

U.S. Route 460 Land Use and Connectivity Study

Board of Supervisors Public Hearing

March 28, 2023

Overview of Presentation

- Previous Corridor Planning and Funded Projects
- Study Purpose
- Process of this Study to Date
- Recommended Improvements
- September Survey Results
- Fall/Winter Activities
- Draft Study Document
- March 2023 Engagement and Actions
- Implementation

VDOT Route 460 STARS Study

- **2019 and 2020:** VDOT, the City of Roanoke and Roanoke County studied potential safety and operational improvements along Route 460 from Williamson Road to Alt. Route 220
- **November 2019:** Public Information Meeting and Survey (over 1,000 responses)
- **June 2020:** Virtual Meeting and Survey
- **August 2020:** Seven projects chosen and submitted for SMART SCALE funding

WELCOME

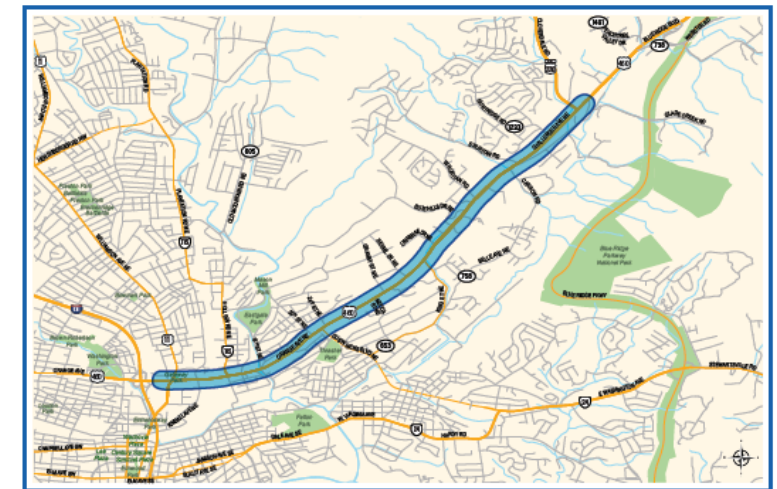
Purpose of the Route 460 (Orange/Challenger Avenue) Operational Improvements Study

- Evaluate operational and safety conditions along Route 460 (Orange/Challenger Avenue) between Williamson Road (Route 11) and Route 220 Alternate (Cloverdale Road)
- Consider and assess potential safety and operational improvements in the study area
- Develop cost estimates for the potential improvements

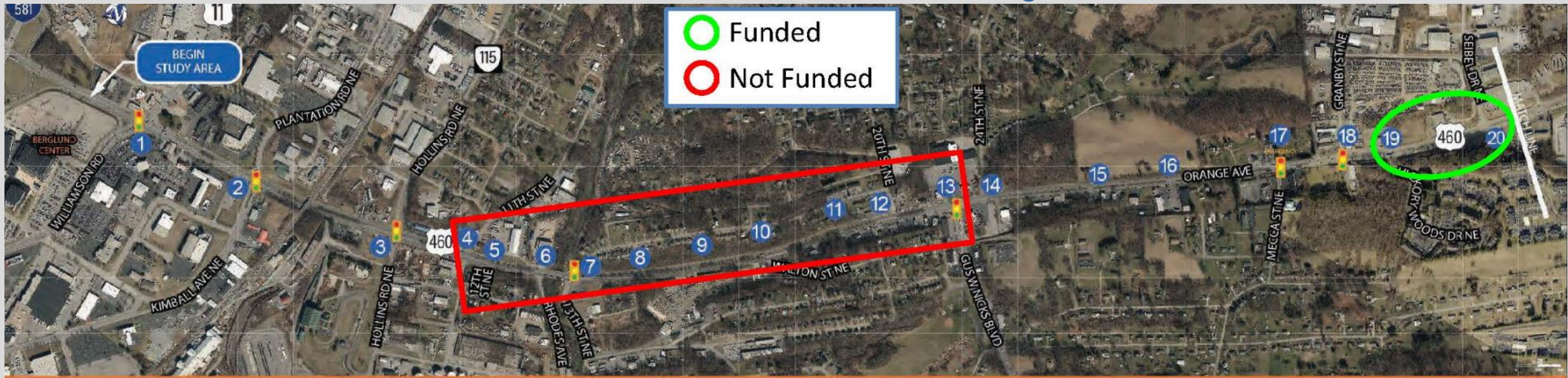
Objectives of the Public Information Meeting

- Inform the public about the study
- Present preliminary information on safety and traffic conditions within the study area
- Provide the public an opportunity to give comments and suggestions on existing safety and traffic operations and gather ideas to enhance safety and reduce congestion in the corridor

Study Area



Route 460 Funded SMART SCALE Projects



Route 460 Funded SMART SCALE Projects

Funded Transportation Projects	Status	Funding	
		Federal/State	Local
Route 460 and Alternate Route 220 Intersection Improvements	Projects have been grouped and design is underway for all projects	\$21,800,000	\$0
Route 460 Intersections from Carson Rd. to Huntridge Rd.		\$2,800,000	\$0
Route 460 at West Ruritan Intersection Improvements		\$7,500,000	\$0
Route 460 (Orange Avenue) Improvements near Blue Hills Drive		\$5,600,000	\$0
Route 460 (Orange Avenue) Improvements Seibel Dr/Hickory Woods		\$450,000	\$0
Route 460 (Orange Avenue) Improvements at King Street		\$5,000,000	\$0
Total Funding		\$43,150,000	\$0
<i>There are no local funds on these projects, though the Roanoke Valley Transportation Planning Organization provided leverage funding for five out of six projects.</i>			

Route 460 Land Use and Connectivity Study

While the VDOT STARS Study provided recommendations for improving intersections and traffic flow **on** Route 460, Roanoke County wants to focus on improving traffic flow **around** Route 460.

Particularly with demand for redevelopment of parcels fronting Route 460, adding new commercial entrances onto Route 460 will only make congestion worse.

This study proposes new and improved ways for motorists, pedestrians and bicyclists to move around the Bonsack area without having to use Route 460. It will also establish recommended access routes for future development and redevelopment activities.

Study Purpose

- 1) Recommend ways to travel around the Bonsack community that are alternatives to Route 460/Challenger Avenue;
- 2) Consider existing zoning classifications and future land use designations to determine potential changes to match desired development types; and
- 3) Examine existing at-grade railroad crossings for potential improvements that may create development opportunities between the railroad and the Blue Ridge Parkway.



OCT 2021- JAN 2022

Consultant Due Diligence
and Review of the Study
Area



JAN - FEB 2022

First Community Survey



FEB 2022

First Community Open
House



FEB - MAY 2022

Consultant Review of
Community Feedback and
Preparation of Potential
Improvements



