

Orange Avenue

Traffic Analysis Forum

March 04, 2021

Presented For:



Presented By:

Kimley»Horn
Expect More. Experience Better.

Introductions

- Mike Woodward, P.E., Kimley Horn
- Bronce Stephenson, Director of Planning & Transportation, City of Winter Park
- Sarah Walter, P.E., PTOE, Transportation Manager, City of Winter Park

How To Ask Questions & Make Comments:

- Email: OrangeAve@cityofwinterpark.org – We will read questions and comments at the end of the presentation.
- Use the “Raise Hand” Feature at the end of the Presentation.
- We ask that questions be relevant to the topics discussed in this presentation and that comments be kept brief so that all attendees have a chance to have their input heard.

Presentation Topics

- Orange Avenue Overlay District Description
- Relationship of land-use and transportation
- Summary of transportation analyses
- Primary transportation findings
- Potential transportation improvements

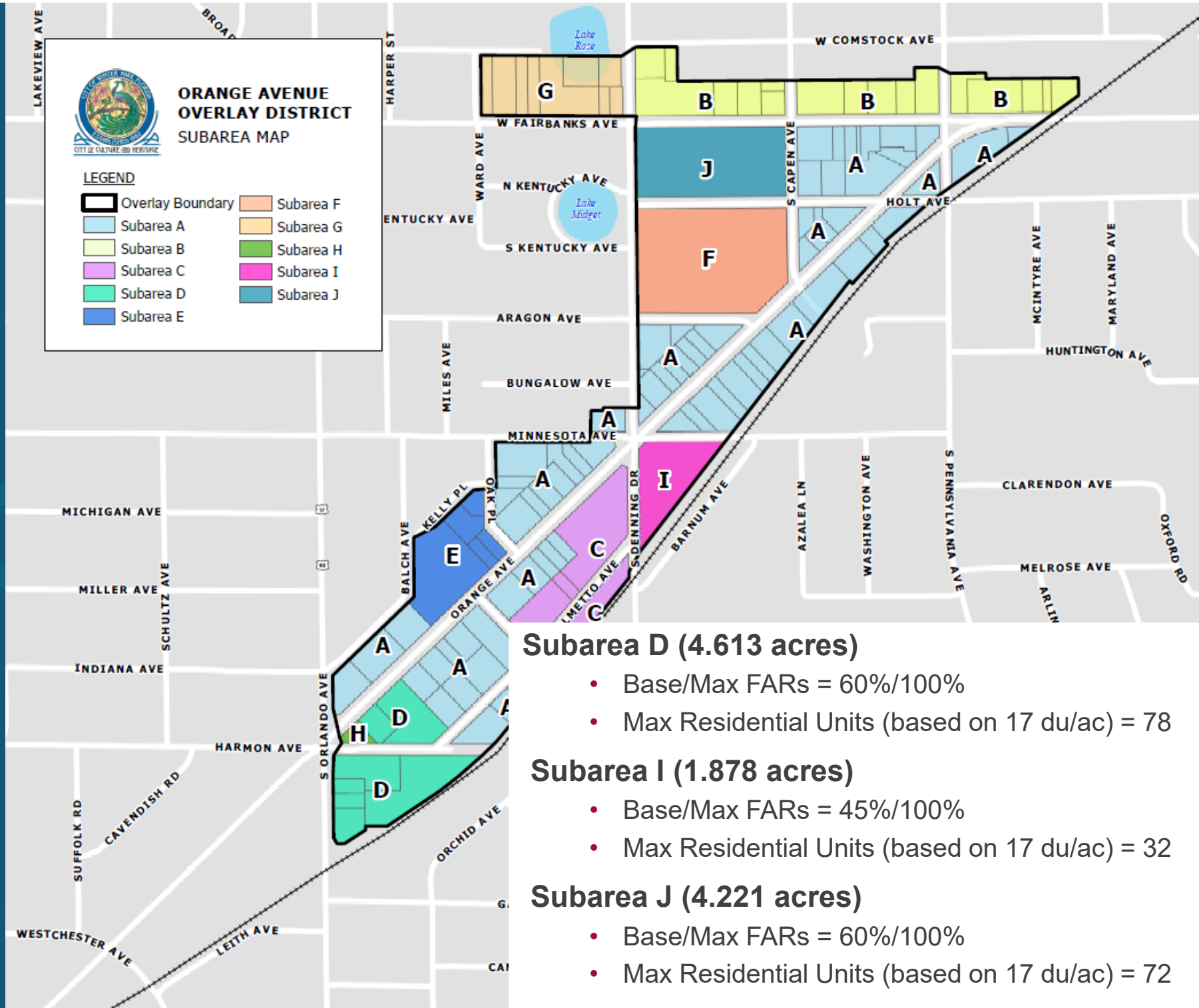
Next Steps

- Land-Use:
 - Public Input then Citywide notice prior to P&Z and City Commission vote on the Overlay District
- Possible Next Steps for Transportation:
 - Orange Avenue Corridor Improvement Plan – a detailed transportation plan could be developed with public & stakeholder engagement
 - Transportation Master Plan – City is working toward an overall plan – Orange Ave could be a component

Orange Avenue Overlay District Language

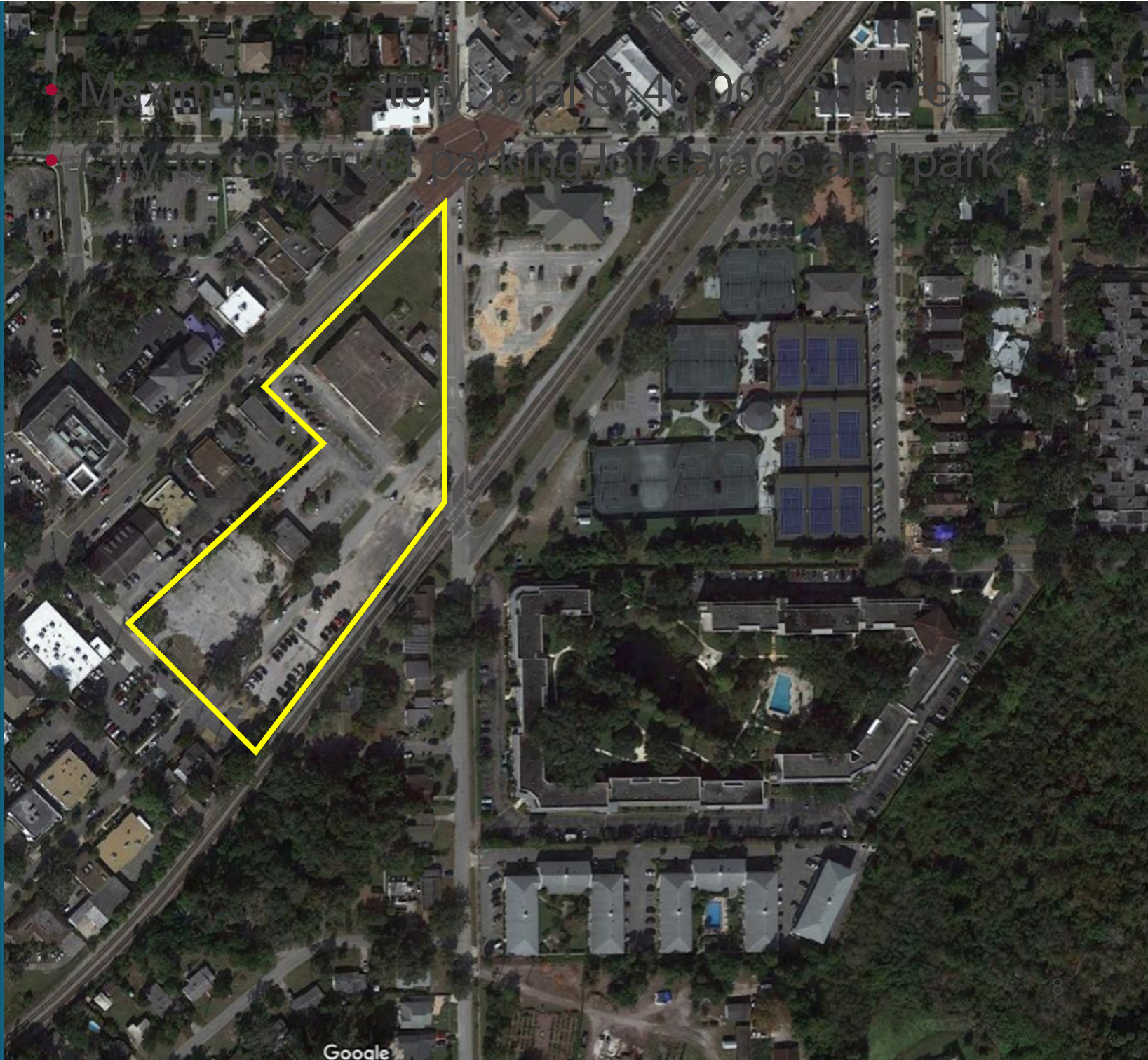
- Numerous levels of development have been considered as a part of this process
- Floor Area Ratios (FAR)
 - Various mixed-use programming scenarios have been considered.
- Without the parking spaces, smaller parcels can't meet parking requirements, so redevelopment may be prohibitive
- Progress Point will have a park, parking lot, and limited development
- Minimal amount of multi-family development is allowed

