



Central Virginia Metropolitan Planning Organization

CENTRAL VIRGINIA TRANSPORTATION IMPROVEMENT PROGRAM FISCAL YEARS 2018-2021

Prepared by the Central Virginia Planning District Commission for the Central Virginia Metropolitan Planning Organization with cooperative assistance from the Virginia Department of Transportation, the Virginia Department of Rail & Public Transportation, the Lynchburg Regional Airport, the Greater Lynchburg Transit Company, the City of Lynchburg, the Counties of Amherst, Bedford and Campbell, and the Town of Amherst through their participation on the Transportation Technical Committee.

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**CENTRAL VIRGINIA
TRANSPORTATION IMPROVEMENT
PROGRAM FISCAL YEARS 2018 - 2021
(CVTIP FY 2018 - 2021)**

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SECTION 1: NARRATIVE

INTRODUCTION

The Central Virginia Transportation Improvement Program (CVTIP) is the Central Virginia Metropolitan Organization's (CVMPO) mechanism for allocating its limited transportation resources among the various needs of the area. It is a four-year program that addresses the immediate funding needs for transportation systems management (TSM) and operations. It also addresses the immediate funding needs for the transportation projects drawn from the Virginia Department of Transportation's Six-Year Improvement Program, public transit agencies, Lynchburg Regional Airport's Capitol Improvement Plans and the Central Virginia Long Range Transportation Plan Year 2040.

The fiscal year for the CVTIP FY2018-2021 begins on October 1, 2017 and is applicable until September 30, 2021. Section 3 is made up of the projects that are currently listed in the draft Central Virginia Transportation Improvement Program Fiscal Years (CVTIP FY2018-2021) and the projects from the CVTIP FY 2015-2018 that have not yet been closed out, and new projects for which VDOT expects to receive funding. Section 4 contains public transit agencies that will receive federal obligations in the coming four year period. Section 5 gives an overview of airport facilities that are receiving federal obligations in the coming four year period.

The Long Range Transportation Plan, required by federal law, is the document that directs transportation decisions over a minimum 20 year horizon. The CVTIP 2018-2021 represents the programmed implementation of selected recommendations from the CVMPO's most recently adopted Long Range Transportation Plan. The projects listed in the CVTIP FY2018-2021 encompass bridge rehabilitation and replacement, roadway widening, computerized signal systems, roadway construction, intersection improvements and public transit capital and operating expenditures, and airport expenditures. Through the projects listed in the CVTIP FY2018-2021, the CVMPO member jurisdictions and the State and Federal transportation agencies hope to create a more effective transportation system to serve the Central Virginia MPO area.

REGIONAL CONSENSUS

The production of the CVTIP 2018-2021 is the culmination of the transportation planning process and represents a consensus among state, regional, and local officials as to projects selected for implementation. A project's inclusion in the TIP signifies regional agreement on the priority of the project and establishes eligibility for federal funding.

After the CVTIP 2018-2021 is approved by the CVMPO; it is submitted to the Virginia Department of Transportation (VDOT) for inclusion in the Statewide Transportation Improvement Program (STIP), which is then submitted to Federal Highway Administration (FHWA) and Federal Transit Administration (FTA) for approval. The inclusion of projects from the Long Range Transportation Plan into the TIP is based on the priority listing developed in that plan (which is revised as conditions warrant) and modified by financial constraints. Once projects are listed in the CVTIP 2018-2021, they may be amended or deleted as conditions warrant.

The agencies involved in the development this program, through their participation on the Central Virginia Metropolitan Planning Organization and its Transportation Technical committee are:

- The Virginia Department of Transportation
- The Virginia Department of Rail & Public Transportation
- Lynchburg Regional Airport
- Greater Lynchburg Transit Company
- Central Virginia Alliance for Community Living, Inc.
- City of Lynchburg
- Amherst County
- Bedford County
- Campbell County
- The Town of Amherst

In keeping with the CVMPO's efforts to encourage public participation in the planning process, the CVMPO held a public hearing on April 20, 2017 at 4:00 p.m. to receive input, suggestions and comments pertaining to the CVTIP FY2018-2021.

CVTIP FY2018 - 2021 FORMAT

The Central Virginia Transportation Improvement Program (CVTIP) FY2018-FY2021 has been reformatted from the CVTIP FY2015-FY2018. New projects and adjusted funding allocations are also included in the CVTIP FY2018-2021. Please see below for changes by section:

Section 1: This section gives a narrative of the document including methodology used and a glossary of terms. No changes have occurred in this section from CVTIP FY2015-2018.

Section 2: This section summarizes the financial plan that is used to fund transportation projects within the CVTIP 2018-2021. This section will be updated to reflect funding allocations for the FY2018-2021 time frame.

Section 3: This section identifies “federally funded” and “regionally significant non federally funded” projects. Primary Projects—projects within the Primary road system—are identified in the Part 1 of this section.

- Primary: *(There are 3 new projects in this section):* two-to-six-lane roads that connect cities and towns with each other and with interstates.
- Secondary *(Not Applicable in the CVTIP FY2018-2021, one project (UPC #110390 Reconstruction of Garvee Debt Service) has been removed :* local connector or county roads. These generally are numbered 600 and above; and
- Urban: *(There are two new projects listed in this section for FY2018-2021):* roads that are located in cities, rather than Counties.

- The Primary Projects in the CVTIP FY 2018-2021 consist of UPC #11813 (Construction of Madison Heights Bypass, NEW), UPC #11912 (Construction of Madison Heights Bypass, NEW), UPC #108914 (Route 221 Improvements, NEW), and UPC #64773 (Route 29/460 Access Management)
- The Urban Projects in the CVTIP FY2018-2021 consist of UPC #106320 (Widen Greenview Dr. from 2 to 4 lane, NEW), UPC #106537 (Debt Service for Widening Greenview Dr. Project), UPC #105515 (Design/Build component for Odd Fellows Rd. Interchange/Extension, NEW), UPC #100023 (Odd Fellow Rd./Greenview Dr. Design/Build Development), and UPC #106533 (Debt Service for Odd Fellows Rd. Interchange/Extension, moved over from Primary Projects Section).

Part 2 of Section 3 identifies funding levels according to project groupings.

1. Bridge Rehabilitation/Replacement/Reconstruction: This group includes bridge construction projects such as bridge or drainage structure rehabilitation, reconstruction, or replacement when said work is on or adjacent to the same alignment.
2. Rail: This group includes projects for rail / highway grade crossing improvements, regardless of funding source. Examples include improvements to warning devices or crossing surfaces and construction of grade separation to replace existing at-grade railroad crossings at the same location.
3. Safety/ITS/Operational Improvements: This group would include safety improvement projects such as:
 - i. Those qualifying for HES/HISP finding, shoulder improvements, increasing sight distance, traffic control devices, guardrails, median barriers;
 - ii. Pavement resurfacing/rehabilitation or pavement marking;
 - iii. Fencing or lighting improvements;
 - iv. Intersection channelization / signalization / reconfiguration projects;
 - v. Traffic calming,
 - vi. Improvements to crossovers or clear zones;
 - vii. Addition/extension of turn lanes,
 - viii. Extensions of acceleration/deceleration lanes, drainage improvements, etc.
 - ix. This group would also include reconstruction or minor widening on or adjacent to same alignment (no increase in capacity), improvements to and modernization of rest areas, toll facilities, and weigh stations;
 - x. Intelligent Transportation System (ITS) activities; or traffic operations improvement projects; etc.
4. Transportation Enhancement/Byway/Non-Traditional Transportation Projects: This group includes projects with scopes of work eligible for funding under the transportation enhancement program national scenic byway programs, regardless of finding source. Examples include:
 - i. Construction of interpretive pull-offs and overlooks;
 - ii. Rehabilitation / restoration / reconstruction of historic buildings;
 - iii. Tourist welcome centers;

- iv. Transportation museums;
 - v. Pedestrian / bicycle facilities; and
 - vi. Wildflower plantings.
5. Preventive Maintenance and System Preservation: This group includes the following examples of eligible work:
 - i. Area wide programs for cleaning of drainage facilities, corrosion protection activities, and highway sign face cleaning;
 - ii. Any corrective restorative, resurfacing, or rehabilitative / reconstruction of highway pavement which extends the service life of the pavement; and
 - iii. Retrofitting of dowel bars; and Shoulder pulling and wedging for pavement edge drop-off mitigation.
 6. Preventive Maintenance for Bridges: This group includes the eligible bridge activities outlined in the March 9, 2012 memorandum.
 7. Traffic and Safety Operations: This group includes signs, traffic signals, pavement markings and markers, guardrail, replacement/preventative maintenance of roadway lighting, maintenance/replacement/upgrade of traffic calming devices, etc.

The project groupings and associated CVTIP FY18-21 funding totals are as follows:

1. Construction: Bridge Rehabilitation/Replacement/Reconstruction
 - o \$35.5 Million Total (*Down from \$42 Million from CVTIP FY15-18 TIP*)
2. Construction: Safety/ITS/Operational Improvements
 - o \$86 Million Total (*Up from \$74 Million from CVTIP FY15-18 TIP*)
3. Construction: Rail
 - o \$1.1 Million (*Up from \$0 funding from CVTIP FY15-18 TIP*)
4. Construction: Transportation Enhancement/Byway/Non-Traditional
 - o \$6 Million Total (*Up from \$4.2 Million from CVTIP FY15-18 TIP*)

The following groupings had *districtwide* obligations in the CVTIP FY15-18, and remain that way in the CVTIP FY18-21.

5. Maintenance: Preventive Maintenance and System Preservation
6. Maintenance: Preventive Maintenance for Bridges
7. Maintenance: Traffic and Safety Operations

Changes to descriptions and funding amounts can be seen in a workbook available from CVMPO staff.

Section 4: This section identifies funding allocations for public transportation and transportation demand management projects. Operating Assistance, preventative maintenance, replacement of rolling stock, and passenger shelters for the Greater Lynchburg Transit Company and the Central Virginia Area Alliance for Community Living, Inc. are examples of items and entities funded in this section. *Changes to descriptions and funding amounts can be seen in a workbook available from CVMPO staff.*

Section 5: This section identifies funding allocations for Airports and their associated projects. A financing plan with a summary of appropriations is included in this section. This section has been updated to reflect new funding amounts through FY2021. *Changes to descriptions and funding amounts can be seen in a workbook available from CVMPO staff.*

Appendix A: This appendix lists projects that have a categorical exclusion. A categorical exclusion is granted to projects that:

- Do not induce significant impacts to planned growth or land use for the area;
- Do not require the relocation of significant numbers of people;
- Do not have a significant impact on any natural, cultural, recreational, historic or other resource;
- Do not involve significant air, noise, or water quality impacts;
- Do not have significant impacts on travel patterns;
- Do not otherwise, either individually or cumulatively, have any significant environmental impacts.

Changes to descriptions and funding amounts can be seen in a workbook available from CVMPO staff.

Appendix B: Contains Resolution of Adoption and Statement of Certification.

The information on the project charts include only that which is required to be listed by Federal law. The individual project listing on the VDOT Six Year Improvement Program website (<http://syip.virginia-dot.org/Pages/allProjects.aspx>) still shows all of the information that has been taken out of the CVTIP FY2015-2018 project chart.

Previously when any of the phase years or money allocated for a project changed, a new listing had to be sent to the Metropolitan Planning Organization (MPO), and the MPO had to give approval, in the form of an administrative adjustment, before the state could act upon the change.

By not listing the phase schedule, the MPOs do not have to make those administrative adjustments whenever a date is changed, accelerating the project development cycle. The information is still listed in the Six Year Improvement Program website, which can be viewed at <http://syip.virginia-dot.org/Pages/allProjects.aspx>.

For an explanation of the items listed in the project charts, please refer to the next section entitled Project Chart Summary.

PROJECT CHART SUMMARY

Each project listing in the CVTIP FY2018-2021 has an information chart. The information for the projects listed in the Primary, Secondary and Urban categories appears in the chart format shown below. Project group listing charts and the associated project detail from Appendix A is shown on the following page. These project listings are provided to the MPO by the Virginia Department of Transportation. Definitions for the numbered terms appear in the corresponding Glossary of Terms table.

Primary, Secondary and Urban Category Project Chart

The form is a project information chart with the following fields and callouts:

- 1** points to the **UPC NO** field (value: 58012).
- 2** points to the **SYSTEM** field (value: Primary).
- 3** points to the **SCOPE** field (value: ENVIRONMENTALLY RELATED).
- 4** points to the **OVERSIGHT** field (value: FO).
- 5** points to the **ADMIN BY** field (value: VDOT).
- 6** points to the **TOTAL COST** field (value: \$320,219).
- 7** points to the **FUND SOURCE** field.
- 8** points to the **MATCH** field (value: \$0).
- 9** points to the **FY09** fiscal year column (value: \$0).
- 10** points to the **FY10** fiscal year column (value: \$0).

Other fields include **JURISDICTION** (Amherst County), **PROJECT** (RTE 29 - WETLAND MITIGATION), **DESCRIPTION** (FROM: 0.562 KILOMETER NORTH ROUTE 130 CONNECTOR TO: 0.112 KILOMETER SOUTH ROUTE 661 (8.7000 KM)), and **ROUTE/STREET** (0029). There is also an **MPO Note** field at the bottom left.

