

January 7, 2022

MEMORANDUM

TO: Members, Transportation Technical Committee
 FROM: Cristina Finch, AICP, LEED AP, Secretary to the Transportation Technical Committee
 SUBJ: January 13, 2022 TTC Meeting/Agenda

The January meeting of the Transportation Technical Committee (TTC) will be held Thursday, January 13, 2022 at 1:30 p.m. at the Roanoke Valley-Alleghany Regional Commission office (Top Floor Conference Room), 313 Luck Avenue, SW, Roanoke, VA. In accordance with Virginia Occupational Safety and Health regulations, all attendees (vaccinated or unvaccinated) must wear a mask while inside the Commission building. All attendees who are unvaccinated or are otherwise at-risk must physical distance themselves from others. RVARC staff will make the necessary accommodations to comply with these regulations.

TTC AGENDA

1. Welcome, Call to Order, Roll Call *Chair Jamison*
2. **Action Needed:** Approval of the Consent Agenda items: *Chair Jamison*
 - A. Approval of the Agenda
 - B. Action on the December 9, 2021 TTC Minutes, pp. 2 – 6
 - C. Action on the January 5, 2022 Special Called TTC Minutes, pp. 7 – 33
3. Chair’s Remarks *Chair Jamison*
4. Update on FY24 SMART SCALE RVTPO Project Requests *Bryan Hill*
5. **Action Needed:** Recommendation on Draft FY23-28/29 Surface *Cristina Finch*
 Transportation Block Grant (STBG) Financial Plan, pp. 34 – 38
6. Other Business
 - A. Update on Work Program Process *Cristina Finch*
 - B. Update on FTA 5310 Funding and the RVTPO’s Program Projects *Bryan Hill*
7. Comments by TTC Members and/or Citizens
8. Adjournment (by 2:45 p.m.)

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

MINUTES

The December meeting of the Transportation Technical Committee was held on Thursday, December 9, 2021 at 1:30 p.m. at the Roanoke Valley-Alleghany Regional Commission, 313 Luck Avenue, SW, Roanoke, VA.

VOTING MEMBERS PRESENT

Mariel Fowler	County of Bedford
Jonathan McCoy	County of Botetourt
Megan Cronise	County of Roanoke
Will Crawford	County of Roanoke
Wayne Leftwich	City of Roanoke
Mark Jamison, <i>Chair</i>	City of Roanoke
Crystal Williams	City of Salem
Anita McMillan	Town of Vinton
Cody Sexton, <i>Vice Chair</i>	Town of Vinton
William Long	Greater Roanoke Transit Co (Valley Metro)
Frank Maguire	Roanoke Valley Greenway Commission
Michael Gray	Virginia Dept. of Transportation - Salem District
Daniel Sonenklar (<i>via zoom</i>)	Virginia Dept. of Rail and Public Transportation

VOTING MEMBERS ABSENT

David Givens	County of Botetourt
Dan Brugh	County of Montgomery
Nathan Sanford	Unified Human Serv. Transp. System (RADAR)

NON-VOTING MEMBERS ABSENT

Kevin Jones	Federal Highway Administration
-------------	--------------------------------

RVARC Staff Present: Cristina Finch, Bryan Hill, Rachel Ruhlen (*via zoom*), Jeremy Holmes (*via zoom*), Amanda McGee (*via zoom*), Andrea Garland and Virginia Mullen.

1. WELCOME, CALL TO ORDER, ROLL CALL

Chair Jamison called the meeting to order at 1:30 p.m. and asked Cristina Finch, Secretary to the TTC, to call the roll. Ms. Finch stated that a quorum was present.

2. APPROVAL OF CONSENT AGENDA ITEMS

The following consent agenda items were distributed earlier:

- A. December 9, 2021 RVTPO Meeting Agenda
- B. November 15, 2021 TTC Minutes

Motion: by Wayne Leftwich to approve items (A) and (B) under the consent agenda, as presented; seconded by Mariel Fowler.

TTC Action: Motion carried unanimously.

3. CHAIR REMARKS

- Chair Jamison reported that the CTB had approved the funding for the 220 Alternate/460 Project at their December 8th meeting.
- Chair Jamison announced that there will be a Special Called meeting in the first week of January 2022. The purpose of the meeting is to continue the discussion on the update to the Roanoke Valley Transportation Plan.

4. UPDATE ON CONTINUED DEVELOPMENT OF THE UPDATE OF THE ROANOKE VALLEY TRANSPORTATION PLAN

Ms. Finch provided an update on the Roanoke Valley Transportation Plan and explained the role of the TPO, the federal oversight, and reason for changing the process with this plan update. Ms. Finch also apologized for any frustration that was caused at the last meeting because of staff not responding adequately to the comments received back in October. Staff have started individual conversations with members to further understand the concerns and how they can be addressed.

Ms. Finch reported that the Plan consultant team and the OIPI GAP consultant team will continue to work together with the RVTPO staff to refine the needs prioritization methodology, objectives, and performance measures and detail the approach to solutions.

5. UPDATE ON FY24 SMART SCALE RVTPO CANDIDATE PROJECT REQUESTS

Mr. Bryan Hill reported that staff received 10 SMART SCALE candidate project request forms from localities in the Roanoke Urbanized Area. The project request submissions are listed in the following table and described more specifically in the staff report.

Agency	Project Name
City of Roanoke	I-581/Orange Ave Interchange Improvements
City of Roanoke	Orange Ave and Williamson Rd. Intersection Improvements
City of Roanoke	Virginia Tech Carilion Research Institute Interchange Project
Botetourt Co.	Rte. 220 Superstreet Improvement
Botetourt Co.	Exit 150 Improvement Project
Roanoke Co.	West Main Street Phase 3 Sidewalk <i>(If unsuccessful in STBG)</i>

Roanoke Co.	Pedestrian Improvements on Williamson Road (UPC 113947)
Roanoke Co.	U.S. Route 11/460 at Dow Hollow Road Intersection Improvements
Roanoke Co.	Route 419 Intersections/Projects (one or more) between Bower Road and Apperson Drive
Roanoke Co.	Pedestrian Crossing Improvements on Route 419 and at Plantation/Hershberger Intersections (UPC 117212)

Mr. Hill invited each project sponsor to speak about their submissions. Chair Jamison (Roanoke City), Mr. Jonathan McCoy (Botetourt County) and Ms. Megan Cronise (Roanoke County) provided a brief description of the project requests they submitted. Mr. Hill noted that no action was currently required, and this was a first review/discussion of the Round 5 RVTPO SMART SCALE project requests.

6. DEVELOPMENT OF THE SURFACE TRANSPORTATION BLOCK GRANT (STBG) FY23-28/29 FINANCIAL PLAN

A. Action Needed: Status of Current STBG Projects and Recommendation on Requests for Additional Funding

Ms. Finch reported that the status of the currently funded STBG projects was provided in Table 1 of the staff report (pages 49 through 53 of the agenda packet). Ms. Finch noted that two requests for additional STBG funding to cover project cost overruns have been received and noted in Table 2 of the staff report (page 53 of the agenda packet). Staff would like a recommendation to the RVTPO Policy Board regarding the two requests for additional funding. The two projects are as follows:

Project	Current STBG Allocation	Proposed Funding Adjustment
Tinker Creek Trail Extension	\$3,227,047	Request of Additional \$1,589,254
Orange Market Park and Ride/Parking Lot Improvements	\$343,573	Request of Additional \$892,526

TOTAL: \$2,481,780

A brief discussion was held, resulting in members favoring not granting the additional funding. Megan Cronise requested that the matter be reconsidered once the updated financial forecasts were provided in a couple of months.

Motion: by Michael Gray to recommend to the RVTPPO not approving the additional funding requests for the two projects; seconded by Wayne Leftwich.

TTC Action: Roll call vote – Ayes 12 (Fowler, McCoy, Cronise, Crawford, Leftwich, Jamison, Williams, McMillan, McClung, Long, Maguire, Gray); Nays 0; and Abstentions 0. Motion carried unanimously.

B. Action Needed: Recommendation on Prioritization of Candidate Projects

Cristina Finch reported that originally 12 STBG applications were received, but one application was being funded by the Policy Board (action taken on November 4) and the CTB (action taken on December 8), and there are 11 applications now for consideration. The TTC members were tasked with ranking the projects from 12 (best) to 1 (least). Eleven of the sixteen members provided scores. The projects, criteria and score results were provided in the staff report. Ms. Finch shared the staff report on the screen in the room and went over the information. TTC members were asked to review the information and provide a recommendation of priority list of investments to the Policy Board.

Ms. Cronise asked that project #2 “Route 460 at Alternate Route 220 Intersection Improvements” in table 3 “Summary of STBG Round 5 Candidate Project Applications and Relationship to the Roanoke Valley Transportation Plan (RVTP)” be removed since the project is funded. Ms. Finch replied that the project will be removed and only eleven projects will be forwarded to the Policy Board.

Motion: by Michael Gray to recommend to the RVTPPO table 3 from page 54 of the agenda packet as presented minus project #2; seconded by Megan Cronise.

TTC Action: Roll call vote – Ayes 12 (Fowler, McCoy, Cronise, Crawford, Leftwich, Jamison, Williams, McMillan, McClung, Long, Maguire, Gray); Nays 0; and Abstentions 0. Motion carried unanimously.

7. OTHER BUSINESS

Mr. Gray noted that the SMART SCALE pre-scoping module is new, and some training has been provided. There is information about the changes to the scoring (in particular to land use and environmental) on the website.

8. COMMENTS BY MEMBERS AND / OR CITIZENS

Chair Jamison wished everyone a safe, healthy, and happy holiday season.

9. **ADJOURNMENT**

The meeting was adjourned at 12:24 p.m.

Cristina D. Finch, AICP, LEED AP, Secretary,
Transportation Technical Committee

MINUTES

A Special Called meeting of the Transportation Technical Committee was held on Wednesday, January 5, 2022 at 1:00 p.m. at the Roanoke Valley-Alleghany Regional Commission, 313 Luck Avenue, SW, Roanoke, VA. The purpose of the special meeting is to share information regarding the new process to updated the Roanoke Valley Transportation Plan and review the content developed to date.

