



(Official Name: Roanoke Valley Area Metropolitan Planning Organization)

UNIFIED PLANNING WORK PROGRAM

Fiscal Year 2019

(July 1, 2018 – June 30, 2019)

DRAFT 3-15-18

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Prepared on behalf of the Roanoke Valley Transportation Planning Organization (RVTPO) by the staff of the Roanoke Valley-Alleghany Regional Commission through a cooperative process involving the cities of Roanoke and Salem, the counties of Botetourt, Bedford, Montgomery and Roanoke, the town of Vinton, the Greater Roanoke Transit Company, the Roanoke Blacksburg Regional Airport Commission, the Virginia Department of Transportation, the Virginia Department of Rail and Public Transportation, the Federal Highway Administration, and the Federal Transit Administration.

The preparation of this program was financially aided through grants from the Federal Highway Administration, Federal Transit Administration, Virginia Department of Rail and Public Transportation and the Virginia Department of Transportation.

The RVTPO will strive to provide reasonable accommodations and services for persons who require special assistance to participate in its public involvement opportunities. Contact the Public Involvement and Community Outreach Coordinator at (540) 343-4417 for more information.

The RVTPO fully complies with Title VI of the Civil Rights Act of 1964 and related statutes and regulations in all programs and activities. For more information, or to obtain a Discrimination Complaint Form, see www.rvarc.org or call (540) 343-4417.

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The 26th day of April, 2018

DRAFT RESOLUTION

**by the Policy Board of the Roanoke Valley Transportation Planning Organization
Approving the FY 2019 Unified Planning Work Program**

WHEREAS, the FY 2019 Unified Planning Work Program will serve as the basis for all federal Department of Transportation (DOT) funding participation and will be included in all requests for DOT planning funds within the Roanoke Valley Transportation Planning Organization (RVTPO) Study Area; and

WHEREAS, this Work Program details all transportation and transportation-related planning activities anticipated within the area during the coming fiscal year; and

WHEREAS, this Work Program has been reviewed by the RVTPO's Transportation Technical Committee;

NOW THEREFORE BE IT RESOLVED that the Policy Board of the Roanoke Valley Transportation Planning Organization does hereby approve the FY 2019 Unified Planning Work Program, as presented.

Ray Ferris, Chair,
Roanoke Valley Transportation Planning Organization

I. INTRODUCTION

The Unified Planning Work Program (UPWP) for transportation planning identifies all activities to be undertaken in the Roanoke Valley Transportation Planning Organization (RVTPO) study area for this fiscal year. The UPWP provides a mechanism for the coordination of transportation planning activities in the region, and is required as a basis and condition for all federal funding assistance for transportation planning by the joint metropolitan planning regulations of the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA).

The work tasks within this UPWP are reflective of issues and concerns originating from transportation agencies at the federal, state and local levels. An overarching theme to the RVTPO's transportation work is the establishment and pursuit of performance targets, the use of performance measures to track progress towards meeting those targets, and a performance-driven outcome-based approach to transportation planning and decision making.

Specifically, FHWA and FTA have requested that the following three priority areas of emphasis be incorporated into the work undertaken through the UPWP.

1) MAP-21 and FAST Act Implementation

MAP-21 and FAST Act contain the following planning factors that must be addressed in the transportation planning process:

- A. Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency;
- B. Increase the safety of the transportation system for motorized and nonmotorized users;
- C. Increase the security of the transportation system for motorized and nonmotorized users;
- D. Increase the accessibility and mobility of people and for freight;
- E. Protect and enhance the environment, promote energy conservation, improve quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns;
- F. Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- G. Promote efficient system management and operation;
- H. Emphasize the preservation of the existing transportation system;
- I. Improve transportation system resiliency and reliability;
- J. Reduce (or mitigate) the stormwater impacts of surface transportation; and,
- K. Enhance travel and tourism. [23 U.S.C. 134 (h)(1)(I) & (J)]

2) Regional Models of Cooperation

In order to ensure a regional approach to transportation planning, the RVTPO will promote cooperation and encourage stakeholders to think beyond traditional borders and adopt a coordinated approach to transportation planning. A coordinated approach supports common goals and capitalizes on opportunities related to project delivery, congestion management, safety, freight, livability, and commerce across local government and urban/rural boundaries.

3) Ladders of Opportunity

As part of the transportation planning process, the RVTPO will identify transportation connectivity gaps in accessing essential services including employment, health care,

schools/education, and recreation. The RVTPPO's work will involve the relevant stakeholders to develop infrastructure and operational solutions that provide the public, especially the traditionally underserved populations, with adequate access to essential services.

Reflecting the federal priorities, the following descriptions of the tasks to be accomplished and the associated budgets are based on a best estimate of what can be accomplished with the available federal, state and local resources.

The Roanoke Valley Transportation Planning Organization (RVTPPO) has developed this work program to address the final metropolitan planning regulations and the new requirements the FAST Act, Section 1201; 23 U.S.C. 134.

Historical Context for Transportation Planning

The Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991 created a number of planning requirements. In October 1993, the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) issued final regulations regarding metropolitan planning.

The Transportation Equity Act of the 21st Century (TEA-21), which became law in June 1998, reaffirms the structure of the metropolitan planning process. Most of the modifications to the process are aimed at streamlining and strengthening the provisions included in ISTEA. The Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) which became law August 10, 2005 and the Moving Ahead for Progress in the 21st Century (MAP-21) which became law on July 6, 2012, and the Fixing America's Surface Transportation Act (FAST Act) which became law on December 4, 2015 further reaffirm and extend the structure of the metropolitan planning process that began with ISTEA.

On February 14th, 2007, the FHWA and the FTA released their long-awaited Statewide and Metropolitan Planning Rule (72 Fed. Reg. 7224). The final rule revises planning regulations at 23 C.F.R. Part 450 and 49 C.F.R. Part 613 to reflect the many changes made by the Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU) (Pub. L. 109-59 August 10, 2005).

