

Virginia Rail Resource Allocation Plan

Complement to the Virginia Statewide Rail Plan

November 2013



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OVERVIEW

Introduction

Virginia's rail network plays a key role in the state's economy by connecting people, places, and products locally, regionally, and globally. The Virginia Department of Rail and Public Transportation (DRPT) is an Executive Branch Agency created in 1992, under the Commonwealth's Secretary of Transportation, to support and develop rail, transit, and mobility management in the Commonwealth. DRPT is responsible for the development of the Virginia Statewide Rail Plan (VSRP) and its updates. The VSRP is integral to the short and long range planning and project implementation process for the Commonwealth. At the core of the VSRP is the Rail Project Prioritization and Funding Plan, which details project selection and prioritization, funding, and implementation schedules. It includes long range rail resource allocation recommendations for ten discrete passenger and freight rail projects. The projects are categorized by corridor and further separated by phase.

The goal of this **Rail Resource Allocation Plan** is threefold: 1) provide an overview of the VSRP, 2) assess specific project phases against the Commonwealth's policy goals for each funding source, and identify options for required capital and operating funding, and 3) present DRPT's rail project priorities.

Progress Since the 2008 Rail Plan Update

Following the 2008 VSRP update, DRPT quickly set the pace for rail and transit agencies nationwide by advancing freight rail and intercity passenger rail programs and projects identified in the VSRP. DRPT moved strategically to develop framework agreements with its two Class I railroad stakeholders, CSX and Norfolk Southern, to set forth a process to implement the freight rail and intercity passenger rail projects identified in the 2008 Resource Allocation Plan. The framework agreement process has proven successful in advancing projects, resulting in abbreviated service delivery times as compared to a more traditional project development process. Also during this period, DRPT was directly engaged in two of the nation's top four transportation infrastructure projects identified by *Governing Magazine* in April 2012, the Dulles Metro Rail Extension Project and the Norfolk Southern Crescent Corridor Project.

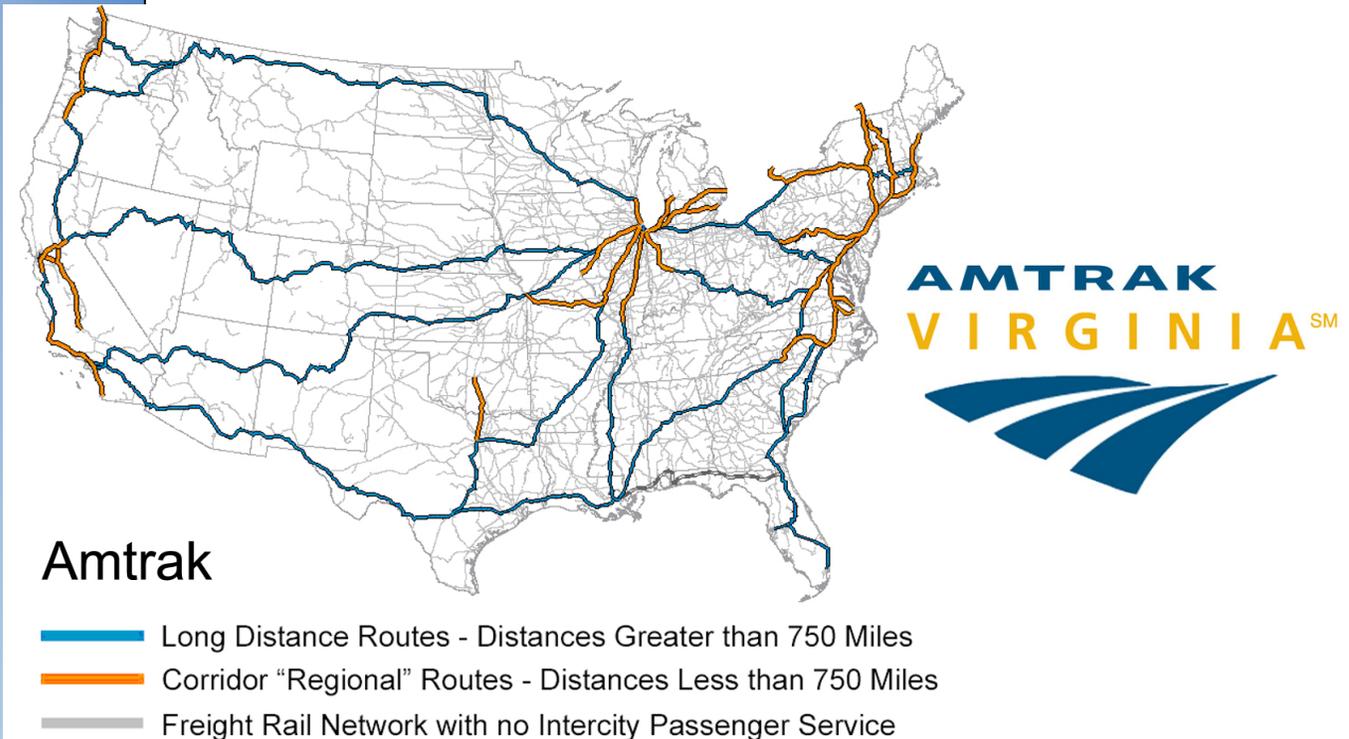
In 2009, DRPT joined with Amtrak as its 15th state to support the expansion of Amtrak regional intercity train service, known as Amtrak Virginia. DRPT initiated

Amtrak Virginia service in 2009 with its Lynchburg service extension from Washington, D.C. In 2010 Amtrak Virginia added its Richmond service extension from Washington, D.C, and in 2012 added its Norfolk service extension from Richmond, bringing Amtrak Northeast Corridor direct train service to Norfolk for the first time in the history of Amtrak. As of October 2013, funding responsibility for four Amtrak regional trains shifted from Amtrak to Virginia under federal regulation. Next steps for Amtrak Virginia intercity passenger rail service



for the Commonwealth include extension of service to Roanoke from Lynchburg, and the increase of train service frequencies to Norfolk from Richmond.

The Commonwealth again set the national pace in preparation for the October 2013 implementation of the Passenger Rail Infrastructure Improvement Act (PRIIA) of 2008 Section 209 provisions, requiring all regional train service in America to be supported by the states or cease to operate. In 2010, DRPT responded to the General Assembly’s request to identify the need for a funding program for the continuation of regional Amtrak service. The General Assembly responded to the Administration’s findings in 2011 and created the Intercity Passenger Rail Operating and Capital Fund (IPROC).



In 2012, the General Assembly began funding IPROC by special appropriation and in 2013, in its landmark transportation funding legislation, the Virginia General Assembly created a dedicated revenue source for IPROC, securing the continuation of Amtrak regional service in Virginia and creating a sufficient sustainable revenue stream to develop new intercity service enhancements within the strategic corridors identified.



The Commonwealth continues to support the Virginia Railway Express (VRE), a commuter rail operation providing weekday service on CSX and Norfolk Southern lines in Northern Virginia. VRE is a public

transit operation supported by rider fare collections, grants from the Federal Transit Administration and the Commonwealth of Virginia, and contributions from its local service jurisdictions' general funds or regional gas tax revenues. The commuter operation typically carries around 19,000 riders each service day. In its short term planning horizon, VRE will extend service to Spotsylvania and make improvements to its train stations to provide for dual track access, or for longer trains that leads to greater rail network and passenger pedestrian access. Long range plans include advancing planning for the extension of service from Manassas to Gainesville/Haymarket. The Commonwealth has remained a significant financial supporter of VRE since its service inception in 1992 and has had a non-weighted voting membership on the VRE Operations Board. The Virginia General Assembly, in 2013, granted DRPT a weighted vote on the VRE Operations Board, commensurate to the Commonwealth's investment and weight equal to the highest contributing local jurisdiction.

DRPT continued to advance the federal planning process for high speed rail through completion and receipt of a Federal Record of Decision for the Richmond to Hampton Roads Passenger Rail Project; DRPT's continued partnership with NCDOT in progressing the Southeast High Speed Rail (SEHSR) Tier II Environmental Impact Statement (EIS) between Richmond, Virginia and Raleigh, North Carolina; Virginia's initiation of DRPT's 100% federally funded Arkendale to Powell's Creek third track choke point construction project; and the initiation of DRPT's 80% federally funded SEHSR Richmond Area to Potomac River Segment Tier II EIS. Virginia and North Carolina have the only bi-state high speed rail compact in America, the Virginia-North Carolina High Speed Rail Compact, and Virginia lies host to the only right-of-way slated for true 110 MPH exclusive high

speed intercity passenger rail service in the Southeast High Speed Rail (SEHSR) Corridor from Washington, D.C. to Charlotte, NC. This potential high speed area lies between Petersburg and Norlina along a retired rail corridor alignment known as the CSX “S Line.” In another pace setting effort, the Virginia General Assembly, in 2013, granted by law DRPT the right to acquire and hold title to the land necessary to construct railway lines in order to reduce traffic congestion on highways and shift traffic to rail transportation. This includes lines for higher speed passenger rail that will shift traffic from the highways to passenger rail and thereby reduce traffic congestion. DRPT will work with CSX to purchase the retired rail right of way between Petersburg and Norlina to preserve this line section for the future development of the high speed corridor.

Freight initiatives achieved since 2008 that support the Port of Virginia’s growth and movement of containers by rail to alleviate highway congestion and further secure Virginia as the global gateway to the mid and southwest include the completion of the Norfolk Southern Heartland Corridor, Commonwealth Railway connections and on-dock APM Terminal and Norfolk International Terminal improved rail access, and significant advancement of projects along the Crescent Corridor and National Gateway. The Commonwealth’s Rail Enhancement Fund (REF) has proven to be a successful funding tool that provides for state and railroad/non state resources to be applied to projects that have a positive public benefit of shifting car and truck trips to rail off of the highway system. DRPT also continued its rehabilitation projects of Virginia’s shortline railways through the Shortline Railway Preservation and Development Program and its economic rail industrial access projects through its Rail Industrial Access (RIA) program.



DRPT programs and initiatives provide diverse transportation solutions that contribute to alleviating highway congestion through the movement of people and goods statewide. Through DRPT’s sound stewardship of limited state resources and the ability of DRPT to implement its planning horizon with its rail transportation stakeholders with confidence, the Commonwealth’s freight and passenger rail transportation network continues to grow as an integral part of the Commonwealth’s transportation system. Significant progress has been made since 2008 that sets the pace for continued rail development through Virginia Statewide Rail Plan’s 2040 planning horizon.

Plan Development and Relationship to Other Study Efforts

The VSRP and Rail Resource Allocation Plan were developed by DRPT working closely with other modal state transportation agencies. DRPT has three primary areas of operational activity—rail, public transportation, and transportation demand management (also called mobility management)—all of which focus on the movement of people and goods throughout Virginia. The VSRP and Rail Resource Allocation Plan support DRPT’s core transportation mission, which is to improve the mobility of people and goods while expanding transportation choices in the Commonwealth. Through coordination with Virginia’s strategic transportation planning process, the VSRP and Rail Resource Allocation Plan also support the multimodal transportation goals of the Secretary of Transportation, including:

- Safety and Security → to provide a safe and secure transportation system
- Maintenance and Preservation → to preserve and maintain the condition of the existing transportation system
- Mobility, Connectivity and Accessibility → to facilitate the easy movement of people and goods, improve interconnectivity of regions and provide access to different modes of transportation
- Environmental Stewardship → to protect the environment and improve the quality of life for Virginians
- Economic Vitality → to provide a transportation system that supports economic prosperity
- Transportation and Land Use → to promote livable communities and reduce transportation costs by facilitating the coordination of transportation and land use

The VSRP’s primary focus is on rail transportation for intercity and commuter rail (Amtrak and VRE) and freight movements (CSX, Norfolk Southern, and shortline railroads) in Virginia. Additional planning and programming documents that may include projects or related service outcomes contained in the VSRP and Rail Resource Allocation Plan include:

- DRPT Annual Budget
- DRPT Business Plan
- DRPT Strategic Plan
- Commonwealth Transportation Board Six Year Improvement Program (SYIP) – Rail, Transit and Transportation Demand Management (TDM) Components
- Virginia Statewide Transit and TDM Plan
- Virginia Surface Transportation Plan (Office of Intermodal Planning and Investment)
- Virginia Statewide Multimodal Freight Plan (Office of Intermodal Planning and Investment)

DRPT sought public input throughout the development of the VSRP and its related documents. Public involvement for the VSRP consisted of virtual outreach, direct outreach, and targeted stakeholder outreach. The VSRP website

received over 300 comments from the public as the plan was developed and during the 30-day draft VSRP review. DRPT coordinated with Virginia’s Office of Intermodal Planning and Investment (OIPI) to host a series of public meetings in August 2012 in conjunction with concurrent statewide transportation plans, and presented VSRP information at the 2012 Commonwealth Transportation Board (CTB) Fall Public Meetings. Feedback was solicited directly from stakeholders through face-to-face meetings throughout the VSRP process.

