

Roanoke County

Safe Streets and
Roads for All

Comprehensive Safety Action Plan

Prepared by Timmons Group
Fall 2024



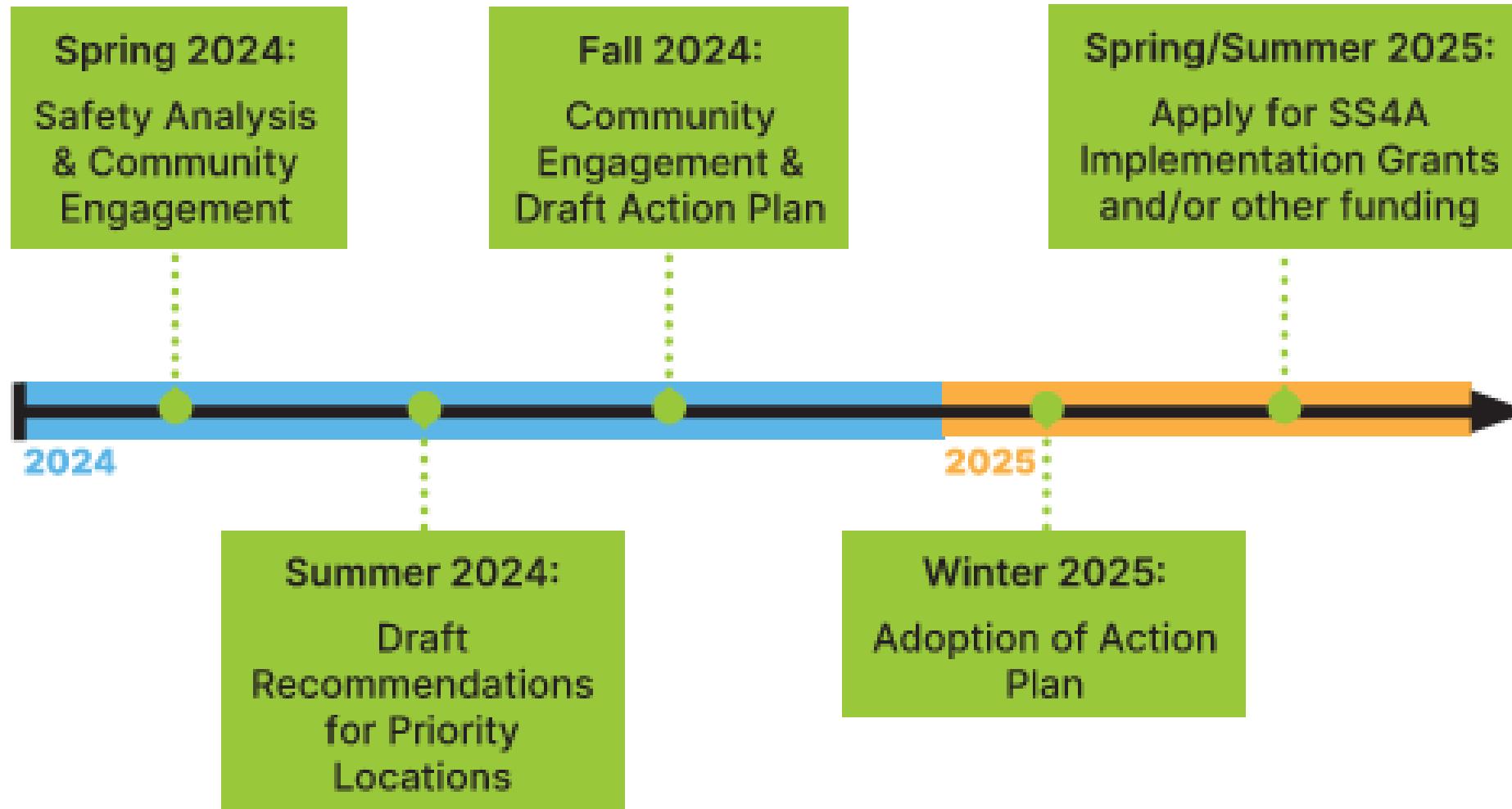
Board of Supervisors Update
December 17, 2024



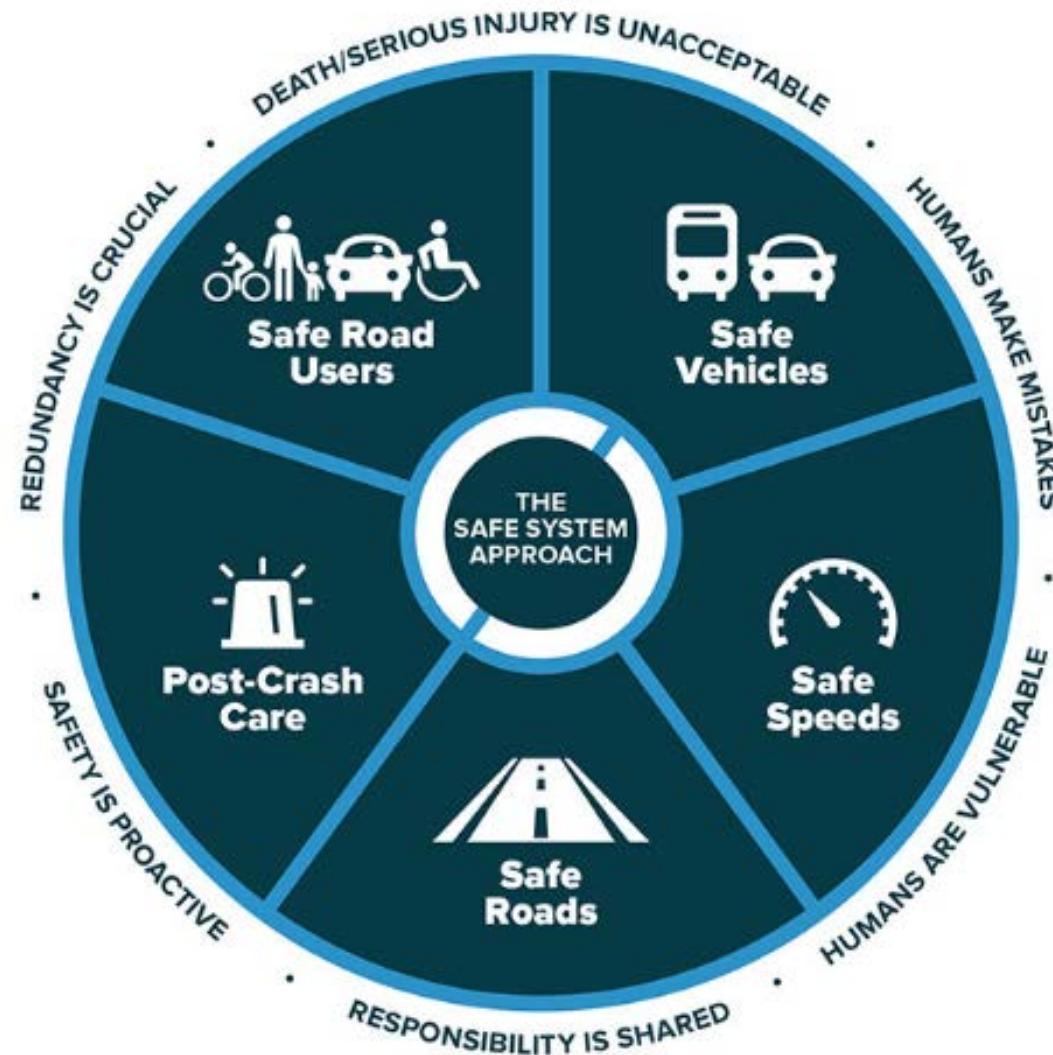
Agenda

- Project Schedule
- Safe Streets & Roads for All (SS4A)
- Crash Summary
- Community Engagement
- Input Needed
- Questions / Discussion

