### METROPOLITAN WASHINGTON AIRPORTS AUTHORITY NOTICE OF PUBLIC HEARINGS ON

### PROPOSED INCREASES TO TOLL RATES ON DULLES TOLL ROAD

### August 6, 2009

PLEASE TAKE NOTICE that, pursuant to Va. Code Section 5.1-157 and D.C. Section Code 9-906, the Metropolitan Washington Airports Authority (Airports Authority) is proposing to amend its regulation that establishes the toll rates on the Dulles Toll Road (Metropolitan Washington Airports Regulation § 10.1, "Tolls for Use of the Dulles Toll Road"). The proposed amendment, if adopted, would increase the Dulles Toll Road toll rates for all classes of vehicles in the following manner:

- \* effective January 1, 2010, by \$0.25 at the main toll plaza, to \$1.00, and by \$0.25 at the entrance and exit ramps, to \$0.75;
- \* effective January 1, 2011, by \$0.25 at the main toll plaza, to \$1.25; and
- \* effective January 1, 2012, by \$0.25 at the main toll plaza, to \$1.50.

The Airports Authority will hold three public hearings on this proposed amendment. The dates, times and locations of these hearings are as follows:

August 24, 2009	September 3, 2009	September 9, 2009
5:00 to 8:00 p.m.	5:00 to 8:00 p.m.	5:00 to 8:00 p.m.
Ashburn Elem School	McLean High School	South Lakes High School
44062 Fincastle Drive	1633 Davidson Road	11400 South Lakes Drive
Ashburn, VA 20147	McLean, VA 22101	Reston, VA 20191

The hearings will provide an opportunity to learn about the proposed toll rate increases, the reasons for the increases, the Dulles Metrorail Project and future improvements that may be made to the Dulles Toll Road. The hearings will also provide an opportunity to comment on the proposed toll rate increases and state a position for or against the adoption of the proposed amendment.

The complete text of the proposed amendments and the staff report addressing the proposed amendments is available at the Airports Authority's web site, <a href="http://www.mwaa.com">http://www.mwaa.com</a>, in the section of the site's initial web page labeled "Public Notices." These materials also are available from the Office of the General Counsel (703.417.8615).

The formal period to submit comments on these proposed amendments runs from August 14 through September 14, 2009. Written comments on the proposed amendment either may be sent to:

### Dulles Toll Road Proposed Toll Rate Increases 3900 Jermantown Road, Suite 300 Fairfax, VA 22030

or may be e-mailed to <u>tollcomments@mwaa.com</u>. Written comments must be received no later than September 14, 2009, to be assured of consideration by the Airports Authority.

Adoption of the proposed amendment requires action by the Airports Authority's Board of Directors. It is expected that the Board will consider the proposed amendment, along with the comments submitted at the public hearings or otherwise during the comment period, before the end of 2009.

James E. Bennett

President and Chief Executive Officer

### RECOMMENDATION PAPER TO THE DULLES CORRIDOR AND FINANCE COMMITTEES

### PROPOSED AMENDMENT TO REGULATION THAT ESTABLISHES TOLL RATES FOR THE USE OF THE DULLES TOLL ROAD

### **JULY 2009**

### **RECOMMENDATION**

That the Dulles Corridor and Finance Committees authorize the President and Chief Executive Officer:

- (1) to initiate the process for amending the regulation contained in § 10.1 of the Airports Authority Regulations, which establishes toll rates for the use of the Dulles Toll Road, by publishing notice of a proposed amendment to this regulation that calls for increases in the toll rates (as described in the following paragraph), of the public hearings that will be conducted in the Dulles Corridor on the proposed amendment, and of the opportunities for members of the public to present their views and otherwise comment on the proposed amendment;
- (2) to hold the public hearings, and provide opportunities for the members of the public to comment on the proposed amendment;
- (3) after the conclusion of the public hearings, to provide to the Dulles Corridor and Finance Committees a report on the hearings and on the comments submitted on the proposed amendment, and based on the comments and other factors, propose to the Committees the action they would recommend that the Board of Directors take on the amendment; and
- (4) schedule the amendment for consideration by the Board of Directors at its first regular meeting following the meeting of the Committees, where the chairmen of the Committees would present the Committees' recommendation to the Board.

The amendment to § 10.1 of the Airports Authority Regulations that staff is proposing would, if approved, increase toll rates on the Dulles Toll Road, for two-axle vehicles,<sup>2</sup> in

<sup>&</sup>lt;sup>1</sup> The proposed amendment to § 10.1 is set out in Attachment A.

<sup>&</sup>lt;sup>2</sup> The proposed increased toll rates for motor vehicles with more than two axles are shown in the proposed amendment to § 10.1 (see Attachment A).

the following manner: (i) by \$0.25 at the mainline plaza (from the current \$0.75 to \$1.00) and by \$0.25 at the entrance/exit ramps (from the current \$0.50 to \$0.75), effective January 1, 2010; (ii) by an additional \$0.25 at the mainline plaza only (to \$1.25), effective January 1, 2011; and (iii) by an additional \$0.25 at the mainline plaza only (to \$1.50), effective January 1, 2012.

### **BACKGROUND**

Pursuant to agreements with the Virginia Department of Transportation (VDOT), the Airports Authority has assumed a number of responsibilities and obligations relating to transportation infrastructure within Dulles Corridor, including:

- To finance and construct the Metrorail Project from the vicinity of the current West Falls Church Metrorail station to Route 772 in Loudoun County,
- To use "best efforts" to achieve substantial completion of the Dulles Corridor Metrorail Project by December 31, 2016,<sup>3</sup>
- To finance and construct other improvements in the Dulles Corridor consistent with VDOT and regional plans,
- To operate and maintain the Dulles Toll Road for 50 years consistent with agreed upon standards, and
- To establish toll rates for the Dulles Toll Road, pursuant to its regulatory process, at levels necessary to finance the construction of the Metrorail Project, improvements to the Dulles Toll Road, and other improvements in the Dulles Corridor.

To meet these obligations, the Airports Authority must periodically increase toll rates on the Dulles Toll Road. In this regard, extensive financial analysis has been undertaken to determine:

- The amount of capital funding, supported by Dulles Toll Road revenues, that will be required in the next five years to construct the Dulles Corridor Metrorail Project and improvements to the Dulles Toll Road and elsewhere in the Dulles Corridor,
- The optimal timing and structure of the anticipated Dulles Toll Road revenue bond issues, and
- The projected toll rate increases needed to generate the gross toll revenue required to support the anticipated debt service.

This analysis has resulted in an Airports Authority plan of finance for the Metrorail Project and capital improvements in the Dulles Corridor. This plan of finance, along with the Dulles Toll Road toll rate increases now being proposed, was presented to the Dulles

<sup>&</sup>lt;sup>3</sup> The date in the Permit and Operating Agreement with VDOT is December 31, 2015. In May 2009, as permitted under the agreement, the Airports Authority notified VDOT that the substantial completion date had been extended to December 31, 2016.

Corridor Advisory Committee (DCAC) at its June 23 meeting. Following the presentation and discussion among its members, the DCAC indicated its concurrence with the plan of finance and the proposed toll rate increases.

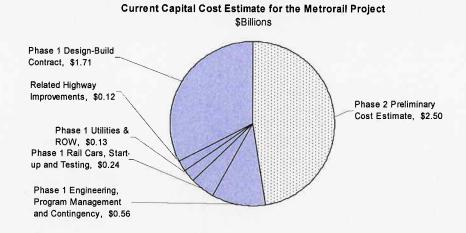
### **DISCUSSION**

In the sections below, staff addresses the plan of finance for the Metrorail Project and other transportation improvements in the Dulles Corridor (Section A), the Dulles Corridor Advisory Committee meeting of June 23 (Section B), and the public process the Airports Authority will pursue in the following months in connection with the proposed toll rate increases (Section C).

### A. Plan of Finance for Metrorail Project and Other Dulles Corridor Capital Improvements

### 1. Estimated Dulles Toll Road Funding for the Metrorail Project and Initial Dulles Corridor Improvements

The total estimated capital cost of the Dulles Corridor Metrorail Project is \$5.25 billion. The capital cost estimate includes the \$2.75 billion budget developed for Phase 1 to Wiehle Avenue in Reston, and the \$2.50 billion preliminary cost estimate for construction of Phase 2 to Route 772 in Loudoun County.



The table on the following page shows the anticipated sources of capital funds for the Dulles Corridor Metrorail Project.

