





# AUGUSTINE CUT OFF MULTIMODAL IMPROVEMENTS STUDY, PHASE 2

**Public Workshop 2**  
**June 10, 2025**





# **AGENDA**

-  **Introductions & Study Background**
-  **Public Feedback**
-  **Preliminary Alternatives**
-  **Next Steps**

# **Introductions & Study Background**

# Introduction & Study Background

## PROJECT TEAM

Dave Gula	WILMAPCO	Project Manager
Paul Moser, PE	DeIDOT	DeIDOT Coordination Project Manager for DeIDOT Phase 1
Cooper Bowers	DeIDOT	Transportation Planner IV New Castle County Liaison
Marco Boyce	New Castle County	New Castle County Coordination
Jared Kaufman	DART/DTC	DART/DTC Coordination
Mike Campbell, PLA	WRA	WRA Project Manager Beautification Lead
Leah Kacanda, AICP	WRA	Public Engagement Lead Active Transportation Lead
Kevin Konzelman, PE PTOE	WRA	Safety & Traffic Design Lead
Val Kowalski, PE	WRA	Roadway Design



# Introduction & Study Background

## PLANNING PARTNERS



## Advisory Committee

Delaware Office of State  
Planning

Area institutions

Concord Pike Monitoring  
Committee

City of Wilmington

Local businesses

Delaware Greenways

Elected Officials

Civic Associations/HOAs

Bike Delaware



# Introduction & Study Background

## ADVISORY COMMITTEE ROLE


- **Provide insight to your experience and issues traveling the corridor**
- **Ask questions and provide feedback**
- **Assist with public involvement process**
  - Comprehensive, collaborative, and inclusive
  - Fair and credible
  - Cultivate broad understanding of study process and eventual recommendations
- **Note: this is not a voting body**




# Introduction & Study Background

## STUDY AREA

**Legend**

Study Area 

Intersections 









## OUR RESPONSIBILITY

- The transportation profession is moving from a *reactive* to a *proactive* approach to safety – the Safe System Approach
  - Principles around the circle
  - Objectives in the center
- **Goal is to improve safety for all road users regardless of age, ability, or how they are traveling**





## STUDY GOALS

- Develop an attractive and cohesive transportation plan that creates a safer environment for residents and the broader community
- Develop a holistic program of improvements that addresses all modes of transportation
- Foster public involvement to build consensus and establish stakeholder support
- Determine most effective traffic calming methods to reduce traffic speeds
- Provide safe access to transit facilities and ensure improvements address transit operations
- Consider environmental, community, and economic issues through the PEL process to inform decision making and NEPA

## RECENT PEDESTRIAN FATALITY

- April 4, 2025, around 11:36PM
- Walking on the edge of the road south of Alapocas Drive signal
- Vehicle fled, so details are limited
- The incident is under investigation, so no more can be said at this time



# ■ **Public Feedback**

## PUBLIC SURVEY RESULTS

Q1 What's your vision for the Augustine Cut Off Corridor? Consider yourself, your family, your business, or your organization using Augustine Cut Off over the next 15 years. What does it look like? How do you get to and from work, school, businesses, and local parks? What would make it better? Please list words or brief phrases that define the future you envision. Please provide any additional input about the project.

Answered: 44   Skipped: 6

### ***Of the 44 individuals who provided a vision statement:***

- *34 were supportive of traffic calming and providing facilities for people walking and biking*
- *4 were not supportive of the study*
- *5 were neutral*

### ***Example supportive statement:***

- *This road is a key connector to different neighborhoods and recreational areas. However, it is unsafe for bikes and pedestrians due to sections where there are no shoulders or sidewalks. At these points, you must walk/ride in the street (in the traffic lane). As a resident of the Cutoff who uses this road multiple times a day for walking the dog, exercising, and driving, safety is my main priority.*

### ***Example non-supportive statement:***

- *Less traffic. Limit future commercial development in order to reduce traffic on Augustine Cut Off. Improve Edgewood Road intersection. IMO, the bike and pedestrian lanes currently in place are sufficient.*



# Public Survey Results

## PUBLIC SURVEY RESULTS

Q2 During the March 3 Public Workshop, attendees developed the following improvements for people who use a mobility device, walk, or take transit along Augustine Cut Off. Please rank these recommendations in order of importance from highest to lowest.

Answered: 47   Skipped: 3

*Provide a continuous shared use path along ACO between Incyte and Edgewood Road (open to people walking, biking, and running)*



*Provide sidewalks on ACO north of 18<sup>th</sup> Street (open to people walking and running, not biking)*



*Improve accessibility and connectivity to existing shared use paths (in front of Incyte and in Alapocas State Park)*



*Add more crosswalks across ACO (possible locations include Alapocas Dr, Cantera Rd, Stone Hill Rd, Rock Manor Ave, and Edgewood Rd)*



*Ensure pedestrian facilities are maintained with sweeping and plowing*



*Add a new pedestrian connection between ACO and North 18<sup>th</sup> Street*



## PUBLIC SURVEY RESULTS

Q3 Do you have any other ideas to improve conditions for people who use a mobility device, walk, or take transit?

Answered: 30   Skipped: 20

- *Streetlights/lighting*
- *Reduce speeds*
- *Continuous path/protected lane*
- *Ensure trash bins don't obstruct shoulder*
- *People aren't looking for these services on Augustine Cut Off*
- *Maintain traffic light at Augustine Cut Off and*
- *Cross walks would need stop signs or traffic lights – cars don't yield to unsignalized crossings*
- *Colored crossings instead of standard black and white*



## PUBLIC SURVEY RESULTS

Q4 During the March 3 Public Workshop, attendees recommended the following improvements for people who bike (or ride scooters, skateboards, or other faster wheeled devices) along Augustine Cut Off. Please rank these recommendations in order of importance from highest to lowest.

Answered: 47   Skipped: 3

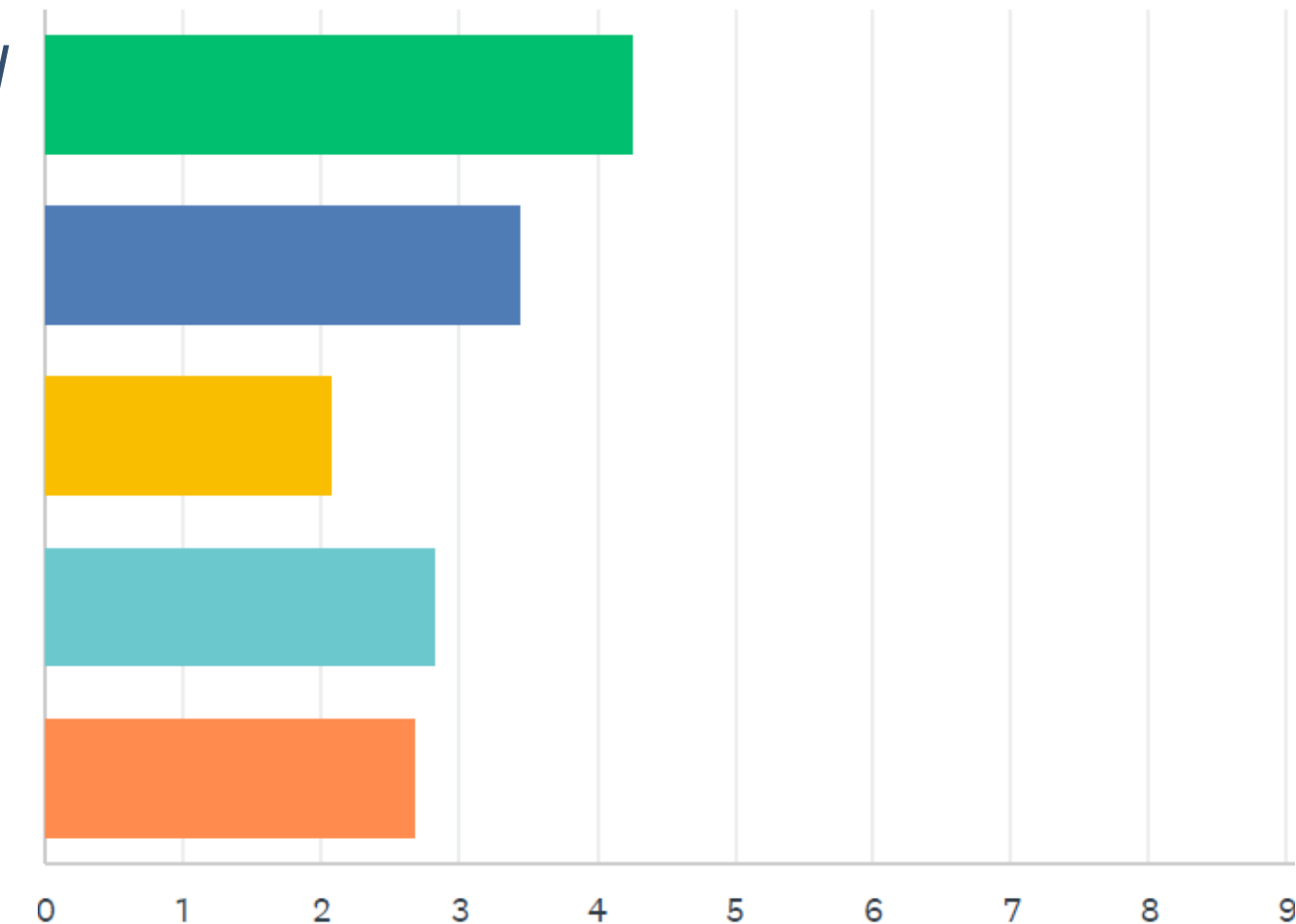
*Provide a continuous shared use path along ACO between Incyte and Edgewood Road (open to people walking, biking, and running) with good signage*

*Provide continuous bike lanes along ACO, similar to what is provided in Centerville on Route 52*

*Ensure bike facilities are maintained with sweeping and plowing*

*Explore options to separate people walking from people biking, especially in the downhill portion of the corridor*

*Ensure transitions into and out of the bike facility are safe and intuitive*



## PUBLIC SURVEY RESULTS

Q5 Do you have any other ideas to improve conditions for people who bike (or ride scooters, skateboards, or other faster wheeled devices)?

Answered: 30   Skipped: 20

- *Fix areas with no bike lane*
- *Keep bike path separate from pedestrian path for safety*
- *Provide designated continuous area for bikes*
- *Pylons would not be enough separation from traffic to feel safe*
- *Minimize need to cross Augustine Cut to stay on trail*
- *Explore bike specific traffic signals*
- *Reduce traffic on the road*
- *Connect to Brandywine Park trail without crossing the bridge*
- *Educate bicyclists about rules of the road*
- *Clarify what devices are not allowed on greenway – mopeds and motorized dirt bikes*
- *Ban faster devices*
- *Enforce no parking on northbound ACO between 18<sup>th</sup> Street and Cantera Road*



## PUBLIC SURVEY RESULTS

Q6 During the March 3 Public Workshop, attendees recommended the following improvements for people who drive a motor vehicle along Augustine Cut Off. Please rank these recommendations in order of importance from highest to lowest.

