



FFY 2027 - 2032

Statewide Transportation Improvement Program

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In Cooperation with

The Federal Highway Administration
And The Federal Transit Administration

West Virginia 2027-2032 STIP

Table of Contents

1. INTRODUCTION	2
2. WEST VIRGINIA DEPARTMENT OF TRANSPORTATION	6
2.1 DIVISION OF HIGHWAYS.....	7
2.2 DIVISION OF PUBLIC TRANSIT.....	7
3. FINANCIAL RESOURCES - STATE ROAD FUNDS	9
3.1 STATE ROAD FUND – STATE REVENUE	10
3.2 STATE REVENUE PROJECTIONS.....	13
3.3 STATE ROAD FUND – FEDERAL-AID REIMBURSEMENT	16
4. FINANCIAL GOALS AND POLICIES	19
4.1 DEBT SERVICE	20
4.2 OPERATING EXPENSES.....	23
4.3 ROUTINE MAINTENANCE	23
4.4 OTHER GOALS AND POLICIES	25
5. PERFORMANCE BASED PLANNING REQUIREMENTS	25
5.1 PERFORMANCE MEASURES AND TARGETS	27
6. FEDERAL STIP FUNDING	30
6.1 NATIONAL HIGHWAY PERFORMANCE PROGRAM (NHPP)	31
6.2 SURFACE TRANSPORTATION BLOCK GRANT (STBG) PROGRAM.....	32
6.3 HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)	33
6.4 NATIONAL HIGHWAY FREIGHT PROGRAM	35
6.5 CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT (CMAQ) PROGRAM.....	35
6.6 STATEWIDE PLANNING & RESEARCH (SPR)	36
6.7 TRANSPORTATION ALTERNATIVES (TA).....	36
6.8 METROPOLITAN PLANNING (PL) PROGRAM	37
6.9 CARBON REDUCTION PROGRAM	37
6.10 HIGHWAY INFRASTRUCTURE BRIDGE FORMULA PROGRAM	38
6.11 PROTECT PROGRAM.....	38
6.12 MISCELLANEOUS PROGRAMS	38
6.13 DISCRETIONARY OR “SPECIAL” FEDERAL-AID FUNDS	39
7 TOLL CREDITS	39
8 BRIDGE CREDITS	39
9 STIP PROGRAMS AND GROUPABLE PROJECTS:	40
9.1 Transportation Investment Decision Support.....	41

West Virginia 2027-2032 STIP

1. INTRODUCTION

The need for an effective local, regional, and national transportation network touches every citizen of West Virginia and the United States. Virtually every aspect of daily life depends on adequate roadways and other modes of transportation. Whether it is for transporting our children to school, getting us to work, or bringing goods to our stores from across the country or around the globe, an adequate transportation network enables individuals to experience a higher quality of life by improving access to social, economic, educational, and recreational opportunities. Since the need and desire for safe and efficient transportation is so universal, citizens, businesses, and elected representatives alike are concerned with the details of transportation maintenance, improvement, and construction activities. In recognition of the impact that the transportation network has on our Nation, the federal government requires each state to prepare a Long-Range Statewide Transportation Plan. The purpose of these statewide long-range (i.e. at least 20 year) plans is for each state to outline the strategies for how it intends to preserve and enhance the transportation infrastructure for the traveling public with the resources that can reasonably be anticipated to be available for those purposes.

Long-term goals and policies for the WVDOT currently reside in West Virginia's 2050 Statewide Long-Range Transportation Plan, which discusses in broad terms the long-range goals and objectives of its member agencies, of which the West Virginia Division of Highways (WVDOT) is a part. The current plan, which can be viewed at [2050 WV DOH 2050 LRTP Overview](#), not only met federal requirements in place at the time, but also went further than previous Long-Range plans in discussing linkages to both the Statewide Transportation Improvement Program (STIP) and the State's Transportation Asset Management Plan (TAMP).

The State's long-range transportation plan is by necessity both multi-modal in nature to reflect the interconnectivity and interdependence of the various modes of transportation used for getting people, goods and services from point A to point B, but is also intended to be a strategic document. The plan also serves as a blueprint of what the State desires to achieve during the planning horizon (i.e. currently 2050) and is not intended to specifically identify what needs to be done by the State and or other entities to meet those goals. For example, the long-range plan identifies the goal of "Safety and Security for All Users" but does not and could not realistically identify all construction projects across all modes over a twenty-plus year period that would be needed to achieve that goal. Achieving the goals and objectives of the long-range plan is complicated by the fact that private not public entities are responsible for some infrastructure like railroads and shipping terminals and as such states cannot force these private entities to construct facilities or locate in a specific area. These outcomes are further complicated by the fact that even where modes are controlled primarily by public entities (airports, highways, mass transit, etc.) funding at the federal, state and local level for investing in these facilities is typically mode specific and each funding source has rules and

West Virginia 2027-2032 STIP

regulations governing how those funds can be utilized. The remainder of this STIP document focuses on the funding and requirements associated with highways and public transit.

In order to ensure that states are working on near-term highway and transit initiatives that will produce the desired strategic outcomes reflected in their long-range statewide plans as well as the performance targets outlined in each state's TAMP, states are also federally required to develop a four-year program of federally funded projects that reflect what projects the State intends to implement during the four-year period with the funds that are anticipated to be available for those purposes. The four-year document is called the STIP.

In West Virginia, unlike the majority of states, State government rather than county or local government, has ownership and responsibility for virtually all public highways. It is important that the West Virginia Department of Transportation (WVDOT) and specifically the West Virginia Division of Highways (WVDOH) and West Virginia Division of Public Transit (WVPT) clearly outline the tasks and improvements that can realistically be funded in the near future with not only federal funds, but also State funds. As a result, for a brief period WVDOH produced a six-year planning document referred to as the Six-Year Plan. This document outlined both State and federally funded highway projects that the WVDOH anticipated implementing during the period. Due to the documents overlapping with the federally required STIP and timing issues surrounding the updates of both documents, it generated considerable confusion. As such, it was determined that a more prudent course of action would be to merge the two documents. As an initial step in merging the two documents, in January 2008, the Agency produced the first Six-Year STIP covering FFY 2008-2013, providing the outer two years for information only.

In November 2008 the merger process culminated when the 2009-2014 STIP was approved. This was the first official document issued by the WVDOT, which included a listing of federal-aid projects along with a listing of projects to be funded solely with State monies. The first four years of the program served as the State's official STIP and the remaining two years were provided for informational purposes only. The development, adjustment and or amendments to the federally funded portion of the document follow the required federal procedures and regulations associated with the STIP. The currently approved STIP document covers FFY 2023-2028, with the last two years (i.e. FFY 2027 and 2028) being for illustrative purposes only.

The STIP is not a static document and continues to evolve over time to keep the public informed and engaged in the Transportation Planning and Programming process. Enhancements have been and will continue to be implemented to keep the document relevant and compliant with ever-changing federal requirements.

The 2010-2015 STIP and all subsequent STIP documents have each provided a section outlining the efforts that were made to improve the management and reporting of the program. The STIP was organized so that all programmed projects would fall within one of the eight designated core programs. The goal was to better manage assets to meet the program's needs and with less

West Virginia 2027-2032 STIP

emphasis on the type of funding used. Furthermore, the types of investments and the amount of funding directed to each of the sub-programs can be compared to targets contained in both the State's Long-Range Plan and TAMP.

The timing of federal legislation and the actions mandated by them will by necessity have a significant impact on the work conducted on the transportation network and the content of required documents, such as the STIP. As an example, the implementation of Public Law 112-141, the Moving Ahead for Progress in the 21st Century (MAP-21) Act, which was enacted on July 6, 2012, made significant changes to the programs through which transportation projects were funded. Although project eligibility generally remained unchanged, the number of highway programs was reduced to give states more flexibility to deal with their specific issues. As a result, the WVDOT had to transition its STIP away from SAFETEA-LU funding programs to MAP-21 programs. Subsequently, while the WVDOT was in the midst of updating its current FFY 2016-2021 STIP, which was approved jointly by FHWA and FTA on April 22, 2016, a new multi-year transportation bill was approved. Public Law 114-94, the Fixing America's Surface Transportation (FAST) Act, was enacted on December 4, 2015. Fortunately, the FAST Act, which covered FFY 2016-2021, built upon the foundations of MAP-21 leaving many of the prior Act's programs and performance-based requirements intact. As such, the WVDOT was able to proceed with, and gain approval of their current STIP. Most recently, Public Law 117—58, the Infrastructure Investment and Jobs Act (IIJA), was enacted on November 15th, 2021, and covers FFY 2022-2026.

At the time of this document's preparation, the current IIJA Transportation bill is in its final year of federal funding authorization. We have limited information on what could be removed, changed, or added to the next transportation bill. With limited detailed information regarding the size and scope of the next Law, WVDOH will need to amend the projects to maneuver based upon changes made to available funding for federal aid programs.

Although now somewhat dated, another example of how outside factors can impact the WVDOT's transportation program was the designation of the Huntington, WV-KY-OH metropolitan statistical area as a Transportation Management Area (TMA). On July 18, 2012, the U.S. DOT, FTA and FHWA announced that all urbanized areas with populations greater than 200,000, as determined by the 2010 Census, are designated as TMAs. As a result of this announcement, a new urbanized area that is generally centered on Huntington, West Virginia was identified during the 2010 Census with a population of 202,637 and was listed as a TMA. The new TMA not only comprises portions of Cabell, Wayne and Putnam counties in West Virginia, but also extends across state lines into Kentucky and Ohio.

Prior to the 2010 Census, the areas that comprised the new TMA already met lower urbanized thresholds (50,000) that necessitated a host of additional planning requirements to be eligible for federal-aid funds. Those functions are performed in part by Metropolitan Planning Organizations (MPOs). Within West Virginia, the new TMA covers areas within the planning boundaries of two MPOs, which are the KYOVA Interstate Planning Commission (KYOVA), which serves Cabell

West Virginia 2027-2032 STIP

and Wayne counties in West Virginia (in addition to Boyd and Greenup counties in Kentucky and Lawrence County in Ohio) and the Regional Intergovernmental Council (RIC) Metropolitan Planning Organization, which serves Kanawha and Putnam Counties. Funding requirements associated with TMAs necessitated that West Virginia's 2013-2018 STIP and subsequent STIP documents be changed to reflect the sub-allocation of federal funds required for TMAs. Since portions of both the KYOVA and RIC planning areas have been designated as a TMA, a small part of the federal-aid highway funds apportioned to West Virginia are sub-allocated for use solely within the TMA.

In similar fashion to the suballocation of funds for TMA's, as part of the IIJA, an additional sub-allocation of funds for urbanized areas between 50,000 and 200,000 in population has been required. This is reflective in the Transportation Alternative Program, Surface Transportation Block Grant, and the Carbon Reduction federal aid program. A set aside amount is reserved in each of those programs for the 7 remaining MPO's in the state.

The state of West Virginia contains eight MPOs which are responsible for planning activities within the urbanized areas of 50,000 or more population. This includes development of a long-range Metropolitan Transportation Plan (MTP) which spans a minimum of 20 years, as well as a local Transportation Improvement Program (TIP). Metropolitan Planning Organizations TIPs are approved at the local level, and by the Governor, for incorporation, without change, into the STIP. This process allows potential submissions to be compared with the Statewide Transportation Plan and local Metropolitan Transportation Plans. The coordination of the WVDOT and the MPOs are outlined in the STIP Operating Procedures.

The eight Metropolitan Planning Organizations are identified below:

1. BELOMAR (Ohio and Marshall Counties)
2. BHJ (Brooke and Hancock Counties)
3. FRMPO (Fayette and Raleigh Counties)
4. HEP (Berkeley and Jefferson Counties)
5. KYOVA (Cabell and Wayne Counties)
6. MMMPO (Monongalia County)
7. RIC (Kanawha and Putnam Counties)
8. WWW (Wood County)

The Six-Year STIP includes a wide variety of projects including roadway, bridge, bicycle, pedestrian, safety and public transportation (transit) projects. While the primary concern of this document is federally funded projects, Regionally Significant State funded projects are also listed.

The FFY 2020-2025 STIP was a significant departure from prior STIPs, in that West Virginia began to utilize the ability to "group" some projects for financial constraint and administrative purposes rather than listing all projects individually. Most highway projects are typically defined

West Virginia 2027-2032 STIP

by three phases of activity, such as ENG (Design), ROW (Right of Way) and CON (Construction). Each phase of a standalone project is shown in its respective year of anticipated authorization. The federally funded portion of the STIP is fiscally constrained to include projects for which there is committed funding available and includes project phases that have a reasonable expectation of being ready for implementation by the year listed. Grouping allows for certain projects that meet specific criteria to be combined and represented as line items in the STIP. The primary purpose of grouping is to avoid delays in project implementation by providing flexibility and limiting the administrative actions required on lower cost projects that will have negligible environmental impacts. All information relating to the individual projects that comprise the group as they are determined are still maintained and available for public review. The WVDOT intends to continue to utilize groupable projects for the FFY 2027-2032 STIP. A more detailed discussion of how the WVDOT has implemented “grouping” into the STIP will be presented later in this document.

