

**REPORT OF THE
SECRETARY OF TRANSPORTATION**

**How the Commonwealth Is Using Transit and
Transportation Demand Management to Reduce
Congestion and Use of Single-Occupant Vehicles**

TO THE GENERAL ASSEMBLY OF VIRGINIA



**COMMONWEALTH OF VIRGINIA
RICHMOND
2019**

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1 Executive Summary

The Virginia Department of Rail and Public Transportation (DRPT) is the state's lead agency on providing financial assistance to promote transit and transportation demand management (TDM) throughout the Commonwealth. This document is the tenth annual report from the Office of the Secretary of Transportation highlighting key actions taken to accomplish these goals during Fiscal Year 2019.

For Fiscal Year 2019, the Commonwealth Transportation Board (CTB) allocated approximately \$603.7 million in federal and state dollars to transit and TDM initiatives; that number will grow to \$706.6 million in Fiscal Year 2020. Virginia has seen a significant return on investment with the Commonwealth's 41 transit agencies providing 171,927,129 trips, its sixteen commuter assistance programs removing 3,278,720 automobile trips, and its 937 vanpools providing 1,939,000 trips. Additionally, the Virginia Breeze intercity bus service had 24,532 riders. Without question, last fiscal year was a dynamic time for transit and TDM in the Commonwealth. Highlights include:

MERIT: Making Efficient + Responsible Investments in Transit:

The 2018 General Assembly created a number of new reforms impacting DRPT's statewide public transportation grant programs. These reforms include prioritization of statewide transit capital funding, a 100 percent performance-based method of allocating statewide transit operating assistance, and the requirement of strategic plans for urban transit agencies. These reforms became effective in Fiscal Year 2020.

Growing Technologies and Integrated Mobility:

New technologies and alternative transportation services continue to evolve, providing travelers with greater convenience in requesting, tracking, and paying for trips. DRPT and Virginia's Office of Innovation have advanced new technologies such as electric buses, driver assistance systems, and autonomous vehicles to give transit agencies the ability to provide cleaner, safer, and more cost-efficient service. Understanding the importance of these developments, DRPT developed a Statewide Integrated Mobility Plan to explore the evolving paradigm of integrated mobility, the relationship between transit and other shared mobility modes of travel, and how technology can enhance this relationship.

Scoring in SMART SCALE:

Established by 2014 General Assembly, SMART SCALE provides transportation funding through a prioritization process that evaluates projects based on improvements to safety, congestion, accessibility, land use, economic development, and the environment. Transit projects continue to compete well through this funding program. In the latest round of scoring, eight transit projects were awarded funding.

Increasing Throughput in Northern Virginia:

The I-395 Express Lanes, I-66 Inside the Beltway HOT Lanes, and the I-66 Outside the Beltway Express Lanes projects will result in major improvements to person throughput in those corridors. Toll revenues are being used to help commuters on those highways with funding for highway and multimodal improvements. These enhanced services will provide reliable travel options to

commuters, remove vehicles from congested roadways, and help to optimize the transportation network by moving more people.

Enhancing Human Service Transportation:

DRPT administers state and federal funds to support human service providers that improve mobility for seniors and individuals with disabilities by removing barriers to transportation services and expanding the transportation mobility options available. Funding is used to provide accessible vehicles within public agencies and private non-profit agencies and for operating expenditures to enhance paratransit beyond minimum requirements of the Americans with Disabilities Act. Additionally, DRPT recently completed an update to its Coordinated Human Service Mobility Plan, which synthesizes the challenges and includes prioritized recommendations to bridge identified gaps and forge partnerships where they do not currently exist.

Providing Intercity Bus Service:

DRPT has implemented an intercity bus service using eligible federal funds to provide daily service between Blacksburg and Washington, D.C. The Virginia Breeze began service on December 1, 2017; and ridership has far exceeded projections indicating the critical need to provide transportation alternatives connecting rural communities. Due to its success, DRPT will expand the service with two additional routes in 2020: Danville to Washington, D.C. and Martinsville to Richmond.

Improving the Washington Metropolitan Area Transit Authority (WMATA):

Virginia has been a regional leader by providing dedicated funding and increased oversight reforms to WMATA, the Commonwealth's largest transit agency. The 2018 General Assembly provided \$154.5 million in annual dedicated funding for the WMATA Capital Fund, Virginia's proportional regional share of an additional \$500 million in annual capital funding for critical state of good repair needs. In addition, the legislation instituted additional oversight including caps on the growth of operating expenses, strategic planning, and the role of alternates on the WMATA Board. Virginia also was the first jurisdiction to pass legislation creating the Metrorail Safety Commission, which has since received certification from the Federal Transit Administration.

As a complement to the many transit agencies throughout Virginia, TDM also provides many benefits to Virginians by relieving congestion and lowering the number of single occupant vehicles on highways by educating and encouraging the public to change travel patterns. Data collected from the I-95 Corridor Improvement Plan shows that transit, vanpool, carpool, and slugging move more individuals than SOV travel on segments of Interstate 95. Through promotional outreach as well as the introduction of new planning tools, such as strategic plans, new technology, and increased coordination amongst agencies throughout the state, TDM is reducing congestion by promoting travel options.

TDM programs provide the following services for the public and employers:

- Personalized ridematching/commute options information/trip planning;
- Carpool and Vanpool Formation Assistance;
- Guaranteed/Emergency Ride Home Programs;
- Employer Services/Commuter Benefits and Telework Program Development;
- Incentives and Rewards Programs;
- Marketing and Promotions;
- Commuter Stores;
- Bikesharing; and
- Promotion of Carsharing Services.

To encourage the use of TDM and these benefits, DRPT promotes the following:

- Telework!VA: Promotes telework and helps businesses set up telework programs;
- Telework Week: First full week of March;
- Try Transit Week: Third week of September;
- Vanpool!VA: Developed to increase the number of vanpools and riders; and
- Bike to Work Week: Week of May 15th.

As the Commonwealth's population continues to grow and more individuals needing transportation options, transit, vanpooling, carpooling, telework, and other TDM services will play a key role in moving people efficiently. These services will help meet the demands and needs of Virginians while reducing congestion and the number of single occupant vehicle trips as well as increase the use of transit.

2 Introduction

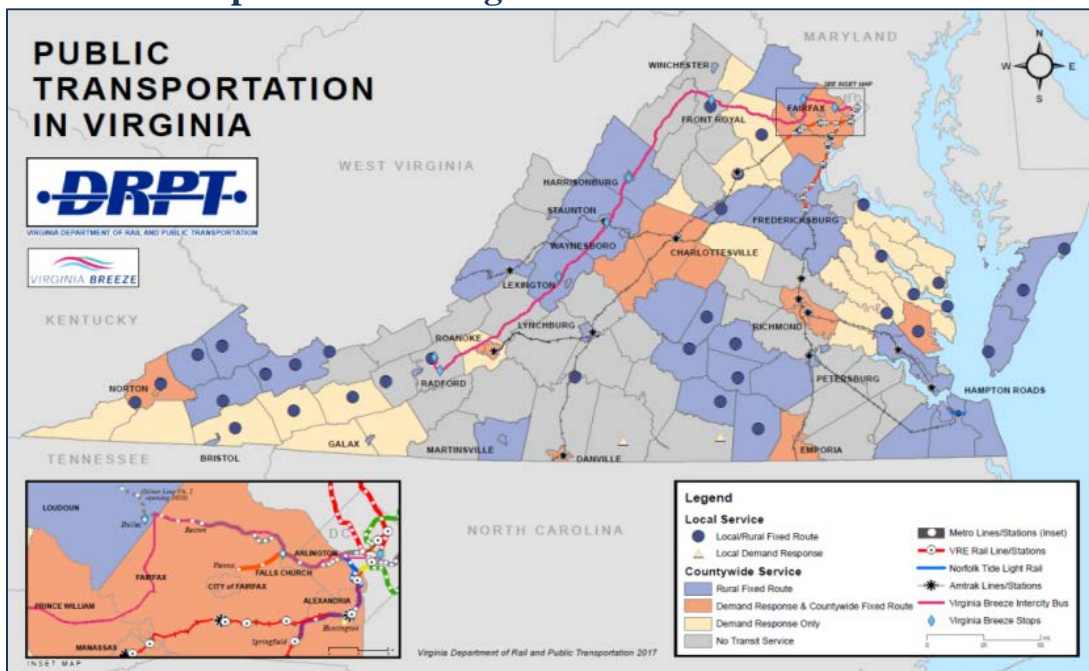
2.1 Legislative Mandate

This report was prepared pursuant to § 33.2-106 of the *Code of Virginia*:

The Secretary, in consultation and cooperation with the Commissioner of Highways and the Director of the Department of Rail and Public Transportation, shall annually, not later than November 1, submit to the General Assembly a report on actions taken by the Commonwealth, local governments, and regional transportation authorities to (i) increase transit use and (ii) reduce highway congestion and use of single-occupant vehicles through programs and initiatives involving transportation demand management, transit use, telecommuting, carpooling, construction of commuter parking facilities, use of flexible work hours, and telecommunications technology.

This document is the tenth annual report and highlights actions to provide and promote transit and transportation demand services (TDM) in Fiscal Year 2019. All data in this report is from the Department of Rail and Public Transportation (DRPT) unless otherwise noted.¹

2.2 Public Transportation in Virginia

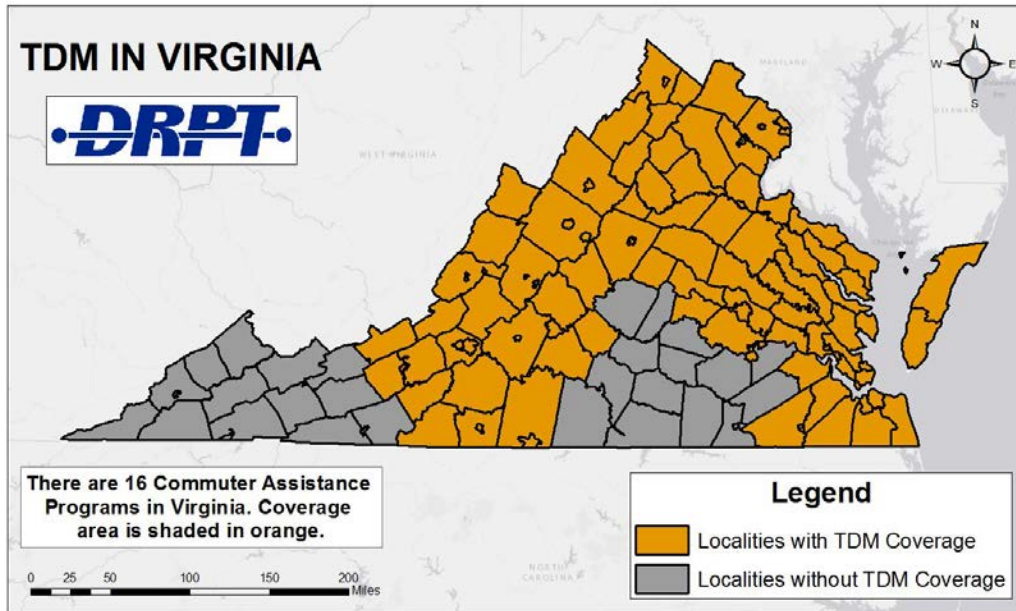


The map above shows the type of public transportation in each locality throughout the Commonwealth during Fiscal Year 2019.

¹ Additional information is available at the websites of [DRPT](http://www.drpt.virginia.gov) and [VDOT](http://www.vdot.gov).

49 U.S.C. § 5302 defines public transportation as “regular, continuing shared-ride surface transportation services that are open to the general public or open to a segment of the general public defined by age, disability, or low income.” In Virginia, this includes bus (40 transit providers), commuter rail (Virginia Railway Express), heavy rail (Washington Metropolitan Area Transit Authority), light rail (Hampton Roads Transit’s The Tide), paratransit, and ferryboat (Hampton Roads Transit). Pursuant to *Code of Virginia* § 33.2-285, DRPT is the state agency responsible for public transportation funding in the Commonwealth.

2.3 TDM in Virginia



Transportation demand management is also referred to as travel demand management, demand management, and TDM. Traditionally, TDM had been narrowly defined as commuter ridesharing. Now, TDM encompasses a multitude of programs, services, and policies that reduce vehicle demand on the transportation network or redistribute the demand to off-peak times or other routes and modes. The *Code of Virginia* § 46.2-1400 defines “ridesharing arrangement” as “the transportation of persons in a motor vehicle when such transportation is incidental to the principal purpose of the driver, which is to reach a destination and not to transport persons for profit. The term includes ridesharing arrangements known as carpools, vanpools, and bus pools.”

Without question, TDM is a priority for state government. On August 23, 2000, Governor James Gilmore signed Executive Order 71 (01) mandating that all executive branch agencies of the Commonwealth of Virginia with an office in Northern Virginia provide full-time employees with a tax-free qualified transportation fringe benefit. The benefit shall be equal to the employee’s cost of commuting to and from their workplace using van pools or transit facilities, as provided in 26 U.S.C. § 132(f)(1)(A) and (B), up to the maximum allowable amount under 26 U.S.C. § 132(f)(2). The Executive Order also encouraged all agencies, regardless of location, to provide a commute benefit.

TDM programs serving the public are called commuter assistance programs. There are 16 commuter assistance programs in Virginia. The map above shows their coverage areas.

3 Providing Benefits to Virginians

The benefits of transit and TDM are widespread. In areas throughout Virginia’s urban crescent, transit and TDM relieve congestion and offer transportation options helping to eliminate single occupant vehicles (SOV). According to a recent American Public Transportation Association study, every commuter rail car removes 125 vehicles from highways throughout the United States; and a single bus can remove 40 vehicles from highways. Even in regions where congestion is not as significant an issue, such as Southside and Southwest Virginia, transit and TDM still remove vehicles from the highways while providing essential mobility options for individuals who may not have other alternatives to access jobs and health care.

