

Executive Summary

Transportation has a direct and personal effect on each and every resident of Hampton Roads. Even if you do not drive, all the goods and services you depend on, including emergency services such as police, fire, and medical transport rely on the region's roadway system. The Long-Range Transportation Plan, or LRTP, is the document that identifies and plans for critically important transportation improvements that impact the region's economic vitality and every citizen's quality of life.

The Hampton Roads Transportation Planning Organization, in partnership with local, state, federal, military, freight, transit, and citizen stakeholders, has drafted the 2034 LRTP, the transportation blueprint for the region for the next 20 years. These key stakeholders actively worked together to identify, prioritize, and seek transportation funding in order to develop a long-term investment framework for addressing the region's transportation and associated challenges.

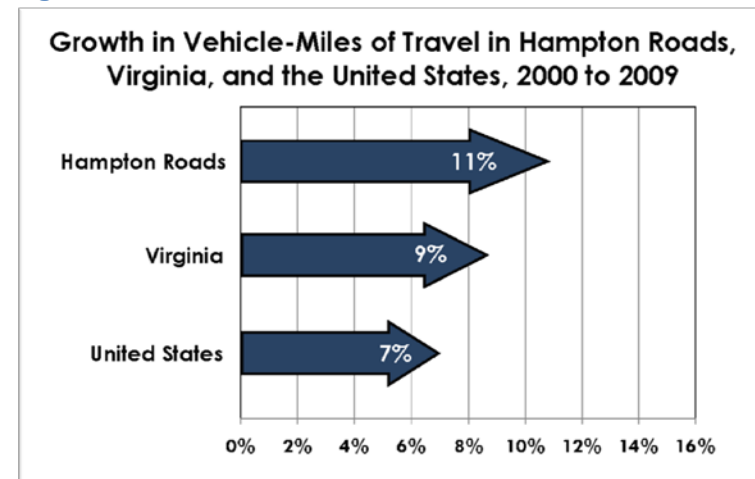
Current State of Transportation in the Region



The total amount of roadway usage in Hampton Roads, measured in terms of vehicle-miles of travel (VMT), was just over 40 million miles each day in 2009. Between 2000 and 2009, the total amount of roadway travel in Hampton Roads increased by nearly 4 million miles per day, or a total of about 11 percent. This is higher than the growth experienced both throughout Virginia (9 percent) and the United States (7 percent). However, most of the growth

in roadway travel occurred early in the decade; therefore, the VMT in Hampton Roads has remained steady between 2003 and 2009.

Figure ES.1 – Growth in VMT



Roadway congestion in Hampton Roads is some of the worst in the country. This roadway congestion not only lowers the quality of life in Hampton Roads but also impacts regional commerce, particularly in those critical sectors that depend heavily on the regional transportation network such as freight movement, tourism, and the military.

The Shape and Pattern of Future Growth

Population has grown in Hampton Roads over the past decade. Looking towards 2034, the population is expected to increase by 400,000 persons, resulting in a regional community of over two million residents. This translates into approximately 770,000 households for Hampton Roads in 2034.

Employment in Hampton Roads is expected to increase as well. According to the 2034 socioeconomic forecast, Hampton Roads is expected to have slightly more than 1.2 million jobs in the region.

Framing the LRTP

The development of the 2034 LRTP was a transparent process in which HRTPO staff provided broad-based access to all LRTP related material. This included utilizing the World Wide Web, direct and electronic mail, providing public comment opportunities and draft versions of the LRTP in regional libraries, conducting outreach and partnering with community organizations and existing events, as well as holding public meetings, community events, and dialogues across the region to share information and gain public input on the LRTP.

Vision and Goals

The vision of the 2034 LRTP is to provide a safe, efficient, sustainable, and balanced multimodal transportation system for all users. To achieve this vision, thirteen goals were developed to serve as a foundation in which to formulate transportation investment strategies and projects. These goals were drafted based on public input and refined by the goals and priorities as outlined by federal and state guidelines.

