



Board of Supervisors
Major Thoroughfare Plan Update
May 10, 2023

Major Thoroughfare Plan



The Major Thoroughfare Plan identifies roadway classifications and facilities needed to meet the projected long-term transportation needs of the County.

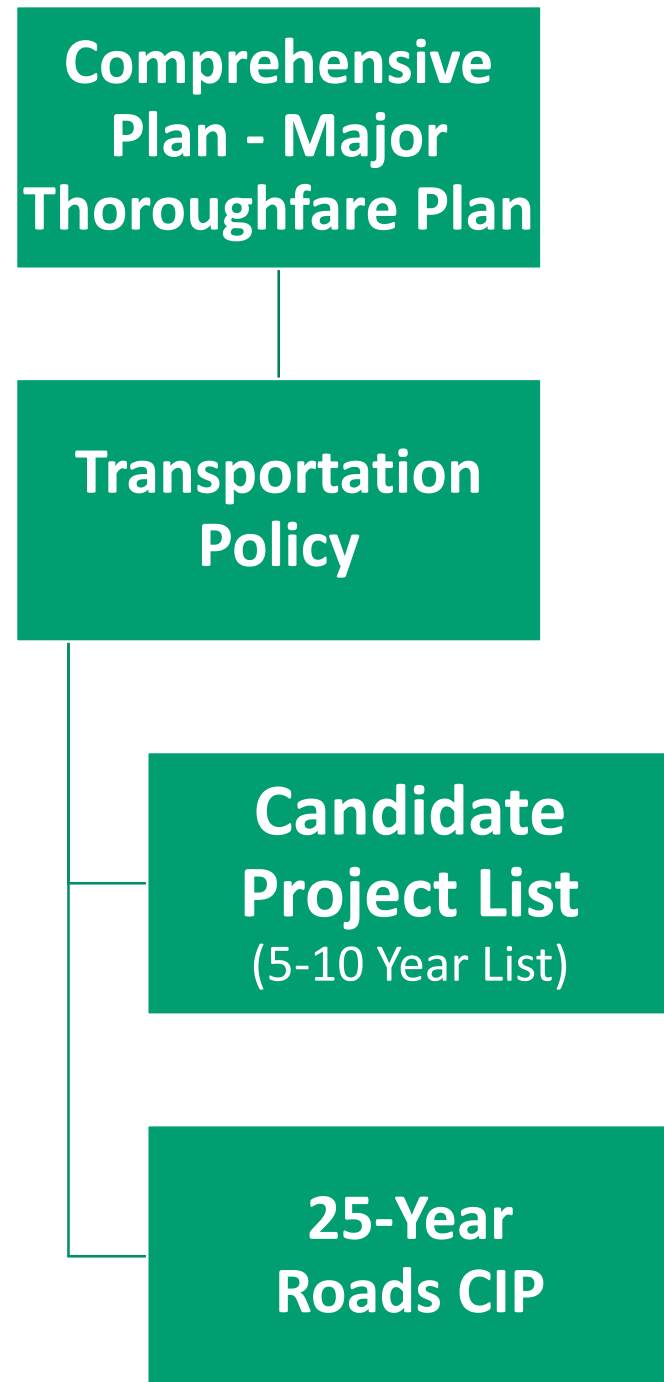
Appropriate-Sized Facilities to Meet Needs: The aim is to develop appropriately-sized facilities to serve the needs of the community as development occurs.

Existing Facilities + New Roadways: It looks at possible improvements to existing facilities as well as potential alignments for future roadways.

High-Level/Corridor-Level Planning: It is a high-level plan that analyzes potential traffic generation based on full build out of the General Land Use Plan to identify future transportation needs. It is not a list of construction projects, but identifies corridors where future improvements may be needed.

County Transportation Policies

How do they fit together?



Agenda



- Introductions + Scope
- Methodology and Results
 - Roadway Classifications
 - Safety
 - Existing + Future Traffic Operations
 - Active Living
- Questions and Discussion

Scope of Work



- Scope of Work
 - Existing Conditions Assessment
 - Transportation Policy, Program, and Document Review
 - Data Analysis
 - Future Conditions Assessment
 - Roadway Classifications (including typical cross-sections)
 - Roadway Network
 - Active Living

Roadway Classifications



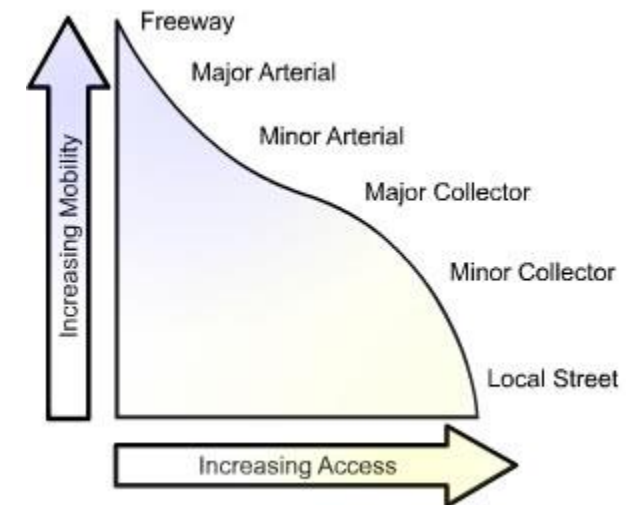
- Categorizes roadways based on the type of service or function
- Differentiated based on level of access and designated right-of-way
- Majority of roads align between VDOT and Hanover County

VDOT

- Interstate
- Other freeways and expressways
- Other principal arterial
- Minor arterial
- Major collector
- Minor collector

