

FY 2021-2024 Transportation Improvement Program (TIP)



400 Kendrick Lane
Front Royal, VA 22630
Phone (540) 636-8800
Winfredmpo.org

April 2020

Winchester-Frederick Country Metropolitan
Planning Organization

Prepared for WinFred MPO by the Northern Shenandoah Valley Regional Commission



Winchester-Frederick County Metropolitan Planning Organization

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Perry Eisenach – City of Winchester

Plan Documentation

Contact Information

400 Kendrick Lane; Front Royal, Virginia 22630

Phone: (540) 636-8800

Virginia Relay for Hearing & Voice Impaired: Within Virginia 7-1-1;

Outside Virginia Voice 800-828-1140 • Hearing 800-828-1120

Website: <https://winfredmpo.org>

Title

FY 2021-2024 Transportation Improvement Program (TIP)

Staff

Brandon Davis, Executive Director, NSVRC

Karen Taylor, Senior Project and Operations Manager, NSVRC

John Madera, Principal Planner, NSVRC

Disclaimer

The Winchester-Frederick County Metropolitan Planning Organization (WinFred MPO) Transportation Improvement Program (TIP) has been prepared in accordance with federal regulations 49 U.S.C. § 5303(j) and 23 CFR 450.326, and the Virginia Association of Metropolitan Planning Organizations TIP Development Guidelines; and in partnership with the City of Winchester, County of Frederick, and Town of Stephens City, the Virginia Department of Transportation (VDOT), the Virginia Department of Rail and Public Transportation (DRPT), the Federal Highway Administration (FHWA), and the Federal Transit Administration (FTA). The contents of this report reflect the views of the WinFred MPO, which are responsible for the accuracy of the information and data presented herein.

Self-Certification

Submission of the WinFred MPO TIP fulfils the federal self-certification requirements set forth by 23 CFR 450.336, confirming the WinFred MPO's metropolitan transportation planning process is conducted in accord with all applicable federal and state regulations.

Non-Discrimination Statement

The WinFred MPO ensures non-discrimination and equal employment in all programs and activities in accordance with Title VI and Title VII of the Civil Rights Act of 1964. If you have questions or concerns about your civil rights regarding this document, or if you need special assistance for persons with disabilities or limited English proficiency, please contact the WinFred MPO. For more information, or to obtain a Title VI Complaint Form, see <https://winfredmpo.org/resources> or call (540) 636-8800.

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Front Royal, Virginia 22630
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Brandon Davis
NSVRC

City of Winchester:

*Mary Beth Price
City Manager

*John W. Hill
Council Member

*John A. Willingham
Council Member

Frederick County:

*Judith McCann-Slaughter
Board of Supervisors

*Kris Tierney
County Administrator

*Charles S. DeHaven, Jr.
Board of Supervisors

Stephens City:

*Michael Majher
Town Administrator/ Engineer

VDOT:

*Randy Kiser
District Administrator

Va. Dept. of Rail & Public Trans.:

Ciara Williams
Transit Planning Manager

Federal Highway Administration:

Richard Duran
Planning and Environmental Specialist

Federal Transit Administration:

Tony Cho
Transportation Program Specialist

* Denotes Voting Members



June 15, 2020

Terry Short
VA Department of Transportation
811 Commerce Road
Staunton, VA 24401

RE: Approval of FY21-24 TIP

Dear Mr. Short,

The Winchester Frederick County MPO Policy Board met on May 20, 2020 and unanimously approved the FFY 2021-2024 Highway Transportation Improvement Program. It should be noted that this matter was advertised as required by our Public Participation Plan and no public comment was received during the 20 day public comment period.

Would you please take the necessary steps to effect approval at VDOT and FHWA? Please accept my thanks in advance for your assistance in this matter.

Sincerely,

Brandon Davis

Brandon Davis
WinFred MPO Secretary-Treasurer

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Introduction

Purpose of this Document

Federal regulations [49 U.S.C. § 5303(j) and 23 CFR 450.326] require that all Metropolitan Planning Areas develop and maintain a Transportation Improvement Program (TIP) to coordinate regional transportation planning, maximize resources, provide transparency in the investment of federal transportation funds, and make progress towards achieving state and regional performance targets. Additionally, federal regulations require the TIP to be compatible with the WinFred MPO's Long-Range Transportation Plan (LRTP), the State's SYIP (VDOT's Six-Year Improvement Program), the State's Transportation Improvement Plan (STIP), and that it be updated a minimum of every 4-years. This TIP identifies the investment plans for Highway and Transit which are provided in the TIP Financial Plan on page 9.

Public Participation

Public participation is vital in the TIP development process to ensure that transportation projects being advanced address needs identified by the community. Federal regulations require the WinFred MPO to develop, implement, and maintain a Public Participation Plan (PPP) to provide a transparent and open planning process. The PPP identifies the various methods and ways the WinFred MPO works to ensure that the public is properly notified of its activities, and that opportunities to participate in the WinFred MPO's short and long-range planning activities are available to all residents. The TIP is updated and amended according to the procedures provided in the PPP.

The WinFred MPO

The MPO was established in 2003 through a Memorandum of Understanding (MOU) between the Secretary of Transportation for the Commonwealth of Virginia and the localities in the urbanized area including the City of Winchester, the Town of Stephens City, and Frederick County. A map of the planning area boundary for the WinFred MPO, including the major roads within the boundary can be seen in Figure 1.

The Winchester-Frederick County (WinFred) MPO is responsible for conducting a continuing, comprehensive and coordinated (3-C) transportation planning process for the Winchester metropolitan area in accordance with Section 134, Title 23, and Section 5303, Title 49, United States Code, and the joint metropolitan planning regulations of the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA). The 3-C Process enables the WinFred MPO to collaborate with its members and partners to develop a comprehensive picture of the region in its effort to identify potential issues, prioritize needs, provide solutions, identify funding opportunities, and make decisions to support, maintain and improve the region's transportation network.

