

# RVTPO FY 2018-21 Transportation Improvement Program Table of Contents

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APPENDIX F - Annual Listing of Transportation Project Obligations - **To be included when approved**

## Acknowledgement

This report was prepared by the Roanoke Valley-Alleghany Regional Commission (RVARC) staff in cooperation with and assistance by: the Federal Highway Administration (FHWA), Federal Transit Administration (FTA), Virginia Department of Rail and Public Transportation (DRPT), Virginia Department of Transportation (VDOT), Roanoke Valley Transportation Planning Organization (RVTPO) member localities, Greater Roanoke Transit Company (GRTC/Valley Metro), and RADAR (Roanoke Area Dial A Ride).

## Disclaimer

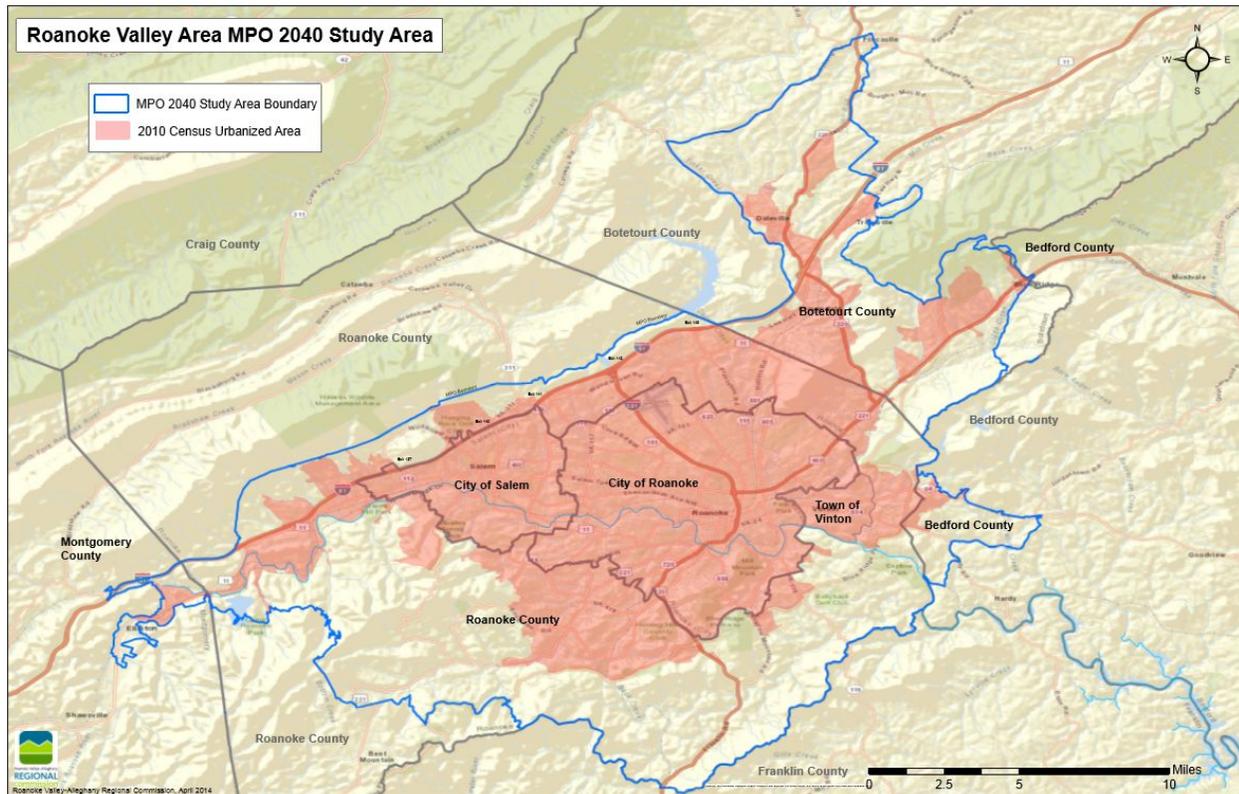
The contents of this report reflect the views of the Roanoke Valley Area Metropolitan Planning Organization. The RVARC staff is responsible for the facts and the accuracy of the data presented herein. The contents do not necessarily reflect the official views or policies of the FHWA, FTA, VDOT, DRPT, Valley Metro, RADAR, or the RVARC. This report does not constitute a standard, specification or regulation. FHWA, FTA, VDOT and DRPT acceptance of this report as evidence of fulfillment of the objectives of this program does not constitute endorsement/approval of the need for any recommended improvements nor does it constitute approval of their location and design or a commitment to fund any such improvements. Additional project level environmental impact assessments and/or studies of alternatives may be necessary.

The data presented in this report is provided by VDOT, DRPT, GRTC and RADAR; and the data is compiled and presented by RVARC staff.

## **1.0 Purpose of the TIP**

The Federal Register defines the Transportation Improvement Program (TIP): a prioritized listing/program of transportation projects covering a period of four (4) years that is developed and formally adopted by an MPO or MPOs as part of the metropolitan transportation planning process for the MPA (Metropolitan Planning Area), consistent with the Metropolitan Transportation Plan (Vision 2040: Roanoke Valley Transportation), and required for projects to be eligible for funding under title 23 U.S.C. and title 49 U.S.C. chapter 53. Essentially, the TIP is a document that identifies how federal funds will be used for transportation projects in the Roanoke Valley’s urbanized area over a four-year timeframe.

The Roanoke Valley Area Metropolitan Planning Organization (MPO) is an organization required to exist by federal law (§23 CFR Part 450, §49 CFR Part 613), which mandates that urbanized areas with a population greater than 50,000 persons establish an MPO to facilitate transportation planning. Following the adoption of the FY2015-18 TIP in 2014, the MPO Policy Board voted to change its name to the Roanoke Valley Transportation Planning Organization (RVTPO). The Roanoke Valley TPO area includes the urbanized portions of Bedford, Botetourt, Montgomery and Roanoke Counties, as well as the Cities of Roanoke and Salem, and the Town of Vinton. Staff at the RVTPO developed this TIP for the MPO area which includes the 2010 Census urbanized area as well as the area projected to be urbanized by 2040 as shown in the following map.



On December 4, 2015, the Fixing America's Surface Transportation Act or FAST Act was signed into law. This is the first legislation in over decade that provides long-term funding for federal transportation projects. As a part of the new legislation, 23 U.S.C. 134(k)(3), the FAST Act clarifies development of a Congestion Management Process Plan (CMPP) for Transportation Management Area (TMA) MPOs. The RVTPO adopted its first CMPP as a TMA in 2014 and projects in this TIP reflect:

1. CMPP regional goals for reducing peak hour vehicle miles traveled and improvement of transportation connections;
2. Identification of existing services and programs that support access to jobs in the region; and
3. Identification of proposed projects and programs to reduce congestion and increase job access opportunities.

Continuing with previous transportation legislation, the FY18-21 TIP accommodates for facilities that enable for the development and integrated management and operation of transportation systems and facilities (including accessible pedestrian walkways and bicycle transportation facilities) that will function as an intermodal transportation system for the metropolitan planning area. The City of Roanoke and Roanoke County both have adopted Complete Streets policies which address the interconnectivity of modes. Additionally, the Roanoke River Greenway Master Plan, which is currently being updated, will address intermodality.

The RVTPO TIP was developed in cooperation with the Virginia Department of Transportation, the Virginia Department of Rail and Public Transportation, local public transportation operators, and the local governments within the urbanized area. These officials, through the Metropolitan Planning Process, select and schedule projects that they support for endorsement in the TIP. The Transportation Improvement Program may be modified by amendments and adjustments at any time though at a minimum it is typically amended/adjusted in the summer months following the Commonwealth Transportation Board's approval of the Six-Year Improvement Program (SYIP).

## **2.0 Public and Stakeholder Involvement**

In accordance with the TPO’s Public Involvement Policy, the public has been afforded several opportunities to comment upon the development of the TIP. These opportunities are listed below:

1. Electronic access and updates to the Draft FY2018-2021 TIP through the RVTPO website at [www.rvarc.org](http://www.rvarc.org) and [www.rvtpo.org](http://www.rvtpo.org), and hard copies at the Roanoke Valley-Alleghany Regional Commission offices at 313 Luck Avenue, SW, Roanoke, VA 24016;
2. A 45-day comment period where the public can submit comments on the Draft FY 2018-21 TIP via e-mail, online comment form, regular mail, telephone and facsimile; and
3. Newspaper advertisements in the Roanoke Times and Roanoke Tribune, notifying the public of a public hearing on the adoption of the TIP on \_\_\_\_\_, 2017.



The Comprehensive, Continuing, Cooperative, or “3C” Process of the TPO, provides a natural mechanism by which the TIP can be carefully reviewed and updated annually. Annual development of this program helps to clarify future needs, allow revisions to accommodate changing conditions, and allow developing local and regional plans to be continually incorporated.

The TPO’s Transportation Technical Committee (TTC) is made up of representatives from local, state, and federal agencies. The TTC provides the professional expertise necessary to derive a plan and ensure that all local and regional interests are considered. Once the program is developed, the TPO Policy Board reviews and approves the program according to policies adopted by its member organizations. With few exceptions, any proposed transportation project should be included in the TIP to be considered eligible for federal funding. All phases of a project including preliminary engineering, right-of-way acquisitions, and construction should be documented in the TIP.

### **3.0 Understanding the TIP**

The Transportation Improvement Program identifies capital and operating projects anticipated to receive federal funding over a four-year period during federal fiscal years 2018 through 2021 (October 1, 2018 to September 30, 2021). Projects that are funded only through state or local sources are not included. Once approved, the TIP is incorporated into the State Transportation Improvement Program (STIP).

Some projects in the TIP are identified as individual projects whereas others are grouped together and shown as a single item. Projects are summarized by locality in Sections 6.0 and 7.0 and listed independently in Appendix A, Grouped Projects and Appendix B, Ungrouped Projects. In Appendix A, the tables entitled “Project Groupings” contains aggregated funding information for projects within a similar funding category such as bridge construction, rail, safety improvements, trails, and operations. Projects may be classified as part of a particular “system” as described below in Table 1.

**Table 1: Project System**

<b>System</b>	<b>Description</b>
Interstate	The Interstate System contains projects identified as being part of the limited-access system of highways that carry route designations such as I-81 and I-64.
Primary Roads	The Primary System contains projects located along major roadways which carry a route designation of less than 600. Projects listed in this category are primarily located within counties and are listed in numerical order by route number without regard to jurisdiction.
Secondary Roads	The Secondary System contains projects located along minor roadways which carry a route designation of 600 or greater. Projects listed in this category are primarily located within counties and are listed in numerical order by route number without regard to jurisdiction.
Urban Roads	The Urban System contains projects located within cities and towns. Projects are organized by jurisdiction and listed by street name.
Miscellaneous	Miscellaneous Projects are regional in nature and are not associated with one of the previous Systems.

Rail Safety	Rail safety projects include those related to safety such as gates, flashing lights, etc. at railroad crossings.
Transportation Enhancement	Transportation enhancement projects include improvements to safety and aesthetics.
Public Transit Projects	The Public Transit section contains the operating and capital funding for Valley Metro and RADAR, the two public transit operators in the TPO area.

