



City Commission Work Session

Agenda

April 27, 2023 @ 1:00 pm

City Hall - Commission Chambers
401 S. Park Avenue

welcome

Agendas and all backup material supporting each agenda item are accessible via the city's website at cityofwinterpark.org/bpm and include virtual meeting instructions.

assistance & appeals

Persons with disabilities needing assistance to participate in any of these proceedings should contact the City Clerk's Office ([407-599-3277](tel:407-599-3277)) at least 48 hours in advance of the meeting.

"If a person decides to appeal any decision made by the Board with respect to any matter considered at this hearing, a record of the proceedings is needed to ensure that a verbatim record of the proceedings is made, which record includes the testimony and evidence upon which the appeal is to be based." (F.S. 286.0105).

please note

Times are projected and subject to change.

-
1. **Call to Order**
 2. **Discussion Item(s)**
 - a. [Transportation Master Plan Update 2 by Patel, Greene & Associates](#) 90 minutes
 3. **Adjournment**



City Commission **agenda item**

item type Discussion Item(s)	meeting date April 27, 2023
prepared by Hongmyung Lim	approved by Michelle del Valle, Randy Knight
board approval Completed	
strategic objective	

subject

Transportation Master Plan Update 2 by Patel, Greene & Associates

motion / recommendation

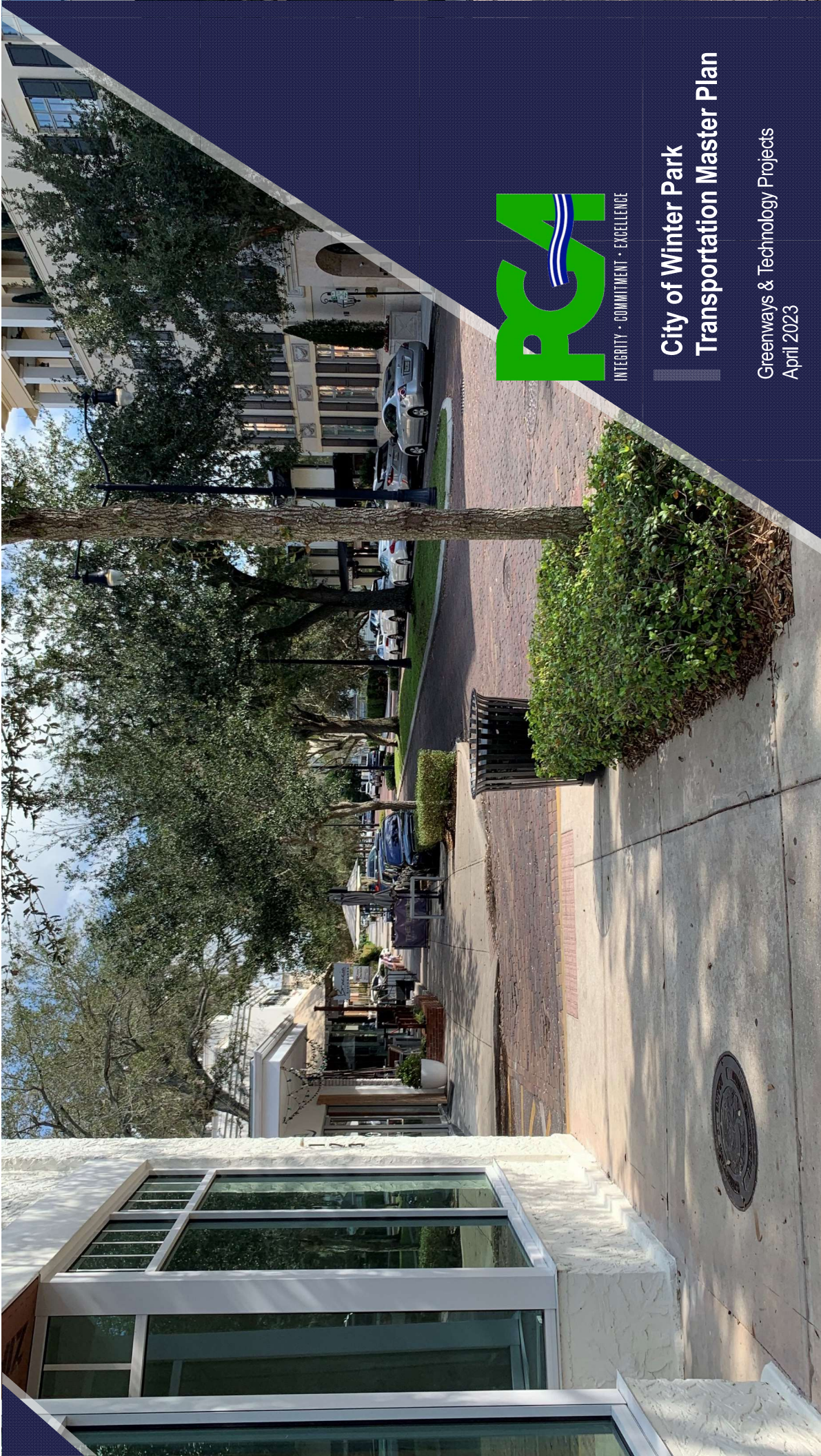
background

alternatives / other considerations

fiscal impact

ATTACHMENTS:

[WinterParkTMP_Presentation2_draft_v3.pptx](#)



City of Winter Park Transportation Master Plan

Greenways & Technology Projects
April 2023

Today's Presentation

Baseline analysis recap & updates

Confirm metrics/prioritization criteria

New projects concepts:

- Greenways
- Technology



Transportation Master Plan Project Schedule

Updated April 2023



1. Baseline Documentation

2. Modal & Project Metrics Evaluation

3. Technology Evaluation

4a. Project Identification

4b & c. Project Cost Estimates and Prioritization

5a. Draft Plan Document

5b. Final Plan Document

TASKS

		2023											
		2022											
		1	2	3	4	5	6	7	8	9	10		
		NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG		
1. Baseline Documentation													
2. Modal & Project Metrics Evaluation													
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LEGEND



Transportation Advisory Board



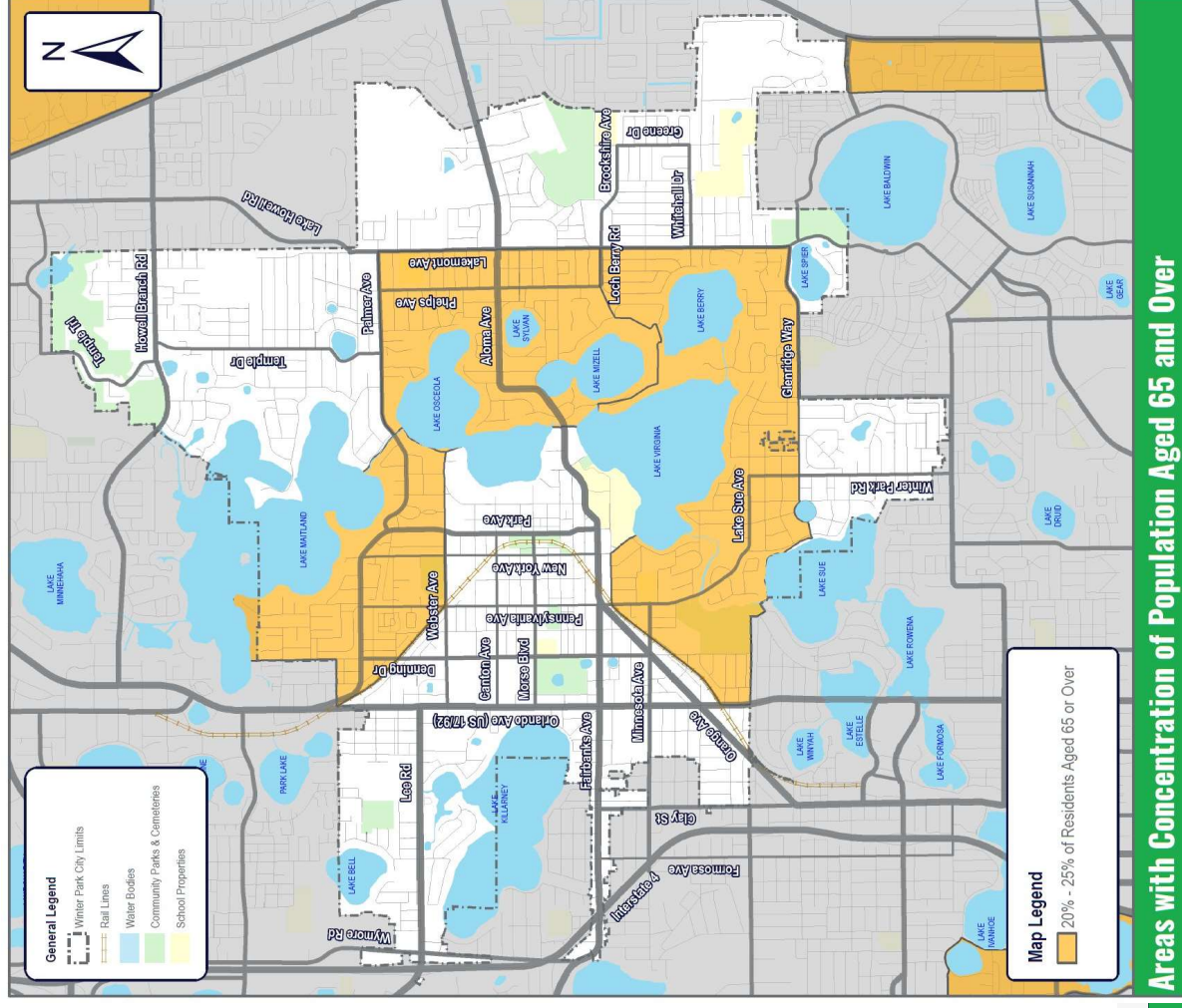
City Commission

1st Presentation Recap – Baseline & Analysis

Discussion Thus Far

- Consider elderly people and future demographics.
- Connect destinations like parks, schools, and Sun Rail.
- Plan for technologies such as electric and connected vehicles.
- Provide tools to address traffic speed and cut-through traffic.
- Transportation Master Plan will provide high-level list of prioritized projects with cost estimates and an expanded design toolbox, but not detailed design alternatives for individual locations.

Main Themes: Pedestrians, Bicyclists & Technology



Bicycle Level of Traffic Stress

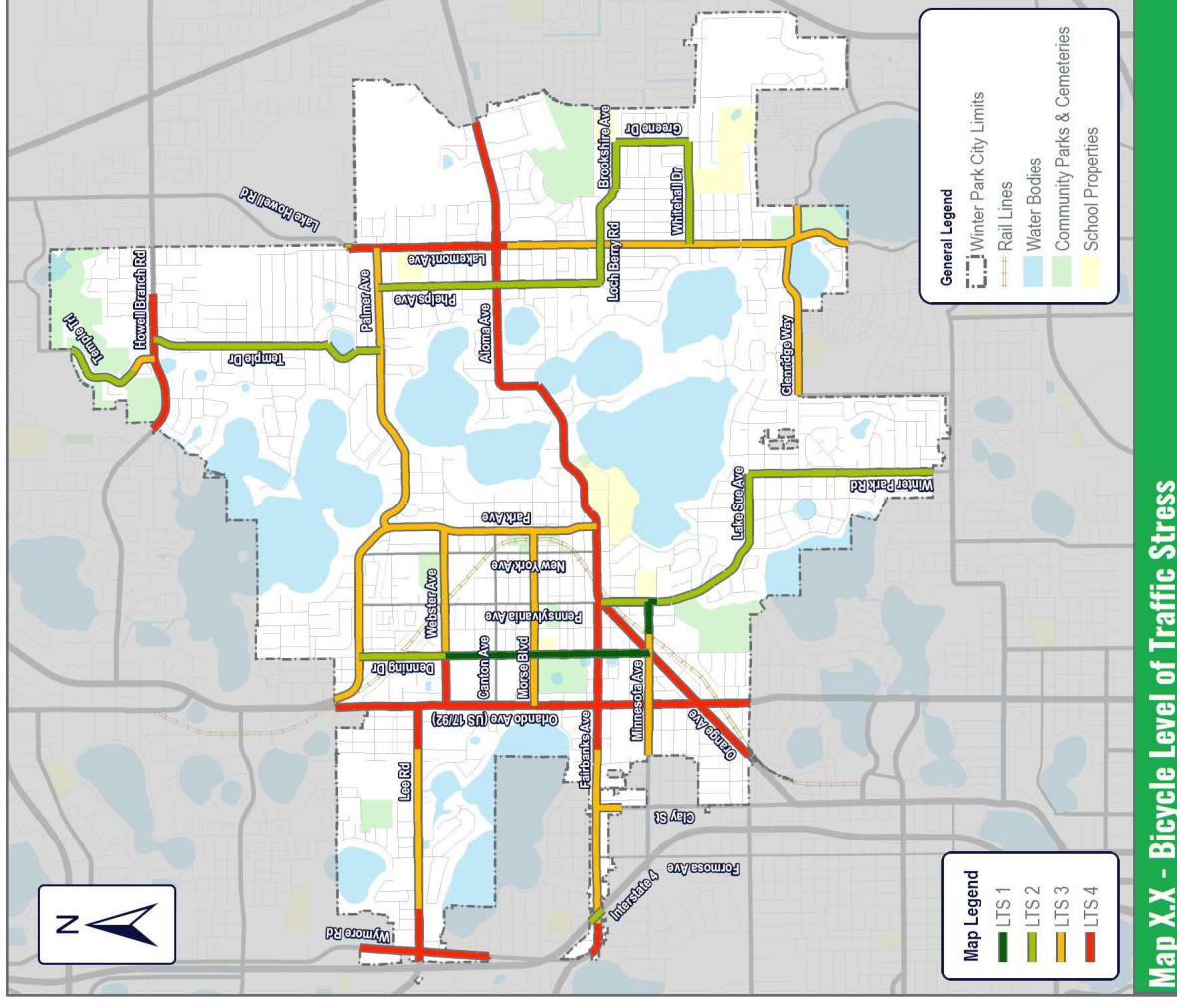


Calibrated the FDOT LTS analysis to Winter Park:

- Posted Speed Limit
- Number of travel lanes
- Volume of motor vehicles
- Land use commercial or residential
- Width of pathway or bike lane

In general, more separation from traffic is preferred for bicycle facilities.