### DULLES CORRIDOR METRORAIL PROJECT SOURCES OF CAPITAL FUNDS (Thousands YOE Dollars)

SOURCE	<del> </del>	Total	% of Total
Federal (FFGA)	\$	900,000	17.1%
Commonwealth of Virginia	\$	275,000	5.2%
MWAA (Aviation Funds)		215,484	4.1%
Loudoun County		252,273	4.8%
Fairfax County		846,167	16.1%
subtotal Local	\$	1,313,924	25.0%
DTR Funding	\$	2,766,771	52.6%
TOTAL SOURCES OF FUNDS	\$	5,255,695	100.0%

Approximately \$2.77 billion of the total Metrorail Project capital cost is expected to be funded from net toll revenue and proceeds from debt secured by Dulles Toll Road revenue.

In addition, the Airports Authority has programmed \$152 million of roadway-related expenditures in the Dulles Corridor over the next four years. Potential capital improvements include work on interchanges, bridges, and sound walls and additional investments in technology and traffic management systems. Approximately \$100 million of these expenditures will be funded from toll revenue bond proceeds. The remaining \$52 million of these near-term expenditures and the cost of future roadway-related improvements over the 50-year term of the permit are expected to be funded on a pay-as-you-go (PAYGO) basis from the net toll revenue available after payment of operating expenses and debt service.

### 2. Optimal Timing and Structure of Dulles Toll Road Revenue Bonds

To achieve substantial completion of the Metrorail Project by 2016, the Airports Authority will need to issue approximately \$2.9 billion of toll revenue bonds over the next five years to fund construction, pay issuance costs, and make deposits to required reserves.

Figure 1 on the next page shows the schedule of potential Dulles Toll Road revenue bond issues. It reflects a general strategy to balance the mix of debt to be offered in terms of lien (the priority in which investors will be paid) and bond structure (current interest bonds that pay interest periodically versus capital appreciation bonds in which interest accretes and is not paid until maturity).

The amounts and timing of each bond issue are subject to change. To ensure flexibility and/or ability to respond to favorable market conditions, the Airports Authority Board of Directors has authorized the issuance of Series 2009 bonds (the first series of Dulles Toll Road Revenue Bonds scheduled to close in August 2009) of up to \$1.3 billion. An issue of this size in 2009 could eliminate the need to issue debt in 2010, thereby reducing exposure to potentially higher interest rates and market access risk, such as occurred in late 2008 and early 2009.

Figure 2 on the next page shows the potential debt service profile for the Dulles Toll Road after the anticipated bonding shown in Figure 1 has been completed. Currently, the annual revenue of the Dulles Toll Road is less than \$70 million. The annual toll revenue required to pay Toll Road operating expenses and to maintain required annual debt service coverage levels on the anticipated bonding is approximately \$87 million in 2010 and increases to \$220 million by 2020. Thereafter, it is estimated that annual toll revenue will need to increase periodically to keep pace with an assumed inflation rate of 3%.

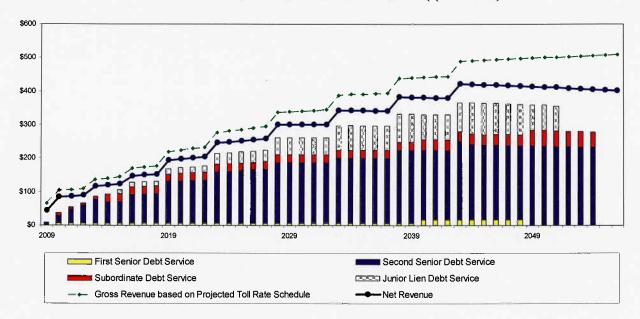
FIGURE 1: ANTICIPATED DULLES TOLL ROAD REVENUE BOND ISSUES (\$Millions)

	Ser	ies 2009	Seri	es 2010	Series	2011	Seri	ies 2013	Total
First Senior Current Interest Bonds		\$110		-				3 <b>4</b> 3	\$110
First Senior Capital Appreciation Bonds		-		-		-			-
Second Senior Current Interest Bonds		\$275		\$265		\$250		4	\$790
Second Senior Capital Appreciation Bonds		\$274		\$270		\$277		( <b>*</b> 0)	\$820
Subordinate Current Interest Bonds	1	\$110						301	\$41
<b>Subordinate Capital Appreciation Bonds</b>		(4)		949		( <u>1</u> )		-	-
Junior Lien Bonds		-				(#)		825	\$82
Par Amount of Bonds Issued (1)	\$	769	\$	534	\$	527	\$	1,125	\$ 2,956
Investment Earnings		7	_	6		7			 20
Total Sources	\$	776	\$	540	\$	534	\$	1,125	\$ 2,976
Deposits to Metrorail Construction Fund (2)	\$	590	\$	481	\$	475	\$	1,087	\$ 2,633
DTR and Corridor Capital Improvements		100		-		-		-	100
Debt Service Reserves and Issuance Costs		86		60		59		38	243
Total Uses	\$	776	\$	540	\$	534	\$	1,125	\$ 2,976

<sup>(1)</sup> The schedule above was prepared as of June 23, 2009, and was provided to the Dulles Corridor Advisory Committee. Amounts and timing may change based on market conditions. The Airports Authority continues to evaluate sizing and structuring options for the Series 2009 Bonds, including Build America Bonds (a new financing tool created under the American Recovery and Reinvestment Act that allows municipal entities to issue taxable bonds and receive direct payments from the federal government equal to 35% of the interest on the bonds).

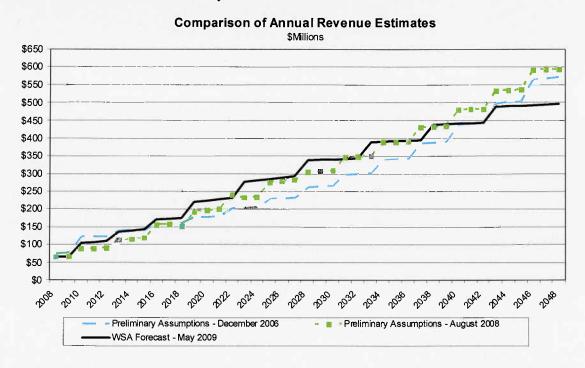
<sup>(2)</sup> The \$776 million par amount of bonds shown in 2009 includes retirement of a \$150 million Bond Anticipation Note issued in 2008.

### **OF THE METRORAIL PROJECT ((\$Millions)**



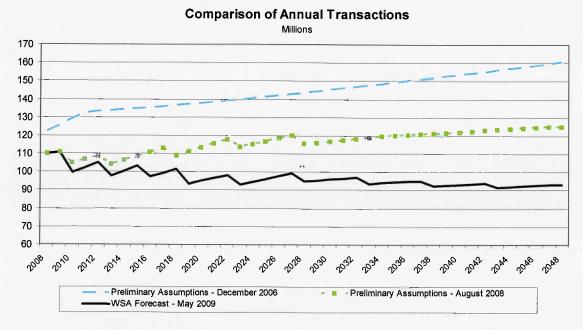
### 3. Projected Toll Rate Schedules

Since 2006, several estimates have been made of the gross toll revenue needed to support the financing of the Dulles Corridor Metrorail Project. The chart below shows that these revenue estimates have been very consistent.



The gross toll revenue forecasts are based on two factors: the projected number of annual toll transactions and assumed increases in toll rate levels.<sup>4</sup> In recent years, annual toll transactions on the Dulles Toll Road have declined by approximately 1.0%, with most of the reduction in activity occurring at the ramp locations. Factors that have contributed to the decrease in transactions include toll increases on the Dulles Toll Road and Dulles Greenway, the economic slowdown in the Dulles Corridor, and gasoline price volatility.<sup>5</sup>

Current projections of future annual toll transactions on the Dulles Toll Road, developed by Wilbur Smith Associates (WSA), are lower than the estimates assumed for financial planning purposes in previous years. The WSA projection, shown as a solid line in the chart below, reflects recent traffic trends, current socioeconomic and demographic forecasts for the region, and potential traffic diversion due to periodic toll increases that are higher than previously assumed.



Additional detail on the WSA Comprehensive Traffic and Revenue Study is provided as an attachment (Attachment B). It is important to note that, for financing purposes, the WSA traffic and revenue forecast covers a forty-year period, which is the term of the debt to be issued in 2009, and includes a projected toll rate schedule that has been created, for

<sup>&</sup>lt;sup>4</sup> A toll transaction is the payment of a toll at a ramp location or a mainline toll plaza. Thus, payment of a toll on a single trip at both a ramp and a mainline plaza counts as two toll transactions.