Project Schedule



Safe System Approach



Crash Summary

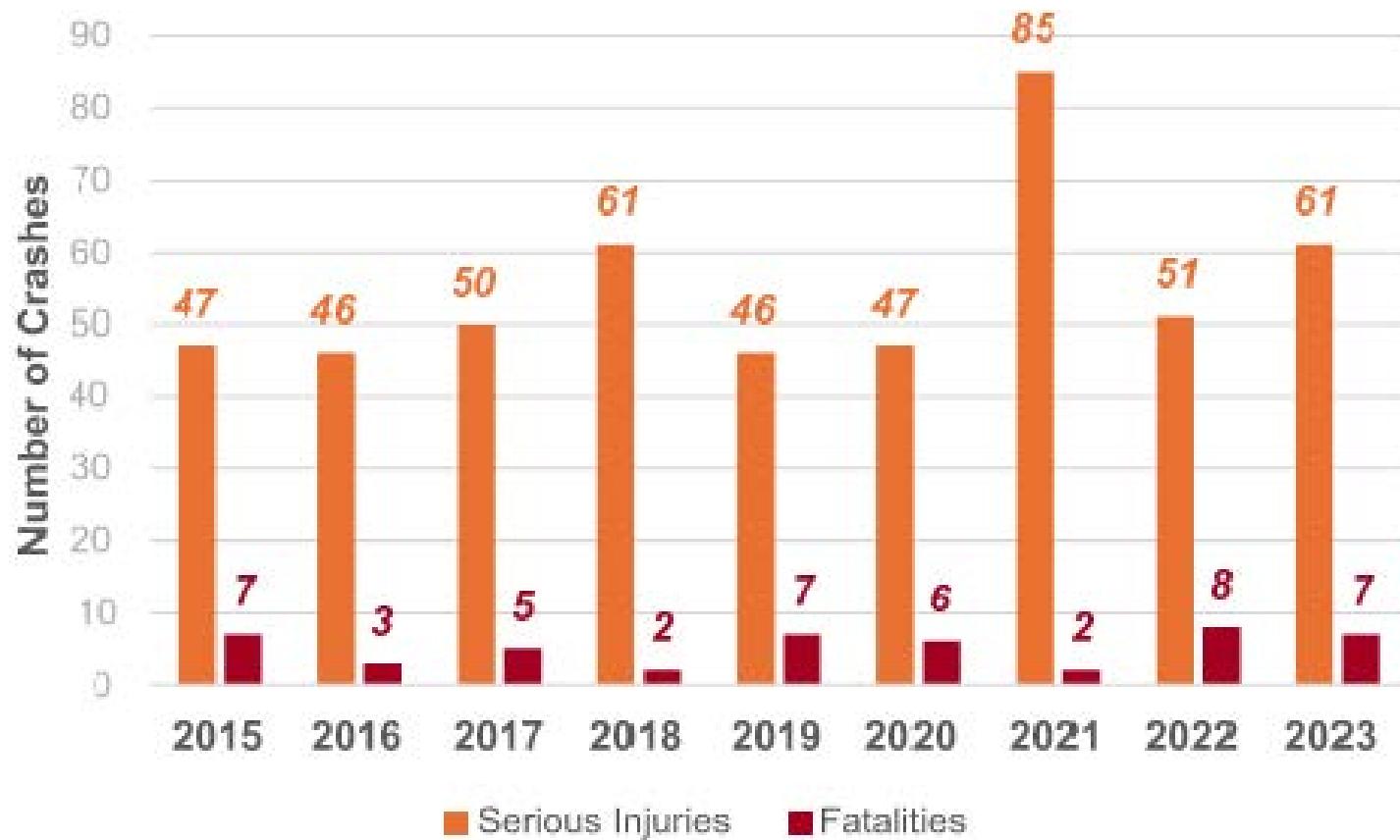
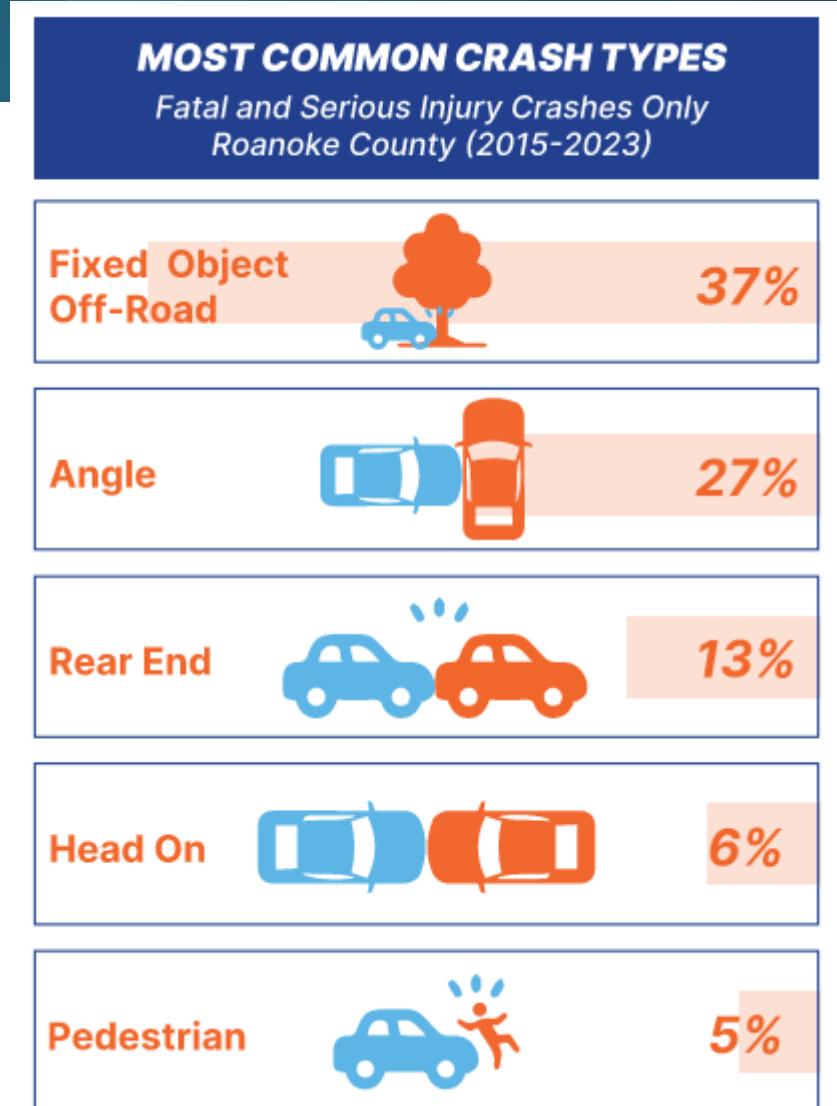
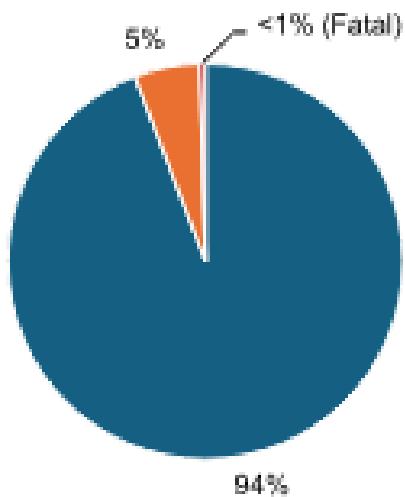


Figure 1. Severe Crashes by Year, Roanoke County (2015-2023)

