

**COMPREHENSIVE MONTHLY REPORT**

**November 2010**

**Dulles Corridor Metrorail Project  
Extension to Wiehle Avenue**  
Metropolitan Washington Airports Authority  
Washington, DC

January 4, 2011

**PMOC Contract Number:** DTFT60-09-D-00016

**Task Order Number:** 002, **Project Number:** DC-27-5142, **Work Order No.** 01

**OPs Referenced:** 01, 25

**Hill International, Inc.**

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**PMOC Lead:** [REDACTED]

**Length of Time PMOC Assigned to Project:** 10.0 years

**Length of Time PMOC Lead Assigned to Project:** 3.0 years

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## EXECUTIVE SUMMARY

The Project Management Oversight Contractor (PMOC) met with Metropolitan Washington Airports Authority (MWAA) on December 2, 2010 to conduct a monthly progress meeting for work performed in November 2010. The full time on-site PMOC attended various project meetings and site tours throughout this reporting period. Future PMOC monthly progress meetings are planned to occur during the first week of each month.

### 1. Project Description

MWAA, in cooperation with the Washington Metropolitan Area Transit Authority (WMATA), proposes to implement a 23.1-mile rapid transit system in the Dulles Corridor of Northern Virginia. The proposed corridor follows the alignment of the Dulles International Airport Access Highway (DIAAH) and the Dulles Toll Road within Fairfax County, and the Dulles Greenway, a private toll road in Loudoun County. The Project (Initial Operating Segment) undertakes the construction of the initial 11.7-miles of the rail project from the existing Metrorail Orange Line just east of the West Falls Church (WFC) Station to a station to be constructed at Wiehle Avenue with a total project cost of \$3.142 billion. Included in the Project are five new stations (Tysons East, Tysons Central 123, Tysons Central 7, Tysons West and Wiehle Avenue), improvements to the existing yard at WFC, and tail tracks beyond the Wiehle Avenue station. Sixty-four additional rail cars are required to provide service for the Project. Based on the Full Funding Grant Agreement (FFGA), the Revenue Operations Date (ROD) is December 1, 2014. The Federal New Starts share is \$900 million for the Initial Operating Segment (extension to Wiehle Avenue). Through Federal fiscal year (FY) 2010, Congress has appropriated \$364 million in Section 5309 New Starts funds and \$77.3 million in American Reinvestment and Recovery Act (ARRA) Capital Investment funds. (The FTA awarded \$21,281,890 in STP funds for VA-95-X056 on September 2, 2010 and \$85,000,000 in New Starts Funds for VA-03-113 on September 23, 2010. On December 27, 2010 the FTA announced that it was advancing \$19.799 million in New Starts funding for the Project.)

The Project Map is located in Appendix B.

### 2. Project Status Summary

The PMOC met with MWAA on December 2, 2010 to conduct a monthly progress review meeting. The status information is as of November 25, 2010, unless otherwise noted.

- **Real estate acquisition** continues to keep ahead of construction requirements, often resorting to rights-of-entry (ROE) to gain access to required parcels.
- **Rail car Procurement** moved forward with the July 27, 2010 contract award by WMATA to Kawasaki. The manufacturer's proposed schedule showed the 64<sup>th</sup> car would be delivered by September 12, 2014 based on a July 12, 2010 notice to proceed (NTP). WMATA provided Notice-To-Proceed (NTP) on August 16, 2010. *The 7000 Series Car procurement is now in the Conceptual Design Phase which is anticipated to be completed in January 2011, followed immediately by the Preliminary Design Phase of the procurement. WMATA committed by*

*letter dated December 3, 2010 to provide necessary vehicles from the existing fleet to support the Project's Revenue Operations Date.*

- **Design progress** continues to lag behind the baseline schedule but currently does not affect construction progress. Final Design of the stations was originally anticipated to be completed by the end of the third quarter of 2009. Final designs for all station structures have been completed and submitted for permitting by VDOT and DGS. Anticipated overall design completion of the five stations through "Issued for Construction" (IFC) drawings has *now slipped to the first* quarter of 2011. The associated pavilions and pedestrian bridge alignments are subject to coordination with adjacent developers who have requested design changes to accommodate their development plans. The PMOC anticipates that MWAA will execute agreements with the developers to reimburse the Project for these additional costs. Overall project design is at 95% complete as of the end of *November* 2010. The delay in project design does not appear to have adversely impacted the schedule's critical path at this point in time since *DTP* is submitting permit packages in the order dictated by construction sequencing.

