

*Transportation Planning Division*

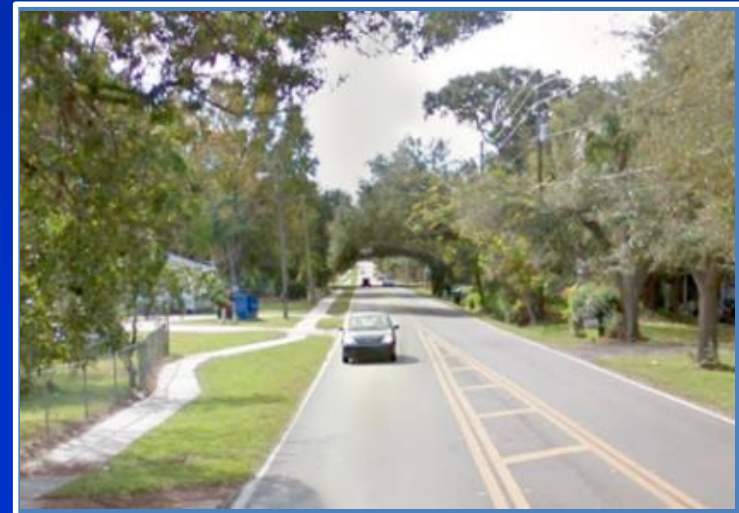
**Work Session**  
**Avalon Road RCA Study**

**March 26, 2019**



# Presentation Outline

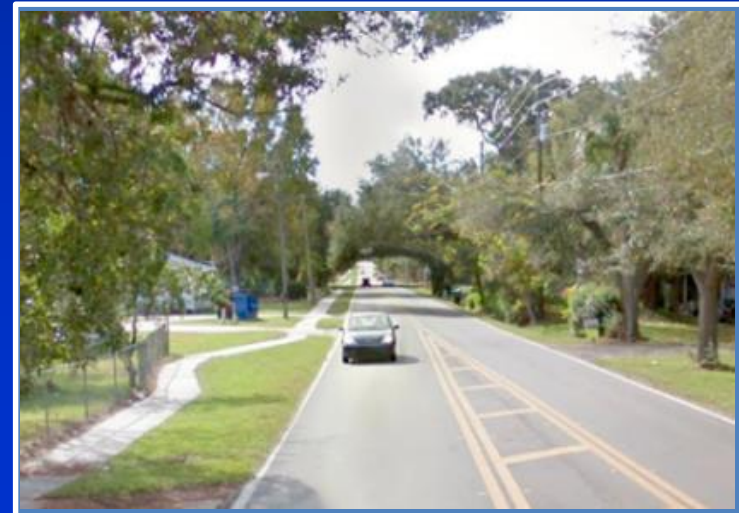
- **Roadway Improvement Process**
- **Study Overview**
- **Existing Conditions**
- **Public Involvement**
- **Development of Alternatives**
- **Preferred Alternative**





# Presentation Outline

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# Roadway Improvement Process

## ▪ Overall Project Schedule

PHASE	DURATION
RCA Study	12 Months
Design	18 Months
Right of Way	18 Months
Construction	24 Months
<b>Total Time To Finish Road</b>	<b>6-8 Years</b>



# Roadway Improvement Process

- **Right-of Way process comports with Sec. 73.021 and 74.031 Florida Statutes**
  - **Must establish “Public Purpose” and “Reasonable Necessity”**
  - **Five Criteria (SCALE)**
    - **Safety Considerations**
    - **Costs**
    - **Availability of Alternative Routes**
    - **Long-Range Area Planning**
    - **Environmental Factors**



# Roadway Improvement Process

## ▪ RCA Study Purpose

- Document project need
- Identify context sensitive & cost feasible improvements
- Balance Needs of All Users
  - Safety
  - Mobility
  - Comfort