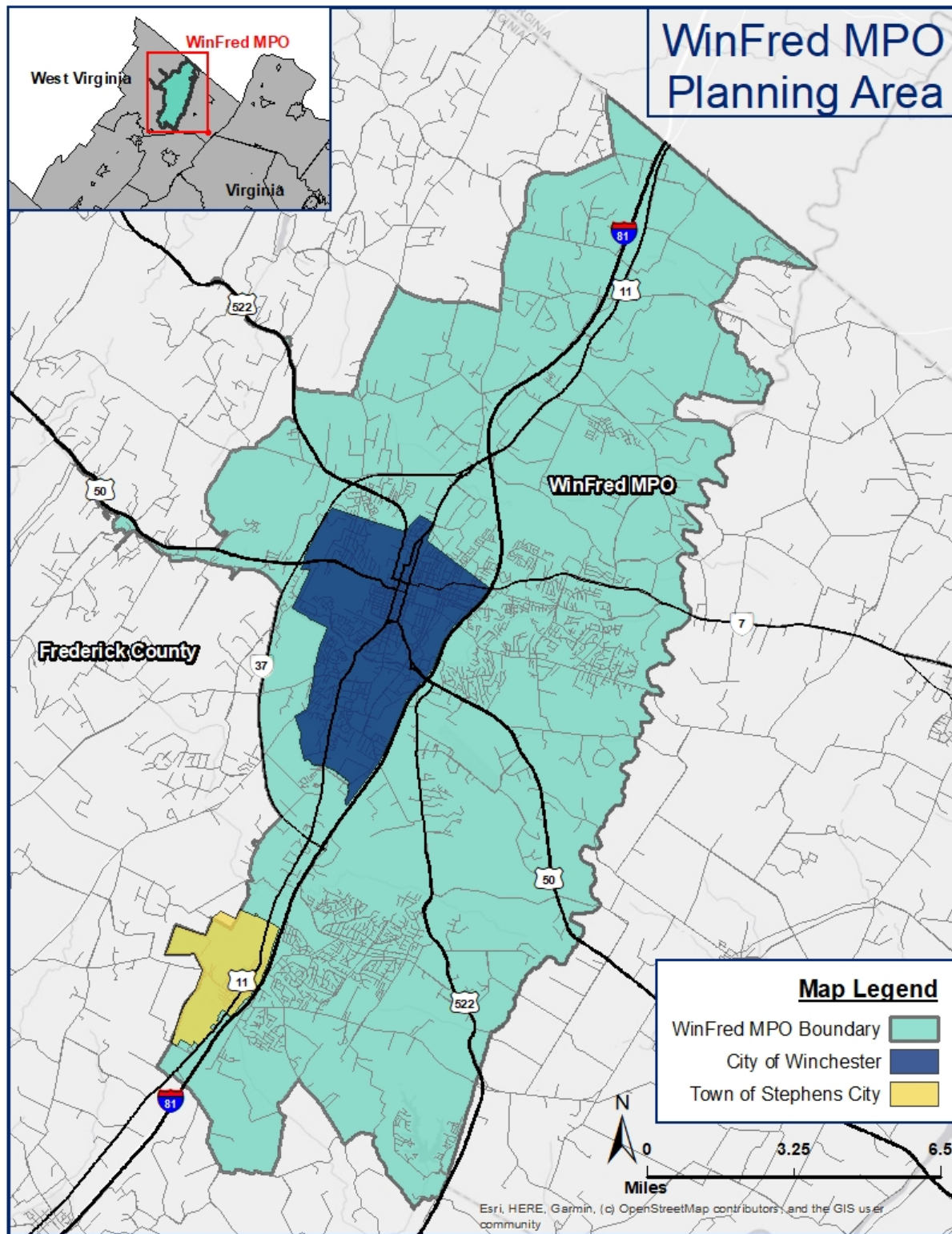
WinFred MPO Policy Board

The MPO is governed by a Policy Board comprised of elected officials from each locality and representatives from the Virginia Departments of Transportation (VDOT) and Rail and Public Transportation (DRPT), and FHWA. See page ii for the board roster. Typically meeting monthly, the Policy Board is responsible for making all of the official decisions of the MPO.

Technical Advisory Committee (TAC)

The Policy Board is advised on technical matters by a Technical Advisory Committee (TAC) comprised of planners, engineers and other transportation experts employed by the member localities and state and federal partners. See page iii for the committee roster. The TAC typically meets monthly.

Figure 1: WinFred MPO Planning Area and Major Roads



The WinFred MPO TIP

The WinFred TIP is the region’s fiscally constrained four-year program of all transportation and transit projects programmed in the WinFred MPO region that:

- Are scheduled to receive federal transportation funds
- Require a federal action; or
- Are deemed regionally significant

Projects using only local or state funds are typically not included in the TIP unless they require a federal action or are considered regionally significant. The list of transportation and transit projects programmed in the WinFred MPO FY 2021 – 2024 TIP can be found in the TIP Highway & Transit Financial Plans on page 9 of this document.

Consistency with Other State and Regional Planning Documents

Federal regulations require the TIP to be consistent with other federal, state, and regional transportation planning documents. These documents include the Statewide Transportation Improvement Program (STIP), and Six Year Improvement Program (SYIP), and the WinFred MPO Long-Range Transportation Plan (LRTP).

Upon approval by the WinFred MPO Policy Board, the WinFred MPO TIP is submitted to VDOT and DRPT for approval and inclusion into the STIP, which is then forwarded to the FHWA and FTA for federal approval.

TIP Development

The TIP is developed in accordance with 23 CFR 450.326, the Virginia Association of MPOs (VAMPO) TIP Development Guidelines, and in partnership with member agencies, stakeholders, VDOT, DRPT, FHWA and FTA, from projects in the WinFred MPO’s Constrained Long Range Plan (CLRP), the VTrans 2040 Plan, and from member agency comprehensive plans. The TIP is updated at least every four years.

TIP Financial Plans

Highway Financial Plan

The TIP Highway Financial Plan lists all transportation projects programmed in the WinFred MPO region during the TIP 4-year life-cycle. The Financial Plan provides a project's details including the type of project to be implemented, its phase, scope, obligated funding source(s), project cost(s), and delivery schedule

Transit Financial Plan

The Transit Financial Plan provided by DRPT identifies all transit projects programmed for implementation during the 4-year life cycle of the TIP. Project details shown in the Transit Financial Plan include a project's cost(s), funding allocation(s), funding source(s) and anticipated future funding. Since transit resources are allocated on an annual basis, transit projects and funds shown in the Financial Plan beyond FY 2018 are anticipated allocations.

Grouped Projects

Projects in the TIP that are determined not to be regionally significant, or are considered by VDOT or DRPT not to be of an appropriate scale to be individually programmed are listed in grouped categories. Listing these projects in grouped categories provides programming flexibility and reduces the administrative process. Grouped category lists may be identified by function, work type, or geographic area per 23 CFR 771.117(c) and (d) and 40 CFR part 93. A grouped project list shows the total sum of funding obligated for the grouped category rather than individual project descriptions and obligated funding. Grouped project listings are provided in both financial plans.

Amendments & Modifications

The TIP is periodically amended to add new projects or modify an existing project's scope, cost, and/or schedule when requested by VDOT, DRPT, or the project sponsor. TIP amendments and modifications are included in the Highway and Transit Financial Plans beginning on page 9 of this document. Amendments and administrative modifications are defined below per 23 CFR Section 450.104:

- Amendments are considered when a revision to a TIP involves a major change to an existing project programmed during the document's life-cycle. Major changes may include the addition or deletion of a project, or a major change to a project's cost, scope, or schedule (e.g., adding new funds to a project, changing a project's termini or revising the start and/or delivery date). Amendments require a public notice that includes a review and comment

period. Once the review and comment period are complete the amendment is presented to the WinFred MPO Policy Board, VDOT/DRPT, FHWA/FTA for approval. Any change to a TIP's financial plan(s) must continue to demonstrate fiscal constraint.

- Administrative Modifications are considered to be minor revisions to a TIP. This includes minor changes to an existing project's programmed phase, costs, funding source(s), and minor changes to a project's schedule/delivery date. An administrative modification only requires a staff-level review. Administrative modifications do not require a public notice of the change, public comment period, or re-demonstration of fiscal constrain.

Amendments or modifications the WinFred MPO TIP are made according to the amendment policy found in Section IX of the Win Fred MPO PPP.

Performance Management Requirements

The WinFred MPO is dedicated to improving the region's transportation network by working with its member agencies, VDOT, DRPT, FHWA, and FTA to implement regional performance measures that support and advance regional, state, and national transportation performance goals.

The FHWA defines Transportation Performance Management as a "strategic approach that uses system information to make investment and policy decisions to achieve national performance goals." With the passage of Moving Ahead for Progress in the 21st Century (MAP-21) in 2012 the and the subsequent Fixing America's Surface Transportation (FAST) Act in 2016, the FHWA and FTA mandated that States and MPOs establish performance measures to integrate system-performance management into the transportation and transit planning process. In order to guide the integration of system performance measures into the planning process the FHWA and FTA identified the following seven national performance measures:

- Safety
- Infrastructure Condition
- Congestion Reduction
- System Reliability
- Freight Movement & Economic Vitality
- Environmental Sustainability
- Reduced Project Delivery Delay

Advancing the seven national performance goals ensures that transportation networks continue to develop and operate in a safe and efficient manner. Implementation of these measures in the

WinFred MPO region ensures that transportation investments advance federal performance objectives, and that the WinFred MPO TIP is consistent with statewide planning documents.

The performance measures and implementation schedule provided in Appendix B satisfy the requirements of 23 CFR 450.218(q). WinFred MPO concurred with the state's safety targets on January 15, 2020. Performance measures and their revisions are to be incorporated into the TIP via the administrative modification process as they are advanced by VDOT and DRPT and approved by the WinFred MPO Policy Board.

The TIP Financial Plan

MAP-21 requires a financial plan be provided in the TIP (23 CFR 450.324(h)). The Financial Plan must demonstrate how the projects programmed can be implemented with existing obligations. TIP projects identified must be consistent with the WinFred MPO's Long-Range Transportation Plan, and must be fully funded to the extent of available funding obligations or funding that is reasonably expected to be available.