3.1 Transit Ridership

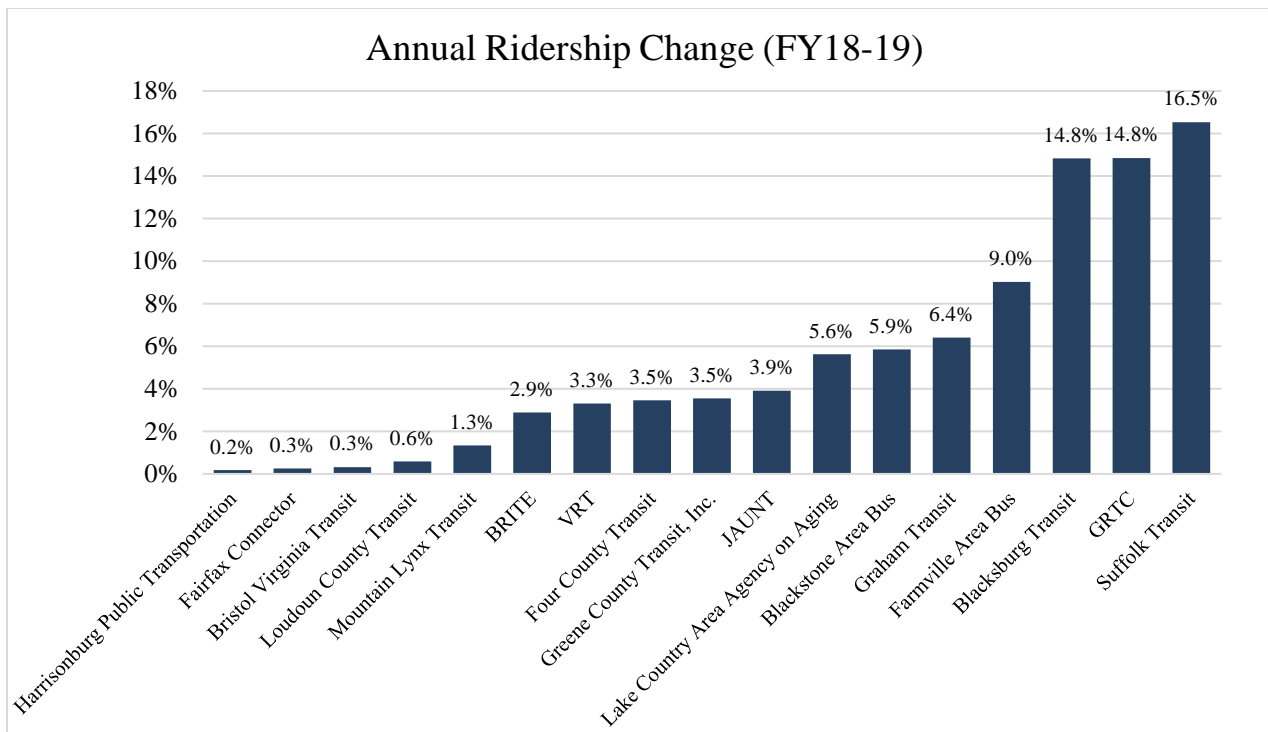
According to the Federal Transit Administration (FTA), unlinked passenger trips are the number of passengers who board public transportation vehicles (i.e. ridership). Passengers are counted each time they board vehicles no matter how many vehicles they use to travel from their origin to their destination. All public transit agencies in the Commonwealth are required to report monthly unlinked passenger trips to DRPT, which is then aggregated on an annual basis. In Fiscal Year 2019, Virginia’s transit agencies, excluding WMATA, reported 64,798,471 unlinked passenger trips across all modes, which represents a 0.2 percent increase compared to Fiscal Year 2018. This marks the first year-over-year increase in reported ridership from Virginia’s transit agencies in more than five years. Bus transit, which makes up the bulk of transit ridership reported by Virginia transit agencies, increased by 0.7 percent, while other modes experienced modest declines compared to Fiscal Year 2018.

In addition to the ridership reported by Virginia transit agencies, WMATA provided 107,128,658 unlinked passenger trips in the Commonwealth, bringing the statewide total to 171,927,129 in Fiscal Year 2019.

	FY 18	FY 19	% Change
Commuter Rail	4,631,909	4,408,114	-4.8%
Light Rail	1,417,350	1,416,912	0.0%
Bus	57,065,639	57,485,493	+0.7%
Ferry	327,661	301,321	-8.0%
Paratransit	1,212,456	1,186,631	-2.1%
TOTAL	64,655,015	64,798,471	+0.2%

Nineteen transit agencies reported ridership increases in Fiscal Year 2019. Small urban and rural areas continue to experience the most consistent transit ridership growth. Suffolk Transit and Blacksburg Transit reported ridership increases of 14.8 percent and 16.5 percent respectively, which can be attributed to growing demand for transit service at the local level, coupled with agency-initiated service improvements and expansions.

In Richmond, the Greater Richmond Transit Company (GRTC) experienced a 14.8 percent increase in ridership, bucking the national trend of ridership decline in large urban areas. In Fiscal Year 2019, GRTC rolled out a number of significant changes to their transit network which helped boost ridership. In addition to a system-wide overhaul of the fixed route network and developing new partnerships with Virginia Commonwealth University and Richmond Public Schools, GRTC opened its new seven-mile Bus Rapid Transit (BRT) line known as the “The Pulse,” which includes three miles of dedicated lanes and many of the features that make BRT faster than conventional bus service.



Greensville-Emporia Transit reported a 98.3% increase in ridership from FY18-FY19; however, their service first launched in October 2017, thus they did not have a full year of ridership to compare. Petersburg Area Transit reported a 19.5% increase in ridership from FY18-FY19; however, a ridership audit revealed under-reporting in FY18, thus their year-to-year comparison is skewed.

3.2 Washington Metropolitan Area Transit Authority Ridership

Since Fiscal Year 2017, WMATA’s ridership has remained steady. The chart below shows Virginia ridership for heavy rail, bus, and paratransit over the last two fiscal years. To be counted as part of the total Virginia ridership, an individual’s trip must either originate or terminate in the Commonwealth.

WMATA by Mode	FY 18	FY 19	% Change
Heavy Rail	91,116,098	90,305,329	-0.8%
Bus	17,293,559	16,474,263	-4.7%
Paratransit	339,196	349,066	2.9%
TOTAL	108,748,853	107,128,658	-1.5%

WMATA heavy rail ridership increased by nearly two percent between Fiscal Year 2017 and Fiscal Year 2018; however, it suffered a slight decline in Fiscal Year 2019. This decline can be attributed to the WMATA Platform Improvement Program (PIP), which led to a temporary disruption of service on the Blue and Yellow lines between Franconia-Springfield and National Airport from May 25, 2019, through September 8, 2019. This service disruption led to a 16 percent decrease in ridership in June 2019. The Platform Improvement Program will continue to have an impact on ridership in Fiscal Year 2020 with the Blue and Yellow line work lasting through the first three months of the fiscal year. Work on the Orange line will occur during summer 2020.

Bus ridership decreased nearly ten percent in Fiscal Year 2018 and another approximate five percent in Fiscal Year 2019. This decrease is attributed to the lack of frequency as well as the reliability of the service, much of which is impacted by the increasing congestion in the region. The Washington Area Bus Transformation Study, which is discussed in further detail in Section 5, was created to find solutions to this problem.

3.3 TDM Results

The sixteen TDM programs (commuter assistance programs) in Virginia mitigate traffic congestion by reducing SOV trips and vehicle miles traveled. The table below summarizes the results of these initiatives.

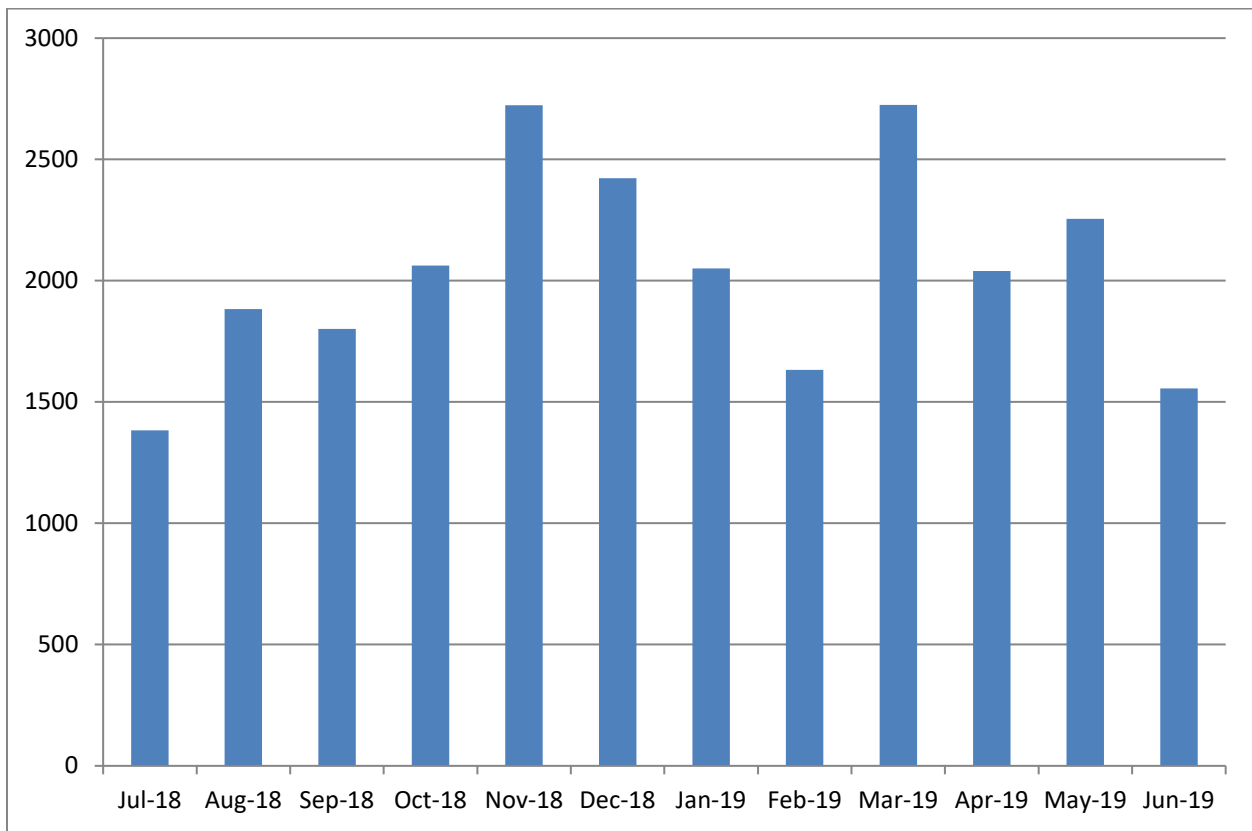
Commuter Assistance Program Results	Daily	FY 19
Vehicle Trips Reduced	13,115	3,278,720
Vehicle Miles Travel Reduced	489,067	122,266,745

Vanpooling has become a significant commute mode in Virginia. In some areas of Interstate 95, vanpooling moves more people than transit. The table below summarizes the results of vanpooling across Virginia.

Vanpooling	Daily	FY 19
Number of Vanpools	937	937
Vanpool Ridership	7,756	1,939,000
Trips Reduced from Vanpools	13,638	3,409,500
Vehicle Miles Traveled Reduced	573,211	144,449,283

3.5 Virginia Breeze (Intercity Bus) Ridership

The Virginia Breeze service and its planned expansion are discussed in further detail in Section 4. The current service operates between Blacksburg and Union Station in Washington, D.C. with stops in Christiansburg, Lexington, Staunton, Harrisonburg, Front Royal, Dulles Airport, and Arlington. It was originally projected to have annual ridership of 7,125. However, ridership for Fiscal Year 2019 was 24,532. The chart below demonstrates the monthly ridership.



3.6 Additional Transit Benefits²

In addition to relieving congestion and reducing SOV travel on Virginia highways, public transit provides a wide range of benefits to individuals, communities, and local economies:

- **Public Transit Provides Economic Opportunity:** Every dollar spent on public transportation generates approximately four dollars in economic returns.
- **Public Transit Provides Access to Opportunity:** Transit connects more than 170 million passengers annually to jobs, schools, health care centers, and other destinations.
- **Public Transit Supports Improved Air Quality and Energy Efficiency:** Transit reduces carbon emissions in the United States by 37 million metric tons annually and saves 4.2 billion gallons of gasoline each year.
- **Public Transit Helps Shape Land Use and Development Patterns:** Residential property values perform an average of 42 percent better when located near high-frequency public transit service.
- **Public Transit Saves Households Money:** Individuals who ride public transit instead of driving a personal vehicle can save on average \$10,000 annually.

3.7 Additional TDM Benefits

TDM plays a vital role in Virginia's transportation system. By putting more people in buses, trains, carpools, and vanpools, and increasing the use of telework, TDM makes Virginia's transportation system more efficient and reduces congestion by moving more people in fewer vehicles. In addition to congestion mitigation, TDM has additional benefits:

- **Provides Travel Options and Information:** Carpools and vanpools provide more travel options, particularly in areas not served by transit. Commuter assistance programs provide commute options information to enable the public to make informed decisions about their commute mode.
- **Provides Alternatives:** Many commuters worry about not having their personal vehicle at work in the event they must expectedly leave work early or work late. Guaranteed Ride Home (GRH) and Emergency Ride Home (ERH) programs operated by Virginia's commuter assistance programs are there to take the worry out of taking the bus, train, carpool, or vanpool and not having a personal vehicle at the office. GRH/ERH programs will get a person home or to a park-and-ride lot when something unexpected happens if that person needs to leave work when their bus or train is not running or if they cannot take their carpool or vanpool. GRH/ERH gives a person peace of mind.
- **Improves Travel Reliability:** TDM increases the efficiency of the transportation network by concentrating on the movement of more people in fewer vehicles, which improves travel reliability. Carpools and vanpools can use Virginia's tolled Express Lanes without paying a toll. Express Lanes provide travel reliability to those who use them.

² Unless otherwise noted, The American Public Transportation Association provided the statistics in this section.

- **Saves Money:** Transit riders, carpoolers, vanpoolers, and teleworkers all save money by driving less. They save on the costs of auto maintenance, parking, tolls, and fuel. The Commonwealth saves by delaying the need to widen or add roads.
- **Reduces Pollution:** In many areas in Virginia, mobile emission sources are the largest contributors to air pollution. TDM removes automobile trips, thus lowering emissions. Urban areas use the emission reduction achieved by TDM programs in their region's air quality plan to meet federal conformity requirements.

4 Reforming Transit in Virginia

As transportation is evolving throughout the United States, DRPT continued to look to the future in terms of funding, oversight, and new innovations in Fiscal Year 2019.

4.1 MERIT: Making Efficient + Responsible Investments in Transit



Chapters 854 and 856 of the 2018 Acts of Assembly created a number of new reforms regarding DRPT's statewide public transportation grant programs. In order to ensure timely and successful implementation of these reforms, DRPT created the MERIT program. There are three components: i)

statewide transit capital prioritization; ii) statewide performance-based transit operating assistance; and iii) transit strategic plans.³ These reforms became effective in Fiscal Year 2020.

Statewide Transit Capital Prioritization: To craft a policy for statewide transit capital prioritization, DRPT worked in coordination with the Transit Service Delivery Advisory Committee using the Revenue Advisory Board's 2017 report as a basis.⁴ MERIT reforms to the statewide capital program prioritize the most important needs. They require better transit asset management and enhanced strategic planning while also increasing accountability and transparency in order to meet critical needs. Additionally, the program's priority is to allocate funds in order to attain and maintain a state of good repair for transit assets, but also support needs beyond state of good repair that would enhance transit utilization, efficiency, and reduce congestion.

DRPT determined that it would establish a single match rate across asset types with state of good repair and minor enhancement matched at a higher rate than major expansion. Under the new procedure, all state of good repair and minor enhancement projects receive a state match of 68 percent while major expansion projects receive a match of 50 percent. Previously, projects received a 68 percent, 34 percent, or 17 percent state match rate based upon the type of project. DRPT maintained the required minimum four percent local match as in prior fiscal years.

