2017
VIRGINIA STATE RAIL PLAN
Executive Summary

DRPT
Virginia Department of Rail and Public Transportation

VIRGINIA
STATEWIDE RAIL PLAN

Virginia's rail network is a valuable asset that grows the economy, relieves congestion, saves lives, improves air quality and saves taxpayer money. Continued investment in rail infrastructure will ensure the mission and vision of the Commonwealth's transportation network is achieved.

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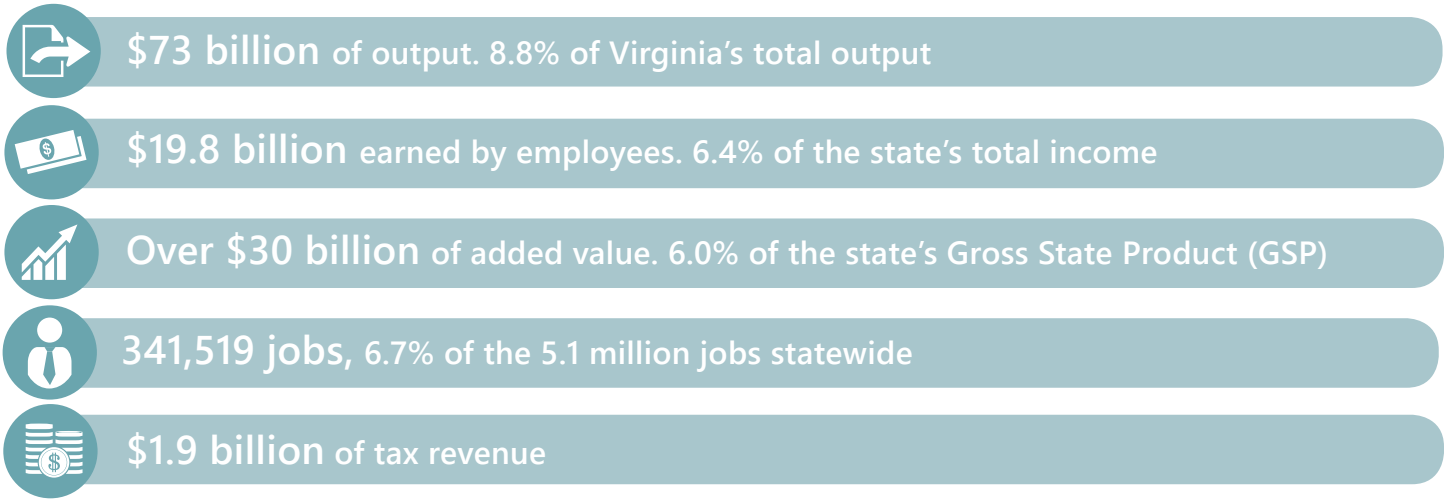
BENEFITS OF RAIL IN VIRGINIA

VIRGINIA'S RAIL SYSTEMS

Virginia's rail network is a valuable asset for the Commonwealth. It provides an efficient means of moving freight and passengers both within and through the state. The Commonwealth recognizes the privately owned rail network as part of a multimodal system with public benefits and growing economic impacts. Since the 2000s, significant state investments have leveraged private and federal funds to improve freight and passenger rail transportation and support the overall transportation system.

Rail economic impacts to Virginia are estimated using multipliers from the IMPLAN® economic model with input data and assumptions from freight movement data, passenger rail operations, and visitor characteristics. Impacts of rail service-related spending in Virginia emanate from firms providing freight and passenger transport services, industries using such services to trade goods (shippers/receivers), and expenditures from visitors who reach Virginia via rail. Of these activities, freight-users generate the most significant impact.



Output – In terms of total revenue, the rail industry generated about $72.9 billion in output, which is 8.8 percent of Virginia's total output.

Income – $19.8 billion earned by these total employees represent 6.4 percent of Virginia's total labor income. Labor income includes employee compensation and proprietary income. Employee compensation, in turn, consists of wage and salary payments as well as benefits (health, retirement, etc.) and employer paid payroll taxes (employer side of social security, unemployment taxes, etc.). Proprietary income consists of payments received by self-employed individuals and unincorporated business owners.

Value Added – The combined value added impact of rail services is over $30 billion and represents 6.0 percent of the state's Gross State Product (GSP).

Employment – Economic impacts of rail extend beyond the 6,762 directly employed in the provision of rail transport (both passenger and freight). When the freight and visitor impact activities and multiplier impacts are included, rail-related employment in Virginia amounts to 341,519 jobs, which represent 6.7 percent of the 5.1 million jobs statewide.

Tax Revenue – Federal, state and local tax revenues generated by the rail industry totaled $1.9 billion.

Investment in the rail network also has a direct benefit to Virginia's highway system. By diverting freight and passenger traffic from road to rail, Virginia's rail network helps by growing the economy, relieving congestion, saving lives, improving air quality, saving money, and complementing the Virginia highway network while reducing capital and maintenance expenditures.

RELIEVE CONGESTION

$312M ANNUAL IN CONGESTION SAVINGS
$123M ANNUAL PAVEMENT MAINTENANCE SAVINGS (6% OF VDOT MAINTENANCE BUDGET)

8 = **240**
PASSENGER RAILCARS *PASSENGER VEHICLES*

100 = **340**
FREIGHT RAILCARS *SEMI-TRAILER TRUCKS*

TRAVEL SAFE

18 LIVES SAVED AND 3,000 CRASHES AVOIDED EACH YEAR

Shipping by rail avoids about **1.7 billion miles** of truck travel in Virginia

Passenger travel by rail avoids about **271 million miles** of personal driving in Virginia

BREATHE EASIER

3M TONS OF CO2 EMISSIONS AVOIDED
(6.4% OF TOTAL IN VIRGINIA PER YEAR)

On average, railroads are **four times** more fuel efficient than trucks

Moving freight by rail instead of truck generates **75% less** greenhouse gas emissions

The total estimated level of rail service in Virginia in 2015 was about **25 billion ton-miles**

SAVE MONEY

RAIL SERVICES DRIVE 6% OF VIRGINIA'S TOTAL ECONOMY.
MORE THAN 6,000 JOBS CREATED DIRECTLY BY RAIL NETWORK

FREIGHT RAIL

$2.2 BILLION in cost avoidance

about 9 cents per ton-mile of rail use

PASSENGER RAIL

$190 MILLION in cost avoidance

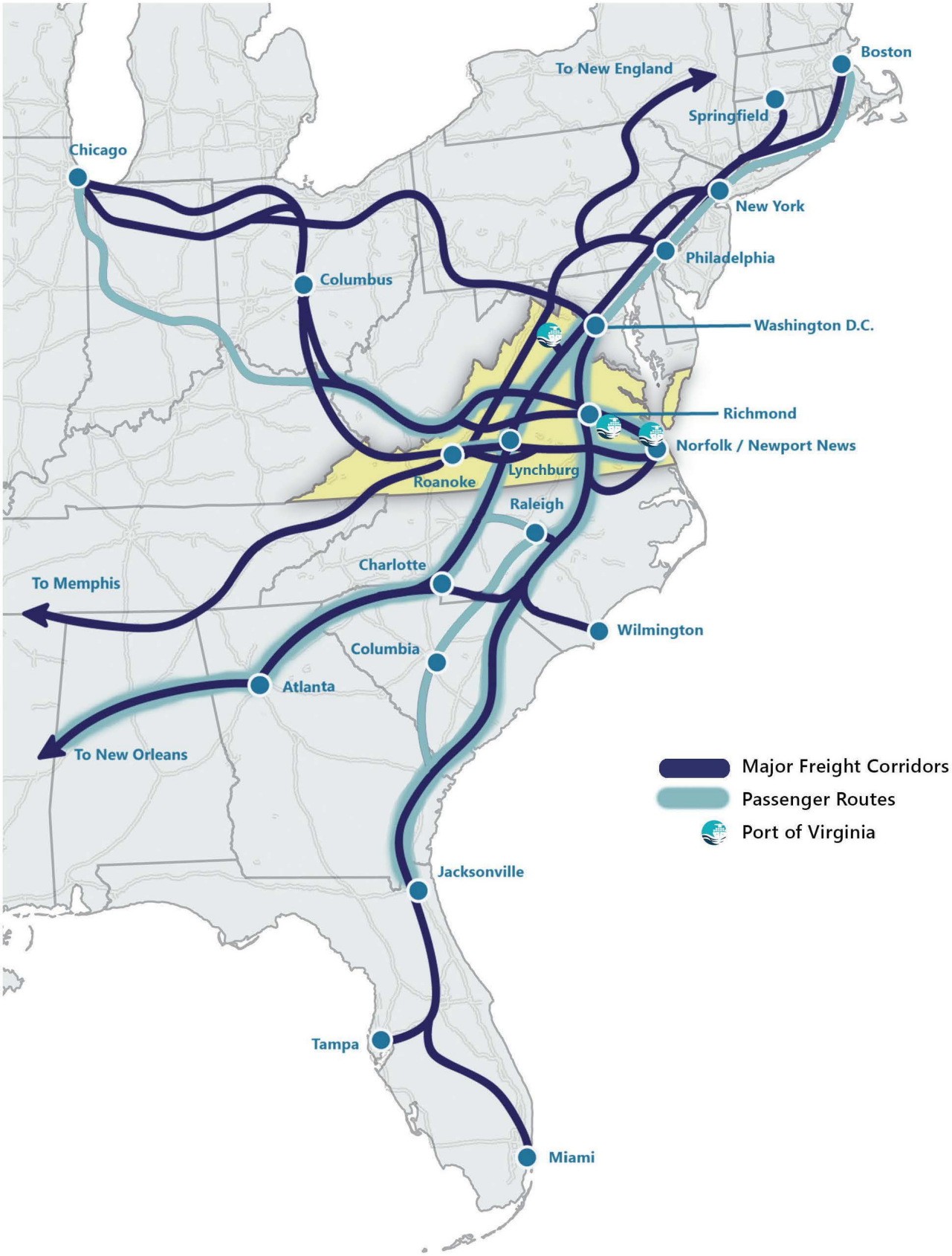
about 46 cents per passenger-mile of rail use