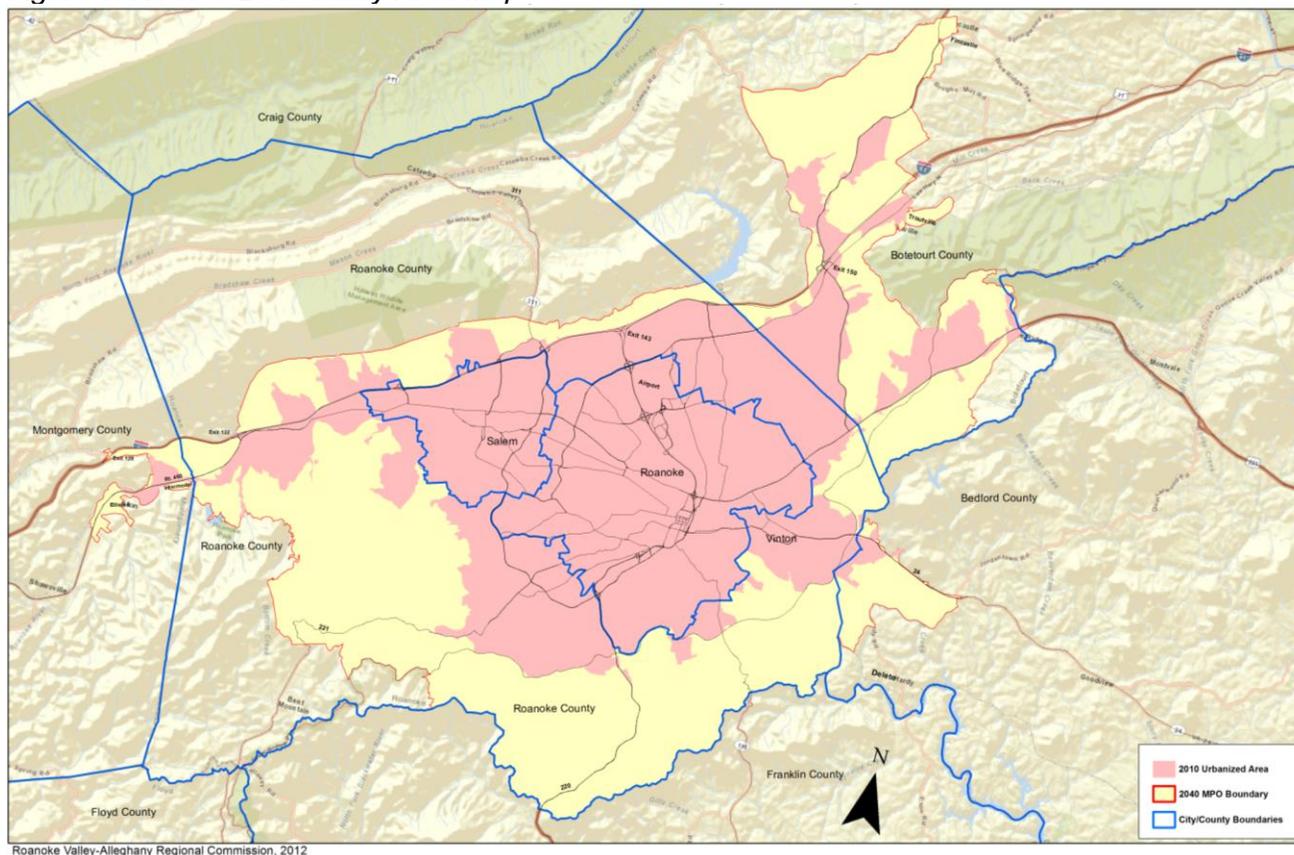
II. METROPOLITAN PLANNING AREA

The RVTPPO study area consists of the Cities of Roanoke and Salem, the Towns of Fincastle, Troutville and Vinton, and portions of the Counties of Bedford, Botetourt, Montgomery and Roanoke. See Figure 1 for an illustration of the region. Based on the 2010 Census, the RVTPPO 2040 study area population was 231,337 and encompasses a land area of 247 sq. miles.

On March 26, 2012 the US Census Bureau released the Urbanized Area Boundaries (UZAs) (see the following map) based on Census 2010 results. The RVTPPO's Census 2010 UZA contains a population of 210,111, and the RVTPPO was subsequently classified as a Transportation Management Area (TMA) MPO.

On March 2 – 3, 2016 the RVTPPO went through its first official Federal Compliance Review which will be repeated every 4-years.

Figure 1: RVTPO 2040 Study Area Map



III. AIR QUALITY CONSIDERATIONS

In 1997, the Environmental Protection Agency (EPA) made an amendment to the Clean Air Act's National Ambient Air Quality Standards (NAAQS). The amendment essentially replaced the 1-hour ozone standard with a more stringent 8-hour standard. In the late 1990s the ozone levels taken at an air quality monitor in the Roanoke area had exceeded the newer 8-hour standard. Due to these exceedances, the RVTPO and its member localities worked with the Virginia Department of Environmental Quality (DEQ) to establish a nonattainment boundary for the Roanoke area. This agreed upon boundary encompassed the entire Roanoke MSA (1990 definition – counties of Roanoke and Botetourt, cities of Roanoke and Salem and town of Vinton.)

In the fall of 2002 the EPA extended an opportunity to regions which were to be designated nonattainment under the 8-hour standard, but which were in attainment for the previous 1-hour standard, to pursue an Ozone Early Action Compact (EAC) followed by an Ozone Early Action Plan (EAP). This opportunity extends from a protocol that was developed in EPA's Region 6 and subsequently extended through administrative action to other EPA Regions in the country. The RVTPO is located in EPA's Region 3.

The EAC is essentially an agreement between local governments, the DEQ and the EPA to pursue an Ozone EAP before an air quality plan would have been otherwise required under traditional nonattainment designation. The EAP must incorporate the same scientific rigor as

the traditional approach, and the EAP will be incorporated into the State Implementation Plan (SIP).

In early March 2008 the Federal EPA revised the nationwide 8-hour Ozone Standard to 75 parts per billion (ppb) based on a 3-year average. The Roanoke Region’s 3-year average for the 2006, 2007 and 2008 Ozone seasons were at 74 ppb, within the new nationwide standard.

In October 2015, the Federal EPA lowered the 8-hour Ozone standard to 70 parts per billion (ppb). Recent trends in ground level ozone for the Roanoke Valley are summarized in the graph below and indicate that RVTPO is in compliance with the October 2015 8-hour Ozone standard. According to Virginia DEQ, the Roanoke design value for 2012-2014 was 62 ppb and for 2013-2015 it was 59 ppb.