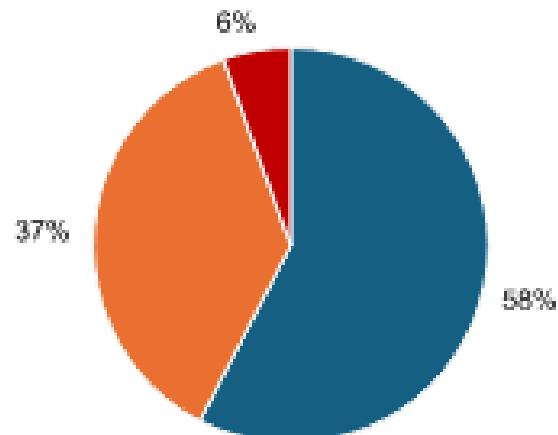


Crash Summary

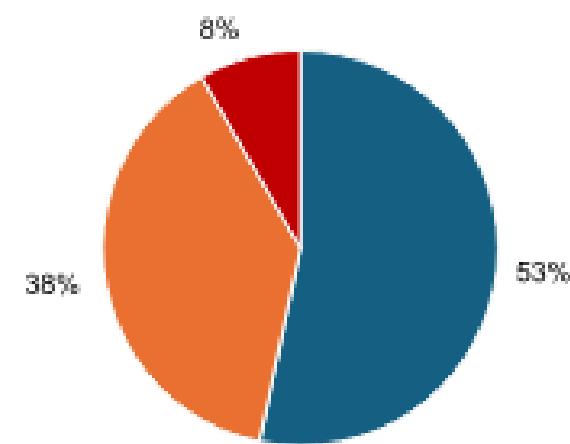
Crash Severity of Motorists



Crash Severity of Motorcyclists

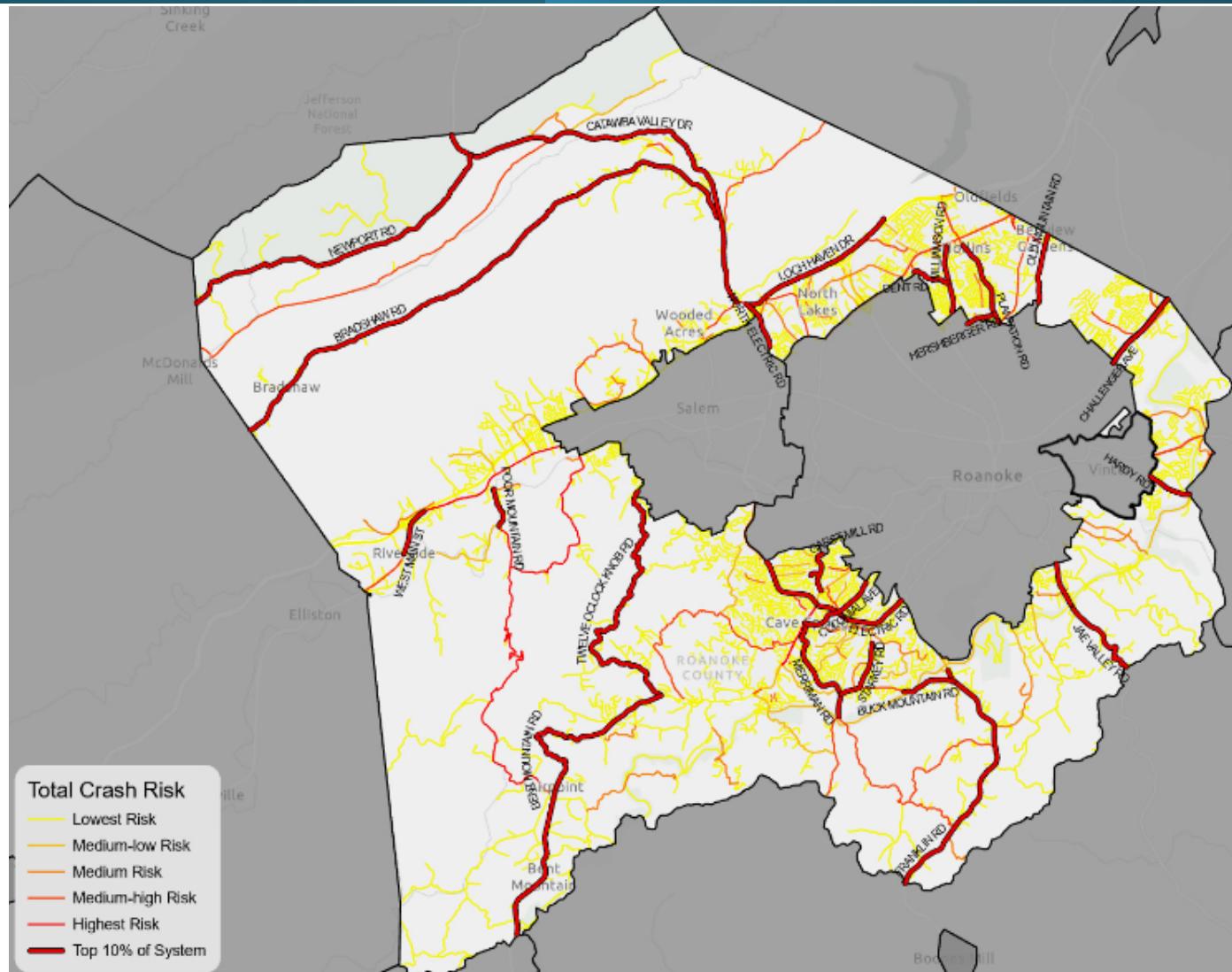
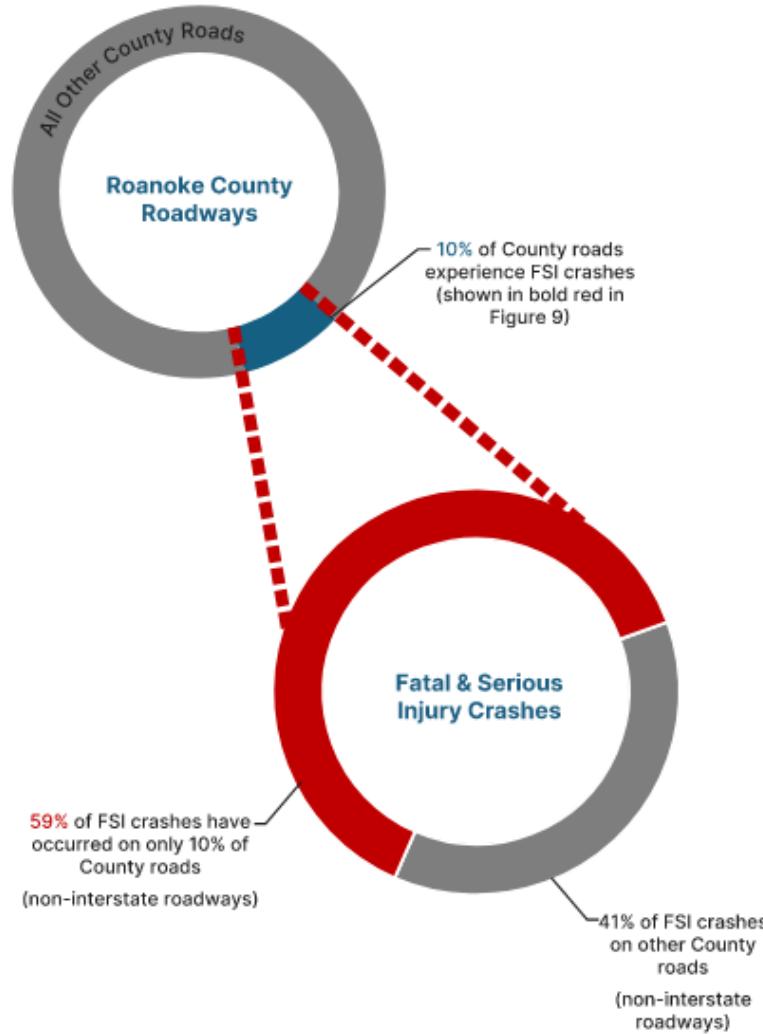