#### **4.0 TIP Project Highlights**

The following is a detailed listing of specific projects in the FY 2018-2021 TIP. This list highlights new, existing, and regionally significant projects in the TPO area.

#### **5.0 Funding the TIP**

§23 CFR 450.324(h) specifies the inclusion of a financial plan in the TIP that shows how the identified projects or project phases can reasonably be expected to be implemented, with the available public and private revenues. TIP projects or project phases are required to be consistent with the LRTP and must be fully funded in the TIP. To the extent that funding is available or shall be reasonably available, priority projects or project phases have been cooperatively selected for inclusion in this TIP. VDOT, DRPT, Valley Metro, RADAR and the TPO developed financial forecasts for the TIP based on the latest official planning assumptions and estimates of revenues and costs. The financial information is given by funding category for the projects listed and expected to be implemented during the four-year period beginning Fiscal Year 2015.

##### **5.1 Funding Sources**

The TIP funding summary tables (Table 2) summarize by year and by funding source the revenue amounts estimated and committed for fiscal years 2015-2018. The table includes expenditures and estimated revenues expected for each funding source and show that the program is financially constrained by year. The financial summary tables are based on total funds available, which include annual allocations of funds including any State and local matching dollars. These revenue sources are all reasonably expected to be made available and committed to the project phase during the programmed year of the TIP.

The following information provides an overview of the most common funding programs utilized in the development of the TIP.

**Transit Funding Programs:**

**Section 5307**

Federal Transit Administration formula grants for transit capital and operating assistance in urbanized areas.

**Section 5310**

Federal Transit Administration funds for private and non-profit organizations providing mass transportation services for the elderly and disabled.

**Section 5311**

Federal Transit Administration funds formula grants providing funding for public transit in non-urbanized areas with a population under 50,000.

**Section 5314**

Federal Transit Administration funds for research and demonstration programs to study, design, and demonstrate transit policies and advanced technologies.

**Section 5339**

Federal Transit Administration capital funding to replace, rehabilitate and purchase buses, vans and related equipment, and to construct bus-related facilities.

**JARC**

Federal Transit Administration funds for Job Access and Reverse Commute grants to provide low-income individuals job access transportation (Section 5316).

**New Freedom**

Federal Transit Administration funds for providing new public transportation services to overcome existing barriers facing Americans with disabilities seeking integration into the workforce and full participation into society.

**Flexible STP**

Federal Highway Administration Surface Transportation Program (STP) funds provide flexible funding that may be used by States and localities for projects on any Federal-aid highway, bridge projects on any public road, transit capital projects, and bus terminals and facilities.

**CMAQ**

Federal Highway Administration Congestion Management Air Quality (CMAQ) funds provide a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for

ozone, carbon monoxide, or particulate matter (nonattainment areas) and for former nonattainment areas that are now in compliance (maintenance areas).

## RSTP

Regional Surface Transportation Program (RSTP) the Surface Transportation Program (STP) provides federal funding that may be used by states and localities for a wide range of highway and transit projects. RSTP funds are STP funds that are apportioned to specific regions within a state. The Roanoke Valley Area TPO Policy Board is responsible for scoring and awarding RSTP funds for TPO candidate projects.

## SMART SCALE

The System Management and Allocation of Resources for Transportation (Safety, Congestion, Accessibility, Land Use Coordination, Environment, Economic Development) is a competitive grant program whereby localities, PDCs, MPOs, and transit providers apply for transportation projects which will be fully funded in the Six-Year Improvement Program. Applications are scored based on the six above listed factors.

## Highway Funding Programs:

### AC

**Advance Construction Funds** Advance construction can be used to fund emergency relief efforts and for any project listed in the Statewide TIP, including surface transportation, interstate, bridge, and safety projects. As with any Federal-aid project, to remain eligible for reimbursement, the agency must be able to meet project funding requirements to complete the project and follow all other Federal requirements as the project advances.

### AC Conversion

**AC Conversion** refers to the repayment of Advance Construction Funds.

### ARRA

**American Recovery and Reinvestment Act of 2009** provides federal funds to invest in transportation and other infrastructure projects that will provide long-term economic benefits, preserving and creating jobs and promoting economic recovery.

### BR/BROS

**Bridge Rehabilitation and Replacement** program provides funding for bridge improvements. Eligibility for funding is based on a rating of bridge condition by VDOT as a candidate for upgrading.

## DEMO

**Federal Demonstration Funds** are included in federal transportation acts include demonstration, priority, pilot, or special interest projects in various Federal-aid highway and appropriations acts. These projects are generically referred to as "demonstration" or "demo" projects, because Congress initiated this practice of providing special funding for these projects to demonstrate some new or innovative construction, financing, or other techniques on specific projects.

## EB/MG

The **Equity Bonus** (formerly known as **Minimum Guarantee**) ensures that each State receives a specific share of the aggregate funding for major highway programs (Interstate Maintenance, National Highway System, Bridge, Surface Transportation Program, Highway Safety Improvement Program, Congestion Mitigation and Air Quality Improvement, Metropolitan Planning, Appalachian Development Highway System, Recreational Trails, Safe Routes to School, Rail-Highway Grade Crossing, Coordinated Border Infrastructure programs, and Equity Bonus itself, along with High Priority Projects), with every State guaranteed at least a specified percentage of that State's share of contributions to the Highway Account of the Highway Trust Fund.

## EN

**Transportation Enhancement Funds** are now known as the **Transportation Alternatives Program** (see below).

## HES

**Hazard Elimination Funds** are contingent upon VDOT conducting and maintaining engineering surveys of all public roads to identify hazardous locations, sections, and elements, which may constitute a danger to motorists, bicyclists. VDOT may also develop and implement projects and programs to address the hazards. Federal funds are available for expenditure on: any public road; any public surface transportation facility or any publicly owned bicycle or pedestrian pathway or trail; or any traffic calming measure.

## HPD

**TEA-21 High Priority Funds** are federal funds made available to carry out high priority projects as set forth in the Transportation Efficiency Act for the 21<sup>st</sup> Century (TEA-21) legislation.

## HSIP

### ***Highway Safety Improvement Program***

#### IM

***Interstate Maintenance*** (IM) program provides reconstruction, maintenance, and improvements to the National System of Interstate and Defense Highways. The Commonwealth Transportation Board (CTB) administers these programs.

#### NH

***National Highway System*** (NHS) projects can be funded only if they are on the National Highway System, which is established by Congress.

#### NHPP

***National Highway Performance Program*** (NHPP) provides support for the condition and performance of the National Highway System (NHS), for the construction of new facilities on the NHS, and to ensure that investments of federal-aid funds in highway construction are directed to support progress toward the achievement of performance targets established in VDOT's asset management plan for the NHS.

#### RSTP

***Regional Surface Transportation Program*** (RSTP) the Surface Transportation Program (STP) provides federal funding that may be used by states and localities for a wide range of highway and transit projects. RSTP funds are STP funds that are apportioned to specific regions within a state. The Roanoke Valley TPO Policy Board is responsible for scoring and awarding RSTP funds for TPO candidate projects.

#### SAFETEA-LU

***The Safe Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users (SAFETEA-LU)*** is the federal transportation bill that provides federal transportation funding to each state. The SAFETEA-LU funding category refers to funding earmarks that Congress included in the legislation for specific projects. This funding can only be used for the project(s) for which it is earmarked.

## STP

**Surface Transportation Program** (STP) can be utilized on any project located on a roadway that is classified higher than a minor collector. Projects eligible for funding under this program include construction, reconstruction, and rehabilitation, and bridge projects on any public road. Local STP funds are designated as L-STP.

## Non-Federal

Any funding that does not come from federal sources is grouped into the non-federal funding category.

## SRS

**Safe Routes to School** is a competitive grant program to enable and encourage children to safely walk and bicycle to school. Funds can be used for infrastructure improvements and educational programs.

## TAP

**Transportation Alternatives Program** funds have been made available for bicycle and pedestrian facilities through MAP-21. The Transportation Alternatives Program redefines the former Transportation Enhancement (TE) Program and consolidates these eligibilities with the Safe Routes to School and Recreational Trails program eligibilities. The program is intended to help local sponsors fund community based projects that expand travel choices and enhance the transportation experience by improving the cultural, historical and environmental aspects of the transportation infrastructure. The program does not fund traditional roadway projects or provide maintenance for these facilities. Instead it focuses on providing for pedestrian and bicycle facilities, community improvements and mitigating the negative impacts of the highway system. Projects with EN have previous Transportation Enhancement funds attached to them.

The following table lists the acronyms for all potential funding sources.

**Table 3: Acronyms for Funding Sources**

<b>AC</b>	Advance Construction	<b>ID</b>	Interstate Discretionary
<b>APD</b>	Appalachian Development	<b>IM</b>	Interstate Maintenance
<b>AD</b>	Defense Access	<b>IMG</b>	Interstate Maintenance Grade Crossing
<b>BOND</b>	Bond Issue	<b>IR</b>	Interstate 4R
<b>BR</b>	Bridge Replacement	<b>IX</b>	Interstate Substitution
<b>BROS</b>	Bridge (off federal system)	<b>M</b>	Urbanized
<b>BH</b>	Bridge Rehabilitation	<b>MG</b>	Minimum Guarantee
<b>CM</b>	Congestion Mitigation & Air Quality	<b>MR</b>	Maintenance Replacement
<b>DEMO</b>	Demonstration	<b>NH</b>	National Highway
<b>EB</b>	Equity Bonus	<b>OC</b>	Open Container
<b>EN</b>	Enhancement	<b>RO</b>	Repeat Offender
<b>F</b>	Consolidated Primary	<b>S</b>	State
<b>FR</b>	Federal Reimbursement Grant Repayment	<b>SRTS</b>	Safe Routes to School
<b>FHWA</b>	Federal Highway Administration	<b>STP</b>	Surface Transportation Program
<b>FTA</b>	Federal Transit Administration	<b>TB</b>	Timber Bridge
<b>HES</b>	Hazard Elimination	<b>TFRA</b>	Toll Facilities Revolving Account
<b>HPD</b>	Highway Priority Demonstration	<b>RRP</b>	Rail Highway Protective Devices
<b>HSIP</b>	Highway Safety Improvement Program	<b>RRS</b>	Rail Highway Grade Separation
<b>I</b>	Interstate	<b>VTA</b>	Virginia Transportation Act of 2000

## **5.2 Project Allocations vs. Project Obligations**

Often there is confusion surrounding the different funding states for projects in the TIP. With regard to the highway portion of the TIP, once a project is placed into the VDOT Six-Year Improvement Plan (SYIP) it must have funds allocated to it. Project allocations are the funds available each fiscal year as identified in VDOT's budget and SYIP. Allocation amounts include federal funds, state funds, and local/state matching funds. Funds are allocated for Preliminary Engineering (PE), Right-of-Way Acquisition (ROW) and Construction (CN).

An obligation is the Federal government's legal commitment to pay the Federal share of a project's cost. An obligated project is one that has been authorized by the Federal agency and for which funds have been committed. Projects for which funds have been obligated are not necessarily initiated or completed during the program year, and the amount of the obligation will not necessarily equal the total cost of the project. For projects under the auspices of the FTA, obligation occurs when the FTA grant is awarded. For projects under the auspices of the FHWA, obligation occurs when a project agreement is executed and the State/grantee requests that the funds be obligated.