In Fiscal Year 2020, the Commonwealth Transportation Board funded 78% of the State of Good Repair applications and 88% of the minor enhancement applications. For state of good repair, applications that scored well included items exceeding use life or mileage, revenue vehicles, customer-facing technology, and operating technology. Items not scoring well included those not

³ [Additional information about the MERIT program including agency guidance and guidelines can be found on DRPT's website.](#)

⁴ [Transit Capital Projects Revenue Advisory Board- Final Report, August 2017.](#)

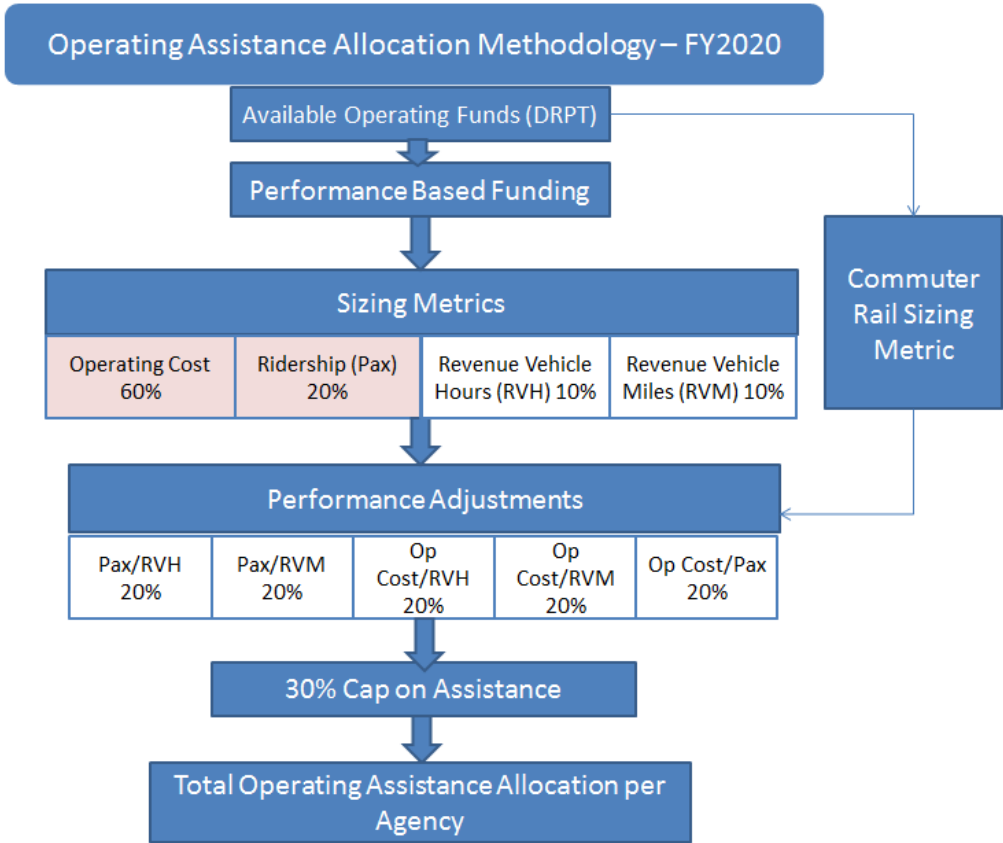
yet at their useful life or mileage and administrative technology. For minor enhancement, applications that scored well include expansion vehicles, maintenance equipment and facilities, customer facility improvements, and operational technology. Administrative technology did not score well.

The major expansion category is classified as new projects/programs that add, expand, or improve service and that are greater than \$2 million. The chart below shows projects that will receive funding in the Fiscal Year 2020 cycle. All four projects, which have been in the development pipeline with state support for quite some time, are related to the Amazon second headquarters in Crystal City.

Major Expansion Projects	Transit Capital
Potomac Yard Metro South Entrance	\$25M
Crystal City Metro East Entrance	\$41.4M
CCPY Transitway Extension	\$14.6M
Route 1 Alexandria Transitway Extension	\$2.5M

DRPT staff held an after-action review upon completion of the application scoring to identify issues, trends, and areas for improvement prior to the Fiscal Year 2021 cycle. Overall, there were fewer applications than anticipated, especially for major expansion projects. For Fiscal Year 2021, DRPT is recommending that no substantive changes be made to the process. The application and guidance are being updated to better walk applicants through the application process and to clarify the supporting information necessary for scoring. To better support scoring of state of good repair projects, DRPT is currently coordinating with transit agencies for data clean-up in the state’s asset management system (TransAM). In upcoming years, DRPT is anticipating more major expansion project applications based on five-year capital budgets provided by the transit agencies. Therefore, DRPT is updating and refining technical and application guidance to better support applicants as they develop applications for major projects.

Statewide Transit Operating Assistance: Fiscal Year 2020 also marks the transition of statewide transit operating assistance to a solely performance-based allocation. More accountability and transparency in the statewide operating program rewards lower operating costs and higher ridership to promote more efficient system operations. The diagram below is the operating assistance allocation methodology for Fiscal Year 2020.



For Fiscal Year 2020, DRPT saw a revenue increase of \$2.5 million compared to Fiscal Year 2019, which offset some potential impacts of the formula change. Furthermore, Chapters 551 and 567 of the 2019 Acts of Assembly gave the DRPT Director the ability to provide up to \$3 million in supplemental operating funds in Fiscal Year 2020 if a transit agency lost funding as a direct result of the performance-based allocation process.

Overall, 33 of 41 transit agencies saw an increase in funding compared to Fiscal Year 2019. The following agencies received transition assistance: Charlottesville Area Transit, City of Alexandria, City of Fairfax, Fairfax County, Virginia Railway Express, Potomac and Rappahannock Transportation Commission (PRTC), and Blacksburg Transit. Some agencies, most notably Hampton Roads Transit, received less funding solely due to the agency’s performance relative to the statewide average. As such, they did not receive transition assistance.

Fiscal Year 2020 is a transition year for the operating program. Fiscal Year 2021 will introduce the recommended performance-based operating formula, which will be used moving forward. This formula will increase the emphasis on performance and congestion mitigation by emphasizing ridership as a sizing metric. The sizing metrics will be: Operating Cost (50 percent); Ridership (30 percent); Revenue Vehicle Hours (10 percent); and Revenue Vehicle Miles (10 percent). DRPT anticipates that those agencies with higher average ridership will perform better under this formula.

Additionally, DRPT has recommended a process modification for Fiscal Year 2021. To eliminate a lag in collecting Passenger Mile Travel data, DRPT will direct those agencies required to collect and report this information to the National Transit Database to include the information as part of their application. Sixteen agencies would be required to report this data point as part of their state operating application, which do not do so now. PMT will be estimated by DRPT for the agencies that do not collect this data for federal reporting.

Urban Transit Strategic Plans: The last component of the MERIT reforms is the creation of Transit Strategic Plans (TSPs) for urban transit agencies. These plans are required for agencies serving a population greater than 50,000 with at least 20 buses and must be updated every five years as a condition of receiving funds from the Commonwealth Mass Transit Fund.

In preparation for the grand opening of the Pulse Bus Rapid Transit system in Richmond, the Greater Richmond Transit Company conducted a system-wide redesign. Without question, the redesign has been a tremendous success leading to increased ridership. DRPT is including lessons learned from that system redesign as part of the guidelines for the future TSPs to replicate the successes seen in Richmond.

The following agencies are required to develop transit strategic plans:

- Alexandria (DASH);
- Arlington Transit;
- Blacksburg Transit;
- Charlottesville Area Transit;
- Fairfax Connector;
- Fredericksburg Transit;
- Greater Lynchburg Transit Company;
- Greater Richmond Transit Company;
- Greater Roanoke Transit Company (Valley Metro);
- Hampton Roads Transit;
- Loudoun Transit;
- Petersburg Area Transit;
- PRTC;
- Radford Transit; and
- Williamsburg Area Transit.

Urban areas throughout the Commonwealth have been changing rapidly over the past 30 years, resulting in new settlement and commute patterns. The transit systems and networks that serve these areas, however, have not always kept up with these changes. Many transit routes and networks still follow decades-old travel patterns designed for a different era. In many areas, bus ridership has been declining as new modes of travel are introduced. This requires transit agencies to have a more strategic focus and assess how transit service should be restructured in an era of new mobility.

The TSP's main goal is to create a strategic blueprint outlining desired changes that will improve the provision of transit services throughout each agency's service area within existing funding structures. This is an opportunity for each agency to look at its system as a blank slate, re-examine the priorities of stakeholders and riders, and make difficult choices concerning where and how to provide services in an efficient and cost-effective manner.

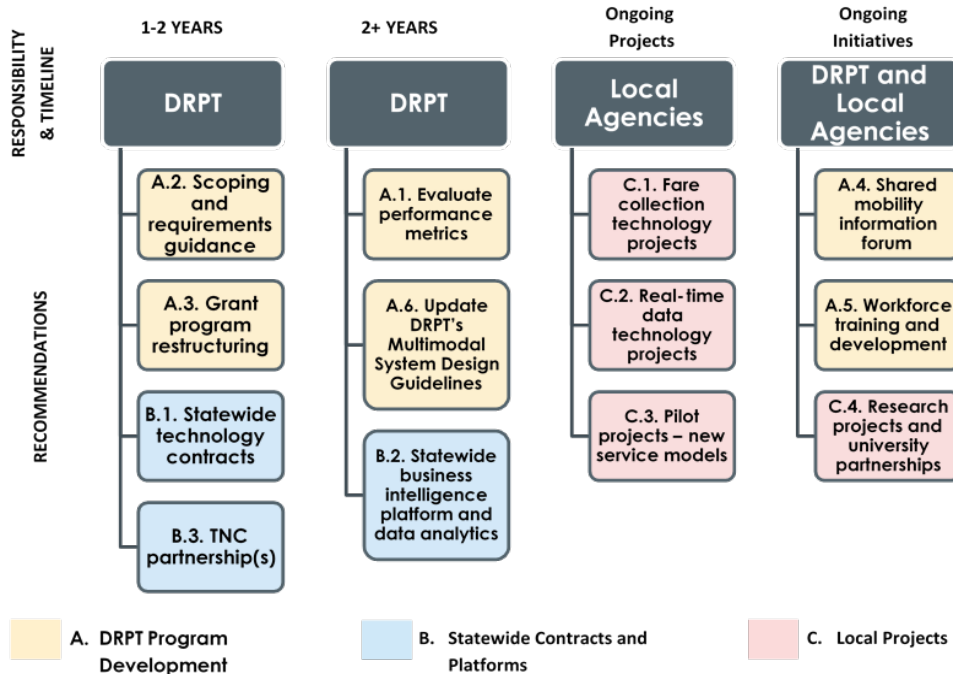
Hampton Roads Transit and Greater Lynchburg Transit Company were the first two agencies to begin working on the strategic plans. It is anticipated that both agencies will complete their plans by the end of 2019. PRTC, Suffolk Transit, and Petersburg Area Transit are also working on their strategic plans with intentions to complete by the end of the year. Phase 2 agencies will begin work on their strategic plans in late 2019/early 2020.

4.2 Growing Technology and Integrated Mobility in Transit

Across the country, public transit is rapidly transforming due to the emergence of innovative technologies and services. New alternative transportation services continue to evolve, providing travelers with greater convenience in requesting, tracking, and paying for trips. Data is being used to analyze how people move in and around our communities; and the advancement of new technologies such as electric buses, driver assistance systems, and autonomous vehicles are giving transit agencies the ability to provide cleaner, safer, and more cost-efficient service and additional mobility options. The emergence of these services and technologies is drastically changing the mobility landscape.

Statewide Integrated Mobility Plan: Understanding the importance of emerging technologies and services, DRPT developed a Statewide Integrated Mobility Plan in Fiscal Year 2019.⁵ This Plan explored the evolving paradigm of integrated mobility, the relationship between transit and other shared mobility modes of travel, and how technology can enhance this relationship. This initiative assessed the potential for partnerships between transit agencies and shared mobility providers, which could include first/last mile connection services, mobile app or fare payment integration, shared branding, data-sharing agreements, third-party contracting or reservation mechanisms, and others. Through a program of stakeholder outreach and a domestic and international best practices scan, the Statewide Integrated Mobility Plan documents the most relevant strategies for agencies in Virginia and also developed a set of recommendations for DRPT and partner agencies to implement in light of the changing mobility industry. A summary of the recommendations can be found in the graphic below.

⁵ [Statewide Integrated Mobility Plan Final Report, May 16, 2019](#)



Autonomous Vehicle Pilots: As the shared mobility ecosystem expands, DRPT recognizes the value of supporting pilots and programs for autonomous transit vehicles and innovative technology deployments with a variety of partner agencies in Virginia. DRPT is actively engaged in two pilot projects and will evaluate the performance of these pilots and programs to best identify resources and service models for implementation.

Connected Autonomous Vehicle Shuttle Pilot Project (Fairfax): DRPT awarded Fairfax County a \$250,000 demonstration grant for testing driverless technology. This project will develop proof of concept for a first/last mile connection from a WMATA metro station to a mixed-use development with potential to expand service into a medical campus in later phases. It will use one to two self-driving autonomous shared-ride shuttles between the Dunn Loring Metro station and the Mosaic District. The goal of the pilot is to learn about the various aspects of deploying autonomous vehicles as part of a large public transportation system. Major partners and stakeholders include Dominion Energy, VDOT, Fairfax County, and DRPT.

Joint Base Myer-Henderson Hall (JBM-HH) Olli Fleet Challenge (Arlington):

LM Industries Group Inc. launched its autonomous fleet challenge in September 2018, inviting municipalities, campuses, and designated districts to propose a three-month, local-use pilot for Olli, their low-speed electric shuttle. The JBM-HH, located in eastern Arlington County adjacent to the Arlington National Cemetery, was selected as the most viable use-case scenario for the self-driving shuttle from all



of the challenge participants. Phase I of the challenge includes the deployment of two Olli vehicles along with maintenance, training, and technical support in an urban setting while staying within the base boundaries. Phase II will integrate both JBM-HH and the Pentagon to provide expanded service and testing. Stakeholders for this challenge include JBM-HH, VDOT, DRPT, Virginia Tech, and Washington Metropolitan Council of Governments, among others.

Automated Bus Consortium (ABC): DRPT and Hampton Roads Transit have joined an association of transit and transportation agencies to form the Automated Bus Consortium, a collaboration designed to investigate the feasibility of implementing automated bus pilot projects in different operating environments across the country. Created by AECOM, the Consortium is a first-of-its-kind approach to accelerate the deployment of automated transit technologies and will combine the purchasing power and collaborative decision-making of the founding transit agencies nationwide. The pilot projects will use full-sized, full-speed electric buses and enable Consortium members to collectively demonstrate and deploy automated technologies in live service environments.

Autonomous buses are technologically advanced vehicles that can operate with either a passive human attendant, or with a fully automated operating system. No full-sized autonomous buses are in use today but the technology that could allow them is developing quickly. To advance understanding and limitations of the technology, this effort will bring together agencies that operate in different climates and unique topographies, from the flat deserts of the American southwest to flood-prone Hampton Roads where congestion and crowded tunnels are common.