Crash Severity of Bicyclists & Pedestrians

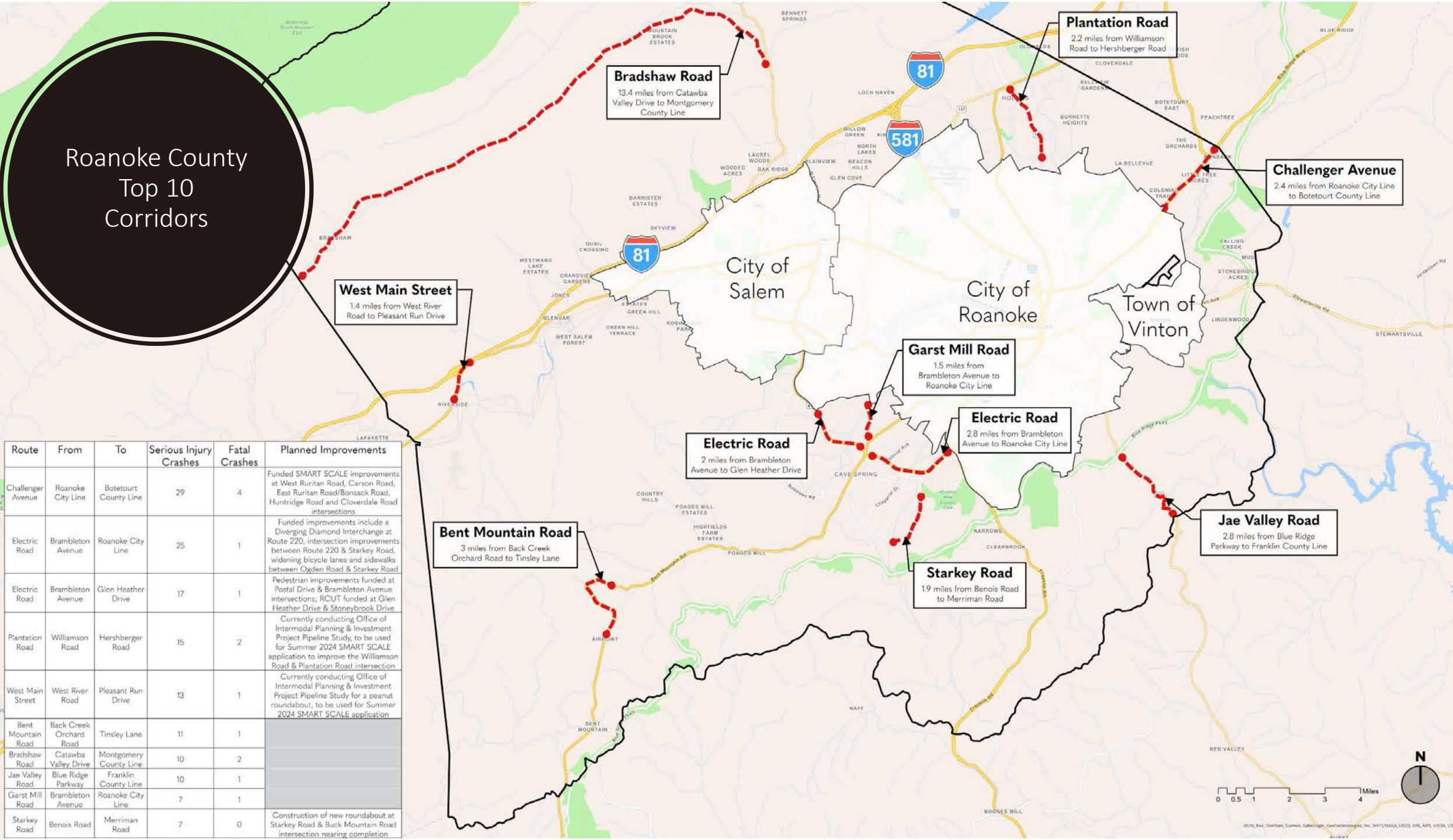


- **Serious Injuries**
- **Fatalities**
- **All Other Crash Types**

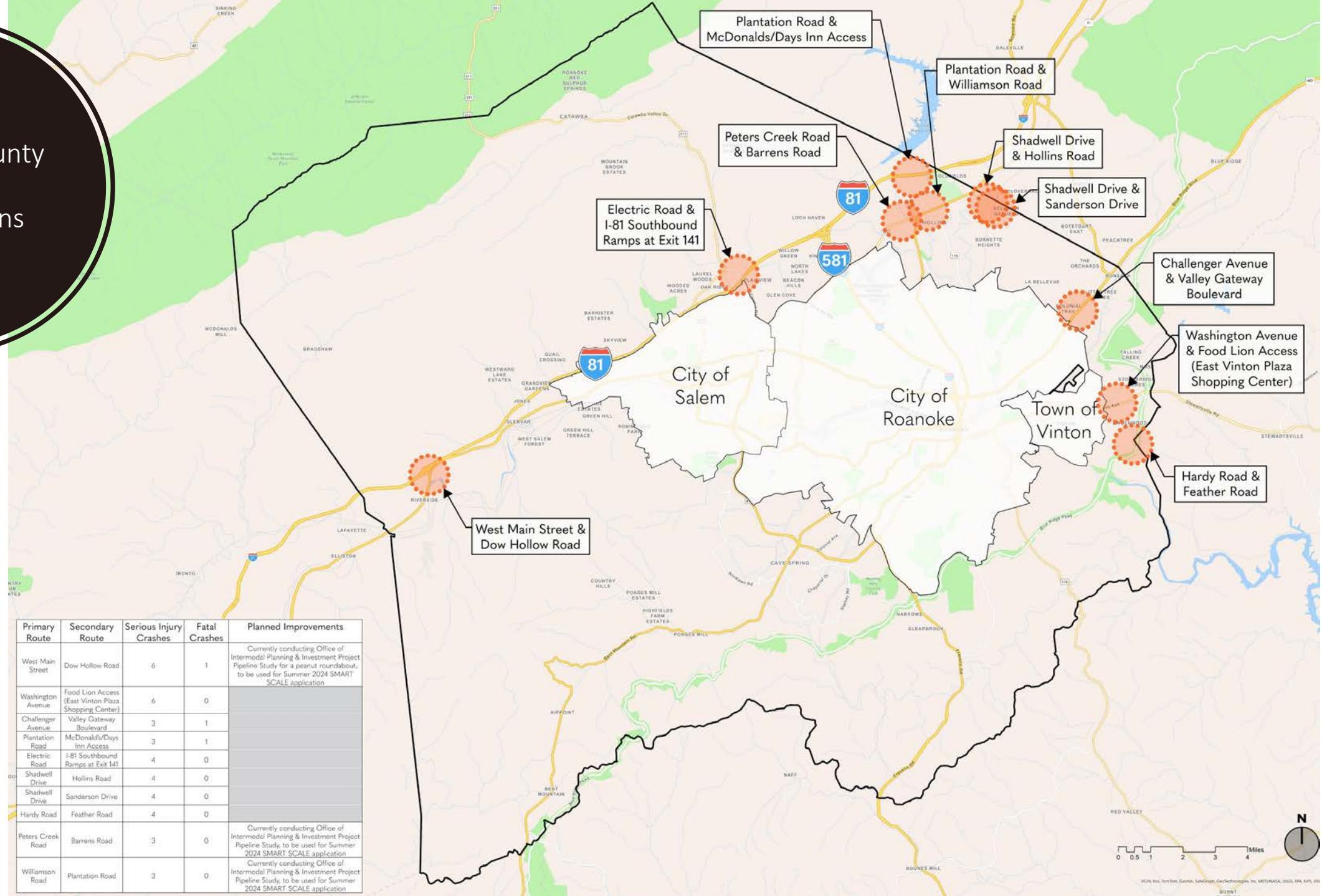
High Injury Network



Roanoke County Top 10 Corridors



Roanoke County Top 10 Intersections



Community Engagement

Community Meetings



Over
235 **75** **1,000**
survey total attendees total community
responses at in-person members
recorded meetings reached*

Spring 2024 Meetings

- Monday, April 29th from 5-7 pm: Roanoke County (South) at the Brambleton Center Gymnasium
- Thursday, May 2nd from 5-7 pm: Roanoke County (North) at the Hollins Library