Automobiles



Pedestrians



Cyclists



Freight

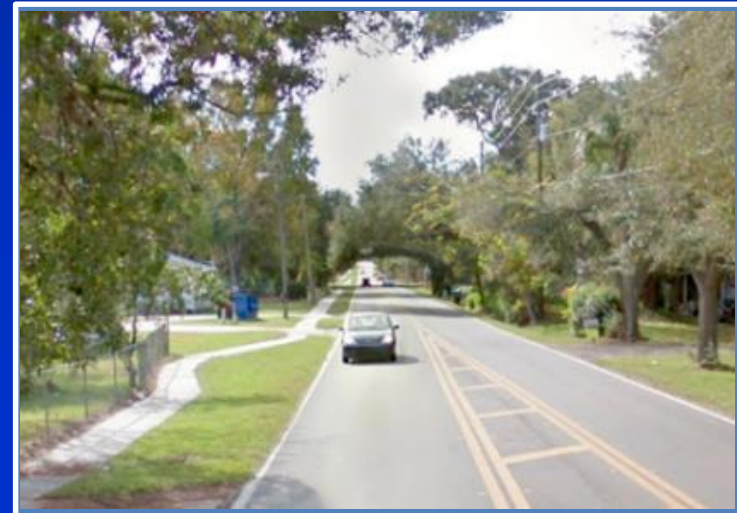


Transit



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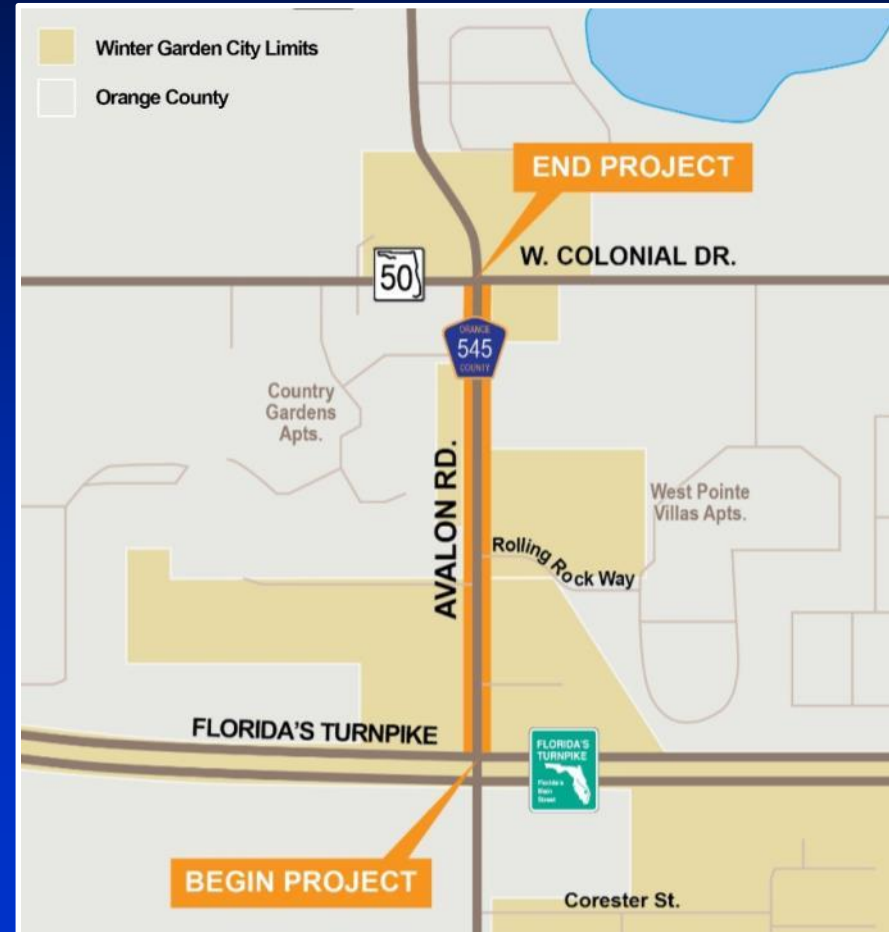
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# Study Overview

- **Avalon Road from Florida's Turnpike to SR 50 (W. Colonial Drive)**
  - Proposed Widening to 4-Lanes
  - SR 50 Intersection Improvements
  - Access Management Improvements
  - Bicycle & Pedestrian Enhancements





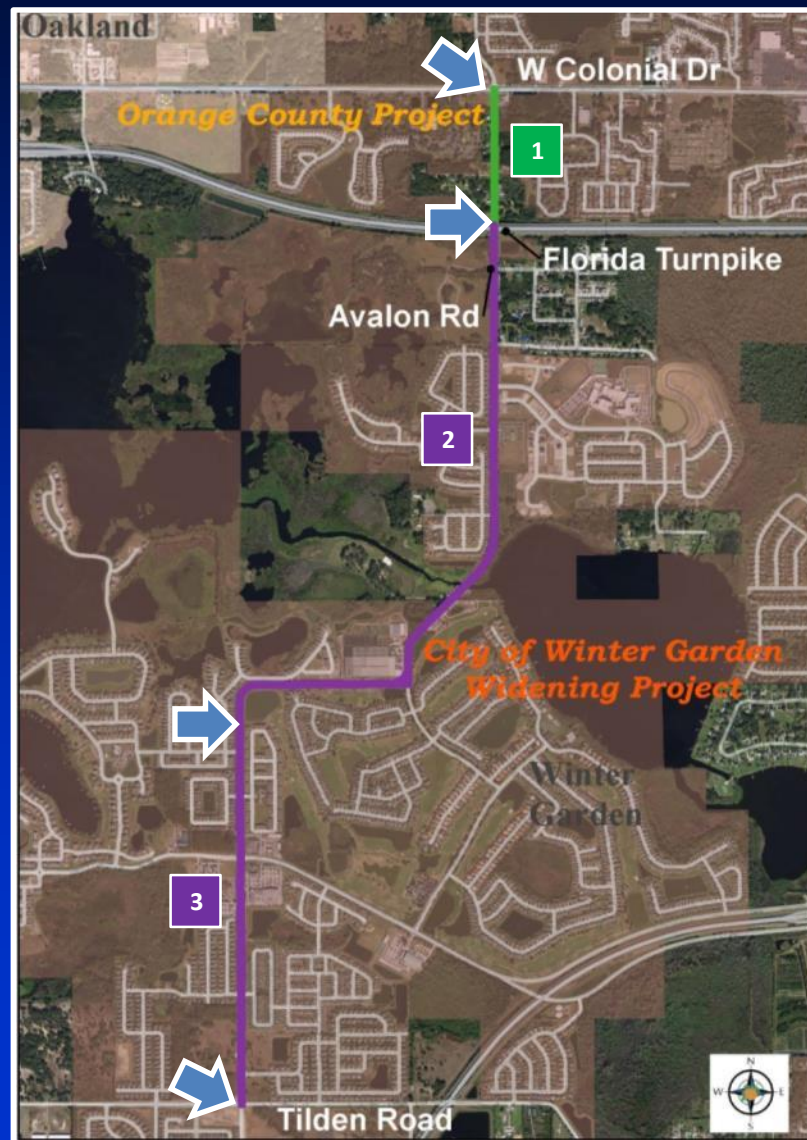


# Study Overview

## ▪ Inter-local Agreement with the City of Winter Garden

### Three Phases

- Phase 1: Turnpike to SR 50
- Phase 2: North of Hickory Hammock to Turnpike
- Phase 3: Tilden Road to North of Hickory Hammock





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# Existing Conditions

- **Roadway Features**
  - Two-lane roadway
  - Sidewalk on east side of road
  - No bicycle facilities
  - Swale drainage
  - No lighting

