



(Official Name: Roanoke Valley Area Metropolitan Planning Organization)

UNIFIED PLANNING WORK PROGRAM

Fiscal Year 2017

(July 1, 2016 – June 30, 2017)

Working Draft

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Prepared on behalf of the Roanoke Valley Transportation Planning Organization 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 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 RVAMPO will strive to provide reasonable accommodations and services for persons who require special assistance to participate in this public involvement opportunity. Contact the Public Involvement and Community Outreach Coordinator at (540) 343-4417 for more information.

The Roanoke Valley Transportation Planning Organization (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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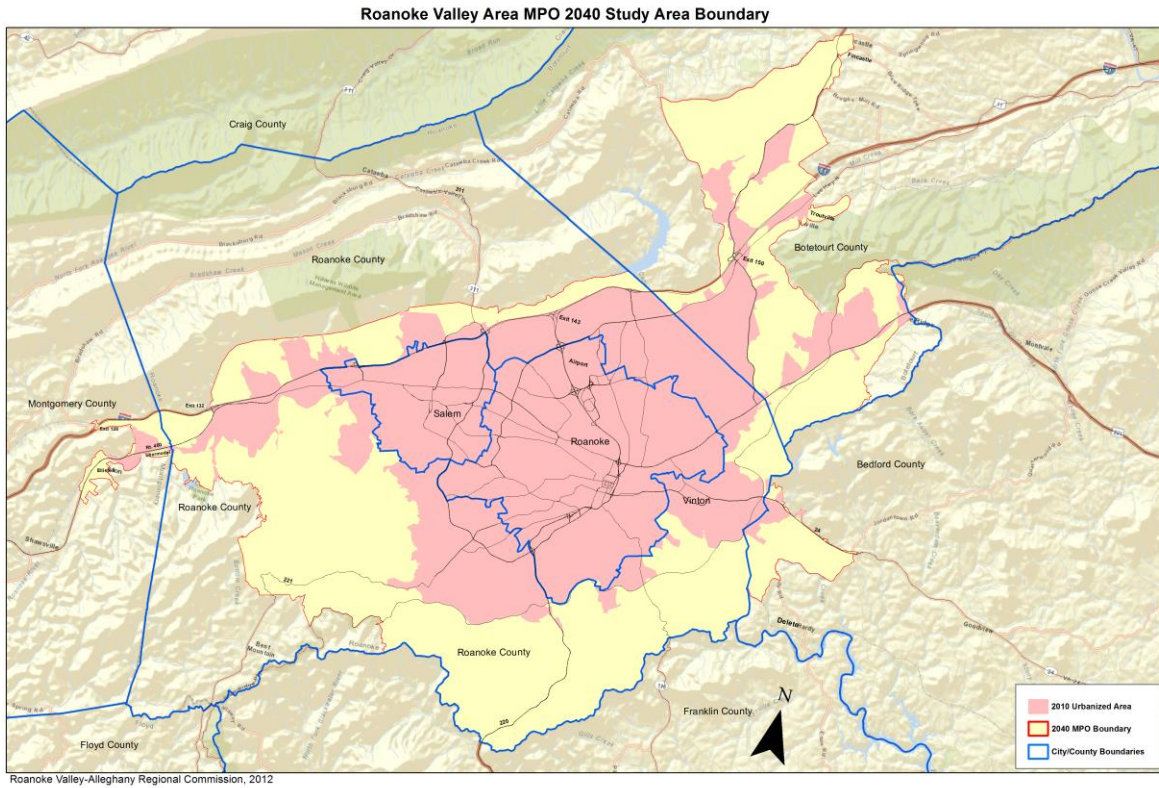


Figure 1.0

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INTRODUCTION

The Unified Planning Work Program (UPWP) for transportation planning identifies all activities to be undertaken in the Roanoke Valley Transportation Planning Organization (RVTPPO) study area for the fiscal year 2017. 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. Specifically, FHWA and FTA have requested that three priority areas of emphasis be incorporated into the work undertaken through the UPWP.

A. MAP-21 and FAST Act Implementation

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

- 1) Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity and efficiency;
- 2) Increase the safety of the transportation system for motorized and nonmotorized users;
- 3) Increase the security of the transportation system for motorized and nonmotorized users;
- 4) Increase the accessibility and mobility of people and for freight;
- 5) 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;
- 6) Enhance the integration and connectivity of the transportation system, across and between modes, for people and freight;
- 7) Promote efficient system management and operation; and
- 8) Emphasize the preservation of the existing transportation system.

As the RVTPPO transitions to 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.

B. Regional Models of Cooperation

In order to ensure a regional approach to transportation planning, the RVTPPO 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.