Transportation Challenges and Strategies

Hampton Roads includes an intricate system of roads, bridges, tunnels, and ferries which provide much needed connections on both sides of the water. The same features that provide Hampton Roads with a multitude of economic and recreational advantages also produce geographical challenges for creating and maintaining the transportation infrastructure. The region’s location and topography require many bridges and tunnels, requiring higher costs for construction and maintenance. The combination of these factors creates special challenges in

developing a safe, efficient, and well maintained regional transportation system.

Table ES.1 – 2034 LRTP Goals

2034 LRTP Goals
Supports the economic vitality of the metropolitan area, enabling global competitiveness, productivity, and efficiency
Increase the safety of the transportation system for motorized and non-motorized users
Provide for the security of the region's transportation infrastructure and its users
Protect and enhance the environment, promote energy conservation, improve the quality of life, and reduce greenhouse gas emissions
Obtain compatibility between transportation improvements and planned land use and economic development patterns
Increase accessibility and mobility of people and goods
Enhance the integration and connectivity of the transportation system, across and between modes, for people and goods
Optimize the efficient system management and operation of the regional transportation system
Increase the optimization, maintenance, and replacement of the existing transportation system
Enhance public involvement in the development of the region’s transportation system
Include a regional perspective among the transportation prioritization criteria
Develop a long-range transportation plan that is fiscally constrained
Work toward finding dedicated and sustainable revenue sources for transportation



Mobility and Accessibility

Mobility and accessibility challenges vary depending on the user's viewpoint. For example, the challenges faced by special needs populations (elderly, medical/functional needs persons, zero-vehicle households, youth) differ quite a bit from the military or freight communities. As such, the LRTP must acknowledge that needs differ among various users and hence, solutions should address these differences.

Overcoming the mobility and accessibility challenges in the Hampton Roads region is a goal of the 2034 LRTP. The livelihood and quality of life of many residents is dependent on the constant improvement of the transportation system. Through collaboration at the various levels of government with citizen and business stakeholders, Hampton Roads can employ various strategies to improve mobility and accessibility for the general population as well as special needs populations, the military, and freight in the region. These strategies include congestion management, land use and transit planning, conducting special studies, and regional freight planning.

Additionally, the region must continue planning for and investing in not only the highway network, but also the non-motorized transportation network (sidewalks, bikeways, and trails) as well as rail infrastructure.

Reliability

Having a reliable transportation system is vital to a community. A strong and reliable transportation system efficiently moves goods to markets, people to work, children to school, and even consumers to the grocery store. In addition, the transportation network also provides a critical means of mobility for the region during emergencies. Therefore, it is essential to keep the network in a state of good repair.

Looking towards the future of the regional transportation network, stakeholders will have to assess the condition of existing infrastructure, how much farther the existing infrastructure's lifespan can be extended, and what investments will be needed to maintain system operations. Since Hampton Roads and Virginia must devote funds for the operation and maintenance of the existing transportation infrastructure before funding new projects, this will impact the amount of new transportation infrastructure that can be constructed.

As part of the transportation planning process, the region has established strategies to promote a reliable transportation system. These strategies will be implemented to manage and alleviate regional congestion, assess the structural soundness of infrastructure, and ensure a secure network for the movement of people and goods. These strategies include: system preservation, infrastructure monitoring (including bridges and tunnels), and system management.

Environmental

Hampton Roads is home to many natural resources, including woodlands, wetlands, rivers, and shorelines. These resources provide both economic and environmental benefits as tourist attractions, recreational areas for residents, and habitat for wildlife and marine life. Protecting and preserving these resources while balancing them with growth is a key strategy for promoting sustainable regional growth and development.

Challenges that Hampton Roads will face in protecting these resources include: maintaining water and air quality, protecting sensitive areas, and adjusting to the impacts of climate change on the region. These issues will place particular stress on the planning, construction, maintenance, and operation of transportation infrastructure and services in the region.

In order to minimize impacts to natural resources in Hampton Roads, it is essential for the region to have effective mitigation strategies in place. Through collaboration with local, regional, state, and federal partners, Hampton Roads can outline policies and allocate resources to help protect the environment and improve the quality of life in Hampton Roads.

The key challenge moving forward will be to better integrate land use and transportation planning. New federal programs and policies are now strongly encouraging multidisciplinary and coordinated approaches to development. This improved integrated planning will help maximize benefits of development while minimizing the negative impacts to the region's natural and financial resources.