Projects are subject to many factors from conception to completion that may impede or accelerate their progress. These may include policy decisions; changes in design requirements; conflicts with other scheduled activities; unforeseen circumstances such as cutbacks in funding; shortage of manpower; or inflation of project costs. Project cost estimates are based on best available engineering estimates at the time the STIP is developed. As required by MAP-21, FAST and IIJA, the projects are shown in anticipated year of expenditure dollars; however, final cost for the actual projects may differ as the projects are refined in the project development process prior to construction. When a project is adversely affected by any of the above-mentioned factors, the projected fiscal year dates and/or costs will be adjusted accordingly.

Given the complexity of the STIP document and its emphasis on financial constraint, a description of how the WVDOT is organized and how it obtains and direct its financial resources is necessary for the public to provide meaningful input into the transportation planning and programming process.

2. WEST VIRGINIA DEPARTMENT OF TRANSPORTATION

Comprised of more than 5,000 employees, the West Virginia Department of Transportation (WVDOT) provides essential services in transportation, tourism and economic development. These services provide for the safety and protection for the citizens of West Virginia, as well as the traveling public, through a modern highway, rail, port, and airport system.

The WVDOT consists of the following agencies:

- Division of Highways
- Division of Motor Vehicles
- Office of Administrative Hearings
- Division of Multimodal Transportation Facilities

West Virginia 2027-2032 STIP

- Parkways Authority

2.1 DIVISION OF HIGHWAYS

The West Virginia Division of Highways (WVDOH) is responsible for the planning, engineering, right-of-way acquisition, construction and maintenance of more than 34,000 miles of State maintained roads. West Virginia is one of only four states, the others are Virginia, Delaware and North Carolina, who own virtually all the roadways within the state and do not split roadway jurisdiction with counties or a township system. This equates to 89% of the public roads being the responsibility of the WVDOH with the remaining 11% being owned by a municipality, a federal agency, or the West Virginia Parkways Authority. Additional responsibilities include highway research, outdoor advertising, roadside development, safety, bridge inspection and dissemination of highway related information. These responsibilities are administered by the several divisions situated within the central headquarters (such as Engineering Division, Right-of-Way Division, Traffic Engineering Division, Operations Division, etc.) and by the ten districts located throughout the State. The districts and their respective counties are as follows:

- District 1: Boone, Clay, Kanawha, Mason, Putnam
- District 2: Cabell, Lincoln, Logan, Mingo, Wayne
- District 3: Calhoun, Jackson, Pleasants, Ritchie, Roane, Wirt, Wood
- District 4: Doddridge, Harrison, Marion, Monongalia, Preston, Taylor
- District 5: Berkeley, Grant, Hampshire, Hardy, Jefferson, Mineral, Morgan
- District 6: Brooke, Hancock, Marshall, Ohio, Tyler, Wetzel
- District 7: Barbour, Braxton, Gilmer, Lewis, Upshur, Webster
- District 8: Pendleton, Pocahontas, Randolph, Tucker
- District 9: Fayette, Greenbrier, Monroe, Nicholas, Summers
- District 10: McDowell, Mercer, Raleigh, Wyoming

2.2 PUBLIC TRANSIT

The Division of Multimodal Transportation Facilities supports the development of public transportation services in the State and administers federal and state transit programs by being the designated State organization for the receipt of Federal Transit Administration (FTA) funding. The Division assists public transportation providers, not just with operation of their buses and vans, but by also keeping local systems safe, efficient, and effective through financial support, technical and administrative assistance, statewide marketing and training, and ensures that all Federal Transit Administration grant requirements are met by the Division and its subrecipients.

West Virginia 2027-2032 STIP

The Division is also the state safety oversight agency (SSOA) responsible for overseeing West Virginia University's (WVU) safety program for the Morgantown Personal Rapid Transit (MPRT) system operated by WVU.

Some of the numerous services that the Division provides transit providers include:

- Distribution of operating and capital assistance to small urban and rural transit systems to help cover the cost of essential public transportation services and miscellaneous equipment.
- Serving as a central procurement source for vehicles and communication equipment for The Section 5310 and 5311 providers (transit authorities and private non-profit agencies).
- Providing planning and technical assistance, either directly or through contractors, to enhance the safety, efficiency and effectiveness of transportation services in the State.
- Providing driver training on the safe and proper ways to transport the elderly and disabled, as well as providing access to supervisory training, defensive driving, mechanics training and many other topics.
- Documenting and promoting the benefits of public transportation for both users and nonusers.
- Provides information and guidance on responsible funding levels to support the development and enhancement of public transportation facilities and services.
- Ensures compliance with numerous federal requirements attached to Federal Transit Administration funding. The Division administers five FTA programs for the State of West Virginia. They are:
 - Section 5304 Statewide Transportation Planning Program
 - Section 5310 Enhanced Mobility of Seniors and Individuals with Disabilities
 - Section 5311 Rural Area Formula Program
 - Section 5329 Transit Safety and Oversight
 - Section 5339 Bus and Bus Facilities

Two other FTA programs are included in the STIP, the Section 5307 Urbanized Area Formula Grants, utilized by transit organizations situated within the eight metropolitan areas of the State, and the Section 5337 State of Good Repair Grants utilized by West Virginia University for the Personal Rapid Transit facility. Both organizations are direct FTA recipients; this funding is not administered by the Division.

On November 15, 2021 President Biden signed the Infrastructure Investment and Jobs (IIJA) Act of 2021(IIJA) into law. The IIJA enacted \$91 Billion through the act's five-year span, FY2022-2026, for reauthorized transit programs. FTA Formula programs will be increased by 30% in FY2021-2022 and a 5% increase for subsequent years.

West Virginia 2027-2032 STIP

The IIJA replaces the FAST Act which authorized \$61.1 billion over the five fiscal years (FY) 2016 through 2020 for programs administered by the FTA.

The FAST Act, took effect in FFY2016 and provides funding through FFY 2020. The FAST Act continued many trends first initiated in the Moving Ahead for Progress in the 21st Century Act, or MAP-21 such as safety, transit asset management and discretionary federal programs.

In April of 2023 the Division, according to FTA timelines, revised its group Transit Asset Management plan that included all the State's recipients of FTA Sections 5307, 5311 and 5310 (where applicable). In addition, the Division issued yearly performance targets based upon the plan. This has allowed the DMTF to have enough information to commit resources to areas shown deficient by the yearly inventory analysis and performance targets.

The Division and the small urban transit agencies, working with a consultant, developed and implemented Public Transit Agency Safety Plans (PTASP). Using these plans, the small urban transit providers set individual transit safety performance measures yearly.

Our communities are enriched by a safe, affordable public transportation system which contributes to the economic vitality of the State. West Virginians and visitors to our State depend on public transportation daily - for work, business, recreation, shopping, and access to education or medical services. Many elderly, disabled, and economically disadvantaged citizens rely on public transportation. Making the choice to use public transportation can help reduce traffic congestion and help the environment. For these reasons the Division is committed to the STIP process as a means of continuing to provide funding for these services.

3. FINANCIAL RESOURCES - STATE ROAD FUNDS

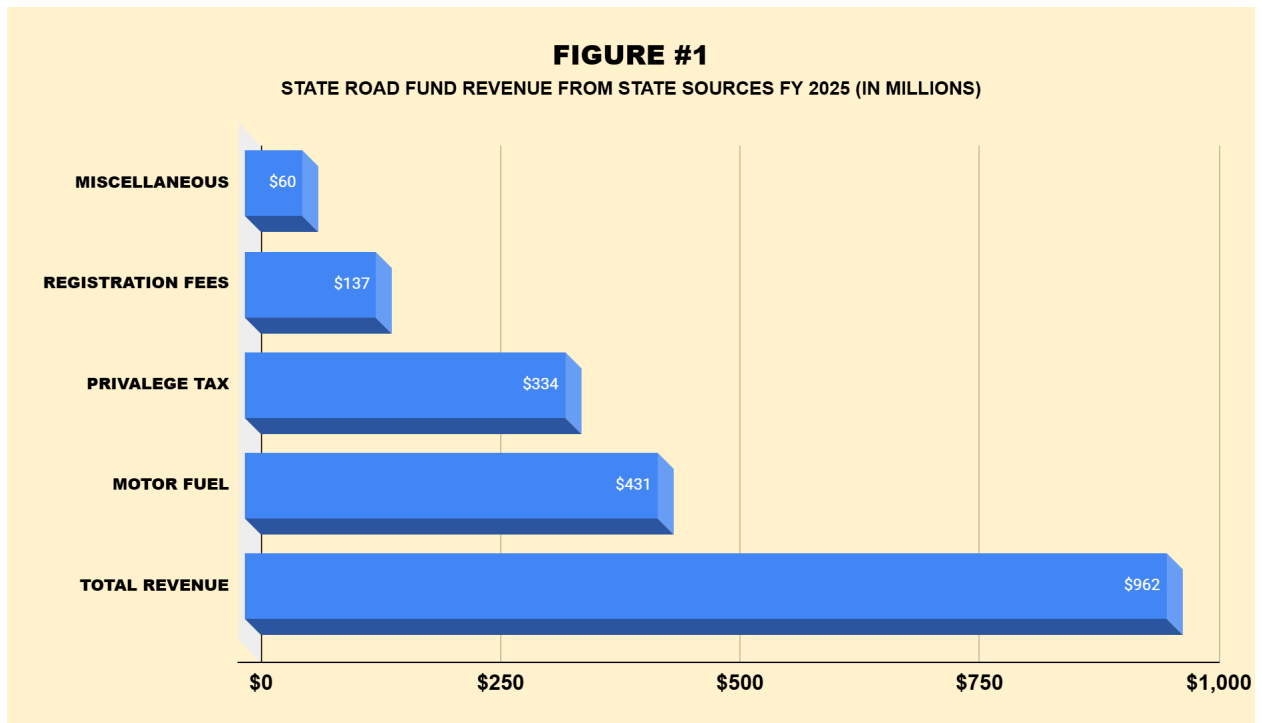
While it would seem deceptively simple for WVDOH staff to identify all highway improvements that will occur over the next six years on roadways under its jurisdiction, the reality is that providing that information with a reasonable degree of accuracy is quite difficult. Before a program that identifies future highway improvements can be laid out, it is important to understand the many functions that the State Road Fund must support and the limited funds which are available. The activities of the WVDOH are funded from the State Road Fund, which receives its funding from State revenue collections and federal reimbursement. The State revenue component of the State Road Fund is derived from motor fuel taxes, registration fees, privilege taxes, and miscellaneous income levied and generated at the State level. The federal component is derived from federal-aid reimbursements available to the State through national federal-aid highway legislation. Federal-aid highway funds are generated predominantly by motor fuel taxes and fees levied at the national level and are deposited in the Highway Trust Fund. To help highway departments plan and schedule projects, Congress will typically pass legislation that authorizes the expenditure of federal-aid funds over a multi-year period and specifies how those funds are to be distributed

West Virginia 2027-2032 STIP

among the states. The current multi-year federal reauthorization legislation as mentioned previously is the Infrastructure Investment and Jobs Act (IIJA), which was signed into law on November 15, 2021, and replaces the prior multi-year legislation (FAST). As mentioned previously, the IIJA covers FFY 2022-2026. As such, WVDOT's FFY 2027-2032 STIP will be based solely on assumptions regarding the potential size and scope of any federal transportation program after FFY 2026. To this end, it is assumed the federal government will continue to invest in highway and transit initiatives at the same level as IIJA. However, the simple lack of any clarity or certainty regarding their involvement helps to illustrate how difficult it is to plan and budget for a multi-year program that relies on estimates and anticipated funding from a highway bill that has not yet been drafted. Given the uncertainty that exists surrounding the level of federal support, conservative assumptions are prudent. Specifics regarding those assumptions will be explained later in this document.

3.1 STATE ROAD FUND – STATE REVENUE

The State Road Fund collected \$962 million in State revenue for State Fiscal Year (FY) 2025 (see Figure #1). Those revenues were generated from four basic categories: Motor Fuel Taxes, Registration Fees, Privilege Taxes, and Miscellaneous Revenues.



While the Motor Fuel Tax has served as the primary revenue generator for the State Road Fund, it has at times come under scrutiny, especially when retail fuel prices significantly increase, which in turn generated Legislative action. A brief outline of some of the past volatile activity regarding Motor Fuel Tax rates in West Virginia follows below.

