

National Capital Region Transportation Planning Board

777 North Capitol Street, N.E., Suite 300, Washington, D.C. 20002-4290 (202) 962-3310 Fax: (202) 962-3202 TDD: (202) 962-3213

Item #13

MEMORANDUM

Date: March 16, 2011
To: TPB Technical Committee
From: Karin Foster
Transportation Planner
Subject: List of Freight Transportation Highlighted Projects

As part of a process where Transportation Planning Board (TPB) subcommittees are identifying priorities in their areas, the Freight Subcommittee presents its list of Freight Transportation Highlighted Projects.

The Transportation Planning Board (TPB) approved the first-ever *National Capital Region Freight Plan 2010* on July 21, 2010. One component of the *Freight Plan* was the development of a National Capital Region Freight Project Database. This Database compiled freight-related rail and highway projects within the TPB boundaries, from existing plans (e.g. *Constrained Long Range Plan, Maryland Statewide Freight Plan, Virginia Statewide Multimodal Freight Program Study, CSX National Gateway, Norfolk Southern Crescent Corridor*) or from Freight Subcommittee member recommendations. The Freight Database informed the Freight Subcommittee's process to develop a list of Freight Transportation Highlighted Projects.

Freight Context

With a population of more than five million residents, the National Capital Region consumes a wide variety of goods. With a service driven economy, the region primarily consumes goods rather than produces them. To maintain this active consumer economy, it is necessary to have reliable freight deliveries to provide the consistent availability of goods. Suppliers, shippers, and consumers all rely on the efficient movement of goods.

- The population is forecasted to grow by 28%, or more than 1.2 million people between 2011 and 2040 (CLRP), and VMT is forecasted to grow by 22 percent
- Total (domestic, import, export) regional tonnage is expected to grow by 46 percent between 2009 and 2040 (US Department of Transportation, Freight Analysis Framework)
- Total (domestic, import, export) regional value is expected to grow by 126 percent between 2009 and 2040 (US Department of Transportation, Freight Analysis Framework)
- The Panama Canal expansion is anticipated to be complete in 2014. Current capacity allows for ships with 5,000 containers. Expanded capacity will allow for "Panamax" ships with 12,000 containers. This has potential for significant growth for east coast ports and freight movement.

- Mid-Atlantic is the 8th largest consumer market in the country (2009 U.S. Census Bureau)
- According to Logistics Today, Washington D.C. ranks 61st nationally for warehouse/distribution center site selection (Logistics Today 2004)

Project Criteria

Beneficial to Freight Movement in the National Capital Region-Projects that relieve freight bottlenecks or are near major freight generators such as airports, warehouse areas; projects on facilities with significant freight traffic. Bottleneck data, average annual daily truck data, and percent truck data in the region were shared in Freight Subcommittee.

Included in State or Jurisdictional Plans or was Identified by Freight Subcommittee Member-Projects listed in the *Constrained Long Range Plan, Maryland Statewide Freight Plan, Virginia Statewide Multimodal Freight Program* or suggested by Freight Subcommittee members were considered and filtered through Freight Subcommittee member discussions to come up with the final Freight Transportation Highlighted Projects list.

Mode Representation-The Freight Subcommittee selected projects that would represent both the rail and highway modes. Two rail projects were selected for each Class One railroad, CSX and Norfolk Southern. The Freight Subcommittee received feedback from the railroads, state departments of transportation, counties, and Freight Subcommittee members to develop a list of projects representative of the modes.

Regional Representation-The list identifies six highway freight projects, two each in the District of Columbia, Maryland, and Virginia. The Freight Subcommittee received feedback from the state departments of transportation, counties, and Freight Subcommittee members to develop a list of projects representative of the region.

Time Span Representation-The Freight Subcommittee believed it was important to identify a short-term as well as a long-term corridor for each railroad and highway project or program.

Conclusion

The Freight Subcommittee views the 10 Freight Transportation Highlighted Projects as a short list of priority investments that would facilitate goods movement in the National Capital Region. While some of these projects are already committed in the *Constrained Long Range Plan*, acceleration of project initiation could be considered. In trying to reach the adopted goals of the *TPB Vision* and the *Freight Plan*, the Freight Subcommittee supports the funding of rail and highway projects over and above this list.

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FREIGHT TRANSPORTATION PROJECTS-SUMMARY TABLE			
#	Railroad/Jurisdiction	Long-Term	Short-Term
Rail			
1	CSX	CSX National Gateway Corridor	CSX Virginia Avenue Tunnel
2	Norfolk Southern	NS Crescent Corridor	NS 5.8 Mile B-Line Expansion
Highway			
3	DC	Weigh Station within DC Boundaries	Uniform Commercial Curbside Loading Zone Program
4	MD	Relieve congestion along I-95/I-495 from Woodrow Wilson Bridge to Howard County Boundary	I-70 Phase 4
5	VA	Relieve congestion along I-95 from Prince William County Southern Boundary to MD Boundary	I-66 and I-495 Access Improvements

*Note: Please read Project Description sheets on the following pages for more project detail.

