

Village of Estero Council Presentation  
September 11, 2024

# Williams Rd. Widening from US 41 to Via Coconut Point

EC2023-50

Conceptual Update

**KCA** | KISINGER CAMPO  
& ASSOCIATES

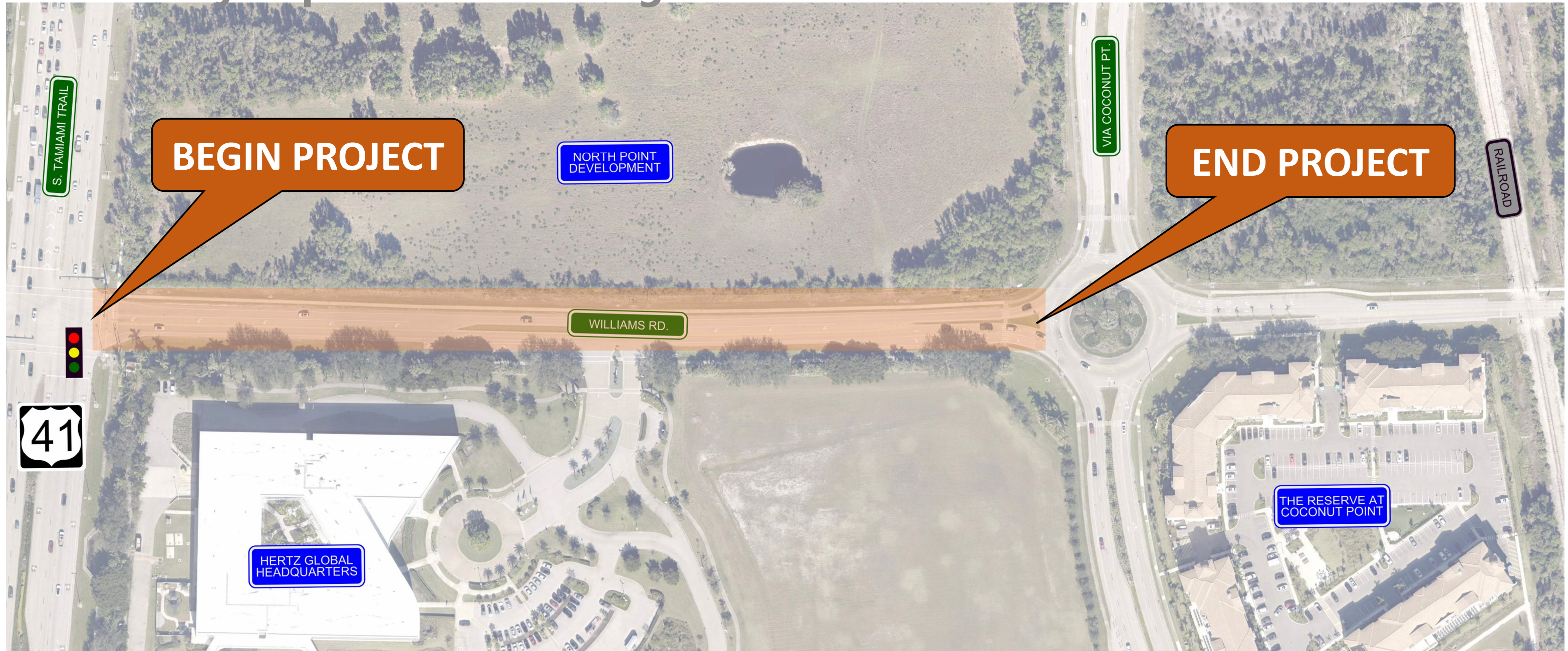




# OBJECTIVE



Determine Preliminary Design and R/W needs for future roadway capacity and safety improvements along Williams Rd. from US 41 to Via Coconut Pt.





# DISCUSSION TOPICS

## ✓ Concept Alternative 1 On-Site Drainage

- ❖ Conceptual Plan
- ❖ Roadway Typical Section
- ❖ Preliminary Right-Of-Way (R/W) Impacts
- ❖ Landscaping
- ❖ Lighting
- ❖ Summary of Alternative 1

## ✓ Concept Alternative 2 Off-Site Drainage

- ❖ Conceptual Plan
- ❖ Roadway Typical Section
- ❖ Preliminary R/W Impacts
- ❖ Landscaping
- ❖ Lighting
- ❖ Summary of Alternative 2

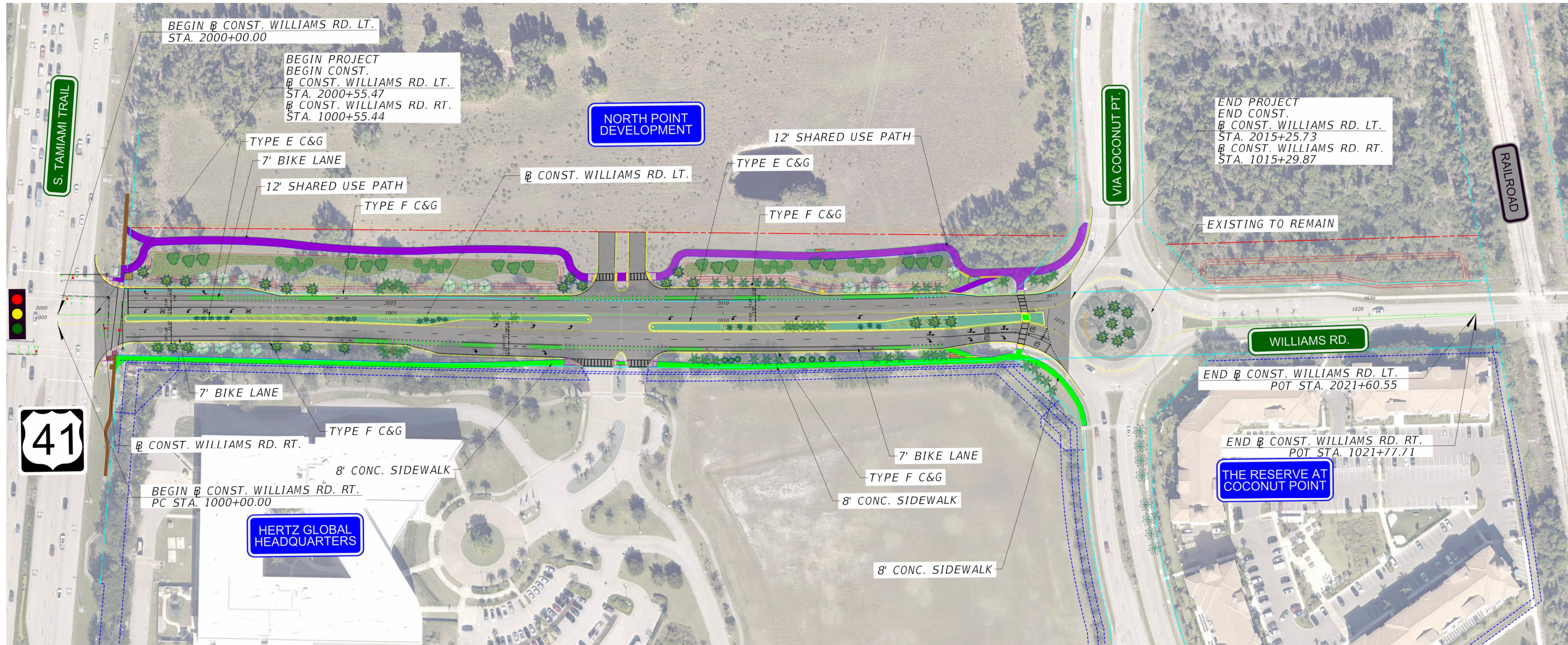
## ✓ Existing Roundabout at Via Coconut Pt.