Virginia's Rail Systems, continued

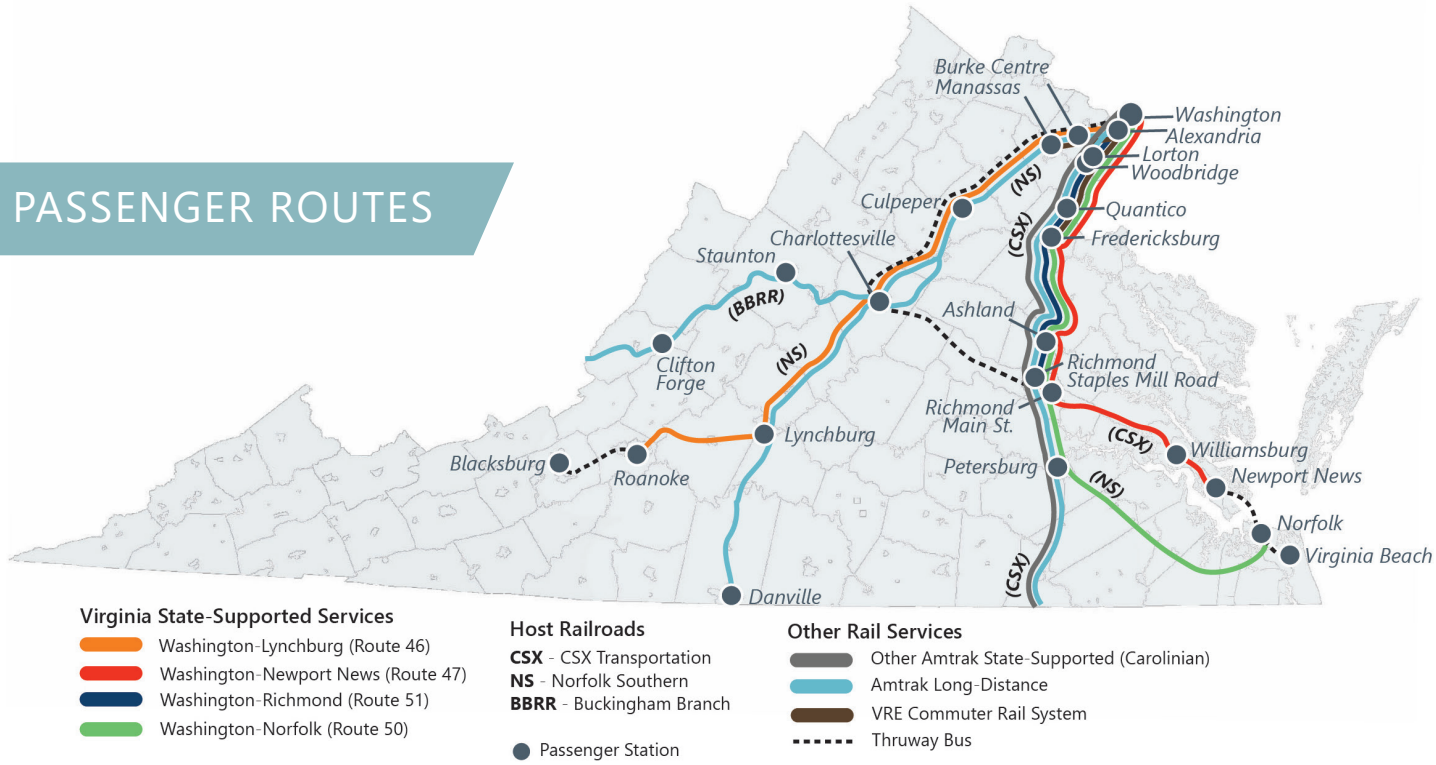
Virginia's rail network is a critical link in a larger rail system within the eastern United States; it connects the state's ports, businesses, and communities to other major population centers, customers, and manufacturing regions throughout the nation and the world. Corridors within the Commonwealth have unique characteristics that provide alternative transportation options and diverse public benefits to the economy. Many of Virginia's freight corridors also carry passenger trains. All of the freight corridors are privately-owned and serve the Port of Virginia in Hampton Roads in some capacity.

- CSX Transportation's I-95 Corridor spans the entire Eastern U.S., linking cities, ports, and manufacturing regions along the eastern seaboard. This corridor also carries the majority of Virginia's Amtrak passenger services, and serves as the gateway to Washington, D.C. for Virginia Railway Express commuter trains.
- CSX's National Gateway also uses the I-95 Corridor route through Virginia. This key rail artery diverges from the I-95 Corridor in Washington, D.C. to link the Port of Virginia and other mid-Atlantic ports with cities and markets in the U.S. Midwest.
- Norfolk Southern's Crescent Corridor runs from north to south, serving consumer markets and manufacturing regions between New Orleans, Memphis, and the Northeast. In Virginia, the Crescent Corridor serves the Virginia Inland Port – an intermodal container transfer facility in Front Royal – and carries several Amtrak services into the Northeast.
- Norfolk Southern's Heartland Corridor links Virginia's Port to Midwest markets, carrying intermodal containers from the docks in Hampton Roads to consumers in Chicago.
- Amtrak services are shown on the map as light blue shading along the privately owned freight corridors. Amtrak services operate over privately-owned railroads in Virginia. Virginia regional service provides one-seat rides from Virginia's major cities to Washington, D.C. and the Northeast Corridor, while Amtrak long-distance trains carry passengers through Virginia between the Northeast, Southeast, and Midwest.