The WinFred MPO and its partners have collaborated to develop financial forecasts for the Highway and Transit TIP based on the latest official planning assumptions, available or assumed revenue(s), and estimated project cost(s). The financial information provided is either project specific, or listed by a grouped funding category. All projects listed in the TIP are expected to be implemented during the four-year life cycle of the document. The TIP Financial Plan may contain projects that show \$0.00 for planned obligations. Possible reasons for this include:

- The project is complete and is awaiting final closeout
- Project phases extend beyond four years
- A Project type ID that has no allocated funding during the four-year period of the TIP

TIP Financial Plan – Highway

Primary Projects

UPC NO	110396	SCOPE				
SYSTEM	Primary	JURISDICTION	Frederick County	OVERSIGHT	NFO	
PROJECT	#HB2.FY17 RTE 277 - WIDEN TO 5 LANES GARVEE DEBT SERVICE			ADMIN BY	VDOT	
DESCRIPTION						
PROGRAM NOTE	Includes \$1,411,503 GARVEE Debt Service Prev, \$1,001,639 GARVEE Debt Service Interest FFY21, \$1,087,773 GARVEE Debt Service Interest FFY22, \$1,027,677 GARVEE Debt Service Interest FFY23, \$958,689 GARVEE Debt Service Interest FFY24, \$5,105,171 GARVEE Debt Service Interest FFY25-FFY36. Total GARVEE Debt Service Interest \$10,592,452. Corresponding CN UPC 18003 which is included in the Winchester MPO CN: Safety/ITS/Operational Improvements grouping.					
ROUTE/STREET	0277			TOTAL COST	\$10,592,452	
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24
PE	Federal - AC CONVERSION	\$0	\$0	\$1,087,773	\$1,027,677	\$958,689
	Federal - STP/STBG	\$0	\$1,001,639	\$0	\$0	\$0
PE TOTAL		\$0	\$1,001,639	\$1,087,773	\$1,027,677	\$958,689
PE AC	Federal - AC	\$0	\$8,179,310	\$0	\$0	\$0

Project Groupings

GROUPING		Construction: Bridge Rehabilitation/Replacement/Reconstruction					
ROUTE/STREET						TOTAL COST	\$34,912,498
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24	
RW	Federal - HIP/F	\$47,380	\$189,520	\$0	\$0	\$0	
	Federal - NHS/NHPP	\$125,181	\$500,722	\$0	\$0	\$0	
	Federal - STP/STBG	\$42,440	\$169,758	\$0	\$0	\$0	
RW TOTAL		\$215,000	\$860,000	\$0	\$0	\$0	
CN	Federal - NHS/NHPP	\$1,456,442	\$0	\$0	\$2,163,365	\$3,662,402	
	Federal - STP/STBG	\$5,301,321	\$0	\$0	\$2,163,365	\$19,041,918	
CN TOTAL		\$6,757,763	\$0	\$0	\$4,326,730	\$22,704,320	
CN AC	Federal - AC	\$573,920	\$0	\$0	\$0	\$2,295,680	

GROUPING		Construction: Rail					
ROUTE/STREET						TOTAL COST	\$3,291,000
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24	
CN	Federal - RAIL	\$131,778	\$0	\$0	\$566,000	\$620,000	

GROUPING		Construction: Safety/ITS/Operational Improvements					
ROUTE/STREET						TOTAL COST	\$105,628,238
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24	
PE	Federal - NHFP	\$145,466	\$0	\$0	\$0	\$581,865	
	Federal - NHS/NHPP	\$10,000	\$40,000	\$0	\$0	\$0	
PE TOTAL		\$155,466	\$40,000	\$0	\$0	\$581,865	
RW	Federal - AC CONVERSION	\$397,173	\$1,588,693	\$0	\$0	\$0	
	Federal - NHS/NHPP	\$48,263	\$0	\$0	\$0	\$193,051	
RW TOTAL		\$445,436	\$1,588,693	\$0	\$0	\$193,051	
CN	Federal - HSIP	\$522,222	\$0	\$4,700,000	\$0	\$0	
	Federal - NHS/NHPP	\$81,631	\$0	\$326,524	\$0	\$0	
CN TOTAL		\$603,853	\$0	\$5,026,524	\$0	\$0	
CN AC	Federal - AC	\$1,058,506	\$0	\$4,234,022	\$0	\$0	

GROUPING		Construction: Transportation Enhancement/Byway/Non-Traditional					
ROUTE/STREET						TOTAL COST	\$10,171,196
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24	
PE	Federal - NHS/NHPP	\$150,000	\$0	\$600,000	\$0	\$0	
CN	Federal - NHS/NHPP	\$623,000	\$0	\$0	\$890,000	\$1,602,000	
CN AC	Federal - AC	\$600,000	\$0	\$0	\$0	\$2,400,000	

FY 2021-2024 Transportation Improvement Plan (TIP)

MPO	Winchester						
GROUPING	Construction: Transportation Enhancement/Byway/Non-Traditional						
ROUTE/STREET						TOTAL COST	\$8,996,014
	FUND SOURCE	MATCH	FY18	FY19	FY20	FY21	
PE	Federal - TAP/F	\$9,813	(\$40,750)	\$80,000	\$0	\$0	
	Federal - TAP/SU	\$10,000	\$40,000	\$0	\$0	\$0	
PE TOTAL		\$19,813	(\$750)	\$80,000	\$0	\$0	
CN	Federal - TAP/F	\$258,550	\$40,749	\$993,451	\$0	\$0	
	Other	\$1,133,887	\$0	\$1,133,887	\$0	\$0	
CN TOTAL		\$1,392,437	\$40,749	\$2,127,338	\$0	\$0	
CN AC	Federal - AC OTHER	\$0	\$0	\$3,943,493	\$0	\$0	
MPO Note	FFY19-27 STP Adj - updated based on actual oblig's: release \$40,750 (TAP) & add \$40,000 (TAP) FFY18, add \$80,000 (TAP) FFY19 PE phase; release \$25,000 (TAP) FFY18 RW phase; add \$40,749 (TAP) FFY18, add an addit'l \$3,842,993 (AC-Other), add \$591,410 (TAP) FFY19, release \$60,000 (AC- Other) & \$215,000 (TAP) FFY20 CN phase.						

****Administrative Adjustment: Added to Highway TIP 12/03/2019 through TAC approval**

GROUPING	Maintenance: Preventive Maintenance and System Preservation						
PROGRAM NOTE	Funding identified to be obligated districtwide as projects are identified.						
ROUTE/STREET						TOTAL COST	\$66,219,025
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24	
CN	Federal - NHS/NHPP	\$0	\$8,194,023	\$8,194,023	\$8,194,023	\$8,194,023	
	Federal - STP/STBG	\$0	\$5,386,115	\$7,523,629	\$6,178,315	\$14,354,874	
CN TOTAL		\$0	\$13,580,138	\$15,717,652	\$14,372,338	\$22,548,897	

GROUPING	Maintenance: Preventive Maintenance for Bridges						
PROGRAM NOTE	Funding identified to be obligated districtwide as projects are identified.						
ROUTE/STREET						TOTAL COST	\$28,649,368
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24	
CN	Federal - NHS/NHPP	\$0	\$1,000,000	\$1,000,000	\$1,000,000	\$1,000,000	
	Federal - STP/STBG	\$0	\$3,242,450	\$8,841,457	\$7,047,626	\$5,517,835	
CN TOTAL		\$0	\$4,242,450	\$9,841,457	\$8,047,626	\$6,517,835	

GROUPING	Maintenance: Traffic and Safety Operations						
PROGRAM NOTE	Funding identified to be obligated districtwide as projects are identified.						
ROUTE/STREET						TOTAL COST	\$8,635,843
	FUND SOURCE	MATCH	FY21	FY22	FY23	FY24	
CN	Federal - STP/STBG	\$0	\$2,284,245	\$1,780,824	\$2,419,830	\$2,150,944	

Administrative Adjustments

The following Administrative Adjustments to the Project Groupings Sections of the Highway TIP for FFY20 were accepted by the Technical Advisory Committee at the request of VDOT on December 3, 2019.