West Virginia 2027-2032 STIP

The Motor Fuel Tax rate was 27¢ per gallon in calendar year (CY) 2006 and had increased to 31.5¢ per gallon for CY 2007 and subsequently increased to 32.2¢ in CY 2008 due to a continual rise in the variable rate component of the State's Motor Fuel Tax. In response to the run-ups in retail fuel prices in 2007 and 2008, the Legislature forestalled a subsequent increase in the variable rate by freezing that portion of the Motor Fuel Tax at a rate of 11.7¢ for CY 2009. The actions taken by the Legislature represented the second time during a five-year period where the variable rate portion of the tax had been frozen. In an effort to curb dramatic swings in the variable portion of the Motor Fuel Tax, in November 2009, the Legislature revised West Virginia Code and established a new floor for the variable rate portion of the tax, which was previously established at 4.85¢ per gallon. The new rate was based on 5% of a minimum wholesale price of motor fuel of \$2.34 per gallon, which is equivalent to 11.7¢ per gallon. The rate is calculated by the Department of Revenue yearly and any adjustment in the rate is effective on January 1 of the next year. In addition to the higher floor value, a maximum annual variance in the variable rate portion of the tax was set at 10% (i.e. the variable rate can adjust up or down no more than 10% from the prior year). Because of this change, the variable rate increased to 11.7¢ per gallon in CY 2010. After 2010, the variable component continued to change annually CY 2011(11.7¢), CY 2012 (12.9¢), CY 2013 (15.6 ¢), CY 2014 (15.2¢), CY 2015 (14.1¢), CY 2016 (12.7), CY 2017 (11.7¢) without incident. However, early in 2017, the Legislature again revised West Virginia Code and established a new floor for the variable rate portion of the tax increasing it to \$3.04 per gallon and made it effective July 1, 2017. As a result of the changes made, the variable rate portion of the Motor Fuel Tax increased from 11.7¢ per gallon to 15.2¢ per gallon for the second half of CY 2017. The rate has remained the same for CY 2018 thru CY 2022 until CY 2023 when the variable rate increased to 16.7¢, before dropping to 15.2¢ again in CY 2024. Through CY 2025 it has maintained 35.7¢ per gallon with 20.5¢ as the flat rate and 15.2¢ as the variable.

In addition to the actions regarding the variable rate portion of the Motor Fuel Tax, in November 2009, the Legislature also set the flat rate portion of the Motor Fuel Tax permanently at its current rate of 20.5¢. Prior to the change, the flat rate portion would have reverted to 15.5¢ per gallon on July 31, 2013. The flat rate component of the Motor Fuel Tax has remained unchanged. During FY 2025 the fuel tax generated \$431 million in revenue, which was 3.2% lower than FY 2024. The fuel revenue for 2025, however, was approximately 2% higher than FY 2021-2024 average.

For the purposes of this document, Registration Fees encompass not only vehicle registration fees but also driver's licenses, permits, and litter control fees. Vehicle registration fees are based on a vehicle's classification and are renewed annually or on a multi-year basis. Driver's licenses and learner's permit fees are imposed on persons qualified to operate a motor vehicle. In CY 2017, in conjunction with changing the variable rate floor value of the Motor Fuel Tax, the Legislature also acted to significantly increase a number of the components that make up Registration Fees, which had not been modified in decades. Some examples are that the cost

West Virginia 2027-2032 STIP

of Registration increased from \$30 to \$51.5 per year and Titling was increased from \$10 to \$15. As a result of the changes imposed, revenue generated by Registration Fees into the Road Fund increased from \$104 million in FY 2017 to \$150 million in FY 2018. Revenue from Registration Fees has also been negatively impacted by the pandemic. After peaking in FY 2019 at \$170.5 million, revenue decreased to \$124.2 million in FY 2020 and then rebounded to \$138.4 million in FY 2021. The four-year average (2021-2024) of registration fee revenue was \$136 million, which is comparable to \$137 million collected in FY 2025.

The Privilege Tax, imposed when the certificate of title is issued, was first enacted in 1935 at a rate of 2% of the vehicle value. The rate increased to 5% in 1971 and remained unchanged until 2017. As was the case with Registration Fees and the Motor Fuel Tax, the Legislature acted and increased the rate from 5% to 6% to be more consistent with other sales taxes. In FY 2017, Privilege Taxes generated \$204 million in revenue. Due in large part to the Legislature's action, in FY 2018, revenue generated from Privilege Taxes increased to \$250 million. Revenue from the Privilege Tax has gradually increased since the 2017 legislative change to its peak in FY 2025 at \$334 million. The growth is attributed to the significant increase in the cost of both used and new vehicles.

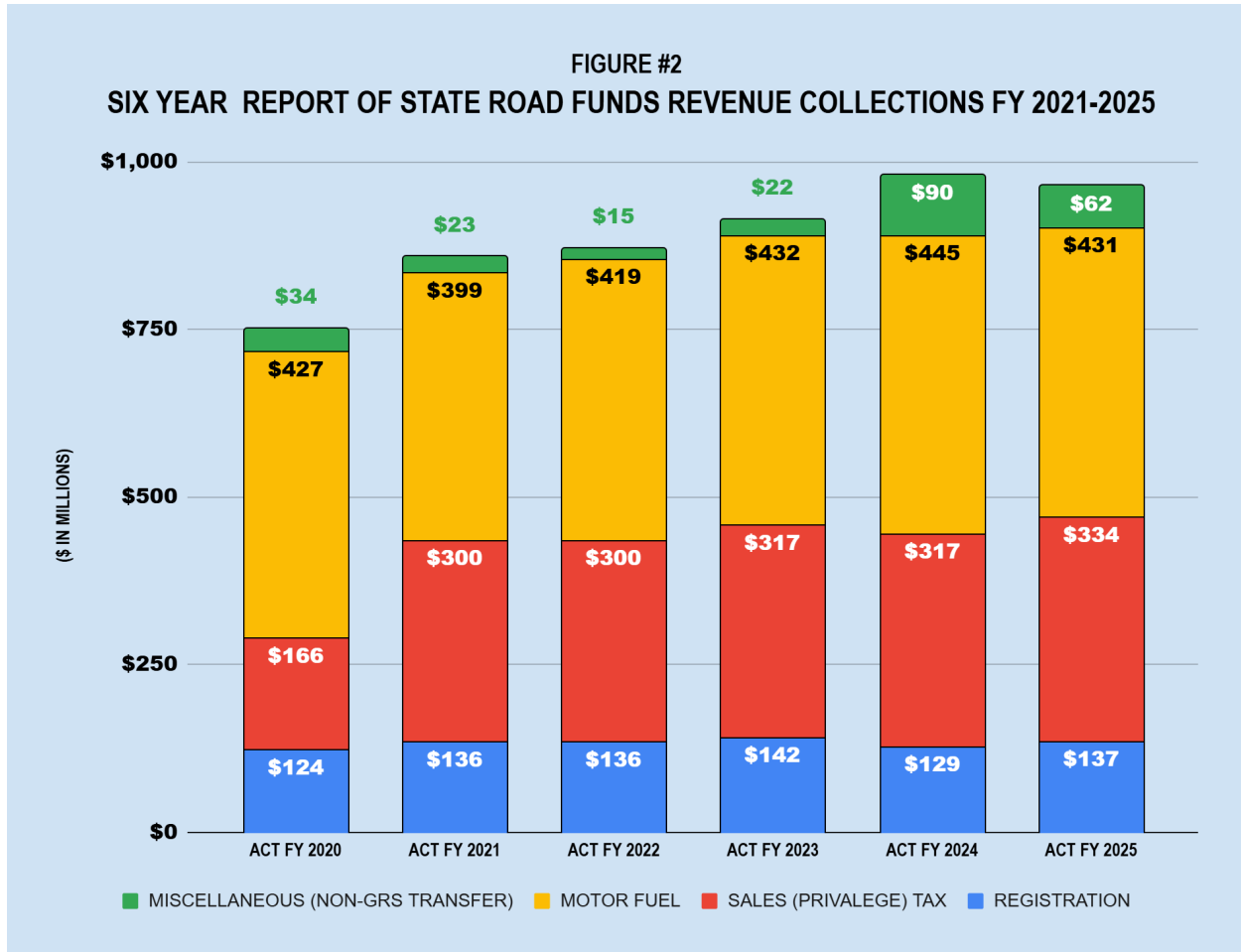
Miscellaneous Revenue sources typically include revenue from interest on investments, map sales, permits, etc., and have historically been small in comparison to the other revenue sources of the State Road Fund. However, due to several legislative actions, Miscellaneous Revenue now frequently accounts for a larger share of State Road Fund monies. One of the most significant impacts was a legislatively mandated yearly transfer of revenue from the state's General Fund to the State Road Fund, which was intended to offset costs incurred by the WVDOH when its contractors pay state sales tax on construction materials. The amount of the transfer varied yearly depending on the size and scope of the WVDOH's construction program, but typically added several million dollars to the State Road Fund annually. The mandated transfer was eliminated in 2017. Be that as it may, the four-year average was around \$38 million in revenue and accounted for \$60 million in FY 2025.

Although the yearly mandated transfer was eliminated, the Legislature has continued to inject General Revenue surpluses into the State Road Fund. These transfers are not required and cannot be predicted. Furthermore, these transfers are usually tied to specific initiatives desired by the Legislature, such as secondary road maintenance. WVDOH has routinely seen General Revenue transfers over the last few years, and while any infusion of revenue is helpful, the lack of predictability and potential spending mandates makes long-term planning difficult.

The net effect of the adjustments and legislative actions discussed above on the State Road Fund over the last six fiscal years is shown below (see Figure #2). As can be seen, overall revenue trended upward from \$750 million in FY 2020 to just shy of \$1 billion in 2025. Due to the flurry of legislative actions that have taken place since CY 2017, which have altered the

West Virginia 2027-2032 STIP

Agency's revenue streams, and additional federal relief, it is difficult to predict with any high degree of certainty the amount of revenue that will be available for highway construction initiatives over a six-year period as is federally mandated.



3.2 STATE REVENUE PROJECTIONS

The foundation of the STIP is available revenue, both federal and, more importantly, State. A review of Figures #1 and #2 indicates that State revenues from four components (Motor Fuel Tax, Privilege Tax, Registration Fees, and Miscellaneous) contributed \$964 million to the State Road Fund in FY 2025. When comparing collections in FY 2020 to FY 2025, collections rose roughly 22%. Compared to the previous six-year period in the 2023-2028 STIP, there were various legislative changes that greatly impacted the State Road Fund. During the period of this review, there have been no major changes, instead steady growth over the past six years, particularly seen in the Privilege Tax portion of revenue collections. However, given the volatility that currently exists a conservative forecast is prudent.

West Virginia 2027-2032 STIP

In order to develop estimates of future deposits into the State Road Fund, the WVDOT typically relies on the expertise of individuals at the West Virginia State Tax Department, as well as internal staff, for the development of its short-range revenue forecasts. Revenue forecasts are predicated on a number of underlying factors and assumptions. Some of the most important assumptions deal with the anticipated cost and consumption of oil and motor fuel and, to a lesser extent, their impact on human behavior (e.g., if fuel costs remain high, will individuals continue to buy larger more expensive cars or will they buy smaller more fuel-efficient vehicles, will they carpool or will they continue to drive alone, will they utilize public transit more, etc.).

Ideally, the underlying factors for developing State revenue projections would not fluctuate dramatically. Unfortunately, there is no accurate formula to gauge human behavior to sync estimates to actualities. While one revenue stream could decrease, another can increase, making it difficult to ascertain, within certainty, how much revenue the State Road Fund collects. For the basis of the six-year projections WVDOH Budget division provided their estimates demonstrated in Table 1 through their six-year plan. While the STIP covers FFYs 2027-2032, the final two years are informational-only and budget projections would be updated through a new STIP

Table 1 STATE REVENUES FORECAST FY 2026-2031 (EXPRESSED IN MILLIONS)						
Source Of Revenue	FY 2026 ESTIMATE	FY 2027 ESTIMATE	FY 2028 ESTIMATE	FY 2029 ESTIMATE	FY 2030 ESTIMATE	FY 2031 ESTIMATE
FUEL TAX	\$426.00	\$425.00	\$424.00	\$419.00	\$428.00	\$423.00
REGISTRATION FEES (INCLUDES LITTER CONTROL FEE)	\$151.70	\$138.70	\$138.70	\$138.70	\$138.70	\$138.70
SALES TAX (PRIVILEGE TAX)	\$310.00	\$324.00	\$315.00	\$315.00	\$315.00	\$315.00
MISCELLANEOUS REVENUE (NON GRS TRANSFER)	\$60.00	\$40.00	\$40.00	\$40.00	\$40.00	\$40.00
TOTAL	\$947.70	\$927.70	\$918	\$912.70	\$921.70	\$916.70

A review of Table 1 indicates that under the current forecast, State revenues into the State Road Fund would average \$924.08 million per year and equal \$5.54 billion over the six-year period from FY 2026-2031. As mentioned previously there are times when the WV Legislature has authorized General Fund Transfers, but for the purpose of planning in this document, those have not been considered. While during the previous six-year window there was an average of 3.6% growth between 2020 and 2025, the forecasted projections from 2026 to 2031 would be considered conservative with little to no growth during the period. This outlook is primarily driven by factors limiting potential economic expansion. These factors include a declining population, an aging population, and the increased use of more efficient vehicles. Without WV legislative intervention, this will make it difficult to move forward on necessary projects when inflation and purchasing power are considered.

West Virginia 2027-2032 STIP

As of December 2007, federal guidelines required all project costs contained in the STIP to be shown in year-of-expenditure dollars. To adjust capital costs to year-of-expenditure dollars, it was necessary to develop a yearly project adjustment/inflation factor. While numerous indexes exist for calculating inflation, staff of the WVDOT and FHWA agreed to use a 20-year rolling average of the composite index of FHWA's Price Trends for Federal-Aid Highway Construction. Unfortunately, the FHWA ceased producing the index data after 2006. In the absence of national data, the WVDOH has developed a highway construction index using its Average Unit Bid Prices Based on Contracts Awarded documents. In order to continue to calculate a 20-year rolling average, assumed FHWA values were developed that are equivalent to the change in the WVDOH index.

