



**MINUTES**

The combined November - December meeting of the Roanoke Valley Transportation Planning Organization Policy Board was held on Thursday, December 15th, 2022 at 1:00 p.m. at the Roanoke Valley-Alleghany Regional Commission office, 313 Luck Avenue, SW, Roanoke, VA. The meeting was live streamed on the [Commission's Facebook page](#).

**1. WELCOME, CALL TO ORDER**

Chair Martin called the meeting to order at 1:00 p.m.

**2. ROLL CALL (including consideration of remote participation)**

Jeremy Holmes, Secretary to the RVTPO, called the roll and stated a quorum is present.

**TPO VOTING MEMBERS PRESENT**

Mickey Johnson	Bedford County
Steve Clinton	Botetourt County
Billy Martin, <i>Chair</i>	Botetourt County
Phil North, <i>Vice Chair</i>	Roanoke County
David Radford	Roanoke County
Stephanie Moon Reynolds	City of Roanoke
Randy Foley ( <i>Alt. for Renee Turk</i> )	City of Salem
Mike Stovall	Town of Vinton
Mike Stewart	Roanoke-Blacksburg Regional Airport
Daniel Wagner ( <i>via zoom, joined late</i> )	Virginia Dept. of Rail and Public Transportation
Ken King	Virginia Dept. of Transportation – Salem District

**TPO VOTING MEMBERS ABSENT**

Steve Fijalkowski	Montgomery County
Joseph Cobb	City of Roanoke
Bill Jones	City of Salem
Keith Liles	Town of Vinton
Kevin Price	Greater Roanoke Transit Company (Valley Metro)

**TPO NON-VOTING MEMBERS PRESENT**

Lee Osborne	Roanoke County
Cody Sexton	TTC Chair

**Others Present:** Megan Cronise, Roanoke County; Will Crawford, Roanoke County; Frank Maguire, Greenway Commission; Michael Gray, VDOT; Anthony Ford, VDOT; Anita McMillan, Town of Vinton; David Jackson (via zoom), Cambridge Systematics; Tommy Miller, City of Salem; Laura Hartman, Bus Riders of Roanoke Advocacy Group; Sharon Fritz, Bus Riders of Roanoke Advocacy Group.

**TPO POLICY BOARD:** Cities of Roanoke and Salem; Counties of Bedford, Botetourt, Montgomery and Roanoke; Town of Vinton; Greater Roanoke Transit Company (*Valley Metro*); Roanoke-Blacksburg Regional Airport; Virginia Department of Rail & Public Transportation; Virginia Department of Transportation

**Staff Present:** Bryan Hill, Jeremy Holmes, Cristina Finch, Alison Stinnette, Jonathan Stanton, Virginia Mullen and Elizabeth Elmore.

**3. ACTION REQUESTED: APPROVAL OF CONSENT AGENDA ITEMS**

The following consent agenda items were distributed earlier:

- A. December 15, 2022 RVTPO Meeting Agenda
- B. September 29, 2022 RVTPO Minutes

**Motion:** by Mikey Johnson for approval of the consent agenda items (A) and (B), as presented. The motion was seconded by Randy Foley.

**RVTPO Policy Board Action:** Motion carried unanimously.

**4. REMARKS BY THE CHAIR**

- Chair Martin reported that today's meeting is being live streamed on the Roanoke Valley-Alleghany Regional Commission's Facebook page. This is part of the RVTPO's ongoing effort to improve public awareness of the important work undertaken by the Roanoke Valley Transportation Planning Organization.
- Chair Martin was pleased to announce that Andrea Garland, Director of RIDE Solutions, has been recognized as a Complete Streets Changemaker by Smart Growth America. Complete Streets Changemakers are recognized for their contribution to making their community's streets safer, more accessible, and equitable. Andrea has been recognized both for projects taken on during her time at the Commission, such as the traffic garden project with Roanoke City Public Schools, but also work throughout her career including efforts to integrate more bike amenities into the region's roads.
- Chair Martin reported that 2022 has been a busy year, with a number of significant road projects moving forward in the TPO area, and staff closing in on completion of the Roanoke Valley Transportation Plan. It has also been a year of challenges, with rising costs, labor shortages, and supply chain disruptions delaying projects and putting pressure on our local and regional transportation planners to find creative solutions to keep them on track. Mr. Martin thanked our local staff, VDOT staff, and all of the elected officials and state agency leaders who attend these TPO meetings each month to work towards the success of the whole region.

**5. DRAFT 2045 UPDATE TO THE ROANOKE VALLEY TRANSPORTATION PLAN INCLUDING THE FFY24 – 27 TRANSPORTATION IMPROVEMENT PROGRAM**

Ms. Finch, Mr. Jackson, Ms. Stinnette and Mr. Hill presented a series of PowerPoint presentations on the draft 2045 update to the Roanoke Valley Transportation Plan and the FFY 24-27 Transportation Improvement Program (the PowerPoint presentations are included with the Minutes).

**A. Report on Public Engagement**

Ms. Stinnette presented a summary of the month-long public comment period.

Chair Martin asked how the zip codes for the public survey were selected. Ms. Stinnette replied that all the zip codes in the TPO area were included in the survey. The table from the presentation represents the zip codes that responded to the survey.

### **B. Public Hearing**

Chair Martin opened the public hearing at 1:54 p.m.

Laura Hartman of 1209 Campbell Ave. SW, Roanoke VA stated: *"I am excited to be here today and to hear about all of the really important decisions that you all are making with this big vision for the whole region and transportation. My name is Laura Hartman, I am here with the group called "Bus Riders of Roanoke Advocacy Group". As you can tell from our name we care about buses. We have been showing up to local meetings at city council and any other place that seems that people are making decisions that affect bus riders. We are here today because we think that buses should be for everyone and we would love to see better, improved bus service. I was especially interested in the fact that you all are casting a vision, going forward several years, even decades. I would love to see long term, our bus system become a truly viable alternative to driving for a large portion of our population. As it is now, it is not a viable alternative to driving. I would guess that in this room, Sharon and I may be the only ones who actually ride the bus regularly, because for most of you, either it does not come close to where you go or it comes not frequently enough to make it possible for your busy life, right? That should change! Buses are better than driving in many ways. They are better than driving for the environment. All it takes is five people, even on a diesel spewing bus. All it takes is five people to be ordered fuel efficient and so if we are talking about long term climate change and trying to be responsible stewards of our earth, we need to have a really good public transit system so people can get out of their cars and into the bus. Buses are also better for public health. People who ride the bus walk a lot more, they get their steps in. People who ride the bus have better mental health because they are not as isolated. They get to see people in this community on wheels. Buses are also better for public safety. You know if I ride the bus compared with myself driving a car, I have one tenth the chance of getting in a car crash. Buses save lives because they are so much safer. I would want to challenge you to envision a region that is linked by really good transit. Some people don't have the money to maintain a car, it costs at least \$8,000-\$10,000 per year on average to own a car. That is out of reach for a lot of our citizens. I would like to just encourage you all to make it possible for more of our citizens to use the bus for their daily lives. We have a bus system; we are grateful for it. It is not good enough; it is deeply not good enough. These buses come once an hour. Can you imagine living like that? If you miss it, you are an hour late to work. How many times can you do that and still maintain your job, right? So, we need better buses. I know it's not completely up to you all, it's also up to the city and some other who we are actually also speaking with, but to the extent that you can influence this, please do. Please influence this for the better. I am not sure how much time I have left. I will just wrap it up and turn it over to Sharon. She is going to talk about a bus rider experience and why it's important."*

Sharon Fritz of 3780 Stratford Park Drive, Roanoke VA stated: *"Hi I am Sharon. We, Bus Riders of Roanoke, support our drivers in Valley Metro who are right now in contract negotiations, and they have been in contract negotiations for months. That's negotiations for five months. That's a long time, right? In Lynchburg, the contract was fulfilled in three weeks and the bus drivers got what they wanted. Last night, in Blacksburg, the buses were made free forever, and we can do that here, I really hope we can. So, the bus drivers have not gotten the contract they want. They are very underpaid. We can go to Target and get a job*

*for the holidays and get better pay than what our bus drivers are getting paid. They are taking care of my safety and everyone else who rides the bus. We need to pay them a fair and respectful living wage. And their healthcare is really expensive. And what else do the bus drivers need? Oh yeah, cheaper health care, better staffing. We need twenty-five new bus drivers; we are really understaffed and that is causing a great strain on the bus drivers. They are overworked and really tired. So, I also take the RADAR bus and we would like to help fix the RADAR buses. Their computers are awful. It's really difficult to schedule a RADAR bus and you have to schedule it way in advance. So, we think that Roanoke should have a regional transformation, like a regional transportation plan. The buses don't go into the county and the people that live in the county sometimes don't have a car, their car breaks down, they have no way to get to work and other places. Another thing we would like is buses on Sundays, everybody does things on Sundays, no one stays home on Sundays anymore. And the people that work at Starbucks and the restaurants, the people that clean hotels, the people that go to your church, the people who clean hospital rooms, they work on Sundays and need a way to get there. They are having to take an Uber every day or ride with someone else and that is really difficult for them. Does anyone have any questions right now? Okay, thank you very much for having us."*

Chair Martin closed the public hearing at 2:01 p.m.

### **C. Reflections and Potential Adjustments to the Draft Plan**

Ms. Finch updated members on reflections and potential adjustments to the draft plan and suggested that today's meeting was an opportunity for Board members to reflect on the public input received, discuss, and provide any additional feedback on the draft plan prior to its consideration for adoption next month.

Mr. Radford commented that there were only about three hundred responses through online surveys and asked if a community meeting should be held to gather more responses. Ms. Finch replied that staff was happy with the three hundred and seven responses which is more public input than was seen in the past. The participation in today's public hearing is also a notable accomplishment. A community meeting was considered, and it was determined that it would be better to do a meeting as a follow-up to showcase the plan to the region.

Mr. North asked if a community meeting would be held before or after the plan's adoption. Ms. Finch replied that it would be more like a transportation summit (similar to the one, hosted previously by the airport) to be held after the plan is adopted. Mr. Johnson asked how public comments would influence the plan if the meeting would be done after the plan's adoption and it would be more in the line of making an announcement of what had been done rather than gathering public input. Ms. Finch replied that community meetings have not been a successful public engagement tool for the Commission in the past which is why that strategy wasn't pursued this time. Mr. North commented that he would like to see a community meeting held before the plan is adopted.

**Motion:** by Phil North to arrange a community meeting (also available via zoom) to see what kind of response would be received before the plan is adopted. Mr. Stovall amended the motion to include providing feedback to the survey participants on the results. The motion was seconded by Mickey Johnson.

**RVTPO Policy Board Action:** Motion carried unanimously.

**D. Draft RVTP Amendment and Adjustment Processes**

Mr. Hill reported on the draft RVTP Amendment and Adjustment Processes (the PowerPoint presentation is included with the Minutes).