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 - NHS/NHPP	\$0	\$0	\$0	\$8,194,023	\$0	
	Federal - STP/STBG	\$0	\$6,880,463	\$6,519,835	\$5,707,837	\$8,290,921	
CN TOTAL		\$0	\$6,880,463	\$6,519,835	\$13,901,860	\$8,290,921	
MPO Note	TIP AMD to update FFY20 planned obligations based on revised projected revenue. Add \$8,194,023 (NHPP) & \$5,707,837 (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	\$5,774,010	\$5,471,375	\$0	\$6,957,651	
	Federal - NHS/NHPP	\$0	\$0	\$0	\$1,000,000	\$0	
	Federal - STP/STBG	\$0	\$0	\$0	\$4,120,207	\$0	
CN TOTAL		\$0	\$5,774,010	\$5,471,375	\$5,120,207	\$6,957,651	
MPO Note	TIP AMD to update FFY20 planned obligations based on revised projected revenue. Add \$4,120,207 (STP/STBG) & \$1,000,000 (NHPP)						

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	\$1,659,914	\$1,572,912	\$9,621,807	\$2,000,187	
MPO Note	TIP AMD to update FFY20 planned obligations based on revised projected revenue. Add \$9,621,807 (STP/STBG)						

Projects by Grouping

Winchester MPO

Construction : Bridge Rehabilitation/Replacement/Reconstruction

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Interstate	113535	Frederick County	MILLWOOD PIKE (0017)		\$27,500,000
			#SGR - RTE 17/50/522 MILLWOOD PIKE BRIDGE OVER I-81		
			FROM: 0.13 Mi. E. Int. Apple Blossom Dr. TO: 0.05 Mi. W. Int. Tulane Dr. (0.4220 MI)		
Interstate	115717	Frederick County	0081		\$5,264,400
			#SMART20 I-81 EXIT 313 BRIDGE CAPACITY IMPROVMENT		
			FROM: Bridge Replacement over I-81 TO: And interchange Improvements (0.3900 MI)		
Miscellaneous	T18994	Staunton District-wide	0000		\$0
			BRIDGE REHABILITATION/REPLACEMENT		
Secondary	86316	Frederick County	CARPERS VALLEY RD (0723)		\$2,148,098
			#SGR Br. Repl. Route 723 over Opequon Creek Va struc 6904		
			FROM: 0.05 MILES S. FREDERICK/ CLARKE C.L TO: 0.03 MILES N. FREDERICK/ CLARKE C.L (0.1000 MI)		
Construction : Bridge Rehabilitation/Replacement/Reconstruction Total					\$34,912,498

Construction : Rail

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	112018	Statewide	HIGHWAY-RAIL SAFETY (0000)		\$700,000
			Highway-Rail Safety Inventory Section 130 PE Only		
			FROM: Statewide TO: Statewide		
Miscellaneous	112213	Statewide	HIGHWAY RAIL SAFETY (0000)		\$300,000
			Highway-Rail Section 130 Pre Scoping PE Only		
			FROM: Statewide TO: Statewide		
Miscellaneous	112497	Statewide	VARIOUS (0000)		\$500,000
			ENVIRONMENTAL EQ429 FORM PROCESSING CHARGES		
			FROM: FOR HIGHWAY/RAIL SAFETY PROJECTS WITHOUT PE NUMBERS TO: ASSIGNED		
Miscellaneous	T18981	Staunton District-wide	0000		\$0
			CN: RAIL		
Secondary	113063	Frederick County	631 / MARLBORO RD. (0631)		\$310,000
			Rt.631-Install Flashing Lights and Gates		
			FROM: 18 Ft. E Of Rabbit Ln. TO: at CSXRR Crossing #139462A		
Secondary	113062	Frederick County	638 / VAUCLOSE RD. (0638)		\$310,000
			Rt.638-Upgrade Existing Flashing Lights and Gates		
			FROM: .10 Mi. W of Rt.11 TO: at CSXRR Crossing #139465A		
Secondary	110985	Frederick County	BRUCETOWN RD (0672)		\$100,000
			Rt.672-Upgrade Cabinet, Circuitry and Raise Cantilever		
			FROM: .45 Mi. East of Rt.11 TO: at WW RR Crossing 517963C		
Secondary	110988	Frederick County	BRUCETOWN RD (0672)		\$260,000
			Rt.672-Realign curve, Raise road & Install Concrete Surface		
			FROM: .45 Mi. East of Rt.11 TO: at WW RR Crossing 517963C		

FY 2021-2024 Transportation Improvement Plan (TIP)

Winchester MPO

Construction : Rail

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Secondary	114900	Frederick County	RT. 664 / STEPHENSON RD. (0664)		\$425,000
			Rt.664- Upgrade to Flashing Lights and Gates		
			FROM: .13 Mi. East of Rt. 11 TO: at CSXRR Crossing DOT #139435H		
Secondary	110986	Frederick County	WELLTOWN RD (0661)		\$206,000
			Rt.661-Install New Control House & Track Redundant Detector		
			FROM: .20 Mi. Northwest of Rt.11 TO: at WW RR Crossing 517975W		
Urban	113065	Winchester	SOUTH LOUDON STREET (0000)		\$180,000
			S. Loudon St.-Install Concrete crossing Surface		
			FROM: 165 FT N of Featherbed Ln. TO: at WWRR Crossing #868160N		
Construction : Rail Total					\$3,291,000

Construction : Safety/ITS/Operational Improvements

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Interstate	109376	Frederick County	0081		\$1,756,205
			#HB2.FY17 I-81 Exit 323 SB Accel and NB Decel Lane Extension		
			FROM: NB Decel TO: SB Accel (0.2500 MI)		
Interstate	111056	Frederick County	0081		\$442,252
			#SMART18 - (St) I-81 EXIT 315 NORTHBOUND DECEL LANE EXT		
			FROM: 0.136 S Berryville Ave TO: Berryville Ave (0.1500 MI)		
Interstate	115181	Frederick County	0081		\$3,209,056
			#SMART20 I-81 Exit 317 Accel/Decel Lane Extensions		
			FROM: Northbound acceleration TO: Southbound deceleration (0.2500 MI)		
Interstate	116236	Frederick County	0081		\$1,172,975
			I-81 NB EXIT 302 EXTEND ACCELERATION LANE (Study ID #47)		
			FROM: MM 302.6 TO: MM 302.9 (0.2200 MI)		
Interstate	116039	Statewide	0081		\$12,500,000
			I-81 DMS Installation		
			FROM: Various TO: Various		
Interstate	107802	Statewide	9999		\$918,907
			Incident Management Emergency Evacuation and Detour Plans		
			FROM: Various TO: Various		
Interstate	110551	Statewide	9999		\$362,560
			Traffic Video Expansion - Statewide		
			FROM: Various TO: Various		
Interstate	110912	Statewide	9999		\$813,019
			Statewide Truck Parking Management System - Phase 1		
			FROM: Various TO: Various		
Interstate	111613	Statewide	9999		\$1,807,000
			Statewide Truck Parking Management System - Phase 2		
			FROM: Various TO: Various		
Interstate	111892	Statewide	9999		\$0
			ATMS - Phase 1, 2, 3, 4		
			FROM: Various TO: Various		

Winchester MPO

Construction : Safety/ITS/Operational Improvements

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Interstate	114400	Statewide	9999		\$300,000
			Drone Technology Project		
			FROM: Various TO: Various		
Interstate	115854	Statewide	9999		\$1,250,000
			ITTF FY20 Arterial Operations Program Dashboard		
			FROM: n/a TO: n/a		
Interstate	115855	Statewide	9999		\$4,700,000
			ITTF FY20 High Speed Communications		
			FROM: Various TO: Various		
Miscellaneous	105481	Statewide	0000		\$1,400,000
			Impement iPeMS (Iteris Performance Measurement System)		
			FROM: various TO: various		
Miscellaneous	T18993	Staunton District-wide	0000		\$0
			CN: SAFETY/ITS/OPERATIONAL/IMPROVEMENTS		
Miscellaneous	114193	Statewide	VARIOUS (9999)		\$0
			PEDESTRIAN IMPROVEMENTS AT PRIORITY CORRIDOR STATEWIDE		
			FROM: VARIOUS TO: VARIOUS		
Primary	107020	Frederick County	0037		\$3,750,000
			RTE 37 - SAFETY IMPROVEMENTS		
			FROM: Rte 11S TO: Rte 11N (9.1000 MI)		
Primary	107022	Frederick County	NORTHWESTERN PIKE (0050)		\$4,800,000
			RTE 50 - SAFETY IMPROVEMENTS		
			FROM: WVA State Line TO: Rte 654 (12.4600 MI)		
Primary	18003	Frederick County	FAIRFAX PIKE (0277)		\$41,164,822
			#HB2.FY17 RTE 277 - WIDEN TO 5 LANES		
			FROM: 0.131 MILE WEST ROUTE STICKLEY DRIVE TO: 0.115 MILE EAST OF DOUBLE CHURCH ROAD (0.7371 MI)		
Primary	111227	Frederick County	FAIRFAX PIKE (0277)		\$476,644
			#SMART18 - (St) INTERSECTION OF RTE 277 AND WARRIOR DR		
			FROM: West Int. Warrior Drive TO: East Int. Warrior Drive (0.1600 MI)		
Primary	78825	Frederick County	0522		\$5,441,892
			Route 522, Fred. Co., Str. ID 08156 Brg Repl. Fed ID-08156		
			FROM: 0.85 Mi. North of Rte. 642 TO: 0.05 Mi. North of Rte. 644 (0.4520 MI)		
Secondary	111050	Frederick County	PAPERMILL ROAD (0644)		\$503,961
			#SMART18 - (St) PAPERMILL ROAD TURN LANE		
			FROM: 0.125 Mi. W. Int. Rte. 522 TO: Int. Rte. 522 (0.1250 MI)		
Secondary	111060	Frederick County	SULPHUR SPRING RD. (0655)		\$2,977,885
			#SMART18 - (St) RTE 655 - INTERSECTION RECONSTRUCTION		
			FROM: Int of Rte 17/50 TO: 0.691 Mi. W. Int. 656 (0.0940 MI)		
Secondary	59259	Frederick County	SULPHUR SPRING RD. (0655)		\$6,343,821
			RTE 655 - RECONSTRUCTION		
			FROM: 0.691 Mi. W. Rte 656 TO: 0.288 Mi. E. Rte 656 (0.9780 MI)		
Urban	112211	Winchester	NORTH LOUDOUN STREET (0011)		\$500,000
			Signal Replacement N. Loudoun St / Brick Kiln Rd / Brooke Rd		
			FROM: North Loudoun Street TO: Brick Kiln Rd/ Brooke Rd		