In general, low speed and low traffic streets are preferred when there is not a dedicated bicycle facility.



Metrics > Prioritization

Pedestrian & Bicyclist - Network Connectivity

- Access to key destinations: parks, schools, SunRail
- Pedestrian Latent Demand
- Level of Traffic Stress for pedestrians and bicyclists
- Pedestrian and bicyclist crashes
- Concentration of people aged 65 and over

Traffic - Travel Time Reliability

- Motor vehicle crashes
- Motor vehicle traffic volumes
- Motor vehicle traffic level of service
- Technology strategic investments



Projects Identified Previously

Roadway

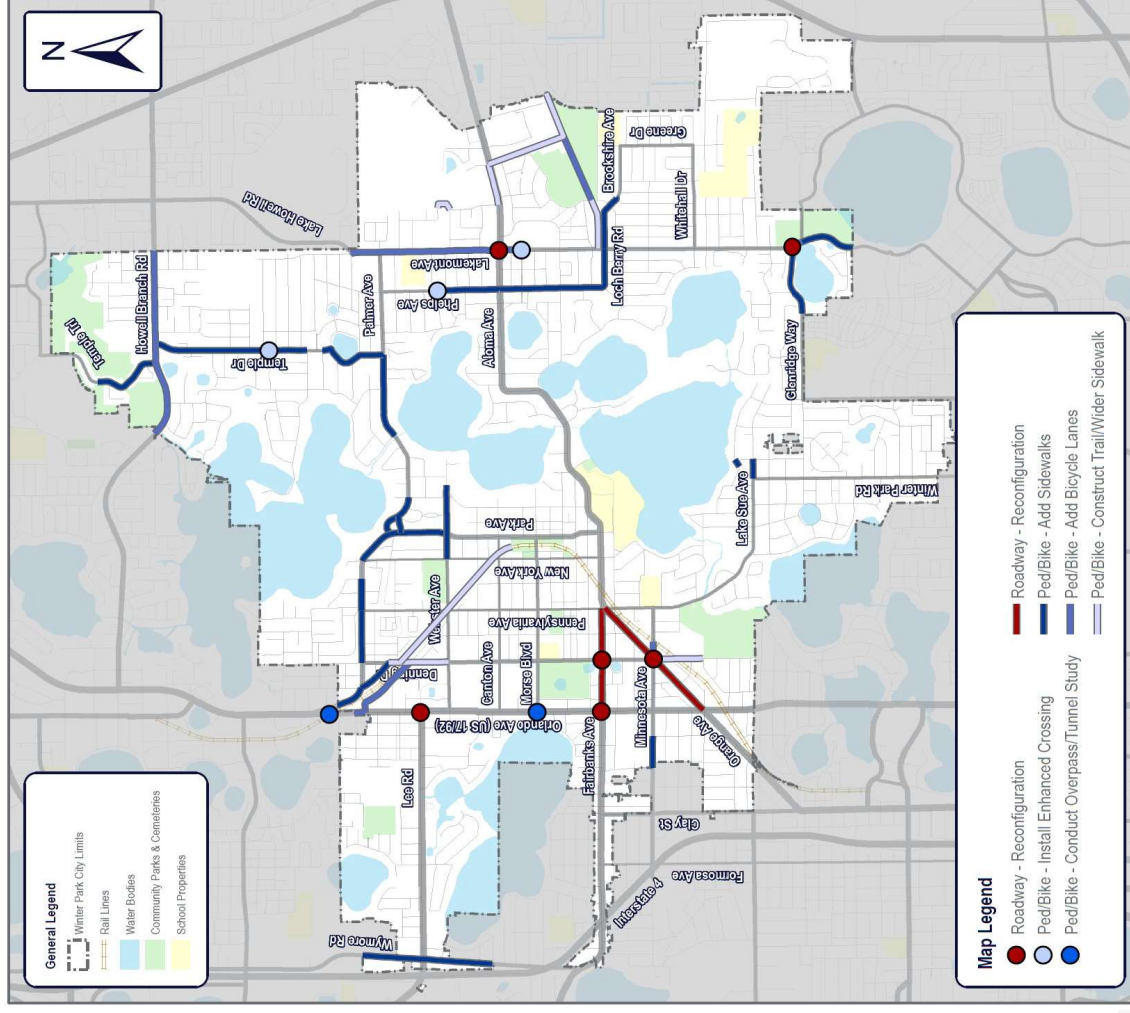
- Corridor reconfiguration studies
- Intersection capacity

Pedestrian & bicycle

- Sidewalks
- Bike lanes
- Trail/wider sidewalk
- Crossings/Signals

New projects concepts

- Greenways
- Technology



Greenways

Safe crossings

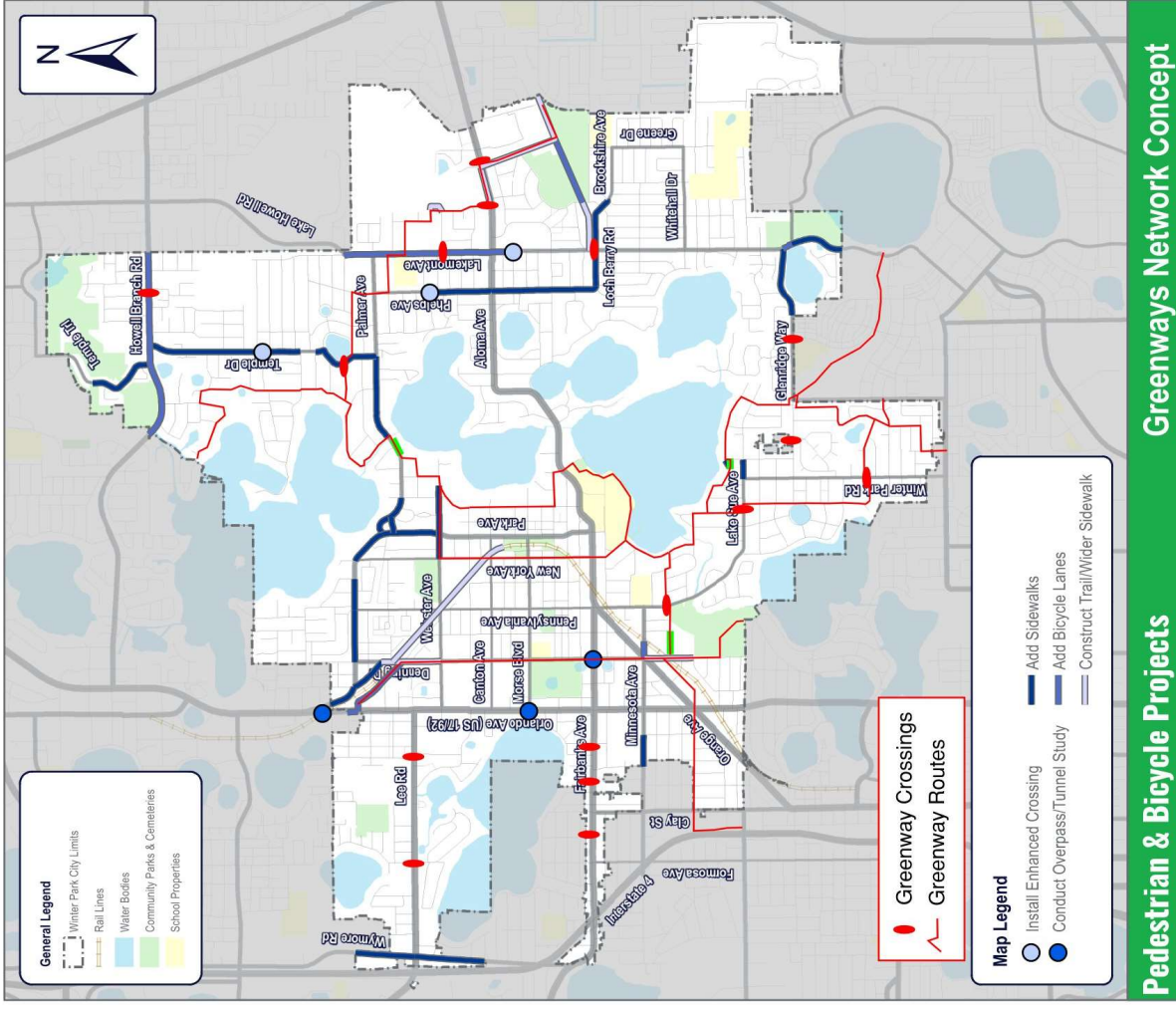
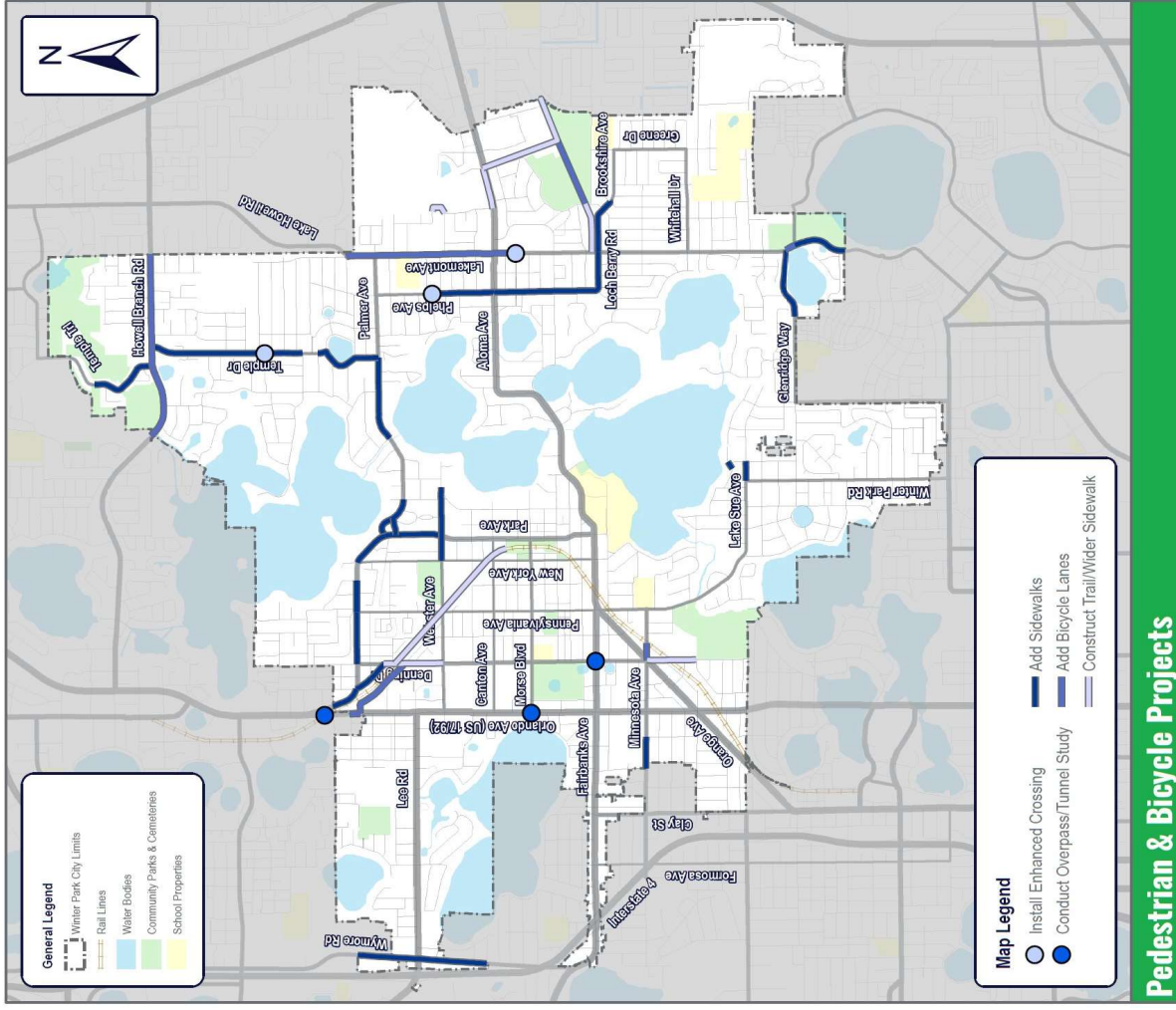
Connect key destinations

