



TECHNICAL ADVISORY COMMITTEE



NOTES

This meeting is open to the public. Members of the public are invited to attend virtually. Please alert the RRTPO at RRTPO@planrva.org if electronic transmission of this meeting fails for the public. If such transmission fails, the committee will take a recess until public access is restored.

Check out our complete [Public Participation Guide](#) online to learn about the different ways you can stay connected and involved. Meetings are also live streamed and archived on our YouTube Channel at www.youtube.com/c/PlmanRVA.

Members of the public are invited to submit public comments either verbally or in writing. Written comments can be submitted through the Q&A/Chat function on Zoom or to the email address above. Written comments will be read aloud or summarized during the meeting when possible and will be included in the meeting minutes. Verbal comments will be taken during the Public Comment Period on the agenda. Please indicate through the Q&A/Chat functions on Zoom if you would like to comment. When acknowledged by the Chairman, please clearly state your name so that it may be recorded in the meeting minutes.

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PlanRVA is where the region comes together to look ahead. Established in 1969, PlanRVA promotes cooperation across the region's nine localities and supports programs and organizations like the Richmond Regional Transportation Planning Organization, Central Virginia Transportation Authority, the Emergency Management Alliance of Central Virginia, Lower Chickahominy Watershed Collective and Don't Trash Central Virginia.

AGENDA

RICHMOND REGIONAL TRANSPORTATION PLANNING ORGANIZATION TECHNICAL ADVISORY COMMITTEE

**Tuesday, March 14, 2023, 9:15 a.m.
(or immediately following the ICG Meeting)
Zoom Meeting**

If you wish to participate in this meeting virtually, please register via Zoom at the following link:
https://planrva-org.zoom.us/webinar/register/WN_Xtt50fcyRYynEeEpadCjHQ

- 1. Welcome and Introductions**
(Smidler)
- 2. Roll Call & Certification of a Quorum**
(Firestone)
- 3. Consideration of Amendments to the Meeting Agenda**
(Smidler)
- 4. Approval of February 14, 2023, TAC Meeting Minutes** – page 3
(Smidler)
Action requested: approval of minutes as presented (voice vote).
- 5. Open Public Comment Period**
(Smidler/5 minutes)
- 6. TAC Chairman's Report**
(Smidler/10 minutes)
- 7. RRTPO Update**
(Parsons/minutes)
- 8. 2050 Socioeconomic Data Workgroup - Update**
(Aryal/5 minutes)
Information item.
- 9. Competitive Funding Opportunities** – page 10
(Jacocks/10 minutes)
Information item.
- 10. Project Cost Estimating & Overruns** – page 11
(Busching/30 minutes)

Discussion item: TAC is requested to review the project history and policy board direction and recommend a course of action (at the April meeting) to address this concern to the RRTPO Policy Board at its May meeting.

11. Draft FY24 – FY27 TIP & Regional Conformity Assessment – page 17

(Busching/10 minutes)

Action requested: TAC is requested to approve the opening of a public comment period to run March 20, 2023, to April 19, 2023, on the draft TIP and conformity assessment (roll call vote).

12. FY24 – FY29 STBG/CMAQ Allocations – page 19

(Busching/20 minutes)

Action requested: TAC is requested to review the project prioritization and draft allocations plans and make a recommendation to the policy board (roll call vote).

13. Transportation Agency Updates

(10 minutes)

- a. DRPT** – Dubinsky
- b. GRTC** – Torres
- c. RideFinders** – O’Keeffe
- d. VDOT** - Mueller

14. Future Meeting Topics – page 22

(Smidler/5 minutes)

15. TAC Member Comments

(Smidler/5 minutes)

16. Next Meeting: April 11, 2023

(Smidler)

17. Adjournment

(Smidler)

**RICHMOND REGIONAL TRANSPORTATION PLANNING ORGANIZATION
TECHNICAL ADVISORY COMMITTEE (TAC)**

ZOOM MEETING MINUTES

February 14, 2023, 9:00 a.m.

MEMBERS and ALTERNATES (A) PRESENT:

Town of Ashland		Charles City County		Chesterfield County	
Nora D. Amos	X	Gary Mitchell		Barbara K. Smith	X
Vacant (A)		Rhonda Russell (A)		Chessa Walker (A)	
Goochland County		Hanover County		Henrico County	
Austin Goyne	X	Joseph E. Vidunas, FY23 Vice Chair	X	Sharon Smidler, FY23 Chair	X
Thomas M. Coleman (A)		J. Michael Flagg (A)		Todd Eure (A)	
New Kent County		Powhatan County		City of Richmond	
Amy Inman	X	Bret Schardein		Dironna Moore Clarke	X
Kelli Le Duc (A)		Vacant (A)		Vacant (A)	
Capital Region Airport Commission		DRPT		GRTC	
John B. Rutledge		Tiffany T. Dubinsky		Sam Sink	
		Daniel Wagner (A)	X	Corey Robinson (A)	
				Patricia Robinson (A)	x
PlanRVA		RideFinders		RMTA	
Chet Parsons	X	Von S. Tisdale		Theresa Simmons	
Sulabh Aryal (A)	X	John O'Keeffe (A)	X		
VDOT					
Liz McAdory	X				
Nicole Mueller (A)	X				

The technology used for the RRTPO Technical Advisory Committee meeting was a web-hosted service created by Zoom and YouTube Live Streaming and was open and accessible for participation by members of the public. A recording of this meeting is available on our [Plan RVA YouTube Channel](#).