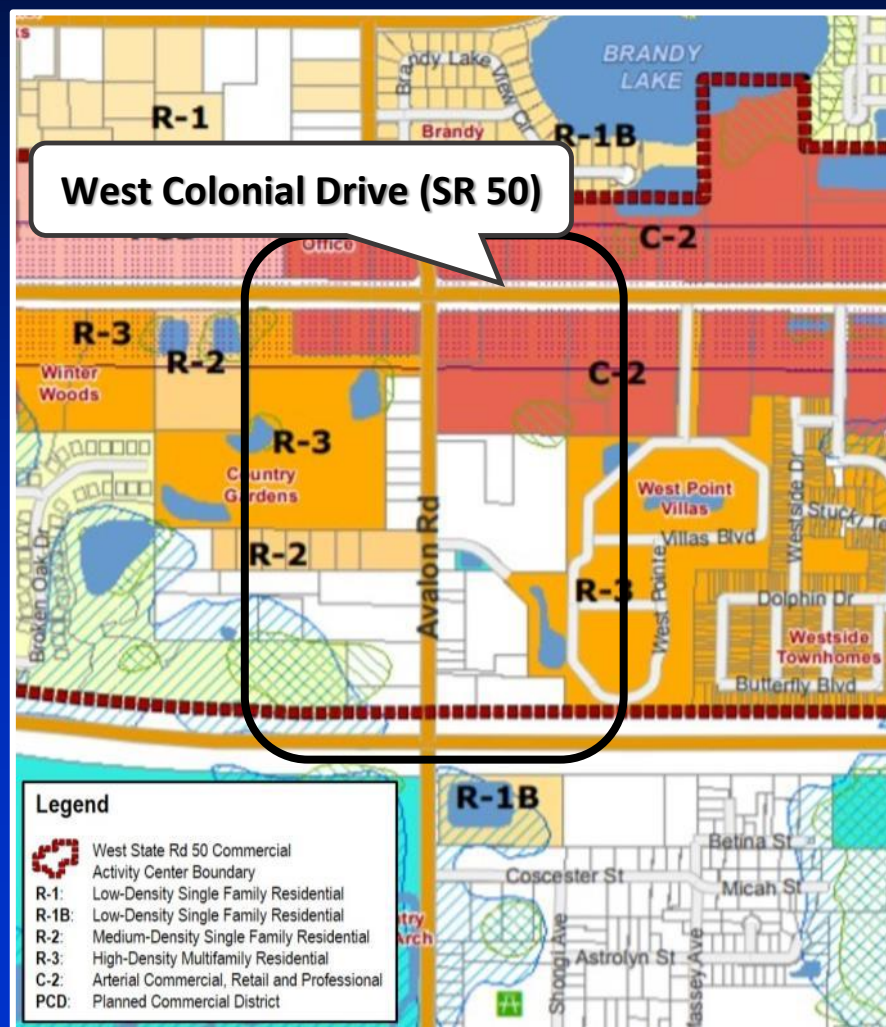




# Existing Conditions

## Existing Zoning

- Highest share of existing land uses within study area are residential (R-1B, R-2, and R-3)
- Parcels adjacent to SR 50 intersection are Commercial, Retail, and Professional (C-2)





# Existing Conditions

- **Historic Resources**
  - 19 Sites listed on the Department of Historical Resources - Florida Master Site File
  - Six site structures demolished or no longer exist
  - Two structures within proposed alignment





# Existing Conditions

## ▪ Drainage

- Project is within the St. John's River Water Management District  
Ocklawaha River  
Drainage Basin
- One cross drain - water flows to Johns Lake
- Drainage features along southbound lane





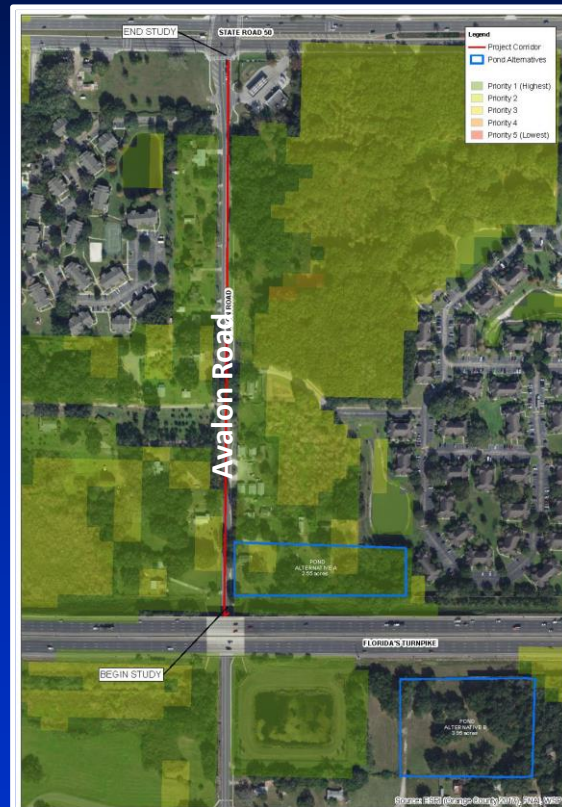
# Existing Conditions

## Wildlife

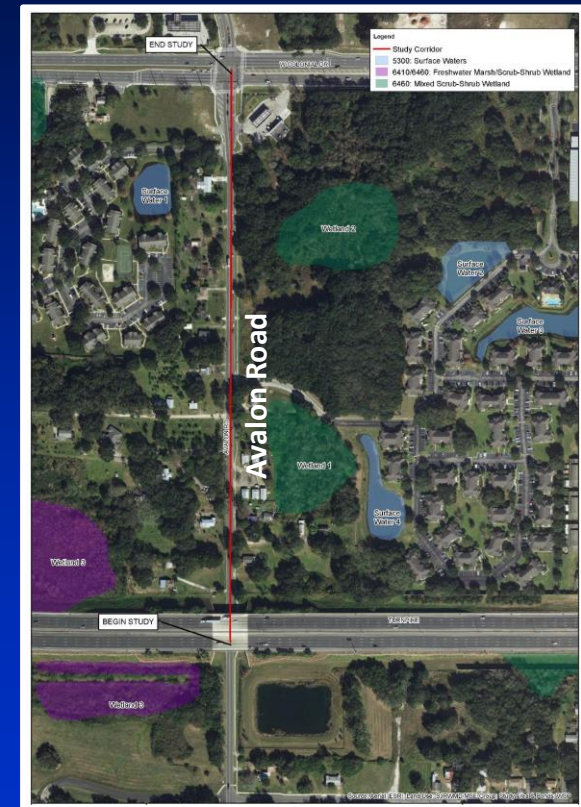
- No federal or state listed species
- No evidence of wildlife corridors

