

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 #5

MEMORANDUM

November 13, 2008

TO: Transportation Planning Board

FROM: Ronald F. Kirby
Director, Department of
Transportation Planning

RE: Letters Sent/Received Since the October 15th TPB Meeting

The attached letters were sent/received since the October 15th TPB meeting. The letters will be reviewed under Agenda #5 of the November 19th TPB agenda.

Attachments



COMMONWEALTH of VIRGINIA

DEPARTMENT OF TRANSPORTATION

14685 Avion Parkway
Chantilly, VA 20151
(703) 383-VDOT (8368)

DAVID S. EKERN, P.E.
COMMISSIONER

November 6, 2008

Ms. Angela Fogle Jacobs, AICP
Federal Highway Administration
FHWA-HOTM-1, Room E86-204
1200 New Jersey Avenue, SE
Washington, DC 20590

Re: Grant Proposal for a Regional Value Pricing Study by the MPO
US DOT – FHWA: Value Pricing Pilot Program DOT-FHWA-VPPP-09-001

Dear Ms. Jacobs:

The Virginia Department of Transportation (VDOT) is pleased to submit a proposal on behalf of the National Capital Region Transportation Planning Board (TPB) to develop a 2020 Plan for a Network of Value Priced Lanes and High Quality Bus Rapid Transit (BRT) Service for the Metropolitan Washington Region.

VDOT had previously applied for and secured a FHWA Value Pricing Pilot Program grant on behalf of the TPB. The TPB completed a Regional Value Pricing Study with this grant. The study proposed for this grant opportunity is a follow up of the earlier study and focused on a plan for the near term implementation.

Thank you for your consideration of this grant proposal. Should you have any questions on the proposal, please contact Ms. Jo Anne Sorenson, at 703-383-2461, the Assistant District Administrator for Planning and Development.

Sincerely,

A handwritten signature in black ink, appearing to read "Morteza Salehi".

Morteza Salehi
District Administrator

**APPLICATION FOR
FEDERAL ASSISTANCE**

OMB Approval No. 0348-0043

1. TYPE OF SUBMISSION: Application <input type="checkbox"/> Construction <input checked="" type="checkbox"/> Non-Construction Preapplication <input type="checkbox"/> Construction <input type="checkbox"/> Non-Construction	2. DATE SUBMITTED 11.6.2008	Applicant Identifier
	3. DATE RECEIVED BY STATE	State Application Identifier
	4. DATE RECEIVED BY FEDERAL AGENCY	Federal Identifier

5. APPLICANT INFORMATION

Legal Name: VIRGINIA DEPARTMENT OF TRANSPORTATION	Organizational Unit: NORTHERN VIRGINIA DISTRICT OFFICE
Address (give city, county, State, and zip code): 14685 AVION PARKWAY CHANTILLY, VA 20151-1104	Name and telephone number of person to be contacted on matters involving this application (give area code) Ms. Jo Anne Sorenson; 703-383-2461

6. EMPLOYER IDENTIFICATION NUMBER (EIN): 54-6001730	7. TYPE OF APPLICANT: (enter appropriate letter in box) B
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8. TYPE OF APPLICATION: <input checked="" type="checkbox"/> New <input type="checkbox"/> Continuation <input type="checkbox"/> Revision If Revision, enter appropriate letter(s) in box(es) <input type="checkbox"/> <input type="checkbox"/> A. Increase Award B. Decrease Award C. Increase Duration D. Decrease Duration Other(specify): _____	<p>A. State H. Independent School Dist.</p> <p>B. County I. State Controlled Institution of Higher Learning</p> <p>C. Municipal J. Private University</p> <p>D. Township K. Indian Tribe</p> <p>E. Interstate L. Individual</p> <p>F. Intermunicipal M. Profit Organization</p> <p>G. Special District N. Other (Specify) ON BEHALF OF NCR-TPB</p>
	9. NAME OF FEDERAL AGENCY: FEDERAL HIGHWAY ADMINISTRATION

10. CATALOG OF FEDERAL DOMESTIC ASSISTANCE NUMBER: 20-200 TITLE: HWY. RESEARCH AND DEVELOPMENT PROGRAM	11. DESCRIPTIVE TITLE OF APPLICANT'S PROJECT: DEVELOP A 2020 PLAN FOR A NETWORK OF VALUE PRICED LANES AND HIGH QUALITY BUS RARIID TRANSIT (BRT) SERVICE FOR THE METROPOLITAN WASHINGTON REGION
12. AREAS AFFECTED BY PROJECT (Cities, Counties, States, etc.): METROPOLITAN WASHINGTON D.C. < PARTS OF VA, PARTS OF MD & THE DIST. OF COLUMBIA >	

13. PROPOSED PROJECT	14. CONGRESSIONAL DISTRICTS OF:
Start Date Ending Date 3/1/2009 6/30/2010	a. Applicant 8, 10, 11
	b. Project MD: 4, 5, 6, 8 VA: 8, 10, 11 D.C.

15. ESTIMATED FUNDING:	16. IS APPLICATION SUBJECT TO REVIEW BY STATE EXECUTIVE ORDER 12372 PROCESS?
a. Federal \$ 320,000⁰⁰	a. YES. THIS PREAPPLICATION/APPLICATION WAS MADE AVAILABLE TO THE STATE EXECUTIVE ORDER 12372 PROCESS FOR REVIEW ON: DATE _____
b. Applicant \$ 0⁰⁰	b. No. <input checked="" type="checkbox"/> PROGRAM IS NOT COVERED BY E. O. 12372 <input type="checkbox"/> OR PROGRAM HAS NOT BEEN SELECTED BY STATE FOR REVIEW
c. State \$ 0⁰⁰	
d. Local \$ 80,000⁰⁰	17. IS THE APPLICANT DELINQUENT ON ANY FEDERAL DEBT?
e. Other \$ 0⁰⁰	<input type="checkbox"/> Yes If "Yes," attach an explanation. <input checked="" type="checkbox"/> No
f. Program Income \$ 0⁰⁰	
g. TOTAL \$ 400,000⁰⁰	

18. TO THE BEST OF MY KNOWLEDGE AND BELIEF, ALL DATA IN THIS APPLICATION/PREAPPLICATION ARE TRUE AND CORRECT, THE DOCUMENT HAS BEEN DULY AUTHORIZED BY THE GOVERNING BODY OF THE APPLICANT AND THE APPLICANT WILL COMPLY WITH THE ATTACHED ASSURANCES IF THE ASSISTANCE IS AWARDED.

a. Type Name of Authorized Representative MR. MORTEZA SALEHI	b. Title DISTRICT ADMINISTRATOR	c. Telephone Number 703-383-2575
d. Signature of Authorized Representative <i>Mr. Morteza Salehi</i>	e. Date Signed 11-4-08	

BUDGET INFORMATION - Non-Construction Programs

SECTION A - BUDGET SUMMARY

Grant Program Function or Activity (a)	Catalog of Federal Domestic Assistance Number (b)	Estimated Unobligated Funds		New or Revised Budget		Total (g)
		Federal (c)	Non-Federal (d)	Federal (e)	Non-Federal (f)	
1. HWY. RESEARCH & DEVELOP. PRGRM	20-200	\$ 0	\$ 0	\$ 320,000	\$ 80,000	\$ 400,000
2.						
3.						
4.						
5. Totals		\$ 0	\$ 0	\$ 320,000	\$ 80,000	\$ 400,000

SECTION B - BUDGET CATEGORIES

Object Class Categories	GRANT PROGRAM, FUNCTION OR ACTIVITY			Total (5)
	(1) HWY R&D PRGR (2)	(3)	(4)	
a. Personnel	\$ 213,542	\$	\$	\$
b. Fringe Benefits	\$ 42,708			
c. Travel	\$ 500			
d. Equipment	\$ 0			
e. Supplies	\$ 500			
f. Contractual	\$ 50,000			
g. Construction	\$ 0			
h. Other	\$ 500			
i. Total Direct Charges (sum of 6a-6h)	\$ 307,750			
j. Indirect Charges	\$ 92,250			
k. TOTALS (sum of 6i and 6j)	\$ 400,000	\$	\$	\$

7. Program Income	\$	\$	\$	\$
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SECTION C - NON-FEDERAL RESOURCES				
(a) Grant Program	(b) Applicant	(c) State	(d) Other Sources	(e) TOTALS
8. HIGHWAY RESEARCH & DEVELOPMENT PROGRAM	\$ 0	\$ 0	\$ 80,000	\$ 80,000
9.				
10.				
11.				
12. TOTAL (sum of lines 8-11)	\$ 0	\$ 0	\$ 80,000	\$ 80,000

SECTION D - FORECASTED CASH NEEDS					
	Total for 1st Year	FUTURE FUNDING PERIODS (Years)			
		1st Quarter	2nd Quarter	3rd Quarter	4th Quarter
13. Federal	\$ 320,000	\$ 48,000	\$ 96,000	\$ 113,000	\$ 64,000
14. Non-Federal	\$ 80,000	\$ 12,000	\$ 24,000	\$ 28,000	\$ 16,000
15. TOTAL (sum of lines 13 and 14)	\$ 400,000	\$ 60,000	\$ 120,000	\$ 140,000	\$ 80,000

SECTION E - BUDGET ESTIMATES OF FEDERAL FUNDS NEEDED FOR BALANCE OF THE PROJECT				
(a) Grant Program	FUTURE FUNDING PERIODS (Years)			
	(b) First	(c) Second	(d) Third	(e) Fourth
16.	\$	\$	\$	\$
17.				
18.				
19.				
20. TOTAL (sum of lines 16-19)	\$	\$	\$	\$

SECTION F - OTHER BUDGET INFORMATION	
21. Direct Charges:	22. Indirect Charges:
23. Remarks:	

ASSURANCES - NON-CONSTRUCTION PROGRAMS

Public reporting burden for this collection of information is estimated to average 15 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0040), Washington, DC 20503.

