

Roanoke County

Safe Streets and Roads for All

Comprehensive Safety Action Plan

Prepared by Timmons Group
Fall 2024



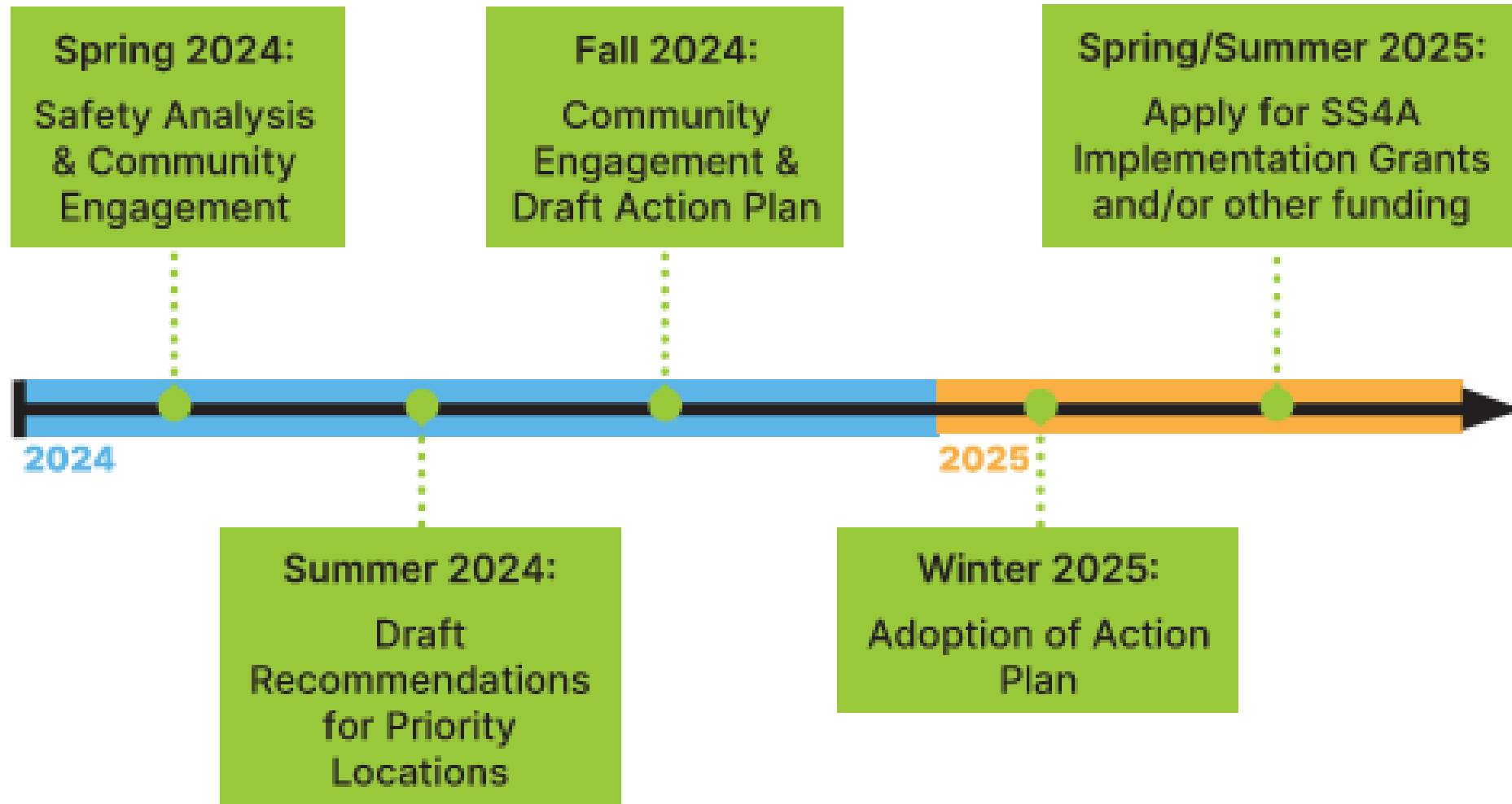
Planning Commission Update
December 3, 2024



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)

MOST COMMON CRASH TYPES

Fatal and Serious Injury Crashes Only
Roanoke County (2015-2023)