**6. ACTION REQUESTED: RESOLUTION OF SUPPORT FOR ROANOKE – BLACKSBURG AIRPORT RUNWAY EXTENSION**

Mr. Holmes presented a resolution of support for Roanoke-Blacksburg Regional Airport runway extension. Mr. Stewart expressed his appreciation for the Board's consideration.

Mr. Lee Osborne noted that the last sentence on the first page of the resolution references the Roanoke Valley - Alleghany Regional Commission instead of the Roanoke Valley Transportation Policy Board.

**Motion:** by David Radford for approval of the resolution of support for the Roanoke-Blacksburg airport runway extension, as amended. The motion was seconded by Randy Foley.

**RVTPO Policy Board Action:** Motion carried unanimously.

**7. I-81 COMMITTEE UPDATE**

Mr. North provided an update on the I-81 Committee and distributed several handouts (the handouts are included with the Minutes).

**8. ACTION REQUESTED: RESOLUTION OF SUPPORT FOR I-81 WIDENING PROJECT**

Mr. Holmes presented a resolution of support for widening I-81 southbound from two- to three-lanes from Exit 137 to Exit 128.

**Motion:** by Mike Stovall for approval of the resolution of support for the I-81 widening project, as presented. The motion was seconded by Mickey Johnson.

**RVTPO Policy Board Action:** Motion carried unanimously.

**9. OTHER BUSINESS**

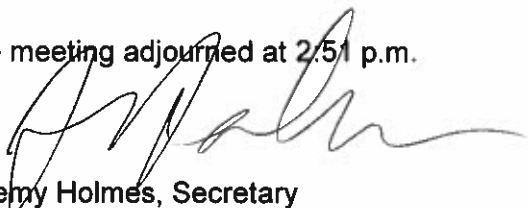
No other business was discussed.

**10. COMMENT PERIOD BY RVTPO POLICY BOARD MEMBER AND/OR PUBLIC**

No comments were made.

**11. ADJOURNMENT**

The meeting adjourned at 2:51 p.m.



Jeremy Holmes, Secretary  
Roanoke Valley Transportation Planning Organization



# Roanoke Valley Transportation PLANNING ORGANIZATION

Staffed by the  
REGIONALcommission

## 2<sup>nd</sup> Draft Review of Roanoke Valley Transportation Plan

RVTPO Policy Board Meeting  
December 15, 2022

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### RVTP Components:

- **Components:**

Interactive Executive Summary

Roanoke Valley Transportation Plan

Financial Plan

Transportation Improvement Program (TIP)

Funded Projects

Priority Projects to Pursue

Priority Regional Transportation Needs

Future Factors

Goals, Objectives, and Performance Measures

System Performance Report

Acronyms and Definitions

Interactive Map

# Draft Roanoke Valley Transportation Plan

- Metropolitan Transportation Plan
  - Present - 2045
  - Priority Regional Transportation Needs
  - Financial Plan
    - Funded Projects
    - Priority Projects/Services/Studies to Pursue
  
- Transportation Improvement Program
  - Approves planned federal obligations FFY24-27
  - Financial data by ungrouped project or grouping categories

## FFY24-27 TIP

### • Project Grouping Categories

*RVTPG FFY24-27 Roadway/Bicycle/Pedestrian/Rail Total Cost Estimate by Project Groupings*

Project Grouping Category	Total Cost Estimate of Group
Construction: Bridge Rehabilitation/Replacement/Reconstruction	\$43,157,822
Construction: Federal Lands Highway	\$1,751,432
Construction: Safety/ITS/Operational Improvements	\$1,224,938,110
Construction: Transportation Enhancement/Byway/Non-Traditional	\$85,687,280
Construction: Rail	VPRA to provide
Maintenance: Preventive Maintenance and System Preservation	\$2,956,287
Maintenance: Preventive Maintenance for Bridges	\$20,368,691

### • Ungrouped Projects

		FY 2024	FY 2025	FY 2026	FY 2027	Total FY 2024-2027	
<b>STIP ID:</b>	<b>ROA0001</b>	<b>Title: Capital Assistance</b>				<b>Recipient: County of Roanoke</b>	
FTA 5310		240,000	240,000	240,000	240,000	FTA 5310: 960,000	
State		48,000	48,000	48,000	48,000	State: 192,000	
Local		12,000	12,000	12,000	12,000	Local: 48,000	
<b>Year Total:</b>	<b>-</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>	<b>300,000</b>	<b>Total Funds: 1,200,000</b>	

# Transportation Plan

- Current state - 2022
  - Funded Projects
  - System Performance Report
  - Needs Assessment
- Future state - 2045
  - Future Factors
  - Goals, Objectives & Performance Measures
  - Priority Regional Transportation Needs
  - Priority Projects to Pursue

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## Planning Process Fiscal Considerations

- Performance-Based
- Fiscally Constrained
  - Anticipated amount of funds
  - Program specific constraints
    - SMART SCALE, STBG, TA
    - Maintenance, State of Good Repair
    - Transit funding programs
- Other funding programs exist
- Regional consensus on risks and priorities

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# Roanoke Valley Transportation Plan (RVTP) Update

Benefits and Viability Analysis of Draft Priority Projects to Pursue

presented to  
RVTPO Policy Board

presented by  
RVTPO, Cambridge Systematics, Inc.

CAMBRIDGE SYSTEMATICS 



## *Draft Priority Projects to Pursue Benefits & Viability Analysis*

### **Purpose**

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- 1. Inform RVTP financial constraint decisions based on analysis of candidate priority projects to pursue benefits and viability**
- 2. Inform future decisions on projects to pursue for future rounds of SMART SCALE, STBG, and TA funding**
- 3. Improve the process and standards for advancing concepts and solutions addressing regional transportation needs**

Approach helps operationalize RVTPOs commitment to an ongoing performance-based planning and programming process



## *Draft Priority Projects to Pursue Benefits & Viability Analysis*

### **Context**

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- RVTP financial plan demonstrates how the anticipated available funding will be utilized within the time horizon of the plan
- Funded projects make up the first several years of the RVTP's financial plan (TIP) with the remaining anticipated available funding for use on unfunded priority projects to pursue

### **Projects to prioritize include:**

- Candidate projects for inclusion in the next SYIP (FY 2024 – FY 2029)
- Other projects with defined scopes and costs that address priority regional transportation needs



## *Draft Priority Projects to Pursue Benefits & Viability Analysis*

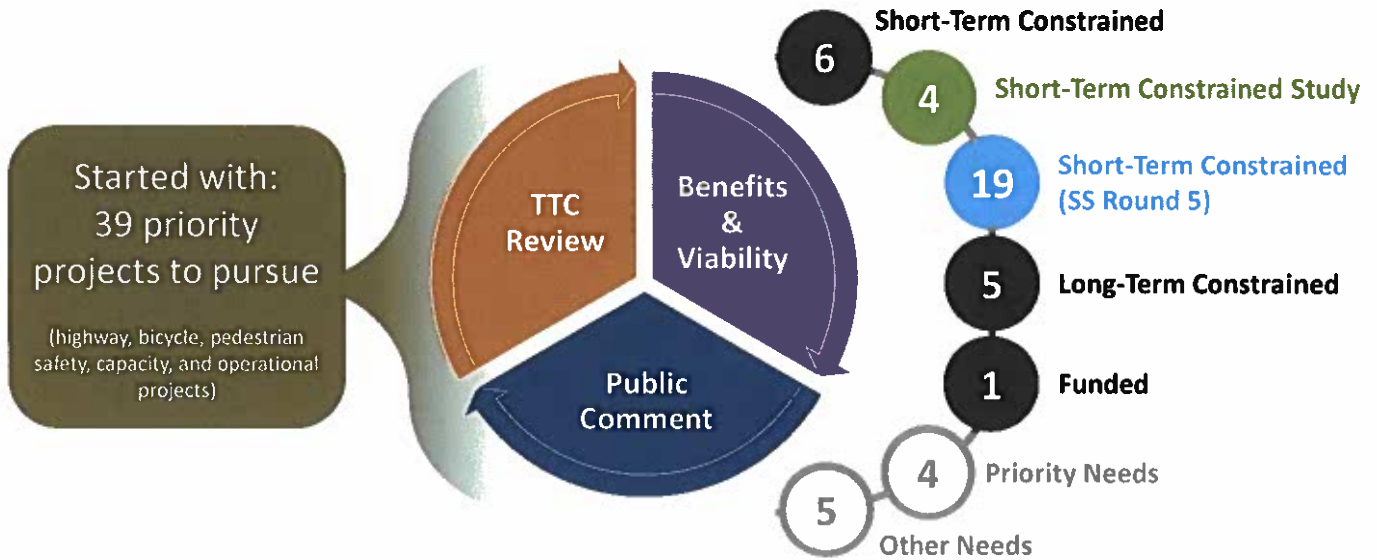
### **Approach for this RVTP**

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- Interim approach to evaluate benefits and viability
  - Consistent with available resources and data, and RVTP schedule
  - Pilot test to educate partners on value of benefits & viability analysis
  - Initiate framework to mature the process in 2023 and beyond
- The results of this analysis inform RVTP recommendations:
  - Funded
  - Short-term constrained
  - Long-term constrained
  - Priority and other needs



## Draft Priority Projects to Pursue Draft Outcomes



## Draft Priority Projects to Pursue Benefits Analysis

### Reviewed 39 total projects

- Reviewed original **Need Score** (from Fall 2021 analysis)
- Reviewed number of **RVTP objectives** addressed by project
- Detailed project **Benefits & Burdens**
- Developed project **Safety Benefit Score** (quantitative)
  - Used SMART SCALE methodology
- Conducted **Benefits Review** for Federal measures (qualitative)
  - Roadway asset condition
  - Roadway reliability benefit
  - Roadway congestion benefit



# Draft Priority Projects to Pursue Benefits Analysis Walk Through

Recommended List	Locality	RVTP0 Title	Street	Limit_From	Limit_To	Description	Need Score (0-100)	# of RTP Objectives Met (0-17)	Anticipated Transportation Benefits/ Potential Burdens of Investment	Safety Benefit Score (0-100,000)	Quality of Life Benefit (0-10)	Productivity Benefit (0-10)	Equity Benefit (0-10)
Shark Tans Canal Road (STARS)	City of Red Bank	1.361/ U.S. 466/ U.S. 11 Improvements	Orange Avenue	1.581	U.S. 11/Williamson Road	The STARS Study (Orange Avenue) study has identified operational and safety issues for the 0.68 corridor. The study's findings suggest improvements proposed for the Orange Ave and Williamson Rd intersection, including a signalized left-turn lane, and additional lanes on Williamson Rd north of the intersection. These solutions mitigate the local road safety issues, improve traffic operations, and eliminate congestion. As noted in the STARS Study (Orange Avenue) study, the 1.581 interchange at Route 466 has vehicular, pedestrian, and bicycle-related safety and congestion issues. This project will provide solutions to mitigate the safety issues for 49 miles, provide additional travel mode choices, improve traffic operations, and eliminate congestion.	90	8	Benefits: Motorists will be able to more easily turn onto Orange Avenue with the new traffic signal directing the timing of motorists' movements eliminating the uncontrolled merges that currently exist, motorists will turn north onto Williamson Road w/ fewer light cycles due to the additional turn time. Burden: Additional traffic signals will limit flow rate of traffic through the interchange providing more control over maximum time on light-off of the corridor.	10000	5	2	2