Project Group Listings Chart

GROUPING		Construction : Bridge Rehabilitation/Replacement/Reconstruction				
ROUTE/STREET						TOTAL COST
						\$25,312,308
	FUND SOURCE	MATCH	FY09	FY10	FY11	FY12
PE	MG/EB AC CONVERSION	\$10,002	\$0	\$0	\$0	\$40,006
	STP AC CONVERSION	\$60,100	\$0	\$0	\$91,920	\$148,481
PE TOTAL		\$70,102	\$0	\$0	\$91,920	\$188,487
PE AC		\$47,122	\$0	\$188,487	\$0	\$0
RW	BR AC CONVERSION	\$18,450	\$73,800	\$0	\$0	\$0
	STP	\$29,076	\$0	\$116,302	\$0	\$0
	STP AC CONVERSION	\$36,520	\$20,714	\$125,364	\$0	\$0
RW TOTAL		\$84,045	\$94,514	\$241,666	\$0	\$0
CN	BR	\$36,475	\$145,901	\$0	\$0	\$0
	EB	\$21,428	\$85,710	\$0	\$0	\$0
	MG/EB AC CONVERSION	\$51,737	\$0	\$64,322	\$63,071	\$79,554
	STP AC CONVERSION	\$359,584	\$0	\$385,712	\$521,181	\$531,444
CN TOTAL		\$469,224	\$231,611	\$450,034	\$584,252	\$610,998
CN AC		\$0	\$1,220,197	\$0	\$0	\$0
MPO Note						

Grouped Projects Chart shown in Appendix A

System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Secondary	1028	Amherst	UNION HILL ROAD (0659)	\$4,213,907
RTE 659 - RECONSTRUCTION AND BRIDGE OVER RUTLEDGE CREEK				
FROM: ROUTE T-606 TO: 0.090 KM WEST NORFOLK SOUTHERN RAILWAY (1.6200 KM)				

GLOSSARY OF TERMS

Object	Term	Definition
1	System	Indicates which system, program, or mode of transportation the project falls within: Interstate, Primary, Secondary, Urban, Rail, Transportation Enhancements, or Miscellaneous
2	UPC No (Universal Project Code)	Number assigned to each project at its conception and remains with the project until completion
3	Scope	This is a brief statement regarding the nature of the project.
4	Federal Oversight Indicator (FO and NFO)	FO: Indicates Federal Oversight in the project construction contracting and management NFO: Indicates No Federal Oversight in the construction contracting and management issues and does not affect the standard environmental review process for transportation projects. All federally funded transportation projects must include the required environmental documents regardless of whether or not there is federal oversight in the construction contracting and management phase of a project.
5	Admin By	The agency that is administering the project or a phase of the project.
6	Total Cost	The summation of all shares to the project for all phases.
7	MPO Note	This is a place where the MPO can insert further explanation for a project
8	Fund Source	The FHWA program which is the primary source of the funding for the project. FHWA funding sources are described below:
		AC Advance Construction Funds M Urban Funds
		AC Conversion Breakdown of the allocated amount of the advance construction (AC) MG/EB Minimum Guarantee & Equity Bonus Funds
		BR Bridge Replacement Funds NHS National Highway System Funds

GLOSSARY OF TERMS

Object	Term	Definition			
		BR-OS	Bridge off System Funds for Secondary Road Projects	PPTA	Public Private Transportation Act of 1995
		CM	Congestion Mitigation and Air Quality Funds	RRP	Railway-Highway Crossing Funds
		EB	Equity Bonds	RSTP	Regional Surface Transportation Program
		EN	Transportation Enhancement Funds	S	State Construction Funds Only
		HES	Hazard Elimination Funds	STP	Surface Transportation Program Funds
		HSIP	Highway Safety Improvement Program Funds	STP/RR	Surface Transportation Program and Railroad Funds
		HMO	Highway Maintenance & Operating Funds	STP-Statewide	Surface Transportation Program Funds
		HPD	TEA-21 High Priority Funds	TDM	Transportation Demand Management
		IM	Interstate Maintenance Funds	VTa	Virginia Transportation Act of 2000
9	Match	Most federal fund sources require a match of some sort; most often 80-20 i.e. the federal government reimburses 80% of the total cost. For a full chart of match requirements, please refer to the <i>Funding Sources and Funding Ratios</i> section of this document.			
10	Current and Future Obligation	The budget for the indicated phase of work provided by the indicated funding source			
11	Grouping	This tells the group in which the project falls. For more information about the groups, please refer to the <i>TIP Format</i> section of this document.			
12	Estimate	The cost estimate reflects the current estimate for the listed phase of the project.			

Agencies			
CVMPO (MPO)	Central Virginia Metropolitan Planning Organization	GLTC	Greater Lynchburg Transit Company
FAA	Federal Aviation Administration	MPO	Metropolitan Planning Organization
FHWA	Federal Highway Administration	VDOT	Virginia Department of Transportation
FTA	Federal Transit Administration	VDRPT	Virginia Department of Rails and Public Transportation

Other Abbreviations			
CFR	Code of Federal Regulations	RTE	Route
CE	Categorical Exclusion	RW	Right-of-Way
CN	Construction	MAP-21	Moving Ahead for Progress in the 21st Century Act
FO, NFO	Federal Oversight, No Federal Oversight	SOPS	Standard Operating Procedures
FY	Funding Year	TEA-21	Transportation Equity Act for the 21st Century; Passed June 9, 1998
HWY	Highway	TDM	Transportation Demand Management
ISTEA	Intermodal Surface Transportation Efficiency Act of 1991	TIP	Transportation Improvement Program
ITS	Intelligent Transportation System	TO	Total Project Cost
PE	Preliminary Engineering	TSM	Transportation System Management
PRC		UPC	Universal Project Code

Some important points to remember when interpreting the data in the project listing charts:

- The TIP deals with fiscal years, not calendar years. As such, the project listing charts summarize planned expenditures for October 1 to September 30. Fiscal year 2018 begins on October 1, 2017.
- Expenditures for known programs that did not have specific projects identified at the time this document was developed are not shown, however, they will be amended into the program when the projects are identified.

SECTION 2: FINANCIAL PLAN

INTRODUCTION

FAST Act - "Fixing America's Surface Transportation" Act continues the requirements for MPOs to have TIP documents. TIP projects or project phases are required to be consistent with the long range plan 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. VDOT, VDRPT, Greater Lynchburg Transit Company, Lynchburg Regional Airport, Central Virginia Alliance for Community Living, and the Central Virginia MPO have cooperatively developed financial forecasts for the TIP based on the latest official planning assumptions and estimates of revenue(s) and cost(s). The financial information is given by funding category for the projects listed and expected to be implemented during the 4-year period beginning Fiscal Year 2018.

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

- Project is complete; awaiting closeout
- Subsequent phases beyond 4 years
- Information only, funding being pursued or the project is privately funded
- Project 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
- 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)

METROPOLITAN PROJECT SELECTION OVERVIEW

In metropolitan planning areas, transportation projects selected for federal funding in the TIP must be consistent with the approved Constrained Long-Range Plan (CLRP) for the Central Virginia Metropolitan Planning Organization. In addition, the State Transportation Improvement Program (STIP) submitted by the Commonwealth to FTA and FHWA must be consistent with all the metropolitan TIPs.

Interstate Maintenance, Bridge, National Highway System, Statewide STP, Safety, Enhancement, and FTA Section 5310 (elderly and disabled paratransit capital projects)

Within this regulatory framework of metropolitan cooperation, the Commonwealth Transportation Board (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 MPO adopted transportation plan and study area local governments/agencies plans and programs;
- FAST Act planning factors;
- Provision of funding for previously programmed projects in need of additional funds;
- Comments received as part of the MPO Public Involvement Process;

Virginia Department of Transportation Financial Planning Division

Constrained Long-Range Plan (CLRP) CLRP FY 2014 – 2045

(Based on FY 2017 – 2022 Six-Year Financial Plan (SYFP) and Six-Year Improvement Program (SYIP)).

The 2014-2045 CLRP is based on the FY2017-2022 SYFP and SYIP. The out years are based on the trends in the current plans and as detailed below.

State Revenue

- The average state revenue growth for FY2017-2022 is 5%.
- For years 2020 and beyond, growth rates have been determined for each revenue source with recent consultation with the Department of Taxation and average 2.1%.

Federal Revenue

- Based on the current federal program. Does not consider potential reduction due to lack of funding or potential increased program.
- There is no growth estimated for federal revenues. The status of the funding provided by the federal Highway Trust Fund (HTF) is not set beyond federal fiscal year 2017 and current funding levels are unsustainable without funding assistance. In recent years, Congress has avoided shortfalls by transferring funds from the general fund of the Treasury to the HTF. Lawmakers may choose to continue to make additional transfers or address the revenue dedicated to the Highway Trust Fund. This uncertainty does not allow for projecting a growing source of funding.

Allocation to Districts and to MPOs

- Other Administrative Programs includes the following:
 - 699 – Administrative and Support Services
 - 514 – Environmental Monitoring and Evaluation
 - 60315 – Construction Management
 - 602 – Ground Transportation Planning and Research
- Maintenance allocations include Highway System Maintenance and Operations for VDOT-maintained roads and Financial Assistance for City and County Road Maintenance. These funds are divided amongst the districts based on the district's six year average share.
- Once districts amounts for Maintenance are obtained, population percentages are applied to determine MPO amounts.
- Construction allocations are distributed according to the SYFP for FY2017-2022 after that funds are allocated thusly:
 - Bridge needs of the districts were provided by Structure & Bridge Division
 - Interstate needs of the districts provided by Transportation and Mobility Planning Division
 - Interstate and Primary needs with the allocation distribution from the end of the six-year improvement program were used to determine the distribution of the federal discretionary funding to the MPOs through the life of the CLRP. No determination is applied as to what highway system to which the funds should be allocated.
- VDOT specific programs were held as statewide amounts and not distributed to the MPOs
- Construction Formula Allocations – represents the total distribution to the highway systems
 - Primary – The estimated amounts to the urbanized areas of these program funds are developed utilizing the share of the urbanized area's population of the respective construction districts where these areas reside.
 - Secondary – Secondary system construction allocations are, as per the code of Virginia, developed to the county level. These county amounts include construction, unpaved road funds and telecommunication fees. The estimated amounts of these funds to the urbanized areas are based on the urbanized area's share of the respective county population that lies within the specific area.

- Urban – The Urban system construction allocations are, as per the code of Virginia, allocated to the municipalities based on populations. The estimated amounts to the urbanized areas are the allocations to the cities and towns that are within the respective urbanized area boundaries.

Comparison to previous Constrained Long Range Plan (CLRP)

The comparison provided below represents the same fiscal year spans that were in the previous CLRP that are also in the current CLRP. These are fiscal years 2017-2045. This comparison does not include funds that are not directly tied to an MPO for this analysis. The total CLRP does contain funds that are not affiliated with an MPO and extends to fiscal year 2045.

There are significant reductions to the Construction allocations while the Construction – Formula funding is not provided for in the CLRP update. The reduction in Construction from the previous CLRP is primarily due to the removal of any planned growth in federal funding. The estimates provided in the Construction – Formula allocation are relying on growth in state revenue from the new and continuing sources of funding.

FUNDING SOURCES AND RATIOS

The projects described in the TIP for Fiscal Years 2018-2021 are listed by system or grouping. Listed below in *Table 1: Funding Sources and Funding Ratios* the various categories through which the projects in this TIP are funded and their match requirement. The state and local jurisdictions supply the matching funds for applicable projects.

FUNDING SOURCES AND FUNDING RATIOS			
Agency	Eligibility Category Source	Ratio of Matching Funds	
		Federal	State/Local
Virginia Department of Transportation (VDOT)	(S) State Funded		100%
Federal Highway Administration (FHWA)	(BR) Federal– Aid Bridge Replacement	80%	20%
	(CM) Congestion Mitigation	100%	0%
		90%	10%
		80%	20%
	(HES) Hazard Elimination Funds	90%	10%
	(I) Interstate Completion Funds	90%	10%
	(IM) Interstate Maintenance Funds	90%	10%
	(IR) Interstate 4-R Funds	90%	10%
	(NH) National Highway System Funds	90%	10%
		80%	20%
	(RRS) Rail Highway Grade Separation Funds	90%	10%
Federal Transit Administration (FTA)	(RS) Rural Secondary Funds	75%	25%
	(S) State Funded	0%	100%
	(STP) Surface Transportation Funds	80%	20%
	(Sec.16) Capital Assistance for Elderly and Disabled	80%	20%
	(Sec. 3) Transit Capital Funds	80%	20%
Federal Aviation Administration (FAA)	(Sec. 9) Transit Capital and/or Operating Funds		
	Capital 1	80%	20%
	Operation 2	50%	50%
Federal Aviation Administration (FAA)	(AIP) Airport Improvement Program Funds		
	Terminal Development	90%	10%
	All Other Projects	90%	10%
Virginia Department of Aviation (VDA)	State/Local Funding	90%	10%
	Most Projects	80%	20%
	Terminal Development		State 100% (Public Areas) Local 100% (Leased Areas)

* Depends on type of work being done.

