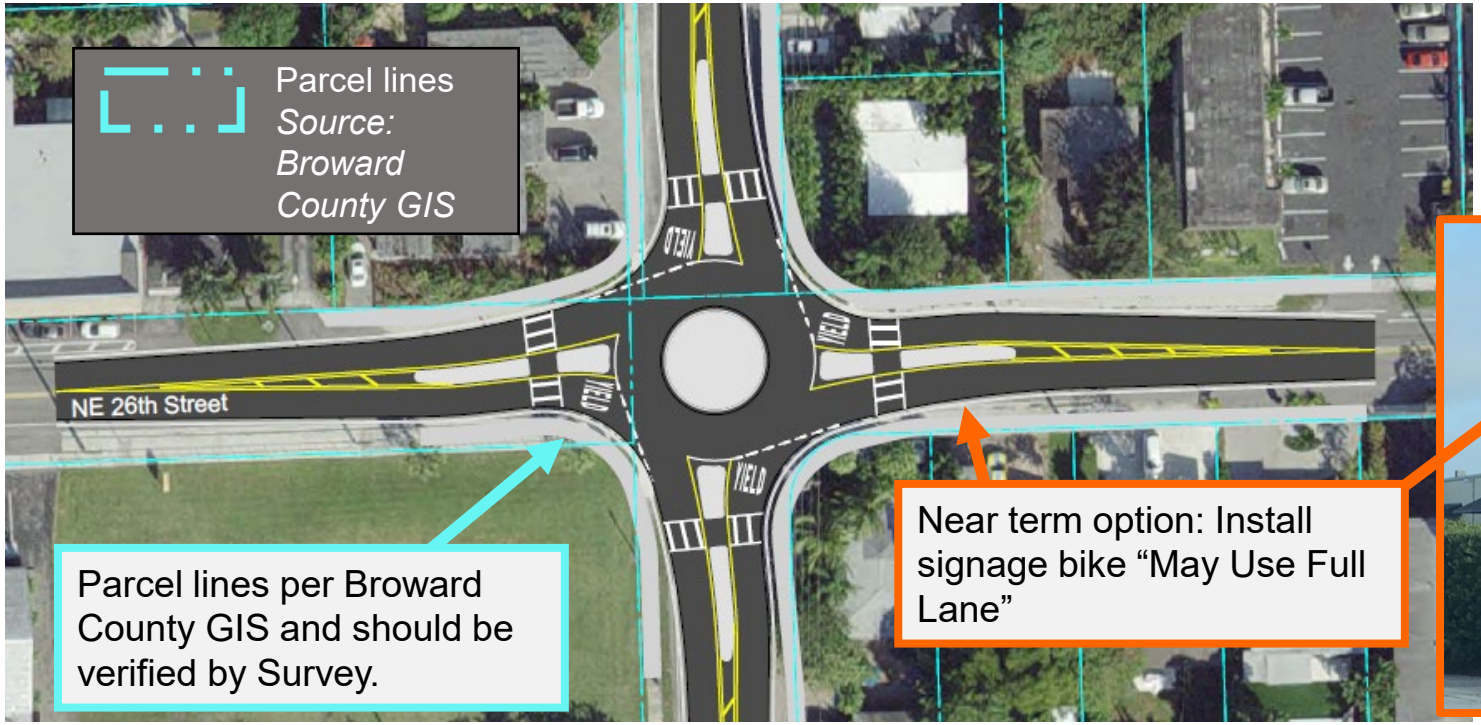
- Limits turning conflicts
- Permits left turns at designated locations

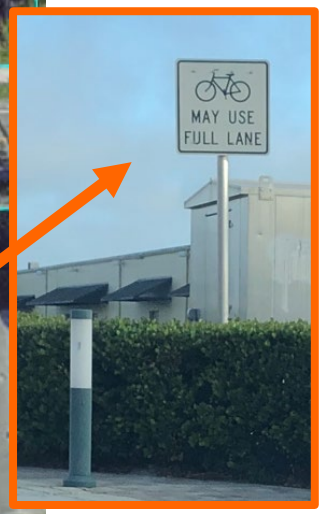
Add Lane Definition

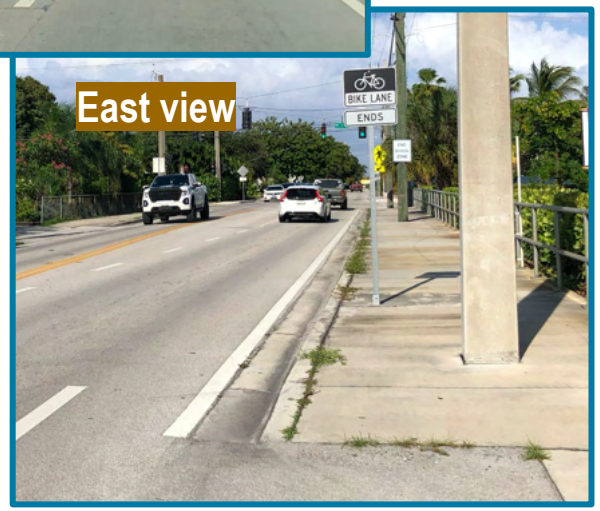
- Slow traffic & increase driver alertness
- Utilize profiled thermoplastic to define space
- Long term: policy to remove back out parking / frequent driveways during redevelopment

NE 26 St: *West* of 5-Points

Intersection Improvements @ NE 6 Av







Roundabout Improvements

- Likely requires small ROW purchases in NW and NE corners
- Provides a signature element + slows traffic in all directions
- Raised crosswalks

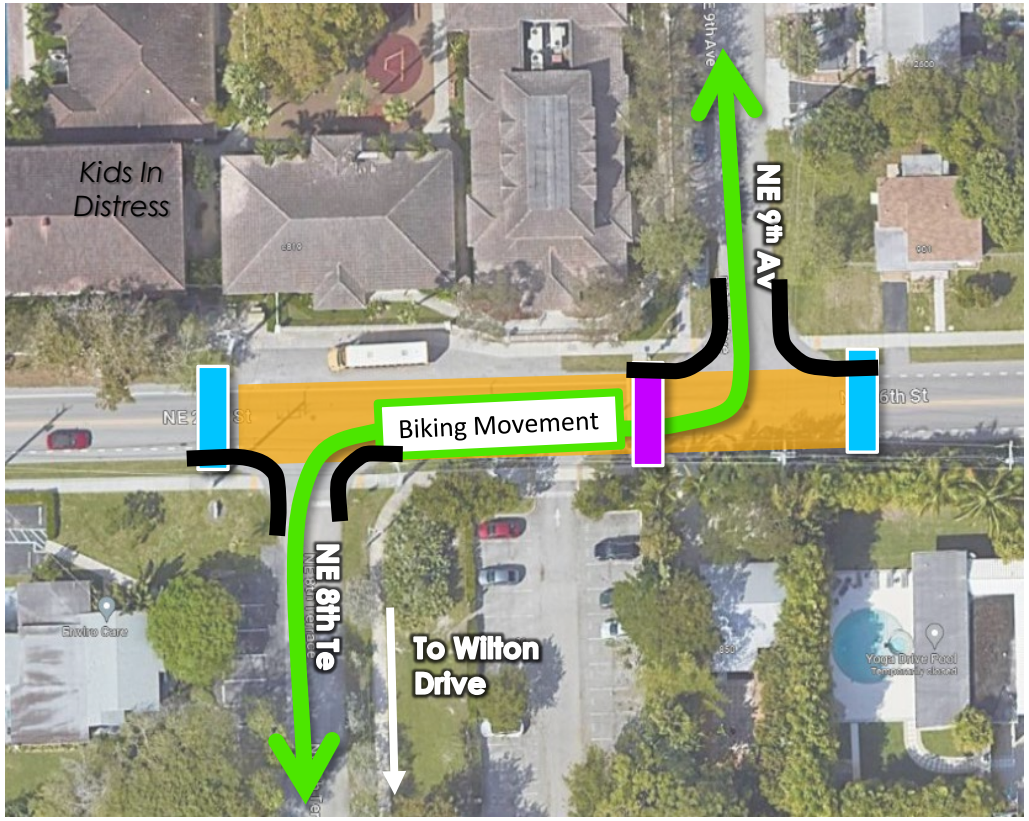
- Mini-Roundabout, such as in Flagler Village at NE 5 Av and NE 5 St, may be better accommodated in existing ROW.