Financial

As with the rest of the nation, the Hampton Roads region has experienced major impacts from the December 2007 recession, including a struggling housing market, increased foreclosures, high gasoline prices, and increased regional unemployment.

This economic strain has compounded the already present shortfalls in transportation funding. Limited traditional transportation revenue, the uncertainty of a dedicated transportation funding stream at the national level, and the



lack of said stream at the state level have resulted in a bleak financial forecast for transportation.

Recognizing that funding transportation is one of the key challenges facing the Commonwealth, Governor Bob McDonnell announced a plan in early 2011 to invest billions of dollars in the Commonwealth's transportation system over the next three years without raising taxes.

In addition to the Governor's Omnibus Transportation Funding Package, the HRTPO has investigated the application of other non-traditional funding sources in order to advance projects, including: local funding, tolls, and Public-Private Partnerships

Project Prioritization

A strategy used by the HRTPO to advance regional transportation investments with scarce financial resources is the *Program Priorities Prioritization Methodology* (Project Prioritization Tool). The Project Prioritization Tool prioritizes candidate regional transportation projects based on their technical merits and regional benefits in light of scarce financial resources.

The Regional Transportation Plan

All LRTPs must be fiscally-constrained, meaning all projects must have funding identified to cover the costs associated with the projects. The financial plan identifies how much money is reasonably available to help preserve our transportation system and support additional investments over the next 20 years to keep people and goods moving as efficiently as possible.

Economic Forecast

Based on VDOT's most current information regarding traditional revenues, the region can expect approximately \$13.6 billion in funding for maintenance and construction of the transportation system over the next 20 years. Since maintaining existing roadways is a Federal and State mandated priority, maintenance costs must first be accounted for before new transportation projects can be considered. Assuming that current trends for maintenance funding continue, maintenance of the region's transportation system will consume a majority of the anticipated traditional revenues – approximately 90 percent.

Non-traditional revenues identified for the 2034 LRTP include local revenues (funds from localities), tolls, public-private partnerships, and special government earmarks.

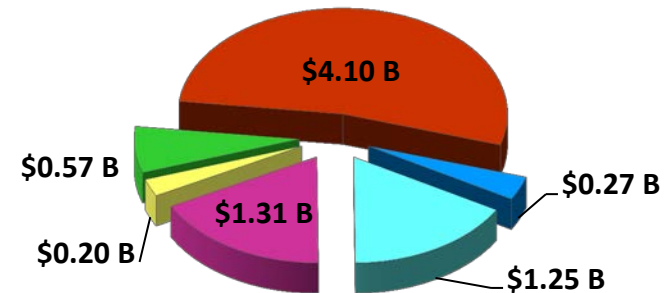
Projects with associated tolls and P3 funds include:

- Downtown Tunnel/Midtown Tunnel/MLK Extension
- Dominion Boulevard
- US Route 460

Total Revenues for the 2034 LRTP

Combining traditional revenue sources, local revenues, projected tolling and private investment, and the Governor's Omnibus Transportation Funding Package, Hampton Roads can expect more than \$7 billion in the next 20 years (2012-2034) to invest in new transportation projects for the 2034 LRTP.

Figure ES.2 – Sources of Estimated Revenues (2012-2034)



	Traditional (Federal and State) Funding for Construction	\$1.25 B
	Local Funding	\$1.31 B
	Virginia Port Authority Contribution	\$0.20 B
	Governor's Omnibus Transportation Funding Package	\$0.57 B
	Public-Private Partnerships (P3)	\$4.10 B
	Private Tolls	\$0.27 B

Total Revenues for New Construction Projects \$7.70 B

Selecting Projects for the 2034 LRTP

The list of 150 candidate transportation projects for the 2034 LRTP was determined by both technical staff and citizen input. The candidate projects, totaling approximately \$30 billion include: increasing roadway capacity, expanding bridges and tunnels, replacing aging infrastructure, improving public transportation options, and enhancing the movement of freight in and out of the region.

With an estimated total construction cost of approximately \$30 billion and \$7.7 billion identified to fund construction, HRTPO staff had the challenging task of evaluating and prioritizing these 150 candidate transportation projects. To narrow the list, staff first accounted for those projects automatically included in the plan (committed projects). Next, the Project Prioritization Tool was applied to the remaining projects to help evaluate and rank projects based on their technical merits and regional benefits. High-ranking projects were then selected based on funding sources available.