The only toll increase since the Dulles Toll Road opened in 1984 occurred in 2005. Rates at the mainline toll plaza and most ramps were increased by 25 cents, and at Sully Road and Dulles Greenway from 35 cents to 50 cents. Tolls on the Dulles Greenway were increased by \$0.30 in January 2006 and July 2007 and by \$1.00 (for certain peak hour trips) in January 2009.

planning purposes, the same forty-year period. However, the toll rate adjustments that the Airports Authority is now considering relate only to the next three years. By 2012, preliminary engineering for Phase 2 of the Metrorail Project is scheduled to be completed. The toll revenue requirements can then be updated based on the actual capital costs incurred in Phase 1 of the Metrorail Project, more timely estimates of the Phase 2 capital costs, any additional funding that may be secured for the Metrorail Project, and the actual performance of the Dulles Toll Road.

In developing the plan of finance, two toll rate options were developed for the years 2010 to 2012. Under the first toll rate schedule (Option 1), a \$0.75 mainline toll increase would become effective on January 1, 2010, and no additional toll increases at the mainline plaza would occur before 2013. Under the second toll rate schedule (Option 2), a \$0.25 mainline toll rate increase would become effective on January 1 in each of the next three years. Under both options, toll rates at the ramp toll plazas would be increased by \$0.25 only in 2010. (Option 2 is reflected in the proposed amendment to § 10.1 of the Regulations.)

### B. Dulles Corridor Advisory Committee Consideration of Plan of Finance and Toll Rate Increases

On June 23, 2009, the DCAC received a presentation on the above plan of finance for the Metrorail Project and capital improvements within the Dulles Corridor, as well as on the two options for toll rate increases (see Attachment C). Consultation with the DCAC with respect to the frequency, timing and amount of any new toll rate is required under the Permit and Operating Agreement for the Dulles Toll Road, but no consent or approval of the Committee is required for the Airports Authority to adopt a toll rate increase.

In order to moderate the financial impact on Dulles Toll Road customers, Airports Authority management advised the DCAC that it was considering recommending that Option 2 be advanced through the Airport Authority's toll rate setting process. Management also advised that Option 2's \$0.25 mainline and ramp increase, effective in 2010, would be consistent with the 2010 toll rate increase previously contemplated by the Commonwealth Transportation Board.

Following the presentation and discussion among its members, the DCAC indicated its concurrence with the plan of finance and the proposed toll rate increases reflected in Option 2. The Committee favored this option, largely because it incrementally phased in the toll increases over time. As noted, the proposed amendment to § 10.1 reflects this Option 2.

At the June 23 meeting, members of the DCAC also recommended two actions that the Airports Authority undertake in the period covered by the toll increases. The first was that the Airports Authority continue to make substantial efforts to obtain additional

federal and state funding for the Metrorail Project, especially federal funding for the Project's Phase 2 to which no federal funds are currently committed. The second recommendation (which assumes toll rate increases in each of the following three years) was that, in the latter part of 2010 and 2011, before the increase scheduled for January 1 of the following year goes into effect, the Airports Authority would conduct a public process in which it would review updated information on the ridership and revenues of the Dulles Toll Road, along with updated projections of future ridership and revenues, together with other pertinent information, and, using this information, would evaluate whether the next scheduled toll increase continued to be warranted.

When staff returns to the Committees later this year following the public hearings on the proposed amendment, these two DCAC recommendations will be included in the overall staff recommendation.

### C. "Toll Setting" Process to be Pursued in Following Months

Assuming authorization is provided by the Committees on July 15 to proceed with the proposed amendment, the Airports Authority will conduct a public process over the next four to five months that will enable members of the public both to learn about the toll rate increases that are being proposed and the reasons they are being proposed and to present their views and comments on the proposed increases, and that will culminate in public decision-making on the proposed amendment by the Committees and the Board of Directors later this year. This process will include the following components:

- Notices will be provided of the proposed toll rate increases, of the public hearings that will be conducted on the proposed increases, and of the different opportunities that will be available to members of the public to present their views on the proposed increases. These notices will include the formal legal newspaper notice that is required to be published at lease 10 days prior to the hearing on a proposed new or amended regulation, less formal advertisements in multiple newspapers with circulation in Northern Virginia and other parts of the metropolitan area, e-mail notices to individuals and to citizen, business, residential and other organizations (using, e.g., lists that have been compiled by the Metrorail Project office in the course of its public outreach efforts), and notices posted on the Airports Authority website.<sup>6</sup>
- Three public hearings will be held in the Dulles Corridor on the proposed toll rate increases. One will be in the Tysons Corner area, another in the Reston area, and another in eastern Loudoun County. These hearings will take place in late August

On-line information about the proposed toll rate increases can now be obtained by accessing the Airports Authority's website, <a href="www.mwaa.com">www.mwaa.com</a>, and clicking on "Dulles Toll Road" and then on "Toll Setting Process." More information will be added to the "Toll Setting Process" web page as the start of the formal public comment period approaches.

and early September. The hearings will utilize an "open forum" format that is designed to allow hearing participants not only to offer their views on the proposed increases, but importantly to learn about the reasons and purposes of the increases. Therefore, in addition to providing an opportunity for participants to present written and verbal (transcribed by a reporter) comments, the hearings will provide participants with information on (i) the Metrorail Project, (ii) the cost and financing of the Metrorail Project, (iii) the Dulles Toll Road and potential improvements that may be made to the Toll Road in the future, and (iv) the additional revenue anticipated to be raised as a result of the proposed toll increases and the purposes for which this additional revenue will be expended. This information will be conveyed through a series of "information stations" or exhibits that will contain graphics, maps, models, handouts and/or similar materials, and at which senior staff members will be present to engage in discussions and answer questions.

- For individuals unable to attend a public hearing, a "virtual public hearing" will be presented on the Airports Authority website (see note 6). Thus, the information presented at each of the hearing exhibits will be placed on-line where it can be viewed by interested persons. In addition, as explained further below, an opportunity to comment on the proposed toll rate increases will be available on-line.
- The official period for commenting on the proposed toll rate increases is expected to run for 30 days, from approximately August 14 to September 14, although comments received prior to the start of this period will be accepted and considered. In addition to offering comments at one of the public hearings, members of the public will have other opportunities to present their views on the proposed toll increases. Comments may now be submitted by e-mail using the e-mail address identified on the Airports Authority website. Once the formal comment period is opened, comments may be submitted on-line by completing a "comment card" that will be available on the Airports Authority website. In addition, written comments may be submitted. Information regarding these opportunities for presenting comments on the proposed toll rate increases will be included in the public hearing notices described above.
- After the conclusion of the public comment period, a report on all submitted comments will be prepared. The report will place the comments into various categories, which will be summarized. This report will be presented to the Dulles Corridor and Finance Committees in October, along with a staff paper that will review the public hearing/public comment process, respond to the more significant comments that were submitted during the process, and propose to the Committees the action that they would recommend that the Board of Directors take on the amendment to § 10.1. The staff paper will include the two recommendations described earlier that were made by members of the DCAC at its June 23 meeting.

• The Committees' recommendation will be presented to the Board of Directors at the Board's November meeting. The Board will then take final action on the proposed amendment to § 10.1.

Assuming that the Board adopts the proposed amendment to § 10.1, in whole or in part, and approves an increase in toll rates effective January 1, 2010, numerous steps will need to be taken between the date of the Board's action and the first of the year to implement the new rates (e.g., changes to signage, adjustments to manual and electronic toll collection systems, updates to brochures, web pages and other sources of information on toll rates). For these steps to be completed by January 1, 2010, Board consideration and action on the proposed amendment need to occur no later than the Board's November meeting.

### **CONCLUSION**

For the reasons presented above, it is recommended that the Dulles Corridor and Finance Committees authorize the President and Chief Executive Officer (i) to initiate the process for amending § 10.1 of the Airports Authority Regulations by publishing notice of the proposed amendment, public hearings on the proposed amendment, and opportunities for the public to comment on the proposed amendment; (ii) to hold the public hearings and provide opportunities to the public to comment on the proposed amendment; (iii) following the hearings, to provide to the Dulles Corridor and Finance Committees, in October, a report on the hearings and on the comments submitted on the proposed amendment, and propose to the Committees an action to recommend that the Board of Directors take on the amendment; and (iv) to schedule the amendment for consideration by the Board at its November meeting where the chairmen of the Committees would present the Committees' recommendation to the Board.