Alternative Intersection Options (No Roundabout)

- Removal of left turn lanes on NE 26 St and repurpose additional space to provide bike lanes leading to / through the intersection
- Add bike boxes on all legs of the intersection
- If all lanes are required, move curb to maintain 5’ bike lanes
- Consider raising intersection

NE 26 St: *West* of 5-Points

Biking Improvements - NE 8 Te to NE 9 Av



- Speed Hump / Table
- Raised Crosswalk with RRFB
- Slow Zone
- Curb Extension

Biking Movement Improvements

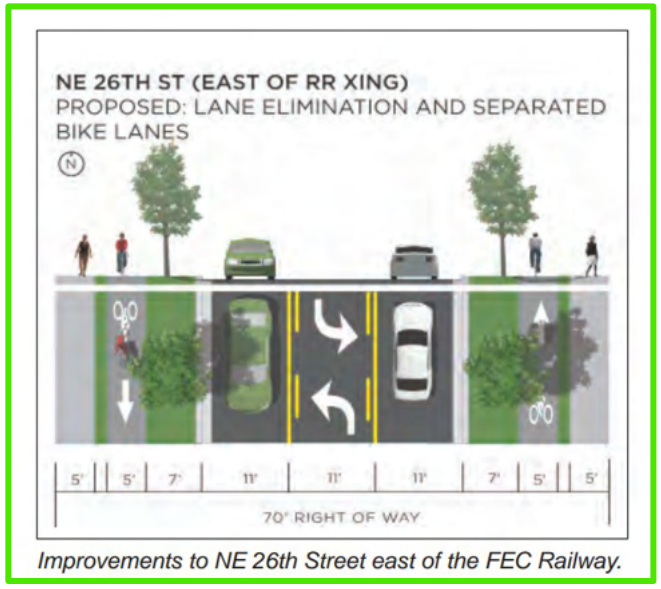
- Raised features, including speed tables and raised crosswalks, placed at frequent intervals to calm traffic
- Side Street curbs are widened to slow car turn movements and reduce crossing distance for pedestrians
- Improves comfort for bicyclists crossing roadway, especially at off-set intersections
- Quickbuild speed tables and curb extensions can be implemented in the near term

NE 26 St: *East* of 5-Points

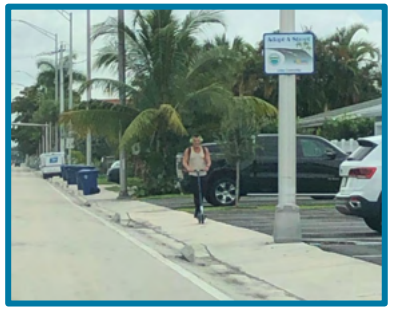
Proposed Lane Repurposing

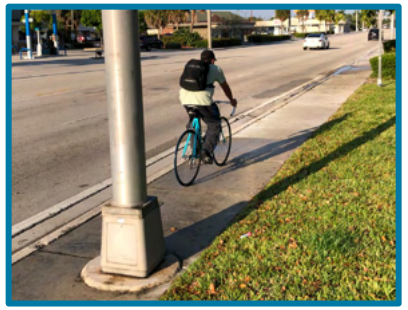
- Redesign road to reduce vehicle speeds to 30 MPH.
- Includes raised, protected bike facilities (*Surtax project does not include bicycle facilities*)
- Underground utilities to improve / increase space for walking and biking.
- Add raised elements and crossings to improve multimodal environment

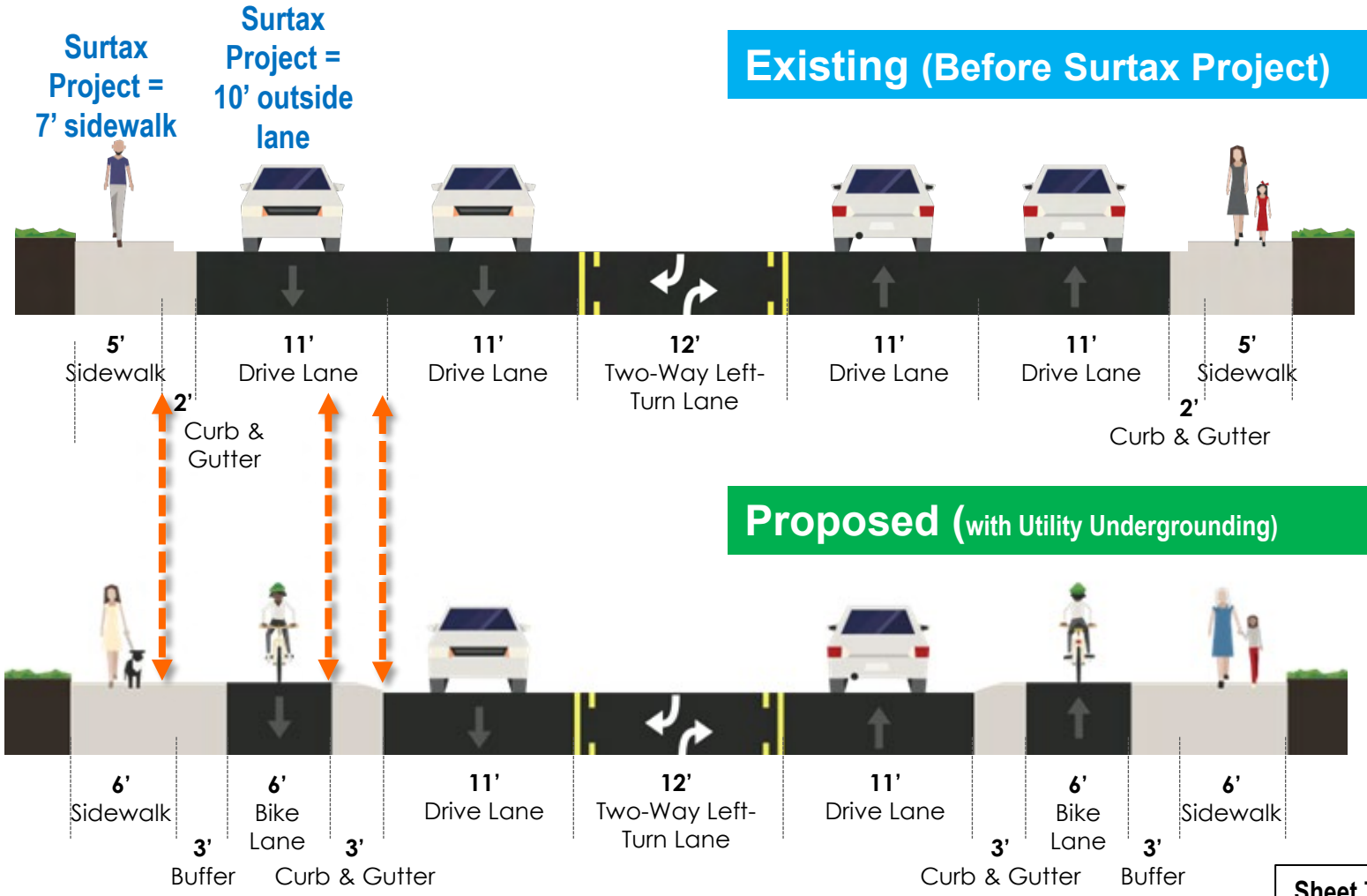
➢ City previously identified lane elimination as part of TOD Master Plan Study (2019)



Improvements to NE 26th Street east of the FEC Railway.



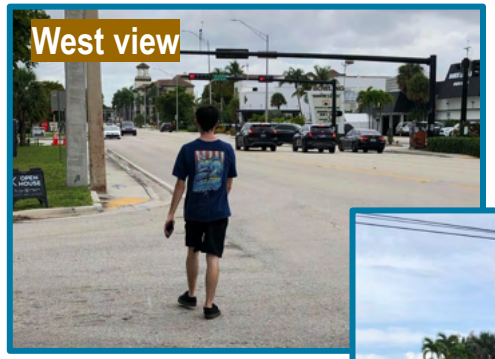




NE 26 St: *East* of 5-Points

Intersection Improvements @ NE 15 / 16 Av

Lane Repurposing Option



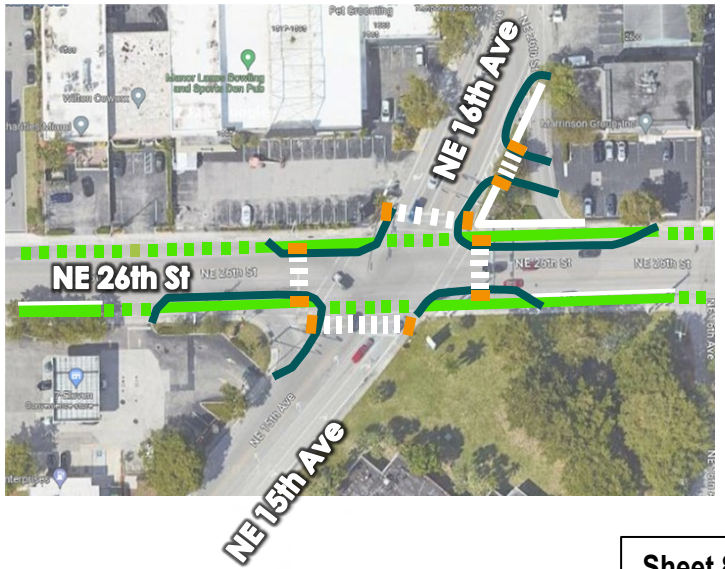
Option 1: Peanut Roundabout

- Slows traffic and eliminates high speed right turns
- Bikes share road with vehicles
- Pedestrian crossings include RRFBs
- Can be mountable for emergency vehicles
- Addresses issues brought on by skew of intersection