Fixed Object
Off-Road



37%

Angle



27%

Rear End



13%

Head On



6%

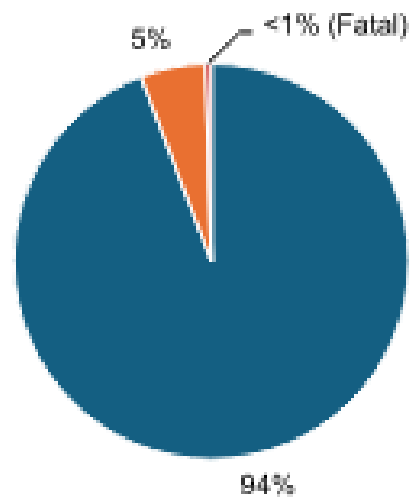
Pedestrian



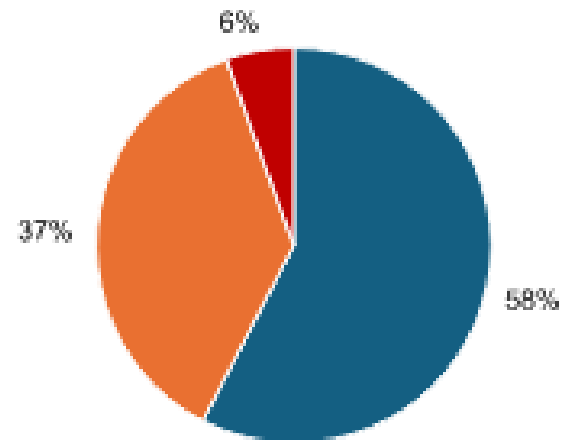
5%

Crash Summary

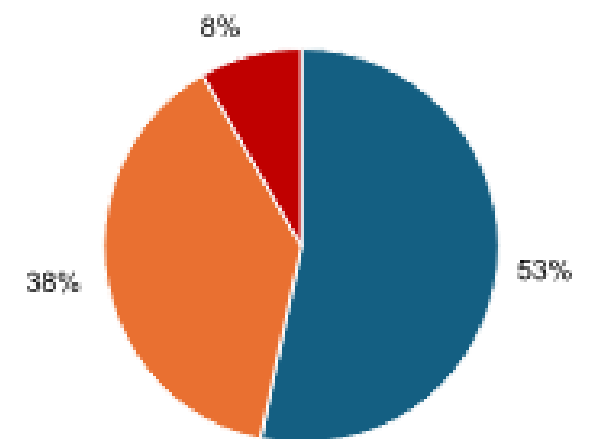
Crash Severity of Motorists



Crash Severity of Motorcyclists

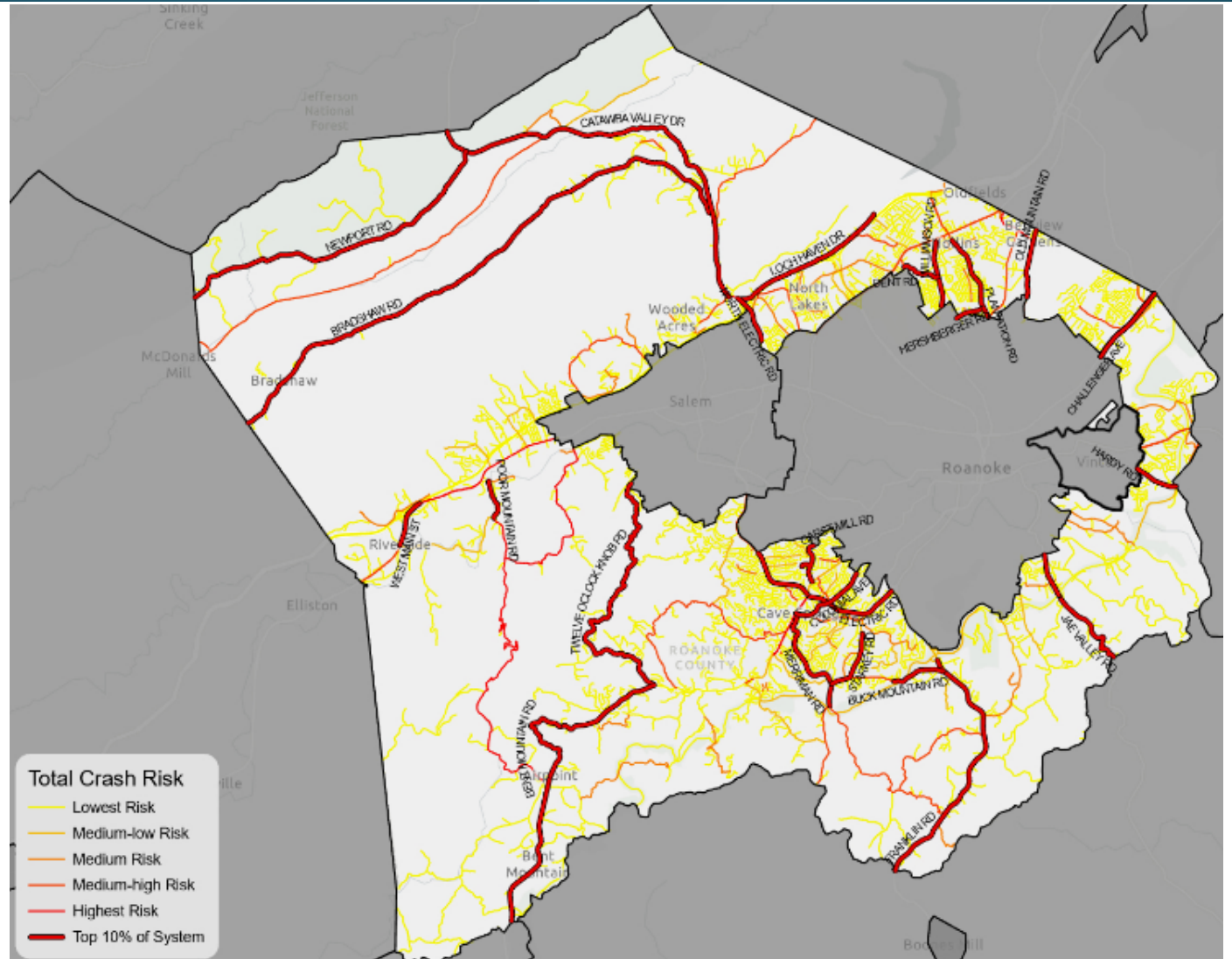
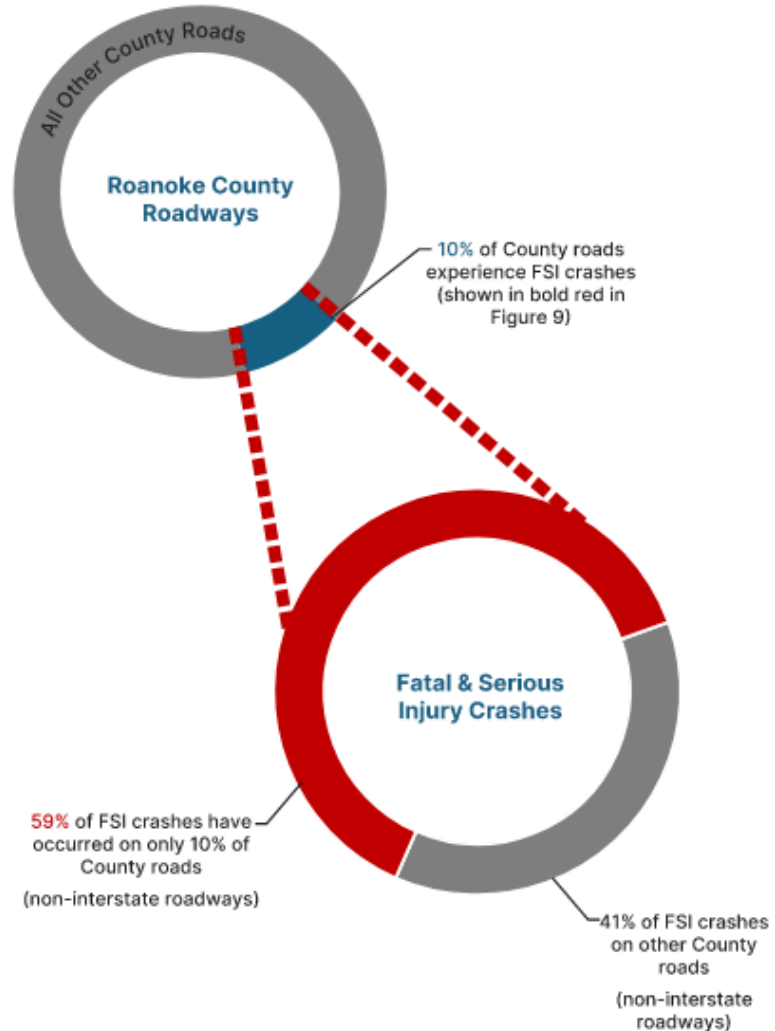