1. State capital contribution varies depending upon the number of projects submitted statewide. State maximum share is 19%.

2. State provides assistance for administrative cost up to 50% of local share. For fuel, tires, and maintenance cost, the state provides up to 95% of local share.

The CVTIP 2018-2021 funding summary tables, *Table 2: Federal Funding Categories Statewide for Fiscal Years 2018-2021* and *Table 3: Supplemental Central Virginia MPO Highway Improvement Revenues FY 2018-2021*, summarize, by year and by funding source, the revenue amounts estimated and committed for fiscal year 2018-2021. These tables include expenditures and estimated revenues expected from each funding source and show that the program is financially constrained by year.

The information in the funding summary tables is based on the *total funds available*, which consists of annual allocations of funds including any State and Local matching dollars. There is a reasonable expectation that these revenue sources will all become available and committed to the project phase during the programmed year of the CVTIP FY2018-2021. The following provides a general overview of funding programs utilized in the development of the CVTIP FY2018-2021.

HIGHWAY FUNDING PROGRAMS

- *Bridge Rehabilitation and Replacement / Bridge Off-System Funds Program (BR/BROS)* program provides funding for bridge improvements. Eligibility for funding is based on a rating of bridge condition by VDOT as a candidate for upgrading.
- *Congestion Mitigation and Air Quality (CMAQ)* funds are used for projects that reduce criteria air pollutants regulated from transportation-related sources. Eligible projects include transit improvements, traffic flow improvements, ride sharing programs, pedestrian and bicycle improvements, vehicle inspection and maintenance programs, travel demand management etc. [Not applicable]
- *DEMO* The 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.
- *The Equity Bonus (EB/MG)* formerly known as Minimum Guarantee, *the equity bonus* ensures that each State receives a specific share of the aggregate funding for major highway programs, 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. Major highway programs include 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.
- *The Interstate Maintenance (IM)* program provides funding for resurfacing, restoring, rehabilitating and reconstructing (4R) most routes on the National System of Interstate and Defense Highways. Funding for this program is subject to the overall Federal-aid

obligation limitation. The Commonwealth Transportation Board (CTB) administers these programs.

- *The National Highway System Program (NHS)* provides funding for improvements to rural and urban roads that are part of the NHS, including the Interstate System and designated connections to major intermodal terminals. Under certain circumstances, NHS funds may also be used to fund transit improvements in NHS corridors. Projects can be funded only if they are on the National Highway System, which is established by Congress.
- *Non-Federal* Any funding that does not come from federal sources is grouped into the non-federal funding category.
- *Regional Surface Transportation Program (RSTP)* provides funding for a broad range of capacity, operational, and congestion mitigation related improvements. Projects include road widening, rehabilitation, transit capital, research, environmental enhancements, intelligent transportation systems, planning, and others. [Not applicable]
- *Safe Routes to School Program (SRTS)* 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.
- “Fixing America's Surface Transportation Act” (FAST) is the federal transportation bill that provides federal transportation funding to each state. FAST 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.
- *The Surface Transportation Program (STP)* provides flexible funding that 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.
- *The Transportation Enhancements Program (TE)* funds have been made available for bicycle and pedestrian facilities through the Surface Transportation Program of MAP 21. A 10% set aside from each state's allocation of STP funds must be used for Transportation Enhancement activities. Projects are available for funding on a statewide competition basis for enhancement grants. The Enhancement program includes a set aside for the Roadscapes Program, which provides funding for local jurisdictions to apply for landscaping projects on state and federally maintained rights-of-way.

TRANSIT FUNDING PROGRAMS

- *Section 5307* Federal Transit Administration formula grants for transit capital and operating assistance in urbanized areas.
- *Section 3037* Federal Transit Administration funds for Job Access and Reverse Commute grants to provide low-income individuals job access transportation.
- *Section 5309* Federal Transit Administration discretionary grant funding for capital assistance for major bus related construction or equipment projects.
- *Section 5310* Federal Transit Administration funds for private and non-profit organizations providing mass transportation services for the elderly and disabled.
- *Non-Federal* Any funding that does not come from federal sources is grouped into the non-federal funding category.

FINANCIAL ASSUMPTIONS

The CVTIP FY2018-2021 financial plan is federally required to include only committed and/or reasonably available transportation funding sources. In air quality non attainment or maintenance areas, projects in the first two years are limited to those for which funds are available or committed. 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 MPO or responsible local government. Maintenance and construction program financial planning assumptions used for the CVTIP FY 2018-2021 are consistent with assumptions and distribution methodology used for the Central Virginia Long Range Transportation Plan 2040. Financial assumptions include:

- 1) Maintenance allocations will increase 4% annually.
- 2) Federal revenue annual growth is forecasted at the rate of increase in taxable gallons of gas as estimated by the Virginia Department of Taxation, which is 2.05%.
- 3) After the HB3202 bond issuance period has ended, it is assumed that there will be \$300 million of new bond revenue, with its associated debt, each year beyond 2017 that will be distributed in the same manner as was the previous bond proceeds.
- 4) It is assumed that future federal reauthorizations will follow the current funding scheme and base levels.

FUNDING SOURCES – ESTIMATES AND COMMITMENTS

FEDERAL FUNDING CATEGORIES STATEWIDE FOR FINANCIAL YEARS 2018-2021

TABLE C : Lynchburg MPO
FEDERAL FUNDING CATEGORIES
FISCAL CONSTRAINT BY YEAR

Highway Projects
FFY 2018 - 2021

Fund Source	FFY 2018		FFY 2019		FFY 2020		FFY 2021		TOTAL	
	Projected Obligation Authority	Planned Obligation	Projected Obligation Authority	Planned Obligation	Projected Obligation Authority	Planned Obligation	Projected Obligation Authority	Planned Obligation	Projected Obligation Authority	Planned Obligation
Federal										
BR/BROS	\$0	\$0	\$1,146,977	\$1,146,977	\$3,164,859	\$3,164,859	\$0	\$0	\$4,311,836	\$4,311,836
NHS/NHPP	\$3,596,240	\$3,596,240	\$849,318	\$849,318	\$3,809,949	\$3,809,949	\$1,653,029	\$1,653,029	\$9,908,536	\$9,908,536
STP/STBG	\$745,967	\$745,967	\$55,000	\$55,000	\$863,539	\$863,539	\$0	\$0	\$1,664,506	\$1,664,506
Subtotal – Federal	\$4,342,207	\$4,342,207	\$2,051,295	\$2,051,295	\$7,838,347	\$7,838,347	\$1,653,029	\$1,653,029	\$15,884,878	\$15,884,878
Other										
State Match	(\$320,274)	(\$320,274)	\$507,685	\$507,685	\$1,839,652	\$1,839,652	\$413,257	\$413,257	\$2,440,320	\$2,440,320
Subtotal – Other	(\$320,274)	(\$320,274)	\$507,685	\$507,685	\$1,839,652	\$1,839,652	\$413,257	\$413,257	\$2,440,320	\$2,440,320
Total	\$4,021,933	\$4,021,933	\$2,558,980	\$2,558,980	\$9,677,999	\$9,677,999	\$2,066,286	\$2,066,286	\$18,325,198	\$18,325,198
Federal - ACC (1)										
HSIP	\$61,103	\$61,103	\$0	\$0	\$0	\$0	\$0	\$0	\$61,103	\$61,103
BR	\$0	\$0	\$0	\$0	\$2,554,645	\$2,554,645	\$0	\$0	\$2,554,645	\$2,554,645
NHS/NHPP	\$3,765,813	\$3,765,813	\$3,404,820	\$3,404,820	\$3,404,510	\$3,404,510	\$3,404,357	\$3,404,357	\$13,979,500	\$13,979,500
STP/STBG	\$0	\$0	\$733,030	\$733,030	\$732,965	\$732,965	\$732,889	\$732,889	\$2,198,884	\$2,198,884
Subtotal – Federal - ACC (1)	\$3,826,916	\$3,826,916	\$4,137,850	\$4,137,850	\$6,692,120	\$6,692,120	\$4,137,246	\$4,137,246	\$18,794,132	\$18,794,132
Statewide - Federal (4)										
CMAQ (2)	\$2,812,590	\$2,812,590	\$480,000	\$480,000	\$800,000	\$800,000	\$2,203,410	\$2,203,410	\$6,296,000	\$6,296,000
NHFP	\$2,000,000	\$2,000,000	\$0	\$0	\$0	\$0	\$0	\$0	\$2,000,000	\$2,000,000
Subtotal – Statewide - Federal (4)	\$4,812,590	\$4,812,590	\$480,000	\$480,000	\$800,000	\$800,000	\$2,203,410	\$2,203,410	\$8,296,000	\$8,296,000
Maintenance - Federal (5)										
BR/BROS	\$213,428	\$213,428	\$153,190	\$153,190	\$194,023	\$194,023	\$194,803	\$194,803	\$755,444	\$755,444
STP/STBG	\$6,085,880	\$6,085,880	\$4,368,185	\$4,368,185	\$5,532,539	\$5,532,539	\$5,554,784	\$5,554,784	\$21,541,388	\$21,541,388
Subtotal – Maintenance - Federal (5)	\$6,299,308	\$6,299,308	\$4,521,375	\$4,521,375	\$5,726,562	\$5,726,562	\$5,749,587	\$5,749,587	\$22,296,832	\$22,296,832

SECTION 3: CENTRAL VIRGINIA TRANSPORTATION IMPROVEMENT PROGRAM

Lynchburg MPO

Primary Projects

UPC NO	11813	SCOPE	New Construction Roadway			
SYSTEM	Primary	JURISDICTION	Amherst County		OVERSIGHT	FO
PROJECT	RTE 29 - LYNCHBURG-MADISON HEIGHTS BYPASS - 4 LANES NEW LOC				ADMIN BY	VDOT
DESCRIPTION	FROM: 0.469 MILE NORTH NCL LYNCHBURG TO: 0.349 MILE NORTH ROUTE 130 CONNECTOR (4.6970 MI)					
PROGRAM NOTE	All funding based on current allocations/estimate.					
ROUTE/STREET	0029				TOTAL COST	\$59,460,808
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
		\$0	\$0	\$0	\$0	\$0

UPC NO	11912	SCOPE	New Construction Roadway			
SYSTEM	Primary	JURISDICTION	Amherst County		OVERSIGHT	FO
PROJECT	RTE 29 - LYNCHBURG/MADISON HEIGHTS BYPASS - 4 LANES NEW LOC				ADMIN BY	VDOT
DESCRIPTION	FROM: 0.562 KILOMETER NORTH ROUTE 130 CONNECTOR TO: 0.112 KILOMETER SOUTH ROUTE 661 (8.7000 KM)					
PROGRAM NOTE	All funding based on current allocations/estimate.					
ROUTE/STREET	0029				TOTAL COST	\$51,991,699
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
RW	Federal - STP/STBG	(\$563,961)	(\$2,255,844)	\$0	\$0	\$0

UPC NO	108914	SCOPE	Reconstruction w/o Added Capacity			
SYSTEM	Primary	JURISDICTION	Bedford County		OVERSIGHT	NFO
PROJECT	#HB2.FY17 Route 221 Congestion and Safety Improvements				ADMIN BY	VDOT
DESCRIPTION	FROM: Graves Mill Road TO: Gristmill Drive (0.4000 MI)					
ROUTE/STREET	FOREST ROAD (0221)				TOTAL COST	\$8,137,995
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
PE AC	Federal - AC	\$0	\$0	\$766,029	\$0	\$0
RW AC	Federal - AC	\$0	\$0	\$0	\$688,153	\$0
CN AC	Federal - AC	\$0	\$0	\$0	\$2,477,409	\$4,206,404

UPC NO		64773	SCOPE		Safety		
SYSTEM		Primary	JURISDICTION		Lynchburg	OVERSIGHT	NFO
PROJECT		RTE 29/460 - ACCESS MANAGEMENT				ADMIN BY	VDOT
DESCRIPTION		FROM: 0.163 MILE EAST INT. RTE 501 TO: 1.475 MILE EAST INT. RTE 501 (1.3110 MI)					
ROUTE/STREET		RICHMOND HIGHWAY (0460)				TOTAL COST	\$20,711,567
	FUND SOURCE		MATCH	FY18	FY19	FY20	FY21
CN	Federal - NHS/NHPP		\$0	\$3,697,986	\$0	\$0	\$0
	Federal - STP/STBG			\$2,800,000	\$0	\$0	\$0
CN TOTAL			\$0	\$6,497,986	\$0	\$0	\$0
CN AC	Federal - AC		\$0	\$2,437,210	\$0	\$0	\$0

Lynchburg MPO

Urban Projects

UPC NO	106320	SCOPE	Reconstruction w/ Added Capacity			
SYSTEM	Urban	JURISDICTION	Lynchburg		OVERSIGHT	NFO
PROJECT	UR-6056 - D/B WIDEN FROM 2 TO 4 LANES (GREENVIEW DRIVE)				ADMIN BY	VDOT
DESCRIPTION	FROM: 0.010 MI NORTH OF SC 1541 (HERMITAGE RD) TO: 0.215 MI SOUTH OF UR-6066 (LEESVILLE RD) (0.6200 MI)					
PROGRAM NOTE	All funding obligated based on current allocations/estimate					
ROUTE/STREET	GREENVIEW DRIVE (6056)				TOTAL COST	\$13,718,754
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
		\$0	\$0	\$0	\$0	\$0