Prepared by Offices of Finance and General Counsel July 2009

Attachments

### **ATTACHMENT A**

PROPOSED AMENDMENT TO SECTION 10.1 OF THE REGULATIONS OF THE METROPOLITAN WASHINGTON AIRPORTS AUTHORITY

### PROPOSED AMENDMENT TO SECTION 10.1 OF THE REGULATIONS OF THE METROPOLITAN WASHINGTON AIRPORTS AUTHORITY

### PART 10 - DULLES TOLL ROAD

### § 10.1 (Effective January 1, 2010) Tolls for Use of the Dulles Toll Road.

Except for those permitted free use of toll facilities under Virginia Code § 33.1-252, it shall be unlawful for any person operating a vehicle to use the Dulles Toll Road (also known as the Omer L. Hirst-Adelard L. Brault Expressway), or any portion thereof, without payment of the tolls set forth in the following schedule:

Vehicle Class	Tol	ls
	Main Line Plaza	Ramps
2 – axle	<del>\$0.75</del> <u>\$1.00</u>	\$.0.50 <u>\$0.75</u>
3 – axle	\$1.00 <u>\$1.25</u>	<del>\$0.75</del> <u>\$1.00</u>
4 – axle	\$1.25 <u>\$1.50</u>	\$1.00 <u>\$1.25</u>
5 – axle	\$1.50 <u>\$1.75</u>	\$1.25 <u>\$1.50</u>
6 or more axles	\$1.75 <u>\$2.00</u>	\$1.50 \$1.75

### § 10.1 (Effective January 1, 2011) Tolls for Use of the Dulles Toll Road.

Except for those permitted free use of toll facilities under Virginia Code § 33.1-252, it shall be unlawful for any person operating a vehicle to use the Dulles Toll Road (also known as the Omer L. Hirst-Adelard L. Brault Expressway), or any portion thereof, without payment of the tolls set forth in the following schedule:

Vehicle Class	Tol	ls
	Main Line Plaza	Ramps
2 – axle	\$1.00 \$1.25	\$0.75
3-axle	\$1.25 <u>\$1.50</u>	\$1.00
4 – axle	\$1.50 \$1.75	\$1.25
5 – axle	\$1.75 <u>\$2.00</u>	\$1.50
6 or more axles	\$2.00 <u>\$2.25</u>	\$1.75

### § 10.1 (Effective January 1, 2012) Tolls for Use of the Dulles Toll Road.

Except for those permitted free use of toll facilities under Virginia Code § 33.1-252, it shall be unlawful for any person operating a vehicle to use the Dulles Toll Road (also known as the Omer L. Hirst-Adelard L. Brault Expressway), or any portion thereof, without payment of the tolls set forth in the following schedule:

Vehicle Class	Tol	ls
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3 – axle	\$1.50 <u>\$1.75</u>	\$1.00
4 – axle	\$1.75 <u>\$2.00</u>	\$1.25
5 – axle	\$2.00 <u>\$2.25</u>	\$1.50
6 or more axles	<del>\$2.25</del> <u>\$2.50</u>	\$1.75

### ATTACHMENT B

EXECUTIVE SUMMARY OF THE DULLES TOLL ROAD COMPREHENSIVE TRAFFIC AND REVENUE STUDY

### Confidential Work Project - Not for Release or Distribution

**Dulles Toll Road Traffic and Revenue Consulting Services** 

### Comprehensive Traffic and Revenue Study

**Draft Final Report** 

**Prepared For** 

Metropolitan Washington Aliports Authority

June 2009

**Prepared By** 





### **EXECUTIVE SUMMARY**

This comprehensive traffic and revenue report summarizes the results of a comprehensive traffic and toll revenue (T&R) study for Dulles Toll Road (DTR) in Virginia. The study was conducted by Wilbur Smith Associates (WSA) between August 2007 and June 2009. Details of the study results are included in the full report herewith which reflects all current efforts requested of Wilbur Smith Associates (WSA) by the Metropolitan Washington Airports Authority (Airports Authority) to update the traffic and toll revenue forecasts in support of the construction of the Dulles Corridor Metrorail Project.

Constructed in 1984, and situated mostly in Fairfax County, the DTR is a 13.43 mile, eight-lane toll facility in the Dulles-Reston-Herndon-Tysons Corridor in Northern Virginia, shown in Figure 1-1. Toll collection is by means of cash and electronic toll collection (EZ-Pass) at one mainline plaza at the eastern end near the Capital Beltway (Interstate 495) and 19 ramp plazas, as shown in Figure 1-4. The majority of toll-paying customers pays both a mainline and ramp toll. The tolling system is designed to capture DTR customers at one or more tolling locations except for users traveling to Washington Dulles International Airport (Dulles International). DTR links directly to the Dulles Greenway at a shared mainline plaza providing rapid access to Leesburg and elsewhere in Loudon County. Currently, west-facing ramps, towards Dulles International, are toll free providing local travelers on the Dulles corridor with free access to the DTR and the Dulles Airport Access Road.

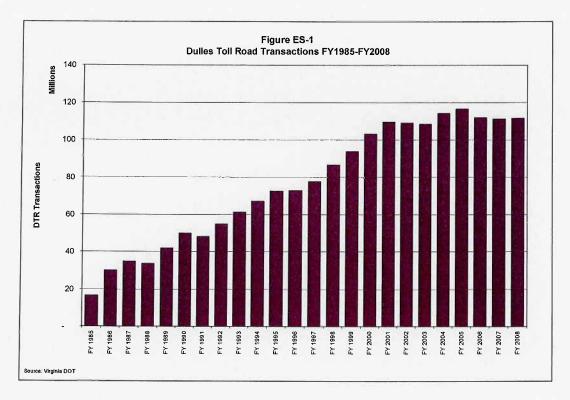
The DTR competes with a combination of non-tolled roads and highways but generally provides a superior limited-access free flow level of service. Its comparative advantage is somewhat reduced in peak hours when levels of service have begun to reach less satisfactory levels. Midday and non-peak travel is also substantial but there is headroom for growth in non-commuting trips as development along the Dulles corridor continues to expand.

Toll rates have been adjusted once in DTR's 25-year history, in 2005, in order to begin securing funds for the Metrorail Project. A 25-cent increase was applied such that the mainline toll for two-axle vehicles is 75 cents in both directions and all ramp tolls are established at a uniform 50 cents. DTR-apportioned toll at the shared Dulles Greenway plaza is also 50 cents. Multi-axle vehicles are charged an additional 25 cents per axle but



the proportion of multi-axle vehicles is relatively small. The toll rate increase provided a sound revenue realization due to a relatively inelastic impacts although ramp customers were more sensitive than the through traffic through the Main Line. Toll revenues increased from \$41.9 million in 2004 to \$65.2 million in 2006 despite other factors, other than toll increases, tending to reduce demand.

The customer base for the DTR is mature and extremely stable showing minimal variations during the working week and by time of year. Unlike many other commuter toll facilities the DTR exhibits strong peak demand in both directions due to the spatial spread of commercial and residential centers in its service area. Although growth has been muted, the DTR has fared relatively well during the current economic downturn compared to non-tolled routes in Virginia and comparable toll facilities throughout the nation. Historically, demand has been sensitive to economic growth but has always resumed to previous levels immediately after economic downturns as illustrated in Figure ES-1.



### STUDY APPROACH OVERVIEW

The T&R study was conducted at a full investment grade level and is considered suitable for use in project financing. The study benefited from a recent release (January 2008) of the latest Metropolitan Washington Council of Governments (MWCOG) travel demand



model and socio-economic projections and reflects the most recently approved future transportation improvements including the impacts of the various HOT Lanes projects and Metrorail expansions. This model was the basis of the WSA T&R study and was updated and refined based on professional experience and judgment. The traffic and revenue estimates on the DTR were calculated by using the trip tables that were generated from these updated demographic datasets and taking into account toll diversions estimated as a result of two future toll schedule options.

To refine the model, WSA collected a large amount of new traffic data and information related to travel characteristics in the DTR corridor. In addition to the detailed corridor reconnaissance, speed and delay surveys and traffic counts in the DTR corridor, WSA conducted travel pattern and characteristic surveys at 12 locations at mainline and ramp toll locations. Travel pattern data was obtained from over 9,500 motorists traveling on the DTR.

Stated preference surveys were also conducted by WSA. These surveys provided useful estimates of how travelers in the DTR corridor value time, as well as motorists' preferences regarding toll collection options and other inputs. An interactive web survey technique was used and almost 1,100 people participated in this extensive survey. The survey found average values of time generally in the range of \$0.17 to \$0.21 per minute, depending on trip purpose. Reflective of the relatively high incomes in the Dulles corridor, the value of time range is relatively high compared with other toll facilities. These values of time were applied in the travel demand model based on the distribution of incomes in the region.

An independent review of the socioeconomic growth of the DTR corridor was undertaken by Linden Street Associates (LSA). The original socioeconomic projections were as provided by the MWCOG, which were used in the latest version of the regional travel demand model (released March 2008). Based on the LSA review and a more recent review by WSA, some slight modifications were made to the MWCOG data, generally in the range of less than five percent of the original forecasts, which resulted in a slightly more conservative forecast. The original LSA report is included as an appendix to the traffic and revenue study.