Winchester MPO

Construction : Safety/ITS/Operational Improvements

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Urban	103013	Winchester	VALLEY AVENUE (U000)		\$7,810,259
			Rte 11 - Improve Drainage, Add Sidewalks and C&G		
			FROM: .08 M N of Shawnee Dr (City Limits) TO: .03 M S of Middle Road (1.3340 MI)		
Urban	115138	Winchester	VALLEY AVENUE (U000)		\$1,227,000
			#SMART20 Traffic Signal Improvements, Valley and Gerrard St.		
			FROM: Intersection of Valley TO: And Gerard Street		
Construction : Safety/ITS/Operational Improvements Total					\$105,628,238

Construction : Transportation Enhancement/Byway/Non-Traditional

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Enhancement	106054	Winchester	WENTWORTH DRIVE (EN14)		\$3,425,564
			Wentworth Drive SRTS Sidewalk		
			FROM: Valley Avenue TO: Cedameade Avenue (0.3300 MI)		
Enhancement	106055	Winchester	JUBAL EARLY DRIVE (EN14)		\$941,132
			Green Circle Trail - Jubal Early Segment		
			FROM: 0.04 MI West of Harvest Drive TO: 0.04 Miles East of Valley Avenue (0.3300 MI)		
Enhancement	111418	Winchester	EN17		\$312,500
			Museum of the Shenandoah Vally Trail Connection		
			FROM: Green Circle Trail TO: Green Circle Trail		
Enhancement	111027	Winchester	GREEN CIRCLE TRAIL (EN18)		\$5,492,000
			#SMART18 - (St) GREEN CIRCLE TRAIL - FINAL PHASES		
			FROM: Various Locations in TO: The City of Winchester		
Miscellaneous	T18971	Staunton District-wide	0000		\$0
			CN: TRANSPORTATIONS ENHANCEMENT/BYWAY/OTHER NON-TRADITIONAL		
Construction : Transportation Enhancement/Byway/Non-Traditional Total					\$10,171,196

Maintenance : Preventive Maintenance and System Preservation

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T14725	Staunton District-wide	0000		\$66,219,025
			STIP-MN Staunton: Preventive MN and System Preservation		
Maintenance : Preventive Maintenance and System Preservation Total					\$66,219,025

Maintenance : Preventive Maintenance for Bridges

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T14724	Staunton District-wide	0000		\$28,649,368
			STIP-MN Staunton: Preventive MN for Bridges		
Maintenance : Preventive Maintenance for Bridges Total					\$28,649,368

Winchester MPO

Maintenance : Traffic and Safety Operations

	System	UPC	Jurisdiction / Name / Description	Street(Route)	Estimate
Miscellaneous	T14723	Staunton	District-wide	0000	\$8,635,843
			STIP-MN Staunton: Traffic and Safety Operations		
Maintenance : Traffic and Safety Operations Total					\$8,635,843
Winchester MPO Total					\$257,507,168

FY 2021-2024 Transportation Improvement Plan (TIP)

**TABLE C : Winchester MPO
FEDERAL FUNDING CATEGORIES
FISCAL CONSTRAINT BY YEAR**

Highway Projects
FFY 2021 - 2024

Fund Source	FFY 2021		FFY 2022		FFY 2023		FFY 2024		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										
HIP/F	\$189,520	\$189,520	\$0	\$0	\$0	\$0	\$0	\$0	\$189,520	\$189,520
HSIP	\$0	\$0	\$4,700,000	\$4,700,000	\$0	\$0	\$0	\$0	\$4,700,000	\$4,700,000
NHFP	\$0	\$0	\$0	\$0	\$0	\$0	\$581,865	\$581,865	\$581,865	\$581,865
NHS/NHPP	\$540,722	\$540,722	\$926,524	\$926,524	\$3,053,365	\$3,053,365	\$5,457,453	\$5,457,453	\$9,978,064	\$9,978,064
RAIL	\$0	\$0	\$0	\$0	\$566,000	\$566,000	\$620,000	\$620,000	\$1,186,000	\$1,186,000
STP/STBG	\$1,171,397	\$1,171,397	\$0	\$0	\$2,163,365	\$2,163,365	\$19,041,918	\$19,041,918	\$22,376,680	\$22,376,680
Subtotal -- Federal	\$1,901,639	\$1,901,639	\$5,626,524	\$5,626,524	\$5,782,730	\$5,782,730	\$25,701,236	\$25,701,236	\$39,012,129	\$39,012,129
Other										
State Match	\$225,001	\$225,001	\$753,853	\$753,853	\$1,367,070	\$1,367,070	\$6,339,193	\$6,339,193	\$8,685,117	\$8,685,117
Subtotal -- Other	\$225,001	\$225,001	\$753,853	\$753,853	\$1,367,070	\$1,367,070	\$6,339,193	\$6,339,193	\$8,685,117	\$8,685,117
Total	\$2,126,640	\$2,126,640	\$6,380,377	\$6,380,377	\$7,149,800	\$7,149,800	\$32,040,429	\$32,040,429	\$47,697,246	\$47,697,246
Federal - ACC (1)										
STP/STBG	\$1,588,693	\$1,588,693	\$1,087,773	\$1,087,773	\$1,027,677	\$1,027,677	\$958,689	\$958,689	\$4,662,832	\$4,662,832
Subtotal -- Federal - ACC (1)	\$1,588,693	\$1,588,693	\$1,087,773	\$1,087,773	\$1,027,677	\$1,027,677	\$958,689	\$958,689	\$4,662,832	\$4,662,832
Maintenance - Federal (4)										
NHS/NHPP	\$9,194,023	\$9,194,023	\$9,194,023	\$9,194,023	\$9,194,023	\$9,194,023	\$9,194,023	\$9,194,023	\$36,776,092	\$36,776,092
STP/STBG	\$10,912,810	\$10,912,810	\$18,145,910	\$18,145,910	\$15,645,771	\$15,645,771	\$22,023,653	\$22,023,653	\$66,728,144	\$66,728,144
Subtotal -- Maintenance - Federal (4)	\$20,106,833	\$20,106,833	\$27,339,933	\$27,339,933	\$24,839,794	\$24,839,794	\$31,217,676	\$31,217,676	\$103,504,236	\$103,504,236

- (1) ACC -- Advance Construction -- Funding Included in Federal Category based on year of AC Conversion.
- (2) CMAQ/RSTP includes funds for TRANSIT projects.
- (3) Statewide Category - Funding to be obligated Statewide for projects as identified.
- (4) Maintenance Projects - Funding to be obligated for maintenance projects as identified.