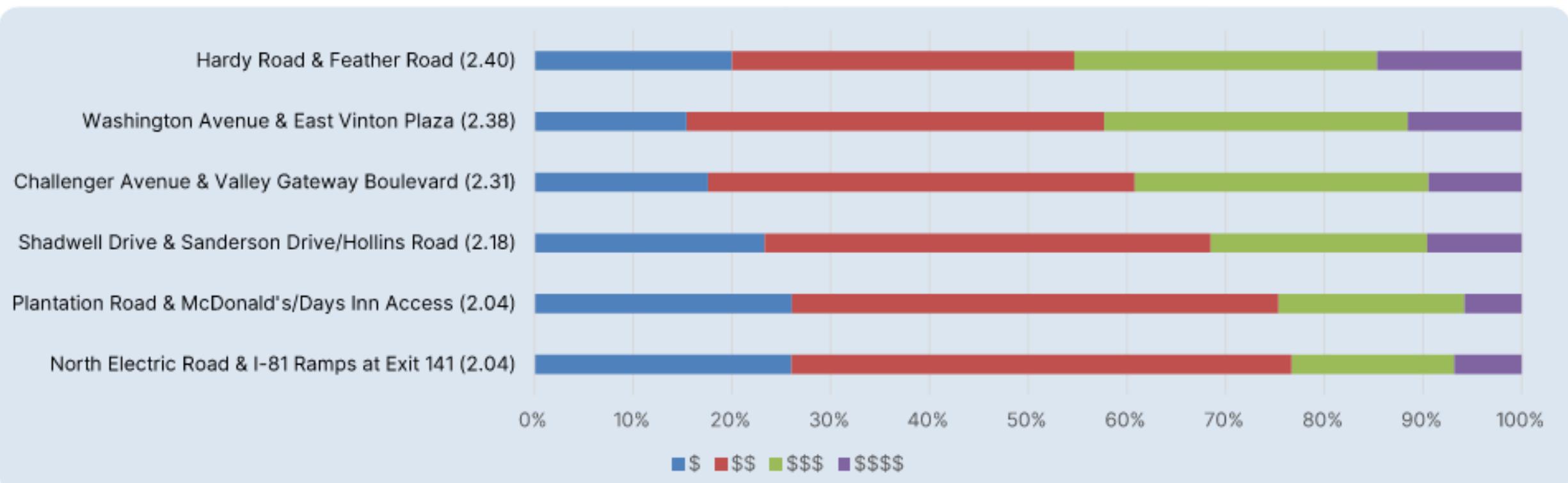
Fall 2024 Meetings

- Thursday, September 5th: Roanoke County (North) at the Hollins Library
- Monday, September 9th: Roanoke County (South) at the South County Library

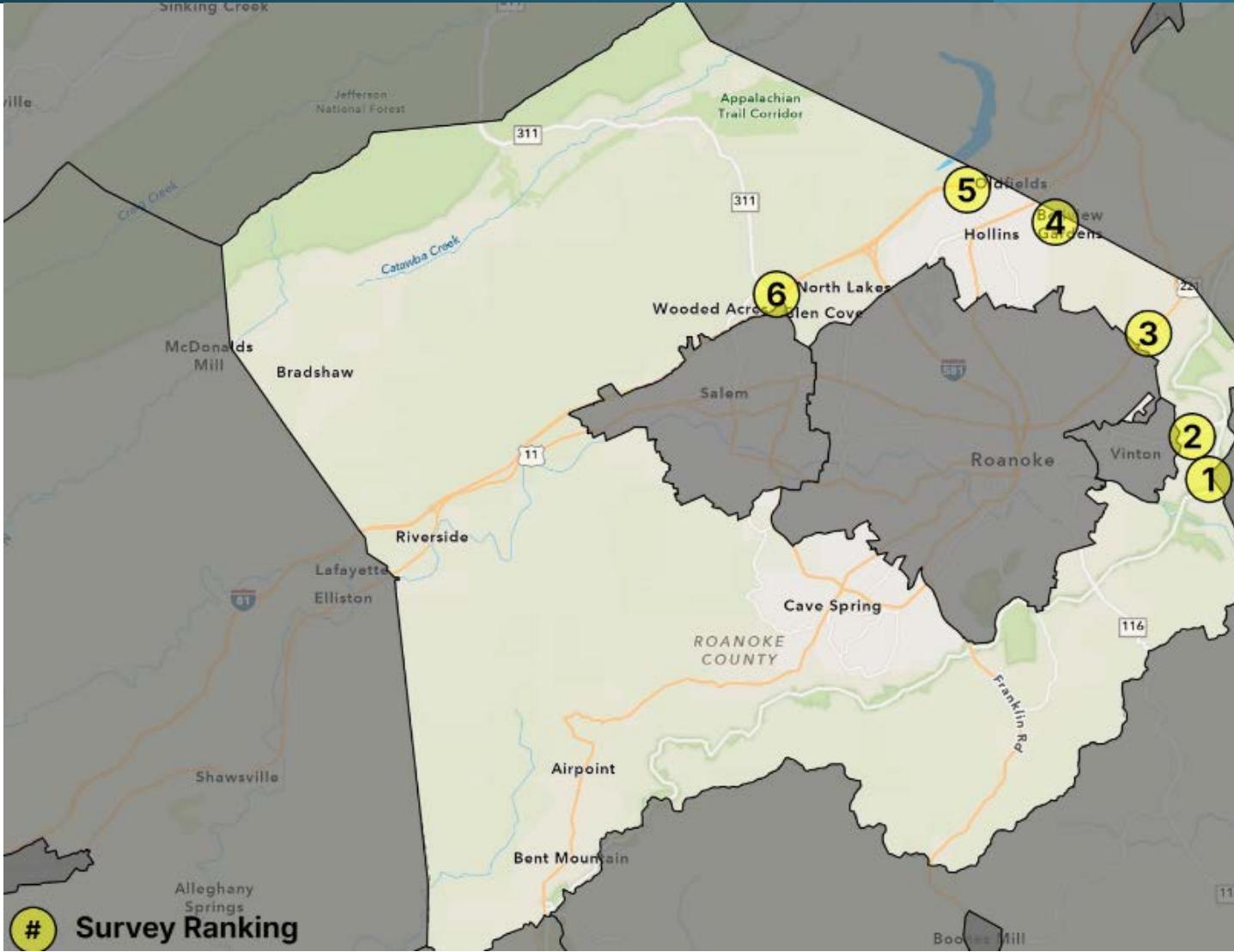
* Includes Spring and Fall survey respondents and meeting attendees, observation app respondents, AGOL Dashboard views, and AGOL StoryMap views

Survey Results - Intersections

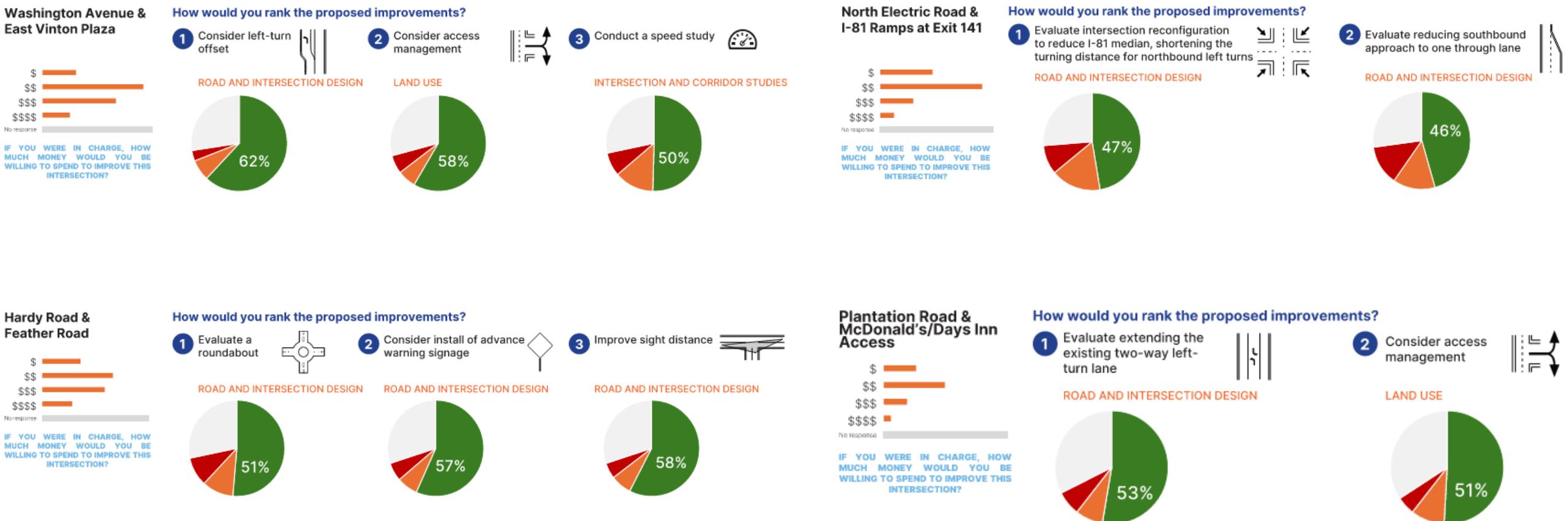
- How much would you spend on each location?