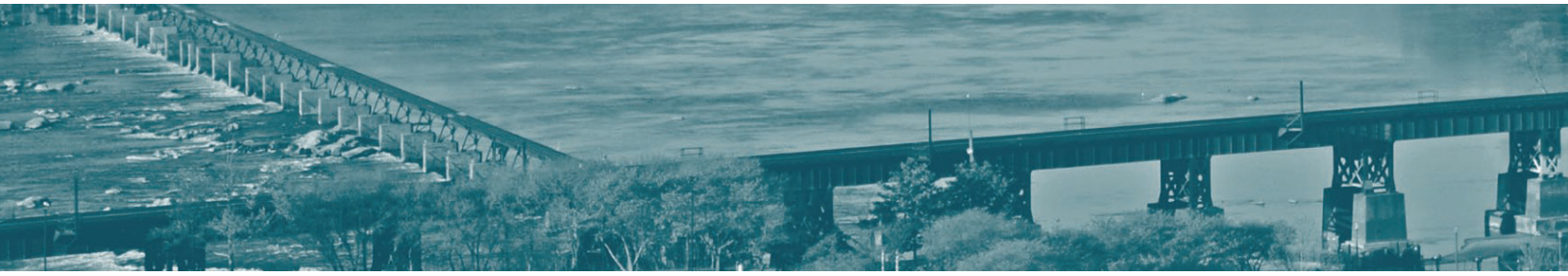
VIRGINIA IS A CRITICAL LINK IN THE NATIONAL RAIL NETWORK



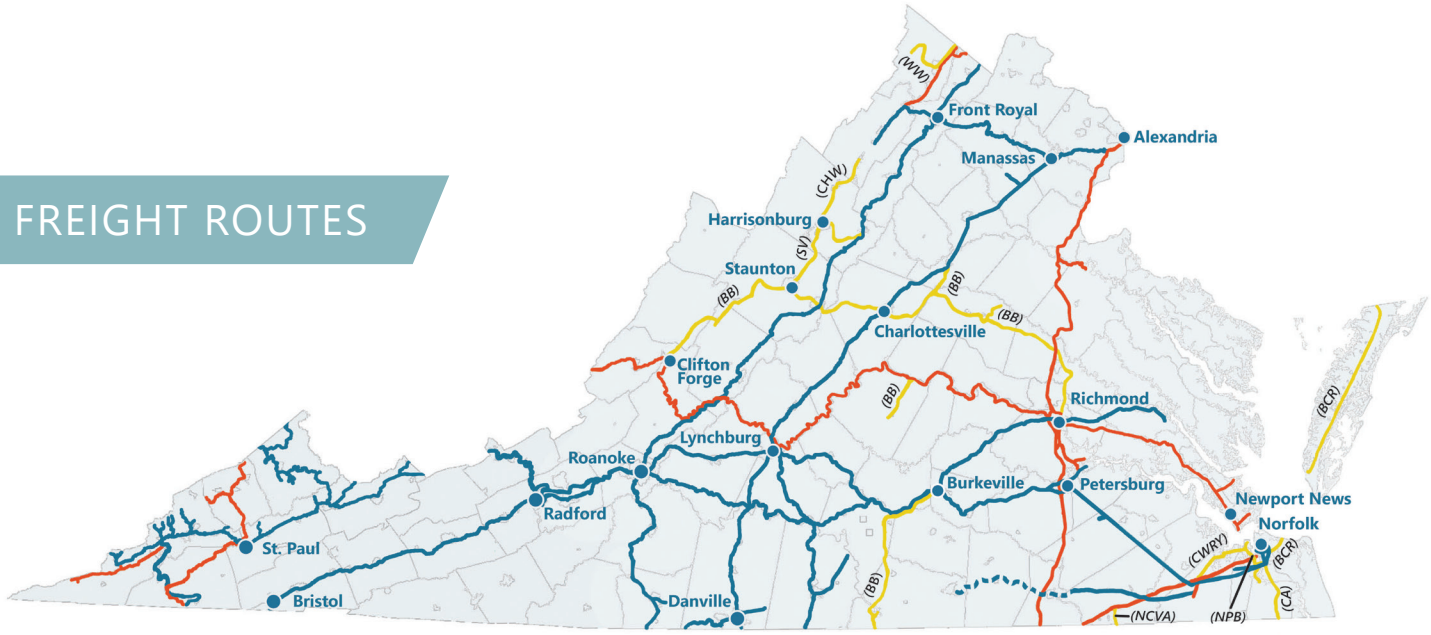
PASSENGER ROUTES



Passenger trips to, from, and within Virginia are growing and highways in Virginia are increasingly congested. Passenger rail service provides an alternative to congested highways, and the Commonwealth therefore invests in Amtrak intercity passenger routes, as well as Virginia Railway Express commuter service to improve mobility and meet the growing demand for travel. Projects and plans underway in CSXT's RF&P subdivision and the Long Bridge across the Potomac to Washington, D.C. will alleviate existing rail bottlenecks to better connect the entire Southeast region with Amtrak's Northeast Corridor. Since 2013 Virginia has provided dedicated funding to support and expand intercity passenger rail operations across the state. Virginia's busiest passenger rail routes parallel the heavily traveled I-95 corridor, where a growing number of Virginia regional service trains serve Richmond, Newport News, and Norfolk. Additional Virginia regional services extend southwest from Washington, D.C. to Lynchburg and Roanoke. Passenger volumes on Virginia regional service totaled over 830,000 riders in FY2016. When combined with long distance service, passenger volumes exceeded 2.5 million riders. Virginia also supports commuter rail operations provided by Virginia Railway Express, which serves the heavily congested I-95 Corridor from Fredericksburg to Washington, D.C. as well as the I-66 Corridor between Manassas and Washington, D.C.



FREIGHT ROUTES



Freight Routes in Virginia

- Norfolk Southern
- CSX Transportation
- Shortline
- Discontinued
- Cities/Towns

Host Railroads

BCR	Bay Coast Railroad
BB	Buckingham Branch Railroad
CA	Chesapeake & Albemarle Railroad
CHW	Chesapeake Western Railway
CWRY	Commonwealth Railway
NPB	Norfolk & Portsmouth Belt Line Railroad
NCVA	North Carolina & Virginia Railroad
SV	Shenandoah Valley Railroad
WW	Winchester & Western Railroad

As the economy grows, so do the freight demands on Virginia's highways. The Commonwealth recognizes the public benefits and economic impact of investments in a multimodal freight transportation system. The freight rail network has a unique role supporting the Port of Virginia's target markets in the Midwest. Both CSX and Norfolk Southern have intermodal rail corridors that connect Virginia to the nation, providing a cost-effective way to bring needed raw materials and products to our ports, manufacturers, and consumers, and to carry Virginia-made products and materials to destinations throughout the nation. In 2012, Virginia's rail network carried more than 800,000 carloads of coal, 534,000 carloads of mixed goods, 120,000 carloads of chemical products, 103,000 carloads of food products, and 85,000 carloads of pulp and paper products, keeping more than 5.5 million trucks off the Commonwealth's highways. Savings in pavement maintenance costs alone are estimated to be over $123 million per year, almost 6% of VDOT's annual maintenance budget.

FUTURE OF RAIL IN VIRGINIA

FUTURE OF RAIL

Virginia's passenger and freight rail networks are affected by many external factors that drive demand for services. Freight rail corridors serving the Port of Virginia and the main north-south freight routes are experiencing growth in intermodal traffic, while changes in domestic energy production and use are reflected in a decrease in coal traffic. Population growth, an aging population, and increasing highway congestion along the "urban crescent" between Washington and Hampton Roads is helping drive demand for environmentally friendly and safe alternatives to automobile travel. Innovation and ever-evolving technologies will continue to drive advancements in the rail industry. The Commonwealth addresses these drivers by investing in the rail network as part of a multimodal approach to meet the growing demand for freight and passenger transportation service and support the economic changes and travel preferences of Virginians.

RAIL INDUSTRY DRIVERS

- Growth in Intermodal Traffic
- Changes in Energy Production: Oil, Gas and Coal
- Congestion
- Environmental
- Technology
- Demographic Changes
- Aging Infrastructure
- Changes in Rail Governance Framework
- Amtrak Northeast Corridor

FREIGHT

Freight tonnage is expected to grow by 50% in Virginia by 2040

Movement by rail will increase by 14%; additional rail investment can enhance rail's modal share and keep additional freight from congested roadways.

Port of Virginia Shipments

TEUs anticipated to more than triple from 2.1 M in 2012 to 7.2 M in 2040.

Capacity to move 45% by rail in 2040, up from 35% today.

Expected Evolution of Major Freight Markets

Growth in intermodal traffic will impact operational approach to major freight corridors. Intermodal movement relies on tight timetables and high demand for on-time performance.

NETWORK SIGNIFICANCE

The Washington, D.C. metropolitan area has the nation's highest rate of congestion.

The Hampton Roads area also experiences high levels of congestion.

[Measuring Traffic Congestion in Virginia - Virginia Performs, Virginia.Gov]

Vehicle use per road-mile has been increasing for decades.

Since the mid-1960s Virginia has experienced a decline in relative capacity as both population and state gross domestic product (GSP) have steadily risen.

[Measuring Traffic Congestion in Virginia - Virginia Performs, Virginia.Gov]

Economic Growth

Virginia's rail network is a key link between two mega-regions, the Northeast mega-region and the Piedmont Atlantic mega-region to the south. Most of the nation's population growth and economic expansion is occurring in ten emerging mega-regions.

America2050
www.america2050.org

PASSENGER

Population concentrated in the urban crescent

Since 2010, the share of Virginia's total population growth in the urban crescent rose to 93 percent, up from 81 percent between 2000 and 2006. Much of this population growth is young professionals/Millennials.

Population is growing older – 1 in 8 Virginians is 65 or older,

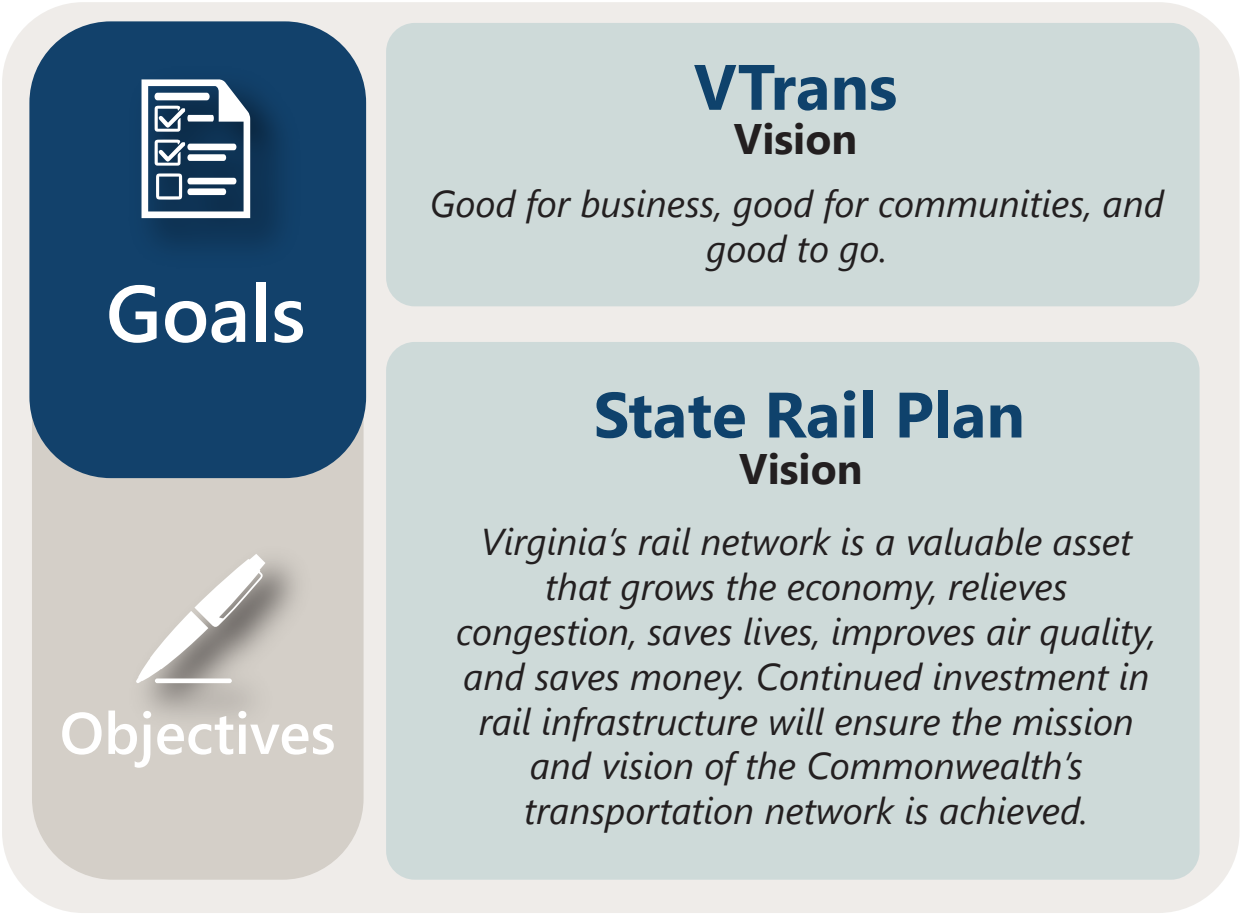
and the largest concentration of Virginia's aging population lives in the urban crescent.