Peanut Roundabout in Miami @ Tigertail Av & SW 17 Av

Option 2: Geometry Changes

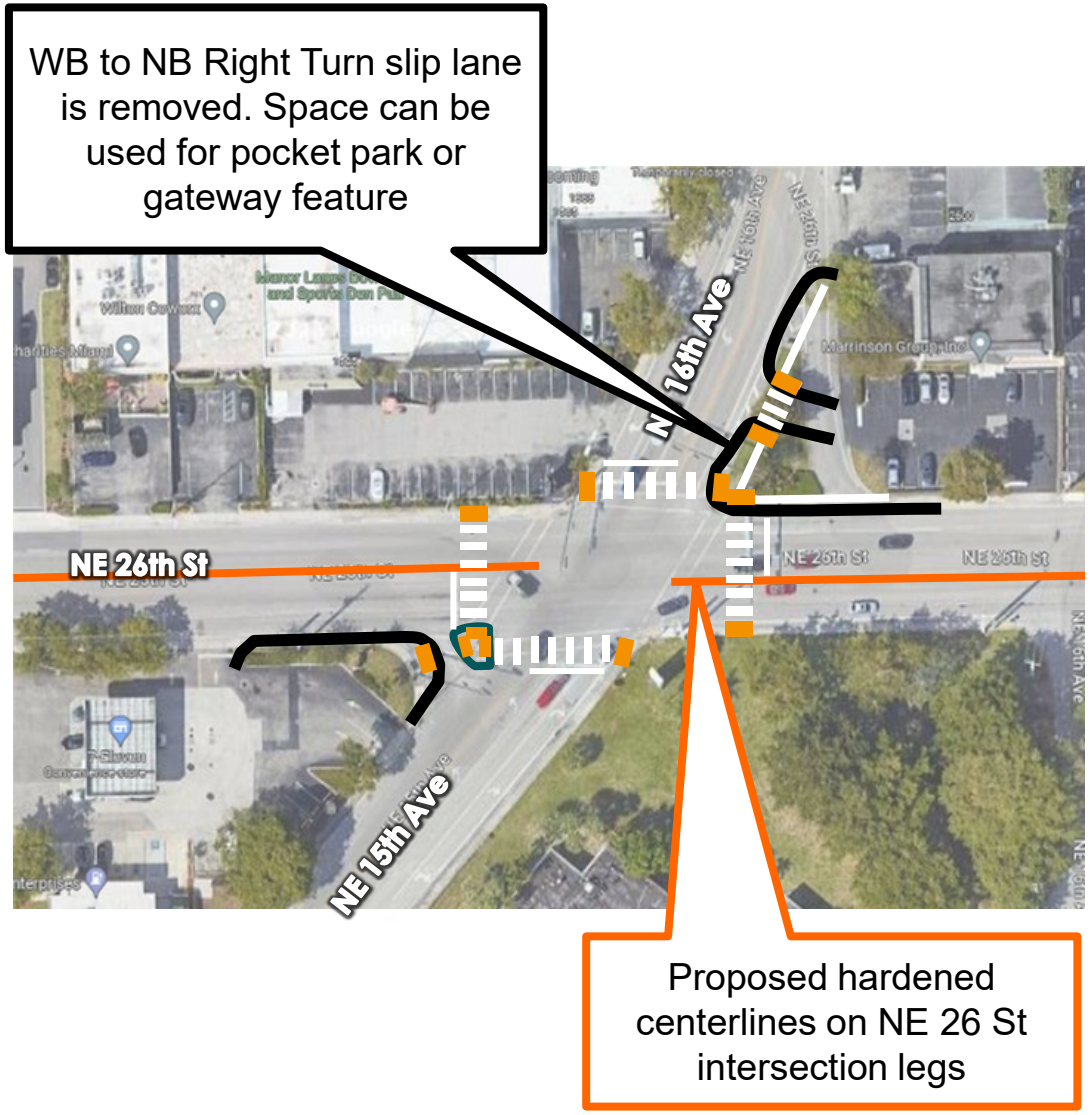
- Eliminates high speed right turns
- Provides space for raised bikeways or bend outs
- Straightens and shortens pedestrian crossings
- Provides directional pedestrian crossings
- Provides space for pocket park or placemaking treatments



NE 26 St: *East* of 5-Points

Intersection Improvements @ NE 15 / 16 Av

5-Lane Option



Addressing Turning Movements Traffic Speed

- Add hardened centerlines on NE 26 St intersection legs
- Remove WB to NB Right turn slip lane (from NE 26 St to NE 16 Av); Limits high speed right turns

Geometry Improvements

- Straighten and shorten pedestrian crossing
- Stop Bar moved behind crosswalks

Walking Improvements

- Implement no right turn on red for turns from NE 15 Ave and NE 16 Ave to NE 26th Street to allow for protected pedestrian crossing
- Restripe crosswalks to high visibility markings
- Add leading pedestrian intervals
- Upgrade to directional curb ramps
- Pedestrian crossing advanced signage

➢ **Tighten curb radii at EB to SB Right Turn Slip Lane**

➢ **Construct median refuge islands (as space permits)**

Dixie Hwy

Proposed Solutions Sheets:

1. Goals
2. Summary of Proposed Solutions: South of 5-Points
3. Summary of Proposed Solutions: North of 5-Points
4. Proposed Spots Medians near Publix & Dunkin Donuts
5. Proposed Midblock Crossing @ 2748

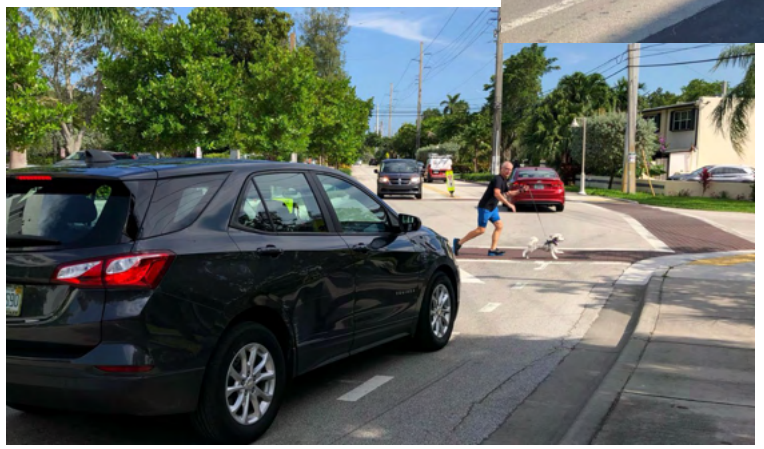
Dixie Hwy

Goals

- ✓ Redesign Roadway to improve access from Wilton Manors to Oakland Park
- ✓ Create cohesive Dixie Hwy character (from Fort Lauderdale to Oakland Park)
- ✓ Lower Speeds to 30 MPH
- ✓ Limit turning conflicts
- ✓ Improved Access Management
- ✓ Reduce severity of crashes
- ✓ Improve Comfort and Safety of Pedestrian and Bicycle facilities along roadway
- ✓ Improve Comfort, Safety, and Convenience of Crossings over Dixie Hwy

North of 5-Points
Biking LTS = 3
Ped LTS = 3

South of 5-Points
Biking LTS = 1
Ped LTS = 3



Dixie Hwy: *South* of 5-Points

Existing/Committed Facilities
- Bike Lane
- Raised Intersection

Summary of Proposed Solutions

Corridor Wide Strategies

Add Crosswalks and Conflict Markings at Intersections & Driveways
- Limits turning conflicts
- Alerts drivers, bicyclists, and pedestrians to potential conflict

Evaluate Lighting at Crossings
- Address nighttime crashes & improve pedestrian comfort

Narrow Side Street Curb Radii
- Slows drivers
- Limits turning conflicts

Add Wayfinding Signage
- Identify best routes to nearby destinations

Traffic Calming Strategies

Rebuild Raised Intersection
- Utilize current best practice as seen at Dixie Hwy & NE 16th St

Construct Raised Intersection
- Slows traffic & supports pedestrian crossing

Construct Speed Hump/Table*

*ITE Guidelines for the Design and Application of Speed Humps recommends spacing of 260' to 500' to keep 85th percentile operating speed between 25 and 30 mph