Need score based on highest scoring need consistent with project scope

Count of objectives met (out of 17 total across 7 goals)

Analysis of potential total crash and crash rate reduction (mimics SMART SCALE evaluation approach)

Review potential project benefit (high/med./low) relative to performance based on project scope



# Draft Priority Projects to Pursue Viability Analysis

- **Funding Eligibility** – comparison to key funding sources based on project cost and scope
  - SMART SCALE – HPP or DGP
  - STBG
  - TA
  - Other Federal discretionary grants
- **Three outcomes** –
  - Eligible likely (EL) - Project cost/scope fit into program standards
  - Eligible unlikely (EU) - Project cost/scope **do not** fit into program standards
  - Ineligible (I)

Helps assess potential and position project in advance of future grant cycles



# Draft Priority Projects to Pursue Viability Analysis Walk Through

Recommended Use	Locality	RV/TPO Title	Street	Limit_From	Limit_To	Description	Total Cost Estimate	Discretionary Federal/State Grant (DFG) - List Name	Smart Scale DGP Federal	Smart Scale HPPP Federal	TA	STBG
Long-Term Considered	City of Beaverton	Beaverton River Greenway - Underhill	OR Road	Water Pollution Control Plant	WPA property	Construction of the Beaverton River Greenway from the Water Pollution Control Plant to WPA property	\$8,750,000	EU	EU	EU	I	I
Long-Term Considered	City of Beaverton	Highway 26th Corridor Access Improvements	U.S. 226	Frontier Road		Provide more direct access from U.S. 226 to VTCN campus by adding ramps to enable travel from Frontier Road to U.S. 226 North and southbound U.S. 226 to Frontier Road.	\$130,000,000	Private funding, via Program	EU	EU	I	EU
Priority Needs	City of Beaverton	Church Avenue Bicycle Accommodations	Church Avenue	Jefferson St.	5th St.	Cyclist and potential lane reconfiguration (converting from one- to two-way travel lanes with associated signal upgrades)	\$8,000,000	EU	EU	EU	EU	EU

**Total Cost Estimate** – based on latest available scope and VDOT/locality estimates

**Discretionary Federal/State Grant** – many possible options, including new federal opportunities identified in the Bipartisan Infrastructure Law (note, most require a local match)

**SMART SCALE DGP/HPPP**– DGP (District Grant Program) candidates compete within Salem District, HPPP (High Priority Projects Program) candidates compete statewide, EL/EU based on R1-R4 insights

**TA/STBG**– EL/EU/I based on insights from prior funding, and project cost/scope



# Draft Priority Projects to Pursue Benefits & Viability Analysis

## What did we learn?

- **Difficult to replicate SMART SCALE analysis** without detailed project scopes
- **Readily available data and methodology** for safety benefits analysis
- **Regional travel demand model** needed for reliability and congestion analysis
- **Mixed qualitative and quantitative approach** provides enough variables to inform decision making, without over-complicating process
- **Aligning needs scores with project benefits** can create inconsistencies
  - Different methodologies
  - Low need with high project benefit
  - High need with low project benefit
- **Other factors inform viability** beyond just scope and cost
  - For example: readiness, right of way sufficiency, coordination with other projects, regional and local support

These outcomes pose different questions:

- Did we not understand the need correctly?
- Is the project scope not addressing the need?



## *Draft Priority Projects to Pursue Benefits & Viability Analysis*

- Support justifications for final RVTP financial constraint
- Use as a tool to **inform decision making, not the tool to make decisions**
- **Version 1.0 represents a simple starting point, creating a platform for future enhancement**
- **Serves multiple purposes supporting the RVTP's performance-based planning and programming process**



### Summary of Final Public Engagement Roanoke Valley Transportation Plan

RVTPO Policy Board Meeting  
December 15, 2022

# Public Engagement Strategies



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# Participation

Survey	Participants
Roadway	126
Pedestrian & Bicycle	114
Transit	67
Total	307

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# Zip Code

Zip Code	% population	% response
24012	11%	14%
24013	3%	4%
24014	7%	5%
24015	6%	27%
24016	3%	9%
24017	9%	4%
24018	14%	14%
24019	10%	13%
24153	14%	4%
24175	3%	1%
24179	7%	2%
Other zip codes	14%	3%

\* The table represents the percent of the RVTPO study area population by zip code and the percent by zip code that responded.

# Age & Race or Ethnicity

Age	% population	% response
18 to 24 years	10%	0%
25 to 34 years	15%	22%
35 to 44 years	14%	22%
45 to 54 years	16%	15%
55 to 64 years	17%	17%
65 years and over	28%	24%

Race or Ethnicity	% population	% response
Black or African American	14%	3%
Hispanic or Latino	4%	6%
White or Caucasian	78%	83%
Other	4%	9%

\* The table represents the percent of the RVTPO study area population demographics by Age, Race or Ethnicity compared to the percent that responded.



# Household Income

Household Income	Participants
Less than \$25,000	6%
\$25,000 to \$49,999	15%
\$50,000 to \$99,999	33%
\$100,000 to \$149,999	33%
\$150,000 or more	11%

# Public Input on Funded Projects

Response	Vehicle & Roadway Survey		Pedestrian & Bicyclist Survey		Transit Survey	
	Number	Percent	Number	Percent	Number	Percent
Yes	77	67.0%	76	77.6%	35	57.4%
No	19	16.5%	12	12.2%	13	21.3%
Other	19	16.5%	10	10.2%	13	21.3%
<b>Total Responses</b>	<b>115</b>	<b>100.0%</b>	<b>98</b>	<b>100.0%</b>	<b>61</b>	<b>100.0%</b>

\* The table represents the percent of the participants that answered "yes, no or other" on the first question about currently funded projects.

# Public Input on Regional Priority Needs

	Roadway	Bike/Ped	Transit	Total
Existing Locations	23	78	3	104
New Locations	58	59	39	156
Total Locations	81	137	42	260

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# Public Input on Regional Projects to Pursue

“Do you believe these proposed projects are the best use of future taxpayer’s money to improve (Roadway, Pedestrian & Bicyclist, Transit) in the Roanoke Valley?”.



Roadway Survey



Pedestrian and Bicyclist  
Survey



Transit Survey

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## Public Input on Draft Roadway Projects



Roadway Projects	No	Yes	Total
Hershberger Road	8	30	38
I-581/U.S. 460/U.S. 11 Improvements	10	39	49
Jefferson Street	11	23	34
King Street	13	22	35
Main Street Bridge Replacement and Improvements Project	9	32	41
Orange Avenue	11	26	37
Orange Avenue - 11th to 24th Operational Intersection Improvements	16	24	40
Orange Avenue - Kimball - Plantation Road Improvements	17	22	39
Orange Avenue at I-581 Interchange Reconfiguration	0	7	7
Roundabout at Hardy Road and Bypass Road	15	16	31
Route 220 Access Management - Route 11 to Appalachian Trail	13	16	29
Rt 220 Access Management/Park & Ride - AT to Commons Pkwy	12	18	30
Wiley Drive over Roanoke River near Franklin Road Bridge Replacement	13	22	35
Williamson Road Multimodal Improvements	17	30	47

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## Public Input on Draft Roadway Projects



Roadway Projects	No	Yes	Total
East Main Street Phase II (Previous UPC 106710)	14	12	26
I-581 to Cove Road	26	14	40
Route 220 in Daleville - Intersection Conversions to RCUTs	17	9	26
Texas Street Widening from Roanoke Boulevard to Electric Road	24	5	29
Virginia Tech Carillon Access Improvements	24	14	38

Roadway Projects	No	Yes	Total
Cove Road Streetscape	17	17	34

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## Public Input on Draft Bike/Ped. Projects



Bike and Pedestrian Projects	No	Yes	Total
Brambleton Avenue Bicycle and Pedestrian Improvements	2	33	35
Campbell Avenue Bicycle and Pedestrian Improvements	3	34	37
Chaparral Drive Pedestrian Improvements	8	14	22
Church Avenue Streetscape	9	19	28
Cove Road Streetscape	4	21	25
East Main Street Phase II	8	18	26
East Roanoke River Greenway Gap, Phase 2	4	31	35
Electric Road Pedestrian Signal Improvements, Electric to Postal Dr.	6	19	25
Hardy Road and Bypass Road Roundabout	8	18	26
Hershberger Road Streetscape	3	26	29
I-581/ U.S. 460/ U.S. 11 Improvements	5	23	28
Jefferson Street Multimodal Improvements	7	29	36
Liberty Road Multimodal Improvements	8	25	33
Lick Run Greenway Phase 4	5	24	29
Main Street Bridge Replacement and Intersection Reconstruction	5	28	33
Memorial Avenue Streetscape	10	19	29
Orange Avenue - Kimball - Plantation Road Improvements	12	13	25
Orange Avenue Operational Improvements	8	20	28
U.S. 220 Access Management and Park & Ride	7	13	20
Valley Road sidewalk under I-81	7	13	20
Walrond Drive Pedestrian Improvements	10	16	26
West Main Street Pedestrian Improvements, Phase 3	5	14	19
Williamson Road Multimodal Improvements	5	26	31
Williamson Road Sidewalk	5	26	31

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## Public Input on Draft Bike/Ped. Projects



Bike and Pedestrian Projects	No	Yes	Total
Electric Road Safety Improvements , Grandin Rd. Ext. to Keagy Rd.	9	9	18
Electric Road Safety Improvements, Stonybrook to Grandin Rd. Ext.	10	10	20
Orange Avenue at I-581 Interchange Reconfiguration	3	3	6

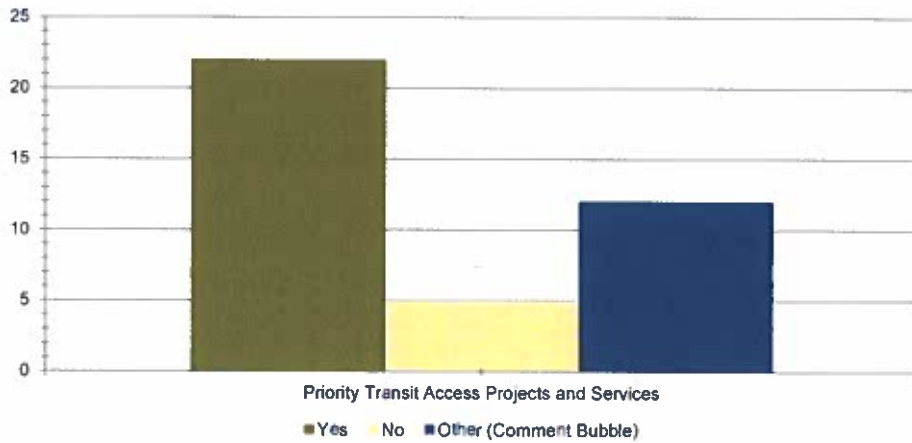
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# Public Input on Draft Transit Projects