Survey Results – Intersections



Survey Results – Intersections



Survey Results – Intersections

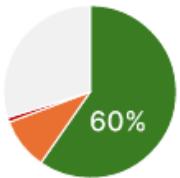
Shadwell Drive & Sanderson Road/ Hollins Road



How would you rank the proposed improvements?

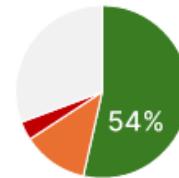
- 1 Improve sight distance

ROAD AND INTERSECTION DESIGN



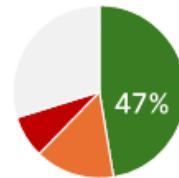
- 2 Consider installation of guardrail at SW corner of Hollins Road

ROAD AND INTERSECTION DESIGN



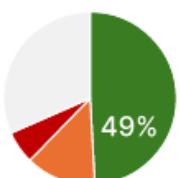
- 3 Conduct a speed study

INTERSECTION AND CORRIDOR STUDIES



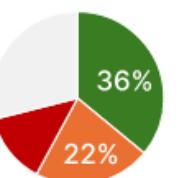
- 4 Evaluate a left-turn lane on Shadwell Drive onto Sanderson Drive

ROAD AND INTERSECTION DESIGN



- 5 Evaluate a peanut roundabout

ROAD AND INTERSECTION DESIGN



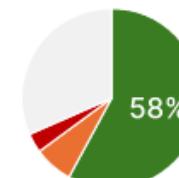
Challenger Avenue & Valley Gateway Boulevard



How would you rank the proposed improvements?

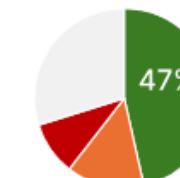
- 1 Review signal timings; potentially longer all-red times

ROAD AND INTERSECTION DESIGN



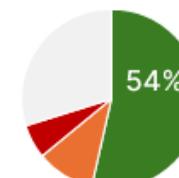
- 2 Consider lowering speed limit from City boundary to this intersection

ROAD AND INTERSECTION DESIGN



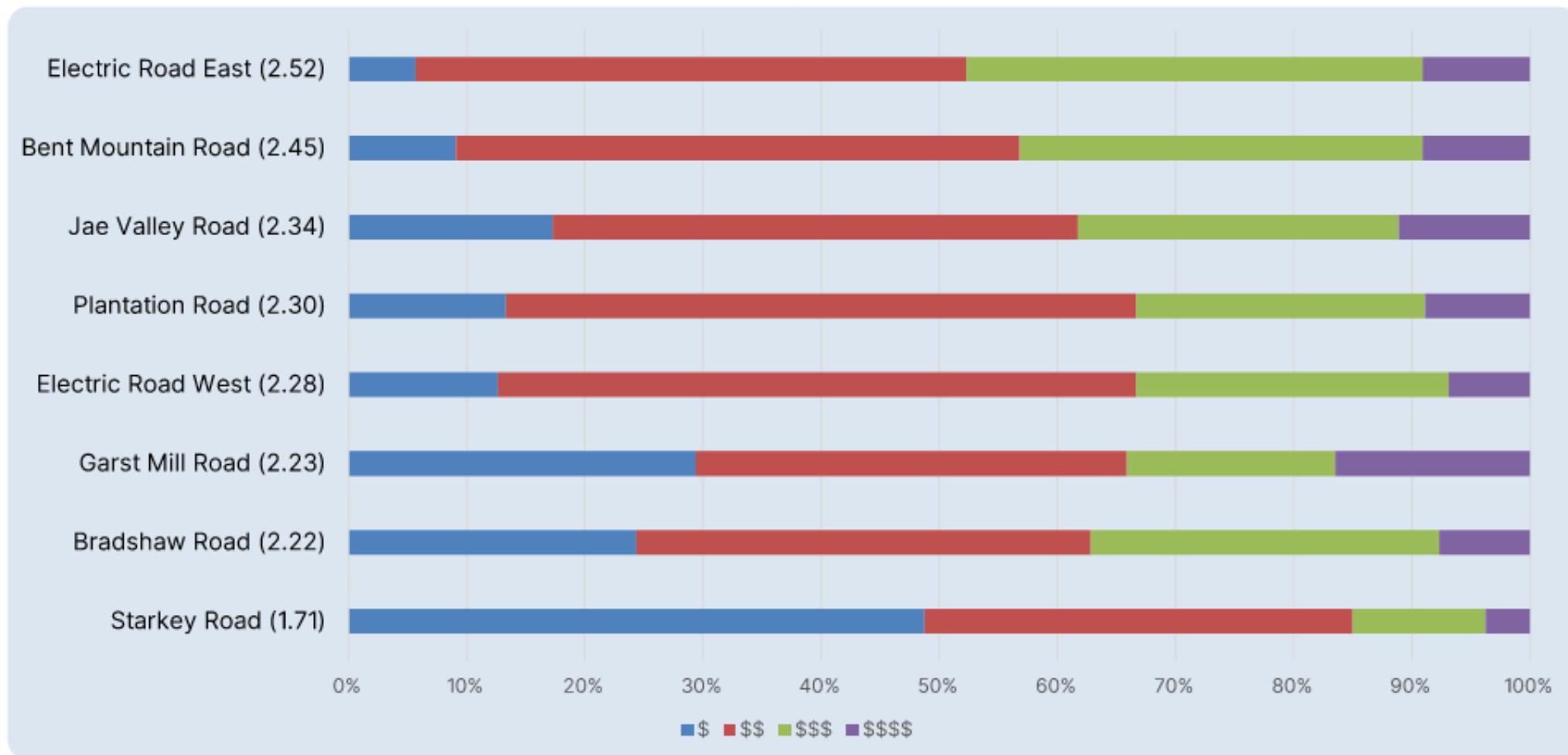
- 3 Evaluate moving existing stop bar and extend existing concrete median closer to intersection

