



2035 UPDATE

VTrans

SAFE • STRATEGIC • SEAMLESS

Executive Summary

ACKNOWLEDGEMENTS

The VTrans2035 Update was developed through a cooperative effort of technical experts and policy makers.

The Multimodal Working Group was created to help guide the development of the plan and consists of representatives from

The Office of the Secretary of Transportation
 The Office of Intermodal Planning and Investment
 Department of Aviation
 Department of Motor Vehicles
 Department of Rail and Public Transportation
 Department of Transportation
 The Virginia Port Authority
 Virginia Commercial Space Flight Authority
 Motor Vehicle Dealer Board

VTrans2035 was also developed with the assistance of private consulting firms specializing in the development of long-range plans:

Michael Baker, Jr. Inc.
 CDM Smith Associates
 Renaissance Planning Group

Thanks also to the hundreds of planning partners, stakeholders and citizens who participated in the outreach efforts and provided valuable input throughout the development of the plan.

WHAT IS THE VTRANS2035 UPDATE?

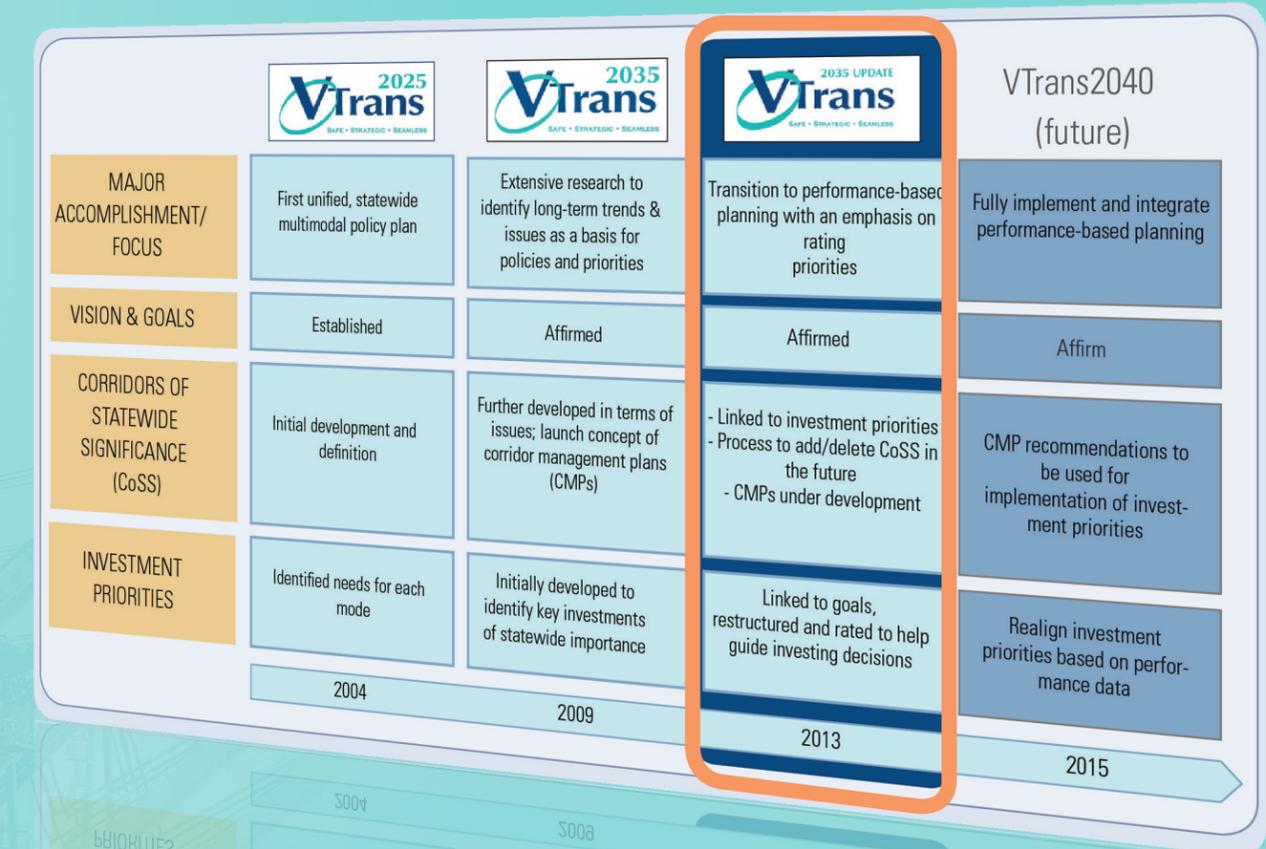
VTrans is the long-range statewide multimodal policy plan that lays out the overarching vision and goals for transportation in the Commonwealth. It identifies transportation investment priorities and provides direction to transportation agencies on strategies and policies to be incorporated into their plans and programs.