Add Lane Definition
- Slows traffic and increases driver alertness
- Add hardened centerline through curve
- Utilize profiled thermoplastic to define bike lane
- Paint bike lanes green / add conflict paint

Sidewalk Strategies

Clearly Define Sidewalk
- Install duratherm treatment between bikeway and sidewalk to define space
- Paint green conflict markings in bike lane

Construct sidewalk
- To be completed as properties redevelop

Reconstruct Bridge with Sidewalk on Both Sides

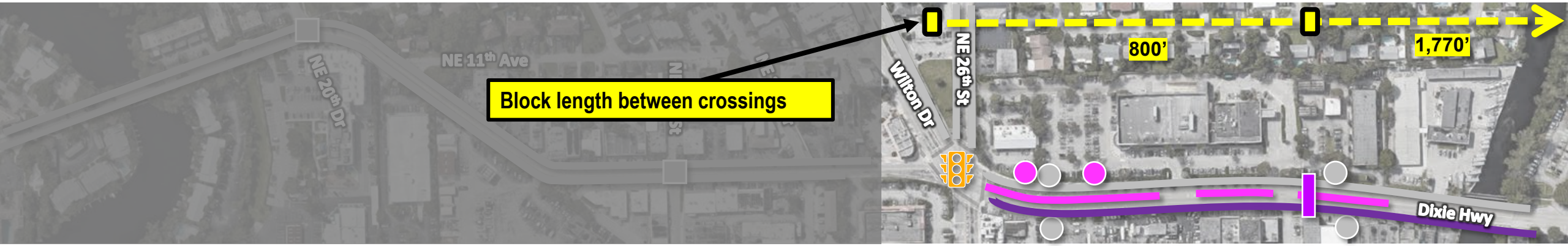
Update / Install RRFB
- Install double-sided RRFBs on both sides of roadway
- Verify lighting meets current FDM criteria for RRFB crossings

Dixie Hwy: *North* of 5-Points

Summary of Proposed Solutions

Existing/Committed Facilities

Bike Lane Bus Stop



Corridor Wide Strategies

Underground Utilities

- Limits sidewalk obstructions

Evaluate Lighting at Crossings

- Address nighttime crashes & improve pedestrian comfort

Add Wayfinding Signage

- Direct pedestrians to use sidewalk on west side

Traffic Calming Strategies

Construct Median + Convert to Right in / Right Out

- Slow traffic
- Direct crossings to desired locations

Add Lane Definition

- Slows traffic and increases driver alertness
- Utilize profiled thermoplastic to define space
- Utilize profiled thermoplastic to define bike lane
- Paint bike lanes green / add conflict paint

New Mid-Block Crossing with PHB

- RRFB if does not meet warrant
- Improves access to bus stops and across Dixie Hwy
- Encourages crossing at designated locations

Long Term Strategies (eastern parcels redevelopment)

- Require parking to be provided on site with designated driveway access
- Construct sidewalk on east side
- Construct sidewalk level separated bike lanes with conflict markings
- Construct new marked crossings with PHBs at additional locations east of the bridge and at main entrance to Publix Shopping center
- Construct Bus Islands
- Redesign road to 30 MPH design speed and add raised crosswalks

Increase Pedestrian Phase

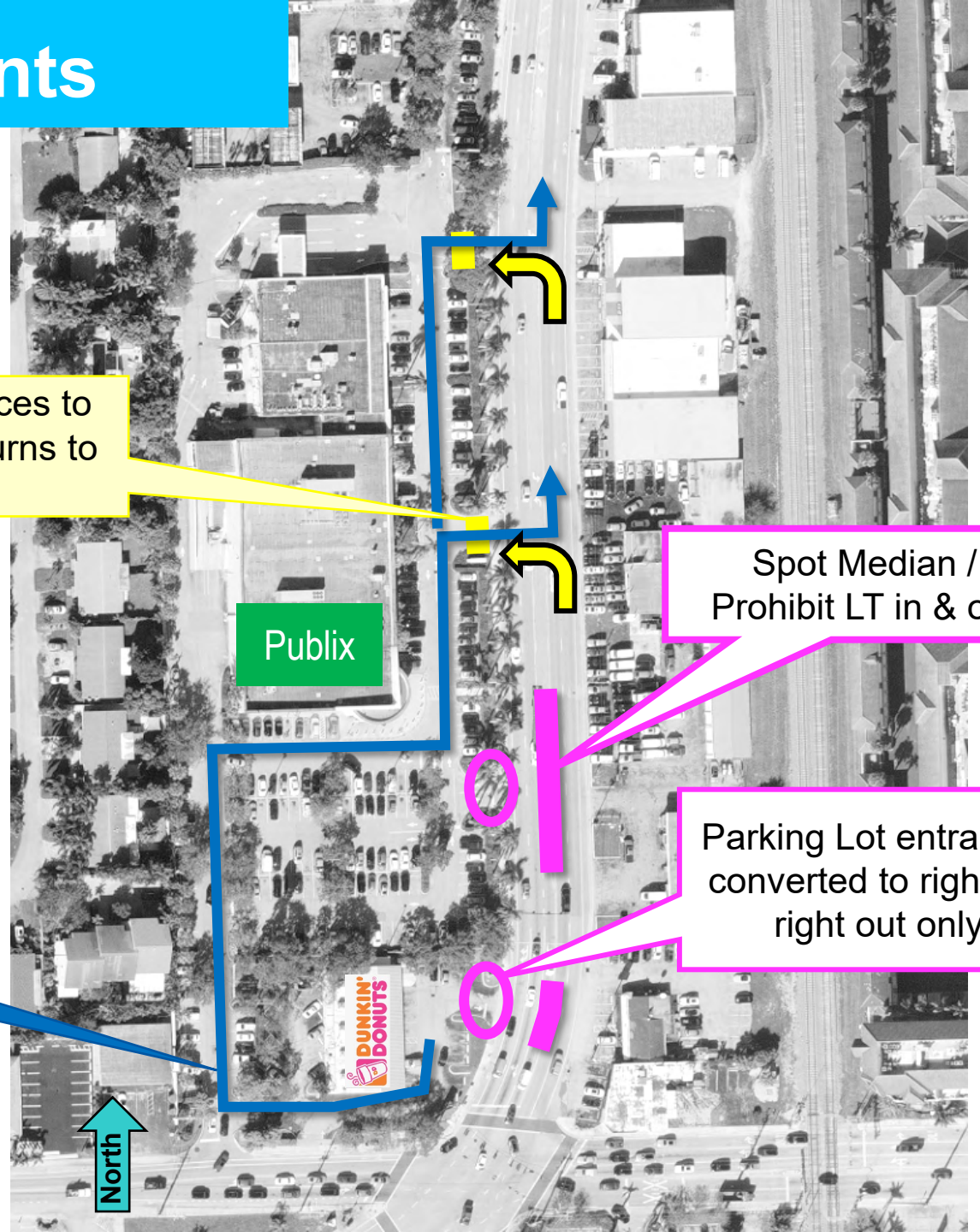
- Allow enough time for average and slower users to cross Dixie Hwy
- 5-Points to be separately designed

Dixie Hwy: *North* of 5-Points

Spot Medians at Publix & Dunkin Donuts

Two Parking Lot entrances to continue to allow Left Turns to & from Dixie Hwy

Drivers leaving Dunkin Donuts who want to go NB on Dixie Hwy can drive through parking lot to left turn access openings