Crash Severity of Bicyclists & Pedestrians



-  Serious Injuries
-  Fatalities
-  All Other Crash Types

High Injury Network



Roanoke County Top 10 Corridors

Route	From	To	Serious Injury Crashes	Fatal Crashes	Planned Improvements
Challenger Avenue	Roanoke City Line	Botetourt County Line	29	4	Funded SMART SCALE improvements at West Ruritan Road, Carson Road, East Ruritan Road/Bonsack Road, Huntridge Road and Cloverdale Road intersections
Electric Road	Brambleton Avenue	Roanoke City Line	25	1	Funded improvements include a Diverging Diamond Interchange at Route 220, intersection improvements between Route 220 & Starkey Road, widening bicycle lanes and sidewalks between Ogden Road & Starkey Road
Electric Road	Brambleton Avenue	Glen Heather Drive	17	1	Pedestrian improvements funded at Postal Drive & Brambleton Avenue intersections; RCUT funded at Glen Heather Drive & Stoneybrook Drive
Plantation Road	Williamson Road	Hershberger Road	15	2	Currently conducting Office of Intermodal Planning & Investment Project Pipeline Study, to be used for Summer 2024 SMART SCALE application to improve the Williamson Road & Plantation Road intersection
West Main Street	West River Road	Pleasant Run Drive	13	1	Currently conducting Office of Intermodal Planning & Investment Project Pipeline Study for a peanut roundabout, to be used for Summer 2024 SMART SCALE application
Bent Mountain Road	Back Creek Orchard Road	Tinsley Lane	11	1	
Bradshaw Road	Catawba Valley Drive	Montgomery County Line	10	2	
Jae Valley Road	Blue Ridge Parkway	Franklin County Line	10	1	
Garst Mill Road	Brambleton Avenue	Roanoke City Line	7	1	
Starkey Road	Benois Road	Merriman Road	7	0	Construction of new roundabout at Starkey Road & Buck Mountain Road intersection nearing completion

Bent Mountain Road
3 miles from Back Creek Orchard Road to Tinsley Lane

Bradshaw Road
13.4 miles from Catawba Valley Drive to Montgomery County Line

West Main Street
1.4 miles from West River Road to Pleasant Run Drive

Electric Road
2 miles from Brambleton Avenue to Glen Heather Drive

Garst Mill Road
1.5 miles from Brambleton Avenue to Roanoke City Line

Electric Road
2.8 miles from Brambleton Avenue to Roanoke City Line

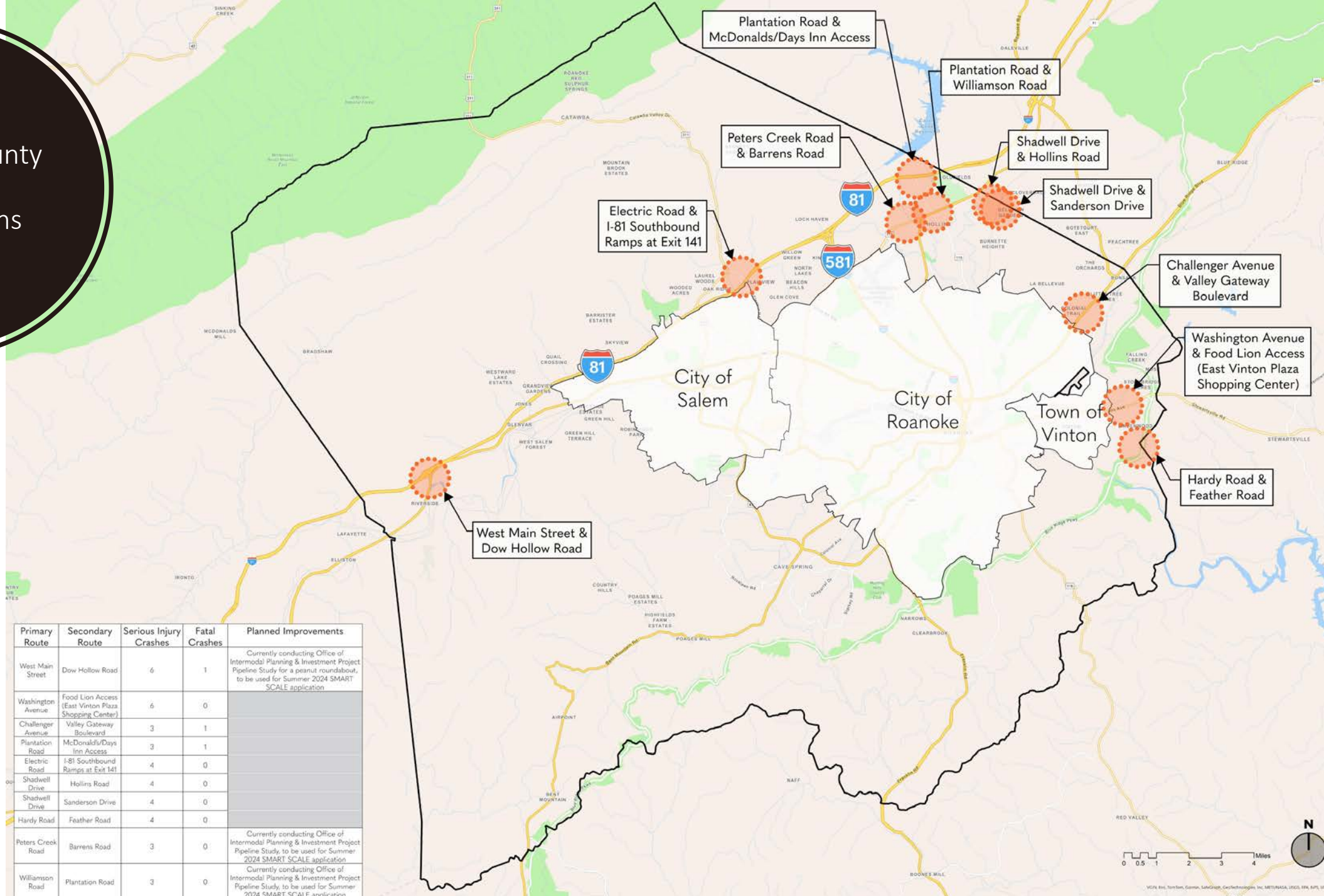
Starkey Road
1.9 miles from Benois Road to Merriman Road