C. Ladders of Opportunity

As part of the transportation planning process, the RVTPPO 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 above, 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 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). The Roanoke Valley Transportation Planning Organization (RVTPPO) has developed this work program to address the final metropolitan planning regulations and the new requirements in SAFETEA-LU and extended in MAP-21.

Metropolitan Planning Area

The RVTPPO study area consists of the Cities of Roanoke and Salem, the Town of 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 map below) 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.

Census Urbanized Areas and MPO/TMA Designation

Schedule of Activities

Date	Activity
8/24/2011	U.S. Census Bureau published the final criteria for the defining of urbanized areas (UZAs) and urban clusters (UCs) in the <i>Federal Register</i>
Expected March 2012	Census Bureau will post on their webpage and will send a press release to notify the public
Early 2012 (approx. 6 weeks after list of UZAs is published)	USDOT (FHWA/FTA) publishes the new list of Transportation Management Areas (TMAs) in the <i>Federal Register</i> .
Expected March 2012	Census Bureau releases TIGER/Line shapefiles with UZA and UC boundaries
Spring 2012	HEPGIS includes UZA and UC boundaries, including the ability to download shapefiles
Before Oct 2012	States should revise their intra-State formulas for PL funds allocations to MPOs
Early 2013 (12 months after list of UZAs is published)	New MPOs must be designated by Governor(s) or existing Metropolitan Planning Areas (MPAs) must be expanded to include all new UZAs published in the <i>Federal Register</i>
Mid 2013 (18 months after list of new TMAs is published)	New TMAs must have a Congestion Management Process (CMP)
Early 2016 (4 years after list of UAs is published)	New MPOs must have a formally adopted Long-Range Metropolitan Transportation Plan (MTP) and Transportation Improvement Program (TIP)
Before next regularly-scheduled MTP update, after October 1st, 2012, or within 4 years of the designation of the new UZA boundary, whichever occurs first	Existing MPOs must expand their Metropolitan Planning Areas (MPAs) to include all territory in Census 2010 UZAs (if necessary).

Source:

http://www.fhwa.dot.gov/planning/census_issues/urbanized_areas_and_mpo_tma/schedule/

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

Air Quality Considerations

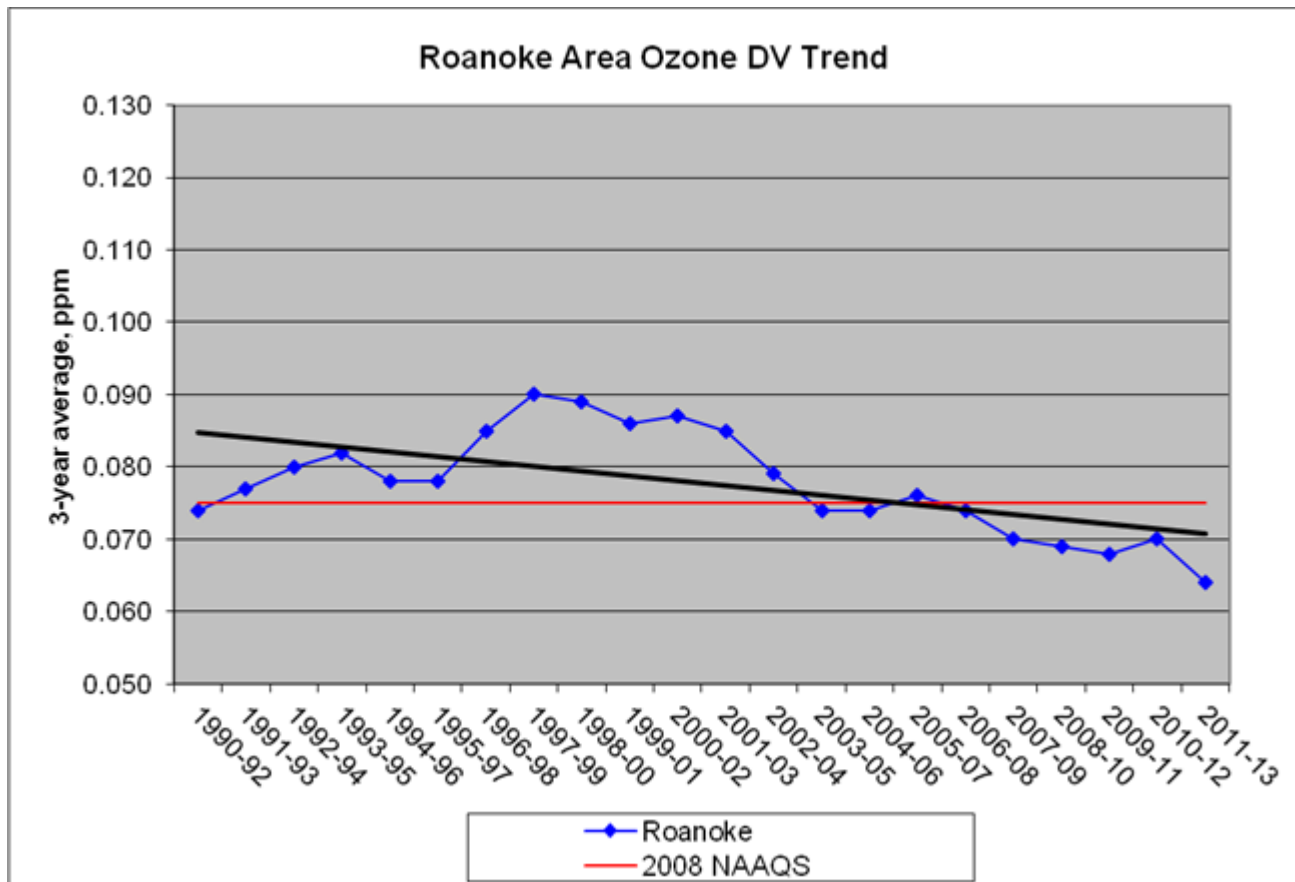
In 1997, the Environmental Protection Agency (EPA) made an amendment to the Clean Air Act's National Ambient Air Quality Standards (NAAQS). The amendment essentially replaced the 1-hour ozone standard with a more stringent 8-hour standard. In the late 1990s the ozone levels taken at an air quality monitor in the Roanoke area had exceeded the newer 8-hour standard. Due to these exceedances, the RVTPPO 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 RVTPPO 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.