[DC2RVA Purpose and Need]

Increasing demand for public transportation

Urban environments conducive to public transportation and changing demographics create more reliance on multi-modal options.

VIRGINIA'S VISION FOR THE FUTURE



Goals and objectives link visions to prioritize investments in rail.

Virginia's Statewide Transportation Plan (Vtrans2040) provides a planning framework for all transportation modes in the state, including rail and public transit. Virginia's vision for its multimodal transportation system, described in Vtrans2040, is to be "Good for Business, Good for Communities, and Good to Go". Virginians will benefit from a sustainable and reliable transportation system that advances Virginia businesses, attracts a 21st century workforce, and promotes healthy communities where Virginians of all ages and abilities can thrive.

The Department of Rail and Public Transportation (DRPT) serves as Virginia's lead agency for rail and public transportation, with the mission to facilitate and improve the mobility of the citizens of Virginia and to promote the efficient transport of goods and people in a safe, reliable, and cost-effective manner. DRPT is also responsible for administering funds for rail investments and public transportation agency formula funds.

The Virginia State Rail Plan recognizes Virginia's vision and DRPT's mission and provides a framework for achieving both of these desired future outcomes through investments in Virginia's rail network as part of a multimodal transportation system supporting economic growth.

RAIL PLAN GOALS AND OBJECTIVES

The Virginia Rail Plan goals are listed in blue and reflect the Vtrans2040 Guiding Principles. Corresponding objectives for each goal are shown in tan on the right.

The objectives show how DRPT can advance freight and passenger rail through planning efforts and funding programs under DRPT's purview. Together the Rail Plan goals and objectives are tools to evaluate and prioritize short-term and long-term planning efforts and investments.

GOAL:
Optimize Return on Investments

Implement the right solution at the right price

OBJECTIVES:

- Leverage previous investments by supporting existing passenger services
- Enhance reliability for existing services
- Prioritize improvements to existing service corridors over service expansion capital projects
- Target growing markets and make efficient use of the Rail Industrial Access Program funds
- Leverage public-private partnerships by prioritizing projects with matching funds
- Target investment where traffic, employment, population, or demand is expected to grow
- Prioritize capacity investments that meet the needs of both the public and private sectors through enhanced data sharing
- Determine on a corridor-basis when rail is the most efficient mode to move people and goods

GOAL:
Ensure Safety, Security, and Resiliency

Invest in projects that harness the safety benefits of moving people and goods by rail

OBJECTIVES:

- Expand programs that support shortline railroads in maintaining FRA Class 2 track safety standards
- Invest in materials and industry practices that support a resilient rail network
- Prioritize critical infrastructure projects to reduce the risk of failure
- Support "State of Good Repair" projects

GOAL:
Efficiently Deliver Programs

Deliver high-quality projects and programs in a cost-effective and timely manner

OBJECTIVES:

- Update grant guidance annually and develop a grantee workshop to review program guidance and procedural updates
- Proactively identify projects and programs to support the DRPT mission
- Work with legislators and appointed officials to ensure policies are up-to-date and understood
- Continually update DRPT grant management practices to ensure efficient administrative processes and project implementation

GOAL:
Consider Operational Improvements and Demand Management First

Maximize capacity of the transportation network through increased use of technology and operational improvements before investing in major capacity expansions

OBJECTIVES:

- Encourage use of Intelligent Transportation Systems to improve operational efficiency
- Evaluate operations when considering investment in capacity to ensure the investment yields a lasting benefit
- Incorporate program criteria that prioritize low-cost improvements to relieve bottlenecks and provide capacity

OBJECTIVES:

GOAL:

Ensure Transparency and Accountability, and Promote Performance Management

Work openly with partners and engage stakeholders in project development and implementation, and establish performance targets that consider the needs of all communities

- Publicize application evaluation metrics and project data for rail funding programs
- Implement passenger rail station stop policy
- Develop program scorecards to measure impact of rail investments
- Market economic impact of rail investment

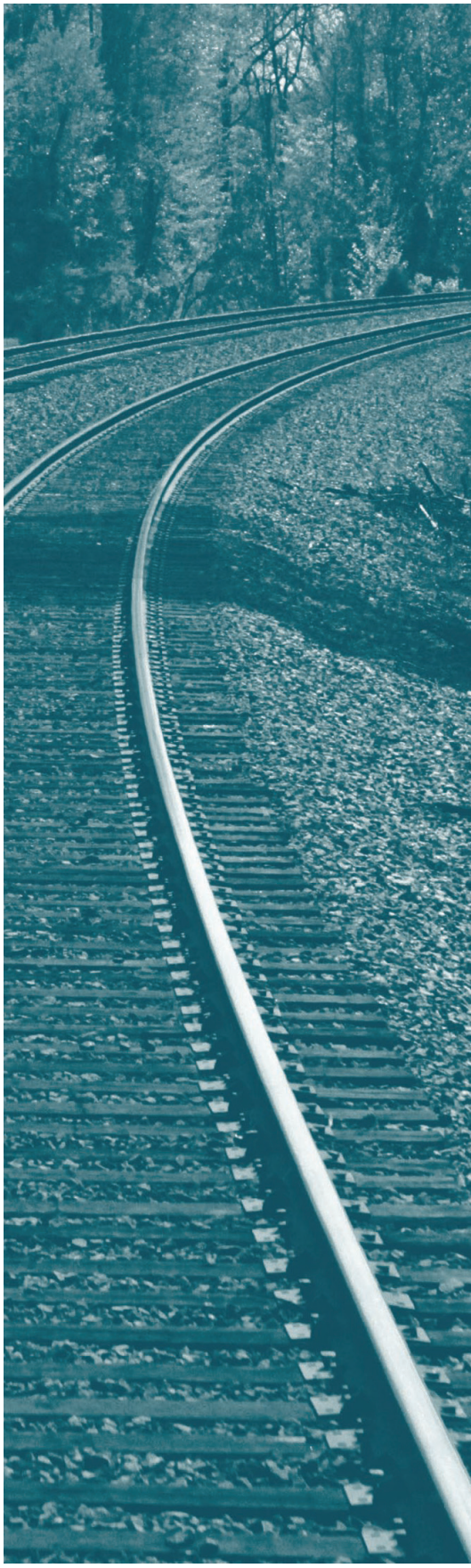
OBJECTIVES:

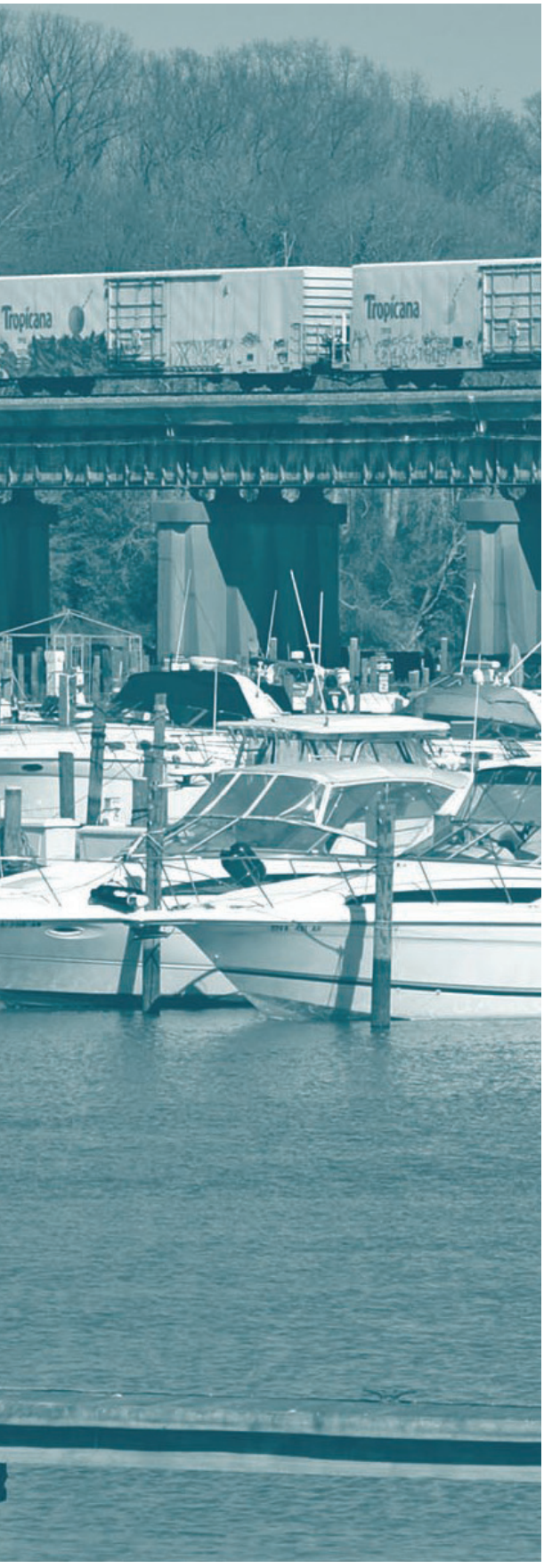
GOAL:

Improve Coordination between Transportation and Land Use

Encourage local governments to plan and manage transportation-efficient land development by providing incentives, technical support, and collaborative initiatives

- Encourage local governments to support state funding decisions by making compatible investments and zoning
- Educate localities on appropriate land uses around both freight and passenger rail infrastructure
- Encourage local governments to support rail services with multimodal last-mile connections
- Integrate with and expand upon other state, regional, and local planning efforts





OBJECTIVES:

GOAL:
Ensure Efficient Intermodal Connections

Provide seamless connections between modes of transportation

- Prioritize rail projects that benefit the highway system and improve mode choice
- Enhance rail service to the Port
- Support " State of Good Repair" and capacity projects with shortlines

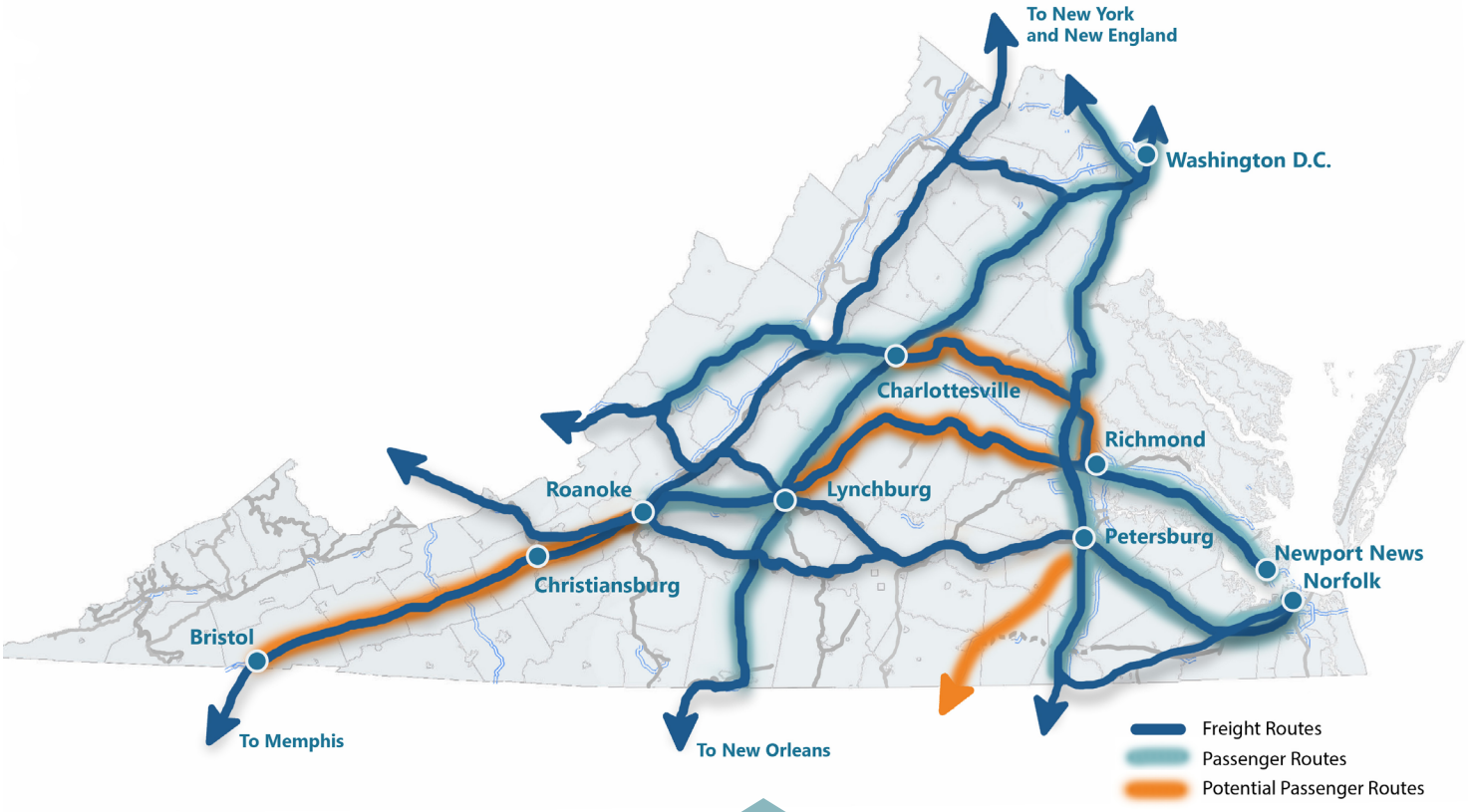
OBJECTIVES:

GOAL:
Support Regional Economic Development

Encourage local and regional economic development through investment in the rail network

- Work closely with Virginia Economic Development Partnership to attract rail conducive industries in accordance with the Code of Virginia
- Promote the use of the Rail Industrial Access program through education and outreach with local economic development offices
- Include input from local and regional freight railroads in economic development planning and initiatives
- Expand transportation options between regional markets through enhancements to passenger rail service

PRIORITY IMPROVEMENTS & INVESTMENTS



This statewide map depicts a comprehensive, visionary illustration of the future of rail in Virginia. Details about each corridor, including programmed and potential projects, are included in the body of the plan.

The Commonwealth's investment priorities have been summarized by corridor in the following pages. Each corridor fact sheet is designed to correspond with the Corridors of Statewide Significance, as outlined in VTrans; and provides:

BACKGROUND
Describes the major elements, geography and services of the corridor.

SIGNIFICANCE
Overviews the unique characteristics and purpose the corridor provides within the greater transportation network.

PROJECTS
Outlines some of the major initiatives that are on-going and expected for the future in the corridor.

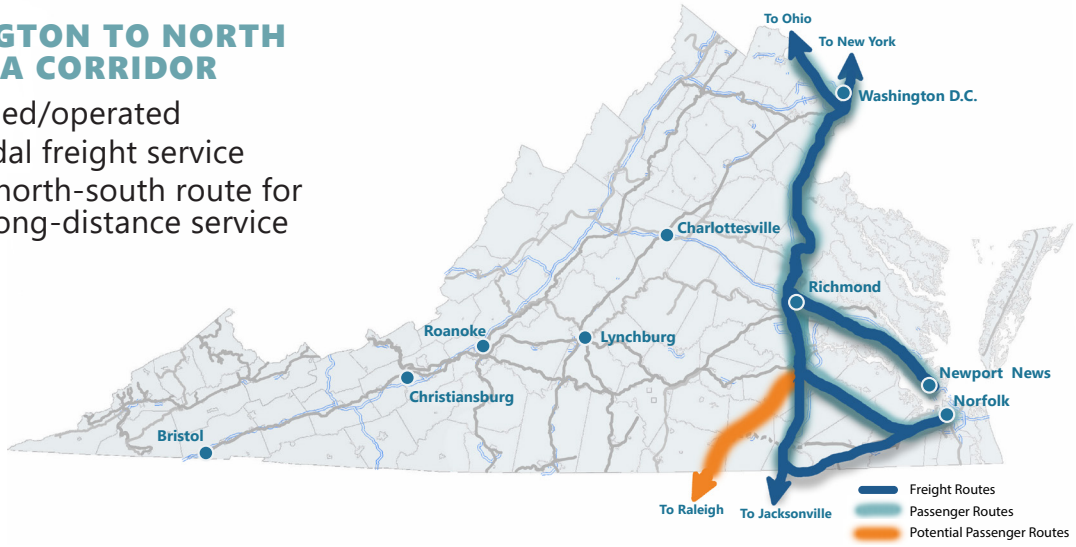
TOP DRIVERS

KEY GOALS

Additionally, each fact sheet provides a link to the Key Goals and Top Drivers in the corridor. Due to the significance of each corridor within the multimodal transportation network, all of the rail plan goals and drivers influence decision making within each corridor. However, the goals and drivers that have the strongest correlation to the corridor characteristics, needs, and influences have been highlighted.

WASHINGTON TO NORTH CAROLINA CORRIDOR

- CSX owned/operated
- Intermodal freight service
- Primary north-south route for Amtrak long-distance service



BACKGROUND

Virginia's Washington to North Carolina Corridor is served by two CSX rail corridors: CSX's I-95 Corridor between New York and Jacksonville, and CSX's National Gateway Corridor linking mid-Atlantic ports with the Midwest. The two rail corridors share one alignment that parallels I-95 from Washington, D.C., through Richmond to Petersburg and the south. This corridor also serves as a primary passenger rail route. Virginia regional trains connecting the Northeast Corridor and Washington, D.C. operate on the line to reach terminals in Richmond, Newport News, and Norfolk, while Amtrak long-distance trains from New York and Lorton, Virginia, continue farther south to Savannah, Sanford, Florida, and Miami. VRE Fredericksburg Line commuter trains also use the corridor from Spotsylvania County north to Washington, joined at Alexandria by Manassas Line commuter trains.