Part of the reason for the ABC program is to demonstrate that automated bus technology can navigate and operate reliably in these environments. The Consortium will define the best pilot regions and routes, while developing operating plans and automated bus specifications. It also will study the federal, state, and local regulatory framework to understand what changes are needed to allow autonomous vehicles to safely operate on the streets and highways. Currently, Virginia law does not allow fully autonomous vehicles to be operated without an attendant present.⁶

⁶ For more information about the automated bus consortium, please visit www.automatedbusconsortium.com.

Electric Bus State Procurement: Transit agencies around the country are purchasing battery-powered electric buses (BEB) at increasing rates due to their expected cost savings in fuel and maintenance, as well as environmental benefits. These trends are expected to accelerate in the coming years.

The Chicago Transit Authority, which became one of the first major transit agencies in the country to deploy a BEB, has estimated that a single electric bus saves the Authority \$24,000 annually in fuel costs and \$30,000 annually in maintenance costs when compared to diesel buses. While BEBs have higher upfront costs, the cost of batteries continues to decline, making the savings over the lifespan of the vehicles even greater.

Understanding the potential benefits of BEBs, DRPT staff worked with Virginia Department of General Services to establish a statewide contract for BEBs, based on specifications outlined by DRPT. This contract includes four major BEB manufacturers and is open to all state and local public bodies. Having a statewide contract for these critical assets decreases administrative contract costs for transit agencies and expedites the procurement of electric buses.

Volkswagen Mitigation Trust: In Fiscal Year 2019, Governor Northam announced that the Commonwealth of Virginia would invest a portion of the \$93.6 million in Volkswagen Environmental Mitigation Trust (VW Trust) funding to replace older diesel transit buses with battery-powered electric transit buses through a new Clean Transportation Voucher Program. This program was implemented as part of MERIT, which prioritizes transit projects based on an objective scoring rubric. Following a comprehensive review and analysis of funding requests, DRPT announced more than \$12 million in VW Trust and state transit capital funds to three agencies:

- Alexandria (DASH): \$5.1 million
- Blacksburg Transit: \$3.3 million
- Hampton Roads Transit: \$3.9 million

In total, 17 electric buses and charging infrastructure will be deployed. To reduce administrative costs and expedite project delivery, Alexandria, Blacksburg, and Hampton Roads may take advantage of the electric bus state contract that DRPT developed.

Driver Assistance Systems (DAS) Pilot: Initiated in December 2017, DRPT executed a statewide procurement contract with Rosco Collision Avoidance Inc. to secure a pedestrian collision avoidance system that could be retrofitted to existing transit vehicles and provide operators real-time alerts on pedestrians and bicyclists in the transit vehicle's forward facing blind spots. These systems include a heads-up display that provides varying scales of audio and visual alerts to assist the operator in improving safety and operations of the vehicle. DRPT also established a demonstration pilot for 50 transit vehicles throughout the Commonwealth to test and evaluate the effectiveness of the Mobileye Shield+ system in a variety of geographic service areas and fleet sizes. Nine transit agencies are participating in the demonstration project with testing and evaluation currently underway.

4.3 Scoring in SMART SCALE

Established by the 2014 General Assembly, SMART SCALE provides transportation funding through a prioritization process that evaluates projects based on improvements to safety, congestion, accessibility, land use, economic development, and the environment. DRPT, VDOT, and the Office of Intermodal Planning and Investment (OIP) oversee the development and implementation of the SMART SCALE process. In the development phase of a SMART SCALE funding year, DRPT offers policy expertise on multimodal projects and provides technical assistance to localities and transit agencies that apply for funding. DRPT's SMART SCALE technical assistance includes ridership forecasting, location guidance, cost estimation, data development and analysis, engineering review, and National Environmental Policy Act assistance. DRPT also oversees the implementation of all transit and rail projects that are awarded SMART SCALE funding.



Despite increased competition year over year, transit projects continue to compete well through this funding program. In the latest round of scoring, eight transit projects were awarded funding. These projects are:

- Arlington Transit Crystal City Metro East Entrance;
- City of Alexandria West End Transitway Corridor Investments;
- DASH Alexandria Zero Emission Fleet Expansion
- DASH Alexandria Citywide TSP on Major Corridors;
- Fredericksburg Regional Transit Shelters and Benches;
- Hampton Roads Transit Newport News Shipyard-Gloucester MAX Service;
- Richmond Highway Bus Rapid Transit System; and
- Williamsburg Area Transit Authority Bus Stop Pull-Offs.

SMART SCALE does not provide funding to cover operating costs of these projects; therefore, expansion projects today will become state of good repair projects in the future. The need for operating assistance in the present and the anticipated state of good repair requests in the future will place an additional burden on the limited funding in the Commonwealth Mass Transit Fund going forward.

4.4 Increasing Throughput in Northern Virginia

The I-395 Express Lanes, I-66 Inside the Beltway HOT Lanes, and I-66 Outside the Beltway Express Lanes projects will result in major improvements to person throughput in those corridors. Toll revenues will be used for both highway and multimodal projects that will aid the users of the transportation network. These enhanced services will provide low-cost and reliable travel options to commuters, remove cars from congested roadways, and help to optimize the transportation network by moving more people.

multimodal projects funded with the upfront concession payment. Additional highway projects were also funded with this payment.

- VRE improvements to enhance commuter rail service on the Manassas Line;
- Median widening to accommodate any future westward expansion of WMATA Orange Line;
- Construction of a new commuter parking structure at Fairfax Corner;
- Construction of a new western maintenance and bus storage facility for PRTC; and
- Expansion of bus bays at the East Falls Church WMATA station to accommodate new I-66 commuter buses.

Express Mobility Providers also will provide annual payments to the Commonwealth over the next 50 years to support enhanced bus transit, transportation demand management, and commuter rail services in the corridor.

DRPT is leading an update to the I-66 Transit/TDM plan that is scheduled for completion in the fall of 2019. The purpose of the current planning effort is to develop an updated program of transit/TDM services to be funded with the annual dedicated revenues that are available through the Transform 66: Outside the Beltway project concession agreement. The update to the plan will also give consideration to additional VRE commuter rail service parallel to the corridor as well as coordination with NVTC's I-66 Commuter Choice program, which was not considered in previous planning efforts.

It is expected that the initial services recommended in the updated plan will become operational with the opening of the new Express Lanes in December 2022 and that additional services will be initiated in phases in accordance with a schedule to be included in the plan. The services to be recommended in the plan are expected to enhance transportation alternatives and either directly utilize or complement the new Express Lanes in the corridor.

I-395 Express Lanes: In August 2017, VDOT began construction of a third lane within the existing dedicated HOV facility on I-395. When the new lane is completed in late 2019, VDOT will convert the existing eight-mile long HOV facility into an Express Lanes facility, which Transurban will operate. Vehicles with three or more occupants will travel for free, and vehicles with fewer than three occupants will pay a variable toll based on congestion. As part of the agreement, Transurban will return a portion of the toll revenues to Virginia as an annual transit payment to fund improvements beneficial to toll payers along the corridor. These payments will begin upon commencement of tolling.



Beginning in Fiscal Year 2020, NVTC and the PRTC jointly developed an annual program of multimodal improvements to be funded with the I-395 Annual Transit Payment that will be presented to CTB for approval. NVTC and PRTC will be responsible for ensuring the projects are completed and achieve the promised benefits and for annual reporting on the projects to the CTB.

In Fiscal Year 2020, they received 17 applications total \$31 million. There was \$22 million available for financing.

The CTB approved the following projects at its October meeting:

- Arlington County Commuter store at the Pentagon Transit Center;
- DASH Enhanced bus service on AT-1 Plus: West End to Van Dorn Metro Station;
- DASH Enhanced bus service on AT-9: Mark Center to Potomac Yard;
- Fairfax County New bus service to the Pentagon with Gambrill and Backlick North Park and Ride Improvements;
- NVRC New TDM Outreach campaign for military families;
- Omniride New bus service from Staffordboro to Downtown D.C.;
- Omniride Enhanced bus service from Dale City to Ballston;
- Omniride Enhanced bus service on Prince William Metro Express: Omniride Transit Center to Franconia-Springfield Metro;
- Omniride Enhanced bus service on Route 1 Local: Quantico to Woodbridge VRE; and
- Omniride New bus service from Staffordboro to the Pentagon.

Without question, using toll revenues to support transit has provided relief to some of the Commonwealth's busiest corridors. However, it is important to note once again that these new and expansion projects will one day become state of good repair projects and will need to be funded out of the Commonwealth Mass Transit Fund unless another source of funding becomes available.

4.5 Enhancing Human Service Transportation

DRPT is also the state agency responsible for distributing FTA 5310 and state funding allocations to human service providers. The purpose of this program is to improve mobility for seniors and individuals with disabilities by removing barriers to transportation services and expanding the transportation mobility options available. The 5310 program provides funding for the following:

- Accessible vehicles for public agencies and private non-profit agencies that are transporting seniors or individuals with disabilities; and
- Operating expenditures to enhance paratransit beyond the minimum requirement of the Americans with Disabilities Act. This includes expansion of service hours, days, and areas; alternatives to public transportation; and voucher programs.



In Fiscal Year 2019, DRPT awarded the following human service transportation support:

- 75 accessible vehicles (80 percent federal/20 percent local):
 - 25 accessible vehicles to twelve rural agencies;
 - 14 accessible vehicles to seven small urban agencies;
 - 20 accessible vehicles to eleven large urban agencies in Hampton Roads;
 - 11 accessible vehicles to six large urban agencies in Richmond; and
 - Five accessible vehicles to two large urban agencies in Roanoke.
- Operating, capital, and mobility management support for human service transportation across the state (67 percent federal/33 percent state):
 - Five mobility management and six operating projects in rural areas;
 - One mobility management and four operating projects in small urban areas;
 - Two mobility management and one operating project in Hampton Roads;
 - Two mobility management, one capital, and two operating projects in Richmond; and
 - One operating project in Roanoke.
- Senior transportation grants for twelve agencies across the state.

Also, DRPT awarded a mobility management planning grant totaling \$75,000 to the Peninsula Area Agency on Aging (PAA). PAA began a community effort in 2014 to gain support and buy-in for a call center that would coordinate transportation among three agencies for senior citizens. Under this new model, a senior resident would call one phone number to request a ride; and a mobility manager would schedule and dispatch the ride to either PAA, Williamsburg Faith in Action, a local nonprofit, or the Williamsburg Area Transit Authority, a public transportation and complementary paratransit provider. The Williamsburg Health Foundation, a local grant-making organization, has supported the project since early planning and has provided financial support toward the required local match for the federal funding. This project demonstrates the value of continued community collaboration toward a shared goal. PAA is creating an easier way for senior residents to reserve a ride through a shared, streamlined administrative approach that will support all three agencies as they continue to fulfill their missions.

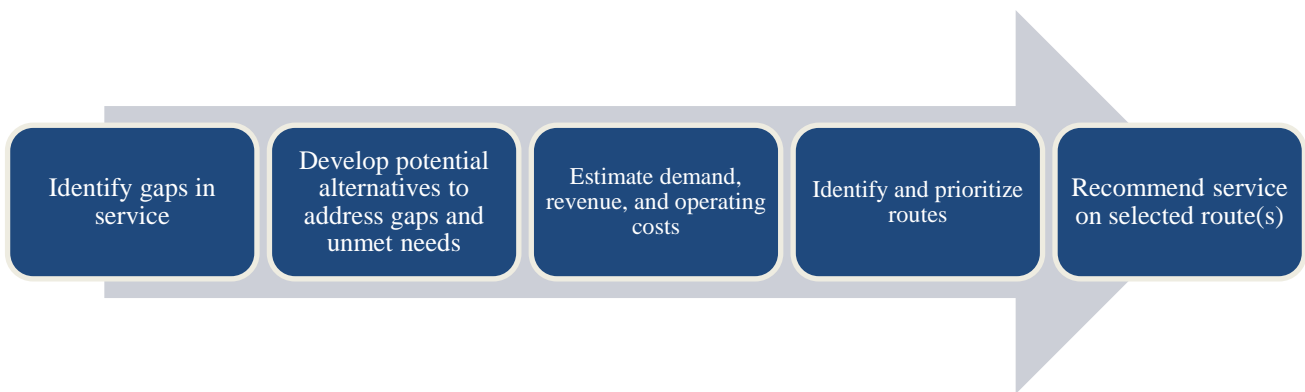
DRPT also is concluding a more than one-year effort to update Virginia's Coordinated Human Serviced Mobility Plan. This update involved myriad local, state, and national organizations interested in furthering mobility for seniors, individuals with disabilities, low-income individuals, and veterans. Five state agencies responsible for non-emergency medical transportation and services for seniors, individuals with disabilities, and low-income individuals participated in the initial planning and kick-off process for the plan update. During a nine-month outreach process, nearly 400 people provided input for the plan, voicing challenges and concerns from the perspective of citizens, human service agencies, transportation providers, local and state government, and national transportation network companies. The plan synthesizes these challenges and includes prioritized recommendations to bridge identified gaps and forge partnerships where they do not currently exist. With this plan in place, Virginia's near future investments in transportation for seniors and individuals with disabilities will be guided by the Commonwealth's own citizens and stakeholders.

4.6 Providing Intercity Bus Service

Intercity bus service provides limited service between two or more urban areas not in close proximity, and it operates on a regularly scheduled, fixed-route service. It is available to the general public with the capability of carrying baggage while providing meaningful connections to the national intercity bus network. The FTA requires states to periodically assess unmet needs for intercity bus service, and a 2013 assessment identified significant need across the Commonwealth. The goal of intercity bus service is to connect underserved communities, such as households without vehicles, students, the elderly, and the disabled, to interregional bus, rail, and air travel. It also provides travel options in corridors where alternatives to the personal vehicle are limited or do not exist as well as supplement service of private providers.