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 members¹ (see figure 2). 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, Virginia Department of Transportation, the Greater Roanoke Transit Company, the Virginia Department of Rail and Public Transportation, and the Roanoke Regional Airport Commission.

Figure 2: 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

Other agencies with non-voting membership on the RVTPO Policy Board include: the Roanoke Valley-Alleghany Regional Commission (RVARC), the Federal Highway Administration and Federal Transit Administration.

Staff of the transportation planning division of the Roanoke Valley-Alleghany Regional Commission performs 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 existing 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.

Total Proposed Funding by Federal Source for FY 2017

The primary funding source for transportation planning activities included in this work program are the FHWA Section 112 (PL), FTA Section 5303, and FHWA State Planning and Research (SPR). The proposed funding amounts (including state and local matching funds) for the RVTPO work program are shown in Figure 3 below.

Note, however, that the funding proposed for use in this UPWP does include unobligated funds from FY 2015. This funding will allow the RVTPO to undertake additional activities that would not be included in a “typical” years’ work program.

¹ RVTPO Bylaws were updated on April 24, 2003 and April 25, 2013, to allocate a voting member for Bedford County and Montgomery County respectively.

Figure 3
FY 2017 RVTPO PROPOSED FUNDING BY FEDERAL, STATE AND LOCAL SOURCES
 (July 1, 2016 to June 30, 2017)

	FHWA - Section 112 (PL) 80% Fed & 20 % State/Local	FTA - Section 5303 80% Fed & 20 % State/Local	GRAND TOTAL
New FY 2017	\$X	\$X	\$X
Deprogrammed FY 2016	\$0	\$0	\$0
Unobligated FY 2015	\$X	\$0	\$X
VDRPT Technical Assistance	\$0	\$0	\$X
TOTAL	\$X	\$X	\$X

PROPOSED FY 2017 WORK PROGRAM AND BUDGET

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 to (1) implement the FY 2017 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 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, Technical Committee and Citizens Advisory 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.

In addition, staff will routinely evaluate the validity of the current 3-C Agreement between the RVTPO, Virginia Department of Transportation, and the Greater Roanoke Transit Company and or DRPT as applicable. If any areas of concern are identified, staff will prepare a report identifying the issue(s) and provide possible solutions. Since this is an agreement between three organizations, any change to the Agreement will need to be reviewed and approved by each.

Products: Efficient office operation, accurate financial information, preparation of quarterly reports, preparation of information in support of RVTPO activities, and an up-to-date 3-C Agreement, when necessary, that clearly identifies the roles and responsibilities of each party involved in the metropolitan planning process.

Estimated Budget: \$X (\$X PL and \$X 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, Policy Board and Technical Committee members.

Products: Well-trained and informed RVTPO staff, Policy Board and Technical Committee members.

Estimated Budget: \$X (\$X PL and \$X 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 between July 2016 and June 2017, that will utilize federal funding, including Title I Section 134 metropolitan planning funds, and Title III Section 8 metropolitan planning funds. The UPWP also identifies state and local matching dollars for these federal planning programs.

This task provides for management of the FY 2017 UPWP. If during FY 2017, 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 FY 2018. The document will incorporate suggestions from federal funding agencies, state transportation agencies, transit operating agencies, local governments participating in RVTPO. The new UPWP will be presented in draft to the RVTPO Technical Committee and Policy Board in March 2017, and as a final document for adoption in April 2017. The approved UPWP will be distributed to the Policy Board, and made available to the public on the RVARC website.