## ✓ Schedule Update



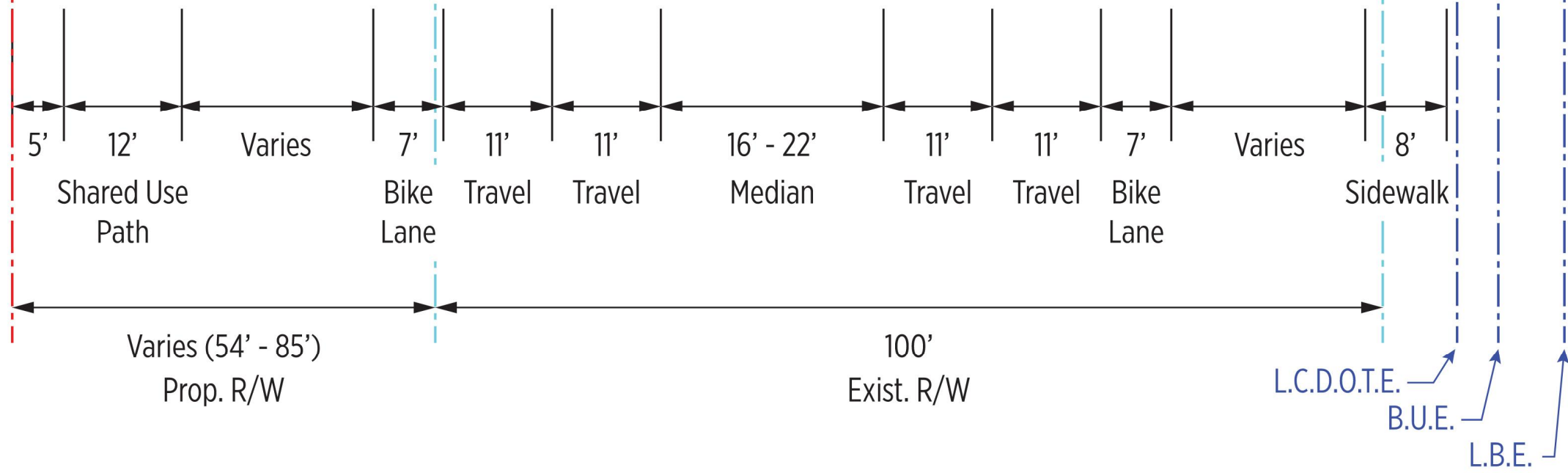
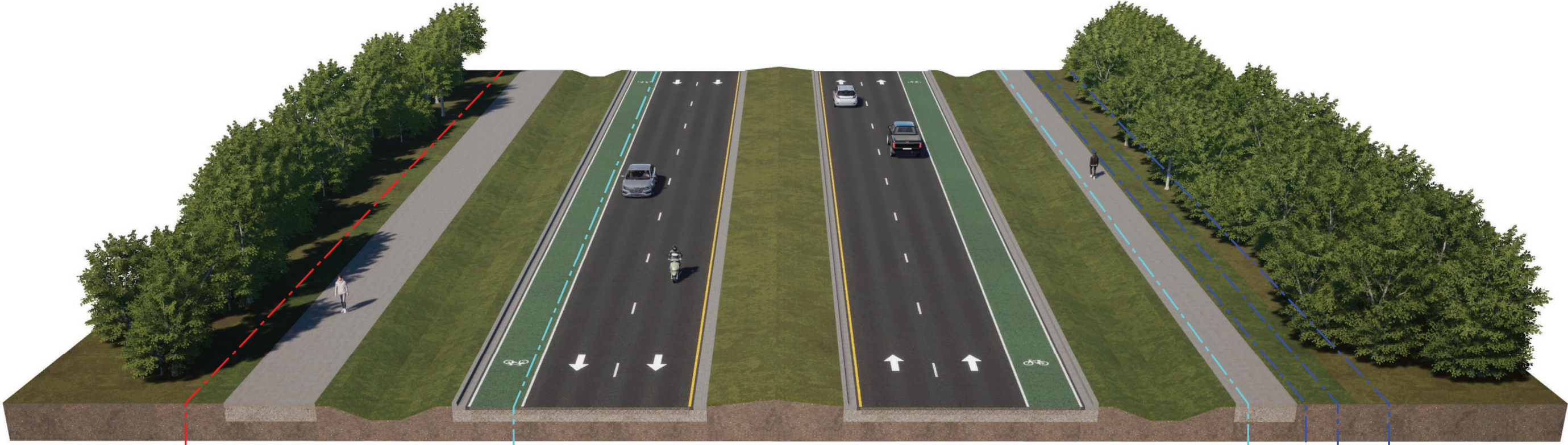