Virtual participation of this meeting by members of the committee is authorized under the City of Richmond Res. No. 2020-R025, - declaration of a local emergency due to the potential spread of COVID-19, adopted March 16, 2020. The resolution is available [here](#).

1. Welcome and Introductions

The Richmond Regional Transportation Planning Organization (RRTPO) Technical Advisory Committee (TAC) Chair, Sharon Smidler, presided and called the February 14, 2023, TAC meeting to order at 9:01 a.m.

2. Statement Regarding Virtual Meetings

Attendees' attention was directed to the statement regarding virtual meeting participation.

3. Roll Call & Certification of a Quorum

Janice Firestone, Program Manager, took attendance by roll call and certified that a quorum was present.

4. Consideration of Amendments to the Meeting Agenda

There were no requested amendments to the agenda.

5. Approval of January 10, 2023, Meeting Minutes

On motion of Liz McAdory, seconded by Barbara Smith, the RRTPO Technical Advisory Committee approved the minutes of the January 10, 2023, meeting as presented (voice vote).

6. Open Public Comment Period

There were no requests to address the committee.

7. TAC Chairman's Report

Chair Smidler did not have a formal report.

8. RRTPO Update

Chet Parsons did not have a formal update.

9. Transit Asset Management Performance Targets

Greta Ryan, PlanRVA, presented this request and offered to answer any questions.

On motion of Amy Inman, seconded by Dironna Moore Clarke, the RRTPO Technical Advisory Committee voted to recommend RRTPO Policy Board approval of the following resolution:

RESOLVED, that the Richmond Regional Transportation Planning Organization Policy Board adopts the FFY2022 Tier II TAM targets and incorporates them into the Transportation Improvement Program.

Jurisdiction/Agency	Member	Aye	Nay	Abstain	Absent
Town of Ashland	Nora D. Amos	X			
Charles City County	Gary Mitchell				X
Chesterfield County	Barbara K. Smith	X			X
Goochland County	Austin Goyne				
Hanover County	Joseph E. Vidunas, Vice Chair				X
Henrico County	Sharon Smidler, Chair	X			
New Kent County	Amy Inman	X			
Powhatan County	Bret Schardein				X
City of Richmond	Dironna Moore Clarke	X			

Capital Region Airport Commission	John B. Rutledge				X
DRPT	Tiffany Dubinsky				X
GRTC Transit System	Patricia Robinson	X			
PlanRVA	Chet Parsons	X			
RideFinders	John O’Keeffe (A)	X			
RIC Metropolitan Transp. Authority	Theresa Simmons				X
VDOT	Liz McAdory	X			
Totals		9	0	0	7

10. FY21 – FY24 TIP Amendment: I-64 Gap Improvement – Segment A

Myles Busching, PlanRVA, presented this request and offered to answer any questions.

On motion of Liz McAdory, seconded by Barbara Smith, the RRTPO Technical Advisory Committee voted to recommend RRTPO Policy Board approval of the following resolution:

RESOLVED, that the Richmond Regional Transportation Planning Organization Policy Board amends the *FY21 – FY24 Transportation Improvement Program (TIP)* to revise the planned obligations on UPC 122805: I-64 GAP IMPROVEMENTS – SEGMENT A to include:

- \$1,000,000 in Other (State) funding for Right-of-Way in fiscal year 2023
- \$249,813,744 in Other (State) funding for Construction in fiscal year 2023

Jurisdiction/Agency	Member	Aye	Nay	Abstain	Absent
Town of Ashland	Nora D. Amos	X			
Charles City County	Gary Mitchell				X
Chesterfield County	Barbara K. Smith	X			
Goochland County	Austin Goyne				X
Hanover County	Joseph E. Vidunas, Vice Chair				X
Henrico County	Sharon Smidler, Chair	X			
New Kent County	Amy Inman	X			
Powhatan County	Bret Schardein				X
City of Richmond	Dironna Moore Clarke	X			
Capital Region Airport Commission	John B. Rutledge				X
DRPT	Tiffany Dubinsky				X
GRTC Transit System	Patricia Robinson	X			
PlanRVA	Chet Parsons	X			
RideFinders	John O’Keeffe (A)	X			

RIC Metropolitan Transp. Authority	Theresa Simmons				X
VDOT	Liz McAdory	X			
Totals		9	0	0	7

11. Project Cost Estimating & Overruns

Mr. Busching presented this matter. He noted that he recently provided an update on the matter to members of the Policy Board, specifically with respect to locally administered projects versus VDOT administered.

The policy board has referred this question of how to address cost estimating and overruns to TAC with the following requests:

1. Provide an explanation for the cost increases in all cases where an active or recently completed project has exceeded its original budget (requested last month), and
2. Determine what policy changes are needed (if any) to reduce cost overruns and their impacts on regional funding programs. Some options to consider include:
 - a. Using more conservative estimate assumptions (like Smart Scale)
 - b. Increasing project definition before selection (e.g., requiring 30% design)
 - c. Reducing TPO exposure to overruns by awarding funds for a single phase or fixed dollar amounts
 - d. Improving time to delivery

Joseph Vidunas joined the meeting at approximately 9:24 a.m.