Destination-oriented wayfinding

Route identification & amenities



Lane re-allocation to install buffered bike lanes & enhanced crossing as part of resurfacing project in St. Petersburg, FL - Dr. MLK Jr. Street at 13th Avenue N



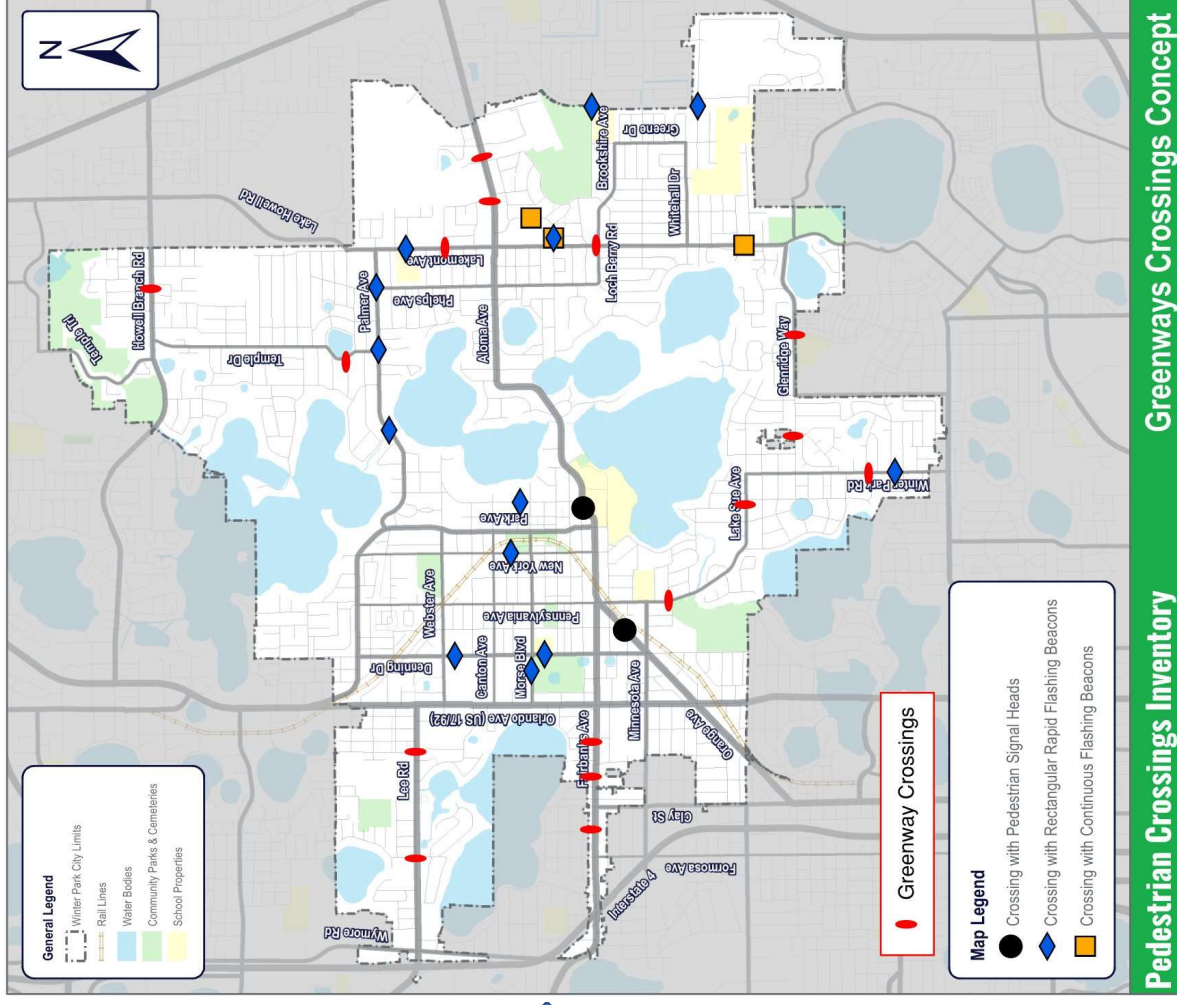
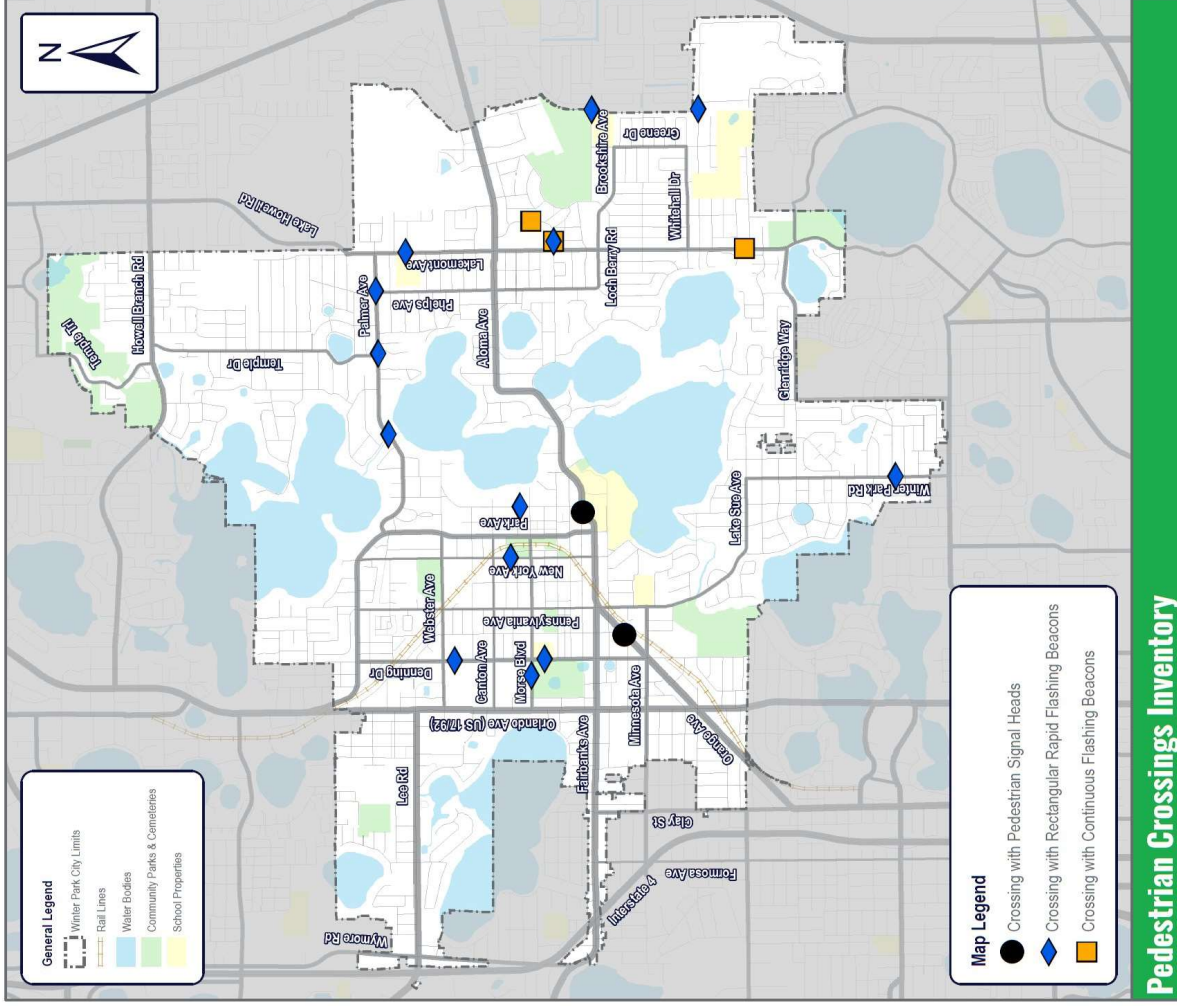
Greenways – Both Bicyclists & Pedestrians