# CONCEPT ALT 1 / ON-SITE DRAINAGE



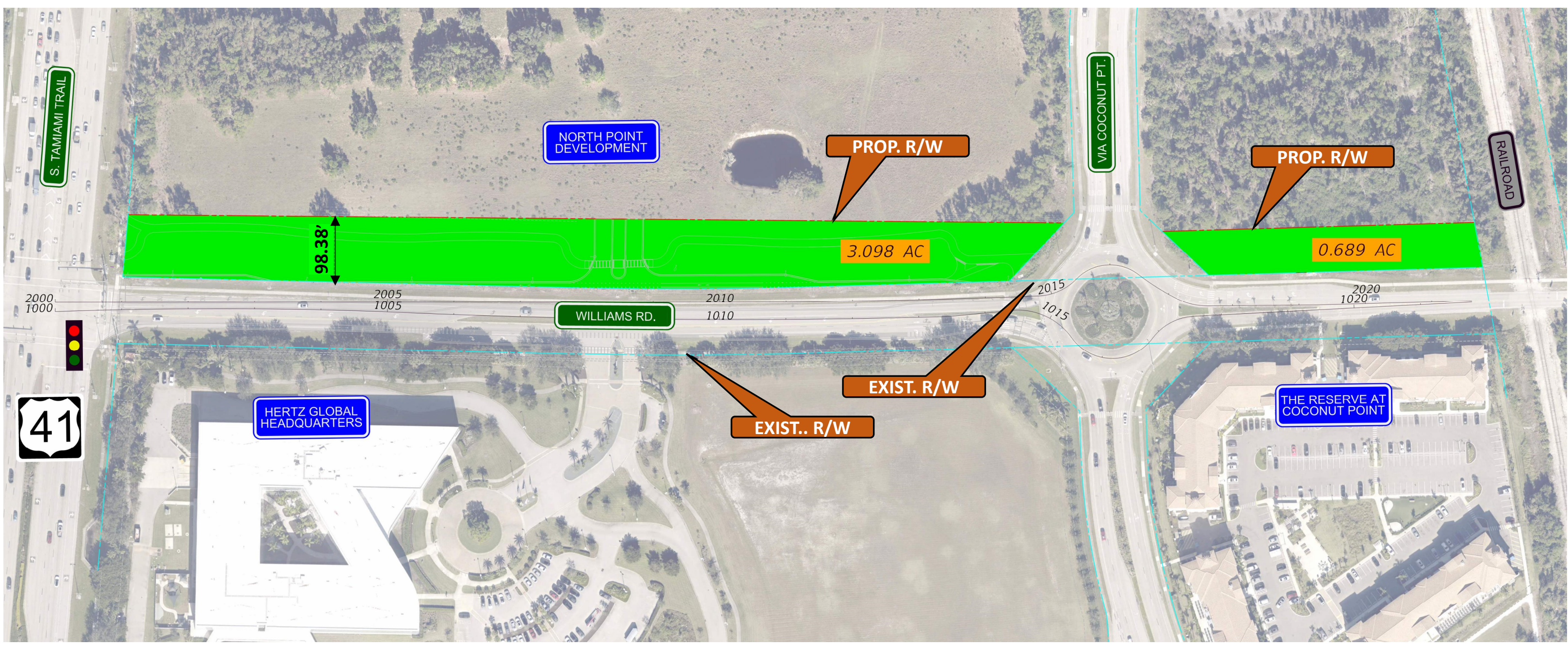


# ROADWAY TYPICAL ALT 1 / ON-SITE DRAINAGE





# PRELIMINARY R/W IMPACTS ALTERNATIVE 1





# LANDSCAPING ALT 1 / ON-SITE DRAINAGE



## Plant Selection

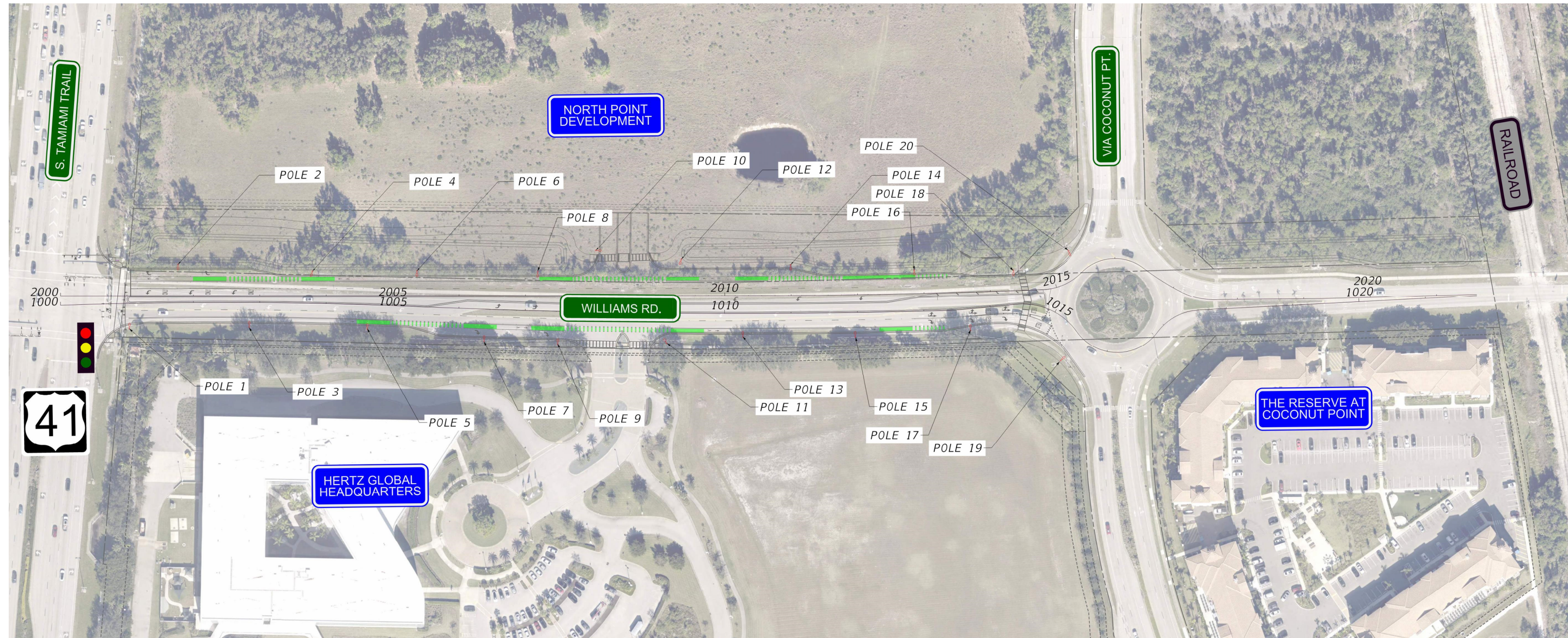
- **Palms:** Royal, Sylvester, Alexander, Sabals, Thatch
- **Canopy Trees:** Buttonwood, Cypress, Live Oak
- **Accent Trees:** Tabebuia, Silver Buttonwood, Firebush
- **Shrubs:** Horizontal Cocoplum, Dwarf Bougainvillea, Carissa
- **Wetland Species:** Spartina, Pickerel Weed, Muhly Grass, Ferns
- **Groundcovers:** Liriope, Flax Lily, Asiatic Jasmine, Mimosa