The Secretary of Transportation's Office, through the Office of Intermodal Planning and Investment, led the development of VTrans2035 that involved the following state transportation agencies:

- Virginia Department of Aviation
- Virginia Department of Motor Vehicles
- Virginia Department of Transportation
- Virginia Department of Rail and Public Transportation
- Virginia Port Authority
- Virginia Motor Vehicle Dealer Board
- Virginia Commercial Space Flight Authority

The VTrans2035 Report was completed in 2010. The VTrans2035 Update is an interim update, coming in between the completion of VTrans2035 and VTrans2040. This update was needed in order to address an updated timeline for the completion of the plan from the General Assembly and to allow each gubernatorial administration the time not only to develop a VTrans update, but also to implement the recommendations therein, during their term in office.

The VTrans2035 Update Report can be found on the web at www.vtrans.org.



FOCUS OF THIS UPDATE

This interim update of VTrans2035 does not establish a new horizon year, nor does it include a fully updated analysis of anticipated long-range transportation needs. Rather, it is focused on transforming the existing components of VTrans2035 into a new framework for linking system-wide performance evaluations to planning, policy development, and funding decisions. It moves towards a more performance-based planning process to focus investments on achieving strategic outcomes. Using this “performance-based planning” framework, transportation agencies and decision-makers can combine information about projected transportation needs with assessments of current system performance in order to develop cost-effective strategies that simultaneously address existing problems and anticipated future needs.

This update is focused on transforming the existing components of VTrans2035 into a new framework for linking system-wide performance evaluations to planning, policy development, and funding decisions

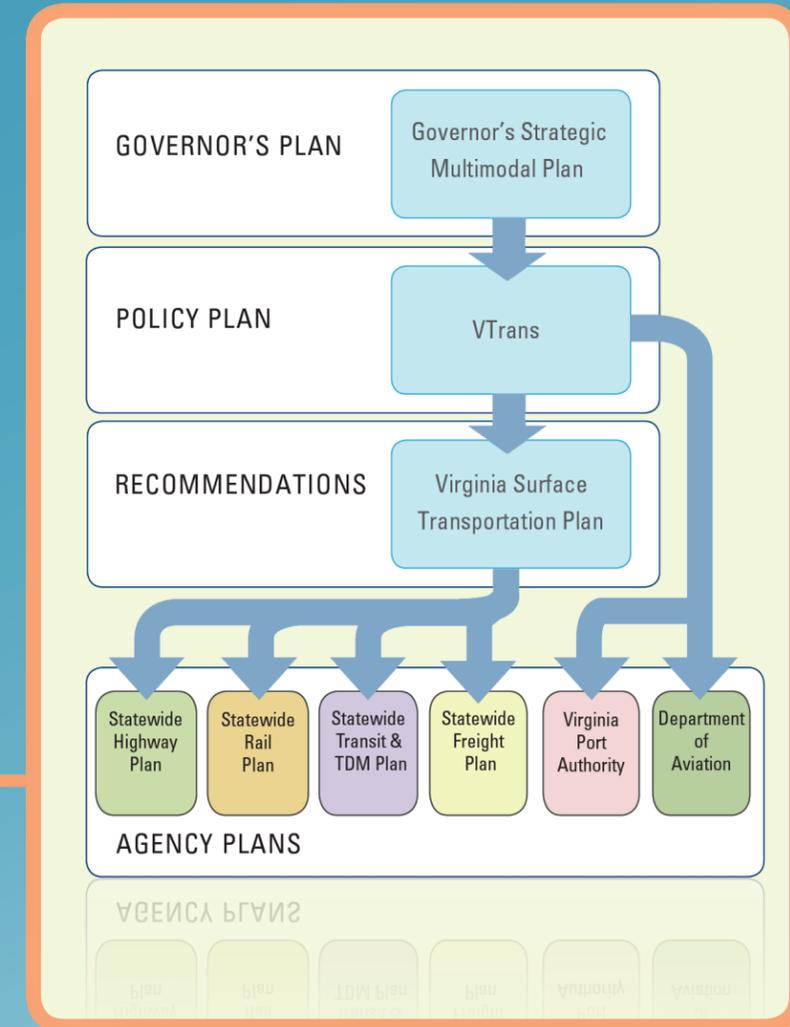


HOW VTRANS RELATES TO OTHER STATEWIDE TRANSPORTATION PLANS

Under the direction of the Secretary of Transportation and the Governor’s Strategic Multimodal Plan, VTrans2035 serves as the “policy plan” – describing the

investments, actions and public policies needed to advance the statewide Vision and Goals over a long period of time. Several other statewide transportation plans fall under the VTrans policy plan, including the Virginia Surface Transportation Plan (VSTP), the Virginia Air Transportation System Plan, and the Virginia Port Authority Master Plan. Each plan provides an assessment of needs and recommendations for the subject transportation mode or modes. The modal plans evaluate current initiatives, assess critical needs and ultimately provide

recommendations for specific projects, strategies, and areas of investment to meet future needs and achieve long-term transportation goals. The VSTP provides recommendations for public transportation, rail, and highway projects, as well as strategies for freight and to increase carpooling, biking, walking, and the use of other travel modes.