Answered: 47   Skipped: 3

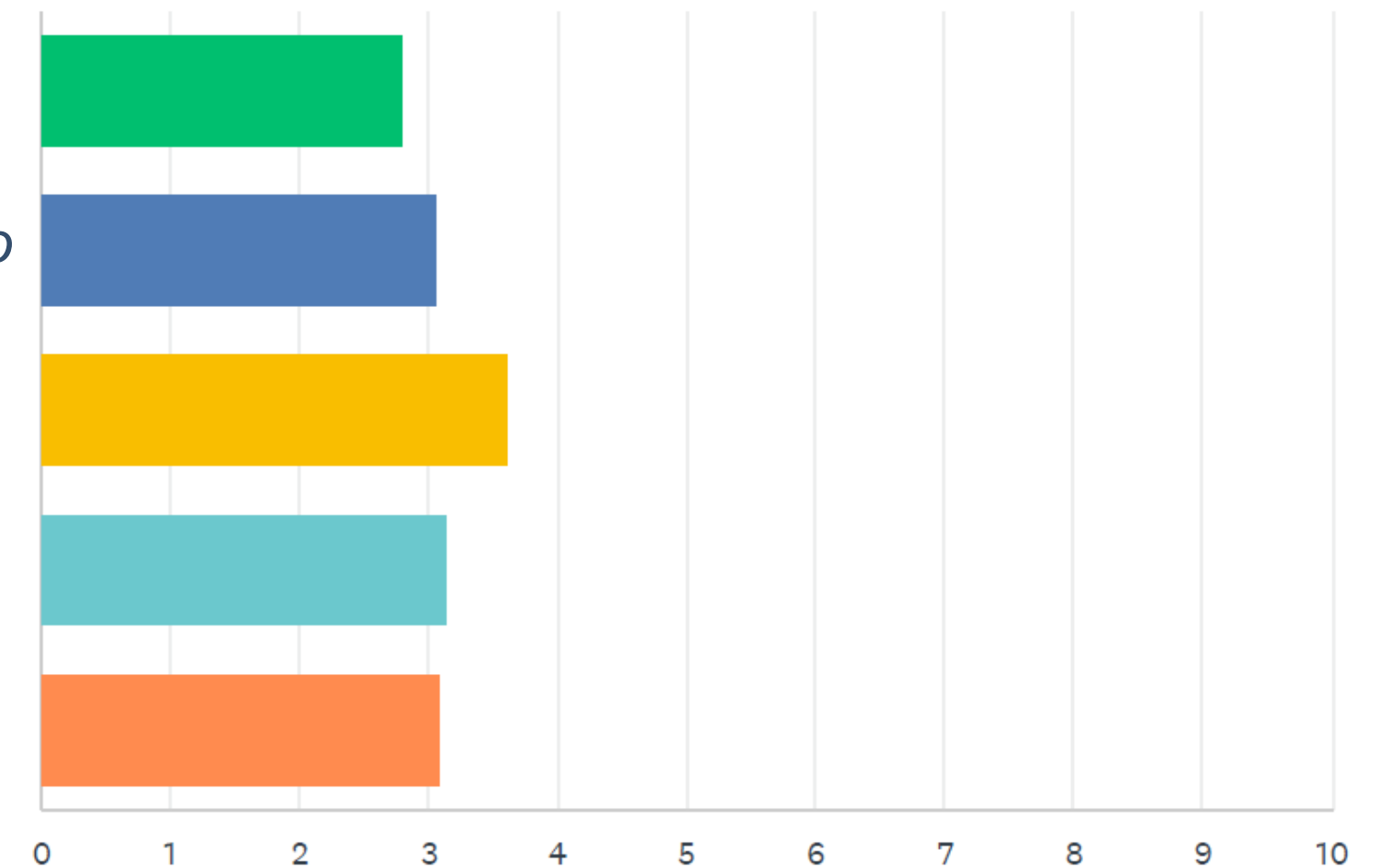
*Provide a roundabout at Alapocas Drive and Augustine Cut Off*

*Provide a better left turn from southbound Augustine Cut Off onto 18<sup>th</sup> Street*

*Implement traffic calming to slow down motor vehicles and improve safety for drivers*

*Maintain a consistent speed limit along the Augustine Cut Off corridor*

*Address safety issues turning in or out of Edgewood Road*



## PUBLIC SURVEY RESULTS

Q7 Do you have any other ideas to improve conditions for people who drive a motor vehicle?

Answered: 28   Skipped: 22

- *Keep it open to cars*
- *Reduce traffic – this shouldn't be a major artery into the city*
- *Lower speed limit/enforce existing speed limit*
- *Reduce lane width*
- *Improve visibility around curves*
- *Add permeable pavement or rain gardens to reduce flooding that causes hazards*
- *Improve signalization at Alapocas Drive and ACO to make it easier to turn left into the community*
- *Keep traffic light at Alapocas Drive and ACO*
- *No traffic circle – would slow motor vehicle traffic and eliminate pedestrian traffic*
- *Fix large pothole on northbound ACO*



## PUBLIC SURVEY RESULTS

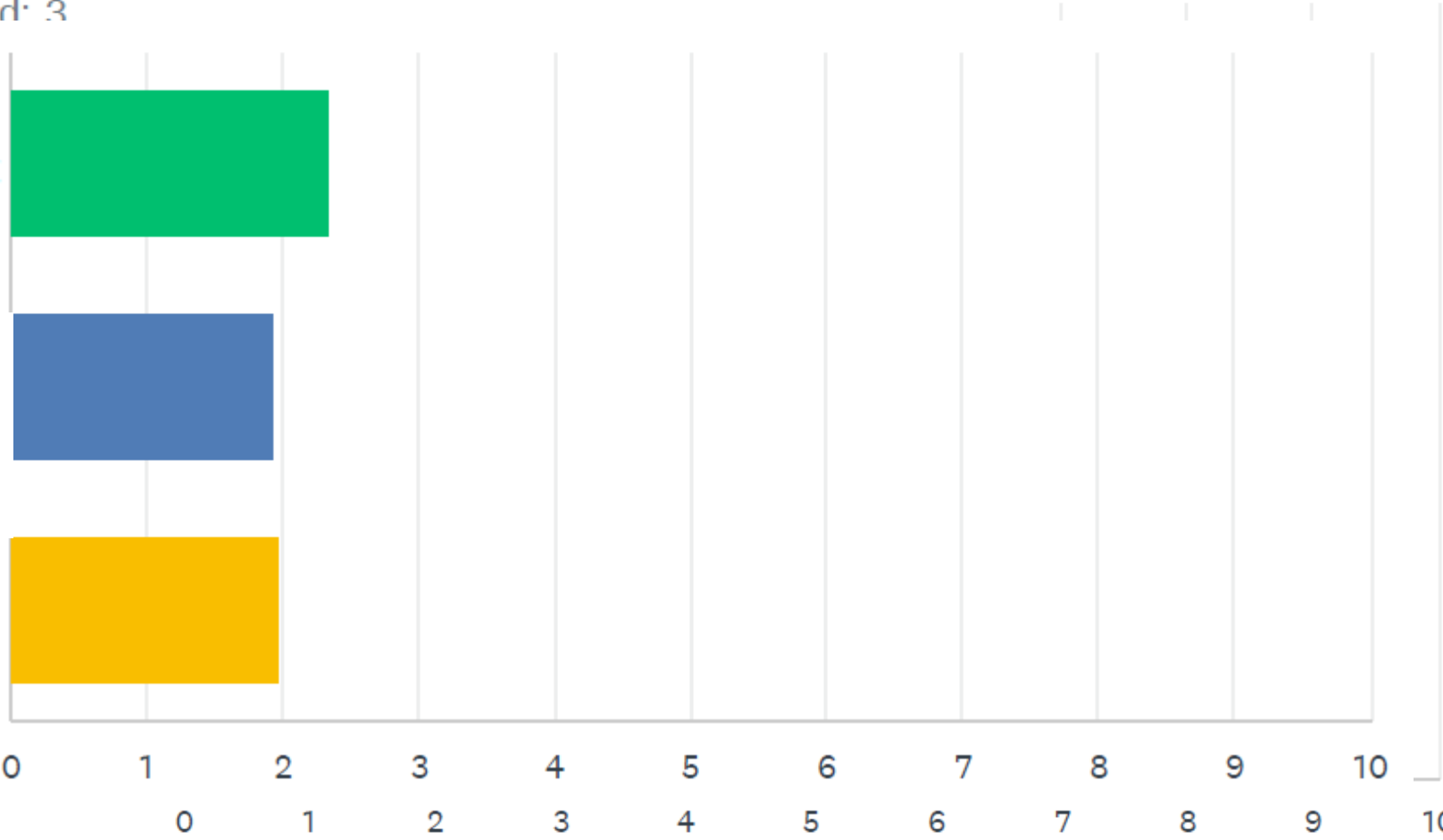
Q8 During the March 3 Public Workshop, attendees recommended the following improvements for all road users along Augustine Cut Off. Please rank these recommendations in order of importance from highest to lowest.

Answered: 47    Skipped: 3

*Implement traffic calming measures along Augustine Cut Off to slow down motor vehicle speeds*

*Beautify the Augustine Cut Off corridor by creating a park like setting with a neighborhood feel*

*Clarify operations for all modes of travel (walking, biking, and driving) at the Augustine Cut Off and 18<sup>th</sup> Street intersection*



## PUBLIC SURVEY RESULTS

Q9 Are there any other improvements needed to improve conditions for all road users?

Answered: 27   Skipped: 23

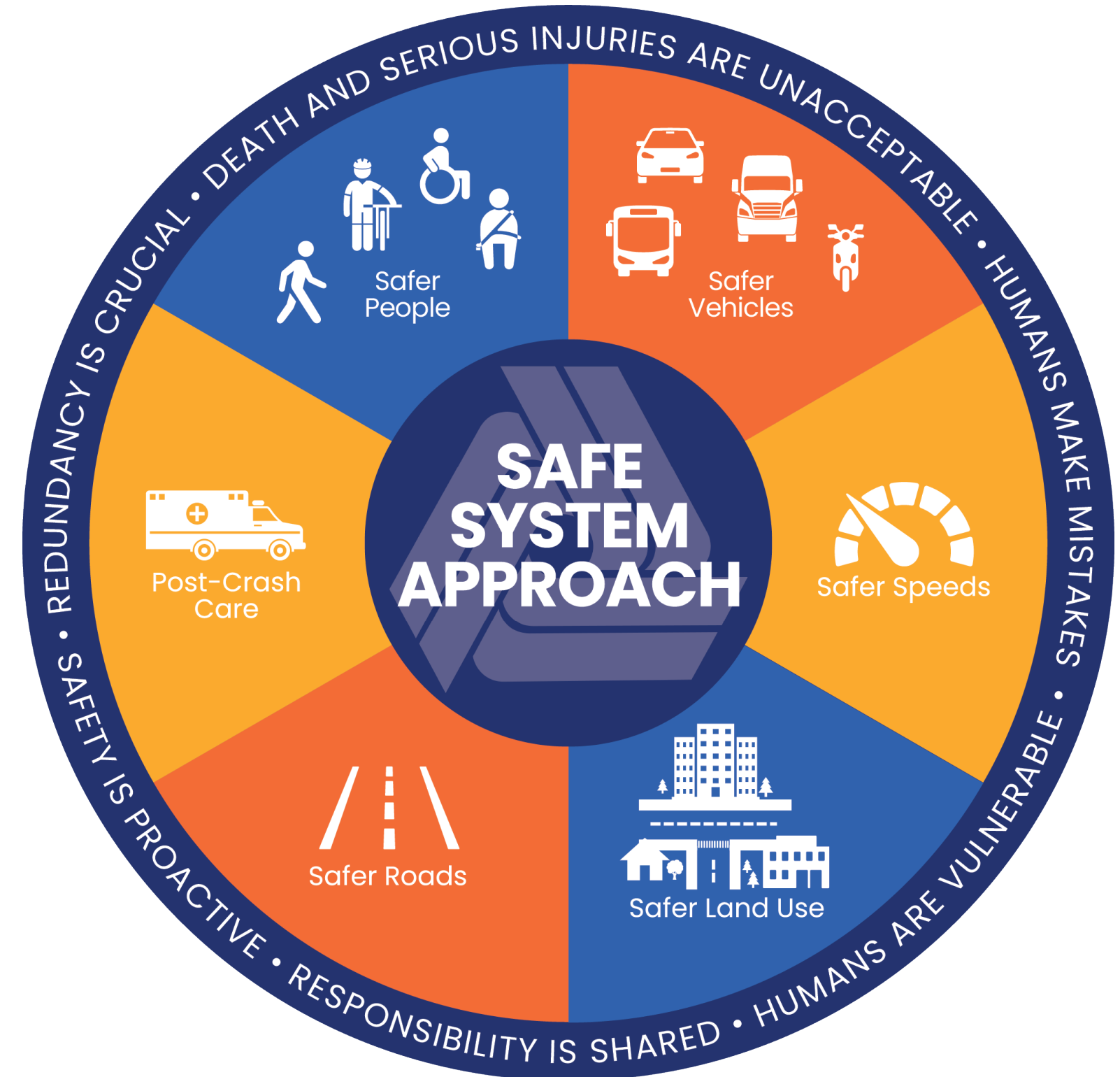
- *Improve signage turning onto 18<sup>th</sup> Street*
- *Prioritize community over property owners*
- *Safe and continuous separation from traffic lanes*
- *Reduce traffic – this is a residential road*
- *Enforce speed limit*
- *Retain on-street parking, especially between Cantera and Stone Hill Road*
- *Cleaning, sweeping, and repaving*