SIGNIFICANCE

The Washington to North Carolina Corridor is the most heavily used corridor in Virginia, with increasing freight, regional and long distance passenger rail, and commuter rail services. The corridor provides a critical link between Amtrak's Northeast Corridor and the federally designated Southeast Corridor. The corridor also provides another rail link between the Port of Virginia and the Midwest, which previous Commonwealth investments have helped to clear for double-stack container service. The corridor has the most severe bottlenecks on the freight rail network, specifically across the Potomac River, where a four track system merges to just two tracks (the Long Bridge) to cross from Virginia into Washington, D.C.

Similarly, the parallel highway facilities, I-95 and US 1, are the most heavily used highway facilities with the most severe congestion in Virginia. As a result, capacity on the Washington to North Carolina Corridor must be preserved and improved in order to provide adequate access and multimodal options to both the residents and businesses along this dense and thriving corridor. The passenger rail, commuter rail, and intermodal freight services that use this corridor, including shipments serving the Port of Virginia, require high on-time performance.

PROJECTS

Priority projects include adding capacity to the Long Bridge, a major chokepoint affecting CSX, Amtrak, and VRE service, and implementing additional capacity improvements to the corridor in Northern Virginia via the Atlantic Gateway improvement program.

Longer term, additional improvements will be necessary to support improved passenger service. These improvements are outlined in the R2R study, and in the DC2RVA Tier 2 EIS that is currently underway. The long term phasing and timing of these improvements will be based on funding availability, congestion levels, and passenger service benefits.

TOP DRIVERS

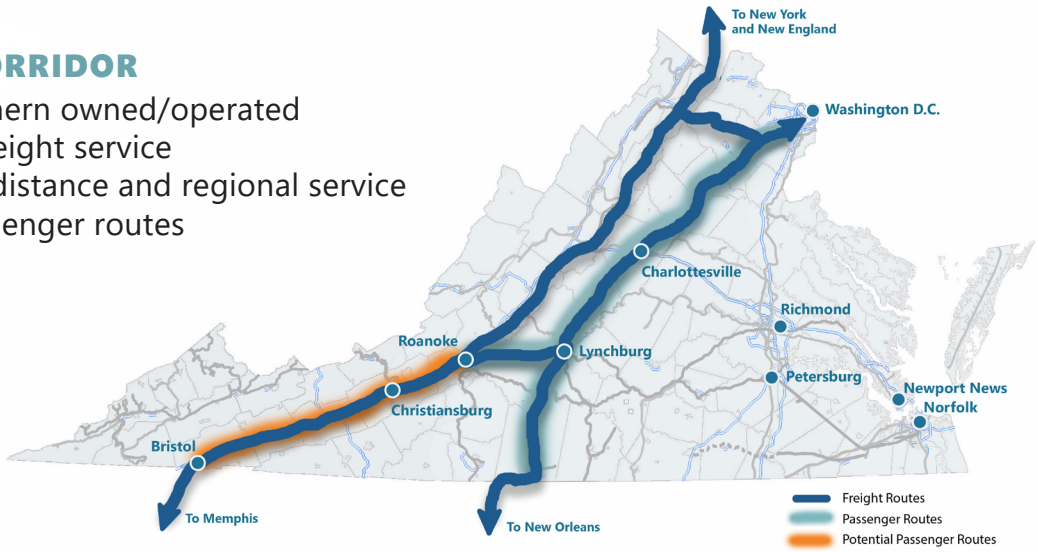
- Congestion
- Demographic Changes
- Amtrak Northeast Corridor
- Technology

KEY GOALS

- Optimize Return on Investments
- Consider Operational Improvements and Demand Management First
- Ensure Efficient Intermodal Connections

CRESCENT CORRIDOR

- Norfolk Southern owned/operated
- Intermodal freight service
- Amtrak long distance and regional service
- Potential passenger routes



BACKGROUND

The 2,500-mile Crescent Corridor spans 11 states, from New York to Louisiana and Tennessee. In Virginia it includes Norfolk Southern track parallel to I-81 (Winchester-Roanoke-Bristol) and a second route parallel to U.S. 29 (Front Royal-Manassas-Lynchburg-Danville).

The Crescent Corridor is a primary freight route for intermodal traffic moving through Virginia. The corridor also carries both Amtrak long distance trains (Crescent and Cardinal) and Virginia regional passenger service connecting Roanoke, Lynchburg, and Charlottesville to Washington, D.C. and the Northeast Corridor. The corridor connects to Norfolk Southern's Heartland Corridor in Roanoke and Altavista.

SIGNIFICANCE

The Crescent Corridor makes several vital connections to Virginia shortline railroads, including the Winchester & Western, Chesapeake Western, Buckingham Branch, and Shenandoah Valley railroads. In addition, the corridor connects to the Virginia Inland Port. Maintaining a seamless connection between this mainline freight route and these critical elements of the regional freight network is vital to the success of this corridor and regional economic development. Norfolk Southern estimates the Crescent Corridor keeps 1.3 million long distance trucks off the highways.

PROJECTS

Priority projects include expanded passenger service to Lynchburg and Roanoke, and improving capacity and connectivity with shortline railroads and the Virginia Inland Port. Longer term considerations for this corridor include adding passenger service to southwest Virginia.

TOP DRIVERS

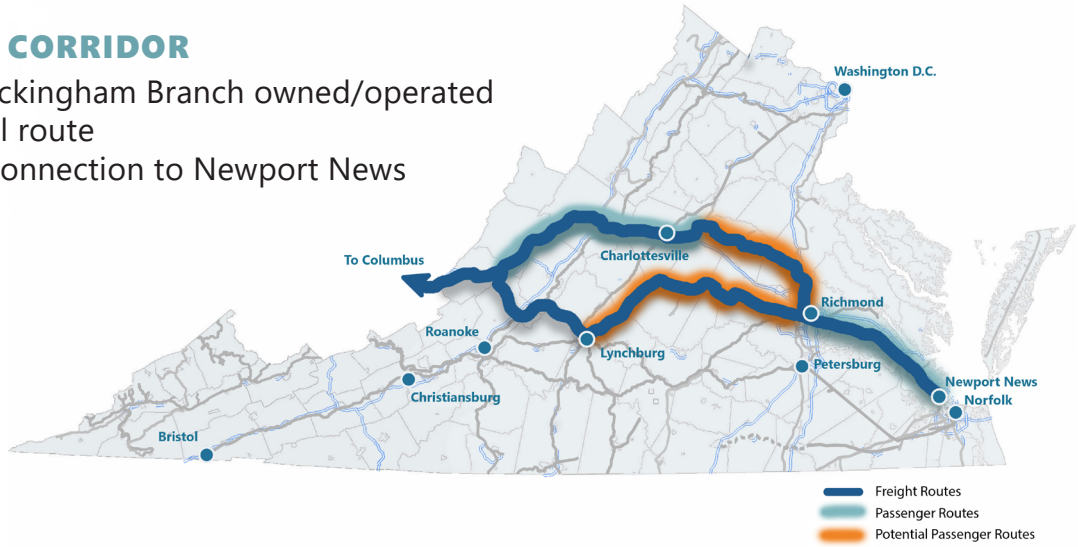
- Congestion
- Demographic Changes
- Amtrak Northeast Corridor

KEY GOALS

- Optimize Return on Investments
- Improve Coordination between Transportation and Land Use
- Support Regional Economic Development

EAST-WEST CORRIDOR

- CSX and Buckingham Branch owned/operated
- Primary coal route
- Passenger connection to Newport News



BACKGROUND

The East-West Corridor parallels I-64 from Hampton Roads through Richmond to Clifton Forge. It serves as CSX's primary coal route from Appalachian coalfields to U.S. power plants and export terminals in Newport News. Loaded coal trains travel east on CSX's James River line, while empty trains return on the Buckingham Branch.

The corridor handles Virginia regional passenger service from Newport News, ultimately making connections to Washington, D.C. and Amtrak's Northeast Corridor. Additionally, the Buckingham Branch carries the Amtrak long distance Cardinal route with connections to the Midwest and NEC.

SIGNIFICANCE

The East-West Corridor serves primarily as a coal route, however, coal traffic has significantly dropped in response to recent changes in energy trends and a decline in demand for Appalachian coal. As a result, one of the primary drivers of investment is to maintain operability of the multiple passenger rail services.

PROJECTS

Priority projects include maintaining a state of good repair, particularly on the Buckingham Branch railroad, and supporting existing passenger services. This includes investments to add a new maintenance facility and improvements to reduce conflicts between passenger trains and freight trains on the corridor between Richmond and Newport News. Longer term considerations include expansion of east-west passenger connections.