KEY SOCIAL AND ECONOMIC FACTORS AFFECTING TRANSPORTATION

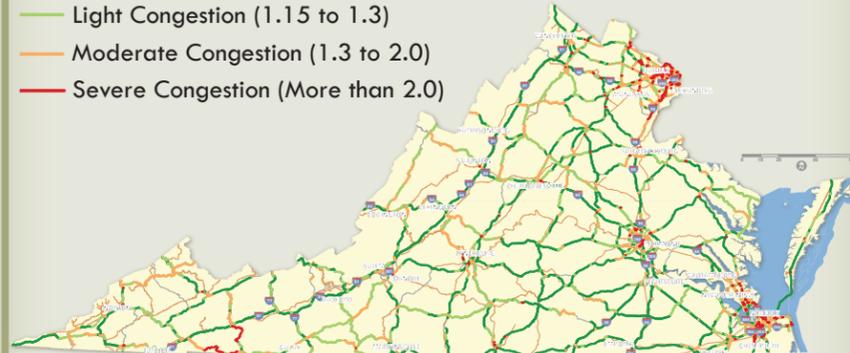
A number of current and emerging factors affect transportation in the Commonwealth and influence how we plan for it.

These include:

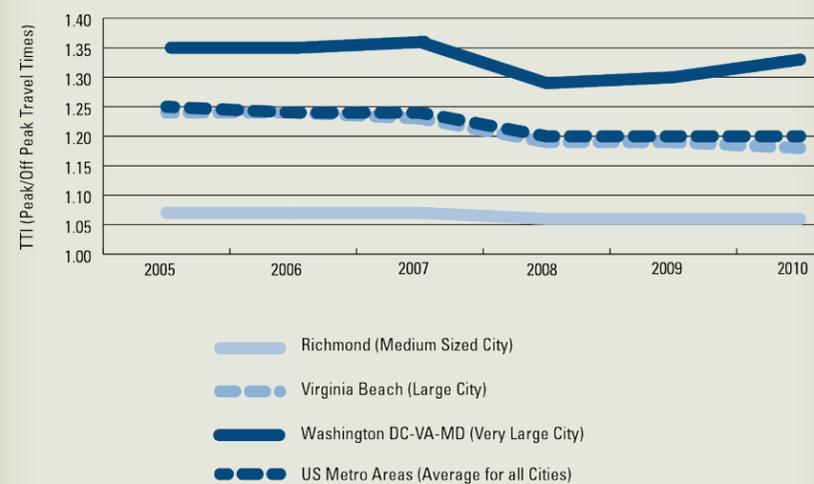
- Intermodal facilities and connections are needed to handle increasing volumes of freight movement through Virginia's marine ports, inland ports, rail lines, highways, and airports.
- A balanced array of transportation investments is needed to reduce traffic congestion and improve passenger and freight movement in fast-growing urban and suburban areas.
- More travel choices, including public transit and pedestrian facilities, are needed to serve growing urban, suburban, and rural populations who cannot drive or who seek transportation alternatives, including older adults and people with disabilities.
- Strategic rural connections are needed to support the revitalization of small cities and communities that struggle with persistent unemployment and poverty rates, especially along Virginia's southern and western borders.

CONGESTION LEVEL PM Peak Travel Time Index

- Uncongested (Less than 1.15)
- Light Congestion (1.15 to 1.3)
- Moderate Congestion (1.3 to 2.0)
- Severe Congestion (More than 2.0)



TRAVEL TIME INDEX



RECENT TRAVEL TRENDS IN VIRGINIA

As part of more strategic planning for transportation investments in the future, it is important to have effective measures to gauge how our transportation system is performing. A key measure of traffic congestion that has emerged through improvements in data gathering in recent years is the Travel Time Index (TTI). TTI, as measured by the Texas Transportation Institute, represents the ratio of peak (rush-hour) travel times to off-peak travel times. A Travel Time Index (TTI) of 1.00 means traffic is distributed fairly evenly throughout the day, while a TTI of 1.20 indicates that travel times during rush hour are 20% longer than off-peak periods.

With a TTI of 1.33, the Washington DC-VA-MD metro area is the nation's second most congested urban area, trailing only Los Angeles. The average commuter in the DC metro-area experiences 74 hours of travel delay per year - nearly two full work weeks sitting in traffic. Virginia Beach has a 1.18 TTI, making it the 26th most congested urban area in the nation, while Richmond's TTI of 1.06 is below the average for comparably sized cities.