## **Preliminary Alternatives**

## OUR RESPONSIBILITY

- The transportation profession is moving from a *reactive* to a *proactive* approach to safety – the Safe System Approach
  - Principles around the circle
  - Objectives in the center
- **Goal is to improve safety for all road users regardless of age, ability, or how they are traveling**





## MAJOR ISSUES IDENTIFIED DURING PUBLIC OUTREACH

- The **18<sup>th</sup> Street intersection** is difficult to navigate for all road users
- Turning left at the **Edgewood Road intersection** is a challenge due to poor visibility/motor vehicle speeds
- **Speeding** is a problem – suggestions to address included
  - Increased enforcement (patrol, cameras)
  - Traffic Calming
    - Narrower lanes
    - Roundabouts
    - Speed humps
- **Lack of continuous, dedicated, safe space for people walking and biking** – both along and across corridor
- Concern about people walking and biking using the same space due to speed differential



# Preliminary Alternatives

## 18<sup>TH</sup> STREET

- Existing geometry can't change due to severe grades and requirements to fit certain vehicle types (i.e. buses)
- A roundabout is not possible at the existing intersection due to the severe grade changes
- Shifting the intersection to the south may allow for reconfiguration however this would require full property acquisitions and significant utility and drainage impacts.





# Preliminary Alternatives

## 18<sup>TH</sup> STREET

- Short-turnaround signing and pavement marking improvements are designed and are pending coordination with DeIDOT and the maintainers of the landscaping on the NE corner



PAVEMENT MARKINGS LEGEND		
SYM	ITEM	QUANTITY
(A)	ALKYD-THERMOPLASTIC PERMANENT PAVEMENT STRIPING, WHITE SYMBOL (ITEM 817002)	27 SF
(B)	ALKYD-THERMOPLASTIC PERMANENT PAVEMENT STRIPING, WHITE 16" (ITEM 817002)	89 SF
(C)	ALKYD-THERMOPLASTIC PERMANENT PAVEMENT STRIPING, YELLOW 12" 2' LINE/6' GAP (ITEM 817006)	12 LF
(D)	EPOXY RESIN PAINT PERMANENT PAVEMENT STRIPING, YELLOW 6" SINGLE (ITEM 817042)	33 LF
(E)	EPOXY RESIN PAINT PERMANENT PAVEMENT STRIPING, YELLOW 6" DOUBLE (ITEM 817042)	50 LF
(F)	EPOXY RESIN PAINT PERMANENT PAVEMENT STRIPING, WHITE 6" (ITEM 817042)	25 LF
(X)	REMOVE EXISTING PAVEMENT STRIPING (ITEM 817031)	52 SF



# Preliminary Alternatives

## EDGEWOOD ROAD

- A signal is not warranted because volumes are too low
- A roundabout is not appropriate because of the driveway opposite Edgewood Road and any roundabout would likely impede on the right-of-way
- Median islands are being considered to help reduce speeds and provide gateway opportunities
- Slight roadway realignment north of Edgewood Rd is being considered to improve sight lines





# Preliminary Alternatives

## NORTHBOUND AUGUSTINE CUT OFF TO 202

- Initial observations show two lanes are not warranted
- Would allow slight realignment of ACO to improve sight lines at Edgewood Rd
- Potential reduction of pavement may reduce overall stormwater management requirements
- Potential for gateway treatment