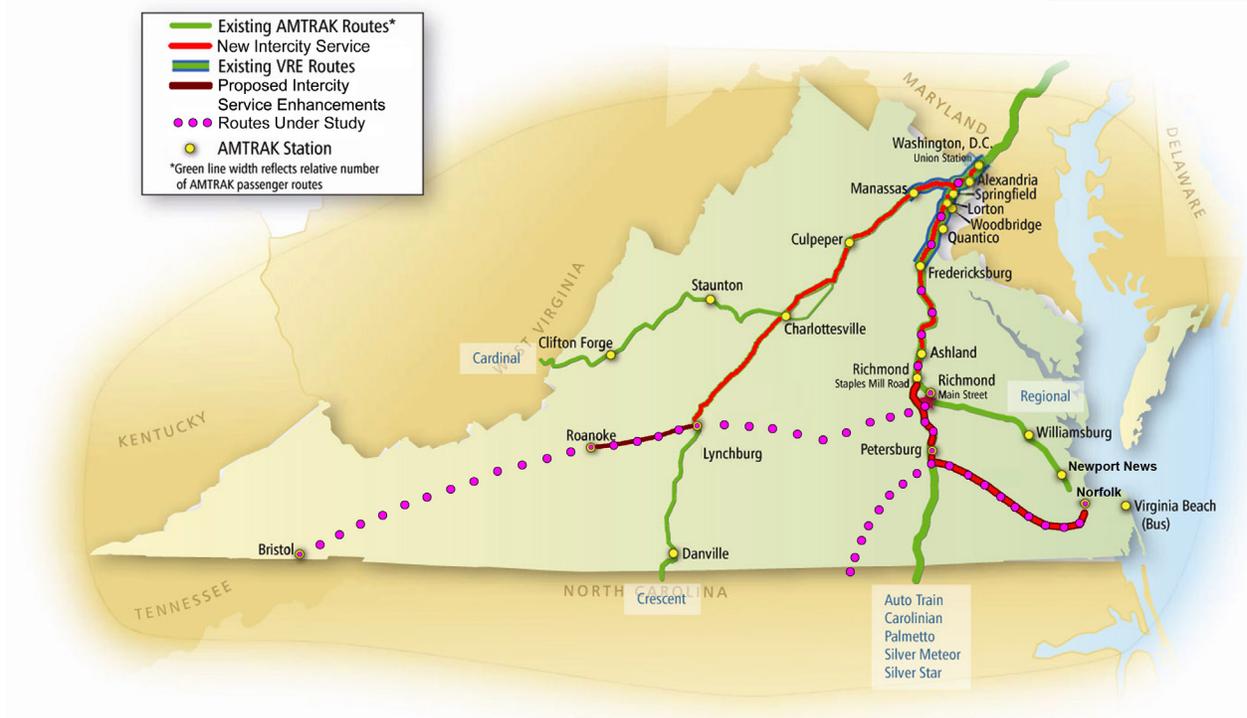
Context of the Virginia Rail System

Existing Infrastructure

Virginia’s rail system dates from the 1800s and has evolved continually since then. Today, it consists of nearly 3,400 route miles, most of which are operated by two Class I railroads—Norfolk Southern (2,020 miles) and CSX (850 miles). Major lines run north-south and east-west, and important rail lines converge at key nodes: Norfolk, Richmond, Lynchburg, Roanoke, and Alexandria.

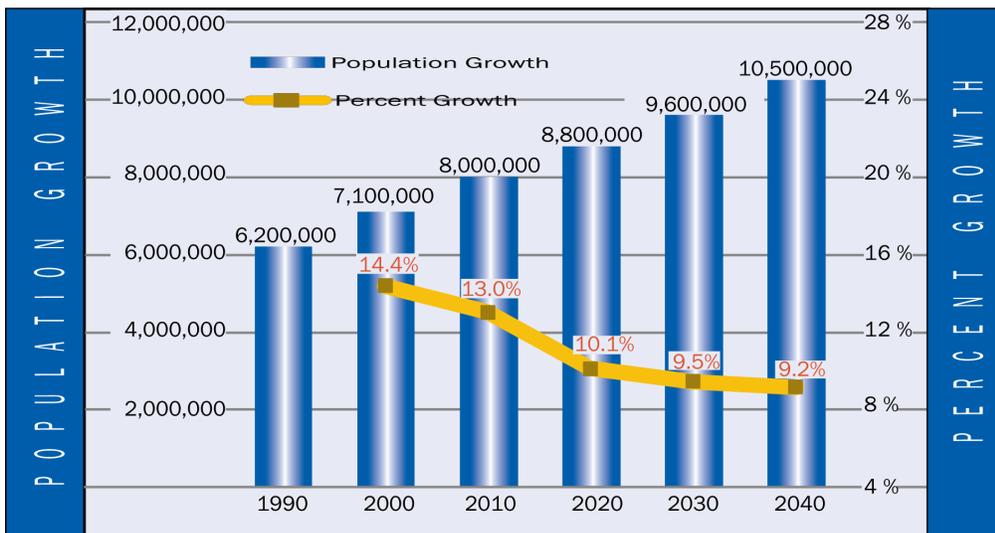


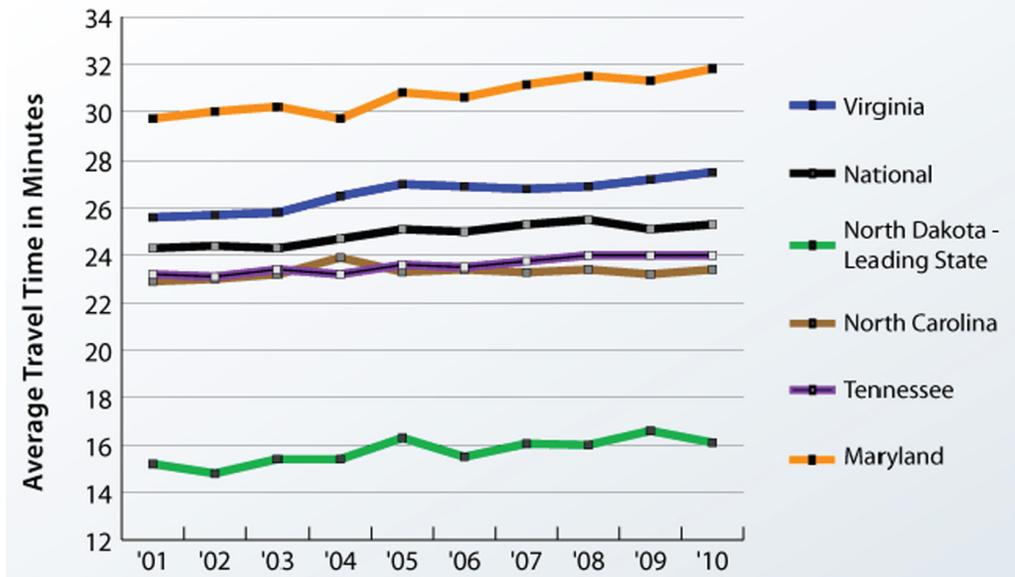
Aside from the two Class I national railroads (line-haul freight railroads exceeding \$398.7 million in 2010 annual operating revenue), there are nine Class III (shortline) railroads (line-haul carriers with annual revenues less than \$31.9 million in 2010 revenues) that operate in Virginia. Two of the shortlines are primarily switching railroads that serve marine terminals and industrial facilities. There are no Class II Railroads in Virginia. Two passenger systems—Amtrak and VRE—provide service over this private freight railroad system.



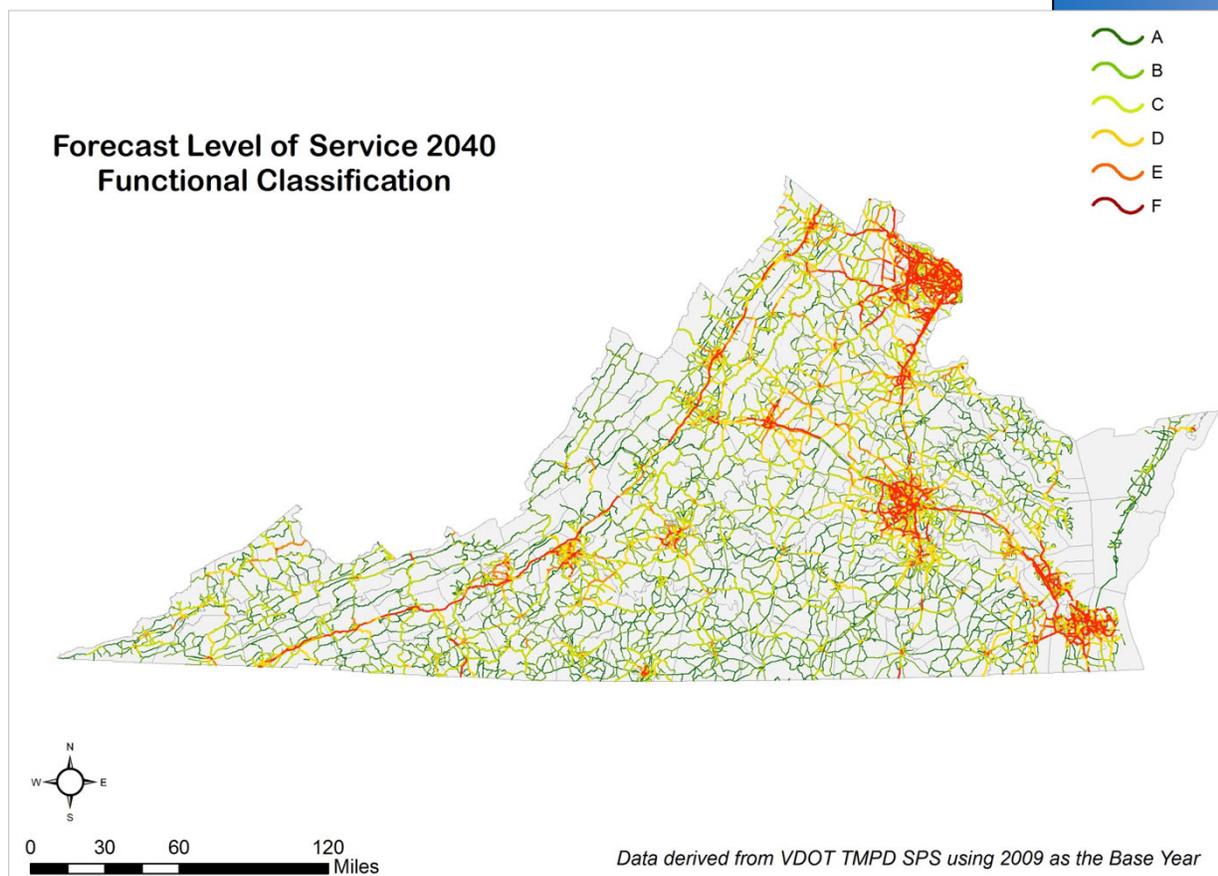
Statistics and Trends

Population growth is a critical driver that molds passenger and freight trends and informs future needs. The population of Virginia in the 2010 Census exceeded 8 million people. Projections of growth in the Commonwealth are shown in the following figure. As indicated in the figure, by 2040 Virginia's population will increase by over 2.5 million people, to a projected population of 10.6 million.