Enhance traffic calming efforts

Decrease distance between crossings

Shade, comfort, and aesthetics

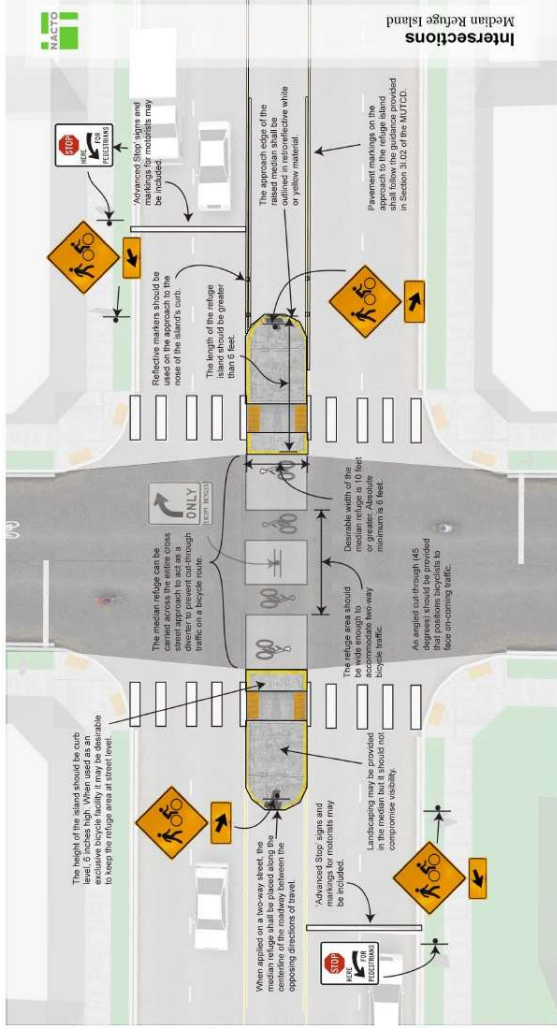




Greenway Crossings - Build on Existing Success

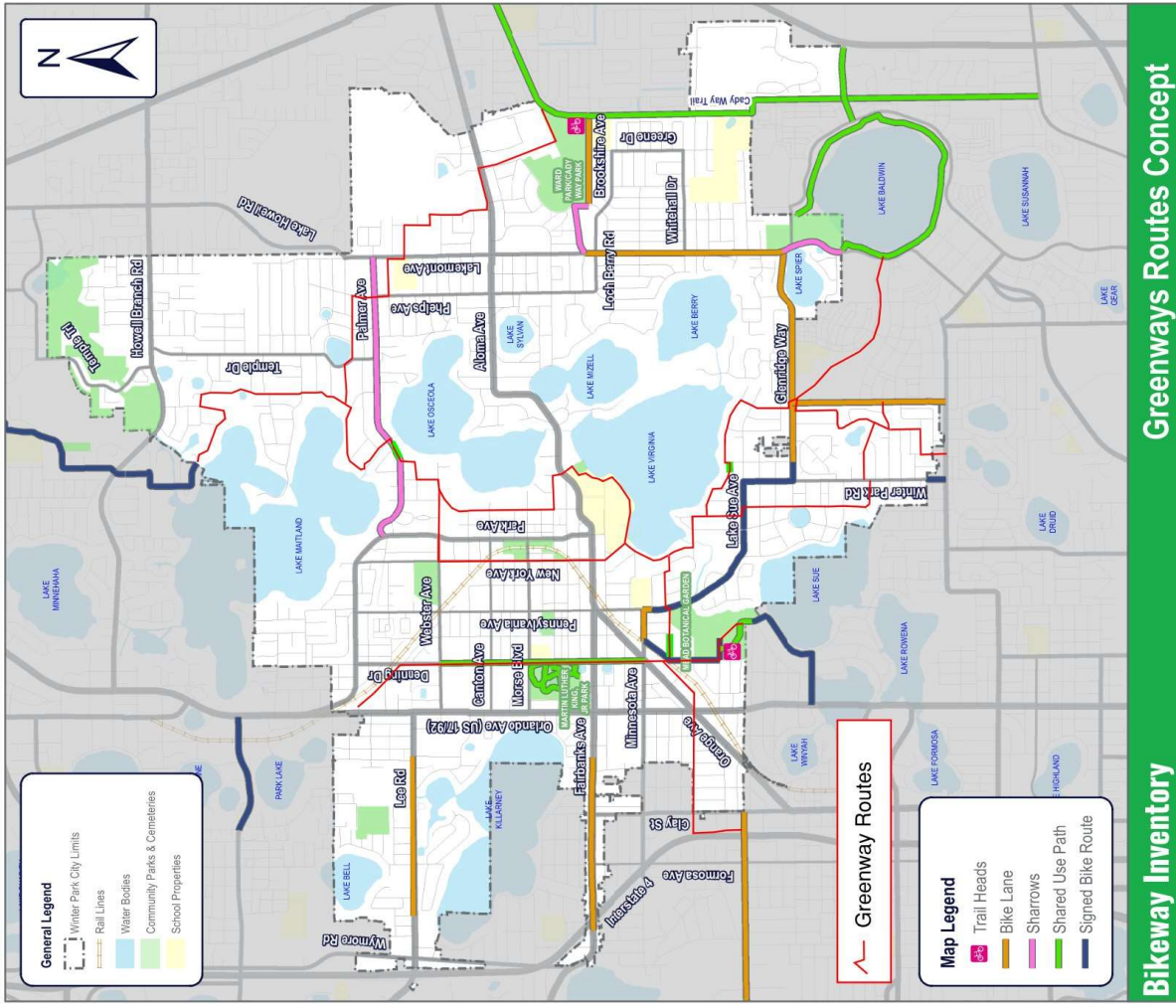
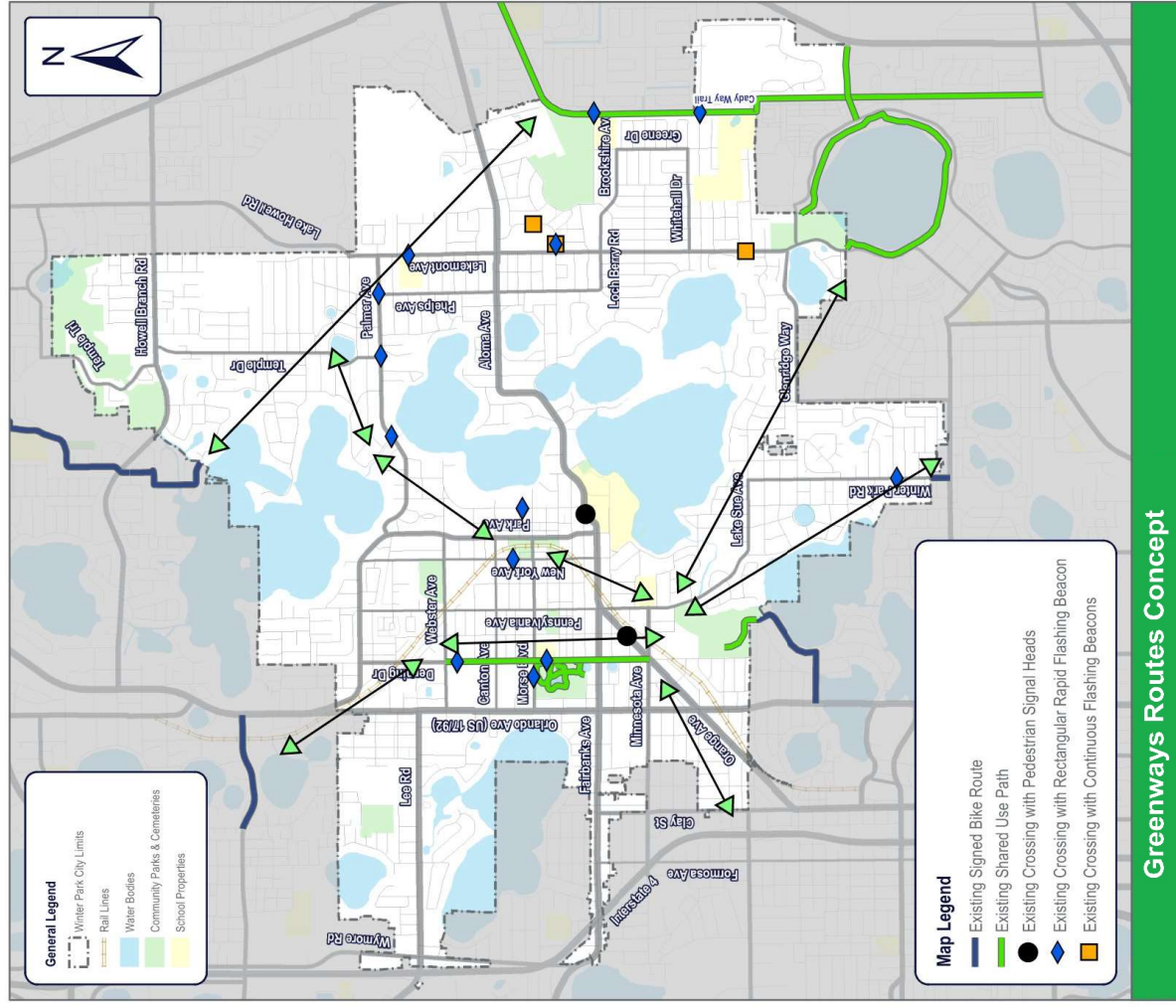


Greenway Crossings Expanded Toolbox



View a high resolution image here: http://naacto.org/wp-content/uploads/2010/08/MedianRefugeIsland_Diverter_Annotated.jpg





Greenways Routes Concept

Bikeway Inventory

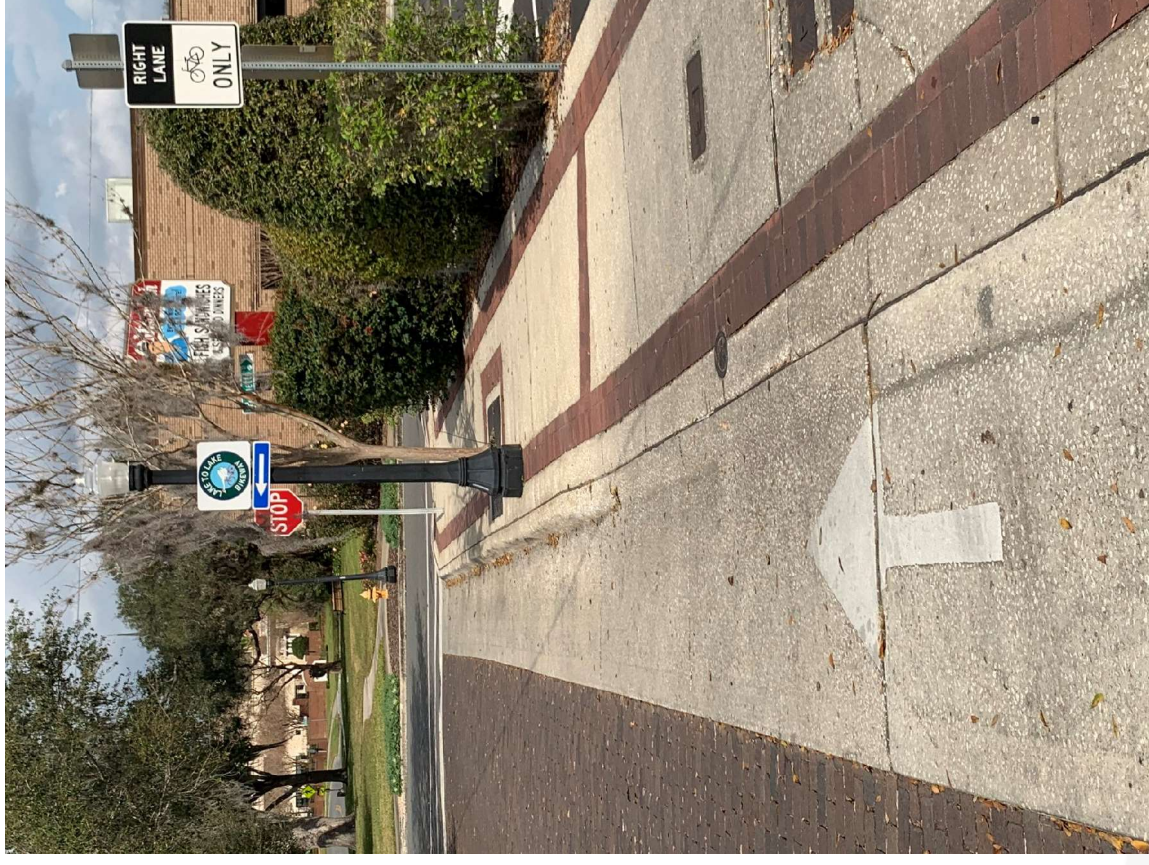
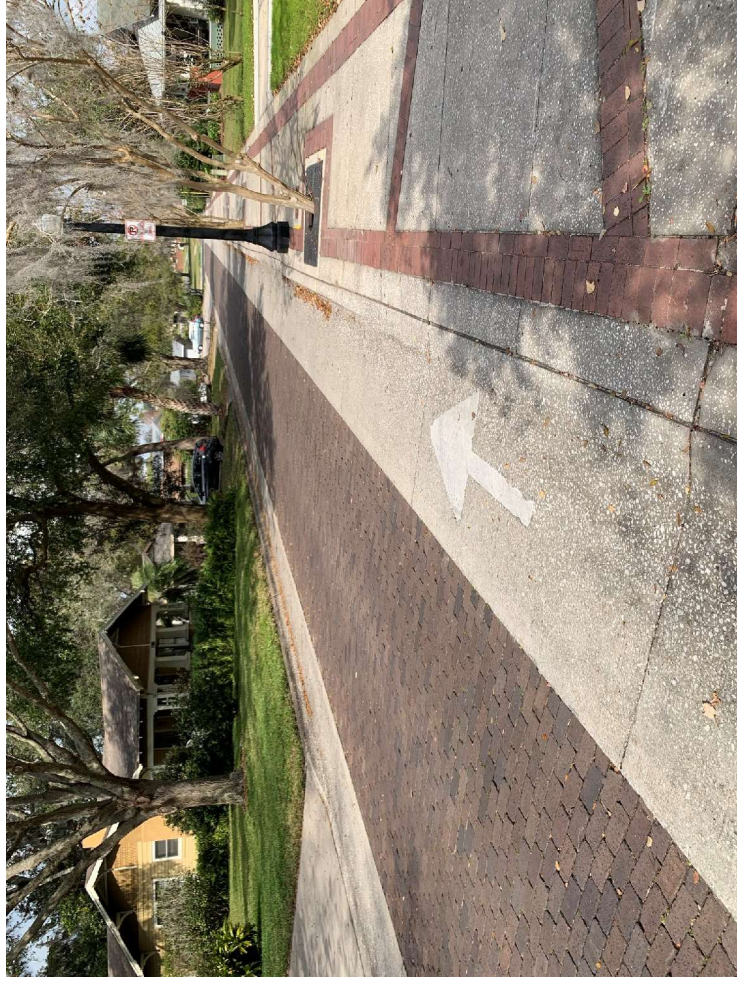
Greenways – Route Selection