A good way to think of obligations is setting up a checking account for a specific purpose and then making an initial deposit. In order to begin work on any phase of a transportation project, federal funds must be obligated. This means that the money is set aside for that particular piece of work, and then can be used to pay bills. The project expenses may be bills from a design consultant, a construction contractor, or payroll costs for Virginia Department of Transportation (VDOT) employees working on the project.

An obligation removed from a project, or released, is usually the result of a decrease in the cost estimate, a project awarded for a lesser amount than originally authorized at advertisement, or an FHWA Financial Integrity Review and Evaluation (FIRE) project level review.

Project schedules often change as a result of personnel or consultant availability for design activities, or changes in budget resource availability. Thus, the TIP does not always yield an up-to-date picture of actual project expenditures. To ensure that the public will have an accurate understanding of how federal funds are actually being spent on transportation projects, Congress included in the 2012 Moving Ahead for Progress in the 21<sup>st</sup> Century Act (MAP-21), a requirement that the organizations responsible for approving the TIP publish an Annual Listing of Transportation Project Obligations.

### **5.3 Do Project Obligations Mean the Work is Underway?**

This is not always the case. Project accounts are set up, particularly for the initial phases of a project, to enable the work. It may take a while, for example, to select and hire a design consultant and then actually begin work.

Some projects listed in the TIP may show \$0 for planned obligations. There are several reasons this may occur and include:

- The project is complete and awaiting closeout
- Subsequent project phases are beyond the four-year TIP cycle
- Informational purposes only, funding being pursued
- The project is to be funded from [category] group funding

In addition to construction projects, financial projections have also been made to show revenues for maintaining and operating the region's highway and transit systems during the same 4-year period. Funded TIP actions typically include, but are not limited to:

- Transportation studies
- Ground transportation system improvement projects (fixed-guide, highway, bicycle, pedestrian, commuter lots, etc)
- Public transit systems and services, including the components of coordinated human service mobility plans
- System maintenance (monitoring, repair and/or replacement of system facilities and support sites; snow removal; mowing; painting; rest area or weigh station sites; etc)
- System operations (ITS-TSM applications; traffic operations such as signalization, signal coordination, ramp meters, or message signs; roadside assistance; incident management; for the urbanized TMAs, their Congestion Management Process activities; VDOT traffic management centers; bridge-tunnel management; toll road or congestion pricing management; etc)

### **5.4 Financial Assumptions**

The TIP financial plan is federally required to include only committed and/or reasonably available transportation funding sources. The estimates on funding sources and costs are based on reasonable financial principles and recent information. The financial estimates for both revenues and costs are given in year of expenditure dollars, and reflect growth and inflation factors. VDOT costs estimates are from the VDOT Project Cost Estimating System. For projects not administered by the state, cost estimates are developed cooperatively through the TPO or responsible local government. Maintenance and construction program financial planning assumptions used for the FY 2018 – FY 2021 TIP are consistent with assumptions and distribution methodologies used for Vision 2040: Roanoke Valley Transportation.

## 5.5 Metropolitan Project Selection Overview

In metropolitan planning areas, transportation projects selected for federal funding in the TIP must be consistent with the approved Metropolitan Transportation Plan (Vision 2040: Roanoke Valley Transportation). All projects which are regionally significant (serving regional transportation needs), must be contained within the MTP. In addition, the State Transportation Improvement Program (STIP) submitted by the Commonwealth Transportation Board (CTB) to FTA and FHWA must be consistent with all the metropolitan TIPs.

Within this regulatory framework of metropolitan cooperation, the CTB has lead responsibility for selecting and programming federally funded Interstate Maintenance, Bridge, National Highway System, Statewide (non-metropolitan) STP, Safety, Enhancement, and certain FTA Section 5310 projects. Local governments have lead responsibility for selecting projects within the urban and secondary roadway systems. The CTB adopts the Six-Year Program on an annual basis. The Six-Year Program (SYP) includes the Six-Year Improvement Program (SYIP) and the Secondary Six-Year Program (SSYP). These programs are developed by evaluation of existing and future needs based upon statewide and regional plans and projections, priorities for implementation of the transportation plan, and public comment on transportation priorities. Projects listed in the Six-Year Program are updated to reflect the latest revenue estimates, project costs, changes in priorities, and federal and state laws. Criteria used in selecting proposed projects and in developing project priorities include:

- Conformance to the TPO adopted transportation plan and study area local governments/agencies plans and programs;
- MAP-21 planning factors:
  - Support the economic vitality of the metropolitan area, especially by enabling global competitiveness, productivity, and efficiency
  - Increase the safety of the transportation system for motorized and non-motorized users
  - Increase the security of the transportation system for motorized and non-motorized users
  - Increase the accessibility and mobility of people and for freight
  - Protect and enhance the environment, promote energy conservation, improve the quality of life, and promote consistency between transportation improvements and State and local planned growth and economic development patterns
  - Enhance the integration and connectivity of the transportation system, across and between modes, people and freight
  - Promote efficient system management and operation
  - Emphasize the preservation of the existing transportation system;
- Provision of funding for previously programmed projects in need of additional funds; and
- Comments received as part of the TPO Public Involvement Process

## 5.6 ***FY 2018-2021 Transportation Improvement Plan Timeline***

The diagram above illustrates the STIP and TIP development process. **Diagram to be inserted at a later date.** More specifically, the following are action items resulting in the adoption of the RVTPO TIP:

- Fall 2016 - Public meetings began in all nine VDOT Construction Districts and local administrators, legislators and citizens provided comments on the upcoming Six-Year Improvement Plan (of which TIP projects must be included).
- Fall 2016/Winter 2017 - Localities (staffs and governing bodies), transit providers, VDOT and VDRPT staffs discuss project priorities for potential inclusion in the TIP.
- January 2017 - The RVTPO Transportation Technical Committee (TTC) has a first review and comment of the draft TIP on January 11.
- February 2017 - The TTC deadline for submission of comments for draft TIP by February 9.
- March 9, 2017 - The TTC performs a final review and recommendation on the draft TIP.
- April 2017 – The RVTPO Policy Board reviews the draft TIP and adopts it on April 27, 2017.

## 6.0 Transit Projects

Funding for the Greater Roanoke Transit Company (GRTC/Valley Metro), RADAR (Unified Human Services Transportation Systems, Inc.), and the Southern Area Agency on Aging from federal and other sources for FY 2018-2021 is presented in the program of projects below.

### 6.1 Greater Roanoke Transit Company (Valley Metro) Project Details

	Previous Funding	FY 2018	FY 2019	FY 2020	FY 2021	Total FY 2018-2021
<b>ROANOKE VALLEY AREA METROPOLITAN PLANNING ORGANIZATION</b>						
<b>STIP ID:</b>	<b>GRT0001</b>	<b>Title: Operating Assistance</b>		<b>Recipient: Greater Roanoke Transit Company</b>		
FTA 5307	2,422	2,015	2,015	2,015	2,015	FTA 5307 8,060
FTA 5311	354	354	354	354	354	FTA 5311 1,416
State	2,169	2,169	2,169	2,169	2,169	State 8,676
Local	1,566	1,566	1,566	1,566	1,566	Local 6,264
Revenues	2,314	2,314	2,314	2,314	2,314	Revenues 9,256
<b>Year Total:</b>	<b>8,825</b>	<b>8,418</b>	<b>8,418</b>	<b>8,418</b>	<b>8,418</b>	<b>Total Funds: 33,672</b>
Description:						
<b>STIP ID:</b>	<b>GRT0002</b>	<b>Title: Preventative Maintenance</b>		<b>Recipient: Greater Roanoke Transit Company</b>		
FTA 5307		672	672	672	672	FTA 5307 2,688
State						State -
Local		167	167	167	167	Local 668
<b>Year Total:</b>	<b>-</b>	<b>839</b>	<b>839</b>	<b>839</b>	<b>839</b>	<b>Total Funds: 3,356</b>
Description:						
Description:						
<b>STIP ID:</b>	<b>GRT0003</b>	<b>Title: Replace/Rehabilitate Buses</b>		<b>Recipient: Greater Roanoke Transit Company</b>		
FTA 5339		144		288		FTA 5339 432
FTA 5307						FTA 5307 -
RSTP	1,796	1,955	1,955	1,955	1,955	RSTP 7,820
State		29		58		State 87
Local		7		14		Local 21
<b>Year Total:</b>	<b>1,796</b>	<b>2,135</b>	<b>1,955</b>	<b>2,315</b>	<b>1,955</b>	<b>Total Funds: 8,360</b>
Description: Paratransit replacement vehicles to be purchased with 5339 funds. RSTP funds support ongoing bus replacement, rehabilitation, and rebuild program.						
<b>STIP ID:</b>	<b>GRT0004</b>	<b>Title: Support Vehicles</b>		<b>Recipient: Greater Roanoke Transit Company</b>		
FTA 5339		56	48			FTA 5339 104
State		11	10			State 21
Local		3	2			Local 5
<b>Year Total:</b>	<b>-</b>	<b>70</b>	<b>60</b>	<b>-</b>	<b>-</b>	<b>Total Funds: 130</b>
Description:						
<b>STIP ID:</b>	<b>GRT0005</b>	<b>Title: Purchase Bus Shelters</b>		<b>Recipient: Greater Roanoke Transit Company</b>		
FTA 5339		80	80			FTA 5339 160
State		16	16			State 32
Local		4	4			Local 8
<b>Year Total:</b>	<b>-</b>	<b>100</b>	<b>100</b>	<b>-</b>	<b>-</b>	<b>Total Funds: 200</b>
Description:						

STIP ID:		GRT0006		Title: Rehab/Renovation of Admin/Maint Building		Recipient: Greater Roanoke Transit Company	
FTA 5339	226	160				FTA5339	160
State	45	32				State	32
Local	11	8				Local	8
<b>Year Total:</b>	<b>282</b>	<b>200</b>	-	-	-	<b>Total Funds :</b>	<b>200</b>
Description:							
STIP ID:		GRT0007		Title: Shop Equipment		Recipient: Greater Roanoke Transit Company	
FTA 5339		16	16	16		FTA5339	48
State		3	3	3		State	9
Local		1	1	1		Local	3
<b>Year Total:</b>	<b>-</b>	<b>20</b>	<b>20</b>	<b>20</b>	<b>-</b>	<b>Total Funds :</b>	<b>60</b>
Description:							

## 6.2 Unified Human Services Transportation Systems, Inc. (RADAR) Project Details

STIP ID:		RAD0001		Title: New Freedom Operating Assistance		Recipient: RADAR - UHSTS, Inc. Roanoke County	
FTA 5310		85	87	89	93	FTA5310	354
State		66	70	71	74	State	283
Local		17	17	18	19	Local	71
Revenues		9	11	12	14	Revenues	46
<b>Year Total:</b>	<b>-</b>	<b>179</b>	<b>185</b>	<b>190</b>	<b>200</b>	<b>Total Funds :</b>	<b>754</b>
Description: STAR (Valley Metro paratransit), CORTRAN (Roanoke County) operating assistance and Local Office on Aging taxi vouchers.							
STIP ID:		RAD0002		Title: Paratransit Vehicles		Recipient: RADAR - UHSTS, Inc. Roanoke County	
FTA 5310		104	104	120	128	FTA5310	456
State						State	-
Local		26	26	30	32	Local	114
<b>Year Total:</b>	<b>-</b>	<b>130</b>	<b>130</b>	<b>150</b>	<b>160</b>	<b>Total Funds :</b>	<b>570</b>
Description: Replacement vehicles (2) per year.							