MAY 2022

Second Community Open
House



MAY 2022

Second Community Survey



MAY - SEPT 2022

Consultant Revisions Based
On Community Feedback



SEPT 2022

Final Community Meeting



OCT 2022

Presentation to Planning
Commission and Economic
Development Authority



NOV 2022

Presentation to Board of
Supervisors

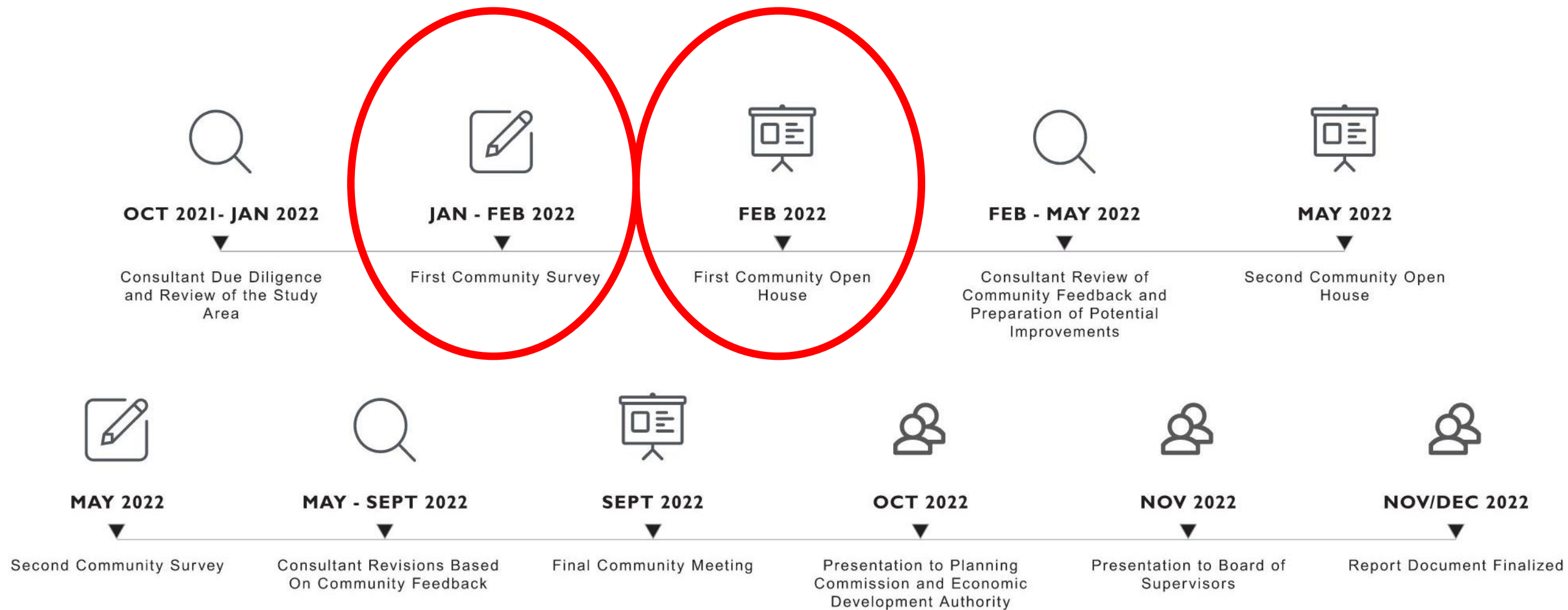


NOV/DEC 2022

Report Document Finalized

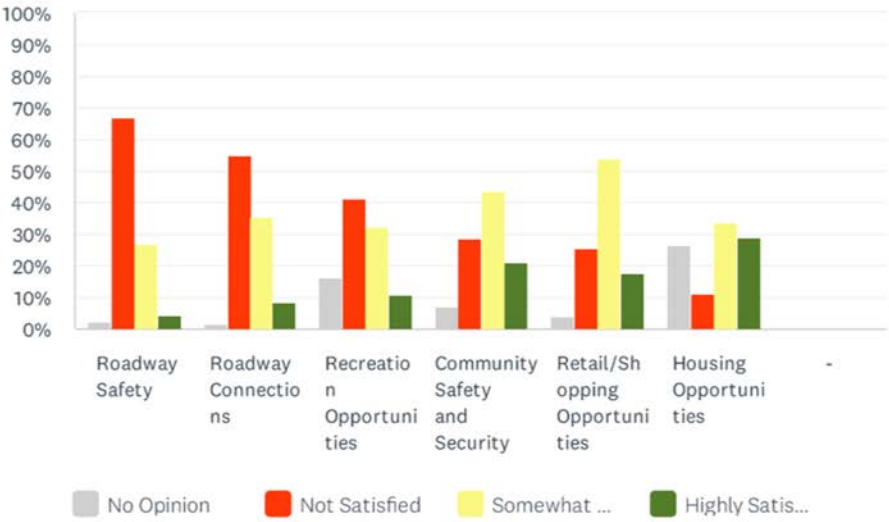


TIMMONS GROUP
ENGINEERING | DESIGN | TECHNOLOGY



Q2 What is your current level of satisfaction of the following in the Study Area?

Answered: 220 Skipped: 0



44 Meeting Attendees
220 Survey Responses







Legend

- Archi
- Archi
- Indivi
- Archa
- Archa
- DHR
- USGS
- Count



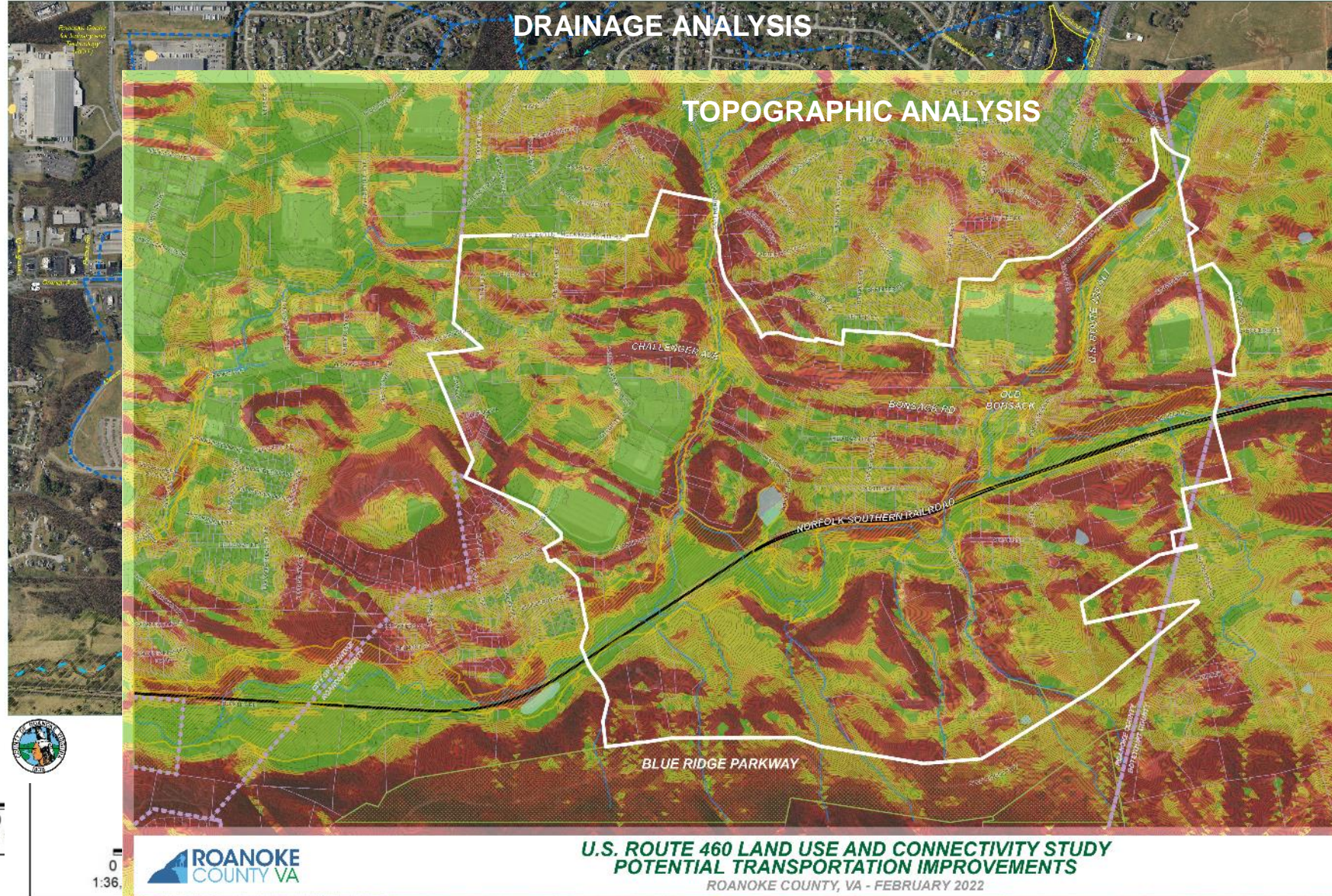
Legend

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Legend

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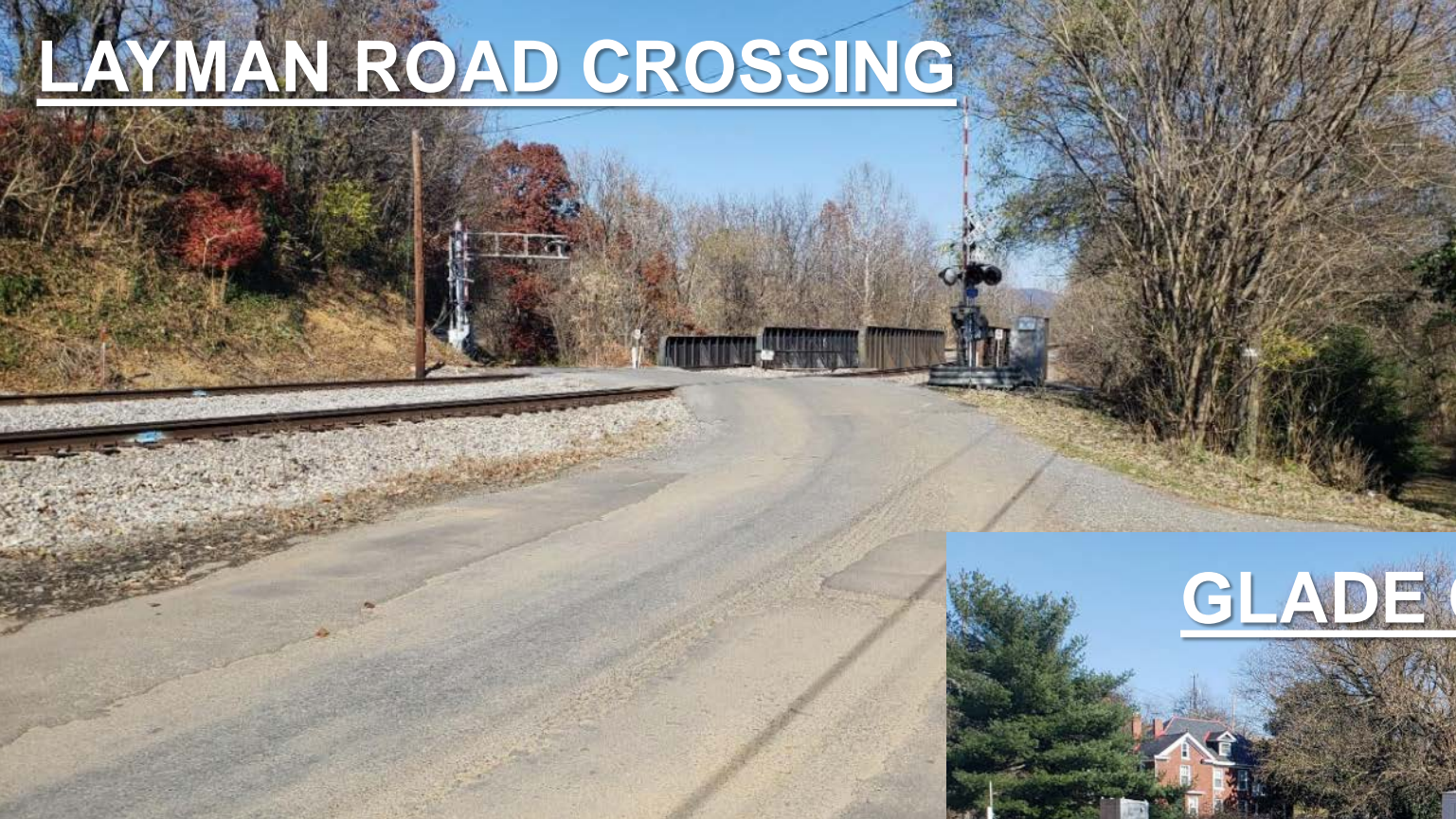
ROANOKE
COUNTY VA

**U.S. ROUTE 460 LAND USE AND CONNECTIVITY STUDY
POTENTIAL TRANSPORTATION IMPROVEMENTS**
ROANOKE COUNTY, VA - FEBRUARY 2022

TIMMONS GROUP
FOUR VISION ACHIEVED THROUGH OURS.