The methodology for indexing project costs for inflation was reviewed during the development of West Virginia's Multi-Modal Statewide Transportation Plan to determine if a new index or enhancements to the existing methodology were appropriate. Due to the broad nature of the responsibilities of the WVDOT and the Divisions of which it is composed, it was determined that a blended index would be more appropriate than any single index available. The blended index consists of weighted portions of West Virginia's Highway Construction Price Index, which specifically focuses on the cost of highway construction, and secondly the broader Consumer Price Index (CPI) for the South Urban Region, which would be more reflective of other non-construction specific items (i.e., costs associated with purchasing rolling stock, acquiring right-of-way, facility maintenance and those of employee benefits). The yearly blended index is calculated by prorating the two existing indexes on an 82% (WVHCPI) and 18% (CPI South Urban Region) basis. As was the case before, a 20-year rolling average was used to generate a yearly inflation factor to help mute the impact of sharp spikes or downturn in costs. The new value is typically calculated annually. However, due to multiple changes in the Agency's hardware and software, which impact not only general accounting but also specifically analysis of contract bids, the value has not been updated since January 2017 but is still relevant for planning purposes. The current 20-year rolling average of the blended index is 5.04% per year for the 1997 to 2016 period. FHWA has somewhat recently started producing a new National Highway Construction Cost Index, which is like that of the index that was suspended in 2006. Data on the new National Index is available for a 22-year period from 2003 to 2025. The previous 18-year average growth in construction costs on the national index was 5.7% per year (reported from the previous STIP narrative), but from 2020-2025 averaged 11.7%. This increase raised the 20-year (2005-2025) NHCCI average to 8.75%.

The impact that inflation has on purchasing power when State revenues are projected to be virtually stagnant is significant. The purchasing power of the State Road Fund will be impacted over time. During the current STIP period inflation greatly increased across market construction rates, thus impacting on and reducing the Agency's purchasing power. In constant 2025 dollars, State revenues would average only \$918 million per year. These calculations help demonstrate why even after revenue was boosted, the Agency continues to struggle to meet its

West Virginia 2027-2032 STIP

obligations to the citizens of West Virginia and the traveling public at large. The Agency continues to search for internal efficiencies to curb the impact of inflation. However, only so much can be done in that regard and to remain fiscally sound.

3.3 STATE ROAD FUND – FEDERAL-AID REIMBURSEMENT

The federal government has long recognized the need for an efficient and effective national highway network. To help satisfy this need, the federal government authorizes the expenditure of federal funds for various activities that it has deemed to be of national importance. Rather than trying to own, operate, and maintain the highway infrastructure across the nation, the federal government makes funds available to state and local governments having jurisdiction over important transportation facilities to accomplish these tasks. While not specifically owning these assets, FHWA and FTA maintain an “interest” in the assets subject to federal requirements. The activities and/or the network of roads and bridges in which the federal government will participate in their renovation, improvement, and construction are termed “federal-aid-eligible”.

The federal government primarily uses the national highway functional classification system of roadways as the basis for determining which facilities are eligible for federal-aid. Due to the national focus on these roadways, except under special circumstances, roads that are functionally classified as Rural Minor Collector, Rural Local Service, or Urban Local Service are not eligible for federal-aid. Throughout the State, only 27% of West Virginia’s certified public highway mileage (38,850 miles) are traditionally eligible for federal-aid. The remaining 73% (28,373 miles) must be funded entirely by the governmental entity having jurisdiction over those highways. In West Virginia, where the WVDOH has statutory responsibility for nearly all roads, virtually all maintenance, improvements, and construction initiatives on the 28,373 miles of Non-FA-Eligible roadways are funded with 100% State revenues. In addition to the previously listed classifications, the federal government also prohibits use of federal-aid funds for specific activities. This is of paramount importance because federal funds may not be typically used to pay for the top three mandated priorities of the WVDOH (Debt Service, Administrative Support, and Routine Maintenance expenditures). As a result, not only are the majority of roadways under the WVDOH jurisdiction not eligible for federal assistance, but neither are its top three mandated priorities.

As mentioned previously, Congress typically authorizes a specific total amount of federal-aid highway funds for a multi-year period and prescribes methods for apportioning or allocating those funds to the individual states for various transportation purposes. Furthermore, in order to assure that specific types of highway needs are addressed, Congress identifies various highway programs or sub-allocations and will then set the eligibility criteria, matching fund requirements (most federal funds must be matched on an 80/20 federal-to-state ratio), and the funding levels to be made available. The federal legislation that makes these funds available to the states is twofold in nature. First, when multi-year authorizing legislation (like FAST

West Virginia 2027-2032 STIP

and IJA or BIL) is in place, formulas are established to dictate how much of those funds will be apportioned among the states, on a yearly basis, over the life of the legislation. This allows transportation agencies to set long-range priorities. Second, in previous years a significant amount of discretionary or earmarked funds was made available as part of the authorizing legislation. These funds were appropriated and allocated per the wording contained in the legislation or through the award of competitive grants. The exact amount of earmarked or discretionary funds was impossible to predict and came in the form of line items for specific projects (i.e., the funds can be used only for the initiative described in the legislation or for which a grant was requested). MAP-21 eliminated the appropriation of new earmarks (existing earmarks will be used until they are spent), but significantly expanded the size and number of competitive grants, for which the WVDOT has no assurances it will be awarded. This policy was continued and expanded under the FAST Act and has been expanded still further under IJA making the prediction of future revenue difficult.

In addition to the apportionments described above, obligation limitations must also be factored. These are caps placed on federal-aid highway funding to control highway program spending in response to economic and budgetary conditions. In short, obligation limitations have the impact of generally reducing a state's federal-aid apportionments and allocations. While it is possible for total Obligation Authority (OA) to be greater than the total apportionment or the appropriation amounts, historically it has been between 90% to 95% of those levels. While some apportionments get obligation authority that can only be used for projects that meet those requirements, much of the obligation authority the Agency receives comes in block form that can be applied to multiple apportionment categories. This mechanism provides states with the flexibility to apply more or less of their obligation authority to a specific federal program in a given year, as long as it does not exceed the unobligated balance available for that program.

In FFY 2021, the obligation authority was higher than the normal 96% of the annual apportionments. This was due to the State receiving \$40 million in supplemental OA as part of the August redistribution process. Without the addition of the discretionary OA, the State's value would have been roughly 88% for FFY 2021. Each year under IJA the State was able to utilize additional OA in the form of August Redistribution. While the practice was common, with a new transportation bill imminent during the duration of the STIP, WVDOT cannot plan on that being a guarantee until the legislation is finalized. For planning purposes in the years of the STIP (2027-2032), OA is reflective of 2026 value in a conservative approach.

When the federal-aid component, which is predominantly derived from FHWA, of the State Road Fund is examined, it should be noted that the federal funds are, in fact, reimbursements. FHWA does not provide funds directly to the states. However, the states are allowed to obligate available federal highway funds based upon the amount of OA they will receive. The obligations serve as commitments for the federal government to reimburse a state for the federal share of the highway initiatives' eligible costs. As indicated previously, most programs

West Virginia 2027-2032 STIP

are matched by a state on an 80% federal / 20% state share basis. When expenditures are incurred on a project that is federally eligible and has been authorized, they are initially paid for by the state and then a reimbursement is requested from FHWA. Once a request is made, it typically takes two business days for the FHWA to reimburse the state. This information is important because, while the amount of funds that can be obligated by the State in a given year can be predicted with some degree of certainty when a multi-year federal highway authorization is in place, the timing of when the required matching funds will be needed to cover expenditures cannot be predicted as easily. In FY 2021, federal-aid reimbursements to WVDOH totaled \$374 million. Under IJA, which greatly increased the federal funding program, federal reimbursements averaged \$742 million between FY 2023 and FY 2025. The increase nearly doubled the federal aid program, however, has put a strain on the spending authority of the State to be able to match the increase of funds as previously noted. The year-to-year fluctuations are a function of not only the size and type of projects being advanced by the WVDOH, but also of the delivery mechanism used and financing structure. It should be noted that the process described above reflects the way FHWA programs work not FTA. FTA has blanket pre-award authority and obligates federal funds to State and Transit Agencies and is not constrained by obligation authority.

During the last decade, the Agency has experimented with a myriad of non-traditional delivery and financial tools on high dollar projects to see if they could be delivered faster in a cost-effective manner. As an example, the WVDOH pursued the use of Design/Build/Finance arrangements for some of the Agency's large multi-year initiatives, such as: the Coalfields Expressway, the expansion of US 35, construction of the Wellsburg Bridge, and a portion of Corridor H. Design/Build/Finance arrangements are one example of a Public-Private-Partnership (PPP) and an extension of the Design/Build concept, which has been used by the Agency for a number of years to accelerate delivery of infrastructure projects. Under the Design/Build/Finance arrangements used by the WVDOT, the contractor is given the task of securing short term or gap funding for the awarded project and then is paid for the project in equal monthly installments over a specified duration. The objective of these arrangements is to both accelerate the delivery of critical infrastructure and to enable better financial planning by the Agency. Financial planning is enhanced by replacing monthly construction progress voucher estimates, which can vary widely over the course of the project depending on the type of activity being performed, with a known monthly value. While these arrangements do provide an element of certainty, they are by no means a panacea for eliminating financial risk. The fact remains that these projects are being implemented as Advance Construction (AC) initiatives by the State and the federal government is only committed to reimburse the Agency for funds actually obligated. The risk remains that the WVDOH is obligated to pay the monthly installments regardless of any future federal participation or lack thereof. In addition, since the federal government operates on a reimbursement basis, until progress achieved on the project meets or exceeds payments, the WVDOH cannot seek reimbursement. As such, the State Road

West Virginia 2027-2032 STIP

Fund must have sufficient capacity and resiliency to carry out those expenditures until reimbursement can be pursued, which could be many years in the future.

4. FINANCIAL GOALS AND POLICIES

With nearly 39,000 miles of public roadways, West Virginia is one of only four states (Delaware, North Carolina, and Virginia are the others) in which there is no county and/or township ownership of highways. As a result, the WVDOH has statutory authority for the construction, improvement, and maintenance of nearly all public highway miles (34,961 miles or 90%) in the State, which is one of the highest percentages in the nation. Furthermore, despite its relatively small size, the WVDOH is responsible for the sixth-largest state-maintained highway network in the nation.

While WVDOT goals and policies contained in the State's long-range transportation plan are the driving force behind the projects contained in the Six-Year STIP, the time, type, location, and extent of highway renovation, improvement, and construction initiatives are dependent on available funding. Some of the more pertinent goals and policies contained in West Virginia's 2050 Long Range Transportation Plan, which will dictate in broad terms where and how its financial resources are directed are:

- Maintain multimodal infrastructure in a state of good repair.
- Reduce transportation fatalities and serious injuries across all modes.
- Strengthen the ability of communities and industries to access local, national, and international trade markets.
- Create transportation systems that promote healthy lifestyles.

In order to transform these goals and policies into reality, the Agency must do the following:

- Pay debt service
- Pay operating expenses
- Perform routine maintenance
- Match all available federal-aid
- Renovate or replace highway bridge and pavement infrastructure
- Address safety, operations and congestion issues
- Continue progress on major transportation corridors.

The extent to which these goals can be achieved in any given year depends on the nature of the highway problems being addressed and funds available for their implementation. Some highway needs when met provide only short-term effects (e.g., snow removal will only suffice until the next snowstorm), whereas others may provide near-permanent solutions (e.g., the removal of a roadside obstruction to improve safety). Identified highway needs represent problems that need to be

West Virginia 2027-2032 STIP

addressed by the WVDOH, which responds by developing and funding programs that solve those problems. Analysis conducted during the development of the State's long-range transportation plan indicated that highway needs exceeded the funding available to meet those needs. The cost associated with some of the identified needs, such as fixing all deficient bridges, could consume all available State highway funds in a given year. Furthermore, the Agency is mandated to address the financial obligations associated with Debt Service, Administrative Support, and Maintenance before undertaking other initiatives. A more detailed discussion of needs-assessment, funding allocation and program development is contained later in this document.

4.1 DEBT SERVICE

The first mandated priority of the WVDOH is Debt Service. Debt Service payments are analogous to paying a mortgage on a house. Few citizens would dispute the value of owning a home, yet few would have the financial wherewithal to purchase a home on a cash basis. Similarly, long-term financing of major highway initiatives is warranted at times to maximize the benefits to citizens when interest rates are favorable.

The WVDOH must use incoming revenue to pay the principal and interest due on State bonds issued for prior highway initiatives. The WVDOH and its predecessor agencies, with public approval, have engaged in the practice of selling road bonds to expedite highway improvements since 1920. Most recently, in October 2017, citizens approved the Roads to Prosperity Amendment to the State's Constitution that authorizes the sale of up to \$1.6 Billion in General Obligation Road Bonds (GO Bonds) between July 1, 2017 and June 30, 2021. The first \$800 million of these bonds were sold in May 2018, followed by \$600 million in December 2019, and finally \$200 million in June 2021. As structured, the WVDOH will be required to make annual payments of \$55.4 million for twenty-five years from FY 2019 to FY 2043 to pay for debt (\$1.39 Billion) associated with the first issuance of Roads to Prosperity Road Bonds. The debt service payments associated with the other two issuances were not as straightforward, with varying amounts over the six-year period being covered by the STIP. As currently structured, the debt service associated with the Roads to Prosperity GO Bonds will average \$115.6 million per year. In addition to the Debt Service associated with Roads to Prosperity, in 1996 citizens approved the Safe Road Amendment authorizing the sale of \$550 million GO Road Bonds for highway initiatives. The WVDOH has issued refunding bonds (akin to refinancing a mortgage) several times, since the original bonds were issued to take advantage of more favorable interest rates. Debt Service payments from the State Road Fund were \$138.7 million in State FY 2025. Based upon the draft FY 2027 budget information that was available at the time of this report's preparation, Debt Service payments over the next six years from FY 2026 to FY 2032, will average \$115.6 Million per year.