PLEASE DO NOT RETURN YOUR COMPLETED FORM TO THE OFFICE OF MANAGEMENT AND BUDGET. SEND IT TO THE ADDRESS PROVIDED BY THE SPONSORING AGENCY.

NOTE: Certain of these assurances may not be applicable to your project or program. If you have questions, please contact the awarding agency. Further, certain Federal awarding agencies may require applicants to certify to additional assurances. If such is the case, you will be notified.

As the duly authorized representative of the applicant, I certify that the applicant:

1. Has the legal authority to apply for Federal assistance and the institutional, managerial and financial capability (including funds sufficient to pay the non-Federal share of project cost) to ensure proper planning, management and completion of the project described in this application.
2. Will give the awarding agency, the Comptroller General of the United States and, if appropriate, the State, through any authorized representative, access to and the right to examine all records, books, papers, or documents related to the award; and will establish a proper accounting system in accordance with generally accepted accounting standards or agency directives.
3. Will establish safeguards to prohibit employees from using their positions for a purpose that constitutes or presents the appearance of personal or organizational conflict of interest, or personal gain.
4. Will initiate and complete the work within the applicable time frame after receipt of approval of the awarding agency.
5. Will comply with the Intergovernmental Personnel Act of 1970 (42 U.S.C. §§4728-4763) relating to prescribed standards for merit systems for programs funded under one of the 19 statutes or regulations specified in Appendix A of OPM's Standards for a Merit System of Personnel Administration (5 C.F.R. 900, Subpart F).
6. Will comply with all Federal statutes relating to nondiscrimination. These include but are not limited to: (a) Title VI of the Civil Rights Act of 1964 (P.L. 88-352) which prohibits discrimination on the basis of race, color or national origin; (b) Title IX of the Education Amendments of 1972, as amended (20 U.S.C. §§1681-1683, and 1685-1686), which prohibits discrimination on the basis of sex; (c) Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. §794), which prohibits discrimination on the basis of handicaps; (d) the Age Discrimination Act of 1975, as amended (42 U.S.C. §§6101-6107), which prohibits discrimination on the basis of age; (e) the Drug Abuse Office and Treatment Act of 1972 (P.L. 92-255), as amended, relating to nondiscrimination on the basis of drug abuse; (f) the Comprehensive Alcohol Abuse and Alcoholism Prevention, Treatment and Rehabilitation Act of 1970 (P.L. 91-616), as amended, relating to nondiscrimination on the basis of alcohol abuse or alcoholism; (g) §§523 and 527 of the Public Health Service Act of 1912 (42 U.S.C. §§290 dd-3 and 290 ee 3), as amended, relating to confidentiality of alcohol and drug abuse patient records; (h) Title VIII of the Civil Rights Act of 1968 (42 U.S.C. §§3601 et seq.), as amended, relating to nondiscrimination in the sale, rental or financing of housing; (i) any other nondiscrimination provisions in the specific statute(s) under which application for Federal assistance is being made; and, (j) the requirements of any other nondiscrimination statute(s) which may apply to the application.
7. Will comply, or has already complied, with the requirements of Titles II and III of the Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970 (P.L. 91-646) which provide for fair and equitable treatment of persons displaced or whose property is acquired as a result of Federal or federally-assisted programs. These requirements apply to all interests in real property acquired for project purposes regardless of Federal participation in purchases.
8. Will comply, as applicable, with provisions of the Hatch Act (5 U.S.C. §§1501-1508 and 7324-7328) which limit the political activities of employees whose principal employment activities are funded in whole or in part with Federal funds.

9. Will comply, as applicable, with the provisions of the Davis-Bacon Act (40 U.S.C. §§276a to 276a-7), the Copeland Act (40 U.S.C. §276c and 18 U.S.C. §874), and the Contract Work Hours and Safety Standards Act (40 U.S.C. §§327-333), regarding labor standards for federally-assisted construction subagreements.
10. Will comply, if applicable, with flood insurance purchase requirements of Section 102(a) of the Flood Disaster Protection Act of 1973 (P.L. 93-234) which requires recipients in a special flood hazard area to participate in the program and to purchase flood insurance if the total cost of insurable construction and acquisition is \$10,000 or more.
11. Will comply with environmental standards which may be prescribed pursuant to the following: (a) institution of environmental quality control measures under the National Environmental Policy Act of 1969 (P.L. 91-190) and Executive Order (EO) 11514; (b) notification of violating facilities pursuant to EO 11738; (c) protection of wetlands pursuant to EO 11990; (d) evaluation of flood hazards in floodplains in accordance with EO 11988; (e) assurance of project consistency with the approved State management program developed under the Coastal Zone Management Act of 1972 (16 U.S.C. §§1451 et seq.); (f) conformity of Federal actions to State (Clean Air) Implementation Plans under Section 176(c) of the Clean Air Act of 1955, as amended (42 U.S.C. §§7401 et seq.); (g) protection of underground sources of drinking water under the Safe Drinking Water Act of 1974, as amended (P.L. 93-523); and, (h) protection of endangered species under the Endangered Species Act of 1973, as amended (P.L. 93-205).
12. Will comply with the Wild and Scenic Rivers Act of 1968 (16 U.S.C. §§1271 et seq.) related to protecting components or potential components of the national wild and scenic rivers system.
13. Will assist the awarding agency in assuring compliance with Section 106 of the National Historic Preservation Act of 1966, as amended (16 U.S.C. §470), EO 11593 (identification and protection of historic properties), and the Archaeological and Historic Preservation Act of 1974 (16 U.S.C. §§469a-1 et seq.).
14. Will comply with P.L. 93-348 regarding the protection of human subjects involved in research, development, and related activities supported by this award of assistance.
15. Will comply with the Laboratory Animal Welfare Act of 1966 (P.L. 89-544, as amended, 7 U.S.C. §§2131 et seq.) pertaining to the care, handling, and treatment of warm blooded animals held for research, teaching, or other activities supported by this award of assistance.
16. Will comply with the Lead-Based Paint Poisoning Prevention Act (42 U.S.C. §§4801 et seq.) which prohibits the use of lead-based paint in construction or rehabilitation of residence structures.
17. Will cause to be performed the required financial and compliance audits in accordance with the Single Audit Act Amendments of 1996 and OMB Circular No. A-133, "Audits of States, Local Governments, and Non-Profit Organizations."
18. Will comply with all applicable requirements of all other Federal laws, executive orders, regulations, and policies governing this program.

SIGNATURE OF AUTHORIZED CERTIFYING OFFICIAL <i>M. J. Vally</i>	TITLE DISTRICT ADMINISTRATOR
APPLICANT ORGANIZATION VIRGINIA DEPARTMENT OF TRANSPORTATION	DATE SUBMITTED 11.6.08

DISCLOSURE OF LOBBYING ACTIVITIES

Approved by OMB
0348-0046

Complete this form to disclose lobbying activities pursuant to 31 U.S.C. 1352
(See reverse for public burden disclosure.)

1. Type of Federal Action: <input checked="" type="checkbox"/> a. contract <input type="checkbox"/> b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	2. Status of Federal Action: <input type="checkbox"/> a. bid/offer/application <input checked="" type="checkbox"/> b. initial award c. post-award	3. Report Type: <input checked="" type="checkbox"/> a. initial filing <input type="checkbox"/> b. material change For Material Change Only: year _____ quarter _____ date of last report _____
4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, if known: <p style="text-align: center;">N/A</p> Congressional District, if known:	5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: <p style="text-align: center;">N/A</p> Congressional District, if known:	
6. Federal Department/Agency: <p style="text-align: center;">FHWA</p>	7. Federal Program Name/Description: CFDA Number, if applicable: <u>20-200</u>	
8. Federal Action Number, if known:	9. Award Amount, if known: \$	
10. a. Name and Address of Lobbying Entity (if individual, last name, first name, MI): <p style="text-align: center;">N/A</p>	b. Individuals Performing Services (including address if different from No. 10a) (last name, first name, MI): <p style="text-align: center;">N/A</p>	
(attach Continuation Sheet(s) SF-LLLA, if necessary)		
11. Amount of Payment (check all that apply): \$ <u>N/A</u> <input type="checkbox"/> actual <input type="checkbox"/> planned	13. Type of Payment (check all that apply): <input type="checkbox"/> a. retainer <input type="checkbox"/> b. one-time fee <input type="checkbox"/> c. commission <input type="checkbox"/> d. contingent fee <input type="checkbox"/> e. deferred <input type="checkbox"/> f. other; specify: _____ <p style="text-align: right; font-size: large;">N/A</p>	
12. Form of Payment (check all that apply): <input type="checkbox"/> a. cash <input type="checkbox"/> b. in-kind; specify: nature _____ value _____ <p style="text-align: right; font-size: large;">N/A</p>		
14. Brief Description of Services Performed or to be Performed and Date(s) of Service, including officer(s), employee(s), or Member(s) contacted, for Payment Indicated in Item 11: <p style="text-align: center; font-size: large;">N/A</p>		
(attach Continuation Sheet(s) SF-LLLA, if necessary)		
15. Continuation Sheet(s) SF-LLLA attached: <input type="checkbox"/> Yes <input type="checkbox"/> No		
16. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be reported to the Congress semi-annually and will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: <u>Morteza Salehi</u> Print Name: <u>MR. MORTEZA SALEHI</u> Title: <u>DISTRICT ADMINISTRATOR</u> Telephone No.: <u>703-383-2575</u> Date: <u>11/6/08</u>	
Federal Use Only:	Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)	

**METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS
777 North Capitol Street, N.E.
Washington, D.C. 20002-4239**

**RESOLUTION AUTHORIZING THE APPROVAL OF A FEDERAL HIGHWAY
ADMINISTRATION GRANT APPLICATION AND MATCHING FUNDS**

WHEREAS, the Transportation Planning Board, at its October 15, 2008 meeting, voted to recommend that COG submit a grant application to the U.S. Department of Transportation, Federal Highway Administration (FHA) Value Pricing Pilot Program; and

WHEREAS, funding will be allocated by the FHWA to 10 Metropolitan Planning Organizations to "develop comprehensive multimodal regional transportation packages that include congestion pricing as a key component, for eventual incorporation into the region's transportation plan; and

WHEREAS, such funding would enable staff to prepare more in-depth analyses of certain aspects of the "CLRP Aspirations" scenario than is possible under the current budget.

**NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF DIRECTORS OF THE
METROPOLITAN WASHINGTON COUNCIL OF GOVERNMENTS THAT:**

The Executive Director, or his designee, is authorized to submit a grant application to the Federal Highway Administration to enhance the "CLRP Aspirations" scenario analyses. The Executive Director is further authorized to execute a contract with the FHA in an amount not to exceed \$400,000 and to provide the required 20 percent non-federal match of \$80,000 (\$30,000 from the FY 2009 operating and capital contingency and \$50,000 from the proposed FY 2010 work program and budget.)

COPY TESTE:

Nicole Hange
Board Clerk

**Summary of TPB Grant Proposal to the Federal Highway Administration
(FHWA) Value Pricing Pilot Program (VPPP)**

November 7, 2008

The National Capital Region Transportation Planning Board (TPB) is applying for a grant under the FHWA/VPPP focused on developing a package of bus rapid transit services on a regional network of variably-priced lanes which could be implemented by the year 2020.

The new grant will build upon a 2006 FHWA/VPPP funded TPB study documented in the February 2008 report "Evaluating Alternative Scenarios for a Network of Variably Priced Highway Lanes in the Metropolitan Washington Region." The results of this study generated wide interest, including an article on the future of roadway pricing in the Washington region in the *Washington Post*. The scenarios examined in this study were from a long range perspective with many policy and financial aspects identified for consideration in later studies. The proposed new study will address selected elements of the earlier study that could potentially be implemented by 2020.

The region's current constrained long-range transportation plan (CLRP) includes three major variably priced lane projects: the Intercounty Connector, the Northern Virginia Capital Beltway HOT Lanes, and the I-95/395 HOT Lanes. The development and analysis of an expanded network of bus rapid transit operating on priced lanes for 2020 will provide regional decision makers with valuable guidance on the near-term implementation of a pricing and transit strategy that could provide great value to the region.

The proposed new study would investigate the following major questions:

- How can the currently planned three priced facilities in the Washington region be connected into an expanded regional toll lane network with high quality bus rapid transit for 2020? What other corridors or facilities could be included to expand the reach of the network? What physical, user, economic and/or institutional barriers may exist to the creation and expansion of such a network, and how might they be overcome?
- How well would a high quality BRT system operating on the above network help to meet regional goals such as increasing mobility and accessibility and decreasing VMT and greenhouse gas emissions?

The study will be guided by the TPB Scenario Study Task Force. The FHWA will participate in the oversight provided by the task force. Through the Scenario Study Task Force, local elected officials and policy and technical level staff from the state and local departments of transportation in Northern Virginia, Suburban Maryland, and the District of Columbia, as well as the Washington Metropolitan Area Transit Authority (WMATA), the Virginia Department of Rail and Public Transportation (DRPT) and the Maryland Transit Authority (MTA), will play an active role in guiding the study and interpreting the results. The grant application is for \$400,000 (\$320,000 from federal sources, and \$80,000 from local sources). The study tasks would be conducted by TPB staff with specialized consultant assistance as needed, and would be completed in 12 months.

National Capital Region Transportation Planning Board

**Value Pricing Pilot Program
Grant Proposal for a Regional Value Pricing Study**

November 7, 2008

*SUBMITTED BY THE VIRGINIA DEPARTMENT OF TRANSPORTATION
FOR THE
NATIONAL CAPITAL REGION TRANSPORTATION PLANNING BOARD*

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Introduction

The National Capital Region Transportation Planning Board (TPB) has made substantial progress in examining value priced lanes for this region through a variety of efforts including: the adoption of goals for a regional system of variably priced lanes; the inclusion of three major variably priced projects in the region's constrained long-range transportation plan (CLRP), and the completion of the study, in Feb. 2008, of a regional network of value priced (VP) highway lanes for the Washington region. This 2008 Regional VP study was conducted with a 2006 grant from the Federal Highway Administration's Value Pricing Pilot Program (VPPP).

The VPPP grant, which was submitted to FHWA by the Virginia Department of Transportation (VDOT) on behalf of the TPB, allowed extensive analysis of a large network, as well as the creation of other scenarios that pare back portions of the large network and apply variable pricing to some existing freeway and arterial lanes. This analysis was documented in the February 2008 report entitled "Evaluating Alternative Scenarios for a Network of Variably Priced Highway Lanes in the Metropolitan Washington Region." The study evaluated the potential impacts of three alternative scenarios for a regional network of variably priced lanes, and identified several topics for further consideration. The results received wide interest and an article on the future of roadway pricing in the Washington region appeared in the *Washington Post*. The scenarios examined in this study were from a long range perspective with many of policy and financial aspects identified to be addressed later.

The TPB, working with VDOT, is applying for a grant under the FHWA's 2008 VPPP grant program to follow up on the earlier study but this time to focus on selected elements of the earlier study that could potentially be implemented in the near term (2020). The primary focus of this new study would be to identify enhancements to the currently planned network of value priced and toll lanes in the region upon which a network for a new high quality bus rapid transit (BRT) system could operate by 2020.

In January 2008, the TPB initiated the next phase of its ongoing scenario study which includes a "CLRP Aspirations" scenario. This scenario will pair transportation improvements with shifts in land use in order to evaluate the question "what if the region grew differently?" This scenario includes the evaluation of a regional high-quality bus rapid transit (BRT) network operating on the network of variably priced lanes studied under the previous VPPP grant. This scenario will, however, be from a longer term perspective – one that matches the region's proposed 2010-2040 CLRP. The VPPP Grant funded study would utilize the assumptions from the CLRP Aspirations scenario but focus on the near term elements and that could potentially be implemented by 2020. In other words the VPPP grant study could be seen as a first phase of the Aspirations study. The additional resources provided by the FHWA grant would provide the ability to perform this more in-depth phasing analysis of the "CLRP Aspirations" scenario than is possible under the current budget.

National Capital Region Transportation Planning Board
Grant Proposal for a Regional Value Pricing Study

The study under this new grant would address the following major topics:

- Develop a plan for 2020 that will connect the currently planned priced facilities in the region into an expanded priced network.
- Examine the viability of Bus Rapid Transit (BRT) on the 2020 priced network for linking high-density, mixed-use densities in regional activity centers.
- Conduct a comprehensive evaluation of the benefits and costs of the BRT and VPL system on users and the community at large.
- Present the BRT/VPL plan for 2020 for inclusion in the next major CLRP and TIP update scheduled for 2010.

The development and analysis of a priced network plan for 2020 with high-quality BRT service will provide regional decision makers with a clear path towards implementation of a pricing and transit strategy that could provide great increases in mobility to the region.

This study is estimated to cost \$400,000 (\$320,000 from federal sources, and \$80,000 from local sources). It is anticipated that the study tasks would be conducted primarily by TPB staff and completed in 12 months.

Background

About the Transportation Planning Board

The National Capital Region Transportation Planning Board (TPB) is the Metropolitan Planning Organization (MPO) for the Washington metropolitan region. As an MPO, the TPB is responsible for coordinating transportation planning at the regional level and developing the long-range (20 to 25 year) financially constrained transportation plan for the Washington region. A map of the TPB Planning Area is displayed in Figure 1. The TPB brings together key decision makers to coordinate planning and funding for the region's transportation system.