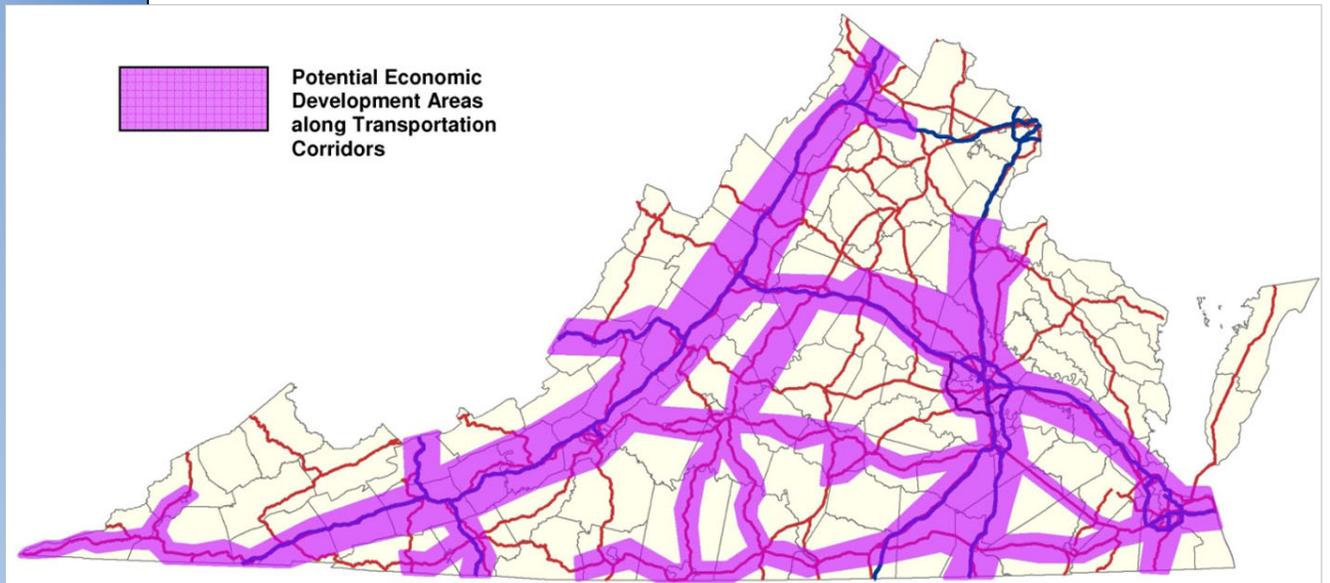
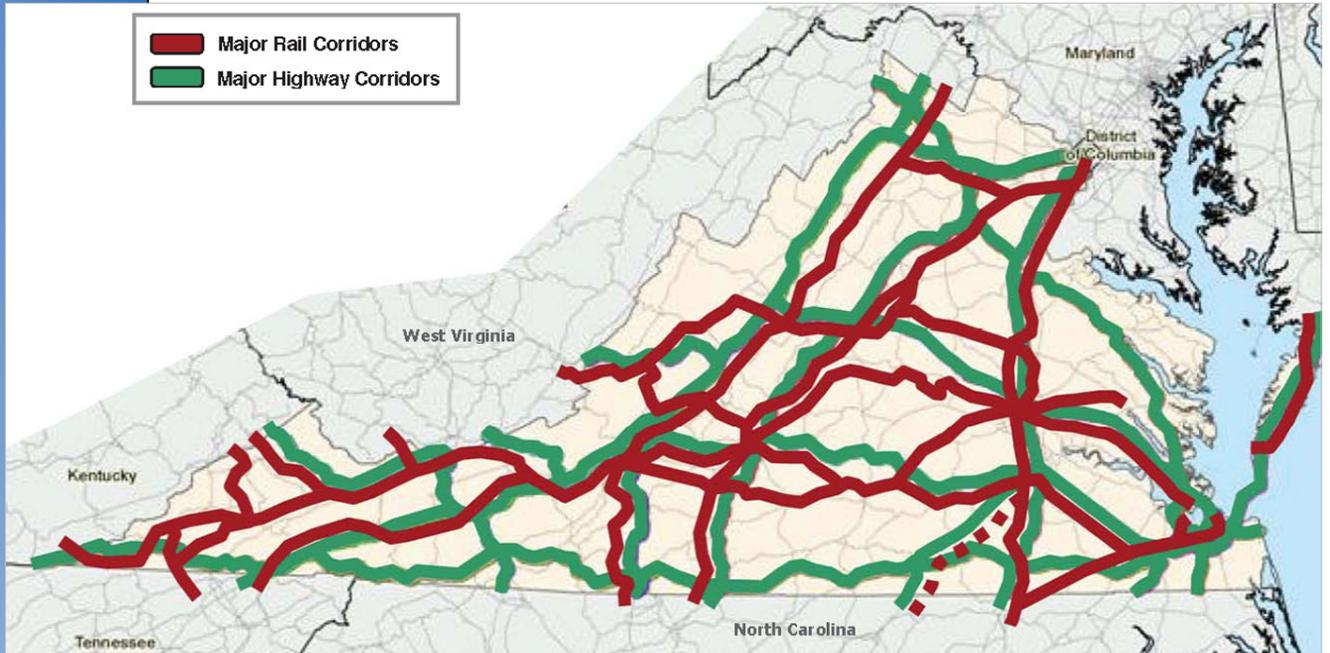


The *America 2050—High Speed Rail in America* report came out in 2011 with the intention of educating the public and decision makers about the elements of success for high speed rail as measured by factors that contribute to ridership demand for these services, particularly as they apply to the unique spatial attributes and travel patterns in America. In this report, several short distance corridor segments were identified. The Washington, D.C. to Richmond corridor segment was found to have the best potential for successful high speed rail when compared to other corridor segments in the SEHSR Corridor from Washington, D.C. to Jacksonville, Florida.



According to the 2010 Census, a majority of Virginians (77.1%) regularly drive alone to work. Higher levels of single occupancy vehicle trips can be a major factor in congestion on Virginia’s highways. In fact, compared to other states in the region, Virginia has the longest average travel time to work and the average commute time has been increasing over the last decade. By 2040, based on current travel patterns and mode choices, the level of congestion will spread from the metro areas into the main transportation corridors causing increasing travel delays statewide. DRPT’s intercity passenger rail program is being developed to meet the needs of Virginia’s growing population through the 2040 planning horizon.

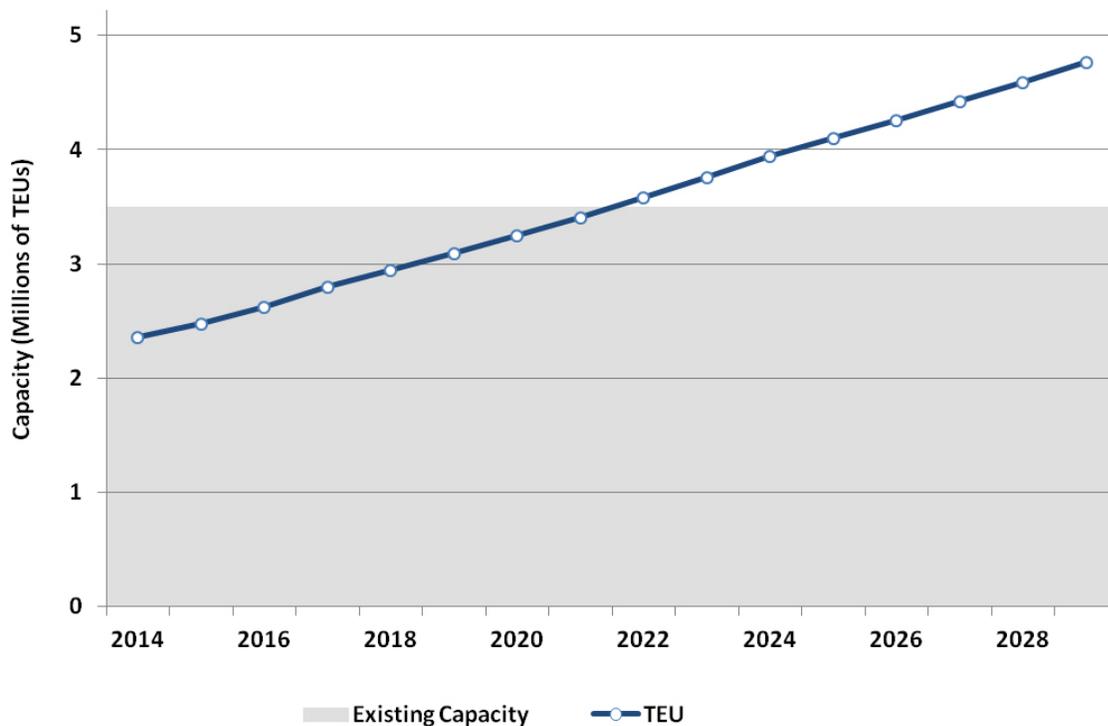
The major rail corridors in Virginia parallel the existing highway infrastructure and therefore create viable travel solutions. Having multiple viable travel modes, like rail, can not only reduce travel times and congestion, but can have significant economic benefit as well. These multimodal transportation corridors have been specifically identified by the Virginia Economic Development Partnership as vital economic development areas in the Commonwealth.



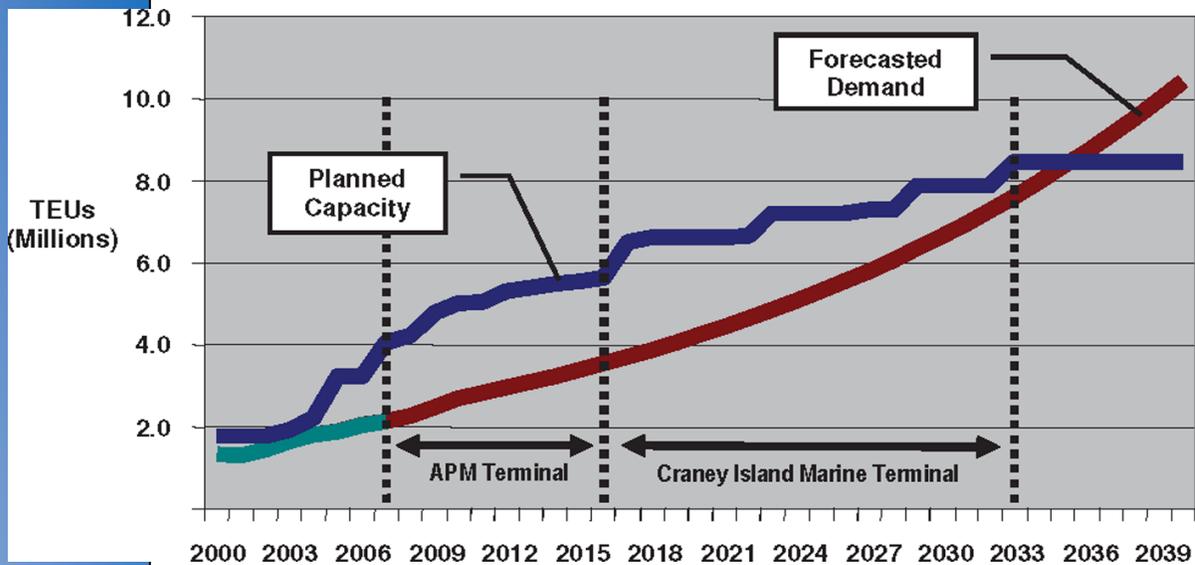
Freight Rail

To accommodate the movement of freight, Virginia hosts one of the nation's leading deep water seaports, two Class I railroads, numerous local and regional railroads, four major cargo airports, and some of the nation's most heavily used truck corridors. A significant portion of the freight tonnage impacting the state rail system is coal from the Appalachian Coalfields in Southwestern Virginia for export through CSX and Norfolk Southern-served or operated marine coal terminals in Hampton Roads. Rail-served intermodal containerized cargo exports and imports from the container ports of the Port of Virginia (POV) represented 34% of port container cargo in 2012.