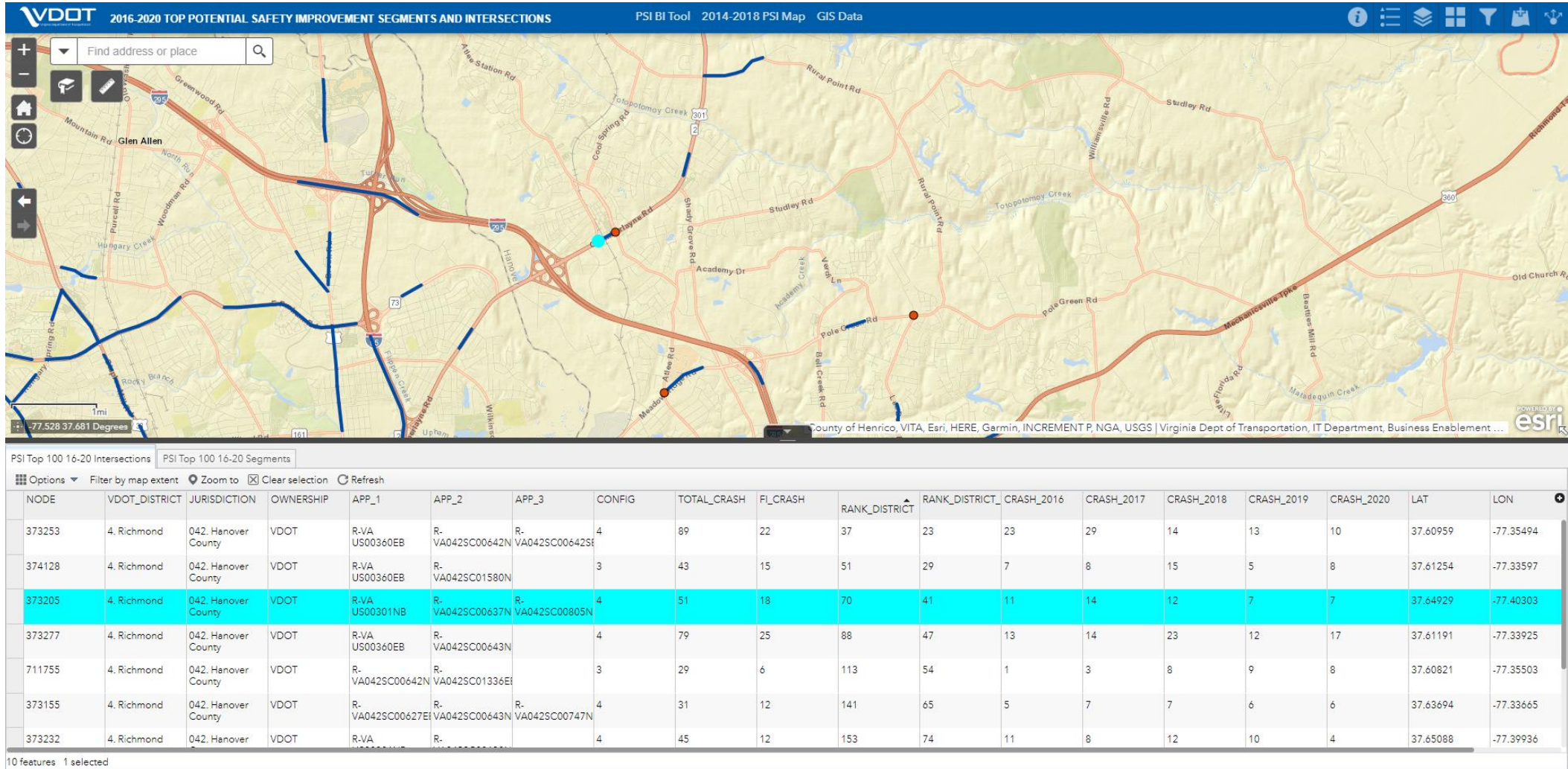
Hanover County

- Interstate
- Major arterial
- Minor arterial
- Major collector
- Minor collector



Safety

Potential Safety Improvement (PSI) Locations: VDOT-Identified Intersections with Safety Issues



Safety

Top 10 PSI Intersections (Improvements Planned for 5 Currently)



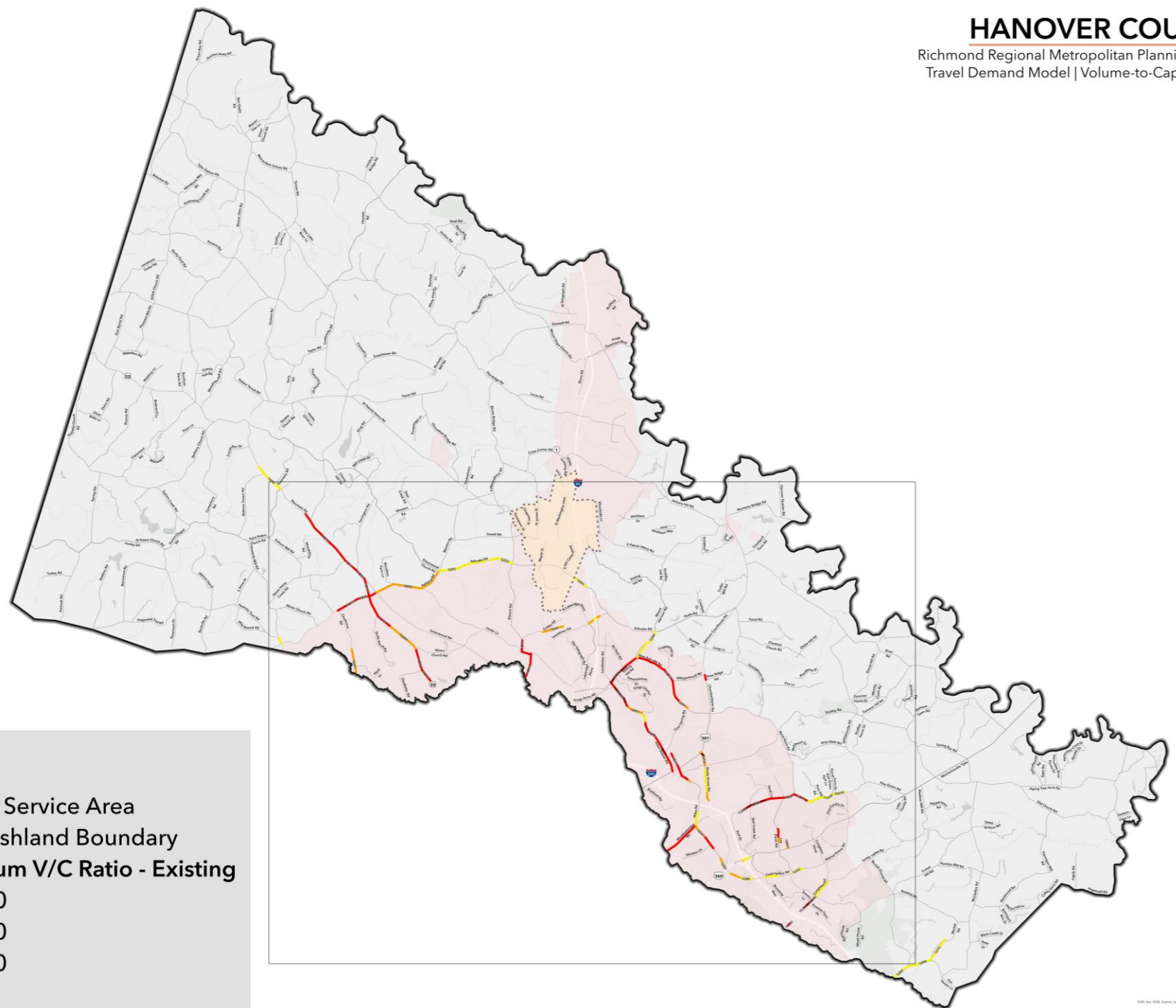
Intersection	Total Crashes	Number of Fatal and Injury Crashes	Planned Improvement
US 360 EB west of Bell Creek Rd	89	22	<i>Previous US 360 at Bell Creek Rd intersection</i>
US 360 & Lee Davis Rd	79	25	Route 360 / Lee Davis Road Widening
US 360 & Bell Creek Rd	64	16	Recent Improvements Completed
Chamberlayne Rd & Atlee Station Rd	51	18	Route 301 Additional 3rd Southbound Lane
Chamberlayne Rd & Atlee Rd	45	12	Route 301 Additional 3rd Southbound Lane
US 360 & Sujen Court	43	15	Route 360 / Lee Davis Road Widening
Meadowbridge Rd & Atlee Rd	40	11	
Pole Green Rd & Lee Davis Rd	31	12	Pole Green Road Widening 60% Plans
Bell Creek Rd & Battle Hill Dr	29	6	
W Patrick Henry Rd & Scotchtown Rd	25	16	