Committee members discussed the project development process. There was a discussion about the four potential policy changes. There was a consensus to defer action on the matter to allow time for further review. The issue will be on the March TAC agenda.

12. FY24 – FY29 STBG/CMAQ Allocations - Existing Project Requests

Mr. Busching presented this matter and offered to answer any questions.

On motion of Barbara Smith, seconded by Dironna Moore Clarke, the RRTPO Technical Advisory Committee voted to recommend RRTPO Policy Board approval of the following projects:

UPC	Sponsor	Amount
13551	Hanover	\$1,600,000
15958	Richmond	\$3,770,000
19035	Richmond	\$3,000,000
112042	Ashland	\$2,759,106
118143	RRTPO	\$400,000

Prior to the vote, Committee members discussed whether or not the other projects reviewed should be funded. Updates were provided on the status of each of those projects.

Jurisdiction/Agency	Member	Aye	Nay	Abstain	Absent
Town of Ashland	Nora D. Amos	X			
Charles City County	Gary Mitchell				X
Chesterfield County	Barbara K. Smith	X			
Goochland County	Austin Goyne				X
Hanover County	Joseph E. Vidunas, Vice Chair	X			
Henrico County	Sharon Smidler, Chair	X			
New Kent County	Amy Inman	X			
Powhatan County	Bret Schardein				X
City of Richmond	Dironna Moore Clarke	X			
Capital Region Airport Commission	John B. Rutledge				X
DRPT	Tiffany Dubinsky				X
GRTC Transit System	Patricia Robinson	X			
PlanRVA	Chet Parsons	X			
RideFinders	John O'Keeffe (A)	X			
RIC Metropolitan Transp. Authority	Theresa Simmons				X
VDOT	Liz McAdory	X			
Totals		10	0	0	6

13. FY24 – FY27 TIP & ConnectRVA 2045 Conformity Projects List

Mr. Busching presented this matter. He note the TPO has to approve the Richmond portion. The interagency consultation will be held prior to the next TAC meeting. TAC will need to open the public comment for both documents.

On motion of Liz McAdory, seconded by Barbara Smith, the RRTPO Technical Advisory Committee voted to recommend RRTPO Policy Board approval of the following resolution:

RESOLVED, that the Richmond Regional Transportation Planning Organization policy board approves the attached list of ungrouped projects from the draft FY24 – FY27 Transportation Improvement Program and ConnectRVA 2045 as the universe of RRTPO projects for air quality conformity analysis as required by federal regulations (23 CFR § 450.326).

FURTHER RESOLVED, that the RRTPO policy board authorizes the TAC to review and open public comment on the draft FY24 – FY27 TIP and Regional Conformity Assessment at the March 14, 2023, meeting.

Jurisdiction/Agency	Member	Aye	Nay	Abstain	Absent
Town of Ashland	Nora D. Amos	X			
Charles City County	Gary Mitchell				X
Chesterfield County	Barbara K. Smith	X			
Goochland County	Austin Goyne				X
Hanover County	Joseph E. Vidunas, Vice Chair	X			
Henrico County	Sharon Smidler, Chair	X			
New Kent County	Amy Inman	X			
Powhatan County	Bret Schardein				X
City of Richmond	Dironna Moore Clarke	X			
Capital Region Airport Commission	John B. Rutledge				X
DRPT	Tiffany Dubinsky				X
GRTC Transit System	Patricia Robinson	X			
PlanRVA	Chet Parsons	X			
RideFinders	John O’Keeffe (A)	X			
RIC Metropolitan Transp. Authority	Theresa Simmons				X
VDOT	Liz McAdory	X			
Totals		10	0	0	6

14. Smart Scale Recommendations Review (focus on CVTA leveraging impacts)

Mr. Parsons presented this matter and noted that it was also presented to the CVTA TAC. He noted that a wide range of leveraging amounts that would have been required to make the various projects successful.

15. Transportation Agency Updates

a. DRPT

Daniel Wagner provided this report. The agency update is posted with the [meeting documents](#).

b. GRTC

Patricia Robinson provided an update on recent and upcoming GRTC activity. Several new amenity installations were completed last month. There is a new public timetable design. To commemorate black history makers, destination sign codes will be on GRTC buses throughout February.

c. RideFinders

John O’Keeffe, RideFinders, provided an update on the following RideFinders’ activities:

- Working with HR at Amazon RIC1 in Dinwiddie to assist them with commute options for employees. We have done a density plot map and created a survey to go out to employees.

- Working with HR at Shamin hotels with transportation options for employees at some of their hotels where there are staffing issues and transit does not reach.
- Met with Chesterfield County to discuss transportation options and how RideFinders could assist the new Lego facility as well as discussed Amazon efforts at Meadowville location
- Continuing to work with VDOT with assistance from Liz McAdory on the replacement of RideFinders signs along the interstates and secondary roads. Currently 6 signs are missing and 1 has been replaced by VDOT.
- Submitted 2 Commuter Assistance Program Grant applications to DRPT.
- Shared partner notices/announcements on Twitter and/or Facebook from- Chesterfield County, New Kent County, Henrico County, DRPT and PLANRVA.

d. VDOT

Nicole Mueller, VDOT, provided an update on VDOT's recent and upcoming activities, which is posted with the [meeting documents](#).