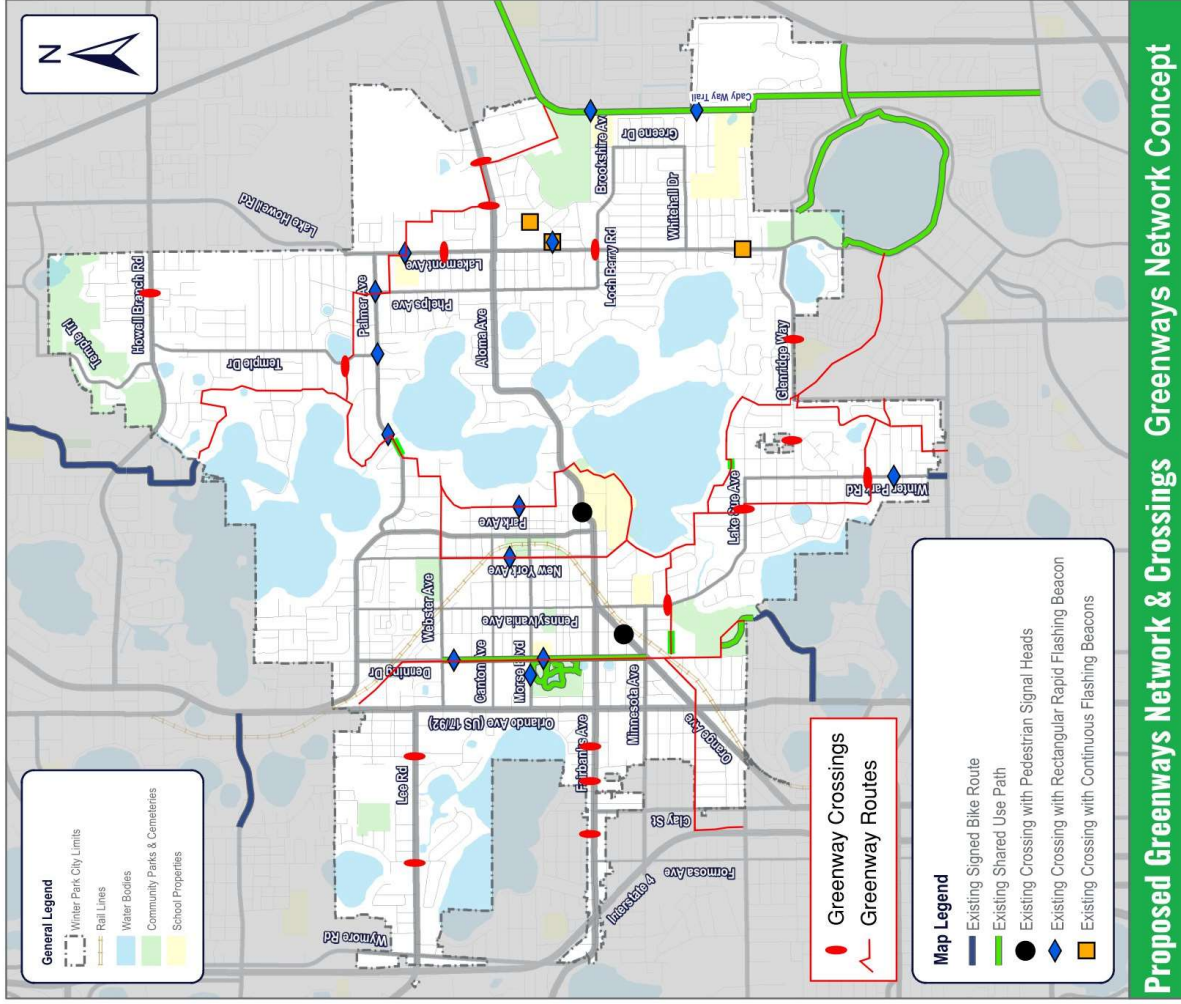


Greenways – Brick Streets

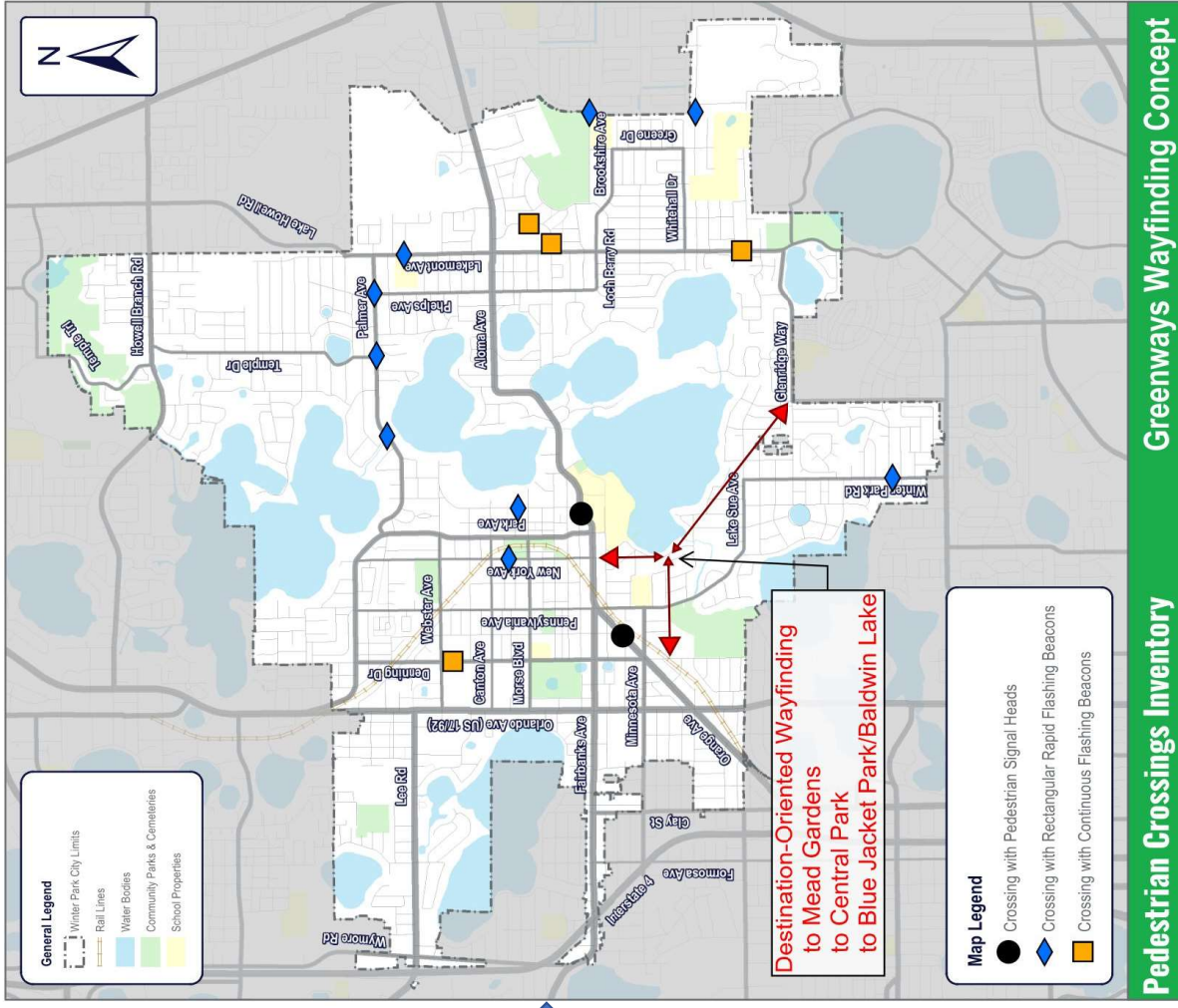
Create level walk/bike area along curb

Incorporate during reconstruction



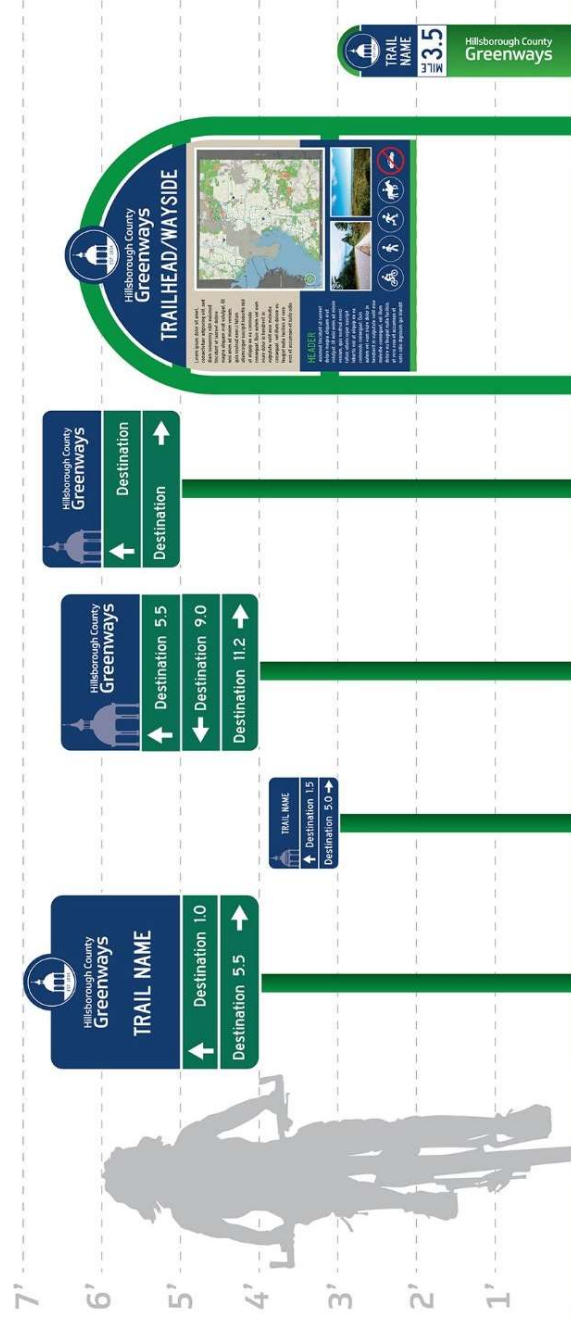


Proposed Greenways Network & Crossings Greenways Network Concept



Pedestrian Crossings Inventory Greenways Wayfinding Concept

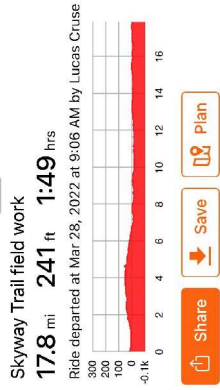
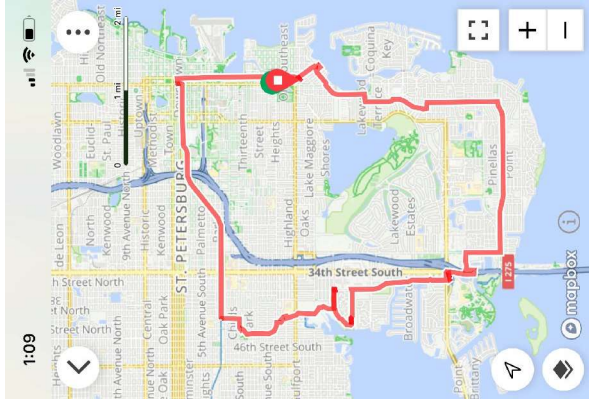
Greenways – Destination-Oriented Wayfinding



Greenways – Route Identification & Amenities



Greenways – Route Maps, Apps, and Information



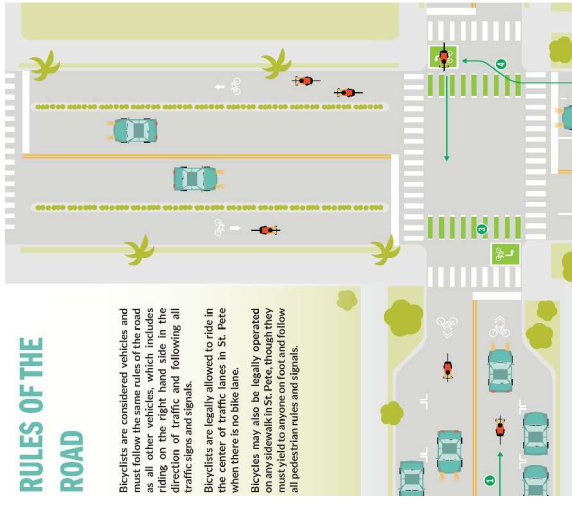
BICYCLE ROUTE TYPES



Shared Lane Marking ("Sharrow")
 Bicycle symbol and arrows painted on the roadway remind all that bicyclists should be expected traveling on the roadway in the direction and position shown.

Neighborhood Greenway
 Traffic calming keeps speeds and volumes low, creating a comfortable place to bicycle without separate or dedicated roadway space.

Trail
 Two-way bicycle traffic with scheduled separation from travel lanes. Routes shown may be shared with people on foot or using other non-motorized modes of travel.