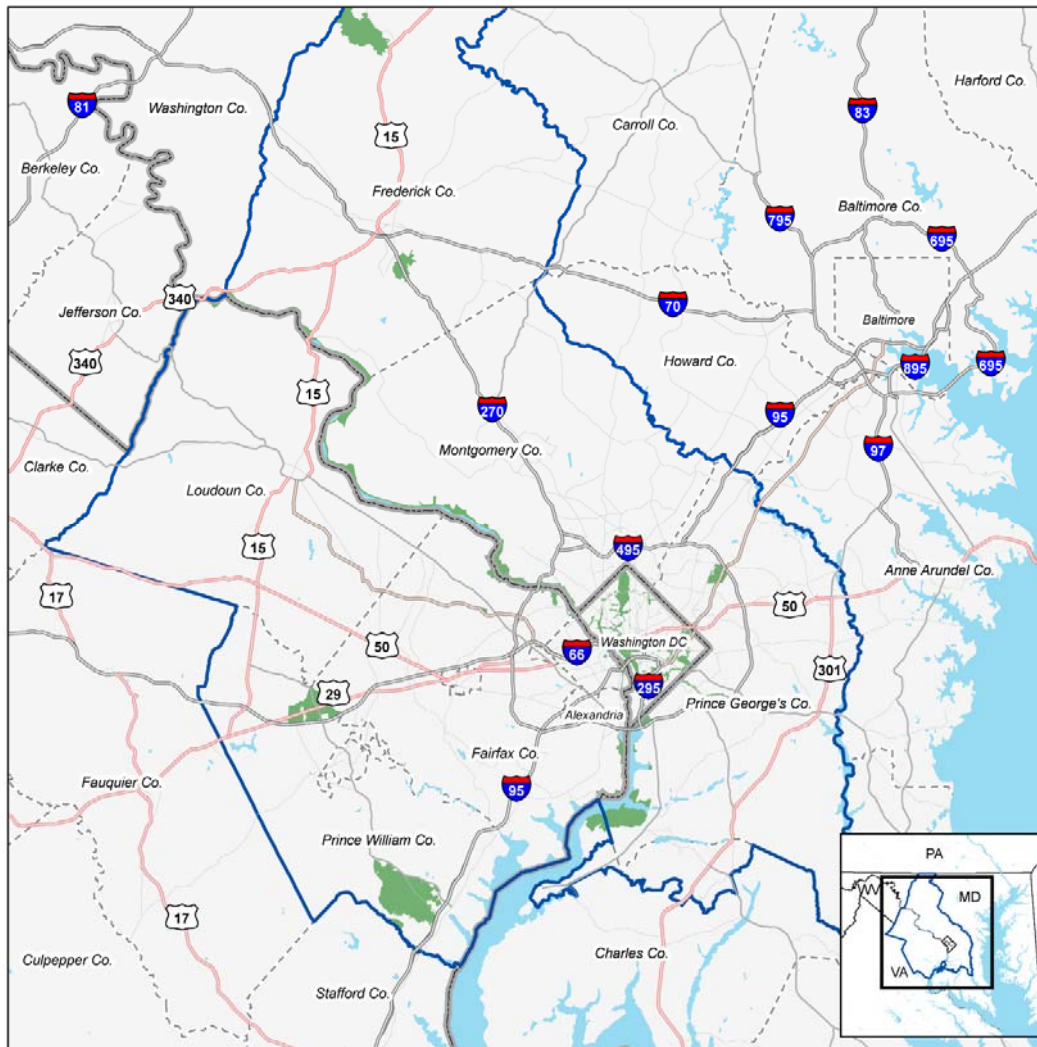


Figure 1: Transportation Planning Board Planning Area and Member Jurisdictions

Members of the TPB include representatives of local governments, the Maryland, Virginia, and District of Columbia departments of transportation, the Washington

Metropolitan Area Transit Authority (WMATA), the Maryland and Virginia General Assemblies, and non-voting members from the Metropolitan Washington Airports Authority and federal agencies.

Overview of Previous Scenario Planning and Value Pricing Activities

The TPB initiated the Regional Mobility and Accessibility Scenario Study (“the scenario study”) in 2001 to evaluate additional highway and transit options beyond those that are currently funded, and to examine the interaction of these transportation options with various land use alternatives. Phase 1 of the scenario study, summarized in a final report dated November 17, 2006, included the development and analysis of five alternative land use and transportation scenarios. A sixth scenario, a network of variably priced lanes created in 2003 under the scenario study, was used as a starting point for a much more extensive evaluation of a variety of pricing scenarios described below.

After a regional conference on value pricing held in June of 2003, the TPB formed its Task Force for Value Pricing in Transportation. The task force developed a set of regional goals for variably-priced projects in the region which were adopted by the TPB in April of 2005. These goals, shown in the Appendix, serve as a guide for the development and evaluation of regional variably priced lane scenarios.

This task force also provided oversight for the second phase of the TPB Scenario Study, which was an in-depth analysis of a regional network of variably priced lanes funded under a grant from the FHWA's Value Pricing Pilot Program. This study evaluated the demand, potential revenue, transit viability and land use impacts of a regional network of variably priced lanes, and documented its findings in a February 2008 report, which garnered wide interest throughout the region.

With the first phase of the Scenario Study completed in Fall 2006, and the second phase approaching completion, the TPB created a task force in October 2007 to review the accomplishments of the study and to set priorities for future activities. This task force provides policy-level stewardship for the Scenario Study and related TPB activities, including consideration of opportunities for integration of study findings into TPB planning processes and initiatives.

The third phase of the scenario study was initiated in January 2008. In it, the TPB is evaluating two new, second generation scenarios: the “What Would It Take?” scenario and the “CLRP Aspirations” scenario. The What Would It Take scenario is an analysis of the interventions that should be taken in order to meet regional climate change goals, while the CLRP Aspirations scenario combines the previous two phases of the scenario study, pairing land use shifts with pricing and transit projects. These two scenarios are currently under development, and initial analysis results are expected by mid-year 2009.

A more detailed description of previous scenario planning and value pricing activities is provided in the section Additional Information, beginning on page 12.

Current Bus Rapid Transit Planning Activities

The 2008, the Virginia General Assembly approved SJ 122 to establish a committee to study the feasibility of creating a regional bus rapid transit network in Northern Virginia. On October 22, representatives of the TPB, the Virginia Department of Rail and Public Transportation (DPRT), the Potomac-Rappahannock Transportation Commission (PRTC), the Northern Virginia Transportation Authority (NVTA), and Fairfax County gave presentations on steps to develop a BRT system for Northern Virginia to the SJ 122 Committee. The TPB scenario study results with express bus services on variably priced lanes were presented as a starting point for developing a BRT network for the Washington region.

In Maryland, the Mass Transit Administration (MTA) is leading a number of current studies involving potential BRT services. In the I-270 Corridor, the MTA, Montgomery County and Frederick County are examining BRT and light rail options. In Montgomery County and Prince George's County, the recently completed major study for the Purple Line includes light rail and BRT service options linking the Bethesda, Silver Spring, and New Carrollton Metrorail stations.

At its October 15, 2008 meeting, the TPB was briefed on a Metrobus Priority Corridor Network of 24 arterial corridors throughout the region proposed by the Washington Metropolitan Area Transit Authority. Improved bus service has been implemented on six of the corridors and will be implemented in sequence by 2015 on the remaining corridors. The priority network focuses on ways to improve bus travel times and reliability in each corridor including exclusive bus lanes and signal priority,

The Major Update of the CLRP in 2010

Under SAFETEA-LU, the TPB four-year CLRP update cycle will occur next in 2010. This update, which TPB is scheduled to adopt in the summer of 2010, will include several major changes to the CLRP: the plan horizon will move out from 2030 to 2040; the system of transportation analysis zones will be finer grained, particularly in the suburban areas; and new surveys will be incorporated into forecasting models, including new regional household travel and on-board bus surveys. Additionally, this update to the CLRP will incorporate updated land use forecasts that accommodate changes due to BRAC in both Maryland and Virginia.

In addition, in this update an enhanced travel demand model (Version 2.3) will be utilized that includes a "nested logit" mode choice component for analyzing a range of transit modes (commuter rail, Metrorail, combined Metrorail/bus, bus, light rail transit, streetcar, and BRT) and three access modes to transit (walk, park-and-ride, and kiss-and-ride). The new mode choice model will provide sufficiently detailed output to permit assignment of transit trips to the transit network.

The Proposed Study

This VPPP study will focus on developing a feasible multi-modal package of high-quality bus rapid transit service on a regional network of variably priced lanes for 2020. The VPPP study could be considered the near term element of the TPB's ongoing CLRP Aspirations study, which is focused on a longer-term 2030/2040 timeframe. The recommendations of the VPPP study will provide near term priority projects for the region and be considered for inclusion in the 2010 CLRP Update. Once this 2020 network is included in the CLRP, funding to implement the component projects can be programmed in the transportation improvement program (TIP) each year leading up to 2020.

Description of the Proposed Study

Purpose of Proposed Value Pricing Study

This study will build upon the previous FHWA-funded study (2008 Study) and complement the TPB's current "CLRP Aspirations" scenario by developing a phased plan for establishing a near-term multi-modal package of high-quality bus rapid transit (BRT) service on a regional network of variably priced lanes. The study will propose a high quality bus rapid transit (BRT) system operating on a network of toll and value priced lanes that could be operational by 2020.

The study will examine the feasibility of expanding the regional variably priced lanes network beyond what is currently in the CLRP, investigating connections between the three planned priced facilities and the expansion of the priced network. Corridors to be considered in this 2020 phasing plan will be selected based on a variety of criteria, including: current and forecast congestion levels and demand, availability of right-of-way, the existence of HOV lanes available for conversion, political feasibility, and adherence to regional policy objectives. The study will also examine how BRT service could be deployed on the planned and studied variably priced lanes by 2020. Where new priced lanes are not available for BRT operation, the study will evaluate a broad range of transit-prioritization strategies, ranging from signal priority to dedicated HOV/Bus lanes and use of shoulders as HOV/Bus lanes were feasible.