CSX Long-Term: NATIONAL GATEWAY

Objective

- Coordinated program of multistate improvements to CSX rail lines to improve double-stack rail connections between the Mid-Atlantic and Midwestern markets

Freight Benefit

- 61 clearance projects in 6 states and the District of Columbia (13 in National Capital Region)
- Six new or enhanced intermodal terminals (1 near Baltimore)
- Volume and speed travel efficiencies

Total Project Cost

- \$842,000,000

Project Source

- CSX National Gateway

Funding Status

- Project Underway; Current Funding - CSX \$413M, Federal \$98M TIGER Funds (38 clearance projects total in OH, PA, WV), MD \$75M, OH \$30M, PA \$35M, VA \$31M, NC \$100K

CSX National Gateway Project



- Freight growth is coming
- New intermodal facility in BWI reduces logistics costs and helps manage freight movement
- More freight with fewer trains
 - Increases efficiency
 - reduces rail and highway congestion
 - lowers maintenance costs
 - lessens emissions and saves fuel

- National Gateway Project
- Current and Planned Double Stack Routes

CSX: NATIONAL GATEWAY Projects in the National Capital Region

Background: 13 CSX National Gateway projects fall within the National Capital Region (shown below).

CSX National Gateway Projects in the Washington Region					
#	City, County	Project Name	Description	Cost	Historic Designation
1	District of Columbia	Virginia Ave. Tunnel	Raise/Replace Tunnel Roof, Double Track Double Stack	\$160,000,000	No
2	District of Columbia	New Jersey Ave.	Lower Track	\$5,006,000	No
3	District of Columbia	10th St.	Lower Track	*	No
4	District of Columbia	I-395 Ramp	Lower Track	*	No
5	District of Columbia	12th St. SW	Lower Track	\$6,387,000*	No
6	District of Columbia	Potomac River Swing Bridge	Bridge Modification	\$415,000	No
7	Catoctin, Frederick	Catoctin Tunnel	Total Arch Liner Removal	\$2,757,000	No
8	Point of Rocks, Frederick	Point of Rocks Tunnel	Total Arch Liner Removal	\$4,522,000	No
9	Germantown, Montgomery	Germantown Rd. North	Replace Bridge	\$1,433,500	No
10	Washington Grove, Montgomery	Deer Park Drive	Replace Bridge	\$3,749,200	Within Historic District, not on Register
11	Hyattsville, Prince George's	Balt. Washington Parkway Rt. 295	Lower Track	*	No
12	Hyattsville, Prince George's	Kenilworth Ave.	Lower Track	\$254,000*	No
13	Woodbridge, Prince William	Railroad Ave.	Replace Bridge	\$2,757,000	No
TOTAL:				\$180,639,700	

* The cost for #5 includes the cost for #3 and #4. The cost for #12 includes the cost for #11.

Source: CSX September 2009

CSX Short-Term: Virginia Avenue Tunnel (Washington DC)

Objective

- Update antiquated 100+ year old rail infrastructure
- Double-stack and double track train travel through District of Columbia

Freight Benefit

- Minimize freight train delays from the Southeastern U.S. to lines running to the Midwest
- Minimize passenger train delays (at present, freight trains often queue for long periods of time on either end of the tunnel to wait their turn to pass and this sometimes impacts passenger train travel in Virginia and Maryland)
- Volume and speed travel efficiencies
- Fewer emissions