Products: UPWP for FY 2018 and amendments to the FY 2017 UPWP as needed.

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

2. PROGRAM ACTIVITIES

2.01 Long Range Transportation Planning

Objective and Description: The long-range transportation planning effort enables local stakeholders to think beyond traditional borders and adopt a coordinated approach to transportation planning. This effort includes scenario planning to evaluate where transportation funds are invested based on regional goals. The Constrained Long-Range Multimodal Transportation Plan 2040 is expected to be approved in the Summer of 2016. Individual areas of focus for item 2.01 follow:

- 1) **CLRMTP 2040 – Approval and Endorsement** – The CLRMTP 2040 is expected to be approved by the RVTPPO Policy Board in the Summer of 2016. This sub item covers any necessary draft document revisions and approval activities necessary in FY17.
- 2) **CLRMTP 2040 – Amendments** – Any necessary long-range plan amendments after endorsement and approval of CLRMTP 2040.
- 3) **Federal Transportation Performance Measures Integration:** Federal guidance concerning the integration of specific performance measures in TMA MPO long-range transportation planning processes is anticipated in FY17. 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 long-range transportation planning process.
- 4) **Air Quality and Environmental Analysis:** All applicable air-quality or environmental analyses that may be required by the federal EPA. Currently RVTPPO is in an Ozone Early Action Compact – Early Action Plan area and is not subject to conformity analysis. However, if this situation changes for any reason, this sub item provides resources to kickstart a formal air-quality/long-range transportation planning process in FY17.
- 5) **Official Public Meeting Concerning Long-Range Planning Assumptions (Annual “Open House”):** This will continue the series of yearly public meetings concerning the long-range planning process and its assumptions.
- 6) **Travel Demand Model Application** – RVTPPO 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 RVTPPO 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 during FY17.
- 7) **Transportation and Land Use Archival System Maintenance** – This item involves a yearly update of the transportation and land use data archival system for updating transportation and land use data on a regular basis so that “time series” or “snapshot” of parcel size and other trends can be available for the long-range transportation planning process. FY17 will focusing on integrating the past years’ land use archive data and trends into the RVTPPO Multimodal Centers and Districts framework.
- 8) **L RTP Technical Work** – Any remaining technical process work required in FY17.

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

Products: CLRMTP 2040 Final Document, Performance Measures Integration, CLRMTP 2045 Process Kickoff, Annual Public Open House and Coordination with VDOT’S Rural Long-Range Transportation Planning Process, Travel Demand Model application and other technical work as

required. **Item 2.01 supports all planning factors (#1 - #8) to the extent possible given time, financial and other constraints.**

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

2.02 Transportation Improvement Program (TIP), Regional Surface Transportation Program (RSTP), Transportation Alternatives (TA), 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 two years, with a major amendment in intervening years, and must be approved by the RVTPO Policy Board and the governor of Virginia. The TIP is required as a condition for all federal funding assistance for transportation improvements within the RVTPO area.

The Regional Surface Transportation Program (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 Selection Procedures. The Transportation Alternatives (TA) combines programs that used to be named Transportation Enhancement (TE) and Safe Routes to School (SRTS). The RVTPO Policy Board will determine a portion of the TA funding within the RVTPO Study Area Boundary.

The Performance Measures tracking and reporting process will reflect state-mandated performance measures and additional measures elected by the TPO Policy Board to be tracked. Additionally, it is anticipated that additional performance measures guidance will be received from the FTA and FHWA and will need to be integrated into our existing state-mandated process. The effort will include collecting performance data and reporting the transportation system's performance based on those targets.

The RVTPO TIP will be updated by June 2017 and will coincide with the three-year STIP cycle. In summer 2016, the impacts of HB2 will be known with the adoption of the 2017-2022 Six-Year Improvement Program. As this is a required update, the TPO's public participation process will be employed.

Additional activities covered in this task may include but are not limited to:

- It is anticipated that the RVTPO will perform an annual review and adjustment for existing RSTP projects.
- Any HB2 or UDA related activities as requested.
- Amendments and/or Adjustments to current TIP.
- Preparation of TIP process for anticipated RSTP, TA, and potential CMAQ requirements.
- Data collection and analysis for Annual Performance Measures Report update.
- Coordination with VDOT on TIP, STIP, HB2 and Six Year Improvement Program (SYIP) details, procedures and updates.
- Coordination with FTA, VDRPT, Valley Metro (GRTC) and RADAR (UHSTS) on public transportation related funding and programming with regards to the SYIP and TIP.
- Development of GIS layers to display TIP projects
- Staff evaluation and testing of web technology to display TIP projects

- Staff evaluation and/or development of an in house TIP database/project tracking system.
- Publication of the Annual Obligations Report.