## Constraints

- Safety Clear Zones
- Safe Site Distances
- Compatible with Drainage, Signing and Lighting Conflicts
- Canopy Heights and Spread
- Maintenance Frequencies



# LIGHTING ALT 1 / ON-SITE DRAINAGE





# SUMMARY OF ALTERNATIVE 1



## Roadway

- 12' shared use path (north) and 8' sidewalk (south) and 7' bicycle lanes to improve user safety
- Shared use path meandering to offer pleasant walking environment and accommodate landscaping
- 4-lane divided typical section with 11' lanes to increase traffic capacity and operations
- Curb & gutter to convert section into urban facility minimizing R/W impacts and reducing clear zone requirements

## Drainage

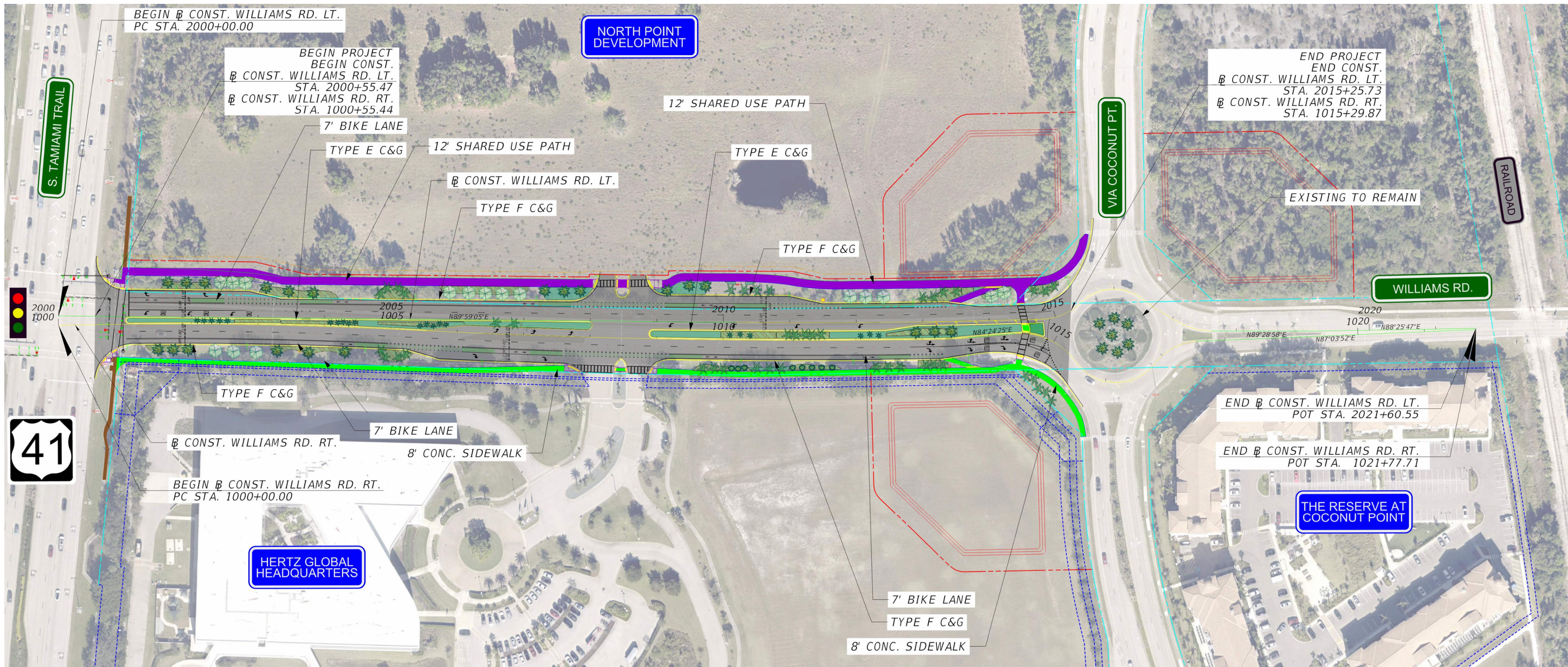
- Linear ponds along roadside to avoid off-site floodplain compensation
- Use of existing linear ditches for treatment/attenuation

## Landscaping

- Slightly more landscaping area accessible for beautification due to drainage being accommodated along the proposed roadway