Current Maximums in the Overlay

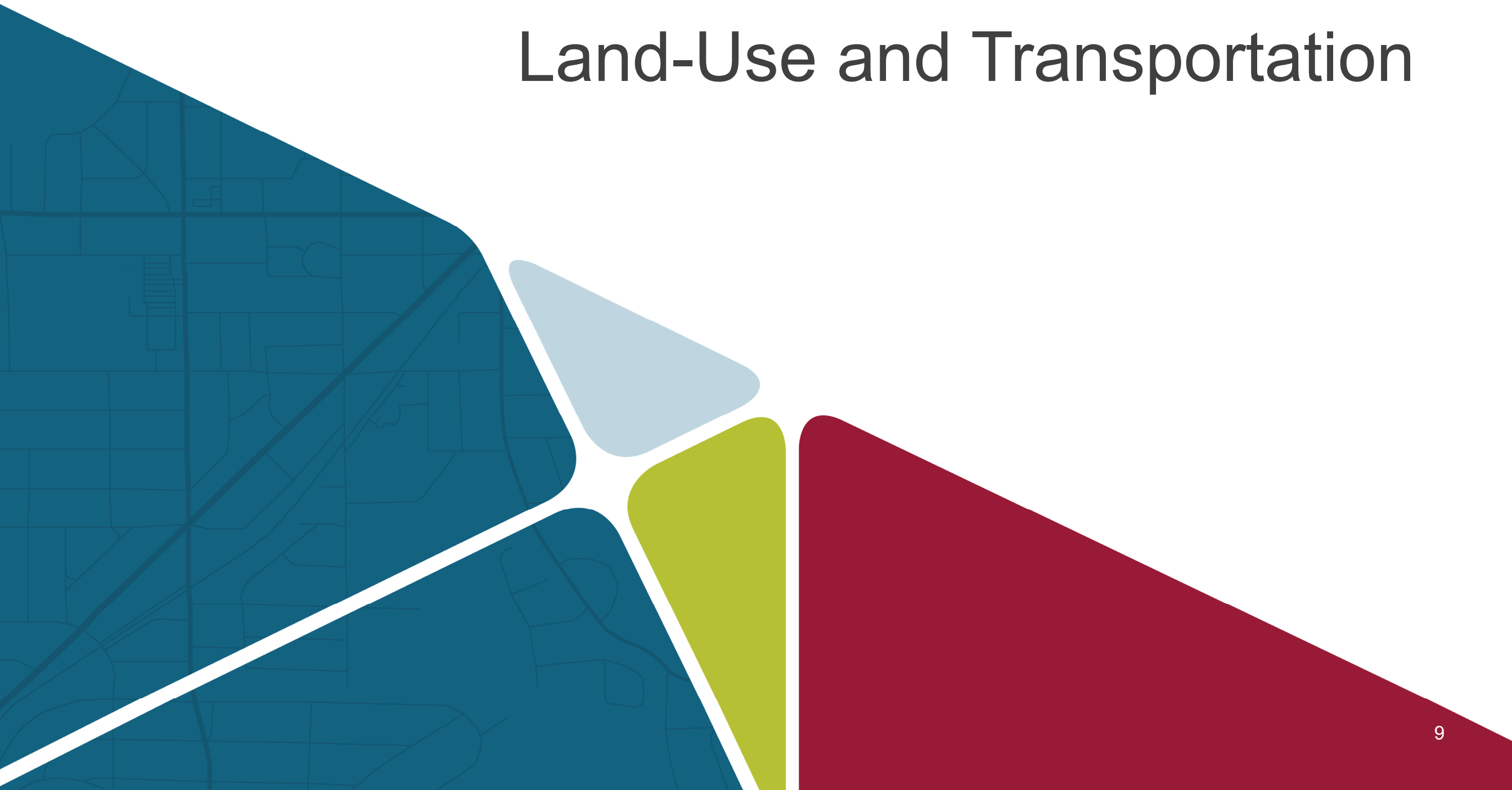


Progress Point

- Maximum 2-story, total of 40,000 Square Feet
- City to construct parking lot/garage and park



Land-Use and Transportation



Transportation and Land Use

- While they are related, policies and projects typically move through separate paths.
- Increases in density and intensity would make it more important to emphasize walkability and accommodate alternative modes.
- Roadway improvements are NOT specified or required in the OAO
- Potential roadway improvements could move forward with or without the OAO

Transportation Analyses





Current Issues

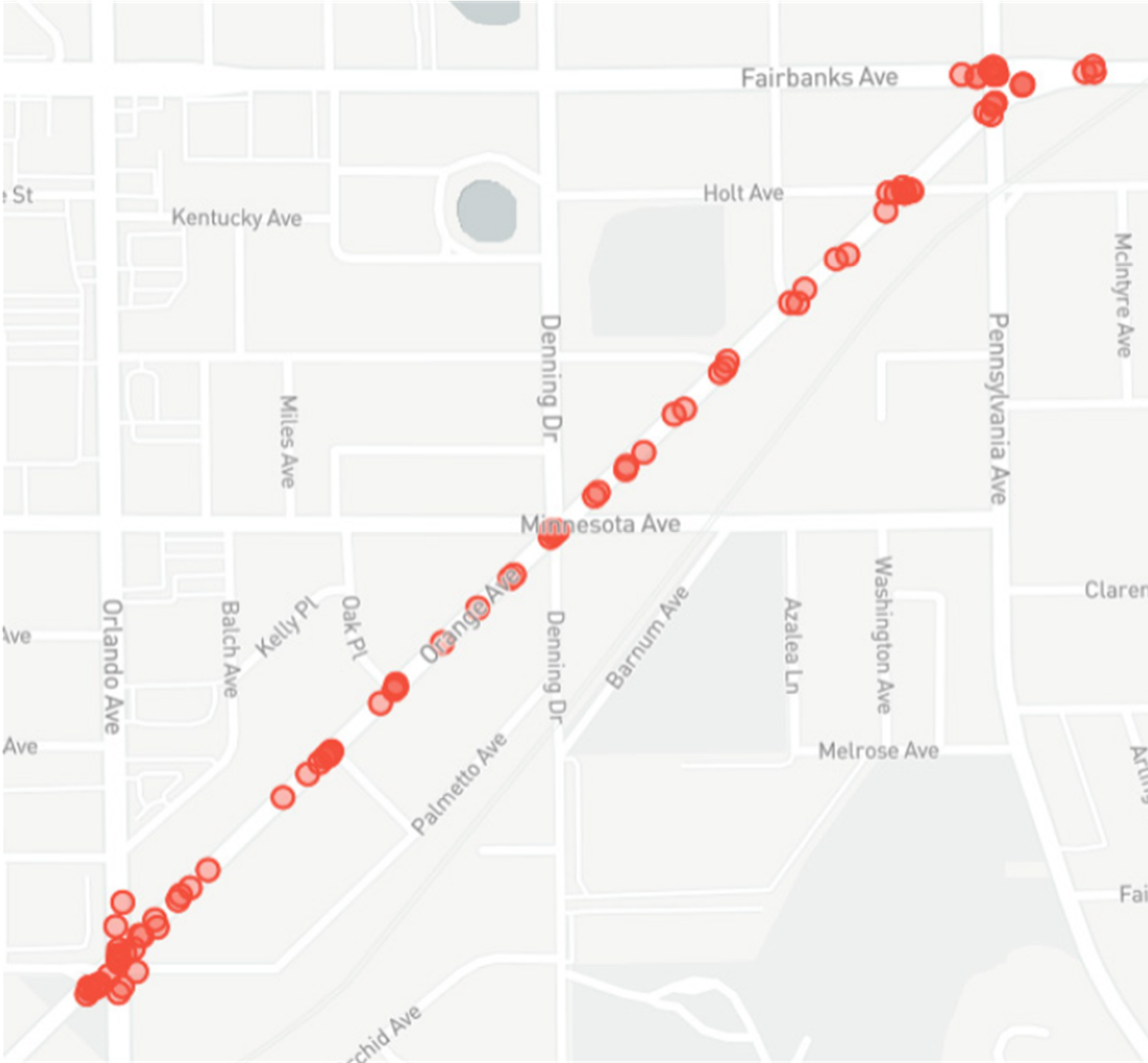
- Crashes
- Parking
- Traffic
- Difficult to walk across
- No biking opportunities

What Types of Crashes?

- 33% attributed to Distracted Driving
- High rates of sideswipe / angle collisions – 32% of the crashes
- 12% of crashes hit a parked car
- Bike crashes from bikes riding on sidewalk
- 37% are rear-end collisions at congested intersections
- Run-off-the-road crashes at Fairbanks / Pennsylvania

Location of Injury Crashes

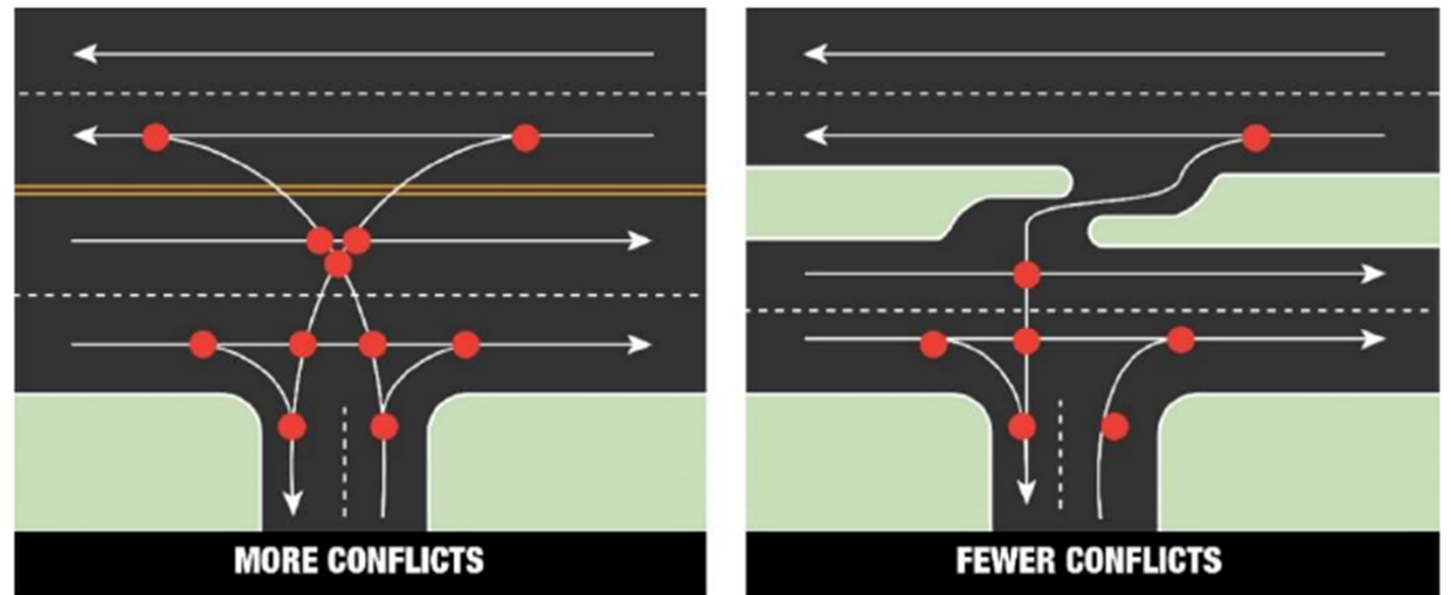
Orange Avenue | Traffic Analysis



Crashes: Underlying Causes

No median. Per FDOT:

“Additional conflict points that exist when a roadway has no median can lead to potential safety issues.”



Source: FDOT

Crashes: Underlying Causes

Narrow Lanes:

Type of Lane	Standard Width	Width on Orange Ave
Travel Lanes	11'	~10-10.5'
Bike Lanes	7'	None
On-Street Parking	8'	~6.5'

Note: While there are several considerations where it is possible to reduce one or two of these widths, having ALL of them so narrow generally results in a more dangerous roadway.