VOTING MEMBERS PRESENT

Mariel Fowler	County of Bedford
David Givens	County of Botetourt
Jonathan McCoy	County of Botetourt
Megan Cronise	County of Roanoke
Will Crawford	County of Roanoke
Wayne Leftwich	City of Roanoke
Mark Jamison, <i>Chair</i>	City of Roanoke
Crystal Williams	City of Salem
Anita McMillan	Town of Vinton
Cody Sexton, <i>Vice Chair</i>	Town of Vinton
Frank Maguire	Roanoke Valley Greenway Commission
William Long	Grater Roanoke Transit Company (Valley Metro)
Michael Gray	Virginia Dept. of Transportation - Salem District

VOTING MEMBERS ABSENT

Dan Brugh	County of Montgomery
Nathan Sanford	Unified Human Serv. Transp. System (RADAR)
Daniel Sonenklar	Virginia Dept. of Rail and Public Transportation

NON-VOTING MEMBERS PRESENT

Kevin Jones	Federal Highway Administration
-------------	--------------------------------

Others Present: David Jackson, Cambridge Systematics; Will Cockrell (via zoom), EPR, P.C.; Tonya Holland (via zoom), Federal Transit Association; Daniel Koenig (via zoom), Federal Transit Association; Jitender Ramchandani (via zoom), Virginia Office of Intermodal Planning and Investment.

RVARC Staff Present: Cristina Finch, Bryan Hill, Rachel Ruhlen (via zoom), Jeremy Holmes (via zoom), Andrea Garland and Virginia Mullen.

1. WELCOME, CALL TO ORDER, ROLL CALL

Chair Jamison called the meeting to order at 1:00 p.m. and asked Cristina Finch, Secretary to the TTC, to call the roll. Ms. Finch stated that a quorum was present.

2. ROANOKE VALLEY TRANSPORTATION PLAN WORKSHOP

Dan Koenig, Tonya Holland, and Kevin Jones presented a short presentation on the value of the regional transportation plan and the requirements and value of the Performance- Based Planning and Programming (The PowerPoint presentation is included with the Minutes).

RVTPO staff and David Jackson with Cambridge Systematics presented information on the activities (previous, current, and future) in development of the Roanoke Valley Transportation Plan (The PowerPoint presentation is included with the Minutes). Members had a few comments/questions which were responded to by Mr. Jackson or staff. Ms. Finch clarified that objective 2b should read "Maintain" as in the staff report, rather than "Improve" as was shown on the slide.

Jitender Ramchandani with Office of Intermodal Planning and Investment shared a presentation on the State Transportation Plan and its relation to regional plan and priorities (The PowerPoint presentation is included with the Minutes).

3. OTHER BUSINESS

No other business was discussed.

4. COMMENTS BY MEMBERS AND / OR CITIZENS

No comments were made.

5. ADJOURNMENT

The meeting was adjourned at 2:56 p.m.

Cristina D. Finch, AICP, LEED AP, Secretary,
Transportation Technical Committee



FEDERAL TRANSIT ADMINISTRATION

Roanoke TPO Workshop 1/5/22:

Federal Highway
Administration/Federal Transit
Administration



U.S. Department of Transportation
Federal Transit Administration

1

What is the value of an MTP/regional transportation plan?

- Each MPO must prepare an MTP, per 49 USC 5303(i), to accomplish objective's outlined by the MPO, the state, and the public transportation providers of the metropolitan area's transportation network.
- MTPs have a 20-year planning horizon that include a financial plan estimating how much funding will be needed to implement recommended improvements.



FEDERAL TRANSIT ADMINISTRATION

2

2

What is the value of integrating PBPP measures?

- PBPP refers to the application of performance management within the planning and programming processes of transportation agencies to achieve desired performance outcomes for the transportation system
- The value of PBPP is that it helps take the subjectivity out of the transportation process and project selection.
- Ensures the planning area is treated equitably in transportation decision-making processes.

Roanoke Valley Transportation Plan Update

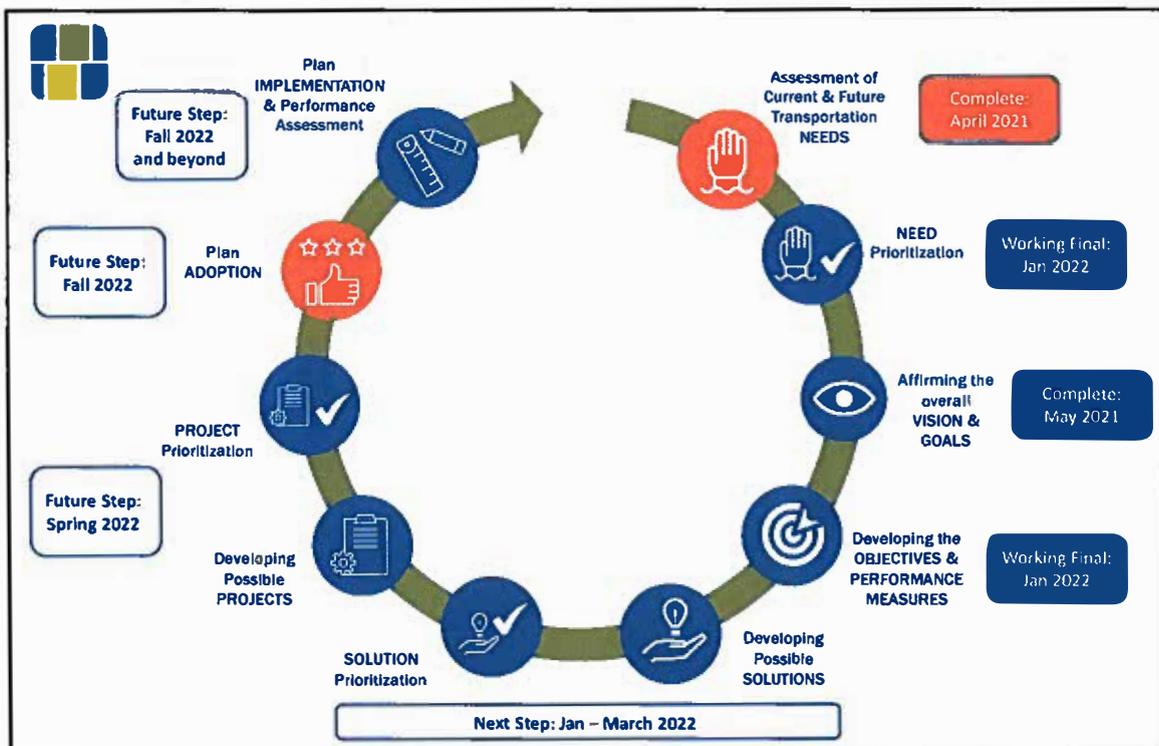
Process Overview

presented to
Transportation Technical Committee

presented by
Cambridge Systematics, Inc.



1



2



Definitions



Vision describes the desired future state



Goals describe what guides us toward attaining the vision and our overall desired outcomes



Objectives describe how we are going to attain the vision, objectives represent our specific desired outcomes



Needs are transportation problems or issues identified in the community.



Solutions offer various ideas of how to address a need and achieve the goals and objectives



Projects/Services represent the preferred means to address a need and achieve objectives



Measures quantify objectives, enabling us to assess the degree to which the system is achieving objectives

3



Process

New Approach

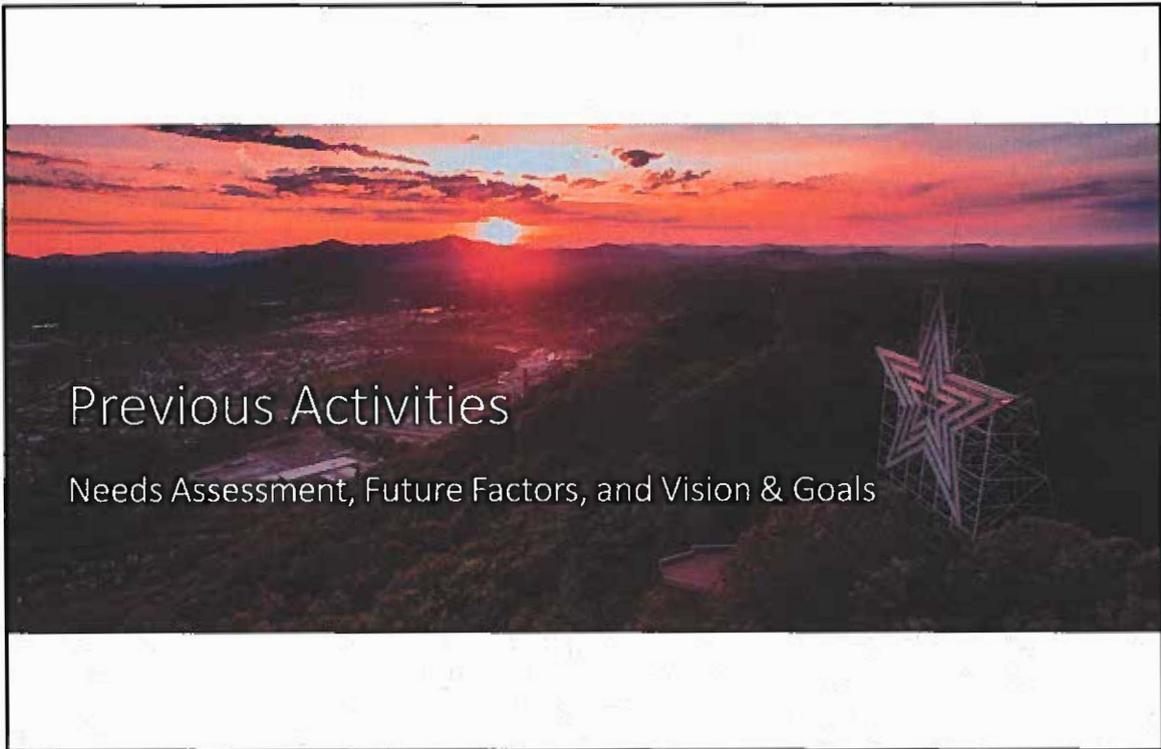
- ✓ Compile and assess citizen- and data-identified needs
- ✓ Look ahead by anticipating impacts of future factors
- ✓ Organize around a performance-based process – link vision and goals to real objectives and performance measures
- ✓ Establish priority needs based on data and stakeholder input
- ✓ Create multimodal solutions responding to priority needs
- ✓ Develop preferred projects to help the region meet its goals