## 6.3 Transit Funding Summaries

Greater Roanoke Transit Company	Previous Funding	FY 2018	FY 2019	FY 2020	FY 2021	Total FY 2018-2021
FTA 5307	2,422	2,687	2,687	2,687	2,687	FTA 5307 10,748
FTA 5309	-	-	-	-	-	FTA 5309 -
FTA 5310	-	-	-	-	-	FTA 5310 -
FTA 5311	354	354	354	354	354	FTA 5311 1,416
FTA 5314	-	-	-	-	-	FTA 5314 -
FTA 5337	-	-	-	-	-	FTA 5337 -
FTA 5339	226	456	144	304	-	FTA 5339 904
FTA ADTAP	-	-	-	-	-	FTA ADTAP -
FTA DPF	-	-	-	-	-	FTA DPF -
FTA TIGER	-	-	-	-	-	FTA TIGER -
FBD	-	-	-	-	-	FBD -
Flexible STP	-	-	-	-	-	Flexible STP -
CMAQ	-	-	-	-	-	CMAQ -
RSTP	1,796	1,955	1,955	1,955	1,955	RSTP 7,820
FHWA TAP	-	-	-	-	-	FHWA TAP -
TIFIA	-	-	-	-	-	TIFIA -
Other Federal	-	-	-	-	-	Other Federal -
State	2,214	2,260	2,198	2,230	2,169	State 8,857
Local	1,577	1,756	1,740	1,748	1,733	Local 6,977
Revenues	2,314	2,314	2,314	2,314	2,314	Revenues 9,256
<b>Totals</b>	<b>10,903</b>	<b>11,782</b>	<b>11,392</b>	<b>11,592</b>	<b>11,212</b>	<b>45,978</b>

RADAR - UHSTS, Inc. Roanoke County	Previous Funding	FY 2018	FY 2019	FY 2020	FY 2021	Total FY 2018-2021
FTA 5307	-	-	-	-	-	FTA 5307 -
FTA 5309	-	-	-	-	-	FTA 5309 -
FTA 5310	-	189	191	209	221	FTA 5310 810
FTA 5311	-	-	-	-	-	FTA 5311 -
FTA 5314	-	-	-	-	-	FTA 5314 -
FTA 5337	-	-	-	-	-	FTA 5337 -
FTA 5339	-	-	-	-	-	FTA 5339 -
FTA ADTAP	-	-	-	-	-	FTA ADTAP -
FTA DPF	-	-	-	-	-	FTA DPF -
FTA TIGER	-	-	-	-	-	FTA TIGER -
FBD	-	-	-	-	-	FBD -
Flexible STP	-	-	-	-	-	Flexible STP -
CMAQ	-	-	-	-	-	CMAQ -
RSTP	-	-	-	-	-	RSTP -
FHWA TAP	-	-	-	-	-	FHWA TAP -
TIFIA	-	-	-	-	-	TIFIA -
Other Federal	-	-	-	-	-	Other Federal -
State	-	68	70	71	74	State 283
Local	-	43	43	48	51	Local 185
Revenues	-	9	11	12	14	Revenues 46
<b>Totals</b>	-	<b>309</b>	<b>315</b>	<b>340</b>	<b>360</b>	<b>1,324</b>

Roanoke Valley MPO	Previous Funding	FY 2018	FY 2019	FY 2020	FY 2021	Total FY 2018-2021
FTA 5307	2,422	2,687	2,687	2,687	2,687	FTA 5307 10,748
FTA 5309	-	-	-	-	-	FTA 5309 -
FTA 5310	-	189	191	209	221	FTA 5310 810
FTA 5311	354	354	354	354	354	FTA 5311 1,416
FTA 5314	-	-	-	-	-	FTA 5314 -
FTA 5337	-	-	-	-	-	FTA 5337 -
FTA 5339	226	456	144	304	-	FTA 5339 904
FTA ADTAP	-	-	-	-	-	FTA ADTAP -
FTA DPF	-	-	-	-	-	FTA DPF -
FTA TIGER	-	-	-	-	-	FTA TIGER -
FBD	-	-	-	-	-	FBD -
Flexible STP	-	-	-	-	-	Flexible STP -
CMAQ	-	-	-	-	-	CMAQ -
RSTP	1,796	1,955	1,955	1,955	1,955	RSTP 7,820
FHWA TAP	-	-	-	-	-	FHWA TAP -
TIFIA	-	-	-	-	-	TIFIA -
Other Federal	-	-	-	-	-	Other Federal -
State	2,214	2,326	2,266	2,301	2,243	State 9,140
Local	1,577	1,799	1,783	1,796	1,784	Local 7,162
Revenues	2,314	2,323	2,325	2,326	2,328	Revenues 9,302
<b>Totals</b>	<b>10,903</b>	<b>12,091</b>	<b>11,707</b>	<b>11,932</b>	<b>11,572</b>	<b>47,302</b>

## **7.0 Roadway Projects**

This section summarizes the TIP roadway projects. An overall map of the TIP projects is shown below. More detailed project information is provided in Appendices A and B.

Map of TIP projects to be inserted here.

The tables below list the TIP projects by locality. Note the following explanations for the project groupings:

*Grouped (BR/R/R) = (Bridge Rehabilitation/Replacement/Reconstruction)*

*Grouped (S/ITS/OI) = (Safety/Intelligent Transportation Systems/Operational Improvements)*

*Grouped (TE/B/Non-T) = (Transportation Enhancement/Byway/Non-Traditional)*

*Grouped (Maint. & Syst. Pres.) = (Preventive Maintenance and System Preservation)*

*Grouped (Maint. Bridges) = (Preventive Maintenance for Bridges)*

*Grouped (Maint. Traf. & Safety Op) = (Maintenance of Traffic and Safety Operations)*

## 7.1 Bedford County

Construction: BR/R/R

System	UPC	Project Name	Description	Street/Route	Estimate
Secondary	62650	Rte. 634 over Roanoke River Bridge Replacement	From 0.19 mi. West of Franklin Co. line to 0.12 mi. East of Bedford Co. line (0.300 mi.)	Route 634	\$11,970,041

Construction: SITS/OI

System	UPC	Project Name	Description	Street/Route	Estimate
Primary	107053	Rte. 24 – Bedford Co. Safety Improvements	From Rte. 886 to 0.26 mi. east of Rte. 635 (1.50 mi.)	VA Route 24	\$1,600,000
Primary	107063	U.S. 221 Bedford Co. – Bike & Ped Safety Improvements	From 0.09 mi. north of Rte. 1049 to 0.06 miles south of Rte. 621	U.S. 221	\$2,550,000
Primary	109582	U.S. 460 Safety Improvements	From 0.49 mi. east of Rte. 741 to 0.64 mi. east of Rte. 689 (4.0 mi.)	U.S. 460	\$4,510,000

## 7.2 Botetourt County

System	UPC	Project Name	Description	Street/Route	Estimate
Interstate	75910	U.S. 11, 220, 220A Access Management Project at I-81 Exit 150	From 0.30 mi. south of U.S. 220 to 0.74 mi. north of U.S. 220 (1.0410 mi.)	I-81	\$50,185,950

Construction: BR/R/R

System	UPC	Project Name	Description	Street/Route	Estimate
Primary	77300	Rte. 11 over Tinker Creek Bridge Replacement (Str. 03166)	From 0.04 mi. north of Rte. 1039 to 0.13 mi. north of Rte. 1039 (0.09 mi.)	U.S. 11	\$4,376,365
Primary	77302	Rte. 11 over Tinker Creek Bridge Replacement (Str. 3167)	From Rte. 838 to 0.09 mi. north of Rte. 838 (0.09 mi.)	U.S. 11	\$3,758,054
Secondary	52803	Rte. 779 Intersection Improvements & Bridge over Amsterdam Creek	From 0.169 mi. east Rte. 672 east to 0.236 mi. west Rte. 672 east (0.4213 mi.)	Rte. 779	\$7,857,623
Secondary	90086	Rte. 738 over Glade Creek (Str. 03516 and 03517) – Bridge Replacement	From Int. of U.S. 460 to 0.339 mi. east of Int. 460 (0.1600 mi.)	Rte. 738	\$4,949,536

**Construction: SITS/OI**

System	UPC	Project Name	Description	Street/Route	Estimate
Interstate	104048	FY13-14 VMS Installation: I-81	From NB to MM 147.5 to SB at MM 172.0	I-81	\$608,647
Interstate	106737	#SGR FY17 SGR I-81 NB Botetourt Co. Concrete Undersealing	From MM 149.5 S. End RR Overpass to S. End of Rte. 779 Overpass (2.1 mi.)	I-81	\$4,600,000
Primary	103210	U.S. 220 Corridor – Replace 2 Narrow Structures	From 0.239 mi. N. of Rte. 43 to 0.63 mi. S. of Rte. 694 (0.931 mi.)	U.S. 220	\$8,573,155

**Construction: TE/B/Non-T**

System	UPC	Project Name	Description	Street/Route	Estimate
Enhancement	107521	Daleville Greenway - TAP			\$595,438

**7.3 Montgomery County**
**Construction: SITS/OI**

System	UPC	Project Name	Description	Street/Route	Estimate
Interstate	92558	Rte. 603 – Ironto/Elliston Connector	From I-81 Exit 128 to Int. of U.S.11/460 (2.011 mi.)	Route 603	\$17,770,264

## 7.4 Roanoke County

System	UPC	Project Name	Description	Street/Route	Estimate
Primary	17698	Rte. 11/460 – Widen to 4-lane w/ curb, gutter and raised median	From 0.055 mi. east of WCL Salem to 0.10 mi. west Rte. 830 (2.1880 mi.)	West Main St./U.S. 11	\$47,139,261
Primary	98220	Rte. 115, Plantation Road Corridor Improvements	From Williamson Rd (Rte. 11) to Gander Way/Friendship Ln (0.720 mi.)	Plantation Road/115	\$1,566,835
Primary	108905	#HB2.FY17 Lila Dr / Rte 115 Intersection Safety Improvements	FROM: Lila Drive TO: Route 115 (Plantation Road) (0.1000 MI)	Plantation Road/115	\$1,269,396
Primary	95812	ARRA - Roanoke 221 Reconstruct to 4 Lanes (CN Phase only)	FROM: 0.035 Km. S. Rte. 688 TO: 1.478 Km. N. Rte. 688 (1.5120 KM)	U.S. 221	\$25,332,937
Primary	96139	ARRA-C Roanoke 221 Reconstruct to 4 Lanes (CN Phase Only)	FROM: 0.035 km. S. Rte. 688 TO: 1.478 km N. Rte. 688 (1.5120 KM)	U.S. 221	\$105,024
Primary	108904	#HB2.FY17 Route 311 / Route 419 Int. Safety & Congestion Imp	FROM: Intersection of Rte 311 & Rte 419 TO: Intersection of Rte 311 & Rte 419 (0.1000 MI)	Catawba Valley Dr./Rte. 311	\$1,957,006