Crashes: Underlying Causes

High Speeds:

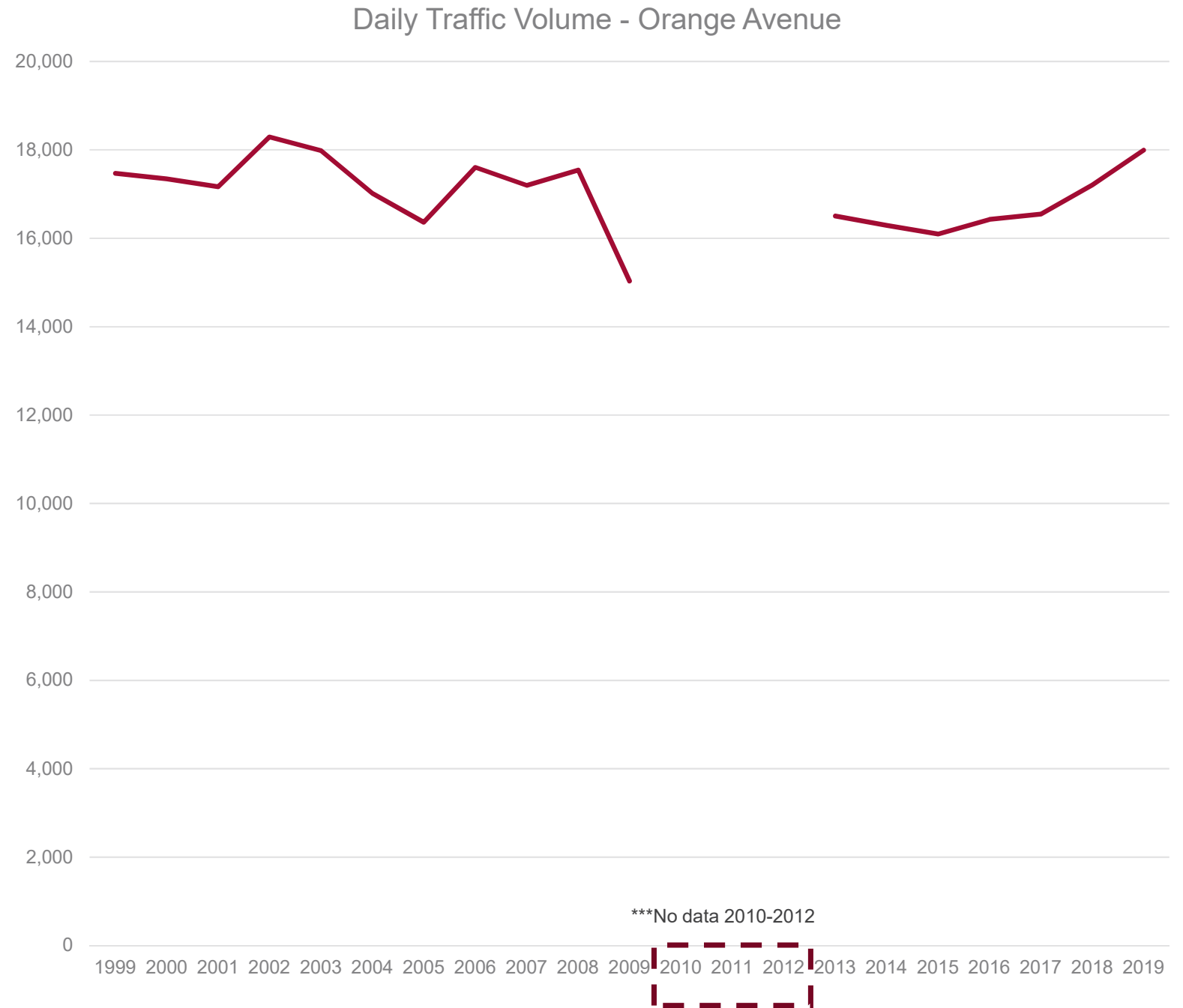
- Posted speed limit is 30 MPH
- Comprehensive speed data are not available
- Comments from residents / owners indicate speeding
- Observations & spot measurements indicate speeding
 - Typical to see 37-40 MPH between platoons
 - Aggressive lane changes are common

Categories to Improve

- Crashes
- Bicycle facilities
 - Parking
 - Travel routes
- Pedestrian crossing opportunities
- Parking
- Left-turn lanes
- Travel speeds
- Inefficient operations at Minnesota / Denning
- Congestion?

Traffic Volumes

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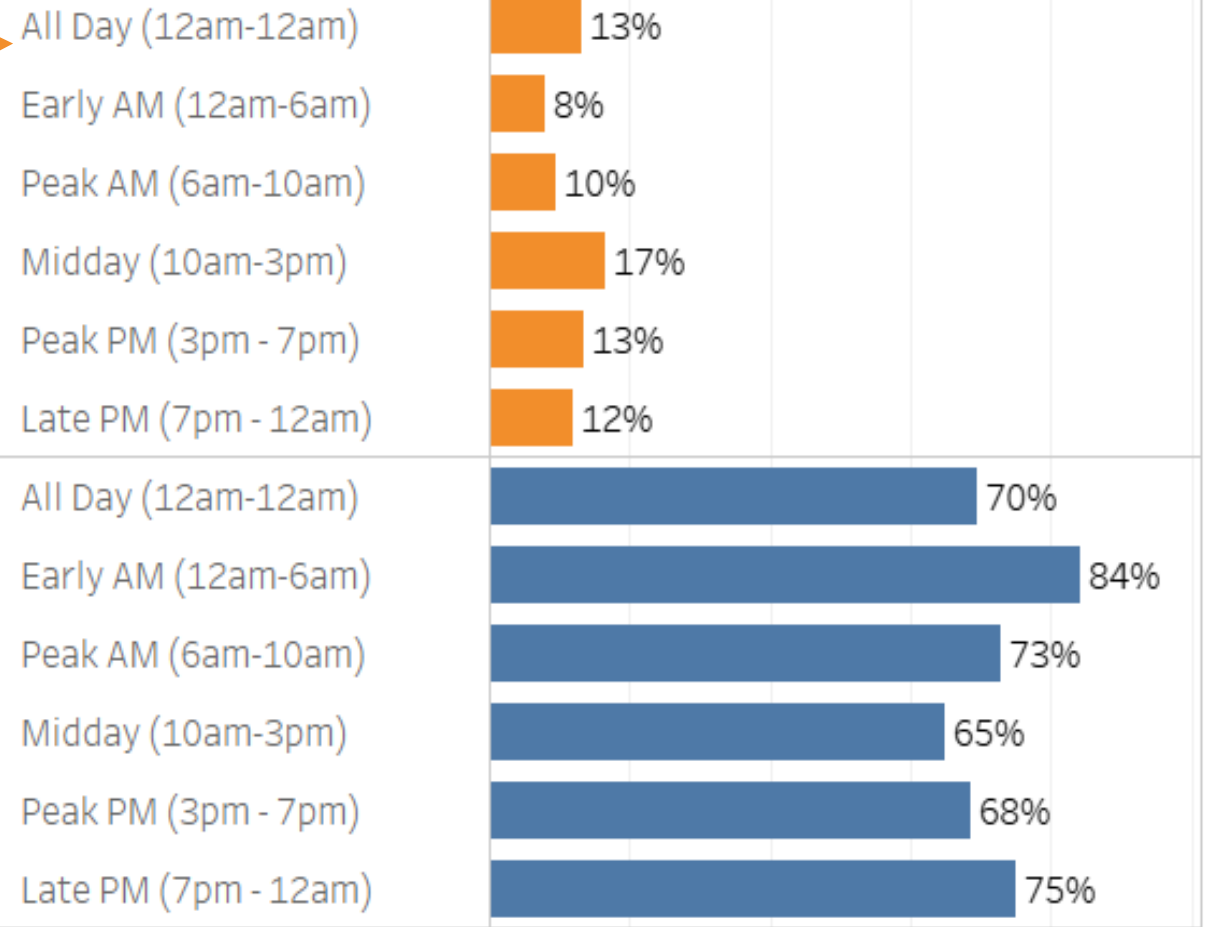


Traffic Volumes

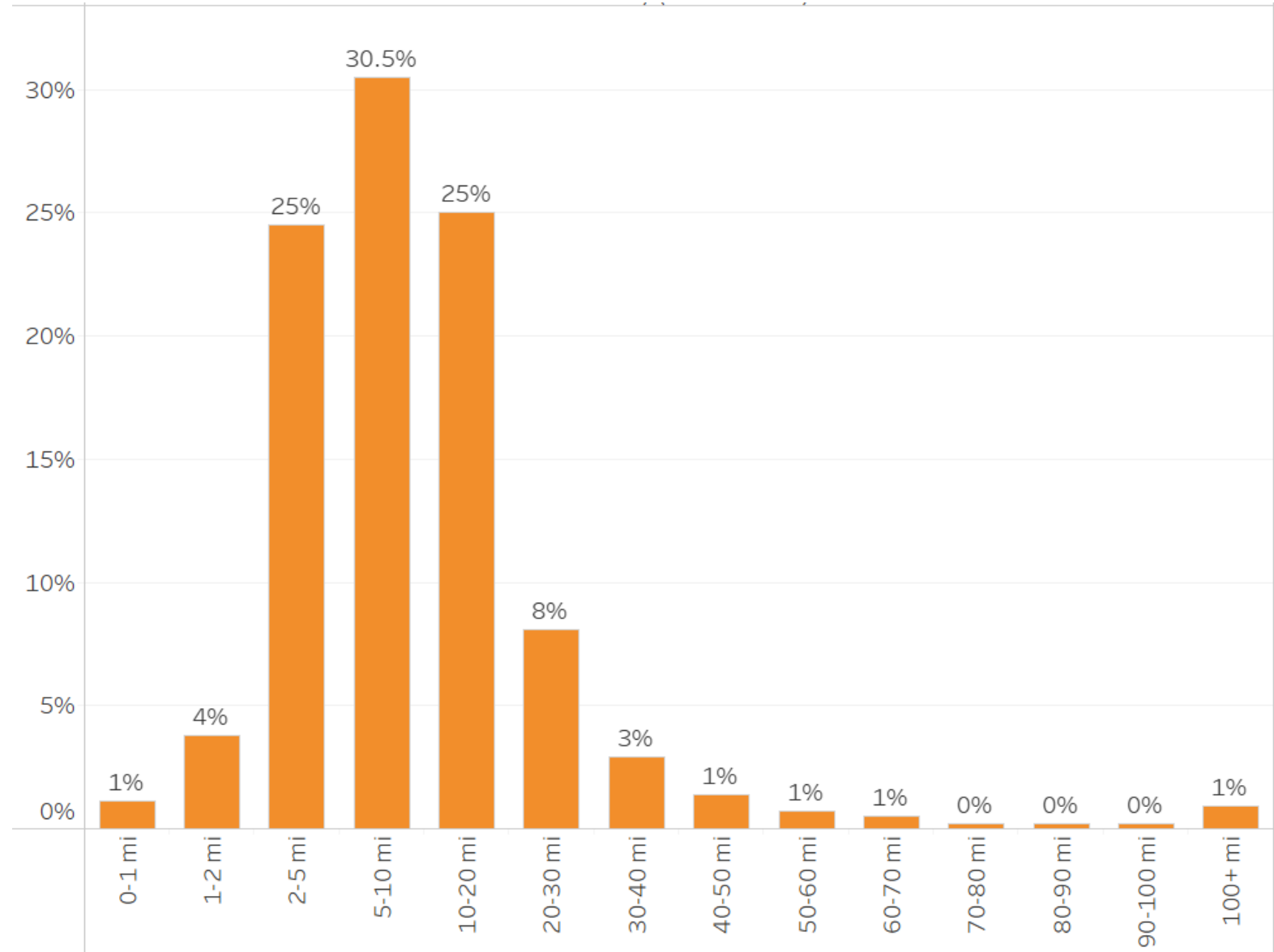
Roadway		First Year Available		Existing Volume (2020)	Historic Annual Growth
		Year	Volume		
From:	To:				
Orange Ave					
Clay St	Mills Ave/Orlando Ave	1999	16,510	14,300	-1%
Mills Ave/Orlando Ave	Denning Dr	1999	17,470	17,996	0%
Denning Dr	Fairbanks Ave (SR 426)	1999	17,470	17,996	0%
Fairbanks Ave (SR 426)					
Orlando Ave	Denning Dr	1999	30,501	23,500	-1%
Denning Dr	Pennsylvania Ave	1999	37,991	33,000	-1%
Pennsylvania Ave	Park Ave	1999	37,991	33,000	-1%
Orlando Ave					
Princeton St	Orange Ave	2004	28,000	28,000	0%
Orange Ave	Fairbanks Ave (SR 426)	1999	35,211	43,809	1%
Fairbanks Ave (SR 426)	Morse Blvd	1999	42,709	42,327	0%
Morse Blvd	Canton Ave	1999	42,709	42,327	0%
Canton Ave	Webster Ave	1999	42,709	42,327	0%
Webster Ave	Lee Road (SR 423)	1999	42,709	42,327	0%