Create platform to advocate for investments in the next five years that will help meet long term goals

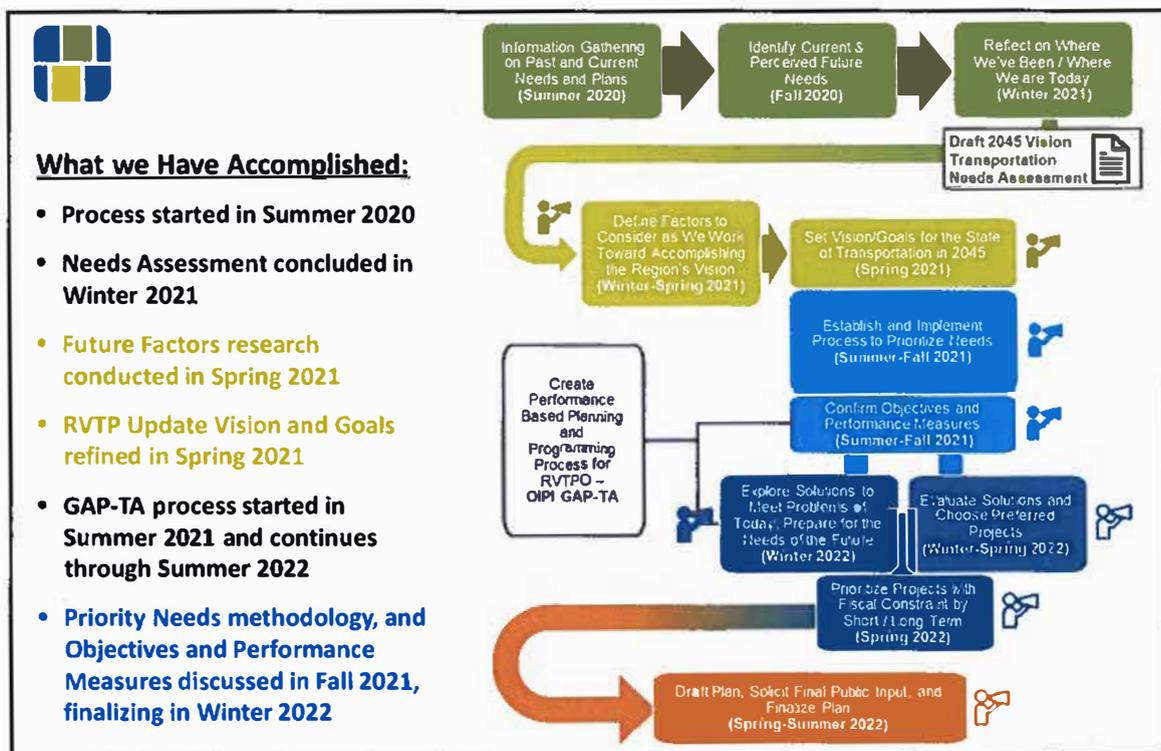
Position region to maximize opportunities across a diversity of Federal and State grant programs

Garner regional consensus and support on solutions to address most critical needs

4



5



6



Needs Assessment

Sources:

- Roanoke Valley Transportation Plan survey, Fall 2020
Participants dropped 1,059 points on an interactive map
- Twelve public comment periods/nine surveys
*Comments **unrelated to the topic** of the comment period
"Are there **any other transportation projects** that should be considered?"*
- 34 plans and studies
*When possible, focused on **public input** from the studies*

After creating & cleaning up the database, we reviewed it individually with **locality and agency staff**.

<https://rvarc.maps.arcgis.com/apps/webappviewer/index.html?id=e9b5f875e29e41ca5049b6883c66ca>

7



Future Factors



Technology



Society



Economy



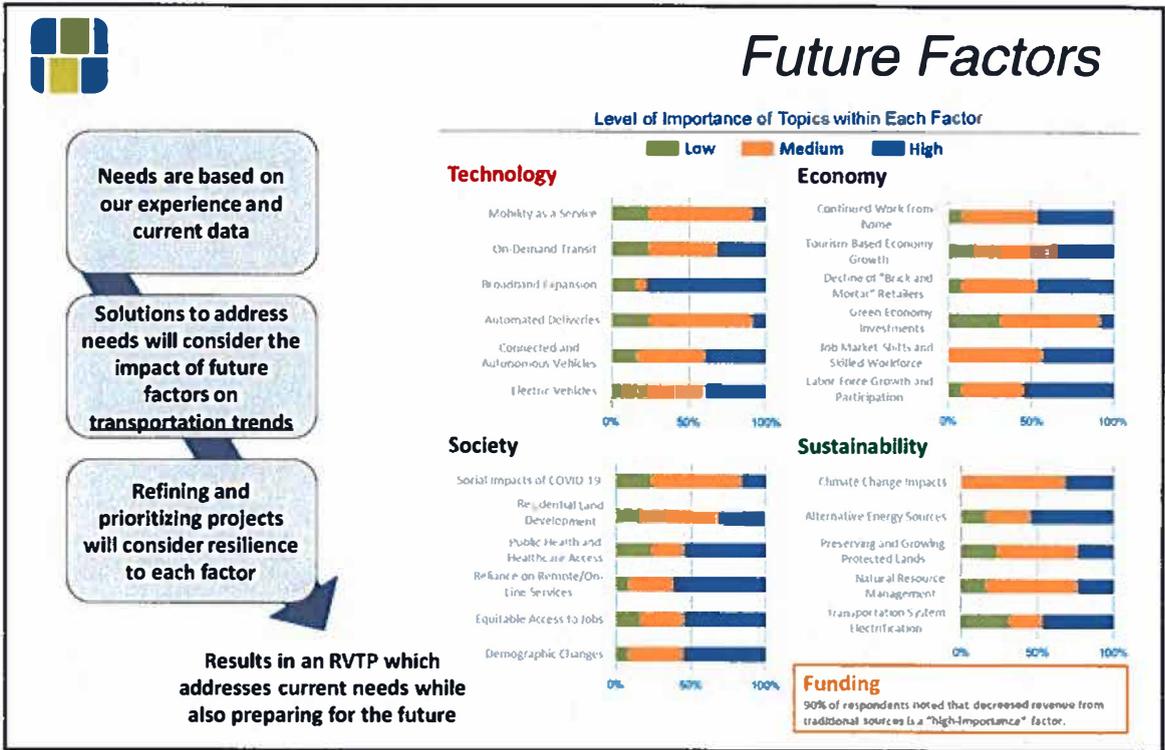
Sustainability



Funding & Finance

Focus on the primary technology, social, economic, sustainability, and funding/finance trends – most of which are outside of the sphere of transportation agency control, that could impact future travel demand and multimodal transportation needs within the Roanoke region.

8



9

The Roanoke Valley's seamless regional multimodal transportation system is safe, cost-effective, environmentally conscious, well maintained and reliable, accessible for all users, and promotes economic vitality of the community.

Vision describes the desired future state

10



Goals

- Provide a safe and secure transportation system
- Enable reliable mobility
- Enable convenient and affordable access to destinations
- Foster environmental sustainability
- Maintain and operate an efficient and resilient transportation system
- Support economic vitality
- Promote equitable transportation investments



Goals describe what guides us toward attaining the vision and our overall desired outcomes

Goals are action oriented

Goals create the platform for objectives

11



12



Objectives & Performance Measures



Objectives:

Definition: Describe how the RVTPO will attain the Plan vision and goals. Objectives represent specific desired Plan outcomes.

Purpose: Objectives inform how to develop solutions to respond to needs, how to prioritize projects within the Plan, and how to track the Plan and overall system performance.



Performance Measures:

Definition: The quantitative link to objectives, performance measures assess the degree to which investments address transportation needs and meet acceptable thresholds.

Purpose: Enables the RVTPO to assess the degree to which the transportation system is achieving objectives.



Objectives

Goal	Objective
1. Provide a safe and secure transportation system	A. Eliminate fatalities and reduce injuries on the multimodal transportation system.
2. Enable reliable mobility	A. Maintain vehicle travel time reliability on priority corridors. B. Improve transit and passenger rail on-time performance.
3. Enable convenient and affordable access to destinations	A. Provide motorized access to inaccessible properties identified for future development. B. Increase accessibility to key destinations by transit. C. Increase transportation connections to markets outside the region, including across Virginia and the U.S. D. Increase transit, bicycle and pedestrian connections for all users within multimodal centers and districts.
4. Foster environmental sustainability	A. Minimize emissions from motorized on-road transportation. B. Minimize / mitigate new impervious surfaces created by transportation infrastructure.
5. Maintain and operate an efficient and resilient transportation system	A. Maintain state and national standards for infrastructure and asset condition.
6. Support economic vitality	A. Ensure redevelopment and new developments in designated growth areas and multimodal centers/districts are supported by more than one mode of transportation infrastructure. B. Maintain truck travel time reliability. C. Maintain acceptable levels of congestion during peak travel periods on priority corridors.
7. Promote equitable transportation investments	A. Assess planning-level benefits or disproportionate adverse effects of transportation projects included in this plan on Equity Emphasis Areas and identify mitigation strategies. B. Ensure that non-drive alone mobility investments create opportunities for in Equity Emphasis Areas C. Eliminate fatalities and reduce serious injuries in Equity Emphasis Areas. D. Maintain state and national standards for infrastructure condition in Equity Emphasis Areas.



Performance Measures

Existing performance measures include those that RVTPO have already adopted as part of the FHWA and FTA required transportation performance management process (or other established Federal measures that RVTPO is not required to adopt) as well as the region's adopted measure for congestion via the Congestion Management Process.