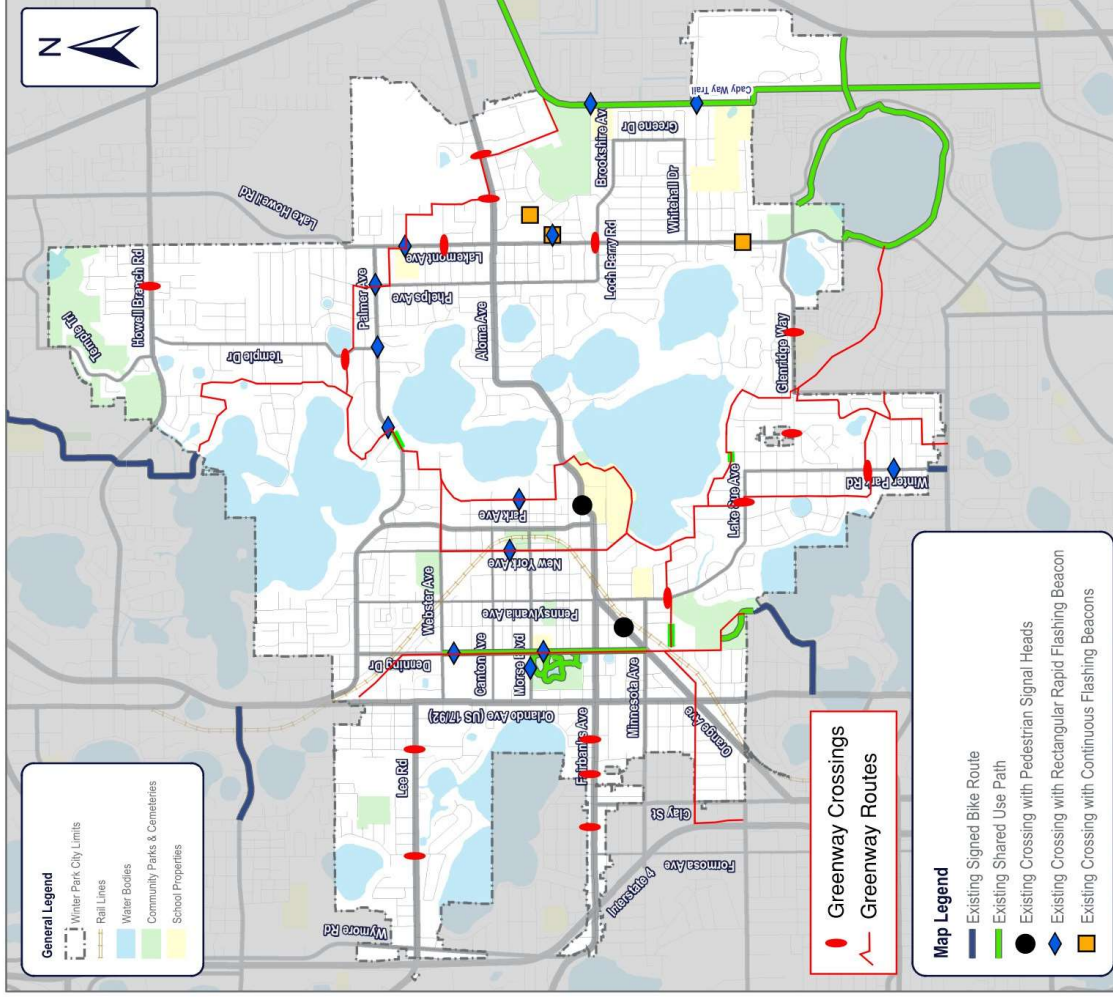
Greenways recap

Safe crossings

Connect key destinations

Destination-oriented wayfinding

Route identification & amenities



Technology

Pedestrian Safety & Accessibility

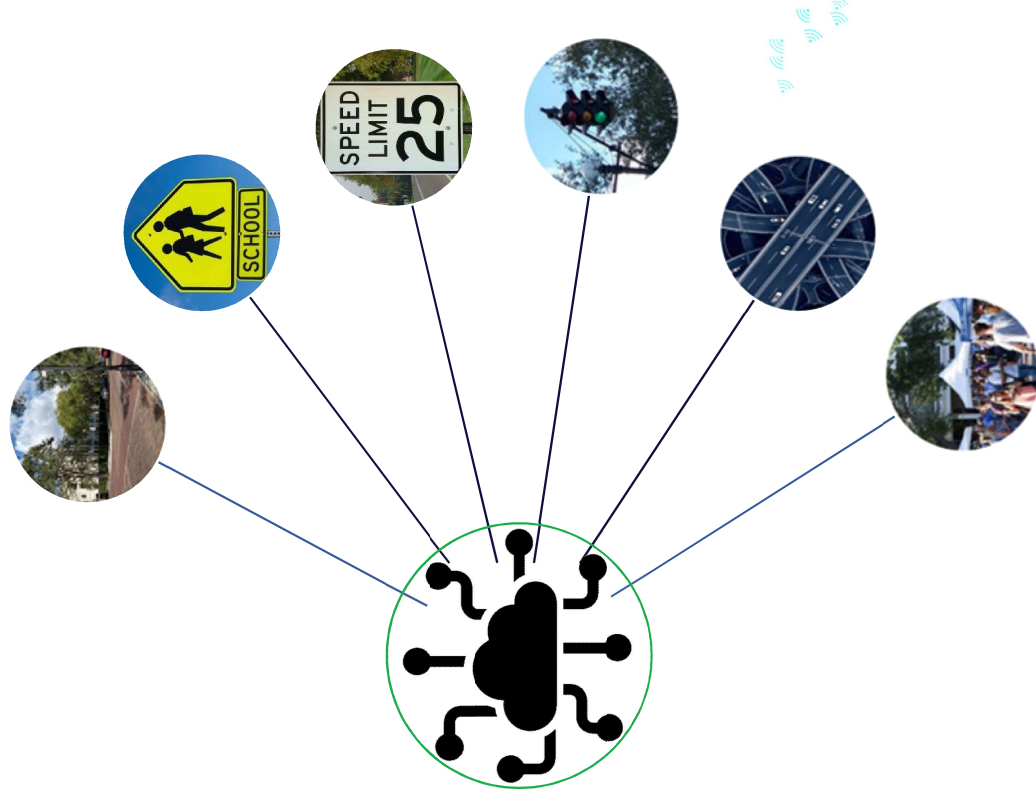
School Zones

Speed Management & Safety

Traffic Signals

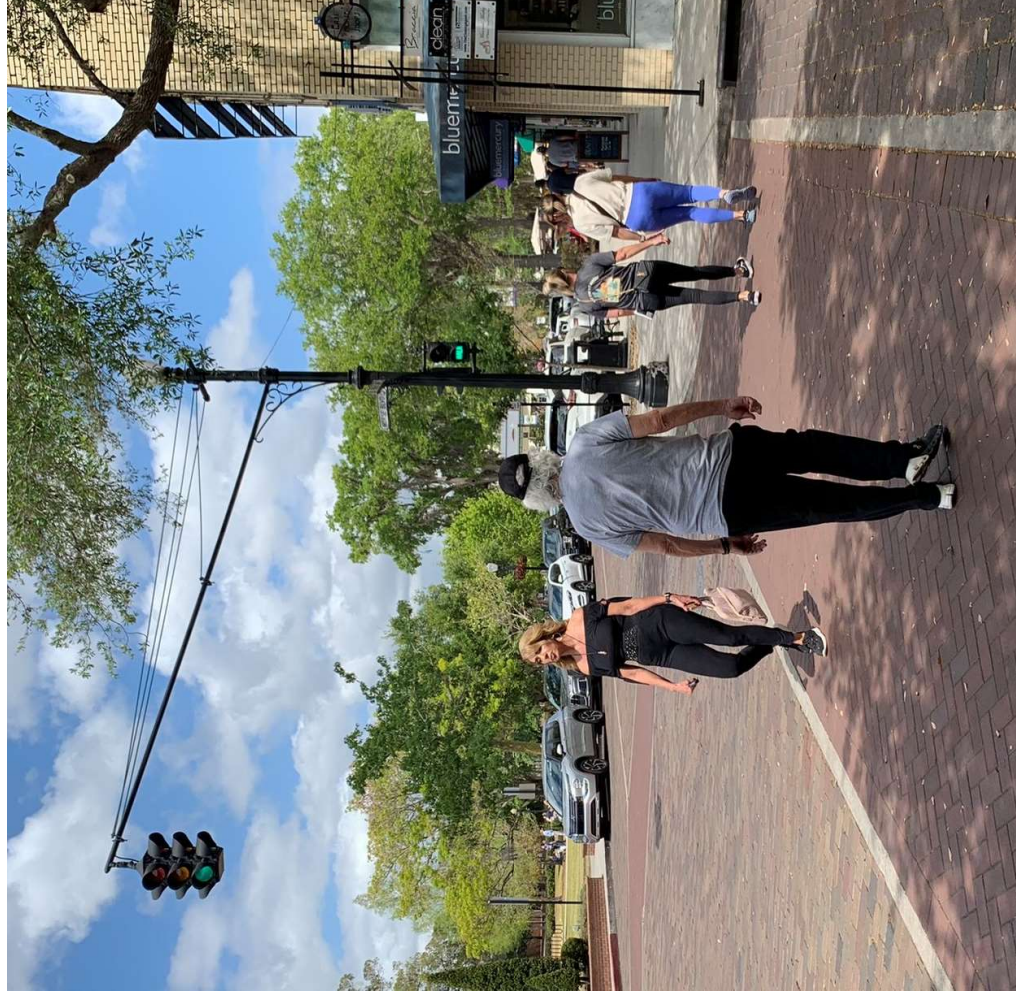
Connected & Automated Vehicle Readiness

Parking & Events Management



Technology – Pedestrian Improvements

- ➡ Accessible Pedestrian Signals (APS)
- ➡ Leading Pedestrian Intervals (LPI)
- ➡ Pedestrian scramble phasing
- ➡ Automated pedestrian detection



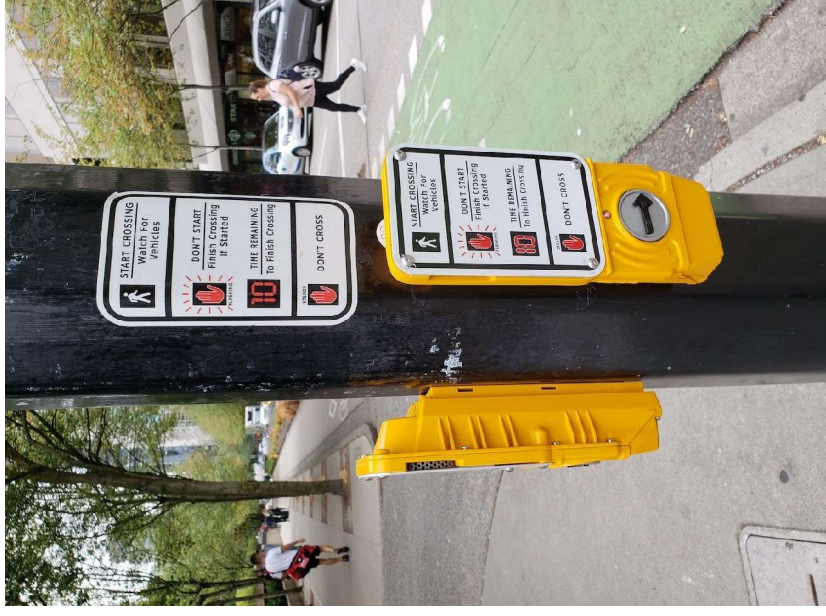
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Automated pedestrian detection