16. Future Meeting Topics

Chair Smidler reviewed the future meeting topics. Mr. Parsons noted there are two BRT feasibility studies are underway; TAC may be interested in a presentation on these. Members expressed an interest in having it on the next meeting agenda; the north-south BRT corridor study in particular.

17. TAC Member Comments

There were no member comments.

18. Next Meeting: November

Chair Smidler noted the next meeting will be held on March 14, 2023.

19. Adjournment

Chair Smidler adjourned the meeting at 10:33 a.m.

TAC AGENDA 3/14/23; ITEM 9

COMPETITIVE FUNDING OPPORTUNITIES

Richmond Regional Transportation Planning Organization

REQUESTED ACTION: This competitive funding spreadsheet will be presented for information only as a resource for the Technical Advisory Committee and local staff. Review comments and input are welcomed as the tool is improved and updated for timely referral.

BACKGROUND: Staff began researching and documenting specific grant sources in 2022 given the tremendous opportunities to leverage competitive Federal 2021-22 Infrastructure Investment and Jobs Act (IIJA), Inflation Reduction Act and other funds to stretch local capital improvement dollars, State funding and regional resources through CVTA. The funding opportunities spreadsheet shared today with the TAC is intended to serve as a resource tool for all jurisdictions within the Richmond Region to provide quick reference for funding local and regional projects. These programs are established at the State and Federal level. The focus of this tool includes common local project types, such as planning, design, construction of transportation infrastructure and improvements that contribute to community resilience.

The spreadsheet divides the State vs. Federal as Tier 1 and Tier 2, respectively, demonstrating the degree of competitiveness (i.e., Tier 1-less competitive, Tier 2-more competitive). State or Tier 1 funding programs may be less competitive given a smaller field of applicants. The size of typical projects funded is likely to be smaller or multi-phased as well. Funding applications for Tier 2, Federal funding must be nationally competitive to be successful, typically requiring a greater degree of preparation with potentially larger awards for more complex projects.

We intend to keep this resource updated with new announcements of funding, including links to successful applications from within our region. As a work in progress, we will make every effort to include Notices of Funding Opportunity (NOFO) with deadlines and links to specific program guidelines which can help local staff to match potential leveraging sources with known project funds to fill funding gaps and speed up the process of executing projects.

TAC ACTION REQUESTED: This competitive funding spreadsheet will be presented for information only as a resource for the Technical Advisory Committee and local staff. Review comments and input are welcomed as the tool is improved and updated for timely referral.

TO: RRTPO Technical Advisory Committee (TAC) Members and Alternates

FROM: Sharon Smidler, RRTPO TAC Chair

DATE: March 7, 2023

RE: Project Cost Estimating Agenda Action Item

For the March 14, 2023, RRTPO TAC meeting, please be prepared with your jurisdiction's preference on how to address project cost estimating and overruns. We have been requested by the RRTPO to have a response by their April meeting.

One of the solutions is providing an explanation for the cost increases in all cases where an active or recently completed project has exceeded its original budget. We still need a written explanation from the City of Richmond by Friday, March 10, 2023. Once we have this, RRTPO TAC can present the written explanation for all jurisdictions project cost increases to the RRTPO at their April meeting.

Based on previous RRTPO TAC discussions, it sounds like RRTPO TAC should also discuss the following solution: using more conservative estimates & assumptions like the SMART SCALE Cost Estimate Workbook (CEWB).

Some other potential options mentioned were requiring 30% design prior to funding, awarding only single phase of project or fixed dollar amounts, and/or improving time to delivery by awards being contingent on specific schedule. We are open to other solutions as well.

Thank you all for your assistance and cooperation as we address this assignment from the RRTPO in a timely and thoughtful manner.

TAC AGENDA 3/14/23; ITEM 10.

PROJECT COST ESTIMATING

Richmond Regional Transportation Planning Organization

REQUESTED ACTION: Review historic project estimating performance and recommend any necessary changes to the policy board to reduce the impacts of cost overruns on regional funding programs

BACKGROUND: Selecting and prioritizing projects for funding is one of the primary roles of the RRTPO in developing the regional transportation system. Projects selected by the TPO to receive funding are included in the Six-Year Improvement Program (SYIP) for adoption by the Commonwealth Transportation Board (CTB).

In developing the FY23 – FY28 allocations plans, VDOT identified large shortfalls on three projects that had not been previously requested through the TPO application process. In total, these shortfalls totaled over \$13 million. To meet these existing project needs, no new projects were selected for the second year in a row.

The RRTPO policy board directed staff to review the performance of the STBG and CMAQ programs and identify opportunities to reduce cost overruns and their impacts on regional funding programs. Staff reviewed all active projects based on the SYIP estimates by phase over time. Staff presented the requested information at the January policy board meeting. The [presentation materials can be found here](#).