IV. RESPONSIBILITIES FOR TRANSPORTATION PLANNING

The Roanoke Valley Transportation Planning Organization (RVTPO) is the organization responsible for conducting the continuing, comprehensive, and coordinated (3-C) planning process for the Roanoke Valley area in accordance with requirements of Section 134 (Title 23 U.S.C.) of the Federal Highway Act of 1962, and Section 8 of the Federal Transit Act. The RVTPO – Doing Business As (DBA) name (official name: Roanoke Valley Area Metropolitan Planning Organization) is the official Metropolitan Planning Organization for the Roanoke Valley area, designated by the Governor of Virginia, under Section 134 of the Federal Aid Highway Act, and the joint metropolitan planning regulations of FHWA and FTA.

The policy making body of the RVTPO is its Board which consists of sixteen voting members. The voting membership of the Policy Board consists of two representatives each from the Cities of Roanoke and Salem, the Counties of Botetourt and Roanoke, and the Town of Vinton; and one representative each from the County of Bedford, County of Montgomery, the Greater Roanoke Transit Company, Virginia Department of Transportation, the Virginia Department of Rail and Public Transportation, and the Roanoke Regional Airport Commission.

Voting Membership on the RVTPO Policy Board

Bedford County	1 representative
Botetourt County	2 representatives
Roanoke County	2 representatives
Montgomery County	1 representative
City of Roanoke	2 representatives
City of Salem	2 representatives
Town of Vinton	2 representatives
Greater Roanoke Transit Company	1 representative
Virginia Department of Transportation	1 representative
Virginia Department of Rail and Public Transportation	1 representative
Roanoke Blacksburg Regional Airport Commission	1 representative

More details about the Board’s structure can be found online at rvarc.org.

Staff of the Roanoke Valley-Alleghany Regional Commission perform the day-to-day operations of the RVTPO. The staff, in conjunction with RVTPO’s member agencies, collect, analyze and evaluate demographic, land use, and transportation data to gain a better understanding of the

transportation system requirements of the area. Staff members also prepare materials for use at Board and Committee meetings as well as any sub-committee meetings.

Professional staff members participate in all RVTPO meetings, provide expertise as needed, and provide administration of the transportation-planning program. In addition, staff members represent the agency at other meetings of importance to planning activities within the region.

V. TOTAL PROPOSED FUNDING BY FEDERAL SOURCE FOR FY2019

The primary funding sources for transportation planning activities included in this work program are the FHWA Section 112 (PL) and FTA Section 5303. The funding to support this UPWP includes unobligated PL funds from FY2017. The proposed funding amounts (including state and local matching funds) for the RVTPO work program are shown in the following table.

FY 2019 RVTPO PROPOSED FUNDING BY FEDERAL, STATE AND LOCAL SOURCES (July 1, 2018 to June 30, 2019)

	FHWA – Section 112 (PL) 80% Fed & 20 % State/Local	FTA – Section 5303 80% Fed & 20 % State/Local	GRAND TOTAL
New FY 2019	\$392,297	\$165,993	\$549,086
Deprogrammed FY 2018	\$0	\$0	\$0
Unobligated FY 2017	\$13,930	\$0	\$13,930
TOTAL	\$406,227	\$165,993	\$563,016

VI. FY 2019 WORK PROGRAM TASKS AND BUDGET

As a result of the Federal TMA Certification Review in the Spring 2016, one overarching recommendation is to update TPO planning document to include system resiliency/reliability, stormwater mitigation, as well as travel and tourism enhancement. This FY19 Work Program will continue that process. In addition, it was noted that becoming a TMA requires more formalized decision-making processes, especially given today’s funding constraints and the need to strategically prioritize investments, and the TPO should begin to focus on a process-oriented approach when developing planning programs and work products that goes beyond simply developing static plans. These processes include methods to collect, prioritize, and evaluate the effectiveness (or progress) of planning and public engagement efforts. This will be an overarching focus of the work in FY19.

Unless otherwise stated, the tasks listed in the following sections will be performed and led by RVARC staff.

1. PROGRAM SUPPORT & ADMINISTRATION

1.01 General Administration & Operations

Objective and Description: This task includes ongoing activities that ensure proper management and operation of a continuing, comprehensive, and coordinated (3-C) planning process as described in the 3-C Memorandum of Understanding. The primary objectives of this task are (1) to implement the UPWP throughout the fiscal year and provide all required administrative functions including all accounting functions, personnel administration, office management, financial reporting, contract administration, and purchase and upkeep of necessary office equipment; and (2) to support the activities of the RVTPO through the preparation of reports, presentations, agendas, minutes and mailings for all Policy Board and Technical Committee meetings, as well as attendance at those meetings. Attendance at staff meetings, stakeholder coordination meetings, and timekeeping are included in this task as well.

Products: Efficient office operation, accurate financial information, preparation of quarterly reports, preparation of information in support of RVTPO activities.

Estimated Budget: \$81,887 (\$60,364 PL and \$21,523 FTA/5303) (included for planning purposes only; not intended to be restrictive).

1.02 Training and Staff Development

Objective and Description: To meet the growing demands of an ever-changing region, and those of new and updated federal transportation regulations/guidelines, it is important to educate and maintain a staff and board/committee members that can respond to these challenges. This task will help insure that by providing on-going training and development of staff and RVTPO Policy Board members.

Products: Well-trained and informed staff and Policy Board members.

Estimated Budget: \$3,807 (\$2,130 PL and \$1,677 FTA/5303) (included for planning purposes only; not intended to be restrictive).

1.03 Work Program Management

Objective and Description: To meet the requirements of 23 CFR Part 420 and 23 CFR Part 450, the RVTPO, in cooperation with the Virginia Department of Transportation, the Virginia Department of Rail and Public Transportation, and the Greater Roanoke Transit Company, is responsible for the development of a Unified Planning Work Program (UPWP). This UPWP describes all regional transportation planning activities anticipated in the Roanoke Valley area in the next fiscal year that will utilize federal funding. The UPWP also identifies state and local matching dollars for these federal planning programs.

