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MASTER PLANS FOR NEEDS OF CORRIDORS OF STATEWIDE SIGNIFICANCE • MINIMIZE CONGESTION • INTEGRATE REGIONAL LAND USES AND HIGHWAY CAPACITY  
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# Executive Summary

*of VTrans2035 Report*

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## VTrans2035 is Virginia's long-range multimodal transportation plan.

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

- Department of Aviation
- Department of Motor Vehicles
- Department of Rail and Public Transportation
- Virginia Port Authority
- Department of Transportation

as well as the Federal Highway Administration and representative regional transportation planning agencies in Virginia. The *VTrans2035 Report* can be found on the web at [www.vtrans.org](http://www.vtrans.org)

*The impact of years of underinvesting in transportation, made more acute by current economic conditions, is now becoming painfully clear. As problems and needs grow, the cost of addressing them will not stay static, but will increase. Taking no action on the transportation funding crisis does not maintain the status quo; it moves Virginia backwards and results in a more expensive backlog of needs in the future.*

*Transportation is a good long-term investment that promotes economic growth and enhances the quality of life. What happens with a quality transportation system? Among other things:*

- *the economy thrives*
- *parents are not late in picking up children*
- *seniors have travel choices*
- *young drivers travel on safe roads*

*Virginia must take action immediately to address the funding crisis. VTrans2035 has identified priority investment actions to have a robust, quality transportation system. To become reality there must be adequate funding.*

***Virginia receives \$4  
in return for every \$1  
it invests in transportation.***



## The Setting

Today's current economic conditions have to be recognized, but they should not constrain the future. It is even more important in difficult and challenging times to have a clear picture of desired future outcomes so that every investment decision can be considered against the ultimate goals.

Fundamentally, the vision for Virginia's transportation system must be one that is safe, reliable, and seamless. It will use state-of-the-art technology to communicate information in a variety of ways, increasing the safety and effectiveness of all transportation modes.

This Executive Summary of the *VTrans2035 Report* reflects the findings of a series of technical reports as well as discussions with stakeholders on Virginia's transportation issues, input from agency reviews, and input from the Commonwealth Transportation Board. The technical reports address demographic changes, policy issues, and economic and funding impacts, as well as other transportation-related topics. The relationship of land use and transportation played a critical part in many of the policy assessments. The final report and all the supporting documents can be found at [www.vtrans.org](http://www.vtrans.org)

Over the next 25 years, Virginia will face significant transportation pressures. These will include continuing challenges of adequate revenue, identifying innovative solutions to accommodate future growth, maintaining an aging transportation system, and higher energy prices. The two hallmarks of the VTrans2035 process are identification of major investment priorities (pages 4-21) to keep Virginia moving and thriving, and development of strategies for Corridors of Statewide Significance (pages 22-23), the critical multimodal connections to Virginia's activity centers. To move these ideas forward, recommendations (pages 24-27) as to funding, planning process, and staff resources were identified.

### 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

## VTrans2035 Investment Priorities

Virginians look for different things from their transportation system, but what is consistent is the need for a quality system that enhances the Commonwealth's long-term economic competitiveness and improves the quality of life for its citizens. Common themes that point the way to what should be at the top of Virginia's list of investments include:

- Congestion ranks as a major issue for Virginia's long-term competitiveness and quality of life;
- Investment in transit as well as both passenger and freight rail would support Virginia's key economic engines (Dulles Airport and Port of Virginia) and at the same time address safety, congestion, and climate change issues;
- Technology provides opportunities to increase capacity in a cost-efficient, sustainable, and environmentally sensitive manner;
- Land use decisions must be better coordinated with transportation planning and investment decisions to better address congestion, regional accessibility, climate change, and the cost of transportation improvements;

- There is a backlog of maintenance needs now, and as the transportation system grows, the costs to maintain the system will increase; and
- As needs continue to grow, long-term trends in fuel consumption as well as inflation are adversely affecting traditional funding mechanisms for transportation investment.

There are 19 priorities grouped into one of four categories. The priorities are color-coded by category and presented on the following pages.

**There will always be a sizable gap between available revenues and transportation needs. The strategic and focused approach taken by VTrans2035 identified key transportation investment priorities Virginia must address to prosper and thrive in a fast-changing environment.**