Local Trips? (source Metroplan Orlando)

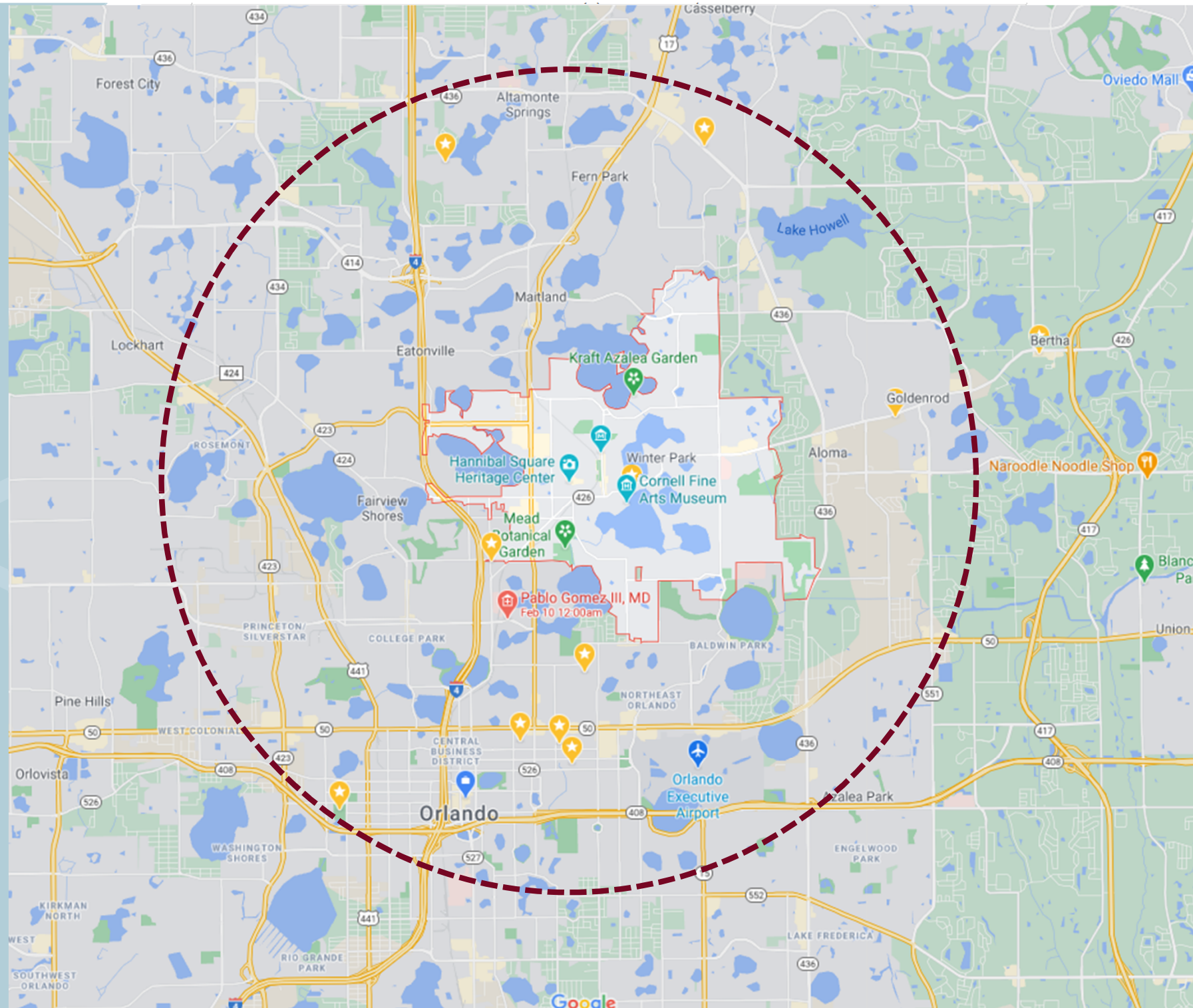
Day Part



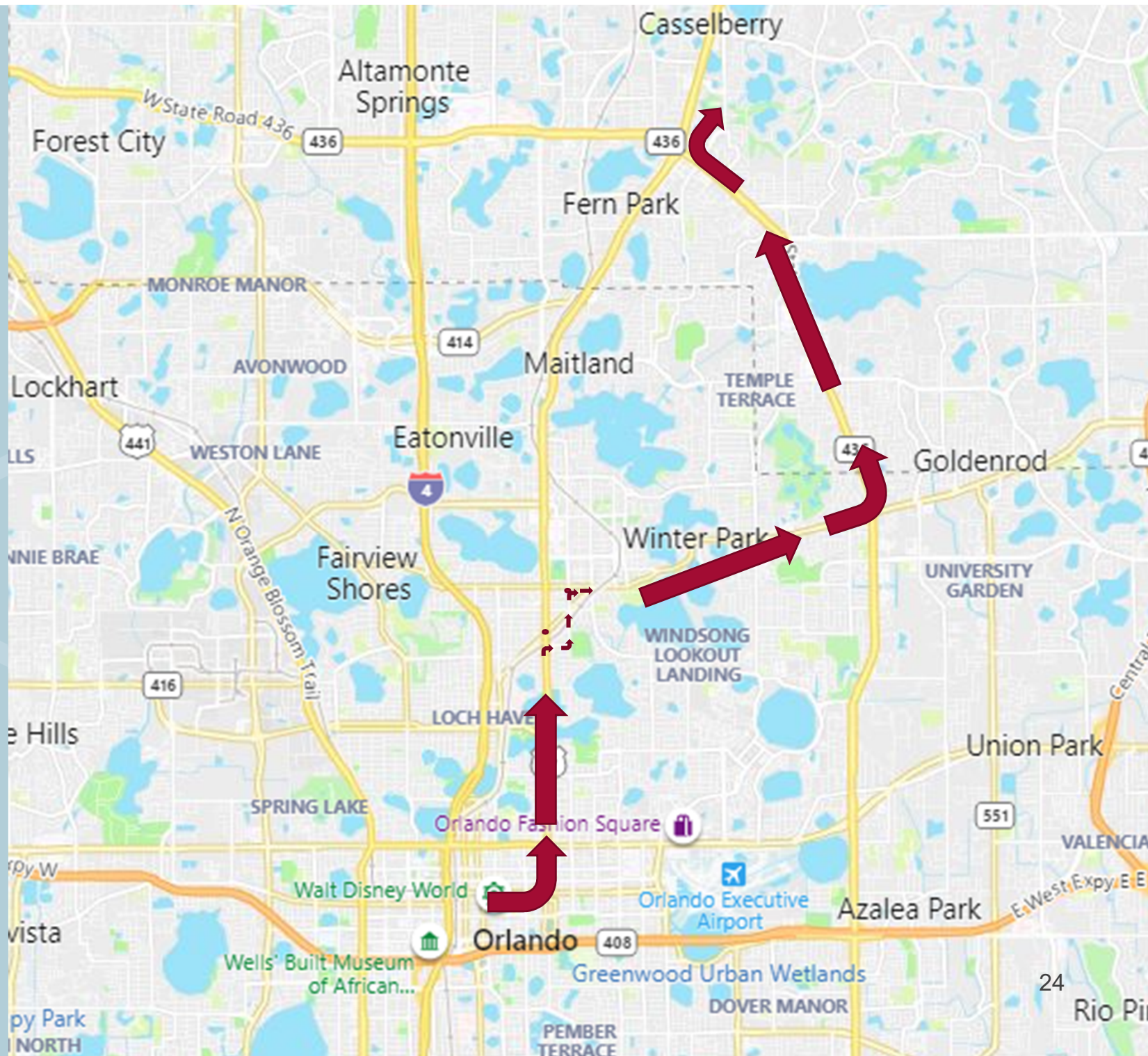
Trip Lengths (source Metroplan Orlando)



5-Mile Radius



Local Cut-Through: What would it look like?



Potential Development in the OAO

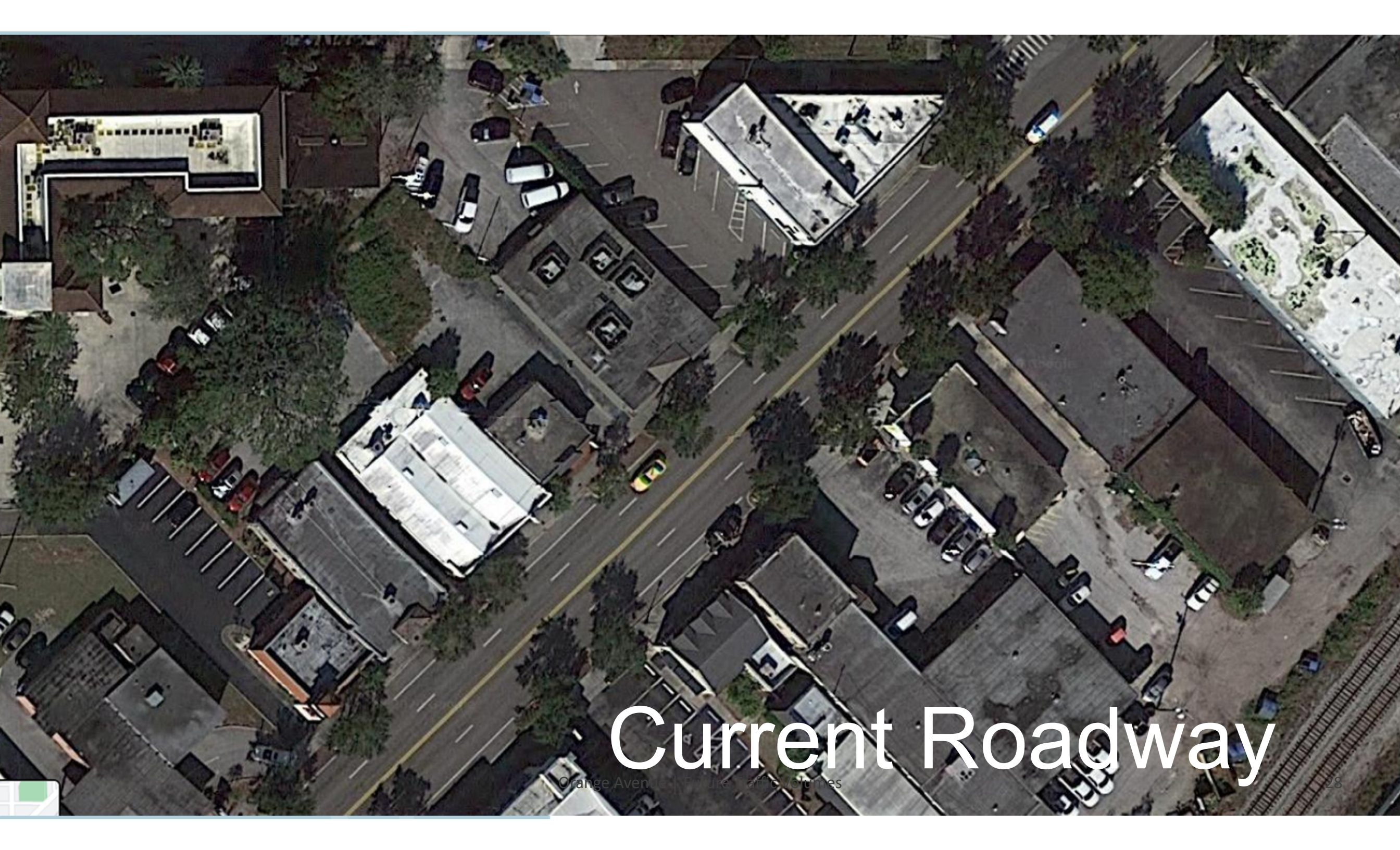
- Five development scenarios were initially considered.
- The City Commission is considering the effects of limitations on density and intensity.
- Current OAO language allows development amounts that were considered in two of the scenarios.