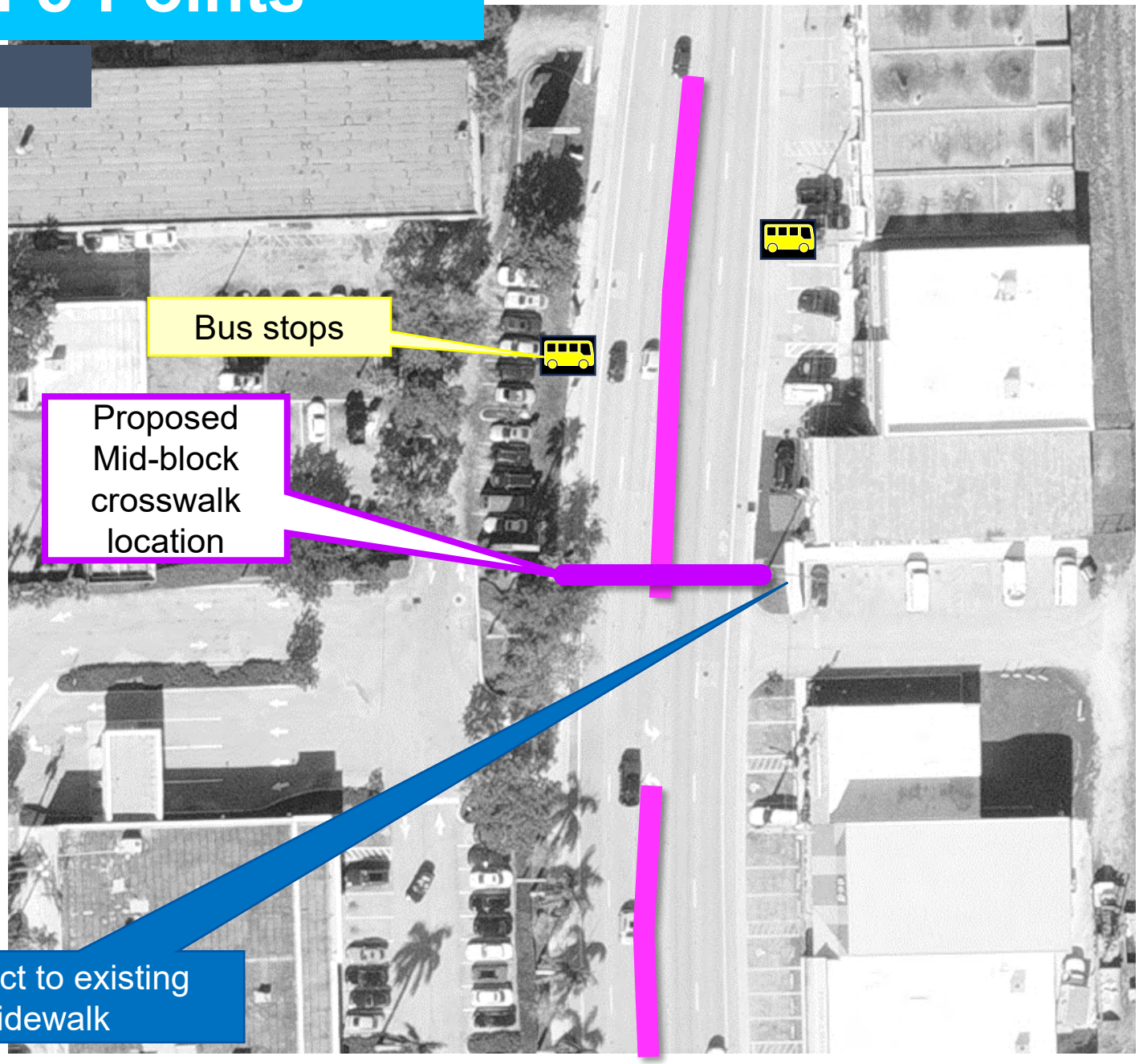


Spot Median / Prohibit LT in & out

Parking Lot entrances converted to right in / right out only

Dixie Hwy: *North* of 5-Points

New Midblock Crossing @ 2748



NE 24 St Route

Proposed Solutions Sheets:

1. Goals
2. Summary of Proposed Solutions: Route West
3. Summary of Proposed Solutions: Route East
4. Proposed Improvements at NE 6 Av
5. Proposed Improvements at Wilton Dr

Ne 24 St Route

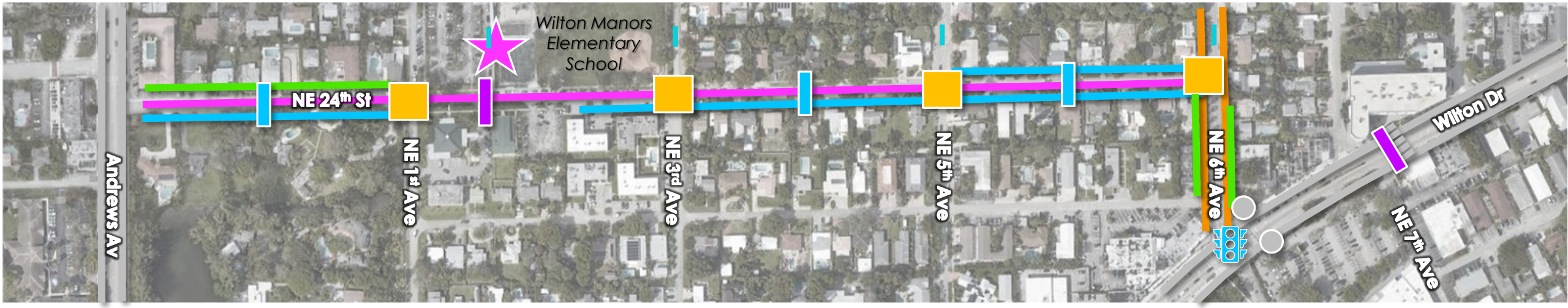
Goals

- ✓ Create cohesive bike / pedestrian route on NE 24 St from Andrews Av to NE 17 Te (connecting via NE 6 Av, Wilton Dr, NE 7 Av, NE 22 Dr, & pedestrian entrance at Union parking lot)
- ✓ Provide comfortable, safe, and convenient bike / pedestrian access to Wilton Manors Elementary School, Wilton Drive, and Dixie Hwy
- ✓ Reduce crossings at unmarked locations (near / at Wilton Dr)
- ✓ Fill in critical sidewalk gaps
- ✓ Identify bike route
- ✓ Traffic calming on residential streets
- ✓ Reduce crash severity, (near / at Wilton Dr)

NE 24 St Route - *West*

Summary of Proposed Solutions

Existing/Committed Facilities
- Bike Lane
- Mid-Block crossing
- Bus Stop



Corridor Wide Strategies

Evaluate Lighting
- Address nighttime visibility & improve pedestrian comfort

Narrow Side Street Curb Radii
- Slows drivers
- Limits turning conflicts

Add Wayfinding Signage
- Identify best routes to nearby destinations

Mark Crosswalks at Side Street Intersections
- Supports pedestrian crossing
- North / south only at NE 23rd St

Traffic Calming Strategies

Construct Raised Intersection
- Slows traffic & supports pedestrian crossing

Construct Speed Hump/Table*

*ITE Guidelines for the Design and Application of Speed Humps recommends spacing of 260' to 500' to keep 85th percentile operating speed between 25 and 30 mph

Raised Crossing with RRFB
- Proposed enhancement to crossing currently in design
- Slows traffic & supports pedestrian crossing

Ped / Bike Facilities

Construct Sidewalk*

*Sidewalk in Lazy Lake requires coordination with City

Paint 5' Bike Lane

Clearly Define Sidewalk
- Install duratherm treatment to define space

Shared Lane Markings
- Sign as bike boulevard
- Alerts drivers to presence of people biking
- Provides wayfinding

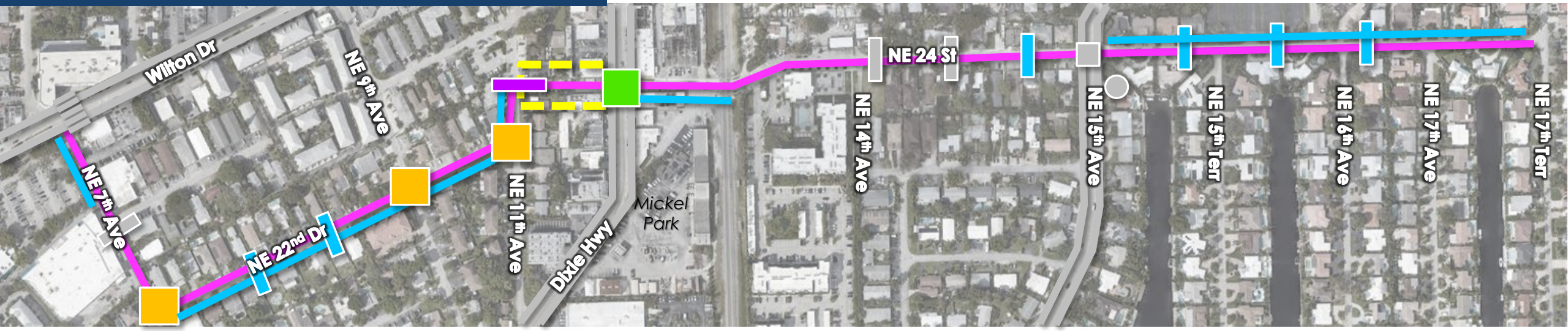
Add All Pedestrian Phase
- Phase exclusively for pedestrians; all directions cross at once
- See intersection slide for additional suggested improvements

Evaluate School Circulation Needs

NE 24 St Route - *East*

Summary of Proposed Solutions

Existing/Committed Facilities
- Bike Lane
- Mid-Block crossing
- Raised Intersection
- Bus Stop
- Speed Hump



Corridor Wide Strategies

Evaluate Lighting
- Address nighttime visibility & improve pedestrian comfort

Narrow Side Street Curb Radii
- Slows drivers
- Limits turning conflicts

Add Wayfinding Signage
- Identify best routes to nearby destinations

Mark Crosswalks at Side Street Intersections
- Supports pedestrian crossing
- North / south only at NE 23rd St