End of Highway TIP Financial Plan

FY 2021-2024 Transportation Improvement Plan (TIP)

TIP Financial Plan – Transit

	Previous Funding	FY 2021	FY 2022	FY 2023	FY 2024	Total FY 2021-2024	
WINCHESTER AREA METROPOLITAN PLANNING ORGANIZATION							
STIP ID:	WIN0001	Title: Operating Assistance		Recipient: Winchester Transit Service			
FTA 5307		534	545	556	570	FTA 5307	2,205
State		189	189	189	189	State	756
Local		55	12	11	14	Local	92
Revenues		94	108	120	129	Revenues	449
Year Total:	-	872	852	876	902	Total Funds:	3,502
Description:							
STIP ID:	WIN0004	Title: Passenger Bus Shelters		Recipient: Winchester Transit Service			
FTA 5307					20	FTA 5307	20
State					3	State	3
Local					2	Local	2
Year Total:	-	-	-	-	25	Total Funds:	25
Description:							
STIP ID:	WIN0009	Title: ADP Hardware		Recipient: Winchester Transit Service			
FTA 5307			36		40	FTA 5307	76
State			5		5	State	10
Local			4		5	Local	9
Year Total:	-	-	45	-	50	Total Funds:	95
Description:							
STIP ID:	WIN0011	Title: Replacement Rolling Stock		Recipient: Winchester Transit Service			
FTA 5307			128	260		FTA 5307	388
State			16	33		State	49
Local			16	32		Local	48
Year Total:	-	-	160	325	-	Total Funds:	485
Description:							
STIP ID:	GRA0002	Title: Paratransit Vehicles		Recipient: Grafton School, Inc.			
FTA 5310		72	72	72	72	FTA 5310	288
State						State	-
Local		18	18	18	18	Local	72
Year Total:	-	90	90	90	90	Total Funds:	360
Description:							
STIP ID:	NCS0001	Title: Paratransit Vehicles		Recipient: Northwestern Community Services			
FTA 5310	52	312	208	208	156	FTA 5310	884
State						State	-
Local	13	78	52	52	39	Local	221
Year Total:	65	390	260	260	195	Total Funds:	1,105
Description:							
STIP ID:	SAA0002	Title: New Freedom Program Operating		Recipient: Shenandoah Area Agency on Aging			
FTA 5310		159	165	165	170	FTA 5310	659
State		127	132	132	136	State	527
Local		32	33	33	34	Local	132
Revenues						Revenues	-
Year Total:	-	318	330	330	340	Total Funds:	1,318
Description:							
STIP ID:	SAA0003	Title: Paratransit Vehicles		Recipient: Shenandoah Area Agency on Aging			
FTA 5310		140	176	176	140	FTA 5310	632
State						State	-
Local		35	44	44	35	Local	158
Year Total:	-	175	220	220	175	Total Funds:	790

Administrative Adjustments

The following Administrative Adjustment to the Transit TIP for FY21 was accepted by the Technical Advisory Committee at the request of DRPT on October 14, 2020.

	Previous Funding	FY 2021	FY 2022	FY 2023	FY 2024	Total FY 2021-2024	
WINCHESTER AREA METROPOLITAN PLANNING ORGANIZATION							
STIP ID: NCS0001		Title: Paratransit Vehicles		Recipient: Northwestern Community Services			
FTA 5310		260	208	208	156	FTA 5310	832
State						State	-
Local		65	52	52	39	Local	208
Year Total:	-	325	260	260	195	Total Funds:	1,040
Description:	Decrease FY21 funding \$65K (decrease FTA 5310 \$52K, local \$13K).						

The following Administrative Adjustment to the Transit TIP for FY22 was accepted by the Technical Advisory Committee at the request of DRPT on April 28, 2021.

	Previous Funding	FY 2021	FY 2022	FY 2023	FY 2024	Total FY 2021-2024	
WINCHESTER AREA METROPOLITAN PLANNING ORGANIZATION							
STIP ID: NCS0001		Title: Paratransit Vehicles		Recipient: Northwestern Community Services			
FTA 5310		260	240	208	156	FTA 5310	864
State						State	-
Local		65	-	52	39	Local	156
Year Total:	-	325	240	260	195	Total Funds:	1,020
Description:	Adjustment #3: Decrease FY21 funding \$65K (decrease FTA 5310 \$52K, local \$13K). Approved by MPO 10/14/2020. Approved by DRPT 10/22/2020. Adjustment: Decrease FY22 funding \$20K (increase FTA 5310 \$32K, decrease local \$52K).						

Adoption of Public Transportation Agency Safety Plan

The WinFred MPO adopted the Tier II Public Transportation Agency Safety Plan (PTASP) through an administrative adjustment on November 18, 2020. For more information of the PTASP please see Appendix F, beginning on page 44.

End of Transit TIP Financial Plan

COVID-19 – Impacts

Transit

The FY21-24 TIP Transit Projects were developed by the MPO in coordination with VDOT, DRPT, and local transit partners prior to the COVID-19 pandemic and does not necessarily reflect current or anticipated transit funding levels.

Additionally, FTA issued a Notice of Concurrence with declarations of emergency issued by the Governor that relate to COVID-19. Thus, FTA will permit Urbanized Area Formula Program (5307) and Formula Grants for Rural Areas Program (5311) funding to be used for COVID-19-related public transit capital or operating expenses at a 100-percent federal share. This provision provides public transit agencies with greater flexibility in using their 5307 and 5311 formula funds.

Accordingly, it should be acknowledged that the special circumstances and related federal provisions associated with COVID-19 limit the accuracy of the transit projects programmed in the FY21-24 TIP. As more information becomes available regarding the availability of funding for transit projects, the appropriate amendments and administrative modifications will be made to the FY21-FY24 TIP.

Highway

The FY21-24 TIP Highway Projects were developed by the MPO in coordination with VDOT, DRPT, and local transit partners prior to the COVID-19 pandemic based on the approved state FY 2020-2025 Six-Year Improvement Program (SYIP). Any changes to projects in the highway portion of the TIP requiring action will be addressed as they become known through amendments and administrative modifications as appropriate and required.

Appendix A: Resource Guide

Highway TIP User's Guide

This guide assists the reader in understanding project information for all projects in the Highway TIP. Information for each project appears in the chart format shown below.

Terms used to identify specific programming requirements are presented in the grey boxes, while project-specific details are presented in the white boxes to the right of, or below, each term. Definitions for the numbered terms appear in the corresponding Glossary of Terms table.

Figure 2: TIP Programming Table

UPC NO		77273		SCOPE		BRIDGE REPLACEMENT	
SYSTEM		Secondary		JURISDICTION		Albemarle County	
PROJECT		RTE 743 - BRIDGE & APPROACHES OVER NORTH FORK RIVANNA		OVERSIGHT		NFO	
DESCRIPTION		FROM: 0.11 Mi. W Int. Rte. 641 TO: Int. Rte. 641 (0.1100 MI)					
ROUTE/STREET		0743		TOTAL COST		\$4,017,516	
FUND SOURCE		MATCH		FY09		FY10	
				\$0		\$0	
				\$0		\$0	
				\$0		\$0	
				\$0		\$0	
				\$0		\$0	
				\$0		\$0	

Glossary of Terms

Table 1: Tip Programming Glossary of Terms

ID	Term	Definition
1	Universal Project Code (UPC) Number	Number assigned to each project at its conception, remaining with the project until completion.
2	Scope	Details work to be covered by the project
3	System	Indicates which system, program, or mode of transportation the project falls within. E.g. - Interstate, Primary, Secondary, Urban, Rail, Transportation Enhancements, or Miscellaneous
4	Jurisdiction	Identifies the project jurisdiction
5	Federal Oversight Indicator (FO or 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 there is federal oversight required
6	Project/Project Phase	Name of the Project and Phase (i.e. PE: Preliminary Engineering - Preliminary field survey, utility location, environmental or historical studies, design drawings, final field inspections and public hearings will be done. This process can take several months to years to complete; RW: Right of Way - Negotiations with property owners take place, payments are made, and arrangements with utility companies are finalized to obtain the land necessary for the project; or CN: Construction - Project is advertised to prospective contractors for bids. Once the bids are opened and a contract awarded, construction can begin.)
7	Admin By	Identifies the entity responsible for the project
8	Description	Identifies the project's limits
9	Route/Street	Identifies local Route number or name of road/street
10	Total Cost	The total estimated cost (TO) reflecting the best overall estimate available at the time. Estimated costs begin as rough estimates, usually based on historical data, and are updated at critical stages (e.g. the final field inspection), as plans are more defined.
11	Fund Source	Identifies the FHWA or FTA funding source. Additional funding source information is provided in Appendix C
12	Match	Dollar amount matched to federally funded project. Most federal fund sources require a match of some sort; most often 20% of the total cost. The match is included in the obligations section for informational purposes. The match can come from local, state or other sources
13	Current and Future Obligations	The amount of funding which is obligated for the indicated phase of work. An obligation represents a commitment from the Federal government to reimburse the state for the Federal share (e.g. 80%) of a project's eligible cost. This commitment occurs when the project is approved and the Federal government executes the project agreement. The funding obligation listed is the dollar amount that a state may spend and expect reimbursement for during each Federal fiscal year.