Port of Virginia Demand Growth

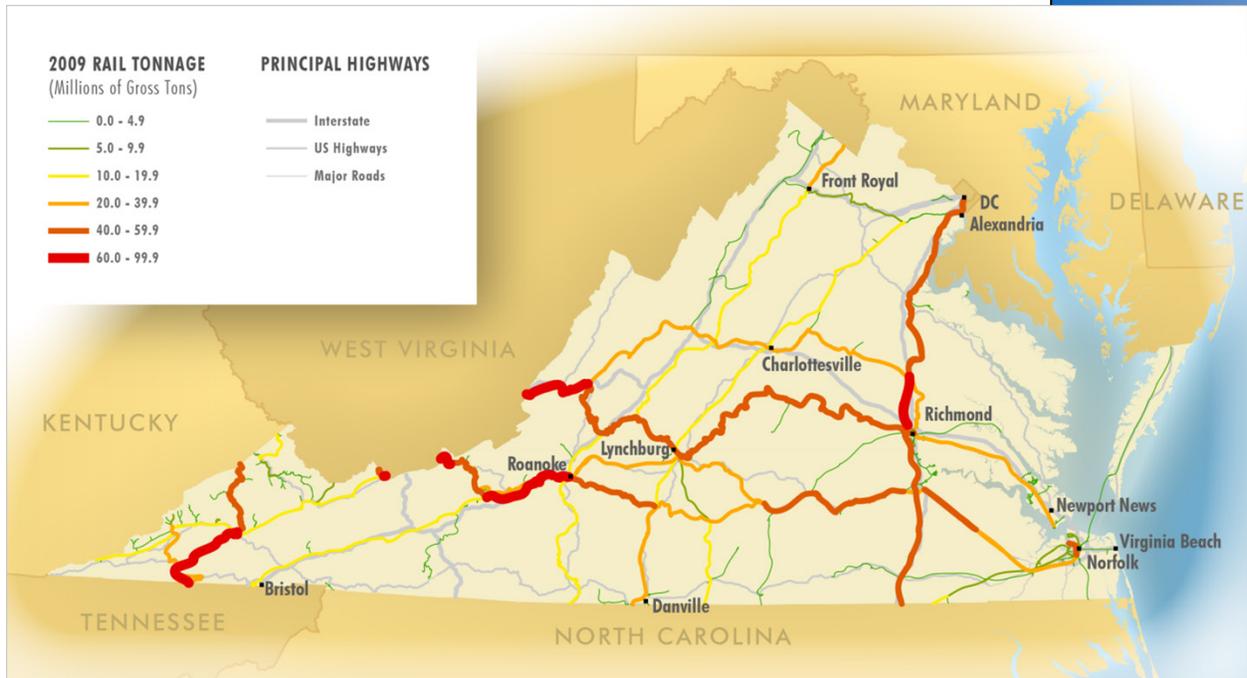


The POV is the second largest port on the East Coast by tonnage, the third largest by 20-foot equivalent units (TEUs) and it is the 8th largest port by tonnage in the US. Growth of containerized cargo is expected to continue in Virginia. Contributing to this growth are the following recent developments: the opening of the Heartland Corridor in 2010, which provided a more direct double-stack route between the POV and Chicago through the Appalachian Mountains; the recent clearance of the CSX double-stack rail route to Atlanta; the start of the CSX National Gateway Corridor service; and the planned addition of a third series of locks in the Panama Canal by 2015. The POV's TEU growth in containerized cargo is expected to increase by 330 percent between 2013 and 2040 and this forecasted demand is expected to exceed planned capacity.



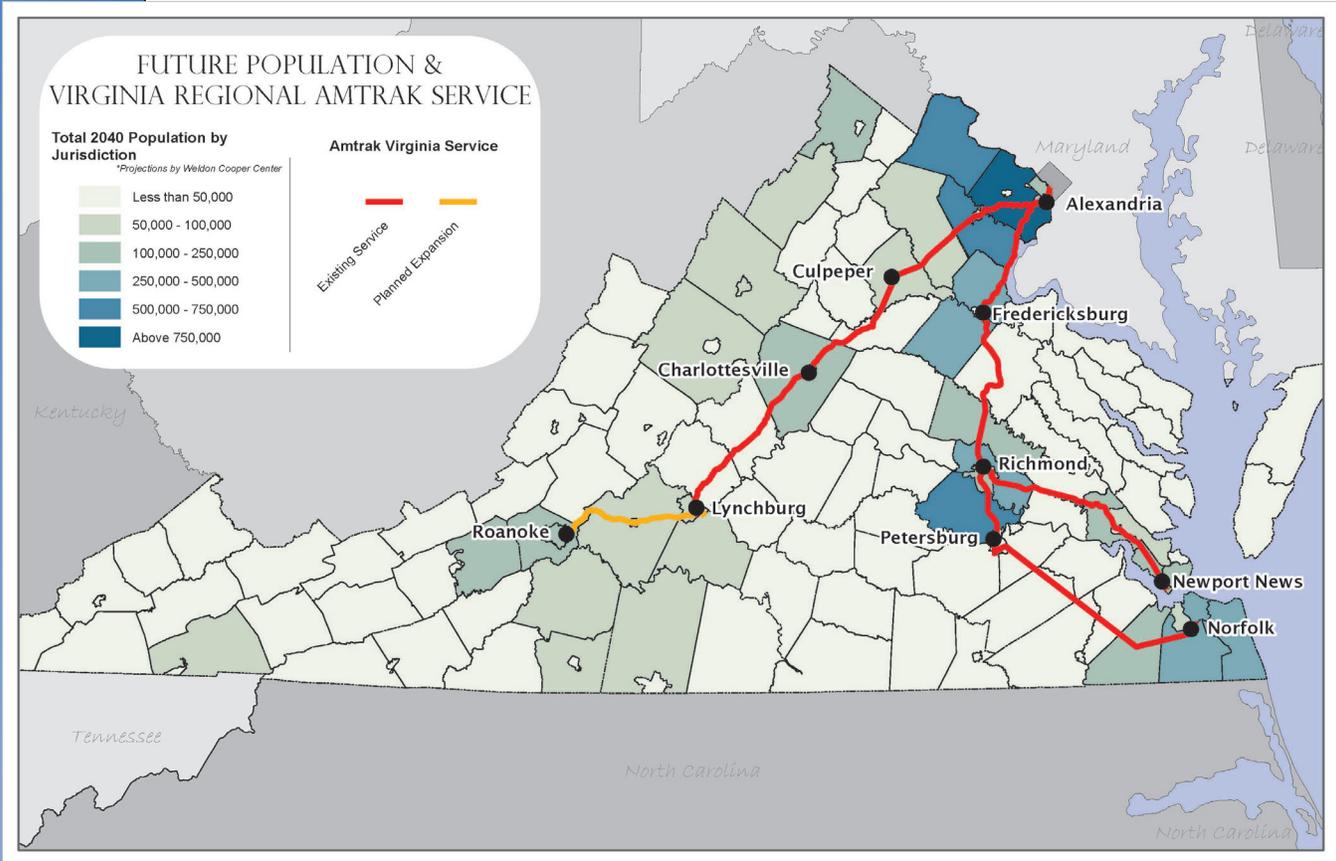
To help meet the projected increase in container traffic volume, the POV has developed a multi-faceted strategy to increase the capacity and efficiency of its terminals. The use of rail is a significant part of the POV's plan to enhance the efficiency and cost effectiveness of shipping. In fact, the Port already moves a higher percentage of containers by rail than any other East Coast port.

The following map suggests that the areas with the highest rail density within Virginia are near locations of coal production, such as the Norfolk Southern Christiansburg District or the CSX Alleghany Subdivision, both near the Virginia/West Virginia border. The highest density rail corridors within the state are the lines that run east-west from the Port of Virginia, including the Norfolk Southern and CSX primary coal corridors and the Norfolk Southern Heartland Corridor, as well as the CSX National Gateway Corridor, which runs north-south and roughly parallel to I-95.

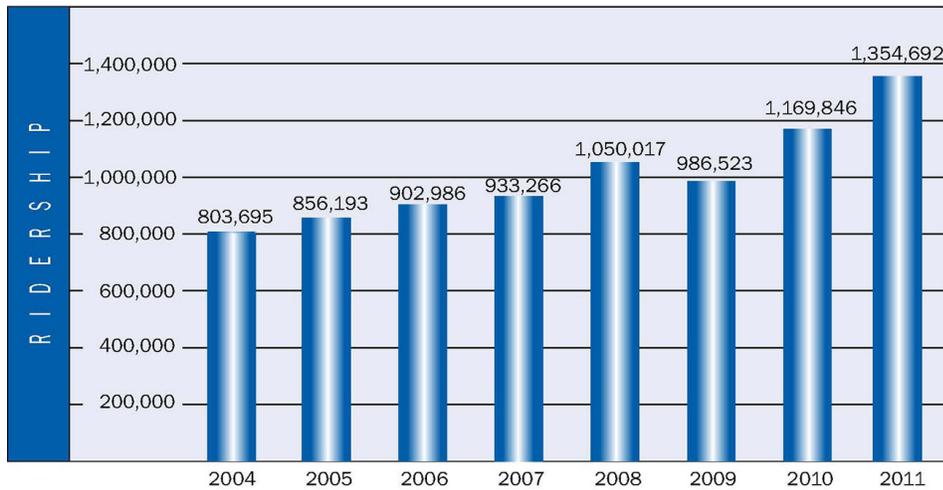


Passenger Rail

Numerous studies at the federal, state, multi-state coalition, Amtrak, and industry group levels have been conducted in recent years. The unanimous consensus is that the nation is in critical need of efficient, on-time, and cost-effective intercity and long distance passenger rail service to relieve both highway and airport congestion. In addition to congestion relief, passenger rail service is a proven engine for economic development. Effective passenger rail service can provide cost-effective transportation options, increased connectivity, and increased mobility. When compared to automobile travel, passenger rail contributes to lower greenhouse gas emissions, airborne particulate, and toxic emissions. In addition, its track infrastructure provides an environmentally benign land use alternative to impermeable asphalt roadway surfaces that contribute to the pollution of the nation's waterways.

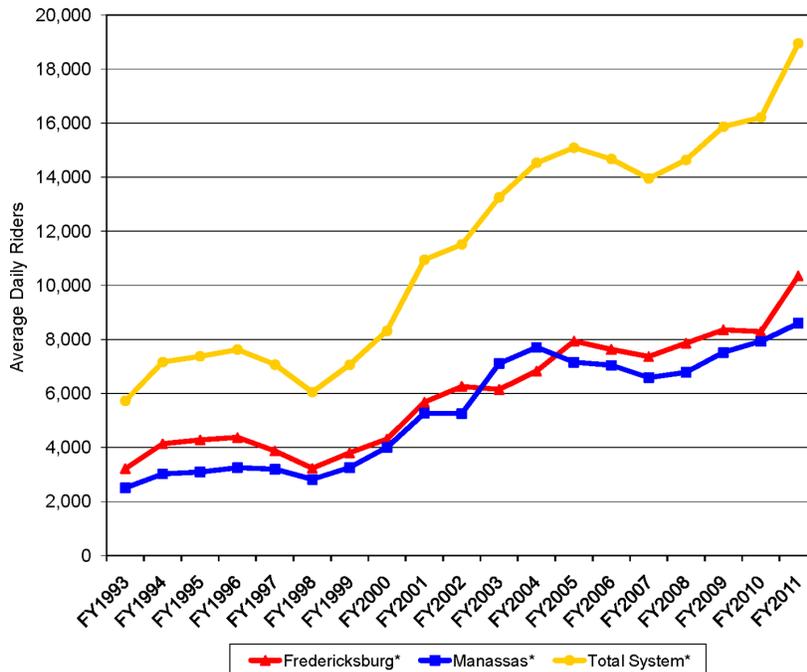


In 2012, Amtrak expended \$103 million in Virginia, employing 865 Virginia residents, carried 30.2 million passengers, operated 24 daily intercity trains, and two tri-weekly trains. Amtrak ridership in Virginia grew by 76.6 percent between FY2004 and FY2012, much more than the 24 percent ridership increase Amtrak saw for the National System in the same time period. The efforts of Amtrak Virginia to bring expanded Northeast Regional rail service into Virginia are responsible for a large portion of the growth in ridership for routes serving Virginia. Recent increases in fuel and energy prices since 2008 have also generated a higher demand for passenger rail nationwide that has resulted in higher annual ridership increases since 2008 than in the first half of the decade. Amtrak has set annual ridership records every fiscal year from 2003 to 2012, except in 2009.