Traffic Calming Strategies

Construct Raised Intersection
- Slows traffic & supports pedestrian crossing

Rebuild Raised Intersection
- Includes RRFB
- See Dixie Hwy Projects

Construct Speed Hump/Table*

*ITE Guidelines for the Design and Application of Speed Humps recommends spacing of 260' to 500' to keep 85th percentile operating speed between 25 and 30 mph

Raised Crossing
- Slows traffic & supports pedestrian crossing

Ped / Bike Facilities

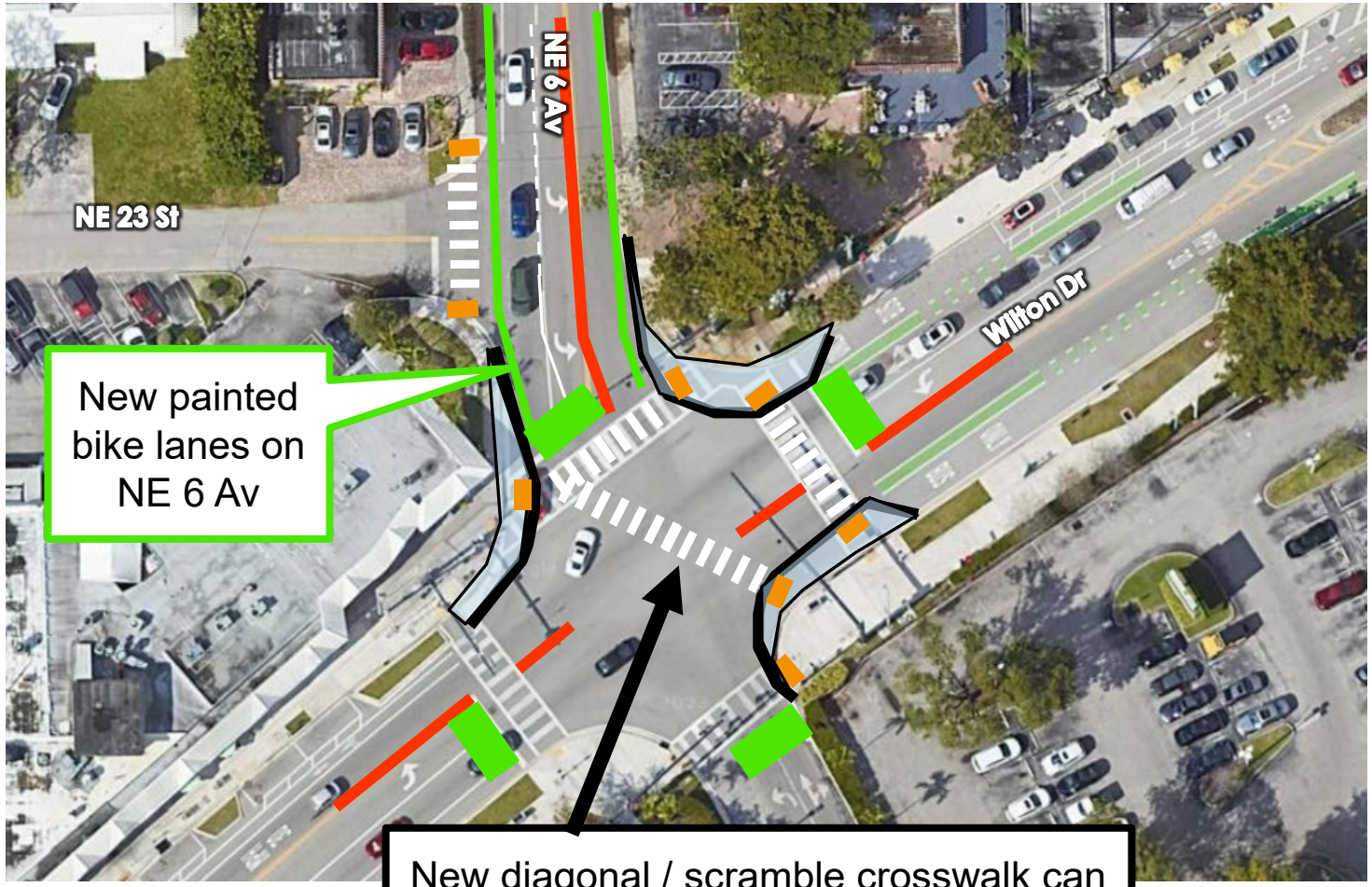
Construct Sidewalk
- Only on noted side of the street
- Remove on street parking to make space for sidewalk with curb on NE 7 Ave

Shared Lane Markings
- Sign as bike boulevard
- Alerts drivers to presence of people biking
- Provides wayfinding

Purchase New Access Easement
- Allows people to walk and bike through property

NE 24 St Route - *West*

Improvements at NE 6 Av & Wilton Dr



Addressing Left Turns

- Add hardened centerlines to guide and slow left turns

Addressing Right Turns

- Realign intersection
- Install curb extensions and reduce curb radius on SW, NE, and NW corner to slow drivers and prevent drivers from using bus lane as turn lane
- Shift SB bus stop north to provide space for curb extension

Walking Improvements

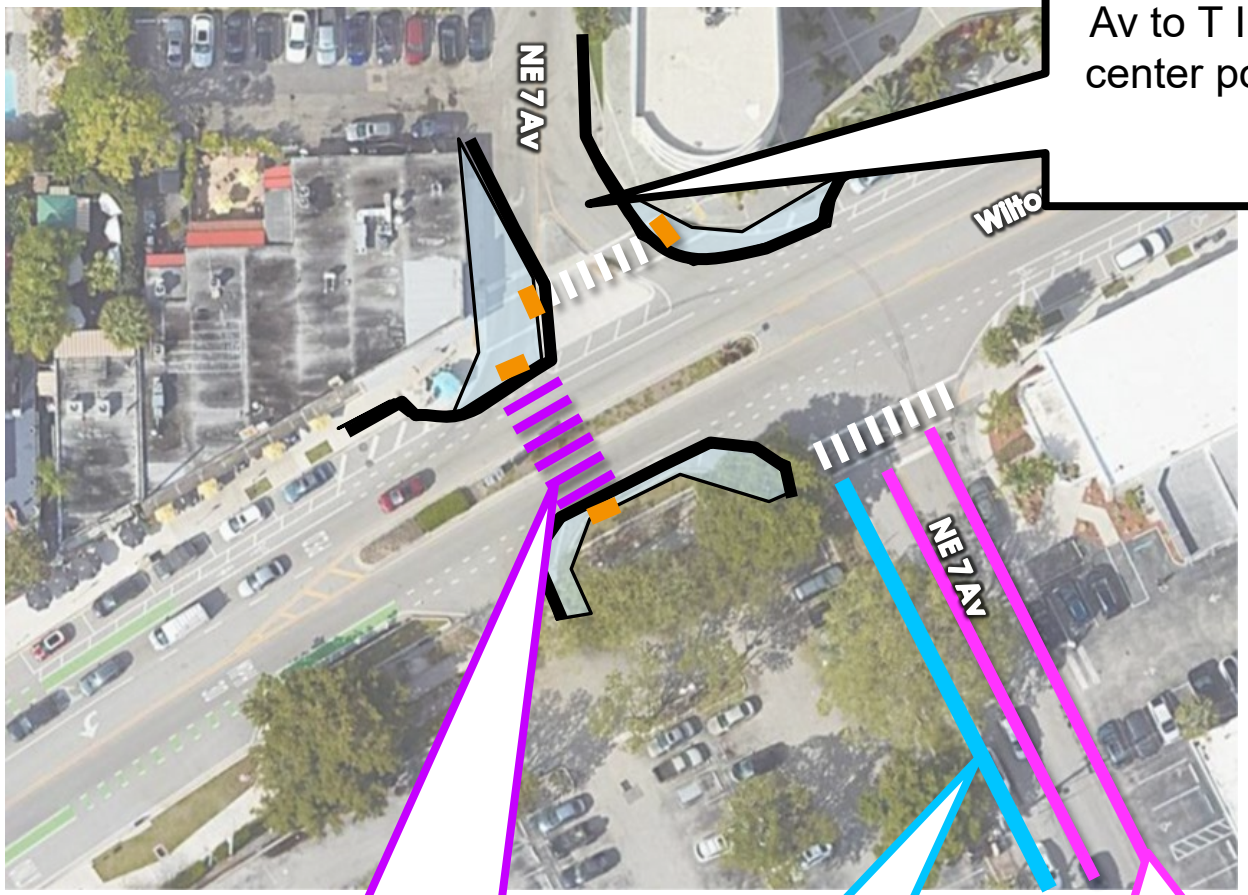
- Implement all pedestrian phase
- Add in scramble crosswalk across intersection
- Build curb extensions to reduce pedestrian crossing distance
- Evaluate lighting and improve as needed