TOP DRIVERS

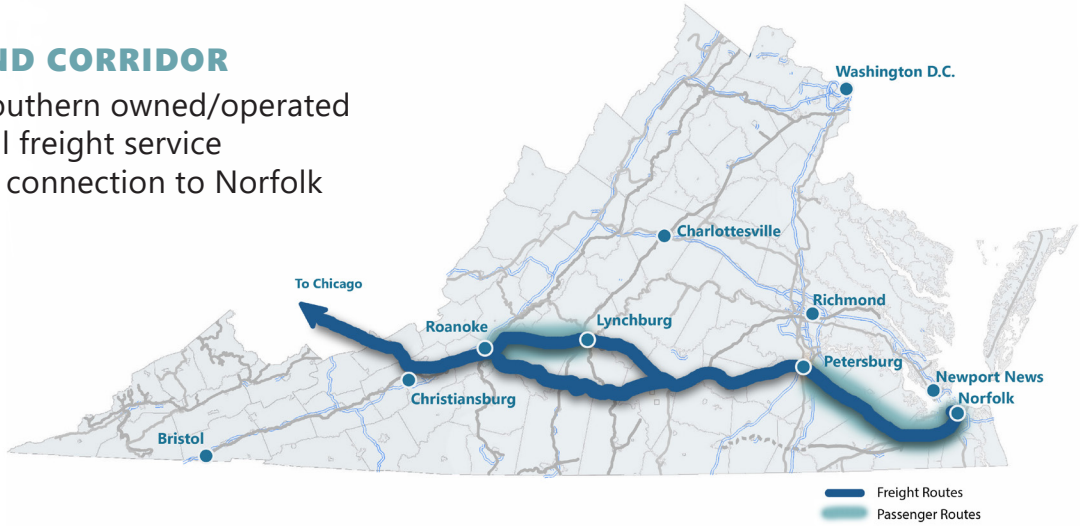
- Changes in Energy Production
- Amtrak Northeast Corridor
- Aging Infrastructure
- Technology

KEY GOALS

- Ensure Safety, Security and Resiliency
- Improve Coordination between Transportation and Land Use
- Ensure Transparency and Accountability, and Promote Performance Management
- Support Regional Economic Development

HEARTLAND CORRIDOR

- Norfolk Southern owned/operated
- Intermodal freight service
- Passenger connection to Norfolk



BACKGROUND

The Heartland Corridor is a primary freight route for intermodal traffic traveling between the Port of Virginia terminals in Norfolk and midwestern markets, including Columbus and Chicago. The Heartland Corridor also carries Virginia regional passenger trains between Norfolk and Petersburg, as well as a new service extension between Lynchburg and Roanoke. Both services ultimately connect to Washington, D.C. and the Northeast Corridor. The Heartland Corridor connects to the Crescent Corridor in Roanoke and Altavista.

SIGNIFICANCE

Through significant previous investment, the corridor is cleared for double-stack container service from the Port, through Virginia, to Chicago. Tight timetables and high demand for on-time performance are critical needs to adequately serve intermodal customers. It is critical to eliminate any congestion points, particularly conflicts with passenger services, on this dense intermodal corridor.

PROJECTS

Priority improvements include adding two additional round-trip passenger trains to Norfolk by extending two existing trains from Richmond. Longer term initiatives include the study of additional and/or higher speed passenger services to Hampton Roads and making critical east-west multimodal connections.

TOP DRIVERS

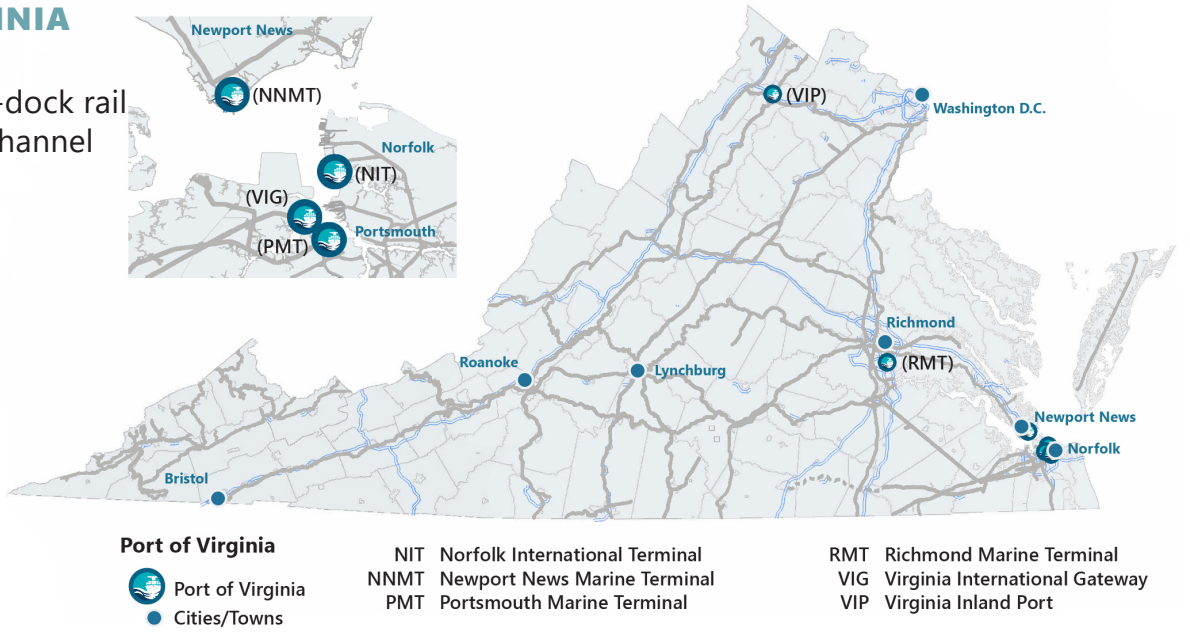
- Growth in Intermodal Traffic
- Changes in Energy Production
- Environmental

KEY GOALS

- Ensure Safety, Security and Resiliency
- Improve Coordination between Transportation and Land Use
- Support Regional Economic Development
- Ensure Efficient Intermodal Connections

PORT OF VIRGINIA

- 6 terminals
- 30 miles of on-dock rail
- 55 foot deep channel



BACKGROUND

The Port of Virginia is the 5th largest container port in the nation. Port facilities include 4 deepwater marine terminals (Hampton Roads), an upriver terminal (Richmond) and an inland intermodal terminal (Front Royal). The Port is served by more than 30 international shipping lines, serving more than 200 countries. More than 33% of the Port's freight arrives and departs by rail, carried by NS, CSX, and two shortlines, the Norfolk & Portsmouth Belt Line and the Commonwealth Railway.

The Port primarily ships to customers in Virginia, North Carolina, Maryland, and West Virginia via truck, and to Ohio, Indiana, Illinois, Tennessee, Kentucky, and beyond via Norfolk Southern and CSX.

SIGNIFICANCE

The Port is one of the most significant drivers of freight rail traffic in the Commonwealth. Due to changes in energy demand and production, intermodal traffic is the most dominant growth sector in freight rail traffic, and the Port is well poised to contribute heavily to that growth market. Ensuring efficient loading and unloading of trains, and last mile connectivity to the freight rail network are vital to ensuring that business at the Port continues to run smoothly and drive the Virginia economy forward.

PROJECTS

Priority projects includes multiple terminal expansions, including VIG, VIP, and NIT, with additional rail capacity, and ensuring shortline and switch operators outside the Port gates have the needed capacity to handle the additional growth in rail traffic.

Additional priority projects include expanding the inland port at Front Royal and improving rail infrastructure, including grade crossings on tracks serving the Ports.

TOP DRIVERS

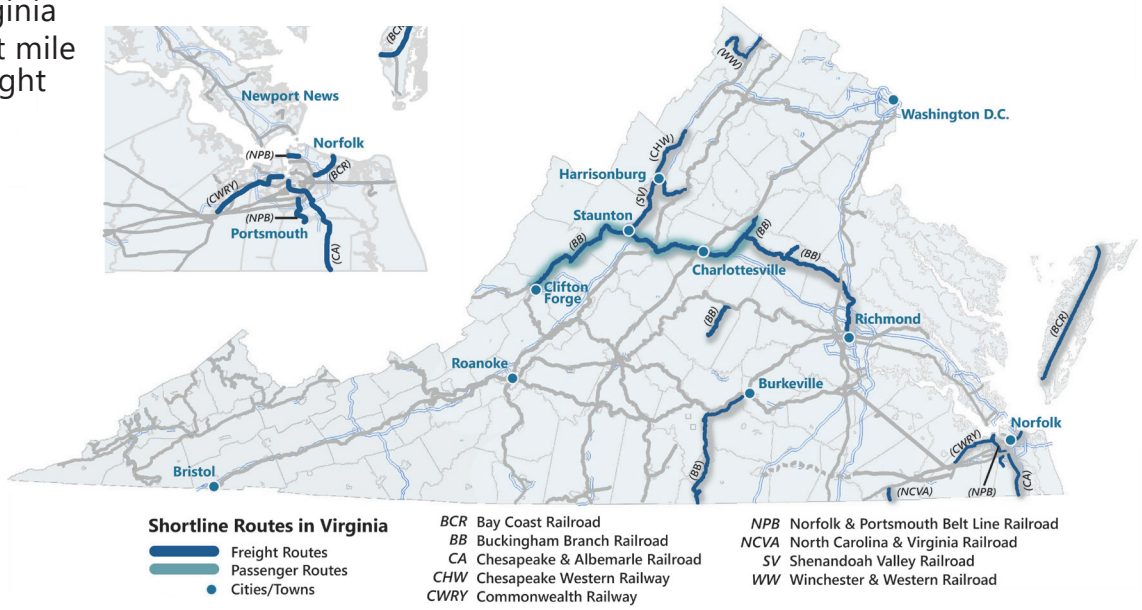
- Growth in Intermodal Traffic
- Congestion
- Environmental
- Technology

KEY GOALS

- Ensure Transparency and Accountability, and Promote Performance Management
- Ensure Efficient Intermodal Connections
- Support Regional Economic Development

SHORTLINE ROUTES IN VIRGINIA

- 9 shortlines in Virginia
- Important first/last mile connection for freight



BACKGROUND

Virginia's shortline railroads operate at the regional and local level to connect individual customers to the larger freight rail network and make last mile connections to the Port of Virginia. Shortline railroads often serve as either the point of origin or termination for freight carried in and out of Virginia by Norfolk Southern or CSX.