Jae Valley Road
2.8 miles from Blue Ridge Parkway to Franklin County Line

Challenger Avenue
2.4 miles from Roanoke City Line to Botetourt County Line

Plantation Road
2.2 miles from Williamson Road to Hershberger Road

Roanoke County Top 10 Intersections



Community Engagement

Community Meetings



235

survey
responses
recorded

75

total attendees
at in-person
meetings

**Over
1,000**

total community
members
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

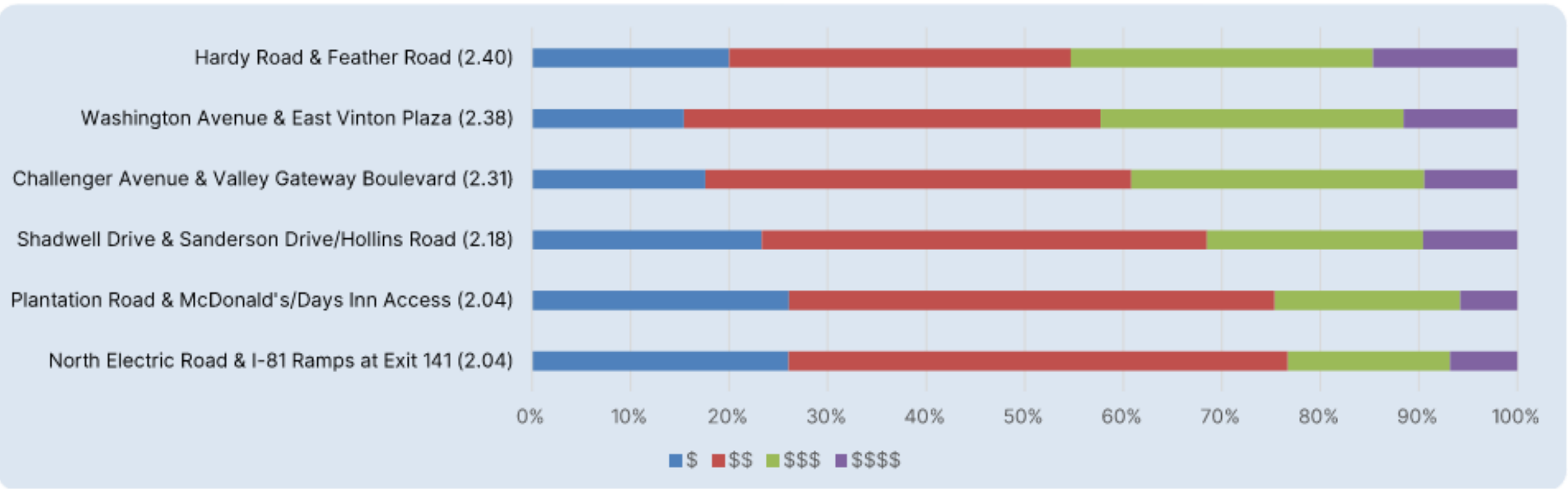
Fall 2024 Meetings

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

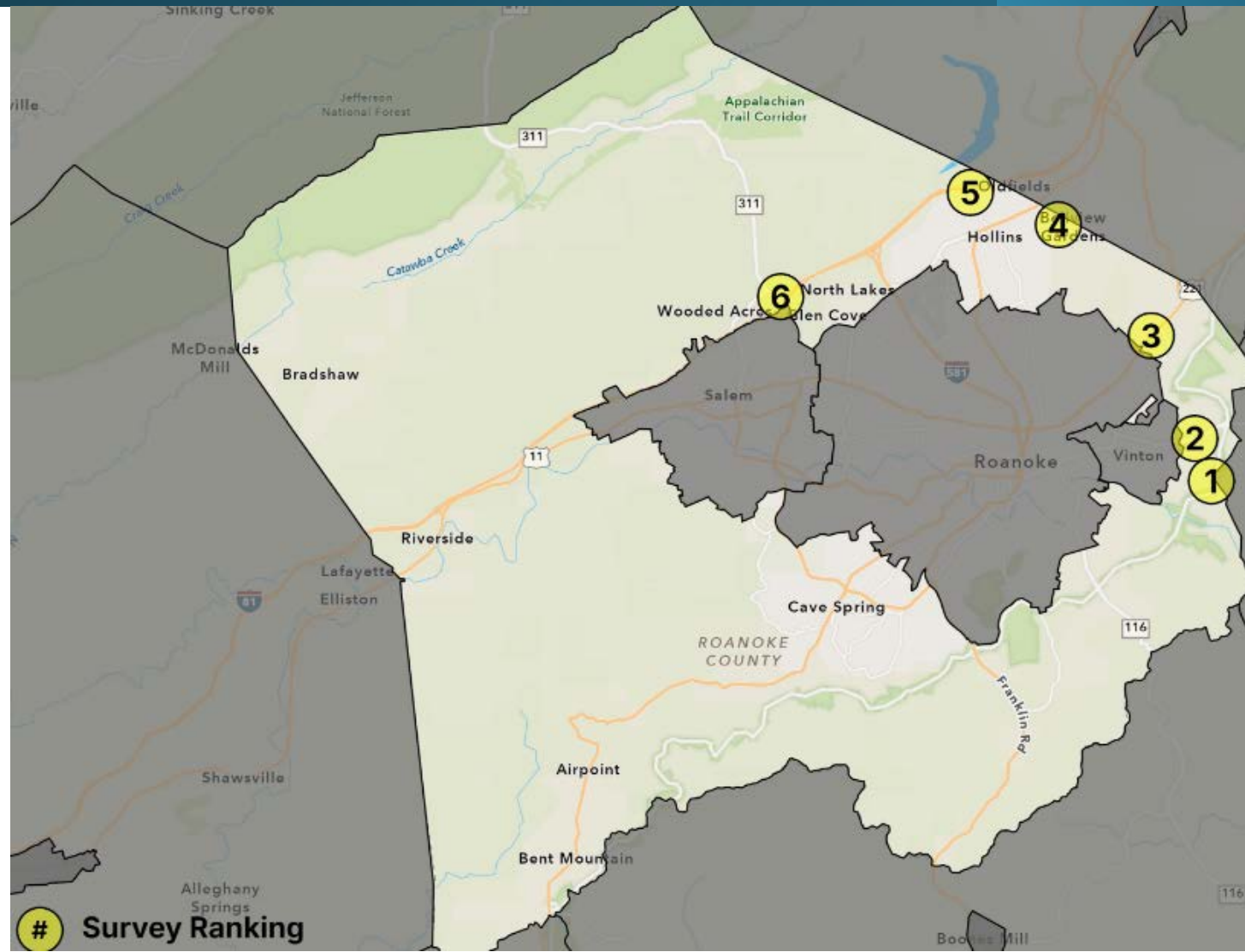
* Includes Spring and Fall survey respondents and meeting attendees, observation app respondents, AGOL Dashboard views, and AGOL StoryMap views

Survey Results – Intersections