Biking Improvements

- Add green conflict paint (intersections and driveways)
- Allow bikes to use all pedestrian phase
- Install bike boxes on all legs of intersection or construct protected intersection

NE 24 St Route - *West*

Improvements at NE 6 Av & Wilton Dr



Realign northern leg of NE 7 Av to T Intersection; remove center pork chop; Raise new crosswalk

Addressing Right Turns

- Realign northern leg of NE 7th Ave intersection to a T intersection
- Remove porkchop and high speed Right turn lanes

Walking Improvements

- Move proposed crosswalk to pedestrian desire line south of NE 7th Ave
- Convert proposed crosswalk with RRFB and median refuge to raised crosswalk with RRFB and median refuge
- On NE 7 Av north of Wilton Dr, construct raised crosswalk in new T-Intersection
- Build curb extensions to reduce pedestrian crossing distance
- On NE 7 Av south of Wilton Dr, replace on-street parking with sidewalk
- Evaluate lighting and improve as needed

Proposed Mid-block crosswalk location at popular crossing location

Replace on-street parking with sidewalk

Shared lane markings direct bicyclists along NE 24 St Route

NE 21 Ct Route

Proposed Solutions Sheets:

1. Goals
2. Summary of Proposed Solutions
3. Proposed Improvements at Wilton Dr

NE 21 Ct Route

Goals

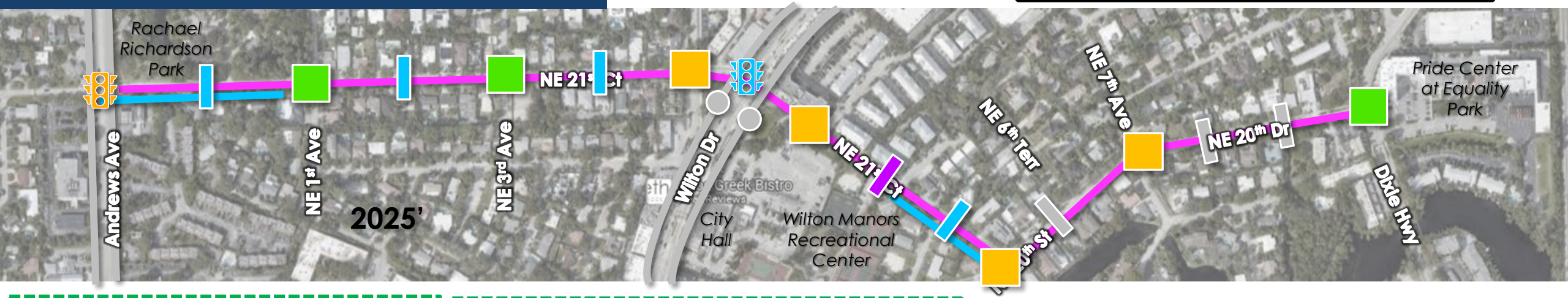
- ✓ Create cohesive bike / pedestrian route on NE 21 Ct from Andrews Av to Dixie Hwy (including NE 20 St)
- ✓ Provide comfortable, safe, and convenient bike / pedestrian access to City Hall, Hagen Park, Wilton Drive, Pocket Park and Equality Park
- ✓ Fill in critical sidewalk gaps
- ✓ Identify bike route
- ✓ Traffic calming on residential streets
- ✓ Reduce crash severity, especially on Wilton Drive

NE 21 Ct Route

Summary of Proposed Solutions

Existing/Committed Facilities

- Bike Lane
- Mid-Block crossing
- Bus Stop
- Speed Hump



Corridor Wide Strategies

Evaluate Lighting

- Address nighttime visibility & improve pedestrian comfort

Narrow Side Street Curb Radii

- Slows drivers + Limits turning conflicts

Add Wayfinding Signage

- Identify best routes to nearby destinations

Mark Crosswalks at Side Street Intersections

- Supports pedestrian crossing

Underground Utilities

- Limits sidewalk obstructions

Traffic Calming Strategies

Construct Raised Intersection

- Slows traffic & supports pedestrian crossing

Rebuild Raised Intersection

- Include crosswalks and appropriate markings
- Slows traffic & supports pedestrian crossing

Construct Speed Hump/Table*

*ITE Guidelines for the Design and Application of Speed Humps recommends spacing of 260' to 500' to keep 85th percentile operating speed between 25 and 30 mph

Raised Crossing with RRFB

- Slows traffic & supports pedestrian crossing

Ped / Bike Facilities

Construct Sidewalk

- Only feasible with utility undergrounding

Widen Existing Sidewalk to 8 ft (where feasible)

Shared Lane Markings

- Sign as bike boulevard
- Alerts drivers to presence of people biking
- Provides wayfinding

Add All Pedestrian Phase

- Phase exclusively for pedestrians; all directions cross at once
- See intersection slide for additional suggested improvements

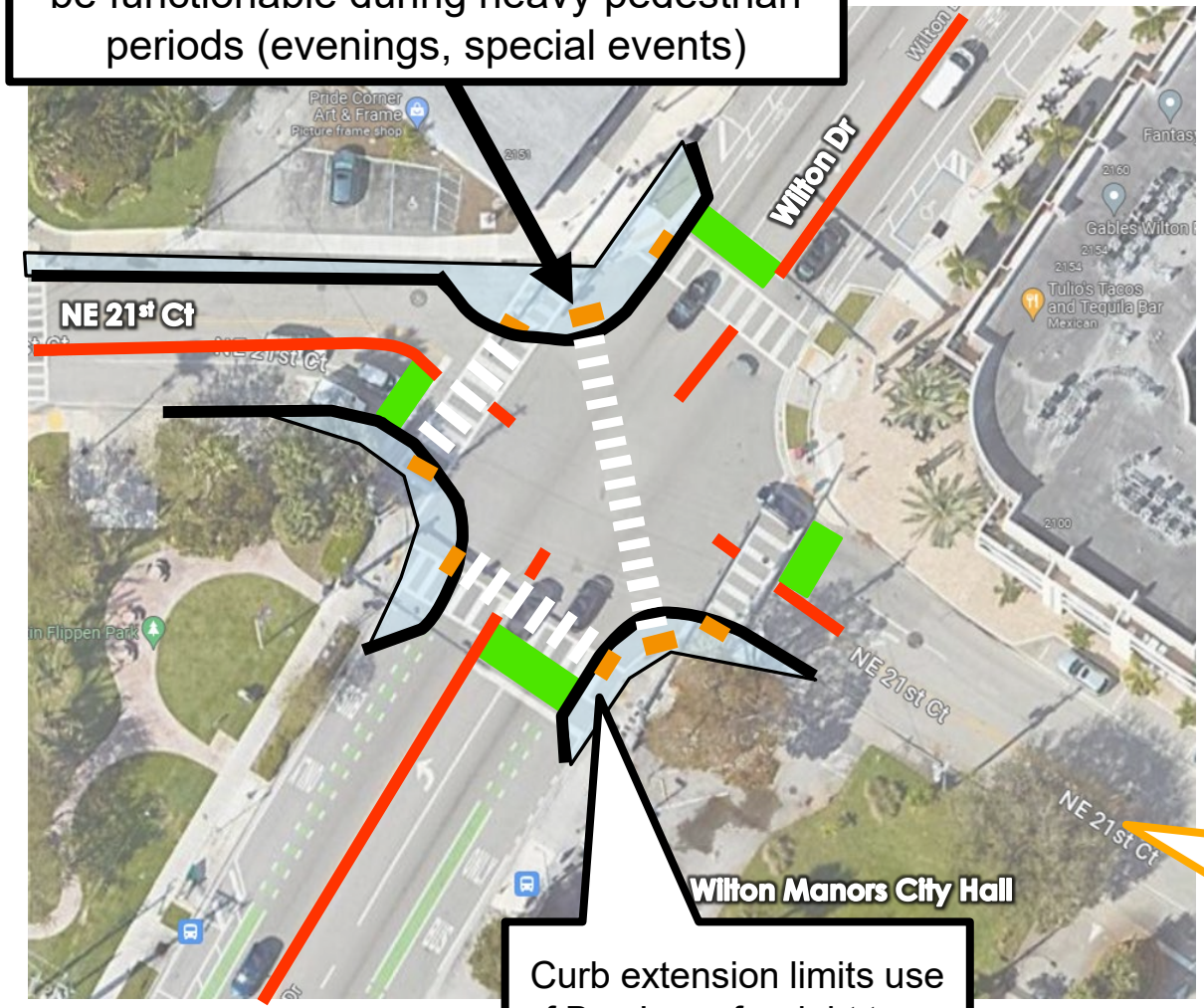
Increase Pedestrian Phase

- Allow enough time for average and slower users to cross Andrews Av
- See Andrews Av for additional suggested improvements