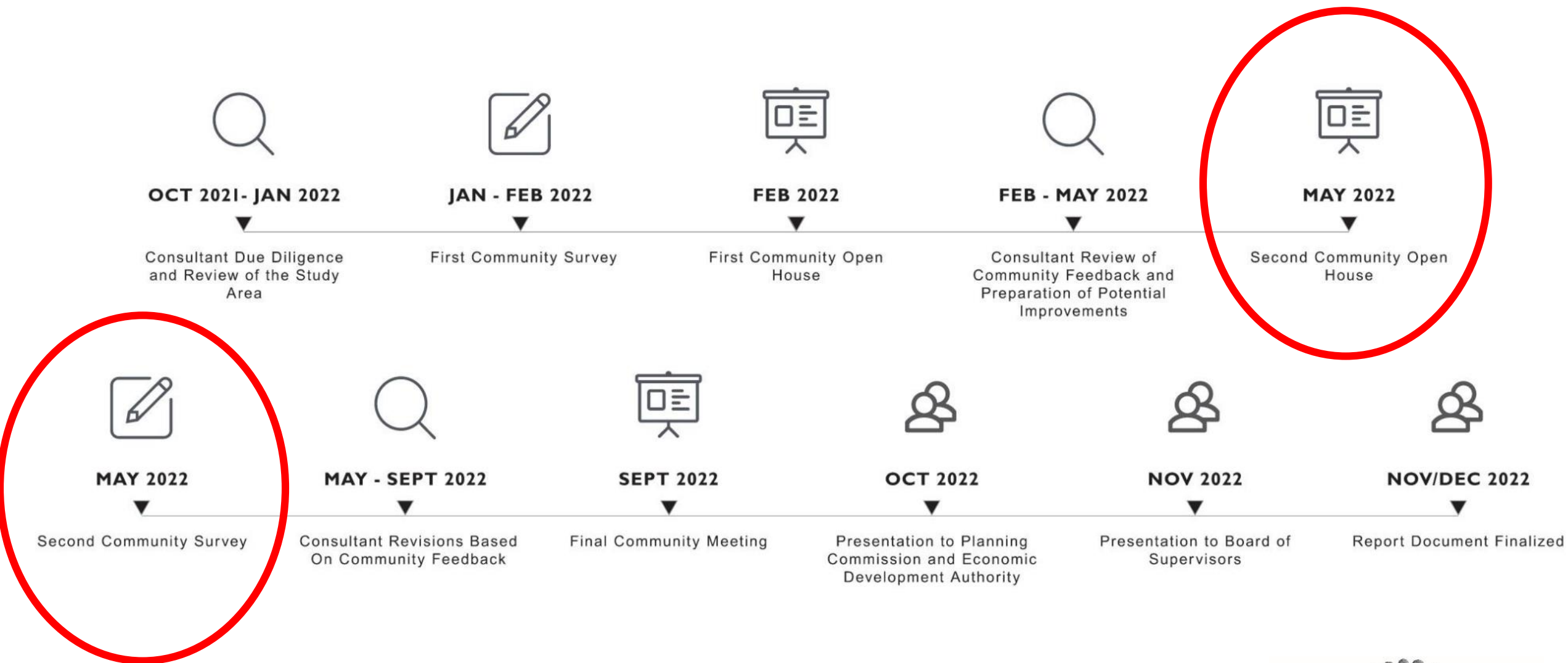
TIMMONS GROUP
ENGINEERING | DESIGN | TECHNOLOGY

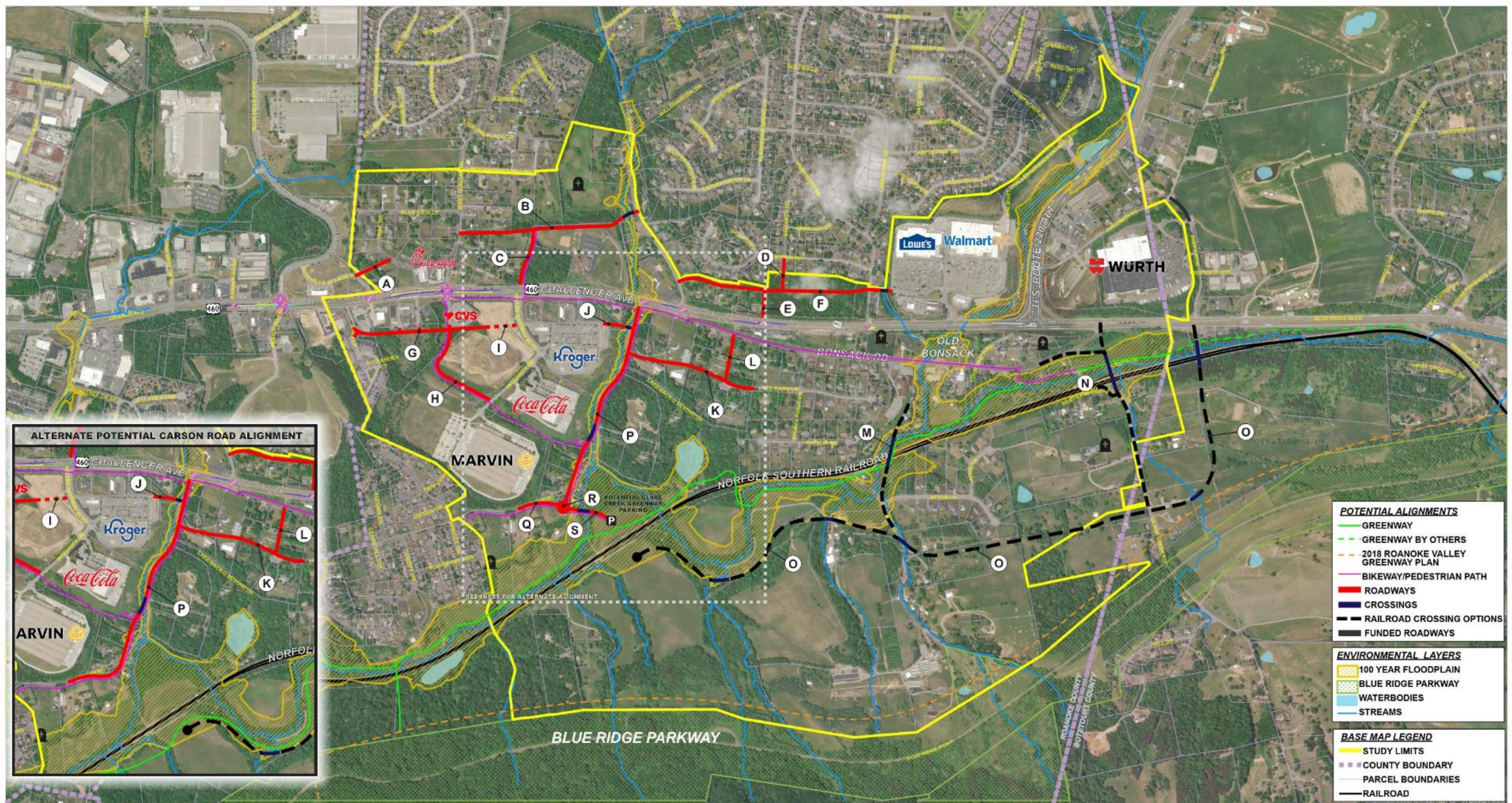
LAYMAN ROAD CROSSING



GLADE CREEK ROAD CROSSING

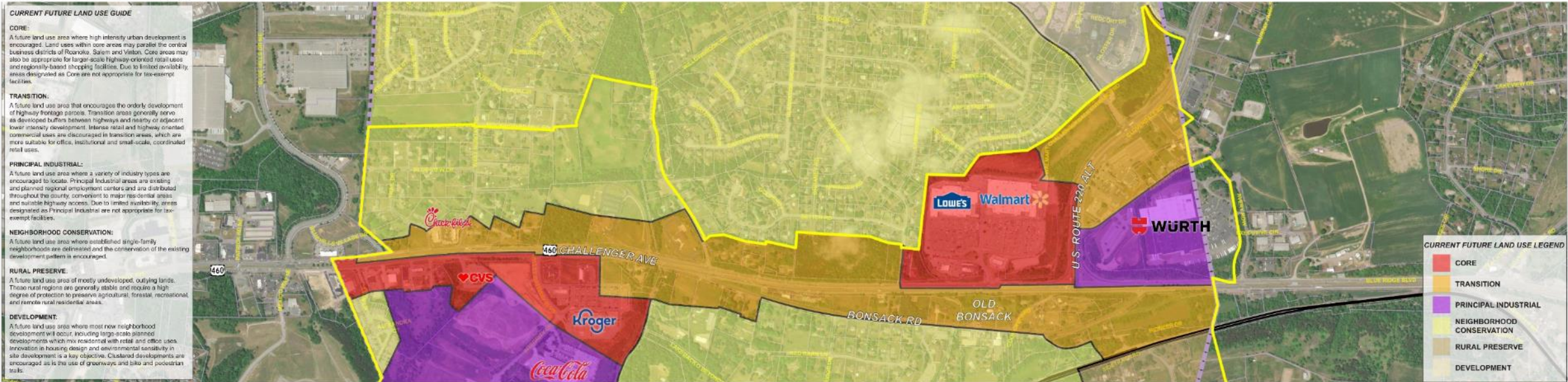




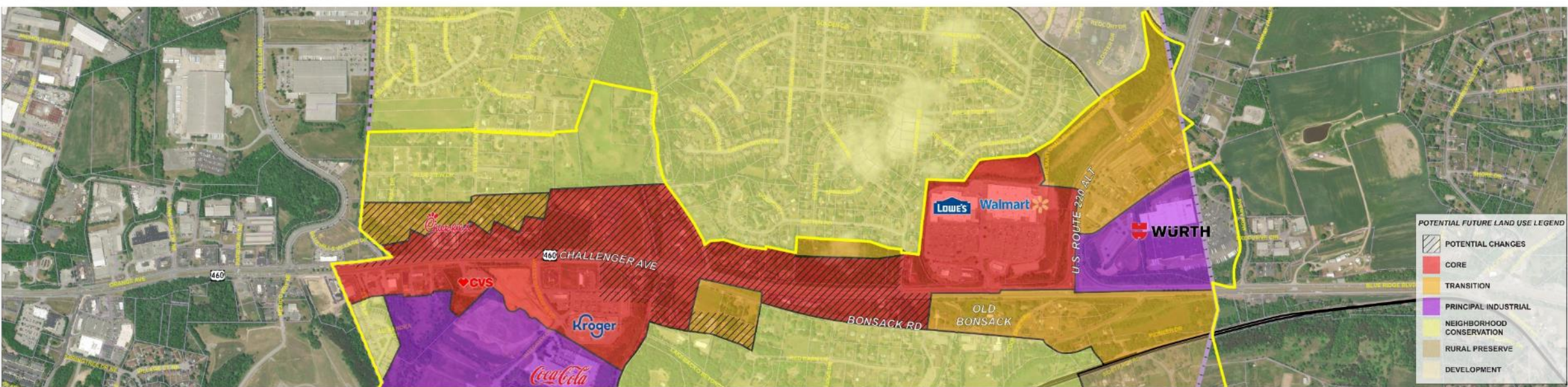


U.S. ROUTE 460 LAND USE AND CONNECTIVITY STUDY
POTENTIAL TRANSPORTATION IMPROVEMENTS
 ROANOKE COUNTY, VA - MAY 2022

CURRENT FUTURE LAND USE



POTENTIAL FUTURE LAND USE



98 Meeting Attendees
140 Survey Responses



U.S. ROUTE 460 LAND USE AND CONNECTIVITY STUDY
POTENTIAL TRANSPORTATION IMPROVEMENTS
ROANOKE COUNTY, VA - MAY 2022



OCT 2021- JAN 2022

Consultant Due Diligence
and Review of the Study
Area



JAN - FEB 2022

First Community Survey



FEB 2022

First Community Open
House



FEB - MAY 2022

Consultant Review of
Community Feedback and
Preparation of Potential
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MAY 2022

Second Community Open
House



MAY 2022

Second Community Survey



MAY - SEPT 2022

Consultant Revisions Based
On Community Feedback



SEPT 2022

Final Community Meeting



OCT 2022

Presentation to Planning
Commission and Economic
Development Authority



NOV 2022

Presentation to Board of
Supervisors

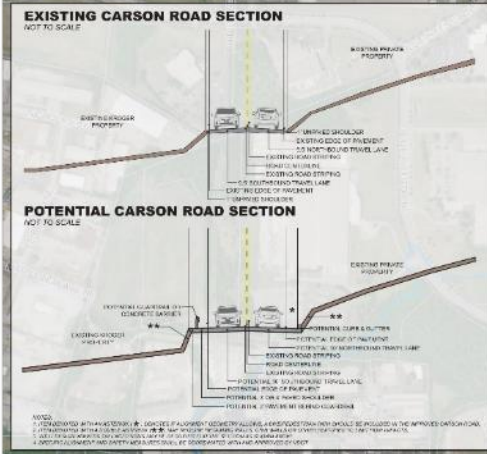


NOV/DEC 2022

Report Document Finalized



TIMMONS GROUP
ENGINEERING | DESIGN | TECHNOLOGY



- POTENTIAL ALIGNMENTS**
- GREENWAY PATH OPTIONS
 - GREENWAY BY OTHERS
 - 2018 ROANOKE VALLEY GREENWAY PLAN