Total Project Cost

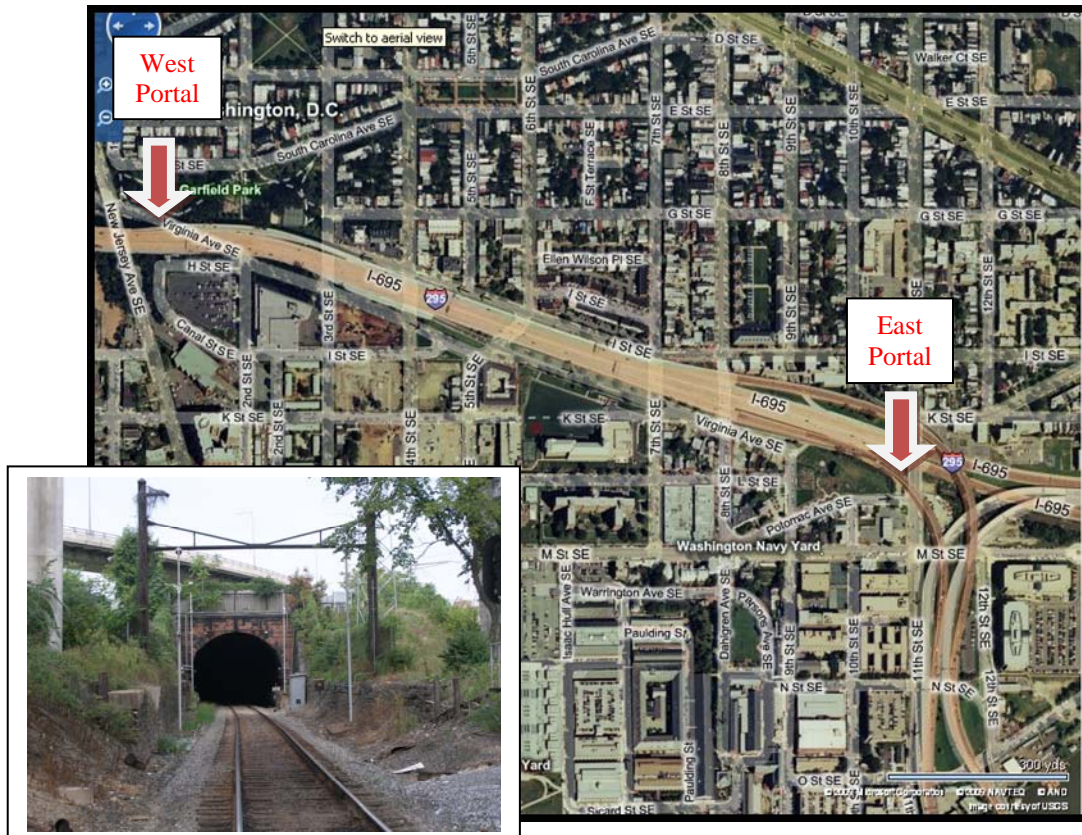
- \$160,000,000

Project Source

- CSX National Gateway

Funding Status

- Looking to begin NEPA process, Current Funding - CSX \$21M, VA \$24M, estimated three-year construction time



NORFOLK SOUTHERN Long-Term: CRESCENT CORRIDOR

Objective

- Rail infrastructure improvements to link a 2,500 mile network between New Jersey and New Orleans (that parallel I-81 and I-95 in this region)

Freight Benefit

- 300 miles of passing track and double track
- 11 new or expanded intermodal terminals
- Diversion of truck traffic to rail from numerous interstates, including I-81, I-95
- Volume and speed travel efficiencies

Total Project Cost

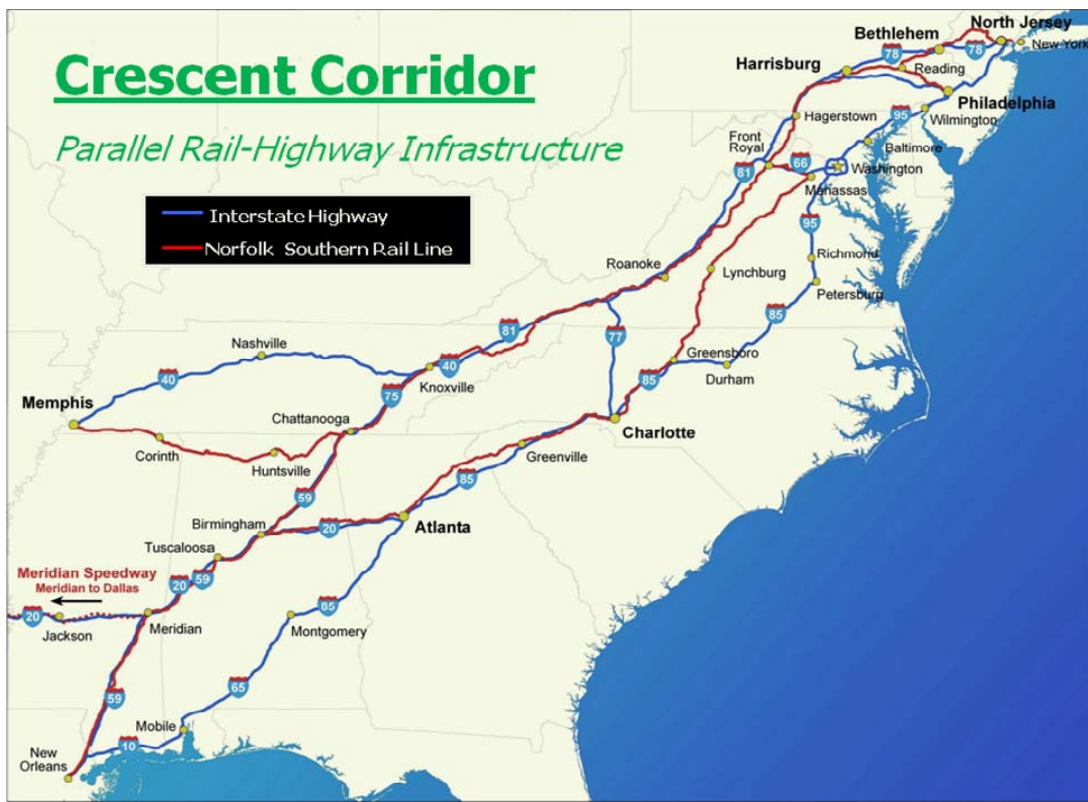
- \$2,500,000,000

Project Source

- Norfolk Southern Crescent Corridor Project

Funding Status

- Partially Funded: Norfolk Southern committed \$264M, Federal \$105M TIGER (for two Intermodal Facilities, AL, TN), \$45M committed from PA, \$43M committed from VA, and \$60M more pledged from VA



NORFOLK SOUTHERN: CRESCENT CORRIDOR
Projects in the National Capital Region

Background: Two Norfolk Southern Crescent Corridor projects fall within the National Capital Region
(Shown below and on map on page 9)

Norfolk Southern Crescent Corridor Projects in the Washington Region				
#	City, County	Project Name	Description	Cost
1	Manassas	5.8 mile B-Line Expansion	5.8 mile of second main line from Manassas to Balls Ford Road, connecting with a two-mile passing track NS constructed last year	\$25M-\$35M est.
2	Manassas	2.1 mile Main Line Expansion	2.1 mile of third main track from Manassas (Powell mp 33.6) to South Manassas (mp 35.7)	\$20M-\$30M est.
TOTAL:				\$45M-\$65M est.

