



Credit: Virginia Department of Transportation

# Transform 66 Outside the Beltway

Virginia DOT, Virginia Department of Rail and Public Transportation

Northern Virginia

*Creating two high-occupancy toll (HOT) lanes through the conversion of an existing high-occupancy vehicle (HOV) lane and addition of one lane in each direction along the interstate.*

## NOTABLE PRACTICES

### ✓ Tiered Environmental Reviews

- Used tiered NEPA process to first review improvement concepts for the corridor and then conduct more detailed study of alternatives.
- Completion of the Tier 1 document allowed more detailed analysis and procurement to advance using a public-private-partnership.

### ✓ Environmental Analysis

- The EA evaluated detailed alternatives comprised of a combination of six of the 10 concepts studied during the Tier 1 EIS.

### ✓ Meaningful Public Involvement

- Significant public engagement influenced the options moved forward and implementation of the project.

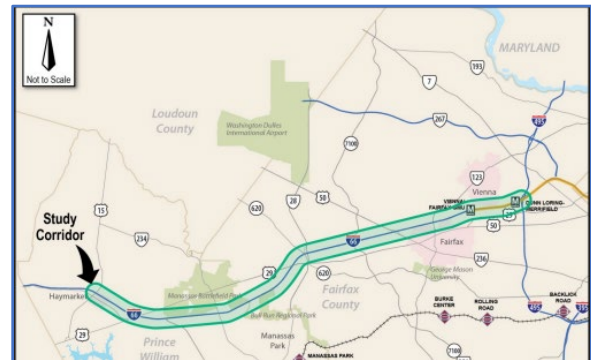


Figure 1 The I-66 Corridor from Prince William County to Fairfax County. Credit: Virginia Department of Transportation.

The corridor is extremely congested, with peak period congestion in the eastern portion of the corridor lasting a minimum of 4-5 hours per day in both directions. Traffic is anticipated to grow 10 to 66 percent along the corridor by 2040, with peak period in the eastern part of the corridor expected to increase to 8 to 10 hours per day in each direction – adversely affecting operations of personal vehicles, freight, emergency responders, and bus transit services. Virginia Department of Transportation (VDOT) and the Virginia Department of Rail and Public Transportation (VDRPT) anticipates safety concerns to increase as congestion increases and travel demand on the Orange Line to exceed capacity.

To address these challenges, the VDOT and VDRPT studied potential transportation improvement concepts on I-66 outside of the Capital Beltway. A separate I-66 study addressed the express lanes inside the Beltway.



## INTRO & BACKGROUND

Providing access to the District of Columbia, Interstate 66 (I-66) is a key east-west interstate highway in Northern Virginia. The corridor outside of the Capital Beltway (I-495) includes general-purpose lanes, high-occupancy vehicle (HOV) lanes, heavy rail transit (Metrorail's Orange Line), local and regional bus service, and bicycle and pedestrian facilities. See Figure 1.



## TIERED ENVIRONMENTAL REVIEWS

VDOT and VDRPT, in partnership with FHWA, used a tiered National Environmental Policy Act (NEPA) process and developed a Tier 1 Draft Environmental Impact Statement (EIS) to define existing and future transportation conditions and needs within the 25-mile I-66 Corridor outside the Beltway and to identify conceptual-level improvements.

The Tier 1 Draft EIS identified needs that included capacity deficiencies, major points of congestion, limited travel mode choices, safety deficiencies, and lack of transportation predictability. The study began with 15 improvement concepts (along with a No-Build option) that included general purpose lanes, managed lanes, Metrorail extension, light rail, bus rapid transit, commuter rail (Virginia Railway Express) extension, as well as spot improvements, safety improvements, Intelligent Transportation Systems (ITS) technologies, and travel demand management (TDM).

While the goal of the evaluation process was to address the purpose and need, VDOT and VDRPT developed specific goals and objectives in cooperation with participating agencies and the general public as a guide in the development of the improvement concepts. These considerations included:

- Addressing the safe movement of people and goods;
- Capitalizing on the use of existing facilities to the extent practicable;
- Improving access to existing and future developments;
- Creating connections between centers of employment, education, residence, shopping, culture, and entertainment;
- Funding and cost effectiveness;
- Providing high-capacity, multimodal transportation facilities with attractive travel choices;
- Minimizing project operating and maintenance costs;
- Minimizing impacts to the human and natural environments; and
- Supporting State, regional, and local plans and policies.

The study noted that managed lanes and fixed guideway transit (such as Metrorail extension) provide the most space efficiency. It also noted that a two-lane (in each direction) managed lanes system would address projected demands in a more space-efficient manner than general purpose lanes. The study included a preliminary analysis of the effects of tolling, and advanced consideration of tolls as a funding source for subsequent study.