## Maintaining Existing Transit Projects and Services



12/15/2022

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PLANNING ORGANIZATION  
REGIONAL COMMISSION  
14

## Questions?

Alison Stinnette  
Transportation Planner  
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Roanoke Valley Transportation  
PLANNING ORGANIZATION  
REGIONAL COMMISSION



**PUBLIC HEARING**  
Draft Roanoke Valley Transportation Plan  
including the FFY24-27 Transportation  
Improvement Program



Reflections and Potential Adjustments  
to the Draft Plan



# RVTP and TIP Draft Amendment/Adjustment Processes



## Roanoke Valley Transportation PLANNING ORGANIZATION

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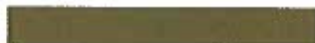
DRAFT FY 2024-2027 Transportation Improvement Program	
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Roanoke Valley Transportation Plan  
2019 Update 2022

### RVTP Amendment and Adjustment Processes

Draft November 4, 2022



December 15, 2022 RVTPO Meeting

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## Introduction

### Where We Are

- Current separate processes for Transportation Plan and Transportation Improvement Program (TIP)
- Perceived issues with current Plan amendment structure (10% cost increase)

### Looking to Improve

- In the Roanoke Valley Transportation Plan (RVTP) update, the TIP is more closely associated and incorporated into the Plan than previously.
- Projects may be listed in the TIP, but more information is provided about them in the Plan, hence the increased need for periodic revision.
- The same amendment and adjustment requirements in the TIP regarding cost increases are being adopted for the whole RVTP.

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# Amendments

## Actions Requiring an Amendment

- Adding or deleting a funded or unfunded priority project to pursue
  - Any roadway project on a Corridor of Statewide Significance
  - Federally eligible roadway, bicycle, pedestrian, or transit project/service anywhere in the region
- Adding or deleting a grouping category or ungrouped project in the TIP
- A major change in project cost estimate
- Major change in Project/Project Phase Initiation Dates
- Major change in design concept or design scope

**Amendment** A revision that involves a major change to a project included in a metropolitan plan or TIP including the addition or deletion of a project or a major change in project cost, project/project phase initiation dates, or a major change in design concept or design scope (e.g., changing project termini or the number of through traffic lanes or changing the number of stations in the case of fixed guideway transit projects).

## Sliding Scales of Project/Phase Cost Increase Thresholds

FHWA Project/Phase Cost Thresholds for Amendments

Approved RVTP Total Estimated Project Cost	Estimate Increase Requiring Amendment
\$2 million or less	>100%
>\$2 million to \$10 million	>50%
>\$10 million	>25%
>\$20 million to \$35 million	>15%
>\$35 million	>10%

FTA Project/Phase Cost Thresholds for Amendments

Approved RVTP Total Estimated Project Cost	Estimate Increase Requiring Amendment
\$2 million or less	>100%
>\$2 million to \$10 million	>50%
>\$10 million	>25%



# Adjustments

## Examples of Adjustment Actions

- A new priority transportation need
- Minor changes in project design concept, scope, or description that do not add/remove a transportation solution or need addressed by the project
- Moving a project funding from year to year
- Minor changes within a project phase start date
- Change in a project's lead agency
- Change in the funding source (s)
- Funding changes less than the threshold established in the sliding scale

### Administrative Modification

**(Adjustment)** A minor revision that includes minor changes to project/project phase costs, minor changes to funding sources of previously included projects, and minor changes to project/project phase initiation dates.

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## Amendment vs. Adjustment: Project Examples

### Highway/Bike/Ped Example

Staff receives a request from the City of Salem to change the project scope from a greenway to a sidewalk behind the existing curb with bike lanes striped within the existing pavement. This is a major scope change (due to the solution change) to a project in the Funded Projects portion of the RVTP.

**This request is an amendment.**

Project Details	
<b>Basic Information</b>	
RVTP Project Title	Elizabeth Greenway
RVTP ID	2648 0717 117
State Project Title	ELIZABETH GREENWAY
State ID	113566
Locality	City of Salem
Project Administrator	City of Salem
<b>Location</b>	
Facility Name	Alpha Street
Road Number	N/A
Functional Classification	Other
Links From	Lynchburg Turnpike
Links To	Texas Street
Project Length (mi.)	0.15
<b>Project Details</b>	
Project Description	Construct approximately 1.1 mile of multi-use trail on Alpha Street and Lynchburg Turnpike, sidewalk on the west side of Corporate Blvd. and bike lanes to connect the Elizabeth Campus property and the Salem Commerce Park. Build a bike stand accommodation along Texas St. Complete missing links between East Main Street and Mission Creek Greenway.
Transportation Solutions Utilized	New Shared-Use Path/ADA Accessible Ornamental Trail, New Sidewalk, New Bike Lane
Need Type(s) Addressed	Safety (Bike), Safety (ped)
Need ID(s) Addressed	N/A
Anticipated Transportation Benefits	People will be able to walk or bike between the Elizabeth Campus, Salem YMCA, and other businesses in the corridor.
Anticipated Objectives Met	1A, 3A, 3B, 3D, 4A, 4B, 7A, 7B, 7C, 7D
<b>Funding Assurances</b>	
Funding Source	101746
Information Provided	
Total Funding Allocation	112
Total Cost Estimate	\$1,632,977
<b>Funding Information - Real Time</b>	
Changes	Construction Transportation Enhancement/Other/Non-Traditional

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# Amendment vs. Adjustment: Project Examples

## Highway/Bike/Ped Example

Staff receives a request from the City of Roanoke that the project will increase in cost, which will be covered completely by the city. The project cost will increase by \$300,000. Regardless of the funding source, if the project's overall cost increase exceeds the established thresholds, an amendment is triggered. In this case, the increase is 34%. This is a funding change less than established thresholds.

**This request is an adjustment.**

FHWA Project/Phase Cost Thresholds for Amendments

Approved RVTP Total Estimated Project Cost	Estimate Increase Requiring Amendment
\$2 million or less	>100%
>\$2 million to \$10 million	>50%
>\$10 million	>25%
>\$20 million to \$35 million	>15%
>\$35 million	>10%

Project Details	
Basic Information	
RVTP Project Title	9th Street Pedestrian and Transit Improvements
RVTP ID	2040 0717 012
State Project Title	9TH STREET MULTIMODAL IMPROVEMENTS
State ID	117994
Locality	City of Roanoke
Project Administrator	Town of Vinton
Location	
Facility Name	9th Street, 0E
Route Number	N/A
Function Classification	Major Collector
Limits From	Jarvison Avenue
Limits To	Highland Avenue
Project Length (mi)	0.21
Project Details	
Project Description	Add bus shelters, pedestrian signals, upgraded ADA curb ramps
Transportation Solutions Utilized	Streetcar Improvements (Signal, benches, landscaping, bike parking, etc.), Bicycle/Pedestrian Crossing Improvements, Bicycle/Pedestrian Crossing Improvement
Need Type(s) Addressed	Safety (ped)
Need ID(s) Addressed	
Anticipated Transportation Benefits	Pedestrian, cyclists, and vehicle operators will benefit from the improvements made to sidewalks and on-road parking
Anticipated Objective Met	1A, 3B, 3D, 4A, 4B, 5A, 7A, 7B, 7C, 7D
Funding Allocation	
Leasing Amount	\$131,811
Information Funding	
Total Funding Allocation	160
Total Cost Estimate	\$829,050
Funding Source(s) (FAC # (if applicable))	
Groupings	Construction - Transportation Enhancements@Roanoke-Trailhead

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# Amendment vs. Adjustment: Project Examples

## New Priority Regional Transportation Need

Staff receives a request from Roanoke County to add the McAfee Knob Trailhead Shuttle, currently a demonstration project, as a new priority regional transportation need. The Priority Regional Needs section of the RVTP would be **adjusted** to include the need. The TTC and RVTP Policy Board would be notified of the inclusion.



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# Amendment vs. Adjustment: Project Examples

## New Priority Projects to Pursue

Staff receives a request from a locality for a New Priority Project to Pursue. Running under the assumption that there is an existing priority need and solution, an **amendment** would be required to include it in the RVTP Priority List of Projects.



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## Procedures for Amendments and Adjustments

### Who Can Initiate?

- Localities
- Modal agencies
- Regional agency



### What Information to Submit in the Project Request?

1. Submitting agency
2. Project manager
3. Project title
4. Road/Facility Route/Name/Number
5. Project start and end locations
6. Project length
7. General project description
8. Primary need for the project
9. Cost in present year dollars
10. Anticipated year of project initiation

### What Information to Submit for a New Need Request?

1. Need type
2. Location
3. Termini
4. Rationale for need



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## Amendments Timeline

Milestone	Date
Deadline to request an amendment for consideration as early as the following month	First Friday of month prior to the month when the amendment is desired
Opening of 14-day public comment period	By the Fourth Thursday of the month prior to the month when the amendment is desired
TTC considers draft amendment and makes recommendation to RVTPO Policy Board	The following month's regularly scheduled TTC meeting unless a special-called meeting is requested.
Public hearing and consideration of draft amendment by the RVTPO Policy Board	The following month's regularly scheduled Board meeting unless a special-called meeting is requested.

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Good afternoon Commonwealth Transportation Board members, Secretary Miller, Commissioner Brich and Director DeBruhl,

My name is Phil North and I currently serve as the Chairman of the Roanoke Valley-Alleghany Regional Commission, Vice Chairman of the Roanoke Valley Transportation Planning Organization, Chairman of the VACO Transportation Steering Committee and I also serve on the Roanoke County Board of Supervisors.

I am here today to speak to item 12 on your agenda concerning a potential SMART SCALE application for Interstate 81 between Exit 137 and 128. I spoke to you in May during the Salem District Spring public hearing about this very section of interstate.

As you are aware, Interstate 81 is critical to the economic vitality of the Commonwealth with the highest per capita truck volume in the state, carrying nearly 50 percent of the state's value of goods. Interstate 81 also experiences the highest degree of congestion and crash density in the state. When these factors are combined, they result in the highest proportion of incident delay compared to all other Virginia interstates.

Interstate 81 is the artery connecting the Roanoke Valley to the New River Valley and to Virginia Tech. In addition to serving as a preferred route for commuters and travelers, the interstate provides a connection to flights in and out of the Roanoke-Blacksburg Regional Airport, to two Amtrak trains each day, to Virginia Tech's Blacksburg campus, to the Virginia Tech Carilion School of Medicine in Roanoke and to Radford University Carilion, also in Roanoke. The SMART Way bus travels Interstate 81 daily to provide service between Roanoke and Blacksburg, and the Virginia Breeze Bus Line also travels Interstate 81 daily between Washington, D.C., and Bristol with stops at the Exit 140 Park and Ride and the Falling Branch Park and Ride in Christiansburg.