NORFOLK SOUTHERN Short-Term: 5.8 Mile B-Line Expansion

Objective

- Build 5.8 mile of second main line from Manassas to Balls Ford Road, connecting with a 2-mile passing track Norfolk Southern constructed last year
- “Powell” is the junction south of Manassas passenger station where Norfolk Southern’s main line from Atlanta connects with the B-Line to Front Royal, Harrisburg, and the northeast

Freight Benefit

- Relieve a critical chokepoint that has seen growth in intermodal service and the addition of Amtrak and VRE trains on the adjacent NS main line in recent years
- Volume and speed efficiencies

Total Project Cost

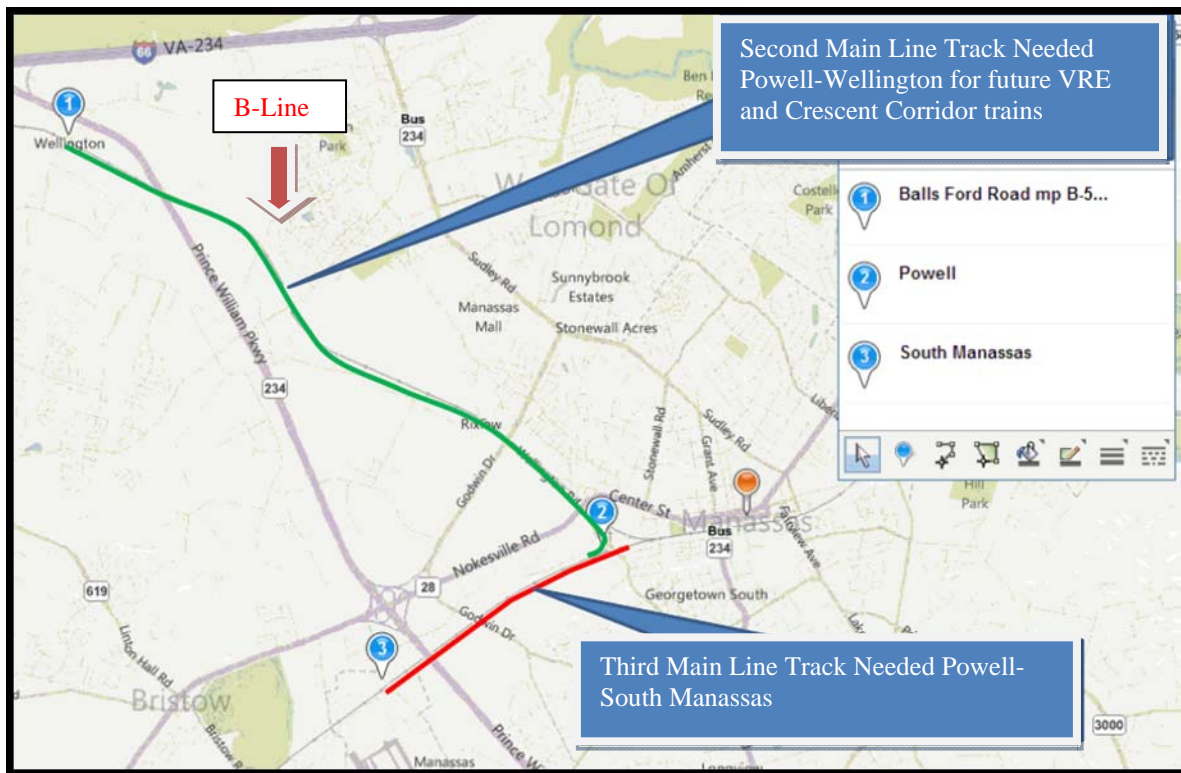
- \$25,000,000-\$35,000,000

Project Source

- Norfolk Southern

Funding Status

- Not Available



DC Long-Term: Establish a Weigh Station within City Limits

Objective

- Preserving the physical condition of the highway transportation system by effectively applying size and weight standards and technologies along a Washington D.C. high volume truck route

Freight Benefit

- Comprehensive approach to enforcement of truck traffic throughout Washington D.C.