Highway Funding Programs

Accelerated Incentive Deployment (AID):

The AID Demonstration program provides funding as an incentive for eligible entities to accelerate the implementation and adoption of innovation in highway transportation. The AID Demonstration program is one initiative under the multi-faceted Technology and Innovation Deployment Program (TIDP) approach providing funding and other resources to offset the risk of trying an innovation. The new Notice of Funding Opportunity (NOFO) was published on September 1, 2016, continuing the AID Demonstration program under the Fixing America's Surface Transportation (FAST) Act (Pub. L. No. 114-94).

Bridge Rehabilitation and Replacement/Bridge Off-System Funds Program (BR/BROS):

A former SAFETEA-LU program that provided funding for bridge improvements. Eligibility for funding was based on a rating of bridge condition by VDOT as a candidate for upgrading.

Interstate Maintenance (IM):

A former SAFETEA-LU program that provided funding for resurfacing, restoring, rehabilitating and reconstructing (4R) most routes on the National System of Interstate and Defense Highways.

National Highway Performance Program (NHPP)

MAP-21 eliminated the programs with dedicated funding for repair by consolidating the Interstate Maintenance and Highway Bridge Repair programs and shifting these funds to the new NHPP. The new NHPP is now the largest highway program, receiving 58 percent of all highway formula dollars. MAP-21 dramatically expanded the funding for the NHPP program (previously called the National Highway System program) and consolidates the other programs intended for bridge repair and Interstate maintenance.

Only projects located on the National Highway System (NHS) are eligible, which was expanded to include an additional 60,000 new lane miles and bridges. If a state fails to meet minimum Interstate pavement condition standards, they must set aside an additional amount of NHPP funds until the standard is met. If the total structurally deficient deck area of NHS bridges exceeds 10 percent of all NHS bridge deck area, then a state must set aside NHPP funds to the Highway Bridge Program until the standard is met. VDOT has consolidated funds into customized pots of money for the State of Good Repair (SGR) program, which seeks to meet the State's interstate and bridge repair needs.

Non-Federal:

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

Surface Transportation Program (STP):

Under the former SAFETEA-LU and MAP-21 eras, this program provided flexible funding that could be used on any project located on a roadway that is classified higher than a minor collector. Projects that were eligible for funding under this program included construction, reconstruction, and rehabilitation, and bridge projects on any public road. Regional STP funds were designated as RSTP, and Local STP funds were designated as LSTP.

Surface Transportation Block Grant Program (STBG):

The FAST Act converts the long-standing Surface Transportation Program into the Surface Transportation *Block Grant* Program acknowledging that this program has the most flexible eligibilities among all Federal-aid highway programs and aligning the program's name with how FHWA has historically administered it. [FAST Act § 1109(a)]. The STBG promotes flexibility in State and local transportation decisions and provides flexible funding to best address State and local transportation needs.

VDOT has consolidated its STBG funds (after set asides for TA and planning/research) and National Highway Performance Program (NHPP) funds into customized pots of money for SMART SCALE, State of Good Repair (SGR), and other programs.

Safe Routes to School Program (SRTS):

This 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.

Transportation Alternatives Program (TAP):

These funds are 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.

Transit Funding Programs (FTA)

FTA 5307:

This is the FTA Urbanized Area Formula Program, Section 5307 provides funds for public transportation capital investments, and operating expenses in urbanized areas (UZAs). Pursuant to the FAST Act, job access and reverse commute projects that are located in urbanized areas are now eligible for funding under this program.

FTA 5310:

This program is intended to enhance mobility for seniors and persons with disabilities by providing funds for programs to serve the special needs of transit-dependent populations beyond traditional public transportation services and Americans with Disabilities Act (ADA) complementary paratransit services. Under the FAST Act, projects that were formerly eligible for funding under SAFETEA-LU's New Freedom, Section 5317 grant program are now eligible for Section 5310 funds.

FTA 5311:

The FTA 5311 program is a non-urbanized area formula funding program for public transit capital and operating costs in non-urbanized areas with a population fewer than 50,000 as designated by the United States Census Bureau. Job access and reverse commute projects, which are located in non-urbanized areas, are now eligible for these funds under the FAST Act.

FTA 5339:

This program provides capital funding to replace, rehabilitate and purchase buses and related equipment and to construct bus-related facilities. Created under the FAST Act, this program replaces components of SAFETEA-LU's former Section 5309 Bus and Bus Facilities program.

Appendix B: Highway Performance Based Planning and Programming – Safety Performance Measures

Performance Measure Implementation Schedule

Table 2: USDOT/FHA Implementation Schedule



Implementation Timeline

Final Rule	Effective Date	State Sets Targets By	MPO Sets Targets By	LRSTP, MTP, STIP and TIP Inclusion
Safety Performance Measures (PM1)	April 14, 2016	August 13, 2017 and annually thereafter	No later than 180 days after the State sets targets	Updates or amendments on or after May 27, 2018
Pavement/Bridge Performance Measures (PM2)	May 20, 2017	May 20, 2018 and every four years thereafter	No later than 180 days after the State sets targets	Updates or amendments on or after May 20, 2019
System Performance Measures (PM3)	May 20, 2017	May 20, 2018 and every four years thereafter	No later than 180 days after the State sets targets	Updates or amendments on or after May 20, 2019



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 2 below.

Table 3: 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 staff¹. 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 safety coordination amongst various partners and leads to more comprehensive transportation safety planning.

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.

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:

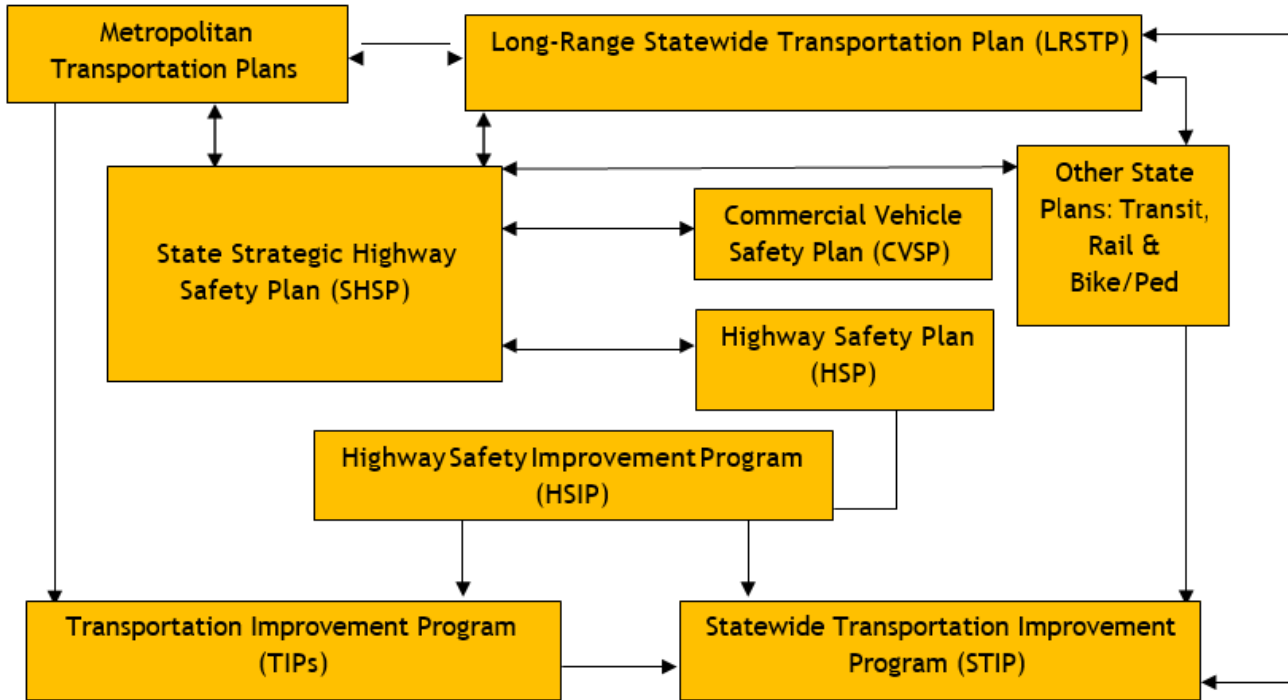
- *Guiding Principle 2: Ensure Safety, Security, and Resiliency* – Provide a transportation system that is safe for all users, responds immediately to short-term shocks such as weather events or security emergencies, and adapts effectively to long-term stressors such as sea level rise.
- *Guiding Principle 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 an 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:

Figure 3: Plan Relationship Matrix



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: Performance Based Planning and Programming – 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.