This task provides for management of the FY 2019 UPWP. If during this fiscal year, an amendment to the UPWP is deemed necessary, due to changes in planning priorities and/or the inclusion of new planning projects, staff will identify and detail such amendments for consideration by the TPO Policy Board.

This task also provides for the development of a UPWP for the next fiscal year. The document will incorporate suggestions from federal funding agencies, state transportation agencies, transit operating agencies, local governments participating in RVTPPO. The new UPWP will be presented in draft to the Transportation Technical Committee and RVTPPO Policy Board in March 2019, and as a final document for adoption in April 2019. The approved UPWP will be distributed to the Policy Board and made available to the public on the RVARC website (rvarc.org).

Products: UPWP for FY 2020, maintenance and amendments to the FY 2019 UPWP as needed.

Schedule: Ongoing maintenance and amendments as needed; UPWP FY 2020 development January – April 2019.

Lead: RVARC staff

Estimated Budget: \$13,274 (\$8,522 PL and \$4,752 FTA/5303) (included for planning purposes only; not intended to be restrictive).

2. PROGRAM ACTIVITIES

2.01 Long-Range Metropolitan Transportation Planning

Objective and Description: The long-range metropolitan transportation planning effort enables local stakeholders to think beyond traditional borders and adopt a coordinated approach to transportation planning for people and freight. This effort may include scenario planning to evaluate where funds are invested based on regional transportation needs and goals. The region’s long-range Metropolitan Transportation Plan, “Vision 2040: Roanoke Valley Transportation, was approved in September 2017. Preparations for the next plan, “Vision 2045: Roanoke Valley Transportation” have begun and will continue this fiscal year.

As the RVTPPO continues its performance-based planning and programming, staff will further develop the performance management approach to transportation planning and programming. Performance-based planning and programming includes using transportation performance measures, setting targets, reporting performance, and programming transportation investments directed toward the achievement of transportation system performance outcomes.

This item covers the general long-range transportation planning activities. The overall approach to long-range planning in the Roanoke Valley will be performance-driven, outcome-based that considers all modes, ages, and abilities in the development of its intermodal transportation system. This item includes:

New Activities:

- **“Vision 2040: Roanoke Valley Transportation” Amendment Process:** Development of an amendment process and any necessary long-range plan amendments during the fiscal year.
- **Plan and Schedule for Public Engagement and Development of “Vision 2045: Roanoke Valley Transportation” Development:** This item includes creating a plan and schedule for involving the public and developing the performance-based Vision 2045

plan. Public engagement efforts will be consistent with the Public Participation Plan to allow for “early and continuous” public input as well as “ample opportunity” to comment on Vision 2045. The schedule will consider the TPO’s other major commitments in order to accommodate sufficient time for the plan’s development. The plan for developing Vision 2045 will include a draft of the table of contents with each major section identified and a statement about the purpose of each section.

- **Integrate Outcomes of Regional Study on Transportation Project Prioritization for Economic Development and Growth:** Building from the region’s priority transportation needs and projects identified through the Regional Study on Transportation Project Prioritization for Economic Development and Growth (TED Study), activities will include incorporating this work into the Vision 2045 plan.
- **RVTPO Framework for Prioritization:** As was used in the TED Study, development of the Vision 2045 plan will continue utilization of the RVTPO’s Framework for Prioritization as a guide for prioritizing regional transportation needs, identifying strategies, and prioritizing projects based on the Vision 2040 goals. Whereas the TED Study focused on economic growth, this year will focus on safety as it relates to the work being done as part of the CMP update.
- **Development of the 2045 Study Area Boundary:** The 2040 study area boundary will be reviewed, and adjustments made as needed to appropriately capture the anticipated area to be urbanized by 2045.
- **Participation in Freight Academy:** Staff will participate in a Freight Academy sponsored by the Center for Advanced Infrastructure and Transportation (CAIT) and any follow-up work required by the training program. Prior to participation, staff will participate in FHWA’s Integrating Freight into the Transportation Planning Process.

Ongoing Activities:

- **“Vision 2040: Roanoke Valley Transportation” Amendments:** Any necessary long-range plan amendments during the fiscal year.
- **Federal Transportation Performance Measures Integration:** Federal guidance concerning the integration of specific performance measures in TMA MPO long-range transportation planning processes will continue in FY19. This sub-item is intended to address any necessary work to integrate federally required and federally recommended performance measures and performance measures targets into the new performance-based long-range transportation planning process. This item will include an assessment of the data needs required for the performance-based approach to long-range planning.
- **Air Quality and Environmental Analysis and Planning:** The Federal EPA revised the nationwide 8-hour Ozone Standard, in early October 2015, to 70 parts per billion (ppb) based on a 3-year average. All indications from the Virginia Department of Environmental Quality (DEQ) are that RVTPO is in compliance with the October 2015 standard. Similarly, RVTPO staff is monitoring announcements and news concerning both fine particulate PM2.5 and Greenhouse Gases (GHGs) in case the federal government requires transportation planning process compliance for those two classes of pollutants in addition to ground level Ozone. This subtask is intended for any applicable air-quality or environmental analysis and planning that may be required by the federal EPA. Currently RVTPO is in an Ozone Early Action Compact – Early Action Plan area and is not subject to conformity analysis.
- **Travel Demand Model / Transit Travel Demand Model Application:** RVTPO staff received and were trained on a new state of the art travel demand model in the Spring of 2016. The new model has capabilities new to the RVTPO including, time-of-day travel

demand estimation, a formal mode choice step and formal transit network including vision components. This sub-item provides staff time and resources to apply the new model to planning situations and scenarios and continue coordination with VDOT modelers as needed during FY19. Likewise, RVTPPO staff have received training on TBEST, a transit travel demand model, and will continue to apply the model to evaluate potential improvements to the regional transit system.

- **Coordination with Other Long-Range Plans:** In particular, ensure that metropolitan transportation planning is coordinated with the VTrans statewide transportation plan, the rural long-range transportation plan, and furthers the vision presented in the Livable Roanoke Valley plan.
- **Other Technical Work:** Any other technical long-range plan process work.

“2.01 Long Range Transportation Planning” is the element responsible for demonstrating FAST Act compliance for the long-range transportation planning process.