Investment Priority Group	Investment Priority	Preliminary Planning Estimate of Unfunded Need (2009 \$)**
Make Strategic Investment in Infrastructure for the Future – For Example* (Total Need)	Plan for and Invest in High Speed Rail or Intercity Rail Between Washington, D.C., Richmond, and Hampton Roads and Expand Metrorail and/or Commuter Rail, Including Supporting Land Uses, in the I-95 Corridor	\$3.4 - \$5.5 Billion
	Freight Rail Along I-81	\$0.8 - \$1.2 Billion
	Tunnels and Bridges in Hampton Roads	\$7.8 - \$11.3 Billion
	Smart System Technology Leadership	\$2.2 - \$3.1 Billion
Address Environmental, Safety, and Maintenance Needs	Use Sustainable and Environmentally Sensitive Methods	Varies Depending on Project and Criteria
	Provide Safe Operations and Services	\$184 - \$258 Million/Year
	Repair Deficient Pavements	\$278 - \$389 Million/Year
	Rehabilitate Structurally Deficient Bridges	\$150 - \$210 Million/Year
	Ensure State of Good Repair in Transit	\$148 - \$207 Million/Year
Enhance Economic Competitiveness (Total Need)	Expand the Port and Related Intermodal Facilities and Services	\$7.7 - \$11.0 Billion
	Support Dulles International Airport and Growth of the Dulles Corridor	\$1.7 - \$2.5 Billion
	Connect High Speed and Intercity Rail with Regional Transit Systems	\$2.8 - \$4.0 Billion
	Improve Freight Mobility	\$14.1 - \$20.5 Billion
	Improve Rural Connectivity	Varies Depending on Project
	Complete Unfinished PPTAs and Review and Refine PPTA Process to Effectively Leverage Private Dollars for Publicly Beneficial Projects	\$3.8 - \$5.8 Billion
	Develop Master Plans for Needs of Corridors of Statewide Significance	Utilize Existing Intermodal Funds
Minimize Congestion	Integrate Regional Land Uses and Highway Capacity	Requires a Dedicated Funding Source
	Implement Pricing, Advanced Technology, and Demand Management	Requires a Dedicated Funding Source
	Increase Transit Usage and Supporting Land Uses	\$128 - \$143 Million/Year

\*There are several examples of crucial "game-changing" infrastructure investments. These four are offered as examples because of their potential impacts on both a regional and statewide basis.

\*\*Unfunded needs are preliminary order-of-magnitude planning estimates and are subject to revision as additional information becomes available. Estimates are in 2009 dollars; the range of costs reflects allowance for contingencies. The priorities should not be summed because some improvements are included in more than one priority. For example, the Third Crossing is included in three priorities: Tunnels and Bridges in Hampton Roads; Expand the Port; and Improve Freight Mobility.

## Priorities:

### For Example:

- Plan for and Invest in High Speed Rail or Intercity Rail Between Washington, D.C., Richmond, and Hampton Roads and Expand Metrorail and/or Commuter Rail, Including Supporting Land Uses, in the I-95 Corridor
- Freight Rail Along I-81
- Tunnels and Bridges in Hampton Roads
- Smart System Technology Leadership



## Recommendation:

*Establish Strategic Infrastructure Investment Fund with Dedicated Funding Source*

## Make Strategic Investment in Infrastructure for the Future

There are certain “game-changing investments” that can position Virginia’s global competitiveness, quality of life, and mobility of its citizens over the next quarter-century. They will be megaprojects, rising above other projects in their overall benefits to the Commonwealth. A game-changing investment will be one that makes Virginia stand out in its response to transportation needs. These projects will move both people and goods through Virginia, improve mobility, and enhance economic competitiveness.

These projects deliver extraordinary statewide benefits but are too big to be completed through year to year allocation of existing funding sources. Planning and design for these improvements should be funded through current sources and new resources should be sought to continue and accelerate implementation. A VTrans2035 recommendation is for the establishment of a Strategic Infrastructure Investment Fund. This would be funded with new revenue sources that must be found to move Virginia toward its vision.

*High speed rail will dramatically change lives much like the completion of the interstate highway system did. It requires the same focus and dedication to become a reality that the construction of the interstate system received.*

*High speed or intercity rail along the I-95, I-64, and/or Route 460 corridors would serve as the backbone or spine of a system connecting to regional rail (WMATA) in Northern Virginia and in the future to The Tide light rail system in Norfolk and planned extensions to Virginia Beach.*

**Priority:** Plan for and Invest in High Speed Rail or Intercity Rail Between Washington, DC., Richmond, and Hampton Roads and Expand Metrorail and/or Commuter Rail, Including Supporting Land Uses, in the I-95 Corridor

UNFUNDED NEED: \$3.4 - \$5.5 BILLION

- High speed rail service can strengthen the economy, decrease congestion, and sustain the environment by reducing greenhouse gas emissions and pollutants
- Virginia has submitted two high speed rail applications for funding from the American Reinvestment and Recovery Act
- Further investment in rail extensions and frequencies of service in the high-density portion of the I-95 corridor are needed to address congestion and anticipated population and employment growth



**Priority:**  
Freight Rail Along I-81

UNFUNDED NEED:  
\$0.8 - \$1.2 BILLION

- I-81 is a major freight corridor handling nearly 3.4 million trucks in 2008
- Truck traffic is expected to more than double by 2035 to 7.1 million trucks
- Crescent Corridor rail improvements can address freight mobility needs, reduce truck traffic on I-81, and have safety benefits

*The I-81 corridor is critical to Virginia's overall freight movement and economic vitality. Improvements are needed to facilitate the projected increase in freight traffic.*