The Virginia Breeze program launched on December 1, 2017, providing daily service between Blacksburg and Union Station in Washington, D.C. with stops in Christiansburg, Lexington, Staunton, Harrisonburg, Front Royal, Dulles Airport, and Arlington. It also provides connections to local transit service in Blacksburg, Staunton, Harrisonburg, and Arlington. In 2017, DRPT planning studies projected annual ridership to be 7,125; however, actual ridership in Fiscal Year 2019 was over 24,000. Thus far, farebox recovery for the service is 81 percent with the remainder funded through FTA 5311 funds. Due to the route's success, DRPT conducted a new study during Fiscal Year 2019 examining unmet intercity travel need and identifying potential routes for expansion. The study had a five-part process:



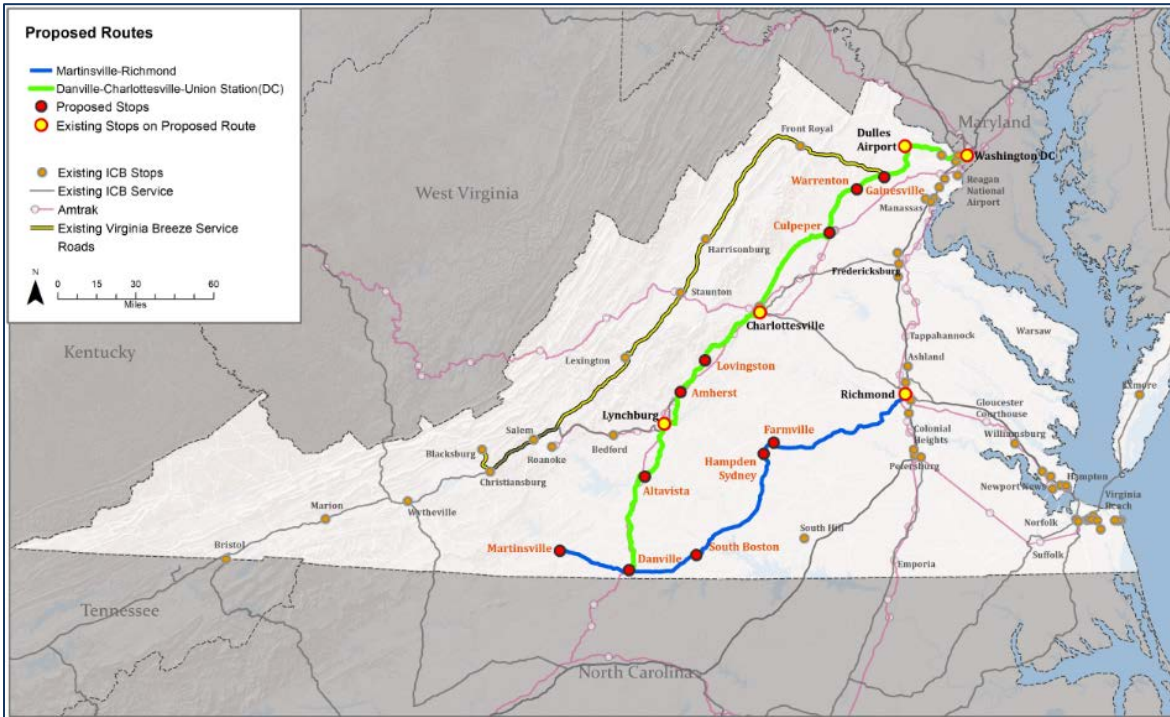
In determining the potential routes for expansion, DRPT used the following criteria:

- Degree to which each route provides access to underserved populations;
- Potential ridership;
- Anticipated cost of operations;
- Projected fare revenue; and
- Degree to which proposed service supplements existing service and fills service gaps.

Based on these criteria, DRPT recommended the following routes to start service in spring/summer 2020:

- Danville to Washington, D.C. (Projected Annual Ridership: 10,050); and
- Martinsville to Richmond (Projected Annual Ridership: 5,500).

The map below shows the current as well as the two planned routes of the Virginia Breeze.



5 Improving WMATA

WMATA, also referred to as Metro, was established by an interstate compact in the 1960s when Virginia, Maryland, and the District of Columbia passed identical legislation that the United States Congress ratified. The compact members include Maryland and the District of Columbia as well as the Virginia local jurisdictions of Arlington and Fairfax Counties and the Cities of Alexandria, Fairfax, and Falls Church. Loudoun County will be added upon completion of the Metrorail Silver Line in 2020.



5.1 Dedicating a New Funding Stream

WMATA Capital Fund: The 2018 General Assembly passed legislation providing \$154.5 million in annual dedicated funding for the WMATA Capital Fund, Virginia’s proportional regional share of \$500 million in annual additional capital needs for critical state of good repair needs. The Maryland General Assembly and the District of Columbia City Council followed Virginia’s lead by passing their own funding packages later in 2018. Fiscal Year 2019 was the first year that WMATA received funding from this dedicated revenue stream from Virginia.

On May 1, 2019, DRPT and WMATA entered into a capital funding agreement for Virginia’s dedicated funding that became effective immediately. This agreement is the first of three agreements for dedicated funding that WMATA will sign with Virginia, Maryland, and the District of Columbia. This agreement states that Virginia will provide 30.9 percent of the \$500 million regional dedicated funding. It automatically renews annually on July 1st unless either party gives 90 days’ notice of request to amend; and the agreement may be terminated by either party if a dispute resolution process fails. The funding is subject to annual appropriation and allocation, and the Commonwealth does not guarantee the debt of WMATA or any obligation of WMATA by the Agreement.

As part of the agreement, WMATA shall apply the Commonwealth’s contribution to items identified in WMATA’s approved capital improvement plan. WMATA is required to provide information to the CTB to meet its obligations under *Code of Virginia* 33.2-3400 et.seq. and CTB policy. WMATA is also required to provide annual information to the NVTC as required by *Code of Virginia* 33.2-3402 and 33.2-3403. Lastly, WMATA will submit a quarterly financial report to the Commonwealth within 45 days of the quarter’s end. It must be in the same form as is submitted to the WMATA Board.

Commonwealth Mass Transit Fund: The same 2018 legislation restructured the Commonwealth Mass Transit Fund, including setting aside regular state WMATA Capital and Operating funding from the rest of the statewide transit capital and operating funds. Starting in Fiscal Year 2019, 53.5 percent of the Commonwealth Mass Transit Fund is provided to WMATA through NVTC in a block grant. This separation of state funding for WMATA from the rest of DRPT’s state transit funding benefits all transit agencies in the Commonwealth as they no longer have to compete with WMATA for a finite amount of transit capital and operating assistance.

5.2 Increasing State Oversight

Board Governance: Chapter 429 of the 2018 Acts of Assembly directed the Virginia Secretary of Transportation to conduct a review of the WMATA Board of Directors membership provisions to determine whether the criteria used for membership eligibility serves the Commonwealth’s best interests, and to determine whether any changes to such representation can be made without an amendment to the WMATA Compact. DRPT concluded that the existing requirements in Virginia Code regarding Commonwealth representation on the Board sufficiently serve the best interests of the state.⁷

Based on Secretary LaHood’s recommendation for a smaller WMATA Board of Directors, the Virginia General Assembly included as part of its 2018 funding package the requirement that the CTB withhold 20 percent of state funds for WMATA through the Commonwealth Mass Transit Fund if i) alternates participated at a WMATA Board meeting when a director is presented; and ii) WMATA did not approve policy prohibiting this participation. For Fiscal Year 2020, this would amount to \$31.8 million.

Subsequently, the CTB approved policy on September 18, 2018, clarifying the limited role of Alternate Directors to the WMATA Board. The CTB guidelines state that unless the alternate director is acting in the absence of a regular Board director at an official Board meeting, the alternate may not:

- participate in the discussion among Board directors;
- make or second a motion;
- vote on motions, resolutions, or other Board actions;
- be counted toward the required quorum;
- attend or participate in any Executive Session of the WMATA Board or its committees; and
- act in violation of WMATA Bylaws in regard to the activities of alternate directors.

Attendance by alternate directors at official WMATA Board or committee meetings, excluding executive sessions, shall not be a basis for withholding funding, nor shall the provision of information or reports to directors at a WMATA committee meeting in response to a request to do so by the director chairing the meeting.

The WMATA Board approved bylaw changes to fulfill these guidelines on June 28, 2018; and the WMATA Board Secretary provided certification to DRPT on June 28, 2019, that the Board followed these requirements for Fiscal Year 2019. DRPT and the Office of the Attorney General reviewed for compliance with statutory and CTB policy; and WMATA has met this requirement.

Operating Assistance Cap: Chapters 854 and 856 of the 2018 Acts of Assembly require in any year that the total Virginia operating subsidy in the approved WMATA budget increases by more

⁷ [Review of the Washington Metropolitan Area Transit Authority Board of Directors Membership](#)

than three percent from the operating assistance in the prior year's WMATA budget, the CTB shall withhold 35 percent of state funds for WMATA to be provided through the Commonwealth Mass Transit Fund. For Fiscal Year 2020, this would amount to \$55.7 million.

DRPT staff worked with the WMATA Board during the development of the Fiscal Year 2020 WMATA Budget to ensure that Virginia's operating subsidy did not grow by more than three percent over the prior fiscal year's budget. The WMATA Board subsequently approved a \$1.9 billion operating budget on March 28, 2019. The base budget has no fare increases and includes new initiatives to grow ridership and revenue with additional service on the Yellow and Red lines. Further, management actions of \$47 million were required to reduce subsidy growth to within the required three percent cap in the base budget. The WMATA General Manager provided certification to DRPT on June 28, 2019, that WMATA had adopted a compliant Fiscal Year 2019 operating budget. DRPT and the Office of the Attorney General reviewed the operating budget for compliance with statutory and CTB policy, and WMATA has met this requirement.

The budget includes \$14 million for mandates legislatively excluded from the three percent cap, including litigation, ADA paratransit, occupational safety and health requirements, and jurisdiction-requested bus service that is 100 percent funded by other sources. The following operating costs are excluded from the three percent cap calculation:

- any service, equipment, or facility that is required by any applicable law, rule, or regulation;
- any major capital projects approved by the WMATA Board before or after the effective date of the CTB policy;
- any payment or obligation resulting from a legal dispute or proceeding;
- operating subsidies for specific WMATA transit services that are funded in whole by one or more WMATA member jurisdictions and/or from other non-WMATA funding sources; and
- regularly scheduled adjustments of the inputs to the regional subsidy allocation formulas by WMATA.

Strategic Plan: The Virginia General Assembly and the CTB also require WMATA to adopt a strategic plan that includes a plan to align services with demand and to satisfy the other recommendations in the LaHood Report. WMATA also must hold a public hearing on the plan in Northern Virginia, and it subsequently must be updated every three years thereafter. If WMATA failed to do so, the CTB would withhold 20 percent of state funds for WMATA to be provided through the Commonwealth Mass Transit Fund. For Fiscal Year 2020, this amount would be \$31.8 million.

WMATA held a total of three public hearings (one each in Virginia, Maryland, and the District of Columbia) on its proposed Fiscal Year 2020 Budget and updated strategic plan. The Virginia public hearing was held in Alexandria on January 30, 2019; and the WMATA Board approved the strategic plan on March 28, 2019. The WMATA General Manager provided certification to DRPT on June 28, 2019, that WMATA had adopted a compliant strategic plan and had held the required public hearing in Northern Virginia. Based on DRPT's review, WMATA has met the minimum requirements for compliance with the statute and CTB policy. Although no enforcement action is

recommended, DRPT recommended that the next strategic plan be developed in a more open and inclusive manner with enough time allotted for meaningful input.

Capital Improvement Program: Lastly, the General Assembly and the CTB requires that WMATA adopt a detailed capital improvement program covering the current fiscal year and the next five fiscal years. WMATA must also hold at least one public hearing on such capital improvement program in a NVTC jurisdiction. The General Assembly mandates that 20 percent of state funds for WMATA provided through the Commonwealth Mass Transit Fund be withheld for non-compliance. For Fiscal Year 2020, this amount would be \$31.8 million.

The Virginia public hearing was held in Alexandria on January 30, 2019. The WMATA Board approved the capital improvement program on March 28, 2019. The WMATA General Manager provided certification to DRPT on June 28, 2019, that WMATA had adopted a compliant capital improvement program for Fiscal Years 2020-2025 and had held the required public hearing in Northern Virginia. DRPT and the Office of the Attorney General reviewed for compliance with statutory and CTB policy, and WMATA has met this requirement.

Northern Virginia Transportation Commission: Every year, NVTC is required by *Code of Virginia* 33.2-3402 to request certain documents and reports from WMATA to confirm the benefits of the WMATA system to persons living, traveling, commuting, and working in the localities that NVTC comprises. These documents include:

- Annual Capital Budget;
- Annual Independent Financial Audit;
- National Transit Database Annual Profile;
- Single Audit Reports issued in accordance with the Uniform Administrative Requirements, Cost Principles, and Audit Requirements for Federal Awards.

NVTC is required to provide certification to the Commonwealth's Comptroller that such documents and reports have been received, and it did so on June 27, 2019. This is in addition to NVTC's annual report to the General Assembly and the Governor by November 1st reporting on the performance and condition of WMATA, which NVTC provided for Fiscal Year 2018 in October 2018.

5.3 Focusing on System Safety

Washington Metrorail Safety Commission: On March 18, 2019, the FTA announced the certification of the Washington Metrorail Safety Commission State Safety Oversight Program. With this certification, independent responsibility for direct safety oversight of the WMATA Metrorail system immediately transferred from the FTA to the Commission.

In addition, approximately \$7.3 million in Section 5307 FTA grant funding, five percent of which had been withheld since February 2017, was immediately made available to transit agencies throughout the Commonwealth. As part of its responsibilities, the Commission reports annually to the Governor, President of the Senate of Virginia, and the Speaker of the Virginia House of Delegates as well as their counterparts in Maryland and the District of Columbia. The last report was filed in October 2018.⁸



Platform Improvement Program: In Summer 2019, Virginia witnessed positive benefits of the additional \$154.5 million when WMATA started its platform improvement project along the Metrorail Blue and Yellow lines south of Reagan National Airport. Throughout the entire system, WMATA has forty-five outdoor stations with concrete platforms that have been exposed to weather and de-icing agents for 35 to 40 years. Twenty stations had platforms requiring immediate attention. WMATA had installed temporary measures at those 20 stations to stabilize and ensure safety until reconstruction occurs.

From May 25, 2019, through September 8, 2019, WMATA shut down Metrorail operations on the Blue and Yellow Lines south of Reagan National Airport and reconstructed the platforms at the Braddock Road, King Street-Old Town Alexandria, Eisenhower Avenue, Van Dorn Street, Huntington, and Franconia-Springfield Metrorail stations. Metro announced this work in May 2018 with coordination lead by a Northern Virginia Stakeholder Group and supported by DRPT and NVTC. This group was comprised of more than 140 members including representatives from local government, state government, congressional offices, federal government, transit providers, police and emergency management, and Metropolitan Washington Airports Authority (MWAA).

In preparation for the summer 2019 platform improvement work, DRPT coordinated with local transit agencies, NVTC, and VDOT to develop a regional plan of supplemental transportation services to complement WMATA's mitigation plan to operate bus shuttle services to replace the lost Metrorail service. The goals of the regional supplemental service plan were:

- To provide options to impacted transit riders and those that travel major corridors to minimize a shift to single occupant vehicle use during the shutdown period and beyond;
- To educate local communities on potential changes in travel patterns that may impact normal commuting patterns; and
- To manage demand by incentivizing use of transit, ridesharing, flexible work schedules, and telework.

DRPT identified de-obligated funds from previously completed Northern Virginia projects that were utilized to support the local mitigation efforts identified below.