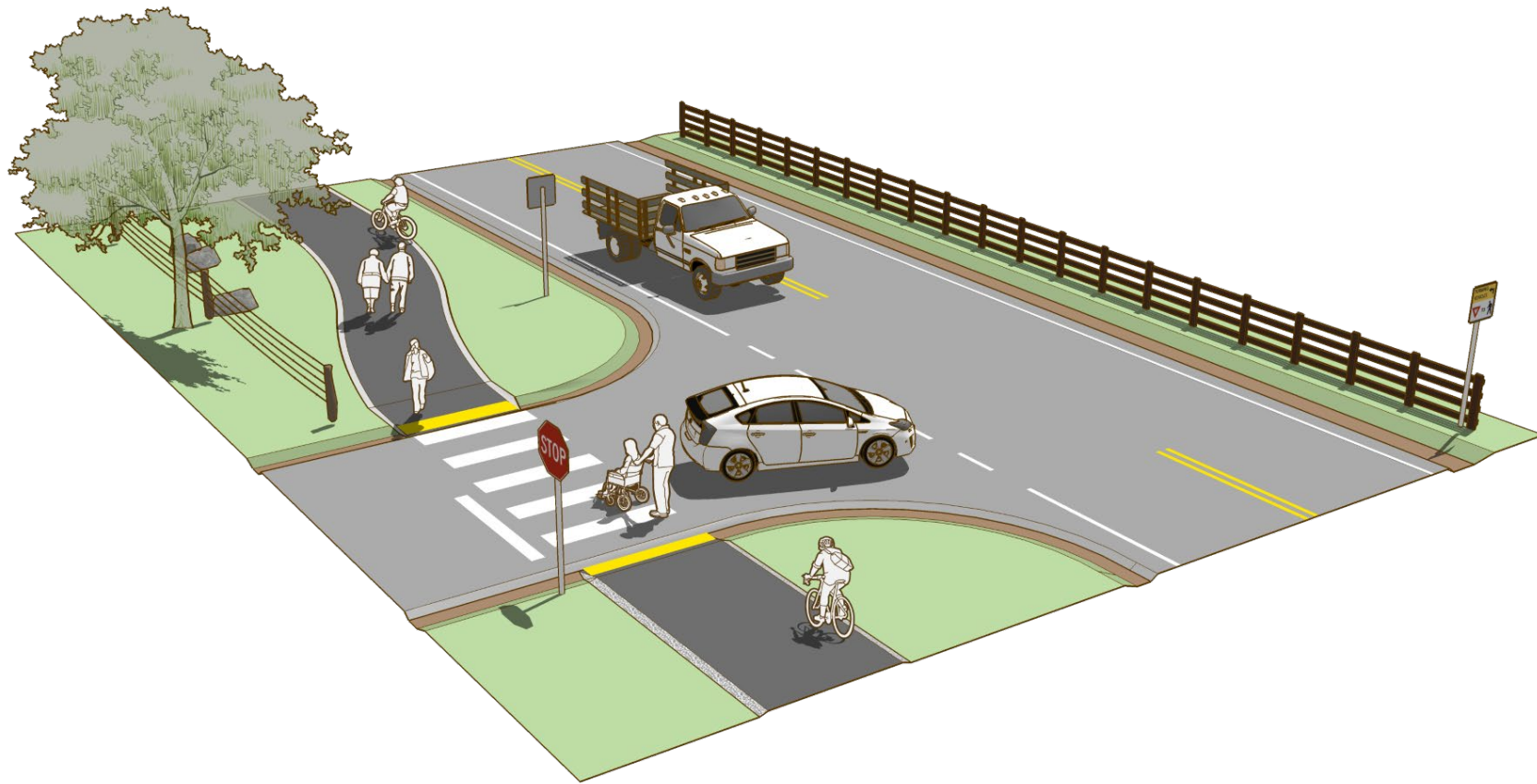


# Preliminary Alternatives

## POTENTIAL DESIGNS

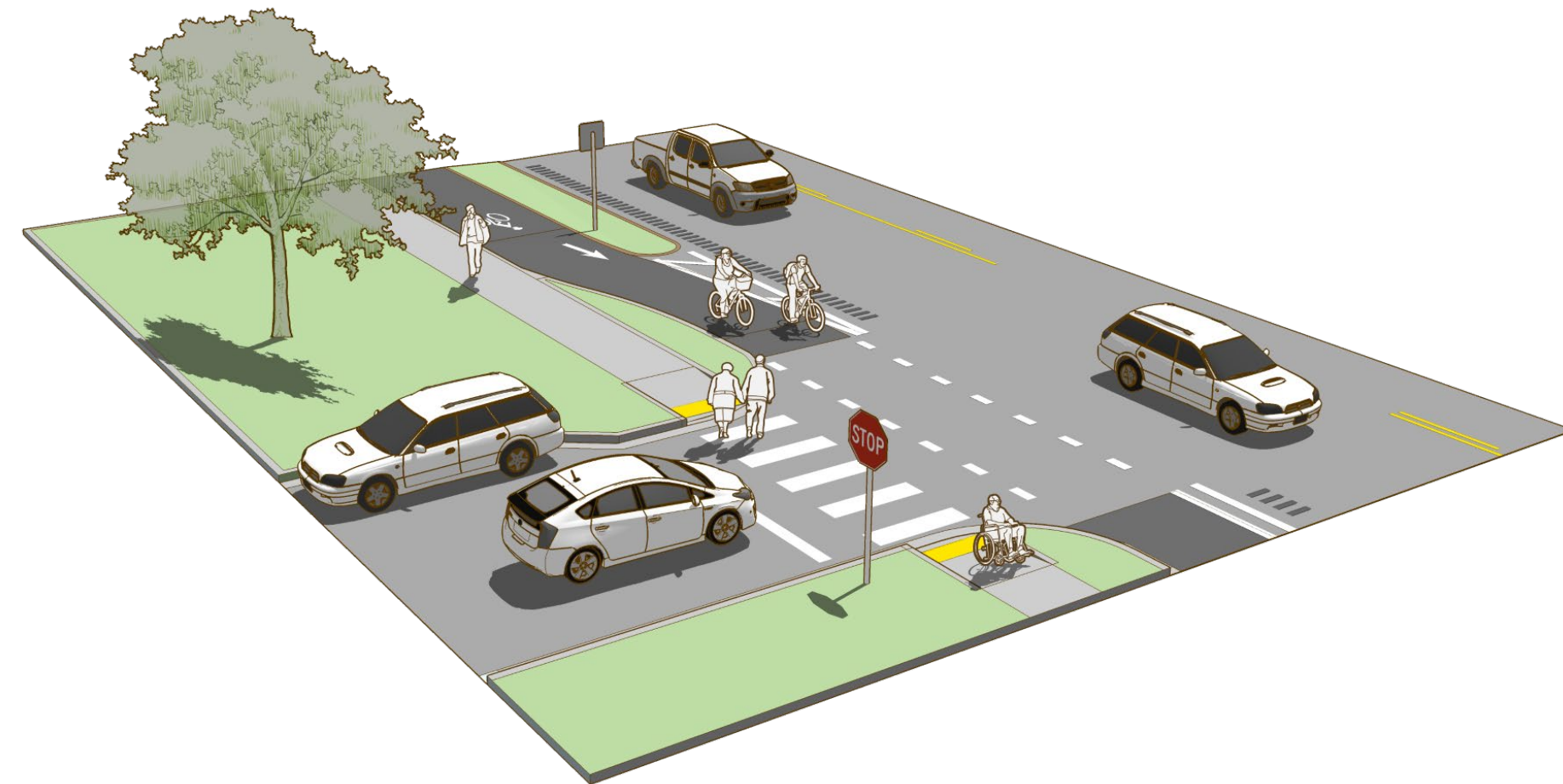
### Alternative 1 – Shared Use Path

- Separated from traffic
- Shared facility for pedestrians and bikes



### Alternative 2 – Two-Way Separated Bike Lane

- Separated from traffic
- Separate facilities pedestrian and bikes

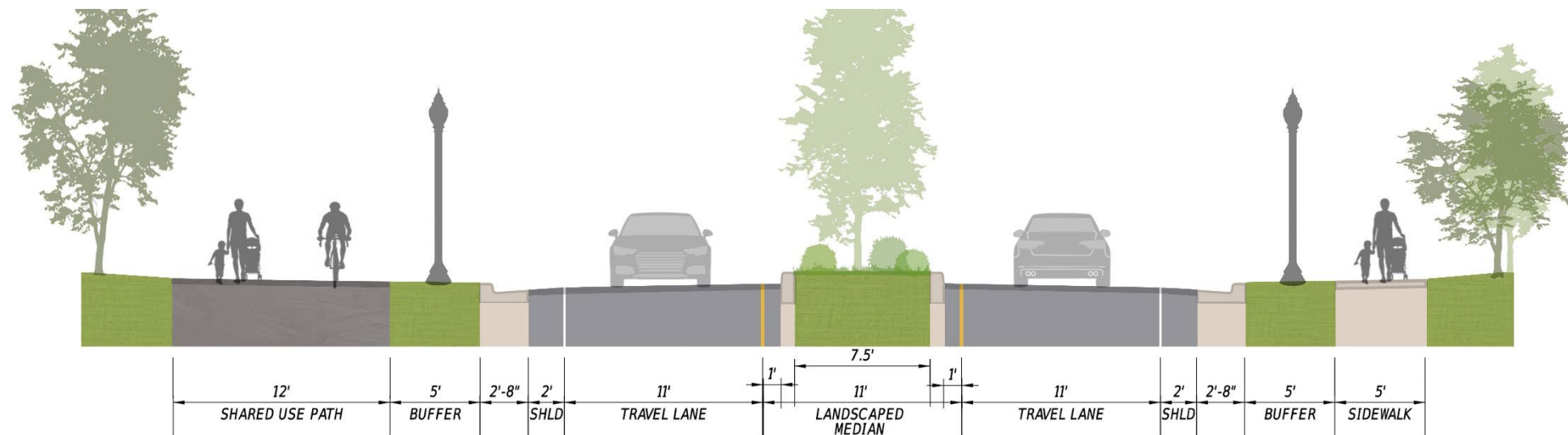
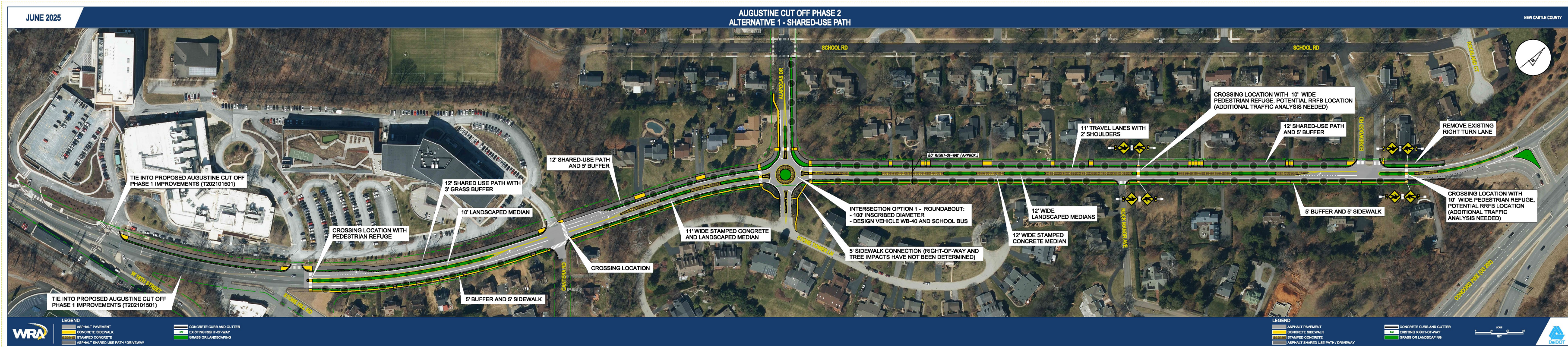




# Preliminary Alternatives

## POTENTIAL DESIGNS

### Alternative 1 – Continuous Shared Use Path (SUP) on Southbound Side

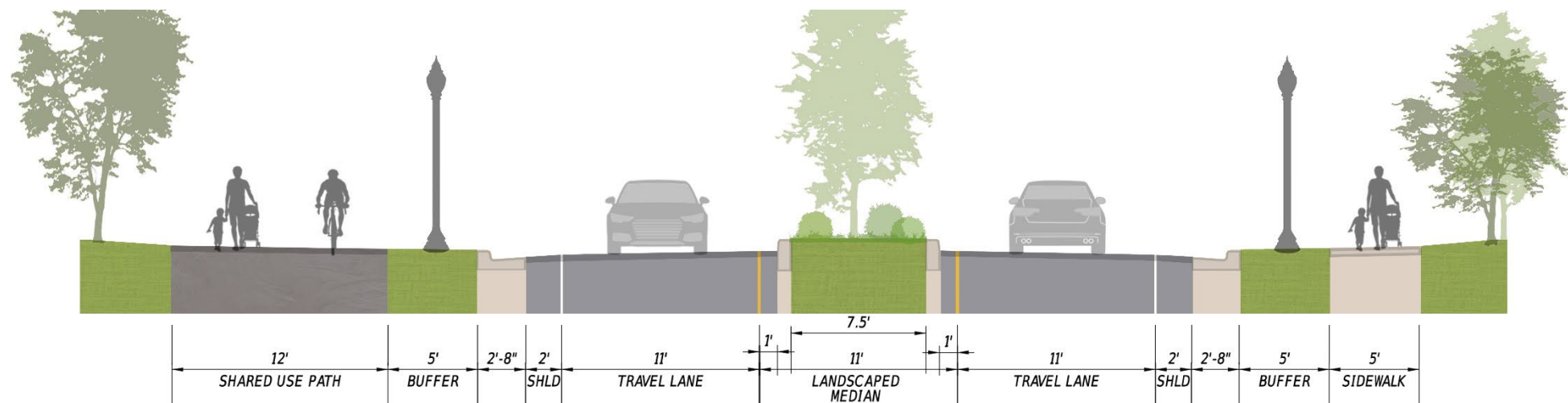


- 12' wide buffered SUP (Southbound)
- 5' wide buffered sidewalk (Northbound)
- 11' wide median
- Multiple ped/bike crossings
- Alapocas Drive intersection improvements

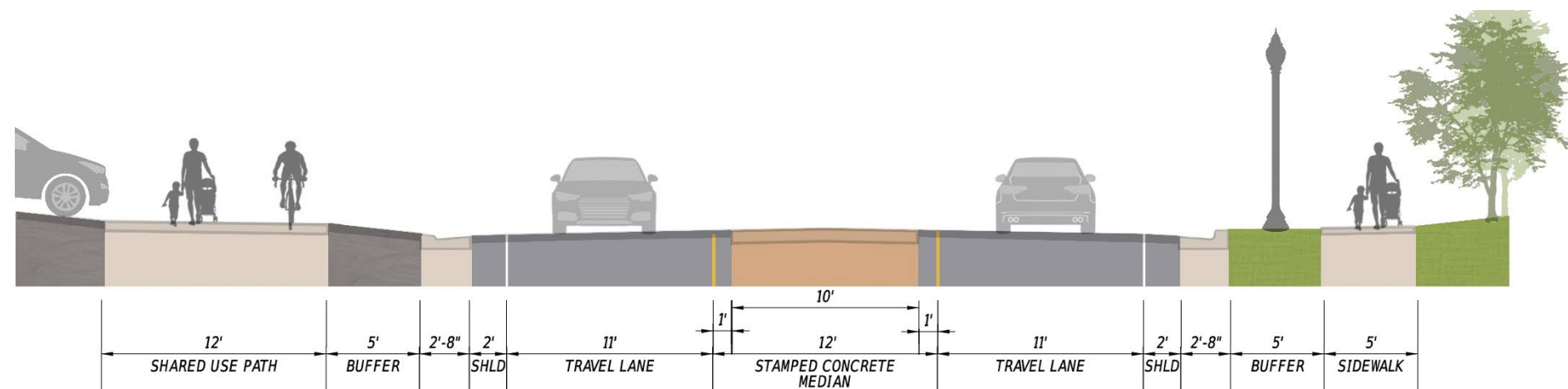


## POTENTIAL DESIGNS

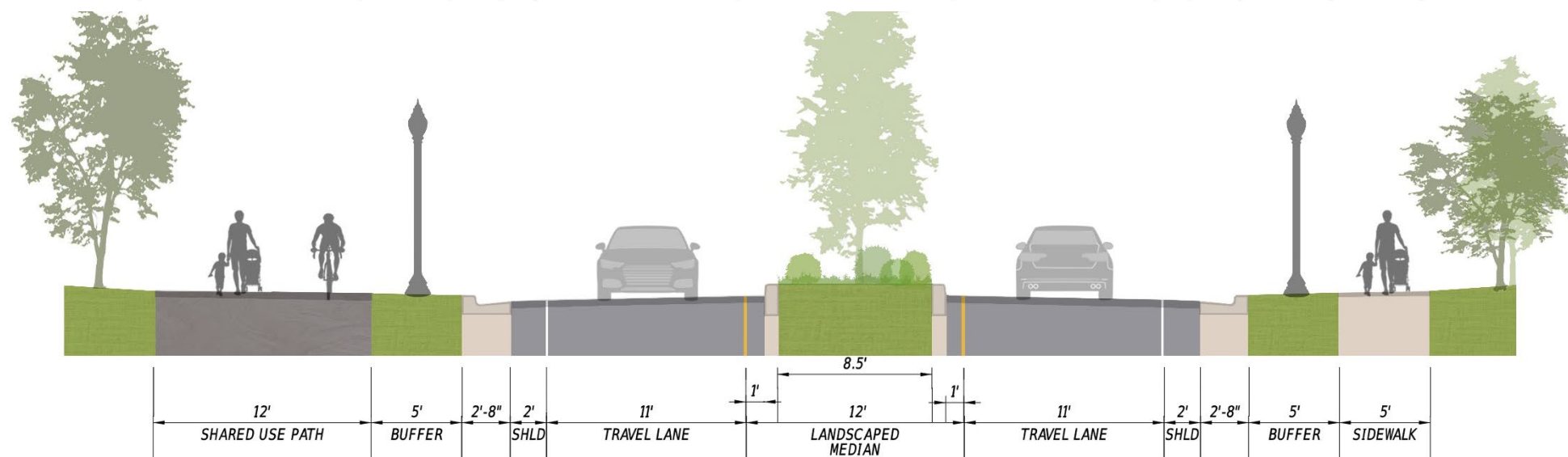
### Alternative 1 – Continuous Shared Use Path (SUP) on Southbound Side