Total Project Cost

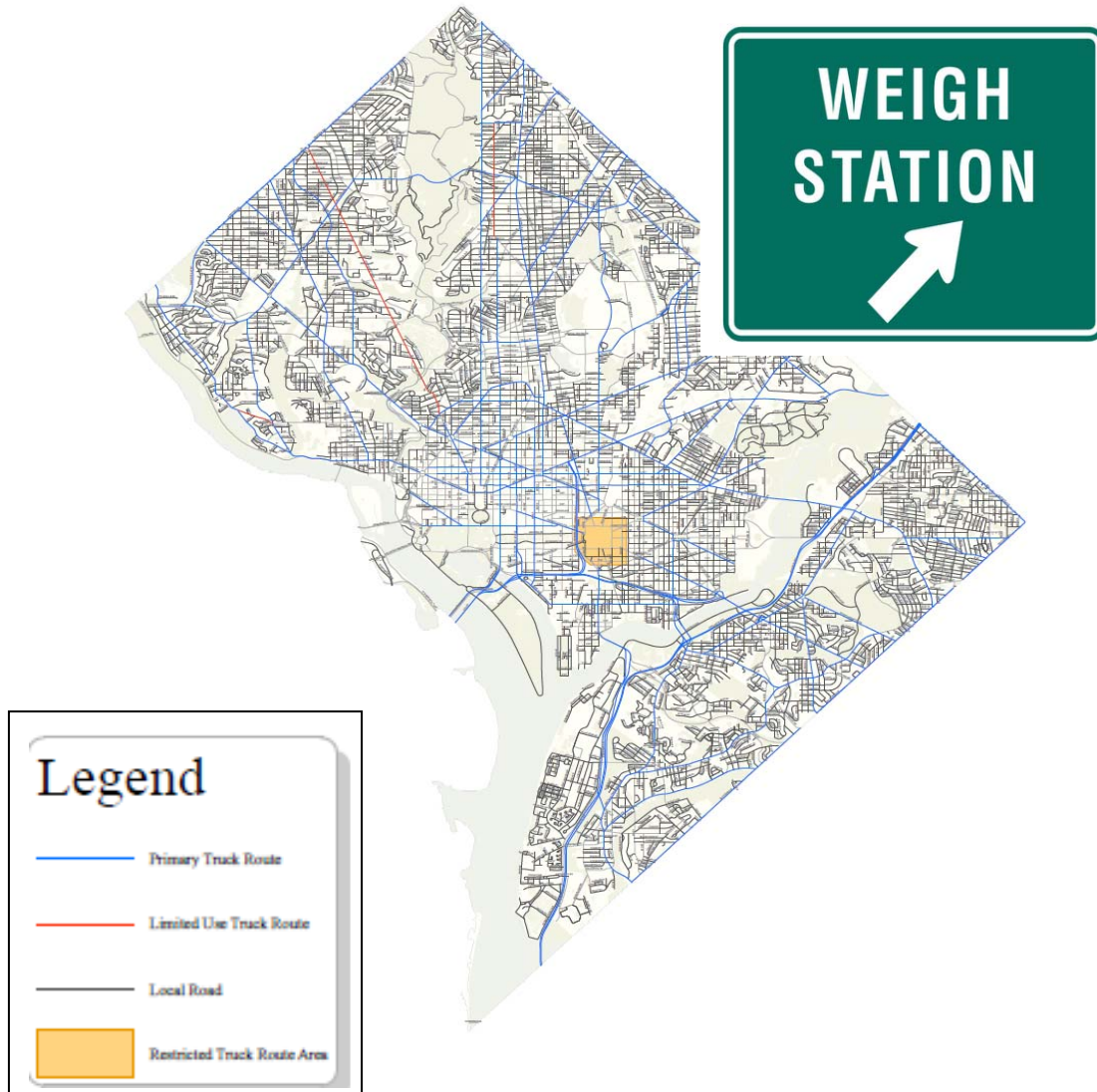
- \$8,000,000 for a two-way weigh station (not including necessary land acquisition)

Project Source

- District of Columbia Department of Transportation

Funding Status

- No identified local budget for project



DC Short-Term: Uniform Commercial Curbside Loading Zone Program

Objective

• Uniform curb markings for commercial vehicle loading and unloading. Washington D.C. City Council introduced the Commercial Curbside Loading Zone Act of 2009, Bill 18-153. The Bill proposed to: (1) Establish loading zone meter fees; (2) Determine space for loading zones; and (3) Develop a payment process. The Commercial Loading Zone Management Plan will address the curbside infrastructure, fees, payment methods, and enforcement techniques.

Freight Benefit

- Clarity for commercial vehicles
- Efficient use of curbside space, turnover
- Proper enforcement of commercial loading space

Total Project Cost

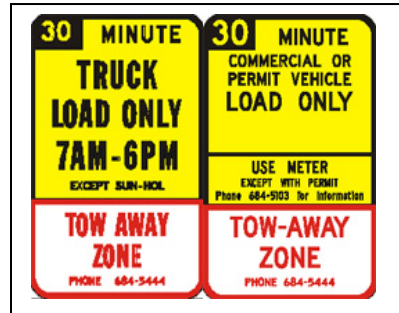
- \$300,000 annually

Project Source

- District of Columbia Department of Transportation

Funding Status

- No identified local budget for project



Uniform
Recognizable
Signage



**MD Long-Term: Relieve Congestion along I-95/I-495
from Woodrow Wilson Bridge to Howard County Boundary**

Objective

- To relieve existing congestion, provide access to planned development east and west of the corridor, and determine the feasibility of managed lanes

Freight Benefit

- Critical corridor for the delivery of goods to consumers in the subregion, as well as national network
- Relieve congestion and increase travel time reliability for freight deliveries
- Improve access to regional distribution points across Maryland, Virginia, and the District of Columbia
- Improve the bottleneck at the I-95/I-495 interchange, ranked the 27th worst bottleneck in the *2009 Bottleneck Analysis of 100 Freight Significant Highway Corridors*