The segment of interstate you will be discussing today, southbound between Exit 137 at Wildwood Road and Exit 128 at Ironto where the truck climbing lanes begin, is the *only* segment of the 32-mile-long interstate between Christiansburg and Troutville that is not currently funded for widening. While vitally important, this project was the first Interstate 81



Corridor Plan project to miss being funded through the original Interstate 81 project programming in 2020. The *northbound* segment between Exit 118 in Christiansburg and Exit 137 at Wildwood Road is currently in design.

As you know, there are great efficiencies and cost savings in designing and widening both directions of interstate at the same time. Further, delaying widening of the southbound segment for several years will only cause redesign, reconstruction and increased driver disruption when this project is eventually programmed.

I also wanted to bring to your attention the sobering crash history along this seven-mile-long, southbound segment of interstate:

- There have been 251 crashes since 2018, for an average of 50 crashes per year, or *about one crash per week*; and
- Five deaths have occurred in four crashes since *only* February 2020.

When combined with already high traffic volumes, these frequent crashes gridlock not only Interstate 81 Southbound, but also Route 11/460 and any other east/west route in the region.

In summary, it is an opportune time to fund widening of this one remaining piece of Interstate 81 to improve safety, reliability and essential connections between the New River Valley and the Roanoke Valley.

Thank you.



COMMONWEALTH OF VIRGINIA  
HOUSE OF DELEGATES  
RICHMOND

TERRY L. AUSTIN  
POST OFFICE BOX 400  
BUCHANAN, VIRGINIA 24066

NINETEENTH DISTRICT

COMMITTEE ASSIGNMENTS:  
TRANSPORTATION (CHAIR)  
APPROPRIATIONS (VICE-CHAIR)  
RULES

December 2, 2022

The Honorable Glenn Youngkin  
Members of the General Assembly

Dear Ladies and Gentleman,

Chapters 837 and 846 of the 2019 Acts of Assembly (2019 Acts of Assembly) established Chapter 36 of Title 33.2 of the Code of Virginia, creating the Interstate 81 (I-81) Improvement Program and Fund and directed the Commonwealth Transportation Board (Board) to establish an I-81 Committee (Committee). The purpose of the Committee is to provide advice and recommendations to the Board regarding the development of the I-81 Program (Program) and updates to the I-81 Corridor Improvement Plan (Plan). The Board established the Committee in 2019 and continues to convene at least twice a year.

The I-81 Corridor Improvement Fund (Fund) became effective on July 1, 2019. Sources of revenues supporting the Fund include a truck registration fee, an I-81 corridor regional fuels tax, and statewide diesel and road taxes. In 2020 the General Assembly made additional changes to the Fund and, as a result, over the next six years, it is expected to support over \$2 billion in improvements on the I-81 corridor.

The Virginia Department of Transportation (VDOT) and the Department of Rail and Public Transportation (DRPT) briefed the Committee on July 7, 2022, on the status of the 81 Program, which includes both operational, capital, and multi-modal improvements. The original 81 Program identified 106 projects and prioritized 64 projects for funding by 2033. Current revenue projections support additional projects estimated at \$1.0 - \$1.3 billion by 2040.

All operational improvements on the corridor including curve improvements, traffic cameras, digital message signs, and safety service patrol upgrades are complete. In each VDOT district: i) 14 of the 23 Bristol District projects, ii) 5 of the 11 Salem District projects, and iii) 10 of the 22 Staunton District projects are complete. Additionally, some arterial improvements along VDOT-maintained arterials are complete, with the remaining improvements under design and scheduled for construction in 2023.



COMMONWEALTH OF VIRGINIA  
HOUSE OF DELEGATES  
RICHMOND

ERRY L. AUSTIN  
POST OFFICE BOX 400  
UCHANAN, VIRGINIA 24066

NINETEENTH DISTRICT

COMMITTEE ASSIGNMENTS:  
TRANSPORTATION (CHAIR)  
APPROPRIATIONS (VICE-CHAIR)  
RULES

Along with the capital and operational improvements included in the Plan, several multimodal improvements have been planned and implemented, to provide meaningful bus transit and rail connections throughout the corridor. The Virginia Breeze, Highlands Rhythm and Valley Flyer bus systems support the corridor. The Plan also includes the expansion of passenger and freight rail in the New River Valley. In June of 2022, negotiations were finalized with Norfolk Southern to improve the rail systems near the I-81 corridor. A second Amtrak train on the Roanoke Route went into service in July of 2022.

The Committee has reviewed the annual I-81 Corridor Improvement Program Plan Progress Report which will be acted upon by the Board on December 7, 2022. The Committee supports VDOT's approach to the Plan and remains committed to addressing the many needs along the I-81 Corridor.

Sincerely,

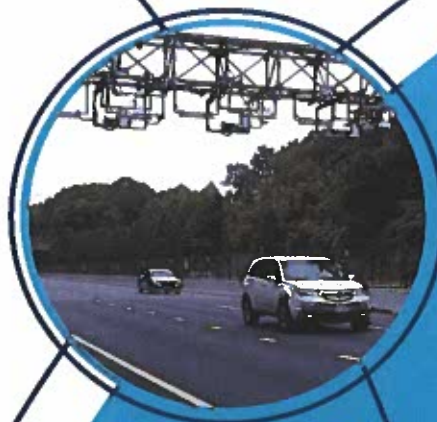


Terry Austin  
Chairman, I-81 Committee

Cc: I-81 Advisory Committee



# I-81 Program Progress Report



DECEMBER 2022

Prepared for:



Prepared by:



**Commonwealth  
Transportation Board**

# I-81 Program Progress Report

## Introduction

In April 2019, the Virginia General Assembly enacted legislation that Governor Ralph Northam signed into law establishing the Interstate 81 (I-81) Corridor Improvement Program and Fund, which advances the projects identified in the I-81 Corridor Improvement Plan (the Plan) for implementation. The Plan was approved by the Commonwealth Transportation Board (the Board) in December 2018 following an evaluation of the corridor. Chapters 837 and 846 of the 2019 Virginia Acts of Assembly specify the roles and responsibilities of the Board and the I-81 Committee (the Committee) to enact the I-81 Corridor Improvement Program (the Program) and Fund (the Fund).

## Legislative Requirements

Section 33.2-3602 of the legislation requires the Board, in consultation with the Committee, to report to the General Assembly by December 15 of each year "regarding the status and progress of implementation of the Program." This report is mandated to include the following information:

- ➔ The safety and performance of the I-81 corridor including:
  - ✓ Crash frequency and severity per mile, expressed in equivalent property damage only (EPDO) crashes
  - ✓ Person-hours of delay per mile
  - ✓ Frequency of lane-impacting incidents per mile
  - ✓ Duration of a lane closure
- ➔ An assessment on the effectiveness of the operational strategies and capital projects implemented and funded through the Program
- ➔ The status of capital projects funded through the Program
- ➔ The current and projected balances of the Fund



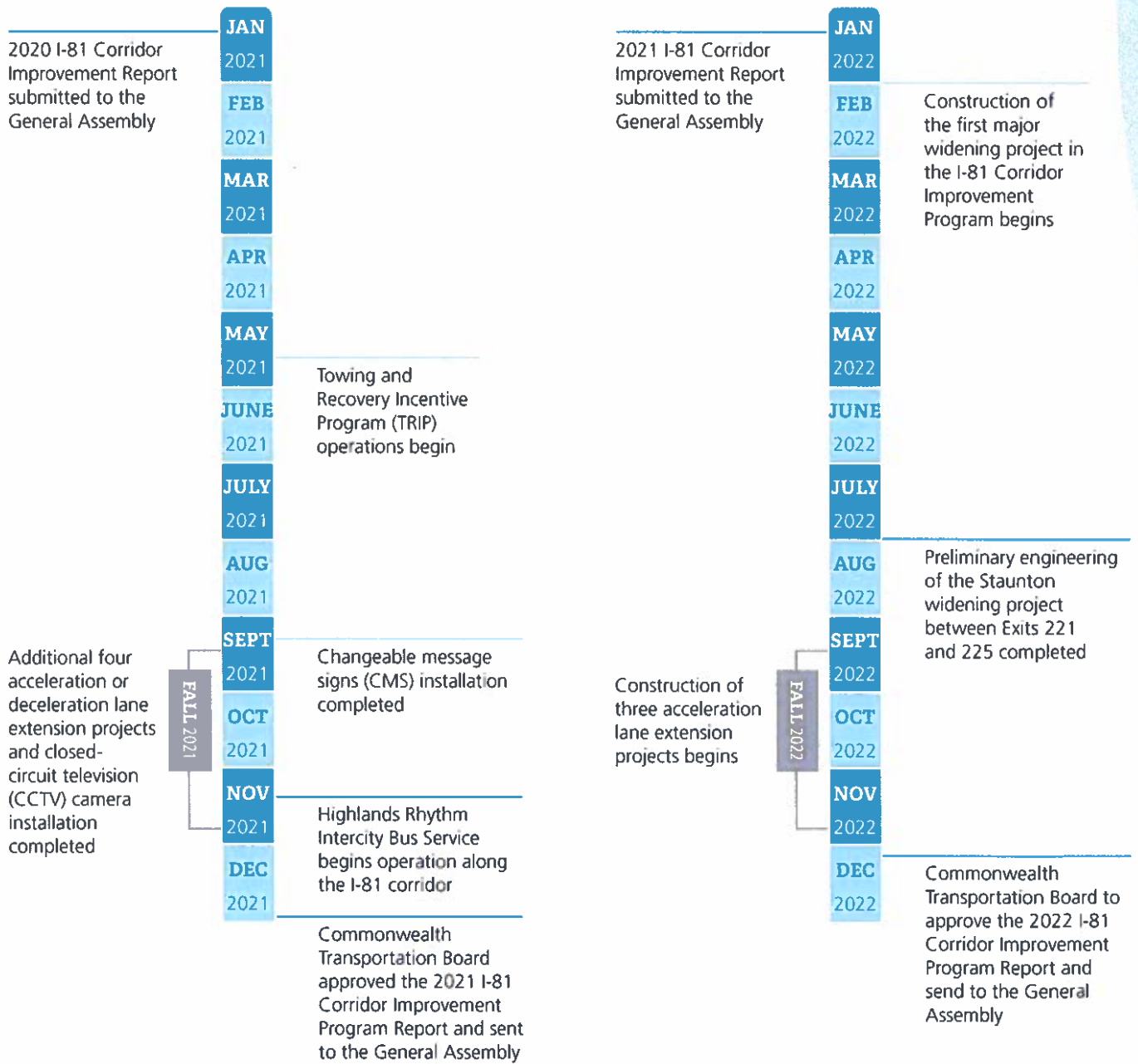
House Bill 2718 (Chapter 837) introduced by Delegates Steve Landes and Terry Austin, and Senate Bill 1716 (Chapter 846), introduced by Senators Mark Obenshain and William Carrico, establish the I-81 Corridor Improvement Program, Fund, and Committee. Governor Ralph Northam announced amendments in March 2019, providing dedicated annual funding to the corridor, estimated initially as \$103 million in fiscal year 2020 and growing to an estimated \$163 million in fiscal year 2025. These funds will support the \$2 billion improvement program (estimate as of the 2018 Plan). The revenues for the Fund were provided through the creation of a new truck registration fees as well as the establishment of an I-81 corridor regional fuels tax and statewide diesel and road taxes.