Existing Traffic Operations



- Methodology
 - Utilized RRTPO travel demand model (TDM)
 - Compared the existing TDM network to Hanover County
 - Model compares Average Daily Traffic (ADT) volumes and roadway capacity
 - Result is a volume-to-capacity (V/C) ratio
- Takeaways
 - Existing conditions are from 2017
 - TDM results are good for corridors and high-level results
 - Higher traffic volumes are concentrated in the suburban service area

Existing Traffic Operations



Legend

Suburban Service Area

Town of Ashland Boundary

Daily Maximum V/C Ratio - Existing

0.80 - 0.90

0.90 - 1.00

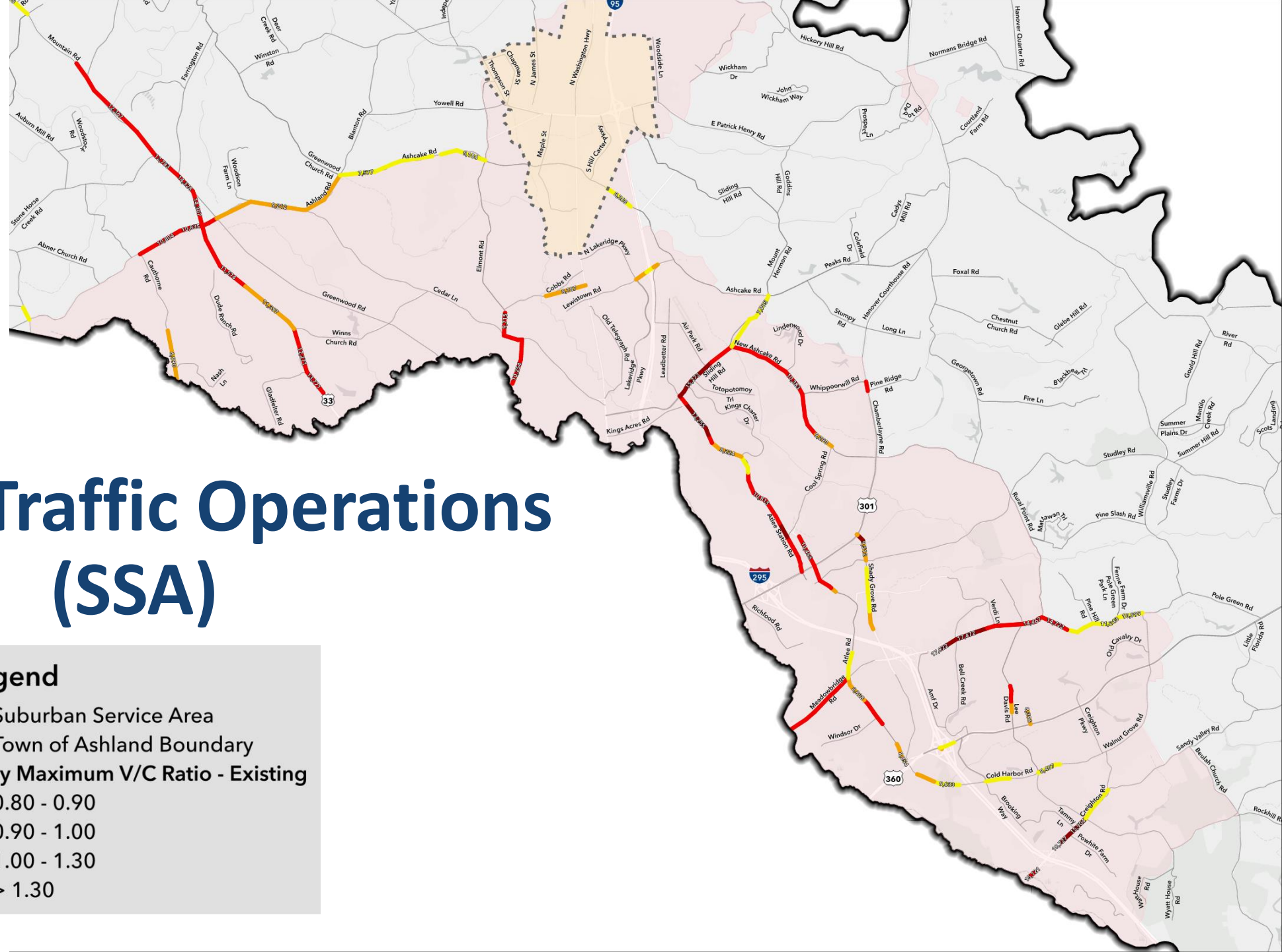
1.00 - 1.30

> 1.30

Existing Traffic Operations (SSA)

Legend

- Suburban Service Area
- Town of Ashland Boundary
- Daily Maximum V/C Ratio - Existing
 - 0.80 - 0.90
 - 0.90 - 1.00
 - 1.00 - 1.30
 - > 1.30