Total Project Cost

- \$3.0-\$5.0 billion dollars (includes interchange improvements at Contee Road, Greenbelt Metro Station, and MD 5 Phase II and a portion of the Capital Beltway Study; a range is provided to include the mainline widening for the section between I-495 and the Howard County line which doesn't have a cost estimate since it is not an active project)

Project Source

- MDOT/State Highway Administration

Funding Status

A portion of this project, I-95/I-495 to I-95 is a part of MDOT's Capital Beltway (Woodrow Wilson Bridge to American Legion Bridge) is in project planning but is currently on hold due to the national economic downturn. Interchanges at Arena Drive Phase II, Greenbelt Metro Station, MD 5 Branch Ave Phase II, and Contee Road are in various stages of design and also on-hold. Improvements to interchanges at I-295, Arena Drive Phase I and MD 5 Phase I were recently completed.

**Table 4.3 Top Maryland Highway Segments by Total AADTT
2007**

Rank	Location	AADTT Range	Notes
1	I-95 DE state line to Havre de Grace except for the Tydings Bridge	16,300 to 17,700	Lower truck counts on Tydings Bridge (over Susquehanna)
2	I-81 Washington County	15,200 to 16,000	Except a short section between MD 58 and Maudgansville Road near Mack Truck plant
3	I-95 Between the Baltimore and Washington Beltways	15,800 to 15,900	Drops to 10,200 between MD 32 and MD 175 (Jessup)
4	I-95 in Baltimore and Harford Counties	13,800 to 15,200	From I-695 to Aberdeen area
5	I-95/I-495 in Prince George's County	12,400 to 13,600	Data for several Beltway sections drops to as low as 8,800 (near MD 214), 6,500 (near Greenbelt Metro), and 6,500 near Woodrow Wilson bridge

Source: MD Statewide Freight Plan 2009

MD Short-Term: I-70 Phase 4

Objective

- To increase corridor capacity where there is a high percentage of truck traffic
- To upgrade existing I-70 from Mount Philip Road to west of MD 355, to construct needed movements at existing interchanges, lengthen exiting acceleration and deceleration lanes, correct deficient merge/weaving actions, and to bring the segment up to modern highway standards

Freight Benefit

- Increase travel time reliability for freight deliveries and pickups
- Improve safety at the associated interchanges
- Provide a modern high-capacity highway capable of handling current and future generations of freight hauling vehicles

Total Project Cost

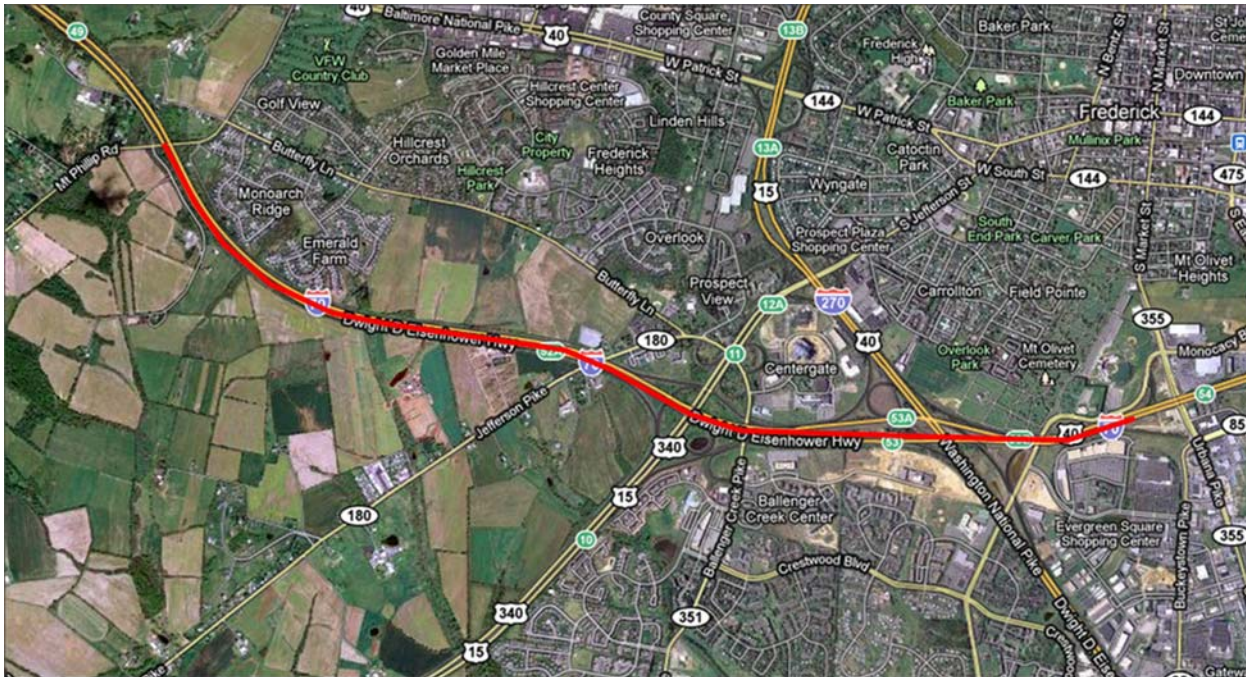
- \$100-\$120 million

Project Source

- MDOT/State Highway Administration

Funding Status

- The project is included in the Constrained Long Range Plan/Transportation Improvement Plan, the planning is complete, the project is in partial design, but is currently on-hold