**Priority:**  
Tunnels and Bridges in Hampton Roads

UNFUNDED NEED:  
\$7.8 - \$11.3 BILLION

- Viability of the Hampton Roads area is important to the entire well-being of the Commonwealth
- Tunnels and bridges are critical to safety, mobility, and economic competitiveness of the region
- Improvements needed are:
  - Hampton Roads Third Crossing
  - Hampton Roads Bridge-Tunnel Expansion
  - Downtown/Midtown Tunnel and Martin Luther King (MLK) Extension

*The Hampton Roads area is the second most congested area in Virginia (Northern Virginia is first). Improvements are needed to enhance economic competitiveness, improve safety for motorists, and enhance emergency evacuation capacity. Three bridge/tunnel improvement initiatives are among the most critical needs.*



*Technology can deliver transportation capacity improvements and services rather than surfaces (more or wider roadways). Smart technology can provide capacity, improve safety, be cost-effective, and support the environment. Virginia needs to be at the forefront of investments in smart technology.*

**Priority:**  
Smart System Technology Leadership

UNFUNDED NEED:  
\$2.2 - \$3.1 BILLION

- Technology will improve transportation efficiency and effectiveness and at the same time be cost-effective and environmentally friendly
- Virginia needs to be a leader in development and application of smart technology
- Cost to implement full deployment of Intelligent Transportation System (ITS) along interstates and primary routes, install next generation of traveler information systems, have multimodal technology solutions, and upgrade and expand signals is included in the unfunded need estimate

## Priorities:

- Use Sustainable and Environmentally Sensitive Methods
- Provide Safe Operations and Services
- Repair Deficient Pavements
- Rehabilitate Structurally Deficient Bridges
- Ensure State of Good Repair in Transit

## Address Environmental, Safety, and Maintenance Needs

Virginia must continue to protect its environment, its citizens, and its past investments in transportation. The safety and security of the traveling public are a fundamental responsibility of transportation agencies. Under current law, maintenance of existing transportation assets to ensure the safety of the public is the first priority in allocation of transportation resources. The cost of maintaining this system is increasing faster than available revenues. A safe and well-maintained system can support economic competitiveness and minimize congestion by reducing traffic incidents.

The Commonwealth is also a major funding partner for local transit operators throughout Virginia. Significant funding will be necessary to ensure a state of good repair for Virginia's transit operators. Expanded transit service is expected to play a major role in the future in reducing congestion, improving mobility, and addressing climate change issues.

Virginia must not only use technology to minimize environmental impacts, but must also strengthen its planning practices and agency coordination to promote environmental quality through all stages of transportation investments.

## Priority: Use Sustainable and Environmentally Sensitive Methods

UNFUNDED NEED: VARIES DEPENDING ON PROJECT AND CRITERIA

- Sustainable and environmentally sensitive methods must be an integral part of all transportation projects
- Future emphasis on transit, passenger rail, freight rail, technology, and better coordination of transportation and land use decisions support sustainable development
- Environmental footprint of projects should be minimized with context sensitive design and other principles

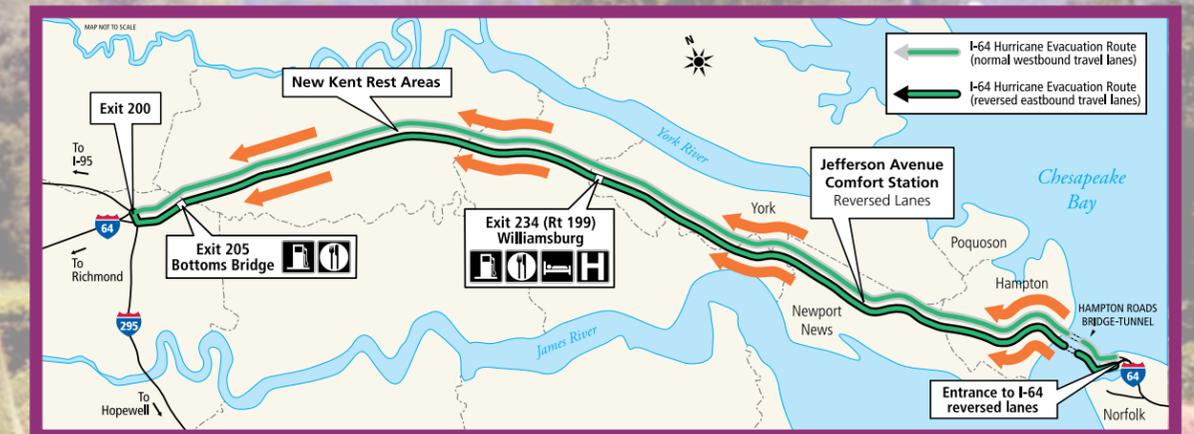
## Priority: Provide Safe Operations and Services

UNFUNDED NEED: \$184 - \$258 MILLION ANNUALLY

- Half of non-recurring congestion is associated with traffic incidents
- Enhanced safe operations and services using technology can address safety and capacity concerns in a cost-effective and environmentally friendly manner
- VDOT should invest in and implement lane reversal plans for the Route 58, I-664 and I-64 area to assist in emergency evacuation

*Safety is a concern for all modes, but improvement in highway safety can have the most profound impact on the lives of Virginians. Safety associated with the infrastructure of the transportation network involves the design and construction of the system, its maintenance, and the use of technology to improve its operation. The existing technology must be maintained and the breadth of the technology expanded.*