Of the 39 projects analyzed, staff found the median project was about 26% over the original estimate and TPO funding had increased by about 19%. These figures are within the AASHTO expected range for cost increases on projects selected in the planning phase.

Staff also identified a handful of mostly legacy projects which negatively impact the program. The cost of 11 (28%) projects has at least doubled for the original estimate, with 6 of them dating to the 2000s or earlier. On 8 (20%) projects, the TPO's funding commitment had at least doubled over the life of the project. In several cases, the estimate increases were driven by evolving project scopes (for example, the Mayo Bridge project started as a rehabilitation and evolved into a replacement).

The policy board has referred this question of how to address cost estimating and overruns to TAC with the following requests:

1. Provide an explanation for the cost increases in all cases where an active or recently completed project has exceeded its original budget (requested last month), and
2. Determine what policy changes are needed (if any) to reduce cost overruns and their impacts on regional funding programs. Some options to consider include:
 - a. Using more conservative estimate assumptions (like Smart Scale)
 - b. Increasing project definition before selection (e.g., requiring 10% or 30% design)

- c. Reducing TPO exposure to overruns by awarding funds for a single phase or fixed dollar amounts
- d. Improving time to delivery

TAC ACTION REQUESTED: TAC is requested to review the project history and policy board direction and determine a course of action to address this concern.

Attachments:

1. Cost Change Summary (spreadsheet)

UPC	Sponsor	Project Description	Staff Calculated Estimate Change	Explanation
103393	Ashland	Ashland Trolley Line Trail	55%	Before advertisement, the original 2013 estimate was updated to include expenses such as additional geotechnical investigations and the need for deeper foundations due to poor soils, and utility relocations, which could not have been anticipated until surveys were completed and plans for the project were underway. In addition, product costs increased since 2013. During construction, it was determined that the boardwalk vertical alignment needed to be redesigned. To avoid sole sourcing of the precast concrete boardwalk material, the initial design did not include substructure elements of the boardwalk material that was selected. This created serious challenges during construction. It was determined that the most practicable way to resolve the challenges was to raise the boardwalk elevation. Also, while revising the vertical alignment, we slightly revised the horizontal alignment of the asphalt trail to allow an existing septic drainfield to remain in place for the time being.
112042	Ashland	Route 1 Improvements: Ashcake Rd to Arbor Oak Dr	55%	The increase was due to re-assessing costs based on recent bid activity. VDOT has received bids higher than presumed by the average inflation rate, and has had to reassess the funding for multiple projects.
101020	Chesterfield	#HB2.FY17 Rte 10 (Bermuda Triangle Rd to Meadowville Rd)	120%	4th phase of a county priority since 1992 to widen Rt. 10 from Rt. 1 - I-295 (4 miles). PE began in FY12. Funding for project was pulled with HB2 in FY15. Replacement funding requested via Smart Scale and RSTP sources. Original scope (widen to 4 and 6 lanes) increased to widening to 6 and 8 lanes. CN began in FY20 and should be complete FY23.
104889	Chesterfield	RT 10 (Whitepine to Frith) Widening	26%	Inflation: First RSTP request in FY14 for \$12 M; CN started in FY22; 8 years at 3% = 26.7% increase
104890	Chesterfield	Rte 360 E (Lonas Pkwy to Castle Rock Rd) - Widening	28%	Inflation: First RSTP request in FY14 for \$5.5 M; CN started in FY21; 7 years at 3% = 23% increase
107085	Chesterfield	Rte 641 - Replace SD Bridge Fed ID 5280 (now a Tier 1 project)	126%	Scope change: original scope of revenue sharing project to accommodate pedestrians along Dundas Road. Requested RSTP to supplement. VDOT took over project as a bridge replacement. No additional RSTP funds requested due to scope change.
111712	Chesterfield	Route 1 (Marina Drive - Merriewood Road) Shared-Use Path	12%	Not an estimate change for CMAQ/RSTP program. This project began as a Smart Scale funded project. CMAQ funding requested to help close the gap following a scope change from original concept as a result of two planning documents (county Bikeways & Trails Plan and Ashland-to-Petersburg Trail).
113843	Chesterfield	Route 1 (Merriewood Rd to Ellilham Ave) Sidewalk	16%	Scope change: Two planning documents (county Bikeways & Trails Plan and Ashland-to-Petersburg Trail) required scope adjustments to original concept.
105733	Goochland	Rte 623 - Improve Intersection	729%	<ul style="list-style-type: none"> •Project was initially funded several cycles ago using old estimating workbooks •Project administration has since changed from Local to VDOT •Market conditions have recently increased prices