Future Volumes

Roadway		Existing Daily Volume	Base Condition 2040 Daily Volume	Year 2040			
				60% FAR		130% FAR	
				Change (%)	Volume	Change (%)	Volume
From:	To:						
Orange Ave							
Clay St	Mills Ave/Orlando Ave	14,300	14,900	1%	15,123	3%	15,335
Mills Ave/Orlando Ave	Denning Dr	17,996	19,400	4%	20,256	6%	20,630
Denning Dr	Fairbanks Ave (SR 426)	17,996	19,400	1%	19,521	2%	19,741
Fairbanks Ave (SR 426)							
Orlando Ave	Denning Dr	23,500	25,400	2%	25,852	7%	27,163
Denning Dr	Pennsylvania Ave	33,000	35,600	1%	35,983	4%	37,126
Pennsylvania Ave	Park Ave	33,000	35,600	1%	35,878	1%	35,804
Morse Blvd							
Orlando Ave	Denning Dr	7,700	10,800	6%	11,458	24%	13,415
Denning Dr	Pennsylvania Ave	7,700	10,800	6%	11,426	15%	12,458
Pennsylvania Ave	New York Ave	7,700	10,800	2%	10,998	7%	11,585
New York Ave	Park Ave	7,700	10,800	3%	11,164	7%	11,576
Clay St							
Orange Ave	Par St	8,086	11,300	3%	11,661	15%	13,011
Par St	Westchester Ave	12,400	14,900	0%	14,905	4%	15,552
Westchester Ave	Fairbanks Ave (SR 426)	12,400	14,900	1%	14,977	2%	15,160
Orlando Ave							
Princeton St	Orange Ave	28,000	30,800	1%	30,984	3%	31,597
Orange Ave	Fairbanks Ave (SR 426)	43,809	48,200	1%	48,618	1%	48,897
Fairbanks Ave (SR 426)	Morse Blvd	42,327	46,600	-1%	46,225	0%	46,430
Morse Blvd	Canton Ave	42,327	46,600	-1%	46,277	0%	46,426
Canton Ave	Webster Ave	42,327	46,600	0%	46,495	0%	46,470
Webster Ave	Lee Road (SR 423)	42,327	46,600	0%	46,419	2%	47,711

Changes To Address Concerns

- Medians
- Left-turn Lanes (as needed)
- Bike Lanes / Facilities
- Wider Sidewalks
- Wider Parking Spaces / Angled Parking
- Mid-Block Crossings
- Speed Control:
 - Roundabout
 - Crosswalks
 - Larger bulb-outs



Current Roadway

Orange Avenue Fire Traffic Volume

There is not
much
available
space



Example Concept – Planning Level





Example Planning – Level Concept

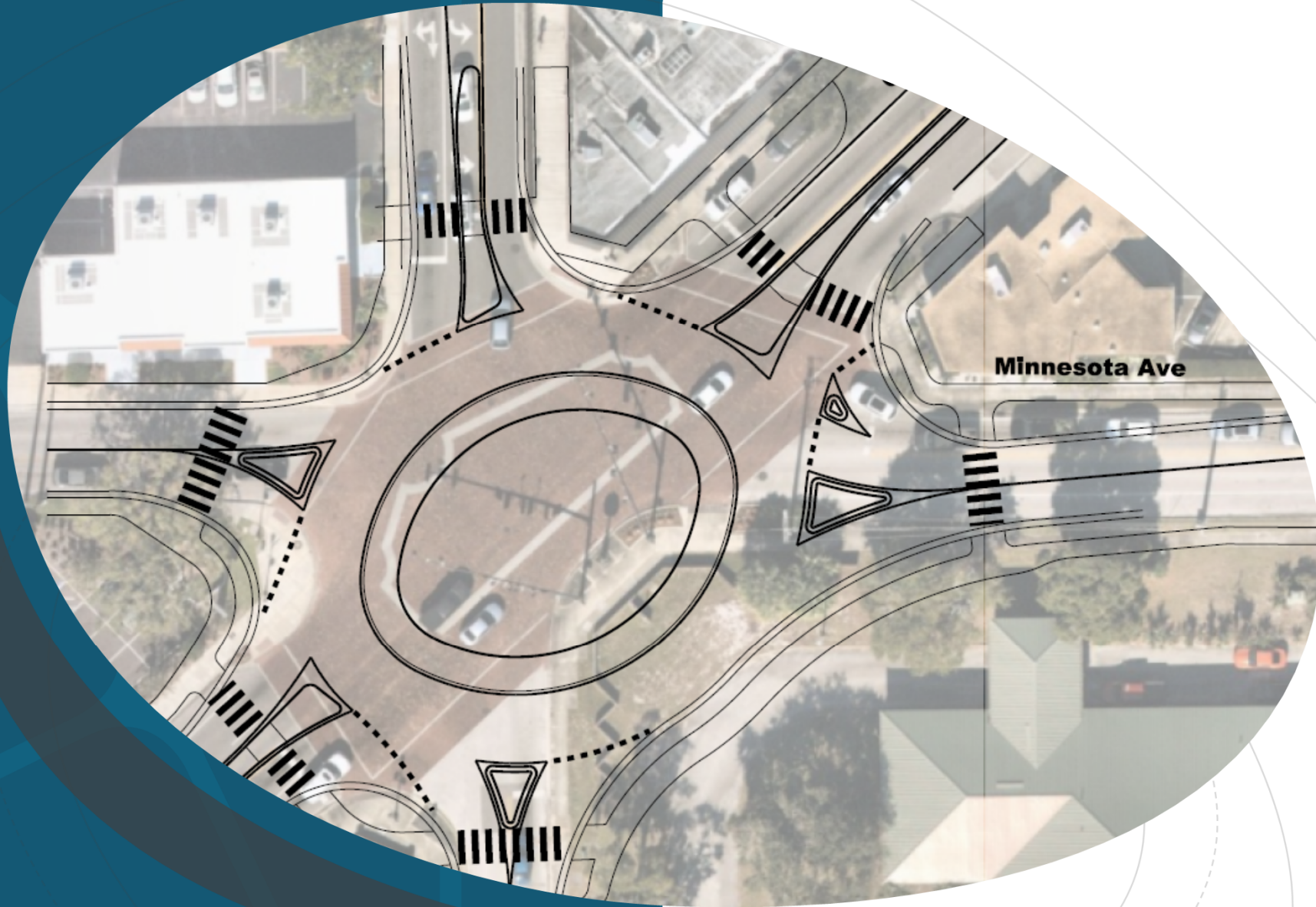
Mid-Block Crossings



- Much easier on two-lane roads
- Complex on multi-lane roads
- Best on low-speed roads

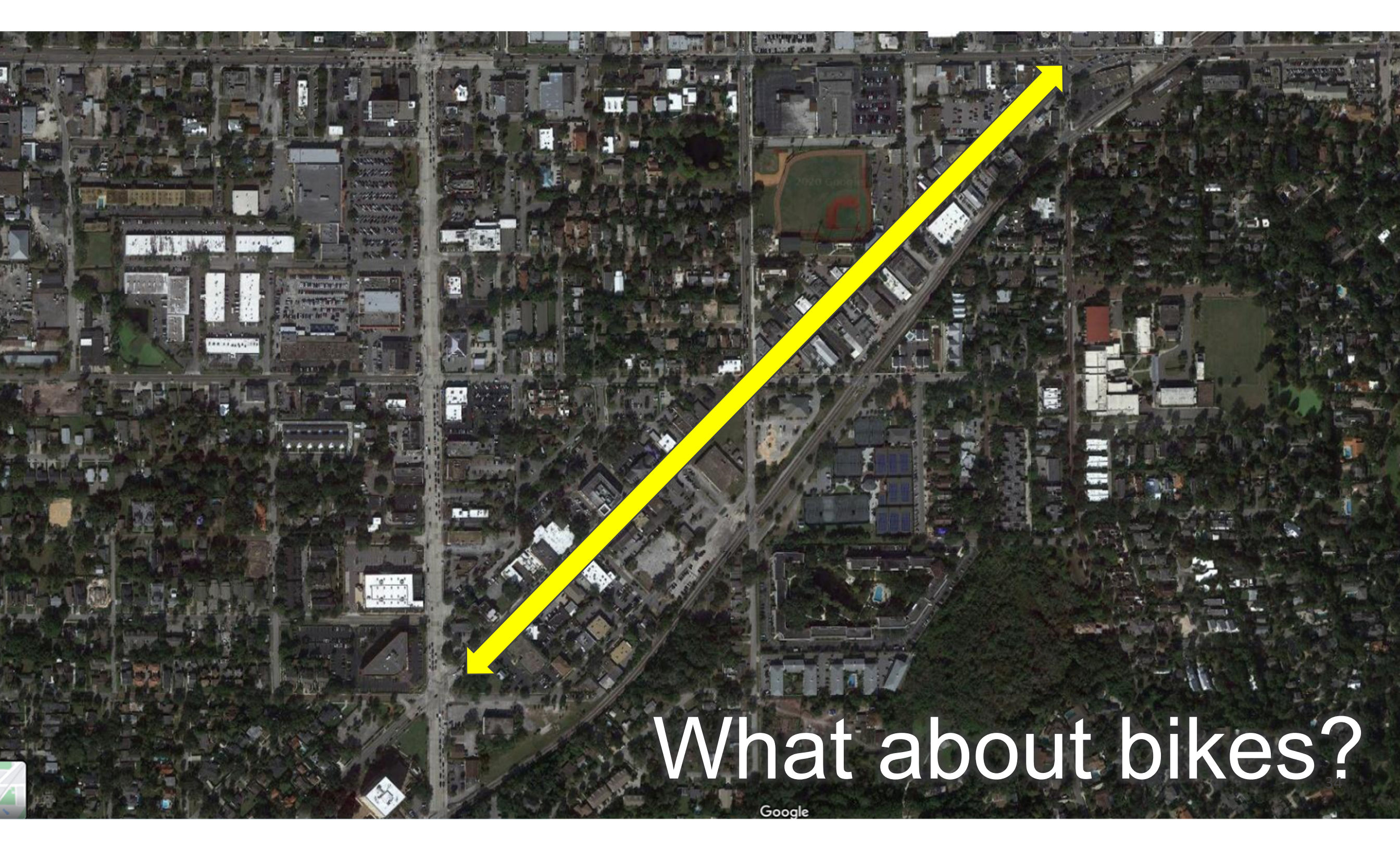


State Law Sign and Po...
roadtrafficsigns.com



Orange at Minnesota / Denning:

Cuts delay in half,
improves capacity

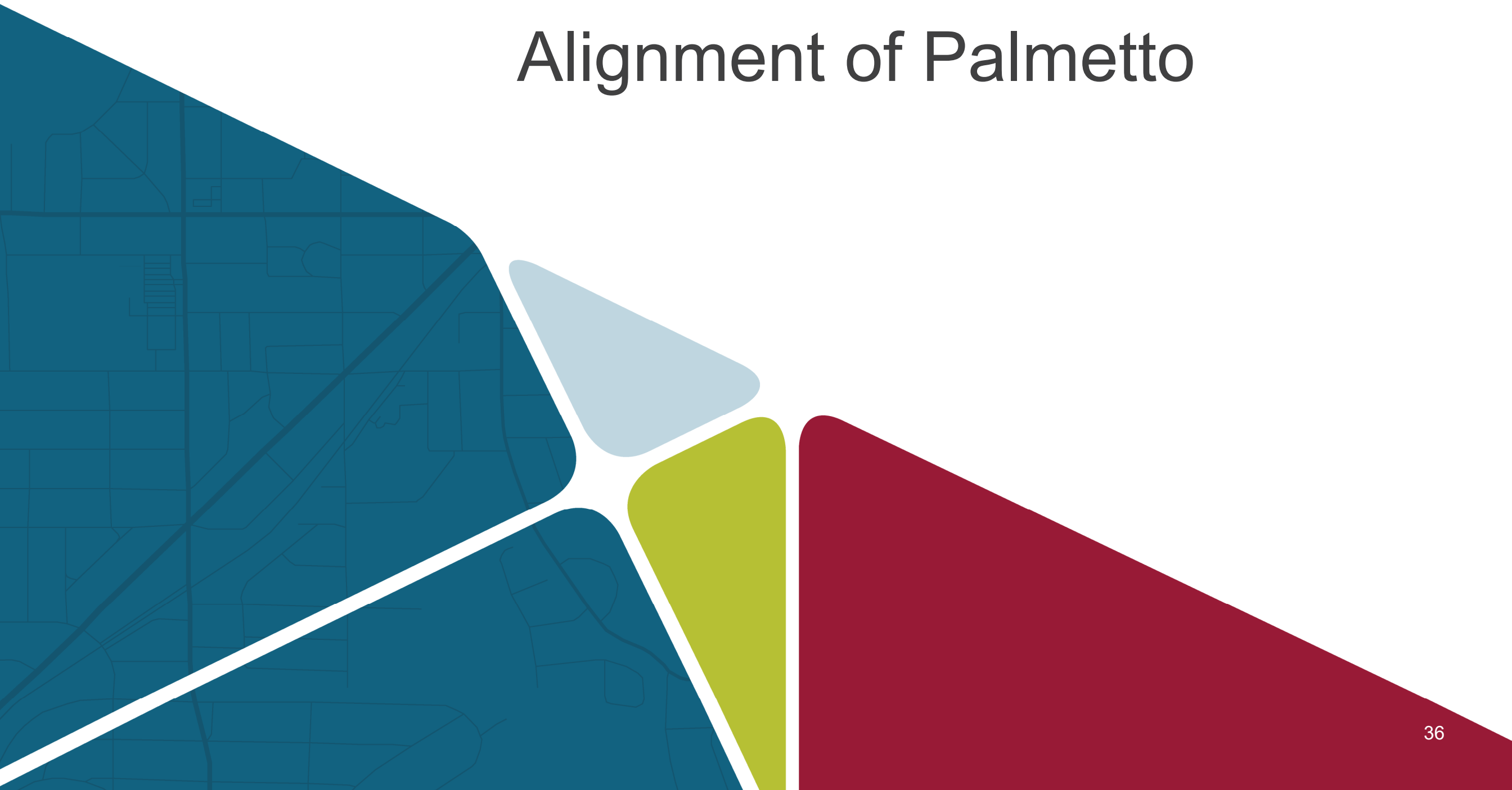


What about bikes?

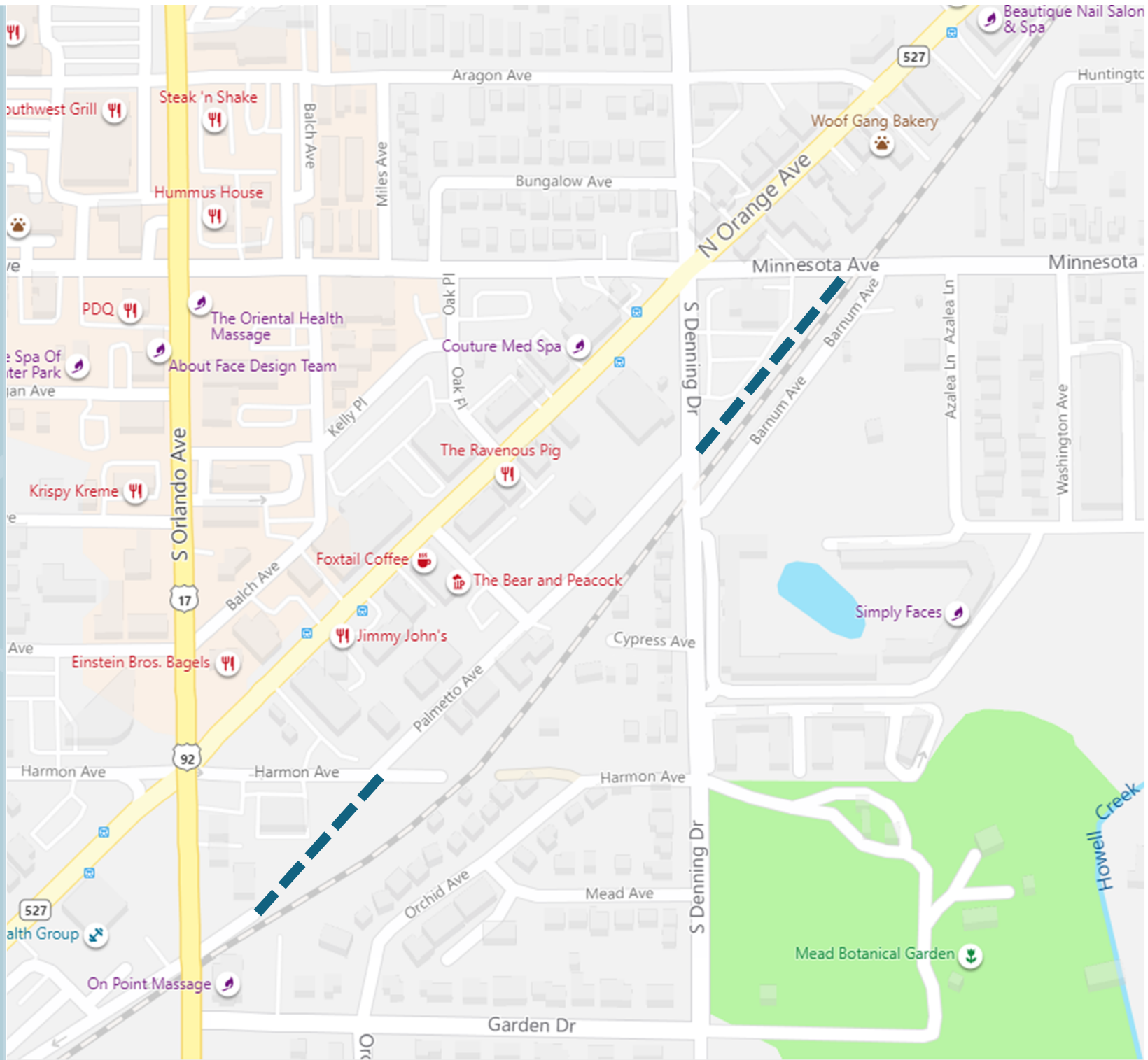


Mirror North of Fairbanks

Alignment of Palmetto

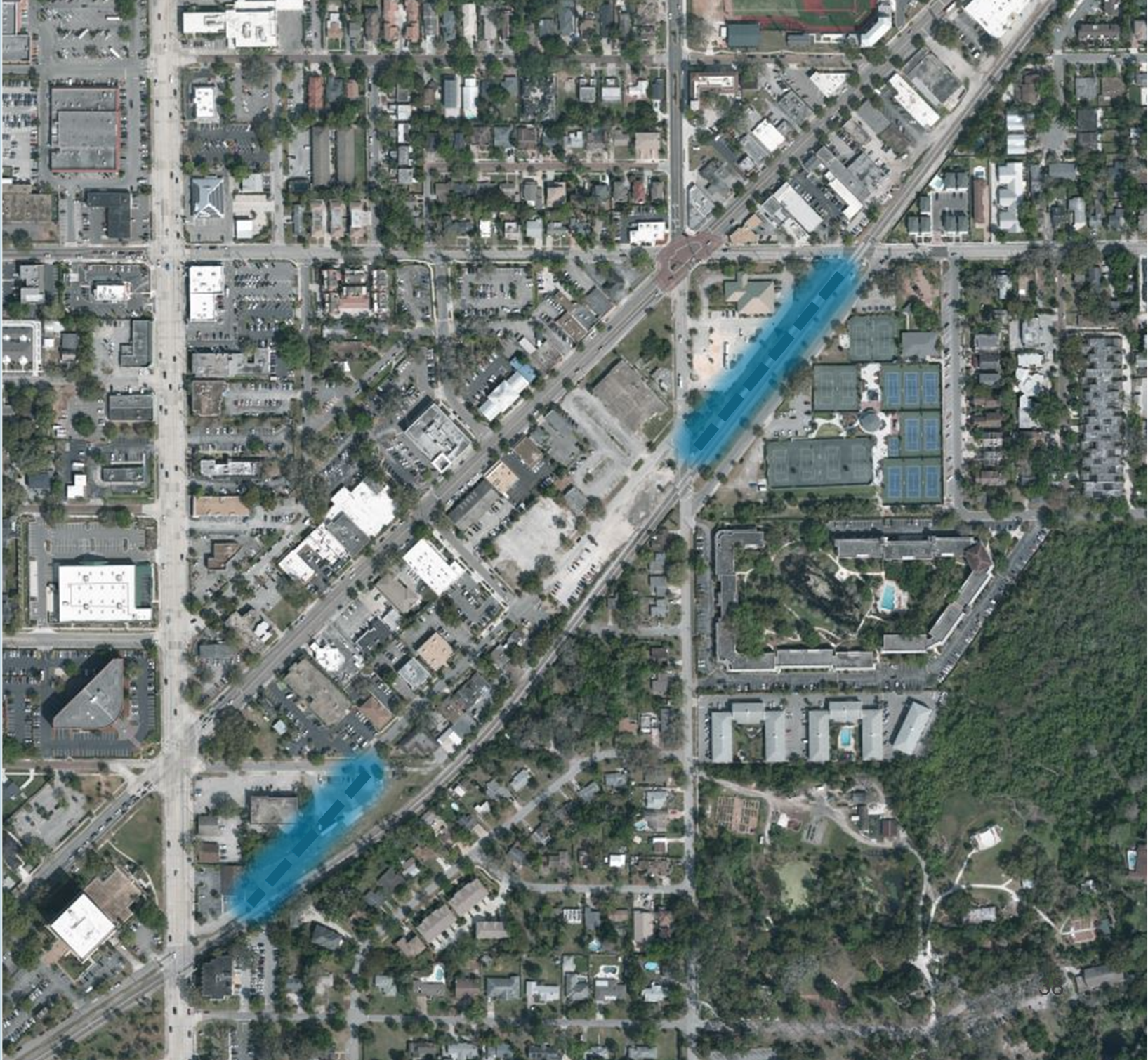


Existing Alignment & Gaps



Existing Alignment & Gaps

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Connection to Orlando Avenue