Passenger air enplanement rates are stable, remaining at 24 million enplanements per year. Virginia ranked 9th in total passenger enplanements during 2011 compared to other states. Air cargo activity is on the rise. Washington Dulles International Airport ranked 45th in the US for air cargo tonnage, and Richmond International Airport shuttled 354 million pounds of landed weight in 2011 - a 4% increase over 2010 figures.

Marine and inland port activity is rising, and Virginia's freight centers are poised and ready for the increase in freight activity. The Port of Virginia, with its naturally

deep harbor, is the only East Coast port capable of handling large, post-Panamax vessels as first port of call. In 2011 it ranked 7th in the US in container traffic. In addition, the Virginia Inland Port in Front Royal serves as an intermodal collection point for containers from West Virginia, Ohio, Pennsylvania, Northern Virginia, and elsewhere. Finally, the Port of Richmond, a multimodal freight and distribution center located on the James River, adjacent to I-95, offers monthly service to Canada, Iceland, the Mediterranean, South America, Mexico and the Caribbean.

Virginia's rail lines are a critical resource for freight movement. Major lines run north-south and east-west, and important rail lines converge at key nodes: Norfolk, Richmond, Lynchburg, Roanoke, and Alexandria. In 2010, the Commonwealth generated over 500,000 carloads (37 million tons) of commodities transported by rail.

Passenger, commuter and light rail services and ridership are growing. Amtrak ridership in Virginia continues to grow throughout the state. The Commonwealth recently extended service to Norfolk, and ridership on the three-year old Washington-Lynchburg route increased by 29% from FY 2010 to 2011, hitting a record high of almost 185,000 passengers in 2012. The Tide, Virginia's first light rail system exceeded expectations by carrying 4,900 riders each weekday, whereas only 2,900 riders were projected. In FY2012 the Virginia Railway Express commuter rail service averaged 19,000 daily passengers and experienced record high annual ridership of over 4.7 million passengers. The 23-mile extension of Washington D.C.'s Metrorail system will serve the state's two largest employment concentrations -Tyson's Corner and the Reston/Herndon area when construction is complete.



VTrans2035 Goals

VTrans2035 set forth seven goals for transportation in the Commonwealth.

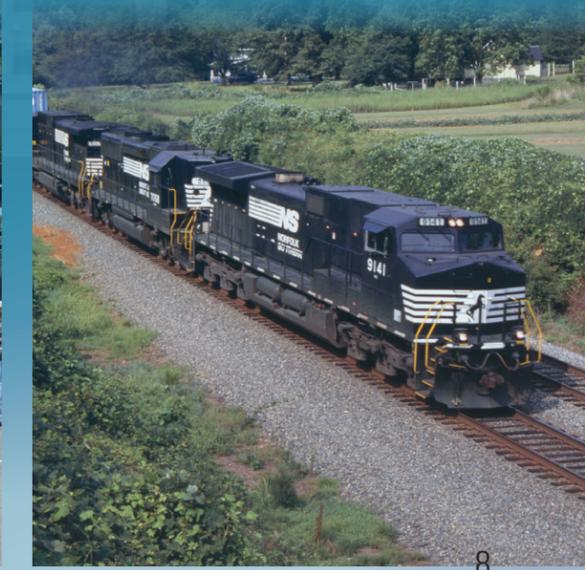
 <p>SAFETY AND SECURITY</p> <p>Provide a safe and secure transportation system</p>	 <p>SYSTEM MAINTENANCE AND PRESERVATION</p> <p>Preserve and maintain the condition of the existing transportation system</p>	 <p>MOBILITY, CONNECTIVITY, AND ACCESSIBILITY</p> <p>Facilitate the easy movement of people and goods, improve interconnectivity of regions and activity centers, and provide access to different modes of transportation</p>	 <p>ENVIRONMENTAL STEWARDSHIP</p> <p>Protect the environment and improve the quality of life for Virginians</p>	 <p>ECONOMIC VITALITY</p> <p>Provide a transportation system that supports economic prosperity</p>	 <p>COORDINATION OF TRANSPORTATION AND LAND USE</p> <p>Facilitate the effective coordination of transportation and land use that promote livable communities</p>	 <p>PROGRAM DELIVERY</p> <p>Achieve excellence in the execution of programs and delivery of services</p>
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VTRANS2035 VISION AND GOALS

Virginians envision a multimodal transportation system that is safe, strategic, and seamless.

VTrans2035 Vision

Virginians envision a multimodal transportation system that is safe, strategic, and seamless. Travel for people and goods will be safe and uninterrupted. Transportation improvements will consider the environment and the quality of life in Virginia's communities while enhancing economic opportunity. Transportation improvements will respect and reflect the varied needs of Virginia's diverse communities and regions. Investments in transportation will be adequate to meet current and future needs. Transportation decisions will be guided by sustained, informed involvement of Virginia's community leaders and citizens. Full accountability and enduring trust will be the hallmarks of transportation planning and investment decisions throughout the Commonwealth.