Under this new grant, the study would investigate the following major questions:

- How can the currently planned three priced facilities in the Washington region be connected into an expanded regional toll lane network for 2020? What other corridors or facilities could be included to expand the reach of the network? What physical, user, economic and/or institutional barriers may exist to the creation and expansion of such a network, and how might they be overcome?
- Using the transit service on the three planned priced facilities in the region as specified in the 2008 CLRP as a starting point for a regional BRT network operating on priced lanes, what other corridors or enhanced bus services should be included in a high-quality BRT network for the Washington region by 2020?
- How well would a high quality BRT system operating on the above network help to meet regional goals such as increasing mobility/accessibility and decreasing VMT and greenhouse gas emissions? What would be the operating characteristics of the toll/transit network?
- What are the fully quantified benefits and costs of the 2020 network of high-quality transit and toll lanes? How can techniques such as pricing and value

capture be combined to increase the amount of revenue available to fund new toll lanes and transit services?

Major Tasks

Based on the 2008 value pricing study's topics for further consideration, this new study will evaluate a regional BRT network on variably priced highway lanes for the year 2020. A key focus of this evaluation will be on how to move forward with the regional BRT network in concert with land-use and transportation improvements in the regional activity centers. This study will also provide comprehensive cost/benefit analysis of the high-quality BRT and variably priced lanes network.

Task 1: Define the extent of the priced lanes and BRT network for 2020, including connections between currently planned facilities and expansion of the network.

- Based on the results of the "CLRP Aspirations" scenario, evaluate which additions to the toll network included in the 2008 CLRP could be completed by 2020, focusing on connecting currently planned facilities as well as expanding the network to other parts of the region.
- Identify physical, user, economic and/or institutional barriers to implementation of the 2020 network, including right-of-way constraints and funding requirements.
- Examine the "CLRP Aspirations" scenario analysis to determine the effectiveness of the 2030 BRT network at shifting trips to transit and reducing regional VMT and greenhouse gas emissions. Develop a set of assumptions, in consultation with transit agencies regarding the operating parameters for 2020 BRT service on priced lanes.
- Combine the above set of assumptions regarding BRT operating parameters with the priced lanes network for 2020 to develop a 2020 BRT system.
- Combine the 2020 toll network with the 2020 BRT network and identify potential gaps, bottlenecks and political or physical constraints that would prevent efficient BRT network operation and reduce system reliability. Of particular interest is the ability to extend high quality BRT service to and through the regional core. This task may consider modeling tolls on one or more lanes of existing facilities in the regional core to create network connectivity or relieve congestion on the toll network along critical links.

Task 2: Update inputs to the regional model to reflect BRT operating assumptions defined above, and perform analysis of 2020 priced lands and BRT network

- Update the regional modeled network of variably priced lanes to reflect near-term pricing opportunities and the assumptions regarding BRT operating parameters as identified under Task 1.
- Apply the regional model and perform analysis of mode outputs for 2020 to investigate the impact on regional measures of effectiveness, including mobility/accessibility, transit ridership, VMT and greenhouse gas emissions. Evaluate the demand on the priced network and estimate annual toll revenues. Examine the impact on accessibility to the regional core and activity centers.

Task 3: Conduct cost/benefit analysis

- Conduct a comprehensive cost/benefit analysis of the 2020 regional network of priced lanes and bus rapid transit. Analysis will include an evaluation of potential financing sources such as toll and transit revenues and value capture.

Task 4: Develop study report

- Document the results from each task in a final report. It is the intention that this study will serve to inform the deliberations of the transportation funding and programming agencies as they work to develop an integrated regional high quality BRT system as part of the inputs to the 2010 CLRP update, which the TPB is scheduled to adopt in July 2010.

Ongoing Tasks

- The TPB Scenario Study Task Force will be updated and asked for input at each major stage in the study and/or at each bi-monthly task force meeting.

Study Structure and Timeline

Oversight

The study will be guided by the TPB Scenario Study Task Force and the regional goals for a system of variably priced lanes adopted by the TPB Task Force for Value Pricing in 2004. The Federal Highway Administration at the U.S. DOT will participate in the oversight provided by the task force. Through the Scenario Study Task Force, elected officials and policy and technical level staff from the state and local departments of transportation in Northern Virginia, Suburban Maryland, and the District of Columbia, as well as the Washington Metropolitan Area Transit Authority (WMATA), the Virginia Department of Rail and Public Transportation (DRPT) and the Maryland Transit Authority (MTA), will play an active role in guiding the study and interpreting the results.

Study Staffing and Cost

It is anticipated that TPB staff will conduct the majority of the work, with consultant support and expertise utilized as necessary. The estimated cost of this value pricing study is \$400,000 (\$320,000 Federal, \$80,000 local provided by COG).

Timeline: March 2009 to February 2010

The estimated time to complete the study is 1 year. Assuming the grant is awarded by March 2009, Figure 2 below provides a timeline and estimated costs for completing the tasks in the proposed study.

The proposed study will begin as the results of the CLRP Aspirations scenario, described above, are being analyzed and presented to the TPB and the public. It will provide an opportunity to develop a phasing plan for implementation by 2020 of the most promising additions to the three major variably priced lane facilities included in the 2008 CLRP, and to move these additions into the 2010 CLRP and the six-year Transportation Improvement Program scheduled for approval in July of 2010.

Study Timeline and Estimated Costs

Task	2009										2010	
	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb
Task 1: Define priced lanes and BRT networks. <i>Estimated Cost: \$160,000</i>	■											
Task 2: Update inputs to regional model, run regional model, and analyze results. <i>Estimated Cost: \$160,000</i>					■							
Task 3: Conduct cost/benefit analysis <i>Estimated Cost: \$60,000</i>								■				
Task 4: Develop study report <i>Estimated Cost: \$20,000</i>									■			
Update and Gather Input from the Scenario Study Task Force <i>Estimated Total Cost: \$400,000</i> <i>Federal: \$320,000 State/Local: \$80,000</i>	■											

Figure 2: Timeline and cost estimates for proposed study.

Additional Information

Current highway congestion, 2005 Skycomp Report

The TPB regularly commissions monitoring of regional freeway congestion. Skycomp, an aerial freeway monitoring company, has been performing traffic congestion surveys of the TPB planning area's 300-mile freeway network every 3 years since 1993.

During this aerial survey program, overlapping photographic coverage is obtained for each designated highway, repeated once an hour over four morning and four evening commute periods. The morning times of coverage are 6:00-9:00 a.m. outside the Capital Beltway and 6:30-9:30 a.m. inside the Capital Beltway. The evening times are 4:00-7:00 p.m. inside the Capital Beltway and 4:30-7:30 p.m. outside the Capital Beltway. Survey flights are conducted on weekdays, excluding Monday mornings, Friday evenings and mornings after holidays. Data are extracted from the aerial photographs to measure average recurring daily traffic conditions by link and by time period.

The most recent freeway monitoring was conducted in the Spring of 2005.¹ (A survey completed in the Spring of 2008 is currently being analyzed and the results are expected to be released in early 2009.)

Top Ten list of congested facilities

Based on the 2005 Skycomp report data, a list of the top ten most congested facilities in the TPB planning area was generated. A map of these facilities is displayed in Figure 2.

2005 Skycomp data, illustrates the average recurring evening peak period congestion throughout the region. According to this slice of the congestion data, the most congested corridors during the afternoon peak period are the following: the northwestern half of the Capital Beltway, I-270 from the Beltway to north of Gaithersburg, I-395 from the District's Southeast-Southwest Freeway to Dumfries, Virginia, and I-66 from the Beltway through the City of Fairfax, Virginia.

¹ *Traffic Quality on the Metropolitan Washington Area Freeway System Spring 2005 Report*, February 15, 2006, National Capital Region Transportation Planning Board.

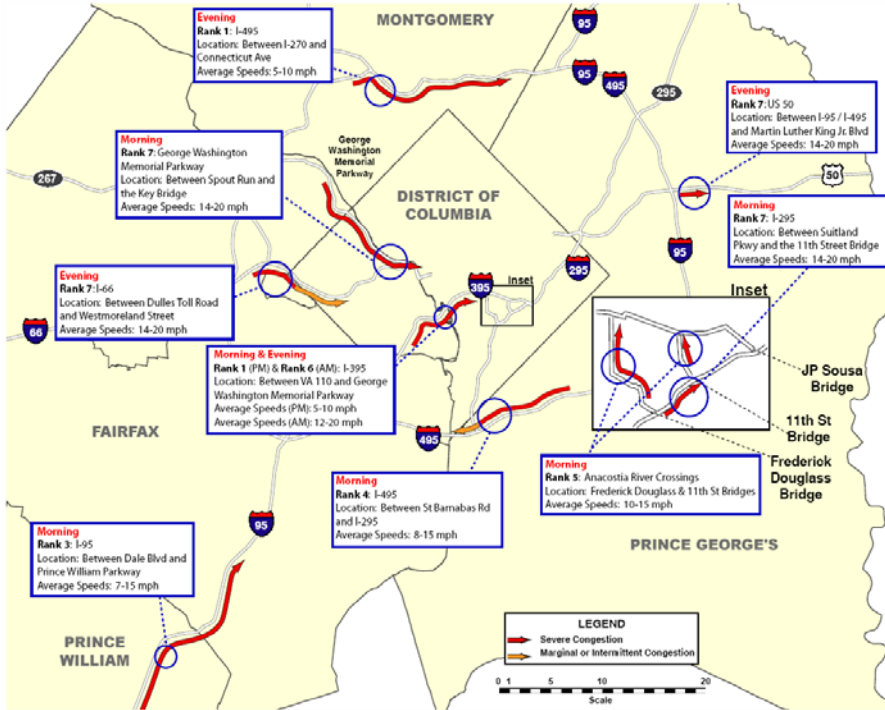


Figure 2: Top Ten Congested Segments on the Regional Freeway System, based on data from the 2005 SKYCOMP Report.