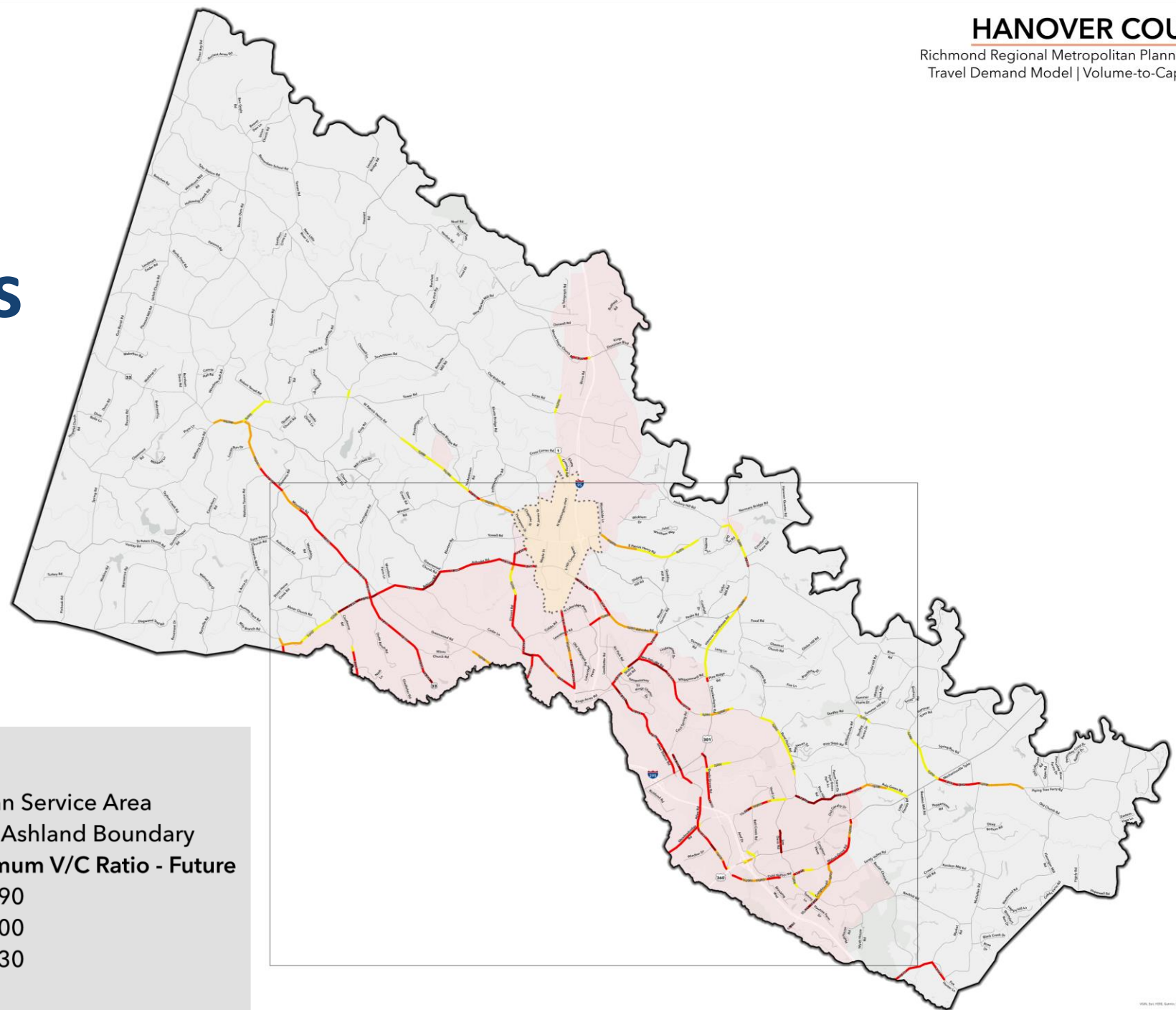
Future Conditions Assessment

Future Traffic Operations



- Methodology
 - Similar to existing conditions review
 - Updated land use in TDM based on Envision Hanover
 - TDM includes some regionally significant projects
- Takeaways
 - Future conditions are from 2045
 - Higher traffic volumes begin to spread outside of SSA
 - Some roads with planned improvements still show higher V/C ratios (e.g., Pole Green Road)