IMPLEMENTING THE VTRANS2035 UPDATE

VTrans is a policy document. It is not, in and of itself, a transportation plan or funding program. The process of achieving VTrans Goals, advancing Investment Priorities, and implementing the performance-based planning framework will require a collaborative effort by a wide variety of partners.



3 types of actions are particularly important:

1. State agencies and Legislators can work together to undertake funding initiatives and policy changes that are needed to support the investment priorities in the VTrans2035 Update.
2. Federal, state, and regional transportation agency partners can incorporate the concepts of the performance-based planning framework into their agency actions, bringing the priorities of the VTrans2035 Update into project-level plans and agency programs.
3. State transportation agencies can undertake specific short-term actions to complete the performance-based planning framework and pursue the recommendations of VTrans.

VTrans Planning & Project Development Partners

Agency Planning & Project Development Activities	Federal Partners	Neighbor State DOTs	VA Gov, Secretariat & CTB	VA Modal Agencies	VA Agency Partners	Regional Agencies	Local Govts.	Private Sector Partners
Federal Policies, Regulations & Programs	✓		✓			✓		
Neighbor States' Plans & Projects	✓	✓	✓	✓				✓
VA Statewide Transp Policies & Programs	✓		✓	✓		✓		✓
VA Statewide Transp Plans & Projects	✓	✓	✓	✓	✓	✓		✓
Other VA Statewide Transp Plans & Programs	✓		✓	✓	✓	✓	✓	
Regional Plans & Programs	✓	✓	✓	✓	✓	✓	✓	✓
Local Plans & Programs	✓		✓	✓	✓	✓	✓	✓
Private Sector Investments	✓	✓	✓	✓		✓	✓	✓

Lead Role
 Supporting Role

VTRANS2035 INVESTMENT PRIORITIES AND STRATEGIES

Investment Priorities

Investment Priorities represent investment decisions – some describe programs such as education and planning, while others describe types of projects such as highway and transit improvements and intelligent transportation systems. Collectively, the Investment Priorities represent the range of activities necessary to achieve the VTrans Goals.

VTrans2035 included 19 Investment Priorities that ranged from broad initiatives such as “Improve Rural Connectivity” to specific projects such as “Tunnels and Bridges in Hampton Roads.” Participants in stakeholder and public outreach efforts helped to identify ways to make the wide-ranging set of Investment Priorities more concise, more consistent, and better balanced in addressing travel modes. The VTrans2035 Update provides a framework for this realignment, which retains all of the original priorities but re-arranges them into a more succinct set of definable Investment Priorities with supporting Investment Strategies. In this new alignment, some additional Priorities and Strategies are added for completeness, while some redundant recommendations are consolidated.

The updated Investment Priorities serve as specific objectives for each of the goals by taking the form of measurable action statements. The Investment Strategies are more specific and implementable than the Investment Priorities, providing examples of the types of investments and programs needed to accomplish the objectives stated in the Investment Priorities. Some of the Investment Strategies could be described as “what” statements that lay out specific types of infrastructure investments. Others are “how” statements that describe proposed changes in agency planning practices and decision-making procedures.

Investment Strategies

For each of the thirteen Investment Priorities listed here, the box lists some example Investment Strategy or Strategies. Together, the Investment Priorities and related Investment Strategies address the performance based planning and programming process developed in the VTrans2035 Update.

Increase Coordinated Safety and Security Planning

- Ensure coordination of state, regional, and local plans for evacuation, hazmat transport and other safety/security issues

Preserve and Enhance Statewide Mobility

- Develop master plans to improve access to Corridors of Statewide Significance.
- Reduce freight related congestion.
- Complete in-progress PPTAs.

Advance Key Economic Drivers by Making Strategic Infrastructure Investments

- Support the economic growth potential of Washington Dulles International Airport through local and regional multimodal access improvements.
- Support major military facilities throughout the Commonwealth and leverage private sector growth through enhanced mobility.
- Implement improvements to all types of freight movement along the I-81 corridor.
- Expand the Port, related intermodal facilities and market access through investments including tunnels and bridges in Hampton Roads.
- Make strategic investments to support statewide economic drivers in rural areas such as freight and tourism.

Preserve and Optimize System Efficiency through Proactive Planning

- Integrate regional land uses and transportation system capacity to improve long-term system performance.
- Consider local land use objectives in statewide plans through coordinated outreach and planning.

Improve Safe Operations and Services

- Address causes of accidents through physical improvements and educational programs.