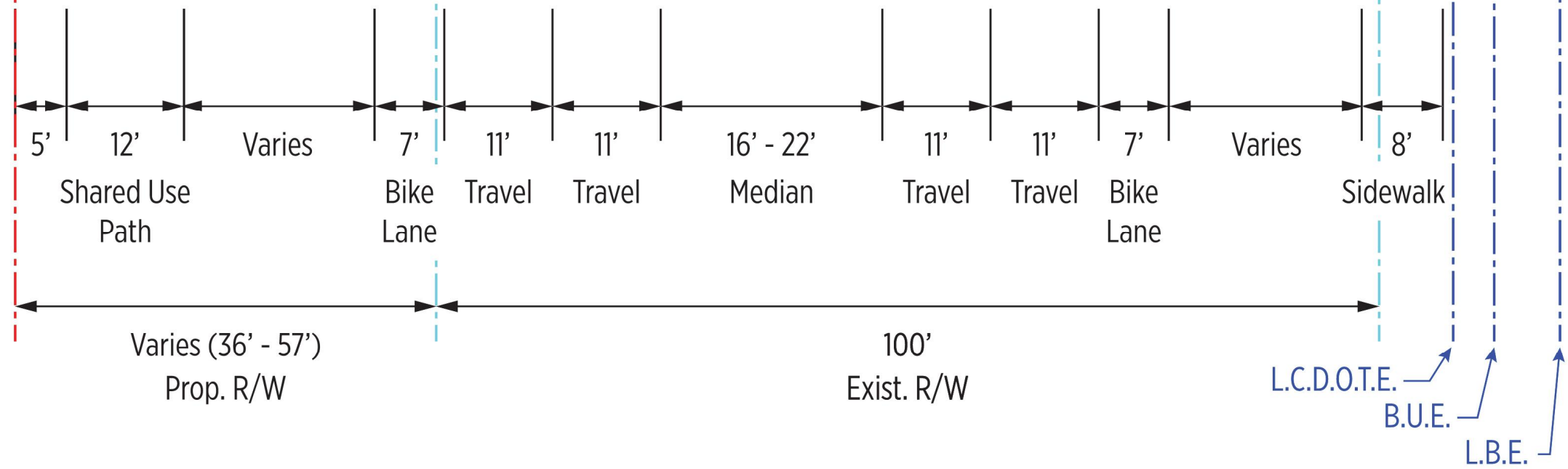
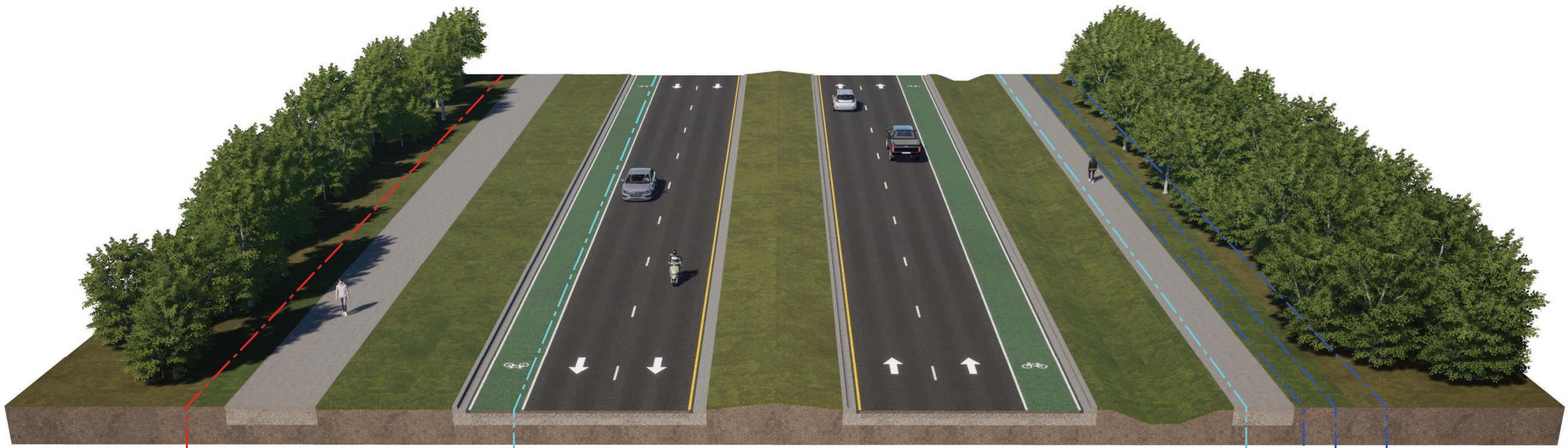