Candidate performance measures are options for further research and consideration by RVTPO within objectives that do not have existing federal, state, or regional measures.

15



Objectives

Goal	Objective	Existing Measures	Candidate Measures
1 Provide a safe and secure transportation system	A. Eliminate fatalities and reduce injuries on the multimodal transportation system.	<ul style="list-style-type: none"> Number and rate of motorized fatalities per 100 million vehicle miles traveled (VMT) (FHWA) Number and rate of motorized serious injuries per 100 million VMT (FHWA) Number of nonmotorized fatalities and serious injuries (FHWA) Number of reportable fatalities and rate per total vehicle revenue miles by transit agency per year (FTA) Number of reportable injuries and rate per total vehicle revenue miles by transit agency per year (FTA) 	Existing Federal measures cover critical safety outcomes

Note – VDOT and DMV track and share crash trends across a multitude of safety measures, including behavioral related measures considering impaired driving, seat belt usage, speeding, and other crash causes as part of the annual update to the Highway Safety Plan (HSP) submitted to the National Highway Traffic Safety Administration (NHTSA).

More information on these measures, the HSP, and Virginia's Highway Safety Improvement Program is available in this December 2021 presentation to the CTB: https://www.ctb.virginia.gov/resources/2021/dec/pres/2_tthwy_safety_presentation.pdf

16



Objectives

Goal	Objective	Existing Measures	Candidate Measures
2. Enable reliable mobility	A. Maintain vehicle travel time reliability on priority corridors.	<ul style="list-style-type: none"> % of person miles traveled on the Interstate system and on the non-Interstate National Highway System (NHS) that are reliable (FHWA) 	
	B. Improve transit and passenger rail on-time performance.	<ul style="list-style-type: none"> Amtrak on time performance (FRA-DRPT) Distance between transit system major mechanical failures (FTA) 	<ul style="list-style-type: none"> Valley Metro on-time performance

Note – The National Highway System overlaps with RTPOs Congestion Management Process (CMP) priority corridors. There are other non-NHS corridors within the CMP not covered by the existing Federal measures. Reliability data is also available for these corridors through INRIX data.

17



Objectives

Goal	Objective	Existing Measures	Candidate Measures
3. Enable convenient and affordable access to destinations	A. Provide motorized access to inaccessible properties identified for future development.		<ul style="list-style-type: none"> Number of localities with ordinances or policies that incentivize or require multiple access points in new developments Number of destinations (government service, major grocery store, medical, school/higher education, business) within ½ mile of a transit stop
	B. Increase accessibility to key destinations by transit.		<ul style="list-style-type: none"> Transit level of service (number of days per week and/or hours per day that service is available to key destinations)
	C. Increase transportation connections to markets outside the region, including across Virginia and the U.S.	<p>Virginia and its Federal partners continue to research and test best practice accessibility measures. This is still an evolving performance management topic at the statewide and regional scale.</p>	<ul style="list-style-type: none"> Number and frequency of daily or weekly inter-regional or interstate connections offered Number and percent of transit stops with connecting sidewalks and ADA accommodations in multimodal centers and districts (walk – transit connection) Number and percent of transit stops adjacent to a marked bicycle accommodation in multimodal centers and districts (transit – bike connection)
	D. Increase transit, bicycle and pedestrian connections for all users within multimodal centers and districts.		<ul style="list-style-type: none"> Number and percent of bike racks with connecting sidewalks in multimodal centers and districts (walk – bike connection)

18



Objectives

Goal	Objective	Existing Measures	Candidate Measures
4. Foster environmental sustainability	A. Minimize emissions from motorized on-road transportation.	Emissions and impervious surface impacts are tracked by Virginia DEQ and other natural resource organizations, however not specifically to transportation impacts.	<ul style="list-style-type: none"> Track investments and implementation of low and/or zero-emission technologies within the region (zero-emission buses, zero-emission fleets, charging stations, energy efficient infrastructure)
	B. Minimize / mitigate new impervious surfaces created by transportation infrastructure.		<ul style="list-style-type: none"> Track new impervious surface area associated with transportation investments outside of designated growth areas Track new impervious surface area associated with transportation investments in floodplains

Note – RVTPO is in attainment of current national air quality standards (Clean Air Act), so is not required to track mobile source criteria pollutant emissions or set emission budgets. GHG emissions are not part of the Clean Air Act, however Virginia recently (per the Code of Virginia) established a statewide GHG emissions inventory and forecast. <https://www.deq.virginia.gov/air/greenhouse-gases>

The Infrastructure Investment and Jobs Act requires states to develop a Carbon Reduction Plan in advance of distributing new Carbon Reduction Program funding.

19



Objectives

Goal	Objective	Existing Measures	Candidate Measures
5. Maintain and operate an efficient and resilient transportation system	A. Maintain state and national standards for infrastructure and asset condition.	<ul style="list-style-type: none"> % good and poor NHS bridge deck area (FHWA) % good and poor NHS pavement lane miles (FHWA) % of revenue and of non-revenue vehicles that have met or exceeded their useful life benchmark (FTA) % of facilities rated in poor condition (FTA) 	<ul style="list-style-type: none"> % sufficient bridges and average weighted General Condition Rating (VDOT) % sufficient pavement lane miles on interstate, Primary, and Secondary systems (VDOT)

Note – VDOT bridge and pavement condition measures expand to all VDOT owned/maintained bridges and pavement. VDOT routinely tracks and reports performance through the results of annual inspections. More information is available through VDOT's Dashboard: <http://dashboard.virginia.gov/>

20



Objectives

Goal	Objective	Existing Measures	Candidate Measures
6. Support economic vitality	A. Ensure redevelopment and new developments in designated growth areas and multimodal centers/districts are supported by more than one mode of transportation infrastructure.		<ul style="list-style-type: none"> Number of developments approved adjacent to more than one existing and/or planned transportation mode
	B. Maintain truck travel time reliability.	<ul style="list-style-type: none"> Interstate truck travel time reliability (FHWA) 	
	C. Maintain acceptable levels of congestion during peak travel periods on priority corridors.	<ul style="list-style-type: none"> Planning time index on Congestion Management Process Priority Corridors (RVTPD adopted via the CMP) 	

Note – There are both Federal and Virginia specific measures relevant to congestion, including peak hours of excessive delay, passenger miles traveled in excessively congested conditions, and travel time index. While these measures are not required, they represent emerging best practice.

21



Objectives

Goal	Objective	Existing Measures	Candidate Measures
7. Promote equitable transportation investments	A. Assess planning-level benefits or disproportionate adverse effects of transportation projects included in this plan on Equity Emphasis Areas and identify mitigation strategies.	<p>There are no existing required measures, however new policy direction and grant programs within the IJA will lead toward new best practice in the coming years.</p>	<ul style="list-style-type: none"> Identify projects creating potential disadvantages for Equity Emphasis Areas and track mitigation strategies
	B. Ensure that non-drive alone mobility investments create opportunities for in Equity Emphasis Areas.		<ul style="list-style-type: none"> Track share of non-highway capacity or operational investments that provide documented benefits primarily for Equity Emphasis Areas
	C. Eliminate fatalities and reduce serious injuries in Equity Emphasis Areas.		<ul style="list-style-type: none"> Decrease traffic fatalities in Equity Emphasis Areas Decrease traffic serious injuries in Equity Emphasis Areas Decrease nonmotorized fatalities and serious injuries in Equity Emphasis Areas
	D. Maintain state and national standards for infrastructure condition in Equity Emphasis Areas.		<ul style="list-style-type: none"> % good and poor pavement lane miles in Equity Emphasis Areas

22



Objectives & Performance Measures

Discussion:

- **How will objectives inform developing solutions to meet needs?**
- **How will objectives and measures inform project prioritization?**
- **How will RVTPO track plan and system performance? When will RVTPO develop the candidate performance measures?**

23



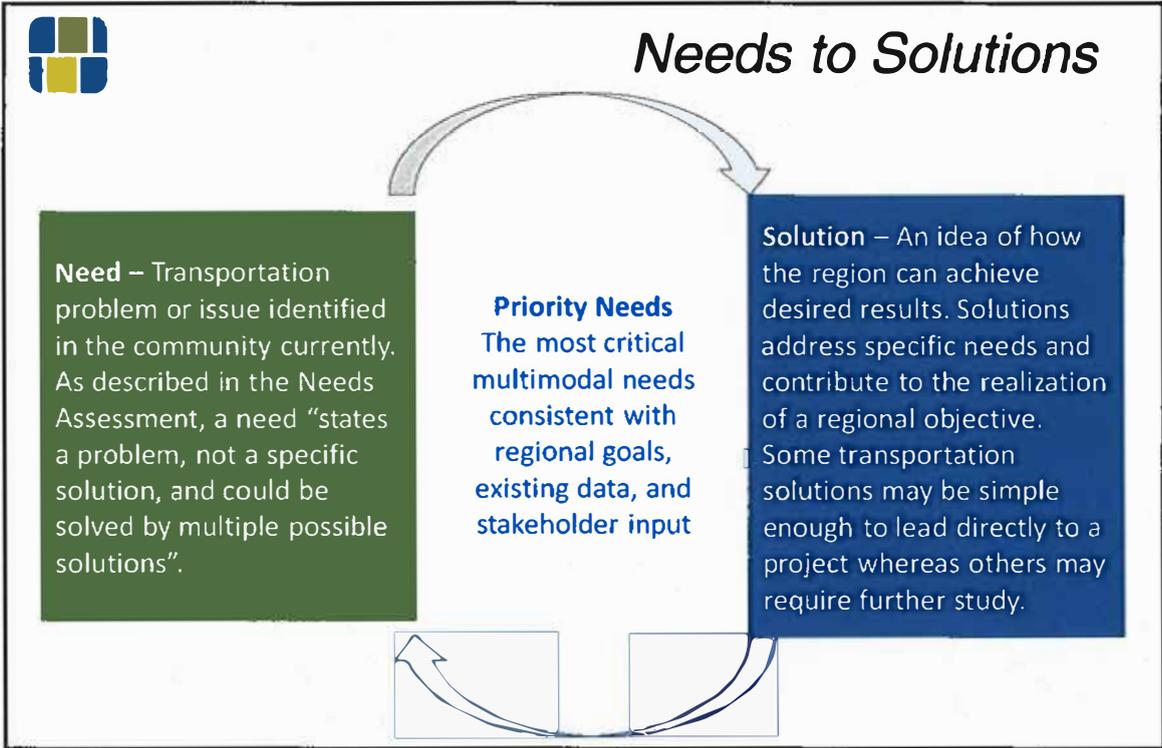
Priority Needs

Summary:

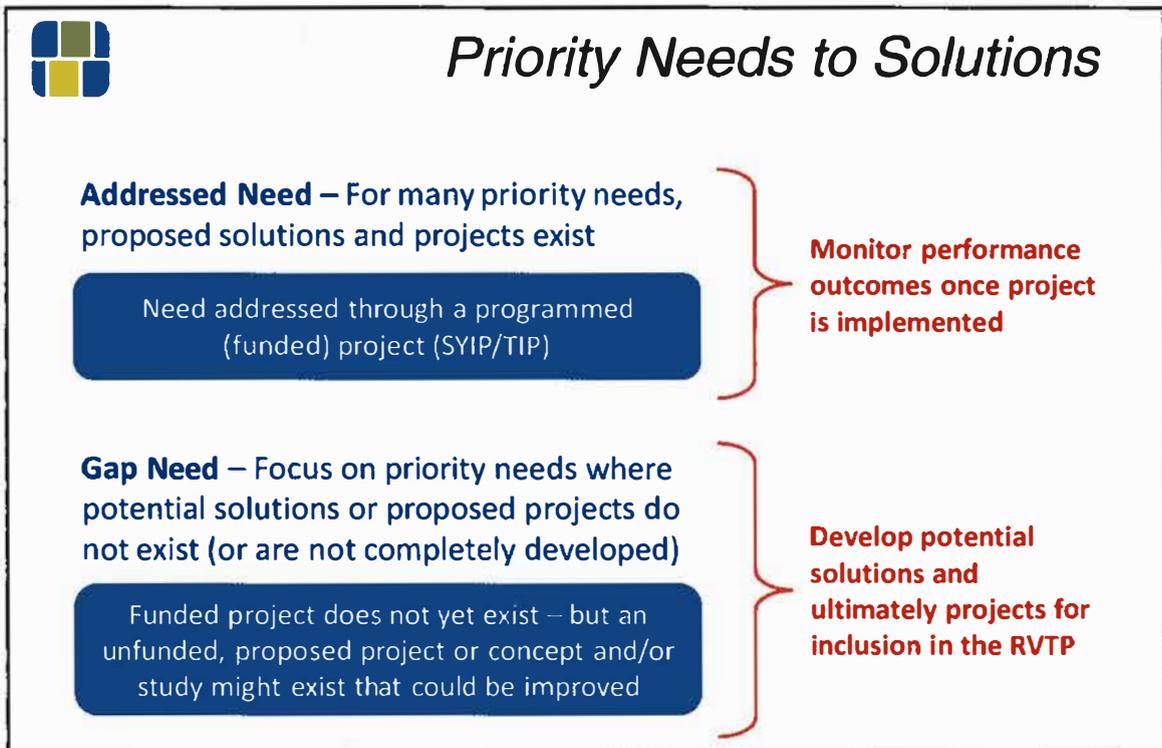
- The priority needs process uses available data to **assess the importance** of over 1,000 specific needs identified through the Regional Transportation Needs Assessment
- It **aligns each need with data** that represents aspects of the Roanoke Valley Transportation Plan goals
- The outcome of the process is a **prioritized list of needs, organized by need type and jurisdiction**

This information will be used to
**develop solutions to address priority needs
for possible inclusion in the Plan**

24



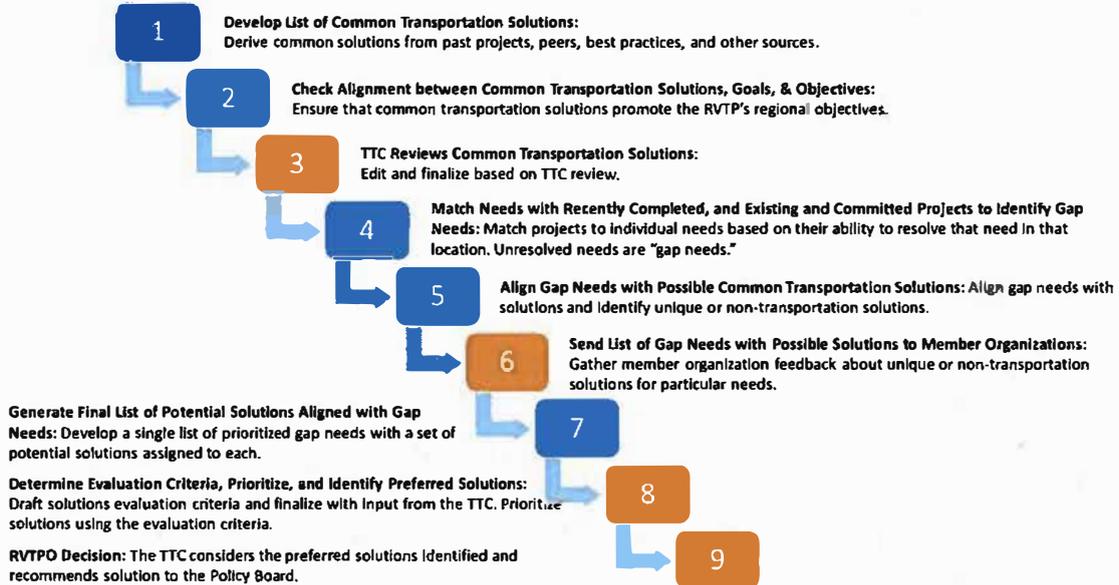
25



26



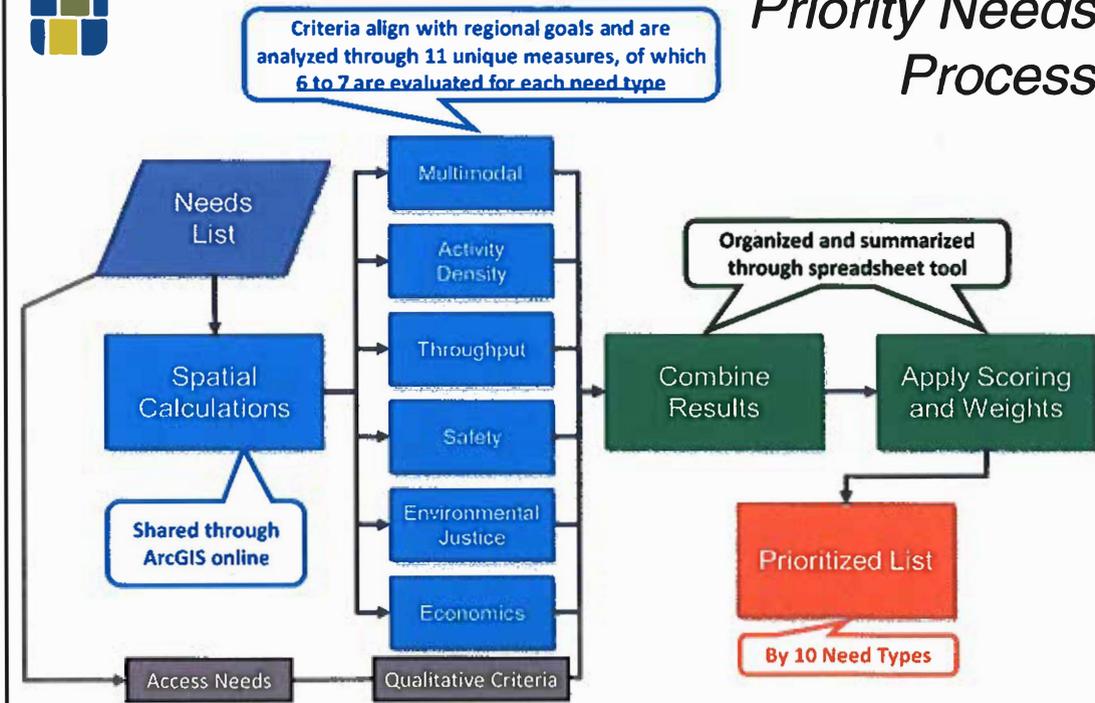
Solutions Process



27



Priority Needs Process



28



Weighting

Criteria & Measures	Multimodal		Activity Density		Throughput		Safety		Environmental Justice	Economics	
	Centers	District	2019	2045	Priority Corridor	VMT Change	VTrans Needs (PSI)	PSAP	Equity Emphasis Areas	Development Priority Locations	Urban Development Areas
Vehicle Safety			5	5		22	53		5	5	5
Pedestrian Safety	6	6		13				51	10	7	7
Bicycle Safety	6	6		13				51	10	7	7
Transit Safety	6	6		13				51	10	7	7
Congestion			17.5	17.5		17.5			12.5	17.5	17.5
System Management			15	15	15	15.5			12.5	13.5	13.5
System Management (Transit)	11	11		21.5		20			12.5	12	12
Access Criteria	Population Affected				Severity			Environmental Justice			
Transit and Non-Transit	Points Available		5				5			2	

29



Priority Needs Using the Map

Prioritized Transportation Needs

Variant	Simple Location	Designated Location	Need	Need Type	SCORE
Yes	Valley Metro system	Valley Metro system	Increased frequency of bus	Access (Transit)	100

30



Priority Needs Using the Spreadsheet

The spreadsheet calculator and prioritizes various TRANSPORTATION Needs throughout the Roanoke Valley region. These calculations are based on criteria from a series of spot or survey, completed in ArcGIS. The calculator weighs the street-level conditions, weights, and other scoring factors for the prioritization process.