VRE provides weekday commuter rail service from the Northern Virginia suburbs to Alexandria, Crystal City, and downtown Washington, D.C. along the I-66 and I-95 corridors. Services began in 1992, operating 16 trains from 18 stations and carried, on average, 5,800 passengers daily. Now VRE operates 30 trains from 18 stations and carry, on average, 19,000 passengers daily. For FY2011 and 2012, the Commonwealth provided an average of 27 percent annual funding for VRE in Northern Virginia.

Similarly to intercity passenger service, commuter rail ridership has increased across the country and, since 2007, VRE has seen ridership gains every year. VRE saw a total ridership gain of 1,318,426 between FY2007 and FY2012. Total system ridership has grown 70 percent since 2002.

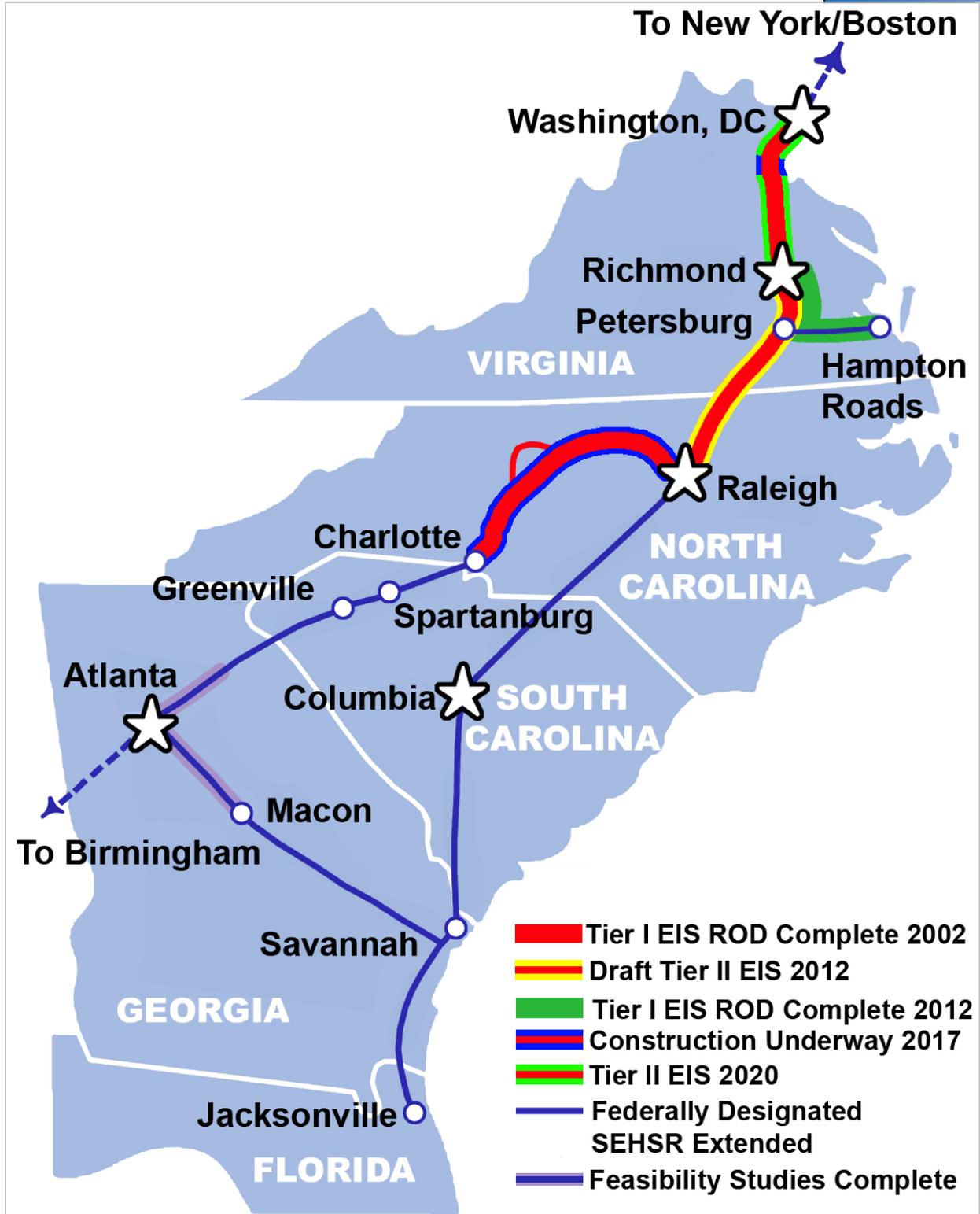


Fast, efficient intercity passenger rail service is important for Virginia. The Commonwealth has initiated environmental studies and preliminary design associated with high speed rail corridors passing through Virginia and has participated in multi-state coalitions to improve passenger rail services in the mid-Atlantic region. Because of the high capital cost associated with high speed rail systems, the Commonwealth has been following an incremental approach to plan for and construct rail improvements that eliminate key rail chokepoints and to increase rail speeds and on-time performance on existing passenger rail corridors.

The SEHSR corridor, originally designated in ISTEA and TEA-21, would extend high speed rail service south from Washington, D.C. to Richmond and on to Raleigh and Charlotte. The SEHSR corridor would later expand further south from Charlotte to New Orleans via Atlanta and from Raleigh to Jacksonville and south and eastward from Richmond to Hampton Roads.

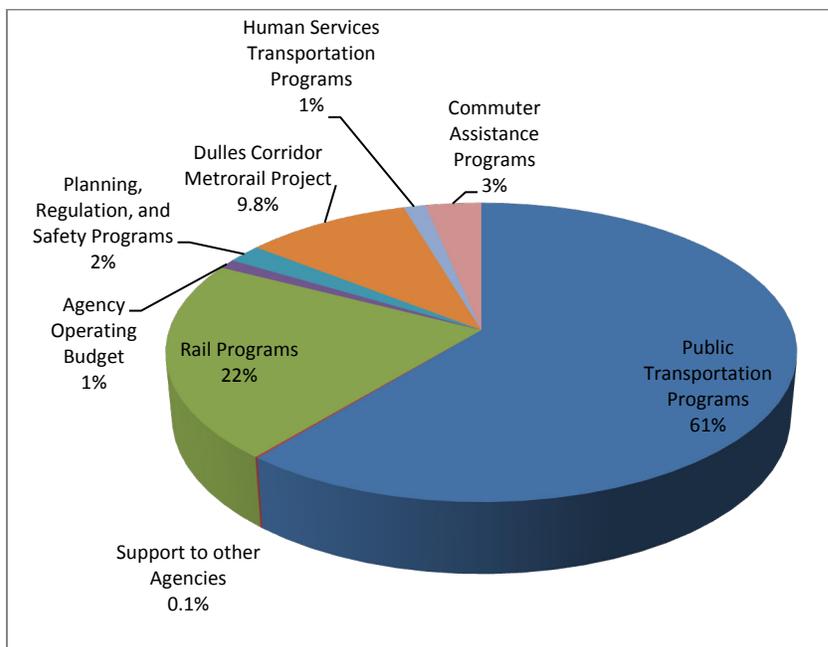
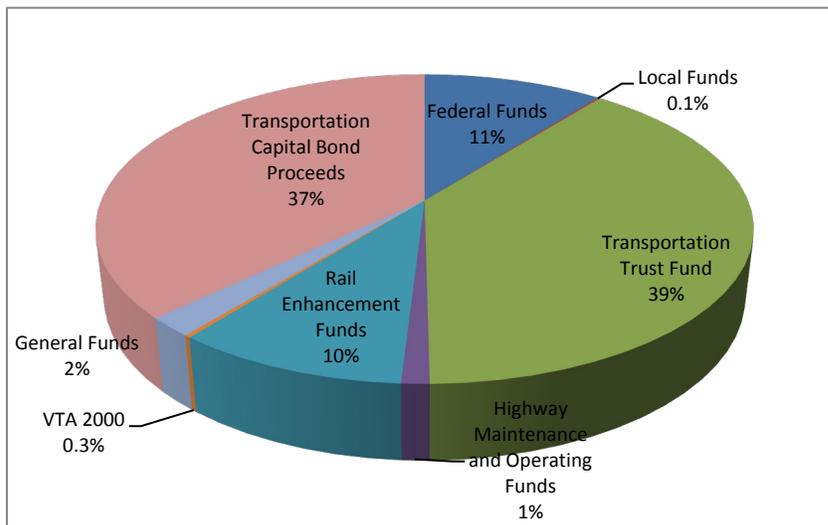
The following map summarizes the status of the various SEHSR segments within Virginia and their connection to the rest of the SEHSR corridor.

Southeast High Speed Rail Corridor



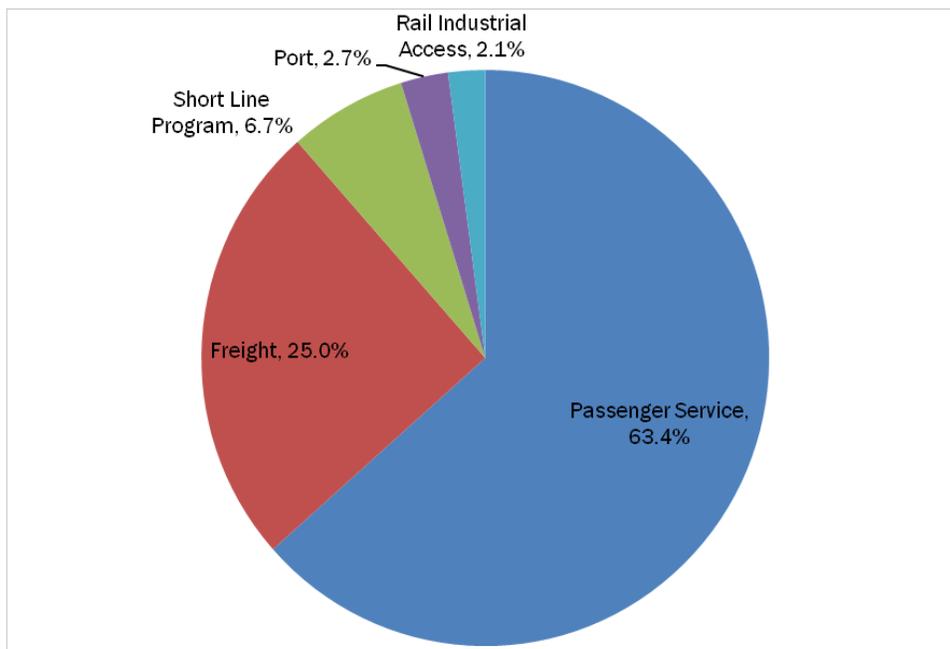
Funding

For FY 2013, DRPT's budget includes approximately \$509 million in financial support for operating and capital and maintenance costs of public transportation services and rail projects across the Commonwealth. Federal and state aid is provided to supplement revenues collected from fares and local funds provided in support of public transportation operations. For FY 2013, DRPT's funding sources include Transportation Trust Fund (39 percent), Transportation Capital Bond Proceeds (37 percent), federal funds (11 percent), REF (10 percent), General Fund (2 percent), Highway Maintenance and Operating Fund (6 percent), VTA2000 funds (less than 1 percent), and local funds (less than 1 percent).



Within this budget, rail programs comprise 22 percent of DRPT's total expenditures for FY 2013. The vast majority of annual funds are allocated to mass transit projects and operations, with the remaining funds allocated to a variety of programs, including TDM commuter assistance programs, and rail safety programs. The typical annual expenses noted here do not include special appropriations that have been made for rail improvement projects.

Virginia has made significant advancements in recent years in providing dedicated funding for rail investments, and DRPT's existing funding programs provide a strong foundation for future funding aimed at further rail improvements. DRPT's FY 2013 budget includes \$109.4 million in funding for rail improvements in Virginia. Funding for DRPT's rail programs is supported through seven funding sources: REF of \$48.9 million, Transportation Capital Projects Revenue Bond funds of \$40.3 million, FRA grant funds of \$13.4 million, Rail Preservation Program (RPP) funds of \$13.4 million, RIA funds of \$23 million, General funds of \$0.3 million, and Virginia Transportation Act of 2000 (VTA 2000) funds of \$1.3 million. The distribution of anticipated expenditures falls into five general categories: REF, shortline freight, port related projects, the RIA and passenger service.