Increase System Performance by Making Operational Improvements

- Invest in smart system technologies.
- Implement travel demand management strategies.

Achieve State of Good Repair

- Repair deficient pavement.
- Rehabilitate structurally deficient bridges.
- Conduct targeted preventive maintenance for all transportation modes.

Promote Sustainable Methods of Planning, Design, Operation and Construction That Are Sensitive to Environmental, Cultural and Community Resources

- Expand non-Single-Occupant-Vehicle (SOV) travel options.
- Address energy conservation in all phases of project development and implementation.
- Incorporate community input to achieve environmental justice and context-sensitive solutions.

Improve the Interconnectivity of Regions and Activity Centers

- Provide high speed or intercity passenger rail in major intercity travel corridors.
- Connect high speed and intercity rail with regional transit systems.
- Provide effective regional transit systems in concert with supportive land uses and bike/ped connections.

Reduce the Costs of Congestion to Virginia's Residents and Businesses

- Conduct annual economic analysis of congestion-reduction projects for inclusion in the Six-Year Improvement Program

Increase Travel Choices to Improve Quality of Life for Virginians

- Improve multimodal rural connectivity.
- Increase transit and passenger rail usage and supporting land uses.
- Provide pedestrian and bicycle facilities to create interconnected networks.

Improve Cost-Effectiveness of Providing Programs and Services

- Develop action plans related to issues identified in annual customer surveys.
- Encourage innovative resource optimization strategies.

Expand Opportunities to Develop and Leverage Funds

- Review and refine PPTA process to effectively leverage private capital that provides a public benefit.
- Develop sustainable funding commitments based on leveraging existing/new funding sources.

VTrans2035 Goals



Safety and Security



System Maintenance and Preservation



Mobility, Connectivity, and Accessibility



Environmental Stewardship



Economic Vitality



Coordination of Transportation and Land Use



Program Delivery

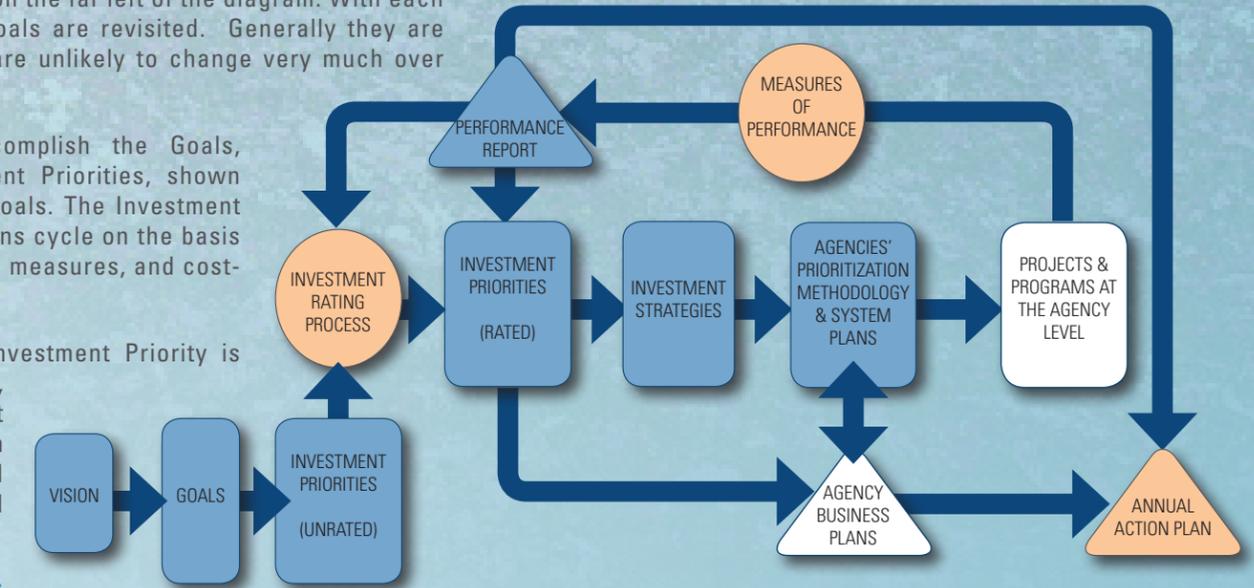
THE PERFORMANCE-BASED PLANNING FRAMEWORK

The **VTrans2035 Update** focuses on creating a framework that links Goals, Investment Priorities, project and program selection by state and regional agencies, and ongoing performance measurement so that we can direct our investments to be most effective and adjust our priorities according to performance results. Under the VTrans2035 performance-based planning framework, specific projects from state and regional transportation agency plans can be linked to the VTrans Investment Priorities. Agency processes such as needs evaluations, performance rating, and project prioritization can be shaped in terms that relate directly to VTrans. This consistency will promote the alignment among policies, plans, and funding programs that is necessary to gauge accurately the effects of transportation decisions on system performance.