# CONCEPT ALTERNATIVE 2 / OFF-SITE DRAINAGE



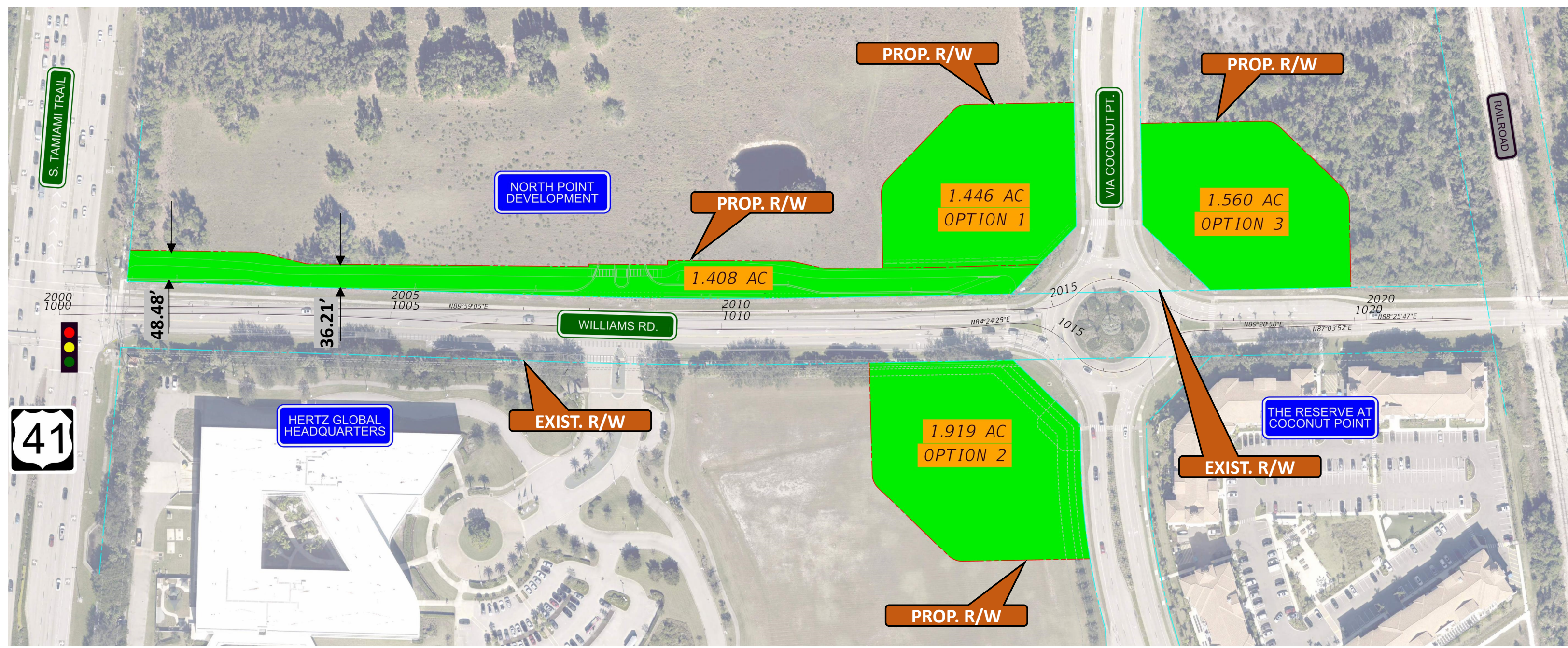


# ROADWAY TYPICAL ALT 2 / OFF-SITE DRAINAGE





# PRELIMINARY R/W IMPACTS ALTERNATIVE 2





# LANDSCAPING ALT 2 / OFF-SITE DRAINAGE



## Plant Selection

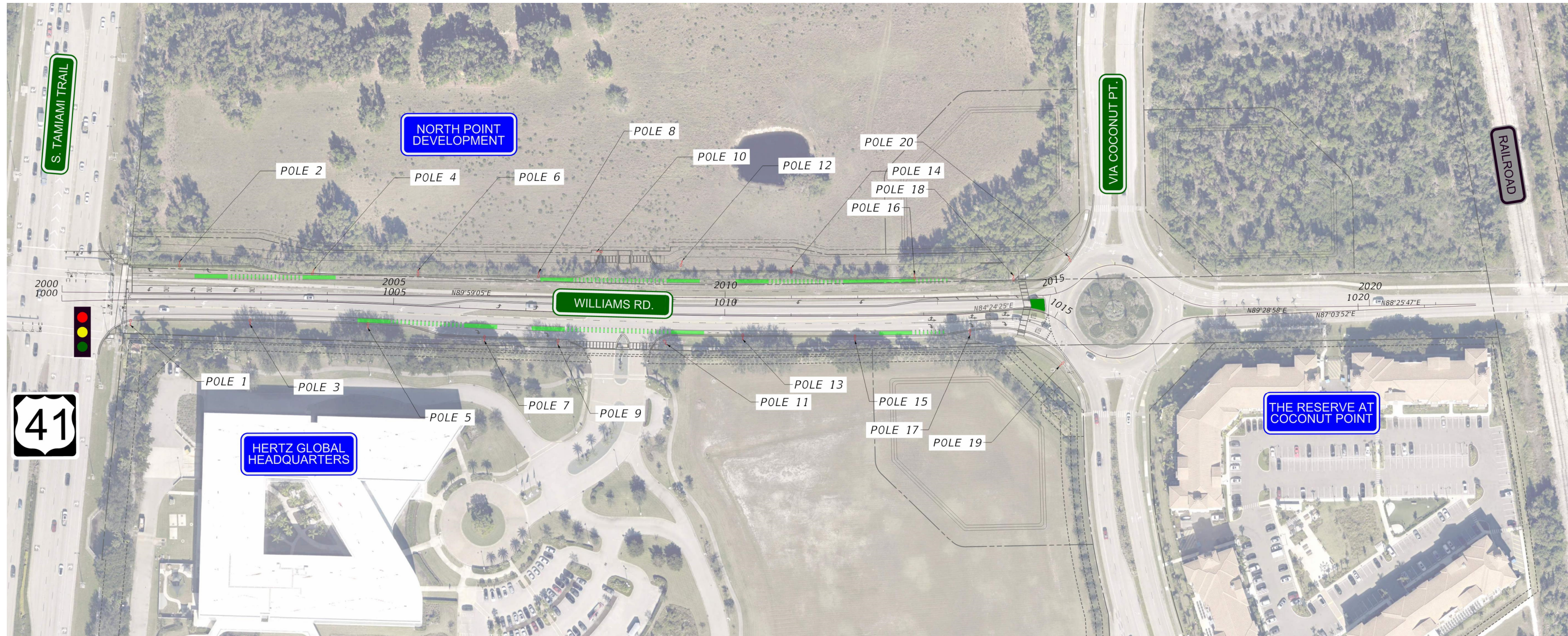
- **Palms:** Royal, Sylvester, Alexander, Sabals, Thatch
- **Canopy Trees:** Buttonwood, Cypress, Live Oak
- **Accent Trees:** Tabebuia, Silver Buttonwood, Firebush
- **Shrubs:** Horizontal Cocoplum, Dwarf Bougainvillea, Carissa
- **Wetland Species:** Spartina, Pickerel Weed, Muhly Grass, Ferns
- **Groundcovers:** Liriope, Flax Lily, Asiatic Jasmine, Mimosa

## Constraints

- Safety Clear Zones
- Safe Site Distances
- Compatible with Drainage, Signing and Lighting Conflicts
- Canopy Heights and Spread
- Maintenance Frequencies



# LIGHTING ALT 2 / OFF-SITE DRAINAGE





## Roadway

- 12' shared use path (north) and 8' sidewalk (south) and 7' bicycle lanes to improve user safety
- Shared use path meandering to offer pleasant walking environment and accommodate landscaping
- 4-lane divided typical section with 11' lanes to increase traffic capacity and operations
- Curb & gutter to convert section into urban facility minimizing R/W impacts and reducing clear zone requirements

## Drainage

- 3 different off-site pond options identified at northwest, southwest and northeast quadrants of Via Coconut Point intersection for treatment, attenuation, and floodplain compensation
- Use of existing linear ditches

## Landscaping

- Slightly less landscaping area for beautification due to drainage ponds being proposed off-site



# SUMMARY OF PRELIMINARY R/W IMPACTS



## TOTAL ESTIMATED R/W IMPACTS COMPARISON (Alternative 1 vs. Alternative 2)

	Alternative 1 On-Site Drainage (acres)	Alternative 2 Off-Site Drainage (acres)		
		Option 1	Option 2	Option 3
Property along north side of Williams Rd. (North Point Development)	<b>3.787</b> <i>Subtotal:</i> (3.098 + 0.689)	<b>2.854</b> <i>Subtotal:</i> (1.408 + 1.446)	<b>1.408</b>	<b>2.968</b> <i>Subtotal:</i> (1.408 + 1.560)
Property at southwest corner of Williams Rd. and Via Coconut Point (east of Hertz Global Headquarters)	-	-	1.919	-
<b>Total (acres)</b>	<b>3.787</b>	<b>2.854</b>	<b>3.327</b>	<b>2.968</b>



# SUMMARY OF ENVIRONMENTAL IMPACTS



## ESTIMATED ENVIRONMENTAL IMPACTS/INVOLVEMENT BY ALTERNATIVE

	Alternative 1	Alternative 2		
		Option 1	Option 2	Option 3
Natural Habitat Land Use Changes (acres)	0.36	0.00	0.00	1.01
Wetland Impacts (acres)	0.00	0.00	0.00	0.00
Protected Species Involvement (primarily related to the Florida bonneted bat)	Low	Moderate	Low	High



# PRELIMINARY ROUNDABOUT ANALYSIS



## Why do we need to analyze the current and future performance of the existing roundabout at Williams Rd. and Via Coconut Pt.?