- 12' wide SUP south of Alapocas Drive with raised landscape median



- 12' wide SUP at driveway crossings with flush median



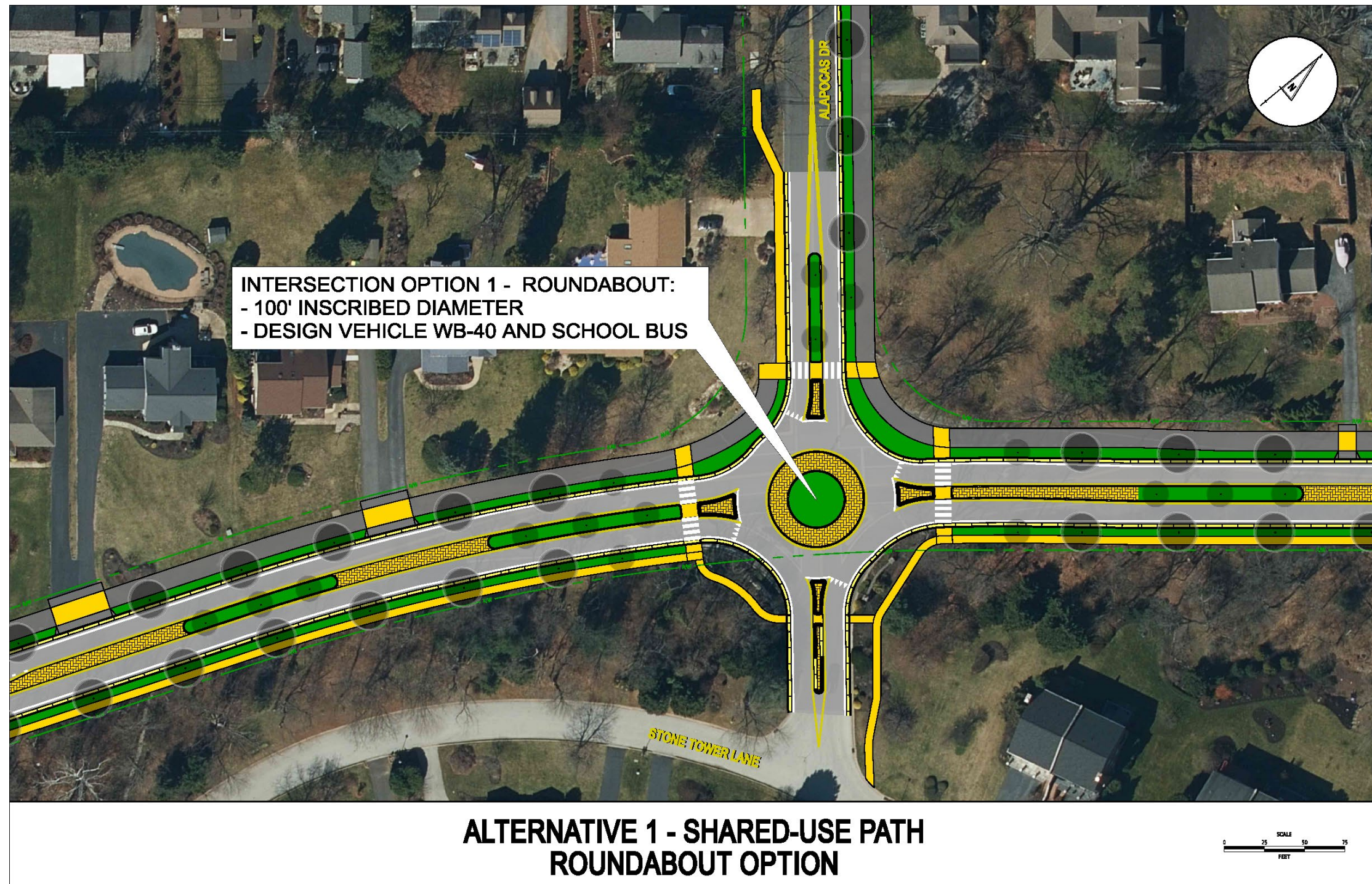
- 12' wide SUP north of Alapocas Drive



## INTERSECTION DESIGN

### Alapocas Drive – Roundabout with Shared Use Path

- 100' Diameter
- Mountable inside truck apron to accommodate trucks
- Reduces pedestrian and vehicle conflict points
- Refuge islands allow pedestrians and bikes to cross single directional travel
- Provides traffic calming
- Opportunities for landscaping
- Reduced long-term maintenance





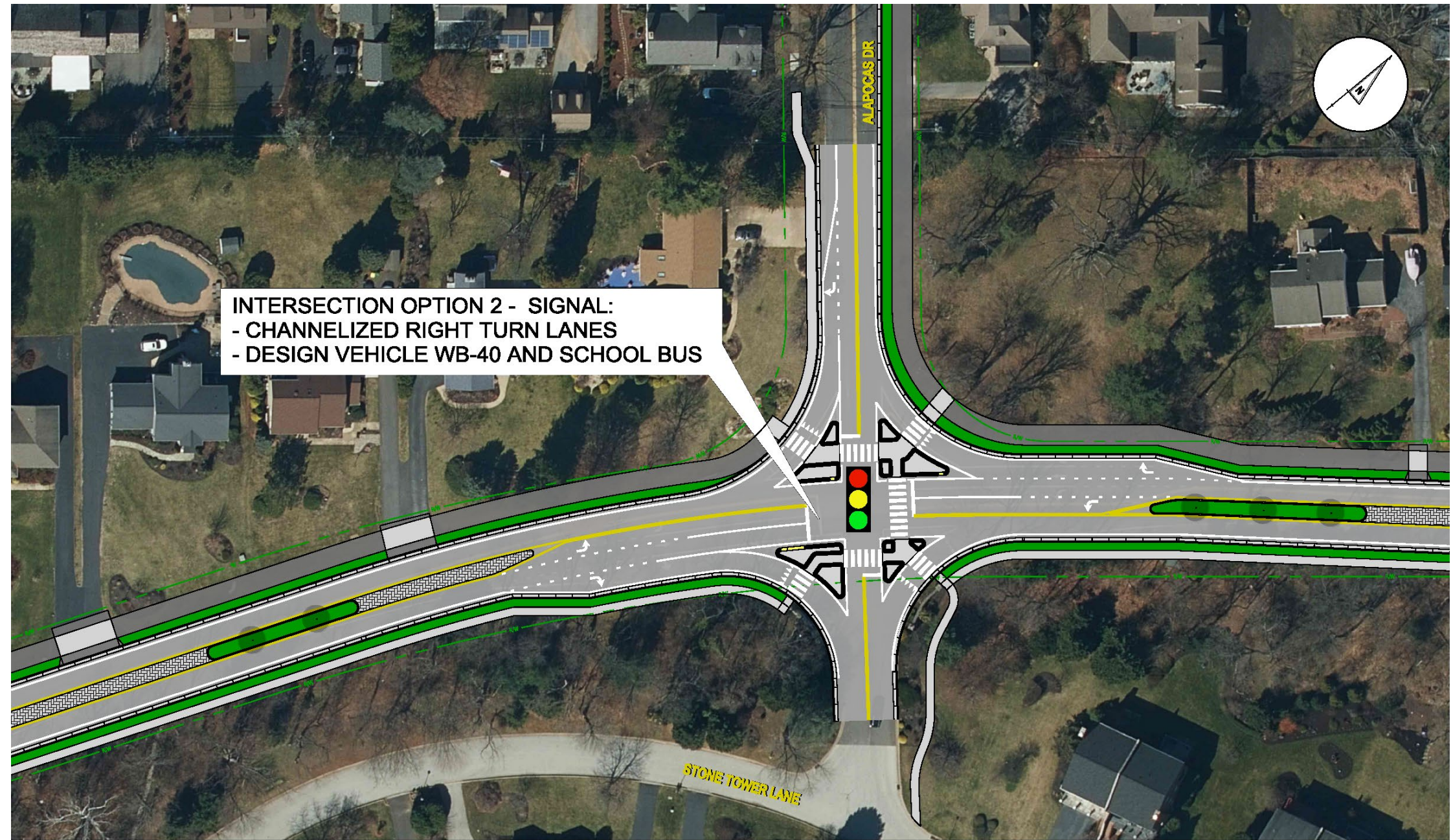




## INTERSECTION DESIGN

### Alapocas Drive – Signalized Intersection with Shared Use Path

- Signal controlled multi-staged crossing for pedestrians and bikes
- Stays within the right of way
- Does not provide traffic calming