ROAD AND INTERSECTION DESIGN

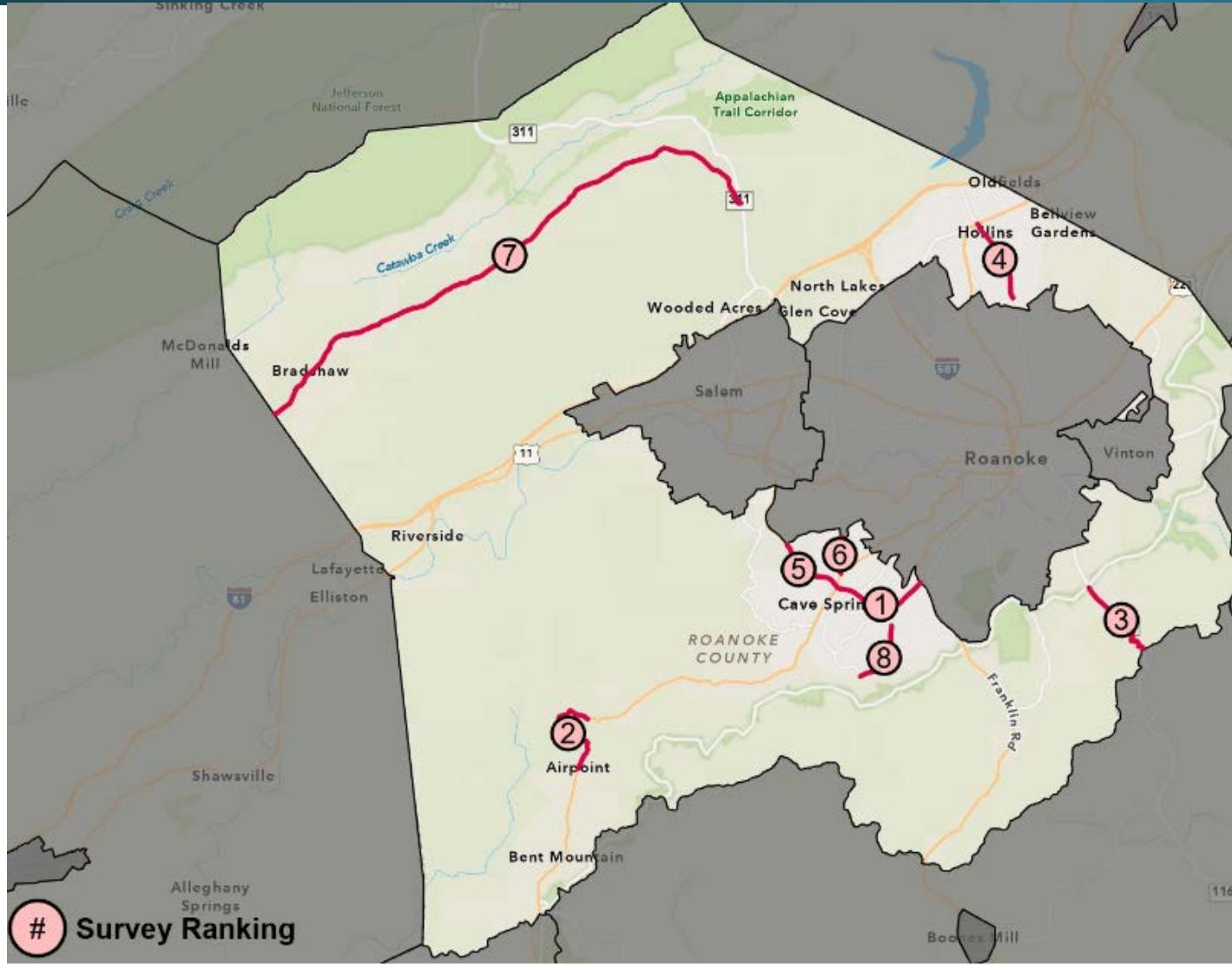


Survey Results – Corridors

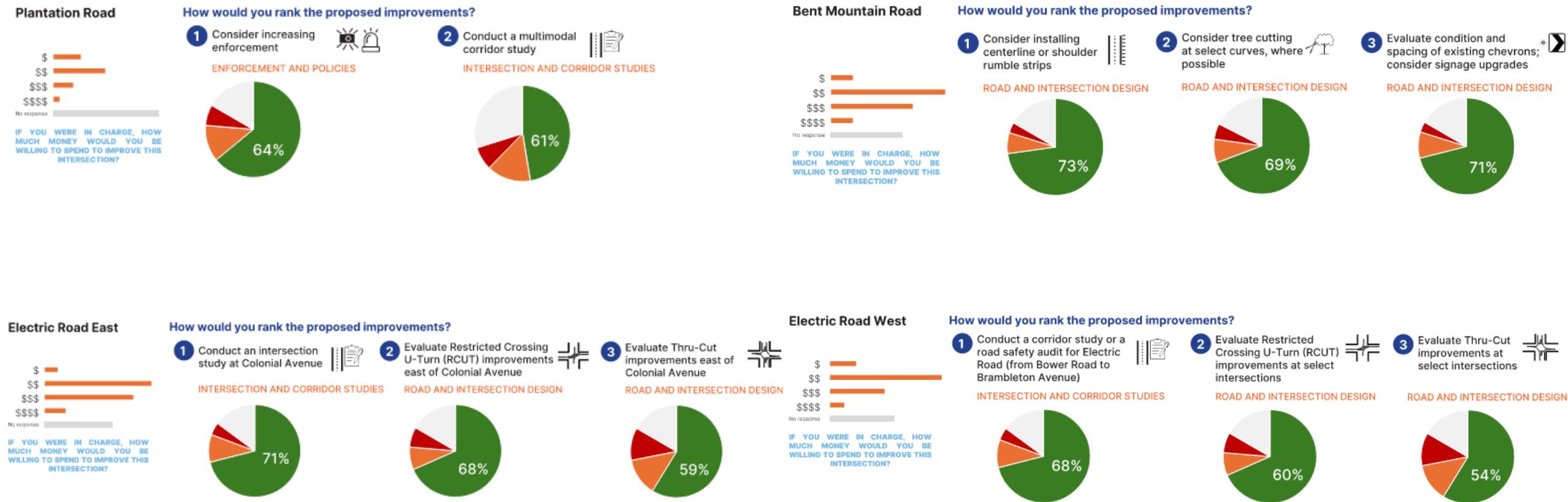
- How much would you spend on each location?



Survey Results – Corridors



Survey Results – Corridors



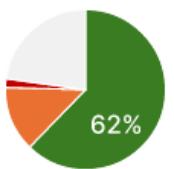
Survey Results – Corridors

Jae Valley Road

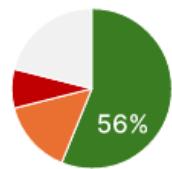


How would you rank the proposed improvements?

- 1 Evaluate condition and spacing of existing chevrons; consider signage upgrades
 - 2 Consider installation of high friction surface treatment (HFST) at select curves



 62%



56%

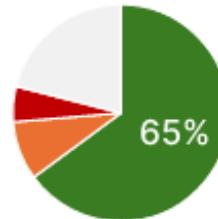
Garst Mill Road



IF YOU WERE IN CHARGE, HOW MUCH MONEY WOULD YOU BE WILLING TO SPEND TO IMPROVE THIS INTERSECTION?

How would you rank the proposed improvements?

- 1 Evaluate and install pedestrian improvements, specifically to the Brambleton Avenue commercial corridor



65%

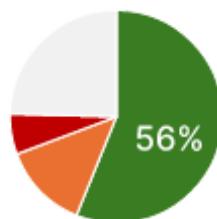
Starkey Road



IF YOU WERE IN CHARGE, HOW MUCH MONEY WOULD YOU BE WILLING TO SPEND TO IMPROVE THIS INTERSECTION?

How would you rank the proposed improvements?

- ## 1 Conduct a multimodal corridor study



56%

Bradshaw Road

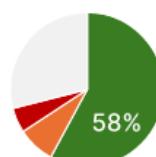


IF YOU WERE IN CHARGE, HOW MUCH MONEY WOULD YOU BE WILLING TO SPEND TO IMPROVE THIS INTERSECTION?

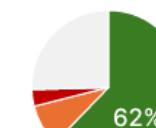
How would you rank the proposed improvements?

- 1 Evaluate potential upgrades to existing advisory speed signage 
 - 2 Consider installing centerline or shoulder rumble strips 
 - 3 Conduct a multimodal corridor study 

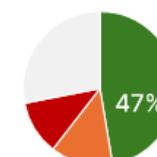
ROAD AND INTERSECTION DESIGN ROAD AND INTERSECTION DESIGN INTERSECTION AND CORRIDOR STUDIES