UPC NO	106537	SCOPE	Reconstruction w/ Added Capacity			
SYSTEM	Urban	JURISDICTION	Lynchburg		OVERSIGHT	NFO
PROJECT	UR-6056 - D/B WIDEN FR 2-4 LNS (GREENVIEW DR) DEBT SERVICE				ADMIN BY	VDOT
DESCRIPTION	FROM: SC-1541 (HERMITAGE RD) TO: 0.220Mi. S. UR-6066 (LEESVILLE RD) (0.4500 MI)					
ROUTE/STREET	GREENVIEW DRIVE (6056)				TOTAL COST	\$10,234,122
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
PE	Federal - AC CONVERSION	\$0	\$0	\$733,030	\$732,965	\$732,889
PE AC	Federal - AC	\$0	\$9,559,674	\$0	\$0	\$0
CN	Federal - STP/STBG	\$0	(\$288,189)	\$0	\$0	\$0

UPC NO	105515	SCOPE	New Construction Roadway			
SYSTEM	Urban	JURISDICTION	Lynchburg		OVERSIGHT	FO
PROJECT	RTE 29/460 - D/B INTERCHANGE & EXTENSION (ODD FELLOWS ROAD)				ADMIN BY	VDOT
DESCRIPTION	FROM: 0.48 MI. W. OF ODD FELLOWS ROAD TO: 0.54 MI. E. OF ODD FELLOWS ROAD (1.0220 MI)					
PROGRAM NOTE	All funding obligated based on current allocations/estimate					
ROUTE/STREET	RICHMOND HIGHWAY (6029)				TOTAL COST	\$40,982,810
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
RW AC	Federal - AC	\$0	\$3,186,098	\$0	\$0	\$0
CN AC	Federal - AC	\$0	\$35,035,839	\$0	\$0	\$0

UPC NO	100023	SCOPE	New Construction Roadway			
SYSTEM	Urban	JURISDICTION	Lynchburg		OVERSIGHT	NFO
PROJECT	LYNCHBURG - ODD FELLOWS/GREENVIEW - D/B DEVELOPMENT				ADMIN BY	VDOT
DESCRIPTION	FROM: VARIOUS TO: VARIOUS					
PROGRAM NOTE	All funding obligated based on current allocations/estimate					
ROUTE/STREET	VARIOUS (0460)				TOTAL COST	\$2,528,599
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
		\$0	\$0	\$0	\$0	\$0

UPC NO	106533	SCOPE	New Construction Roadway			
SYSTEM	Urban	JURISDICTION	Lynchburg		OVERSIGHT	FO
PROJECT	RTE 29/460 - INTCHG & EXT (ODD FELLOWS RD) DEBT SERVICE				ADMIN BY	VDOT
DESCRIPTION	FROM: VARIOUS TO: Various					
ROUTE/STREET	VARIOUS (6029)				TOTAL COST	\$51,222,142
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
CN	Federal - AC CONVERSION	\$0	\$3,404,750	\$3,404,820	\$3,404,510	\$3,404,357

Lynchburg MPO
Urban Projects

UPC NO	110391	SCOPE				
SYSTEM	Urban	JURISDICTION	Lynchburg	OVERSIGHT	NFO	
PROJECT	#HB2.FY17 ODDFELLOWS ROAD SEG B2 RECON GARVEE DEBT SERVICE			ADMIN BY	VDOT	
DESCRIPTION						
PROGRAM NOTE						
ROUTE/STREET	9999			TOTAL COST	\$5,853,387	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
PE	Federal - AC CONVERSION	\$0	\$599,143	\$629,971	\$594,518	\$559,636
	Federal - STP/STBG	\$0	\$0	\$0	\$0	\$0
PE TOTAL		\$0	\$599,143	\$0	\$0	\$0
PE AC	Federal - AC	\$0	\$3,628,065	\$0	\$0	\$0
MPO Note						

UPC NO	113116	SCOPE	Reconstruction w/ Added Capacity			
SYSTEM	Urban	JURISDICTION	Lynchburg	OVERSIGHT	NFO	
PROJECT	#SMART20 RTE 221/501 - INTERSECTION IMPROVEMENT (SPLIT PAIR)			ADMIN BY	Locally	
DESCRIPTION	FROM: BREEZEWOOD DRIVE TO: RTE 501 (DESMOND T. DOSS MEM. EXP.) ()					
PROGRAM NOTE	TIP AMD - add \$1,597,533 (REVSH) FFY20 PE phase; add \$763,909 (REVSH), \$7,295,410 (AC-Other), \$2,265,117 (AC-STP) & \$91,945 (AC-NHPP) FFY21 RW phase.					
ROUTE/STREET	ROUTE 501 (LYNCHBURG EXPRESSWAY) (0221)			TOTAL COST	\$38,538,037	
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
PE	Other	\$1,597,533	\$0	\$0	\$1,597,533	\$0
RW	Other	\$763,909	\$0	\$0	\$0	\$763,909
RW AC	Federal - AC	\$0	\$0	\$0	\$0	\$2,357,062
	Federal - AC OTHER	\$0	\$0	\$0	\$0	\$7,295,410
RW AC		\$0	\$0	\$0	\$0	\$9,652,472

Federal funds include the use of soft match supported by approved toll credits unless otherwise indicated and/or matching funds are shown in the "Match" column. Non-federal fund sources are as noted in the "Program Note" and shown in the "Match" column, when applicable.

Lynchburg MPO

Project Groupings

GROUPING		Construction : Bridge Rehabilitation/Replacement/Reconstruction				
ROUTE/STREET					TOTAL COST	\$35,551,961
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
PE	Federal - BR	(\$2,500)	\$0	(\$10,000)	\$0	\$0
RW	Federal - AC CONVERSION	\$638,661	\$0	\$0	\$2,554,645	\$0
	Federal - BR	\$289,244	\$0	\$1,156,977	\$0	\$0
	Federal - NHS/NHPP	\$212,330	\$0	\$849,318	\$0	\$0
RW TOTAL		\$1,140,235	\$0	\$2,006,295	\$2,554,645	\$0
RW AC	Federal - AC	\$638,661	\$0	\$2,554,645	\$0	\$0
CN	Federal - BR	\$791,215	\$0	\$0	\$3,164,859	\$0
	Federal - NHS/NHPP	\$668,912	\$0	\$0	\$2,675,646	\$0
CN TOTAL		\$1,460,126	\$0	\$0	\$5,840,505	\$0
CN AC	Federal - AC	\$2,791,834	\$0	\$0	\$11,167,335	\$0

GROUPING		Construction : Rail				
ROUTE/STREET					TOTAL COST	\$1,118,919
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
		\$0	\$0	\$0	\$0	\$0

GROUPING		Construction : Safety/ITS/Operational Improvements				
ROUTE/STREET					TOTAL COST	\$86,322,962
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
PE	Federal - AC CONVERSION	\$90,266	\$361,063	\$0	\$0	\$0
RW	Federal - HSIP	\$6,111	\$0	\$55,000	\$0	\$0
	Federal - NHS/NHPP	\$283,576	\$0	\$0	\$1,134,303	\$0
RW TOTAL		\$289,687	\$0	\$55,000	\$1,134,303	\$0
CN	Federal - AC CONVERSION	\$6,789	\$61,103	\$0	\$0	\$0
	Federal - HSIP	\$150,393	\$490,000	\$0	\$863,539	\$0
	Federal - NHS/NHPP	\$387,821	(\$101,746)	\$0	\$0	\$1,653,029
CN TOTAL		\$545,003	\$449,357	\$0	\$863,539	\$1,653,029
CN AC	Federal - AC	\$5,355,716	\$14,410,269	\$7,012,596	\$0	\$0

GROUPING		Construction : Transportation Enhancement/Byway/Non-Traditional				
ROUTE/STREET					TOTAL COST	\$6,042,996
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21
		\$0	\$0	\$0	\$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	\$2,816,175	\$2,021,330	\$2,560,122	\$2,570,416

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	\$2,816,175	\$2,021,330	\$3,374,967	\$2,570,416
MPO Note		TIP AMD to update FFY20 planned obligations based on revised projected revenue. Add \$1,253,577 (STP/STBG)				

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	\$213,428	\$153,190	\$0	\$194,803
	Federal - STP/STBG	\$0	\$2,054,928	\$1,474,940	\$7,953,790	\$1,875,601
CN TOTAL		\$0	\$2,268,356	\$1,628,130	\$7,953,790	\$2,070,404
MPO Note		TIP AMD to update FFY20 planned obligations based on revised projected revenue. Ad \$7,953,790 (STP/STBG)				

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	\$1,214,777	\$871,915	\$1,253,577	\$1,108,767
MPO Note		TIP AMD to update FFY20 planned obligations based on revised projected revenue. Add \$1,253,577 (STP/STBG)				

**SECTION 4: TRANSPORTATION IMPROVEMENT
PROGRAM FOR PUBLIC TRANSPORTATION &
TRANSPORTATION DEMAND MANAGEMENT
(TDM) PROJECTS**

	Previous Funding	FY 2018	FY 2019	FY 2020	FY 2021	Total FY 2018-2021
CENTRAL VIRGINIA METROPOLITAN PLANNING ORGANIZATION						
STIP ID:	GLTC001	Title: Operating Assistance		Recipient: Greater Lynchburg Transit Company		
FTA 5307	2,049	2,197	1,953	2,358	2,049	FTA 5307 8,557
State	2,015	1,678	2,005	2,037	2,015	State 7,735
Local	3,052	4,264	1,813	1,416	3,052	Local 10,545
Revenues	1,188	975	2,506	2,396	1,188	Revenues 7,067
Year Total:	8,304	9,114	8,277	8,209	8,304	Total Funds: 33,904
Description:						
STIP ID:	GLTC002	Title: Preventive Maintenance		Recipient: Greater Lynchburg Transit Company		
Flexible STP						Flexible STP -
State						State -
Local						Local -
Year Total:	-	-	-	-	-	Total Funds: -
Description:						
STIP ID:	GLTC006	Title: Replacement Rolling Stock		Recipient: Greater Lynchburg Transit Company		
FTA 5339			3,426			FTA 5339 3,428
Flexible STP			-	458	13,930	Flexible STP 14,388
State			692	92	2,606	State 3,390
Local			170	22	877	Local 1,069
Year Total:	-	-	4,288	572	17,413	Total Funds: 22,273
Description:						
STIP ID:	GLTC010	Title: Expansion Rolling Stock		Recipient: Greater Lynchburg Transit Company		
Flexible STP		-	-			Flexible STP -
State		-	-			State -
Local		-	-			Local -
Year Total:	-	-	-	-	-	Total Funds: -
Description:						
STIP ID:	GLTC012	Title: Spare Parts, ACM Items		Recipient: Greater Lynchburg Transit Company		
FTA 5339		-	240	-	-	FTA 5339 240
Flexible STP		300	-		120	Flexible STP 420
State		56	48		24	State 128
Local		19	12		6	Local 37
Year Total:	-	375	300		150	Total Funds: 825
Description:						
STIP ID:	GLTC013	Title: Bus Engineering & Design of Admin Bu		Recipient: Greater Lynchburg Transit Company		
Flexible STP						Flexible STP -
State						State -
Local						Local -
Year Total:	-	-	-	-	-	Total Funds: -
Description:						
STIP ID:	GLTC014	Title: Bus Real Estate Acquisition		Recipient: Greater Lynchburg Transit Company		
Flexible STP						Flexible STP -
State						State -
Local						Local -
Year Total:	-	-	-	-	-	Total Funds: -
Description:						
STIP ID:	GLTC018	Title: Purchase Passenger Shelters		Recipient: Greater Lynchburg Transit Company		
Flexible STP						Flexible STP -
State						State -
Local						Local -
Year Total:	-	-	-	-	-	Total Funds: -
Description:						
STIP ID:	GLTC019	Title: Shop Equipment		Recipient: Greater Lynchburg Transit Company		
Flexible STP		88	-			Flexible STP 88
State		17	-			State 17
Local		5	-			Local 5
Year Total:	-	110	-		-	Total Funds: 110
Description:						
STIP ID:	GLTC020	Title: ADP Hardware		Recipient: Greater Lynchburg Transit Company		
Flexible STP		-				Flexible STP -
State		-				State -
Local		-				Local -
Year Total:	-	-	-	-	-	Total Funds: -
Description:						
STIP ID:	GLTC021	Title: Purchase Support Vehicles		Recipient: Greater Lynchburg Transit Company		
Flexible STP		38			68	Flexible STP 106
State		7			14	State 21
Local		2			3	Local 5
Year Total:	-	47	-	-	85	Total Funds: 132
Description:						
STIP ID:	GLTC024	Title: Bike Racks, ITS, Misc Equipment		Recipient: Greater Lynchburg Transit Company		
Flexible STP						Flexible STP -
State						State -
Local						Local -
Year Total:	-	-	-	-	-	Total Funds: -
Description:						