Orange Avenue | Traffic Analysis

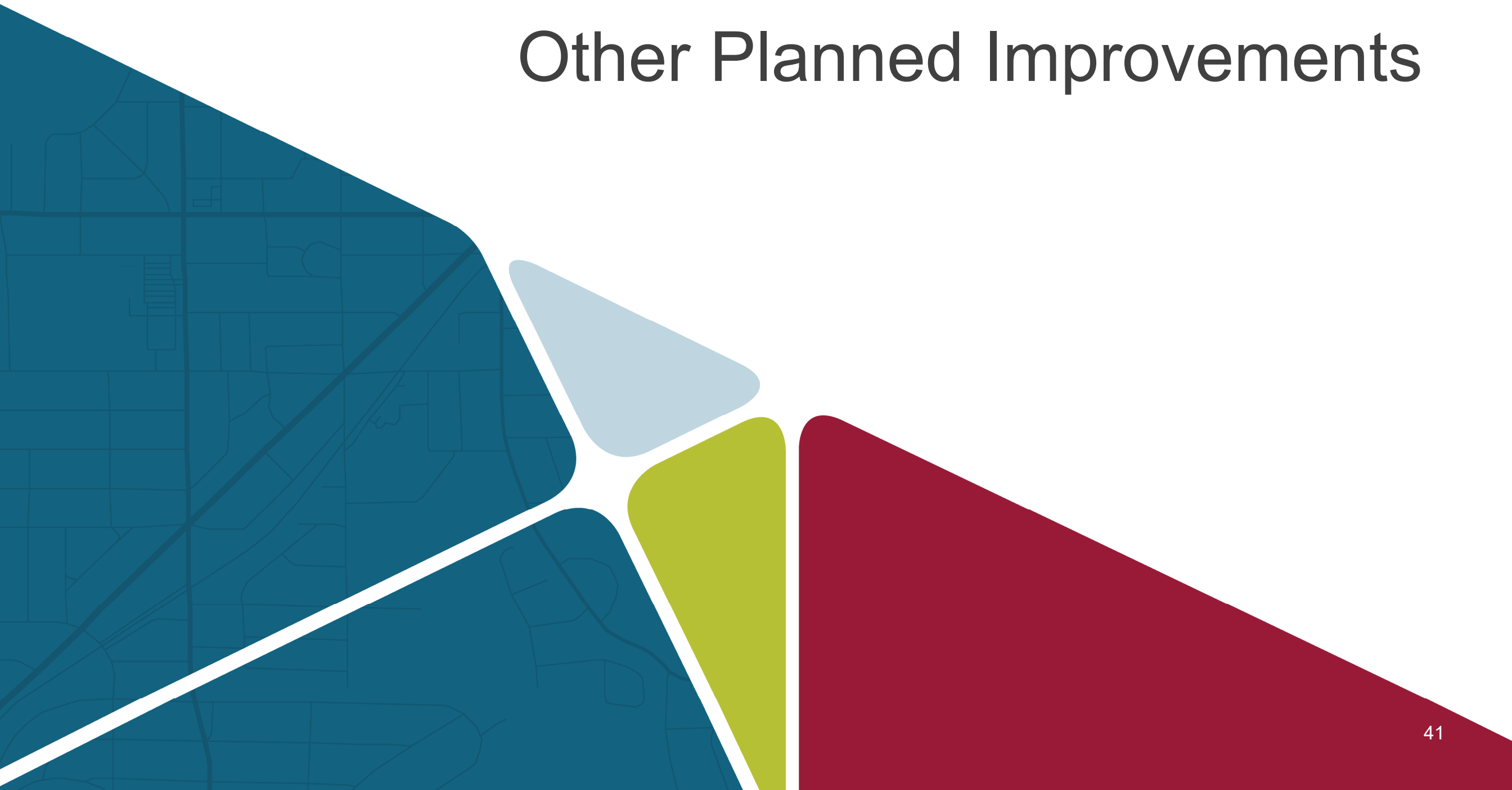


Realign with Redevelopment

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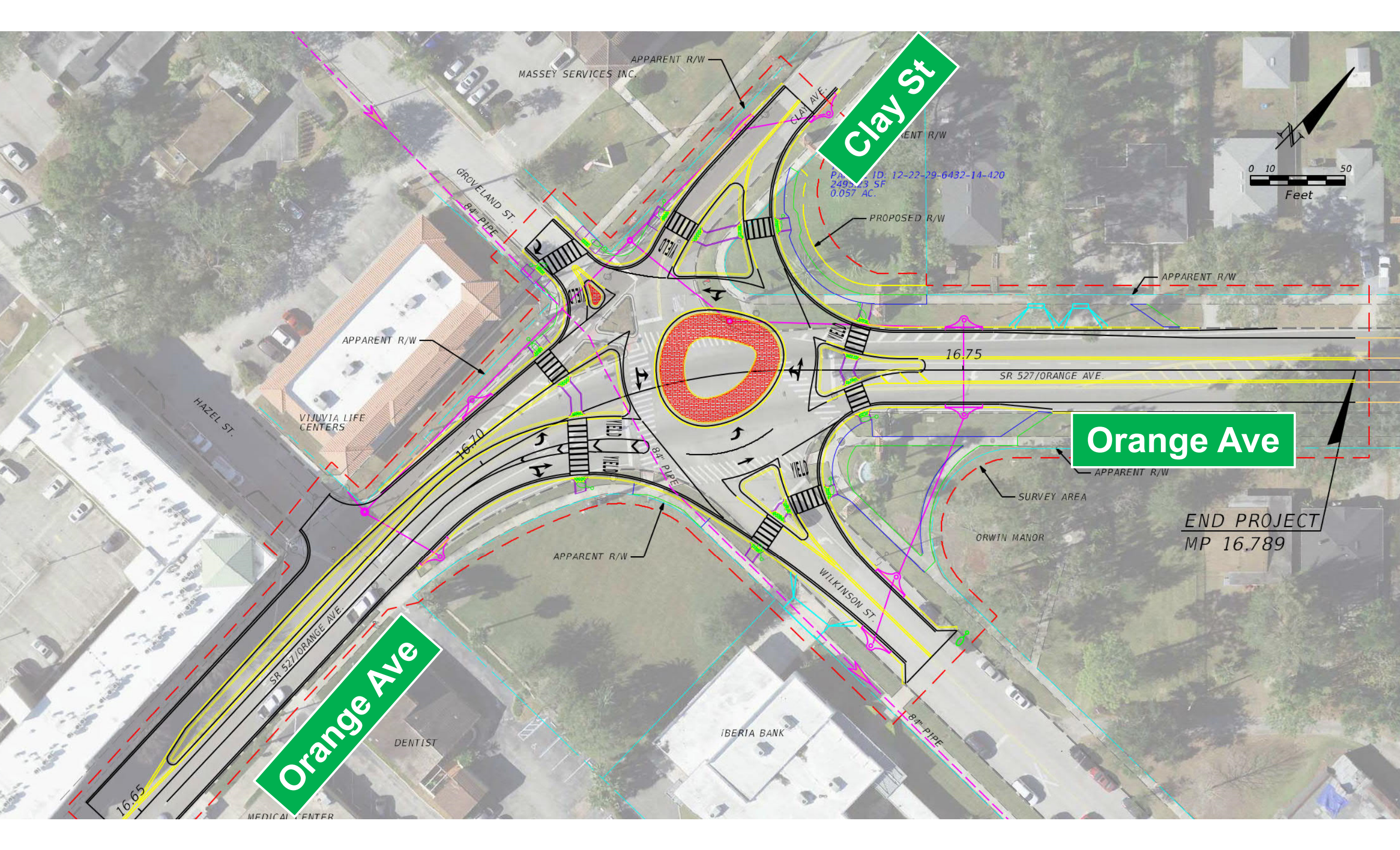
Other Planned Improvements



Orange Avenue 445691-1

- Design to begin early 2021
- Design to finish June 2022
- Scheduled for Construction in FY 2023

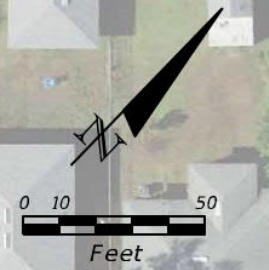




Clay St

Orange Ave

Orange Ave



END PROJECT
MP 16.789

APPARENT R/W
MASSEY SERVICES INC.

PA ID: 12-22-29-6432-14-420
2495.23 SF
0.057 AC.

PROPOSED R/W

APPARENT R/W

APPARENT R/W

VIJUVIA LIFE CENTERS

HAZEL ST.

GROVELAND ST.
8\"/>

SR 527/ORANGE AVE.

SURVEY AREA

ORWIN MANOR

WILKINSON ST.