58%

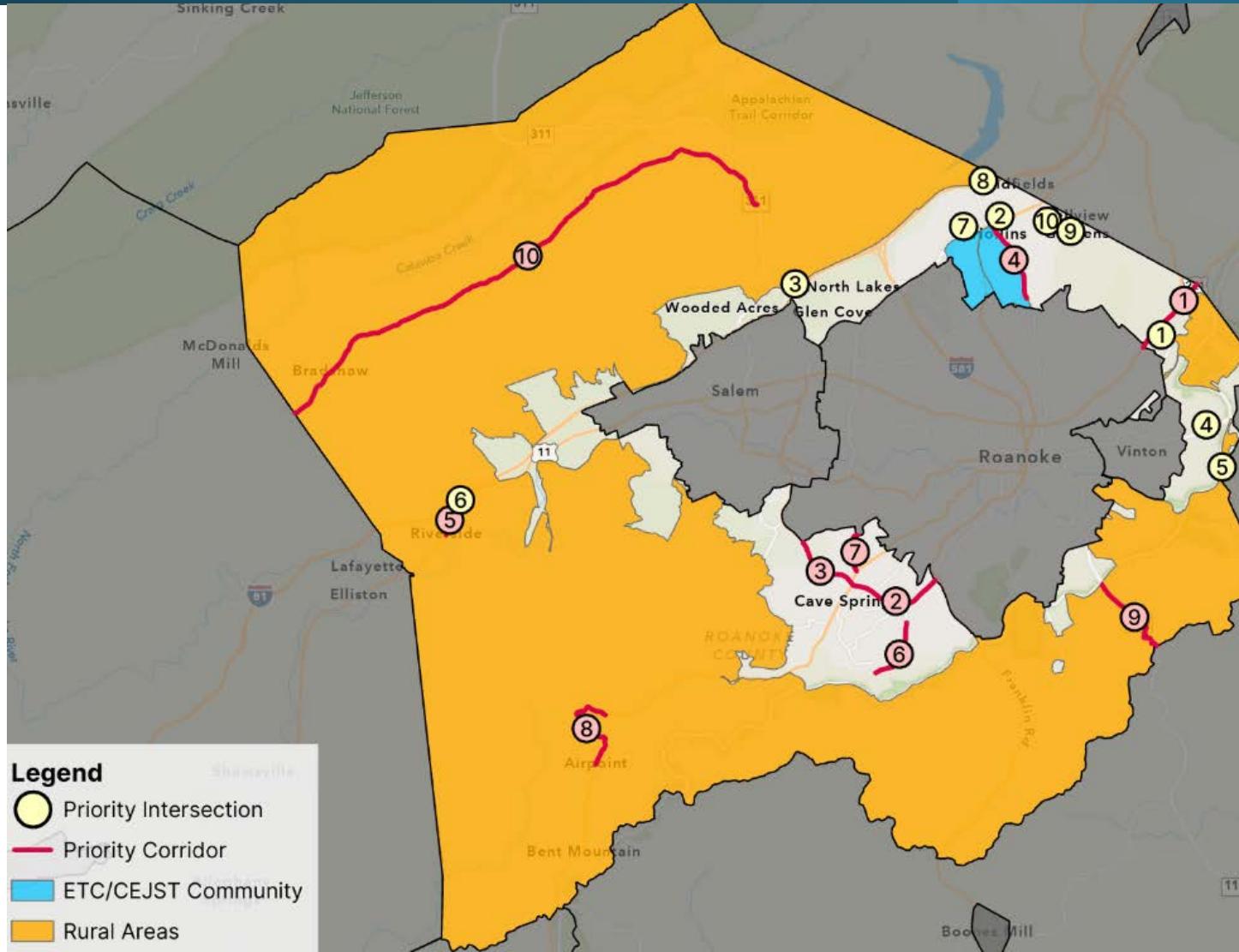


6



7

Equity Analysis



Additional Input Needed

Commitment to Safety

- A commitment to safety is needed through an official public commitment (e.g., resolution, policy, ordinance, etc.) by the governing body related roadway fatalities and serious injuries.
- The commitment must include a goal and timeline for eliminating roadway fatalities and serious injuries achieved through one, or both, of the following:
 1. The target date for achieving zero roadway fatalities and serious injuries; OR
 2. An ambitious percentage reduction of roadway fatalities and serious injuries by a specific date with an eventual goal of eliminating roadway fatalities and serious injuries.

Commitment to Safety

- The Virginia Strategic Highway Safety Plan (VSHSP) has an interim goal of reducing fatalities and serious injuries by 50% by 2045.

The Planning Commission recommends considering adopting a similar goal.

Selection of a Project for Future Application

- FHWA Funding Cycle for 2025 will open approximately March 2025
- Requires 20% funding commitment to receive matching 80% from FHWA
Planning staff requested \$500,000 CIP funding for FY 2026 and \$500,000 for FY 2027 to start accruing a match for a 2025 application. Match funding is needed by the time awarded funding is expended and reimbursement is requested.
- Need to select a project to develop for submission to FHWA considering:
 - Anticipated safety benefit
 - Equity status
 - Estimate and amount of required County match
 - Community support
 - If unsuccessful, eligibility for other funding programs (SMART SCALE, Surface Transportation Block Grant/Carbon Reduction Program, Highway Safety Improvement Program, Transportation Alternatives Program, etc.)

Selection of a Project for Future Application

Project Types

- Areas that need further study (5)
- Small-scale safety improvements, maintenance and signal coordination that can be accomplished by VDOT or City of Roanoke staff in the short term without an application (6)
- Education or Training Campaigns
- Larger projects (5)

Selection of a Project for Future Application

Larger Projects (none are located in Equity areas)

1. Washington Ave. at East Vinton Shopping Plaza Left Turn Offset and Access Management
 - 6 Serious Injuries
 - Anticipated lowest cost
 - Community Ranking: Left Turn Offset – 1/3 (highest), Access Management – 2/3
 - VTrans District Priority Score (Draft 2023 Prioritized Mid-term needs): 2.22 which is highest of the five projects
 - Needs: Construction District Safety Improvement (Very High), Transportation Demand Management (High), Bicycle Access (High), Transit Access (Very High)
2. Route 419 at Exit 141 Intersection/Lane Reconfiguration
 - 5 Serious Injuries
 - Anticipated second lowest cost
 - Community Ranking: Intersection Reconfiguration – 1/3 (highest), Lane Reduction – 2/3
 - VTrans District Priority Score (Draft 2023 Prioritized Mid-term needs): 1.29 which is third out of five projects
 - Needs: Capacity Preservation (Low), Transportation Demand Management (Medium), Bicycle Access (Very High), Transit Access (Very High), Economic Development (Low)

Selection of a Project for Future Application

Larger Projects, Continued (none are located in Equity areas)

3. Hardy Road at Feather Road Roundabout

- 1 Fatality, 5 Serious Injuries
- Anticipated moderate cost compared to other projects
- Community Ranking: Roundabout – 1/3 (highest)
- VTrans District Priority Score (Draft 2023 Prioritized Mid-term needs): 0.71 which is lowest of the five projects
 - Needs: Transportation Demand Management (Low), Bicycle Access (Low), Transit Access (Medium), Construction District Safety Improvement (Low)

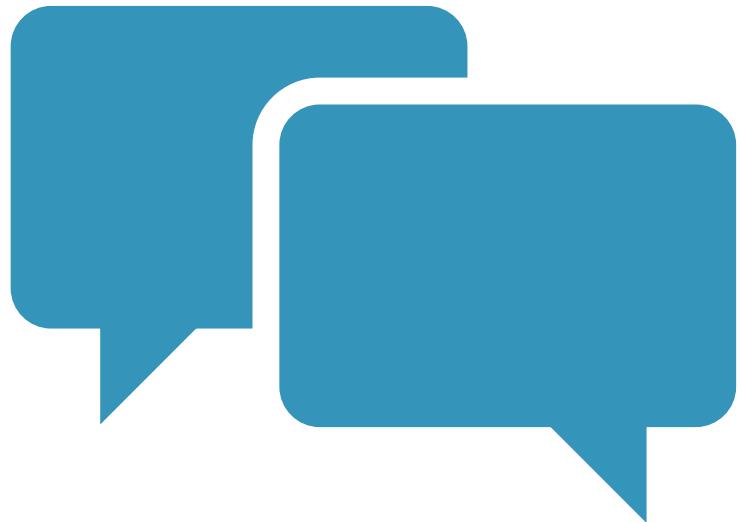
4. Garst Mill Road Pedestrian Improvements

- 1 Fatality, 7 Serious Injuries
- Anticipated second highest cost
- Community Ranking: 1/1
- VTrans District Priority Score (Draft 2023 Prioritized Mid-term needs): 0.92, which is fourth of the five projects
 - Needs: Transportation Demand Management (Low), Pedestrian Access (Low), Bicycle Access (Medium), Transit Access (High)

Selection of a Project for Future Application

Larger Projects, Continued (none are located in Equity areas)

5. Shadwell/Sanderson/Hollins Road Peanut Roundabout OR Left Turn onto Sanderson
 - 4 Serious Injuries
 - Anticipated highest cost
 - Community Ranking: Left Turn onto Sanderson – 4/5, Peanut Roundabout – 5/5 (last)
 - VTrans District Priority Score (Draft 2023 Prioritized Mid-term needs): 1.37, which is second of the five projects
 - Needs: Transportation Demand Management (Low), Bicycle Access (Medium), Transit Access (High), Construction District Safety Improvement (High)



Questions and
Discussion