The long term economic and demographic outlook is very favorable. Even though other notable local economists predict growth of population and jobs in excess of the MWCOG forecasts even after the recent economic downturn, WSA considers the adjusted MWCOG socio-economic forecast to be the appropriate input in the base case forecasts contained herein. Sensitivity tests showing the impact of higher and lower growth are provided.

A detailed traffic and revenue analysis was undertaken based on two toll rate schedules. The two toll rate schedules analyzed are as follows:



- 1. **Projected Toll Rate Schedule Option 1**: provides for an increase of \$0.75 at mainline DTR toll plazas in 2010, \$0.50 in 2013 and 2016, \$0.75 in 2019, 2023 and every five years thereafter. Ramp plaza tolls increase by \$0.25 in 2010, 2013, and 2016 with \$0.50 increase in 2023 and thereafter.
- 2. **Projected Toll Rate Schedule Option 2**: following a \$0.25 increase in 2010 at both the mainline plaza and all ramps, an increase of \$0.25 occurs at mainline plaza in six consecutive years through 2016. Ramp tolls increase by \$0.25 in years 2013 and 2016. Following this, \$0.75 increases occur at the mainline plaza and \$0.50 at all ramp plazas in 2019, 2023 and every five years thereafter.

					Pr	ojecte		able ES oll Rate	-	edule	s					
		Proj	jecte	d Toli	l Ra	ates O	ptio	n 1		Proj	ecte	d Toll	Ra	ites Oi	otion	2
	-	Ma	inlin	e		R	amps	0.01000000	-	Ma	inlin	ρ		R	mps	
	_	Tolls		hange		Tolls		hange	_	Tolls		hange	-	Tolls		nange
2009	\$	0.75	ī			0.50	- <u>-</u>		<u>-</u>	0.75			<u> </u>	0.50		lang
2010	\$	1.50	+ \$	0.75	\$	0.75	+ \$	0.25	\$	1.00	+ \$	0.25	\$	0.50	+ \$	0.25
2011	\$	1.50	. ψ	0.10	\$	0.75	. *	0.20	\$	1.25	+\$	0.25	\$	0.75	тф	0.23
2012	\$	1.50			\$	0.75		**	\$	1.50	+\$	0.25	\$	0.75		**
2013	\$	2.00	+ \$	0.50	\$	1.00	+ \$	0.25	\$	1.75	+\$	0.25	\$	1.00	+\$	0.25
2014	\$	2.00	. •		\$	1.00	٠.Ψ	0.20	\$	2.00	+\$	0.25	\$	1.00	. ψ	0.20
2015	\$	2.00		99	\$	1.00		30	\$	2.25		0.25	\$	1.00		
2016	\$	2.50	+ \$	0.50	\$	1.25	+ \$	0.25	\$	2.50	+\$	0.25	\$	1.25	+ ¢	0.25
2017	\$	2.50	. 4		\$	1.25	. ψ		\$	2.50	. ф		\$	1.25	. ф	U.Z.J
2018	\$	2.50		345	\$	1.25		••	\$	2.50			\$	1.25		
2019	\$	3.25	+ \$	0.75	\$	1.75	+ \$	0.50	\$	3.25	¢	0.75	\$	1.75	+ \$	0.50
2020	\$	3.25	. •	0.,0	\$	1.75	. ψ	0.50	\$	3.25	η. φ	0.73	\$	1.75	тф	0.50
2021	\$	3.25			\$	1.75			\$	3.25			\$	1.75		
2022	\$	3.25		39	\$	1.75		**	\$	3.25		344	\$	1.75		••
2023	\$	4.00	+\$	0.75	\$	2.25	+ \$	0.50	\$	4.00	+\$	0.75	\$	2.25	+\$	0.50
2024	\$	4.00	. ψ		\$	2.25	. ψ	0.50	\$	4.00	тф	0.75	\$	2.25	Тφ	0.50
2025	\$	4.00			\$	2.25			\$	4.00			\$	2.25		
2026	\$	4.00			\$	2.25			\$	4.00			\$	2.25		
2027	\$	4.00		**	\$	2.25			\$	4.00			\$	2.25		
2028	\$	4.75	+ \$	0.75	\$	2.75	+ \$	0.50	\$	4.75	+\$	0.75	\$	2.75	+\$	0.50
2029	\$	4.75	٠.٠		\$	2.75	. Ψ	0.00	\$	4.75	. ψ		\$	2.75	ι φ	0.50
2030	\$	4.75		**	\$	2.75			\$	4.75		**	\$	2.75		1.00
2031	\$	4.75			\$	2.75		(#)	\$	4.75		**	\$	2.75		7.99
2032	\$	4.75		**	\$	2.75		(100)	\$	4.75		**	\$	2.75		
2033	\$	5.50	+\$	0.75	\$	3.25	+\$	0.50	\$	5.50	+\$	0.75	\$	3.25	+\$	0.50
2034	\$	5.50	, T		\$	3.25	•	0.00	\$	5.50	٠.		\$	3.25	. ψ	0.00
2035	\$	5.50		**	\$	3.25		.550	\$	5.50		**	\$	3.25		
2036	\$	5.50			\$	3.25			\$	5.50			\$	3.25		
2037	\$	5.50		99	\$	3.25			\$	5.50		**	\$	3.25		••
2038	\$	6.25	+ \$	0.75	\$	3.75	+ \$	0.50	\$	6.25	+ \$	0.75	\$	3.75	+ \$	0.50
2039	\$	6.25	. •		\$	3.75	. Ψ		\$	6.25	. ψ		\$	3.75	. ψ	177
2040	\$	6.25			\$	3.75			\$	6.25			\$	3.75		**
2041	\$	6.25			\$	3.75		***	\$	6.25		**	\$	3.75		**
2042	\$	6.25			\$	3.75		***	\$	6.25			\$	3.75		
2043	\$	7.00	+\$	0.75	\$	4.25	+\$	0.50	\$	7.00	+ \$	0.75	\$	4.25	+ \$	0.50
2044	\$	7.00	. Ψ	700	\$	4.25	. φ	0.00	\$	7.00	тф		\$	4.25	тф	
2045	\$	7.00			\$	4.25			\$	7.00		**	\$	4.25		***
2046	\$	7.00			\$	4.25			\$	7.00		850	\$	4.25		***
2047	\$	7.00			\$	4.25			\$	7.00			\$	4.25		**
	Ψ				Ψ	7.20			Ψ	7.00			φ	4.20		1440



Dulles Greenway tolls were also adjusted in the model based on approved increases and expectations of further escalations in future.

Base case traffic and revenue estimates were developed for the DTR, extending over a 40-year period up to 2047. Finally, a series of sensitivity tests were performed to assess the potential impacts on base case revenues associated with hypothetical changes in certain basic assumptions or other data inputs.

### ESTIMATED TRAFFIC AND REVENUE

Travel demand models were obtained from MWCOG through the Airports Authority. These were updated to reflect the latest project configurations and toll operations assumptions. Trip tables were also refined to reflect small changes in socioeconomic forecasts and to better reflect observed travel patterns from the origin-destination surveys. Highway improvement information was obtained and appropriately reflected in the travel demand models.

A series of traffic assignments were made to project 2010, 2013, 2018, 2023, and 2028 levels. Separate assignments were made for morning peak, mid-day, afternoon peak and night conditions. Alternative future toll rates were tested in selected years and no other changes in toll collection methods were assumed, e.g. all electronic tolling, peak pricing, tolling un-tolled ramps, etc. All of the traffic assignments listed above were also modeled with the prior year's toll rates (i.e. no toll rate increase) to aid traffic and revenue interpolation.

Table ES-2 provides a summary of annual traffic and revenue estimates for the DTR under the Proposed Toll Rate Schedule Option 1. In 2010, following the first projected toll increase of \$0.75 at the mainline, total annual transactions are estimated at 98.3 million trips per year. This translates to annual toll revenue of almost \$100.7 million in 2010.

Successive toll increases are expected to manage demand on the DTR so that further deteriorations in peak level of service are prevented. In 2013, annual total transactions are expected to be almost 98.1 million per year. These transactions produce almost \$133.8 million in annual toll revenue following the 2013 toll increase. 2019 annual transactions are expected to be 93.6 million per year generating annual toll revenue of \$215.7 million. Total annual 2023 revenue would equal more than \$271.4 million after adjusting for further toll rate adjustments. By 2028 total annual transactions are estimated to be 94.8 million per year producing total annual revenue of more than \$331.5 million.



Table ES-3 provides a summary of traffic and revenue estimates for the DTR under the Projected Toll Rate Schedule Option 2. In 2010 total annual transactions are estimated at more than 103.2 million per year. This translates to annual toll revenue of about \$97.1 million in 2010. Less traffic is diverted with the 25 cent increase compared to Option 1 but less incremental revenue is generated.