Products and Schedule:

- CLRMTP 2040 Amendments/Adjustments (Summer 2018 and/or as needed),
- Plan and schedule for Vision 2045 development (Fall/Winter 2018)
- Adoption of the 2045 study area boundary (Spring 2019)
- Identification of regional priority safety needs, strategies, and projects (Summer 2019)
- Coordination with VTrans, VDOT’S Rural Long-Range Transportation Planning Process, Livable Roanoke Valley plan implementation (ongoing),
- Travel Demand Model application (ongoing),
- Monitoring of Ozone and PM 2.5 trends with regards to continued air quality compliance; Monitoring of federal and state policies concerning Greenhouse Gas (GHG) and their possible impact on the RVTPPO planning process; Public outreach and maintenance of air quality action day communications lists (as needed).
- Other long-range transportation planning technical work as required (ongoing)

This item supports the federal planning factors to the extent possible given time, financial and other constraints.

Lead: RVARC staff

Estimated Budget: \$72,492 (\$58,871 PL and \$13,621 FTA/5303) (included for planning purposes only; not intended to be restrictive).

2.02 Transportation Improvement Program, Regional Surface Transportation Program, Transportation Alternatives, and Performance Measures reporting

Objective and Description: As required by federal planning regulations, the Transportation Improvement Program (TIP) for the Roanoke Valley area is a four-year program of highway, transit, bicycle, and pedestrian projects receiving federal funds. State and locally funded projects may also be included in the TIP for coordination purposes. The TIP is updated every three years, with major amendments in intervening years, as needed, and must be approved by the RVTPPO Policy Board and the governor of Virginia. The TIP is required as a condition for all federal funding assistance for transportation improvements within the RVTPPO area.

The RVTPPO’s federal apportionment of Surface Transportation Block Grant Program (STBG) funding is referred locally as the Regional Surface Transportation Program (RSTP). RSTP is a

category of funding that is determined by the RVTPO Policy Board through a process described in a separate document titled the “RSTP Project Development and Selection Procedures”. The Transportation Alternatives Set-Aside (TA) is a smaller category of funding for which the RVTPO Policy Board will select projects within the RVTPO Study Area Boundary. The Roanoke Valley also receives FTA 5310 funds (transportation for the elderly and people with disabilities). Although DRPT manages these funds for the RVTPO, staff are involved with the coordination of projects and monitors the use of these funds as they are programmed in the TIP and ultimately approved by the RVTPO Policy Board.

The Performance Measures tracking and reporting process will reflect federal and state-mandated performance measures as well as any additional measures elected by the RVTPO Policy Board to be tracked. It is anticipated that additional performance measures and target-setting guidance will continue to be received from the FTA and FHWA and will need to be integrated into the existing state-mandated process. The effort will include collecting performance data and reporting the transportation system’s performance based on those targets.

This task item primarily involves work related with the above-mentioned items; some activities covered in this task may include but are not limited to:

New Activities:

- Development of a report on the state of transportation and transportation funding in the RVTPO region.

Ongoing Activities:

- Continue to approve new performance targets as required by the federal government.
- Monitoring the projects submitted for SMARTSCALE funding, any developments with the SMARTSCALE process, and preparing for the next round of applications.
- Amendments and/or Adjustments to current TIP.
- Coordination with VDOT and VDRPT on TIP, STIP, SMARTSCALE, and Six-Year Improvement Program (SYIP) details, procedures and updates.
- Coordination with FTA, Valley Metro (GRTC) and RADAR (UHSTS) on transit-related funding and programming with regards to the SYIP and TIP.
- Coordination with VDOT, VDRPT, Valley Metro and RADAR on the Publication of the Annual Obligations Report.
- Provide assistance with grant funding applications, as requested.
- Facilitate the TPO’s approval of RSTP and TA funding; Monitor projects to ensure the timely delivery of projects and committed funding.
- Data collection and analysis for the Annual Performance Measures Report update.
- Evaluation and data collection of new performance measures and targets for incorporation into the annual report.

Products and Schedule:

- TIP amendments/adjustments (Summer 2018 and/or as needed)
- Annual Performance Measures Report (Fall 2018)
- RVTPO State of Transportation report (Winter 2018/2019)
- Annual listing of projects with federal obligations (Winter 2018/2019)
- FY20-25 RSTP Financial Plan and any adjustment to the FY20 TA funded projects (Fall 2018-Spring 2019)

- Up-to-date website with related information, data collection and analysis for annual listing of performance measures, and staff-administered public involvement process for products requiring input (ongoing)
- Additional products may include grant applications for transportation funding, funding analysis, RSTP project updates, new performance measures data development, and others (ongoing)

This item is focused on programming funds and it supports all planning factors (#1 - #11) to the extent that programming funds are available in a given 4-year time horizon.

Lead: RVARC staff

Estimated Budget: \$60,593 (\$53,732 PL and \$6,861 FTA/5303) (included for planning purposes only; not intended to be restrictive).

2.03 Congestion Management Process

Objective and Description: This section provides for implementation of the Congestion Management Process (CMP) Plan's recommendations as well as routine maintenance of the CMP planning process including any amendments, adjustments of updates of the plan incorporation new data or findings.

The RVTPPO's Federal Compliance Review, March 2nd and 3rd, 2016 uncovered a need for more extensive data collection and analysis with regards to the CMP plan. Item 2.03 will focus on:

Ongoing Activities:

- Continue the process of updating the CMP which will include a report on highway existing and future conditions related to level-of-service, volume/capacity, and travel time; staff will note any problem areas and create related maps. As part of the update, staff will review the need to update the stand-alone CMP Plan or incorporate the CMP into the long-range plan.
- Staff will continue developing and implementing regional CMP objectives/strategies, developing performance measures, collecting data, and analyzing congestion as well as integrating new data sources and data analysis into the CMP planning process. This work will support the Performance-Based Planning and Programming (PBPP) framework and feed into the long-range transportation planning process and programming of projects through the Transportation Improvement Program.

Products and Schedule:

- Report on highway existing and future conditions (Winter 2019)
- Ongoing CMP data collection, regional congestion analysis, and performance measures development and integration into the Annual Performance Measures Report.

This item supports planning factors #1-Economic Vitality, #4-Accessibility and Mobility #5-Quality of Life, Environment and Energy Conservation, #7-Efficient System, #9-Reliability, #10-Reducing Stormwater Impacts, #11-Enhancing Travel and Tourism.