## Wetlands

- Three Wetland Systems in the vicinity of Avalon Road



Wildlife Zones



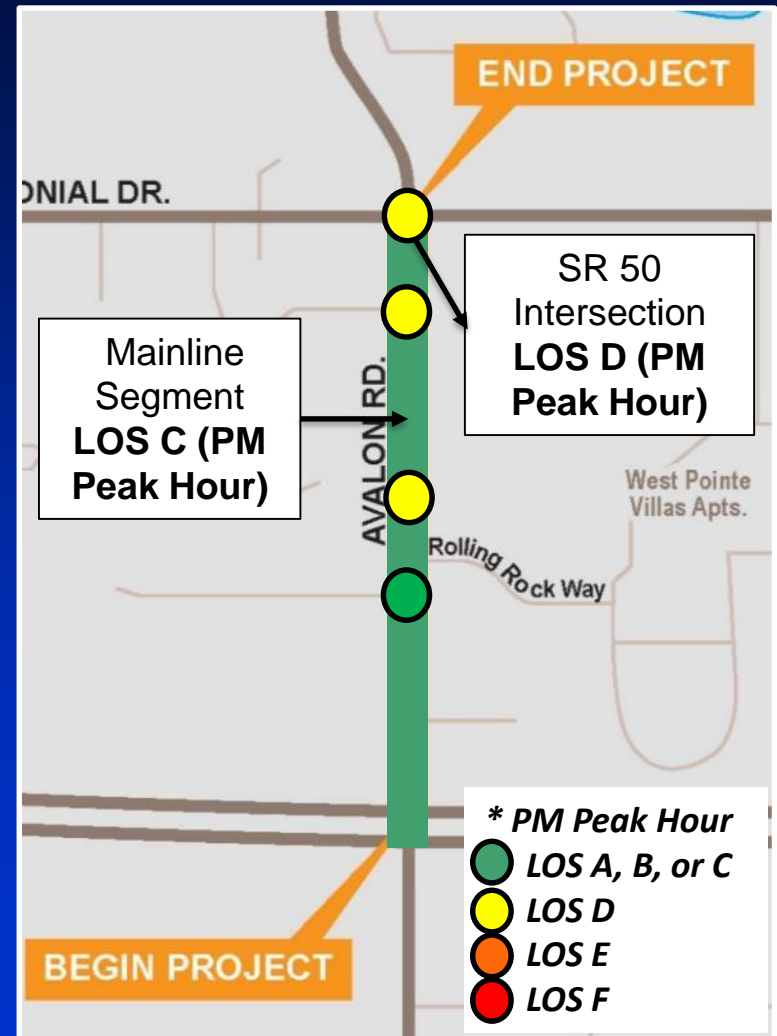
Wetland Zone Types



# Existing Conditions

## ■ Traffic Conditions

- Roadway Average Annual Daily Traffic (AADT) ranges from 15,000 to 15,400 vehicles per day
- Segment Level of Service (LOS) C\*
- Intersection LOS\*
  - SR 50 - LOS D
  - Country Gardens - LOS D
  - Rolling Rock Way - LOS D
  - Possum Holler Road - LOS B



Note: For unsignalized intersections south of SR 50, LOS shown is for minor street movement



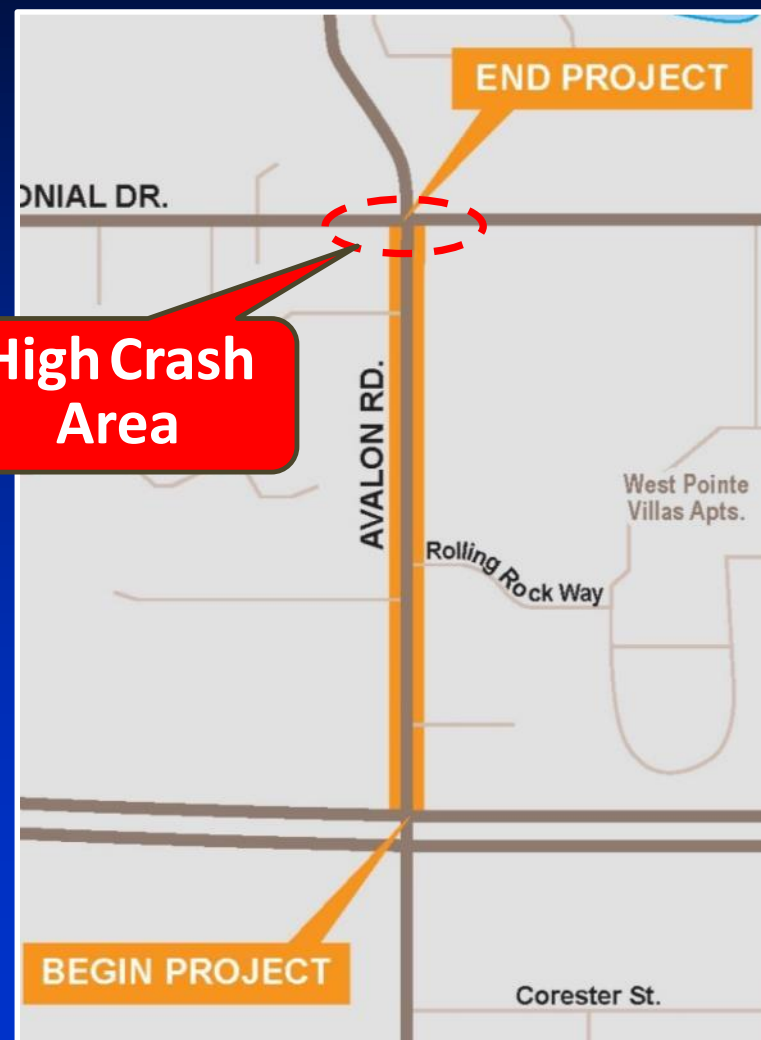


# Existing Conditions

## ■ Crash Experience

- 66 Total Crashes in Study Area From 2014-2017
- 48 crashes at W. Colonial Drive intersection (11 Injuries)
- 18 crashes in segment south of W. Colonial Drive (6 Injuries)
- No fatalities
- Majority rear-end crashes

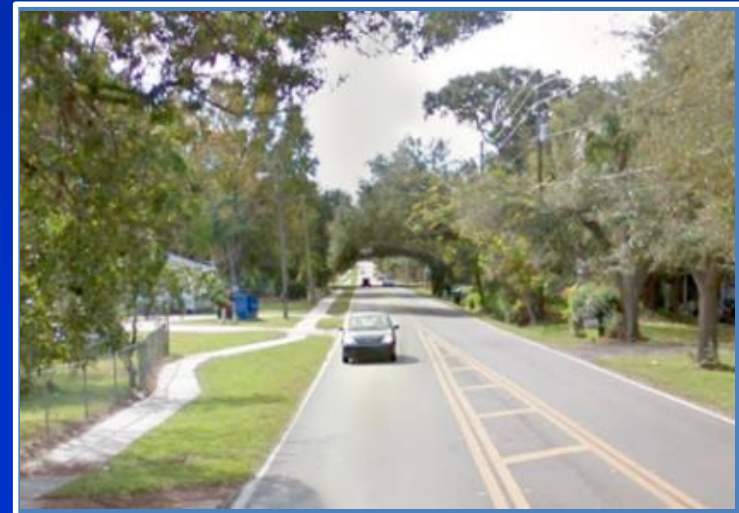
- Widening and intersection improvements will enhance safety