⁸ [Washington Metrorail Safety Commission 2018 Annual Report](#)

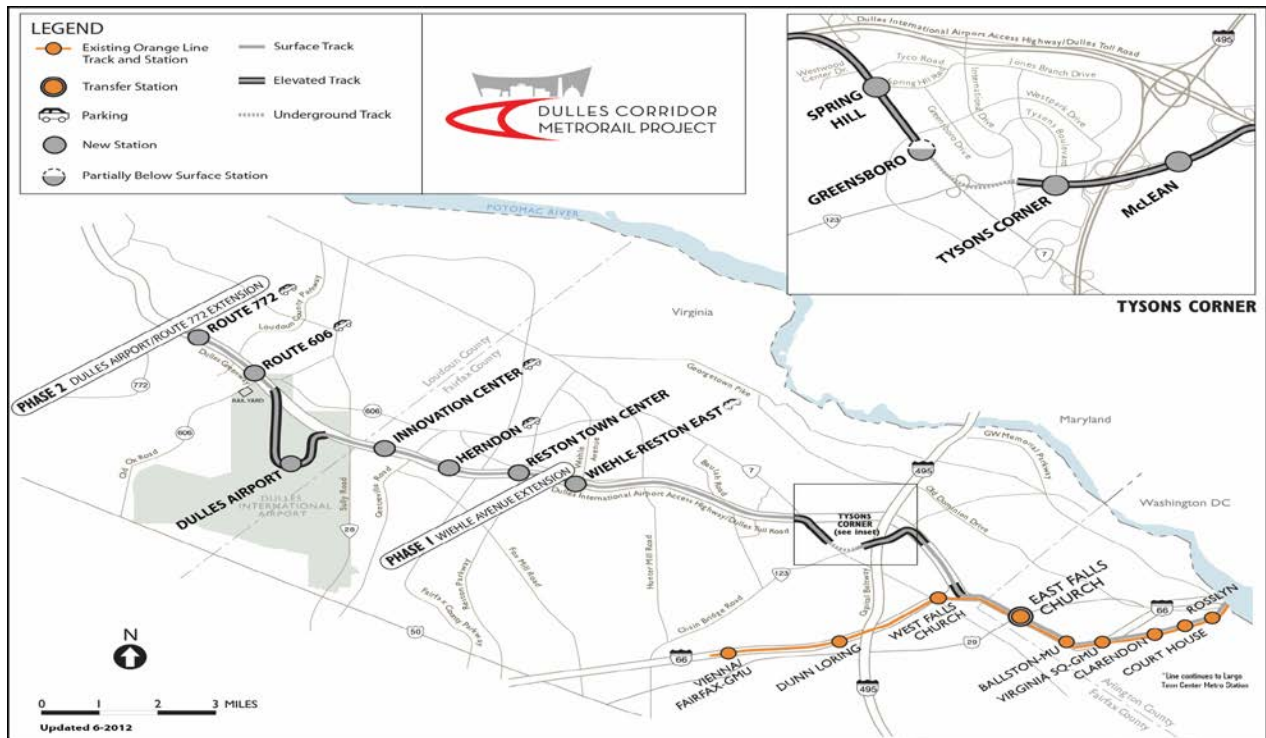
Locality	Commonwealth Funded Mitigation Efforts
City of Alexandria	Supplemental DASH Service & Trolley Operations
	DASH Mobile Ticketing Application
	Community Outreach and Information; Street Teams
	Enhanced bikeshare services and water taxi subsidies
	Transportation operational enhancements (signals, CCTV, Police)
Fairfax County	Supplemental Fairfax Connector Service
	Outreach, promotion of park-and-ride facilities for carpooling/slugging
OmniRide (PRTC)	Free shuttles from park-and-ride lots to Rippon and Woodbridge VRE stations
	Outreach, rideshare promotion
VRE/Amtrak	Reduced VRE step-up ticket cost to expand Amtrak usage
VDOT	Bus on shoulder along Capital Beltway Outer Loop between Eisenhower Avenue Connector and Telegraph Road
	Huntington Avenue “Transit Zone”
NVTC	Post-Platform Shutdown Marketing Campaign

5.4 Looking to the Future

Silver Line Expansion: The Dulles Corridor Metrorail Project will provide high-quality, high-capacity transit service in the rapidly growing Dulles Corridor in Fairfax and Loudoun counties. MWAA is the primary funding source for this project; and DRPT, WMATA, Fairfax County, and Loudoun



County are providing technical assistance during the construction of the 23.1-mile extension. MWAA completed Phase 1 in summer 2014 with the Silver Line providing rail service connecting downtown Washington, D.C., with Tysons Corner and Reston. The completed Phase 1 stations are McLean, Tysons Corner, Greensboro, Spring Hill, and Wiehle-Reston East. The Phase 2 is now nearing completion of the second and final phase extending the Silver Line to Reston Town Center, Herndon, Washington Dulles International Airport, Route 606, and Ashburn with an anticipated completion date of 2020.



Bus Transformation Study: In his 2017 report, former USDOT Secretary Ray LaHood noted the need for major reforms to WMATA’s bus service. Subsequently, WMATA initiated a Bus Transformation Study that is a regionally developed mobility strategy to define the roles of buses and their operators, advance innovations, and create a plan to advance these goals. The project re-visions the bus network in the Washington, DC, region as a coordinated regional transportation solution that addresses the changing needs of customers, leverages innovative technology, and employs a sustainable cost structure. WMATA outlined five goals for the study:

- Meeting customer expectations and demands;
- Adapting to changing technology and mobility landscape;
- Addressing a sub-optimal cost structure;
- Defining regional agency roles and responsibilities; and
- Refreshing the approach to determine who pays for bus services.

WMATA held three public hearings on the study, including one on May 20, 2019, at the Arlington Campus of George Mason University. DRPT staff served on both the Technical and Strategy Advisory Committee.

WMATA released its Bus Transformation Project summary and recommendations on September 4, 2019. The four key recommendations are:

- Provide frequent and convenient bus service;
- Give buses priority on roadways;
- Create an excellent customer service experience; and
- Empower a publicly appointed taskforce.

At the time of this writing, work continues on an implementation plan, which will be completed by the end of 2019.

Blue, Orange, and Silver Line Metrorail Study: WMATA recently launched a two-year study of options to address some of Metrorail’s longstanding and unaddressed needs related to current and future throughput on the Metrorail Blue, Orange, and Silver lines. The study will focus on capacity and reliability needs on the Blue, Orange, and Silver lines (originating in Springfield, Vienna, and Ashburn respectively), including the need to increase capacity at the Rosslyn Tunnel between Arlington and Washington, DC. DRPT staff is serving on both the Technical and Strategy Advisory Committees.

Passenger Rail Investment and Improvement Act of 2008 (PRIIA): In 2008, the United States Congress approved PRIIA, authorizing \$1.5 billion over ten years to WMATA for capital and safety improvements. This amounts to \$150 million annually in federal capital funding with a required 50% non-federal annual match for a total of \$300 million per year. Virginia funds a \$50 million portion of the required match through Capital Project Revenue (CPR) bonds; and DRPT makes these payments directly to WMATA. State funds from Virginia were first appropriated in Fiscal Year 2011 with the final year of appropriation being in Fiscal Year 2020. The current state funding agreement between DRPT and WMATA became effective on July 1, 2016, and expires on June 30, 2020.

Currently, two bills in Congress would reauthorize PRIIA funding for WMATA for another ten years. Congressman Gerald Connolly introduced House Resolution 2520, the Metro Accountability and Investment Act, in May 2019 providing \$2 billion over 10 years. In the same month, Senator Mark Warner introduced Senate Bill 1663, the Metro Safety, Accountability, and Investment Act of 2019, allocating \$1.5 billion over ten years. Funding for both bills would begin in Federal Fiscal Year 2020.

These funding bills include \$150 million annually for capital expenses as well as an additional \$50 million annually in new capital. The Commonwealth as well as Maryland and the District of Columbia will only need to match the first \$150 million. The House bill also includes \$50 million annually for operating with \$10 million dedicated to the WMATA Inspector General. However, both bills require implementation of WMATA Inspector General reforms. The Senate bill also requires implementation of safety task forces, a new capital planning processes, enhanced transit asset management, reinforces restrictions on alternate board members, and prioritizes implementation of cyber security measures.

In 2018, the Virginia General Assembly provided a contingent one-time appropriation of \$50 million for Fiscal Year 2021 by using Capital Project Revenue bonds to support continued funding upon Congressional appropriation. Action will be needed by the General Assembly in future fiscal years to match the federal support if Congress approves these pending bills.

6 Using TDM to Reduce Congestion and SOV Travel

Since the 1970s when Virginia's first carpool matching and ridesharing programs were established, TDM has been used to provide Virginia's residents and workers with additional commuting choices. Initially established to provide ridematching services to form carpools, commuter assistance programs now provide a multitude of services to the public and employers. With the support and guidance of DRPT, commuter assistance programs reduce SOV trips and help keep people moving on Virginia's road and transit systems. In Fiscal Year 2019, Virginia's sixteen commuter assistance programs removed 3,278,720 automobile trips, and its 937 vanpools provided 1,939,000 trips reducing congestion and increasing throughput in congested corridors. Commuter assistance programs provide the following services for the public and employers:

- Personalized Ridematching/Commute Options Information/Trip Planning;
- Carpool and Vanpool Formation Assistance;
- Guaranteed/Emergency Ride Home Programs;
- Employer Services/Commuter Benefits and Telework Program Development;
- Incentives and Rewards Programs;
- Marketing and Promotions;
- Commuter Stores;
- Bikesharing; and
- Promotion of Carsharing Services.

The primary objectives of the services provided by commuter assistance programs are:

- Increase the number of carpools and carpoolers;
- Increase the number of vanpools and vanpool riders;
- Increase the number of transit riders;
- Increase the number of businesses with telework programs;
- Increase the number of teleworkers;
- Increase the number of employers with transit and vanpool commuter benefits;
- Reduce single occupant vehicle trips;
- Reduce auto emissions; and
- Move more people.

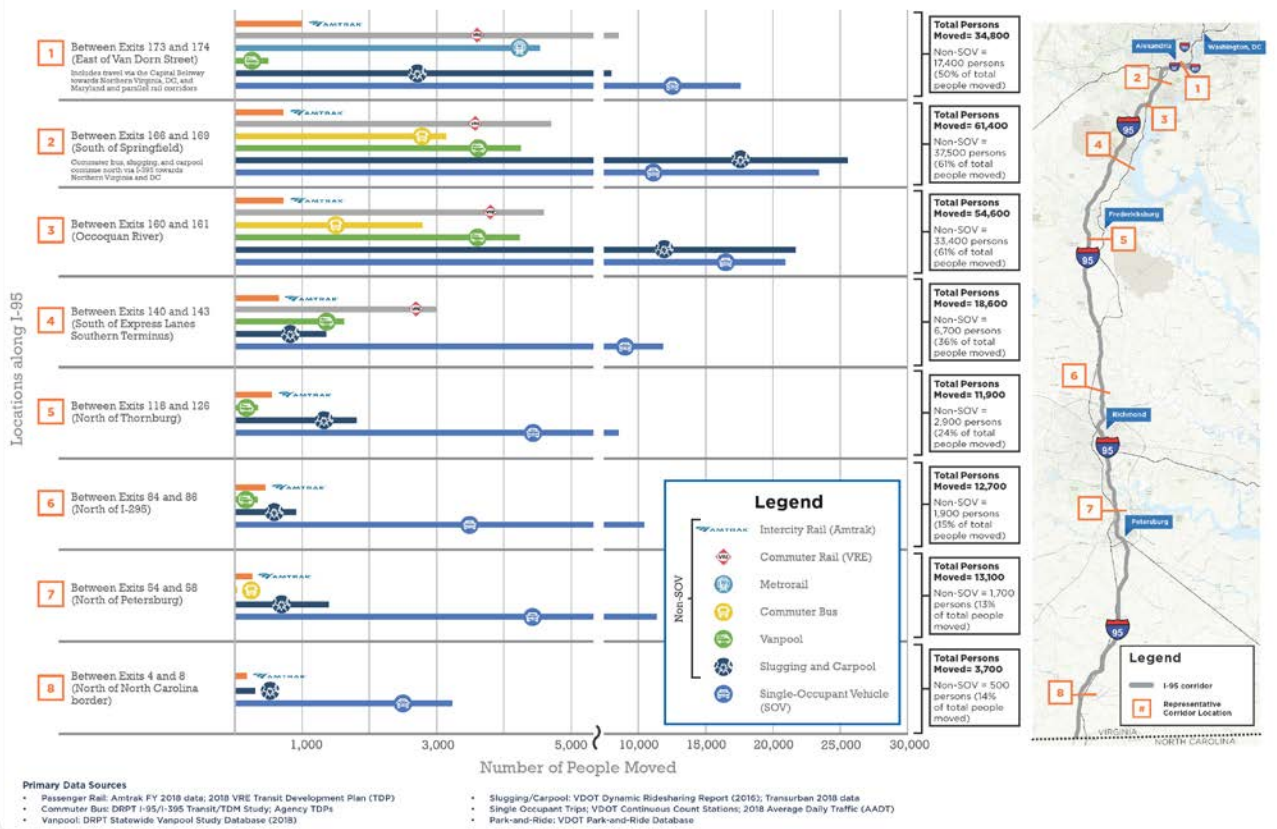
6.1 Moving More People

As a primary objective of TDM and commuter assistance programs, moving more people without increasing the number of vehicles needed to move them maximizes the use of Virginia's highways and roads. Data collected for the I-95 Corridor Improvement Plan, and displayed in the graphic below, shows that transit, vanpool, carpools and slugging move more people than single occupant vehicles on segments of I-95.



I-95 Corridor Improvement Plan

2018 Persons Moved by Mode on I-95 - AM Peak Period, Northbound



6.2 Promoting Transportation Demand Management Programs

DRPT leads the Commonwealth in several statewide promotions of TDM programs. Below are summaries of these promotions.

Telework!VA: DRPT created the program in 2001 to promote telework and helps businesses set up telework programs for their employees. The www.teleworkva.org website is a one-stop resource for businesses, individuals, and government agencies looking to learn more about telework. Included within this website are step-by-step instructions and e-learning tools on how to implement a successful telework program, sample telework policies and agreements, success stories from companies with proven programs, strategies for managing teleworkers, and how to be a productive teleworker.

In Northern Virginia, DRPT partners with VDOT to provide free technical assistance from DRPT’s telework experts to businesses to help them set up a telework program. VDOT provides the funding to DRPT for the technical assistance in Northern Virginia. DRPT offers free technical assistance to commuter assistance programs working with employers in the urban and small urban areas outside of Northern Virginia.



Telework Week: The first full week in March is designated Virginia Telework Week. In 2019, DRPT conducted its ninth annual Virginia Telework Week campaign. During Telework Week, DRPT encourages businesses across Virginia to establish a formal or pilot telework program and allow qualifying employees to work from home at least one day during Telework Week. DRPT coordinates with the local commuter assistance programs to spread the word about telework

and Telework Week.

Try Transit Week: For the past nine years, DRPT has led Virginia’s Try Transit Week campaign. Held during the third week of September, Try Transit Week promotes all forms of transit—bus, rail, ferry, and vanpool. To raise awareness and to encourage public participation, DRPT holds a contest where the Grand Prize winner receives a one-year of free rides on transit and two round-trip tickets on Amtrak. DRPT partners with transit and commuter assistance program operators to promote Try Transit Week. Over the past few years, many transit operators have donated bus passes for DRPT to hold local prize drawings. The public can enter the contest by going to www.trytransitweek.org and completing a form pledging to try transit.