Products: A new TIP, annual listing of projects with federal obligations (federal funds), data collection and analysis for annual listing of performance measures, staffing of the RSTP project selection and adjustment process, staffing of the TA project selection process. Additional products may include TIP GIS development, website development related to the TIP and/or TIP database/tracking system development.

Item 2.02 is a programming document it supports all planning factors (#1 - #8) to the extent that programming funds are available in a given 4-year time horizon.

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

2.03 Congestion Management Process (CMP) – Plan Maintenance and Implementation

Objective and Description: RVTPPO's first ever CMP Plan was approved on January 23, 2013. This section provides for implementation of the 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 in integrating new data sources and data analysis into the CMP planning process with special attention focused on creating CMP performance measures.

Products: CMP data collection, analysis and performance measures.

Item 2.03 supports planning factors Economic Vitality #4, Mobility #5 and Connectivity

Estimated Budget: \$X (included for planning purposes only; not intended to be restrictive).

2.04 Air Quality Planning

Objective and Description: The local governments (Counties of Botetourt and Roanoke, Cities of Roanoke and Salem and Town of Vinton) entered into an Ozone Early Action Compact (EAC) with the Virginia Department of Environmental Quality (DEQ) and the Federal Environmental Protection Agency (EPA) in late December 2002. This agreement led to the development of an Ozone Early Action Plan (EAP) in March 2004. The Ozone EAP was successful and the Federal Environmental Protection Agency (EPA) declared the Roanoke Area to be back in attainment for the 8-hour Ozone standard that was in effect during the EAC/EAP process, on April 15, 2008. 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 RVTPPO is in compliance with the October 2015 standard. Similarly in RVTPPO 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.

Products: 1) Monitoring of Ozone and PM 2.5 trends with regards to continued air quality compliance; 2) Monitoring of federal and state policies concerning Greenhouse Gas (GHG) and

their possible impact on the RVTPO planning process; and 3) Public outreach and maintenance of air quality action day communications lists.

Item 2.04 supports planning factors #5 – Quality of Life, Environment and Energy Conservation #6

Estimated Budget: \$X (included for planning purposes only; not intended to be restrictive).

2.05 Public Transportation Planning

Objective and Description: The two major public transportation agencies, the Greater Roanoke Transit Company (Valley Metro) - Roanoke Valley designated recipient and provider of fixed-route transit, and Unified Human Services Transportation Systems, Inc. (RADAR) - demand responsive transit, regularly require transportation planning assistance to complete a variety of functions and plan for service enhancements. At a minimum item 2.05 will include:

- **Regional Transit Vision Plan** – This effort specifically reflects two of the federal priorities: regional models of cooperation and ladders of opportunity. Staff will complete work related to the Plan’s adoption by the TPO and endorsement by local governments. Continuing activities include an examination of existing transit services, current funding sources and implementation of short-term recommendations. The Plan’s activities will continue engaging stakeholders to implement the future vision for the region’s transit services.
- **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. Staff will provide support in this effort and coordinate their development with the Transit Vision Plan.
- **National Transit Database (NTD) on-board survey support** – GRTC is scheduled to perform its triennial NTD on-board survey during FY 2017. Staff will be responsible for accomplishing approximately half of the on-board surveys, and for collecting and analyzing the resulting data.
- **Assistance with Transit Route Analysis and Mapping** – As requested by the transit agencies, provide transit route and schedule analysis, associated mapping, and assistance with the implementation of new or modified transit services.
- **Assistance with Improving Bus Stops** – As requested, staff will provide assistance concerning the location, accessibility of and implementation of physical improvements to fixed-route bus stops. Staff will continue to provide technical support to implement the accessibility improvements to the Transportation Alternatives-funded project along Melrose Avenue.
- **Human Services-Public Transit Coordinated Transportation Planning** - Staff will provide assistance in coordinating human services transportation, working with DRPT and other agencies to update the Section 5310 Coordinated Human Service Public Transportation Plan as necessary, and will participate in related regional coordination meetings.
- **General Transit Planning** - As needed, staff will incorporate transit components into other studies and plans identified in this Work Program.
- **Grant Assistance for Transit Development** – Staff will assist Valley Metro and RADAR in identifying and pursuing local, state, federal and private grants and alternative funding sources for transit improvements and services.

- **Annual Statewide Bus Rodeo** – The 2017 statewide bus rodeo will be held in Roanoke, showcasing the skills of bus drivers and mechanics from across the state. Staff will provide assistance with making plans for the event.
- **Passenger Rail and Public Transit Coordination** – Staff will support the ongoing effort to provide passenger rail service in Downtown Roanoke in 2017 by working with VDRPT, the City of Roanoke and Valley Metro on related preparations including the establishment of a multimodal transportation station and planning for transfers between public transit and rail.