During the 2020 General Assembly, House Bill 1414 (Chapter 1230) and Senate Bill 890 (Chapter 1275) made the following changes to the Program and Fund:

- ➔ Authorized the sale and issuance of bonds with an aggregate principal amount of \$1 billion
- ➔ Converted the regional fuels tax to a cents per gallon tax with the opportunity for annual growth based on the Consumer Price Index
- ➔ Amended the regional fuels tax to only include localities through which I-81 passes or cities wholly encompassed by a county through which I-81 passes

- ➔ Allocated additional funding for the corridor through the Interstate Operations and Enhancement Program. Previously provided statewide revenue sources are committed to the Commonwealth Transportation Fund beginning in fiscal year 2021

## Timeline of Events



## Current and Projected Balances of the Fund

As of October 2022, the Virginia Department of Transportation (VDOT) documented the current and projected funds available and allocations of the Program. The current and projected balances of the Fund are summarized in **Table 1**, of which all available funds are expected to be allocated to projects within the Program. The amounts shown in the table also reflect the allocation of funding adopted by the Board on July 7, 2022, for the 32 projects amended to the Fiscal Year 2023-2028 SYIP. Estimated schedule information for the 47 capital improvement projects amended to the Six-Year Improvement Program (SYIP) and the capital improvement project yet to be adopted into the SYIP is available in **Appendix A** and can be found online at [www.improve81.org](http://www.improve81.org). The full program schedule is in draft form since the last remaining project (widening to six lanes between Exits 313 and 317) has not been adopted by the Board into the SYIP.

**Table 1.** Current Versus Projected Funds Available Based on the FY 2023-2028 SYIP (in millions of dollars)

Source	PV	FY 2023	FY 2024	FY 2025	FY 2026	FY 2027	FY 2028	Total
I-81 Regional Fuels Tax*	\$217.3	\$78.8	\$80.0	\$80.7	\$81.4	\$83.2	\$85.2	\$706.6
I-81 Bond Proceeds	\$101.9	\$0.0	\$0.0	\$0.0	\$0.0	\$14.8	\$0.0	\$116.7
I-81 TIFIA Proceeds	\$97.9	\$0.0	\$258.2	\$0.0	\$0.0	\$379.8	\$0.0	\$735.9
I-81 Allocation from Interstate Operations and Enhancement Program	\$162.0	\$95.9	\$101.3	\$110.1	\$109.2	\$107.6	\$107.8	\$793.9
<b>Total</b>	<b>\$579.1</b>	<b>\$174.7</b>	<b>\$439.5</b>	<b>\$190.8</b>	<b>\$190.6</b>	<b>\$585.4</b>	<b>\$193.0</b>	<b>\$2,353.1</b>

\*Fuel Tax Revenue includes funds available for debt service

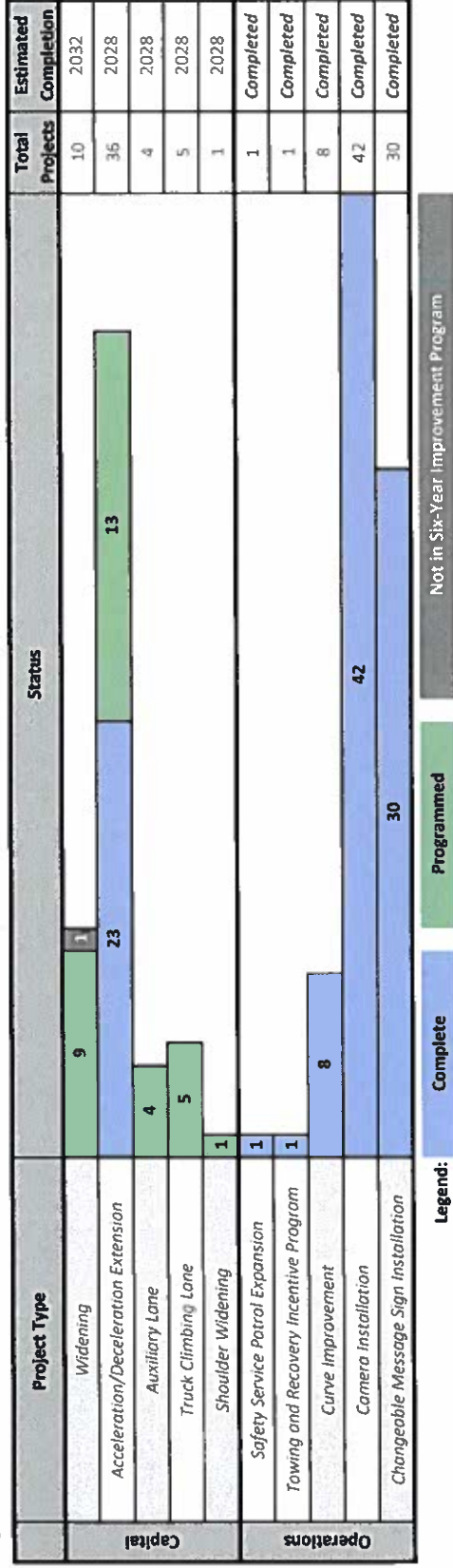
Note: FY = Fiscal Year, PV = Previous Value | Source: Virginia Department of Transportation, 2022.

In 2020, the General Assembly passed legislation that limited the imposition of regional fuels taxes to only those localities through which I-81 passes. This adjustment to the original fuel tax mechanism is not anticipated to impact the financial health of the Fund. Per the 2020 Interstate Operations and Enhancement Program (IOEP) omnibus legislation, I-81 receives an allocation of funds from the IOEP equal to the ratio of vehicle miles traveled (VMT) on I-81 by vehicle Class 6 or higher to total VMT on all interstate highways. Beginning in FY 2021, the truck registration fees and road tax revenue from the Program were dedicated to the Commonwealth Transportation Fund. Adoption of the FY 2022-2027 SYIP included a plan for financing the Program and estimated proceeds from I-81 bonds and Transportation Infrastructure Finance and Innovation Act (TIFIA) financing.

## Status of Projects Funded Through the Program

The FY 2023-2028 SYIP, which was adopted by the Board on June 21, 2022, included both operational improvements and 47 of the 48 capital improvement projects identified in the Plan. The safety service patrol improvements identified in the Plan were implemented in July 2019. The initial eight acceleration and deceleration lane extension projects, eight curve improvement projects, and most of the new camera installations were completed in 2020. In 2021, the remaining camera installations were completed along with the installation of CMS. Additionally, construction of three ramp extension projects in the Staunton District was completed. **Figure 1** outlines the status of the projects as of November 11, 2021 based on project type. A table and map summarizing the status of individual capital improvement projects can be found in **Appendix B**.

**Figure 1.** Status of Capital Projects Funded Through the Program

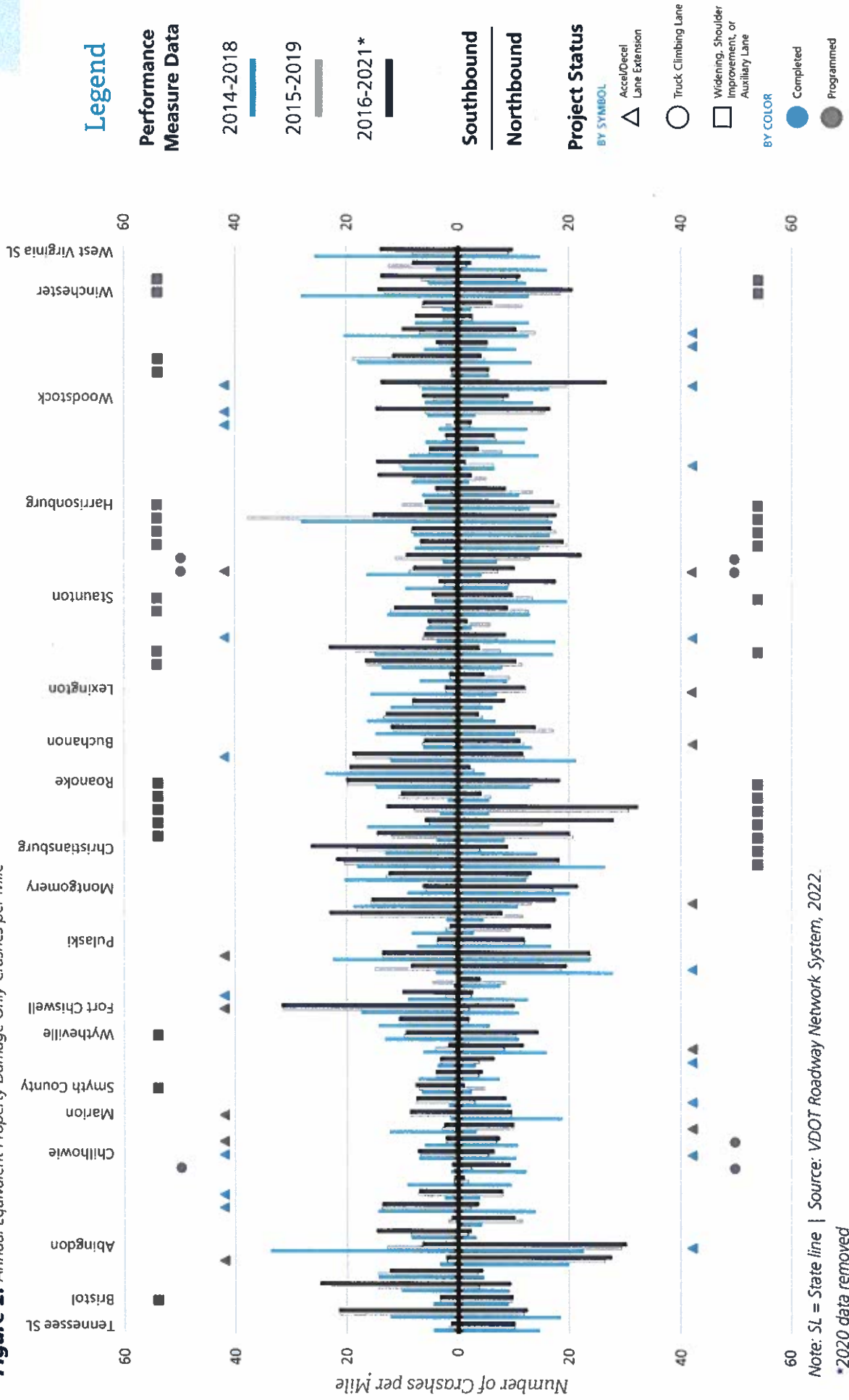


Note: SYIP = Six-year Improvement Program. | Source: Virginia Department of Transportation, 2022.