**Construction: BR/R/R**

System	UPC	Project Name	Description	Street/Route	Estimate
Primary	77305	Rte. 116 over Back Creek (Str. 14928) – Bridge Replacement	From 0.285 mi. S. Rte. 945 to 0.584 mi. S. Rte. 945	Rte. 116	\$6,437,612
Primary	82193	U.S. 220 over Back Creek (Str. 14935) – Bridge Replacement	From 0.199 mi. S. of Rte. 657 to 0.33 mi. N. of Rte. 657 (0.531 mi.)	U.S. 220	\$17,825,199
Primary	94726	U.S. 221 over Martins Creek (Str. 14945) – Bridge Replacement	From 0.01 mi. S. of Int. of Rte. 696 to 0.01 mi. N. Int. Rte. 696	U.S. 221	\$3,648,210

**Construction: SITS/OI**

System	UPC	Project Name	Description	Street/Route	Estimate
Interstate	99542	I-81 Exit 140 Park and Ride Facility Expansion	From Int. Rte. 1128 and Rte. 1150 to 0.17 mi. W. of Int. Rte. 1128 and 1150 (0.17 mi.)	I-81	\$3,665,725
Interstate	108418	I-81 Install Signs with Flashers	From MM 137.72 to MM 138.18 (0.46 mi.)	I-81	\$28,280
Interstate	108906	#HB2.FY17 I-81 NB Auxiliary Lane from Exit 141 to 143	From Exit 141 NB to MM 143 NB (2.0 mi.)	I-81	\$29,830,716
Primary	107054	Rte. 311 -Roanoke County Pedestrian Safety Improvements	From NCL Salem to 0.02 mi. N. of I-81 SB ramp (0.09 mi.)	Rte. 311	\$491,227

Primary	107061	#HB2 FY17 Rte. 419 Safety Improvements at Tanglewood	From Rte. 419 to Rte. 867 (0.60 mi.)	Rte. 419	\$5,853,432
Primary	107055	U.S. 11 and Rte. 117 – Roanoke County Bike & Ped Safety Improvements	From Rte. 117 to U.S. 11		\$1,000,000
Secondary	15190	Rte. 688 - Reconstruction	From 0.056 mi. S. U.S. 221 to 0.105 mi. S. Rte. 934 (0.6566 mi.)	Rte. 688 / Cotton Hill Road	\$6,532,659
Secondary	15187	Rte. 1662 – Reconstruction and Replace Bridge over Mud Lick Creek	From Int. of Rte. 1663 to Int. of Rte. 419 (0.468 mi)	Rte. 1662 / McVitty Rd.	\$14,590,943
Secondary	15188	Rte. 1663 – Reconstruct Drainage Structure Mud Lick Creek	From S. Int. U.S. 221 to Int. of Rte. 1662 (0.283 mi.)	Rte. 1663 / Old Cave Spring Lane	\$4,714,799

**Construction: TE/B/Non-T**

System	UPC	Project Name	Description	Street/Route	Estimate
Enhancement	91191	Roanoke River Greenway – City of Roanoke to Blue Ridge Parkway			\$6,857,566
Enhancement	97171	#HB2.FY17 Roanoke County, RRG, Green Hill Park to Riverside Park	From Green Hill Park to Riverside Park (1.7330 mi.)		\$8,032,031

Enhancement	103607	Roanoke County – Plantation Road Streetscape Improvements	From Williamson Rd. (U.S. 11) to Gander Way/Friendship Lane (0.72 mi.)	Rte. 115 / Plantation Road	\$5,297,128
Enhancement	103495	Low Water Bridge for HRB Trail near Int. of Routes 419 & 311			\$368,630

### 7.5 City of Roanoke

System	UPC	Project Name	Description	Street/Route	Estimate
Interstate	16595	Rte. 581 – Valley View Interchange Phase II	From 0.30 mi. south Rte. 101 (Hershberger Rd.) to 1.560 mi. south Rte 101	I-581	\$60,409,490

#### Construction: SITS/OI

System	UPC	Project Name	Description	Street/Route	Estimate
Interstate	94089	ARRA I-581 at Elm Ave. (Design-Build)	From exit ramps accessing Elm Avenue to 0.016 mi. W. Williamson Rd. - 0.045 mi E. 4 <sup>th</sup> Street SE on Elm Avenue (0.224 mi.)	I-581	\$22,907,827
Interstate	97231	ARRA-C I-581 at Elm Avenue (Design-Build)	From exit ramps accessing Elm Avenue to 0.016 mi. W. Williamson Rd. - 0.045 mi. E. 4 <sup>th</sup> Street SE on Elm Avenue (0.224 mi.)	I-581	\$911,783



Primary	109558	Flashing Yellow Arrow Upgrade – Williamson Rd. & Airport Rd.	From Williamson Rd. to Airport Rd.	U.S. 11 / Williamson Rd.	\$16,000
Primary	109562	Flashing Yellow Arrow Upgrade – Valley View	From Valley View Blvd. NW to Valley View Ave. NW	Valley View Blvd. NW	\$16,000
Primary	109567	Flashing Yellow Arrow Upgrade – Jefferson St. & Elm Ave.	From Elm Ave. to Jefferson St.	Elm Avenue	\$24,000
Primary	108908	#HB2.FY17 – U.S. 220 Adaptive Communications and System Project	From Valley Avenue/Southern Hills Dr. SW to Clearbrook Village Ln. (2.0 mi.)	U.S. 220 / Franklin Rd.	\$422,500
Primary	109566	Orange Ave./Blue Hills Signal Upgrade – City of Roanoke	From Orange Ave. to Blue Hills	U.S. 460 / Orange Ave.	\$16,000
Primary	109570	Orange Ave./Hollins Rd. Signal Upgrade – City of Roanoke	From U.S. 460 to Rte. 115	Orange Ave. NE	\$265,000
Secondary	109569	Flashing Yellow Arrow Upgrade – Brandon Ave. & Colonial Ave.	From Brandon Ave. to Colonial Ave.	Brandon Ave. (8029)	\$16,000

Construction: TE/B/Non-T

System	UPC	Project Name	Description	Street/Route	Estimate
Enhancement	105439	Roanoke River Greenway (Bridge St. to Aerial Way Dr.) - RSTP	From Bridge St. to Aerial Way Dr. (1.8 mi.)	Roanoke River Greenway	\$7,605,000
Enhancement	103345	RR Greenway – Bike/Ped between Vic Thomas & Ghent Hill Parks	From Vic Thomas Park to Ghent Hill Park (0.25 mi.)	Memorial Ave.	\$248,316
Enhancement	103592	Virginia Railway Station Restoration Phase 2	Virginia Railway Station		\$1,014,930
Enhancement	106265	Garden City Blvd. Bike/Ped - TAP	From Davenport Ave./Ivywood St. to Riverland Rd.	Garden City Blvd.	\$1,000,000
Enhancement	106266	ADA Bus Facilities - TAP	From Barnett Rd. (WCL) to Salem Turnpike (2.80 mi.)	Melrose Ave.	\$205,980
Miscellaneous	102856	City of Roanoke – SRTS Garden City ES-Sidewalks, etc.	From Yellow Mtn. Rd. to Ivywood St. (0.74 mi.)	Garden City Blvd.	\$507,793
Miscellaneous	105015	Downtown Roanoke Multimodal Transportation Study		Roanoke City	\$300,000

Primary	78217	Rehabilitation of Virginia Railway Station		Williamson Rd.	\$489,999
Public Transportation	T14242	Bus Replacement for SmartWay Commuter Service	From Roanoke to Blacksburg	Roanoke City	\$560,000
Urban	109288	#HB2.FY17 Transit Accessibility Improvements on Edgewood St.	From Windsor Ave. to Memorial Ave.	Edgewood St.	\$350,811
Urban	72180	City of Roanoke RR Greenway within the City of Roanoke Limits			\$2,550,285

## 7.6 City of Salem

Construction: SITS/OI

System	UPC	Project Name	Description	Street/Route	Estimate
Urban	8753	#HB2.FY17 U.S. 460-Widen to 3 Lanes with Bike Lane, Curb, Sidewalk	From 0.028 mi. W. of Rte. 311 (Thomas Memorial Blvd.) to 0.006 mi. W. of Brand Ave. (0.5473 mi.)	East Main Street / U.S. 460	\$15,223,263
Urban	100656	Construct Sidewalk on West Side of 419 and Connect to RRG	From existing RRG in Rotary Park to city limits (0.67 mi.)	Route 419	\$594,720

Construction: TE/B/Non-T

System	UPC	Project Name	Description	Street/Route	Estimate
Enhancement	105206	Apperson Dr./Route 11 Bridge – Sidewalk Expansion (PH4 RRG)	From E. Riverside Dr. to Electric Rd./Rte. 419 (0.06 mi.)	Apperson Dr.	\$1,230,845
Enhancement	101838	Bridge on Phase 3A-City of Salem RR Greenway	From approx. 1200 feet E. Mill Ln. to Eddy St.	Roanoke River Greenway	\$744,028
Enhancement	106268	Hanging Rock Battlefield Trail - TAP	From existing Hanging Rock Battlefield Trail to E. Main St.	Hanging Rock Battlefield Trail	\$1,333,117
Enhancement	109612	Downtown Streetscape and Intersection Improvements			\$613,000
Urban	108899	#HB2.FY17 Multimodal Improvements Along Boulevard	From McDivitt Rd. to Salem city limit (0.75 mi.)	Boulevard	\$884,880
Urban	56409	City of Salem – Construction of 7-Mile Bicycle/Pedestrian	From western limits of Green Hill Park, Roanoke County to ECL City of Salem (7.0 mi.)		\$2,004,098

## 7.7 Town of Vinton

Construction: BR/R/R

System	UPC	Project Name	Description	Street/Route	Estimate
Urban	76677	Replace Bridge and Approaches over Glade Creek	From 0.098 west of 5 <sup>th</sup> St. to 0.052 mi. east of 5 <sup>th</sup> St. (0.15 mi.)	Walnut Ave.	\$3,309,865

Construction: SITS/OI

System	UPC	Project Name	Description	Street/Route	Estimate
Urban	105213	Rte. U000-Walnut Ave. Phase I-Southwest Stripe, Crosswalks and Landscape	From 5 <sup>th</sup> St. to W. Lee Ave.	Walnut Ave.	\$88,000

Construction: TE/B/Non-T

System	UPC	Project Name	Description	Street/Route	Estimate
Enhancement	109611	Glade Creek Greenway Phase 2			\$531,210

## 7.8 Salem District-wide

Construction: SITS/OI

System	UPC	Project Name	Description	Street/Route	Estimate
Interstate	103828	I-81 Pavement Rehabilitation	Various		\$9,322,269
Interstate	104046	I-77 & I-81 FY14-15 Replace Signs	From I-77 to I-81		\$873,291
Interstate	106428	I-81 and I-77 Marking Retrace Phase 1-Salem District	Various		\$121,647
Interstate	107099	District-Wide Buckle Up Signing Safety Improvement-Salem	Various		\$292,727
Interstate	108991	Systematic Roadway Departure Treatments	Various		\$1,810,000
Miscellaneous	106552	Committed Safety Projects - Salem	Various		\$745,961
Miscellaneous	108517	ADA Compliance in Salem District	Various		\$100,000
Primary	108069	Safety Improvements – Yearly HSIP Open Container Funds	Various		\$2,000,000
Primary	108538	Adaptive Capable Signal Controllers - SWRO	Various		\$897,700
Secondary	105736	Roadway Departure Safety Countermeasures	Various		\$166,101