UPC	Sponsor	Project Description	Staff Calculated Estimate Change	Explanation
13551	Hanover	#SMART18 - Rte 360 Widening	156%	A myriad of factors have contributed to the overall cost increase. First and foremost is the fact that the project has been under development for 25+ years. During this period, the project was lengthened several hundred feet, placed on-hold for several years due to lack of funding, revised to include sidewalks throughout among other design modifications brought about through the R/W process. As a result of the added time and effort, which entailed dozens of VDOT reviews, certifications and recertifications and various other time delays, such as longer than anticipated right-of-way acquisition and utility relocation, significant inflationary cost increases resulted for all three project phases.
81667	Hanover	Rte 615 (Creighton Rd) - Roundabout	121%	This project was initially scoped and designed as traditional intersection upgrade (signal & turn lanes) but was reevaluated at the 30% design stage and redesigned as a roundabout. Our analysis showed that the the roundabout would function better and cost less. The conversion to a roundabout added time and effort which resulted in inflationary cost increases.
109260	Hanover	Pole Green Rd Widening	23%	Our baseline estimate is \$20,000,000. While the PE and RW estimates have for the most part remained relatively constant since the project was initiated, the CN estimate has been increased significantly to account for COVID-related inflationary cost increases based on recent area bid histories. It should also be noted that the project has been delayed about a year as we worked through some unanticipated environmental issues related to historic resources and EJ populations which has added to the cost.
50528	Henrico	Three Chopt Road - Widening - PE Only	461%	Inflation in project costs, increased cost due to utility relocations, increases in federal requirements over time, time delays due to additional noise wall, public involvement and studies, ROW overruns due to increases in property values and plan changes due to negotiations and public input, two UPC's for ROW and CN were merged together for streamlined project delivery.
60934	Henrico	Rte 9999 - Sadler Rd; Widen & Reconstruct; Fed Escrow Proj	104%	Inflation in project costs, increased cost due to utility relocations, time delays due to issues with the consultant, increases in federal requirements over time, ROW overruns due to increases in property values and plan changes due to negotiations and public input.
104880	Henrico	Ridgefield Pkwy - Construct Sidewalk	95%	The original 2015 estimate submitted with the grant application was very conceptual and at a time when limited information and cost estimating vetting was in place. After the County hired a consultant the estimate was revised and from that point forward in 2017 we kept the project under budget and construction was completed under that one time revised estimate. This all took place through the supply chain disruption and material inflation of 2020 and 2021 and the project was still completed under budget.
109194	Henrico	#SMART20 - Parham Rd Traffic Signal and Sidewalk Project	5%	The previous cost was due to a bad SmartScale/Baseline estimate when the project was conceived out of the SmartScale committee, this, coupled with the escalation in the cost of construction materials and labor, has caused the disparity in cost estimates. Less than inflation. Originally planned to be administered by Henrico. Due to staff shortages at Henrico at the time, VDOT offered to manage project.

UPC	Sponsor	Project Description	Staff Calculated Estimate Change	Explanation
109951	Henrico	Henrico County Automated Traffic Management System (ATMS)	15%	Due to changes and cost increases in ATMS technology b/w project application & delivery.
115769	Henrico	Libbie Avenue Road Diet - Bethlehem Rd to W Broad St	13%	Cost escalation since original estimate.
118470	Henrico	W Broad St Pedestrian and Transit Improvements - Glenside Dr to Parham Rd	6%	The original estimate submitted was prepared in 2018, prior to the inflationary and PROWAG effects.
118597	Henrico	W Broad St Intersection Improvements at Dominion and Cox	52%	This is a VDOT STARS study where the estimates calculated during the study were submitted with the grant application. There was a VDOT Chief Engineer Memo that PMs were tasked with following in regards to estimate updates with the new CEWB (Cost Estimate Workbook) that computes inflation into the project costs.
113832	Port of Virginia	Richmond Marine Terminal (RMT) Gate Impr. & New Drop-off Lot	52%	Cost increase due to city's tree remediation policy and cost increases for maintenance of truck traffic
15955	Richmond	Rte 1 - Intersection Improvements at Hopkins Rd & Harwood	45%	Project was initially funded several cycles ago using old estimating workbooks. Market conditions have recently increased prices. This is a legacy project that is administered by VDOT. No local administration of this project.
15958	Richmond	Commerce Road - Widening	439%	Construction costs have increased as observed in the previous round of bidding, as well increasing costs due to inflation, rising material costs and rising labor costs.
19035	Richmond	Jahnke Road - 2 Lane Improvements	243%	The typical section was not set until two citizens meetings were held concluding around 2009. After a 2010 Public Hearing the project was extended to Forest Hill Ave around 2013. The r/w acquisition process took longer than expected due in part to the performance of the acquisition consultant. Since 2019, there were unknown utilities conflicts discovered causing utility adjustments. Near the time the utilities work was completed, CSX changed their requirements, we have been adjusting/coordinating to meet CSX requirements for the last few years as they evolve their requirements.
19036	Richmond	Forest Hill Avenue Improvements	276%	The project was funded over several cycles using old estimates and project workbooks. In addition the time to relocate utilities during construction increased the project duration time causing an increase in the overall construction, engineering, and inspections costs.
104281	Richmond	Deepwater Terminal Rd - Extend Existing Roadway	71%	Construction costs have increased due to rising materials and labor costs as well as inflation
105890	Richmond	Richmond Signal System - Phase III	16%	The project experienced a 16% increase in costs over the engineering estimate within the normal inflationary, labor, and material cost increases experienced over the past several years.
104888	Richmond	#SGR18LB - Rte 360 - Rehab Mayo Bridge	4400%	The project underwent a scope increase from targeted repairs to a superstructure replacement of both bridges (north and south) with pier repairs. The project will have architectural features to mimic the existing bridge. This scope change was deemed appropriate as being most cost effective option. The project has transitioned from Locally administered to VDOT administered.