*There will be zero tolerance for further degradation of the environment as Virginia moves forward. There should be increased involvement of resource agencies, and planning agencies should proactively seek opportunities for transportation solutions that promote environmental quality. Part of the continuing quest for environmental quality must also involve public education and awareness of environmental issues.*



## Priority: Repair Deficient Pavements

UNFUNDED NEED:  
\$278 - \$389 MILLION ANNUALLY

- 2008 performance
  - Interstates: 20.5% deficient (target is 18% or less)
  - Primary Roads: 24.4% deficient (target is 18% or less)
  - Secondary Roads: 28.7% deficient (standard is 31% or less)



*The implications of poor pavement conditions go beyond just a rough ride. A national study reports that "every \$1 spent in keeping a good road good precludes spending \$6-\$14 to rebuild one that has deteriorated."*

## Priority: Rehabilitate Structurally Deficient Bridges

UNFUNDED NEED:  
\$150 - \$210 MILLION ANNUALLY

- 2007 and 2008 performance – 8.4% structurally deficient (target is 8% or less)
- In next 20 years the number of structures 50 years of age (average design life) or older will double from 35% to 71%

*If bridges are not maintained, use restrictions (either weight limitations or closure) will impact accessibility and economic competitiveness. Virginia is not currently meeting its target of having 8% or less of deficient structures. In the coming years, the construction boom of the 1960s and 1970s will be felt as over one-third of Virginia's structures reach the average design life of 50 years.*

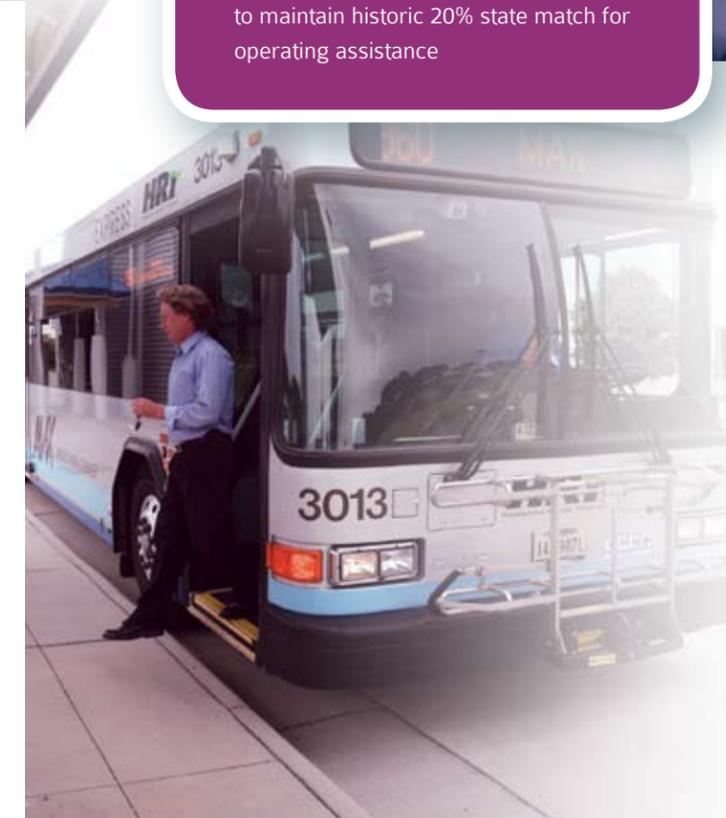
## Priority: Ensure State of Good Repair in Transit

UNFUNDED NEED:  
\$148 - \$207 MILLION ANNUALLY

- State of good repair in transit is critical for transit to be a safe, reliable mode choice
- There is a current backlog of transit maintenance needs of \$290 million
- \$100 to \$140 million annually is required to maintain state of good repair
- \$48 to \$67 million annually is required to maintain historic 20% state match for operating assistance



*If the state of good repair is not properly funded, this growing backlog of deferred maintenance and aging capital assets will affect rail and bus systems across the Commonwealth, lead to significant increases in operating costs and decreases in state operating assistance, and impact customer service significantly.*



## Priorities:

- Expand the Port of Virginia and Related Intermodal Facilities and Services
- Support Dulles International Airport and Growth of Dulles Corridor
- Connect High Speed and Intercity Rail with Regional Transit Systems
- Improve Freight Mobility
- Improve Rural Connectivity
- Complete Unfinished Public-Private Transportation Act (PPTA) Projects and Review and Refine PPTA Process to Effectively Leverage Private Dollars for Publicly Beneficial Projects
- Develop Master Plans for Needs of Corridors of Statewide Significance

## Enhance Economic Competitiveness

Virginia is known for its attention to business. For the last four years, Virginia has been ranked as the “Best State for Business” by Forbes.com. Even in the midst of current economic conditions, US News and World Report recognized Virginia as one of the top five states in which to do business. These awards are supported by the development that is coming to Virginia. For businesses to continue to come to Virginia there must be continued investment in transportation.