In 2013, annual total transactions remain above 100.0 million per year with the smaller more frequent mainline toll increases. These transactions produce almost \$127.5 million in annual toll revenues.

By 2016, even though the mainline and ramp rates are identical to Option 1, the mix of traffic is slightly different. Annual transactions are expected to be 97.7 million per year generating annual toll revenue of almost \$168.6 million.

After 2016, Option 1 and Option 2 toll rates are adjusted identically and by 2020 traffic and revenue estimates converge. 2019 annual transactions are expected to be 93.9 million per year generating annual toll revenue of \$220.5 million. Total annual 2023 revenue would equal more than \$271.4 million after further toll rate adjustments. By 2028 total annual transactions are estimated to be 94.8 million per year producing total annual revenue of more than \$331.5 million.

As in Option 1, annual toll revenues are estimated to reach almost a half billion dollars by the end of the forecast period. Transactions remain below current day levels throughout the whole forecast period improving and maintaining level of service for DTR customers.



Table ES-2
MWAA Dulles Toll Road Traffic and Toll Revenue Estimates 2009-2047
Projected Toll Rate Schedule - Option 1

Forecast	Calendar	ML/Ramp	Total		Total		A۱	erage
Year	Year	Tolls	Transactions	% p.a.	Revenue	% p.a.	Re	evenue
-1	2007	\$0.75 / \$0.50	109,417,000		\$ 65,584,000		\$	0.60
0	2008	\$0.75 / \$0.50	109,601,000	+0.2%		+0.1%	\$	0.60
1	2009	\$0.75 / \$0.50	108,505,000	-1.0%		-1.0%	\$	0.59
2	2010	\$1.50 / \$0.75	98,335,000	-9.4%	\$ 100,681,000	+54.9%	\$	1.02
3	2011	\$1.50 / \$0.75	101,413,000	+3.1%	\$ 103,873,000	+3.2%	\$	1.02
4	2012	\$1.50 / \$0.75	104,607,000	+3.1%	\$ 107,144,000	+3.1%	\$	1.03
5	2013	\$2.00 / \$1.00	98,064,000	- <u>6.3</u> %	\$ 133,796,000	+24.9%	\$	1.36
6	2014	\$2.00 / \$1.00	100,624,000	+2.6%	\$ 137,506,000	+2.8%	\$	1.37
7	2015	\$2.00 / \$1.00	103,271,000	+2.6%	\$ 141,344,000	+2.8%	\$	1.37
8	2016	\$2.50 / \$1.25	97,361,000	- <u>5.7</u> %	\$ 166,003,000	+ <u>17.4</u> %	\$	1.71
9	2017	\$2.50 / \$1.25	99,405,000	+2.1%	\$ 169,489,000	+2.1%	\$	1.71
10	2018	\$2.50 / \$1.25	101,493,000	+2.1%	\$ 173,048,000	+2.1%	\$	1.71
11	<u>2019</u>	\$3.25 / \$1.75	93,645,000	- <u>7.7</u> %	\$ 215,732,000	+24.7%	\$	2.30
12	2020	\$3.25 / \$1.75	95,193,000	+1.7%	\$ 219,897,000	+1.9%	\$	2.31
13	2021	\$3.25 / \$1.75	96,781,000	+1.7%	\$ 224,172,000	+1.9%	\$	2.32
14	2022	\$3.25 / \$1.75	98,407,000	+1.7%	\$ 228,559,000	+2.0%	\$	2.32
15	2023	\$4.00 / \$2.25	93,224,000	- <u>5.3</u> %	\$ 271,436,000	+18.8%	\$	2.91
16	2024	\$4.00 / \$2.25	94,700,000	+1.6%	\$ 275,655,000	+1.6%	\$	2.91
17	2025	\$4.00 / \$2.25	96,206,000	+1.6%	\$ 279,957,000	+1.6%	\$	2.91
18	2026	\$4.00 / \$2.25	97,742,000	+1.6%	\$ 284,336,000	+1.6%	\$	2.91
19	2027	\$4.00 / \$2.25	99,308,000	+1.6%	\$ 288,801,000	+1.6%	\$	2.91
20	<u>2028</u>	\$4.75 / \$2.75	94,848,000	- <u>4.5</u> %	\$ 331,455,000	+ <u>14.8</u> %	\$	3.49
21	2029	\$4.75 / \$2.75	95,376,000	+0.6%	\$ 333,261,000	+0.5%	\$	3.49
22	2030	\$4.75 / \$2.75	95,908,000	+0.6%	\$ 335,081,000	+0.5%	\$	3.49
23	2031	\$4.75 / \$2.75	96,442,000	+0.6%	\$ 336,908,000	+0.5%	\$	3.49
24	2032	\$4.75 / \$2.75	96,980,000	+0.6%	\$ 338,747,000	+0.5%	\$	3.49
25	2033	\$5.50 / \$3.25	93,621,000	- <u>3.5</u> %	\$ 382,248,000	+ <u>12.8</u> %	\$	4.08
26	2034	\$5.50 / \$3.25	94,144,000	+0.6%	\$ 384,385,000	+0.6%	\$	4.08
27	2035	\$5.50 / \$3.25	94,457,000	+0.3%	\$ 385,661,000	+0.3%	\$	4.08
28	2036	\$5.50 / \$3.25	94,770,000	+0.3%	\$ 386,940,000	+0.3%	\$	4.08
29	2037	\$5.50 / \$3.25	95,083,000	+0.3%	\$ 388,219,000	+0.3%	\$	4.08
30	2038	\$6.25 / \$3.75	92,537,000	- <u>2.7</u> %	\$ 432,419,000	+ <u>11.4</u> %	\$	4.67
31	2039	\$6.25 / \$3.75	92,844,000	+0.3%	\$ 433,853,000	+0.3%	\$	4.67
32	2040	\$6.25 / \$3.75	93,152,000	+0.3%	\$ 435,292,000	+0.3%	\$	4.67
33	2041	\$6.25 / \$3.75	93,461,000	+0.3%	\$ 436,737,000	+0.3%	\$	4.67
34 35	2042	\$6.25 / \$3.75	93,771,000	+0.3%	\$ 438,187,000	+0.3%	\$	4.67
35		\$7.00 / \$4.25	91,706,000	- <u>2.2</u> %	\$ 482,643,000	+ <u>10.1</u> %	\$_	5.26
36	2044	\$7.00 / \$4.25	92,012,000	+0.3%	\$ 484,252,000	+0.3%	\$	5.26
37	2045	\$7.00 / \$4.25	92,318,000		\$ 485,865,000	+0.3%	\$	5.26
38 39	2046	\$7.00 / \$4.25	92,626,000	+0.3%	\$ 487,484,000	+0.3%	\$	5.26
38	2047	\$7.00 / \$4.25	92,935,000	+0.3%	\$ 489,109,000	+0.3%	\$	5.26
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Table ES-3