- Roundabout provides sidewalk continuity for pedestrians, bicycle connections and refuge to all facility users **(Safety)**
- Roundabout is located at the end of this's projects construction limit and plays an important role in traffic operations and flow patters **(Operations)**
- Deficiencies in roundabout design geometry and approach speeds have been identified and should be corrected to allow proposed design along Williams Rd. to work efficiently after construction upgrades are completed



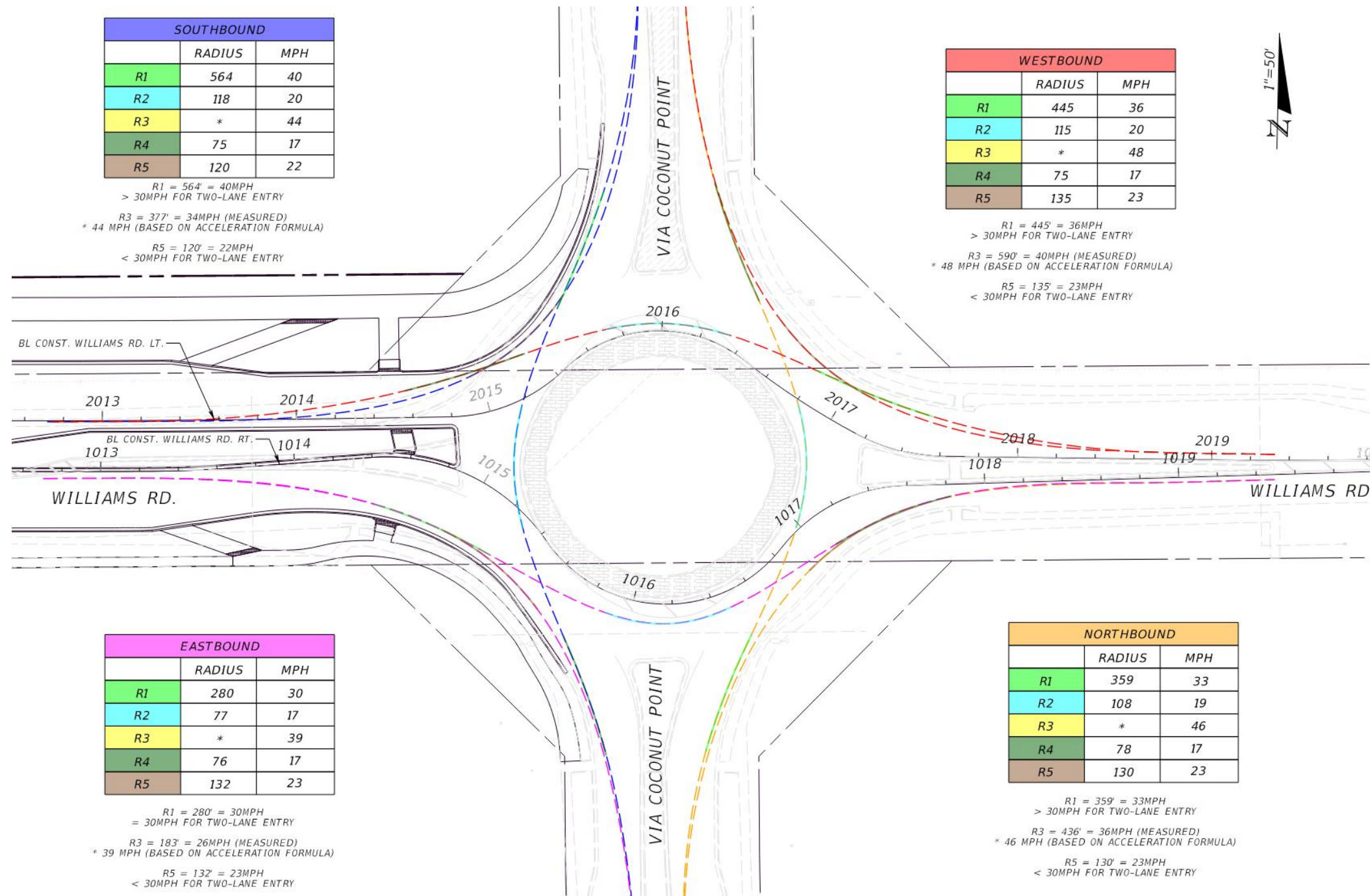


# PRELIMINARY ROUNDABOUT ANALYSIS



## Fastest Path (Safety)

- Each existing roundabout approach exceeds maximum recommended speed per design standards (25-30 mph)
- Proposed improvements for eastbound approach and westbound departure designed by KCA under this project will meet design standards
- Further evaluation of existing roundabout will need the Village of Estero to coordinate with adjacent FDOT project to address deficient geometry at the other three legs of roundabout