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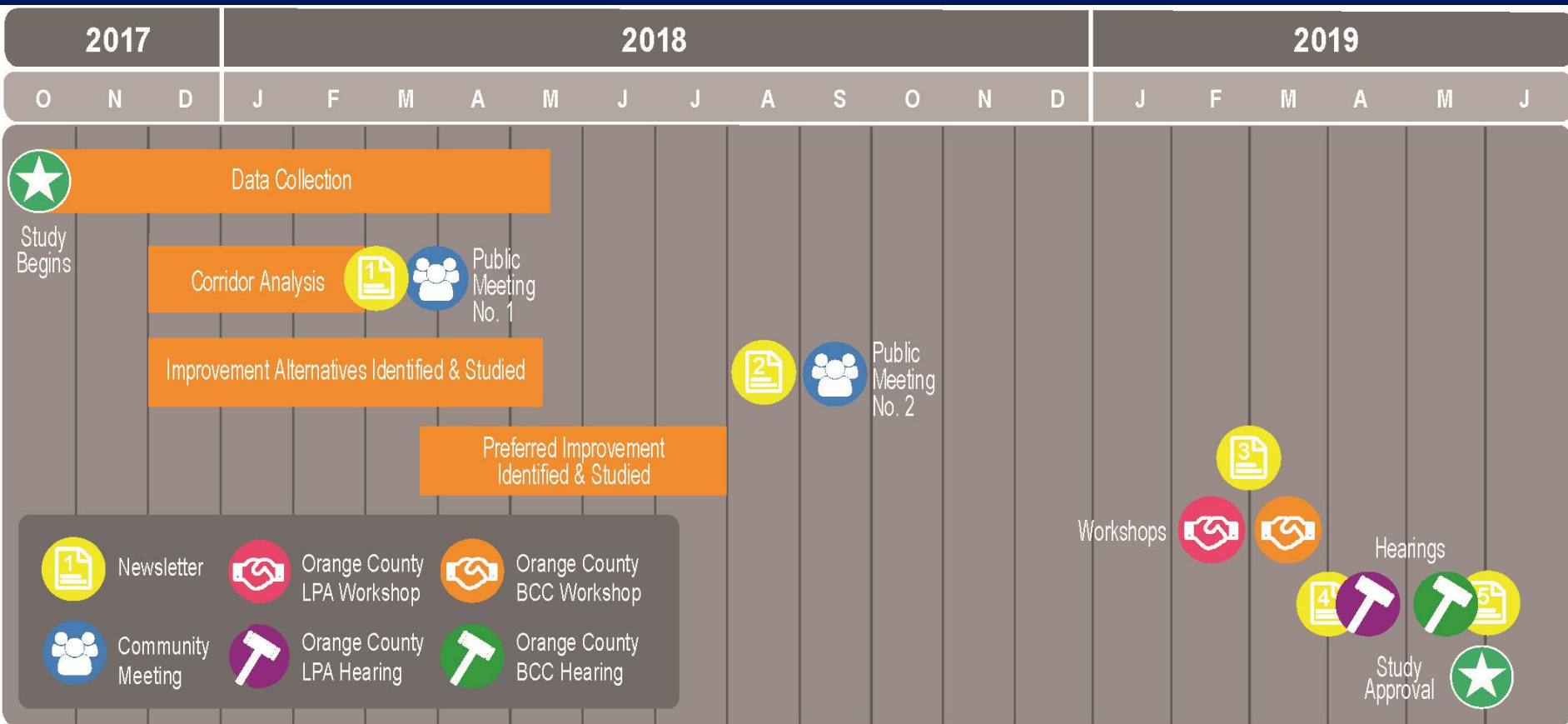
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# Project Schedule

## SCHEDULE





# Public Involvement



Newsletters



Website



Community  
Meetings



LPA/BCC  
Public Hearings

[www.avalonroadrca2018.com](http://www.avalonroadrca2018.com)



# Public Involvement

- **Public Meeting No. 1 (March 28, 2018)**
  - Support for a multi-use path
  - Access management and driveway location
  - Existing right-of-way limits
  - Potential property acquisitions
  - Desire for speed limit reduction
  - Impact on overhead utilities
  - Desire for U-Turn facilities





# Public Involvement

## ▪ Public Meeting No. 2 (September 12, 2018)

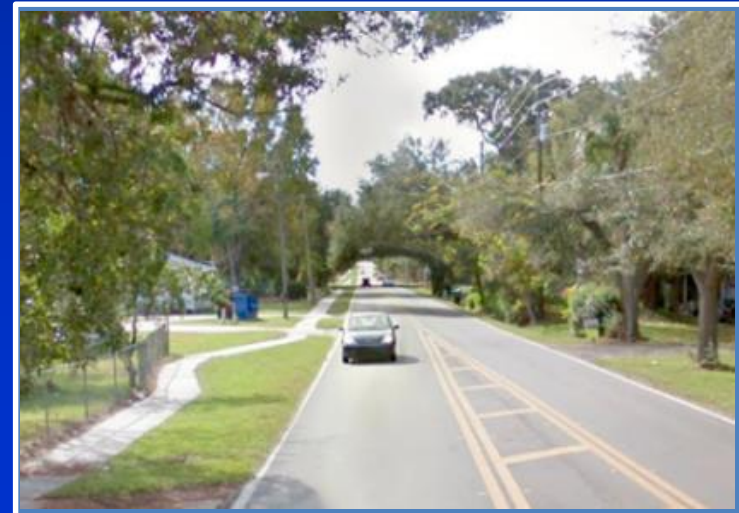
- Width and nature of median
- Anticipated construction impacts
- Anticipated drainage impacts onto residential properties
- Location of dedicated turn lanes
- Desire for speed limit reduction
- Desire for lighting
- Desire for U-Turn facilities
- Estimated cost of project





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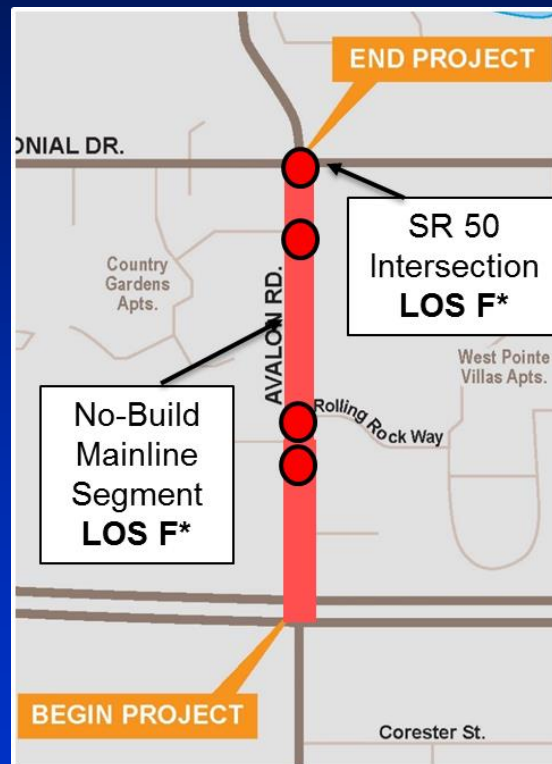