MWAA Dulles Toll Road Traffic and Toll Revenue Estimates 2009-2047

Projected Toll Rate Schedule - Option 2

Forecast	Calendar	ML/Ramp	Total		Total	Average
Year	Year	Tolls	Transactions	% p.a.	Revenue	% p.a. Revenue
-1	2007	\$0.75 / \$0.50	109,417,000		\$ 65,584,000	\$ 0.60
0	2008	\$0.75 / \$0.50	109,601,000	+0.2%		+0.1% \$ 0.60
1	2009	\$0.75 / \$0.50	108,505,000	-1.0%	\$ 64,978,000	<b>-1.0%</b> \$ 0.59
2	2010	\$1.00 / \$0.75	103,219,000	- <u>4.9</u> %	\$ 87,414,000	+34.5% \$ 0.85
3	2011	\$1.25 / \$0.75	103,292,000	+0.1%	\$ 97,128,000	+11.1% \$ 0.94
4	2012	\$1.50 / \$0.75	103,389,000	+0.1%	\$ 107,104,000	+10.3% \$ 1.04
5	2013	\$1.75 / \$1.00	100,015,000	- <u>3.3</u> %	\$ 127,475,000	+19.0% \$ 1.27
6	2014	\$2.00 / \$1.00	100,023,000	+0.0%	\$ 136,426,000	+7.0% \$ 1.36
7	2015	\$2.25 / \$1.00	100,042,000	+0.0%	\$ 145,409,000	+6.6% \$ 1.45
8	2016	\$2.50 / \$1.25	97,719,000	- <u>2.3</u> %	\$ 166,619,000	+ <u>14.6</u> % \$ 1.71
9	2017	\$2.50 / \$1.25	99,772,000	+2.1%	\$ 170,118,000	+2.1% \$ 1.71
10	2018	\$2.50 / \$1.25	101,867,000	+2.1%	\$ 173,691,000	+2.1% \$ 1.71
11	2019	\$3.25 / \$1.75	93,875,000	- <u>7.8</u> %	\$ 216,261,000	+24.5% \$ 2.30
12	2020	\$3.25 / \$1.75	95,193,000	+1.4%	\$ 219,897,000	+1.7% \$ 2.31
13	2021	\$3.25 / \$1.75	96,781,000	+1.7%	\$ 224,172,000	+1.9% \$ 2.32
14	2022	\$3.25 / \$1.75	98,407,000	+1.7%	\$ 228,559,000	+2.0% \$ 2.32
15	2023	\$4.00 / \$2.25	93,224,000	- <u>5.3</u> %	\$ 271,436,000	+ <u>18.8</u> % <u>\$ 2.91</u>
16	2024	\$4.00 / \$2.25	94,700,000	+1.6%	\$ 275,655,000	+1.6% \$ 2.91
17	2025	\$4.00 / \$2.25	96,206,000	+1.6%	\$ 279,957,000	+1.6% \$ 2.91
18	2026	\$4.00 / \$2.25	97,742,000	+1.6%	\$ 284,336,000	+1.6% \$ 2.91
19	2027	\$4.00 / \$2.25	99,308,000	+1.6%	\$ 288,801,000	+1.6% \$ 2.91
20	2028	\$4.75 / \$2.75	94,848,000	-4.5%	\$ 331,455,000	+14.8% \$ 3.49
21	2029	\$4.75 / \$2.75	95,376,000	+0.6%	\$ 333,261,000	+0.5% \$ 3.49
22	2030	\$4.75 / \$2.75	95,908,000	+0.6%	\$ 335,081,000	+0.5% \$ 3.49
23	2031	\$4.75 / \$2.75	96,442,000	+0.6%	\$ 336,908,000	+0.5% \$ 3.49
24	2032	\$4.75 / \$2.75	96,980,000	+0.6%	\$ 338,747,000	+0.5% \$ 3.49
25	2033	\$5.50 / \$3.25	93,621,000	- <u>3,5</u> %	\$ 382,248,000	+12.8% \$ 4.08
26	2034	\$5.50 / \$3.25	94,144,000	+0.6%	\$ 384,385,000	+0.6% \$ 4.08
27	2035	\$5.50 / \$3.25	94,457,000	+0.3%	\$ 385,661,000	+0.3% \$ 4.08
28	2036	\$5.50 / \$3.25	94,770,000	+0.3%	\$ 386,940,000	+0.3% \$ 4.08
29	2037	\$5.50 / \$3.25	95,083,000	+0.3%	\$ 388,219,000	+0.3% \$ 4.08
30	2038	\$6.25 / \$3.75	92,537,000	- <u>2.7</u> %	\$ 432,419,000	+ <u>11.4</u> % <u>\$ 4.67</u>
31	2039	\$6.25 / \$3.75	92,844,000	+0.3%	\$ 433,853,000	+0.3% \$ 4.67
32	2040	\$6.25 / \$3.75	93,152,000	+0.3%	\$ 435,292,000	+0.3% \$ 4.67
33	2041	\$6.25 / \$3.75	93,461,000	+0.3%	\$ 436,737,000	+0.3% \$ 4.67
34	2042	\$6.25 / \$3.75	93,771,000	+0.3%	\$ 438,187,000	+0.3% \$ 4.67
35		\$7.00 / \$4.25	91,706,000	- <u>2.2</u> %	\$ 482,643,000	+ <u>10.1</u> % \$ 5.26
36	2044	\$7.00 / \$4.25	92,012,000	+0.3%	\$ 484,252,000	+0.3% \$ 5.26
37	2045	\$7.00 / \$4.25	92,318,000	+0.3%	\$ 485,865,000	+0.3% \$ 5.26
38	2046	\$7.00 / \$4.25	92,626,000	+0.3%	\$ 487,484,000	+0.3% \$ 5.26
39	2047	\$7.00 / \$4.25	92,935,000	+0.3%	\$ 489,109,000	+0.3% \$ 5.26



### SENSITIVITY TESTS

A series of sensitivity tests were performed to test the potential impacts on revenue associated with hypothetical changes in certain assumptions or basic study inputs. These tests were performed at 2013 and/or 2028 levels. They covered a range of potential risk factors, such as alternative economic growth, lower values of time and gas price increases. The results of these basic sensitivity tests are shown in Table ES-4.

As indicated in Table ES-4, assuming increased growth of 25 percent, revenues would increase roughly 4.7 percent in 2013 and 11.2 percent in 2028. Assuming a decrease in growth of 25 percent would result in decreased revenues of roughly 4.5 percent in 2013 and 11.4 percent in 2028.

Assuming 25 percent reductions in values of time equates to a loss in annual revenue of 16.6 percent in 2028. The test for increases in gasoline prices resulted in an overall loss of total annual revenue equaling approximately 7.8 percent at 2028 year levels.



### Table ES-4 Sensitivity Test Results (thousands)

	Annual Trai	nsactions	Annual Toll	Revenues
Scenario	FY 2013	FY 2028	FY 2013	FY 2028
Baseline T&R (1)	100,015	94,848	\$127,475	\$331,455
Trips Increase 25% (2)	104,991	105,603	133,484	368,503
Difference	4,976	10,755	6,009	37,048
Percent Difference	5.0%	11.3%	4.7%	11.2%
Trips Decrease 25% (3)	95,310	83,770	121,771	293,801
Difference	(4,705)	(11,078)	(5,704)	(37,654
Percent Difference	-4.7%	-11.7%	-4.5%	-11.4%
VOT Decrease 25% (4)	_	79,089	-	276,498
Difference	_	(15,759)	=	(54,957
Percent Difference	-	-16.6%	· -	-16.6%
Gasoline Price Increase (5)		87,680		305,720
Difference		(7,168)		(25,735
Percent Difference		-7.6%		-7.8%

<sup>(1)</sup> Proposed Toll Schedule

<sup>(2)</sup> Assumes increase of 25 percent over base trip table growth.

<sup>(3)</sup> Assumes decrease of 25 precent over base trip table growth.

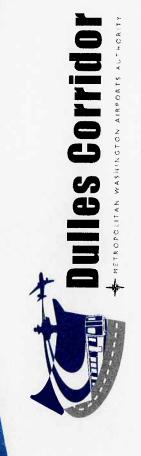
<sup>(4)</sup> Assumes decrease of 25 percent in value of time calculation.

<sup>(5)</sup> Assumes gasoline prices increase to \$5/gallon; reduce total regional trips by 4 percent.

### ATTACHMENT C

PLAN OF FINANCE
THE DULLES CORRIDODR METRORAIL PROJECT
AND
DULLES CORRIDOR IMPROVEMENTS

PREPARED FOR THE
DULLES CORRIDOR ADVISORY COMMITTEE
JUNE 23, 2009



Plan of Finance for the Dulles Metrorail Project and Dulles Corridor Improvements

prepared for

# **DULLES CORRIDOR ADVISORY COMMITEE**

June 23, 2009

### Discussion Outline

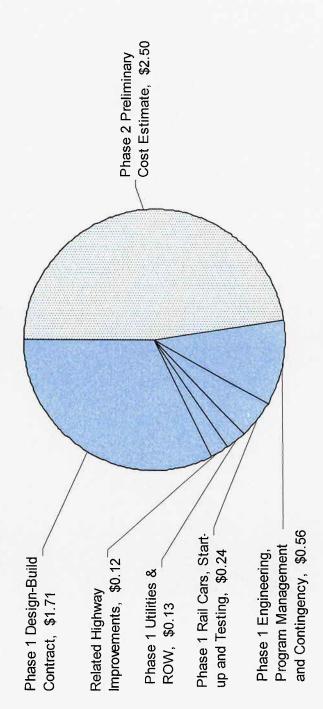
- Obligations of the Airports Authority in the Dulles Corridor
- Key Components of the Finance Plan for the Metrorail Project
- Capital cost allocated to the Dulles Toll Road
- Timing and structure of Dulles Toll Road revenue bonds
- Projected toll rate schedules
- Airports Authority Toll Rate-Setting Process

### Airports Authority Obligations

- Finance and construct the Dulles Metrorail Project from the vicinity of West Falls Church to Route 772 in Loudoun County,
- Use best efforts to achieve substantial completion of the Dulles Metrorail Project by December 31, 2016,
- Finance and construct other improvements in the Dulles Corridor consistent with VDOT and regional plans,
- Operate and maintain the Dulles Toll Road for 50 years consistent with agreed upon standards, and
- Establish toll rates for the Dulles Toll Road necessary to achieve the above obligations.

# Current Metrorail Project Capital Cost Estimate





budget for Phase 1 that has been evaluated and accepted by FTA and Total estimated capital cost of \$5.25 billion includes the \$2.75 billion the \$2.50 billion preliminary cost estimate for Phase 2.