Virginia has strong ties to the rest of the world through two major global gateways – the Port of Virginia and Dulles International Airport. These economic engines allow Virginia to be a major player in the global economy. Access to world markets through Dulles for passengers and air freight and through Hampton Roads for freight provides opportunity for economic development near and along major corridors.

*The Port of Virginia is the third largest port on the East Coast of the United States, with direct service to more than 80 foreign ports. It is one of Virginia's greatest assets. Preparing for the expansion of the Panama Canal and increasing port market share requires efficient marine terminals along with good road and rail access. The planned new terminal, Craney Island, will provide a state-of-the-art facility that will be more efficient, highly automated, and already desired by global shippers.*

### Priority: Expand the Port and Related Intermodal Facilities and Services

UNFUNDED NEED: \$7.7 - \$11.0 BILLION

- The Port of Virginia supports and actively develops modal alternatives that reduce highway congestion including the use of barge services and increased rail transportation
- Major unfunded access improvements include:
  - Hampton Roads Third Harbor Crossing
  - Hampton Roads Bridge-Tunnel Expansion
  - Norfolk Interchange Terminal Improvements
  - Heartland Corridor Phase II
  - National Gateway Project
  - Hampton-Terminal Grade Separation

### Priority: Support Dulles International Airport and Growth in the Dulles Corridor

UNFUNDED NEED: \$1.7 - \$2.5 BILLION

- Each new nonstop air service to a major international market yields \$300 million in commercial development in Virginia
- Additional access capacity needed to support future Dulles expansion
- Dulles Loop Road, Route 659 improvements, the Tri-County Parkway and an additional Potomac River crossing are critical access improvements
- Continued support for the extension of Metrorail must remain a priority

*The Washington Dulles International Airport is the other economic engine in the Commonwealth providing access to world markets for Virginia's commerce and making Virginia a bridge state between world markets and other states. Dulles Airport serves the nation's fourth largest economic market and is the eighth largest port of international air commerce in the United States.*



**Priority:** Connect High Speed and Intercity Rail with Regional Transit Systems

UNFUNDED NEED: \$2.8 - \$4.0 BILLION

- Expansion of VRE in the I-66 corridor improves transit options in Northern Virginia
- Intercity rail service in the I-81/Route 29 corridor expands rail service to other areas in Virginia
- Additional transit improvements in Northern Virginia, Hampton Roads, and Richmond will connect the backbone rail system to other transit services

**Priority:** Improve Freight Mobility

UNFUNDED NEED: \$14.1 - \$20.5 BILLION

- Freight-related industry accounts for 50% of Virginia's output, 28% of gross state product, and 34% of employment
- Freight tonnage is expected to double by 2035
- Rail, road, and ITS improvements will benefit freight as well as passenger movements

**Priority:** Improve Rural Connectivity

UNFUNDED NEED: VARIES DEPENDING ON PROJECT

- Improved rural connectivity can be achieved through transportation improvements such as transit or coordinated human services transportation and Air Taxi service
- More broadband internet service can also improve rural connectivity by providing on-line access to school, shopping, and other activities

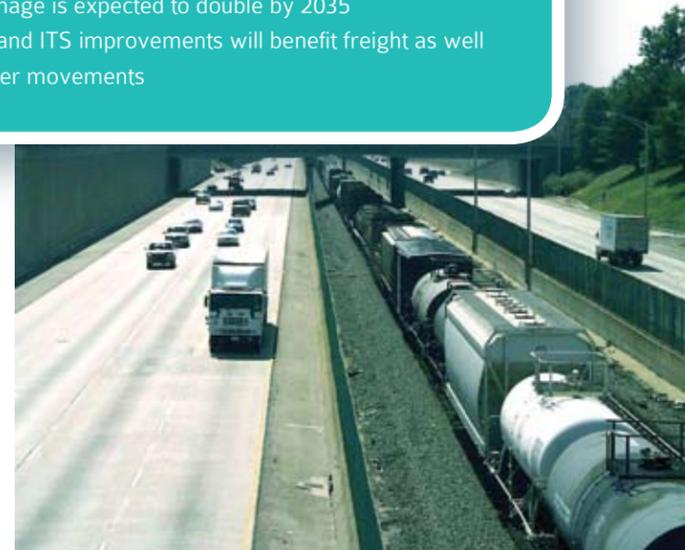
**Recommendation:**

*VDOT to coordinate right-of-way usage for provision of underground fiber optic conduit for broadband access.*

*To be successful, the critical rail spine described in the high speed rail priority must be connected with other areas of Virginia, and those areas must have good regional transit systems that serve the metropolitan areas. This requires additional investment in intercity and regional transit systems.*

*The movement of freight is critical to Virginia's overall economy. With freight tonnage expected to double in the future, capacity improvements will be needed.*

*For transit-dependent persons, access to transit or coordinated human services transportation can make a difference in finding a job. Internet connectivity in rural areas has the potential for reducing traffic demands by providing opportunities for telecommuting, taking educational classes on-line, shopping on-line, and other routine tasks that otherwise have to be accomplished by traveling from place to place.*