STIP ID:	GLTC026	Title: Bus Construction Admin/Maint Facility	Recipient: Greater Lynchburg Transit Company				
FTA 5339			FTA 5339	-			
Flexible STP			Flexible STP	-			
State			State	-			
Local			Local	-			
Year Total:	-	-	-	-	Total Funds:	-	
Description:							
STIP ID:	GLTC027	Title: Radios	Recipient: Greater Lynchburg Transit Company				
Flexible STP				Flexible STP	-		
State				State	-		
Local				Local	-		
Year Total:	-	-	-	-	Total Funds:	-	
Description:							
STIP ID:	GLTC028	Title: Rehabilitate/Rebuild Buses	Recipient: Greater Lynchburg Transit Company				
Flexible STP			-	280	Flexible STP	280	
State			-	53	State	53	
Local			-	17	Local	17	
Year Total:	-	-	-	350	Total Funds:	350	
Description:							
STIP ID:	GLTC029	Title: ADP Software	Recipient: Greater Lynchburg Transit Company				
Flexible STP			-	60	Flexible STP	60	
State			-	12	State	12	
Local			-	3	Local	3	
Year Total:	-	-	-	75	Total Funds:	75	
Description:							
STIP ID:	GLTC030	Title: Fare Collection Equipment	Recipient: Greater Lynchburg Transit Company				
Flexible STP					Flexible STP	-	
State					State	-	
Local					Local	-	
Year Total:	-	-	-	-	Total Funds:	-	
Description:							
STIP ID:	GLTC031	Title: Purchase Surveillance/Security	Recipient: Greater Lynchburg Transit Company				
Flexible STP		6		44	Flexible STP	50	
FTA 5307					FTA 5307	-	
State		1		9	State	10	
Local		1		2	Local	3	
Year Total:	-	8	-	55	Total Funds:	63	
Description:							
STIP ID:	GLTC032	Title: Purchase Route Signage	Recipient: Greater Lynchburg Transit Company				
Flexible STP		-		4	Flexible STP	4	
State		-		1	State	-	
Local		-			Local	1	
Year Total:	-	-	-	5	Total Funds:	5	
Description:							
STIP ID:	CAAA001	Title: Paratransit Vehicles	Recipient: Central Va Alliance for Community Living (CVACL)				
FTA 5310		76	32	96	76	FTA 5310	280
State		-				State	-
Local		19	8	24	19	Local	70
Year Total:	-	95	40	120	95	Total Funds:	350
Description:							
STIP ID:	CAAA003	Title: New Freedom	Recipient: Central Va Alliance for Community Living (CVACL)				
FTA 5310		44	44	38	44	FTA 5310	170
State		35	35	30	35	State	135
Local		9	9	7	9	Local	34
Revenues		1	1	0	1	Revenues	3
Year Total:	-	89	89	75	89	Total Funds:	342
Description:							
STIP ID:	HHI005	Title: Paratransit Vans	Recipient: Heart Havens, Inc.				
FTA 5310						FTA 5310	-
State						State	-
Local						Local	-
Year Total:	-	-	-	-	-	Total Funds:	-
Description:							
STIP ID:	CVCS001	Title: Paratransit Vehicles	Recipient: Horizon Behavioral Health				
FTA 5310						FTA 5310	-
State						State	-
Local						Local	-
Year Total:	-	-	-	-	-	Total Funds:	-
Description:							
STIP ID:	PHS0001	Title: Paratransit Vehicles	Recipient: Presbyterian Home & Family Services				
FTA 5310						FTA 5310	-
State						State	-
Local						Local	-
Year Total:	-	-	-	-	-	Total Funds:	-
Description:							

Greater Lynchburg Transit Company	Previous Funding	FY 2018	FY 2019	FY 2020	FY 2021	Total FY 2018-2021	
FTA 5307	2,049	2,197	1,953	2,358	2,049	FTA 5307	8,557
FTA 5309	-	-	-	-	-	FTA 5309	-
FTA 5310	-	-	-	-	-	FTA 5310	-
FTA 5311	-	-	-	-	-	FTA 5311	-
FTA 5314	-	-	-	-	-	FTA 5314	-
FTA 5337	-	-	-	-	-	FTA 5337	-
FTA 5339	-	-	3,666	-	-	FTA 5339	3,666
FTA ADTAP	-	-	-	-	-	FTA ADTAP	-
FTA DPF	-	-	-	-	-	FTA DPF	-
FTA TIGER	-	-	-	-	-	FTA TIGER	-
FBD	-	-	-	-	-	FBD	-
Flexible STP	-	432	-	506	14,458	Flexible STP	15,396
CMAQ	-	-	-	-	-	CMAQ	-
RSTP	-	-	-	-	-	RSTP	-
FHWA TAP	-	-	-	-	-	FHWA TAP	-
TIFIA	-	-	-	-	-	TIFIA	-
Other Federal	-	-	-	-	-	Other Federal	-
State	2,015	1,759	2,745	2,139	4,724	State	11,367
Local	3,052	4,291	1,995	1,440	3,958	Local	11,684
Revenues	1,188	975	2,506	2,398	1,188	Revenues	7,067
Totals	8,304	9,654	12,865	8,841	26,377		57,737

Human Service Transportation Providers	Previous Funding	FY 2018	FY 2019	FY 2020	FY 2021	Total FY 2018-2021	
FTA 5307	-	-	-	-	-	FTA 5307	-
FTA 5309	-	-	-	-	-	FTA 5309	-
FTA 5310	-	120	76	134	120	FTA 5310	450
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	-	35	35	30	35	State	135
Local	-	28	17	31	28	Local	104
Revenues	-	1	1	0	1	Revenues	3
Totals	-	184	129	195	184		692

Central VA MPO	Previous Funding	FY 2018	FY 2019	FY 2020	FY 2021	Total FY 2018-2021	
FTA 5307	2,049	2,197	1,953	2,358	2,049	FTA 5307	8,557
FTA 5309	-	-	-	-	-	FTA 5309	-
FTA 5310	-	120	76	134	120	FTA 5310	450
FTA 5311	-	-	-	-	-	FTA 5311	-
FTA 5314	-	-	-	-	-	FTA 5314	-
FTA 5337	-	-	-	-	-	FTA 5337	-
FTA 5339	-	-	3,666	-	-	FTA 5339	3,666
FTA ADTAP	-	-	-	-	-	FTA ADTAP	-
FTA DPF	-	-	-	-	-	FTA DPF	-
FTA TIGER	-	-	-	-	-	FTA TIGER	-
FBD	-	-	-	-	-	FBD	-
Flexible STP	-	432	-	506	14,458	Flexible STP	15,396
CMAQ	-	-	-	-	-	CMAQ	-
RSTP	-	-	-	-	-	RSTP	-
FHWA TAP	-	-	-	-	-	FHWA TAP	-
TIFIA	-	-	-	-	-	TIFIA	-
Other Federal	-	-	-	-	-	Other Federal	-
State	2,015	1,794	2,780	2,169	7,426	State	14,169
Local	3,052	4,319	2,012	1,471	3,986	Local	11,788
Revenues	1,188	976	2,507	2,398	1,189	Revenues	7,070
Totals	8,304	9,838	12,994	9,036	29,228		61,096

SECTION 5: 6-YEAR AIRPORT PROJECTS GRANT FUND



FY 2017 – 2021 CAPITAL IMPROVEMENT PROGRAM — AIRPORT – NEW/ACTIVE

AIRPORT CAPITAL PROJECTS FUND – SUMMARY OF APPROPRIATIONS - This summary demonstrates project appropriations for each Fiscal Year along with the expected sources of funding.

	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021
RESOURCES					
Federal Aviation Administration	\$1,080,000	\$1,620,000	\$3,780,000	\$1,890,000	\$4,050,000
Virginia Department of Aviation	680,000	580,000	420,000	210,000	450,000
Local (Airport) Pay-As-You-Go	140,000	100,000	0	0	0
TOTAL ESTIMATED RESOURCES	\$1,900,000	\$2,300,000	\$4,200,000	\$2,100,000	\$4,500,000
PROPOSED PROJECTS					
Airfield Lighting Rehabilitation (LED)	\$1,200,000	\$0	\$0	\$0	\$0
North General Aviation Development Area	700,000	0	0	0	0
Mid-Field General Aviation Development Area	0	1,800,000	0	0	0
Terminal Refurbishment (Baggage Systems/Lighting/Counters)	0	500,000	0	0	0
Runway 4-22 Rehabilitation	0	0	4,200,000	0	0
Taxiway "B" Rehabilitation	0	0	0	2,100,000	0
Runway 4-22 Parallel Taxiway	0	0	0	0	4,500,000
TOTAL PROPOSED PROJECTS	\$1,900,000	\$2,300,000	\$4,200,000	\$2,100,000	\$4,500,000

APPENDIX A:
PROJECTS BY GROUPING

Appendix A

Projects by Grouping

Lynchburg MPO

Construction : Bridge Rehabilitation/Replacement/Reconstruction

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T19026	Lynchburg District-wide	0000		\$0
		BRIDGE REHABILITATION/REPLACEMENT			
Primary	104600	Campbell County	WARDS ROAD (0029)		\$14,657,342
		RTE 29 NBL - BRIDGE & APPR. OVER NS RR FED. ID. NO. (04144)			
		FROM: 0.500 MILE NORTH OF RTE 683 TO: 1.002 MILES NORTH OF RTE 683 (0.5020 MI)			
Secondary	101043	Amherst County	SEMINOLE DRIVE (0681)		\$2,182,965
		#SGR RTE 681 - REPLACE BRIDGE OVER WILLIAMS RUN (FED ID 0152			
		FROM: 0.600 MILE EAST OF RTE 29 TO: 0.800 MILE EAST OF RTE 29 (0.2000 MI)			
Secondary	97711	Bedford County	0621		\$3,542,180
		RTE. 621 OVER IVY CREEK (STR. ID 02707) - BRIDGE REPLACEMENT			
		FROM: 0.40 Rte 1240 TO: .025 Rte 884 (0.2500 MI)			
Secondary	51916	Bedford County	GOODE ROAD (0668)		\$5,058,036
		#SGR Rt 668 Over NSRR(STR 02785) Replace Brg & Improve Appr			
		FROM: 0.33 mi North of Rt. 702 (Prophet Rd) TO: 0.37 mi South of Rt. 840 (Pilgrim Rd) (0.1990 MI)			
Urban	104599	Lynchburg	RICHMOND HIGHWAY (0029)		\$10,111,438
		RTE 29 SBL & NBL - BR & APPR OVER NSRR FED ID 20579 & 20580			
		FROM: 0.10 MILE NORTH OF RTE 501 TO: 1.50 MILE NORTH OF RTE 501 (1.4000 MI)			
Construction : Bridge Rehabilitation/Replacement/Reconstruction Total					\$35,551,961

Construction : Rail

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Secondary	105610	Campbell County	GOODMAN CROSSING RD. (0626)		\$442,977
		Rt.626-Upgrade Flashing Lights&Gates,CWT Pred,Unidirect&Appr			
		FROM: 88 ft E of Rt. 713 TO: at NSRR Crossing #713912F			
Urban	105609	Lynchburg	VARIOUS - 7TH / ADAMS ST AND CONCORD TRNPK. (9999)		\$675,942
		CITYWIDE - FLASHING LIGHTS, GATES, & CWT PREDICTORS			
		FROM: Various TO: At CSXRR Crossings #224559H and 224551D			
Construction : Rail Total					\$1,118,919

Construction : Safety/ITS/Operational Improvements

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Interstate	107802	Statewide	9999		\$500,000
		Incident Management Emergency Evacuation and Detour Plans			
		FROM: Various TO: Various			
Miscellaneous	T19022	Lynchburg District-wide	0000		\$0
		CN: SAFETY/ITS/OPERATIONAL/IMPROVEMENTS			
Miscellaneous	106553	Lynchburg District-wide	0000		\$745,961
		Committed Safety Projects-Lynchburg			
		FROM: various TO: various			