- How much would you spend on each location?



Survey Results – Intersections



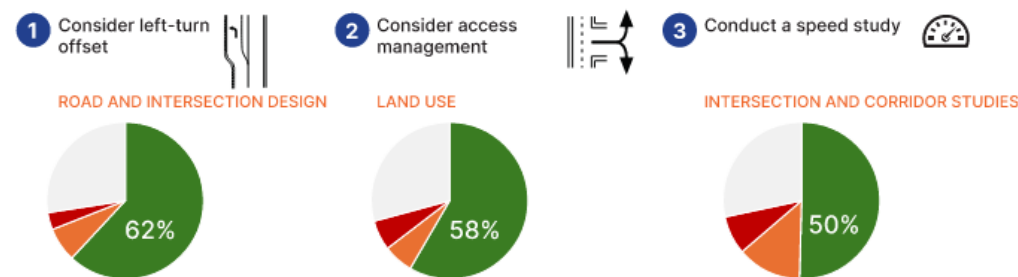
Survey Results – Intersections

Washington Avenue & East Vinton Plaza



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?



North Electric Road & I-81 Ramps at Exit 141



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?

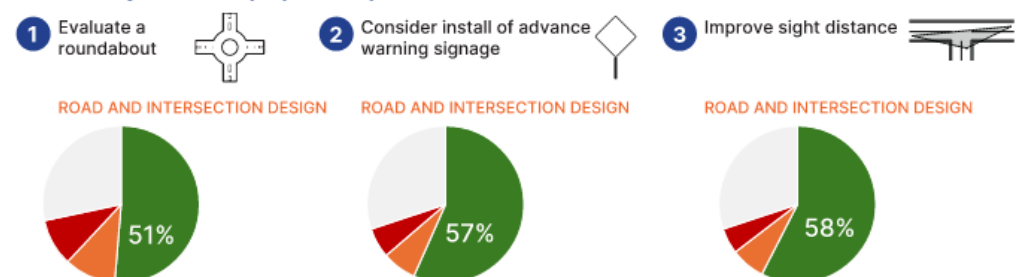


Hardy Road & Feather Road



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?

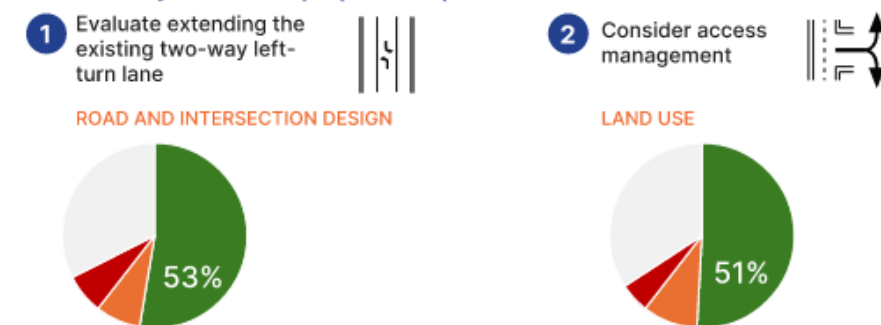


Plantation Road & McDonald's/Days Inn Access



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?



Survey Results – Intersections

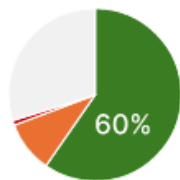
Shadwell Drive & Sanderson Road/Hollins Road



How would you rank the proposed improvements?