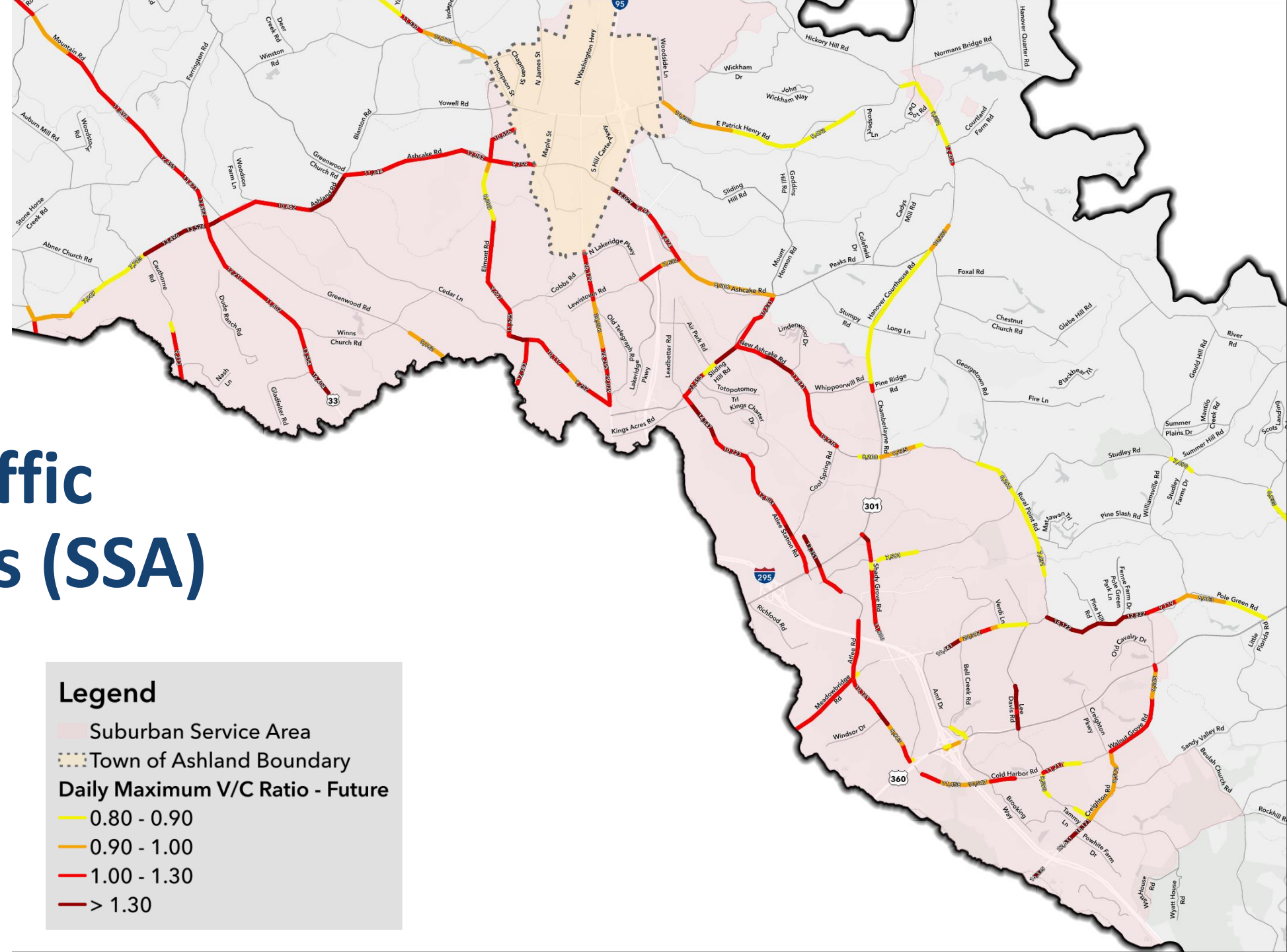
Future Traffic Operations



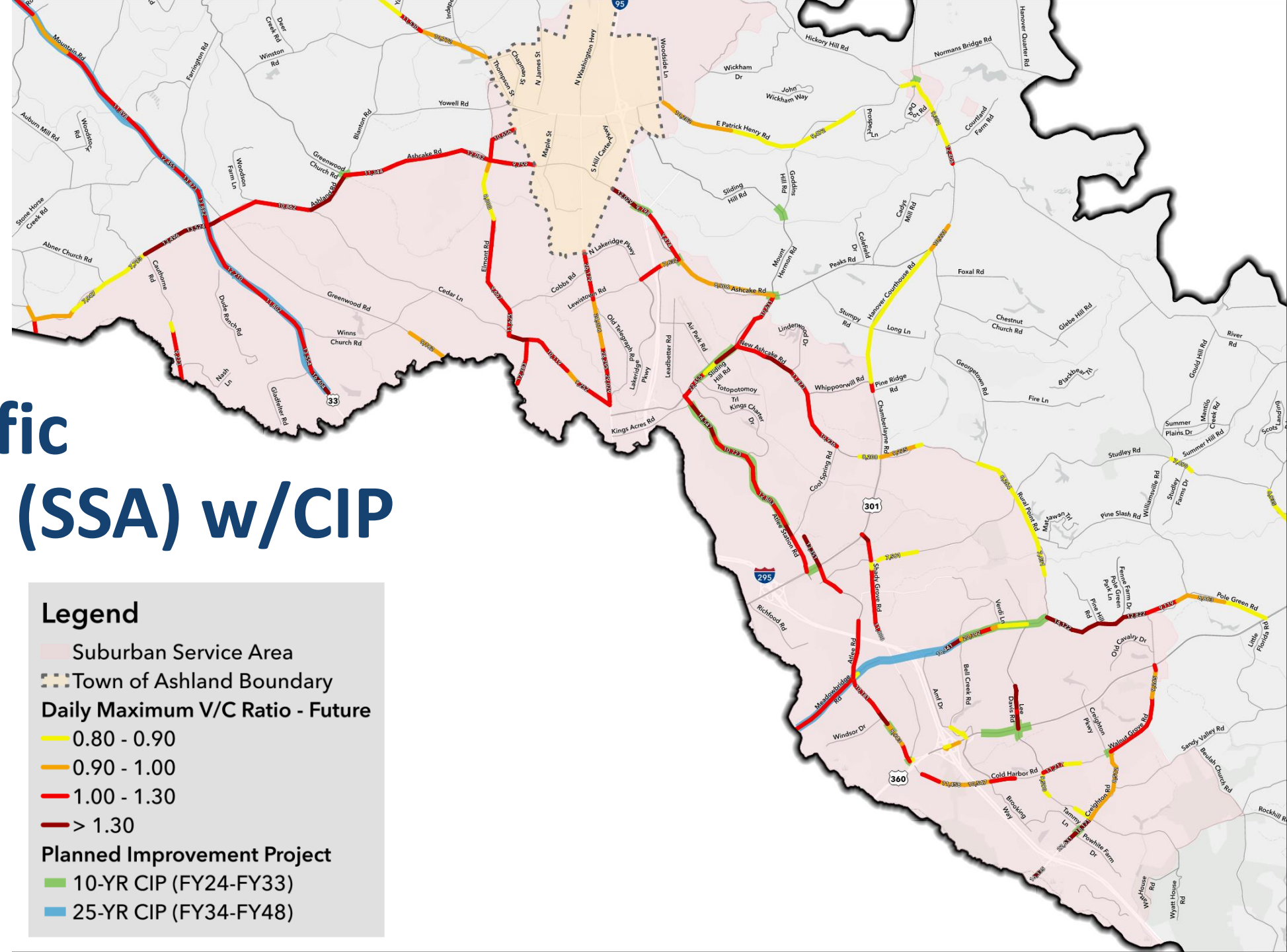
Legend

- Suburban Service Area
- Town of Ashland Boundary
- Daily Maximum V/C Ratio - Future**
- 0.80 - 0.90
- 0.90 - 1.00
- 1.00 - 1.30
- > 1.30

Future Traffic Operations (SSA)



Future Traffic Operations (SSA) w/CIP



Legend

Suburban Service Area

Town of Ashland Boundary

Daily Maximum V/C Ratio - Future

0.80 - 0.90

0.90 - 1.00

1.00 - 1.30

> 1.30

Planned Improvement Project

10-YR CIP (FY24-FY33)

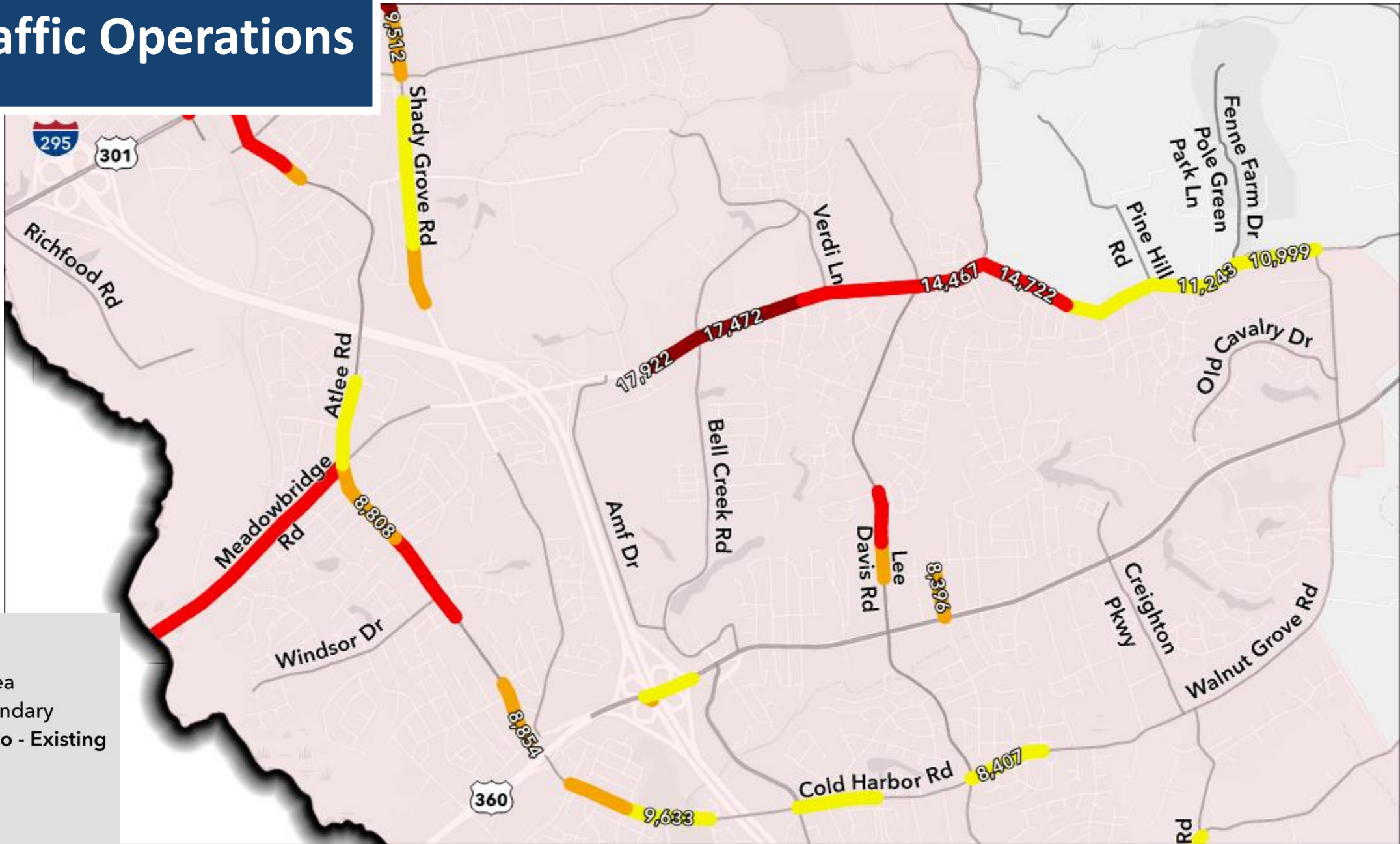
25-YR CIP (FY34-FY48)



Case Study: Mechanicsville Area

How do Existing Conditions Assessment + Future Conditions Assessment Work Together?