NE 21 Ct Route

Intersection Improvements at Wilton Dr

New diagonal / scramble crosswalk can be functionable during heavy pedestrian periods (evenings, special events)



Curb extension limits use of Bus Lane for right turns

Addressing Left Turns

- Add hardened centerlines to guide and slow left turns

Addressing Right Turns

- Install curb extensions and reduce curb radius on NW and SE corners to slow drivers and prevent drivers from using bus lane as turn lane
- Realign NE 21 Ct western approach to a right angle

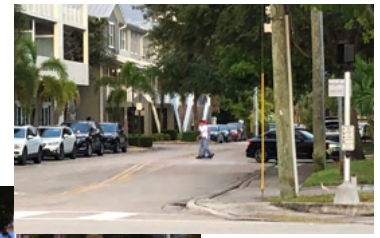
Walking Improvements

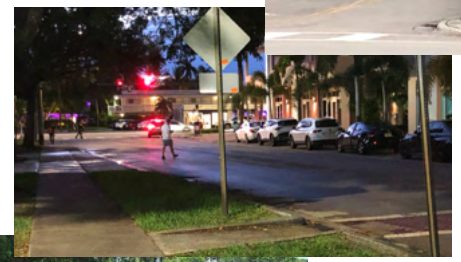
- Implement all pedestrian phase
- Add in scramble crosswalk across intersection
- Build curb extensions to reduce pedestrian crossing distance
- Widen sidewalk on north side of western leg of NE 21 Ct
- New raised intersection with pedestrian crossing at driveway entrance to City Hall parking lot
- Evaluate lighting and improve as needed

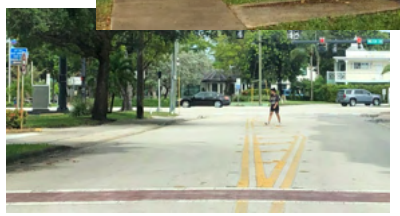
Biking Improvements

- Allow bikes to use all pedestrian phase
- Install bike boxes on all legs of intersection or construct protected intersection

Construct a raised intersection at driveway entrance to Parking Lot, a frequent crossing location







Westside Route

Proposed Solutions Sheets:

1. Goals
2. Summary of Proposed Solutions: With Sidewalk
3. Summary of Proposed Solutions: Without Sidewalk

Westside Route

Goals

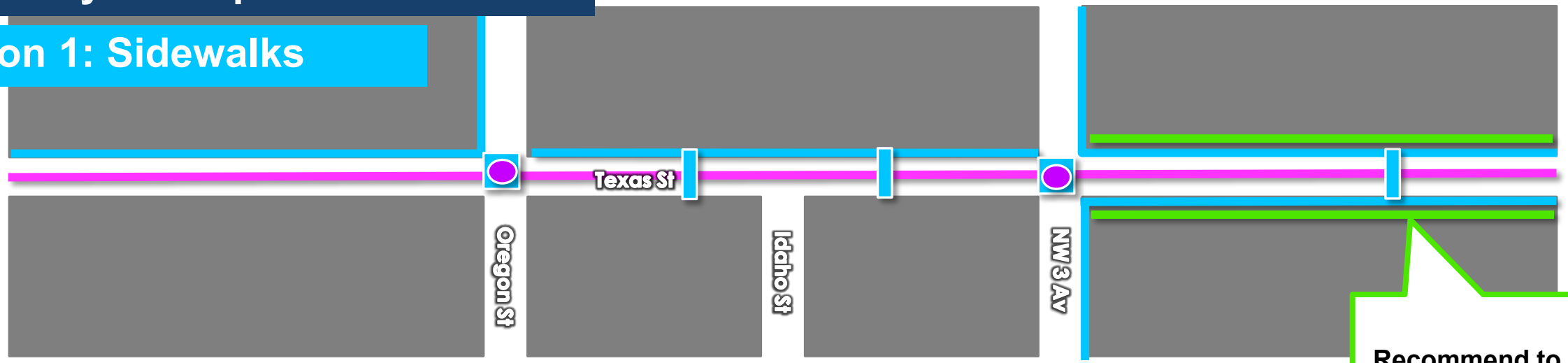
- ✓ Traffic calming
- ✓ Create a cohesive bike / pedestrian route in the neighborhood east of Powerline Rd, west of Andrews Av, and south of NW 29 St
- ✓ Create an extension of the NE 24 St or NE 21 Ct Route
- ✓ Provide comfortable, safe, and convenient bike / pedestrian access to Mickel Park
- ✓ Identify bike route

Westside Route

- Route has not been identified
- Solutions are based on existing conditions throughout neighborhood

Summary of Proposed Solutions

Option 1: Sidewalks



Corridor Wide Strategies

Evaluate Lighting

- Address nighttime visibility & improve pedestrian comfort

Narrow Side Street Curb Radii

- Slows drivers
- Limits turning conflicts

Add Wayfinding Signage

- Identify best routes to nearby destinations

Mark Crosswalks at Side Streets

- Increases visibility and driver alertness

Sidewalk Strategies

Construct 6' Sidewalk

- Only on noted side of the street
- Where feasible, construct a 5' landscaped buffer between the sidewalk and the road

Clearly Define Sidewalk

- Where back out parking exists, Install duratherm treatment to define space

Construct Speed Hump/Table*

*ITE Guidelines for the Design and Application of Speed Humps recommends spacing of 260' to 500' to keep 85th percentile operating speed between 25 and 30 mph

Construct Raised Intersection or Mini Roundabout

- Mini roundabout preferable where sufficient space exists
- Intersection can be both raised and with roundabout

Paint Shared Lane Markings

- Sign as bike boulevard
- Alerts drivers to presence of people biking
- Provides wayfinding for people biking

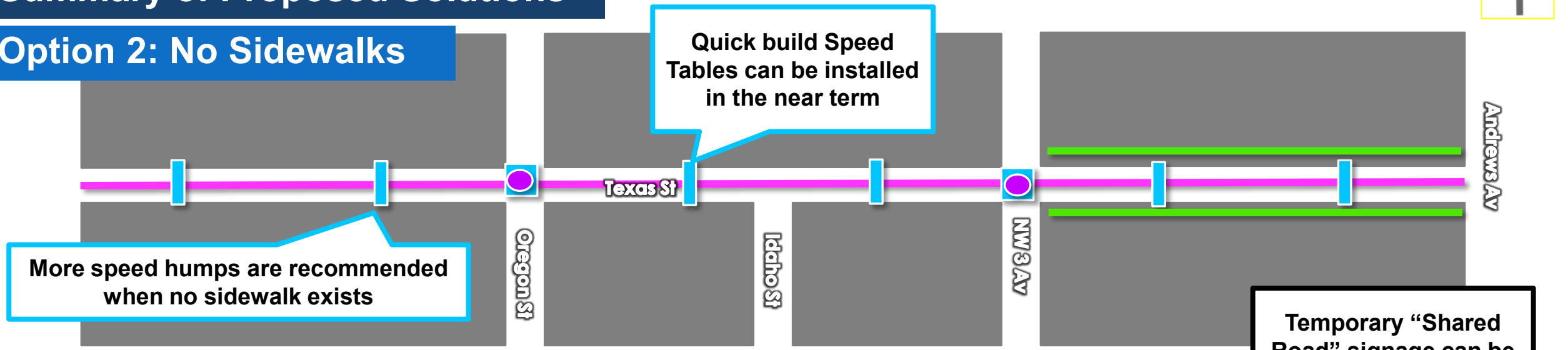
Recommend to define the sidewalks west of Andrews Av (abutting back-out parking)

Westside Route

Summary of Proposed Solutions

Option 2: No Sidewalks

- Route has not been identified
- Solutions are based on existing conditions throughout neighborhood



Corridor Wide Strategies

Evaluate Lighting

- Address nighttime visibility & improve pedestrian comfort

Narrow Side Street Curb Radii

- Slows drivers
- Limits turning conflicts

Add Wayfinding Signage

- Identify best routes to nearby destinations

Add Shared Road Signage

- Increases visibility and driver alertness

Mark Crosswalks at Side Streets

- Increases visibility and driver alertness

Sidewalk Strategies

Clearly Define Existing Sidewalk

- Where back out parking exists, Install duratherm treatment to define space

Require new development to construct 6' sidewalks

Paint Shared Lane Markings

- Alerts drivers to presence of people biking
- Provides wayfinding for people biking

Construct Speed Hump/Table*

*ITE Guidelines for the Design and Application of Speed Humps recommends spacing of 260' to 500' to keep 85th percentile operating speed between 25 and 30 mph

Construct Raised Intersection or Mini Roundabout

- Mini roundabout preferable where sufficient space exists
- Intersection can be both raised and with roundabout

Temporary "Shared Road" signage can be installed