TAC AGENDA 3/14/23; ITEM 11.

DRAFT FY24 – FY27 TIP & REGIONAL CONFORMITY ASSESSMENT

Richmond Regional Transportation Planning Organization

REQUESTED ACTION: Review the draft FY24 – FY27 TIP and regional conformity assessment and authorize staff to open a 30-day public comment period between March 20, 2023, to April 19, 2023.

BACKGROUND: As part of the FY24 – FY27 TIP development, the Richmond-Petersburg Area is required to demonstrate conformity under the Clean Air Act (CAA). While in attainment for all current emissions standards, the region was a nonattainment area, and later a maintenance area, for the 1997 8-hour ozone standard. In 2018, the D.C. Circuit Court issued a decision in South Coast Air Quality Management District v. EPA which requires all nonattainment or maintenance areas under the 1997 standards to demonstrate conformity for the LRTP and the TIP, even when in attainment under the more stringent 2015 standards. The constrained list of projects in the ConnectRVA 2045 plan along with the ungrouped projects in the draft FY24-27 TIP that are located within the former 8-hour ozone maintenance area constitute the RRTPO set of projects for this analysis. The policy board acted at the March 2, 2023, meeting to approve this project list.

The interagency consultation meeting will take place before the March 14, 2023, TAC meeting. At this meeting, a draft conformity report will be reviewed and advanced to the TAC. TAC is requested to approve opening a public comment on the draft report that will result from that meeting. To foster regional coordination and maximize public engagement, RRTPO staff has coordinated with Tri-Cities MPO to align the public engagement periods for both TIPs and the conformity assessment to run between March 20, 2023, and April 19, 2023. The RRTPO policy board has authorized the TAC to review and open the public review of these documents.

PLANNED ENGAGEMENT: Staff developed an engagement strategy for the FY24 – FY27 TIP development process in the summer concurrent with early project reviews. After review of the Public Engagement Plan, staff has selected four (4) primary tools to allow for participation and input on the TIP and regional conformity assessment. Each of the strategies is discussed briefly below.

Public Meetings - Major decisions and announcements are always handled by the TPO in public meetings, making this tool a natural fit for updates and seeking public comment on the TIP. All meetings of the RRTPO and its various committees are livestreamed online, available for later viewing in a video archive, and allow for public comment both in person and virtually. Major presentations or actions by the RRTPO policy board and technical advisory committee include schedule updates (2 meetings), project review and approval (2 meetings), and adoption of the TIP (2 meetings).

Mailing/Email Lists - The RRTPO also maintains a mailing list of interested parties which is used to provide opportunities for input on major planning efforts. This list was used as part of the TIP development to notify the public and relevant agencies

of the open public comment period. Both the RRTPO website and the TIP website offered public opportunities to subscribe to RRTPO updates.

Open Houses - The third approach to engagement used in developing the TIP will be open houses during the public comment period. RRTPO staff will advertise the public review and open houses in several of the larger newspapers in the region including the Richmond Times Dispatch and the Richmond Free Press.

Website - Staff took a web-first approach to developing the TIP with project information and mapping available at a new website: <https://www.rttpotip.org>. This interactive page allowed anyone interested in the TIP to view project information, search by map or project information, and provide comments in general and directly on projects.

TAC ACTION REQUESTED: The following resolution is presented for consideration:

RESOLVED, that the Richmond Regional Transportation Planning Organization (RRTPO) Technical Advisory Committee authorizes staff to open a 30-day public review period on the draft FY24 – FY27 Transportation Improvement Program (TIP) and Regional Conformity Assessment pursuant to the RRTPO's Public Engagement Plan.

Attachments:

1. [Draft FY24 – FY27 Transportation Improvement Program](#)
2. [Draft Regional Conformity Assessment](#)

TAC AGENDA 3/14/23; ITEM 12.

FY24 – FY29 STBG/CMAQ DRAFT ALLOCATIONS

Richmond Regional Transportation Planning Organization

REQUESTED ACTION: Review the new project rankings and staff recommended allocations for FY24 – FY29 STBG/CMAQ funding and provide a recommendation to the policy board.

BACKGROUND: Selecting and prioritizing projects for funding is one of the primary roles of the RRTPO in developing the regional transportation system. Projects selected by the TPO to receive funding are included in the Six-Year Improvement Program (SYIP) for adoption by the Commonwealth Transportation Board (CTB).

In June of 2021, the RRTPO Policy Board adopted new guidelines for project selection and allocation of regional Surface Transportation Block Grant (STBG) and Congestion Mitigation and Air Quality (CMAQ) funds. The newly adopted guidelines can be reviewed [on the PlanRVA website](#).

At the February meeting, the TAC recommended additional funding for five projects. These recommendations have been incorporated into the draft allocations plans. The recommended additional funding is summarized below.