VA Long-Term:
Relieve Congestion along the I-95 Corridor
From Prince William County Southern Boundary to MD Boundary

Objective

- Relieve congestion on I-95
- Accommodate growth in freight traffic

Freight Benefit

- Critical for delivery of goods to consumers in subregion, as well as national network

Total Project Cost

- \$Unknown

Project Source

- Virginia Department of Transportation
- A number of highway and transit improvements for this corridor are at various stages of planning and construction

Funding Status

- Not Available

Figure 11. Average AADT and Truck Percentages

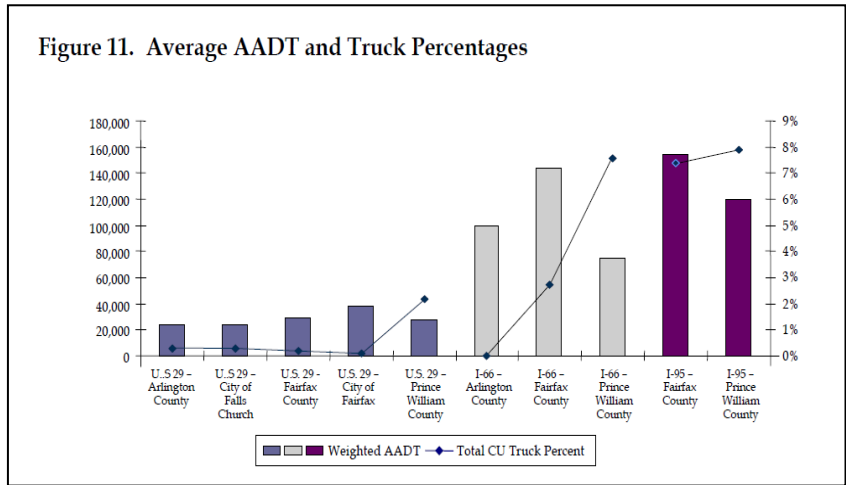
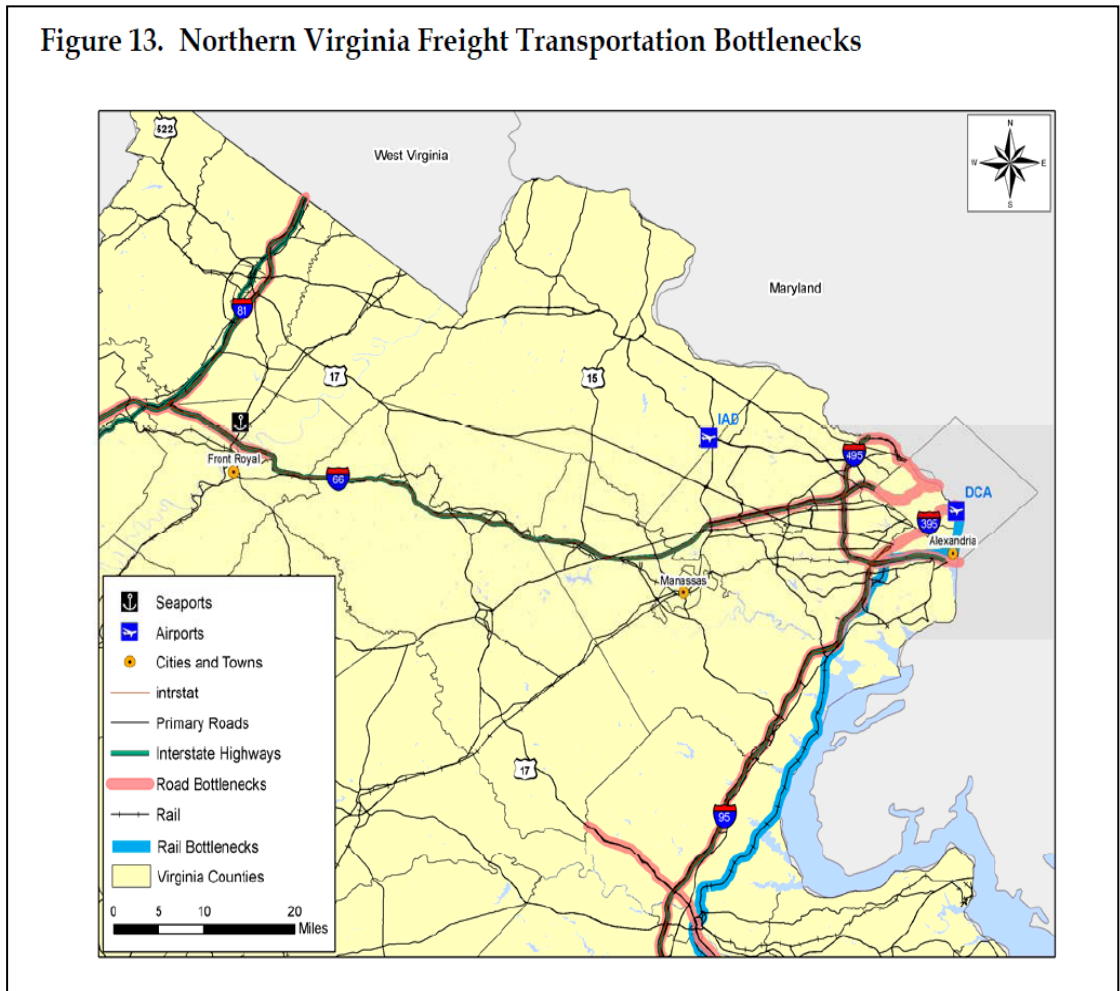