The Tier 1 EIS conducted a preliminary analysis of the effects of tolling, considering four tolling options using different combinations of toll rates per mile and inclusion of a Metrorail extension or not, in comparison with No Build and additional HOV capacity. The analysis found that conversion of HOV lanes to HOT lanes would increase the amount of travel on I-66, helping to reduce travel on parallel roads, even with the higher tested toll rates. This analysis suggested that traffic diversion to other roads because of I-66 tolling would be low or negative (attracting traffic to I-66) and recommended that tolling advance to the subsequent analysis.

The Tier 1 Final EIS and Record of Decision found that none of the improvement concepts would fully satisfy the purpose and need by themselves and advanced 10 concepts for consideration.



## ENVIRONMENTAL ANALYSIS

Subsequently, VDOT initiated an Environmental Assessment (EA) which incorporated a more in-depth evaluation of a set of specific proposed improvements, comprised of a combination of six of the 16 concepts studied during the Tier 1 EIS. The analysis in the EA built on the existing conditions and transportation needs identified in the Tier 1 FEIS, using updated traffic and transportation data based on ground surveys, engineering design, and modeling. The assessment found capacity shortages on I-66 have caused major points of congestion at several interchanges.

The EA identified a preferred alternative composed of building one new express lane, converting the existing HOV lane into an express lane, and having the existing three general purpose lanes open to all traffic with no tolls. VDOT proposed managing the express lanes using a combination of congestion-based dynamically priced tolling and vehicle occupancy

policy (HOV-3+ would be free). The preferred alternative includes additional infrastructure elements to support enhanced commuter bus and new rapid bus services in the express lanes (such as park-and-ride lots and improved ingress/egress points). Finally, the preferred alternative did not preclude the other build concepts in the Tier 1 EIS (e.g., Metrorail, light rail).

The Finding of No Significant Impact (FONSI) was issued for the EA in June 2016. Project construction began in December 2017 with the complete project anticipated to open in late 2022.



### MEANINGFUL PUBLIC INVOLVEMENT

VDOT's approach to public participation included widespread stakeholder and elected official engagement, agency coordination, and extensive outreach to civic organizations, citizens, and businesses.

For the Tier 1 EIS, project newsletters, brochures, questionnaires, informational videos, a project website ([www.helpfix66.com](http://www.helpfix66.com), later branded Transform66, [www.outside.transform66.org](http://www.outside.transform66.org)), and public meetings were used to provide information about the project and gather input. VDOT distributed all newsletters, project updates, and public meeting announcements to a mailing list of interested parties. In addition, VDOT funded a survey of I-66 users in 2014 to assess the attitudes, perceptions, and levels of support for planned I-66 improvements among users, and to provide feedback on the public information and education campaign.

During the EA process, there were 12 public information meetings and public hearings; 75 presentations to Federal, State, and local governing bodies; 80 meetings with Federal, state, and local elected officials; and 51 meetings with homeowners' associations and other groups.

After the EA, the VDOT Northern Virginia District leadership hosted smaller public meetings where the conversation focused on the mechanics of tolling. The purpose of the smaller meetings was to answer questions about how

VDOT would implement tolling and provide a better understanding of how VDOT would set the toll rate. Additionally, public engagement continued through the design process, along with additional environmental and traffic analyses. This engagement resulted in some changes to design. For instance, in response to concerns raised by neighboring communities, VDOT eliminated a proposed elevated ramp.



### COMMUNITY BENEFITS

VDOT anticipates the I-66 Outside the Beltway project to result in more reliable and faster trips on I-66 because of the dynamically-tolled express lanes available to solo drivers choosing to pay a toll and free for vehicles with three or more people. The project also includes a variety of multimodal improvements designed to improve access and mobility in the corridor, including improved bus service, new park-and-ride lots and bikeway, trail, and sidewalk improvements, including shared-use trails along I-66 that integrate with local trails and new crossings of I-66 to improve bicycle and pedestrian routes.

The project required no public investment, and the concession agreement included an upfront payment by the private partner of approximately \$500 million to fund transportation improvements in the corridor recommended by the Northern Virginia Transportation Authority (NVTVA). Additionally, the agreement requires the private partner to pay a net present value of \$800 million for transit services in the corridor and \$350 million for other projects, such as highway expansions and pedestrian projects, to improve the corridor over the next 50 years.



### FOR MORE INFORMATION, CONTACT

Angela Deem  
Virginia Department of Transportation  
Environmental Division  
1401 East Broad Street  
Richmond, VA 23219  
(804) 371-6756



## RESOURCES

Interstate 66

Tier 1 Draft Environmental Impact Statement

[http://www.virginia.gov/projects/resources/NorthernVirginia/I-66\\_Tier\\_1\\_Draft\\_EIS.pdf](http://www.virginia.gov/projects/resources/NorthernVirginia/I-66_Tier_1_Draft_EIS.pdf)

Interstate 66

Tier 2 Final Environmental Assessment

[http://outside.transform66.org/meetings/asset\\_upload\\_file726\\_108001.pdf](http://outside.transform66.org/meetings/asset_upload_file726_108001.pdf)



## PHOTO CREDITS

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