The results only represent the quantitative / proportional performance. Other considerations will be applied to these quantitative results, such as alignment with regional goals, geographic equity, comparison to other need types, and other factors. A results score is a tool to inform decision-making, but should not be treated as a definitive or absolute list or ranking.

The calculator uses and organizes by various tabs. Some tabs are color-coded, with the general categories listed below. For simplicity, some of these tabs are initially hidden.

- Access:** The final prioritized score for each individual need by need type. Scores can be filtered using the dropdown.
- Access:** Access: The final, prioritized score for access needs. Scores can be filtered using the dropdown.
- Safety:** Safety: Safety through key need types. Each need type is scored on a separate, corresponding tab. The weighted scores for each metric are listed in column B through G before being summed into a total score (Column H). Column B indicates whether the individual need is associated with the need type listed on the tab.
- Quality:** Quality through key need types. Each need type is scored on a separate, corresponding tab. These calculations indicate whether or not the individual need falls into each metric, regardless of its need type.
- Costs:** Costs: The weighting applied to each need type by score. The impact is what metrics are applicable to what need type.

You can also view the need prioritization results and underlying details mapped online using this link:

31

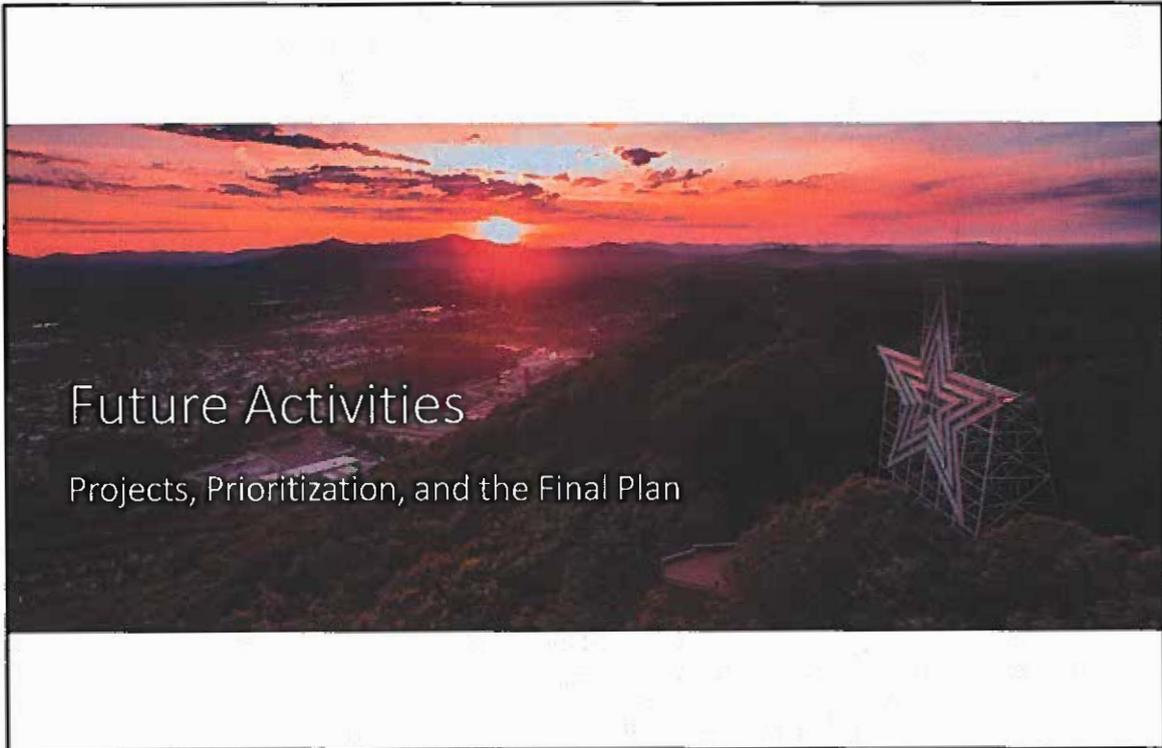


Priority Needs & Solutions

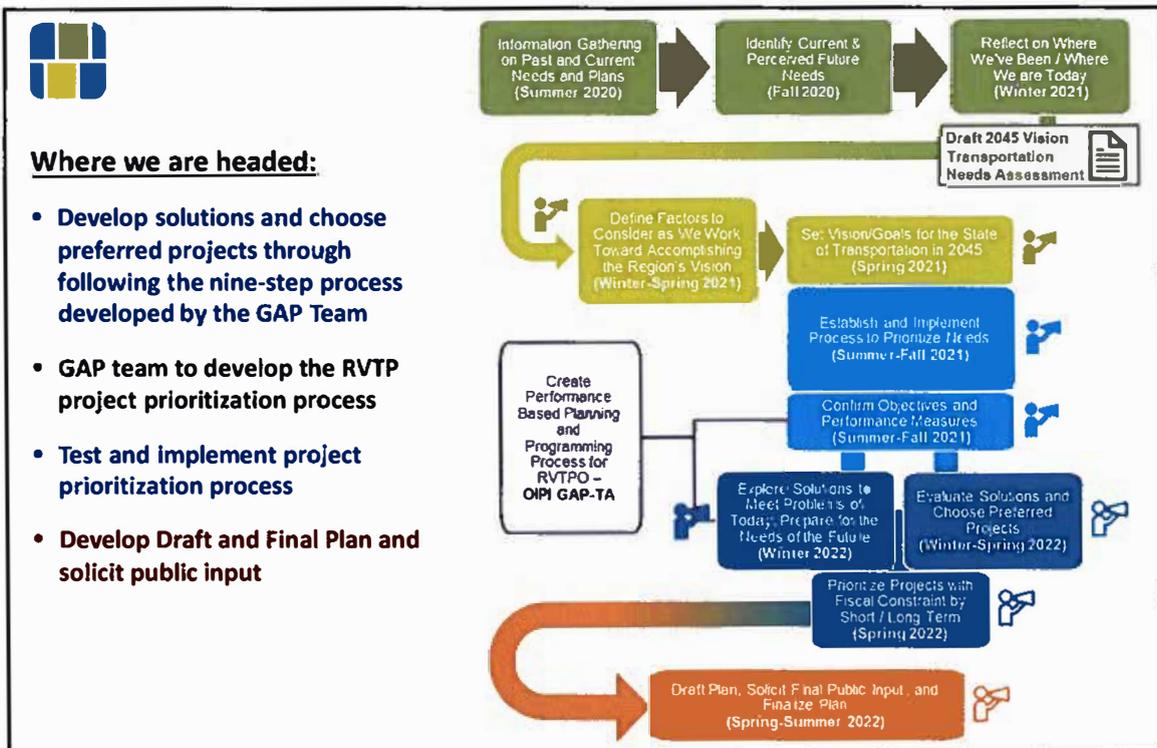
Discussion:

- How will we decide what needs are “priority” and proceed into the solutions process?
 - Segment by jurisdiction and need type
 - No “hardline” – as we determine **addressed needs** vs. **gap needs**, we will remain flexible on what proceeds into solutions (and coordinate with TTC – see Step 6 of Solutions Process)
- How detailed are the solutions?
 - Conceptual/planning level with enough detail to develop a general scope and cost estimate
 - Solutions may also identify the need for further study

32



33



34



Next Steps (January & February)



Finalize / refine priority needs and organize to start solutions process

Scan results of priority needs, developing initial list of prospective priority need groupings, by jurisdiction and need type that could feed into the solutions process

TTC to review updated priority needs map and spreadsheet in January



Develop solutions list and compile addressed needs and gap needs

Develop the list of potential solutions to address needs and conduct analysis to segment priority needs into addressed needs and gap needs

TTC to review solutions list and addressed needs versus gap needs



TTC meeting (February)

Review, discuss, and finalize solutions list and refine gap needs to prepare for developing solutions (complete through Step 6 of the solutions process)



Develop solutions for gap needs

Review each gap priority needs and develop solution options



COMMONWEALTH of VIRGINIA
Office of the
SECRETARY of TRANSPORTATION

VTrans: Overview, tools, methods, and policies

Jitender Ramchandani, OIPI Statewide Transportation Planning
Office of Intermodal Planning and Investment

November 12, 2021



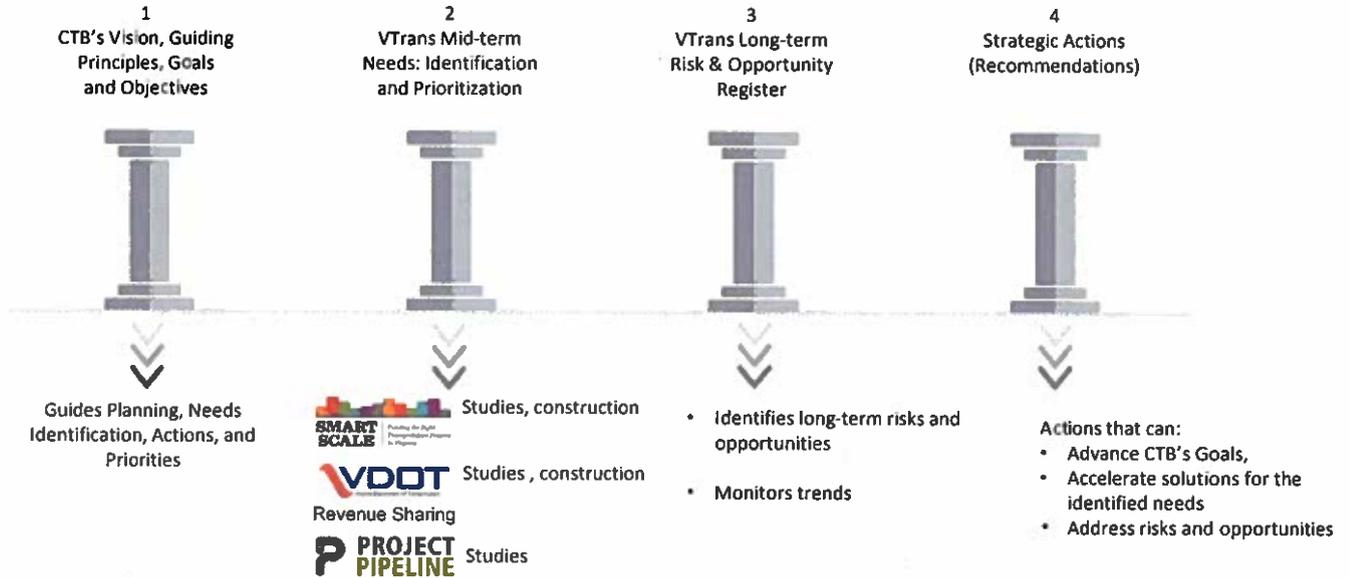
PURPOSE

- **VTrans is Virginia's Transportation Plan developed for the Commonwealth Transportation Board (CTB) by the Office of Intermodal Planning and Investment (OIPI).**
- **The purpose of today's presentation is to provide an overview of the CTB Policies for Identification and Prioritization of VTrans Mid-term Needs (0-10 years).**
- **Please utilize the following resources for more information:**
 - [Webpage](#): Policy and Overview
 - [InteractVTrans](#): Maps and graphs