## 7.9 Statewide

Construction: SITS/OI

System	UPC	Project Name	Description	Street/Route	Estimate
Interstate	107802	Incident Management Emergency Evacuation & Detour Plans	Various		\$500,000
Miscellaneous	93174	Safety Analyst Project	Various		\$1,104,740
Miscellaneous	105481	Improvement iPEMS (Iteris Performance Measurement System)	Various		\$1,400,000

## **APPENDIX A - Grouped Projects**

## Roanoke MPO Project Groupings

GROUPING		Construction : Bridge Rehabilitation/Replacement/Reconstruction						
ROUTE/STREET							TOTAL COST	\$64,132,505
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21		
RW	Federal - BR	\$75,556	\$302,225	\$0	\$0	\$0	\$0	
CN	Federal - AC CONVERSION	\$621,833	\$582,888	\$1,904,443	\$0	\$0	\$0	
	Federal - BR	\$121,835	\$0	\$0	\$0	\$487,340		
CN TOTAL		\$743,668	\$582,888	\$1,904,443	\$0	\$0	\$487,340	
CN AC	Federal - AC	\$0	\$0	\$0	\$0	\$0	\$1,927,317	

GROUPING		Construction : Rail						
ROUTE/STREET							TOTAL COST	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21		
		\$0	\$0	\$0	\$0	\$0	\$0	

GROUPING		Construction : Safety/ITS/Operational Improvements						
ROUTE/STREET							TOTAL COST	\$166,755,376
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21		
PE	Federal - AC CONVERSION	\$180,000	\$0	\$250,000	\$370,000	\$1,000,000		
	Federal - HSIP	\$21,111	\$190,000	\$0	\$0	\$0		
	Federal - NHS/NHPP	(\$1,799)	(\$7,195)	\$0	\$0	\$0		
PE TOTAL		\$199,312	\$182,805	\$250,000	\$370,000	\$1,000,000		
PE AC	Federal - AC	\$291,111	\$2,620,000	\$0	\$0	\$0		
RW	Federal - HSIP	\$16,667	\$0	\$150,000	\$0	\$0		
	Federal - NHS/NHPP	\$89,178	\$0	\$356,710	\$0	\$0		
RW TOTAL		\$105,844	\$0	\$506,710	\$0	\$0		
CN	Federal - AC CONVERSION	\$1,030,985	\$0	\$2,106,492	\$0	\$2,378,558		
	Federal - HSIP	\$646,889	\$572,000	\$0	\$850,000	\$4,400,000		
	Federal - NHFP	\$64,383	\$257,530	\$0	\$0	\$0		
	Federal - NHS/NHPP	\$911,492	\$2,495,967	\$0	\$1,150,000	\$0		
CN TOTAL		\$2,653,748	\$3,325,497	\$2,106,492	\$2,000,000	\$6,778,558		
CN AC	Federal - AC	\$336,506	\$12,960,224	\$0	\$2,378,558	\$0		

GROUPING		Construction : Transportation Enhancement/Byway/Non-Traditional						
ROUTE/STREET							TOTAL COST	\$43,325,085
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21		
RW	Federal - TAP/F	\$3,000	\$12,000	\$0	\$0	\$0		
CN	Federal - RSTP	\$632,594	\$2,530,374	\$0	\$0	\$0		
	Federal - TAP/F	\$248,117	\$661,158	\$331,310	\$0	\$0		
	Federal - TAP/RTAP	\$129,877	\$519,506	\$0	\$0	\$0		
CN TOTAL		\$1,010,587	\$3,711,038	\$331,310	\$0	\$0		
CN AC	Federal - AC	\$176,311	\$7,302,235	\$94,900	\$0	\$0		

GROUPING		Maintenance : Preventive Maintenance and System Preservation				
PROGRAM NOTE		Funding identified to be obligated districtwide as projects are identified.				
ROUTE/STREET					TOTAL COST	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
CN	Federal - STP/STBG	\$0	\$7,830,599	\$6,885,779	\$8,721,206	\$8,756,272

GROUPING		Maintenance : Preventive Maintenance for Bridges				
PROGRAM NOTE		Funding identified to be obligated districtwide as projects are identified.				
ROUTE/STREET					TOTAL COST	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
CN	Federal - BR	\$0	\$1,753,772	\$1,542,166	\$1,953,236	\$1,961,089
	Federal - STP/STBG	\$0	\$5,452,802	\$4,794,881	\$6,072,972	\$6,097,390
CN TOTAL		\$0	\$7,206,574	\$6,337,047	\$8,026,208	\$8,058,479

GROUPING		Maintenance : Traffic and Safety Operations				
PROGRAM NOTE		Funding identified to be obligated districtwide as projects are identified.				
ROUTE/STREET					TOTAL COST	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
CN	Federal - STP/STBG	\$0	\$2,959,010	\$2,601,983	\$3,295,551	\$3,308,801

## **APPENDIX B - Ungrouped Projects**

## Roanoke MPO Interstate Projects

UPC NO	75910	SCOPE	Relocation			
SYSTEM	Interstate	JURISDICTION	Botetourt County		OVERSIGHT	NFO
PROJECT	Route 11,220,220A Access Management Project at I-81 Exit 150				ADMIN BY	VDOT
DESCRIPTION	FROM: 0.30 MILE SOUTH OF ROUTE 220 TO: 0.74 MILE NORTH OF ROUTE 220 (1.0410 MI)					
ROUTE/STREET	0081				TOTAL COST	\$50,185,950
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
PE	Federal - NHS/NHPP	(\$46,858)	(\$187,430)	\$0	\$0	\$0
RW	Federal - NHS/NHPP	(\$27,176)	(\$244,583)	\$0	\$0	\$0
CN	Federal - NHS/NHPP	\$508,537	\$3,092,393	\$0	\$0	\$0
CN AC	Federal - AC	\$584,636	\$2,338,542	\$0	\$0	\$0

UPC NO	16595	SCOPE	Reconstruction w/ Added Capacity			
SYSTEM	Interstate	JURISDICTION	Roanoke		OVERSIGHT	FO
PROJECT	RTE 581 - VALLEY VIEW INTERCHANGE PHASE II				ADMIN BY	VDOT
DESCRIPTION	FROM: 0.300 MI. S. ROUTE 101 (HERSHBERGER ROAD) TO: 1.560 MI. S. ROUTE 101 (HERSHBERGER ROAD) (1.2600 MI)					
ROUTE/STREET	0581				TOTAL COST	\$60,409,490
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
PE	Federal - NHS/NHPP	\$0	\$424,013	\$0	\$0	\$0
	Federal - STP/STBG	\$0	\$96,743	\$0	\$0	\$0
PE TOTAL		\$0	\$520,756	\$0	\$0	\$0
RW	Federal - NHS/NHPP	(\$497,323)	(\$4,475,903)	\$0	\$0	\$0
CN	Federal - NHS/NHPP	\$497,323	\$11,493,726	\$0	\$0	\$0
CN AC	Federal - AC	\$2,637,083	\$10,548,333	\$0	\$0	\$0

## Roanoke MPO Primary Projects

UPC NO	17698	SCOPE	Reconstruction w/o Added Capacity			
SYSTEM	Primary	JURISDICTION	Roanoke County	OVERSIGHT	NFO	
PROJECT	RTE 11/460 - Widen to 4-LN w/curb, gutter, and raised median			ADMIN BY	VDOT	
DESCRIPTION	FROM: .055 MI. E. OF WCL SALEM TO: 0.10 MILE WEST ROUTE 830 (2.1880 MI)					
ROUTE/STREET	W.MAIN ST. (0011)			TOTAL COST	\$47,139,261	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
PE AC	Federal - AC	\$309,967	\$1,239,868	\$0	\$0	\$0
RW AC	Federal - AC	\$255,118	\$1,020,472	\$0	\$0	\$0
CN AC	Federal - AC	\$1,290,621	\$5,162,484	\$0	\$0	\$0

UPC NO	98220	SCOPE	Preliminary Engineering			
SYSTEM	Primary	JURISDICTION	Roanoke County	OVERSIGHT	NFO	
PROJECT	RTE. 115, Plantation Rd Corridor Improvements			ADMIN BY	Locally	
DESCRIPTION	FROM: Williamson Road (Route 11) TO: Gander Way / Friendship Ln (0.7200 MI)					
ROUTE/STREET	PLANTATION ROAD (0115)			TOTAL COST	\$1,566,835	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
PE	Other	\$327,500	\$327,500	\$0	\$0	\$0
CN	Other	\$64,085	\$64,085	\$0	\$0	\$0
CN AC	Federal - AC	\$0	\$783,665	\$0	\$0	\$0

UPC NO	108905	SCOPE	Reconstruction w/o Added Capacity			
SYSTEM	Primary	JURISDICTION	Roanoke County	OVERSIGHT	NFO	
PROJECT	#HB2.FY17 Lila Dr / Rte 115 Intersection Safety Improvements			ADMIN BY	VDOT	
DESCRIPTION	FROM: Lila Drive TO: Route 115 (Plantation Road) (0.1000 MI)					
ROUTE/STREET	PLANTATION ROAD (0115)			TOTAL COST	\$1,269,396	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
RW	Federal - NHS/NHPP	\$0	\$0	\$85,000	\$0	\$0
CN	Federal - NHS/NHPP	\$0	\$0	\$0	\$993,415	\$0

UPC NO	95812	SCOPE	New Construction Roadway			
SYSTEM	Primary	JURISDICTION	Roanoke County	OVERSIGHT	NFO	
PROJECT	ARRA - Roanoke 221 Reconstruct to 4 Lanes (CN Phase only)			ADMIN BY	VDOT	
DESCRIPTION	FROM: 0.035 Km. S. Rte. 688 TO: 1.478 Km. N. Rte. 688 (1.5120 KM)					
PROGRAM NOTE	All funding based on current allocations/estimate.					
ROUTE/STREET	0221			TOTAL COST	\$25,332,937	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
		\$0	\$0	\$0	\$0	\$0

UPC NO	96139	SCOPE	New Construction Roadway			
SYSTEM	Primary	JURISDICTION	Roanoke County	OVERSIGHT	NFO	
PROJECT	ARRA-C Roanoke 221 Reconstruct to 4 Lanes (CN Phase Only)			ADMIN BY	VDOT	
DESCRIPTION	FROM: 0.035 km. S. Rte. 688 TO: 1.478 km N. Rte. 688 (1.5120 KM)					
ROUTE/STREET	0221			TOTAL COST	\$105,024	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
CN	Federal - STP/STBG	\$0	(\$549,449)	\$0	\$0	\$0
	Federal - STP/SU	(\$106,359)	(\$425,434)	\$0	\$0	\$0
CN TOTAL		(\$106,359)	(\$974,883)	\$0	\$0	\$0