# Development of Alternatives

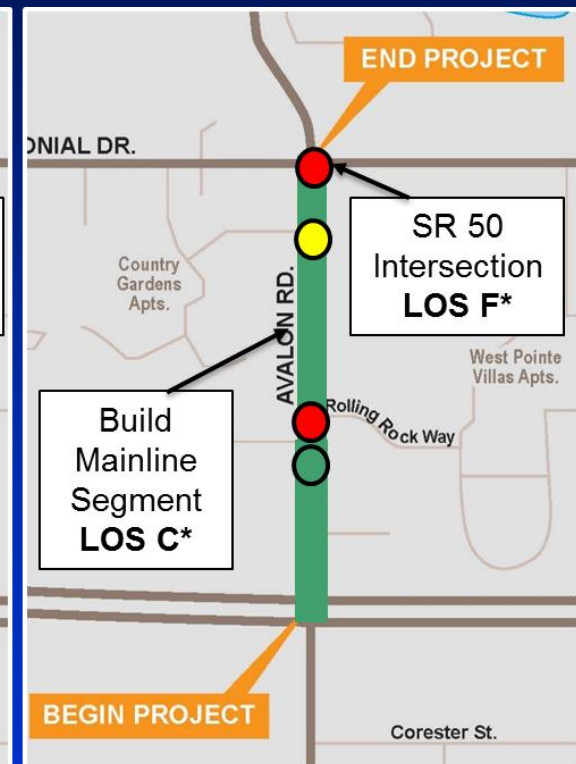
## Future Traffic Conditions

- Increases to 32,300 to 33,500 vehicles per day
- 115% increase over existing conditions
- 2045 No-Build
  - Segment LOS F
  - SR 50 Intersection LOS F
- 2045 Build
  - Segment LOS C
  - SR 50 Intersection LOS F

No-Build 2045



Build 2045



Note: for unsignalized intersections south of SR 50, LOS shown is for minor street movement





# Development of Alternatives

## ▪ Typical Section Elements

- Four lane divided urban
- 22-foot median
- 5-foot sidewalk on east
- 10-foot multi-purpose path on west
- Curb and gutter
- Lighting

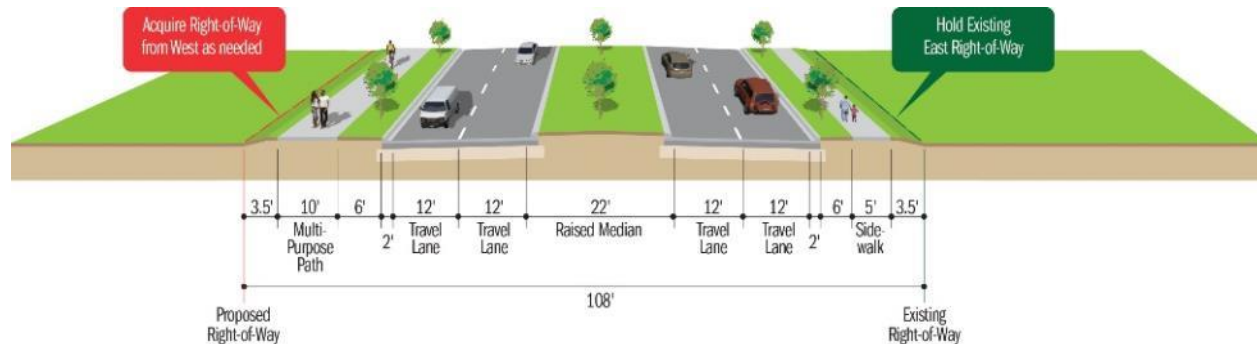
## ▪ Alignments

- West Alignment
- Center Alignment
- Center/Hybrid (Both Sides)
- East Alignment