**Priority:** Complete Unfinished PPTAs and Review and Refine PPTA Process to Effectively Leverage Private Dollars for Publicly Beneficial Projects

UNFUNDED NEED: \$3.8 - \$5.8 BILLION

- There are five active PPTAs
  - Downtown/Midtown Tunnel and MLK Extension in Hampton Roads area
  - I-95/I-395 HOT Lanes in Northern Virginia
  - Route 460
  - Route 58
  - Coalfields Expressway
- The PPTA process should be reviewed and refined to ensure that the process is supporting publicly beneficial projects

*Virginia should complete the pending Public-Private Transportation Act (PPTA) Projects and consider new ones when the projects are publicly beneficial to the Commonwealth. The PPTA process should be reviewed and refined to ensure that appropriate transportation planning and environmental reviews are followed. The end result should always be that the project is publicly beneficial, regardless of the amount of public investment involved.*

**Priority:** Develop Master Plans for Needs of Corridors of Statewide Significance (CoSS)

UNFUNDED NEED:  
UTILIZE EXISTING INTERMODAL FUNDS

- CoSS strategies need to be considered in the development of regional transportation and local land use plans
- Detailed corridor master plans need to be prepared to protect the functionality of the corridors

*The CoSS strategies are to be considered in the development of an overall corridor master plan as well as development of regional transportation and local land use plans. The process should fully engage the Metropolitan Planning Organizations and Planning District Commissions along the corridor as well as the decision-makers in all localities. A major focus of the master plans needs to be the coordination of land use plans with proposed transportation investments. (See page 22 for more information on Corridors of Statewide Significance).*

## Minimize Congestion

Increased congestion has negative impacts for all Virginians. Employee productivity is reduced due to the lack of reliable travel times making it difficult to plan daily activities. Congestion increases the cost for Virginia businesses and consumers by increasing the cost to transport goods. Slower speeds resulting in traffic congestion cause higher greenhouse gas emissions. Congestion reduces quality of life as citizens sit in traffic instead of spending time in community activities and with their families. The cost to move goods and the quality of life of an area are two major factors businesses consider when deciding where to locate. These economic and social costs require that the Commonwealth find innovative solutions to its congestion problems.

Over the next 25 years, the urban and suburban areas of Virginia are expected to experience significant job and population growth. The Commonwealth is at a critical juncture with regard to its transportation infrastructure and land use patterns. The separation of authority that exists between state and local governments can be healthy if policies are put in place to overcome the disconnect between local governments' land use authority and the Commonwealth's responsibility for transportation.

Virginia has made much progress in recent years planning for congestion using strategies such as access management, traffic impact regulations, and designation of urban development areas (UDAs) as well as others. VTrans2035 places continued emphasis on these strategies through the use of grants and other funding mechanisms to reward good land use planning and to penalize bad land use decisions relative to the need for transportation investments.

The Commonwealth must continue to improve the coordination between transportation and land use. It is essential for Virginia's long-term economic competitiveness and the efficient use of taxpayer funds.

**Priorities:**

- Integrate Regional Land Uses and Highway Capacity
- Implement Pricing, Advanced Technology, and Demand Management
- Increase Transit Usage and Supporting Land Uses

## Priority: Integrate Regional Land Uses and Highway Capacity

UNFUNDED NEED: REQUIRES A DEDICATED FUNDING SOURCE

- Recent legislation, such as secondary street acceptance requirements, access management standards, traffic impact regulations, designation of UDAs, etc., has resulted in increased integration of transportation and land use decisions
- Work needs to continue, primarily through strengthened ties with local agencies

*Additional highway capacity and/or improvements are necessary to balance economic development at local and regional levels and solve many local problems (e.g., turn lanes, etc.), as well as to coordinate with transit, High Occupancy Facilities, and demand management improvements. However, there are not enough funds to improve the efficiency of the transportation system with new highway capacity alone. Improving the coordination between transportation and land use planning is essential for ensuring sustainable mobility throughout the Commonwealth.*

## Recommendations:

- *Develop regional transportation and land use performance measures and goals for urban regions in the Commonwealth and prioritize funding for transportation improvements to help meet established goals*
- *Use funding programs and grants to reward localities that guarantee through land use planning the long-term functionality of the improvement*
  - *Future allocation of primary formula funds and discretionary funds within each VDOT district should be for projects that help meet goals for the regional transportation and land use performance measures*
  - *Establish and fund an Integrated Transportation/Land Use grant program that would:*
    - ◇ *Provide funding for transportation improvements to local governments with land use plans that encourage compact developments*
    - ◇ *Provide funding to regional organizations to complete detailed land use scenario plans*
    - ◇ *Provide assistance to local governments with implementation of transfer of development rights programs and designation of Urban Development Areas*

## Priority: Implement Pricing, Advanced Technology, and Demand Management

UNFUNDED NEED: REQUIRES A DEDICATED FUNDING SOURCE

- Develop high occupancy toll lane network for NoVA; study potential for congestion pricing on major corridors in Hampton Roads
- Conduct ITS and Operations Utility Study to investigate new initiatives and implement pilot projects as needed
- Continue to support DRPT in its transportation demand management programs (Park and Ride study, parking info/ITS)