While set-asides are not specifically part of Debt Service, they are Legislative mandates that require monies from the State Road Fund to be diverted to other agencies to cover "highway-

West Virginia 2027-2032 STIP

related” activities. The net result is that a portion of State Road Fund monies shown in revenue estimates will not be available for highway infrastructure projects and need to be removed from consideration. In FY 2025, \$57.2 million in State Road Fund monies were used to pay for set-asides. The largest set-aside has consistently been for the operation of the West Virginia Division of Motor Vehicles (WVDMV). In FY 2025, \$53.9 million in State Road Fund monies was used to pay for WVDMV operations. In addition to supporting WVDMV operations, State Road Fund monies are used to cover the cost of administrative hearings and legal claims against the WVDOH and WVDMV. The WVDOH is also legislatively required to transfer funds from the State Road Fund to the Industrial Access Road (IAR) Fund. While the monies transferred to the IAR Fund are not available to the WVDOH for general purposes, they are available for the construction of roads to industrial access facilities throughout the State. Despite this fact, since the emphasis in this report is primarily on monies available in the State Road Fund, IAR transfers are treated as a set-aside. In FY 2025, \$3 million was transferred from the State Road Fund to the IAR Fund, and \$0.3 million was needed for legal claims. From FY 2027 to FY 2032, the total cost of all set-asides is estimated to range from \$76 to \$80 million annually.

As discussed above, the WVDOH will be required to make Debt Service payments of \$115 over the next six-year period. Those Debt Service payments are associated with the Roads to Prosperity GO Bonds approved by voters in 2017. In addition to these items, there are other ongoing debt related initiatives that were approved to the like of the issuance of Special Obligation Notes and the sale of Turnpike Toll Revenue Bonds by the West Virginia Parkways Authority. The WVDOH conducted multiple issuances of Special Obligation Notes to expedite construction work as part of the overall Roads to Prosperity initiative. In 2017, the Agency issued \$220 million in Special Obligation Notes to pay for a portion of 31 separate projects statewide, which at the time of this report’s preparation are at various stages of completion. These projects consisted primarily of pavement reconstruction projects on the Interstates in West Virginia and a number of bridge replacements. Proceeds received from the sale of those Notes was not deposited into the State Road Fund, but into a separate standalone bond fund. When the 31 projects were awarded, the proceeds from the Notes were only sufficient to cover approximately 95% of the projected construction costs. At present, all funding needed for these projects above what is available in the standalone bond fund is being paid for out of the State Road Fund.

The WVDOH, in cooperation with the FHWA, used two financing tools to pay the ongoing Debt Service associated with those notes. First, by utilizing a Grant Anticipation Revenue Vehicle (GARVEE), the WVDOH was able to use future federal-aid funds to pay approximately 80% of the Debt Service associated with the notes. Second, by utilizing a combination of “toll credits” and “bridge credits” that the State has accumulated as a soft match for the State’s portion (20%) of the Debt Service, the Debt Service payments will essentially be paid with 100% federal funds. The downside to this arrangement is that the federal-aid

West Virginia 2027-2032 STIP

portion of the WVDOH's improvement program in future years was reduced by an amount equal to the Debt Service payments during those years, which was determined to be \$295.7 million based on twelve annual payments of \$24.6 million annually through FFY 2029. Since the payments do not technically flow through the State Road Fund, these payments were not reflected as one of the WVDOH's mandated priorities (e.g., Debt Service), but were reflected as a reduction in available federal-aid funds for new improvements. The upside of this arrangement was the ability to advance critical infrastructure projects sooner than would be possible on a pay-as-you-go basis, thus obtaining lower construction costs and the ability to begin accruing the transportation benefits.

In similar fashion, in 2018, the Agency issued an additional \$78.8 million in Special Obligation Notes to expedite and pay for the construction of 36 more projects statewide. Unlike the prior issuance these projects consisted of predominantly small to mid-size bridge replacements and initiatives to correct drainage problems (i.e. pipes and inlets) on expressway facilities around the State. The debt associated with these Notes was \$114.4 million. Debt service payments of \$7.6 million per year for fifteen years from FFY 2019 to 2033 will be needed to retire the debt associated with these. As was the case with the Notes issued in 2017, the Agency utilized the GARVEE mechanism to pay the debt service and utilizing a combination of bridge and toll credits to make the payments essentially 100% federally funded. It should also be mentioned that the bond covenants associated with the sale of those Notes require the WVDOH to utilize the first eligible obligation authority it receives during the FFY to cover those commitments. Primarily, the WVDOH used a combination of National Highway System/National Highway Performance Program (NHS/NHPP) and Surface Transportation Block Grant Program (STBG) funds for this purpose. During FFY 2023 all obligations to the GARVEE 2018 bonds were made ahead of the 2033 schedule. During FFY 2025 all GARVEE 2017 bond obligations were made using August Redistribution. The increase of OA allowed WVDOH to use remaining apportionment to convert on these projects prior to the 2029 deadline. In doing so, the WVDOH can now maximize federally apportioned funds on new infrastructure projects

Again, as part of the overall strategy to improve the State's economy by investing in highway construction projects, the Legislature acted in 2017, to continue and increase tolls on the West Virginia Turnpike. Revenue generated from the increased toll revenue was intended to allow the West Virginia Parkways Authority to issue up to \$500 million in new Turnpike Toll Revenue Bonds to finance road, highway, and bridge projects within a ten-county region adjacent to the West Virginia Turnpike. In July 2018, the Parkways Authority issued the first installment of Toll Revenue Bonds (\$166 million), which generated proceeds of \$172 million. In June 2021, the Parkways Authority issued the second installment of Toll Revenue Bonds (\$333 million), which generated proceeds of \$423 million with premium. Proceeds from both sales have been deposited into standalone funds that are being used by the WVDOH for construction projects within the specified region.

West Virginia 2027-2032 STIP

Projects being funded in part with these sources of revenue are having both direct and indirect effects on the State Road Fund and the STIP. First, all regionally significant transportation projects must be listed in the STIP regardless of funding source. Second, as originally envisioned, the construction phases of those projects were anticipated to be funded solely with bond proceeds; however, WVDOH management has begun applying funding 10% of the construction phases with federal-aid funds, which impacted the fiscal constraints of the STIP. Third, much of the engineering and right of way costs associated with these initiatives was funded in the STIP or by the State Road Fund, which also impacted fiscal constraints. Finally, the projects developed with these bonds will affect the State's performance measures.

4.2 OPERATING EXPENSES

The second mandated priority is the payment of Administrative Support expenses of the WVDOH's operations. In order to effectively meet its statutory responsibility for maintenance, improvement, and construction of its vast infrastructure, the WVDOH has an in-house quota of approximately 5,000 individuals who are principally dedicated to highway maintenance, improvement, and construction activities. As in any firm of this size, a number of individuals are needed to perform tasks of a support nature (executive, finance, legal, human resources, information technology, etc.). Without these support functions in place, the WVDOH could not operate. In addition to these support personnel, costs associated with the WVDOH inventory and equipment (snowplows, mowers, trucks, etc.) also are considered a support expense. Before even basic maintenance activities can start, the WVDOH must meet its daily financial obligations (insurance, salaries, pensions, etc.) for the facilities and staff related to these functions and must pay for the equipment needed to accomplish basic functions. Unlike Debt Service payments, Administrative Support costs fluctuate depending on a variety of factors, which include, but are not limited to, the number of employees, changes in benefits costs, and changes in equipment costs. It should be noted that actual and projected expenditures were primarily excerpted from the "WVDOH's FY 2027 Appropriation Request Detail". Since projections in that document only extend through FY 27, the same 4 % per year inflation rate used in West Virginia's 2050 LRTP will be applied to extrapolate expenditures through FY 2032. In FY 2026 the general operations budgeted line was \$186 million while for FY 2027 \$189 million was requested. Applying 4% inflation per year, an estimated \$229.9 million would be necessary in 2032.

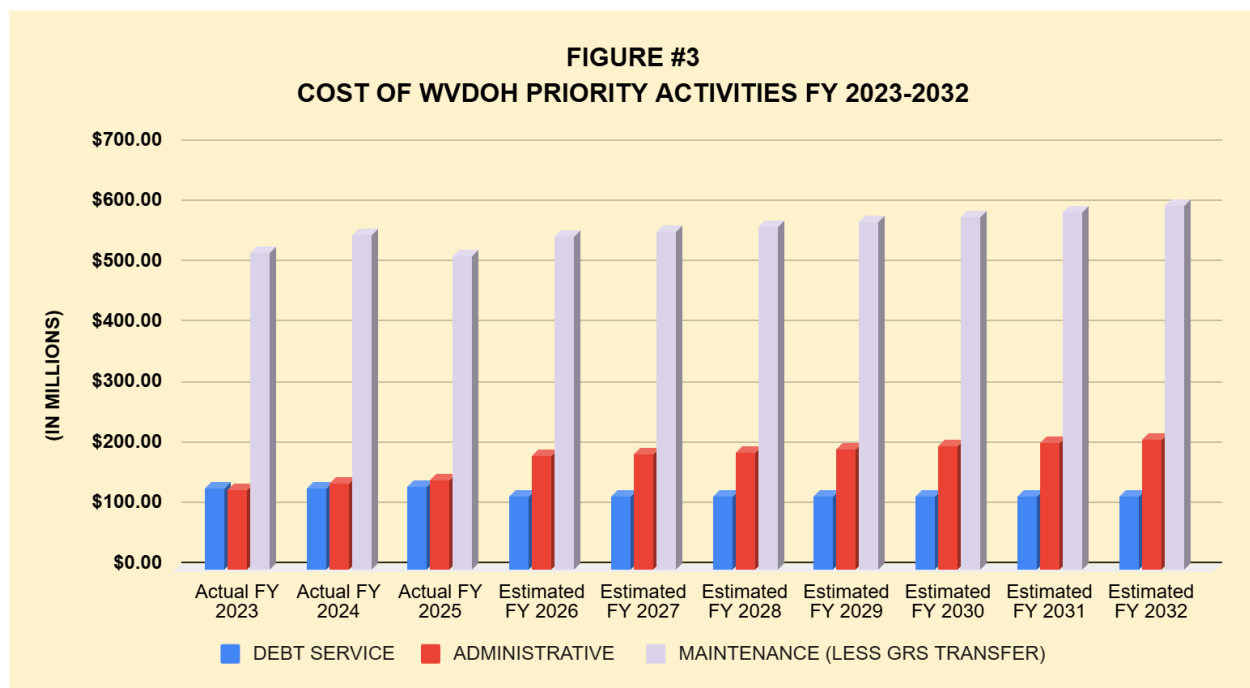
4.3 ROUTINE MAINTENANCE

Once Debt Service and Administrative Support expenses are covered, funds are expended on the third mandated priority - Routine Maintenance of the WVDOH's roadways. The WVDOH has facilities, equipment and workers in all 55 counties dedicated to Routine Maintenance of the highways and bridges under its jurisdiction. Routine Maintenance includes such activities as snow removal, brush cutting, bridge inspection, litter collection, pothole patching, and ditch

West Virginia 2027-2032 STIP

cleaning, to name a few. If the WVDOH did not perform these fundamental tasks, these roadways would rapidly become unusable to the traveling public. While maintenance embodies all functions performed by the WVDOH that serve to preserve the State's infrastructure in its present condition activities such as renovation, resurfacing, and bridge repair are considered improvements rather than maintenance expenditures for the purposes of this report. Like Administrative Support expenses, Routine Maintenance does not historically remain fixed. Akin to Administrative Support expenses, Routine Maintenance costs tend to fluctuate. Overall, they will trend higher over time, depending on several factors such as weather, improvements in surface type, traffic volume, fuel, material, and personnel costs to name but a few.

WVDOT's FY 2027 Appropriation Request makes no attempt to distinguish between state funded capital expenditures (Paving, Slide Repair, Bridge Rehabilitations) and true routine or "Annual Plan" maintenance. In FY 2026 the State reported \$550 million in maintenance activities prior to the GRS transfer. In FY 2027 the State is expecting to allocate \$557 million to maintenance of roadways, prior to GRS transfer from the State Legislature. Realizing that inflation will obviously impact the Agency's program, it is assumed that routine maintenance aspects of the Maintenance appropriation will continue to increase per year and the size of the State's non-federal aid funded program will shrink to accommodate available revenue. The State Legislature, as noted previously, has transferred General Revenue Surplus funds to aid in capital expenditure maintenance activities to help offset the imbalance. The change in costs of the Agency's mandated priorities over time is shown below (See Figure #3).