Products: Items above.

Item 2.05 supports planning factors #1 – Economic Vitality, #4 –Accessibility and Mobility, #5 – Quality of Life, Environment and Energy Conservation, and #6 Connectivity.

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

2.06 Public Participation, Environmental Justice, Stakeholder Training and Seminars

Objective and Description: RVTPO public and stakeholder involvement activities will include but are not limited to the following:

- 1) **RVTPO Public Involvement Policy, Title VI Plan and LEP Plan amendments** – Any necessary amendments or adjustments to the RVTPO Public Involvement Policy, Title VI Plan and/or Limited English Proficiency (LEP) Plan that are necessary in FY17.
- 2) **Citizens Advisory Committee (CAC) meetings** – RVTPO planners will serve as the lead staff to CAC meetings.
- 3) **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. In addition, staff will research and begin to implement “Web 2.0” public participation strategies. “Web 2.0” commonly refers to social media that is enabled by internet and web technologies.
- 4) **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.
- 5) **Webinars, Teleconferences and Seminars** - The American Planning Association (APA) produces 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.
- 6) **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.
- 7) **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: Necessary amendments or adjustments to the RVTPO Public Involvement Policy, Title VI Plan and/or Limited English Proficiency (LEP) Plan, public and stakeholder outreach at various scales, webinars, seminars, TPO website maintenance, and update of TPO Demographic Profiles, staffing of CAC meetings.

Item 2.06 supports planning factor #4 – “Accessibility” by increasing accessibility to public input and participation in the transportation planning process.

Estimated Budget: \$X (included for planning purposes only; not intended to be restrictive).

2.07 Corridor Studies, Area Studies and Safety Planning

Objective and Description: Corridor and area studies can uncover projected ideas that feed the CLRMTP. Likewise, the CLRMTP can suggest corridors that warrant pre-NEPA corridor studies to help move the project to next stage. The following corridors and areas were suggested by local governments and other stakeholders in the FY2017 work program development process. Analysis of each corridor or area may include but is not limited to: access management, operations evaluation, transit/bicycle/pedestrian connections, parking availability/accessibility/issues, current and future land use, existing activity density, and adjacent land zoning.

- **Route 419 Phase II** – The purpose is to continue the study initiated in FY16 on Route 419 from the Railroad Trestle past the County Administration Building to Route 221.
- **Brambleton Avenue Corridor Study Phase II** – The purpose is to continue the study initiated in FY16 on Brambleton Avenue. Specifically Phase II will consist of the following subtasks:
 - Environmental Analysis/Constraints
 - Property Ownership Analysis
 - Identification of Development/Redevelopment Opportunities
 - Public Involvement (County of Roanoke Staff will take the lead with support from RVTPPO staff).
 - Survey, Community Meetings, Brambleton Area Business Association etc.
 - Recommendations and Planning Document for Brambleton Avenue Corridor.
- **Botetourt County Transportation Section of Comprehensive Plan Phase III** – Assistance to Botetourt County staff in the preparation of a transportation section of their comprehensive plan update. This UPWP portion will focus on the portion of the county that is within the RVTPPO Study Area. A companion element for the rural portion of Botetourt County is in the FY2017 RVARC Rural Transportation Program Scope of Work. Work tasks are anticipated to include but not be limited to:
- **Exit 150 Small Area Study - Phase II** – The purpose is to prepare a comprehensive plan amendment that ties transportation, land-use and economic development together in the area around Exit 150 and the Southern Portion (i.e. RVTPPO Study Area) of the County.
- **Regional Multimodal Corridors Identification** – This is a continuation of work started in the FY15 Work Program that defined multimodal districts and centers. The idea is to define to the regional multimodal corridors where infrastructure supporting public transportation, walking, and biking exists or is desired. This will allow us to suggest the multimodal corridors for inclusion in VTRANS updates and help us identify potential HB2 projects.
- **City of Roanoke – Comprehensive Community Profile and Downtown Demographic Study Related to Transportation Planning Phase II:**

- Provide a comprehensive profile of the City of Roanoke in preparation for development of a new comprehensive plan. The profile should provide demographic, housing, transportation, environmental, and economic data.
 - Provide interpretation and analysis of data, and further inquiry as necessary to guide policy formulation.
 - Suggest potential policy responses as appropriate.
 - The report should draw from many data sources and may synthesize data from the many existing studies already developed by RVARC.
 - Provide data at neighborhood level, as available (example at <http://www.portlandoregon.gov/oni/56897>).
 - Provide comparative data for Roanoke MSA, Virginia First Cities, Virginia, and United States.
 - Provide comparative data over time to identify trends.
 - Develop projections on selected data as appropriate.
- ***Intersection or corridor analysis as requested.***
 - ***General HB2 or UDA assistance as requested by local governments.***

Particular attention to safety planning will be present in the corridor planning process. This may include but is not limited to: accident analysis, pedestrian safety, bicycle safety, driver behavior analysis and education.