 - BIKEWAY/PEDESTRIAN PATH
 - NEW ROADWAYS
 - OPTIONAL ROADWAYS (DEVELOPMENT DEPENDENT)
 - CARSON RD IMPROVEMENTS
 - CROSSINGS
 - RAILROAD CROSSING OPTIONS
 - FUNDED ROADWAYS

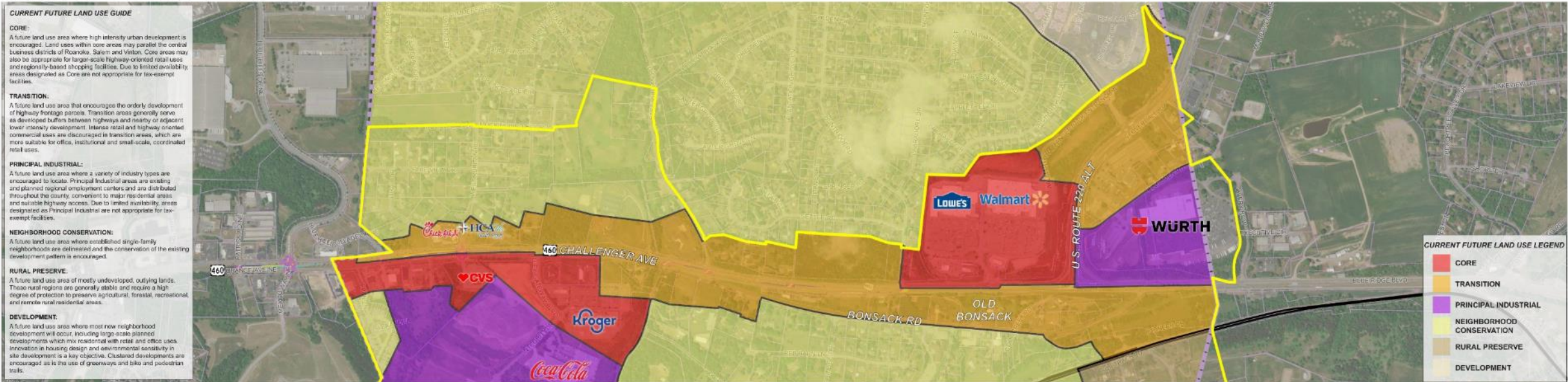
- ENVIRONMENTAL LAYERS**
- 100 YEAR FLOODPLAIN
 - BLUE RIDGE PARKWAY
 - WATERBODIES
 - STREAMS

- BASE MAP LEGEND**
- STUDY LIMITS
 - COUNTY BOUNDARY
 - PARCEL BOUNDARIES
 - RAILROAD

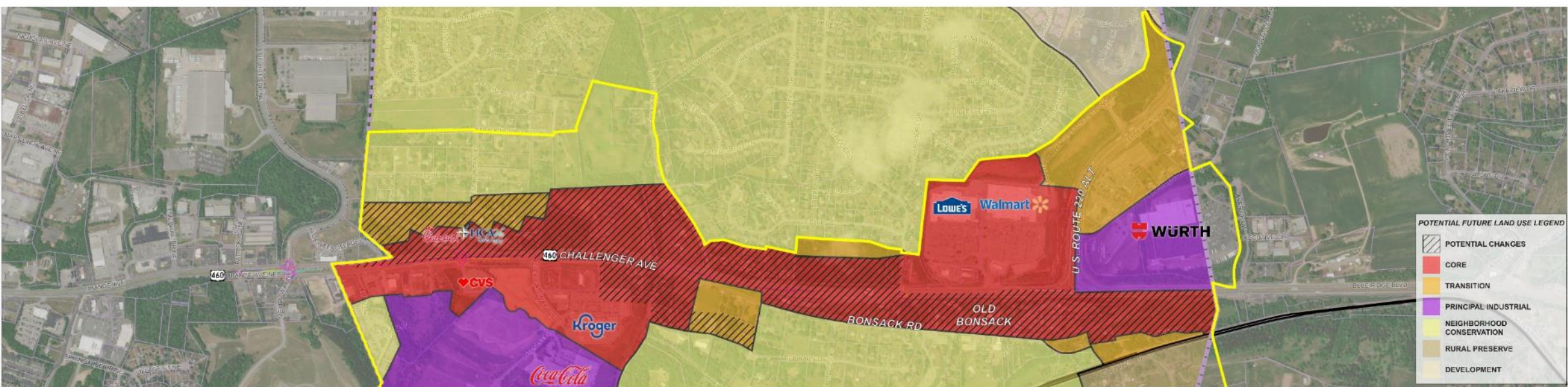
U.S. ROUTE 460 LAND USE AND CONNECTIVITY STUDY POTENTIAL TRANSPORTATION IMPROVEMENTS ROANOKE COUNTY, VA - SEPTEMBER 2022



CURRENT FUTURE LAND USE



POTENTIAL FUTURE LAND USE



U.S. ROUTE 460 LAND USE AND CONNECTIVITY STUDY
POTENTIAL FUTURE LAND USE
ROANOKE COUNTY, VA - SEPTEMBER 2022

EXISTING CARSON ROAD SECTION
NOT TO SCALE

EXISTING PRIVATE PROPERTY

EXISTING SHOULDER

EXISTING 25' RIGHT-OF-WAY

EXISTING 15' TRAVEL LANE

EXISTING DRAINAGE

EXISTING ROADWAY

EXISTING 15' TRAVEL LANE

EXISTING 10' SHOULDER

EXISTING 15' DRAINAGE

POTENTIAL CARSON ROAD SECTION
NOT TO SCALE

EXISTING PRIVATE PROPERTY

POTENTIAL UTILITY STRUCTURES

POTENTIAL 40' RIGHT-OF-WAY

POTENTIAL 15' TRAVEL LANE

POTENTIAL 10' SHOULDER

POTENTIAL 15' DRAINAGE

POTENTIAL 15' TRAVEL LANE

POTENTIAL 10' SHOULDER

POTENTIAL 15' DRAINAGE

NOTES:

1. THE EXISTING ROADWAY IS A 25' WIDE ROADWAY WITH A 15' TRAVEL LANE AND A 10' SHOULDER. THE PROPOSED ROADWAY IS A 40' WIDE ROADWAY WITH A 15' TRAVEL LANE, A 10' SHOULDER, AND A 15' DRAINAGE DITCH.