Funding for passenger rail service in Virginia and throughout the US is going through a significant shift as PRIIA 2008 is implemented. States, Amtrak and FRA have worked together to determine a strategy for funding passenger rail operations in the US, one of the basic requirements of PRIIA for the states. Virginia has planned for this and is prepared to fund its share of intercity passenger rail through IPROC, a steady funding stream that is necessary to sustain Virginia's share of Amtrak Virginia's operating budget.

Intercity Passenger Rail Operating and Capital Fund

IPROC was created by the General Assembly in 2011 as a strategy to sustain Virginia's share of Amtrak Virginia's operating budget in preparation for PRIIA. The legislation gave the CTB and General Assembly the flexibility to allocate existing transportation revenues to the fund. This legislation resulted from a report entitled *Funding Strategies for State Sponsored Intercity and High Speed Passenger Rail*, which was submitted by DRPT in response to Senate Joint Resolution 63 in 2010. The report outlined that under Section 209 of PRIIA, six Amtrak regional trains would become the funding responsibility of the Commonwealth, effective October 2013.

In 2012, the General Assembly provided \$28.7 million of the FY2011 General Fund surplus for the operating and capital needs of Virginia intercity passenger rail services and authorized a transfer of \$26.1 million from the REF for passenger needs for 2013 and 2014. To help fund future needs to maintain and develop new and expanded intercity passenger rail operations, the 2013 General Assembly passed legislation to identify a dedicated revenue source that commits a portion of sales tax revenue to IPROC. This is expected to yield \$44 million in FY 2014 with growth upwards to \$56 million annually by FY2018. These funds will help Virginia sustain current Amtrak Regional services under the Amtrak Virginia program, extend service to Roanoke, increase service frequencies to Norfolk, and set up a long term investment strategy to increase the efficiency and reliability of intercity passenger service in strategic rail corridors. Despite this additional sustained rail funding, the Rail Resource Allocation Plan shows that rail needs will still outweigh the anticipated revenues.

Rail Enhancement Fund

Created in 2005, REF provides for the planning and implementation of freight and passenger rail projects in the Commonwealth. This fund is the primary source for the implementation of large capital projects for rail improvements. It is based on a public benefit analysis and requires a minimum 30 percent match from non-state sources. The REF has a dedicated source of revenues yielding around \$23 million per year. The REF also shares rail capital bond revenues with the RPP.

The REF Program Policy Goals are described below.

- Projects must have immediate and substantial public benefit equal to or greater than the public investment.
- The Program limits long-term Commonwealth funding liability through the development of achievable project schedules and budgets.

The following organizations (or any combination) are eligible to apply for REF funding:

- Passenger and freight rail operators
- Private businesses or industries

- Regional authorities and local governments
- Non-profit organizations

Eligible expenses may include the following:

- Preliminary service, engineering, or feasibility study
- Final engineering
- Permitting
- Acquisition, lease, or improvement of rights of way or facilities
- Environmental mitigation directly related to the project
- Site preparation, including grading, drainage, and relocation of utilities
- Acquisition, lease, or improvement of railroad equipment and rolling stock
- Public involvement expenses, as agreed

Rail Preservation Program

Created in 1991 and codified in 2006, the Shortline Railway Preservation and Development Fund, known as the Rail Preservation Program, or RPP, provides funding for the preservation and continuation of existing rail service to increase productivity, safety and reduction of trucks on highways, and efficiency of shortline railway transportation in Virginia. Not excluding special allocations, the RPP is allocated \$3 million annually for shortline rail improvement projects. The RPP also shares rail capital bond revenues with the REF. RPP funds are intended for projects that obtain a minimum FRA Class II Track Safety Standards, and those that develop the viability of the branchline for current and future rail traffic. Funds are administered by the DRPT Director subject to the approval of the CTB. Each application must be accompanied by a resolution from the appropriate local government or Transportation District Commission endorsing the usage of funds for the project.

Rail Industrial Access Grants

The Industrial Access Railroad Tracks Program, known as the Rail Industrial Access Program, or RIA, is administered by DRPT, and funding for projects is approved by the CTB. The purpose of the program is to provide funding for rail freight access trackage. Rail access funding under this program varies from year to year depending on the applications received by DRPT from all segments of the program and funds available; but, in the past three years, the RIA has been budgeted an average of approximately \$2.4 million per year.

The following organizations are eligible to apply for RIA:

- Business, commercial, or industrial enterprises
- Municipal and county governments that apply for funding on behalf of a business, commercial, or industrial enterprise

- Local departments of economic development that apply for funding on behalf of a business, commercial, or industrial enterprise
- Railroads

Funds may be used to construct, reconstruct, or improve part or all of the necessary tracks and related facilities on public or private property currently used or being developed, existing or prospective, for single industries or industrial subdivisions under firm contract or already constructed.

Ineligible project costs include the following:

- Relocation of utilities
- Switches and track to clear point connecting the access track to the main line
- Acquisition of right-of-way

These innovative rail funding mechanisms allow the Commonwealth to prioritize and fund projects that benefit the most Virginians, as illustrated in the following Rail Project Prioritization and Funding Plan.

RAIL PROJECT PRIORITIZATION AND FUNDING PLAN

Process

To complete a vision of enhancing and expanding freight and passenger rail in Virginia, this chapter outlines the results of the project prioritization process for the approximately \$6.9 billion in needs through 2040 resulting from projects that were identified in a needs assessment, from stakeholder input, and through public outreach. The projects will help the Commonwealth meet the goal of moving people and goods efficiently and effectively. The project prioritization and funding have been put together using the following process:

- **Step 1**—Assess each project against the Commonwealth’s policy goals that govern the rail planning process
- **Step 2**—Analyze the funding requirements associated with implementing the \$6.9 billion in capital projects and the additional operating costs for new and existing intercity passenger rail services
- **Step 3**—Categorize these projects by corridor and divide them into phases that could be implemented based on the policies and priorities established by the Commonwealth and funding limitations
- **Step 4**—Develop the Six-Year Improvement Program that allocates funding to the Commonwealth’s top priority projects

Rail Planning Policy Goals

The first step of the process to establish the rail project prioritization and funding plan was to assess each project against the Commonwealth’s Rail Planning Policy Goals. This included VTrans, Virginia’s statewide long-range multimodal policy plan that establishes the vision, goals, and investment priorities for the Commonwealth’s transportation systems. The CTB’s policy goals specific to the REF, RPP, RIA, and IPROC also guided this assessment. The recommended projects are consistent with the Commonwealth’s goals as well as DRPT’s approach of making incremental investments that benefit both passenger and freight rail.

Statewide Rail Resource Allocation Plan Funding Analysis

The second step was to analyze the funding requirements associated with implementing the \$6.9 billion in capital projects and the additional operating costs of new and existing intercity passenger rail services.

Long-term Capital Funding Analysis

The state's share of the \$6.9 billion in total costs for the recommended projects cannot be funded on a "pay-as-you-go" basis using just existing funding sources. Significant annual shortfalls occur when the existing revenues that total approximately \$948 million through FY2040 are compared to the estimated eligible \$4.5 to \$5.0 billion state share of the total project costs in 2012 dollars. The Commonwealth would likely need to increase funding if the goal is to fully implement the identified needs or consider alternative funding strategies, including greater reliance on federal funding, to advance elements of the prioritized projects. Despite the expected 86 percent increase in rail allocations resulting from Virginia's 2013 landmark comprehensive transportation funding bill, the needs still far outweigh the anticipated revenue.

Long-term Operating Need

Amtrak provides state-supported passenger rail service in 15 states, generally offering a turnkey operation that may include rolling stock, on-board operating crews, station staff, management and administrative support, maintenance of equipment, maintenance of way (tracks and signals), marketing and advertising, reservation sales, and ticketing. These services are provided to the state transportation agency or other relevant authority at costs based on services rendered. In total, state-supported services comprise approximately 45 percent of Amtrak's average weekday departures. Legislative directives and current funding levels preclude Amtrak from operating additional services unless the required subsidy to operate those services is funded by the state. Therefore, any expansion of passenger rail service in Virginia would have to be state supported after passenger fares are considered. In total, the FY2013 operating subsidy requirement for initial phases of the I-95/I-64 and the I-81/Route 29 intercity passenger rail services is estimated to be approximately \$31 million. Assuming full operations in the corridors, the annual subsidy rises to an estimated \$188 million by FY2040.

Long-range Rail Resource Allocation Plan

The third step was to categorize these projects by corridor and divide them into phases that could be implemented based on the policies and priorities established by the Commonwealth and funding limitations. The Commonwealth's REF and available revenues and bonds are expected to generate approximately \$948 million in state funds to support projects over the next 25 years. With the inclusion of \$127 million in federal funds and local matching funds of \$401 million, approximately \$1.5 billion is estimated to be available over the next 25 years. Other public and private entities control much of the planning, design, schedule, and funding for these projects. The following table summarizes the projects by corridor. Early estimates for Virginia's 2013 transportation funding bill show that rail allocations are expected to increase by 86 percent,

yielding \$44 million in FY 2014 with growth upwards to \$56 million annually by FY2018. Despite this additional sustained rail funding, future rail needs will still far outweigh the anticipated revenues.

Projects included in the SYIP are represented as Phase I projects in the long-range resource allocation plan. All other projects included in future phases of the resource allocation plan are unfunded needs, which are proposed for funding in future years.

Recommended Rail Projects by Corridor

Projects by Corridor	Total Cost (\$2012)
I-95/I-64 Transportation Corridor	\$5,538,326,476
I-95 Passenger Service Capital Costs	\$287,055,518
Phase I	\$194,141,752
Phase II	\$92,913,766
I-95 Passenger Service Operating Costs	\$108,063,559
Phase I	\$17,279,871
Phase II	\$78,253,593
Phase III	\$12,530,095
Southeast High Speed Rail	\$3,776,971,620
Phase I—Tier II RAPS	\$130,225,119
Phase II—RAPS Improvements	\$1,656,554,650
Phase III—Hampton Roads	\$576,994,923
Phase IV—Richmond to Raleigh Improvements	\$1,413,196,928
National Gateway	\$205,789,400
Phase I	\$53,076,686
Phase II	\$152,712,714
I-64 Passenger Service Capital Costs	\$46,637,139
Phase I	\$11,637,139
Phase II	\$35,000,000
I-64 Passenger Service Operating Costs	\$71,509,240
Phase I	\$12,131,823
Phase II	\$59,377,417
VRE	\$1,042,300,000
Phase I	\$32,500,000
Phase II	\$1,009,800,000
I-81 Transportation Corridor	\$1,142,271,768
Crescent Corridor	\$628,485,743
Phase I	\$186,571,700
Phase II	\$61,800,000
Phase III	\$380,114,043
US 29, 460 & I-81 Passenger Service Capital Costs	\$505,320,063
Phase I—Lynchburg Service	\$103,658,630
Phase II—Extension to Roanoke	\$128,364,197
Phase III—Extension to Bristol	\$47,694,234
Phase IV—Two Roundtrips to Lynchburg	\$91,338,957
Phase V—Two Roundtrips to Roanoke	\$109,786,726
Phase VI—Extension to Richmond	\$24,477,319
US 29, 460 & I-81 Passenger Service Operating Costs	\$8,465,962
Phase I	\$2,049,849
Phase II	\$6,416,113
Route 460 Heartland Transportation Corridor	\$60,375,000
Phase I	\$36,375,000
Phase II	\$24,000,000
Port of Virginia	\$64,618,177
Phase I	\$9,611,806
Phase II	\$55,006,371
Shortline Program	\$119,057,269
Phase I	\$82,312,519
Phase II	\$36,744,750
Total	\$6,924,648,690

Six-Year Improvement Program (SYIP FY2013–18)

The SYIP includes funding for road, rail, and public transportation programmed projects that are being studied, designed, and constructed throughout Virginia over the next six fiscal years, as shown in the following table. Fiscal years start on July 1 and end on June 30. The CTB updates the program each year as priorities are revised, project schedules and costs change, and study results are known.