UPC NO	108904	SCOPE	Reconstruction w/o Added Capacity			
SYSTEM	Primary	JURISDICTION	Roanoke County	OVERSIGHT	NFO	
PROJECT	#HB2.FY17 Route 311 / Route 419 Int. Safety & Congestion Imp			ADMIN BY	VDOT	
DESCRIPTION	FROM: Intersection of Rte 311 & Rte 419 TO: Intersection of Rte 311 & Rte 419 (0.1000 MI)					
ROUTE/STREET	CATAWBA VALLEY DRIVE (0311)			TOTAL COST	\$1,957,006	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
PE	Other	\$0	\$316,386	\$0	\$0	\$0
RW	Other	\$0	\$0	\$0	\$369,117	\$0
CN	Other	\$0	\$0	\$0	\$0	\$1,271,503

## Roanoke MPO

### Urban Projects

UPC NO	688	SCOPE	Reconstruction w/ Added Capacity			
SYSTEM	Urban	JURISDICTION	Roanoke	OVERSIGHT	NFO	
PROJECT	13TH STREET AND HOLLINS ROAD			ADMIN BY	VDOT	
DESCRIPTION	FROM: JAMISON AVE TO: .08 MILE NORTH INT. ORANGE AVENUE (0.9790 MI)					
ROUTE/STREET	13TH ST/ HOLLINS RD (U000)			TOTAL COST	\$63,266,488	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
PE	Federal - STP/STBG	\$156,966	\$627,862	\$0	\$0	\$0
RW	Federal - STP/STBG	\$80,753	\$323,013	\$0	\$0	\$0

UPC NO	108896	SCOPE	Facilities for Pedestrians and Bicycles			
SYSTEM	Urban	JURISDICTION	Roanoke	OVERSIGHT	NFO	
PROJECT	#HB2.FY17 Colonial Avenue Improvements			ADMIN BY	Locally	
DESCRIPTION	FROM: Winding Way Road SW TO: Overland Road SW (0.5000 MI)					
ROUTE/STREET	COLONIAL AVENUE (8001)			TOTAL COST	\$7,000,000	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
CN	Federal - HSIP	\$0	\$201,166	\$0	\$0	\$0
	Federal - NHS/NHPP	\$0	\$383,116	\$0	\$0	\$0
	Other	\$461,405	\$461,405	\$0	\$0	\$0
CN TOTAL		\$461,405	\$1,045,687	\$0	\$0	\$0
CN AC	Federal - AC	\$0	\$4,892,908	\$0	\$0	\$0

UPC NO	52076	SCOPE	Reconstruction w/o Added Capacity			
SYSTEM	Urban	JURISDICTION	Salem	OVERSIGHT	NFO	
PROJECT	RTE 11 - APPERSON DR - INTERSECTION IMPROVEMENTS - PE ONLY			ADMIN BY	VDOT	
DESCRIPTION	AT ROUTE 419 (ELECTRIC ROAD) (0.3000 MI)					
ROUTE/STREET	APPERSON DRIVE (0011)			TOTAL COST	\$36,569,924	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
PE	Federal - BR	\$392,558	\$1,570,232	\$0	\$0	\$0
PE AC	Federal - AC	\$231,631	\$926,525	\$0	\$0	\$0

## Appendix A

### Projects by Grouping

#### Roanoke MPO

#### Construction : Bridge Rehabilitation/Replacement/Reconstruction

	System	UPC Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T19000	Salem District-wide BRIDGE REHABILITATION/REPLACEMENT	0000	\$0
Primary	77300	Botetourt County RTE. 11 OVER TINKER CREEK (STR 03166) - BRIDGE REPLACEMENT FROM: 0.04 Mile North of Route 1039 TO: 0.13 Mile North of Route 1039 (0.0900 MI)	0011	\$4,376,365
Primary	77302	Botetourt County RTE. 11 OVER TINKER CREEK (STR. 3167) - BRIDGE REPLACEMENT FROM: Route 838 TO: 0.09 Mile North of Route 838 (0.0900 MI)	0011	\$3,758,054
Primary	77305	Roanoke County RTE. 116 OVER BACK CREEK (STR. 14928) - BRIDGE REPLACEMENT FROM: 0.285 MILE SOUTH ROUTE 945 TO: 0.584 MILE SOUTH ROUTE 945	0116	\$6,437,612
Primary	82193	Roanoke County RTE. 220 OVER BACK CREEK (STR. 14935) - BRIDGE REPLACEMENT FROM: 0.199 MI SOUTH OF ROUTE 657 TO: 0.331 MI NORTH OF ROUTE 657 (0.5310 MI)	0220	\$17,825,199
Primary	94726	Roanoke County RTE. 221 OVER MARTINS CREEK (STR. 14945) - BRIDGE REPLACEMENT FROM: 0.01 mi S. Int Rte 696 TO: 0.01 mi N. Int. Rte 696	0221	\$3,648,210
Secondary	62650	Bedford County #SGR RTE. 634 OVER ROANOKE RIVER (STR. 02718) - BRIDGE REPLACEMENT FROM: 0.19 Mi. West of Franklin County Line TO: 0.12 Mi. East of Bedford County Line (0.3100 MI)	HARDY FORD BRIDGE (0634)	\$11,970,041
Secondary	52803	Botetourt County RTE 779 - INT IMPROVEMENTS & BRIDGE OVER AMSTERDAM CREEK FROM: 0.169 MILE EAST ROUTE 672 EAST TO: 0.236 MILE WEST ROUTE 672 EAST (0.4213 MI)	CATAWBA RD (0779)	\$7,857,623
Secondary	90086	Botetourt County RTE. 738 OVER GLADE CREEK (STR. 03516 AND 03517) - BRIDGE REPLACEMENT FROM: Intersection Rte. 460 TO: 0.339 Mile East of Intersection 460 (0.3390 MI)	WEBSTER ROAD (0738)	\$4,949,536
Urban	76677	Vinton replace bridge and approaches over Glade Creek FROM: 0.098 Miles West of 5th St. TO: 0.052 Miles East of 5th St. (0.1500 MI)	WALNUT AVENUE (U000)	\$3,309,865
<b>Construction : Bridge Rehabilitation/Replacement/Reconstruction Total</b>				<b>\$64,132,505</b>

#### Construction : Rail

	System	UPC Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T18998	Salem District-wide CN: RAIL	0000	\$0
<b>Construction : Rail Total</b>				<b>\$0</b>

## Roanoke MPO

### Construction : Safety/ITS/Operational Improvements

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Interstate	104048	Botetourt County	0081 FY13-14 VMS INSTALLATION: INTERSTATE 81 FROM: NB at MM 147.5 TO: SB at MM 172.0		\$608,647
Interstate	99542	Roanoke County	EDGEBROOK ROAD (0081) RTE. 81 - EXIT 140 Park 'N Ride Facility Expansion FROM: Int Rte 1128 and Rte 1150 TO: 0.17 Mi. West of Int Rte 1128 and 1150 (0.1700 MI)		\$3,665,725
Interstate	108418	Roanoke County	I-81 (0081) I-81 - INSTALL SIGNS WITH FLASHERS FROM: Mile Marker 137.72 TO: Mile Marker 138.18 (0.4600 MI)		\$28,280
Interstate	108906	Roanoke County	I-81 (0081) #HB2.FY17 I-81 NB Auxillary Lane from Exit 141 to 143 FROM: Exit 141 NB TO: MM 143 NB (2.0000 MI)		\$29,830,716
Interstate	103828	Salem District-wide	INTERSTATE 81 (0081) I81 Pavement Rehabilitation FROM: VARIOUS TO: VARIOUS (6.6600 MI)		\$9,322,269
Interstate	104046	Salem District-wide	INTERSTATE 77 (0081) RTES. I77 & I81 - FY14-15 REPLACE SIGNS FROM: Interstate 77 TO: Interstate 81 Waiting Financial Closure		\$873,291
Interstate	94089	Roanoke	0581 ARRA RTE. 581 - at Elm Ave. (Design-Build) FROM: Exit Ramps accessing Elm Ave. TO: 0.016 Mi.W.WilliamsonRd.-0.045 Mi. E. 4TH ST., SE ON ELM AVE (0.2240 MI)		\$22,907,827
Interstate	97231	Roanoke	0581 ARRA - C RTE. 581 - AT ELM AVE (DESIGN BUILD) FROM: Exit Ramps accessing Elm Ave. TO: 0.016 Mi W WilliamsonRd.-0.045 MI. E 4th St., SE on Elm Ave. (0.2240 MI)		\$911,783
Interstate	92558	Montgomery County	NORTH FORK ROAD (0603) RTE. 603 - IRONTO/ELLISTON CONNECTOR FROM: I-81 Exit 128 TO: Intersection Rte. 11/460 (2.0110 MI)		\$17,770,264
Interstate	106428	Salem District-wide	9999 INTERSTATE 81 & 77 MARKING RETRACE PHASE 1 - SALEM DISTRICT FROM: VARIOUS TO: VARIOUS All funding obligated based on current allocations/estimate		\$121,647
Interstate	107099	Salem District-wide	9999 Districtwide Buckle-Up Signing Safety Improvement - Salem FROM: VARIOUS TO: VARIOUS All funding obligated based on current allocations/estimat		\$292,727
Interstate	108991	Salem District-wide	9999 Systemic Roadway Departure Treatments FROM: VARIOUS TO: VARIOUS		\$1,810,000
Interstate	107802	Statewide	9999 Incident Management Emergency Evacuation and Detour Plans FROM: Various TO: Various		\$500,000
Interstate	106737	Botetourt County	VARIOUS (PM2R) #SGR FY17 SGR I-81 NB Bote. Co. Concrete Undersealing FROM: MM 149.5 / S. END RAILROAD OVERPASS TO: SOUTH END OF RTE. 779 OVERPASS (2.1000 MI)		\$4,600,000