IBERIA BANK

DENTIST

MEDICAL CENTER

APPARENT R/W

APPARENT R/W

YIELD

YIELD

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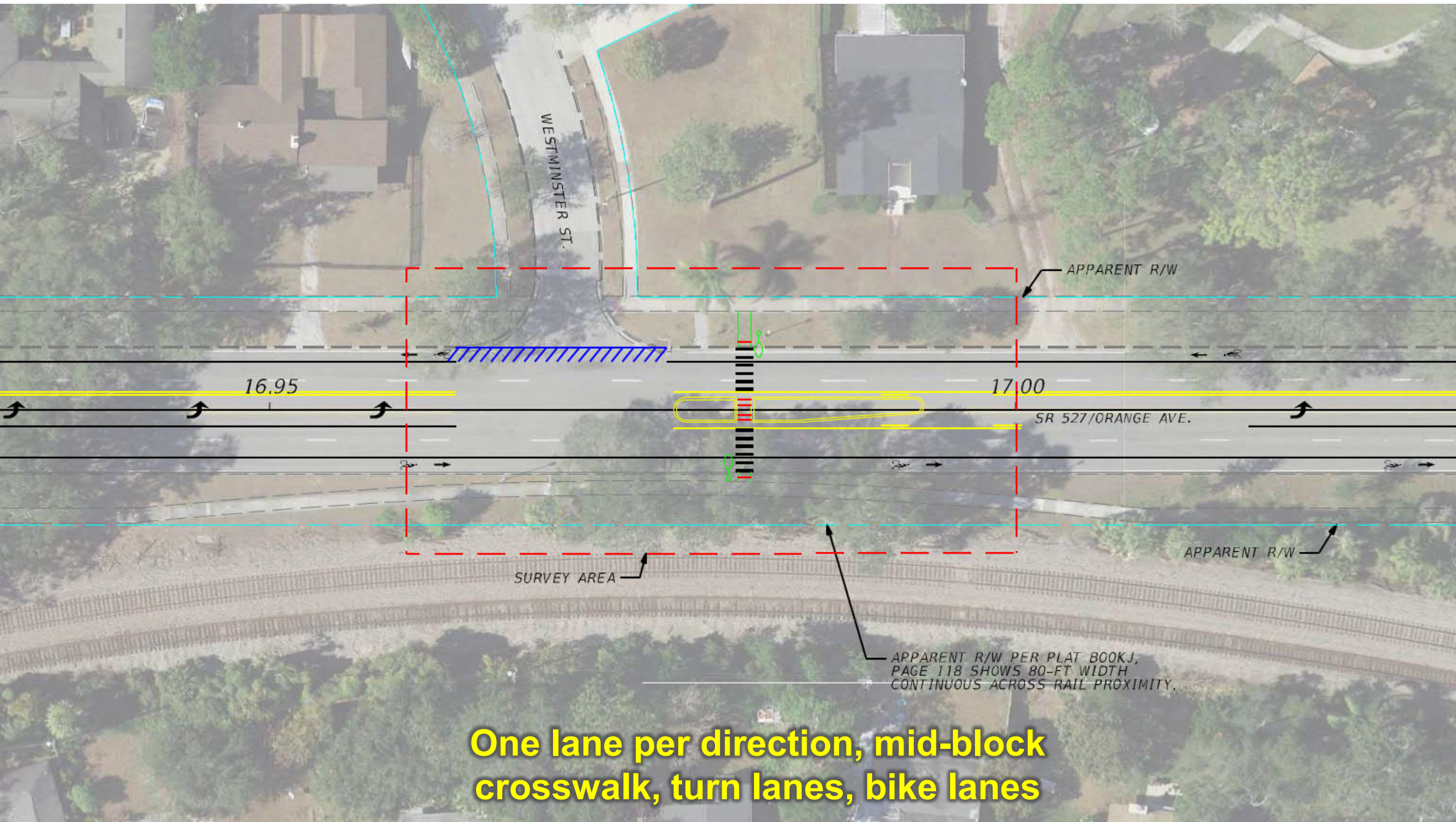
8\"/>

8\"/>

16.65

16.70

16.75



WESTMINSTER ST.

APPARENT R/W

16.95

17.00

SR 527/ORANGE AVE.

APPARENT R/W

SURVEY AREA

APPARENT R/W PER PLAT BOOK J,
PAGE 118 SHOWS 80-FT WIDTH
CONTINUOUS ACROSS RAIL PROXIMITY.

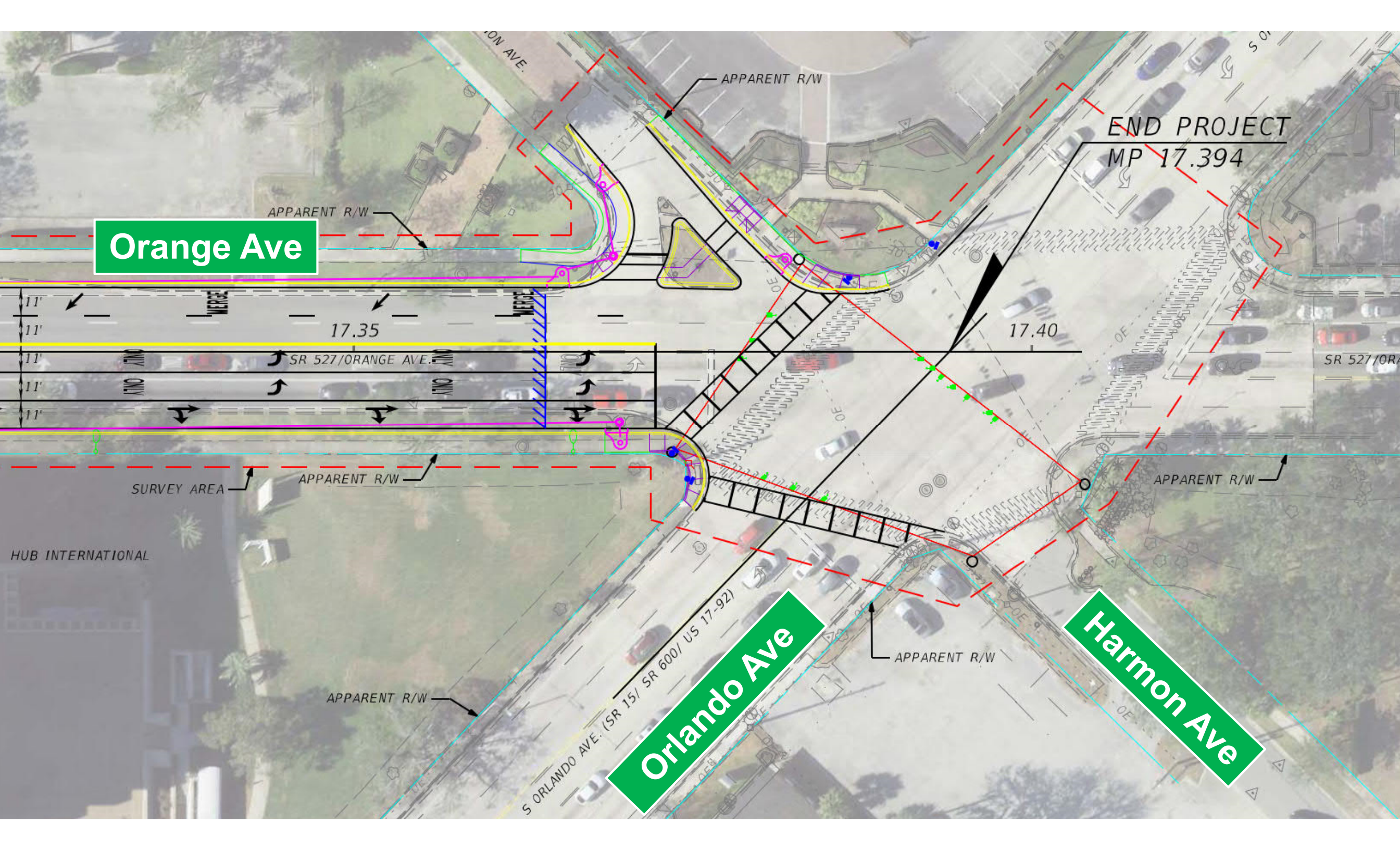
One lane per direction, mid-block crosswalk, turn lanes, bike lanes

END PROJECT
MP 17.394

Orange Ave

Orlando Ave

Harmon Ave



APPARENT R/W

APPARENT R/W

11'
11'
11'
11'
11'

17.35

17.40

SURVEY AREA

APPARENT R/W

APPARENT R/W

APPARENT R/W

APPARENT R/W

HUB INTERNATIONAL

SR 527/ORANGE AVE.

S ORLANDO AVE. (SR 15/ SR 600/ US 17-92)

SR 527/ORANGE AVE.

Orlando Avenue

- FDOT Project
- Through City Limits (from Nottingham St to Monroe Avenue)
- Design is underway
- Purpose:
 - Repaving
 - Widen sidewalks
 - Upgrade storm sewer
 - Upgrade signals
 - Landscaping

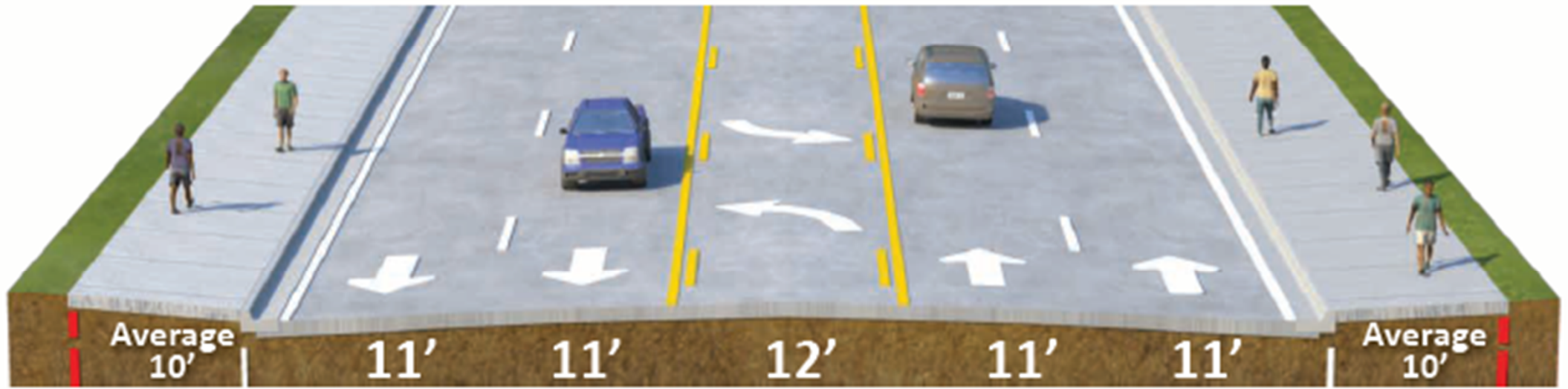


Orlando Ave

Existing



Proposed



Orlando Avenue (Kimley-Horn Intersection Study)

1. Orlando Avenue & Minnesota Avenue
2. Orlando Avenue & Fairbanks Avenue
3. Orlando Avenue & Morse Boulevard
4. Orlando Avenue & Gay Road
5. Orlando Avenue & Webster Avenue
6. Orlando Avenue & Lee Road
7. Orlando Avenue & Park Avenue
8. Lee Road & Bennett Avenue / Executive Drive
9. Clay Street & Par Street
10. Clay Street & Minnesota Avenue
11. Clay Street & Fairbanks Avenue
12. Webster Avenue & Lee Road
13. Denning Drive & Morse Boulevard
14. Denning Drive & Canton Avenue
15. Denning Drive & Webster Avenue

Orlando Avenue Recommendations (Kimley-Horn Intersection Study)

- Turn lane extensions
- Additional turn lanes
- Signal timing changes
- Lane marking / striping changes

Reminders

- The Orange Avenue Overlay District does not specify roadway improvements.
- Roadway improvements can be made with or without changes to development potential.

Summary

- Current overlay district language (under consideration) allows less development than previous language.
- Future development does not have a significant impact on Orange Ave traffic volumes.
- Safety is a priority.
- There isn't enough room to accommodate all transportation needs under existing conditions.
- Projects are underway on adjacent roads / sections.
- Improvements in the study area need to be analyzed further, with public involvement, prior to moving forward.

Questions & Comments