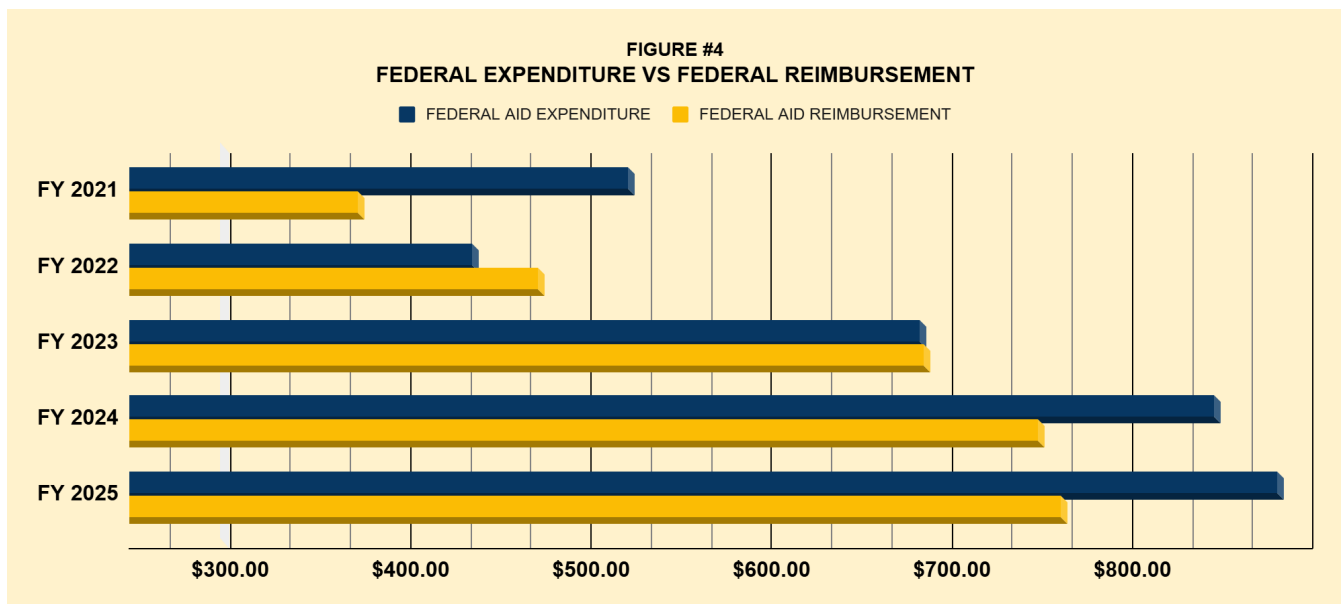
West Virginia 2027-2032 STIP

4.4 OTHER GOALS AND POLICIES

The other goals and policies are actually handled in the program itself. Matching federal-aid, replacing and rehabilitating infrastructure, and improving safety are all part of the programming function.

This document is primarily focused on what initiatives the State will pursue with the federal funds assumed to be available to it over the FFY 2027 to FFY 2032 period. At present federally reimbursable projects are being funded primarily with State Road Fund monies not Turnpike Revenue or General Obligation Bonds. While there are a host of other capital initiatives ongoing, this document will focus only upon the amount of State Road Fund dollars available for improvements and the federal-aid expected to be available for new initiatives.

As mentioned previously, the federal program is reimbursement driven based on the year of expenditure, while the STIP is mainly centered with the future obligation of funds. The STIP does not account for the timeframe in which the expenditure would occur. The state uses a 5-year rolling average method to predict how many federally reimbursed expenditures could be expected during the FY and the total reimbursement amount. As of the time of this document, the five-year reimbursement rate is 90%. In 2025 the state had \$883.6 million in federal funded project expenditures and received \$764.1 million (87%) in reimbursement. Ultimately, it is reasonable to assume that after the WVDOH meets its mandated priorities and covers all required legislative Set-Asides, sufficient funds will remain for matching federal funding anticipated to be available during the next six years.



West Virginia 2027-2032 STIP

5. PERFORMANCE BASED PLANNING REQUIREMENTS

The Moving Ahead for Progress in the 21st Century (MAP-21) Act passed by Congress in 2012, and subsequently the Fixing America's Surface Transportation (FAST) Act, passed in 2015, established a number of performance and asset related requirements that states were required to implement in order to be eligible for future federal-aid highway and transit funds. Many of the requirements established under MAP-21 had phase-in dates established that were after MAP-21 was set to expire. With the enactment of the FAST Act and its reaffirmation of a performance-based transportation program, the WVDOT began working in earnest on meeting the necessary requirements. The IIJA, enacted in November 2021, built upon the performance-based requirements contained in the two previous pieces of transportation legislation.

The precursor for the performance-based requirements for the recipients of federal-aid transportation funds was two-fold. First, the establishment of seven (7) National Transportation Goals:

1. Safety- To achieve a significant reduction in traffic fatalities and serious injuries on all public roads
2. Infrastructure Condition- To maintain the highway infrastructure asset system in a state of good repair
3. Congestion Reduction- To achieve a significant reduction in congestion on the National Highway System.
4. System Reliability- To improve the efficiency of the surface transportation system
5. Freight Movement and Economic Vitality- To improve the National Highway freight Network, strengthen the ability of rural communities to access national and international trade markets, and support regional economic development.
6. Environmental Sustainability- To enhance the performance of the transportation system while protecting and enhancing the natural environment.
7. Reduced Project Delivery Delays- To reduce project costs, promote jobs and the economy, and expedite the movement of people and goods by accelerating project completion through eliminating delays in the project development and delivery process, including reducing regulatory burdens and improving agencies' work practices.

Second, requirements outlined in MAP-21, for the United States Department of Transportation (USDOT), established national performance measures (associated to the National Goals) to assess performance/condition and used to carry out several federal-aid highway programs. These programs were: National Highway Performance Program, Highway Safety Improvement Program, Congestion Mitigation and Air Quality Program, and the National Highway Freight Program. Given the complexity of the issues, the rulemaking associated with developing the required performance measures took several years to come to fruition. The performance measures adopted by the USDOT were as follows:

West Virginia 2027-2032 STIP

1. Percentage of Pavements of the Interstate System in Good Condition
2. Percentage of Pavements of the Interstate System in Poor Condition
3. Percentage of Pavements of the Non-Interstate NHS in Good Condition
4. Percentage of Pavements of the Non-Interstate NHS in Poor Condition
5. Percentage of NHS Bridges Classified in Good Condition
6. Percentage of NHS Bridges Classified in Poor Condition
7. Percent of Person-Miles Traveled on the Interstate System That Are Reliable
8. Percent of Person-Miles Traveled on the Non-Interstate NHS That Are Reliable
9. Truck Travel Time Reliability (TTTR) Index
10. Total Emission Reductions: PM2.5
11. Total Emission Reductions: PM10
12. Number of Fatalities
13. Rate of Fatalities
14. Number of Serious Injuries
15. Rate of Serious Injuries
16. Number of Non-motorized Fatalities and Non-motorized Serious Injuries
17. Total Emissions Reductions: CO
18. Total Emissions Reductions: NOX
19. Total Emissions Reductions: VOC

In addition to the performance measures identified above, which deal with the federal-aid highways, other performance and asset related requirements were developed for public transit. Those items will be discussed in the Transit portion of the STIP. Once the USDOT formally adopted performance measures outlined above, states were required to establish baseline values, set performance targets, and begin reporting the information to FHWA. It should be noted that not all performance measures were adopted at the same time and as such, base line years will differ. A discussion of West Virginia's overall efforts in this regard and the status at the time of this document's preparation follows.

5.1 PERFORMANCE MEASURES AND TARGETS

The requirements for states and other entities to identify their baseline information and report their conditions and targets have varied depending on when the USDOT formally adopted a performance measure. The WVDOT met all required phase-in dates associated with the various requirements. It is not the intent of this document to regurgitate the performance data and information contained in the Performance Report, but rather to discuss in broad generalities the impact they will have on future iterations of the STIP. Furthermore, a new document is concurrently being developed for January of 2027.

The final TAMP will demonstrate an investment strategy that is monitored yearly by FHWA to ensure adherence. The timing associated with the development and approval of a new STIP in conjunction with the future passage of new multi-year transportation legislation in concert with

West Virginia 2027-2032 STIP

a TAMP update, will necessitate that assumptions be made initially regarding the size and type of investments to be made in the STIP regarding pavement and bridges. It is currently assumed that the Agency will rely heavily on placeholders in the outer years of the STIP, especially for bridge projects that will need to be vetted through the Agency's Bridge Management System (BMS). Likewise, specific pavement restoration projects are highly dependent on annual reviews of their condition and deterioration after winter and are not generally identified beyond the first one or possibly two years. Based on the results of the analysis and the investment strategy selected by management from use of the Pavement Management System tool (PMS), it is likely that an Amendment of the new STIP will be required shortly after its approval to make any required revisions in the size and scope of the State's pavement and bridge programs.

The next two performance measures deal with System Reliability. Travel time reliability concerns in West Virginia are traditionally associated with weather, work zones, incidents, or special events. Recurring interstate reliability concerns are limited to corridors within the Charleston, Beckley, Martinsburg and Morgantown regions. Non-Interstate NHS reliability concerns are more widespread, primarily in Charleston, Huntington, Morgantown, and Parkersburg regions. Safety trends in WV show a general decline in the number and rate of fatalities and serious injuries, indicating the potential for less reliability issues associated with incidents. Increasingly, the impact of more widespread work zones associated with the significant amount of construction from the increase of federal funds during IIJA may have the most significant impact on reliability over the next 4-years. While construction associated with regular federal-aid and state investment will impact reliability in the short run, they will ultimately allow the State to maintain an extremely high reliability level on the Interstates.

Once the influx of funding associated with IIJA and the construction projects they continue to generate are completed, it is anticipated overall reliability on the facilities will increase over time.

The next performance measure (i.e., Truck Travel Time Reliability Index or TTTR), is specifically geared toward addressing freight needs. Within WV, there are limited Interstate segments with truck travel time reliability at 1.5 or greater, including I-64 west of Charleston, I-77 near Bluefield/E. River Mountain Tunnel, I-79 near Bridgeport/Clarksburg. These locations and others are typically associated with interchange spacing, access to intermodal or manufacturing facilities, toll plazas, or interstate geometry and terrain. Increasingly, the impact of more widespread work zones associated with the significant amount of construction may have the most significant impact on reliability in the next 4-years. As with the prior performance measures, it is anticipated that the TTTR will degrade over this time frame. The degradation is due not only to construction initiatives on major freight facilities in the State, but also due to external factors including truck volume growth, shifting logistics patterns, and economic development. More detailed information regarding the State's freight network and infrastructure needs can be found in West Virginia's State Freight Plan. As will be discussed below, federal-

West Virginia 2027-2032 STIP

aid highway funds apportioned under the National Highway Freight Program, will be targeted to address the State's most critical freight needs.

Federal-aid highway projects addressing emissions reduction are typically funded using Congestion Mitigation and Air Quality (CMAQ) funds, which will be explained in more detail below. Due to the general lack of significant air quality issues in West Virginia, most CMAQ funds provided to the State are flexible and can be used in any portion of the State. The WVDOT, through collaboration with the applicable MPOs, developed 2-year and 4-year target emission reductions. The maintenance areas and applicable pollutants are – PM 2.5 for Charleston and Steubenville/Weirton maintenance areas and PM 10 for the Weirton maintenance area. For PM 2.5, the baseline value is 0.151 kilograms per day as of 2021. West Virginia anticipates that its program of improvements will allow that value to remain constant over the 2-year and 4-year period. The baseline performance and targets were established on a limited set of quantified PM2.5 emission reduction CMAQ projects, therefore the targets are set equal to the baseline estimate until more project data is available. At this time, the WVDOT does not anticipate making any reductions in PM 10, since there were no projects established for specifically addressing the issue.

The next five performance measures address Safety associated with the transportation network. In compliance with requirements of 23 CFR Part 490, FHWA recently established Safety Performance Management Measures (SPMs) for all states and metropolitan planning organizations (MPO). These SPMs require the development of specific safety targets for the number and rate of fatalities, the number and rate of serious injuries, and the number of fatalities for non-motorized users (pedestrians and bicyclists). Additionally, NHTSA was required to establish similar Safety Performance Management Measures for state Highway Safety Offices (HSO, in this case the Governor's Highway Safety Program), resulting in twelve SPMs for state HSOs. It is further required that the State Department of Transportation (DOT) and the (HSO) must have identical targets for three of those numbers (the number and rate for fatalities and the number of serious injuries). MPOs may develop their own safety targets or adopt what the state has developed. West Virginia's MPOs were actively involved in the Strategic Highway Safety Plan (SHSP) update process either as members of the Safety Management Task Force (SMTF) or as reviewers of the SHSP. This helps ensure coordination including what type of projects may be included in the Statewide Transportation Improvement Program (STIP) and local Transportation Improvement Programs (TIP). Continued coordination of SPMs among these agencies will be reported in the Governor's Highway Safety Program and Highway Safety Improvement Program annual reports. Continued coordination of SPMs among these agencies will be reported in the Highway Safety Improvement Program and Governor's Highway Safety Program annual reports submitted to FHWA and NHTSA respectively.