Table ES.2 - Summary of 2034 LRTP Candidate Transportation Projects

Project Category	Number of Projects	Estimated Construction Cost*
Highways	113	\$9.4 Billion
Highway Interchanges/ Intersections	15	\$1.2 Billion
Bridges and Tunnels	14	\$13.4 Billion
Transit	5	\$2.2 Billion
Intermodal	3	\$0.7 Billion
Total	150	\$26.9 Billion

*Cost estimates in Year-of-Expenditure dollars

Using the scores produced by the Project Prioritization Tool, recommendations from the HRTPO Transportation Technical Advisory Committee, the Governor’s Omnibus Transportation Funding Package, and with consideration from stakeholder input (local, State, Federal, private sector, and public), the HRTPO staff developed a fiscally-constrained list of recommended regional transportation priorities for Hampton Roads.

Components of 2034 LRTP Projects

The 2034 LRTP is comprised of approximately 90 studies and construction projects. The total cost for these projects is estimated at just over \$7 billion.

Studies

Several transportation studies from the current 2030 LRTP, already underway, were also included in the 2034 LRTP. The combined estimated cost for these studies is approximately \$34 million.

Regionally Funded Construction Projects

Regional projects that add capacity to the transportation network must be included in the LRTP. These projects are prioritized by roadway system (Interstate, Primary, Secondary, and Urban) within each Prioritization Category. The estimated total cost for new construction projects is approximately \$5.9 billion (includes candidate projects from the Governor’s Transportation Funding Proposal).

Locally Funded Regional Construction Projects

In addition to the regional prioritized projects approved by the HRTPO Board, several localities allocated local funding to regionally significant projects. Since these projects add capacity to the regional network, they are also included in the 2034 LRTP. The total estimated cost for locally funded new construction projects is \$1.4 billion.

Demonstrating Fiscal Constraint

For the 2034 LRTP, the costs associated with Committed Projects, Studies, Regionally Funded Construction Costs, and Locally Funded Regional Construction Projects are less than or equal to expected funding (as seen in table on following page); therefore, fiscal constraint is demonstrated.

Table ES.3 - Fiscal Constraint Summary, Fiscal Years 2012-2034
 (\$ Millions)

	Committed Projects	Studies	Construction Projects	Fund Balance
Interstate	\$127	\$7	\$193	\$0
Primary	\$19	\$7	\$21	\$45
Secondary	\$1	\$4	\$0	\$12
Urban	\$136	\$0	\$7	\$0
Dedicated Statewide Funds	\$1	\$0	\$78	\$1
Regional Surface Transportation Program	\$10	\$16	\$425	\$151
Local/Agency Designated Funding	\$18	\$1	\$1,380	\$119
Private Tolls	\$0	\$0	\$273	\$0
Governor's Package	\$21	\$0	\$510	\$0
Public-Private Partnerships (P3)	\$0	\$0	\$4,100	\$0
TOTAL	\$333	\$35	\$6,987	\$328

Plan Performance

The 2034 LRTP was developed to meet measurable goals, especially in areas of congestion management, environmental preservation, and equal considerations for all transportation users.