Figure 13. Northern Virginia Freight Transportation Bottlenecks



Source: Draft Virginia Statewide Multimodal Freight Study, 2010

VA Short-Term: I-66 and I-495 Access Improvements

Objective

- To relocate the existing general purpose exit ramp from eastbound I-66 to northbound I-495 general purpose lanes so as to have the exit ramp merge with I-495 on the right side instead of the left side

Freight Benefit

- To relieve the I-66/I-495 intersection, a major truck bottleneck in the region
- All trucks must exit I-66 at this point, trucks are not allowed on I-66 inside the Beltway

Total Project Cost

- \$106,716,000

Project Source

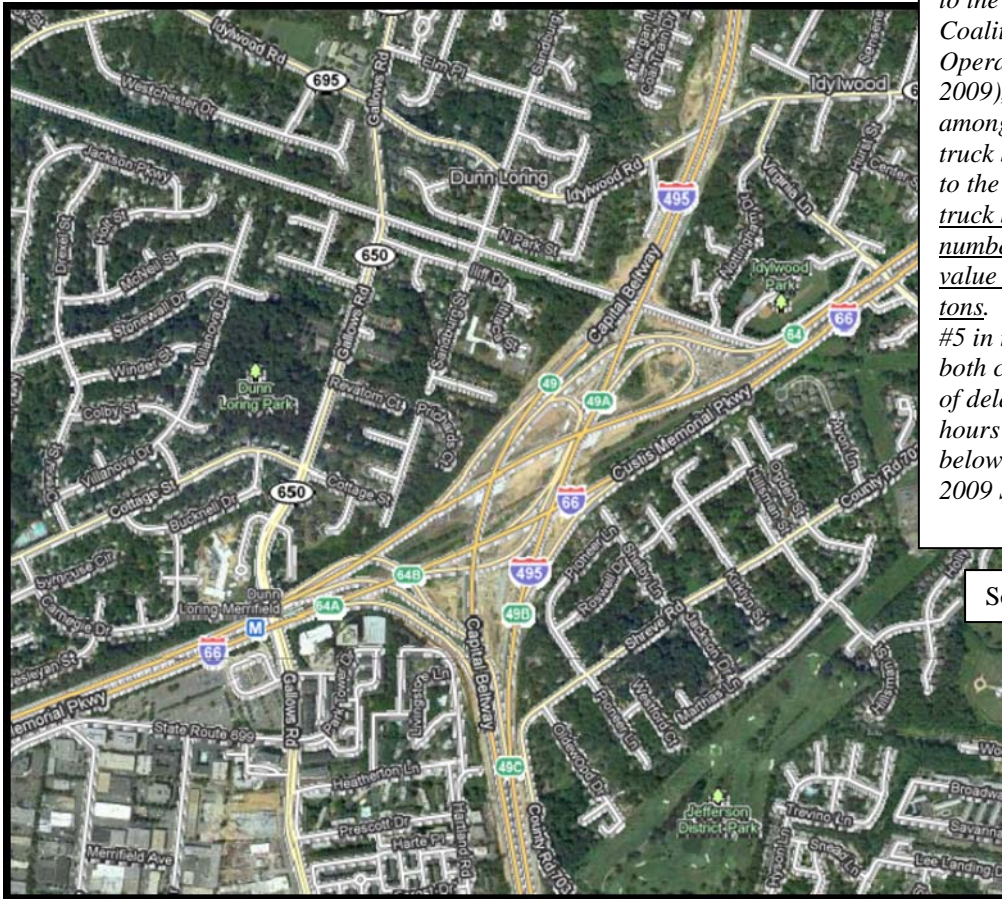
- Virginia DOT

Funding Status

- CLRP/TIP Project

Table 4.7 Worst Five Truck Bottlenecks in Each State Ranked by Total Commodity Value

Interchange	ST	Key Commodity Value		Key Commodity Tons (1,000)	
		(Million Dollars)	Rank		Rank
I-78 at I-95	NJ	860,000	1	180,000	6
I-495 at I-66	VA	820,000	2	190,000	1



I-95 MATOPS: According to the I-95 Corridor Coalition Mid-Atlantic Truck Operations Study (MATOPS 2009), this intersection is among Virginia's top five truck bottlenecks. Compared to the I-95 corridor, this truck bottleneck rank's number #2 in commodity value and #1 in commodity tons. This bottleneck ranked #5 in the I-95 corridor for both commodity value-hours of delay and commodity ton-hours of delay. See Table 4.7 below from the MATOPS 2009 Study.

Source: MATOPS 2009