### Performance of the I-81 Corridor

Figure 2 through Figure 5 show how the four performance measures have changed over three multi-year periods. These figures also show the capital improvement projects that have been completed and the ones that are still underway or planned. The performance measures documented in the Plan and adopted by the Board in late 2018 were through 2017. **The emergence of the COVID-19 pandemic in 2020 caused a 15 percent reduction in VMT on I-81, while VMT in 2021 returned to pre-pandemic levels.** Therefore, 2020 data was removed from the multi-year performance measure data periods for this report as reduced travel on I-81 skewed the data significantly when compared to 2019 and 2021. Crash data were compared between the three five-year periods: 2014-2018, 2015-2019, 2016-2021 (without 2020 data). A supplementary histogram displaying crash frequency and severity per mile for truck-related crashes is included in **Appendix C**. Delay and incident data were compared for the three two-year periods: 2017-2018, 2018-2019, and 2019-2021 (without 2020 data).

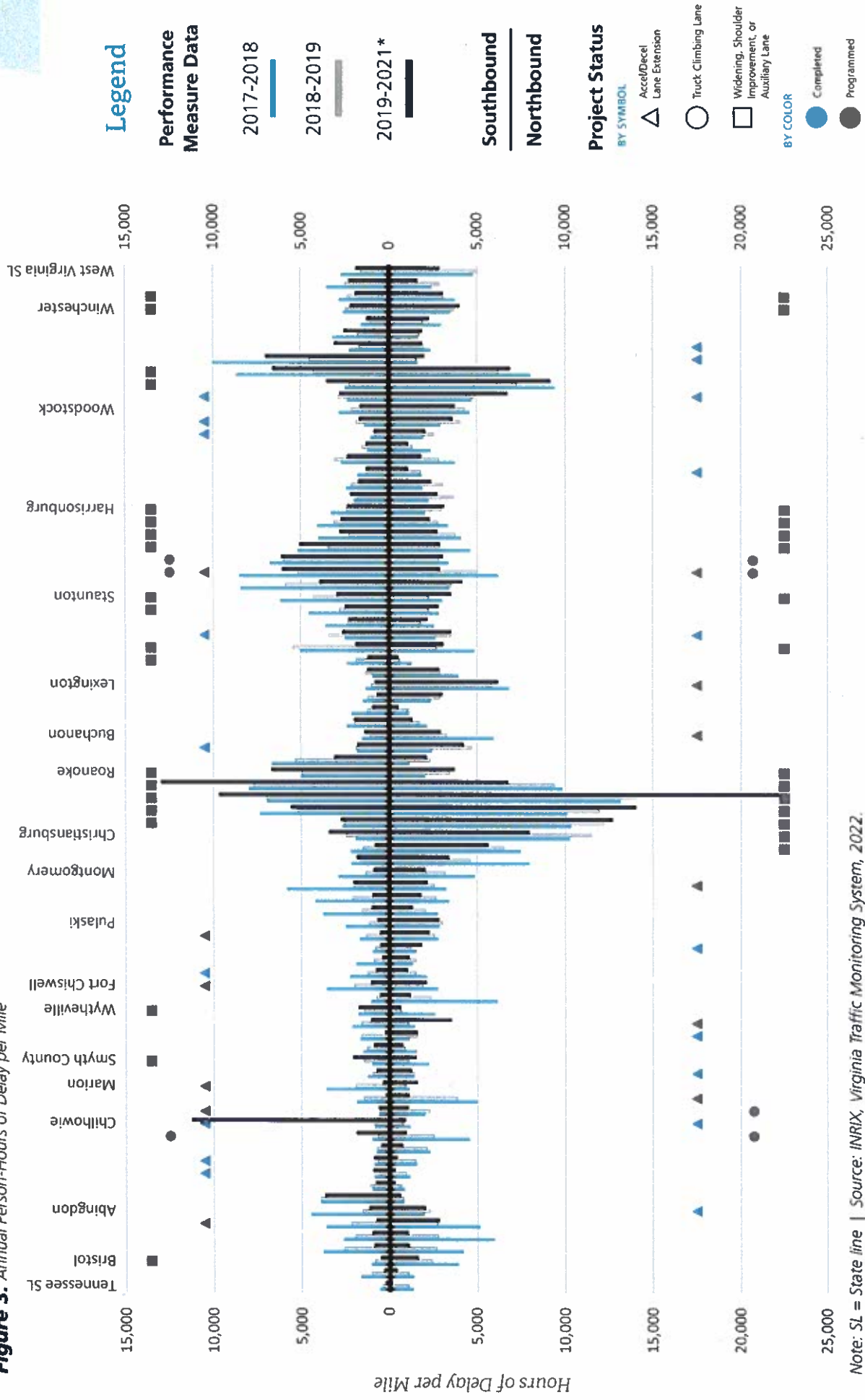
**Figure 2. Annual Equivalent Property Damage Only Crashes per Mile**



Note: SL = State line | Source: VDOT Roadway Network System, 2022.

\*2020 data removed

**Figure 3.** Annual Person-Hours of Delay per Mile

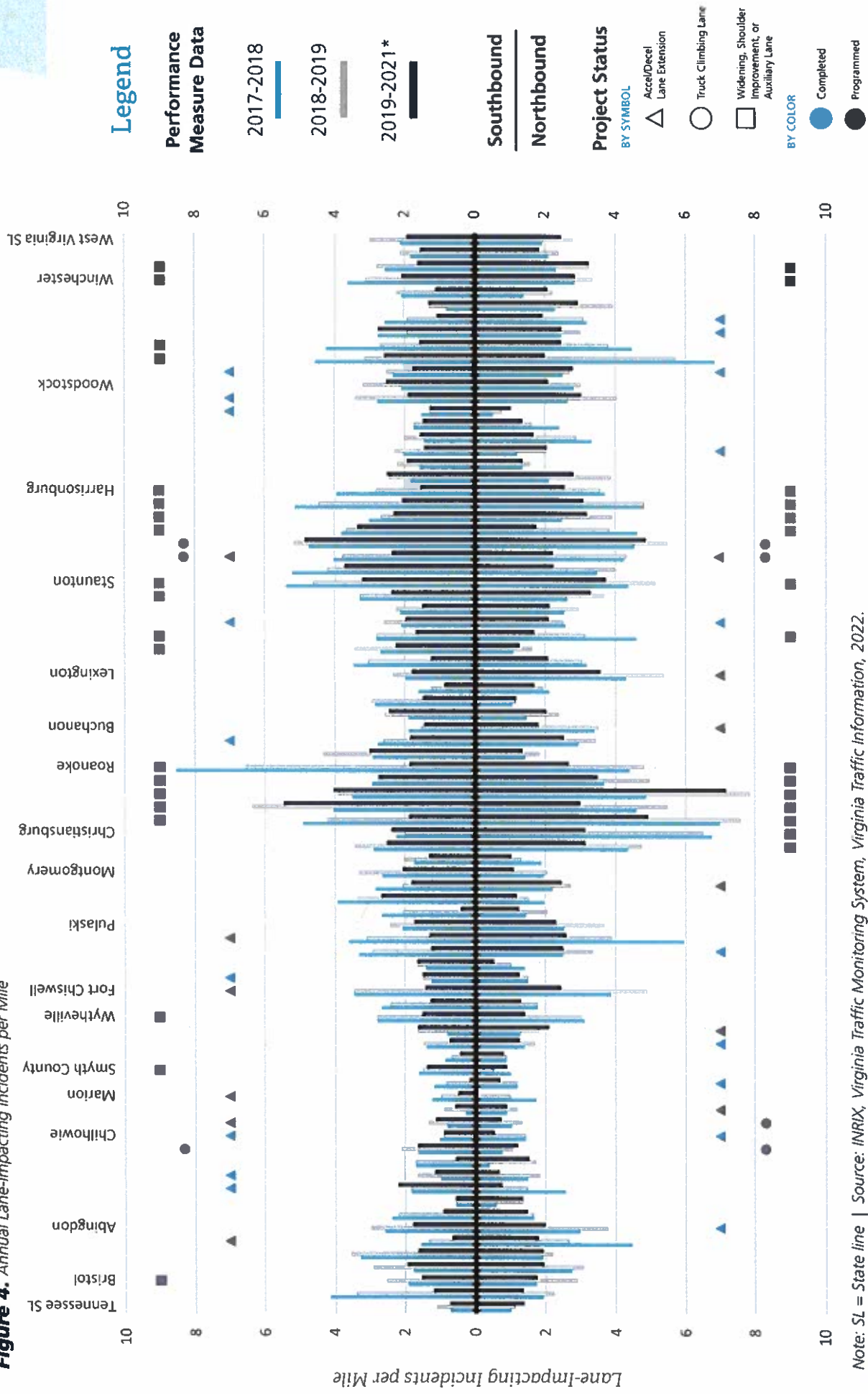


Note: SL = State line | Source: INRIX, Virginia Traffic Monitoring System, 2022.