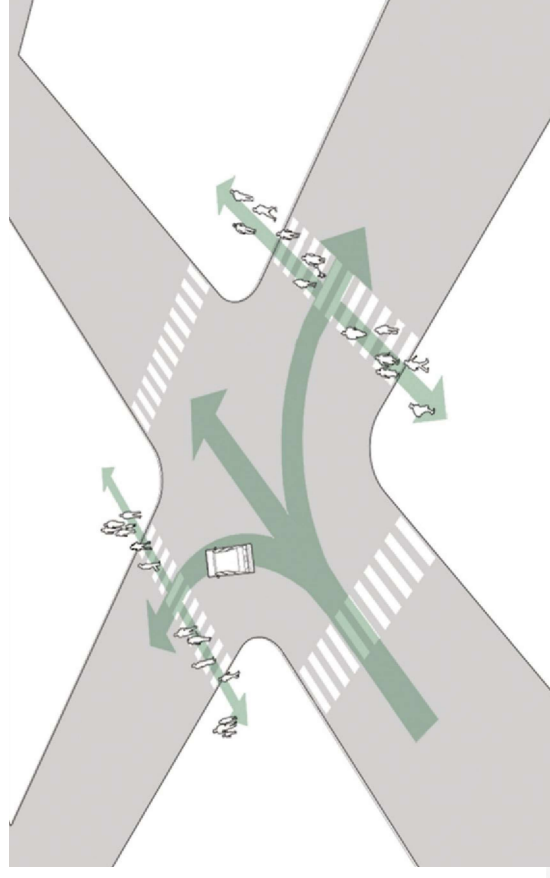
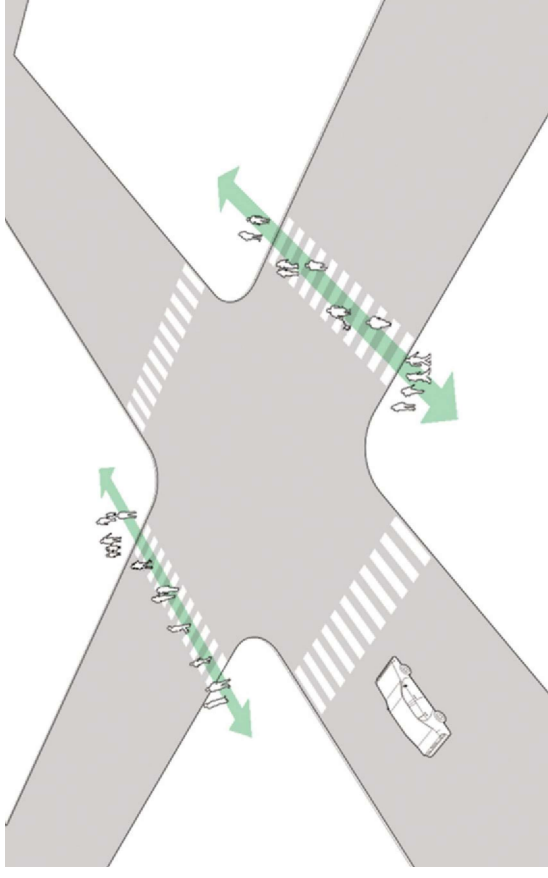
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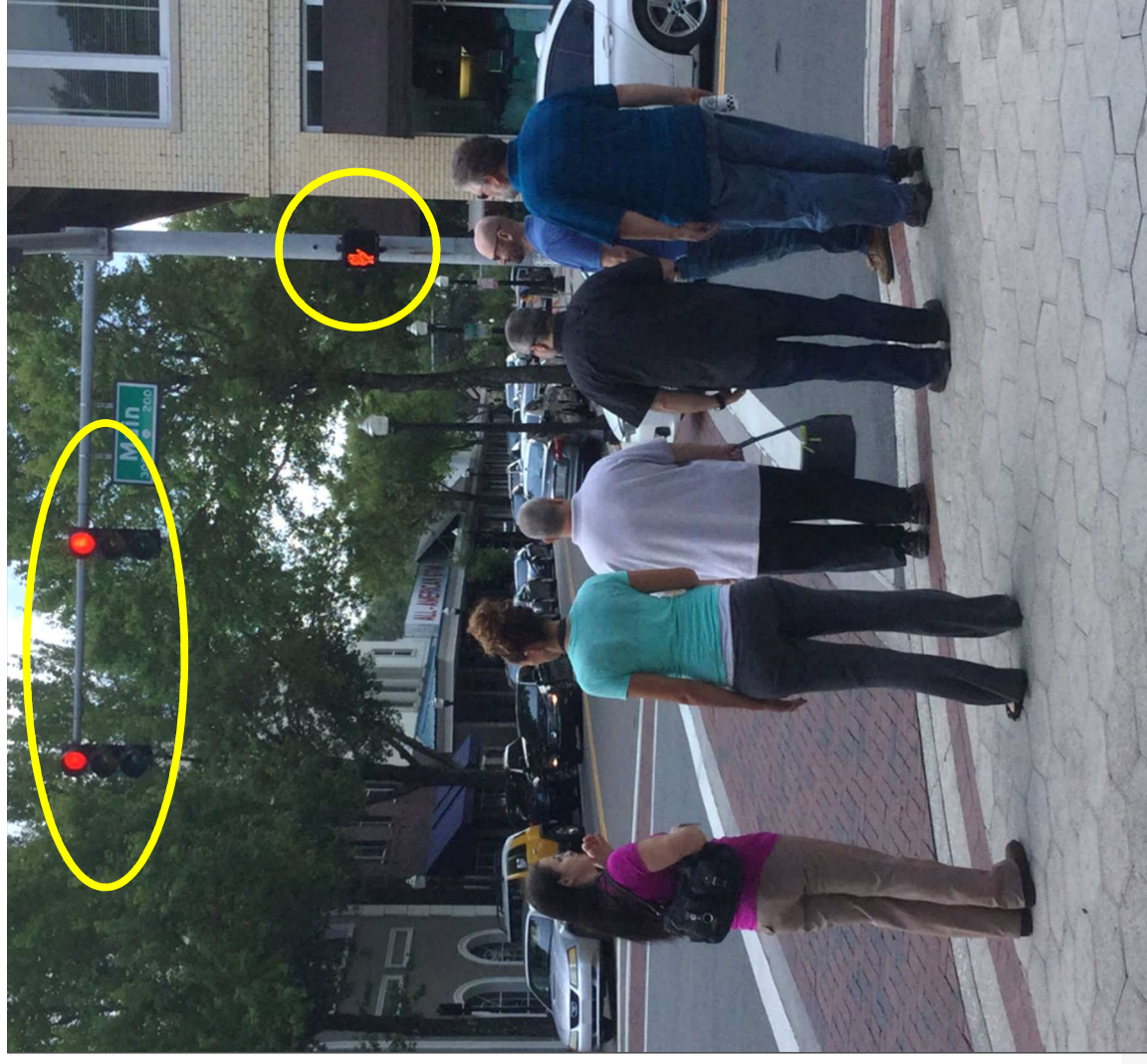
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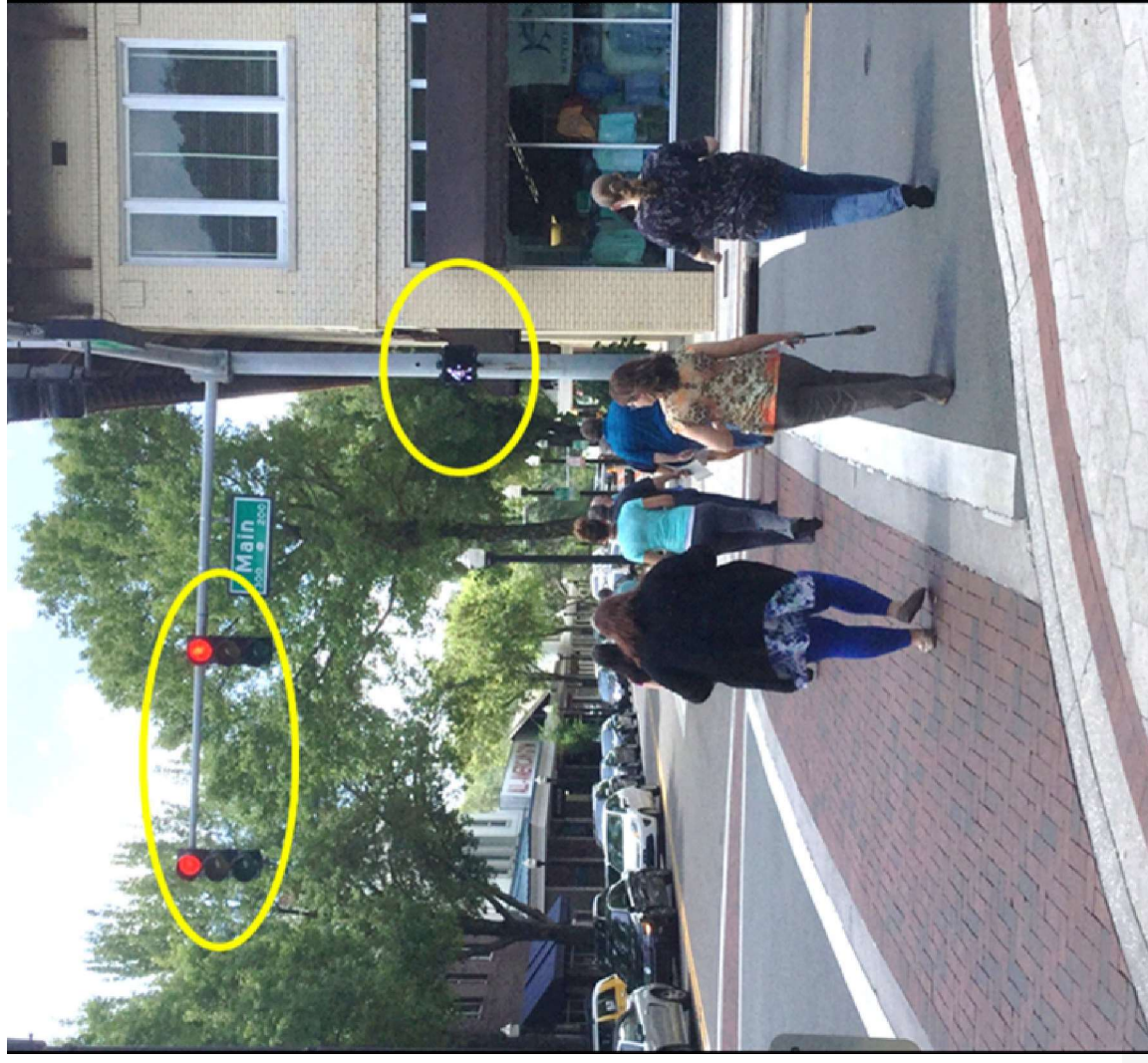
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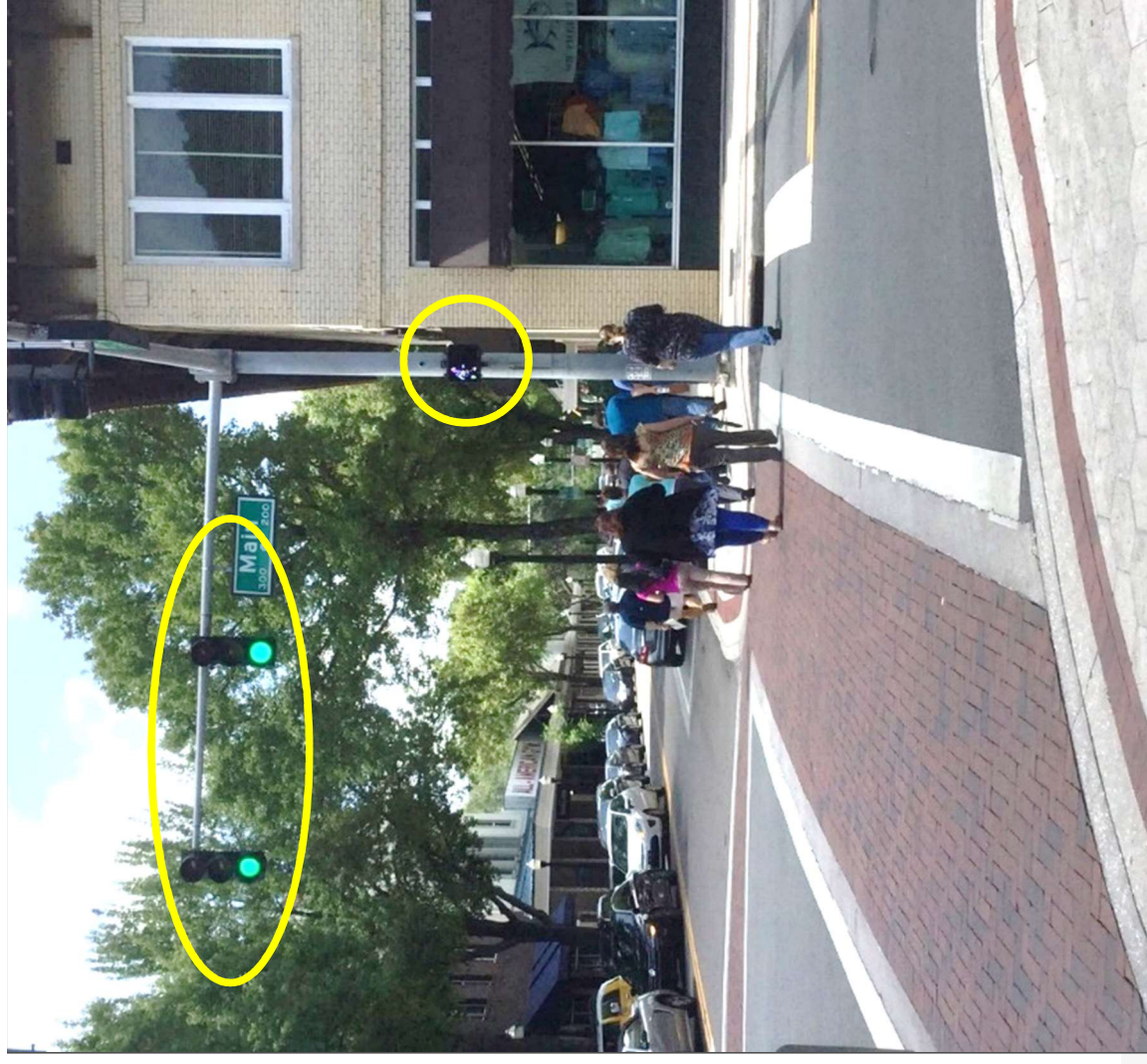
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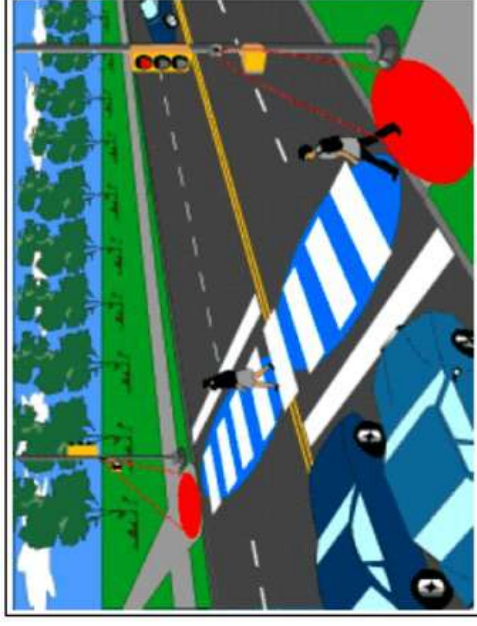
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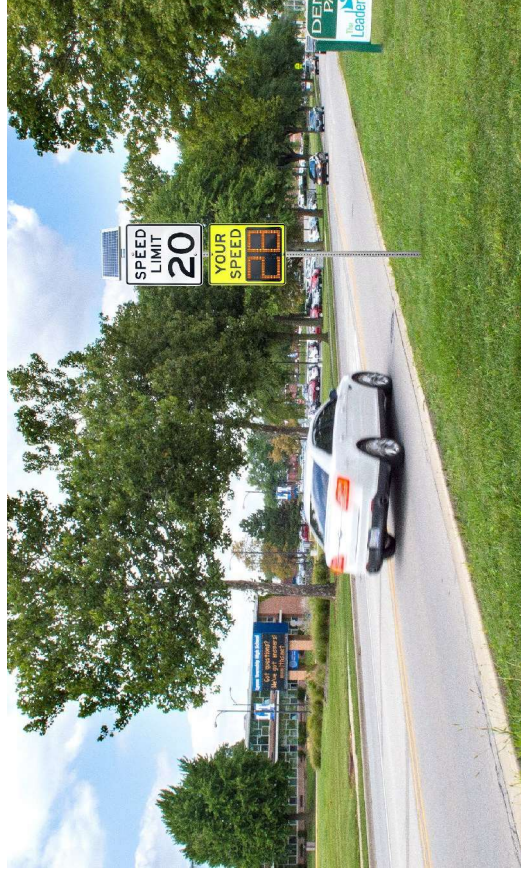
Technology - School Zone Safety

- 🚦 Install speed feedback signs
- 📄 Work with FDOT District 5 to implement new school zone technologies currently under review



Speed Management + Safety

- Install vehicle speed feedback signs
- Install iCASP system at major traffic signals



Approaching vehicle is provided:

- 1. Speed
- 2. Heading
- 3. Location

Approaching vehicle is provided:

- 1. SPaT-derived warning
- 2. Heading of other vehicles



Probable
Stop Zone

Probable
Go Zone

Dilemma
Zone

CVA-iCASP Project
Overview



Adjacent vehicle provides:

- 1. Speed
- 2. Heading
- 3. Location

Adjacent vehicle is provided:

- 1. SPaT-derived information
- 2. Potential warning of approaching vehicle

Signals Inventory



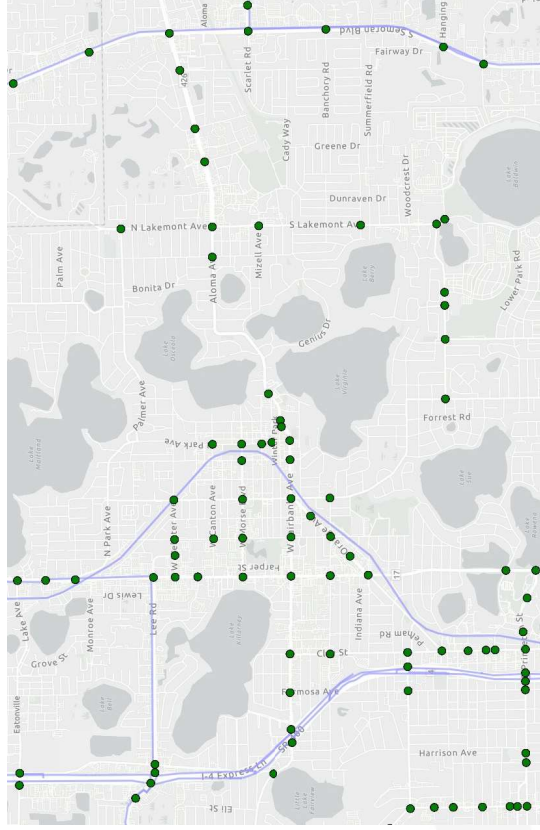
27 City-Owned traffic signals
+ 20 State-Owned traffic signals
47 traffic signals maintained by City of Winter Park



Cabinets and controllers date from **1980s - 2022**



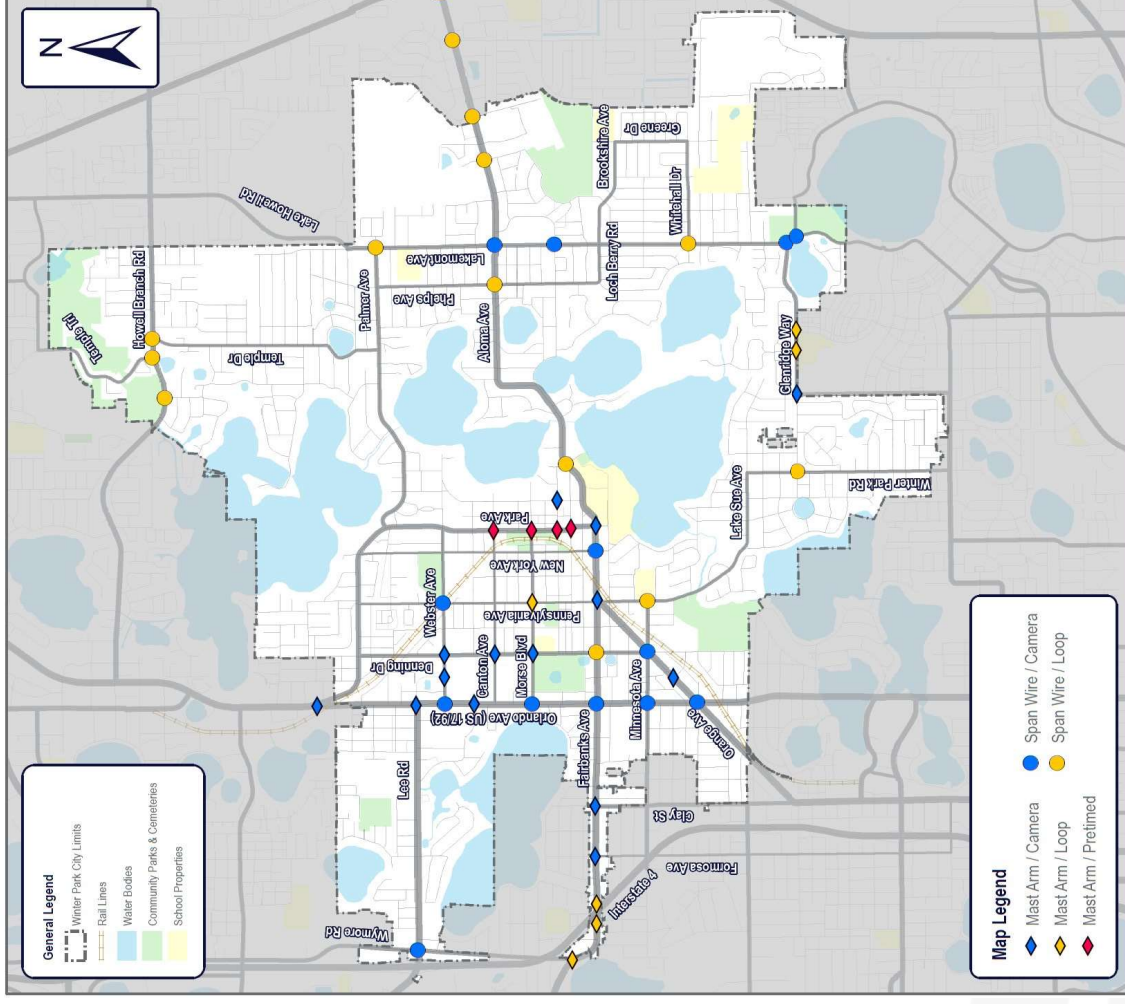
Existing fiber optic lines along: I-4, SunRail tracks, Lee Rd,
and Hwy 17/92 north of Lee Rd



Fiber optic line location details provided by FDOT District 5:
<https://noemi.cftsmartroads.com/div/>



INTEGRITY · COMMITMENT · EXCELLENCE



Traffic Signals Inventory

Traffic Signals

- ⚠ When upgrading, replace outdated controllers & cabinets
- 📄 Develop a Signal Communications Plan (w/ FDOT)
- ⚠ Traffic Management Center



CAV Readiness



Replace signal cabinets

- On-going basis – can include in Communications Master Plan
- Larger cabinets to accommodate future hardware



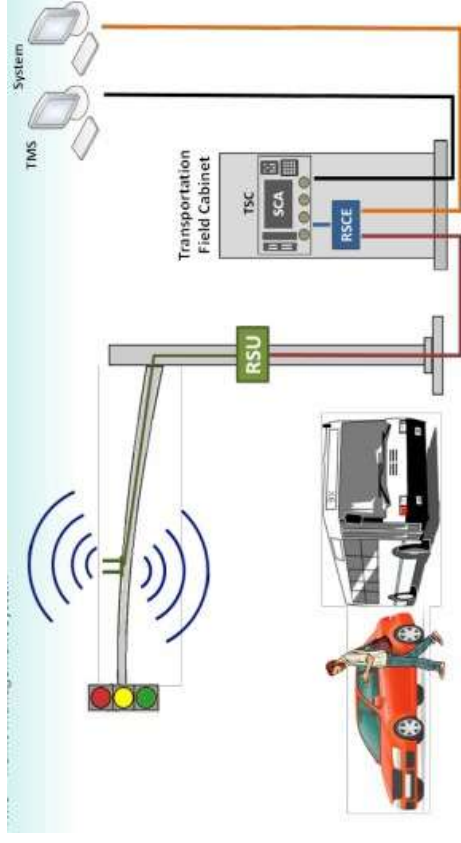
Review existing policies related to CAV technologies



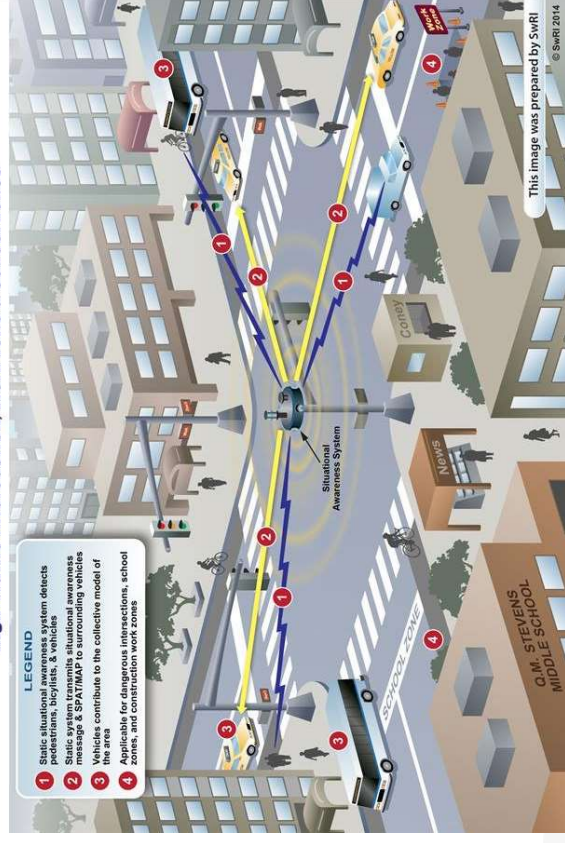
Coordinate with utilities

- Evaluate existing capacity
- Determine power sourcing for EV charging

The technology is advancing rapidly!



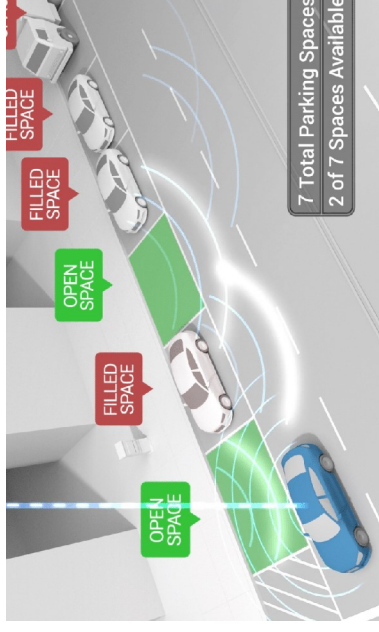
Cooperative Vehicle-Infrastructure Situation Awareness High-Traffic Intersection, Work Zone & School Zones



Technology – Parking Management

Real-time parking availability monitoring system

- Parking detectors placed in parking spaces
- Post-mounted sensors to detect multiple space occupancies



Parking Navigation App

- Predict availability of parking – both on- and off-street
- Can incorporate parking restriction information
- Can provide data analytics to City

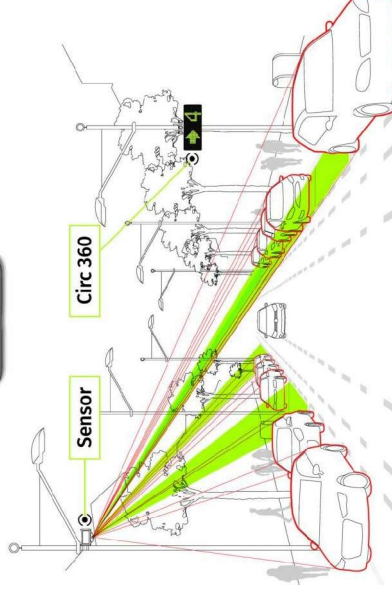
Cleverciti

parknav



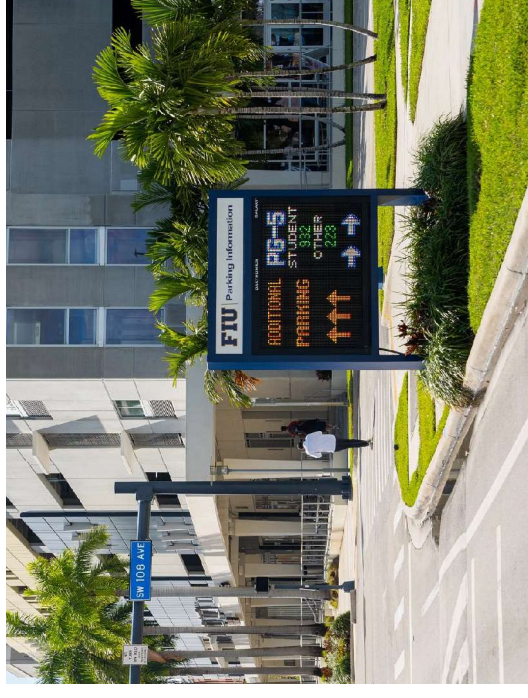
Implement Universal Valet program

- Drivers leave vehicles at set valet stations
- Valet will return vehicle to any location within the service area



Technology – Event Management

- 🚦 Variable message signs at gateways for event and parking route guidance
- 🚦 Install retractable bollards at key locations
- 📄 Develop event traffic plan protocols: bypass routes, transit, etc.



Next Steps: Draft Plan

Establish 20-Year Work Program

Project Cost Estimates

Prioritize Projects

Align Funding Sources



Transportation Master Plan Project Schedule

Updated April 2023



- ☒
- ☒
- ☒
- ☒

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