Table 4: Transit agency deadlines for TAM Rulemaking for June-July fiscal year

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

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 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 WinFred MPO planning process will integrate, either directly or by reference, the goals, objectives, performance measures, and targets described in the Tier II group plan.

Appendix D: Performance Based Planning and Programming – Pavements and Bridges

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 2018-2021². 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 5 below.

Table 5: Pavement Condition Measures and Performance Targets

Interstate Pavement Condition Measures³	CY 2018-2019 Two Year Target	CY 2018-2021 Four Year Target
Percentage of Pavements in Good Condition	N/A ⁴	45.0%
Percentage of Pavements in Poor Condition	N/A ⁴	3.0%
Non-Interstate NHS Pavement Condition Measures⁵	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%

² Virginia’s Baseline Performance Period Report data is through December 2017.

³ Interstate condition measures are based on four distresses: International Roughness Index (IRI), cracking, rutting, and faulting.

⁴ 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.

⁵ 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.

Bridge condition measures and established performance targets for the 2018-2021 performance period are indicated in Table 6 below.

Table 6: 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 E: 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 7 below.

Table 7: Travel Time Reliability Performance Measures and Performance 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 ⁶	82.5%

⁶ During this first performance period, States are not required to establish 2-year targets for the Non-Interstate NHS reliability measure.

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 8 below.

Table 8: Freight Travel Time 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.

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.

Appendix F: Public Transportation Safety Plan for MPOs

The Public Transportation Agency Safety Plan (PTASP) final rule (49 C.F.R. Part 673) intends to improve public transportation safety by guiding transit agencies to more effectively and proactively manage safety risks in their systems. It requires certain recipients and sub-recipients of Federal Transit Administration (FTA) grants that operate public transportation to develop and implement safety plans that, establish processes and procedures to support the implementation of Safety Management Systems (SMS). Agencies are required to fulfill this requirement through an individual or group plan. The PTASP rule provides two tiers of requirements for transit agencies based on size and operating characteristics:

- 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.

Tier II Group Plan language

The Department of Rail and Public Transportation (DRPT) is the sponsor for the Statewide Tier II Group PTASP Plan. The WinFred MPO programs federal transportation funds for WinTran. WinTran is a Tier II agency participating in the DRPT sponsored group PTASP Plan. The MPO has adopted the Tier II PTASP into its TIP by reference and integrated the goals measures and targets described in the 2020 Commonwealth of Virginia Tier II Group Transit Asset Management Plan, August 11, 2020 into the MPO's planning and programming process. Specific targets for the Tier II Group PTASP Plan are included in the table below.

Table 9: Tier II Transit Agency PTASP Performance

Performance Measures	Targets by Mode	
	Fixed Route	Paratransit/ Demand Response
Fatalities (total number of reportable fatalities per year)	0	0
Fatalities (rate per total vehicle revenue miles by mode)	0	0
Injuries (total number of reportable injuries per year)	0	0
Injuries (rate per total vehicle revenue miles by mode)	Less than 1 injury per 100,000 vehicle revenue miles	Less than 1 injury per 100,000 vehicle revenue miles
Safety events (total number of safety events per year)	1	1
Safety events (rate per total vehicle revenue miles by mode)	Less than 1 reportable event per 100,000 vehicle revenue miles	Less than 1 reportable event per 100,000 vehicle revenue miles
Distance between Major Failures	Greater than 80,000 miles	Greater than 80,000 miles
Distance between Minor Failures	Greater than 3,200 miles	Greater than 3,200 miles

Background

The Public Transportation Agency Safety Plan (PTASP) final rule (49 C.F.R. Part 673) intends to improve public transportation safety by guiding transit agencies to more effectively and proactively manage safety risks in their systems. It requires certain recipients and sub-recipients of Federal Transit Administration (FTA) grants that operate public transportation to develop and implement safety plans that, establish processes and procedures to support the implementation of Safety Management Systems (SMS).

Important Dates

Tier II PTASP plan effective date: 8/11/2020

MPO initial targets include in TIP by: 2/7/2021

The rule applies to all operators of public transportation systems that are recipients and sub-recipients of FTA grant funds. Specifically, recipients or sub-recipients who operate public transportation and are a recipient or sub-recipient of Urbanized Area Formula Grant Program funds under 49 U.S.C. § 5307 (Section 5307 Grant Program) see attachment A for a list of Transit agencies.

DRPTs Role: DRPT has drafted a PTASP on behalf of small tier II transportation providers. Under the PTASP rule a small tier II transportation provider is defined as meeting all of the following criteria:

- Is a recipient or sub-recipient of FTA’s Urbanized Area Formula Program,
- Operates 100 or fewer vehicles in peak revenue service, and
- Does not operate rail/fixed-guideway public transportation

Applicability	Requirements
<p>Would Apply to:</p> <ul style="list-style-type: none"> • Operators of transit systems that receive FTA funds (Section 5307) and all rail transit operators (regardless of funding source). 	<div style="display: flex; align-items: center; justify-content: center;"> <div style="border: 1px solid #003366; padding: 5px; margin-right: 10px;"> Public Transportation Agency Safety Plan </div> </div> <div style="margin-top: 10px;"> <ul style="list-style-type: none"> • Approved by Accountable Executive and Board of Directors (and SSOA for rail transit agencies) • Annual Review/Update • Compliance with Public Transportation Safety Program/National Safety Plan • Assignment of Chief Safety Officer </div>
<p>Would Not Apply to:</p> <ul style="list-style-type: none"> • FTA recipients that do not operate transit systems. • Commuter rail service regulated by FRA. • Passenger ferry service regulated by USCG. • Deferring applicability for operators that only receive Section 5310 and Section 5311 funds (both recipients and sub-recipients). 	

Performance- Based Planning

As part of PTASP requirements, transit agencies must set safety performance targets in their safety plans for each mode (Fixed route and paratransit) based on the following safety performance measures that FTA has established in the National Public Transportation Safety Plan (NSP):

Measure	Target Type		Desired Direction
Fatalities	Total number	Rate per revenue miles	Decreasing number and rate
Injuries	Total number	Rate per revenue miles	Decreasing number and rate
Safety events	Total number per year	Rate per revenue miles	Decreasing number and rate
System reliability	Distance between major failures	Distance between minor failures	Decreasing number and rate

MPOs must reference performance targets and plans within the MPO transportation improvement program (TIP) and long-range plan. The Safety performance targets and performance-based plans should inform a transit agency’s investment priorities, and those investment priorities should be carried forward within the MPO’s and State DOT’s planning processes. MPOs should also make reference to the PTASP plan in their TIP.

MPO Role

The PTAPS rule states that each transit provider must provide the MPO with safety performance targets to assist the MPO with capital program planning process (Long Range Transportation plan and TIP). The MPO will need to incorporate the performance targets and safety plan(s) (by reference) into the TIP and LRTP. Additional resources on the MPOs role in PTAS is available from the FTA’s MPO FAQ page.

For MPOs with tier II transit agencies(s) participating in the group plan, DRPT is providing the agency specific targets developed for the Statewide Tier II group PTASP plan to the MPOs for consideration and inclusion in MPO TIPs.(Attachment A) MPOs may consider adopting the targets provided in the group plan or adopting regionally specific targets of their own. For additional guidance please refer to FTA’s Safety performance Targets Guide. In many cases MPOs can add the targets to the TIP via an administrative update instead of an amendment.⁷

⁷ MPOs should follow their procedures as defined in their Public Participation Plans

For MPOs with Tier I transit agencies PTASP planning responsibility falls to the transit agency. Agencies should be coordinating with the MPOs to the extent feasible on PTASP target setting. As timeline may differ due to COVID-19 impacts MPOs with Tier I agencies should directly contact the transit providers.

As with other performance measures under MAP-21, MPOs will have **180 days** from the date the plans are certified to adopt measures into the TIP and LRTP. With the publication date of the Tier II group plan being **8/11/2021** MPOs will have to adopt initial targets by **2/7/2021**.

After the initial round in 2021 MPOs will have to update the PTASP performance targets when LRTP or TIP are updated or a transit agency make changes to their targets during an annual PTASP plan review. Transit agencies are required to review their PTASP annually by July 20th.