\*2020 data removed

**DECEMBER 2022**

**Figure 4.** Annual Lane-Impacting Incidents per Mile



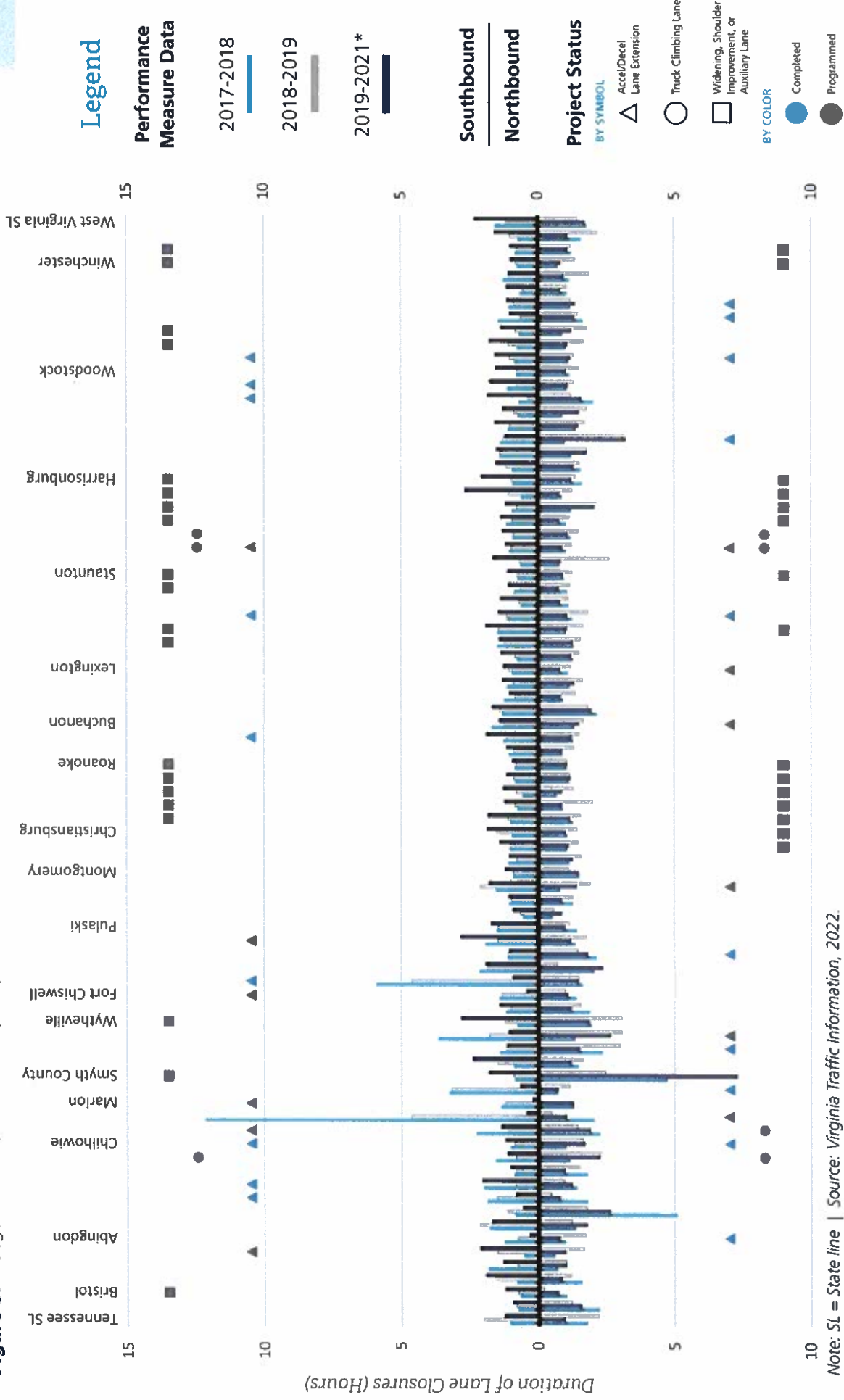
Note: SL = State line | Source: INRIX, Virginia Traffic Monitoring System, Virginia Traffic Information, 2022.

\*2020 data removed

**DECEMBER 2022**



**Figure 5. Average Duration of Lane Closures (Hours)**



Note: SL = State line | Source: Virginia Traffic Information, 2022.

\*2020 data removed

**DECEMBER 2022**

To show the effectiveness of a program of projects, the study team relied on a minimum of one year of data following the implementation of the program or project. **Table 2** through **Table 5** contain corridor-wide summaries for each two- or five-year period for the four performance measures. Performance measure data was sourced from the VDOT Roadway Network System, INRIX, Virginia Traffic Monitoring System, and Virginia Traffic Information. The performance measure data has fluctuated on a segment-by-segment and corridor-wide basis in the years since the Plan was developed. The number of lane-impacting incidents lasting longer than one hour, and lane closures associated with those events have decreased, even as travel on I-81 rebounded in 2021 (up one percent from 2019).

This decrease in incidents and lane closures may be attributed to the implementation of the Towing and Recovery Incentive Program (TRIP), which aims to improve incident response times so traffic can move again. The total person-hours of delay on I-81 also has decreased, though to a lesser extent than the decrease observed for lane impacting incidents and lane closures. Although operations performance measures decreased during the most recent five years, total EPDO crashes increased. The prevalence of work zones on I-81 has impacted the total EPDO crashes on I-81, where the total number of work zone related crashes increased by 95 percent between 2019 and 2021.

In future years, it will continue be challenging to evaluate the impact of completed construction projects on the performance measures for multiple reasons:

- ➔ The data has fluctuated in the years since the Plan was developed
- ➔ Performance measure impacts of active work zones
- ➔ Performance measure data for 2020 are not reflective of a typical year due to COVID-19
- ➔ Lack of sufficient time for projects to be implemented and to develop a subsequent performance trend

**Table 2.** Equivalent Property Damage Only (EPDO) Crashes

End of Five-Year Period	Northbound	Southbound	Total	Total Percent Change from Previous Period
2018	51,639	49,109	100,748	-
2019	49,095	50,012	99,001	-1.7%
2021*	52,519	47,880	100,399	+1.4%

\*2016-2021 without 2020 data

**Table 3.** Person-Hours of Delay

End of Two-Year Period	Northbound	Southbound	Total	Total Percent Change from Previous Period
2018	2,325	1,919	4,244	-
2019	2,116	1,471	3,587	-15.5%
2021*	1,959	1,453	3,412	-4.9%

\*2019-2021 without 2020 data



**Table 4.** Lane-Impacting Incidents

End of Two-Year Period	Northbound	Southbound	Total	Total Percent Change from Previous Period
2018	1,694	1,622	3,316	-
2019	1,894	1,691	3,585	+8.1%
2021*	1,341	1,184	2,525	-29.6%

\*2019-2021 without 2020 data

**Table 5.** Hours of Lane Closures

End of Two-Year Period	Northbound	Southbound	Total	Total Percent Change from Previous Period
2018	2,139	1,794	3,932	-
2019	2,329	1,812	4,141	+5.3%
2021*	1,945	1,542	3,487	-15.8%

\*2019-2021 without 2020 data

## Multimodal Improvements to the I-81 Corridor

Along with the capital and operational improvements included in the I-81 Corridor Improvement Plan, several multimodal improvements have been planned and implemented to provide meaningful bus transit and rail connections throughout the corridor. The Virginia Breeze bus system consists of four intercity bus routes, two of which run along the I-81 corridor. The Valley Flyer route travels between Blacksburg and Washington, DC and the Highlands Rhythm route travels between Bristol and Washington DC. During the FY22, Virginia Breeze's on-time performance was 85 percent and the percent of costs covered by fares (farebox recovery) was 52 percent. The Valley Flyer route had a farebox recovery of more than 80 percent.

The I-81 Multimodal Corridor Improvement Plan also includes for the expansion of passenger and freight rail in the New River Valley. In June of 2022, negotiations were finalized with Norfolk Southern to improve the rail systems near the I-81 corridor. A second Amtrak train on the Roanoke Route went into service in July of 2022. The rail improvements also include:

- ➔ Adding a second track 7 miles south of Manassas and extending the route between Roanoke and Washington, DC to include New River Valley
- ➔ Improving the Roanoke yard including a passenger bypass to improve efficiency
- ➔ Purchasing 28 miles of track that extend from Salem to New River Valley
- ➔ Constructing the New River Valley station and connector track

Construction of these improvements are expected to be complete by the Virginia Passenger Rail Authority in 2026, with the construction of the new train station at the New River Valley to be delivered by the New River Valley Station Authority at roughly the same time.

## Commonwealth Transportation Board Activities

In 2022, VDOT delivered one I-81 Corridor Improvement Program update to the Commonwealth Transportation Board. In addition to the meeting detailed below, the Board also discussed budget and project area updates of specific projects along the I-81 corridor. According to the legislation, the Board must submit an annual progress report to the General Assembly by December 15.

### *September 2022 Commonwealth Transportation Loan Update*

The Board met in-person on September 20, 2022. VDOT's Chief Financial Officer presented a TIFIA loan update on the I-81 corridor which included an overview of the structure and legislative background of TIFIA loans, I-81 fund projections, and how TIFIA loans will impact future funding of the I-81 Corridor Improvement Program.

The September 2022 presentation delivered to the Board can be found in **Appendix D**.

### *October 2022 Commonwealth Transportation Board Briefing*

The Board met in person on October 21, 2022. The I-81 Program Delivery Director presented the status of the operational, arterial, and capital improvement projects throughout the corridor. The I-81 Program Delivery Director highlighted the following conclusions:

- ➔ All operational improvements, including curve improvements, traffic cameras, digital message signs, and safety service patrol upgrades are complete
- ➔ 14 of the 23 Bristol District projects are either complete (10) or under construction (4)
- ➔ 5 of the 11 Salem District projects are either complete (1) or under construction (4)
- ➔ 10 of the 22 Staunton District projects are complete
- ➔ Some arterial improvements along VDOT-maintained arterials are complete, with the remaining improvements under design and scheduled for construction in 2023

The Virginia Department of Rail and Public Transportation (DRPT) Chief of Public Transportation and Virginia Passenger Rail Authority COO presented the status of multimodal projects along the I-81 corridor, including the following takeaways:

- ➔ The Virginia Breeze Intercity Bus service from Bristol to Washington, DC, the Highlands Rhythm, began service on November 15, 2021
- ➔ Ridership on Virginia Breeze Intercity Bus has exceeded pre-pandemic ridership in 2022 after reduced ridership in 2020 and 2021, in part to new routes such as the Highlands Rhythm
- ➔ Ridership on the Roanoke Amtrak route is setting all time records and was doing so even before the commencement of the second train in July that was triggered by the June close of agreements with Norfolk Southern

The October 2022 presentation delivered to the Board can be found in **Appendix E**.

## **I-81 Committee Activities**

### *July 2022 Advisory Committee Meeting*

The Committee met in-person on July 7, 2022. The I-81 Program Director presented an overview of the I-81 Corridor Improvement Program and the status of operational and capital projects. The DRPT Acting Chief of Public Transportation and the Virginia Passenger Rail Authority (VPRRA) Chief Operating Officer presented the status of the intercity bus expansion and the western rail initiative. The VDOT Chief Financial Officer presented the financial status of the I-81 Corridor Improvement Program and outlined the project costs and funding approach of the Program. The Deputy Secretary of Transportation presented an overview of the federal Infrastructure Jobs Act and how it applies to funding in Virginia.

The July 2022 presentation delivered to the Committee can be found in **Appendix F**.

## Next Steps

Most of the capital improvement projects are currently under construction or in the design phase, either by VDOT staff, an on-call consultant, or a project-specific consultant. The following projects will be advertised in 2023 and will be under design once a Design-Build consultant is procured:

- ➔ Bristol District: Glade Spring Truck climbing lanes set for advertisement in Summer 2023
  - ✓ Exit 32 to MM 33.5 NB
  - ✓ MM 34 to MM 33 SB

Additionally, construction of the following projects will continue in 2023:

- ➔ Northbound and southbound deceleration lane extension Exit 39: construction started August 2021
- ➔ Southbound acceleration lane extension at Exit 47: construction started August 2021
- ➔ Southbound acceleration lane extension at Exit 44: construction started September 2021
- ➔ Bundled widening project in Salem District: heavy highway construction started December 2021
  - ✓ Widen to three lanes between Exit 137 and Exit 140
  - ✓ Widen to three lanes between Exit 140 and Exit 141
- ➔ Southbound deceleration lane extension at Troutville Safety Rest Area: construction started February 2022
- ➔ Southbound auxiliary lane construction between Exit 54 and Smyth Safety Rest Area (MM 54.1 to 54.5): construction started April 2022
- ➔ Northbound truck climbing lane: construction started June 2022
- ➔ Widen to three lanes between Exit 221 and Exit 225: construction to be started December 2022