On September 13, 2010, Mr. Nowakowski of the Airports Authority and Mr. Kubicek of WMATA met to discuss the status of WMATA's reviews of ATC design documents. During this meeting, WMATA agreed to re-engage in the ATC design review process provided that MWAA would direct DTP to hire an independent third party consultant to review Alstom's safety analysis of the Generation 4 track circuit modules proposed for use on the Dulles Extension. MWAA agreed and provided a scope for this independent review and analysis which WMATA has approved. Impact on the project schedule is not yet known. However, MWAA reported that DTP/Alstom had previously been directed to continue with the ATC design effort despite WMATA's failure to review and comment on the design submittals. Therefore, there should be no impact on the schedule as long as this independent analysis does not lead to a redesign effort. MWAA expects to bring this independent reviewer on board in *mid December* 2010. WMATA re-engaged in the ATC submittal review process in mid October 2010. *However, it was learned during this progress meeting that WMATA has intentions of issuing a sole source contract to AnsaldoSTS to replace its Generation 2 Alstom circuits. It is not yet known how this will affect the plan to use Alstom Generation 4 circuits on the Dulles extension following a successful third party review of the circuit since WMATA has not communicated any of this with MWAA.*

- **Construction progress** is broken into two components: utility relocation (UR), which is 99% complete and design-build (DB) construction, which is approximately 25% complete. *A significant accomplishment for November was the completion of the IB mining work on the NATM tunnel on November 29, 2010. In addition, waterproofing of the deck of the W&OD Bridge was completed as was the pouring of concrete for the deck of the Hunter Mill Road Bridge.*

The final Route 7 road shifts are expected to occur in January 2011 to permit complete station and guideway construction in the median.

The O-1 Guideway is approximately 83% complete. The Tysons East Guideway/Station is approximately 68%. The NATM Tunnel is approximately 55% complete with the contractor

completing *excavation* of 1,670 of 1,670 feet for the Outbound (OB) track and 1,686 of 1,686 feet for the Inbound (IB) track. *OB breakthrough occurred on October 21, 2010 and the IB breakthrough occurred on November 29, 2010.* Tysons East Station is approximately 18% complete and Tysons Central 123 Station is approximately 16% complete. The Wiehle Avenue Station is approximately 20% complete. The pre-cast yard has cast 1,601 of 2,600 concrete box girder segments and station girders to date.

- **The Schedule** showed a *one day gain* with the most current analyzed update schedule (data date of *October 25, 2010*) showing a total -97 calendar days (-98 in the *September update*) variance from the approved baseline schedule. This results in a projected ROD of *March 19, 2014.* However, DTP's *November* schedule update, which has not yet been analyzed, reflects a *fourteen day loss* for a -111 calendar day delay. *The FFGA ROD is December 1, 2014.* MWAA continues to note that it does not agree with the critical paths presented by DTP as being reflective of the actual critical path of the Project. MWAA and DTP continue to meet regularly to review and discuss DTP's recovery schedule, which was submitted to MWAA on July 26, 2010 with a Request for Change RFC-112 Rev. 0 entitled "Design-Build Acceleration for Delays through June 25, 2010." DTP submitted a recovery schedule on August 12, 2010 with an updated request for Change RFC-112 (Rev.1) entitled "Design-Build Acceleration for Delays through June 25, 2010." RFC-112 provided a recovery schedule that will mitigate ninety-one days of delay to the Project SSCD. The RFC included an acceleration cost of \$23.7 million. The RFC was rejected by MWAA in August. However, MWAA continues to negotiate with the goal of reaching a mutually agreed recovery plan.

*The PMOC is concerned that the Contract Completion Date may be in jeopardy at this time due to the continued disagreements between MWAA and DTP relative to the monthly schedule updates.* The Project needs to *increase* its efforts to resolve disagreements relative to the *mainline and West Falls Church Yard (WFCY) critical path, logic and delay issues* in order to minimize the risk of irretrievable schedule creep leading to costly schedule compression or at least to minimize constructive acceleration costs. *MWAA has hired an independent consultant to perform an in-depth assessment of the project schedule.* UR work is nearly complete. However, *DTP's November schedule update (not yet analyzed) shows that UR activities are again imposing delays to construction of at least one pier on the Tysons West Guideway and that the WFCY yard completion has fallen further behind to February 7, 2014.* It continues to be the PMOC's opinion that the design related permit issues will be resolved within the next few months. However, *confidence that schedule recovery will occur during the fourth quarter of 2010 and into the first quarter of 2011 has now eroded.*