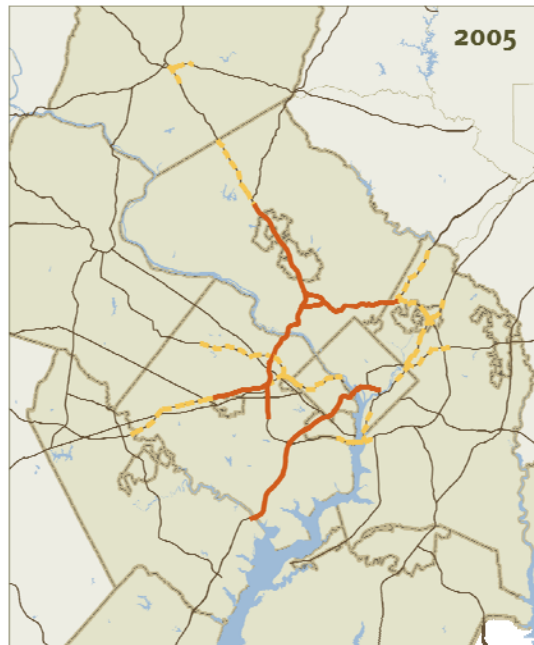


Figure 3: Map of average recurring afternoon peak congestion, based on data from the 2005 Skycomp Regional Traffic Report.

It should be noted that the top ten congested segments have been selected from both the morning and afternoon peak periods, whereas the map in Figure 4 displays afternoon

peak period congestion only. For example, Number 7 on the top-ten list (The George Washington Memorial Parkway, northern section, inbound) does not appear in the 2005 afternoon peak congestion map because this facility is only severely congested in the morning peak period.

Projected highway congestion of the 2007 CLRP

A similar map to that displayed in Figure 4 was created to illustrate forecasted conditions in 2030, incorporating currently existing facilities plus those listed in the 2007 CLRP. This map of forecasted congestion is displayed in Figure 5. It should be noted that the 2007 CLRP as pictured in this congestion map includes the Intercounty Connector (ICC), Beltway HOT Lane project, and the Shirley Highway (I-95/395) HOT Lane project as described above.

While the 2030 map does illustrate an increase of congestion from 2005, there are some areas where congestion has decreased. One such area is the Virginia portion of the Capital Beltway between the Shirley Highway (I-95/395) and the American Legion Bridge. The majority of this section shows an improvement over 2005 congestion levels, most likely attributable to the addition of the HOT lanes (two in each direction) along this segment. It should be noted that despite the additional capacity included in the 2007 CLRP, the segment of the Capital Beltway between I-66 and the Dulles Toll Road is still listed as “stop and go conditions.”



Figure 4: Map of average recurring afternoon peak congestion, based on data from the 2005 Skycomp Regional Traffic Report.



Figure 5: TPB Projection of traffic conditions in 2030 for the 2007 CLRP.

Another facility that shows reduced congestion is I-270, where severe congestion along the corridor between the Capital Beltway and Gaithersburg is projected to decline in severity. This decrease in congestion coincides with the addition of new capacity planned to be added to the I-270 corridor. The 2006 CLRP contains three projects along this corridor: the widening of I-270 through Gaithersburg and Rockville (planned for 2025); the addition of HOV lanes between Gaithersburg and Frederick (planned for 2020); and the Corridor Cities Transitway, which will extend light rail or BRT service from the end of the Metrorail Red Line at Shady Grove along the I-270 Corridor (planned in two phases, 2012 and 2020).

However, the performance of many facilities is projected to worsen. These worsening facilities include the Dulles Toll Road from the Loudoun County line to the Capital Beltway, I-66 from the Beltway to the Roosevelt Bridge, I-95 in Maryland and the Baltimore-Washington Parkway. It should also be noted that the projections for 2030 show the entire Capital Beltway experiencing some level of congestion during the evening rush hours.

Value Pricing and Scenario Planning Activities

Scenario Study Phase I: The Regional Accessibility and Mobility Scenario Study (Fall 2001 – Fall 2006)

The TPB initiated the Regional Mobility and Accessibility Scenario Study (“the scenario study”) in 2001 to evaluate additional highway and transit options beyond those that are currently funded, and to examine the interaction of these transportation options with various land use alternatives. Federal law requires that the CLRP include only transportation projects that can be funded with revenues currently projected to be available over the time-frame of the plan. The scenario study provided the TPB with the opportunity to examine additional facilities that could improve the future performance of the region’s transportation system and that have a realistic possibility of being funded with the identification of additional transportation revenues.

Phase 1 of the scenario study, summarized in a final report dated November 17, 2006, included the development and analysis of five alternative land use and transportation scenarios. A sixth scenario, a network of variably priced lanes, was created in 2003 under the scenario study but not analyzed during Phase 1. Instead, the sixth scenario was used as a starting point for a much more extensive evaluation of a variety of pricing scenarios, conducted under the previous Federal Value Pricing Pilot Program grant, described below.

Regional Value Pricing Conference (June 2003)

In June 2003, the TPB in conjunction with the Federal Highway Administration, and the Maryland, Virginia, and District of Columbia departments of transportation jointly sponsored a successful one-day conference on value pricing for transportation in the Washington region. 200 people attended the conference, including numerous local elected officials who spoke in support of value pricing. The conference was one of the

region's first major public discussions regarding the need and opportunities for innovative transportation pricing strategies. News coverage of the event headlined on the front page of the Washington Post's Metro section: "Toll Lanes' Concept Catching On: Conference Looks at Pricing."

Establishment of Value Pricing Task Force (Fall 2003)

After the value pricing conference, the TPB created a task force on value pricing to examine how value pricing could benefit the Washington region. The goals of the task force included the development of recommendations for the TPB regarding parameters, principles, guidelines and lessons learned with regard to the regional implications of value pricing. The task force included local elected officials and representatives from the 3 state DOTs in the Washington region.

The task force developed a set of regional goals for variably-priced projects in the region which were adopted by the TPB in April of 2005. These goals, shown in the Appendix, serve as a guide for the development and evaluation of regional variably priced lane scenarios.

Through the process of identifying regional pricing goals, the Virginia Department of Transportation (VDOT) has embraced the concept of High-Occupancy/Toll (HOT) lanes and, as described below, is actively working towards implementing two HOT lane projects. Virginia's HOT lanes will allow free use to transit vehicles and high-occupancy vehicles with three or more occupants (HOV-3). The Maryland and District Departments of Transportation (MDOT and DDOT) have adopted the concept of Express Toll Lanes (ETLs). Unlike HOT Lanes, ETLs require all those other than buses wishing to use the lane to pay the toll. This proposal uses the term "variably priced lanes" (VPLs) to refer to both HOT Lanes and ETLs.

The TPB Task Force on Value Pricing for Transportation provided oversight for the second phase of the TPB Scenario Study, which was an in-depth study of a regional network of variably priced lanes funded under a grant from the FHWA's Value Pricing Pilot Program. This study is discussed in more detail below.

Assisting VDOT in Analyzing Key Corridors (Fall 2005 to Fall 2006)

The TPB has provided technical assistance in the studies of the two VDOT variably priced projects on the Capital Beltway and I-95/395. Through these analyses, performed under a technical assistance contract with VDOT, TPB staff estimated potential demand and toll revenue for the HOT Lane projects.

Sensitivity Analysis of Enhanced Transit (Fall 2006)

Sensitivity tests were conducted using the network components created for the VDOT technical assistance studies. The goal of this analysis was to determine how enhanced transit service might impact the VPL network.

The test involved transit services that use the Virginia HOT lane projects on I-95/395 and the Capital Beltway. The primary interest of the test was to determine the scale and direction of a collection of measures of effectiveness for increasing transit services on the VPL network. The 2007 CLRP contains many transit enhancements to be put in place by 2030 along the selected corridors. Those transit enhancements were moved forward in time to a 2010 network and integrated with existing and planned transit services. The headways on this bundle of transit routes were decreased to a maximum of 15 minutes.

This sensitivity test resulted in the following changes in the travel demand model output:

- Transit use increased along the corridors.
- HOV use decreased along the corridors.
 - Presumably, many of these HOV users switched to the transit service.
- The toll rates on the tested segments decreased.
- The overall revenue from the toll lanes stayed generally the same.

These results provide encouragement for the possibility of implementing increased transit service along additional corridors in the regional network of variably priced lanes.

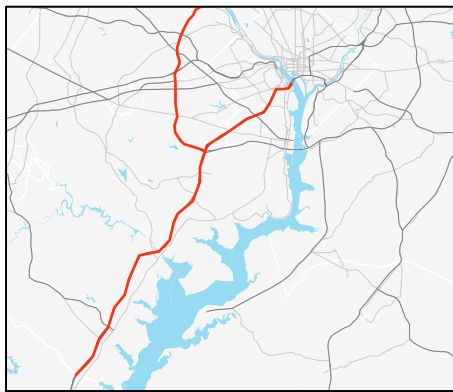


Figure 6: HOT Lane network used for transit sensitivity analysis, Fall 2006.