Construction : Safety/ITS/Operational Improvements

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
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	81355	Lynchburg District-wide	VARIOUS (9999)		\$1,226,866
			DISTRICTWIDE - HSIP ROADWAY SAFETY ASSESSMENT		
			FROM: VARIOUS TO: VARIOUS		
Primary	71760	Campbell County	VILLAGE HIGHWAY (0024)		\$405,328
			RTE 24 - INSTALL CROSSWALK AT ROUTE 615 & EXTEND SIDEWALK		
			FROM: ROUTE 615 TO: ROUTE 9488 (RUSTBURG HIGH SCHOOL) (0.2000 MI)		
Primary	109577	Amherst County	RICHMOND HIGHWAY (0060)		\$685,323
			RTE 60 - CONSTRUCT SIDEWALK		
			FROM: BUS 29 (SOUTH MAIN ST) TO: RTE 1102 / 1112 (WASHINGTON ST / WHITEHEAD ST) (0.3200 MI)		
Primary	109555	Lynchburg	TIMBERLAKE ROAD (0460)		\$3,233,297
			#HB2.FY17 BUS 460 - RECONSTRUCT INTERSECTION AT RTE 622		
			FROM: 0.080 MILE WEST OF RTE 622 TO: 0.080 MILE EAST OF RTE 622 (0.1600 MI)		
Primary	107015	Amherst County	SOUTH AMHERST HIGHWAY (7029)		\$3,700,000
			BUS 29 - SHOULDER WIDENING/RUMBLE STRIPS - AMHERST COUNTY		
			FROM: 0.03 MILE NORTH RTE 646 TO: 0.16 MILE NORTH RTE 661 (5.8200 MI)		
Primary	109586	Amherst County	SOUTH AMHERST HIGHWAY (7029)		\$1,001,039
			BUS 29 - CONSTRUCT SIDEWALK (MADISON HEIGHTS)		
			FROM: RTE 1054 (LAKEVIEW RD) TO: RTE 682 (WOODY'S LAKE RD) (1.4000 MI)		
Primary	104743	Lynchburg District-wide	VARIOUS (9999)		\$1,000,000
			DISTRICTWIDE - SIGNAL UPGRADES		
			FROM: VARIOUS TO: VARIOUS		
Primary	107018	Lynchburg District-wide	VARIOUS (9999)		\$913,732
			LYNCHBURG DISTRICTWIDE CURVE COUNTERMEASURES (SIGNS)		
			FROM: VARIOUS TO: VARIOUS		
Primary	107090	Lynchburg District-wide	VARIOUS (9999)		\$184,033
			DISTRICTWIDE - BUCKLE-UP SIGNING SAFETY IMPROVEMENT		
			FROM: VARIOUS TO: VARIOUS		
Primary	108054	Lynchburg District-wide	VARIOUS (9999)		\$436,488
			DISTRICTWIDE - ADA COMPLIANCE CURB RAMP IMPROVEMENTS		
			FROM: VARIOUS TO: VARIOUS		
Primary	109559	Lynchburg District-wide	VARIOUS (9999)		\$2,245,261
			#SGR PM3X17 AMHERST - NELSON COUNTY PLANT MIX (SGR)		
			FROM: VARIOUS TO: VARIOUS		
Primary	103538	Bedford County	PM2L		\$1,987,294
			F14 Plant Mix Bedford County - Primaries PM2L-009-F14		
			(8.0300 MI)		
Secondary	109550	Amherst County	WOODY'S LAKE ROAD (0682)		\$7,855,088
			#HB2.FY17 RTE 682 - RECONSTRUCTION		
			FROM: BUS 29 TO: 0.900 MILE EAST OF BUS 29 (0.9000 MI)		

Construction : Safety/ITS/Operational Improvements

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Secondary	5542	Campbell County	LYNBROOK ROAD (0622)		\$9,526,743
			RTE 622 - RECONSTRUCTION		
			FROM: 0.004 MILE EAST OF ROUTE 683 TO: 1.231 MILE EAST OF ROUTE 683 (1.2270 MI)		
Urban	86544	Lynchburg	MEMORIAL AVENUE (0163)		\$2,278,916
			INTERSECTION IMPROVEMENT - LAKESIDE/PARK/MEMORIAL		
			FROM: 0.02 MILE SOUTH OF PARK AVE. TO: 0.02 MILE NORTH OF PARK AVE.		
Urban	8759	Lynchburg	MIDTOWN CONN. (U000)		\$26,703,185
			MIDTOWN CONNECTOR - NEW 2-LANE, W/ FLUSH MED., C&G,S/W.		
			FROM: INT. RTE. 29 BUS. TO: INT. MEMORIAL AVE. (1.0200 MI)		
Urban	109554	Lynchburg	ODDFELLOWS ROAD (9999)		\$17,702,165
			#HB2.FY17 ODDFELLOWS ROAD SEGMENT B2 - RECONSTRUCTION		
			FROM: 0.100 MILE WEST OF RTE 128 (MAYFLOWER DR) TO: BUS 29 (LYNCHBURG EXPRESSWAY) (0.4100 MI)		
Urban	109702	Lynchburg	RIVERMONT AVENUE (0501)		\$510,000
			ADAPTIVE SIGNAL CONTROL - RIVERMONT AVENUE		
			FROM: UR 6012 TO: UR 6020 (1.0200 MI)		
Urban	102829	Lynchburg	VARIOUS (9999)		\$189,734
			SAFE ROUTES TO SCHOOL - DEARINGTON ELEMENTARY SCHOOL		
			FROM: VARIOUS TO: VARIOUS		
Urban	102830	Lynchburg	VARIOUS (0000)		\$191,198
			SAFE ROUTES TO SCHOOL - TC MILLER ELEMENTARY SCHOOL		
			FROM: VARIOUS TO: VARIOUS		
Urban	102831	Lynchburg	VARIOUS (9999)		\$151,867
			SAFE ROUTES TO SCHOOL - PERRYMONT ELEMENTARY SCHOOL		
			FROM: VARIOUS TO: VARIOUS		
Urban	105246	Lynchburg	VARIOUS (9999)		\$444,704
			CITY OF LYNCHBURG - SRTS - LINKHORNE/BASS ES - BIKE/PED IMP		
			FROM: VARIOUS TO: VARIOUS		
Construction : Safety/ITS/Operational Improvements Total					\$86,322,962

Construction : Transportation Enhancement/Byway/Non-Traditional

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Enhancement	104101	Amherst County	NA (9999)		\$572,282
			AMHERST DEPOT PARKING & EXTERIOR RESTORATION PHASE 2		
			FROM: NA TO: NA		
Enhancement	106869	Amherst County	9999		\$425,675
			PHASE III - AMHERST DEPOT INTERIOR RESTORATION		
Enhancement	81757	Lynchburg	NA (EN06)		\$1,265,759
			CITY OF LYNCHBURG - RIVERSIDE PARK MASTER PLAN		
			FROM: NA TO: NA		
Enhancement	106057	Lynchburg	JEFFERSON RIDGE PARKWAY (EN14)		\$409,274
			LYNCHPIN INDUSTRIAL PARK SIDEWALK		
			FROM: 0.226 MILE NORTH OF RTE 221 TO: DEAD END (0.8610 MI)		

Construction : Transportation Enhancement/Byway/Non-Traditional

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Enhancement	17595	Amherst	NA (EN97)		\$1,083,930
			TOWN OF AMHERST - DEPOT RELOCATION & RENOVATION		
			FROM: NA TO: NA		
Miscellaneous	T19016	Lynchburg District-wide	0000		\$0
			CN: TRANSPORTATION ENHANCEMENT/BYWAY/OTHER NON-TRADITIONAL		
Miscellaneous	72657	Amherst County	RIVERWALK TRAIL (SBVA)		\$2,286,076
			RIVER WALK TRAIL EXTENSION - AMHERST COUNTY GREENWAY		
			FROM: Intersection of Route 1005 and park entrance TO: 6000' downstream (1.1360 MI)		
Construction : Transportation Enhancement/Byway/Non-Traditional Total					\$6,042,996

Maintenance : Preventive Maintenance and System Preservation

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T14716	Lynchburg District-wide	0000		\$0
			STIP-MN Lynchburg: Preventive MN and System Preservation		
Maintenance : Preventive Maintenance and System Preservation Total					\$0

Maintenance : Preventive Maintenance for Bridges

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T14715	Lynchburg District-wide	0000		\$0
			STIP-MN Lynchburg: Preventive MN for Bridges		
Maintenance : Preventive Maintenance for Bridges Total					\$0

Maintenance : Traffic and Safety Operations

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T14714	Lynchburg District-wide	0000		\$0
			STIP-MN Lynchburg: Traffic and Safety Operations		
Maintenance : Traffic and Safety Operations Total					\$0

Lynchburg MPO Total	\$129,036,838
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APPENDIX B:

Resolution of Adoption and Statement of Certification



**RESOLUTION OF THE CENTRAL VIRGINIA METROPOLITAN PLANNING ORGANIZATION
TO ADOPT THE CENTRAL VIRGINIA TRANSPORTATION IMPROVEMENT PROGRAM
FISCAL YEARS 2018 – 2021**

WHEREAS, the *Transportation Improvement Program* is required to be submitted to the Virginia Department of Transportation for inclusion in the State Transportation Improvement Program; and,

WHEREAS, inclusion of transportation projects in the *Transportation Improvement Program* is a condition of federal participation in the funding of that project; and,

WHEREAS, the *Transportation Improvement Program* has been prepared to initiate review by the Central Virginia Metropolitan Planning Organization of proposed transportation improvements for fiscal years 2018 – 2021; and,

WHEREAS, the Transportation Technical Committee has reviewed this document and has recommended that the Central Virginia Metropolitan Planning Organization forward the *Transportation Improvement Program* to the Virginia Department of Transportation for inclusion in the State Transportation Improvement Program.

NOW, THEREFORE, BE IT RESOLVED THAT, the Central Virginia Metropolitan Planning Organization, in regular session, does hereby duly adopt the Central Virginia Transportation Improvement Program Fiscal Years 2018 – 2021.

Upon motion by Member Dean Rodgers duly seconded by Member Bonnie Lucet adopted this 20th day of April 2017.

ATTESTED BY:

A handwritten signature in black ink, reading "Gary F. Christie", written over a horizontal line.

Gary F. Christie, Secretary
Central Virginia Metropolitan
Planning Organization

CERTIFIED BY:

A handwritten signature in black ink, reading "Edgar J. T. Perrow, Jr.", written over a horizontal line.

Edgar J. T. Perrow, Jr., Chair
Central Virginia Metropolitan
Planning Organization



**CENTRAL VIRGINIA
METROPOLITAN
PLANNING
ORGANIZATION**

**STATEMENT OF CERTIFICATION
LYNCHBURG URBANIZED AREA**

The Central Virginia Metropolitan Planning Organization (MPO) and the Virginia Department of Transportation (VDOT) hereby certify that the transportation planning process conducted within the Central Virginia Metropolitan Study Area by its agents and/or representatives, and funded under the latest Unified Planning Work Program (UPWP), is addressing the major issues facing the area and is being carried out in conformance with all applicable requirements of:

- 1) 23 U.S.C. 134 and 135, 49 U.S.C. 5303, 5304, 23 CFR part 530, and 23 CFR part 450.218;
- 2) Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d-1) and 49 CFR part 21;
- 3) 49 U.S.C. 5332, prohibiting discrimination on the basis of race, color, creed, national origin, sex, or age in employment or business opportunity;
- 4) Section 1101 (b) of MAP-21, 23 U.S.C. and 49 CFR part 26 regarding the involvement of disadvantaged business enterprises in USDOT funded projects;
- 5) 23 CFR part 230, regarding the implementation of an equal employment opportunity program on Federal and Federal-aid highway construction contracts;
- 6) The provisions of the Americans with Disabilities of 1990 (42 U.S.C. 12101 et seq.) and 49 CFR parts 27, 37, and 38;
- 7) In States containing nonattainment and maintenance areas, Sections 174 and 176(c) and (d) of the Clean Air Act, as amended (42 U.S.C. 7504, 7506(c) and (d)) and 40 CFR part 93;
- 8) The Older Americans Act, as amended (42 U.S.C. 6101), prohibiting discrimination on the basis of age in programs or activities receiving Federal financial assistance;
- 9) Section 324 of title 23 U.S.C. regarding the prohibition of discrimination based on gender; and
- 10) Section 504 of the Rehabilitation Act of 1973 (29 U.S.C. 794) and 49 CFR part 27 regarding discrimination against individuals with disabilities.

ATTEST

By:

Gary F. Christie, Secretary

By:

Date:

CENTRAL VIRGINIA
METROPOLITAN PLANNING
ORGANIZATION

5.15.14

ATTEST

By:

By:

Date:

VIRGINIA DEPARTMENT OF
TRANSPORTATION

5.15.14

APPENDIX C:

Performance Based Planning and Programming

The two most recent federal transportation laws, MAP-21 and FAST Act establish performance measure requirements to ensure States and metropolitan planning organizations (MPOs) are investing transportation funds in projects that collectively will contribute towards the achievement of national goals. The USDOT recently published new rules for States and MPOs to collect data and establish performance targets that will support performance and outcome based investment decisions.

The new federal performance measurement requirements focus on three main areas – safety, asset management (maintenance), and system performance. Safety measures are associated with highway fatalities and injuries as well as transit fatalities; injuries; and incidents such as derailments, collisions, and fires. Asset management measures are associated with the condition of roads and bridges while system measures are associated with congestion and reliability.

Final Rule publication dates and performance target implementation dates are included in Table 1 below:

Table: Performance Management Regulations Final Rule Publication Dates and Performance Target Implementation Dates

Final Rules	Publication Date	Deadline for States to Set Performance Targets	Deadline for MPOs to Set Performance Targets
Highway Safety Improvement Program (HSIP) and Safety Performance Management Measures (Safety PM)	March 2016	August 31, 2017	February 27, 2018
Assessing Pavement Condition for the National Highway Performance Program	January 2017	To Be Determined	To Be Determined
Assessing Bridge Condition for the National Highway Performance Program	January 2017	To Be Determined	To Be Determined
Assessing Performance of the National Highway System, Freight Movement on the Interstate System, and Congestion Mitigation and Air Quality Improvement Program	January 2017	To Be Determined	To Be Determined

From the 23 CFR 450, Subpart B:

Prior to May 27, 2018, a State may adopt a long-range statewide transportation plan that has been developed using the SAFETEA-LU requirements or the provisions and requirements of this part.