The **framework** is organized around five iterative components: Vision and Goals; Investment Priorities; Investment Strategies; Agency Plans and Programs; and Performance Evaluation. The VTrans2035 Update focuses primarily on the core of the diagram in which Investment Priorities are identified and rated.

- **Vision and Goals:** The performance-based planning process begins with the VTrans Vision and Goals, shown on the far left of the diagram. With each update of VTrans, the Vision and Goals are revisited. Generally they are confirmed through the review and are unlikely to change very much over time.
- **Investment Priorities:** To accomplish the Goals, VTrans includes a set of Investment Priorities, shown on the diagram to the right of the Goals. The Investment Priorities are rated during each VTrans cycle on the basis of need, as reflected by performance measures, and cost-effectiveness.
- **Investment Strategies:** Each Investment Priority is supported by Investment Strategies, which describe key tactics that modal transportation agencies can implement through their plans and program for specific projects and services.
- **Agency Plans and Programs:** As shown on the far right of the diagram, the agencies work together to develop annual action plans, to assess progress toward achieving the VTrans Goals, and to develop refinements to the process of measuring performance and setting priorities.
- **Performance Evaluation:** Ultimately, the information provided by the agencies' collaborative work "loops back" to provide a strong technical basis for evaluating system performance and updating VTrans Goals, rating the Investment Priorities, and identifying appropriate strategies accordingly.



TYPE OF PROCESS	RESPONSIBILITY
Planning Process	Office of Intermodal Planning & Investment
Evaluation Process	Commonwealth Transportation Board/Agencies
Plan or Report	Agencies





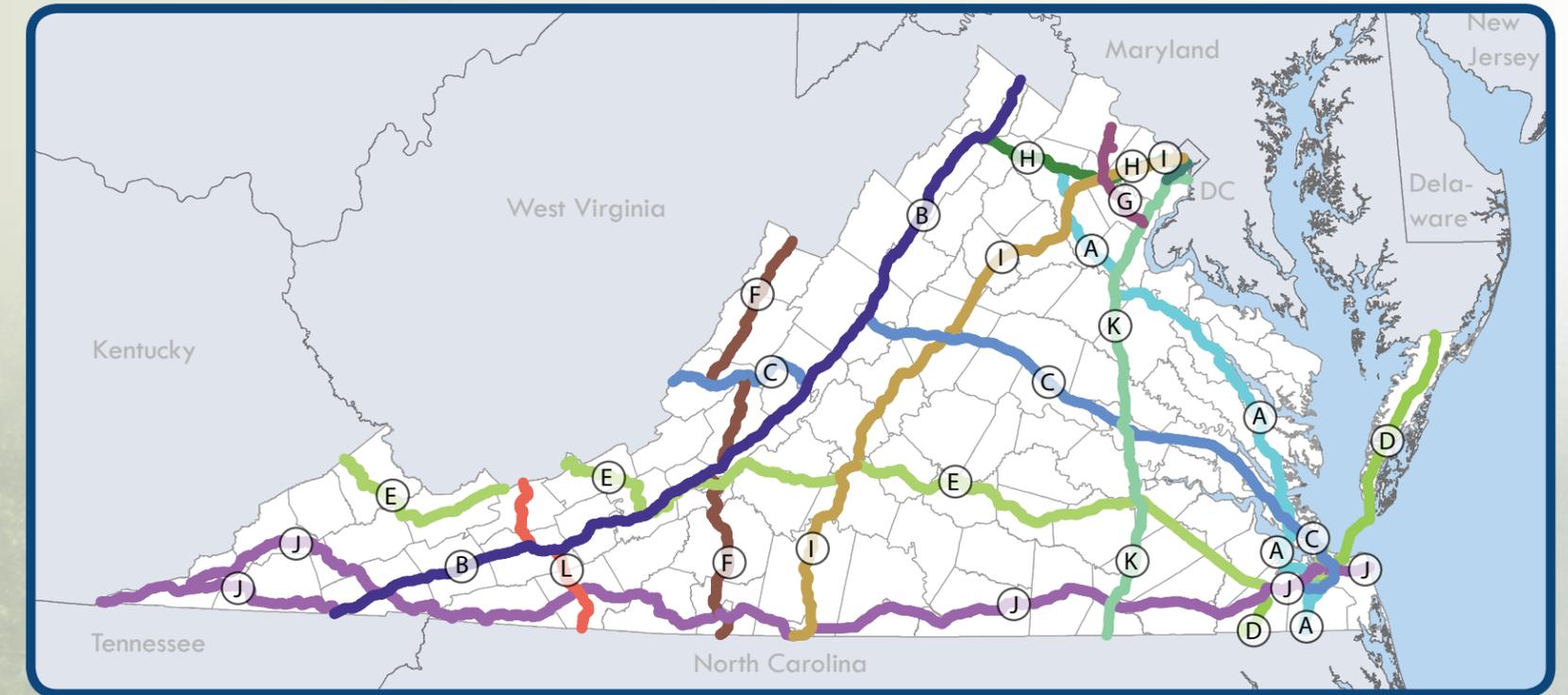
WHAT ARE THE CORRIDORS OF STATEWIDE SIGNIFICANCE (COSS)?