Lead: RVARC staff

Estimated Budget: \$13,695 (\$13,695 PL and \$0 FTA/5303) (included for planning purposes only; not intended to be restrictive).

2.04 Public Transportation Planning

Objective and Description: The Greater Roanoke Transit Company (Valley Metro) is the Roanoke Valley designated recipient and provider of fixed-route transit. Unified Human Services Transportation Systems, Inc. (RADAR) provides paratransit services in the Roanoke Valley under contract to Valley Metro (STAR service) and Roanoke County (CORTTRAN service). On a smaller scale, Botetourt County also provides transit services to its senior and disabled populations. This item aims to provide public transportation planning assistance and support the Roanoke Valley’s planning efforts for transit service enhancements. At a minimum this item will include:

New Activities:

- **Brochure Update:** Update the “Traveling In, Out, and Around the Roanoke Area” brochure for paper and electronic publishing.
- **Research Regional Transit Service Alternatives for Seniors and People with Disabilities:** Staff will explore different and innovative delivery models for paratransit, senior, and disabled transit services for the TPO area across multiple jurisdictions to include vehicles of different types as well as ride sharing services such as Uber and Lyft.
- **Regional Transit Governance Structure:** Staff will work with local stakeholders to evaluate the governance structure of transit in the Roanoke Valley.

Ongoing Activities:

- **Implementation of Roanoke Valley Transit Vision Plan:** This ongoing effort specifically reflects two of the federal priorities: regional models of cooperation and ladders of opportunity. Continuing activities include supporting localities and transit agencies with any examinations of existing transit services, current funding sources and implementation of the plan’s recommendations as well as continuing to engage stakeholders to implement the future vision for the region’s transit services. Activities may also include transit route analysis for modified or expanded transit services, changes in the route schedule or other assistance needed to implement the TVP recommendations.
- **Regional Transit Development Plans (TDPs):** The Virginia Department of Rail and Public Transportation requires every transit agency to maintain a six-year Transit Development Plan (TDP). A new TDP is scheduled to be completed with DRPT consultant assistance for each transit agency, Valley Metro and RADAR, during FY2017. Yearly updates are also required for the TDPs. Staff will participate and review any remaining work to be done for the new TDPs, will share and promote the new TDPs with local stakeholders, and provide support in the yearly updates. Activities will include working with the transit agencies to implement the recommendations of the TDPs.
- **Comprehensive Operations Analysis:** Staff will support any remaining work to be done as part of the consultant-led comprehensive operations analysis of the Roanoke Valley’s transit system and work with Valley Metro to implement its recommendations.
- **Update to the Coordinated Human Services Transportation Plan:** VDRPT and their consultant are taking the lead on the update to this plan. Staff will participate in the process and coordinate among stakeholders as needed. Staff will review products of the process, provide input, and assist with implementing the plan as needed.

- **Human Services-Public Transit Coordinated Transportation Planning:** Staff will provide assistance with coordinating human services transportation and will participate in related regional coordination meetings.
- **Passenger Rail and Public Transit Coordination:** Staff will support the ongoing effort to plan improvements for transfers between public transit and rail.
- **AVL/Real-time Transit Information Project:** Valley Metro is in the process of launching its new ITS transit information project which will include real-time transit arrival information to the public, enhanced dispatching capabilities, transit service information in real-time, NTD reporting and reports. Valley Metro is leading this project and staff will continue providing technical support in mapping, waypoints, transit stop geolocations, data analytics, etc.
- **Maintenance and Development of Transit-related GIS shapefiles and maps:** Staff will develop new or update existing transit-related GIS shapefiles and regional planning maps as modifications are made to the regional transit network.
- **General Transit Planning:** As needed, staff will incorporate transit components into other studies and plans identified in this Work Program and support any coordination of urban transit service planning with the rural area or other intercity transit services.

Products and Schedule:

- Update of “Traveling In, Out, and Around the Roanoke Area” brochure (Fall 2018)
- Report on Transit Service Delivery Models for Seniors/People with Disabilities (Spring 2019)
- Coordinated Human Services Plan Update (2018/2019)
- Other analysis, studies, mapping, etc. as needed (ongoing)

This item supports all of the federal planning factors as well as Regional Models of Cooperation and Ladders of Opportunity.

Lead: RVARC staff

Estimated Budget: \$26,001 (\$0 PL and \$26,001 FTA/5303) (included for planning purposes only; not intended to be restrictive).

2.05 Public/Stakeholder Involvement, Environmental Justice

Objective and Description: Public involvement, stakeholder outreach, and consideration of Environmental Justice are key elements of the RVTPO’s planning efforts. Activities will include but are not limited to the following activities:

New Activities:

- **Update the Title VI and Limited English Proficiency (LEP) Plan:** With a new Public Participation Plan (PPP) adopted by the RVTPO Policy Board in 2018, staff will follow-up by updating the Title VI and LEP Plan to ensure consistency with the new PPP.

Ongoing Activities:

- **Public Participation:** As described in the 2018 Public Participation Plan, seek “early and continuous” public input and provide “ample opportunity for public comment” on:
 - Development of the Long-Range Multimodal Transportation Plan,
 - Amendments to the Long-Range Multimodal Transportation Plan, the Transportation Improvement Program, or the Public Participation Plan,

- Other key decision points.

As part of this work, the following item, initiated under the Bike/Ped Planning item for FY17 will be continued.