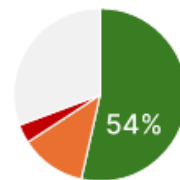
- 1 Improve sight distance

ROAD AND INTERSECTION DESIGN



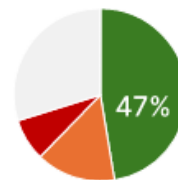
- 2 Consider installation of guardrail at SW corner of Hollins Road

ROAD AND INTERSECTION DESIGN



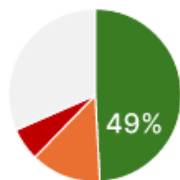
- 3 Conduct a speed study

INTERSECTION AND CORRIDOR STUDIES



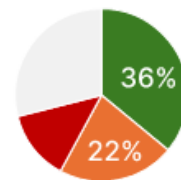
- 4 Evaluate a left-turn lane on Shadwell Drive onto Sanderson Drive

ROAD AND INTERSECTION DESIGN



- 5 Evaluate a peanut roundabout

ROAD AND INTERSECTION DESIGN



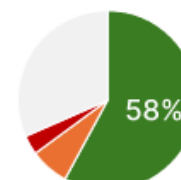
Challenger Avenue & Valley Gateway Boulevard



How would you rank the proposed improvements?

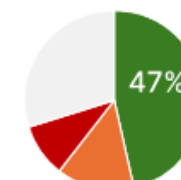
- 1 Review signal timings; potentially longer all-red times

ROAD AND INTERSECTION DESIGN



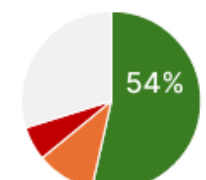
- 2 Consider lowering speed limit from City boundary to this intersection

ROAD AND INTERSECTION DESIGN



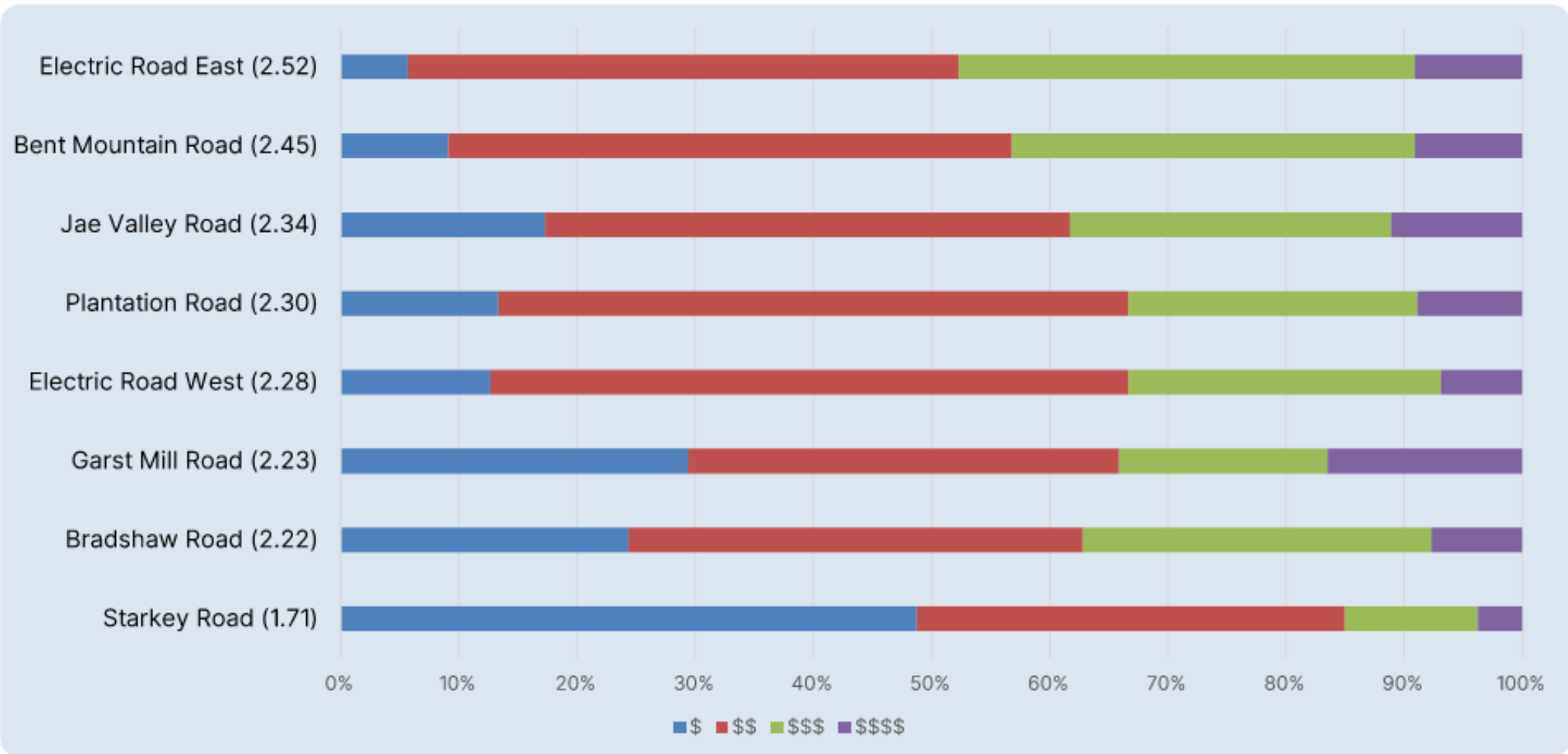
- 3 Evaluate moving existing stop bar and extend existing concrete median closer to intersection