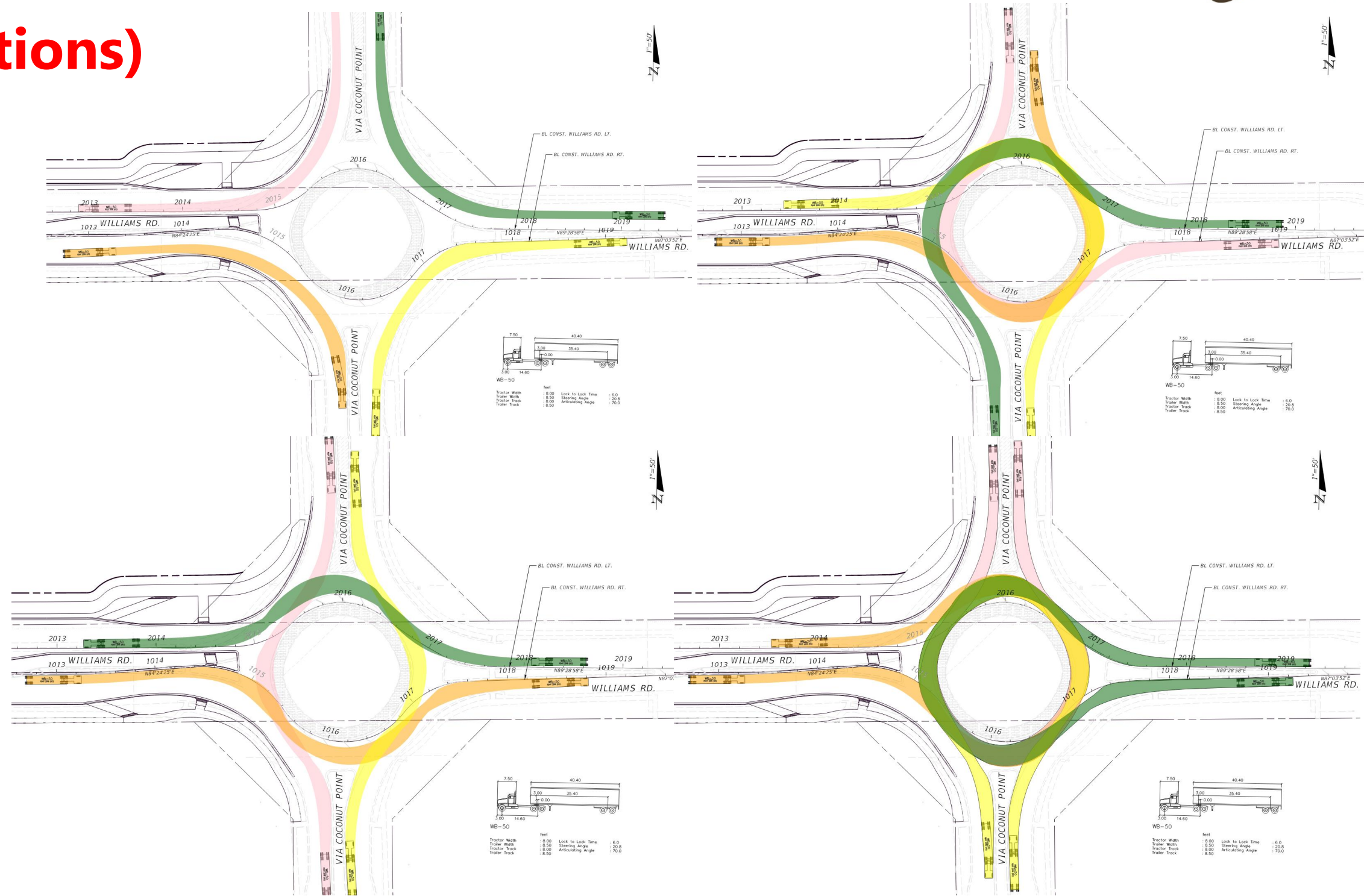


# PRELIMINARY ROUNDABOUT ANALYSIS



## Swept Path (Operations)

- Moderate truck traffic in all directions at roundabout
- Need to accommodate large trucks and allow them to navigate the roundabout without issues
- Evaluated turning movements using truck design vehicle **WB-50**
- Recommend modifying geometry of the existing roundabout in all approaches to prevent trucks from invading adjacent travel lanes and/or hitting curbs





# SCHEDULE UPDATE



## Next Milestones

### Village Council Presentation

- September 11, 2024

### Public Meeting

- October 22, 2024

### Village PZDB (Concept)

- November 12, 2024

### Village Council Presentation # 2 (Pre-30% Design)

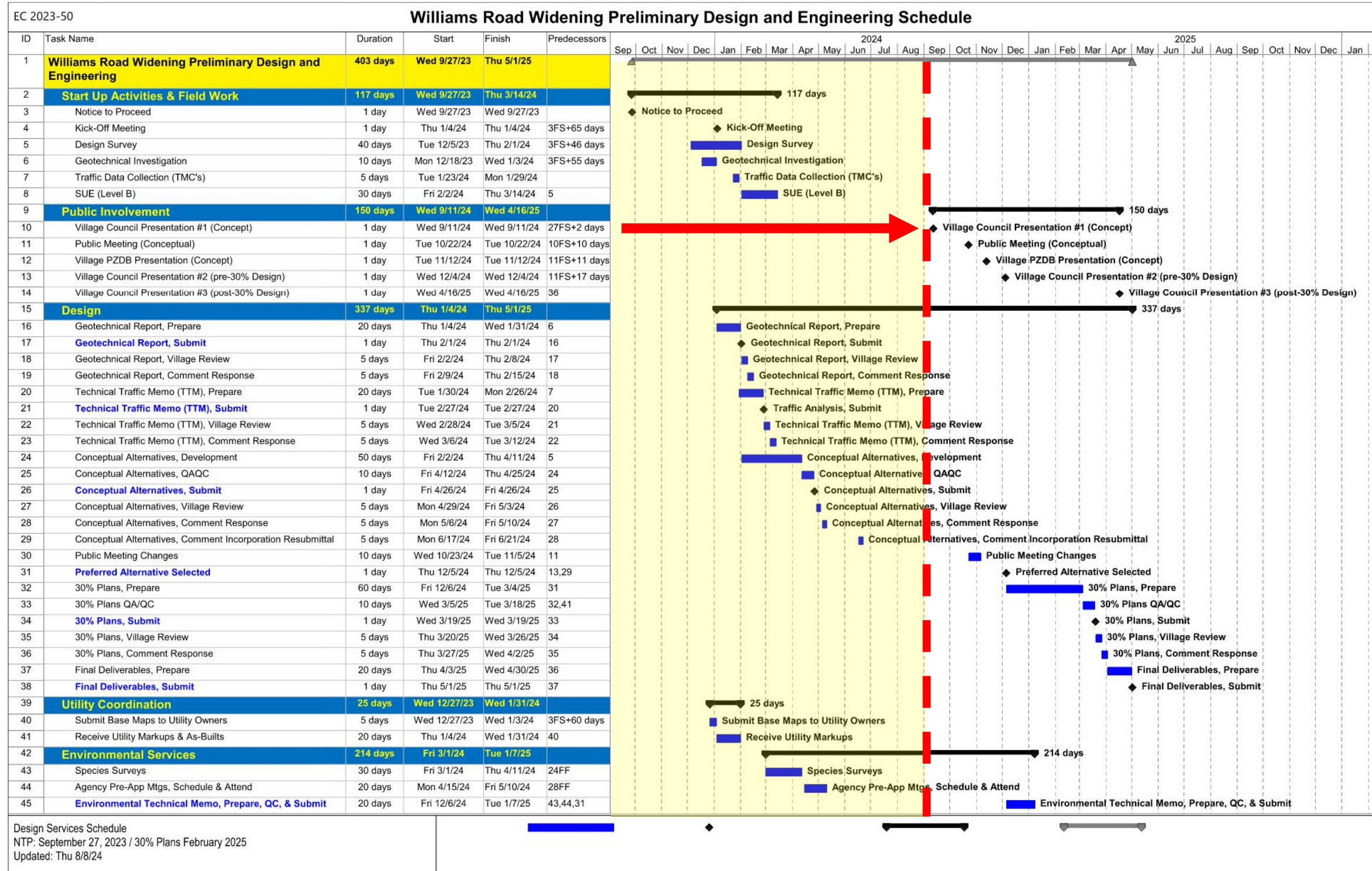
- December 4, 2024

### Preferred Alternative Selection

- December 5, 2024

### 30% Plans

- May 1, 2025





# QUESTIONS?