- **Engaging New and/or Traditionally Underserved Communities in Bicycle Planning and Outreach – Strategic Plan:** Public involvement in the planning process is often successful in engaging those citizens who have the time, means, interest and opportunity to attend public meetings and otherwise participate in the process. This strategic plan would focus on removing barriers to participation and/or facilitation participation for communities whose members may not have the means or opportunity to attend public meetings or participate through other well-established channels. These communities are often identified in other planning efforts as Environmental Justice (EJ) Communities and/or Title VI Communities. This strategic plan would start with EJ and Title VI communities as a launching point and investigate where there are also other new of traditionally underserved communities as well. Finally, a strategic plan will be produced for better engaging these communities specifically with regards to bicycle planning.
- **TPO Website Strategy:** The RVTPO website should be periodically reevaluated and updated to ensure a smooth user interface. This subtask allocates resources specifically for website improvement as well as public involvement through social media and other methods.
- **TPO Demographic Profiles Maintenance and Updates:** RVTPO Demographic Profiles will be updated depending on new American Community Survey or other dependable data sources becoming available.
- **Multi-Regions Alternative Transportation Social:** Staff will participate in planning for the annual Multi-Regions Alternative Transportation Social that will feature alternative transportation project updates and new initiatives shared with counterparts across the Roanoke Valley and the New River Valley. It is anticipated that the New River Valley PDC will take the lead on this event in FY19.
- **Conferences, Webinars, Teleconferences and Seminars:** Staff will remain current on broader transportation, land use, and other related planning activities by participating in transportation and planning conferences and meetings such as the Annual Governor's Transportation Conference, Virginia Chapter of the American Planning Association, Virginia Association of Metropolitan Planning Organizations, and the Virginia Transit Association. Additionally, the American Planning Association (APA) and the Association of Pedestrian and Bicycle Professionals (APBP) produce a series of teleconferences on planning issues. RVTPO staff will select relevant TPO related teleconferences and make arrangements to host a teleconference download site for local planners, citizens and other interested parties.
- **Public Involvement Forum, Fees, Subscriptions or Consulting Services:** Staff may need to enlist the services of on-line public involvement forums or other specialized citizen and community-based forums.
- **General public and stakeholder involvement opportunities:** Staff may pursue a wide variety of public and stakeholder involvement opportunities not specifically listed in the aforementioned items.

Products and Schedule:

- Multi-Regions Alternative Transportation Social (Fall 2018)
- Update to the Title VI/LEP Plan (Summer 2019)
- Necessary amendments or adjustments to the Public Participation Plan, Title VI Plan and/or Limited English Proficiency (LEP) Plan, public and stakeholder outreach at various scales (ongoing)
- Conferences, webinars, teleconferences, seminars, TPO website maintenance, and update of TPO Demographic Profiles. (ongoing)

This item supports planning factor #4–Accessibility by increasing accessibility to public input and participation in the transportation planning process and supports Regional Models of Cooperation.

Lead: RVARC staff

Estimated Budget: \$78,156 (\$70,778 PL and \$7,378 FTA/5303) (included for planning purposes only; not intended to be restrictive).

2.06 Corridor/Area, Safety, Security, Resiliency and Reliability Planning

Objective and Description: Corridor and area studies can further analyze transportation needs to identify potential projects that feed the CLRMT. Likewise, the long-range plan can suggest corridors that warrant pre-NEPA corridor studies to help move the project to the next stage. Analysis of each corridor or area may include but is not limited to: access management, safety, security, operations evaluation, resiliency, reliability, multimodal connections, parking, current and future land use, existing activity density, and adjacent land zoning.

New Activities:

- ***Gus Nicks Blvd/Washington Avenue Corridor Improvement Study/Plan:*** Study the Gus Nicks/Washington Ave. corridor from U.S. 460 to Bypass Road to identify aesthetic, bike/pedestrian, peak traffic flow, turning lane/access management, and other related transportation improvements. This study will include alternatives and cost estimates for each alternative.

Ongoing Activities:

- ***Crash Analysis and Reporting (Data Collection, Visualization and Analysis)*** – Staff is working with VDOT, RideSolutions, and other stakeholders to document roadway, pedestrian and bicycle crash data, patterns, and trends in the RVTPO noting key high crash locations.
- ***Access Management and Corridor Preservation Studies*** – VDOT is leading pilot studies on these topics in the RVTPO area along U.S. 460 and U.S. 220.
- ***Route 419 Improvements Study from Route 220 to Route 221*** – The purpose of this study is to continue scoping the potential for widening, access management, pedestrian/bicycle accommodations, and other improvements on Route 419 from Route 220 to Route 221. Example work tasks include but are not limited to the following:
 - Review Route 419 Corridor Plan to determine if updates are necessary.
 - Suggest implementation strategies from the Route 419 Corridor Plan.
 - Coordinate with Virginia Department of Transportation, Roanoke County and City of Roanoke.
 - Document vehicle, bicycle and pedestrian usage.
 - Collect and analyze accident data.
 - Develop alternative recommendations for project development.
 - Determine next steps to move project forward to preliminary engineering.
 - Deliverables: At least two alternative scenarios for project scope, including conceptual road sections.
- ***Regional Multimodal Corridors:*** DRPT is leading this effort to apply the Multimodal System Design Guidelines to one or more corridors in the RVTPO area to study the corridor's needs and multimodal opportunities as well as the surrounding land use

compatibility. RVTPPO staff, VDOT, and local stakeholders will be involved in the corridor analysis.

- **Participation in the I-81 Corridor Coalition and related activities.**
- **Other corridor/area, safety, security, resiliency, and reliability work as needed.**

Products and Schedule:

- Gus Nicks Blvd/Washington Avenue Corridor Improvement Study/Plan (Summer 2019)
- Assistance with other corridor and area studies, corridor evaluations and/or corridor data summaries as needed. (ongoing)

This item supports planning factors #2- Safety, #3-Security, #7-Efficient System, #8 – Preservation of Existing System, #9-Resiliency and Reliability, #11-Enhance Travel and Tourism.

Lead: RVARC staff

Estimated Budget: \$30,742 (\$19,944 PL and \$10,798 FTA/5303) (included for planning purposes only; not intended to be restrictive).

2.07 Bicycle and Pedestrian Planning

Objective and Description: A continued effort to implement bicycle and pedestrian transportation recommendations from the Regional Bikeway Plan, the Regional Pedestrian Vision Plan, Regional Greenway Plan and the Regional Transit Vision plan is the organizing framework underlying this item. In addition to this general effort, the following specific plans, studies and tasks will be accomplished in next fiscal year.

New Activities:

- **Washington Avenue Intersections Study:** A study of the four priority intersection on the Washington Avenue Corridor for improvements to include signalized pedestrian and/or other types of pedestrian crossings so that people can safely cross the street. This study will include alternatives and cost estimates for each alternative. It and will be coordinated with the related study mentioned in section 2.06.