*As population and economic activity increase throughout the state, Virginia faces a future of increasing traffic congestion. Capacity-increasing projects alone cannot meet the demand. Aggressive and innovative steps are needed to manage the forecasted surge in traffic volumes. Pricing, advanced technology, and demand management show promise.*

## Priority: Increase Transit Usage and Supporting Land Uses

UNFUNDED NEED: \$128 TO \$143 MILLION ANNUALLY

- Major rapid transit capital projects (Metrorail, light rail, bus rapid transit) will be necessary to reduce congestion and address mobility needs in urban areas
- Transit service expansion will be necessary statewide to accommodate increased demand due to Virginia's growing population and higher energy prices
- Efficient and convenient transit service is vital to supporting compact development patterns that reduce the pressure on the congested highway network
- Strengthen policies and continue initiatives that support transit-oriented development
- \$35 to \$50 million annually to establish Transit Enhancement Fund, similar to Rail Enhancement Fund
- \$50 annually for transit service expansion
- \$43 million annually is required to maintain historic 20% state match for operating assistance of major transit capital and service expansions

*Transit increases access and mobility for Virginia residents by enabling more efficient use of the transportation network, thus saving time, conserving energy, and providing economic benefits to the customers and communities served. An expanded transit network would extend the spine network established by high speed and intercity rail into the major activity centers in the metropolitan areas served.*

## Recommendation: Establish Transit Enhancement Fund

## Common Potential Corridor Strategies:

- Increase rail capacity (including passenger rail)
- Increase transit options and transit capacity
- Improve rural transit (human services-related)
- Increase Transportation Demand Management
- Multimodal coordination at the Port of Virginia
- Improve safety at high crash rate areas
- Implement and/or improve ITS
- Improve access management
- Encourage clustered development instead of strip development
- Improve ground access to airports

## Corridors of Statewide Significance

The VTrans2035 plan used a concept of Corridors of Statewide Significance (CoSS) to review corridors and identify potential multimodal transportation improvement strategies to guide local land use planning and transportation investments. This is an on-going process coordinated with local and regional transportation and land use planners. The CoSS represent multimodal connections to the Commonwealth's activity centers. This system consists of corridors to help people and goods move between Virginia's regions and to areas outside Virginia. The corridors are transportation facilities that must be protected to ensure appropriate levels of mobility to allow for long-distance travel.

The form, location, and design of improvements to a corridor play a critical role in determining whether or not the corridor will function appropriately in the future. For example, when a new highway is built or an existing highway improved, measures such as access management and parallel roadways for local traffic can be used to ensure that the highway will serve long-distance travel. Conversely, improperly developed corridors can spur local growth, turning it into a "Main Street," reducing the benefit of the Commonwealth's investment and perpetuating development patterns that degrade the highway's original function.

There are 11 existing CoSS throughout Virginia. In the future, some may be added or deleted. The purpose of the CoSS is to provide a multimodal statewide perspective to guide localities in their land use and transportation plans. Virginia must take steps now to ensure the appropriate balance of development, transportation capacity, and natural resources. The CoSS are a first step in ensuring that these corridors are invested in and protected for the future benefit of the entire Commonwealth, as called for in HB 2019 by the General Assembly in 2009. The extent to which a locality's land use plan protects the functionality of the corridor will be considered as part of the funding process.

Potential corridor strategies were developed for each corridor. The common strategies across all corridors relate to transit and rail improvements and improving the efficiency of the existing system with ITS, access management, improved land use patterns, and TDM measures. As such, the corridor strategies promote mobility, environmental quality, and sustainable transportation. They will improve accessibility, reduce greenhouse gases and other emissions, improve quality of life with more transportation choices, and support the major population and commercial centers throughout the Commonwealth.

The next step in the CoSS process is the development of corridor master plans that turn the strategies into specific improvements. Because Virginia's landscape is constantly changing, new corridors may emerge that might meet the CoSS criteria. Therefore, the CoSS should be reviewed periodically and the need to add or delete corridors based on the established criteria considered.





## Recommendations

*The investment priorities take time and money to become reality. There are three categories of actions needed to ensure that these investment priorities move from ideas and thoughts on paper to a quality Virginia multimodal transportation system. They are:*