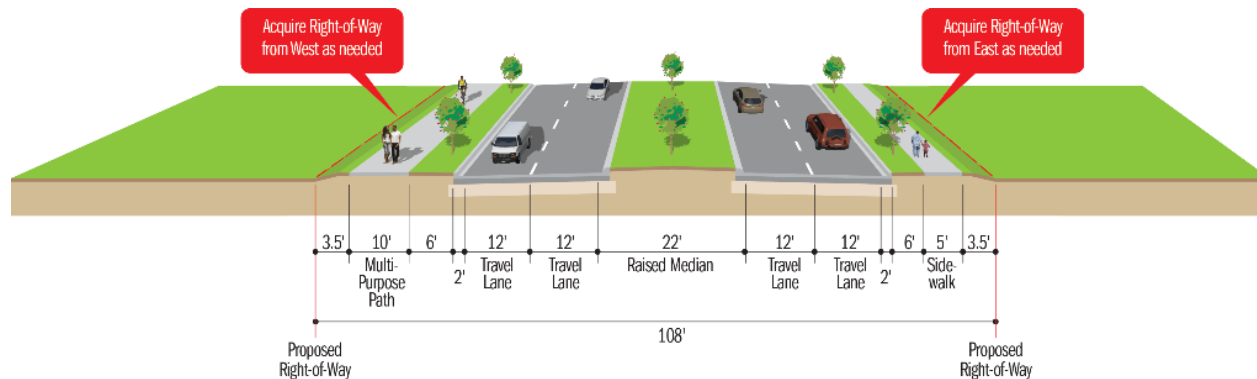


# Development of Alternatives

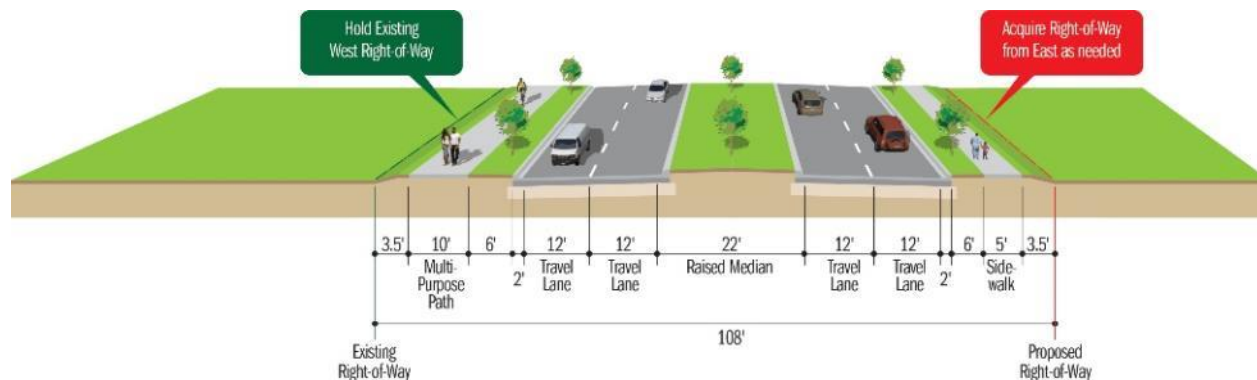
## West Alignment



## Center Alignment



## East Alignment





# Development of Alternatives

Evaluation Criteria	ALTERNATIVES				
	No-Build	West Alignment	East Alignment	Center Alignment	Center/Hybrid Alignment
<b>Right-of-Way Impacts</b>					
Number of Residential Acquisitions	None	9	6	5	4
Right-of-Way Needed (acres)	None	5.41	5.64	5.13	5.55
Number of Parcels Impacted	None	25	23	30	30
<b>Social, Natural, &amp; Physical Impacts</b>					
Social & Neighborhood	None	Moderate	Moderate	Moderate	Moderate
Archaeological/Historic Sites	None	None	None	None	None
Threatened/Endangered Species	None	None	None	None	None
Acres of Wetlands	None	None	None	None	None
Acres of Floodplains	None	None	None	None	None
Potential Contamination Sites	None	1	1	1	1
Southbound Deflection Impacts at SR 50 Intersection	None	★	★	★	★
Meets County Level of Service Standard	No	Yes	Yes	Yes	Yes
<b>Estimated Costs (Present Day Costs)</b>					
Design (15% of Construction)	No Cost	\$499,000	\$501,000	\$506,000	\$495,000
Right-of-Way Acquisition*	No Cost	\$529,000	\$402,000	\$316,000	\$321,000
Roadway Construction	No Cost	\$3,329,000	\$3,341,000	\$3,374,000	\$3,302,000
CEI (15% of Construction)	No Cost	\$499,000	\$501,000	\$506,000	\$495,000
<b>Total Cost **</b>		<b>\$4,856,000</b>	<b>\$4,745,000</b>	<b>\$4,702,000</b>	<b>\$4,613,000</b>



Meets criteria

\* Right-of-way acquisition estimate does not include relocations or business damages, and is subject to change.

\*\* Roadway construction cost estimate assumes underground utility relocation included in contingency within the cost.



Denotes preferred alternative

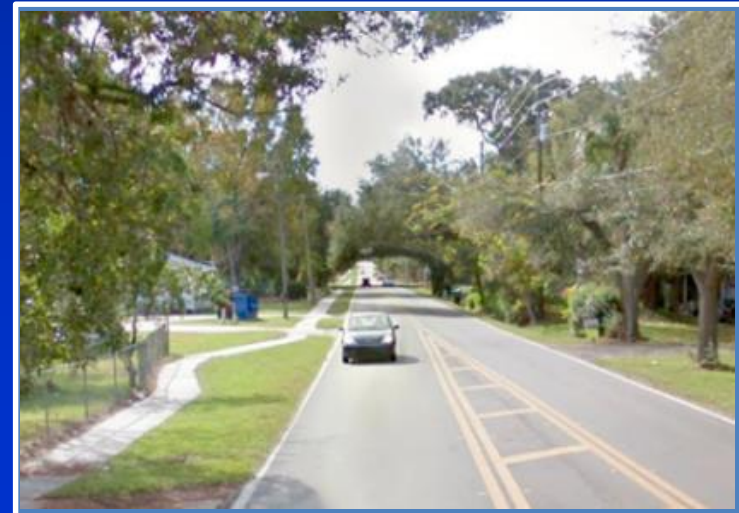
## Evaluation Matrix

Community Meeting No. 2  
Wednesday, September 12, 2018



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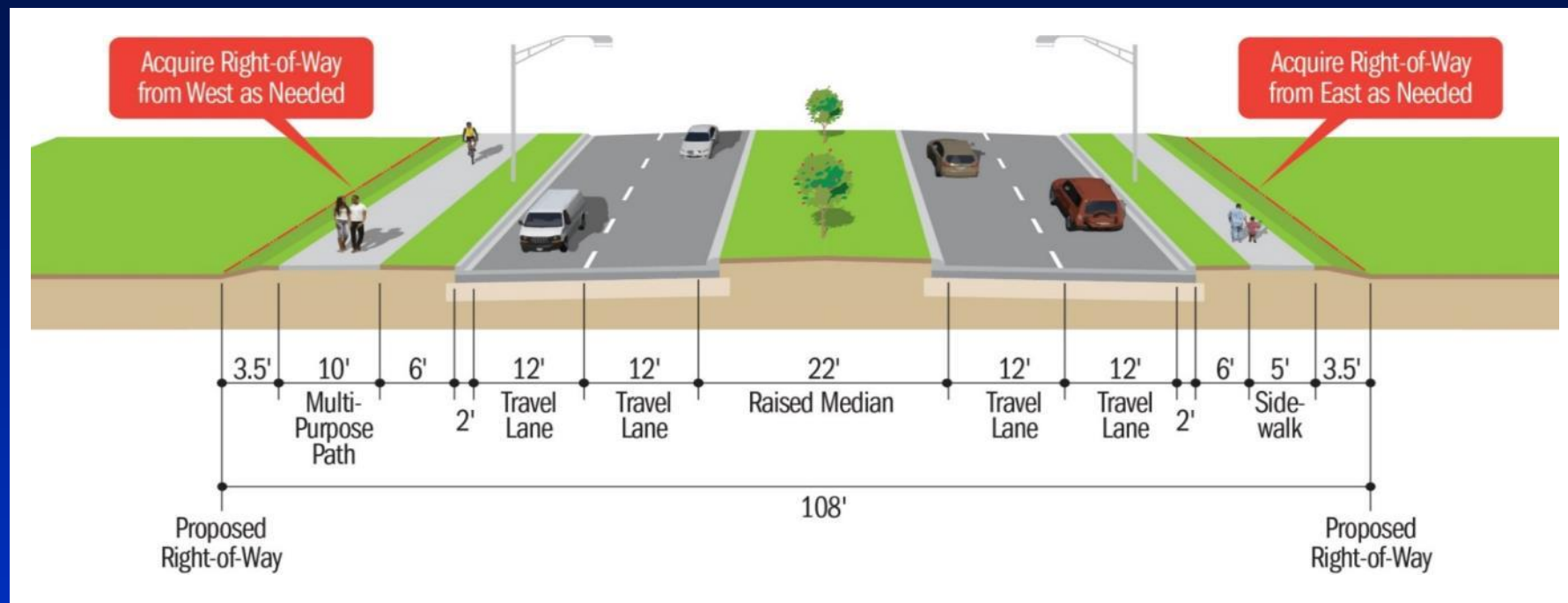
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# Preferred Alternative