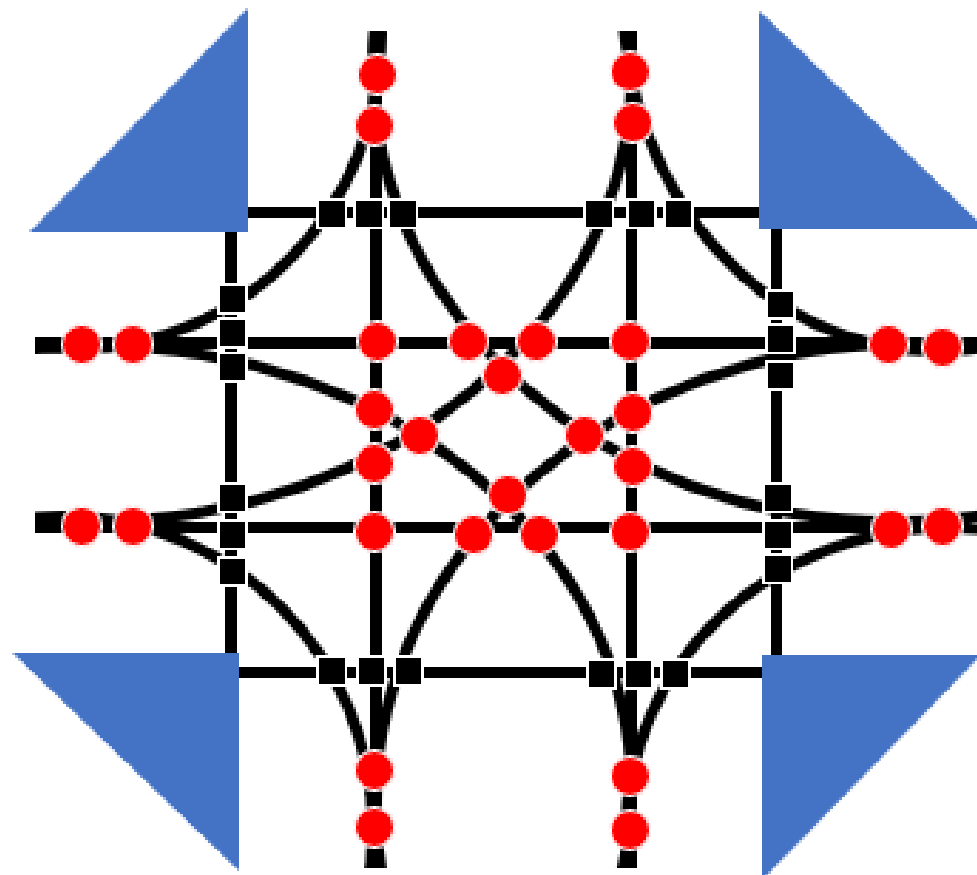


ALTERNATIVE 1 - SHARED-USE PATH  
SIGNAL OPTION

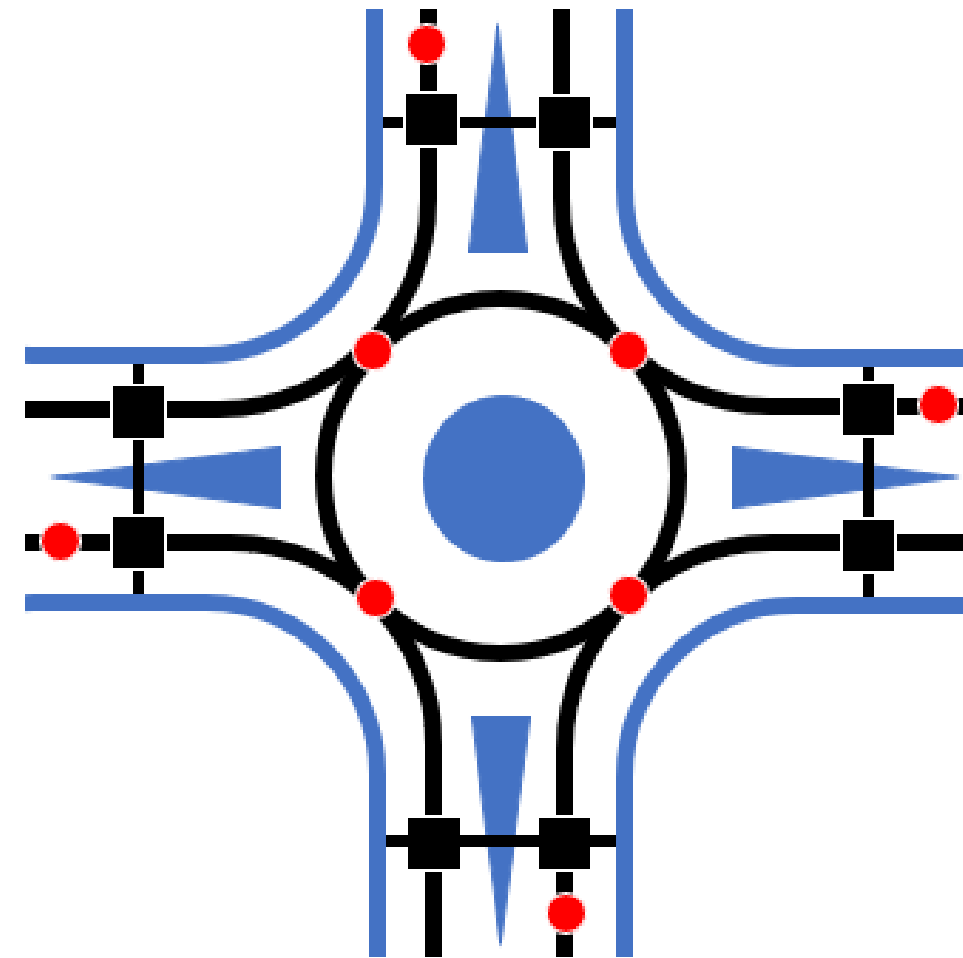


## INTERSECTION DESIGN

### Conflict Points



- 32 Vehicle Conflicts
- 24 Pedestrian Conflicts



- 8 Vehicle Conflicts
- 8 Pedestrian Conflicts

# Preliminary Alternatives

## INTERSECTION DESIGN

### Alapocas Drive – Delay Analysis

- Model simulations based on traffic volumes collected in 2024
- Roundabout option represents a significant improvement compared to a signal

Average Delay per Vehicle	Existing Signal			Roundabout			Proposed Signal		
	AM Peak	School Dismissal	PM Peak	AM Peak	School Dismissal	PM Peak	AM Peak	School Dismissal	PM Peak
NB Augustine Cutoff	10 sec	8 sec	7 sec	5 sec	9 sec	9 sec	7 sec	9 sec	6 sec
SB Augustine Cutoff	16 sec	12 sec	10 sec	9 sec	6 sec	6 sec	17 sec	13 sec	10 sec
EB Alapocas Drive	26 sec	26 sec	17 sec	5 sec	4 sec	3 sec	23 sec	21 sec	15 sec
WB Stone Tower Lane	1 sec	35 sec	37 sec	4 sec	2 sec	3 sec	1 sec	15 sec	36 sec

Median / 95 <sup>th</sup> Percentile Queue Length	Existing Signal			Roundabout			Proposed Signal		
	AM Peak	School Dismissal	PM Peak	AM Peak	School Dismissal	PM Peak	AM Peak	School Dismissal	PM Peak
NB Augustine Cutoff	86 ft / 188 ft	101 ft / 228 ft	86 ft / 173 ft	32 ft / 84 ft	64 ft / 205 ft	48 ft / 149 ft	80 ft / 180 ft	107 ft / 207 ft	79 ft / 141 ft
SB Augustine Cutoff	143 ft / 241 ft	74 ft / 167 ft	83 ft / 152 ft	57 ft / 121 ft	22 ft / 67 ft	24 ft / 58 ft	151 ft / 262 ft	72 ft / 140 ft	86 ft / 161 ft
EB Alapocas Drive	113 ft / 198 ft	97 ft / 223 ft	50 ft / 106 ft	48 ft / 113 ft	33 ft / 72 ft	21 ft / 49 ft	68 ft / 125 ft	75 ft / 164 ft	42 ft / 79 ft
WB Stone Tower Lane	0 ft / 0 ft	1 ft / 10 ft	6 ft / 27 ft	3 ft / 17 ft	0 ft / 0 ft	3 ft / 18 ft	6 ft / 27 ft	1 ft / 10 ft	5 ft / 23 ft

# Preliminary Alternatives

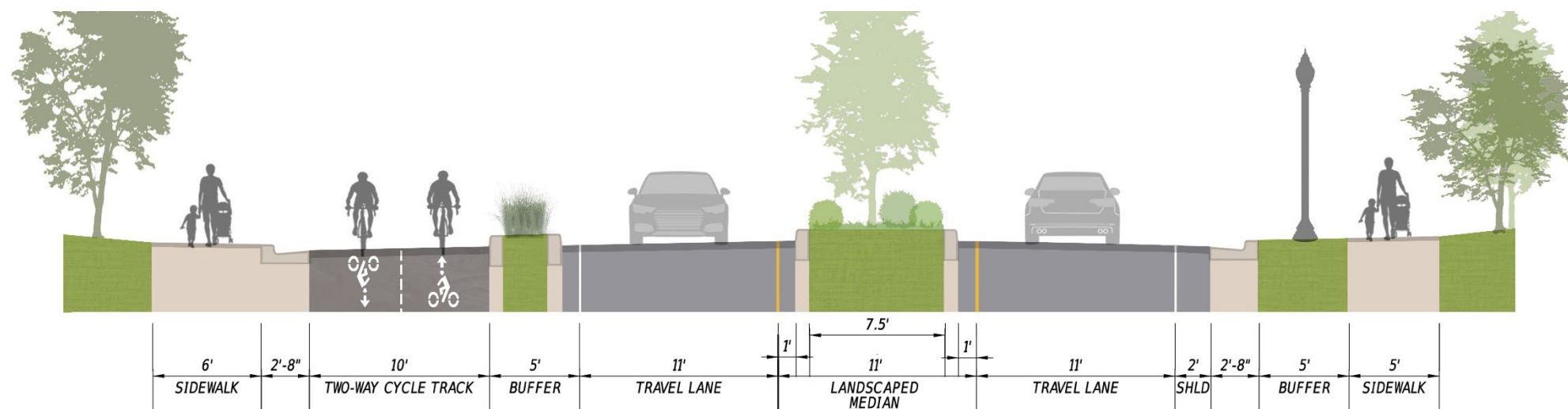
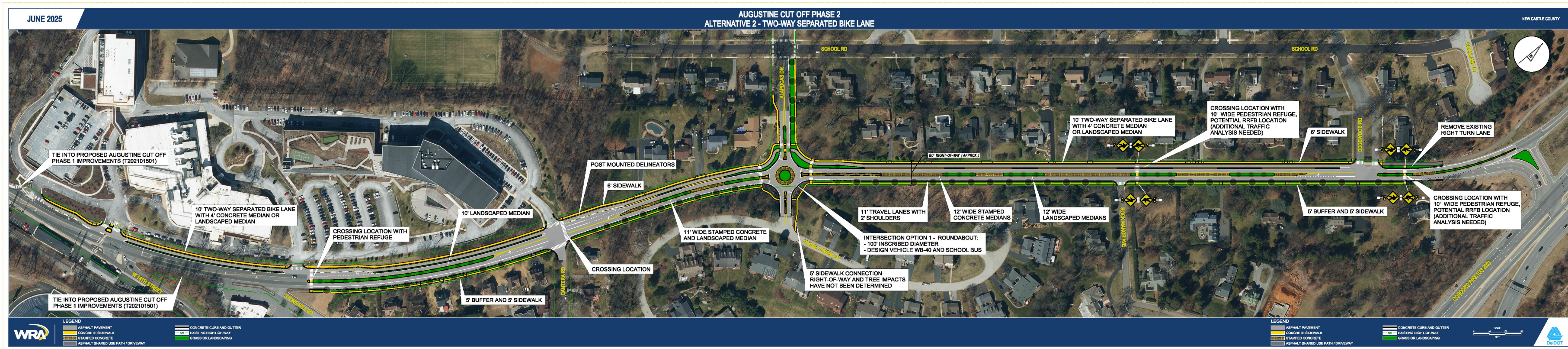
## INTERSECTION DESIGN – PROS AND CONS