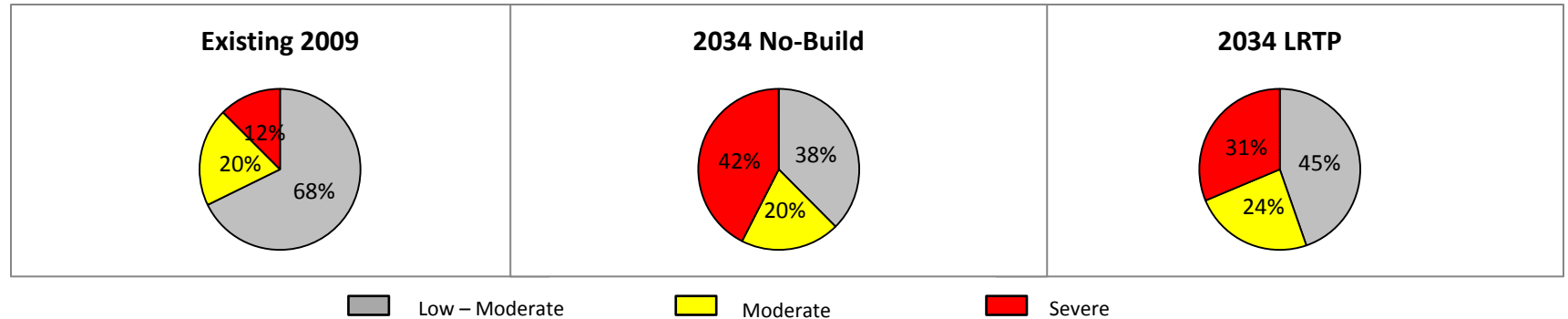
Level of Congestion

HRTPO staff analyzed the congested lane-miles for three different scenarios:

- Existing (2009)
- 2034 'No-Build' (do nothing)
- 2034 LRTP (projects identified in the 2034 LRTP)

In evaluating the results, congestion is expected to increase in 2034 largely due to the anticipated increase in regional population and employment. In comparing the 'build' and 'no-build' scenarios for 2034, results indicate that the portion of lane-miles with low to moderate congestion (LOS A through C) is expected to increase slightly by 7 percent, while the portion of lane-miles with severe congestion (LOS E through F) is expected to decrease by 11 percent. The portion of lane-miles with moderate congestion (LOS D) is expected to remain almost the same, increasing just four percent.

Figure ES.3 - 2009 and 2034 Congested Lane Miles



Air Quality Conformity

Air Quality Conformity is the link between air quality improvement and transportation planning. LRTPs must demonstrate that transportation projects within the plan do not produce pollutants that exceed regional thresholds and will not cause new air quality violations. Otherwise, the transportation projects cannot be federally funded or approved.

Conformity analysis was performed on the 2034 LRTP list of projects; results were forwarded to the Federal Highway Administration (FHWA) and the Federal Transit Administration (FTA) on September, 16, 2011. A joint positive conformity finding for the 2034 LRTP was received from FHWA and FTA on December 12, 2011.

Environmental Justice Analysis

Environmental Justice (EJ), as it relates to transportation planning, combines environmental awareness with racial, ethnic, and social awareness to ensure that transportation projects do not unfairly burden populations that may experience barriers to mobility. Central to the heart of EJ is the right to a safe, healthy, productive, and sustainable environment for all communities.

The HRTPO is committed to the principles of Environmental Justice and has taken steps to better inform and include those who traditionally have been left out of the transportation planning process. During the development of the 2034 LRTP, staff applied a Four-Step framework to identify, conduct outreach, evaluate, and document EJ considerations.

Based on EJ analysis for the 2034 LRTP, HRTPO staff concludes the projects in the 2034 LRTP:

- Do not disproportionately burden EJ communities
- Provide equitable benefit of investment throughout the planning area, including EJ communities

- Planning considerations intend to distribute future benefits equitably and without consideration of race or income.

2034 Regional Transportation Vision Plan

Due to fiscal constraint issues, not all of the 150 candidate transportation projects could be incorporated into the 2034 LRTP. The remaining candidate projects become part of the Regional Transportation Vision Plan, an illustrative list of beneficial transportation projects. These projects are unfunded investments (totaling approximately \$19 billion) that warrant future consideration for inclusion in an amended 2034 LRTP should additional funding be identified.

Unfunded Projects for Future Consideration

In addition to the fiscally-constrained list of projects, the HRTPO staff and the Transportation Technical Advisory Committee developed a list of regional priority projects for future consideration should additional transportation funds be identified. The projects on this list are interstate projects for which there is no current funding source identified. The total estimated cost of unfunded interstate priorities is approximately \$2 billion.

Looking Ahead

The 2034 LRTP is the regional transportation plan that will guide the programming and construction of transportation investments in Hampton Roads. To help improve the transportation network of the region, projects from the LRTP will be built and/or studied, and strategies will be implemented. Additionally, because the LRTP is a dynamic transportation policy document, there are mechanisms in place to amend the plan in order to reflect changing priorities and challenges, as well as incorporate evolving needs.