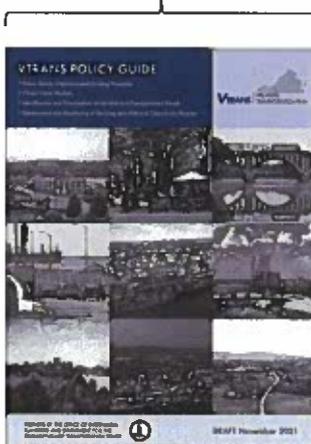
ABOUT VTRANS

- Major components in VTrans - Virginia's Transportation Plan



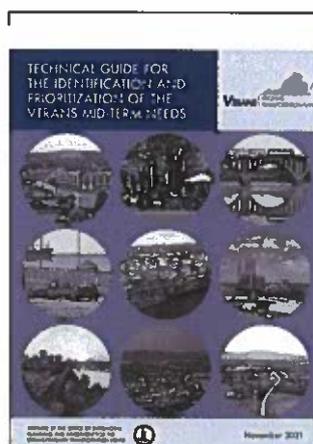
ABOUT VTRANS

POLICY GUIDE
For Policy Makers | Adopted by the CTB

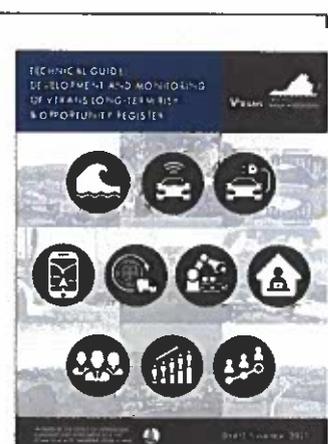


Includes all policies

TECHNICAL GUIDES
For practitioners | Not adopted by the CTB



Needs Identification and Prioritization

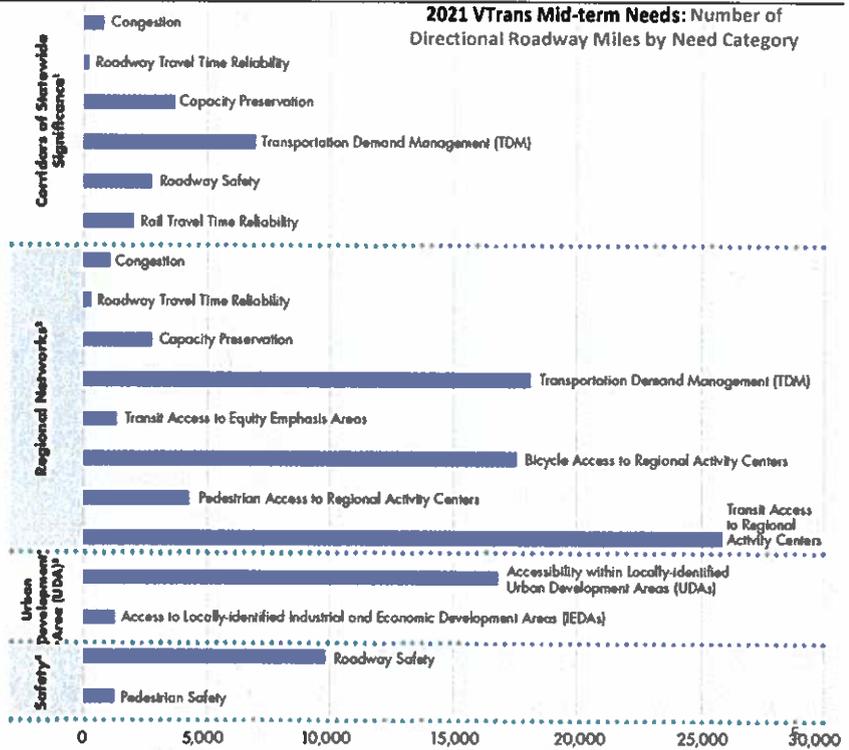


Long-term Risk & Opportunity Register

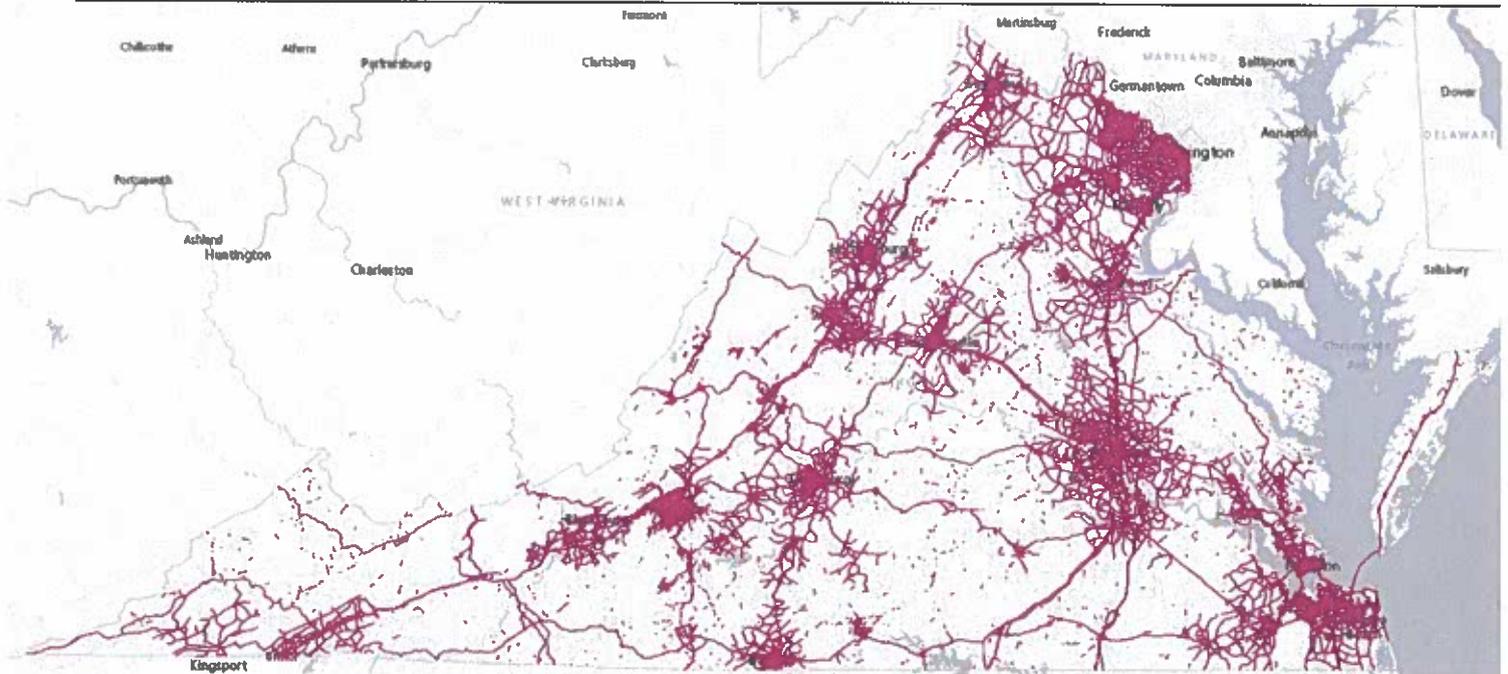


VTRANS MID-TERM NEEDS (0 – 10 YEARS) | IDENTIFICATION

- **Data-informed**
- **Multimodal**
- **Identify the need – do not prescribe the nature, scope, or location of the solution**
- **These are used for SMART SCALE and VDOT Revenue Sharing Program**



VTRANS MID-TERM NEEDS (0 – 10 YEARS) | IDENTIFICATION



NEXT STEPS FOR THE MID-TERM NEEDS

- We see several opportunities for continuous improvement that can further strengthen the existing policies.
- Your feedback is essential for us to help prioritize these improvements. We will be in touch with you in 2022 to gather some feedback.

THANK YOU

Contact Information for the OIPI's Statewide Transportation Planning (STP) Section

Jitender Ramchandani

jitender.Ramchandani@oipi.virginia.gov

804-489-4295

STAFF REPORT

TTC Meeting January 13, 2022

SUBJ: Draft FY23-28/29 Surface Transportation Block Grant (STBG) Financial Plan

Last month, the TTC reviewed two requests for additional STBG funding and eleven candidate projects. The TTC recommended to not utilize STBG funds to cover the cost overruns yet possibly revisit the matter in March when updated financial forecasts are available. Additionally, the TTC recommended following the scoring prioritization when funding candidate project requests.

The attached draft financial plan demonstrates the funding by priority investment. At this time, it does not seem necessary to adjust the timing of current project allocations, though if there is a desire to move funding sooner to initiate a project, project sponsors should make that known to staff at this time.

The TTC is asked to review the draft financial plan and recommend any changes. The full list of potential investments as noted below will be included in the public comment opportunity including the map that follows.