	<i>Single-Lane Roundabout</i>	<i>Signalized Intersection</i>
<b>Safety</b>		
Conflict Points	<i>8 vehicle conflict points</i> <i>8 pedestrian conflict points</i>	<i>32 vehicle conflict points</i> <i>24 pedestrian conflict points</i>
Crash Severity	<i>Eliminates Most Dangerous Crash Types</i>	<i>Does not eliminate most dangerous crash types</i>
Traffic Calming Benefit	<i>Yes</i>	<i>No</i>
<b>Bike/Pedestrian Design</b>		
Bike/Pedestrian Crossing Distance	<i>Shorter</i>	<i>Longer</i>
Median Refuge Islands	<i>Yes</i>	<i>No</i>
Signal Controlled Crossing	<i>No</i>	<i>Yes</i>
<b>Motor Vehicle Operations</b>		
Delay	<i>Lower</i>	<i>Higher</i>
Queue Length	<i>Shorter</i>	<i>Longer</i>
<b>Additional Considerations</b>		
Space Required	<i>Lower</i>	<i>Higher</i>
Long-Term Operational Costs	<i>Lower</i>	<i>Higher</i>
Long-Term Landscaping Costs	<i>Higher</i>	<i>Lower</i>



## POTENTIAL DESIGNS

### Alternative 2 – Sidewalks and Two-Way Separated Bike Lane

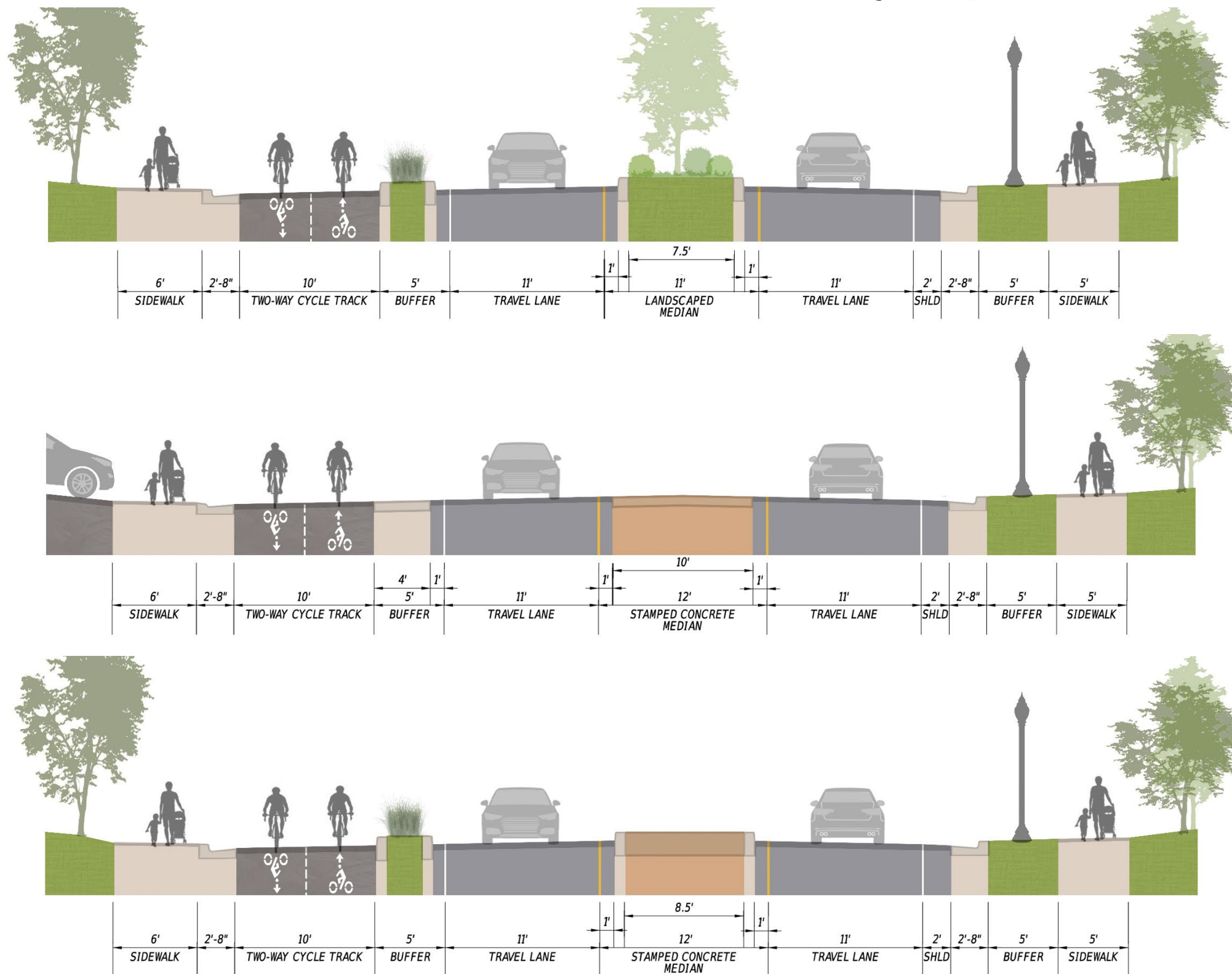


- 10' wide separated bike lanes (Southbound)
- Sidewalks with buffer (both sides)
- 11' wide median
- Multiple ped/bike crossings
- Alapocas Drive intersection improvements



## POTENTIAL DESIGNS

### Alternative 2 – Sidewalks and Two-Way Separated Bike Lane



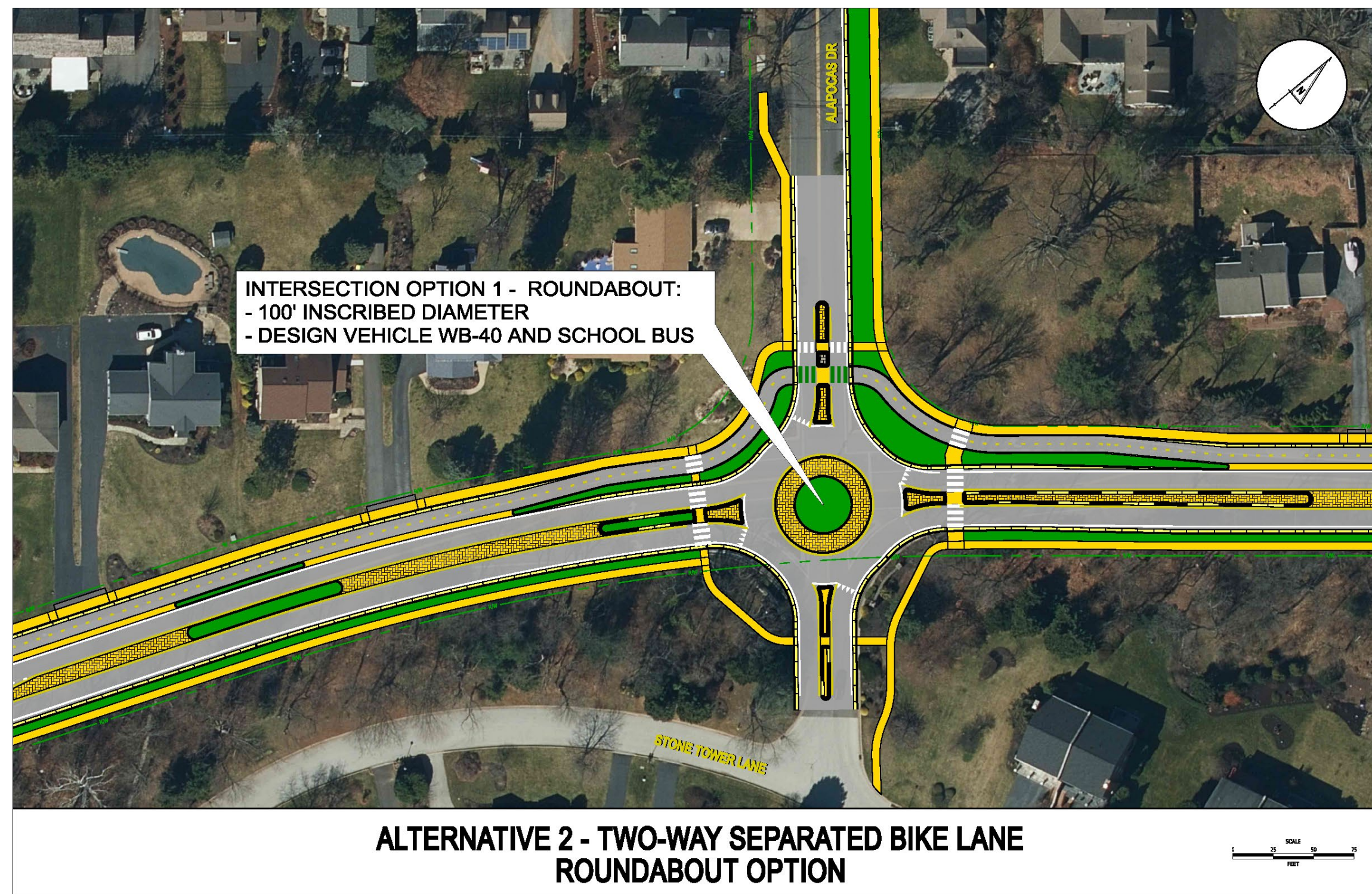
- 2-way separated bike lane south of Alapocas Drive with raised landscape median
- 2-way separated bike lane at driveway crossings with flush median
- 2-way separated bike lane north of Alapocas Drive with raised median



## INTERSECTION DESIGNS

### Alapocas Drive – Roundabout with Two-Way Separated Bike Lane

- 100' Diameter
- Mountable inside truck apron to accommodate trucks
- Reduces pedestrian and vehicle conflict points
- Separate crosswalks for bikes and pedestrians at Alapocas Drive
- Refuge islands allow pedestrians and bikes to cross single directional travel
- Provides traffic calming
- Opportunities for landscaping
- Reduced long-term maintenance