ROAD AND INTERSECTION DESIGN

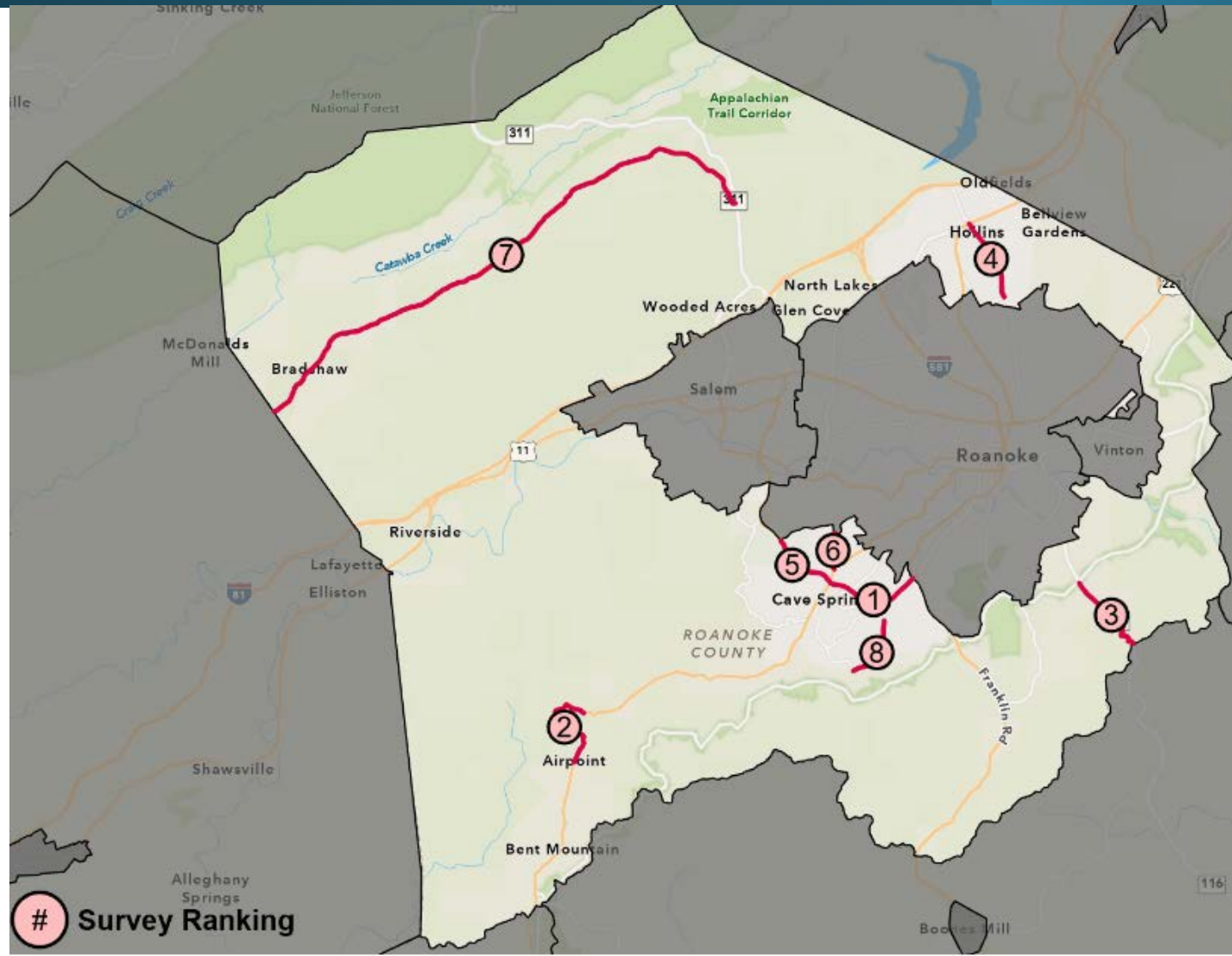


Survey Results – Corridors

- How much would you spend on each location?



Survey Results – Corridors



Survey Results – Corridors

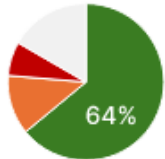
Plantation Road



How would you rank the proposed improvements?

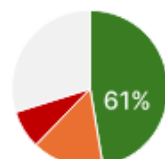
- 1 Consider increasing enforcement

ENFORCEMENT AND POLICIES



- 2 Conduct a multimodal corridor study

INTERSECTION AND CORRIDOR STUDIES



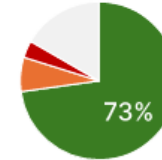
Bent Mountain Road



How would you rank the proposed improvements?

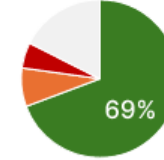
- 1 Consider installing centerline or shoulder rumble strips

ROAD AND INTERSECTION DESIGN



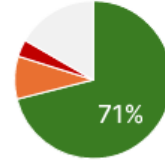
- 2 Consider tree cutting at select curves, where possible

ROAD AND INTERSECTION DESIGN



- 3 Evaluate condition and spacing of existing chevrons; consider signage upgrades

ROAD AND INTERSECTION DESIGN



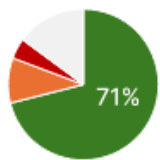
Electric Road East



How would you rank the proposed improvements?

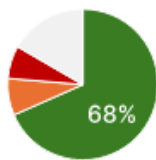
- 1 Conduct an intersection study at Colonial Avenue

INTERSECTION AND CORRIDOR STUDIES



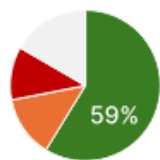
- 2 Evaluate Restricted Crossing U-Turn (RCUT) improvements east of Colonial Avenue

ROAD AND INTERSECTION DESIGN



- 3 Evaluate Thru-Cut improvements east of Colonial Avenue

ROAD AND INTERSECTION DESIGN



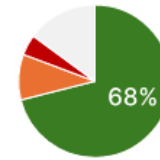
Electric Road West



How would you rank the proposed improvements?

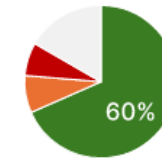
- 1 Conduct a corridor study or a road safety audit for Electric Road (from Bower Road to Brambleton Avenue)

INTERSECTION AND CORRIDOR STUDIES



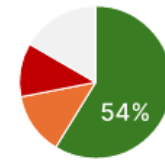
- 2 Evaluate Restricted Crossing U-Turn (RCUT) improvements at select intersections

ROAD AND INTERSECTION DESIGN



- 3 Evaluate Thru-Cut improvements at select intersections

ROAD AND INTERSECTION DESIGN



Survey Results – Corridors

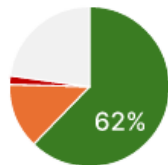
Jae Valley Road

How would you rank the proposed improvements?