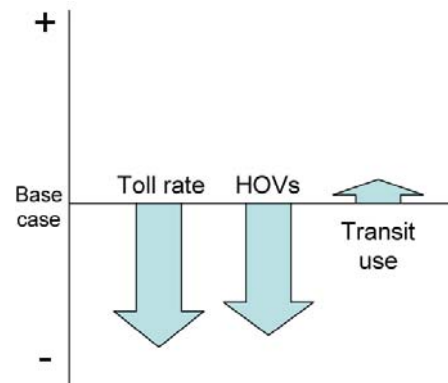


Figure 7: General impacts of increased transit service, from Fall 2006 sensitivity analysis.

Scenario Study Phase II: Evaluating Alternative Scenarios for a Network of Variably Priced Highway Lanes in the Metropolitan Washington Region (Fall 2006 – Spring 2008)

Under the supervision of the TPB Task Force on Value Pricing for Transportation, the TPB initiated the study of a regional network of variably priced highway lanes in October of 2006. This study, funded under the FHWA’s Value Pricing Pilot Program through the Virginia Department of Transportation, evaluated the demand, potential revenue, transit viability and land use impacts of a regional network of variably priced lanes. The TPB developed and analyzed several different scenarios of variably priced lane networks. Three basic highway networks were defined;

- A. A “Maximum Capacity” scenario in which two variably priced lanes (VPLs) were added to each direction of the region’s freeways; one VPL was added to each direction of major arterials outside the Capital Beltway; existing High-Occupancy vehicle (HOV) lanes were converted to VPLs, and direct access/egress ramps were added at key interchanges in the VPL network.
- B. A “DC Restrained” scenario in which the new capacity from the “Maximum Capacity” scenario was removed from all of the bridges and other facilities in the District of Columbia, and replaced by variable pricing applied to existing freeway and selected arterial lanes.
- C. A “DC and Parkways Restrained” scenario in which the “DC Restrained” scenario was further restrained by applying variable pricing to the existing capacity on the region’s parkways (Baltimore Washington, George Washington Memorial, Rock Creek, Clara Barton, and Suitland).

The results of the analysis demonstrated that toll rates on the VPL network would have to vary significantly by segment, direction and time-of-day in order to maintain free-flowing conditions. The scenarios that tolled existing lanes showed higher toll rates and reduced regional vehicle-miles traveled. Additionally, only the scenario that tolled the greatest number of existing highway lanes generated enough toll revenue to cover the costs of constructing the new tolled infrastructure. The addition of extensive transit service to the tolled networks resulted in system-wide increases in transit use and decreases in VMT and toll revenue. The study showed minimal increases in accessibility by highways with the addition of new priced lanes, which should result in few land use shifts.

The study results garnered wide interest throughout the region. An article on the future of roadway pricing in the Washington region appeared in the *Washington Post* shortly after the study was presented to the TPB. Subsequent news articles and television news segments described a potential regional network of priced lanes, with very little unfavorable public reaction.

Establishment of the Scenario Study Task Force (Fall 2007)

With the first phase of the Scenario Study completed in Fall 2006, and the second phase approaching completion, the TPB created a task force in October 2007 to review the accomplishments of the study and to set priorities for future activities. This task force provides policy-level stewardship for the Scenario Study and related TPB activities, including consideration of opportunities for integration of study findings into TPB planning processes and initiatives. The TPB Scenario Study Task Force examined the previous land use and transportation scenarios, including the FHWA study of a regional network of variably priced highway lanes, and is guiding the third phase of the scenario study.

The Task Force is currently chaired by TPB member Michael Knapp of the Montgomery County Council. Other interested TPB members (voting or nonvoting) from throughout

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the region participate in task force meetings, resulting in good representation from implementing agencies and local jurisdiction members in the District of Columbia, Maryland, and Virginia. Additionally, TPB's Citizens Advisor Committee has two regularly participating representatives on the task force.

Scenario Study Phase III (Spring 2008 – Fall 2009)

The third phase of the Scenario Study was initiated in January 2008. In it, the TPB is evaluating two new, second generation scenarios: the "What Would It Take?" scenario and the CLRP Aspirations scenario.

1. The "What Would It Take?" Scenario takes as a starting point one or more goals desired for achievement in 2030 and beyond and examine how such goals might be achieved through different combinations of interventions. The goals include a specific reduction in mobile-source CO₂ emissions by 2010, 2030 and 2050. Intervention strategies include reducing vehicle travel, increasing fuel efficiency, and reducing the carbon-intensity of fuel. The analysis will also include consideration of factors that are not normally reflected in the TPB travel demand modeling process, such as significant changes in individual behavior.
2. The CLRP Aspirations draws from the strategies explored in the previously studied scenarios, including the variably priced lanes scenarios, and other possible strategies to develop a scenario that is within reach fiscally and administratively, but also pushes the envelope of what might be possible to improve the conditions of the 2030 baseline. This scenario includes the evaluation of a regional high-quality bus rapid transit (BRT) network operating on the network of variably priced lanes studied under the previous VPPP grant. This expansive transit network is intended to support land use growth shifting to regional activity centers as well as provide much-needed alternatives for those impacted by the pricing of existing facilities, and is planned to be implemented in accordance with the TPB-adopted *Goals for a Regional Network of Variably Priced Lanes*. Maps of the network of priced lanes and proposed BRT network are presented in Figures 4 and 5.

These two scenarios are currently under development, and initial analysis results are expected by mid-year 2009.

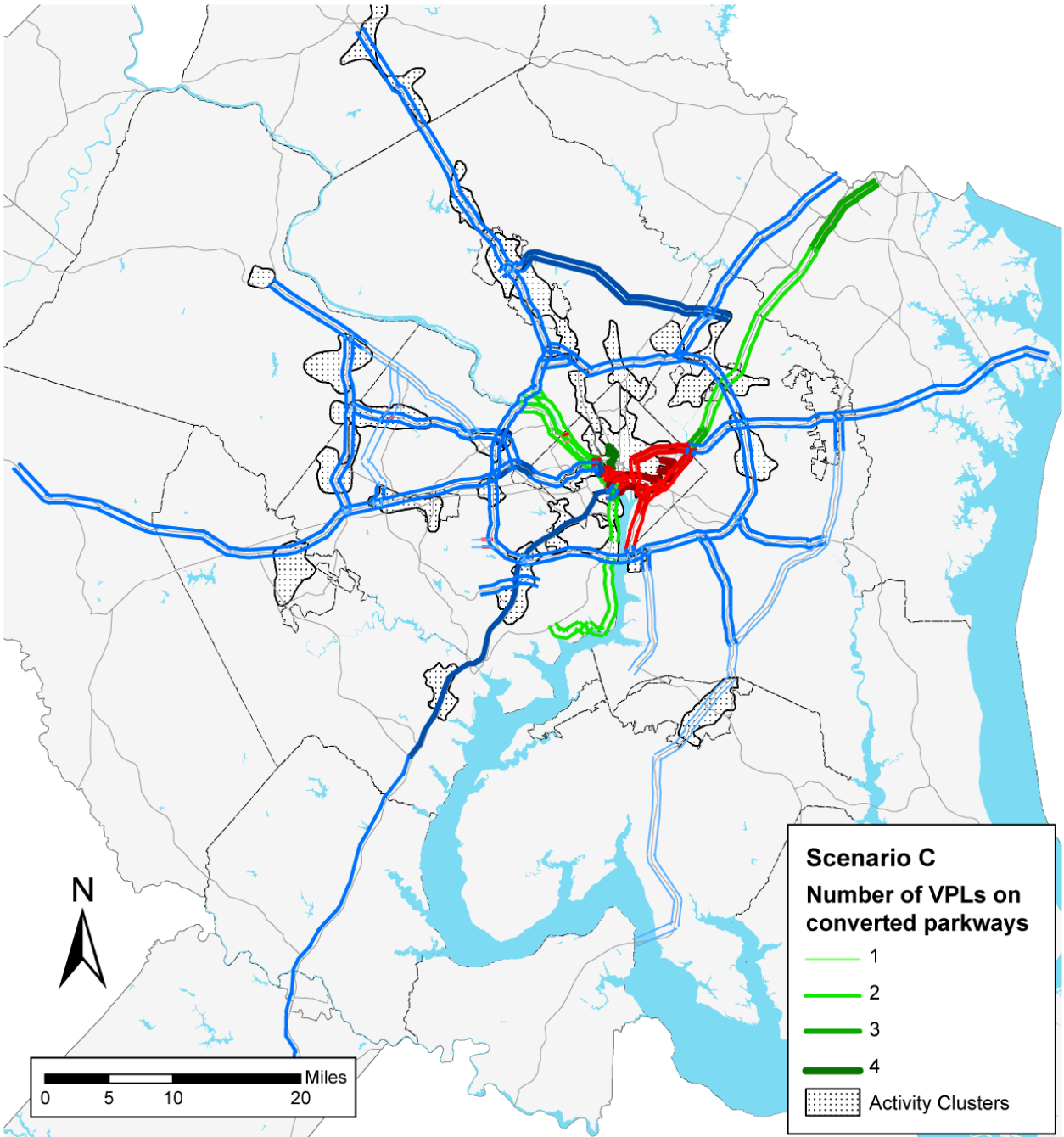


Figure 8: Regional network of variably priced lanes evaluated under Phase II of the TPB Scenario Study.