Virginia supports shortlines through the Rail Preservation Program, which funds both capacity and state of good repair projects.

SIGNIFICANCE

Shortlines provide a critical link to local and regional customers, as well as the Port, loading, unloading, and building trains that eventually traverse the national rail network through Class I freight service. Many of the shortlines inherited track with years of deferred maintenance, requiring additional resources to maintain a state of good repair.

Shortlines are better positioned to accommodate smaller businesses with lower traffic volumes. Virginia supports shortlines as both a partner in economic development opportunities at the port facilities and in rural areas, and as a means to divert trucks from congested highways.

PROJECTS

Priority projects include improving track to FRA Class 2 safety standards; improving signal systems and technology for more efficient operations; and upgrading bridges and track to accommodate heavier railcars that have become the industry standard. Longer term priority projects includes critical infrastructure rehabilitation such as bridges and tunnels, which, if allowed to fail, would create significant safety hazards and may make the entire rail line inoperable.

TOP DRIVERS

- Changes in Energy Production
- Aging Infrastructure
- Changes in Rail Governance Framework
- Technology

KEY GOALS

- Ensure Safety, Security and Resiliency
- Improve Coordination between Transportation and Land Use
- Support Regional Economic Development

VIRGINIA STATE RAIL PLAN

VIRGINIA STATE RAIL PLAN

The 2017 Virginia State Rail Plan was developed by the Virginia Department of Rail and Public Transportation (DRPT) under the guidance of the Commonwealth Transportation Board (CTB) Rail Committee to address changes in the rail industry and prioritize Virginia's investments in freight and passenger rail services and infrastructure across the Commonwealth. This State Rail Plan guides Virginia's vision for railroad transportation to the horizon year of 2040, and lists strategies to achieve that vision.

The State Rail Plan meets the federal requirements of the Passenger Rail Investment and Improvement Act of 2008, as amended by the Fixing America's Surface Transportation Act of 2015. In addition, this State Rail Plan also meets the requirements of the State Rail Plan Guidance provided by the Federal Railroad Administration (FRA) in September 2013.

CHAPTER INDEX

01
THE ROLE OF RAIL IN STATEWIDE TRANSPORTATION
Chapter one introduces you to the role and importance of rail in the Commonwealth's transportation network. From a farm-to-market transportation system to an evolving system supporting a thriving economy and the Port of Virginia, rail has helped Virginia grow and prosper.

02
THE STATE'S EXISTING RAIL SYSTEM
Chapter two provides an overview and inventory of Virginia's existing rail system and services, and identifies the economic, demographic, and transportation demand forecasts and trends that will affect future demand for passenger and freight rail service in the state.

03
PROPOSED PASSENGER RAIL IMPROVEMENTS AND INVESTMENTS
This chapter introduces projects and initiatives that will enhance Virginia's passenger and commuter rail services to better serve the mobility needs of the state and region.

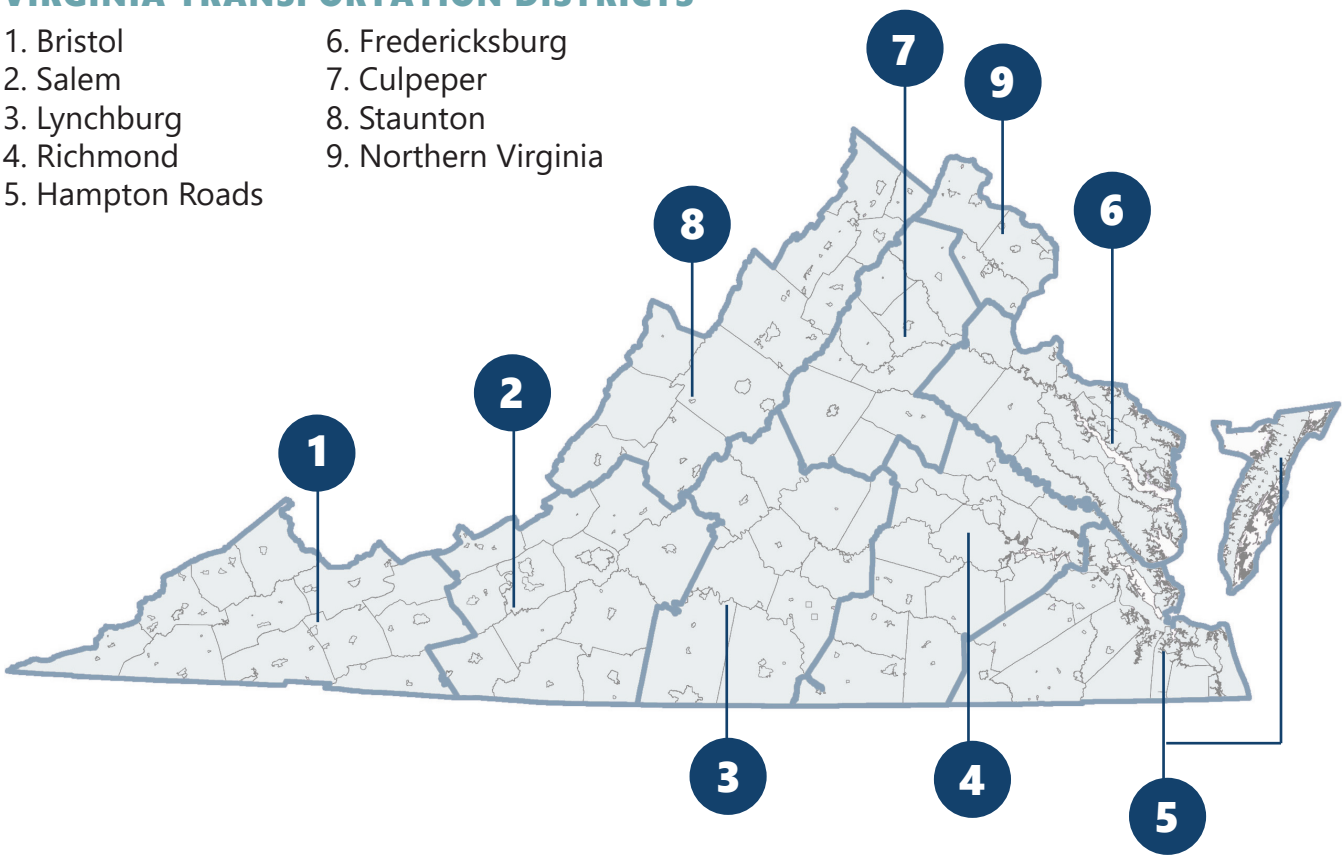
04
PROPOSED FREIGHT RAIL IMPROVEMENTS AND INVESTMENT
The information in chapter four describes the recent improvements and investments that have been made, and potential future investments, by the state's freight railroads and the Commonwealth.

05
THE STATE'S RAIL SERVICE AND INVESTMENT PROGRAM
Chapter five prioritizes short and long range investments for the Commonwealth.

06
COORDINATION AND REVIEW
This chapter describes how the DRPT involved stakeholders in the coordination necessary to develop the rail plan.

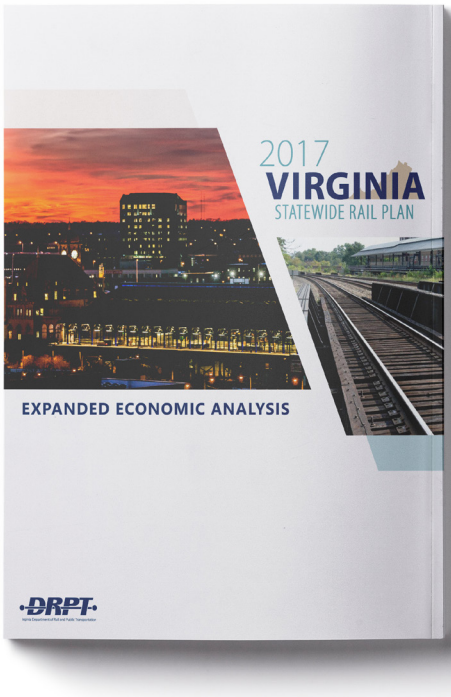
VIRGINIA TRANSPORTATION DISTRICTS

1. Bristol
2. Salem
3. Lynchburg
4. Richmond
5. Hampton Roads
6. Fredericksburg
7. Culpeper
8. Staunton
9. Northern Virginia



ECONOMIC ANALYSES

This report evaluates freight flows within Virginia by county and corridor. The estimation of volumes by location of shippers and receivers is intended to inform local and state discussions about the opportunities and constraints in the existing rail and road transportation network.
The report includes: Freight Demand Baseline Analysis, Freight Forecast, and a Regional Economic Analysis of Expanded Freight Demand. County-level results are aggregated and reported by Transportation District.



DRPT
Virginia Department of Rail and Public Transportation

Department of Rail & Public Transportation
600 East Main Street, Suite 2102
Richmond, VA 23219
(804) 786-4440

www.drpt.virginia.gov

Public Affairs and Media Inquiries
drptpr@drpt.virginia.gov