## Funding/Investment

- **Invest More in Transportation.** The General Assembly must substantially raise investment in transportation to keep Virginia moving. The benefits of such investment, as well as the consequences of underfunding, have been discussed throughout the *VTrans2035 Report*.
- **Establish Strategic Infrastructure Investment Fund.** This fund would allow for the implementation of game-changing megaprojects such as the four examples provided in this report. The projects initially would be funded through current sources, and new resources should be sought to continue and accelerate implementation.
- **Establish Transit Enhancement Fund.** This fund would be used for major transit construction improvements to expand transit capacity and leverage local land use commitments and non-state funds. Local governments would be required to make commitments to provide supportive development patterns along corridors where transit expansion occurs.
- **Consider Regional Transportation and Land Use Performance Measures in Allocation of Primary Formula and Discretionary Funds.** Revising existing policies would encourage transportation and land use coordination.
- **Establish Integrated Transportation/Land Use Grant Program.** This grant program would be used to:
  - **Establish Sustainable Development Patterns.** Funds would be used for transportation improvements to local governments with land use plans that encourage compact developments.
  - **Provide Funding Support for Regional Land Use Scenario Plans.** Providing technical assistance or financial support to local jurisdictions to develop regional land use scenario plans that determine development patterns that are in harmony with transportation planning decisions.
  - **Assist with Implementation of Transfer of Development Rights Programs and Designation of Urban Development Areas.** Grants to local jurisdictions would help put in place local plans to concentrate growth which would reduce per capita vehicle miles traveled and reduce congestion.
- **Consider CoSS in Funding Decisions.** The CoSS needs should be one of the considerations when making transportation funding decisions.
- **Continue to Fund the Multimodal Planning Fund.** This fund has been used for training, planning assistance, studies, development of the statewide transportation plan, and preparation of the Transportation Performance Reports. At a minimum these efforts should continue.



## Planning Process

- **Develop VTrans2035 Action Plan.** The *VTrans2035 Report* establishes a framework of Investment Priorities and strategies. An administrative action plan needs to be prepared to implement these recommendations.
- **Develop Regional Transportation and Land Use Performance Measures and Goals for Urban Regions.** These should be developed and transportation funding prioritized based on meeting the goals.
- **VDOT to Coordinate Right-of-Way Usage for Provision of Fiber Optic Connections.** This improves rural connectivity by enabling broadband access.
- **Prepare CoSS Master Plans.** Detailed master plans incorporating both transportation improvements and land use recommendations are required to keep the CoSS process moving and to protect the functionality of the corridors.
- **Review CoSS Periodically.** The CTB should review the CoSS periodically and consider additions or deletions according to the criteria.
- **Continue Surface Transportation Plan and Other Modal Plans.** VTrans2035 establishes the overall policy direction and the next level of plans identify more specific actions and projects. The Surface Transportation Plan is the first integrated highway, transit, and rail plan ever produced for Virginia. It will identify specific projects that reflect the surface transportation needs (i.e., highway, transit, and rail) reflected in VTrans2035. The modal updates for the Department of Aviation and the Virginia Port Authority should also reflect the VTrans2035 recommendations.
- **Support Use of Economic Planning Tools.** Economic impact analysis should be incorporated more rigorously into analyses and multimodal decision-making.
- **Support Dynamic Dialogue with State, Regional, and Local Partners.** There is the need for continued multi-agency involvement at all levels of government to promote partnerships and share lessons learned as Virginia takes great strides to better integrate transportation and land use decisions.
- **Align Subsequent VTrans Updates with Administration Cycles.** The statewide transportation plan needs to be updated at least every five years. The recently elected Administration will serve from January 2010 to January 2014 and the completion of the plan update may not be in this Administration's timeframe. Subsequent updates should be aligned so that every Administration has a Plan produced during its timeframe to guide transportation policy and investment decisions.



## Staff Resources

- **Maintain and Enhance Office of Intermodal Planning and Investment (OIPI).** There must be staff whose primary responsibility is following the progress of VTrans2035 across all the implementing agencies. Staffing and funding levels of OIPI should be continued, including oversight and leadership at the deputy secretary level. The OIPI should have an increased level of dedicated staff and provide reports on VTrans2035's implementation as well as on other topics to the CTB.
- **Continue the VTrans Multimodal Advisory Committee (MAC).** The MAC is appointed by the Secretary of Transportation and consists of key planning staff from OIPI, DOAV, DMV, DRPT, VDOT, VPA, FHWA, Hampton Roads PDC, Richmond Regional PDC, Northern Virginia Transportation Authority, and the Virginia Association of Planning District Commissions. The MAC assisted in the development of VTrans2035 preparing and/or reviewing policy papers as well as providing agency coordination.



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**Executive Oversight Committee** consisting of the Office of the Secretary of Transportation and the heads of the Department of Aviation, Department of Motor Vehicles, Department of Rail and Public Transportation, Department of Transportation and the Virginia Port Authority.

**Multimodal Advisory Committee** comprised of the following agencies and organizations:

- Office of Intermodal Planning and Investment
- Department of Aviation
- Department of Motor Vehicles
- Department of Rail and Public Transportation
- Department of Transportation
- Federal Highway Administration
- Hampton Roads Transportation Planning Organization
- Northern Virginia Transportation Authority
- Richmond Regional Planning District Commission
- Virginia Association of Planning District Commissions
- Virginia Port Authority

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- Wilbur Smith Associates
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- Renaissance Planning Group
- Michael Baker, Jr. Inc.
- Jack Faucett Associates
- Howard/Stein-Hudson Associates, Inc.
- Economic Development Research Group

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PHONE: (866) 835-6070 | E-MAIL: [STATEWIDEPLAN@VDOT.VIRGINIA.GOV](mailto:STATEWIDEPLAN@VDOT.VIRGINIA.GOV)