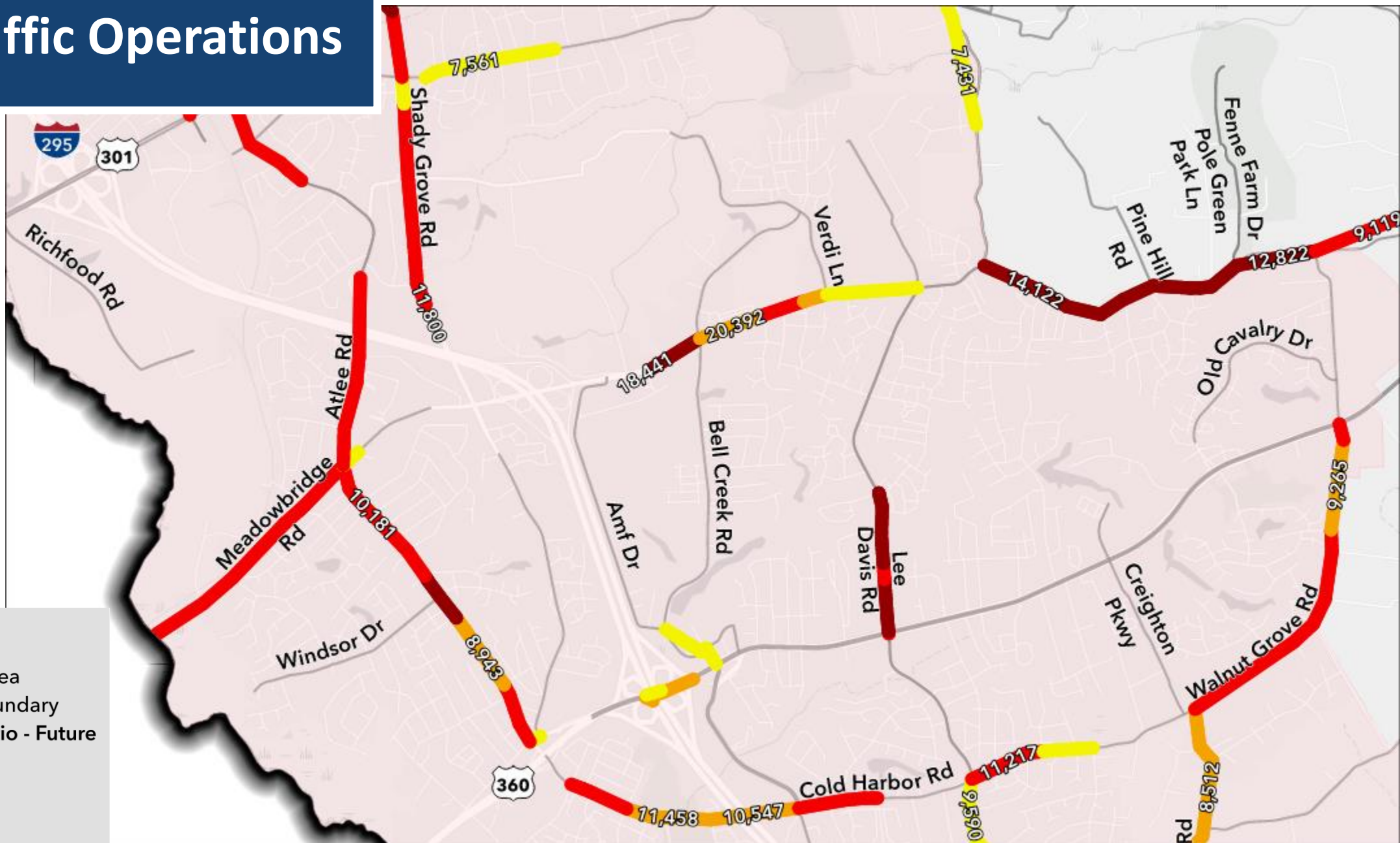
Existing Traffic Operations



Legend

- Suburban Service Area
- Town of Ashland Boundary
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Future Traffic Operations