The public can enter the contest by going to www.trytransitweek.org and completing a form pledging to try transit.



Vanpool!VA: DRPT’s Vanpool!VA program was developed to increase the number of vanpools and vanpool riders throughout the Commonwealth. The program was developed with input from TDM agencies, transit agencies, and vanpool companies.

The Vanpool!VA website serves as a one-stop information portal for vanpooling. The website serves the public, vanpool operators, commuter assistance program operators, and transit agencies. DRPT also developed and implemented a statewide promotional campaign to educate the public on the benefits of vanpooling and how vanpooling works. Commuter assistance programs can use the marketing and branding materials developed by DRPT for local targeted marketing of vanpools.

Bike to Work Week: For the past three years, DRPT has promoted Bike to Work Week during the week of May 15th. Bike to Work Week provides a boost to local initiatives and increases awareness of biking as a commute mode. DRPT’s biketoworkva.org website serves as a one-stop shop and clearinghouse for Bike to Work Week activities across Virginia. The website includes a calendar of events for National Bike Month in May, news about biking, information about bike share services in the Commonwealth, the benefits of biking, and information for employers on how they can make biking to work easier for employees.



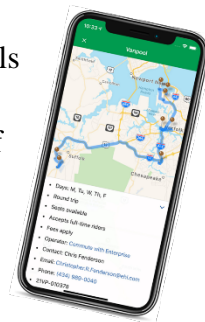
6.3 Using Planning and Technology to Deliver TDM to the Public

DRPT continues to work with its TDM grant recipients to help them develop their TDM programs, improve efficiency, and achieve better results. This work incorporates strategic planning and the latest technology to deliver TDM programs to the public in the most efficient and cost effective manner.

Commuter Assistance Program Strategic Plans: Over the past several years, DRPT required commuter assistance program operators receiving state funding from DRPT to prepare, adopt, and submit a TDM Plan. These plans were intended to show the need for a TDM program, how TDM will address the need, the TDM elements that will be implemented, and the resources needed to implement the plan. The plans provide the basis for funding requests and provide DRPT with information during the application process. TDM plans served a similar purpose as Transit Development Plans.

DRPT is transitioning the TDM Plans to Commuter Assistance Program Strategic Plans that will focus on reducing single occupant vehicle trips and mitigating congestion. The purposes of Commuter Assistance Program Strategic Plans are:

- To serve as a strategic planning, management, and policy document for operators of a commuter assistance program;
- To identify the mission, goals, objectives, expected outcomes, and performance measures for the commuter assistance program;
- To identify areas for improved operational efficiency;
- To assess the type of operating services, including marketing, for different service areas and needs;
- To review and assess the performance of program services;
- To examine commuter assistance needs;
- To inform DRPT of operators' commuter assistance program operating needs;
- To provide the basis for inclusion of an operator's operating program in planning and programming documents such as: the SYIP, Statewide Transportation Improvement Program, Transportation Improvement Program, and Constrained Long Range Plan;
- To provide a clear understanding of unmet or unfunded needs;
- To develop and track the progress of short-, mid-, and long-term goals and results of the commuter assistance program;
- To continually aim to improve efficiency and effectiveness of commuter assistance program; and
- To develop a comprehensive marketing plan that is strategic and efficient for the service area, size, and demographics of population and workforce, and market conditions.

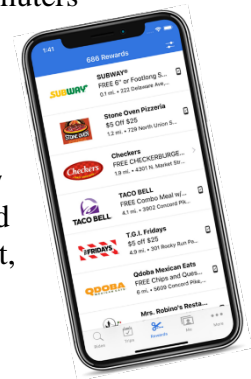


Technology and Commuter Rewards: Last year, DRPT completed a major initiative to consolidate the ridematching systems of five commuter assistance programs into one system using the latest technology. The commuter assistance programs serving the Middle Peninsula, Central, Southeast, and Southwest Virginia were using separate ridematching systems with databases that did not interact with each other. That meant that commuters traveling from one area to another needed to contact or go to two separate program websites to obtain the best ridematching information.



Now commuters need only to contact one commuter assistance program by phone, website, or mobile app to obtain their commute options and get ridematching information for carpool, vanpool, and transit. DRPT has also created the Commute!VA website to serve commuters that are outside the service areas of the five commuter assistance programs. A Commute!VA mobile app will be launched in 2020.

In addition, the new ridematching system provides rewards for commuters that carpool, vanpool, use transit, bicycle, and telework. Commuters using the new service can earn points for tracking their greener trips, which can be redeemed for rewards, such as discounts at select retailers, restaurants, entertainment, attractions, and more.



7 Funding Transit and TDM in Virginia

7.1 Six-Year Improvement Program

The Six-Year Improvement Program (SYIP) is the CTB’s joint annual funding allocation program for the projects and initiatives DRPT and VDOT administers. The SYIP funds public transportation facilities, commuter and public transportation programs, rails initiatives, and all interstate and primary highway projects throughout Virginia over six fiscal years. The fiscal year starts on July 1st and ends on June 30th.

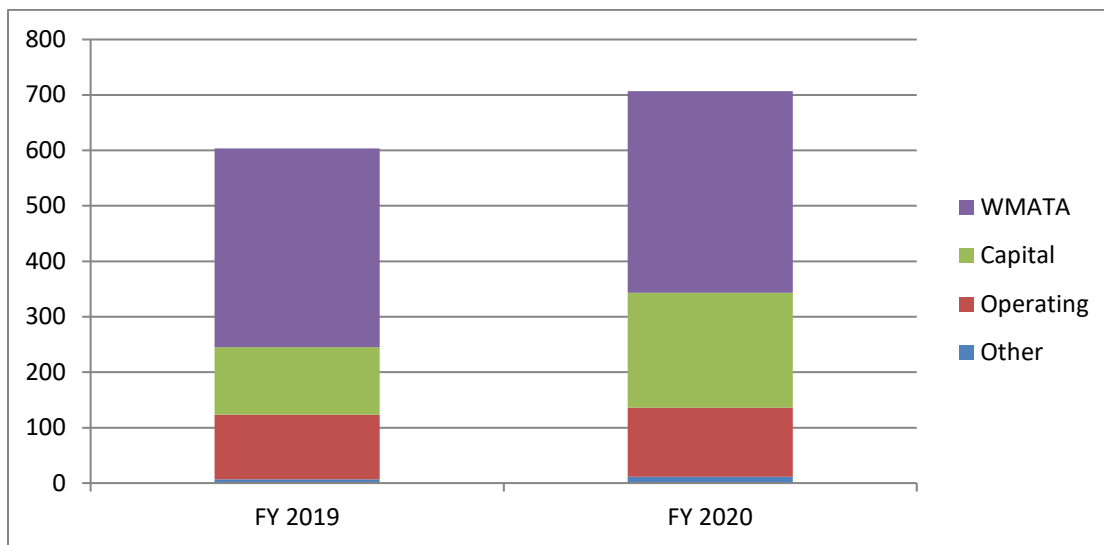
DRPT’s process within the SYIP differs from the VDOT process in two key areas:

- DRPT advances projects primarily through partnerships with local and regional governments and private entities in Virginia; and
- DRPT funds only a portion of rail and public transportation projects costs with a significant share of expenses borne by localities.

All projects in the SYIP that are eligible for federal funding will be included in the Statewide Transportation Improvement Plan, which documents how Virginia will obligate its share of federal funds.⁹

7.2 Transit and TDM Allocations in Fiscal Years 2019 and 2020

For Fiscal Year 2019, DRPT allocated approximately \$603.7 million in federal and state dollars to transit and TDM initiatives throughout the Commonwealth. In Fiscal Year 2020, that number grew to approximately \$706.6 million in allocations. The chart below breaks down this funding into four categories: WMATA, statewide capital, statewide operating, and other (including TDM).



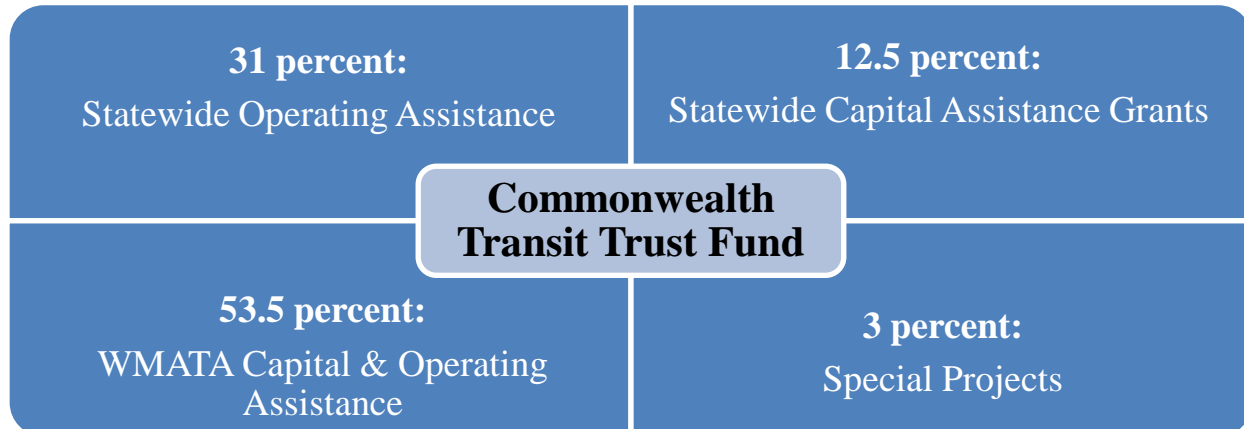
7.3 Commonwealth Mass Transit Fund

The majority of DRPT's portion of the SYIP includes the funding allocations from the Commonwealth Mass Transit Fund for public transportation capital purchases, operating assistance, and TDM programs and projects. Due to action taken by the 2018 General Assembly, the Commonwealth Mass Transit Fund distributes dollars in the following manner:

- Up to 3.5 percent to support costs of DRPT project development, project administration, and project compliance;
- \$1.2 million for state safety oversight; and
- \$1.5 million for paratransit capital and enhanced transportation services for the elderly and disabled.

⁹ [DRPT's Six Year Improvement Program and Statewide Transportation Improvement Plan can be found on DRPT's website.](#)

The remaining funds are distributed as follows:



7.4 Federal Funding

Federal funding for public transportation in Virginia not only provides essential resources to local public transit agencies, but it also significantly reduces the state funding burden and frees up additional resources to meet greater needs. Since 1982, 20 percent of the federal excise tax on gasoline has been set-aside into the Mass Transit Account for formula and discretionary grant programs, the latter of which generally require a 50 percent non-local match.

For many statewide transit capital projects in mid-size urban and rural Virginia communities, this blend of CTB allocated federal funding as well as the statewide capital program often means that the local community is able to deliver projects by only meeting their required four percent match.

Formula Funding: DRPT is the Commonwealth’s designated agency responsible for administering most FTA formula funding programs. Through an inter-agency agreement with VDOT, DRPT also administers federal-aid highway formula funding allocated for the Congested Mitigation and Air Quality (CMAQ), Regional Transit Systems Plan (RSTP), and Surface Transportation Block Grant (STBG) programs for use on public transportation projects. Through the annual Appropriations Act, the General Assembly mandates a minimum of 22 percent of Virginia’s STBG apportionment must be set aside for public transportation purposes.

Discretionary Grant Funding: The following table provides brief summaries of FTA formula funding provided to certain local public transportation agencies in the Commonwealth and Metropolitan Planning Organizations as well as discretionary grant funding opportunities.

FTA Formula Grant Programs

- Planning (5303/5304)
- Urbanized Area Formula (5307)
- Elderly & Disabled (5310)
- Formula Grants for Rural Areas (5311)
- Public Transportation Safety Program (5329)
- State of Good Repair (5337)
- Bus and Bus Facilities (5339(a))

FTA Discretionary Grant Programs

- Fixed Guideway Capital Investment Grants (CIG, formerly known as New Starts)
- Bus and Bus Facilities Discretionary Grants(5339(b))
- Expedited Project Delivery for CIG Pilot Program (Subsection3005(b) of FAST)
- Pilot Program for Innovative Coordinated Access & Mobility (Subsection 3006(b) of FAST)
- Integrated Mobility Innovation

Fixing America’s Surface Transportation Act (FAST Act): In 2015, the United States Congress adopted the FAST Act, a five year, multi-billion dollar authorization of all United States Department of Transportation surface transportation programs, including public transportation. This act provided predictability for public transportation in Virginia by authorizing maximum annual funding levels for a five-year period; however, total annual funding availability remains subject to annual Congressional appropriations. Additionally, Congress implemented a multi-billion dollar budget rescission in FY 2020 in order for the Congressional Budget Office to score the FAST Act within pay-as-you-go rules. Funding in this rescission could otherwise be appropriated to state and local governments for highway and public transportation expenditures.

The FAST Act will expire September 30, 2020, and Congress will either need to enact new multi-year surface transportation authorization, or extend the current provisions of the FAST Act, similar to the extensive extensions it enacted for prior transportation bills like SAFETEA-LU (Safe, Accountable, Flexible, Efficient Transportation Equity Act: A Legacy for Users) and MAP-21 (Moving Ahead for Progress in the 21st Century Act).

7.5 TDM Funding

From the Commonwealth Mass Transit Fund Special Projects distribution, DRPT’s TDM Operating Assistance and Mobility grant programs provide funding for a variety of TDM programs and projects. The TDM Operating Assistance grants provide funding to support the operation of commuter assistance programs that serve the public, reduce SOV trips, and increase carpool, vanpool, and transit use.

The Mobility Programs grant program is a competitive program that primarily supports employer outreach, telework, and vanpool TDM programs. The goal of both grant programs is to mitigate traffic congestion, which is the elimination of SOV trips by shifting those trips to carpool, vanpool, transit, and telework.

DRPT also administers CMAQ and RSTP federal-aid highway funding that is allocated by Metropolitan Planning Organizations for TDM programs and projects. Through partnerships with VDOT and local jurisdictions, DRPT administers funding from VDOT for TDM projects developed to mitigate single occupant vehicle automobile trips during construction of megaprojects, such as I-66 Express Lanes. The TDM projects are part of the federally required Transportation Management Plan for a megaproject.

8 Looking Ahead

Fiscal Year 2019 was a dynamic and productive year for transit and TDM in Virginia. The success of DRPT's initiatives would not have been possible without the General Assembly's leadership.

Transit continues to grow with new and innovative methods of allocating funding and increasing the use of technology. Innovation has brought exciting new programs, such as driver assistance systems and automated shuttles, to the Commonwealth; and DRPT continues to grow two of its core programs, its human service providers and the Virginia Breeze intercity bus program. At the same time, the Commonwealth has been a leader in working towards improving its largest transit provider, the Washington Metropolitan Area Transit Authority. Unquestionably, the Commonwealth will continue to make positive strides in transit in Fiscal Year 2021 and beyond.