Priority STBG investments:

Map #	Project Title:	STBG Investment under Consideration:	Project Description:
1	I-581/U.S. 460 and Williamson Road Interchange Improvements	\$2M STBG towards undefined project(s) if the remaining funds required are secured via SMART SCALE in June 2024.	Project(s) not yet defined; safety and congestion around these interchanges is currently being studied.
2	Orange Ave. (U.S. 460) – 11 th to 24 th St. Improvements	\$5M STBG towards \$23M project if the remaining funds needed are secured via SMART SCALE in June 2024.	Modify or eliminate intersections to limit vehicle conflict points.
3	Orange Ave. and Williamson Rd. Intersection Improvements	\$5M STBG towards \$7.6M project if the remaining funds needed are secured via SMART SCALE in June 2024.	Add turn lanes and install a signal at the NB off-ramp to eliminate the weave to 460EB.

Other potential investments should additional funds become available:

Map #	Project Title:	STBG Investment under Consideration:	Project Description:
4	I-581 at Exit 2 (Peters Creek Road) Interchange Improvements, Phase 1	\$4,058,056	Install a signal at the off-ramp to eliminate the weave to EB Peter's Creek Rd.
5	Roanoke River Greenway – East (Construction only)	\$7,618,754	Construct a 10' asphalt path along neighborhood streets and off-road for people walking or biking from the Roanoke River Greenway at Bennington Street to Tinker Creek Greenway at Underhill Avenue.
6	Route 419/Electric Road Study between Route 11/Apperson and Bower Road Projects	\$5,000,000	Project(s) not yet defined; capacity, safety, access, transit, and Transportation Demand Management is currently being studied.
7	Washington Avenue Corridor Improvement Study	\$150,000	Study to look at safety, access, congestion, and multimodal deficiencies.
8	West Main Street Pedestrian Improvements, Phase 3	\$3,016,962	Build sidewalk on the south side of West Main Street from the City of Salem to Alleghany Drive and on the north side of West Main Street from Daugherty Road to Technology Drive.
9	Glade Creek Greenway Phase 3 PE	\$275,000	Design off-road path for bicyclists and pedestrians between Washington Avenue/Pollard Street and Vinyard Park. Does not include construction.
10	Walrond Drive Multimodal Improvements	\$4,447,452	Build a sidewalk on the north side of Walrond Drive between Plantation Road and Walrond Park.
11	Chaparral Drive Pedestrian Improvements	\$3,733,930	Build a sidewalk in front of Cave Spring High School from Purple Finch Rd. to Woodthrush Dr.

Potential cost overruns to cover with STBG should additional funds become available:

Project Title:	Current Project Funding:	STBG Investment under Consideration:	Project Description
Tinker Creek Trail Extension (Map #12)	\$7M from various sources.	Additional \$1,589,254	Additional funds would go towards building a 10' asphalt trail between Orange Avenue and Wise Avenue. Current funds are being used to build the trail north of Orange Avenue to Mason Mill Park.
Orange Market Park and Ride/Parking Lot Improvements (Map #13)	\$343k from STBG	Additional \$892,526	Additional funds support curbing, pavement, signage, and landscaping expenses cut from the adjacent Route 419/311 Roundabout project and cover costs to bid and construct the Park & Ride separately as opposed to constructing it with the Roundabout as originally planned.



The Policy Board will review the draft financial plan at their January 2022 meeting after which it will be made available for public comment. Staff anticipates receiving the current financial projections in February. In March the TTC will review the final draft STBG Financial Plan and make a recommendation to the Policy Board after which the RVTPO’s STBG allocations will be reflected in the draft Six-Year Improvement Program.

TTC Action:

Recommendation to the Policy Board on the draft FY23-28/29 STBG Financial Plan prior to its release for public comment.

FY 2023-2028/29 Surface Transportation Block Grant (STBG) Financial Plan
Draft January 6, 2021

Project	Project UPC	Conditionally Committed Funding	Committed Funding	Previous Allocations	FY23	FY24	FY25	FY26	FY27	FY28	FY29	Project Updates/ Other Notes
Roanoke River Greenway - Greenhill Park (Roanoke County) to Riverside Park (Salem)	97171		\$ 7,673,829	\$ 7,673,829	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Roanoke River Greenway - Eddy Avenue Bridge (Salem)	106486		\$ 1,289,114	\$ 1,289,114	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Complete, awaiting closeout.
Roanoke River Greenway - City of Salem line to Bridge Street	105439		\$ 4,363,800	\$ 4,363,800	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Complete, awaiting closeout.
Roanoke River Greenway - Water Pollution Control Plant to the Blue Ridge Parkway	91191		\$ 1,505,371	\$ 1,505,371	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Plantation Road, Bicycle, Pedestrian and Streetscape Improvement Project	103607		\$ 1,679,503	\$ 1,679,503	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Complete, awaiting closeout.
Tinker Creek Trail Extension	110101		\$ 3,227,047	\$ 3,227,047	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Request for \$1,589,254 not included at this time.
Bus Replacement and Rebuild Program	T18675/ DRPT		\$ 13,622,784	\$ 11,573,510	\$ 2,049,274	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Garden City Trail Connection	106265		\$ 200,000	\$ 200,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Complete, awaiting closeout.
Walnut Avenue Bicycle and Pedestrian Accommodations (5th Street to City/Town limit)	111649		\$ 1,684,030	\$ 1,446,282	\$ 237,748	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Route 419/U.S. 220 Diverging Diamond Interchange	115460		\$ 5,731,866	\$ 2,271,396	\$ 87,225	\$ 1,098,627	\$ 1,223,223	\$ 1,051,395	\$ -	\$ -	\$ -	
Roanoke River Greenway Bridge across Barnhardt Creek	113568		\$ 897,770	\$ 897,770	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Roanoke River Greenway through Explore Park	113567		\$ 3,020,308	\$ 816,056	\$ 393,937	\$ 1,810,315	\$ -	\$ -	\$ -	\$ -	\$ -	
Walnut Avenue Bicycle and Pedestrian Accommodations (W. Lee Avenue to 1st Street)	113565		\$ 417,610	\$ 417,610	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Route 220 at International Parkway Improvements	115457		\$ 300,000	\$ 300,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Starkey Road/Buck Mountain Road Intersection Improvements	113144		\$ 2,098,115	\$ 30,327	\$ 778,090	\$ 641,759	\$ 647,939	\$ -	\$ -	\$ -	\$ -	
Elizabeth Greenway	113566		\$ 1,104,400	\$ 191,068	\$ 913,332	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
I-581 Exit 2 Interchange Study	113570		\$ 190,000	\$ 190,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
New Downtown Transit Transfer Center - Real-Time Transit Passenger Information (RTPi) Project	TBD		\$ 400,000	\$ 400,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Route 220 Superstreet and Access Management	T24740		\$ 924,000	\$ -	\$ -	\$ 735,389	\$ 188,611	\$ -	\$ -	\$ -	\$ -	
Orange Market Park and Ride/Parking Lot Improvements	T24579		\$ 343,573	\$ 343,573	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	Request for \$892,526 more not included at this time.
Route 419 Streetscape Improvements, Phase 2	119462		\$ 4,347,150	\$ -	\$ -	\$ 194,193	\$ 1,616,639	\$ 2,358,948	\$ 177,370	\$ -	\$ -	
Roanoke River Greenway - East	119666		\$ 710,000	\$ 710,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Aviation Drive/Valley View Blvd. Pedestrian Improvements	119555		\$ 131,332	\$ -	\$ -	\$ 125,000	\$ 6,332	\$ -	\$ -	\$ -	\$ -	
Valleypointe Parkway Realignment	119468		\$ 2,500,000	\$ -	\$ -	\$ 100,000	\$ 692,293	\$ 479,769	\$ 1,227,938	\$ -	\$ -	
Gus Nicks Boulevard Pedestrian/Bicycle Crossing	119911		\$ 403,912	\$ 403,912	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Greenway Connection - Riverland Road	119586		\$ 975,568	\$ 975,568	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Oak Grove Streetscape Improvements - Crosswalk	T24550		\$ 218,748	\$ 218,748	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Route 460 (Orange Ave) Improvements near Blue Hills Drive	119464		\$ 676,720	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 676,720	\$ -	\$ -	
Route 460 (Orange Ave) Improvements at King Street	119461		\$ 550,280	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 550,280	\$ -	\$ -	
Route 460 at West Ruritan Road Intersection Improvements	119450		\$ 785,549	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 785,549	\$ -	\$ -	
Route 460 Intersections from Carson Road to Huntridge Road	119449		\$ 427,803	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 427,803	\$ -	\$ -	
Route 460 and Alternate Route 220 Intersection Improvements	120611		\$ 2,544,860	\$ -	\$ 486,592	\$ 325,000	\$ 740,761	\$ 992,507	\$ -	\$ -	\$ -	
I-581/U.S. 460 and Williamson Road Interchange Improvements	TBD	\$ 2,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 320,147	\$ 1,445,553	\$ 234,300	\$ -	Leverage for TBD project (total cost unknown) in SMART SCALE Round 5
Orange Ave. (U.S. 460) - 11th to 24th St. Improvements	TBD	\$ 5,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,000,000	\$ -	Leverage for \$23M project in SMART SCALE Round 5, previously unsuccessful in SMART SCALE Round 4.
Orange Ave. (U.S. 460) and Williamson Rd. Intersection Improvement	TBD	\$ 5,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 56,913	\$ 4,943,087	Leverage for \$7.6M project in SMART SCALE Round 5.
Total Funding Allocated:			\$ 80,466,986	\$ 44,646,428	\$ 4,946,198	\$ 5,030,283	\$ 5,115,798	\$ 5,202,766	\$ 5,291,213	\$ 5,291,213	\$ 4,943,087	
Total STBG Funding Available:			\$ 80,815,112	\$ 44,646,428	\$ 4,946,198	\$ 5,030,283	\$ 5,115,798	\$ 5,202,766	\$ 5,291,213	\$ 5,291,213	\$ 5,291,213	
Balance Entry (UPC 104126):			\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 348,126	
										\$ -		Remaining through FY28:
											\$ 348,126	Remaining through Year 7 (FY29):