On or after May 27, 2018, FHWA/FTA may only approve a STIP update or amendment that a State has developed according to the provisions and requirements of this part, regardless of when the State developed the STIP.

On or after May 27, 2018, a State may make an administrative modification to a STIP that conforms to either the SAFETEA-LU requirements or to the provisions and requirements of this part.

Two years from the effective date of each rule establishing performance measures under 23 U.S.C. 150(c), 49 U.S.C. 5326, or 49 U.S.C. 5329, FHWA/FTA will only approve an updated or amended STIP that is based on a statewide transportation planning process that meets the performance-based planning requirements in this part and in such a rule.

On October 1, 2016 Virginia submitted to the U.S. Secretary of Transportation the required Initial State Performance Report. This report describes performance management efforts currently underway in Virginia and highlights the State's commitment to investing limited transportation funds in the best manner possible. Virginia is currently reviewing the Final Rules associated with the performance measure requirements; along with available data sources to determine the best manner in which to establish the required performance targets.

VDOT will work with DRPT, TPB, MPOs, PDCs, and other agencies to discuss the methodology, assumptions, and possible targets. Comments from all stakeholders will be considered when determining the performance measures, data sets, methodology, and targets. Statewide performance targets will be set first, in accordance with federally established compliance dates, followed by MPO establishment of performance targets.

In future years the STIP will describe, to the maximum extent possible, the anticipated effect of the STIP toward achieving the performance targets in the following program areas: National Highway Performance Program (NHPP), Highway Safety Improvement Program (HSIP), Congestion Mitigation and Air Quality Improvement Program (CMAQ), and Freight Movement, along with reference to associated state plans, (i.e. State Asset Management Plan, Strategic Highway Safety Plan (SHSP), State Freight Plan, etc.)

Additional information on performance management and performance measures may be found on FHWA's Transportation Performance Management site located here: <https://www.fhwa.dot.gov/tpm/>.

Appendix C, Addendum 1: Performance Based Planning and Programming – Safety Performance Measures

Performance Targets

In accordance with the requirements of MAP-21 and the FAST Act, Virginia has established safety performance objectives as published in [Virginia's 2017 - 2021 Strategic Highway Safety Plan \(SHSP\)](#) and, starting in 2017, annual targets in the Highway Safety Improvement Program (HSIP) Annual Report. The SHSP performance measure objectives are indicated in Table 1 below.

Table 1: 2017 – 2021 SHSP Safety Performance Objectives

	Performance Target	Per Year Reduction
1	Number of Fatalities	2%
2	Rate of Fatalities per 100 Million Vehicle Miles Travelled	3%
3	Number of Serious Injuries	5%
4	Rate Serious Injury Million Vehicle Miles Travelled	7%
5	Number of Non-Motorized Fatalities and Non-Motorized Serious Injuries	4%

For safety performance measures 1, 2, and 3, annual targets are developed collaboratively by the Department of Motor Vehicles (DMV) Highway Safety Office (HSO) and VDOT HSIP staff.¹ The DMV HSO includes these measures in their Highway Safety Plan submitted to the National Highway Traffic Safety Administration (NHTSA) every June.

The Commonwealth Transportation Board approves all five annual targets and VDOT includes these in the HSIP Annual Report submitted to FHWA every August. Within 180 days of VDOT's annual report submission to FHWA, MPOs must indicate their support of the state targets or submit their unique regional targets for one or more of the safety measures.

Connection to Other Performance Based Planning Documents

The federally required SHSP, a five-year multi-agency comprehensive plan focused on reducing fatalities and serious injuries on all public roads, serves as the coordinating document for other plans and programs that involve traffic safety. This coordination involves the long-range statewide transportation plan (LRSTP), the metropolitan transportation plans (MTP), and three plans that implement parts of the SHSP – the Highway Safety Plan (HSP), the HSIP, and the Commercial Vehicle Safety Plan (CVSP). This integration is important for improving overall

¹ It is a federal requirement that safety performance measures 1, 2, and 3 are identical targets for NHTSA's Highway Safety Grants Program and FHWA's Highway Safety Improvement Program. This requirement allows States to align their safety performance targets and work collaboratively to achieve them.

safety coordination amongst various partners and leads to more comprehensive transportation safety planning.

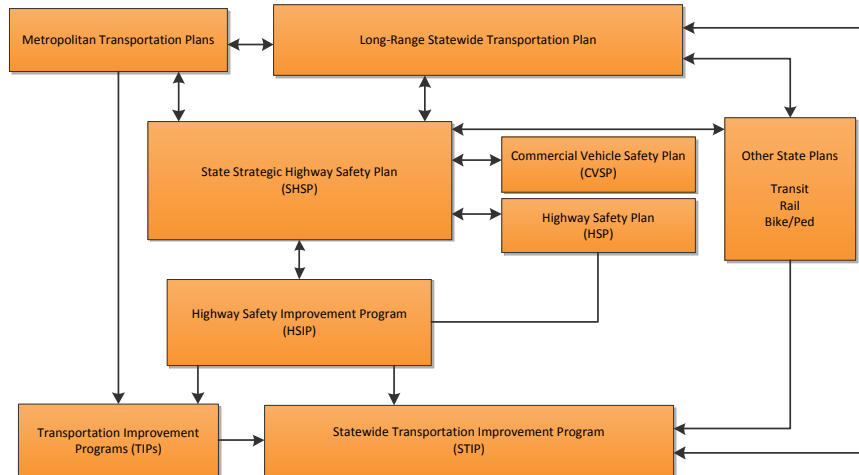
The LRSTP, VTrans2040, guides the state's investment decisions for transportation improvements. Safety and performance management is included in the VTrans2040 Vision, Goals & Objectives, and Guiding Principles:

- Guiding Principle 2: Ensure Safety, Security, and Resiliency – Provide a transportation system that is safe for all users, responds immediately to short-term shocks such as weather events or security emergencies, and adapts effectively to long-term stressors such as sea level rise.
- Guiding Principle 5: Ensure Transparency and Accountability, and Promote Performance Management – work openly with partners and engage stakeholders in project development and implementation, and establish performance targets that consider the needs of all communities, measure progress towards targets, and to adjust programs and policies as necessary to achieve the established targets.
- Goal C: Safety for All Users – provide a safe transportation system for passengers and goods on all travel modes.
 - Objectives:
 - Reduce the number and rate of motorized fatalities and serious injuries.
 - Reduce the number of non-motorized fatalities and injuries.

MTPs are similar to the LRSTP however a MTP covers a specific metropolitan planning area. MTPs include goals and objectives for their respective areas/regions and identify strategies for advancing long-term transportation investments in a specific region.

The HSP is an annual plan to address highway user behaviors that will improve safety through education and enforcement campaigns. The HSP and associated NHTSA grants are administered through the Highway Safety Office at the DMV. Furthermore, each year Virginia State Police (VSP) submits a Commercial Vehicles Safety Plan (CVSP) to Federal Motor Carrier Safety Administration as a requirement of obtaining related enforcement grants.

The relationship between the various plans and programs is shown below:



Projects in the STIP are directly linked to the safety objectives outlined in the SHSP through the strategies and actions that are priorities in Virginia.

Funding for Safety Projects

Safety targeted improvements are implemented through HSIP projects. Each year Virginia is allocated ~\$55 Million for HSIP and \$5 Million for Railway Grade Crossing improvements. Virginia is also subject to a Penalty Transfer provision, Section 154 “Open Container”, such that 2.5% of NHPP funds are reserved for either NHTSA Alcohol-Impaired Driving or HSIP projects. The State determines what proportion goes to each program. Of the HSIP funds, about 10 percent is set aside for non-motorized safety projects and 20 percent of the remainder for improvements on locally-maintained roadways.

How do Safety Projects get selected for Inclusion in the STIP?

The HSIP project planning and delivery follows these steps:

- Each year highway segment and intersection locations that have the highest potential for safety improvement are identified based on the previous five years of traffic crash and volume data. These above average crash locations are provided to the VDOT Districts to determine appropriate locations and countermeasures for HSIP funding. The potential for vehicle-train crashes at each at-grade railroad crossing is also distributed.
- HSIP project proposals are submitted through the SMART Portal for the appropriate safety program.
- VDOT and locality submitted HSIP proposals are reviewed and prioritized based on the number of targeted crashes and the benefit to cost ratio or the potential risk reduction for non-motorized and rail highway grade crossing improvements.
- Projects are selected and programmed for the last two or three years of the SYIP. At present there are over \$100 million of safety improvement proposals, with an expected benefit, that remain unfunded.

In recent years, programmed priority HSIP projects have shifted from being higher cost spot intersection and segment improvements to lower cost systemic improvements that target specific crash types and/or roadway characteristics that are factors in crashes across the network. Examples of systemic improvements include traffic signal devices and timing at intersections and curve signing, higher friction surfaces and rumble strips on segments.

Safety improvements are also included within projects funded with non-HSIP funds. The SMART SCALE scoring and prioritization process for inclusion of projects in the SYIP, considers safety benefits from improvements addressing travel of all modes. Many of the large SMART SCALE projects, upon completion, will have distinct impacts on safety performance in the Commonwealth. In addition, projects funded through other state and federal sources in the SYIP, such as the Transportation Alternatives Program, including Safe Routes to School grants, Revenue Sharing, and even some CMAQ and maintenance projects, will also have crash reduction benefits that contribute to improved safety performance.

Thus, the funding to meet Virginia's safety objectives and targets is allocated to projects in the CTB approved SYIP, and is consistent with VTrans2040. Since the SYIP is the foundation for the STIP, the program of projects in the STIP demonstrates support to achieve Virginia's safety performance objectives and targets and is consistent with Virginia's SHSP and the HSIP.

Appendix C. Addendum 2

Performance Based Planning and Programming for Transit Asset Management

The two most recent federal transportation laws, MAP-21 and FAST Act, establish performance measure requirements to ensure states and metropolitan planning organizations (MPOs) are investing transportation funds in projects that collectively will contribute towards the achievement of national goals. The USDOT recently published new rules for states and MPOs to collect data and establish performance targets that will support performance and outcome-based investment decisions.

The new federal performance measurement requirement for transit agencies focuses on one area: transit asset management (TAM). The measures look specifically at the percentage of revenue vehicles that have exceeded their Useful Life Benchmark (ULB), the percentage of non-revenue and service vehicles that have exceeded their ULB, and percentage of facilities with a condition below 3.0 on the Federal Transit Administrator's TERM Scale. All transit agencies receiving grants from the FTA are required to complete a TAM plan. The FTA has established two tiers of agencies based on size parameters.

- A Tier I agency operates rail, OR has 101 vehicles or more all fixed route modes, OR has 101 vehicles or more in one non-fixed route mode.
- A Tier II agency is a subrecipient of FTA 5311 funds, OR is an American Indian Tribe, OR has 100 or less vehicles across all fixed route modes, OR has 100 vehicles or less in one non-fixed route mode.

The first completed TAM plan must be sent to the National Transit Database (NTD) by October 1, 2018. Other required deadlines are found in the table below.

Reporting Activity	Reporting Deadline
Complete compliant TAM Plan	October 2018
Report FY18 asset data to NTD Submit FY19 targets to NTD	October 2018
Report FY19 asset data to NTD Submit FY20 targets to NTD Submit narrative report to NTD	October 2019
Report FY20 asset data to NTD Submit FY21 targets to NTD Submit narrative report to NTD	October 2020
Complete updated TAM Plan	October 2022

Table 1: Transit agency deadlines for TAM Rulemaking for June-July fiscal year

The Department of Rail and Public Transportation (DRPT) has opted to sponsor a group TAM plan for Tier II providers. Tier I providers are not eligible for group plans.

For further details, refer to the plan of the Greater Lynchburg Transit Company.

For Tier II providers under the DRPT Group Plan, any Transportation Improvement Program (TIP) document or Metropolitan Transportation Plan (MTP) adopted after October 1, 2018 will be in compliance with the TAM Plans developed by DRPT and adopted by the Tier II transit providers within the MPO as well as the regional performance measures adopted by the MPO as a whole. The performance measurements and the targets can be found in the DRPT *Group Transit Asset Management Plan*.

The Central Virginia Metropolitan Planning Organization's planning process will integrate, either directly or by reference, the goals, objectives, performance measures, and targets described in the applicable Tier I and Tier II group plan.

Appendix C, Addendum 3: Performance Based Planning and Programming – Pavement and Bridge Performance Measures

Performance Targets

In accordance with the requirements of MAP-21 and the FAST Act, Virginia has established pavement and bridge condition performance targets as reported in Virginia's Baseline Performance Period Report for 2018-2021¹. This report, submitted to FHWA in October 2018, satisfies the federal requirement that State DOTs submit a Baseline Performance Period Report to FHWA by October 1st of the first year in a performance period. Performance measures for pavement condition are required for the National Highway System (NHS), while bridge condition requirements relate to structures identified as part of the National Bridge Inventory on the NHS. The pavement condition measures and established performance targets for the 2018-2021 performance period are indicated in Table 1 below.