Transportation demand management also continues to provide congestion relief and single occupant vehicle travel reduction. Whether it is carpooling, bikesharing, or commuter stores, transportation demand management is a sound strategy to eliminate congestion throughout Virginia's urban centers. DRPT continues to encourage transportation demand management use through its successful promotions, such as Telework!VA and Try Transit Week.

As we look ahead, there are some key trends that will impact transit and transportation demand management in future years. The addition of new assets to the inventory increases state of good repair demand over time as these assets begin to reach their useful lives and require repair or replacement. Additionally, new inventory impacts the DRPT's operating assistance program. For example, while transit projects score well in SMART SCALE, these projects do not receive operating assistance through that program. State operating assistance is a set percentage of the Commonwealth Mass Transit Fund and is increasingly constrained as service is added. The need for additional funding for state capital and operating assistance is critical as we enter the 2020s.

With the challenges of increasing state of good repair needs and tight operating budgets, it is critically important that transit agencies periodically evaluate their services for effectiveness. The new Transit Strategic Plan requirements ensure that agencies are taking a hard look at their services to balance needs with available resources and effectively manage their systems. These plans will better inform DRPT's long range needs analysis and financial projections to ensure a strong state transit program.

As the Commonwealth's population continues to grow with more individuals needing transportation options, transit, vanpooling, carpooling, telework, and other TDM services will play a significant role in helping to meet the demands and needs of Virginians while reducing congestion and the number of single occupant vehicles trips as well as increasing the use of transit.

9 Appendix

9.1 Fiscal Years 2019 and 2020 State Capital Vehicle Expenditures

Agency	Service Areas	FY 2019 Capital Assistance	FY 2020 Capital Assistance
Alexandria Transit Company	Alexandria	8 Replacement Buses	5 Expansion Buses 6 Electric Buses
Altavista Community Transit System (ACTS)	Altavista and Campbell County		Bus Shelter
Arlington County Transit (ART)	Arlington	14 Replacement Buses	
Bay Transit	Charles City, Essex, Gloucester, King and Queen, King William, Lancaster, Mathews, Middlesex, New Kent, Northumberland, Richmond County, and Westmoreland	8 Replacement Body on Chassis with Wheelchair Lift 1 Expansion Buses	8 Replacement Body on Chassis with Wheelchair Lift 3 Support Vehicles
Blacksburg Transit	Blacksburg		3 Replacement Buses 5 Electric Buses 1 Support Vehicle
Blackstone Area Bus System (BABS)	Amelia, Blackstone, Brunswick, Buckingham, Cumberland, Lunenburg, Nottoway, and Prince Edward	3 Replacement Body on Chassis with Wheelchair Lift 1 Expansion Body on Chassis with Wheelchair Lift	1 Replacement Body on Chassis with Wheelchair Lift 1 Replacement Support Vehicle
Bristol Virginia Transit	Bristol	1 Replacement Body on Chassis with Wheelchair Lift	

Central Shenandoah Planning District Commission (BRITE)	Augusta, Staunton, and Waynesboro	Bus Force Account Capital Cost of Contracting	Bus Force Account Capital Cost of Contracting
Charlottesville Area Transit (CAT)	Albemarle, Charlottesville		
Chincoteague Pony Express	Chincoteague		
City of Fairfax (CUE)	Fairfax City		
Danville Transit	Danville	3 Expansion Buses 4 Replacement Buses	2 Replacement buses 3 Replacement Body on Chassis with Wheelchair Lift
District Three Public Transit (Mountain Lynx)	Abingdon, Bland, Carroll, Galax, Grayson, Marion, Smyth, Wythe, Wytheville, and Washington	3 Replacement Body on Chassis with Wheelchair Lift	4 Replacement Body on Chassis with Wheelchair Lift 1 Replacement support vehicle
Fairfax County (Fairfax Connector)	Alexandria, Fairfax County, and Falls Church	3 Replacement Support Vehicles Rehabilitate/Rebuild Buses	4 Replacement Support Vehicles 25 Rehabilitate/Rebuild Buses
Farmville Area Bus (FAB)	Farmville	1 Replacement Bus 1 Replacement Van	
Four County Transit	Buchanan, Dickenson, Russell, and Tazewell	7 Replacement Body on Chassis with Wheelchair Lift	8 Replacement Body on Chassis with Wheelchair Lift 1 Replacement Raised Roof Van with Wheelchair Lift 1 Replacement Minivan with ramp 1 Replacement support vehicle

Fredericksburg Regional Transit (FRED)	Caroline, Fredericksburg, Spotsylvania, and Stafford	4 Replacement Body on Chassis with Wheelchair Lift	4 Replacement Buses
Graham Transit	Bluefield	1 Replacement Body on Chassis with Wheelchair Lift	
Greater Lynchburg Transit Company (GLTC)	Amherst and Lynchburg	8 Replacement Buses	1 Replacement Bus
Greater Richmond Transit Company (GRTC)	Chesterfield, Henrico, Richmond, and Petersburg	Capital Cost of Contracting-Paratransit Service 21 Replacement Vans	8 Replacement Support Vehicles 9 Replacement Paratransit vehicles
Greater Roanoke Transit Company (Valley Metro)	Roanoke and Salem		3 Support Vehicles
Greene County Transit	Albemarle, Charlottesville, and Greene	2 Replacement Body on Chassis with Wheelchair Lift	1 Replacement Body on Chassis 1 Replacement Raised Roof Van
Greenville-Emporia Transit	Greenville and Emporia		
Hampton Roads Transit (HRT)	Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, and Virginia Beach	Light Rail State of Good Repair 71 Replacement Vans 145 Replacement Buses Rehabilitate Rail cars/Locomotives	5 Replacement Buses 6 Electric Buses 9 Replacement Support Vehicles
Harrisonburg Department of Public Transportation (HDPT)	Harrisonburg	7 Replacement Buses	2 Replacement Buses 2 Support Vehicles
JAUNT	Albemarle, Buckingham, Charlottesville, Culpeper, Fluvanna, Louisa, Madison, and Nelson	16 Replacement Buses 3 Expansion Buses	9 Replacement Body on Chassis
Lake Country Area Agency on Aging	Brunswick, Halifax, and Mecklenburg		

Loudoun County (LC Transit)	Loudoun County	5 Replacement Buses	5 Replacement Buses 5 rehabilitate/rebuilt buses
Mountain Empire Older Citizens (MEOC)	Lee, Norton, Scott, and Wise	5 Replacement Body on Chassis with Wheelchair Lift 1 Replacement Raised Roof Van with Wheelchair Lift 1 Replacement Minivan with Ramp	5 Replacement Body on Chassis with Wheelchair Lift 1 Replacement Raised Roof Van with Wheelchair Lift 1 Replacement Support Vehicle
Petersburg Area Transit (PAT)	Petersburg	3 Replacement Buses 1 Replacement Body on Chassis with Wheelchair Lift	3 Replacement Buses
Potomac and Rappahannock Transportation Commission (PRTC) (Omniride, OmniLink)	Manassas, Manassas Park, and Prince William	Debt Service for Rail Projects-City of Manassas Lease of Commuter Parking Lots-City of Manassas	2 Replacement Paratransit Vans Debt Service for Rail Projects-VRE Manassas Line Facilities
Pulaski Area Transit (PAT)	Pulaski	2 Replacement Body on Chassis with Wheelchair Lift	2 Replacement Body on Chassis
RADAR	Alleghany, Buena Vista, Clifton Forge, Covington, Henry, Lexington, Martinsville, Roanoke, and Rockbridge	6 Replacement Body on Chassis with Wheelchair Lift	10 Replacement Body on Chassis with Wheelchair Lift 2 Expansion Body on Chassis with Wheelchair Lift
Radford Transit	Montgomery, Pulaski, and Radford		
STAR Transit	Accomack and Northampton	1 Expansion Bus 2 Replacement Body on Chassis with Wheelchair Lift	3 Replacement Body on Chassis with Wheelchair lift
Suffolk Transit	Chesapeake and Suffolk	4 Replacement Body on Chassis with Wheelchair Lift	1 Replacement Body on Chassis with Wheelchair Lift

		Engineering & Design of Bus Transfer Location	
Virginia Railway Express	Alexandria, Fairfax, Falls Church, Fredericksburg, Manassas, Manassas Park, Prince William, Spotsylvania, and Stafford	Debt Service for 71 Railcars Track Lease Payments	Debt Service for 71 Railcars Track Lease Payments
Virginia Regional Transit (VRT)	Culpeper, Fauquier, Loudoun, Orange, and Warren	1 Replacement Support Vehicle 6 Replacement Body on Chassis with Wheelchair Lift 1 Expansion Body on Chassis with Wheelchair Lift	2 Replacement Support Vehicles 1 Replacement Body on Chassis with Wheelchair Lift
Winchester (WinTran)	Winchester	6 Replace Fuel Tanks on CNG Buses 1 Replacement Bus Trolley Bus Shelters 1 Repower CNG Bus	
Williamsburg Area Transit (WATA)	James City, Newport News, Williamsburg, and York	1 Replacement Bus Trolley 1 Repower CNG Bus	

9.2 I-66 Inside the Beltway: Transit & Transportation Demand Management Projects

Locality	Project
Arlington County	Additional peak hour service on the ART 55 route
	Bus stop consolidation on Lee Highway and Washington Boulevard
	Purchase and installation of multimodal real-time information screens
	Corridor ITS enhancements to allow for better monitoring of conditions and faster responses to incidents
	Upgrades to the county's traffic management center
	Enhanced TDM outreach in the I-66 corridor
	Enhanced Bus Service on Metrobus 3Y: Lee Highway-Farragut Square
City of Fairfax	Access and technology improvements at CUE system bus stops
Fairfax County	Purchase of two buses and funding of two years of operations for new Fairfax Connector service between the Government Center and Foggy Bottom
	Purchase of four buses and funding of two years of operations for new Fairfax Connector service between the Vienna Metrorail Station and the Pentagon
	Ten new bike share stations in the vicinities of the Vienna and Dunn Loring-Merrifield Metrorail Stations
	Enhanced Fairfax Connector Bus Service from Government Center to DC
	New Fairfax Connector Bus Service from Stringfellow Road to Constitution Center
City of Falls Church	Up to 16 new bike share stations
	New Metrobus 3T service
Loudoun County	250 space commuter parking lot in the community of Aldie and two years of operations for new Loudoun County Transit commuter bus service from the new parking lot to Washington, DC
	TDM outreach and marketing to the I-66 corridor, carpool, and vanpool incentives and transit information display screens
	Purchase of two buses and two years of operations for extension of Loudoun County Transit 88X route to service the Dulles South Park & Ride Lot
	Purchase of three new buses and funding of two years of operations for new Loudoun County Transit route between Purcellville and the Wiehle-Reston East Metrorail Station
	Enhanced Loudoun County Transit Bus service from Strong Ridge to DC

	New Loudoun County Transit Bus Service from Strong Ridge to Pentagon
	New Loudoun County Transit Bus Service from Purcellville to DC
City of Manassas	Bicycle parking improvements at Manassas VRE Station
Prince William County	New Transportation Demand Management Outreach in I-66 Corridor
PRTC (serving Prince William)	New PRTC OmniRide commuter bus service between Gainesville and the Pentagon
	Additional peak hour service on PRTC OmniRide commuter bus service between Linton Hall and the Tysons Corner Metrorail Station
	On-demand commuter lot shuttles between neighborhoods in Gainesville and Haymarket and nearby commuter park and ride lots
	Flexible vanpool program software
	Enhanced Omniride Bus Service from Gainesville to DC
	Enhanced Omniride Bus Service from Gainesville to Pentagon
	New OmniRide Bus Service from Haymarket to Rosslyn
	I-66 Slug Lines Campaign
Regional (managed by NVTC)	Targeted outreach to promote transit and other transportation options

9.3 TDM Programs

Commuter Assistance Program Name	Operating Agency/Agencies	Service Area
Arlington County Commuter Services	Arlington County Department of Environmental Services	Arlington County
Commuter Services by RRRC	Rappahannock-Rapidan Regional Commission	Counties of Culpeper, Fauquier, Madison, Orange and Rappahannock; Towns of Culpeper, Gordonsville, Madison, Orange, Remington, The Plains, Warrenton, and Washington
Fairfax County Commuter Services	Fairfax County Department of Transportation	Arlington and Fairfax County
GO Alex	Alexandria Department of Transportation and Environmental Services	City of Alexandria
GWRideConnect	George Washington Regional Commission	Fredericksburg; Counties of Caroline, King George, Spotsylvania and Stafford
LiveMore	Dulles Area Transportation Association	City of Manassas and Manassas Park, Parts of the counties of Fairfax, Loudoun and Prince William around the Dulles International Airport
Loudoun County Commuter Services	Loudoun County Department of Transportation and Capital Infrastructure	Loudoun County
Middle Peninsula Rideshare	Middle Peninsula Planning District Commission	Counties of Essex, Gloucester, King and Queen, King William, Mathews and Middlesex; Towns of Tappahannock, Urbanna and West Point
Northern Neck Commute Services	Northern Neck Planning District Commission	Counties of Lancaster, Northumberland, Richmond, and Westmoreland
PRTC OmniMatch	Potomac and Rappahannock Transportation Commission	Prince William County; Cities of Manassas and Manassas Park
RideFinders	Greater Richmond Transit Company	Cities of Richmond, Colonial Heights, Hopewell, Petersburg; Town of Ashland; Counties of Charles City,

		Chesterfield, Goochland, Hanover, Henrico, New Kent and Powhatan
RideShare	Central Shenandoah Planning District Commission Thomas Jefferson Planning District Commission	Counties of Albemarle, Augusta, Bath, Fluvanna, Greene, Highland, Louisa, Nelson, Rockbridge and Rockingham; Cities of Buena Vista, Charlottesville, Harrisonburg, Lexington, Staunton, and Waynesboro
RideSmart	Northern Shenandoah Valley Regional Commission	City of Winchester; Towns of Luray, Front Royal, and Stephens City; Counties of Clarke, Frederick, Page, Shenandoah and Warren
RIDE Solutions	Roanoke Valley-Alleghany Regional Commission New River Valley Regional Commission Central Virginia Planning District Commission West Piedmont Workforce Investment Board	Counties of Alleghany, Amherst, Appomattox, Bedford, Botetourt, Campbell, Craig, Floyd, Franklin, Giles, Henry, Montgomery, Patrick, Pittsylvania, Pulaski and Roanoke; Cities of Radford, Roanoke, Salem, Lynchburg, Martinsville, Danville, Covington; Towns of Bedford, Blacksburg, Christiansburg, Clifton Forge, Rocky Mount and Vinton
TRAFFIX	Hampton Roads Transit	Counties of Accomack, Franklin, Gloucester, Isle of Wight, James City, King George, Northampton, Southampton, Surry, and York; Cities of Chesapeake, Hampton, Newport News, Norfolk, Portsmouth, Suffolk, Williamsburg, and Virginia Beach
Tyson's TMA	Tyson's Partnership, Inc.	Fairfax County and Falls Church