**Roanoke MPO****Construction : Safety/ITS/Operational Improvements**

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T18999	Salem District-wide	0000		\$0
		CN: SAFETY/ITS/OPERATIONAL/IMPROVEMENTS			
Miscellaneous	106552	Salem District-wide	0000		\$745,961
		Committed Safety Projects-Salem			
		FROM: various TO: various			
Miscellaneous	93174	Statewide	0000		\$1,104,740
		SafetyAnalyst Project			
		FROM: various TO: various			
Miscellaneous	105481	Statewide	0000		\$1,400,000
		Impement iPeMS (Iteris Performance Measrement System)			
		FROM: various TO: various			
Miscellaneous	108517	Salem District-wide	VARIOUS (ADA0)		\$100,000
		ADA COMPLIANCE IN SALEM DISTRICT			
		FROM: VARIOUS TO: VARIOUS			
Primary	109558	Roanoke	WILLIAMSON ROAD (0011)		\$16,000
		Flashing Yellow Arrow Upgrade - Williamson Rd & Airport Rd			
		FROM: Williamson Road TO: Airport Road			
Primary	109562	Roanoke	VALLEY VIEW BLVD. NW (0019)		\$16,000
		Flashing Yellow Arrow Upgrade - Valley View			
		FROM: Valley View Blvd. NW TO: Valley View Ave. NW			
Primary	107053	Bedford County	STEWARTSVILLE ROAD (0024)		\$1,600,000
		Rt. 24 Bedford County - Safety Improvements			
		FROM: Route 886 TO: 0.26 miles East of Route 635 (1.5000 MI)			
Primary	109567	Roanoke	ELM AVENUE (0024)		\$24,000
		Flashing Yellow Arrow Upgrade - Jefferson St. & Elm Ave.			
		FROM: Elm Avenue TO: Jefferson Street			
Primary	103210	Botetourt County	BOTETOVRT ROAD (0220)		\$8,573,155
		RTE. 220 Corridor - Replace 2 Narrow Structures			
		FROM: 0.239 Mi. North of Rte. 43 TO: 0.630 Mi. South of Rte. 694 (0.9310 MI)			
Primary	108908	Roanoke	US 220 - FRANKLIN ROAD (0220)		\$422,500
		#HB2.FY17 US220 Communications and Adaptive System Project			
		FROM: Valley Ave / Southern Hills Drive SW TO: Clearbrook Village Lane (2.0000 MI)			
Primary	107063	Bedford County	0221		\$2,550,000
		Rt. 221 Bedford Co. - Bike & Ped Safety Improvements			
		FROM: 0.09 miles North of Route 1049 TO: 0.06 miles South of Route 621			
Primary	107054	Roanoke County	THOMPSON MEMORIAL DRIVE (0311)		\$491,227
		Route 311 - Roanoke County - Pedestrian Safety Improvements			
		FROM: NCL Salem TO: 0.02 Mile North of I-81 SB Ramp (0.0900 MI)			
Primary	107061	Roanoke County	ELECTRIC ROAD (0419)		\$5,853,432
		#HB2.FY17 Rte 419 Safety Improvements at Tanglewood			
		FROM: Route 419 TO: Route 867 (0.6000 MI)			
Primary	109582	Bedford County	0460		\$4,510,000
		Route 460 Safety Improvements			
		FROM: 0.49 miles East of Route 741 TO: 0.64 miles East of Route 689 (4.0000 MI)			

**Roanoke MPO****Construction : Safety/ITS/Operational Improvements**

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Primary	109566	Roanoke	ORANGE AVENUE (0460) Orange Avenue/ Blue Hills Signal Upgrade - City of Roanoke FROM: Orange Avenue TO: Blue Hills		\$16,000
Primary	109570	Roanoke	ORANGE AVENUE NE (0460) Orange Avenue/ Hollins Road Signal Upgrade - City of Roanoke FROM: Route 460 TO: Route 115		\$265,000
Primary	107055	Roanoke County	9999 Route 11 & 117 Roanoke Co. - Bike & Ped Safety Improvements FROM: Route 117 TO: Route 11		\$1,000,000
Primary	107069	Salem District-wide	9999 Safety Improvements - Yearly HSIP open container funds FROM: Various TO: Various		\$2,000,000
Primary	108538	Salem District-wide	VARIOUS (9999) Adaptive Capable Signal Controllers - SWRO FROM: VARIOUS TO: VARIOUS		\$897,700
Secondary	109569	Roanoke	BRANDON AVENUE (8029) Flashing Yellow Arrow Upgrade - Brandon Ave. & Colonial Ave. FROM: Brandon Avenue TO: Colonial Avenue		\$16,000
Secondary	15190	Roanoke County	COTTON HILL RD (0688) RTE 688 - RECONSTRUCTION FROM: 0.056 MILE SOUTH ROUTE 221 TO: 0.105 MILE SOUTH ROUTE 934 (0.6566 MI)		\$6,532,659
Secondary	15187	Roanoke County	MCVITTY ROAD (1662) RTE 1662 - RECONSTRUCTION & REPLACE BRIDGE OVER MUD LICK CK FROM: INT. OF ROUTE 1663 TO: INT. OF ROUTE 419 (0.4680 MI)		\$14,590,943
Secondary	15188	Roanoke County	OLD CAVE SPR LN (1663) RTE 1663 - RECONSTRUCT; DRAINAGE STRUCT/BRANCH MUD LICK CK FROM: SOUTH INT. ROUTE 221 TO: INT. OF ROUTE 1662 (0.2830 MI)		\$4,714,799
Secondary	105736	Salem District-wide	VARIOUS (9999) Roadway Departure Safety Countermeasures FROM: Various TO: Various		\$166,101
Urban	8753	Salem	EAST MAIN STREET (0460) #HB2.FY17 Rte460 - Widen To 3 Ln w/ Bike Ln, Curb, Sidewalk FROM: 0.028 Mi. West of Route 311 (Thompson Memorial Blvd.) TO: 0.006 Mi. West of Brand Ave. (0.5473 MI)		\$15,223,263
Urban	100656	Salem	ROUTE 419 (0419) Construct sidewalk on west side of Rte 419 & connect to RRG FROM: existing RRG in Rotary Park TO: City Limits (0.6700 MI)		\$594,720
Urban	105213	Vinton	WALNUT AVE (U000) Rte.U000 - Walnut Ave Ph. I - SW, Stripe, Xwalks & Landscape FROM: 5th St. TO: W. Lee Ave.		\$88,000
Construction : Safety/ITS/Operational Improvements Total					\$166,755,376

**Roanoke MPO****Construction : Transportation Enhancement/Byway/Non-Traditional**

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Enhancement	105439	Roanoke	ROANOKE RIVER GREENWAY (0000) Roanoke River Greenway (Bridge St to Aerial Way Dr) - RSTP FROM: Bridge Street TO: Aerial Way Drive (1.8000 MI)		\$7,605,000
Enhancement	105206	Salem	APPERSON DRIVE (0000) Apperson Dr Rte. 11 Bridge - Sidewalk Expansion (Ph 4 RRG) FROM: East Riverside Drive TO: Electric Road Rte. 419 (0.0600 MI)		\$1,230,845
Enhancement	103345	Roanoke	MEMORIAL AVE (0003) RR Grnwy-Bike/Ped b/t Vic Thomas/Ghent Hill Parks FROM: Vic Thomas Park TO: Ghent Hill Park (0.2500 MI)		\$248,316
Enhancement	103592	Roanoke	0500 Virginian Railway Station Restoration Phase 2 FROM: Virginian Railway Station TO: Virginian Railway Station		\$1,014,930
Enhancement	101838	Salem	ROANOKE RIVER GREENWAY (EN00) Bridge on Phase 3A_City of Salem Roanoke River Greenway FROM: approximately 1200' E. Mill Lane TO: Eddy St.		\$744,028
Enhancement	91191	Roanoke County	EN08 Rnke River Grnwy - City of Roanoke to Blue Ridge Parkway		\$6,857,566
Enhancement	97171	Roanoke County	EN08 #HB2.FY17 Roanoke Co, RRG, Green Hill Pk to Riverside Pk FROM: Green Hill Park TO: Riverside Park (1.7300 MI)		\$8,032,031
Enhancement	103607	Roanoke County	PLANTATION ROAD (RT. 115) (EN12) Roanoke Co., Plantation Road Streetscape Improvements FROM: Williamson Road (Route 11) TO: Gander Way / Friendship Ln (0.7200 MI)		\$5,297,128
Enhancement	107521	Botetourt County	EN15 DALEVILLE GREENWAY - TAP		\$595,438
Enhancement	106265	Roanoke	GARDEN CITY BLVD (EN15) GARDEN CITY BLVD BIKE/PED - TRANSPORTATION ALTERNATIVES FROM: Davenport Ave/Ivywood St TO: Riverland Rd		\$1,000,000
Enhancement	106266	Roanoke	MELROSE AVE (EN15) ADA BUS FACILITIES - TRANSPORTATION ALTERNATIVES FROM: Barnett Rd (Western City Limits) TO: Salem Tpke (2.8000 MI)		\$205,980
Enhancement	106268	Salem	HANGING ROCK BATTLEFIELD TRAIL (EN15) HANGING ROCK BATTLEFIELD TRAIL - TRANSPORTATION ALTERNATIVES FROM: existing Hanging Rock Battlefield Trail TO: East Main St		\$1,333,117
Enhancement	109612	Salem	EN16 DOWNTOWN STREETScape AND INTERSECTION IMPROVEMENTS		\$613,000
Enhancement	109611	Vinton	EN16 GLADE CREEK GREENWAY, PHASE 2		\$531,210
Enhancement	103495	Roanoke County	EN97 Low Water Bridge for HRB Trail near Int. Rtes. 419 and 311		\$368,630

**Roanoke MPO**

**Construction : Transportation Enhancement/Byway/Non-Traditional**

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	102856	Roanoke	GARDEN CITY BOULEVARD (0000) City of Roanoke - SRTS - Garden City ES - Sidewalks etc. FROM: Yellow Mountain Rd TO: Ivywood St (0.7400 MI)		\$507,793
Miscellaneous	T18992	Salem District-wide	0000 CN: TRANSPORTATION ENHANCEMENT/BYWAY/OTHER NON-TRADITIONAL		\$0
Miscellaneous	105015	Roanoke	ROANOKE CITY (MMTS) Downtown Roanoke Multimodal Transportation Study FROM: Roanoke TO: Roanoke		\$300,000
Primary	78217	Roanoke	WILLIAMSON RD (EN05) REHABILITATION OF VIRGINIAN RAILWAY STATION		\$489,999
Public Transportation	T14242	Roanoke	ROANOKE CITY (BUSR) Bus Replacement for Smart Way Commuter Service FROM: Roanoke TO: Blacksburg		\$560,000
Urban	109288	Roanoke	EDGEWOOD STREET (0000) #HB2.FY17 Transit Accessibility Improvements on Edgewood St FROM: Windsor Ave TO: Memorial Ave		\$350,811
Urban	72180	Roanoke	EN03 CITY OF ROANOKE - ROANOKE RIVER GREENWAY WITHIN THE CITY OF ROANOKE LIMITS		\$2,550,285
Urban	108899	Salem	BOULEVARD (8010) #HB2.FY17 Multimodal Improvements along Boulevard FROM: McDivitt Rd TO: Salem City Limit (0.7500 MI)		\$884,880
Urban	56409	Salem	EN00 CITY OF SALEM - CONSTRUCTION OF 7 MILE BICYCLE/PEDESTRIAN FROM: Western limits of Green Hill Park, Roanoke County TO: Eastern corporate limits of City of Salem (7.0000 MI)		\$2,004,098
<b>Construction : Transportation Enhancement/Byway/Non-Traditional Total</b>					<b>\$43,325,085</b>

**Maintenance : Preventive Maintenance and System Preservation**

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T14722	Salem District-wide	0000 STIP-MN Salem: Preventive MN and System Preservation		\$0
<b>Maintenance : Preventive Maintenance and System Preservation Total</b>					<b>\$0</b>

**Maintenance : Preventive Maintenance for Bridges**

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T14721	Salem District-wide	0000 STIP-MN Salem: Preventive MN for Bridges		\$0
<b>Maintenance : Preventive Maintenance for Bridges Total</b>					<b>\$0</b>

**Roanoke MPO**

**Maintenance : Traffic and Safety Operations**

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T14720	Salem District-wide	0000		\$0
		STIP-MN Salem: Traffic and Safety Operations			

Maintenance : Traffic and Safety Operations Total \$0

**Roanoke MPO Total \$274,212,966**