Ongoing Activities:

- **National Bicycle and Pedestrian Documentation Project Counts** - Partner with local governments to continue bicycle and pedestrian snapshot counts as part of the National Bicycle and Pedestrian Documentation Project. This work will evaluate the value of the locations counted in the past and identify if other locations would benefit from being included in the effort. Such new locations may include those that are planned to receive bicycle and pedestrian improvements to assess before/after usage. Approximately 10-15 locations are planned to be surveyed this year. This work will support the RVTPPO's Annual Performance Measures Report.
- **Greenway User Counts** – Continue monitoring greenway usage in support of the RVTPPO's Annual Performance Measures Report. The number and location of count sites will be reviewed to ensure the data received accurately reflects the information sought by the transportation performance measures. This task will include field work to

maintain, download data, and relocate counters as needed as well as to manage, analyze, and map data.

- **Regional Bicycle & Pedestrian Advisory Committee** - RVTPPO staff will continue to manage the Regional Bicycle & Pedestrian Advisory Committee (PBAC).
- **Maintenance and Development of bicycle/pedestrian/greenway shapefiles and maps** – Staff will develop new or update existing bicycle- or pedestrian-related GIS shapefiles and regional transportation planning maps as improvements are made to the regional bicycle/pedestrian network.

Products and Schedule:

- Washington Avenue Intersections Study (Winter 2019)
- NBPB Bike/Ped Counts (Fall 2018)
- Greenway user counts (ongoing)
- Pedestrian & Bicycle Advisory Committee support (ongoing)
- Maintenance of GIS databases and mapping (ongoing)

This item supports planning factors #1–Economic Vitality, #4–Accessibility and Mobility, #5–Quality of Life, Environment and Energy Conservation #6–Connectivity and #8–Preservation of Existing System, #10–Reducing Stormwater Impacts, and #11–Enhance Travel and Tourism.

Lead: RVARC staff

Estimated Budget: \$16,662 (\$16,662 PL and \$0 FTA/5303) (included for planning purposes only; not intended to be restrictive).

2.08 Regional Land Use and Transportation

Objective and Description: The relationship between land use and transportation is critical to the success of a region. This task will focus on coordinating activities that involve both.

Specifically, this task involves coordinating local government efforts around transportation and land-use by: utilizing the existing Urban Development Areas and Multimodal Centers and Districts Framework; analyzing local zoning and land use compatibility with regional multimodal transportation; conducting visual preference surveys to solicit preferences of the existing built environment; instilling and fostering principles of Smart Growth (e.g. compact building design, mixed-use and transit oriented development); and utilizing the VDOT Transportation Efficient Land Use and Design guide. Products of this effort may include model comprehensive plan/zoning ordinance language, overlay districts, urban design guidelines, area specific pattern books, and other products that could be used by localities in their own planning efforts.

Products and Schedule:

- Mapping of parcel-level development patterns in UDAs and multimodal centers/districts. (Winter 2018)

This item supports planning factors #1–Economic Vitality, #4–Accessibility and Mobility, #5–Quality of Life, Environment and Energy Conservation, #6–Connectivity, #8–Preservation of Existing System, #9–Resiliency and Reliability, #10–Reducing Stormwater Impacts, and #11–Travel and Tourism.

Lead: RVARC staff

Estimated Budget: \$6,098 (\$5,105 PL and \$993 FTA/5303) (included for planning purposes only; not intended to be restrictive).

2.09 General Technical Assistance

Objective and Description: Staff will research, develop, maintain, and analyze data for use in a variety of transportation planning technical support activities. Work activities will be organized around the following subtasks. Any combination of subtasks may be completed in FY19 as opportunities and needs arise; however, circumstances may not permit all subtasks to be finalized by the end of FY19.

- **General Technical Assistance** to federal/state/local governments, transit agencies or other stakeholders and citizens as requested.
- **Technical Support Activities** – a variety of planning activities to support work program projects identified previously and/or the general planning process.
- **Support to Statewide Multimodal Planning** – as needed.

This item also contains provisions for an on-call consultant or consultants to provide general technical assistance to the RVTPO related to the activities described previously in this UPWP.

Lead: RVARC staff

Estimated Budget: \$152,728 (\$89,543 PL and \$63,185 FTA/5303) (included for planning purposes only; not intended to be restrictive).

VII. FY 2019 RVTPO PROPOSED REVENUES AND EXPENDITURES BY FEDERAL, STATE AND LOCAL SOURCES

(July 1, 2018 to June 30, 2019)

TABLE TO BE UPDATED

	PL	State	Local	Total PL	5303	State	Local	Total 5303	Total
<u>Proposed Revenue</u>									
<i>New FY 2018</i>	313,838	39,230	29,230	392,297	132,793	16,600	16,600	165,993	549,086
<i>Unobligated FY 2016</i>	11,144	1,393	1,393	13,930	0	0	0	0	13,930
<i>Direct Carryover FY 2017</i>	0	0	0	0	0	0	0	0	0
Total Revenue	324,982	40,623	40,623	406,227	132,793	16,600	16,600	165,993	563,016

Note: Rounding of numbers may result in minor calculation discrepancies.

TABLE TO BE UPDATED

Proposed Expenditures

	PL	State	Local	Total PL	5303	State	Local	Total 5303	Total
Program Support & Admin									
1.01 Gen Admin & Operations									
1.02 Training & Staff Development									
1.03 Work Program Mgt									
Total for Program Support & Admin:									

	PL	State	Local	Total PL	5303	State	Local	Total 5303	Total
Program Activities									
2.01 Long-Range Plan									
2.02 TIP, RSTP, TA and Performance Measures									
2.03 Congestion Management Process (CMP)									
2.04 Public Transportation Planning									
2.05 Public and Stakeholder Involvement									
2.06 Corridor, Area Studies and Safety Planning									
2.07 Bicycle and Pedestrian Planning									
2.08 Regional Land Use and Transportation									
2.09 General Technical Assistance									
Total for Program Activities:									

	PL	State	Local	Total PL	5303	State	Local	Total 5303	Total
Total Expenses:	324,981	40,623	40,623	406,227	132,793	16,600	16,600	165,993	563,016

Roanoke Valley Transportation Planning Organization

VDOT Salem District Support (SPR funding) for Planning Activities within the RVTPO Area during FY 2019

Work Program Activity	Total SPR (District)
VDOT District Planning Activities	\$25,770
TOTAL	\$25,770