### Sources of Capital Funds

(Thousands YOE Dollars)

SOURCE	Total		% of Total	
Federal - FFGA	9006	900,006	17.1%	
Commonwealth of Virginia	275	275,000	5.2%	
MWAA (Aviation Funds)	215	215,484	4.1%	
Loudoun County	252	252,273	4.8%	
Fairfax County	846	846,167	16.1%	
subtotal Local	1,313,924	,924	25.0%	
DTR Funding	2,766,771	,777	52.6%	
TOTAL SOURCES OF FUNDS	5,255,695	,695	100.0%	

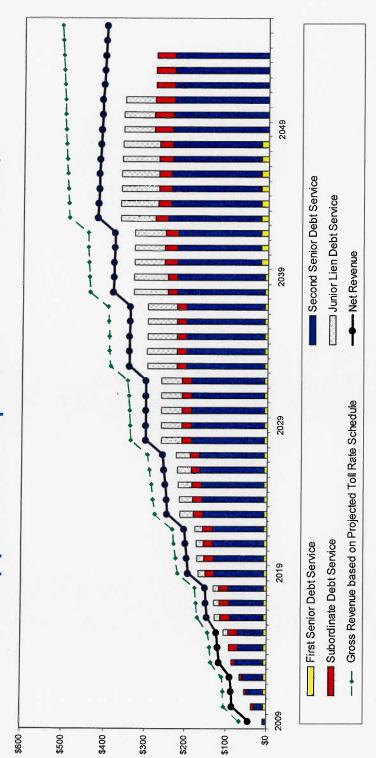
from Dulles Toll Road revenue from 2004 to 2008. Another \$2.633 billion is Approximately \$134 million of the Metrorail Project capital cost was funded anticipated to be funded from debt secured by toll revenue.

## Anticipated DTR Revenue Bond Issues

\$Millions	Seri	Series 2009	Series 2010	Series 2011	Series 2013		Total
First Senior Current Interest Bonds First Senior Capital Appreciation Bonds	↔	110				€	110
Second Senior Current Interest Bonds Second Senior Capital Appreciation Bonds	4	275	265	250	1 1		790 820
Subordinate Current Interest Bonds Subordinate Capital Appreciation Bonds		110	1 1		301		411
Junior Lien Bonds	****	1	•	•	825		825
Par Amount of Bonds Issued Investment Earnings	€	769	534	527	1,125	↔	2,956
Total Sources	\$	2776	540	534	1,125	ક્ક	2,976
Deposits to Metrorail Construction Fund DTR and Corridor Capital Improvements	€9	590	481	475	1,087	<del>69</del>	2,633
Debt Service Reserves and Issuance Costs		98	09	59	38		243
Total Uses	S	9//	240	534	1,125	<del>G</del>	2,976

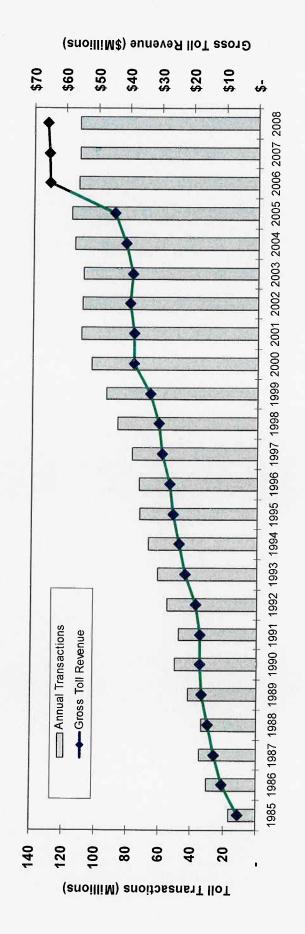
Approximately \$2.9 billion of DTR debt is expected to be issued over the next five years. Nearly half of that (\$1.3 billion) may be sold over the next 18 months.

### DTR Revenue Required to Support Anticipated Bond Issues



and \$220 million by 2020 to cover potential debt service costs. Gross toll revenue collected on the DTR will need to increase from approximately \$65 million in 2008 to \$87 million in 2010

# DTR Toll Transaction and Revenue History



The 2005 toll rate increase and the emerging recession have contributed decline in annual toll transactions over the last three years. to a

# Options to Produce Required DTR Revenue

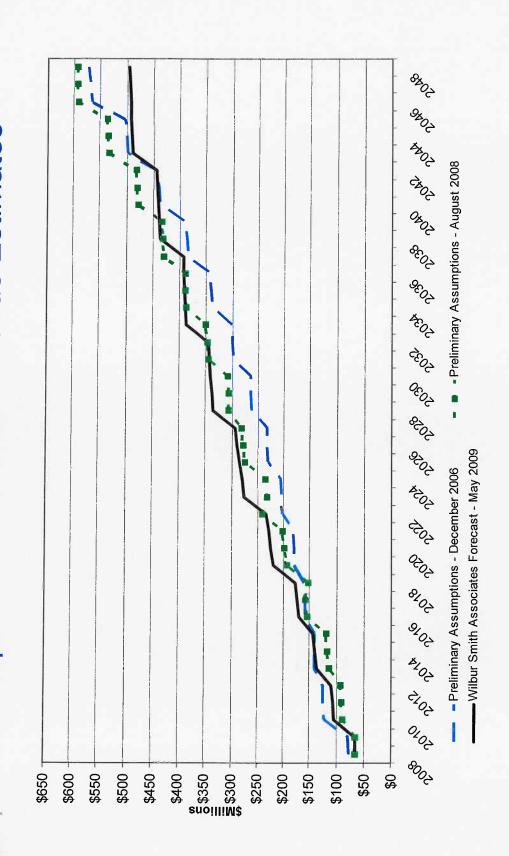
		Toll R	Toll Rate Option 1		
		Mainline Toll Rate	Ramp Toll Rate	Average Toll Rate	Gross Toll Revenue * (\$Millions)
2009		\$0.75	\$0.50	\$0.60	\$ 64.98
2010	75¢ / 25¢	\$1.50	\$0.75	\$1.04	100.68
2011	- / -	\$1.50	\$0.75	\$1.04	103.87
2012	- / -	\$1.50	\$0.75	\$1.05	107.14
Total					\$ 376.67

		Toll R	Toll Rate Option 2		
		Mainline Toll Rate	Ramp Toll Rate	Average Toll Rate	Gross Toll Revenue * (\$Millions)
2009		\$0.75	\$0.50	\$0.60	\$ 64.98
2010	25¢ / 25¢	\$1.00	\$0.75	\$0.85	87.41
2011	25¢1 -	\$1.25	\$0.75	\$0.97	97.13
2012	25¢1 -	\$1.50	\$0.75	\$1.10	107.10
Total					\$ 356.62

Two toll rate schedules are under consideration for the period 2010 to 2012.

\* Source: Wilbur Smith Associates, May 2009

### Comparison of Annual Revenue Estimates METROPOLITAN WASHINGTON AIRPORTS AUTHORITY



### Toll Rate Setting Process

- June 23, 2009: Dulles Corridor Advisory Committee Meeting
- 8-member committee will meet publicly to discuss potential toll rate increases
- July 15, 2009: Joint meeting of Airports Authority Finance Committee and Dulles Corridor Committee
- Proposed toll increase recommendations presented by Airports Authority staff to the Committees
- Late Summer 2009: Public Hearings
- Hearings held in public venues to inform and solicit input on proposed increases



- hearings, for the public to learn about and provide input on proposed July 2009 - October 2009: Opportunities, in addition to public increases (e.g., website, e-mail)
- October 2009: Joint meeting of Airports Authority Finance Committee and Dulles Corridor Committee
- Report on public hearings is presented; final staff recommendation presented to the Committees
- November 2009: Airports Authority Board Meeting to determine toll increases (for 2010 through 2012)

### Conclusions

demonstrated a strong and continuous commitment to financing and constructing the Dulles Corridor Metrorail Project and The Airports Authority and its funding partners have making improvements to the Dulles Corridor.

is the issuance of approximately \$2.9 billion of Dulles Toll Road A key component of the financing plan for the Metrorail Project revenue bonds over the next five years.

anticipated amount of toll revenue debt, the Airports Authority To generate sufficient gross toll revenue to support the will need to increase toll rates.

### Conclusions, continued

An initial toll increase in 2010 of \$0.25 at the mainline toll plaza and \$0.25 at the ramp toll plazas will be consistent with the Commonwealth Transportation Board's original plans.

The initial increase, together with additional increases of \$0.25 required toll revenue and help to establish an investor base for at the mainline toll plaza in 2011 and in 2012 will generate the future Dulles Toll Road revenue bond issues.