After 2013, the state will be responsible for funding the capital and operating costs associated with regional intercity passenger rail service originating in Virginia. Current estimates show an approximately \$162 million shortfall for the six Virginia passenger trains in operation.

Project Description	FY2013–18 Total Programmed
I-95/I-64 Transportation Corridor	\$82,269,000
Construction of additional track capacity for VRE service in Spotsylvania County and the SEHSR Tier II EIS from the Richmond area to the Potomac River	
National Gateway	\$53,076,686
Upgrading multiple bridges, Kilby support yard, and the Virginia Avenue Tunnel to accommodate the clearance envelope of double stack trains	
I-64 Passenger Rail	\$114,606,265
Petersburg to Hampton Roads infrastructure improvements to expand passenger rail service	
I-81/Route 29 Intercity Passenger Rail	\$8,527,998
Passenger rail improvements from Alexandria to Manassas and a capacity study for extending passenger service to Roanoke	
I-81 Crescent Corridor	\$186,571,700
Construction of sidings, passing, and double tracks at Berryville, Elkton, Nokesville to Calverton, Bentonville, Sampson, Lipscomb, Solitude, Kinsey, Clark, Glade Spring, and along I-66 and tunnel work at Montgomery to increase freight capacity	
Heartland Corridor	\$36,100,000
Roanoke Intermodal Facility	
Port of Virginia	\$9,611,806
Expand the NIT marshalling yard and preliminary engineering and environmental analysis for the Craney Island Connector	
Intercity Passenger Rail Operating and Capital Program	\$218,039,802
\$218,039,802 is the total intercity passenger rail operating and capital cost. There is currently a \$162,258,676 funding shortfall.	
Shortline Railroad Program	\$82,312,520
Rail Preservation and Development Fund invests in projects to maintain FRA Class 2 track safety standards, such as tie and rail replacements, bridge and signal system upgrades. It also invests in shortline development projects to improve freight capacity and operations.	
Total	\$791,115,776

The FY2013–18 SYIP is based on existing revenues with contribution(s) from public and private sources to support completion of projects on a pay-as-you-go basis. This funding plan assumes that projects will be implemented incrementally and uses available Commonwealth funding sources of \$283 million matched by local and private funds. State participation includes \$18 million in RPP funds, \$77.4 million in bonds, \$159 million from REF, \$29 million in General Funds, \$0.2 million in VTA 2000 funds, and additional carryover funds from previous years. New funding brought about by the 2013 transportation funding legislation is programmed in the FY2014-19 SYIP.

Recommended Rail Projects by Corridor





I-95 Passenger Service



The project will

- Enhance passenger and freight rail operations with more frequent service, capacity, and travel time savings between Hampton Roads, Richmond, and Washington, D.C., including service to the Northeast Corridor
- Expand capacity for intercity rail by improving efficiencies at Collier Yard and providing connection tracks between Norfolk Southern and CSX
- Support capital and operating costs for multiple Amtrak Virginia train routes

Key facts

- The I-95 transportation corridor connects major Virginia population and employment centers and contributes significantly to the Commonwealth's economy.
- This project will provide highway congestion relief and increase transportation choices through freight and passenger rail improvements between Washington, D.C., Richmond, and Norfolk.
- With the majority of the state's population and employment

centers along this corridor, the I-95 Passenger Rail Project presents the best opportunity for increasing rail ridership in the Commonwealth.

Project phasing

- Phase I—Capital: \$194.1 M total project cost
 - One new daily round trip train from Norfolk to Washington, D.C., beginning in FY2012
 - Design and construction of capacity improvements from Norfolk to Richmond, including yard rehabilitation and connecting tracks
- Phase II—Capital: \$92.9 M total project cost
 - Complete yard and capacity improvements from Phase I
 - Alexandria to Washington, D.C., capacity study
- Phase I—Operating: \$17.3 M total operating cost
 - One new daily round trip train from Norfolk to Washington, D.C., beginning in FY2012

- Three daily round trips from Richmond to Washington, D.C.
- Phase II—Operating: \$78.3 M total operating cost
 - Continued support of the Norfolk and Richmond daily round trips
- Phase III—Operating: \$12.5 M total operating cost
 - Two new daily round trip trains from Norfolk to Washington, D.C., beginning in FY2022

Project finance

- Total project cost: \$395.1 million (\$2012)
 - Proposed FY2013–18 Improvement Program—\$211.4 M total cost for Phase I
 - Phases II and III are unfunded needs identified in the Rail Resource Allocation Plan, which are proposed for funding in future years.
 - Project costs will be funded through a combination of available federal, state, private railroad, local jurisdiction, and nongovernmental funding sources.

Southeast High Speed Rail



The project will

- Evaluate high-speed rail service along the SEHSR corridor extending high-speed rail service south from Washington, D.C., to Richmond and on to Raleigh and Charlotte, North Carolina, and will also expand east from Richmond to Hampton Roads
- Provide passengers with more efficient and reliable service

Key facts

- As population grows in major urban corridors, as highway and airline congestion increase, and as energy costs rise, rail ridership is increasing across the US.
- The I-95 corridor has been identified as a priority corridor for high-speed rail in the US.

- Virginia and North Carolina continue to advance the high-speed rail Tier II EIS from Raleigh to Richmond.
- Virginia submitted the Final EIS for the Richmond to Hampton Roads corridor in August 2012 and received a Record of Decision from FRA in December 2012.
- Virginia kicked off the Tier II EIS from Richmond to the Potomac River in August 2012.

Project phasing

- Phase I: \$130.2 M total project cost
 - Tier II EIS from the Richmond Area to the Potomac River
 - Complete the third main line from Arkendale to Powell's Creek
- Phase II: \$1,656.5 M total project cost
 - Capacity improvements to achieve 90 MAS from the Richmond Area to the Potomac River
 - High speed train sets

- Phase III: \$577.0 M total project cost
 - Tier II EIS from Richmond to Hampton Roads
 - Capital improvements from Richmond to Hampton Roads
 - High-speed train sets
- Phase IV: \$1,413.2 M total project cost
 - Capacity improvements for the Richmond to Raleigh corridor

Project finance

- Total project cost: \$3,776.9 million (\$2012)
 - Proposed FY2013–18 Improvement Program—\$130.2 million total cost for Phase I.
 - Phases II, III, and IV are unfunded needs identified in the Rail Resource Allocation Plan, which are proposed for funding in future years.
 - All costs and schedules are based on preliminary planning estimates and are subject to revision as additional information becomes available.
 - Project costs will be funded through a combination of available federal, state, private railroad, local jurisdiction, and nongovernmental funding sources.

National Gateway



The project will

- Improve the efficiency of freight rail shipping for the mid-Atlantic ports of Baltimore, Maryland, Virginia, and Wilmington, North Carolina and markets in Pennsylvania, West Virginia, Ohio, and other Midwestern states
- Divert freight traffic from highway to rail and double the capacity for freight shipments in the I-95 corridor by providing double-stack clearances for freight containers
- Increase capacity and service reliability through Washington, D.C., to allow more trains to operate in this heavily congested part of the corridor
- Support the enhancement of VRE and Amtrak service in the I-95

corridor

- Add a new freight yard to support increased container traffic originating at Virginia's Ports

Key facts

- The multi-state National Gateway Project extends from North Carolina to Ohio and parallels I-95 through Virginia, with a connection to the Port of Virginia.
- The diversion of freight from highway to rail will benefit from a multi-state initiative involving federal, state, local, and private partners.
- The project plan focuses on improving clearances to enable double stack intermodal train operations.

Project phasing

- Phase I: \$53.1 M total project cost
 - Reconstruct Virginia Avenue Tunnel to accommodate double stack clearance envelope
 - Reconstruct multiple bridges along the I-95 corridor to accommodate double stack clearance envelope

- Upgrade Kilby Marshalling Yard
- Phase II: \$152.7 M total project cost
 - Replace Virginia Avenue Tunnel
 - Construct Mid-Atlantic Manufacturing Center
 - Construct sidings for increased capacity

Project finance

- Total project cost: \$205.8 million (\$2012)
 - Proposed FY2013–18 Improvement Program—\$53.1 M total cost for Phase I.
 - Phase II are unfunded needs identified in the Rail Resource Allocation Plan, which are proposed for funding in future years.
 - All costs and schedules are based on preliminary planning estimates and are subject to revision as additional information becomes available.
 - Project costs will be funded through a combination of available federal, state, private railroad, local jurisdiction, and nongovernmental funding sources.

I-64 Passenger Service



The project will

- Enhance passenger and freight rail operations with more frequent service, capacity, and travel time savings between Hampton Roads, Richmond, and Washington, D.C., including service to the Northeast Corridor.
- Provide highway congestion relief and increase transportation choices through freight and passenger rail improvements.

Key facts

- The I-64 transportation corridor connects major Virginia population and employment centers and contributes significantly to the Commonwealth's economy.
- With the majority of the state's population and employment centers along this corridor, the I-64 Intercity Passenger Rail Project presents the best opportunity for increasing rail ridership in the Commonwealth.

Project phasing

- Phase I—Capital: \$11.6 M total project cost
 - Amtrak capital equipment
- Phase II: \$35.0 M total project cost
 - Construction of second main line from Oriana to Bland Boulevard
 - Construction of Newport News Amtrak station
- Phase I: \$12.1 M total operating cost
 - Round trip trains from Hampton Roads to Richmond and Washington, D.C.

- Phase II: \$59.4 M total operating cost
 - Continued support of the Hampton Roads daily round trips

Project finance

- Total project cost: \$118.1 million (\$2012)
 - Proposed FY2013–18 Improvement Program—\$23.7 M total cost for Phase I.
 - Phase II are unfunded needs identified in the Rail Resource Allocation Plan, which are proposed for funding in future years.
 - All costs and schedules are based on preliminary planning estimates and are subject to revision as additional information becomes available.
 - Project costs will be funded through a combination of available federal, state, private railroad, local jurisdiction, and nongovernmental funding sources.

Virginia Railway Express



The project will

- Increase the on-time performance of passenger trains and upgrade the signal system
- Expand service and passenger stations
- Provide an automatic train control system to reduce potential accidents through advance warning and collision avoidance technology
- Add new platforms at several existing stations to increase customer access

Key facts

- Population growth and commuter patterns have expanded westward along the I-66 corridor, and the I-95 corridor continues to grow in population and employment.
- This project will provide congestion relief and

new transportation choices in both the I-95 and I-66 corridors.

- VRE provides the equivalent capacity of one highway lane during peak travel periods.

Project phasing

- Phase I: \$32.5 M total project cost
 - Construct third main from Crossroads to Hamilton
- Phase II: \$1,009.8 M total project cost
 - Construct new stations and expand rail infrastructure
 - Expand station access and parking amenities
 - Construct train storage and maintenance facilities
 - Increase rolling stock

Project finance

- Total project cost: \$1,042.3 million (\$2012)
 - Proposed FY2013–18 Improvement Program—\$32.5 M total cost for Phase I.
 - Phase II are unfunded needs identified in the Rail Resource Allocation Plan, which are proposed for funding in future years.

- All costs and schedules are based on preliminary planning estimates and are subject to revision as additional information becomes available.
- Project costs will be funded through a combination of available federal, state, private railroad, local jurisdiction, and nongovernmental funding sources.

Crescent Corridor



The project will

- Divert freight shipments from highway to rail along I-20, I-40, I-75, I-85, I-81, and Route 29
- Expand rail capacity
- Facilitate the expansion of Amtrak service to Roanoke and Bristol
- Support the enhancement of VRE service from Manassas to Gainesville/Haymarket

Key facts

- The multi-state Crescent Corridor extends from New Orleans/Memphis to New Jersey.
- The success of truck diversion on the Crescent Corridor depends on public-private partnerships with multiple states and will involve federal, state, local, and private parties.
- In Virginia, the corridor has two distinct rail lines paralleling I-81 that will be used together to increase rail capacity.