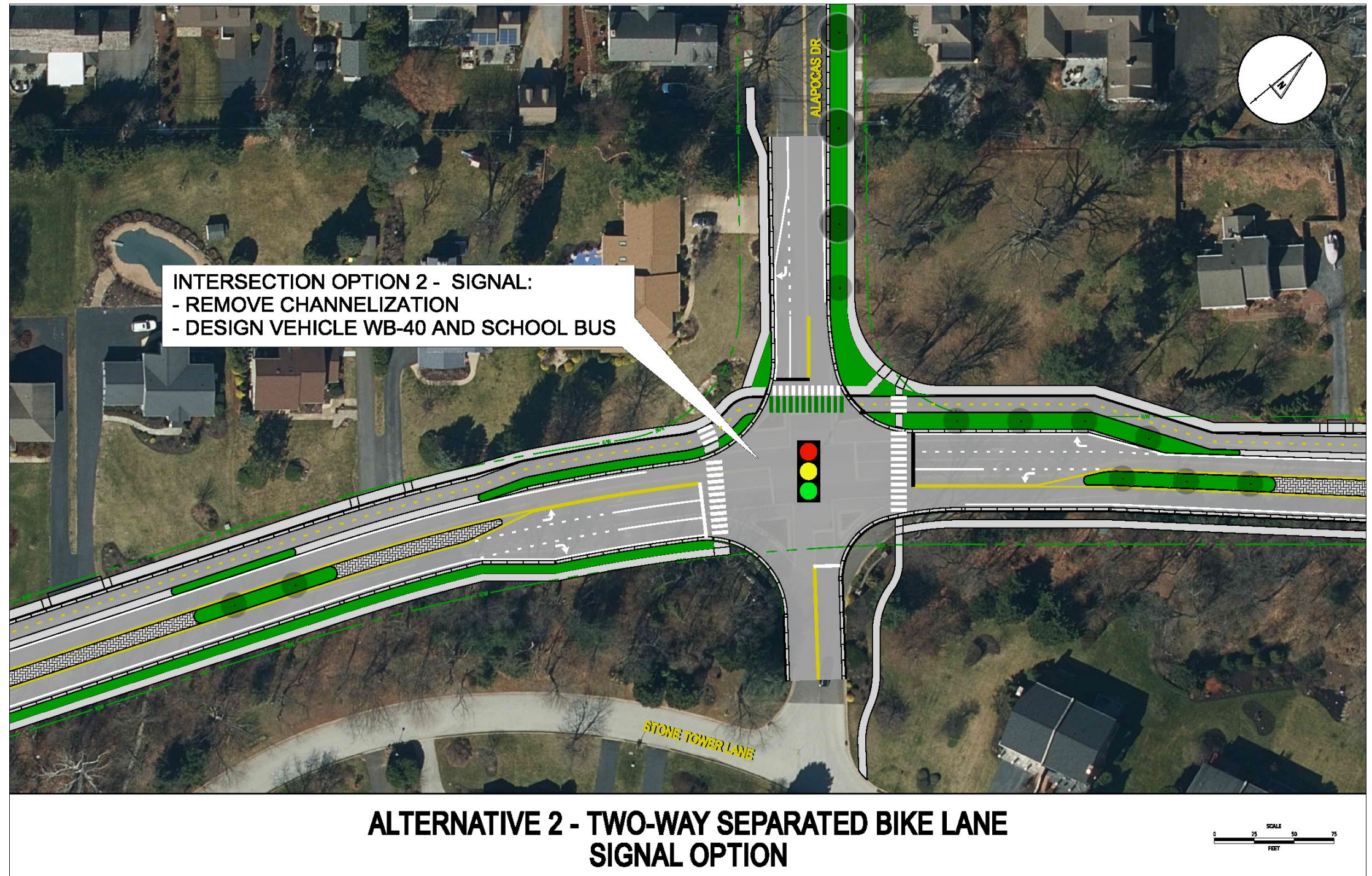




## INTERSECTION DESIGNS

### Alapocas Drive – Signalized Intersection with Two-Way Separated Bike Lane

- Signal controlled crossing for pedestrians and bikes
- Separate crosswalks for bikes and pedestrians at Alapocas Drive
- Increased crossing distances and number of travel lanes
- Right of way impacts
- Does not provide traffic calming



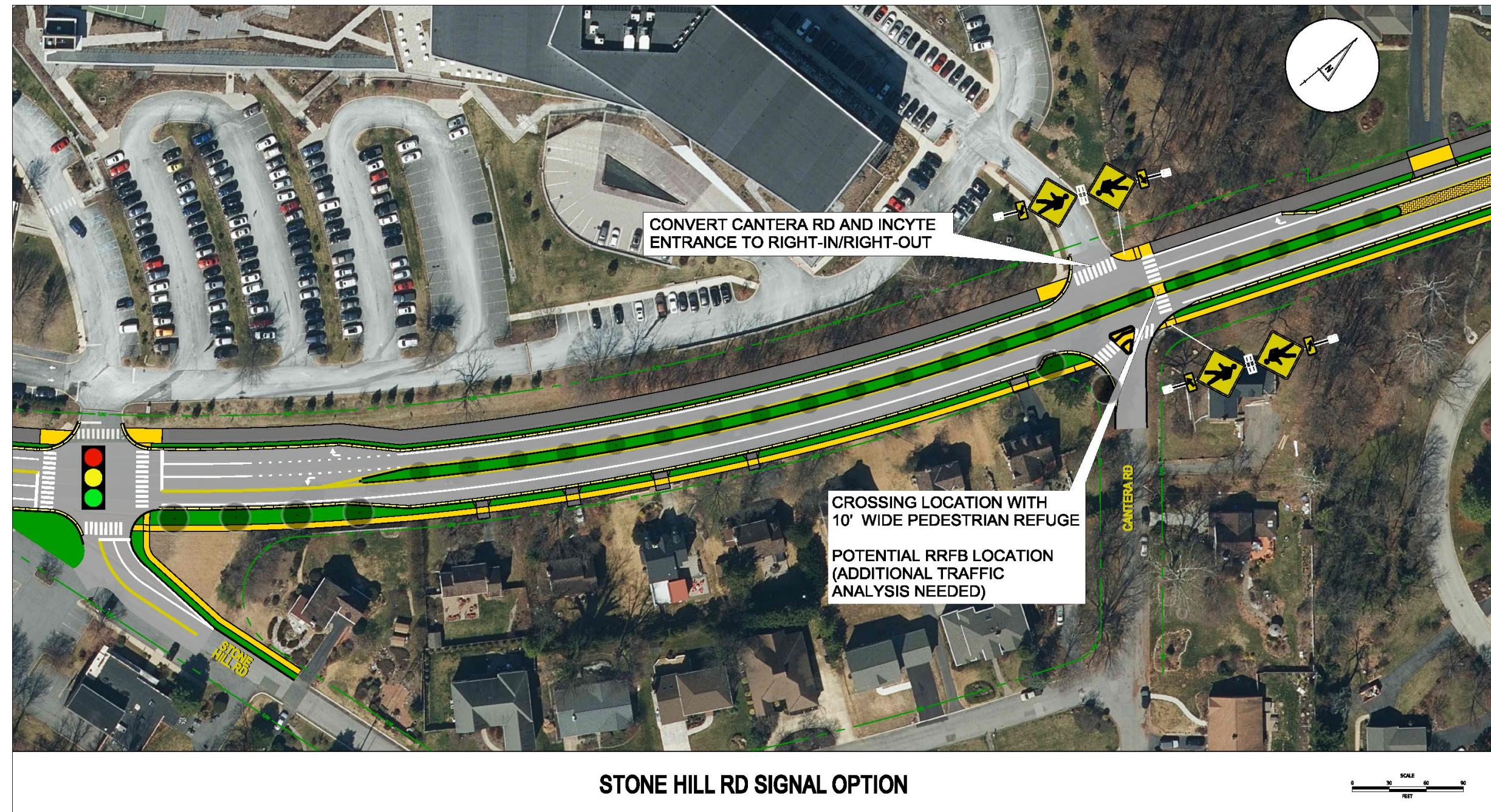


# Alternative Design Considerations

## INTERSECTION DESIGNS

### Stone Hill Road Signalized Intersection Options (SUP shown)

- Incorporating previously designed traffic signal at Stone Hill Road would allow for crossover closure at Cantera Road
- Cantera Road and Incyte entrance would be right-in right-out only
- Residents with driveways facing Augustine Cut Off would require U-turn for ingress/egress

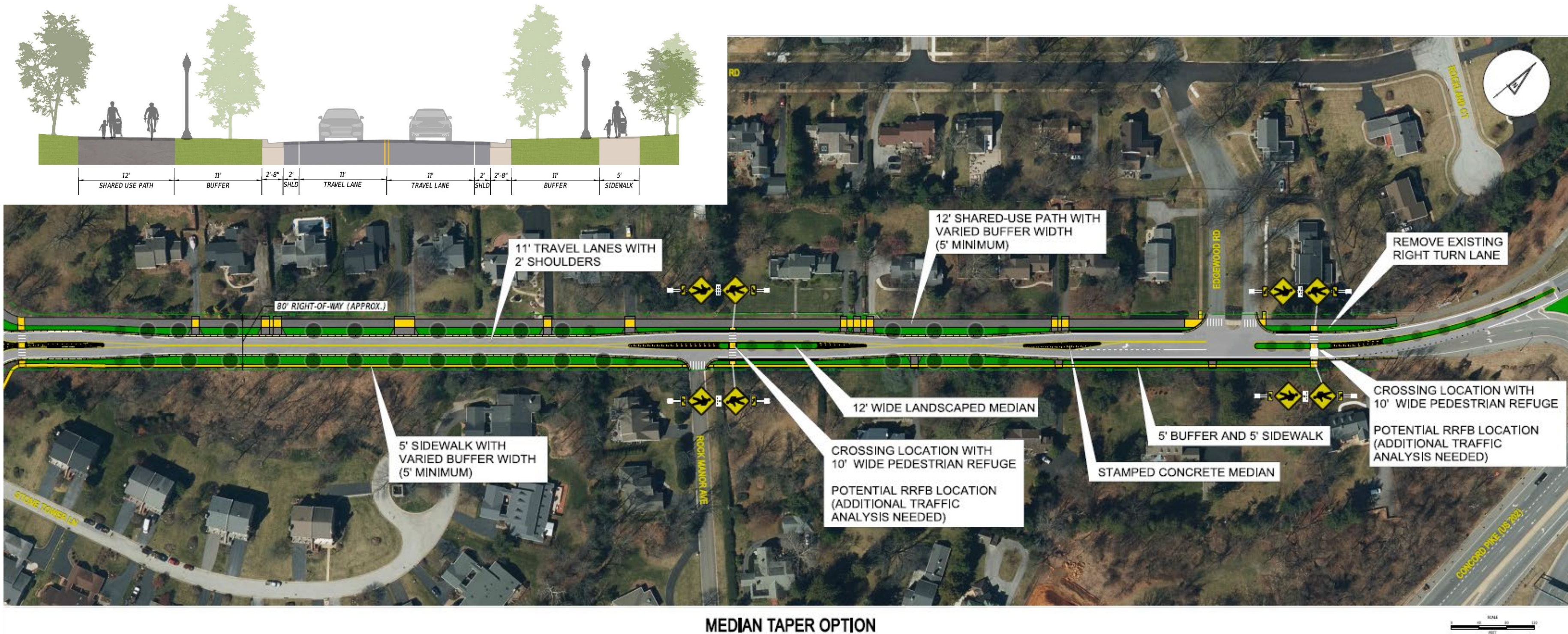




# Alternative Design Considerations

## ADDITIONAL TRAFFIC CALMING

- Horizontal deflection between Alapocas Drive and Edgewood Road (SUP shown)



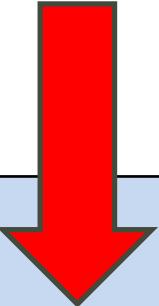


## **Next Steps**



STUDY SCOPE  
AND SCHEDULE

Schedule	Oct-24	Nov-24	Dec-24	Jan-25	Feb-25	Mar-25	Apr-25	May-25	Jun-25	Jul-25	Aug-25	Sep-25
Project tasks												
Task 1 Identify Issues, Opportunities and Constraints												
Task 2 Community Visioning												
Task 3 Define Assumptions and Potential Recommendations												
Task 4 Model Transportation Improvements												
Task 5 Select Concept Level Alternatives and Prepare Final Report												
Outreach Activities												
Planning Partners (PMC)												
Advisory Committee (AC)												
Public Workshop												





## WHAT'S NEXT

- **Technical Analysis**

- Conduct further analysis as necessary based on feedback received today
- Complete Task 4 (Model Transportation Alternatives) based on your feedback
- Refine materials for website
- Prepare feasibility report

- **Public Involvement**

- Schedule upcoming Advisory Committee Meetings (July/August)
- Public Meeting No. 3 (August)

THANK YOU

**Any questions? Want to set up a standalone conversation with the Project Team?**

**Email Dave Gula, WILMAPCO Project Manager at [dgula@wilmapco.org](mailto:dgula@wilmapco.org)**