SHSP goals are not the same as these safety targets. However, guidance from the FHWA urges

West Virginia 2027-2032 STIP

states to look at the SHSP process as an opportunity to establish longer-term goals and objectives that can align with the annual targets. SHSP goals span multiple years and can be more aspirational in nature such as West Virginia's Zero Fatalities. To ensure consistency, FHWA recommends individuals involved in setting the annual targets also be involved in establishing the SHSP goals and objectives which was the case in West Virginia. Furthermore, it is anticipated that with the judicious use of West Virginia's federal-aid apportionments of Highway Safety Improvement Program (HSIP), the State will continue to see a steady decline in the Number of Non-motorized fatalities and injuries statewide.

6. FEDERAL STIP FUNDING

Given the small size of the State's population, the terrain, and the vast highway network that the WVDOT must maintain, it is clear that the State relies heavily on federal funding to maintain its roads and bridges. It is not surprising that one of the State's goals is to capture any and all available federal funding. As indicated previously, the federal government's financial participation in highway construction is generally governed by multi-year highway authorization legislation. The current multi-year authorization is IIJA, which was enacted on November 15, 2021, and without legislative action will expire on September 30, 2026. The IIJA replaced the preceding multi-year authorization and its extensions (FAST). As such, federal participation in highway and transit related programs is only guaranteed through FFY 2026. While it must be stressed that there is no guarantee of federal participation in highway construction beyond September 30, 2026, the likelihood of the federal government divesting itself entirely from such an integral part of the nation's economy is extremely remote. Lacking any authorizing legislation for the years covered within the STIP and realizing that the long-term viability of the primary federal funding mechanism for highways and transit - the Highway Trust Fund (HTF) – has been an ongoing concern at the national level, WVDOT personnel believe projections of future federal-aid funding should be relatively conservative.

Traditionally, to build added conservatism into future estimates, the WVDOT has applied a straight percentage reduction to its apportionment to reflect the fact that OA (Obligation Authority) is usually less than 100% of apportionment. The Agency intends to continue in this regard and will assume that OA will be equivalent to 86% of apportionment (based on FFY 26 OA).

If all funds were expended in the year they were obligated, the WVDOT would anticipate the need for matching funds of approximately \$185 million per year based upon the typical 80/20 matching requirement. On virtually every federal-aid eligible project, there are individual activities and items that are deemed ineligible for federal-aid reimbursement. As such, the State's share of funds required to complete federal projects is almost always greater than the amount that was projected. Individually the impact of ineligible charges would have a negligible effect on the State's federal-aid program, but as a group this disparity can significantly alter the amount of State matching funds

West Virginia 2027-2032 STIP

required on an annual basis. Conversely, the decision by the Agency to use Toll Credits and Bridge Credits as the match on projects will ultimately reduce the amount of State funds required annually.

As mentioned previously, the current IIJA Transportation bill is set to expire at the end of FFY 2026, without knowing future apportionment and programs in the future of the next transportation bill, we based the following on the current year IIJA standards. A description of the major funding programs contained in IIJA and the average amount of funding West Virginia anticipates having available to use annually, during the six-year period, are outlined below.

6.1 NATIONAL HIGHWAY PERFORMANCE PROGRAM (NHPP)

With the Interstate System nearing completion nationwide in 1991, the federal government sought to identify a larger network of roadways of national significance that should receive dedicated, federal-aid funds. The network, as envisioned, would consist of over 160,000 miles of major roads throughout the United States. The NHS, which was designated in 1996, encompassed all of the Interstate System and a large percentage of the nation's highways that are functionally classified as a Principal Arterial. MAP-21 expanded the scope to encompass all Principal Arterials not previously designated as part of the NHS. The Enhanced NHS consists of approximately 220,000 miles of roadway nationally. The change simply increases the amount of roadway mileage on the NHS in the state and is hence eligible for NHS funding and reduces the amount of roadway mileage on the Surface Transportation Program (STP) system. For the remainder of this report no distinction is made between the original and enhanced NHS. A large majority of the non-Interstate roadways that make up the NHS are in need of major improvement in order to meet current highway design standards. Upgrading NHS roadways has been a major focus of the nation's highway improvement initiatives.

According to the West Virginia Long Range Transportation Plan, West Virginia's NHS roadways total nearly 2,000 miles, of which 555 miles are Interstate roadways. The West Virginia Parkways Authority (WVPA), rather than the WVDOH, is responsible for 87 of the State's Interstate miles. As of August 15, 2022, a total of 7,248 public vehicular bridges were identified in West Virginia, of which 1,299 are located on the NHS network. The WVDOH is responsible for 1,198 of the 1,299 bridges located on the NHS. The WVPA is responsible for 92 and other entities are responsible for remaining. The WVDOH is responsible for the majority of public bridges in the State. Upkeep on these facilities for the safety of the traveling public requires significant investment on the part of the Agency.

The NHPP funding is intended to support the condition and performance of the NHS and for the construction of new facilities on the NHS (such as the Appalachian Development Highway System (ADHS)). Under this program, States can fund projects to resurface or add capacity to Interstates, replace bridges on all NHS routes, resurface or upgrade non-Interstate NHS routes and continue the construction of West Virginia's portion of the ADHS. The disparate nature

West Virginia 2027-2032 STIP

of the projects eligible for NHPP funding requires the WVDOT to balance investments between preservation and performance/expansion activities across both bridge and roadway asset classes on its highest priority roadways.

During the next six years West Virginia anticipates receiving an average of \$333 million annually in NHPP funds that are typically matched on an 80% federal and a 20% state basis. However, funds obligated for the completion of the ADHS can be matched on a 100% federal basis. To further aid states in addressing their specific areas of needs, a State may transfer up to 50% of any apportionment to another formula program except no transfers are permitted of Metropolitan Planning funds or funds sub-allocated to areas based on population.

Despite the fact that approximately 53% of the state's annual apportionment is directed to the NHPP, given the high cost associated with improving and constructing these roadways and the fact that performance measures established for the program emphasize preservation activities, the WVDOT will be able to make only modest headway on plans to improve these facilities. It is the lack of significant amounts of federal and State funding coupled with the overarching need to preserve existing infrastructure that has left the WVDOT in the unenviable position of having to place many of the highway improvement initiatives desired by the public on hold while waiting for sufficient funding.

6.2 SURFACE TRANSPORTATION BLOCK GRANT (STBG) PROGRAM

STBG funds, are essentially a renaming of the former STP funds are very flexible because they may be expended on any of the 10,477 miles of roadway, which are typically considered federal-aid-eligible (i.e. any road that is not functionally classified as a Rural Local, Urban Local or Rural Minor Collector). If needed, a portion of the state's STBG apportionment can be transferred to other less flexible funding categories like the NHPP. While STBG funds may be expended for projects on NHS routes in the State, they serve as the principal federal-aid funding mechanism for the remaining 8,492 miles of federal-aid-eligible roadway and 5,934 bridges statewide that are not part of the NHS.

The WVDOT anticipates receiving an average of \$150 million in apportioned funds for all STBG purposes. Throughout the State, 3,739 bridges are located on roads termed "off-system". Those bridges are located on roadways functionally classified as Rural Local, Urban Local or Rural Minor Collector. Highway projects on these facilities are generally not eligible for federal-aid; however, because of the potential for loss of life associated with a bridge failure, a small portion of STBG funds (i.e. 10%) are set aside for bridges on those facilities. The STBG funds are further designated by geography and population, with a significant portion of the remaining funds able to be used anywhere in the State. The population based funding is divided into four separate population categories: (1) less than 5,000 (2) 5,000 to

West Virginia 2027-2032 STIP

50,000, (3) 50,000 to 200,000, and (4) greater than 200,000 (TMA). Like most federal-aid funds, STBG funds must be matched at an 80% federal and a 20% state basis.

6.3 HIGHWAY SAFETY IMPROVEMENT PROGRAM (HSIP)

To emphasize the ongoing commitment to improving the safety elements of the transportation network, \$38 million has been apportioned to the State in the form of HSIP funds. The objective of HSIP is to achieve a significant reduction in traffic fatalities and serious injuries on all public roads. This program is subject to set-aside railway/highway crossing programs, which are currently estimated to be 5% of the state's base HSIP funding. While projects typically will require a 90/10 matching ratio, some activities are eligible for 100% federal funding. For the purposes of this document, embedded within the HSIP program is the Highway-Rail Grade Crossings Program. The overarching requirement is that HSIP funds be used for safety projects that are consistent with the state's Strategic Highway Safety Plan (SHSP) and that correct or improve a hazardous road location or feature, or address a highway safety problem. West Virginia's current SHSP covers calendar years 2022 to 2026, in such a new SHSP is currently under development at the time of this document. The plan identifies strategies for improving transportation safety in West Virginia, not specific projects. West Virginia anticipates receiving approximately \$36 million annually in safety related obligations during the forecast period.

As part of the ongoing initiative for transportation investments to be driven by performance measures, West Virginia has established (see Table 2) performance measures, goals and targets for fatalities, fatality rate, serious injuries, and serious injury rates. While virtually every type of federal funding could be directed to improving safety components of the state's transportation network, HSIP are intended to specifically address this need. As such, the type of projects selected within the FFY 2027-2032 STIP that utilize HSIP funding will have a direct impact on the State's ability to reach the goals established.

West Virginia 2027-2032 STIP

Table 2:

				2022		2023		2024		2025		2026
Measure	2019	2020	2021	Measure	Target	Measure	Target	Measure	Target	Measure	Target	Target
Fatalities (5-Year Avg)	279	278.8	281	273.2	262.1	266.4	262.1	265.6	263.6		259.2	251.6
Fatality Rate (5-Year Avg)	1.438	1.5	1.575	1.602	1.558	1.628	1.692	1.657	1.674		1.542	1.554
Serious Injuries (5-Year Avg)	1,270.0 0	992.2	909.4	859.8	926.4	818.6	854.8	783	792.4		787.4	759.2
Serious Injury Rate (5-Year Avg)	6.562	5.31	5.056	5.006	5.634	4.982	5.972	4.891	5.036		4.661	4.695
Bicycle and Pedestrian Fatalities and Serious Injuries (5-Year Avg)	94.8	91.6	87.4	89	80.9	84.6	74.9	81.2	83.9		82.6	80

6.4 NATIONAL HIGHWAY FREIGHT PROGRAM

The National Highway Freight Program (NHFP) provides funding to improve the efficient movement of freight on the National Highway Freight Network (NHFN). Interestingly, the NHFN did not exist prior to FAST. FAST required the establishment of a NHFN, which was required to consist of the following components: The Primary Highway Freight System (PHFS), Critical Rural Freight Corridors, Critical Urban Freight Corridors, and any portion of the Interstate System not designated as part of the PHFS. Furthermore, FAST required each state to develop a State Freight Plan that is consistent with Title 49 of United States Code 70202. West Virginia completed their required State Freight Plan in September 2018. In West Virginia, 2,139 miles of roadway has been designated as part of the State's freight network, which is comprised of the Interstate and ADHS routes in the State, as well as several other routes designated as critical rural or urban freight facilities. The WVDOT proposes to direct future apportionments of NHFP funds to aid in the acceleration of ADHS Corridor H to improve freight flow through the central part of the State. NHFP funds have an 80/20 matching ratio. For the purposes of this document, the WVDOT anticipates receiving \$16 million annually in NHFP funds.

6.5 CONGESTION MITIGATION AND AIR QUALITY IMPROVEMENT (CMAQ) PROGRAM

The Congestion Mitigation and Air Quality Improvement (CMAQ) Program provides federal funding to qualifying transportation projects that provide an air quality benefit by reducing congestion. These funds assist areas that have been designated as non-attainment or maintenance areas according to the national ambient air quality standards for ozone and carbon monoxide emissions under the Clean Air Act Amendments of 1990. While West Virginia is fairly rural and does not typically experience the traffic congestion problems prevalent in major metropolitan areas, it does have some air-quality non-attainment problems. Use of CMAQ funding is not restricted to specific roadways, but to projects or programs that solve air quality problems. Examples of eligible CMAQ projects are those that improve traffic flow, improve signalization, and improve intersections.

MAP-21 and subsequently FAST requires states that have particulate matter (PM 2.5) non-attainment areas, which West Virginia does, to specifically target 25% of their CMAQ funding towards addressing that issue. According to the current air quality standards, at present, none of the state's counties are considered in non-attainment; however, four of the state's fifty-five counties (Kanawha, Putnam, Brooke and Hancock) are considered as a PM 2.5 maintenance area, and thus eligible for the 25% set aside. After the takedown for PM 2.5 is applied (approximately \$4 million), because the rest of the state is currently considered in attainment, the remaining CMAQ funds (approximately \$12 million) may be used anywhere in the state and may be used for projects that would also be eligible for STBG funds. During the next six

West Virginia 2027-2032 STIP

years, the WVDOT anticipates receiving approximately \$16 million annually in CMAQ funding. CMAQ Program funds are matched at an 80/20 federal to state ratio.

Furthermore, IIJA adds shared micromobility, diesel replacements, medium-duty or heavy duty zero emission vehicles and related charging equipment, alternative fuel projects as eligible activities.