Products: Assistance with corridor and area studies, corridor evaluations and/or corridor data summaries using the above corridors as partners in local, VDOT or consultant studies.

Item 2.07 supports planning factors #2- Safety, #7 – Management and Operation and #8 – Preservation of Existing System.

Estimated Budget: \$X (included for planning purposes only; not intended to be restrictive).

2.08 Bicycle and Pedestrian Planning

Objective and Description: A continued effort to implement recommendations from the Regional Bikeway Plan, the Regional Pedestrian Vision Plan and the Regional Transit Vision plan is the organizing framework underlying Item 2.06. In addition to this general effort the following specific plans, studies and tasks will be accomplished in the FY17 UPWP.

- ***Regional Bicycle and Workforce Commuting Study*** – Multimodal access to employment opportunities is a key component of improved transportation options, workforce development, community/economic development and an overall Livable Roanoke Valley. Previous efforts had focused on public transit's role in connecting people with employment opportunities. This study would take an in depth look at the bicycle modes potential in connecting people with employment opportunities in the RVTPO. Specifically this study will identify target populations who use or would potentially use the bicycle mode to primarily access employment opportunities. In addition the study will identify employers who would be willing and interested in increasing the size of their workforce through accessing bicycle commuters. Finally the study will analyze and recommend specific bicycle accommodations, programs, policies and approaches that are designed to facilitate access to employment and workforce development through the bicycle mode of transportation.

- **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.
- **Pedestrian Performance Measures Data Collection - Continuing** - Update shapefiles and related databases of pedestrian infrastructure and where necessary, in the field, gather pedestrian infrastructure data along public streets and bus routes to include sidewalks, crosswalks, pedestrian signals, and ADA curb ramps. Special effort and attention will be made for mapping the above amenities that lie within ¼ mile of a fixed route bus stop.
- **National Bicycle and Pedestrian Documentation Project Counts - Continuing** – RVTPPO will partner with local governments to continue bicycle and pedestrian snapshot counts as part of the National Bicycle and Pedestrian Documentation Project.
- **Grant Assistance for Bicycle and Pedestrian Infrastructure Development** – Assist local stakeholders in identifying and pursuing state, local, federal and private grants for new bicycle and pedestrian infrastructure.
- **Town of Vinton Bicycle Accommodations Phase II** – Any additional analysis of major corridors in the Town of Vinton for bicycle accommodations that was not completed in Phase I. The identified corridors for FY 2016-17: Walnut Avenue, South Pollard Street, Lee Avenue, Gus Nicks Boulevard/Washington Avenue.
- **Tinker Creek Greenway Connectivity Study Assistance Phase II** - The Tinker Creek Greenway Connectivity Study is a multijurisdictional effort to connect the established greenway segments in Roanoke City and in Roanoke County/Botetourt County and to expand the scope of the greenway to the northeast into Botetourt County. Planning analysis with stakeholder and community input is needed to determine the best location for the greenway between the current construction terminus at Orange Avenue in Roanoke City, the existing Hollins University Trailhead north of Interstate 81 in Roanoke County, and the proposed Daleville Greenway in Botetourt County. The proposed schedule will extend over several fiscal years and UPWPs as follows:
 - Phase I - FY 2016 - Phase II Roanoke County (FY 2017) Phase III - Botetourt County (FY 2018)
- **General, Mapping and Website Assistance to Local Governments and Greenway Commission** – MPO Staff assistance, public information materials design, and assistance in other areas as necessary.

- **Continued Greenway Monitoring and User Counts** – continue to expand the greenway usage monitoring/estimation system for using during all seasons. Monitoring system will include deployment of additional trail counters and other monitors as available.
- **Regional Pedestrian/Bicycle Advisory Board** - RVTPO staff will continue to staff the Regional Pedestrian/Bicycle Advisory Committee. In addition, staff will attend meetings and/or serve on the following committees: City of Roanoke BAC, Regional Greenway Commission, Regional Greenway Commission Standards and Design Subcommittee, Joint Greenway Commission-Pathfinders Marketing, PR and Education Subcommittee and other committees as appointed.

Products: Bicycle and Workforce Commuting Study; Strategic Plan for engaging traditionally underserved communities in bicycle planning; Tinker Creek Greenway Connectivity Study; urban transportation-related elements of the Regional Greenway Plan Update; Database of pedestrian infrastructure, greenway user counts, bike facility user counts, mapping and website assistance.

Item 2.08 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.

Estimated Budget: \$X (included for planning purposes only; not intended to be restrictive).