Project phasing

- Phase I: \$186.6 M total project cost
 - Multiple sidings, passing and double tracks along the Crescent Corridor
 - Montgomery tunnel clearances
- Phase II: \$61.8 M total project cost
 - Multiple sidings, passing and double tracks along the Crescent Corridor
- Phase III: \$380.1 M total project cost
 - Multiple sidings, passing and double tracks along the Crescent Corridor

Project finance

- Total project cost: \$628.5 million (\$2012)
 - Proposed FY2013–18 Improvement Program—\$186.6 M total cost for Phase I.
 - Phases II and III represent unfunded needs identified in the Rail Resource Allocation Plan, which are proposed for funding in future years.
 - All costs and schedules are based on preliminary planning estimates and are subject to revision as additional information becomes available.
 - Project costs will be funded through a combination of available federal, state, private railroad, local jurisdiction, and nongovernmental funding sources.

US 29, US 460, and I-81 Passenger Service



The project will

- Enhance passenger rail service along the US Route 29, US Route 460, and Interstate 81 corridors
- Add new passenger rail service to Roanoke and Bristol with connections to Richmond and Washington, D.C.
- Construct new stations to support the new service
- Increase capacity through new passing tracks
- Reduce travel time by improving rail infrastructure for higher speeds

Key facts

- This project provides incremental service improvements to enhance passenger rail service in Central and Southwestern Virginia.
- Annual Amtrak ridership in this corridor totaled 190,668 in 2011. It is one of the country's highest performing routes.

Project phasing

- Phase I—Operating: \$2.0 M total operating cost
 - Operating costs for the Lynchburg train service and the Roanoke bus bridge
- Phase II—Operating: \$6.4 M total operating cost
 - Continued state support of intercity passenger service in the corridor
- Phase I—Capital: \$103.7 M total project cost
 - Capacity improvements and Amtrak capital equipment to support expanded intercity passenger service
- Phase II—Capital: \$128.4 M total project cost
 - Capacity improvements to extend passenger service to Roanoke
- Phase III—Capital: \$47.7 M total project cost
 - Capacity improvements to extend passenger service to Bristol
- Phase IV—Capital: \$91.3 M total project cost
 - Capacity improvements and additional train sets to accommodate two roundtrip trains to Lynchburg
- Phase V—Capital: \$110.0 M total project cost
 - Capacity improvements and additional train sets to accommodate two roundtrip trains to Bristol
- Phase VI—Capital: \$24.5 M total project cost
 - Capacity improvements to establish passenger service from Lynchburg to Richmond

Project finance

- Total project cost: \$513.8 million (\$2012)
 - Proposed FY2013–18 Improvement Program—\$105.7 M total cost for Phase I
 - Phases II, III, IV, V, and VI are unfunded needs identified in the Rail Resource Allocation Plan, which are proposed for funding in future years.
 - All costs and schedules are based on preliminary planning estimates and are subject to revision as additional information becomes available.
 - Project costs will be funded through a combination of available federal, state, private railroad, local jurisdiction, and nongovernmental funding sources.

Heartland Corridor



The project will

- Improve freight service between the Ports of Virginia and markets in the Midwest along the Route 460 and I-81 corridors
- Complete the Roanoke Region Intermodal Facility, a regional initiative to generate up to 2,900 jobs and up to \$71 million in tax revenues annually
- Increase tunnel clearances to provide redundant routes on sections of the corridor that host freight and passenger operations

Key facts

- The Heartland Corridor will double the intermodal rail capacity along Route 460 and significantly improve freight shipping between markets in the Midwest.
- This initiative has been identified as a project of national significance.
- Norfolk Southern, DRPT and Amtrak are exploring the possibility of new passenger service between Bristol, Roanoke, and Washington, D.C., along part of this corridor.

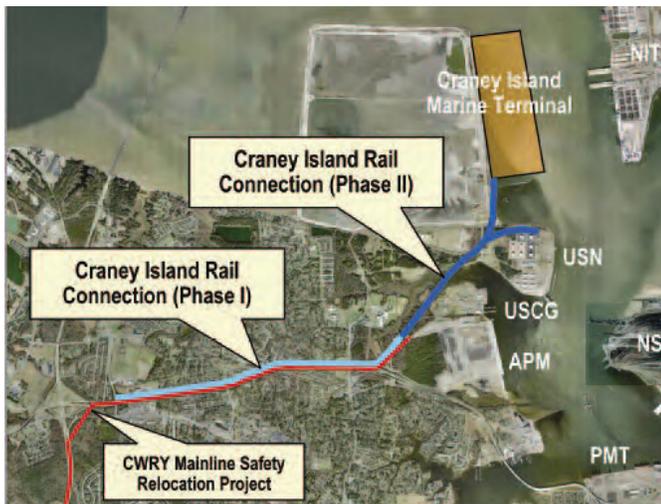
Project phasing

- Phase I: \$36.4 M total project cost
 - Relocation of Cove Hollow Road and construction of the intermodal facility
 - Capacity study from Lynchburg to Roanoke
- Phase II: \$24.0 M total project cost
 - Altavista tunnel clearance

Project finance

- Total project cost: \$60.4 million (\$2012)
 - Proposed FY2013–18 Improvement Program—\$36.3 M total cost for Phase I
 - Phase II are unfunded needs identified in the Rail Resource Allocation Plan, which are proposed for funding in future years.
 - All costs and schedules are based on preliminary planning estimates and are subject to revision as additional information becomes available.
 - Project costs will be funded through a combination of available federal, state, private railroad, local jurisdiction, and nongovernmental funding sources.

Port of Virginia



The project will

- Improve rail capacity at the Ports of Hampton Roads, support increased freight truck to rail diversion, and provide economic benefits to the Commonwealth by reducing transportation costs for both domestic and international trade
- Provide competitive rail access to Virginia's ports to ensure that shippers and consumers benefit from cost-effective transportation choices
 - Relocate rail lines serving the ports to enhance safety
 - Increase container and train handling capacity to streamline freight handling
 - Increase rail capacity to allow more containers to be diverted to rail

Key facts

- The project will double the on-dock rail capacity at Norfolk International Terminals with an on-dock rail yard.
- Additional yard capacity

improvements will enhance highway grade crossing safety and reduce highway delays at grade crossings.

- The proposed Craney Island marine terminal will transport 50 percent of the projected 1.43 million rail containers associated with this project.

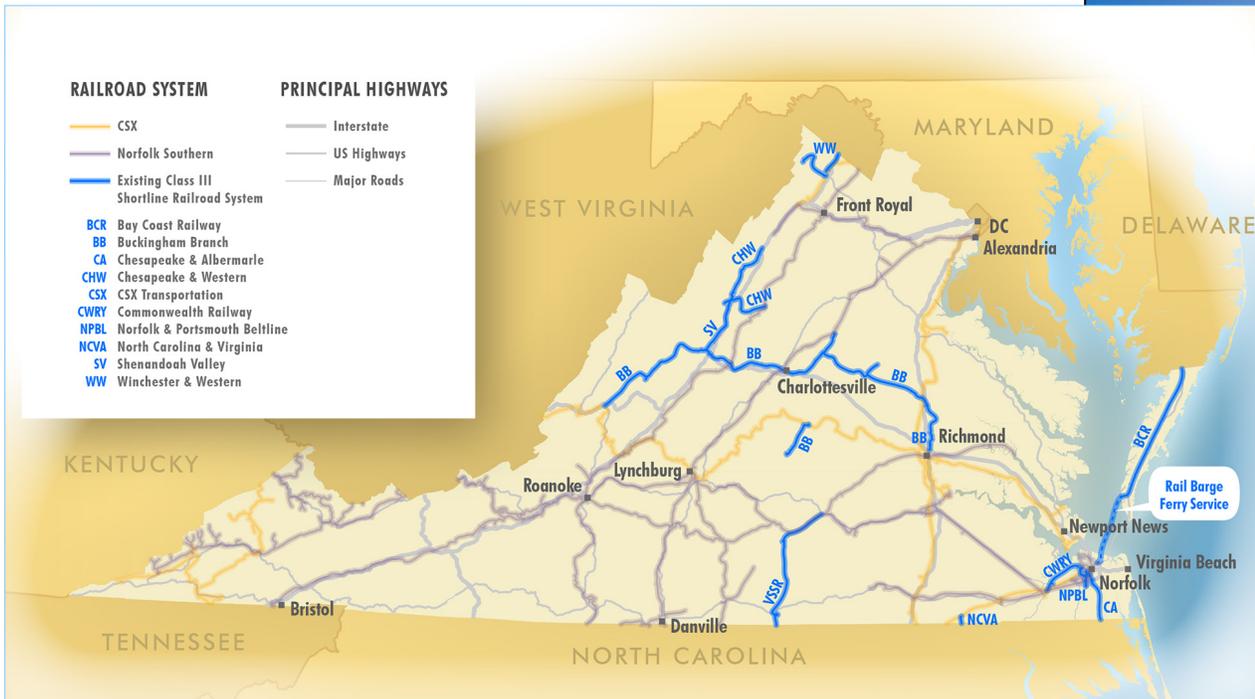
Project phasing

- Phase I: \$9.6 M total project cost
 - Craney Island Connector environmental review and preliminary design
 - NIT marshalling yard
- Phase II: \$55.0 M total project cost
 - Construct Craney Island Connector
 - APM/Maersk terminal rail yard expansion
 - Upgrade Amoco Power Switches

Project finance

- Total project cost: \$64.6 million (\$2012)
 - Proposed FY2013–18 Improvement Program—\$9.6 M total cost for Phase I total project cost: \$64.6 million (\$201
 - Phase II are unfunded needs identified in the Rail Resource Allocation Plan, which are proposed for funding in future years.
 - All costs and schedules are based on preliminary planning estimates and are subject to revision as additional information becomes available.
 - Project costs will be funded through a combination of available federal, state, private railroad, local jurisdiction, and nongovernmental funding sources.

Shortline Program



The project will

- Improve rail capacity on congested shortlines around the Port of Virginia
- Improve Amtrak service reliability on the Buckingham Branch Railroad
- Maintain FRA Class 2 track safety standards to enable reliable service to existing customers
- Increase economic competitiveness of Virginia shortline rail network
- Improve signal reliability and efficiency of freight movements

Key facts

- Shortlines are important for the “last mile” of rail service reaching industries in rural areas and the industries around the Port of Virginia.
- Shortlines are line-haul railroads making less than \$32 million in annual carrier operating revenues.
- Nine shortlines operate in Virginia.
- Shortlines must handle 286,000-pound loads to interface effectively with Class 1 freight railroads

Project phasing

- Phase I: \$82.3 M total project cost
 - Bay Coast—Tie replacement and upgrade
 - Buckingham Branch
 - Tie replacement and upgrade
 - Bridge rehabilitation
 - Signal improvements
 - Surface and rail improvements
 - Chesapeake and Albemarle—Tie replacement and upgrade
 - Commonwealth—Tie replacement and upgrade
 - Norfolk & Portsmouth Belt Line—Yard improvement and expansion
 - North Carolina & Virginia—Interchange improvements
 - Shenandoah Valley
 - Tie replacement and upgrade
 - Bridge rehabilitation
 - Yard improvements
 - Winchester & Western
 - Tie replacement and upgrade
 - Yard and capacity improvements
- Phase II: \$36.7 M total project cost
 - Bay Coast
 - Bay Shore Concrete staging tracks
 - Macemie Transload Facility
 - Spur to Wallops Island
 - Norfolk & Portsmouth Belt Line
 - Yard switch replacement
 - Bridge rehabilitation
 - CSX connection track
 - Shenandoah Valley
 - Crossing upgrades
 - Bridge rehabilitation
 - Siding at Weyers Cave
 - Staunton yard expansion

Project finance

- Total project cost: \$119 million (\$2012)
 - Proposed FY2013–18 Improvement Program—\$82.3 M total cost for Phase I
 - Phase II are unfunded needs identified in the Rail Resource Allocation Plan, which are proposed for funding in future years.
 - All costs and schedules are based on preliminary planning estimates and are subject to revision as additional information becomes available.
 - Project costs will be funded through a combination of available federal, state, private railroad, local jurisdiction, and nongovernmental funding sources.



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