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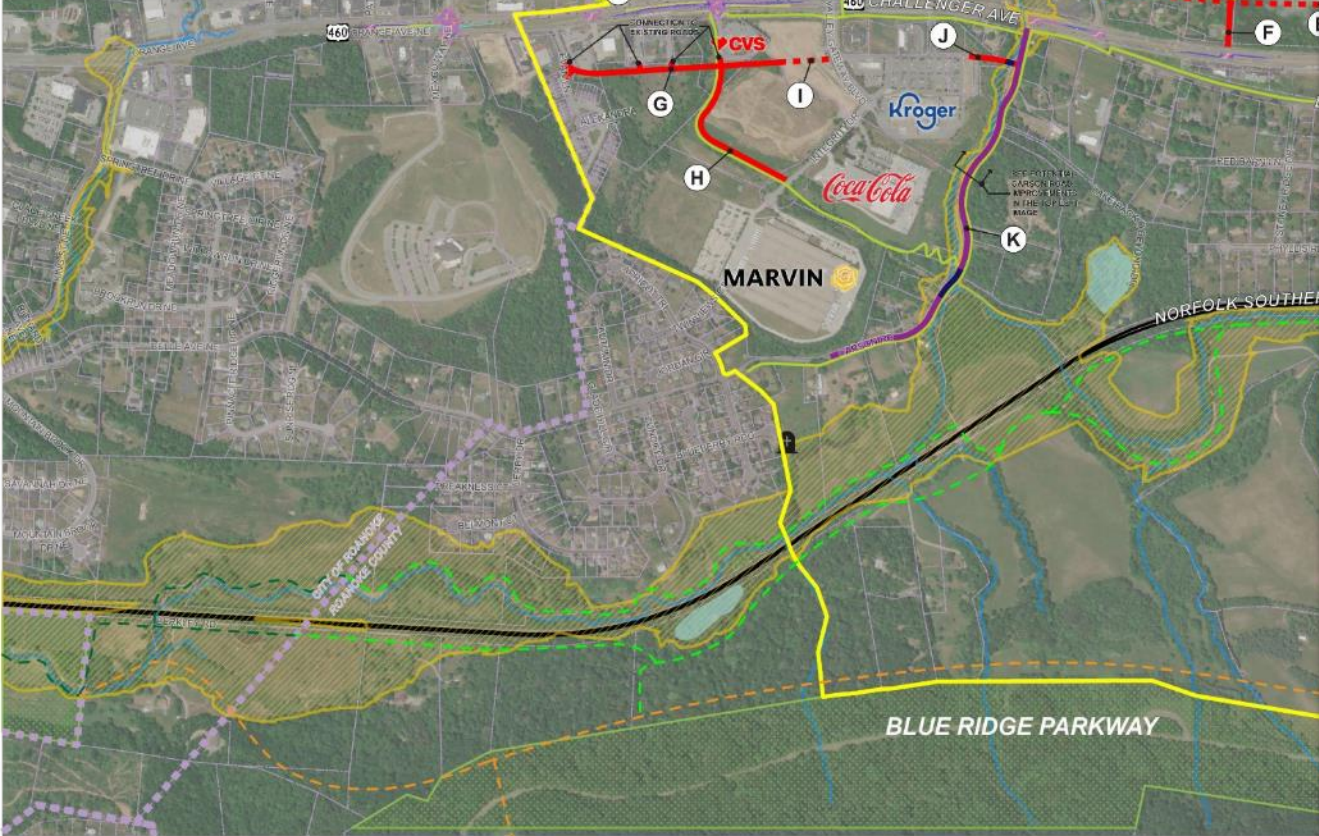
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September Survey Results Summary

Overview

- 35 September Responses (far fewer than 140 responses in May and 220 responses in January)
- Open between September 21st and October 10th (about 2 ½ weeks)
- Survey requested opinions about proposed road segments, greenways, shared use paths and Future Land Use changes

September Survey Results Summary

Road Segments

Highest **Agree** and **Somewhat Agree** Scores by Opportunity:

- C: 85% (17 responses)
- B: 84% (16 responses)
- J: 74% (14 responses)



September Survey Results Summary

Road Segments

Highest **Disagree** and **Somewhat Disagree** Scores by Opportunity:

- F: 42% (8 responses)
- E: 40% (8 responses)
- D: 33% (7 responses)
- A: 33% (7 responses)

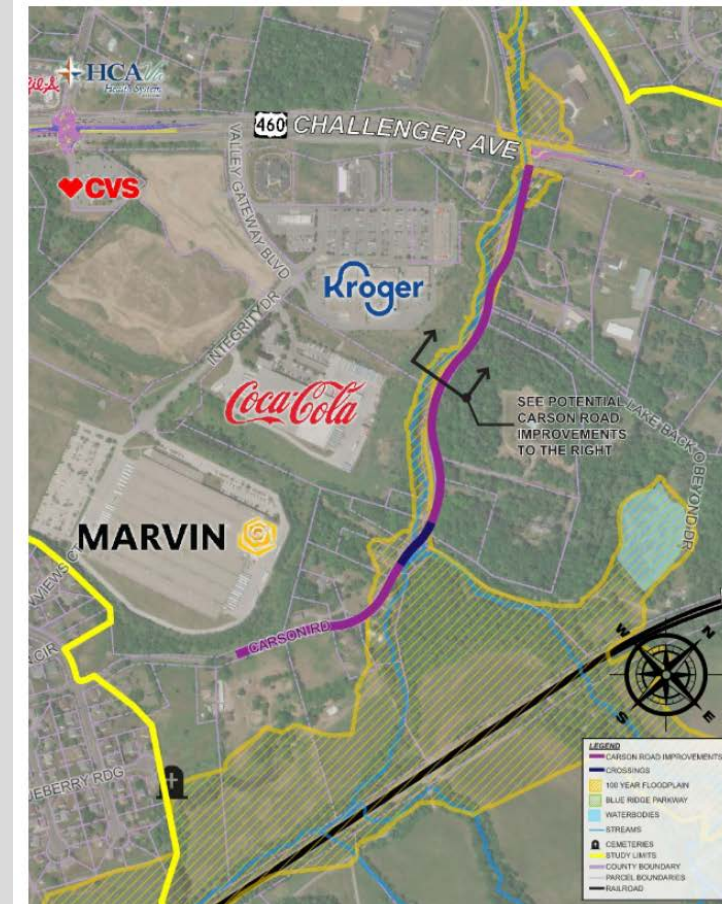


September Survey Results Summary Road Segments

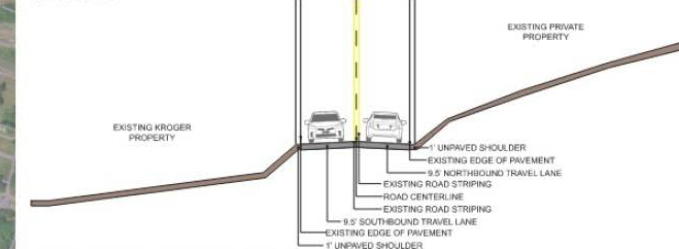
Agree/Somewhat Agree:
88% (22 respondents)

No Opinion:
4% (1 respondent)

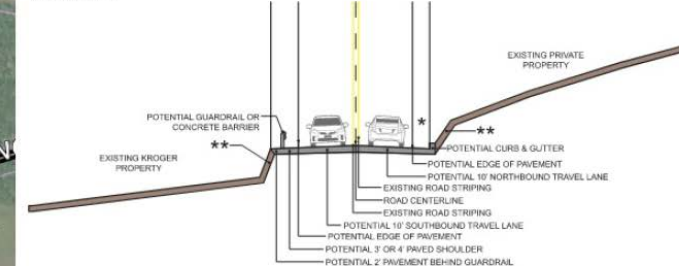
Disagree/Somewhat Disagree:
8% (2 respondents)



EXISTING CARSON ROAD SECTION
NOT TO SCALE



POTENTIAL CARSON ROAD SECTION
NOT TO SCALE



NOTES:
1. ITEM DENOTED WITH AN ASTERISK (*) DENOTES IF ALIGNMENT GEOMETRY ALLOWS, A BIKE/PEDESTRIAN PATH SHOULD BE INCLUDED IN THE IMPROVED CARSON ROAD.
2. ITEM DENOTED WITH A DOUBLE ASTERISK (**) MAY REQUIRE RETAINING WALLS, CURB WALLS OR OTHER FEATURES TO LIMIT ROW IMPACTS.
3. VDOT DESIGN WAIVERS OR EXCEPTIONS MAY BE REQUIRED FOR THE SECTION AS SHOWN ABOVE.
4. SPECIFIC ALIGNMENT AND SAFETY MEASURES SHALL BE COORDINATED WITH AND APPROVED BY VDOT.