6.6 STATEWIDE PLANNING & RESEARCH (SPR)

Realizing that adequate planning is essential to the development of an efficient and effective transportation network, the federal government has for some time mandated that states follow a cooperative, continuous and comprehensive process, known as “3C”, for making transportation investment decisions. In addition, the federal government has also recognized the ongoing need for a research component to the national highway program. To this end, federal legislation requires a 2% set-aside from each state’s apportionments of the NHPP, STBG, CMAQ and HSIP to fund the State Planning and Research (SPR) Program. Unless a state requests an exception, federal provisions dictate that not less than 25% of SPR funds must be expended on research, development, and technology (RD&T) transfer activities with the remaining funds used for statewide, metropolitan, and other planning activities. SPR funds have the standard 80/20 matching ratio. West Virginia anticipates receiving \$10 million annually for all statewide planning activities.

6.7 TRANSPORTATION ALTERNATIVES (TA)

The Transportation Alternatives Program (TAP) was a new program created under MAP-21 that essentially provides funding for projects that were previously eligible for funding under Transportation Enhancement, Recreational Trails, and Safe Routes to Schools Programs contained in SAFETEA-LU. Under FAST, the name was modified to eliminate the word “program”, but eligibility remains essentially unchanged. Under MAP-21, TAP was funded as a 2% takedown of other programs (NHPP, STBG, HSIP, CMAQ, and Metropolitan Planning) prior to apportionment. Under IIJA, funding is a set aside from STBG funds available nationally. TA funds are apportioned to each state based upon their ratio of FFY 2009 Transportation Enhancement Funds. TA funds are sub-allocated by population in exactly the same manner STBG funds are, with roughly 50% being able to be used anywhere in the State and the remaining 50% being distributed into four population thresholds:

- >200,000 (TMAs),
- >50,000 and <200,000,
- >5,000 but <50,000; and,
- <5,000.

West Virginia had the option of not continuing with a standalone Recreational Trails (RT) Program. However, since West Virginia did not opt out of the RT Program, \$1.3 million per

West Virginia 2027-2032 STIP

year of West Virginia's TA funds are redirected to a standalone RT Program. For the purposes of this report, RT funds are not reflected separately and are considered to be embedded into the state's TA apportionment. An additional nuance of the sub-allocated portion of TA funds is that TMAs are required to develop their own competitive application process for TA funding that is sub-allocated to a TMA. TA projects have an 80/20 matching ratio, with the local sponsor providing the 20% non-federal portion. West Virginia anticipates receiving \$8 million, per year, for these initiatives, of which, \$2.2 million, annually, will be made available for recreational trail facilities, and the remainder (\$5.8 million) will be made available for other TA initiatives.

6.8 METROPOLITAN PLANNING (PL) PROGRAM

PL funds are used to pay for planning requirements that are specific to Metropolitan Planning Organizations (MPOs), urbanized areas with populations in excess of 50,000. Despite West Virginia's relatively small population, it currently has eight MPOs. Furthermore, as mentioned previously, a portion of the State has been designated as a TMA. Planning issues and requirements associated with the TMA will be jointly addressed by the two MPO's (KYOVA and RIC) with planning boundaries within the TMA.

PL funds are required to be distributed to the various MPOs based on a formula, which at a minimum must be based on population. PL funds have an 80/20 federal to state matching ratio. Unlike most federal funds, the WVDOT requires local governments to provide half of the required match. As such PL funds are matched on an 80/10/10 basis - federal, state and local, respectively. West Virginia anticipates receiving \$2 million annually in PL funding.

6.9 CARBON REDUCTION PROGRAM

Carbon Reduction Program funds are sub-allocated to each of the State's eight MPO areas. West Virginia anticipates receiving approximately \$8 million in Carbon Reduction Program funds annually. These funds have a wide range of eligible projects which include:

- Traffic monitoring, management, and control facility or program, including advanced truck stop electrification systems.
- Public transportation projects eligible under 23 USC 142.
- Transportation Alternative projects.
- Advanced transportation and congestion management technologies.
- Deployment of infrastructure-based intelligent transportation systems capital improvements and the installation of vehicle-to-infrastructure communications equipment.
- Street lighting and traffic control devices with energy-efficient alternatives.

West Virginia 2027-2032 STIP

While this is not an exhaustive list of eligible projects, the list above does provide the intent of the program which is to reduce emissions.

6.10 HIGHWAY INFRASTRUCTURE BRIDGE FORMULA PROGRAM

IJA established a 5-year bridge formula program with the intent and purpose to rehabilitate or replace bridges in an aging infrastructure network. Funds were distributed based on a state's share of total national costs for repairing poor or fair condition bridges, with 15% of the funds set aside for bridges not on the federal aid network (off-system). West Virginia received approximately \$110 million per year under this program. The distribution allocated \$93 million for on-system and \$16 million reserved for off-system bridges. While the future of this program is unknown for the next iteration of the funding bill, WVDOH is moving forward with planning projects for the same investment levels developed under IJA. The funds associated with the bridge formula program are considered as apportioned appropriated, meaning they are exempt from the obligation authority limit, unlike the previous federal aid programs. This exemption allowed States to maximize the full funding every year if necessary. The federal share for on-system bridges remains 80%, however on locally owned off-system bridges the federal share is upgraded to 100%.

6.11 PROTECT PROGRAM

PROTECT stands for Protecting Resilient Operations for Transformative, Efficient, and Cost-Saving Transportation. The intent of this program is to help make surface transportation more resilient to natural hazards, including climate change, sea level rise, flooding, extreme weather events, and other natural disasters through support of planning activities, resilience improvements, community resilience and evacuation routes, and at-risk coastal infrastructure. The Protect Program funds that West Virginia anticipates receiving are approximately \$16 million annually.

6.12 MISCELLANEOUS PROGRAMS

The obligation levels associated with the list of programs discussed previously represent the lion's share of Core federal highway funds that the WVDOH can anticipate on a yearly basis. While West Virginia may receive annual federal-aid funds for other smaller initiatives such as Local Technical Assistance Program, Redistributed Obligation Authority, Direct Federal funding for forest highways, and Other Allocated Funds, these programs are not considered in this document.

West Virginia 2027-2032 STIP

6.13 DISCRETIONARY OR “SPECIAL” FEDERAL-AID FUNDS

Beyond the sources of federal-aid that the WVDOH can predict with relative certainty, in the past it has received additional “special” or discretionary federal-aid funds on a one-time basis. Unlike the program funds described above, the receipt of “special” federal-aid cannot be predicted. In the past, these funds typically came in the form of “earmarks” contained in yearly federal appropriations bills (which can be used by the WVDOH only for the specific project described) or from competitive grants in which all states compete. Matching ratios for discretionary funds frequently are specified in legislation or under the grant application guidelines. In the past, much of the discretionary funding received by the WVDOH required no state match (i.e., 100/0 matching ratio); however, more recent funding has required the standard 80/20 match. More recently, the funds have come in the form of discretionary grants (i.e. TIGER, INFRA, BUILD, RAISE, etc.) received by the State through a competitive process. These funds cannot be predicted with any certainty. Therefore, until they are actually received and available for obligation, they are not included in funding calculations.

7 TOLL CREDITS

Although not a federally funded program like the previously listed programs, Toll Credits are a beneficial financing tool that can be used to offset potential cash management issues. In essence, a state that collects toll revenue on a federal-aid eligible facility and expends those revenues for capital improvements on a federal-aid eligible facility can earn a credit for those expenditures if the state sustains an adequate Maintenance of Effort (MOE) on its infrastructure. The credit, in turn, can be used in place of state matching funds on future federal-aid eligible projects. As such, even if state revenues declined significantly in the short run, the Agency could potentially continue on with the federal-aid portion of its program by using Toll Credits in place of state matching funds. In so doing, any project to which Toll Credits were applied could be up to 100% federally funded thus eliminating the need for up-to the full state match. However, since the federal-aid program operates on a reimbursable basis, the State must have sufficient funds on hand to pay for the project and await a 100% reimbursement. Furthermore, since the credits do not provide actual cash for projects their application may be limited, especially for FTA projects.

8 BRIDGE CREDITS

Akin to Toll Credits, in CY 2010 the WVDOH was made aware that according to Title 23, Section 144(m) of the U.S. Code of Federal Regulations, a State may also earn Bridge Credits for conducting capital improvements on federal-aid eligible bridges with state and local funds. Similar to Toll Credits, once earned, Bridge Credits can be used in place of the required state matching funds on future federal-aid bridge projects. WVDOH staff worked with FHWA personnel to formulate a methodology for determining the eligibility of bridge projects and tracking their use in subsequent years. The eligibility criteria are considerably different than that used to determine

West Virginia 2027-2032 STIP

toll credits. Work must be performed without the use of federal funds on the bridge, must improve the condition of the bridge, meet the defined criteria of a bridge, be non-controversial, be off the federal aid system (off-system), and if replaced, not be classified as functionally obsolete.

9 STIP PROGRAMS AND GROUPABLE PROJECTS:

The narrative above outlined the various types of federal-aid funds that are anticipated to be available to West Virginia for highway and transit purposes over the next six years. The WVDOT is required to remain fiscally constrained based upon the individual fund types. As mentioned above these funds have specific limits on what they can be used for and in some cases where they can be used. While this information is very important, it does not typically resonate well with the public regarding what the Agency is doing with the funds available to it. People want to know how much the Agency is going to spend on items like Pavement, Slides, New Road Construction, Bridges, Signals, etc., not what funds are being used to fund them. To help better inform and educate the public, the STIP for presentation and discussion purposes is divided into eight individual programs with various sub-programs. The eight programs of the STIP are as follows:

- Bridge Program
- Pavement Program
- Traffic Program
- Community Development and Connectivity Program
- Localized Mobility Program
- Regional Mobility Program
- Planning and Workforce Development Program; and the
- Transit Program

These eight programs are not only easier to conceptualize but also align better with the myriads of performance measures that require Agency reporting. Furthermore, realizing that the needs associated with transportation always exceed funding available to meet those needs, these programs help to communicate how the Agency plans to utilize its scarce resources and ultimately how the performance of the transportation network will change over time. The eight programs and their associated sub-programs are described in detail later in this report.

Lastly, the WVDOT intends to use the opportunity created by the development of the new STIP, to continue to utilize the concept of “groupable” projects, where applicable, into the planning process.

Under title 23 U.S.C. 135 Chapter 2, projects proposed for funding, that are not regionally significant may be grouped in one-line item or identified individually in the STIP. The WV DOT, FHWA and FTA have administratively concurred that a project with an estimated construction cost of less than \$10 million is of appropriate scale to consider for grouping. For air quality non-

West Virginia 2027-2032 STIP

attainment/maintenance areas, only projects that are exempt from conformity requirements may be grouped. As part of the STIP development process, the WVDOT intends to screen existing and proposed projects of the various aspects of the eight Core Programs for potential grouping. As the STIP is developed and the size and composition of the eight Core Programs is determined, allocations will be established as placeholders for financial constraint. Using the guidelines and assumptions above, where individual projects have not been identified, the allocations will be assumed to consist of groupable projects. Once projects are identified they are listed by single line item in the STIP and notated as a groupable project.

Essentially, for a project to be initially “grouped” in the STIP, it would have to have individual phase costs (Engineering, Right of Way, or Construction) of less than \$10 million, be assumed to meet all requirements of a Categorical Exclusion under the NEPA process and not add capacity potentially affecting air quality (i.e. the addition of through lanes or the creation or extension of a highway facility). Given the limiting factors identified, it is assumed that some portion of the eight individual programs listed above could be “grouped”.

Grouping of projects allows flexibility and reduces paperwork for programming minor projects. Highway Projects that are not considered to be of appropriate scale for individual identification in a given program year may be grouped by function, work type, and/or geographic area using the applicable classifications under 23 CFR 771.117(c) and (d) and/or 40 CFR part 93 or for FTA projects CFR 771.118 . In nonattainment and maintenance areas, project classifications must be consistent with the “exempt project” classifications contained in the EPA's transportation conformity regulations (40 CFR part 93, subpart A).

In conjunction with the development of the new STIP, the Agency will be working with Metropolitan Planning Organizations, Federal Highway Administration and Federal Transit Agency staff to simultaneously update the STIP operating procedures to not only reflect the proposed changes associated with groupable projects, but also to clarify what will trigger future Amendments and Administrative Modifications.

9.1 Transportation Investment Decision Support

WVDOH is focused on making measurable progress toward the strategic goals established in the LRTP: System Condition, Efficiency, and Fiscal Sustainability, Safety and Security for All Users, Economic Vitality and Freight Movement, Multimodal Mobility, Reliability, and Accessibility, and Livable and Health Communities. To support these goals, WVDOT is committed to ensuring that its decisions are data driven. For the Bridge and Pavement Programs, this is accomplished using the BMS and PMS to select projects that result in the best outcomes for statewide infrastructure condition while minimizing life-cycle cost. To apply the same level of rigor to other STIP programs, including Regional Mobility, Localized Mobility, Traffic, and Community Development, DOH is developing a set of prioritization

West Virginia 2027-2032 STIP

factors that reflect the strategic goals and may touch on subjects such as safety and mobility impacts, project readiness, contribution to system resiliency, and economic development potential. The final set of factors will be used in concert with the investment elements of other strategic and modal plans (such as the SHSP, TAMP, and Freight Plan) to vet projects for future STIPs to ensure that all programs are maximally beneficial to West Virginians while remaining fiscally sound.