Project (UPC)	Sponsor	Recommended Award
Route 1 Improvements: Ashcake Rd to Arbor Oak Dr (112042)	Ashland	\$2,759,106
#SMART18 - Rte 360 Widening (13551)	Hanover	\$1,600,000
Commerce Road – Widening (15958)	Richmond	\$3,770,000
Jahnke Road - 2 Lane Improvements (19035)	Richmond	\$3,000,000
RRTPO Scenario Planning Pilot (118143)	RRTPO	\$400,000

BUDGET DEVELOPMENT: At the time of this staff report, updated budgets for the STBG and CMAQ programs were not available from VDOT. To meet the program deadlines for inclusion in the Six-Year Improvement Program (SYIP), staff have developed the proposed allocations based on the budget projections from the FY23 – FY28 budget. Based on the Regional Funding Framework, a reserve of at least 10% is retained for each of the fiscal years, providing flexibility to adjust to budget changes without significantly impacting the project list. Staff has also taken a conservative approach and assumed available funding in FY29 (and beyond) will be the same as FY28 without any escalation.

NEW PROJECT PRIORITIZATION: All the new project applications were screened by staff for eligibility and consistency with regional planning. After meeting with project sponsors to gain better understanding of the projects, staff scored each project based on the project selection criteria and performance measures. Both STBG and CMAQ projects are generally scored under the same criteria. CMAQ projects are also evaluated using the FHWA CMAQ Calculator Toolkit. This demonstration of emissions reduction is a critical piece of establishing project eligibility and submitted

to FHWA/VDOT along with any new projects. The performance measures and weights are summarized below:

Goal	Goal Weight	Measure	Measure Weight
Safety	25%	Crash Frequency	17.5%
		Crash Rate	7.5%
Mobility	15%	Person Throughput	7.5%
		Person Hours of Delay	7.5%
Equity & Accessibility	25%	Access to Jobs	7.5%
		Access to Jobs (EJ)	5%
		Access to Destinations	7.5%
		Access to Destination (EJ)	5%
Economic Development	15%	Job Growth	7.5%
		Truck Intensive Areas	3.75%
		Truck Throughput	3.75%
Environment & Land Use	20%	Sensitive Features (Environment & Cultural)	5%
		Air Pollution (NOx, VOC)	5%
		VMT/capita Reduction	5%
		Activity Centers	5%

Studies are scored separately in the STBG program as the purpose is to define and refine the projects for development and/or submission for competitive funding. Study scoring is summarized below:

Criteria	Goal	Weight
Is the study necessary to advance a project, recommendation, or policy in the Long-Range Transportation Plan?	--	40%
Do the Study Goals Address the Following?	--	--
Safety and Crash Reduction	Safety	15%
Congestion Management & Mobility	Mobility	9%
Multimodal Transportation & Mode Choice	Equity & Accessibility	7.5%
Equity and Access for Disadvantaged Populations	Equity & Accessibility	7.5%
Regional Economic Growth & Development	Economic Development	9%
Connections to and within Regional Activity Centers	Environment & Land Use	6%
Resiliency & Protection of the Natural Environment	Environment & Land Use	6%

ALLOCATION APPROACH: Consistent with the Regional Funding Framework, allocations were prioritized in the following order:

1. Reserve target to balance entry (UPC 70721/70719)
2. RideFinders FY26 award (\$500,000)

3. Additional funding for existing projects in FY24 – FY28
4. Next phase/balance of existing projects in FY29
5. New projects in order of priority

In cases where funding needs in a specific year exceeded the available funding, staff prioritized projects later in the development process (e.g., CN > RW > PE). Alternately, the draft allocations also generally frontload project funding to ensure federal reimbursement will be available when required by the project schedule.

PREVIOUS FUNDING TRANSFERS: The RRTPO has adopted a new policy of retaining funding in reserve in the current fiscal year to provide flexibility to meet urgent project requests. Due to this policy as well as closeout of complete projects with surplus funding, the RRTPO has a balance of previous funding to reallocate to projects. Staff have proposed transfers to reallocate all the previous funding. The previous balances are summarized below:

Program	Previous Balance
STBG	\$3,053,339
CMAQ	\$2,726,694

TAC ACTION REQUESTED: The following resolution is presented to TAC for consideration and recommendation to the policy board:

RESOLVED, that the Richmond Regional Transportation Planning Organization (RRTPO) policy board approves the allocation of regional Surface Transportation Block Grant (STBG) and Congestion Mitigation and Air Quality (CMAQ) funds as show in the attached spreadsheets.

FURTHER RESOLVED, that the RRTPO policy board approves the proposed transfers of previous funds as shown in the attached spreadsheets and directs staff to take any necessary steps to coordinate the transfers with VDOT.

Attachments (to follow separately):

1. New Project Ranking Summary
2. Draft STBG Allocation Plan
3. Draft STBG Transfer Plan
4. Draft CMAQ Allocation Plan
5. Draft CMAQ Transfer Plan

TAC AGENDA 3/14/23

TAC Future Meeting Topics*

Future Meeting Topics

- Project Cost Estimates – Report and Recommendations for Policy Board (April)
- Regional Public Transportation Plan – GRTC (April)
- DRPT – Virginia Statewide Rail Plan
- CVTA Project Prioritization Updates
- Transit Modernization Study Update

*Draft: This is not a comprehensive list of considerations and is subject to change.