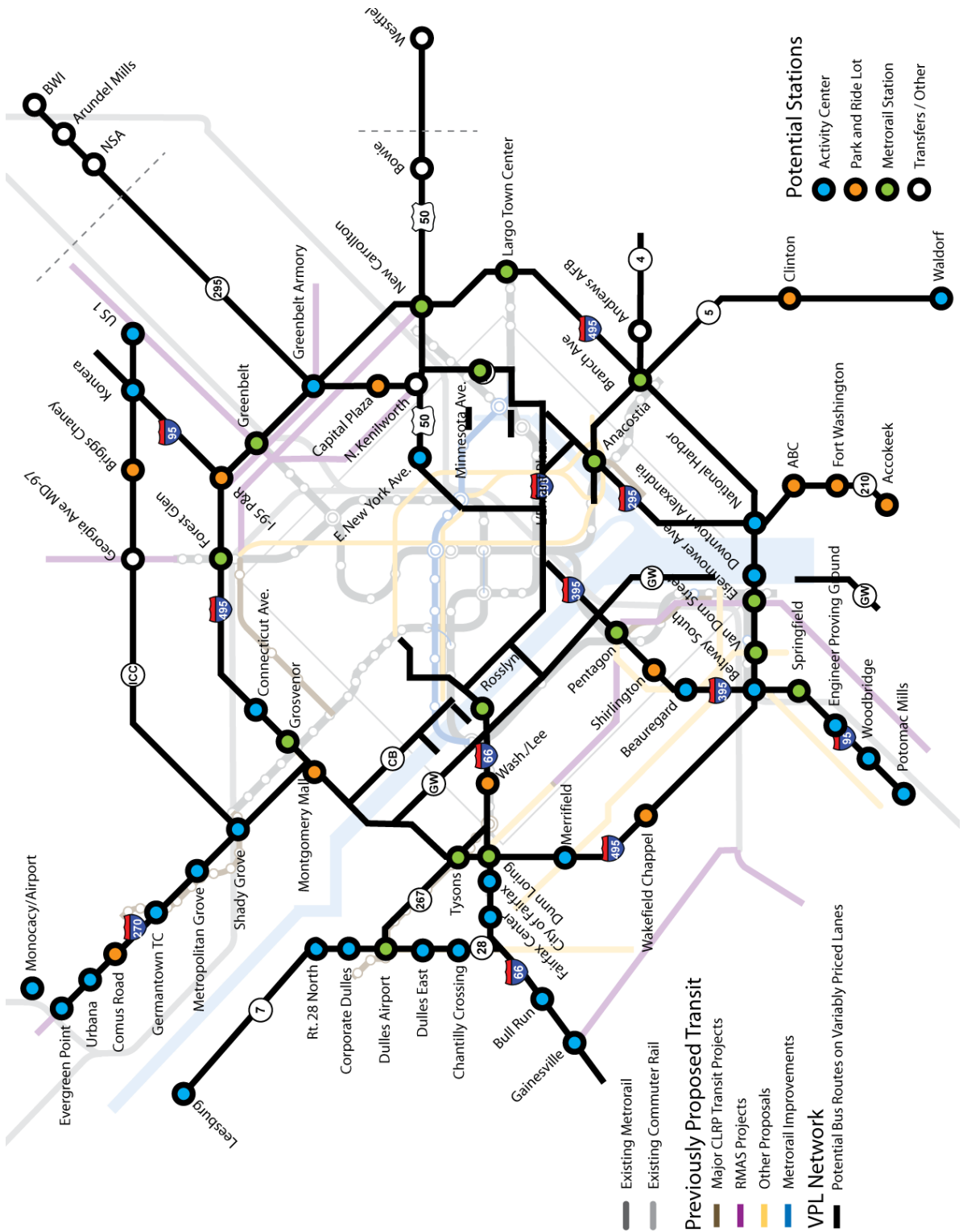


Figure 9: Proposed regional bus rapid transit network for evaluation under Phase III of the TPB Scenario Study.

Value Pricing and Bus Service Projects in the 2008 CLRP

The region's 2008 financially Constrained Long-Range Transportation Plan (CLRP) scheduled for adoption on November 17, 2008 includes three variably priced toll facilities: the Intercounty Connector, the Northern Virginia Capital Beltway HOT Lanes project, and the I-95/395 HOT Lanes project. A map showing these variably priced facilities is presented in Figure 10.

The Intercounty Connector is an 18-mile east-west highway in Montgomery and Prince George's counties in Maryland that will run between I-270 and I-95/US 1. The project will include six variably-priced lanes with express bus service connecting to Metrorail stations. This project was included in the CLRP in 2004, and construction is expected to begin in 2008 with an expected completion date of 2012.

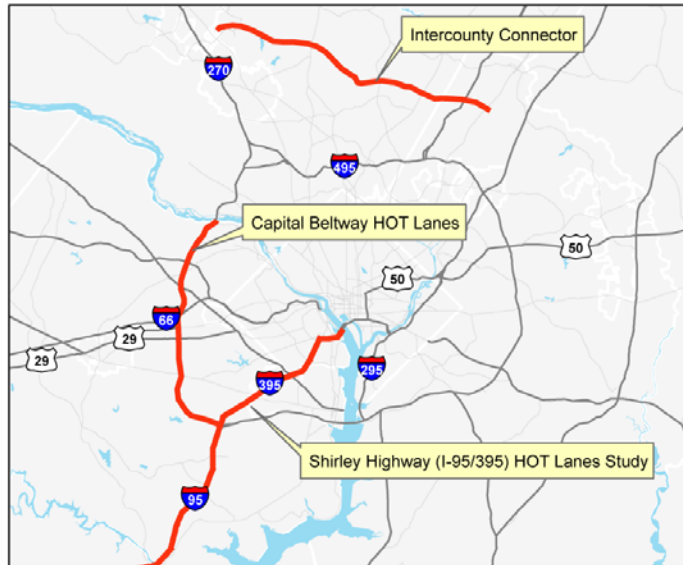


Figure 10: Value pricing projects in the 2008CLRP.

The Northern Virginia Capital Beltway HOT lane project will add four new HOT lanes to a 14-mile segment of the Capital Beltway (I-495). Vehicles with three or more occupants as well as transit buses and emergency response vehicles will be able to use the lanes for free; all other vehicles will pay a toll that varies according to demand and the time of day. This project was added to the CLRP in 2005, modified in 2008, and completion is expected by 2013.

The I-95/395 (Shirley Highway) HOT lane project in Virginia was included in the CLRP in 2007 and updated in 2008 to include express bus service on I-95/395 HOT lanes and other transit enhancements paid for by revenue generated from the toll lanes. This project will reconfigure the existing HOV facility between Eads Street in Arlington County and just south of the Town of Dumfries from 2 to 3 lanes, and convert those lanes to HOT lanes. The project has an overall length of 36 miles, and includes the construction of a nine-mile taper lane to ease congestion as the HOT lane traffic merges back into the general purpose lanes. Completion of this project is expected by 2010.

The three projects described above all include enhanced bus transit service operating on priced lanes. However, it has not yet been determined how bus transit services on these managed facilities will interact with one another. Additionally, the bus service accompanying these projects is not specified as high-quality BRT but instead as express bus service.

Appendix

Goals for a Regional System of Variably Priced Lanes Adopted by the TPB April 20, 2005

As the Washington region moves forward with plans to develop variably-priced lanes, it is anticipated that a system of variably-priced lanes will be implemented in phases, likely with one corridor or segment at a time. The following goals can help guide the regional development of variably-priced lanes that work together as a multi-modal system, while addressing the special policy and operational issues raised by the multi-jurisdictional nature of this area.

1. Operations, enforcement, reciprocity, technology, and toll-setting policies should be coordinated to ensure seamless connections between jurisdictional boundaries. The region should explore options for accommodating different eligibility requirements in different parts of the system of variably-priced lanes without inconvenience to the users.
2. The variably-priced lanes should be managed so that reasonably free-flowing conditions are maintained.
3. Electronic toll collection devices should be integrated and interoperable among the District of Columbia, Maryland and Virginia, and should work with other multi-state electronic toll collection systems, such as E-Z PassSM.
4. To ensure safety and to maintain speeds of variably-priced lanes on high-speed facilities, one lane with a wide shoulder consistent with applicable Federal Highway Administration (FHWA) guidelines should be provided at a minimum. Optimally, two lanes should be provided in each direction (or two lanes in the peak direction by means of reversible lanes) where possible.
5. Given the significant peak-hour congestion in the Washington area, transit bus service should be an integral part of a system of variably-priced lanes, beginning with project planning and design, in order to move the maximum number of people, not just the maximum number of vehicles.
6. Transit buses should have reasonably free-flowing and direct access to variably-priced lanes from major activity centers, key rail stations, and park-and-ride lots, so that transit buses do not have to cross several congested general purpose lanes.
7. Transit buses using the variably-priced lanes should have clearly designated and accessible stops at activity centers or park-and-ride lots, and signal priority or dedicated bus lanes to ensure efficient access to and from activity centers.
8. The region urges that the Congress and the Federal Transit Administration (FTA) recognize variably-priced lanes as fixed guideway miles so that federal transit funding does not decrease as a result of implementing variably-priced lanes.
9. The Washington region currently has approximately 200 miles of HOV lanes and a significant number of carpoolers, vanpoolers and other HOV-eligible vehicles. If the introduction of variably-priced lanes changes the eligibility policies for use of existing HOV facilities, transitional policies and sunset provisions should be set and clearly stated for all the users.
10. As individual phases of a system of variably-priced lanes are implemented, users of the lanes should be able to make connections throughout the region with minimal inconvenience or disruption.
11. Toll revenues from variably-priced lane projects may finance construction, service debt, and pay for operation and maintenance of the priced lanes. Should toll lanes operate at a revenue surplus, consideration should be given to enhancing transit services.