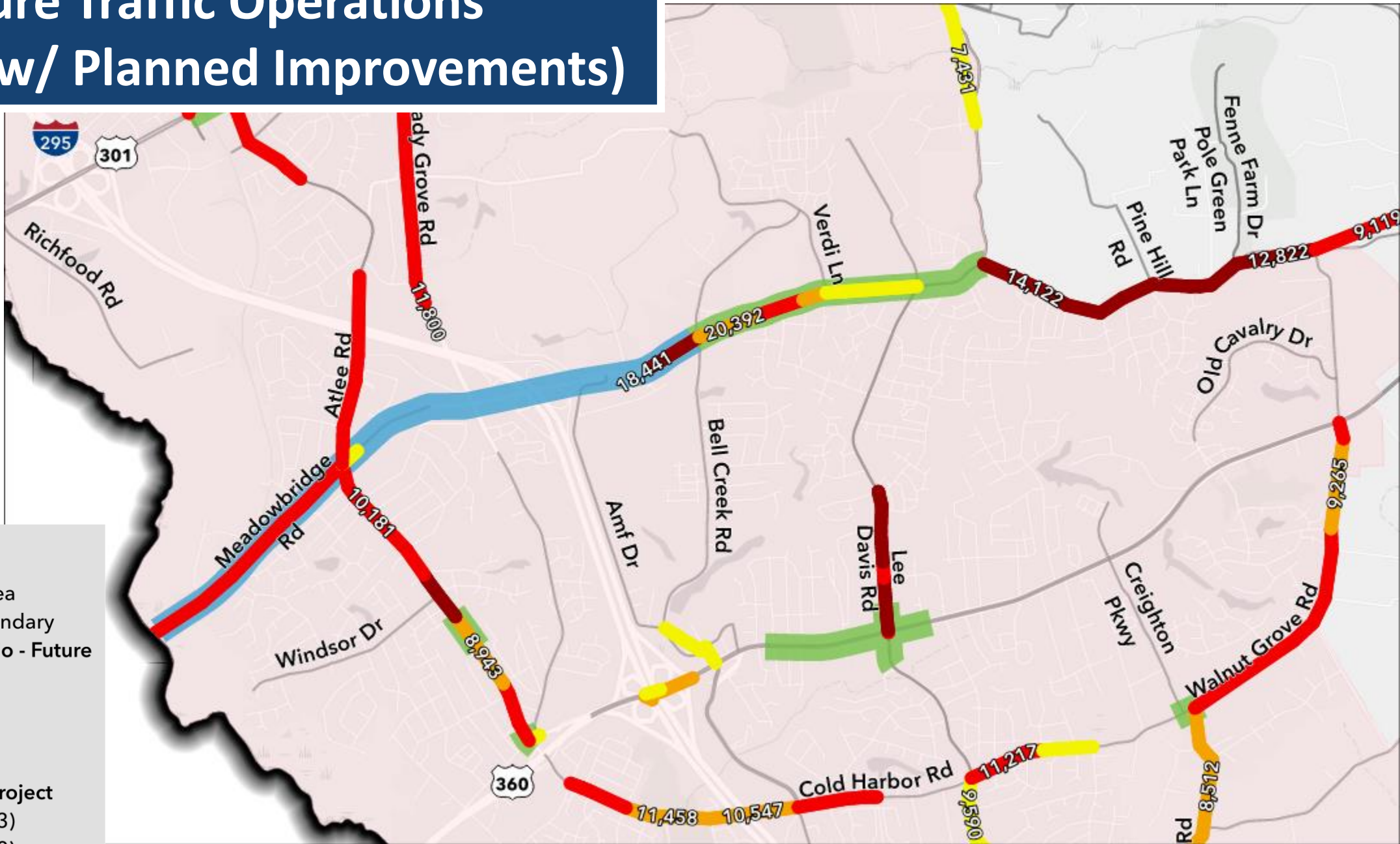
Legend

- Suburban Service Area
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- Daily Maximum V/C Ratio - Future
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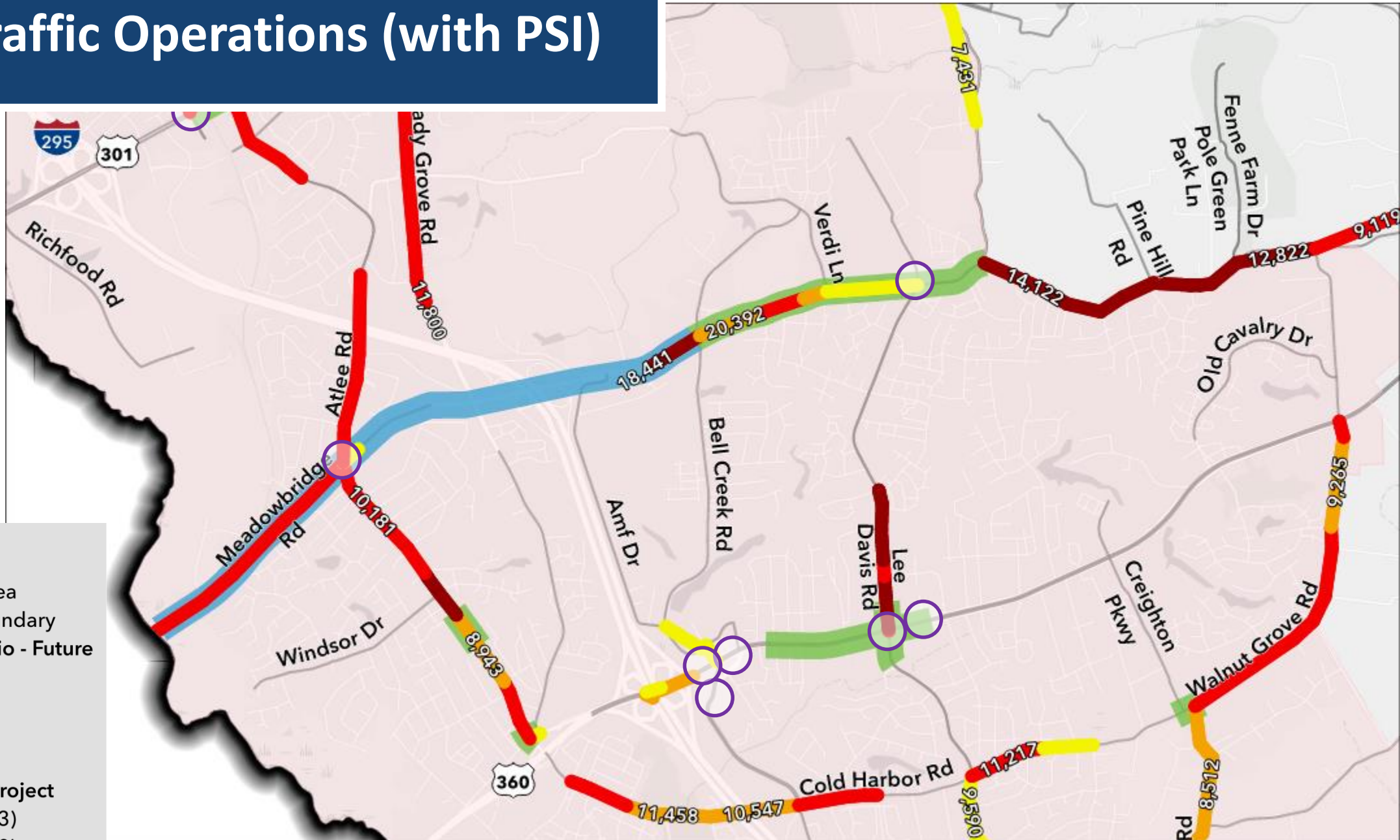
Future Traffic Operations (Overlaid w/ Planned Improvements)

Legend

- Suburban Service Area
- Town of Ashland Boundary
- Daily Maximum V/C Ratio - Future
 - 0.80 - 0.90
 - 0.90 - 1.00
 - 1.00 - 1.30
 - > 1.30
- Planned Improvement Project
 - 10-YR CIP (FY24-FY33)
 - 25-YR CIP (FY34-FY48)



Future Traffic Operations (with PSI)



Legend

- Suburban Service Area
- Town of Ashland Boundary
- Daily Maximum V/C Ratio - Future
 - 0.80 - 0.90
 - 0.90 - 1.00
 - 1.00 - 1.30
 - > 1.30
- Planned Improvement Project
 - 10-YR CIP (FY24-FY33)
 - 25-YR CIP (FY34-FY48)

Takeaways



- Plan identifies existing capacity/safety issues + future capacity issues
 - Most capacity-related issues currently are in the SSA.
 - As development continues, some rural roadways may have capacity issues.
 - Already-planned improvements are addressing some roads that have capacity issues now and/or in the future.

Using the Data



- MTP analysis can be used to help the Board with the following:
 - Update Transportation Policies
 - Prioritize Road Improvements
 - Direct Transportation Funding to areas where there is the most need
- Next Steps for Comprehensive Plan
 - Review Existing Concept Roads
 - Determine if Additional Concept Roads Needed Based on Capacity Analysis
 - Coordinate EDZs with Transportation Improvements



Active Living

Active Living | Methodology



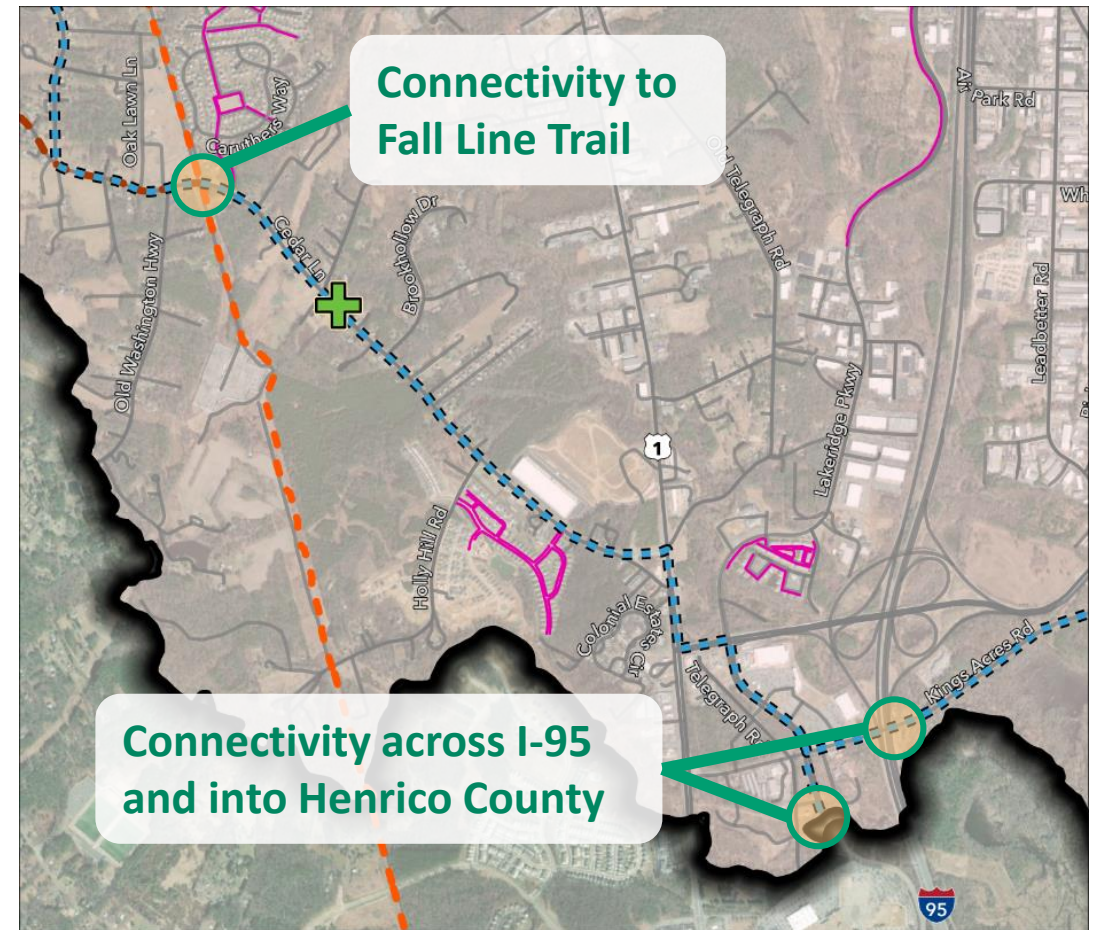
- **Goal:** identify locations that may benefit from safe, convenient, and comfortable facilities to walk and bike
- Identified locations in SSA to address at least one of three needs:
 1. Safety
 2. Access to Necessities
 3. Access to Physical Activity