September Survey Results Summary Greenways and Shared Use Paths

Greenways (green)

Agree/Somewhat Agree:
82% (18 respondents)

No Opinion:
5% (1 respondent)

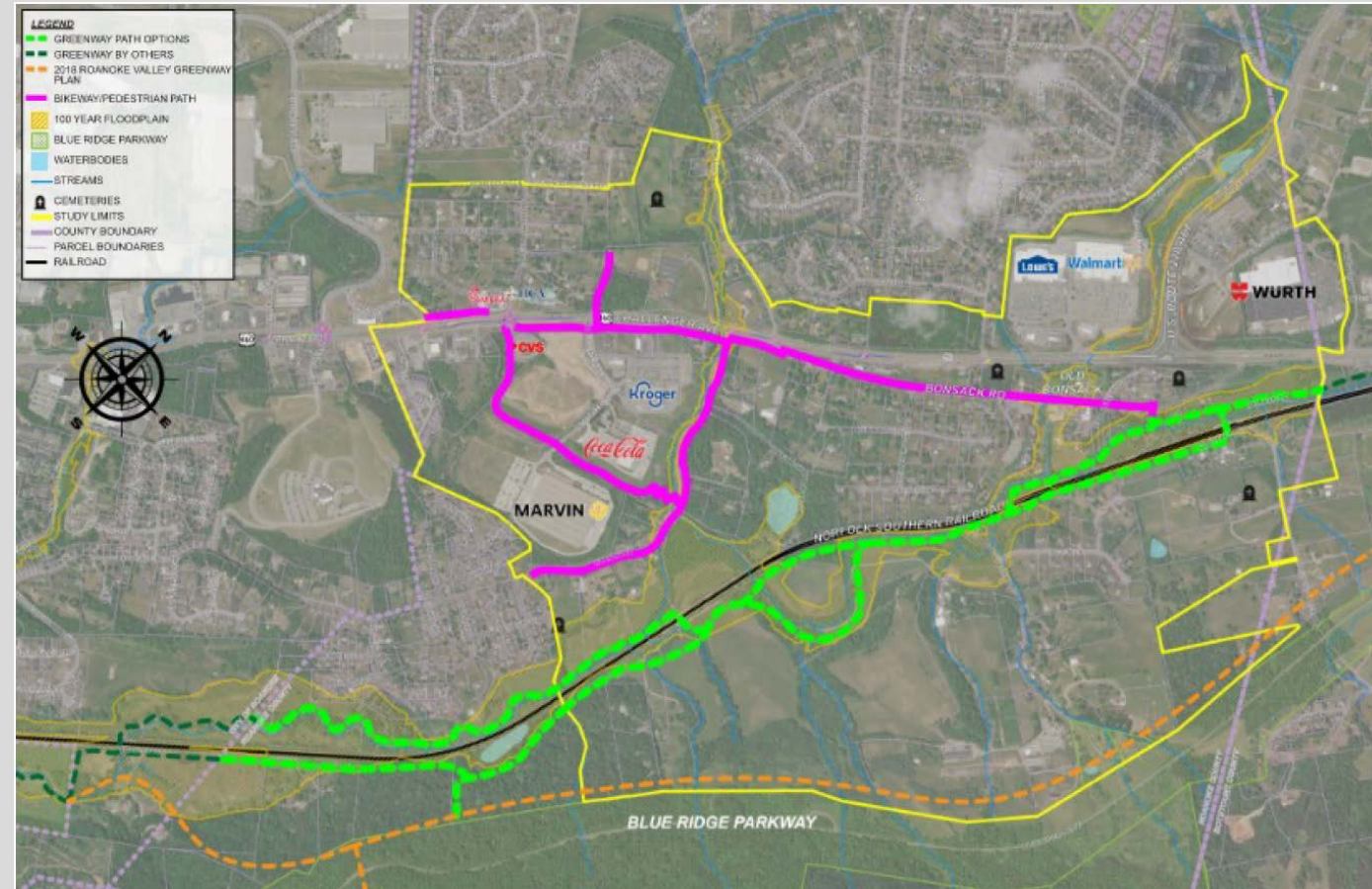
Disagree/Somewhat Disagree:
14% (3 respondents)

Shared Use Paths (magenta)

Agree/Somewhat Agree:
57% (12 respondents)

No Opinion:
10% (2 respondent)

Disagree/Somewhat Disagree:
33% (7 respondents)



September Survey Results Summary

Future Land Use Changes

Area 1

Agree/Somewhat Agree: 50% (10 respondents)

No Opinion: 30% (6 respondents)

Disagree/Somewhat Disagree: 20% (4 respondents)

Area 2

Agree/Somewhat Agree: 63% (12 respondents)

No Opinion: 16% (3 respondents)

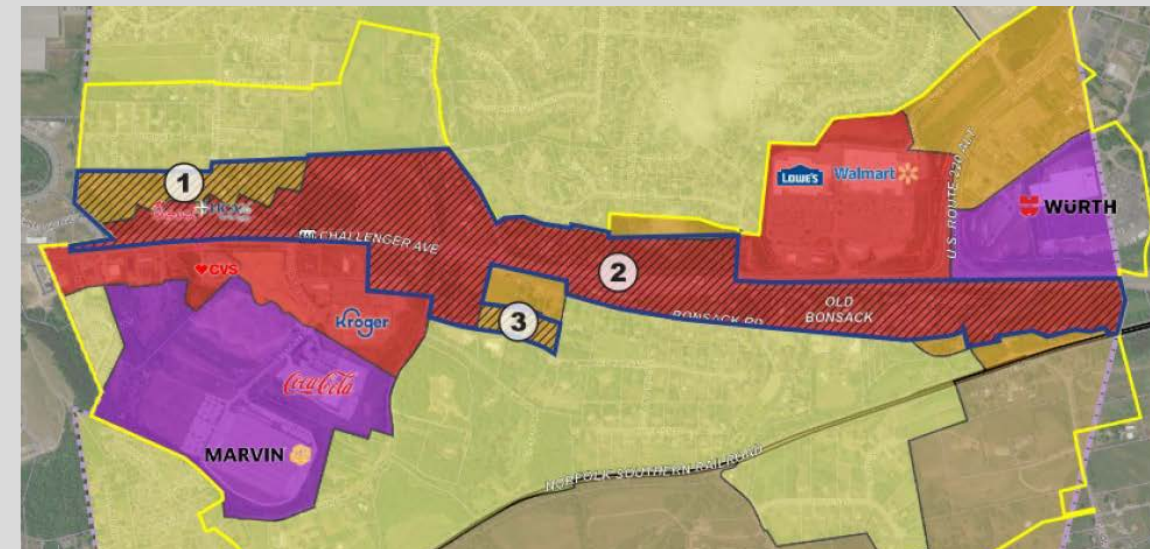
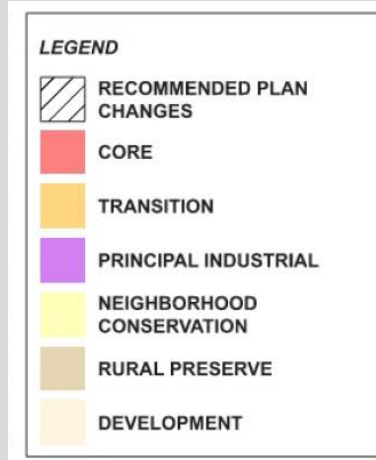
Disagree/Somewhat Disagree: 21% (4 respondents)

Area 3

Agree/Somewhat Agree: 47% (8 respondents)

No Opinion: 29% (5 respondents)

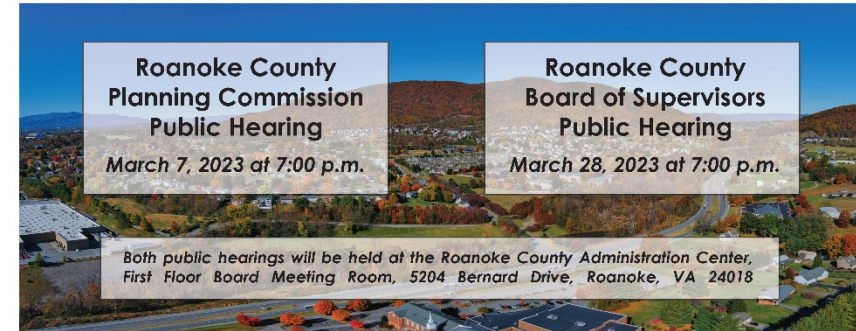
Disagree/Somewhat Disagree: 24% (4 respondents)



Fall/Winter Activities

- **October 19, 2022:** Planning Commission and Economic Development Authority held a joint meeting to review and discuss progress on the study
- **November 9, 2022:** Board of Supervisors reviewed progress on the study at a work session
- **December through February:** Staff reviewed and commented on draft Study
- **Mid-February 2023:**
 - Draft Study and comment form posted to the project webpage;
 - Over 2,600 postcards mailed to owners, tenants and renters in the study area; and
 - Email sent out to those subscribed to project updates about the availability of the draft Study and March public hearings.

Next Steps: The Roanoke County Planning Commission will hold a public hearing and will make a recommendation to the Board of Supervisors. The Board of Supervisors will then hold a public hearing and consider adopting the Route 460 Land Use and Connectivity Study as a component of the Roanoke County Comprehensive Plan. You may attend and speak at the public hearings:



Contact Us:
Megan Cronise, Assistant Director of Planning, (540) 772-2106, mcronise@RoanokeCountyVA.gov



Route 460 (Challenger Avenue) Land Use and Connectivity Study Comment Period and Public Hearings

Study Update: The draft Route 460 Land Use and Connectivity Study is now available for your review and comment. The draft Study relies heavily on 2022 public engagement efforts and includes:

- Recommended concepts to improve travel around the Bonsack area without using Route 460/Challenger Avenue;
- Proposed Future Land Use changes along Route 460/Challenger Avenue; and
- Potential safety improvements for two existing railroad crossings.



Review and Comment:

Visit www.RoanokeCountyVA.gov/460Study to review the draft Study and complete a brief survey to share your thoughts by March 17, 2023.