2.09 Regional Greenway Plan Update

Objective and Description: The last Regional Greenway Plan was approved in 2007. A lot has changed in the subsequent 10 years necessitating a fresh update of the Regional Greenway Plan. New funding sources, prioritization and programming methods including HB2 and Regional Surface Transportation Program (RSTP) funding have been established. The core concept and vision of the regional greenway system is now established, the Bike Plan was updated in 2012 and implementation has been growing, and a Pedestrian Plan has been completed. In addition Botetourt County has requested to join the Greenway Commission. This regional greenway plan update will focus on expanding the greenway system into Botetourt County, incorporating the system into the multimodal network, identifying connections with the regional pedestrian, bicycle, and transit networks, enabling connectivity with neighborhoods and multimodal centers, and reviewing implementation strategies. This update will incorporate recent work in the Regional Pedestrian Vision Plan, the Bike Plan, and the Transit Vision Plan.

(There is a companion project to item 2.09 in the Roanoke Valley-Alleghany Regional Commission's (RVARC) FY17 Rural Transportation Planning Scope of Work, and the RVARC's Comprehensive Work Program to address rural transportation and non-transportation aspects of the Regional Greenway Plan that cannot be included in UPWP funded activities.)

Products: Regional Greenway Plan.

Item 2.09 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.

Estimated Budget: \$X (included for planning purposes only; not intended to be restrictive).

2.10 Regional Land Use and Transportation

Objective and Description: The A project that would coordinate local government efforts around transportation and land-use by: utilizing the existing 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: Transportation/Land-Use design guides, pattern books and other products.
Item 2.10 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.

Estimated Budget: \$X (included for planning purposes only; not intended to be restrictive).

2.11 General Technical Assistance

Objective and Description: Staff will research, develop, maintain, and analyze data for use in a variety of technical support and planning support activities. Work activities will be organized around the following subtasks. Any combination of subtasks may be completed in FY17 as opportunities and needs arise; however, circumstances may not permit all subtasks to be finalized by the end of FY17.

Subtasks:

- **General Technical Assistance** to local governments, planners and citizens as requested.
- **Technical Support Activities** – a variety of planning support activities to support work program projects and/or the general planning process.
- **Support to Statewide Multimodal Planning** – as needed
- **General HB2 or UDA assistance** - as requested by local governments.

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

Figure 4

FY 2017 RVTPO PROPOSED REVENUES AND EXPENDITURES BY FEDERAL, STATE AND LOCAL SOURCES
(July 1, 2016 to June 30, 2017)

	PL	State	Local	Total PL	5303	State	Local	Total 5303	Total Federal	
Proposed Revenue										
<i>New FY 2017</i>	X	X	X	X	X	X	X	X	X	
<i>Unobligated FY 2015</i>	X	X	X	X	0	0	0	0	X	
<i>Direct Carryover FY 2016</i>	0	0	0	0	0	X	X	X	X	
Total Revenue	X	X	X	X	X	X	X	X	X	
 Proposed Expenditures										
<u><i>Program Support & Admin</i></u>										
<i>1.01 Gen Admin & Operations</i>		X	X	X	X	X	X	X	X	X
<i>1.02 Training & Staff Development</i>		X	X	X	X	X	X	X	X	X
<i>1.03 Work Program Mgt</i>		X	X	X	X	X	X	X	X	X
Total Operations		X	X	X	X	X	X	X	X	X
 <u><i>Program Activities</i></u>										
<i>2.01 Long Range Plan</i>				X	X	X	X	X	X	X
<i>2.02 TIP, RSTP, TA and Performance Measures</i>				X	X	X	X	X	X	X
<i>2.03 Congestion Management Process (CMP)</i>				X	X	0	0	0	0	X

2.04 Air Quality Planning	X	X	X	X	0	0	0	0	X
2.05 Public Transportation Planning	X	X	X	X	0	0	0	0	X
2.06 Public and Stakeholder Involvement	X	X	X	X	0	0	0	0	X
2.07 Corridor, Area Studies and Safety Planning	X	X	X	X	X	X	X	X	X
2.08 Bicycle and Pedestrian Planning	X	X	X	X	X	X	X	X	X
2.09 Regional Greenway Plan Update	X	X	X	X	X	X	X	X	X
2.10 Regional Land Use and Transportation	0	0	0	0	X	X	X	X	X
2.11 General Technical Assistance	X	X	X	X	0	0	0	0	X

	PL	State	Local	Total PL	5303	State	Local	Total 5303	Total Federal
Total Program Expenses	X	X	X	X	X	X	X	X	X
Total Expenses	X	X	X	X	X	X	X	X	X

Roanoke Valley Transportation Planning Organization

VDOT Salem District Support (SPR funding) for Planning Activities within the RVTPO Area during
FY 2017

Work Program Activity	Total SPR (District)
TOTAL	\$X