- 1 Evaluate condition and spacing of existing chevrons; consider signage upgrades



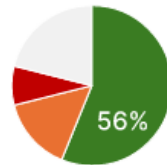
ROAD AND INTERSECTION DESIGN



- 2 Consider installation of high friction surface treatment (HFST) at select curves



ROAD AND INTERSECTION DESIGN



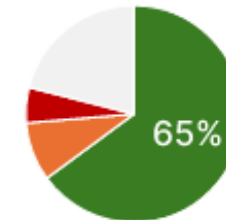
Garst Mill Road

How would you rank the proposed improvements?

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



INTERSECTION AND CORRIDOR STUDIES



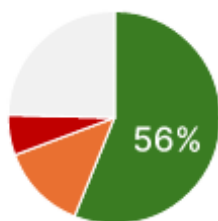
Starkey Road

How would you rank the proposed improvements?

- 1 Conduct a multimodal corridor study



ROAD AND INTERSECTION DESIGN



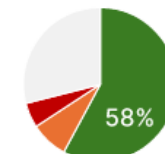
Bradshaw Road

How would you rank the proposed improvements?

- 1 Evaluate potential upgrades to existing advisory speed signage



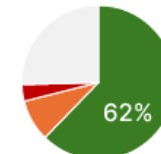
ROAD AND INTERSECTION DESIGN



- 2 Consider installing centerline or shoulder rumble strips



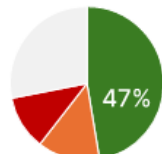
ROAD AND INTERSECTION DESIGN



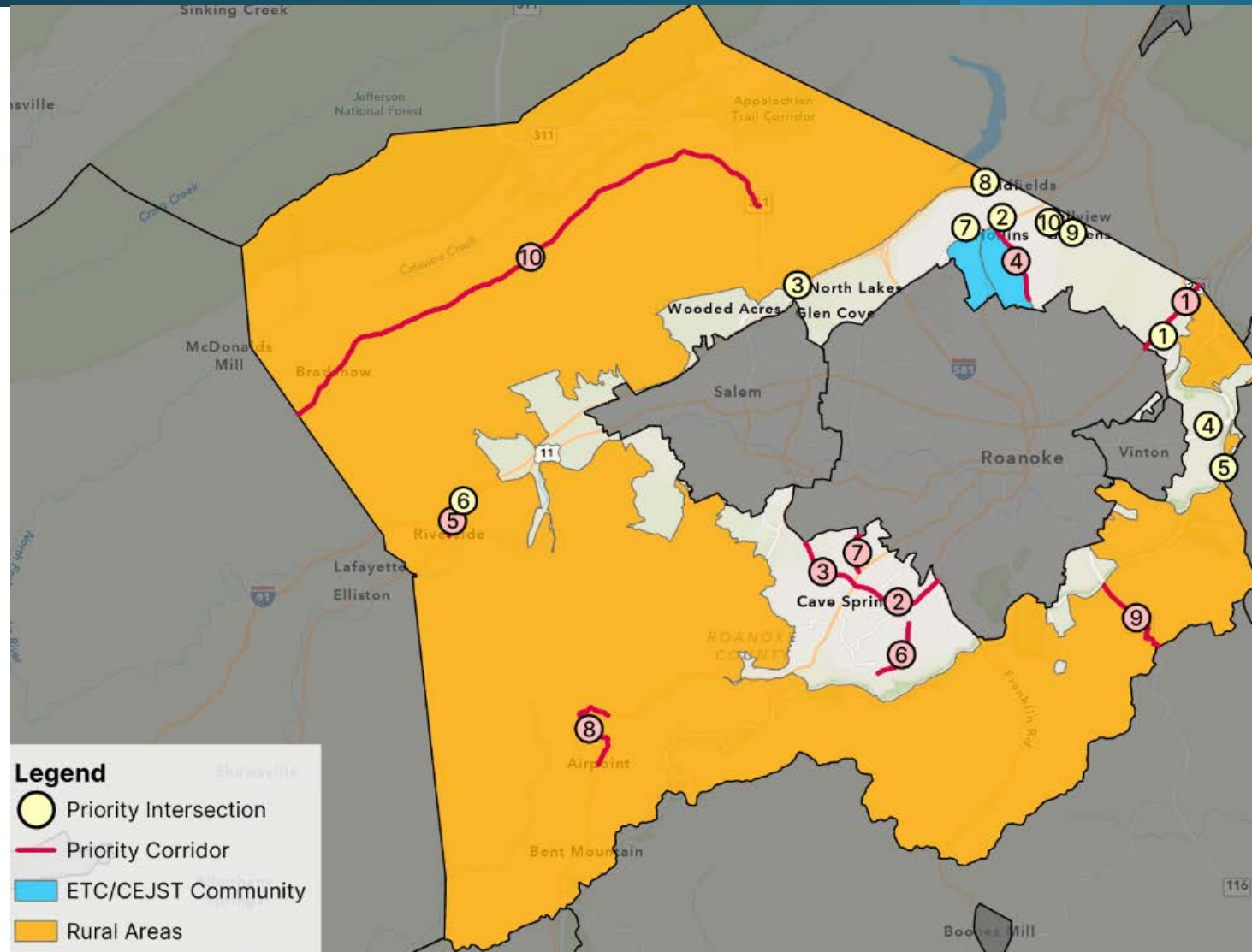
- 3 Conduct a multimodal corridor study



INTERSECTION AND CORRIDOR STUDIES



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.
- Henrico County is setting a goal of reduction of fatalities and serious injuries by 50% by 2035.

Selection of Project Funding

- FHWA Funding Cycle for 2025 will open approximately March 2025
- Which of the top corridors or intersections should be selected for further application readiness review and submission to FHWA for funding?
- Requires 20% funding commitment to receive matching 80% from FHWA



Questions and
Discussion