Draft U.S. Route 460 Land Use and Connectivity Study Outline

- Introduction
- Project Overview
- Corridor Issues
- Current Conditions
- VDOT Improvements Underway
- Transportation Improvement Tools
- Community Engagement
- Transportation Improvement Options
- Future Land Use Analysis
- Railroad Crossings
- Recommended Priority of Improvement Options
- Appendices
 - A. Roanoke County Map
 - B. Study Area Map
 - C. Railroad Crossing Study
 - D. Public Engagement Results – Survey One
 - E. Public Engagement Results – Survey Two
 - F. Public Engagement Results – Survey Three

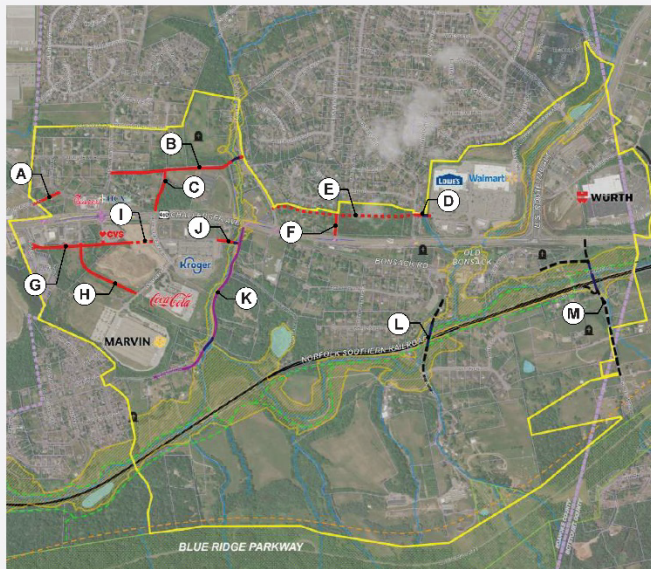


Draft U.S. Route 460 Land Use and Connectivity Study

XI. Recommended Priority of Improvement Options

Each of the potential improvement projects described in this report have different capacity to improve the quality of life in the Bonsack community. Each has the potential to improve safety and convenience, but each comes with different costs to implement. Recognizing the need to identify opportunities in a context that can be evaluated for prioritization by Roanoke County, the matrix to the right identifies some of the cost and benefit expectations of each of the improvements noted in this report.

Note, the cost, safety, and congestion/convenience scales are relative to one another, and do not reflect real dollars or expected level of service improvements, respectively.



Opportunity	Improvement	Description	Safety Impact	Congestion/Convenience Impact	Mitigate New Development	Pedestrian/ Bicycle Accommodations	Level of Public Interest	Cost	Recommended Priority
Carson Road	K	Carson Road Safety Improvements	High	High	No	Yes, Where Feasible	High	High	High
Access to East of Railroad	L	Layman Road Grade-Separated Railroad Crossing and Roadway Realignment	High	High	Yes	Yes, Where Feasible	Medium	High	High
Access to East of Railroad	M	Glade Creek Road Grade-Separated Railroad Crossing and Connection to Route 460	High	High	Yes	Yes, Where Feasible	Medium	High	High
Greenway	N	Glade Creek Greenway Extension Generally along Glade Creek	High for Pedestrians and Bicyclists	Medium	No	N/A	High	High	High
Blue Hills to East Ruritan	A	Trail Drive to Blue Hills Village Drive connection	Medium	High	Yes	Yes, Where Feasible	Medium	Medium	High
Blue Hills to East Ruritan	B	West Ruritan Road to East Ruritan Road connection	Medium	High	Yes	Yes, Where Feasible	Medium	High	Medium
Valley Gateway	G	Evan Lane to CVS Private Driveway	Medium	High	Yes	Yes, Where Feasible	High	High	Medium
East Ruritan to Walmart	E	East Ruritan Road to Hunt-ridge Drive (Optional)	Medium	High	Yes	Yes, Where Feasible	Low	High	Medium
Valley Gateway	H	Route 460/Trail Drive Intersection to Integrity Drive	Medium	High	Yes	Yes, Where Feasible	High	High	Medium
Valley Gateway	I	CVS Private Driveway to Valley Gateway Boulevard (Optional)	Medium	High	Yes	Yes, Where Feasible	Medium	Medium	Medium
Blue Hills to East Ruritan	C	Route 460/Valley Gateway Intersection to "B"	Medium	Medium	Yes	Yes, Where Feasible	High	Medium	Medium
East Ruritan to Walmart	F	Country Corner crossover to "E"	Medium	Medium	Yes	Yes, Where Feasible	Low	Medium	Medium
East Ruritan to Walmart	D	Huntridge Road to Lowe's/ Walmart Parking Lot	Low	High	No	Yes, Where Feasible	Medium	High	Low
Valley Gateway	J	Kroger Parking Lot to Carson Road	Low	Medium	No	Yes, Where Feasible	High	High	Low

Draft U.S. Route 460 Land Use and Connectivity Study

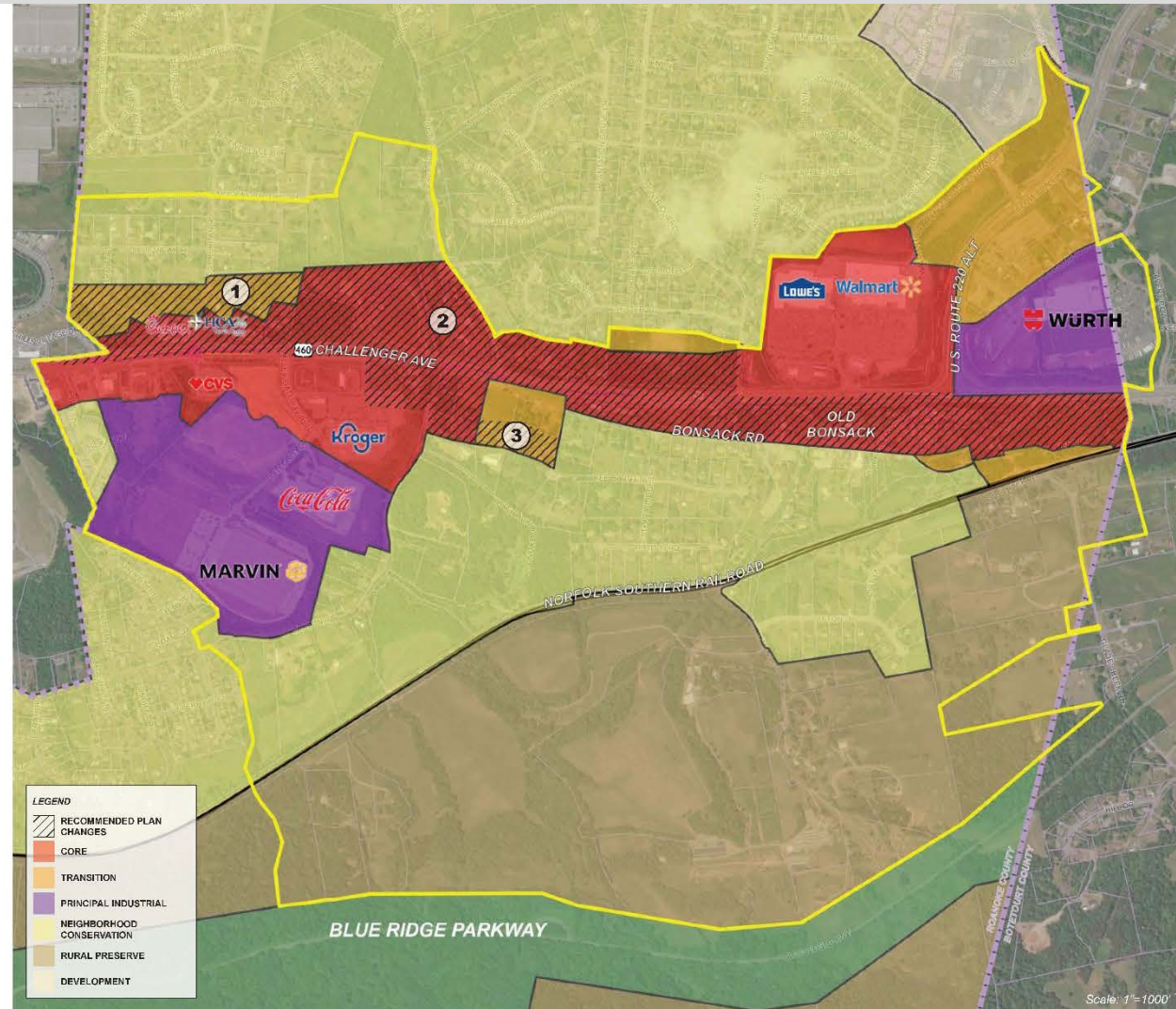
Future Land Use Map

The recommended opportunities for the County to update its Future Land Use Map are shown at the right with hatching to identify the extent of those changes.

Area 1: In the western portion of the corridor, an expansion of the Transition area to the parcels behind the Route 460 commercial Core properties is recommended. This will allow for transition uses that extend the commercial and higher density residential without disruption to the neighborhoods to the west and north of the area.

Area 2: With large parcels and frontage along the Route 460 right-of-way, this highly visible area is envisioned as an appropriate location for Core uses. This use type can take advantage of VDOT planned improvements and the improvements recommended in this study to expand the retail and commercial opportunities for the Bonsack community.

Area 3: Adjacent to an existing Transition Area, an expansion of the Transition area is recommended. This will create a buffer between the existing neighborhoods and any future commercial uses.