Table 1: Pavement Condition Measures and Performance Targets

Interstate Pavement Condition Measures²	CY 2018-2019 Two Year Target	CY 2018-2021 Four Year Target
Percentage of Pavements in Good Condition	N/A ³	45.0%
Percentage of Pavements in Poor Condition	N/A ³	3.0%
Non-Interstate NHS Pavement Condition Measures⁴	2018-2019 Two Year Target	2018-2021 Four Year Target
Percentage of Non-Interstate Pavements in Good Condition	25.0%	25.0%
Percentage of Non-Interstate Pavements in Poor Condition	5%	5.0%

Bridge condition measures and established performance targets for the 2018-2021 performance period are indicated in Table 2 below.

¹ Virginia's Baseline Performance Period Report data is through December 2017.

² Interstate condition measures are based on four distresses: International Roughness Index (IRI), cracking, rutting, and faulting.

³ During this first performance period, States are not required to establish 2-year targets for interstate pavements; however, Virginia has chosen to establish performance targets and are 45.0% and 3.0% for percentage of pavements in good and poor condition, respectively.

⁴ During this first performance period, Federal requirements for Non-Interstate NHS pavement condition and performance targets are based on a single distress, IRI. However, Federal guidance outlined in a September 27, 2018 Memorandum on State DOT Targets for Non-Interstate NHS Pavement Measures allows for the use of full distress data when reporting Non-Interstate NHS performance targets. Given the availability of full distress data, Virginia has chosen this approach and reported performance targets for Non-Interstate NHS pavements based on all four distresses. This allows for consistency in assessing the condition and setting performance targets for both Interstate and Non-Interstate NHS pavements.

Table 2: NHS Bridge Condition Measures and Performance Targets

NHS Bridge Condition Measures	CY 2018-2019 Two Year Target	CY 2018-2021 Four Year Target
Percentage of Deck Area of NBI Bridges on the NHS in Good Condition	33.5%	33.0%
Percentage of Deck Area of NBI Bridges on the NHS in Poor Condition	3.5%	3.0%

Background/History

Virginia's history of monitoring asset conditions and utilizing performance information to determine investment strategies based on available funding levels spans over 10 years for pavements and bridges.

VDOT maintains a comprehensive inventory of all pavement and bridges on the state-maintained network. This inventory, which includes location, maintenance responsibility, ownership, and current condition or inspection information, serves as the foundation for life cycle planning, performance forecasting, maintenance and rehabilitation needs estimation, as well as prioritization of work to maximize asset life given available funding. Condition information is also important for communicating with external stakeholders, including the general public.

VDOT's commitment to responsible Transportation Asset Management (TAM) practice is demonstrated through VDOT's annual condition data collection programs and its establishment and publication of network level pavement and bridge performance goals. VDOT's current condition measures and performance goals have been in place for many years and are fully integrated into VDOT's budgeting process and investment strategies.

The federal pavement and bridge performance measures apply to a limited portion of the network for which VDOT is responsible (less than 15% of all lane miles and 18% of the bridge inventory).

Connection to Other Performance Based Planning Documents

VTrans, the state's long-range multimodal plan, provides the overarching vision and goals for transportation in the Commonwealth. The long-range plan provides a vision for Virginia's future transportation system and defines goals, objectives, and guiding principles to achieve the vision. It also provides direction to state and regional transportation agencies on strategies and policies to be incorporated into their plans and programs. The most recent approved long-range multimodal plan is VTrans2040.

Performance management, specifically as it relates to pavements and bridges, is included in the VTrans2040 Vision, Goals & Objectives, and Guiding Principles as noted below:

- Guiding Principle 5: Ensure Transparency and Accountability, and Promote Performance Management - Work openly with partners and engage stakeholders in project development and implementation, and establish performance targets that consider the needs of all communities, measure progress towards targets, and to adjust programs and policies as necessary to achieve the established targets.
- Goal D: Proactive System Management - maintain the transportation system in good condition and leverage technology to optimize existing and new infrastructure.
 - Objectives:
 - Improve the condition of all bridges based on deck area.
 - Increase the lane miles of pavement in good or fair condition.

Virginia's federally required Transportation Asset Management Plan (TAMP) presents pavement and bridge inventory and conditions, along with the Commonwealth's performance objectives, measures, and associated risks as they relate to the federal requirements. Asset funding, investment strategies, forecasts, goals, and gaps are also included. The TAMP is specific to the NHS and provides the Commonwealth's Transportation Asset Management (TAM) processes and methodology to meet federal requirements. Pavement and bridge projects included in the STIP are consistent with Virginia's reported TAM processes and methodology.

The program of projects in the STIP are directly linked to the pavement and bridge objectives outlined in VTrans2040 and the TAMP through the strategies and actions that are priorities in Virginia.

Funding for Pavement and Bridge Projects

There are two key funding sources for pavement and bridge projects, the Highway Maintenance and Operations Fund (HMOF) and State of Good Repair (SGR) program funds. The pavement and bridge funding is used for differing projects from routine maintenance to reconstructive work. Funds are allocated to pavement and bridge projects based on an annual needs assessment process supported by a data-driven prioritization and selection process. The prioritization process is the same for the various funding sources; however, the [State of Good Repair](#) program funds are designated for deteriorated pavements and structurally deficient bridges.

The SGR program requires funds be distributed proportionality between VDOT and localities, based on assessed needs. More details, including the requirements for pavements and bridges, and the SGR prioritization process methodology, can be found at: [State of Good Repair for Bridges](#) and [Local Assistance Funding Programs](#).

VDOT has developed a robust asset management program, placing maintenance of the transportation network at the forefront of VDOT's investment decisions. This commitment to responsible asset management practice is demonstrated through VDOT's annual collection of condition data on pavements and bridges along with its establishment and publication of network-level pavement and bridge performance targets. For more than a decade, VDOT has

monitored pavement and bridge conditions using performance information (measures and targets) to determine investment strategies based on available funding levels.

In the annual needs assessment process, VDOT assesses 100% of the pavement network on Virginia's Interstate and Primary systems and approximately 20% of the Secondary system. In 2016, VDOT assessed 100% of the Secondary pavement network to create a condition baseline. The pavement condition data is compiled, analyzed and reviewed to report the optimized needs at a roadway system and district level. VDOT's pavement program selects resurfacing projects, in relation to needs, and optimizes the timing of projects through a data-driven pavement management system.

For bridges, VDOT follows national standards in performing safety inspections and determining general condition of the structures. Condition assessments are performed by certified safety inspection personnel. The inspection program requires a qualified inspector to complete a "hands-on" review of the structure or bridge during each inspection. By federal regulation, VDOT is required to conduct detailed inspections of NBI structures at intervals not to exceed 24 months. VDOT uses BrM software to store bridge condition and inventory data for each structure and to program, schedule, and track bridge and structure inspections. The data collected during inspections allows VDOT to use a proactive approach to maintenance. Preventive maintenance and timely intervention repairs are performed to avoid and slow deterioration that leads to greater rehabilitation or replacement cost. Virginia's bridge maintenance program is large and complex, so in order to direct its efforts more easily, performance targets have been developed.

VDOT uses a prioritization process when determining funding for the pavement and bridge programs and prioritizes work ranging from preventative maintenance to replacement. The prioritization processes take into account similar factors such as condition, cost effectiveness, maintenance history, and traffic volumes. While the systematic prioritization processes are a guide to assist in funding projects, districts direct the work performed as the local experts.

How do Pavement and Bridge Projects get selected for Inclusion in the STIP?

As noted above, the funding to meet Virginia's pavement and bridge objectives and targets is allocated to projects in the CTB-approved SYIP and is consistent with VTrans2040. Each spring, the public is invited to comment on projects included in the draft SYIP prior to CTB approval. Since the SYIP is the foundation for the STIP, the program of projects in the STIP demonstrates support to achieve Virginia's pavement and bridge performance objectives and targets and is consistent with Virginia's TAMP.

Appendix C, Addendum 4: Performance Based Planning and Programming – Highway System Performance

Performance Targets

In accordance with the requirements of MAP-21 and the FAST Act, Virginia has established performance targets for three reliability performance measures to assess the Highway System Performance. All three measures are included in Virginia's Baseline Performance Period Report for 2018-2021 which was submitted to FHWA in October 2018. This report satisfies the federal requirement that State DOTs submit a Baseline Performance Period Report to FHWA by October 1st of the first year in a performance period and establishes baseline performance as of December 31, 2017.

Performance of the NHS is measured by the level of travel time reliability. The travel time reliability performance measures and performance targets for the 2018-2021 performance period are indicated in Table 1 below.

Table 1: National Highway System Travel Time Reliability Performance Measures and Targets

NHS Travel Time Reliability Performance	CY 2018-2019 Two Year Target	CY 2018-2021 Four Year Target
Percent of Person Miles Traveled on the Interstate That Are Reliable	82.2%	82.0%
Percent of Person Miles Traveled on the Non-Interstate NHS That Are Reliable	N/A ¹	82.5%

The assessment for freight reliability is based on the truck travel time reliability index. The truck travel time reliability performance measure and performance targets for the 2018-2021 performance period are indicated in Table 2 below.

Table 2: Freight Reliability Performance Measure and Targets

Truck Travel Time Reliability Performance	CY 2018-2019 Two Year Target	CY 2018-2021 Four Year Target
Truck Travel Time Reliability Index	1.53	1.56

The Commonwealth Transportation Board (CTB) approves the performance measures and targets developed for Virginia's surface transportation network. Such targets, including those for Highway System Performance, are linked to the goals and objectives in Virginia's long-range transportation plan, or VTrans.

¹ During this first performance period, States are not required to establish 2-year targets for the Non-Interstate NHS reliability measure.

Connection to Other Performance Based Planning Documents

VTrans, the state's long-range multimodal plan, provides the overarching vision and goals for transportation in the Commonwealth. The long-range plan provides a vision for Virginia's future transportation system and defines goals, objectives, and guiding principles to achieve the vision. It also provides direction to state and regional transportation agencies on strategies and policies to be incorporated into their plans and programs. The most recent approved long range multimodal plan is VTrans2040.

VTrans2040 identifies the most critical transportation needs in Virginia to ensure the overarching transportation goals in the long-range plan are achieved. The screening process was informed by a data-driven approach that considers highway system performance measures and targets in addition to other performance indicators.

Performance management, as it relates to the reliability of the NHS and freight, is included in the VTrans2040 Vision, Goals & Objectives, and Guiding Principles as noted below:

- Guiding Principle 4: Consider Operational Improvements and Demand Management First – Maximize capacity of the transportation network through increased use of technology and operational improvements as well as managing demand for the system before investing in major capacity expansions.
- Goal A – Economic Competitiveness and Prosperity: invest in a transportation system that supports a robust, diverse, and competitive economy.
 - Objectives:
 - Reduce the amount of travel that takes place in severe congestion.
 - Reduce the number and severity of freight bottlenecks.
 - Improve reliability on key corridors for all modes.
- Goal B – Accessible and Connected Places: increase the opportunities for people and businesses to efficiently access jobs, services, activity centers, and distribution hubs.
 - Objectives:
 - Reduce average peak-period travel times in metropolitan areas.
 - Reduce average daily trip lengths in metropolitan areas.
 - Increase the accessibility to jobs via transit, walking and driving in metropolitan areas.

Additionally, the Virginia Freight Element (VFE), a component of VTrans2040, discusses freight system trends, needs, and issues. The VFE also includes freight policies, strategies, and performance measures that guide Virginia's freight-related investment decisions.

Projects included in the STIP are directly linked to the Highway System Performance objectives outlined in VTrans2040 and associated needs analysis, and the VFE through the strategies and actions that are priorities in Virginia.

Funding for Highway System Performance Projects

SMART SCALE, Virginia's data-driven prioritization process for funding transportation projects, considers the potential of a project to improve reliability. In order to be considered for SMART SCALE, a project must first meet a need identified in VTrans2040, thus strengthening the connection between the planning and programming processes. Congestion mitigation, safety, accessibility, economic development, environment, and land use are the factors used to score SMART SCALE projects. Freight considerations are included in the economic development factor.

The FAST Act established a National Highway Freight Program, including a freight-specific funding program to highlight the focus on freight transportation needs. Projects eligible for National Highway Freight Program (NHFP) funding must contribute to the efficient movement of freight on the National Highway Freight Network (NHFN) and be included in the VFE. VDOT uses NHFP funding to construct freight beneficial projects identified through the SMART SCALE process.

SMART SCALE screening and scoring results, along with public feedback and CTB guidance, are used to develop the SYIP.

Other projects selected for funding are subject to program specific prioritization processes approved by the CTB. All funding (federal, state, and other sources) for transportation projects are allocated to projects in the CTB approved SYIP.

How do Highway System Performance Projects Get Selected for Inclusion in the STIP?

As noted above, the funding for all transportation projects, including funding for projects to meet Virginia's NHS system performance and freight movement targets is allocated to projects in the CTB approved SYIP, and is consistent with VTrans2040 and the VFE. Since the SYIP is the foundation of the STIP, the program of projects in the STIP demonstrates support to achieve Virginia's NHS and Freight Reliability performance objectives and targets.