The CoSS were originally developed under VTrans2025 and validated during the VTrans2035 Update process. Corridors identified as CoSS demonstrate all of the following characteristics:

- Multiple modes and/or an extended freight corridor,
- Connection among regions, states and/or major activity centers,
- High volume of travel, and
- Unique statewide function and/or fulfillment of statewide goals.

THE LATEST CHANGES TO THE COSS

1. **New Corridor:** In 2011, the CTB added a North-South Corridor to the CoSS. The CTB resolution names the need and unique statewide function (linking I-95, I-66, the Dulles Toll Road and Dulles International Airport), the large population and travel markets in the area, and multimodal components of the corridor as a basis for the CoSS designation.
2. **Prioritizing CoSS:** The VTrans2035 Update establishes three tiers of CoSS: National Corridors, Commerce and Mobility Corridors, and Statewide Corridors. These systems are defined by the dynamics of total population, travel patterns, and intermodal and economic potential of the corridor within and outside of Virginia.
3. **Corridor Master Plans:** The Office of Intermodal Planning and Investment has begun a process of preparing a Corridor Master Plan for the North-South Corridor and creating guidelines for future Corridor Master Plans. During 2010-2011, a draft plan for the US 29 Corridor was developed. The planning process provided valuable information and "lessons learned" for the development of future Corridor Master Plans.
4. **CoSS Procedures:** This VTrans2035 Update includes procedures to be used to add, edit and delete CoSS from this point forward. These procedures provide a consistent basis and formal process for modifying the CoSS in the future.



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|-------------------------------|--|-------------------------------------|--|
| Ⓐ Coastal Corridor (Route 17) | Ⓓ Eastern Shore Corridor (Route 13) | Ⓖ North-South Corridor (New) | Ⓙ Southside Corridor (Route 58) |
| Ⓑ Crescent Corridor (I-81) | Ⓔ Heartland Corridor (US 460) | Ⓗ Northern Virginia Corridor (I-66) | Ⓚ Washington to North Carolina Corridor (I-95) |
| Ⓒ East-West Corridor (I-64) | Ⓕ North Carolina to West Virginia Corridor (Route 220) | Ⓘ Seminole Corridor (Route 29) | Ⓛ West Mountain Corridor (I-77) |



CRITICAL ACTIONS TO PROVIDE ADEQUATE TRANSPORTATION FUNDING

The most immediate actions needed to avoid further degradation of Virginia's existing transportation system while also making progress on needed transportation improvements include the following:

- Reverse erosion of existing gas tax revenues with strategies that incorporate alternative fuel vehicles and address the impacts of higher fuel efficiency standards on the per-gallon tax
- Facilitate the development of locally and regionally-based transportation funding that will support specific, high priority projects and programs
- Prioritize actions that spur economic growth, which in turn generates more revenues
- Identify dedicated revenue sources to support transit services in the Commonwealth
- Identify dedicated capital and operating funding streams for the Intercity Passenger Rail Operating and Capital Fund
- Address the growing bicycle and pedestrian needs through funding programs that leverage local public and private dollars, such as competitive grants with matching fund requirements
- Stabilize the maintenance burden on existing revenue sources through greater local responsibility for secondary roads



AFTER THE VTRANS2035 UPDATE

Transportation planning in Virginia is a constantly evolving process. Once the VTrans2035 Update is complete, Virginia's **state transportation agencies and planning partners** will continue to integrate the VTrans2035 Update policy framework into the decision-making processes at the state, regional and local levels by:

- Developing annual action plans and business plans
- Refining the agency performance measurement process to better align with the Investment Priorities for more robust rating results
- Preparing the annual performance report
- Developing Corridor Master Plans for the Corridors of Statewide Significance

Throughout the next three years, the next iteration of VTrans will be developed with adoption scheduled in 2015. During the development of **VTrans2040**, the performance measurement requirements and targets of **MAP-21** will more clearly unfold. VTrans2040 will integrate the upcoming federal requirements into the VTrans performance-based planning process, ensuring compliance with federal law and more effectively linking Virginia's transportation investments and needs.

In July 2012, Congress passed a Federal Transportation Act: "Moving Ahead for Progress in the 21st Century" or **MAP-21**, which adds emphasis on performance-based planning. This law will require the development of performance criteria and targets that state and regional planning agencies must incorporate in their transportation planning processes.



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