## Centered/Hybrid Alignment

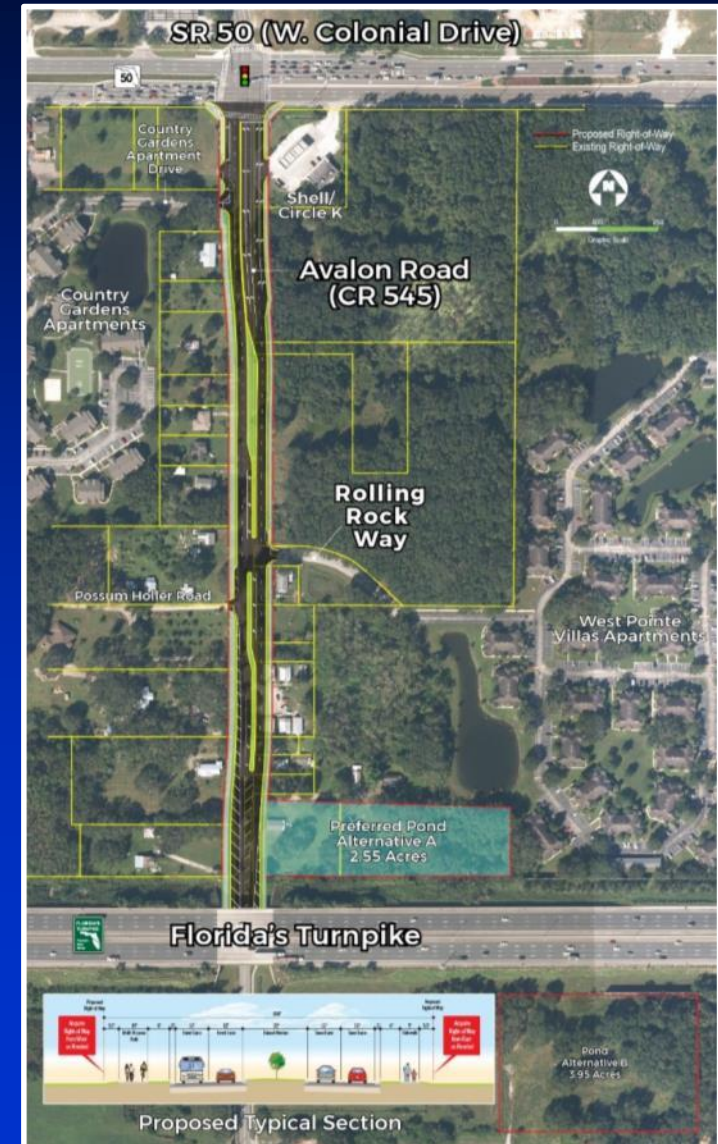


- Centerline of existing roadway is maintained
- Optimizes utilization of existing right-of-way
- Additional right-of-way acquired from both east & west



# Preferred Alternative

- **Proposed Improvements**
  - Four through lanes with raised median
  - Northbound left turn lane at Rolling Rock Way
  - New 10-foot path on west side
  - Retention pond at south end
  - Southbound U-turn for traffic south of Possum Holler Road





# Preferred Alternative

- **SR 50 Intersection Improvements**
  - Added Left And Right Turn Lanes On South Avalon Approach
  - Lengthened Right Turn Lanes on South Avalon Approach
  - Added Left Turn Lane On East SR 50 Approach
  - Signal Modifications





# Preferred Alternative

## Preliminary Cost Estimate

Category	Estimated Cost
Design	\$495,000
Right-of-Way Acquisition	\$321,000
Roadway Construction & CEI	\$3,797,000
Total Cost	\$4,613,000

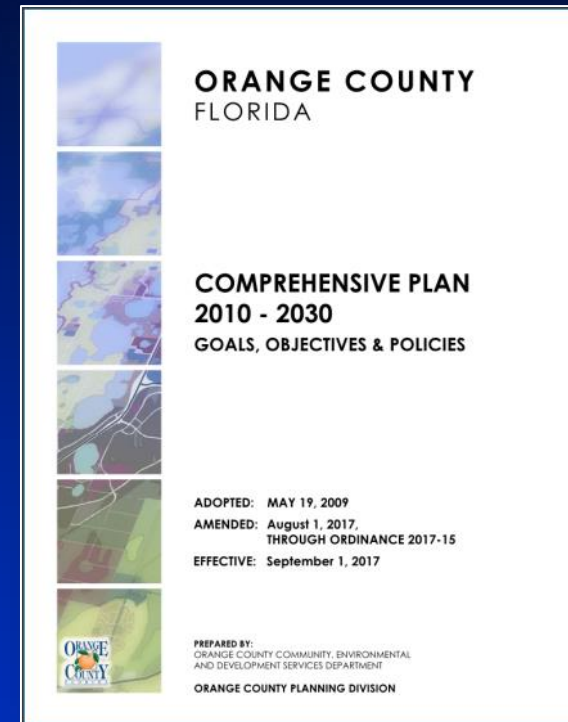




# Preferred Alternative

## ▪ Consistency with the Comprehensive Plan

- Implement Long Range Transportation Plan (Obj. T1.1)
- Implement financially-feasible multimodal transportation system (Obj. T1.3)
- Ensure LOS standards are met on County roads within unincorporated Orange County (Obj. T1.3)
- Support strategies which promote convenient & efficient mobility system for all modes (Obj. T3.1)
- Build street, pedestrian and bicycle networks that provide interconnectivity and access to multimodal transportation facilities (Obj. T3.2)





# Preferred Alternative

## ▪ Next Steps

- Future phases currently unfunded
- Coordinate with the City of Winter Garden for Phases 2 and 3
- BCC Public Hearing in May