March 2023 Engagement and Actions

March 7, 2023: Planning Commission Public Hearing held and six speakers relayed the following comments:

Proposed Study Projects

- Concern about the alignment of proposed roadways **B and C**
- Concern about the alignment of the proposed **greenway**
- Concern about **Carson Road** safety issues, not wanting speeding to worsen, no room for bicycle accommodations
- Concerns over the **railroad study** recommendations and locations of possible improvements

VDOT Projects Underway

- Concerns about VDOT projects that will restrict turning movements
- Request that Route 460 be widened to six lanes instead of intersection projects

Other Comments

- Concerns about the use of eminent domain

March 2023 Engagement and Actions

March 17, 2023: 29-day public comment period closed and ten respondents commented through the survey, by email and by phone:

Proposed Study Projects

- Support for connecting residences to jobs and retail to minimize traffic on major highways
- Support a **greenway** along Glade Creek with connections for area residents to access it without cars
- Support **bicycle or pedestrian paths** in magenta and safe crossings of Route 460
- Concern about connection **A** sending more traffic to the Blue Hills Drive intersection
- Disagree with West Ruritan to East Ruritan connection **B** as it will make East Ruritan intersection at Route 460 more dangerous
- Disagree with connection **C** adding more traffic to the Valley Gateway intersection
- Disagree with the railroad crossing projects **L and M** ranking high
- Questions about residential impacts as a result of the potential Layman Road railroad crossing **L**
- Concern that the connecting roadways will not reduce traffic on Route 460 and will instead hinder development and redevelopment activities

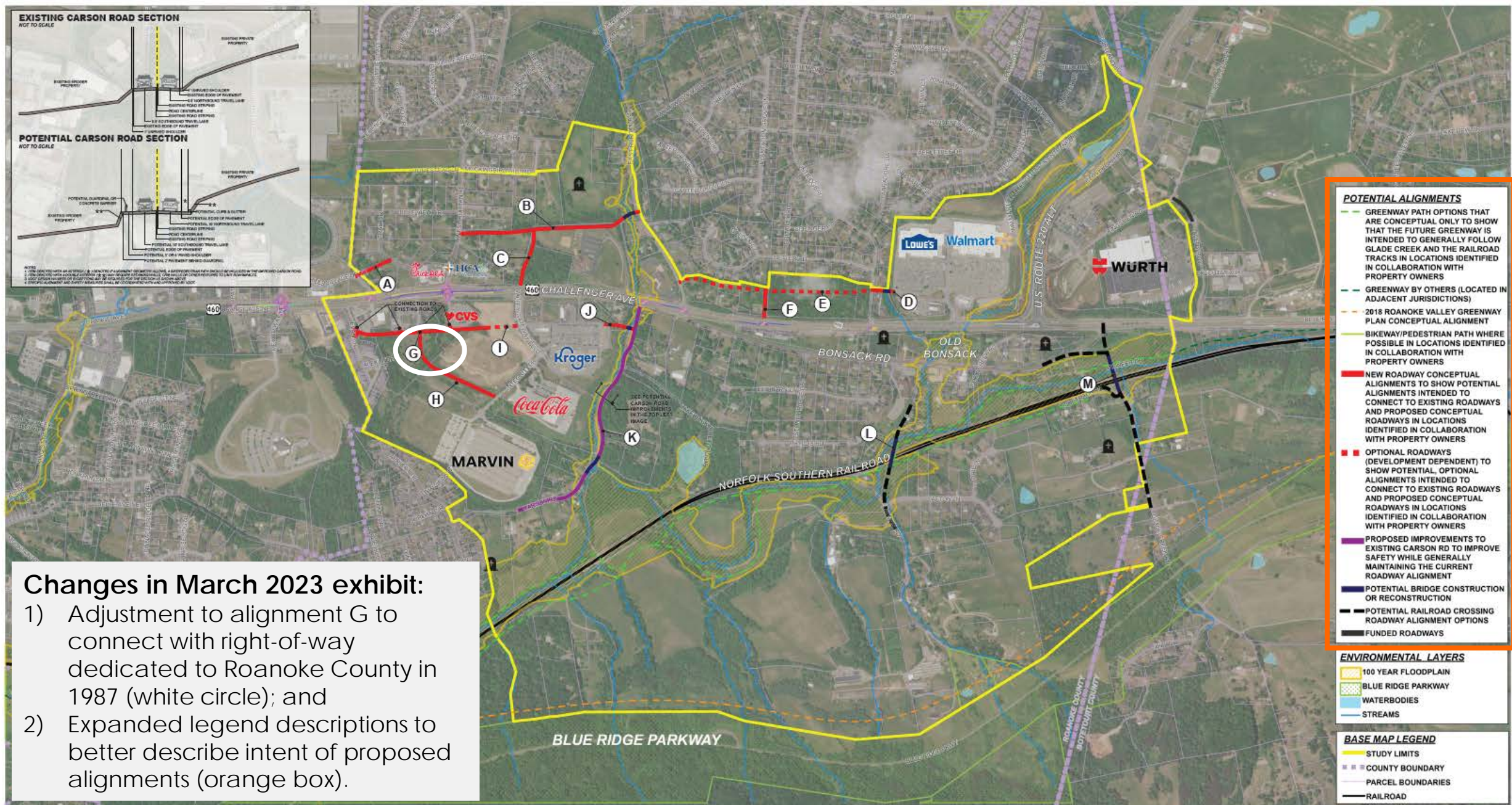
March 2023 Engagement and Actions

VDOT Projects Underway

- Concern about the West Ruritan project resulting in more U-Turns at the Valley Gateway intersection
- Concern about West Ruritan intersection and disagree with pedestrian accommodations
- Route 460 pedestrian crossings are needed but concern about VDOT project at West Ruritan that incorporates pedestrian accommodations
- Concern about Country Corner crossover
- Concern about Bonsack Road (west) proposed changes (two respondents)
- Concern about Bonsack Road (west) intersection changes encouraging residents to use the Bonsack Road (east) intersection which is dangerous

Other Comments

- Concern about crashes at West Ruritan and Valley Gateway intersections
- Concern about speeding and crime on Route 460



Changes in March 2023 exhibit:

- 1) Adjustment to alignment G to connect with right-of-way dedicated to Roanoke County in 1987 (white circle); and
- 2) Expanded legend descriptions to better describe intent of proposed alignments (orange box).

Implementation: Railroad Crossing Elimination Grant

Building off of the railroad crossing analysis performed as part of this study, Planning staff submitted a request for funding to conduct a Planning Study through the Federal Railroad Administration's Railroad Crossing Elimination Grant Program.

The area of focus includes the following at-grade railroad crossings:

- Layman Road
- Glade Creek Road

Awards are anticipated anytime.



Railroad Crossing Elimination Program: Location Map

Virginia's 6th Congressional District

September 2022

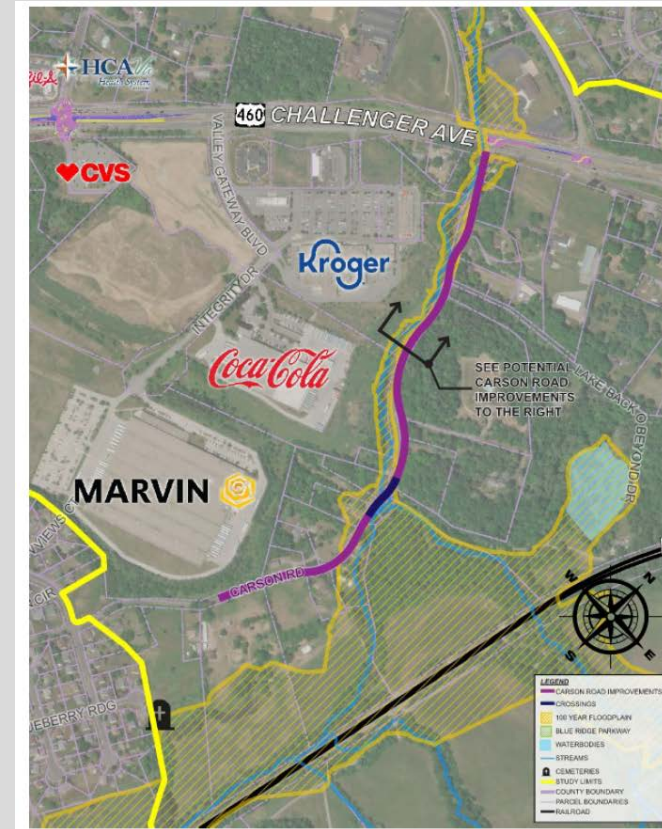
0 250 500 1,000 1,500 Feet



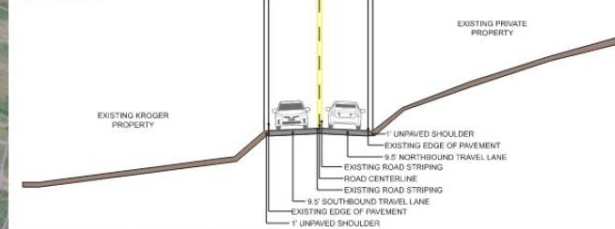
Implementation: Carson Road Safety Improvements

Due to overwhelming community feedback about the need for Carson Road improvements, Roanoke County is beginning survey activities and will initiate preliminary design activities for a SMART SCALE Round 6 application which could include:

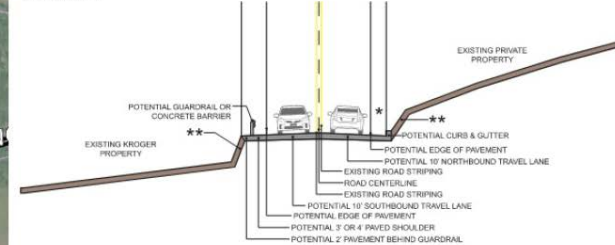
- Glade Creek bridge widening/replacement;
- Sight distance improvements;
- Shoulder improvements;
- Feasibility of bicycle and/or pedestrian improvements; and
- Feasibility of a connection to the Kroger parking lot.



EXISTING CARSON ROAD SECTION
NOT TO SCALE



POTENTIAL CARSON ROAD SECTION
NOT TO SCALE



NOTES:
1. ITEM DENOTED WITH AN ASTERISK (*) DENOTES IF ALIGNMENT GEOMETRY ALLOWS, A BIKE/PEDESTRIAN PATH SHOULD BE INCLUDED IN THE IMPROVED CARSON ROAD.
2. ITEM DENOTED WITH A DOUBLE ASTERISK (**) MAY REQUIRE RETAINING WALLS, CURB WALLS OR OTHER FEATURES TO LIMIT ROW IMPACTS.
3. VDOT DESIGN WAIVERS OR EXCEPTIONS MAY BE REQUIRED FOR THE SECTION AS SHOWN ABOVE.
4. SPECIFIC ALIGNMENT AND SAFETY MEASURES SHALL BE COORDINATED WITH AND APPROVED BY VDOT.

Implementation: Roadway Connections

Staff have used the proposed roadway improvements exhibit in several discussions with prospective developers over the past several months. The exhibit and the corresponding table are valuable tools.



Questions