Active Living | Recommendations

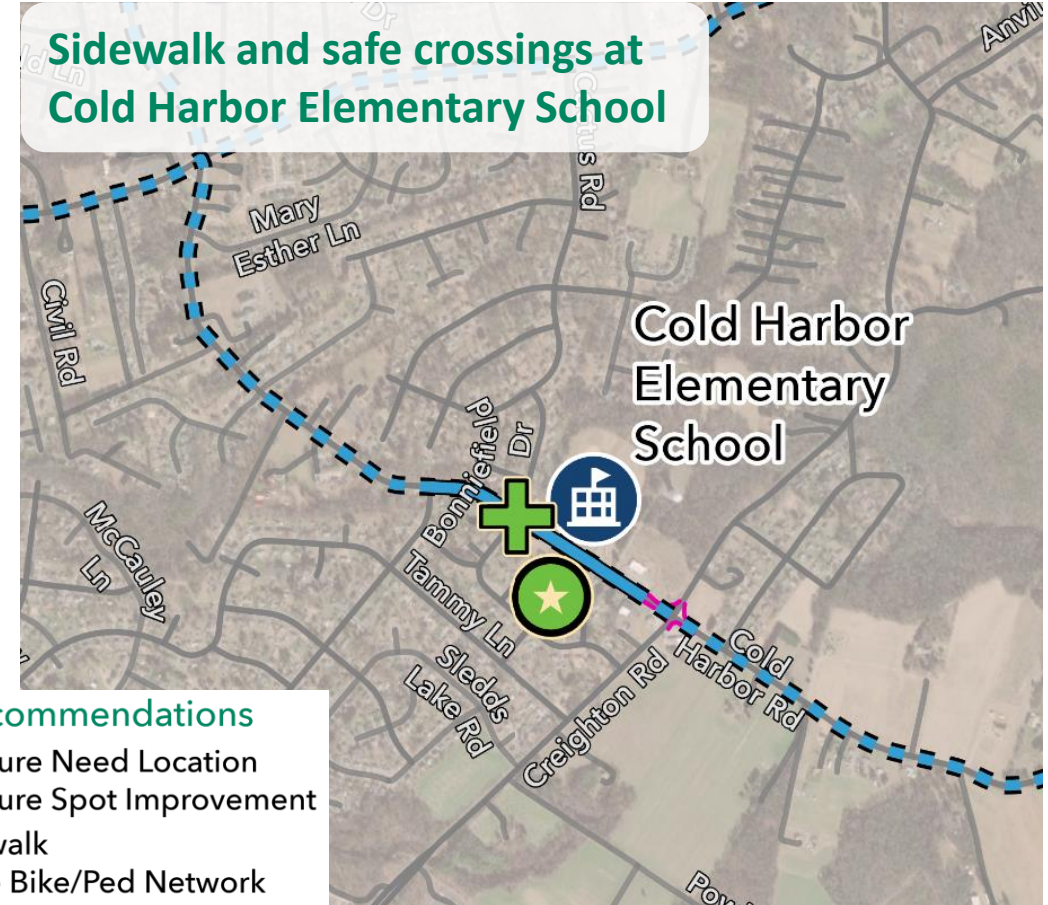


- Bike/Pedestrian Spine Network
 - High-level network to provide safe and connected facilities for active living throughout the County
 - Links locations identified for Active Living Needs (schools, libraries, etc.)
 - A starting point to guide further improvements to active living facilities
- Spot improvements
 - Lower-cost, targeted, sidewalk and safe pedestrian improvements to improve safety and connectivity

Active Living | Bike/Ped Spine Network



Active Living | Spot Improvements



Public Engagement



- Concepts introduced to the public during Round #2 Topical Areas Public Engagement (April – Early May), with comment period open through May 15.
- Public feedback received to-date has generally been favorable regarding overall concepts.



Recent Events + Next Steps

Round #2 Focus Areas



Topical Area Outreach: Part #2 (Housing, Active Living, Rural/Agricultural)

Date	Location	Event Type	# of Participants
Monday, April 17, 2023 (6:00 p.m. – 7:30 p.m.)	Atlee Library	In-Person Meeting	28
Tuesday, April 18, 2023 (12:00 p.m. – 1:00 p.m.)	Mechanicsville Library	Stop and Chat	4
Thursday, April 20, 2023 (12:00 p.m. – 1:00 p.m.)	Webinar	Webinar	7* (61 YouTube Views)
Monday, April 24, 2023 (6:00 p.m. – 7:30 p.m.)	Taylor Park Complex	In-Person Meeting	14
Thursday, April 27, 2023 (6:00 p.m. – 7:30 p.m.)	Montpelier Community Center	In-Person Meeting	25
Monday, May 1, 2023 (6:00 p.m. – 7:30 p.m.)	Mechanicsville Library	In-Person Meeting	17
Total Event Participants			99

**+ Ashland
Train Day**

Round #3 Focus Areas + Plan Affirmation



- Revised draft text and recommendations on Round #1/Round #2 Focus Areas based on public feedback
- Develop draft text and recommendations on Round #3 Focus Areas (Environment, Transportation, + Public Facilities/Utilities)
- Round #3 Focus Area Public Meetings
 - Monday, July 10 (12:00 p.m.): Webinar
 - Monday, July 10 (6:00 p.m.): Rockville Library
 - Tuesday, July 11 (6:00 p.m.): Atlee Library
 - Thursday, July 13 (6:00 p.m.): Mechanicsville Library
 - Monday, July 17 (6:00 p.m.): Ashland Library
- Board of Supervisors Workshops: June 28 + July 26 (with PC)

Plan Adoption (Tentative Schedule)



- Planning Commission
 - Public Hearing: August 10, 2023
 - Additional Discussion + Possible Recomm. (if needed): August 17, 2023
- Board of Supervisors
 - Public Hearing (Possible Dates):
 - August 23, 2023 (would require double advertising with PC)
 - September 13, 2023 (Extend Meeting to Allow 6:00 p.m. Public Hearing)
 - September 27, 2023
 - Possible Vote by Board of Supervisors: October 11 (Day Session)



Questions?