- **Budget** status as of *October 25, 2010* indicates that \$945,150,309 (30 %) has been expended of the \$3,142,471,634 budget total. MWAA reports \$92,781,986 of the available contingency for the first three contingency milestones has been utilized with a remaining balance of \$46,218,014 available through the completion of stations design and utility relocation work, which are expected to be completed by *February 2011 and December 2010, respectively.*

The PMOC *now agrees* that the Phase 2 contingency milestone has been achieved. *On November 19, 2010 MWAA resubmitted documentation on Phase 2 Contingency that is*

*acceptable to the PMOC. The PMOC requested that MWAA finalize this document and submit it for the record. MWAA's estimate of the earned value for the Project through October 2010 is 41.35%.*

### **3. PMOC's Assessment of Project Status**

All utility relocation efforts relating to the upcoming Route 7 road shifts in the Tysons West Station area have been completed. The remaining utility companies are expected to complete their work in *early December 2010*.

The Full Time Equivalent (FTE) total for *November* is *1,736*, which is an increase from *October* of *21* and appears to provide suitable support to the scheduled activities. The pre-casting facility continues to produce pre-cast concrete girder segments and long line station segments in advance of their erection schedule.

Piers Re-Use Testing Reports and Program Status: The DTP Inspection and Test Program Final Report for the existing pile foundations in the K-Line Tie-in area has been completed by DTP and reviewed and accepted by the Project Team. The CTI report of the monitoring of the DTP inspection and test program has also been completed. In addition, MWAA/QA conducted an audit of the associated pier design and the test findings to verify incorporation of the existing pier inspection and test program results into the final pier designs. Both final reports and the accepted audit report were submitted to the FTA, PMOC and WMATA for review on October 19, 2010. *The PMOC found the report to be full and comprehensive and that the test program accomplished its mission. The PMOC is in agreement with the report's conclusion that the existing piers are suitable for re-use. Follow-up continuity testing for piles and rebar for three pier foundations (along with their newly constructed piers 5-IB, 7-IB and 2-OB) that were expanded following the existing foundation test program revealed cabling flaws with the new construction on the existing foundations. Corrective action is on-going in November and early December with a full report to follow.*

MWAA submitted its draft PMP, Version No. 7, to the PMOC on September 3, 2010. The PMOC is currently reviewing the updated plan. The PMOC's review report was submitted to the FTA on November 4, 2010, and the review resulted in six recommendations for revisions to the PMP. *MWAA is currently incorporating the recommendations which it expects to complete in late December 2010.*

# MAIN REPORT

## 1. Grantee's Capabilities and Approach

### a. Technical Capacity and Capability

The PMOC prepared a Spot Report of Grantee Technical Capacity and Capability dated January 10, 2008 as part of the PMOC's effort to evaluate the Grantee's readiness to enter Final Design. The conclusion was that the MWAA project staff assigned to the Project was qualified. However, the MWAA direct staff was very thin with many project responsibilities assigned to MWAA's consultant team, Project Management Support Services (PMSS) team. The PMOC recommended that the Grantee add several staff positions and that reporting protocols be enhanced to ensure important project status information is shared in a timely manner with the Federal Transit Administration (FTA) and the PMOC. MWAA has adopted the recommendations and augmented their staff.

In September 2009, MWAA reorganized by implementing an integrated project management organization consisting of MWAA and PMSS staff. However, the personnel involved remained the same as was evaluated in the January 2008 Technical Capacity and Capability Report. It is the PMOC's opinion that the staffing levels and technical capabilities are still adequate.

Upon completion of the project, WMATA will become the operator of this extension to their system. WMATA personnel have been active participants in the project.

### b. Project Controls

MWAA has procedures in place with regard to monitoring and controlling project scope, quality, schedule, cost, risk and safety. It is the PMOC's observation that MWAA continues to monitor and control the project in accordance with their procedures.

The updated project schedule, with a data date of October 25, 2010, reflects a -97 calendar day variance with the contractor's baseline schedule with a Revenue Operations Date (ROD) of December 4, 2013. The current variance would result in a ROD of March 11, 2014. *MWAA has fully analyzed the October 25 update and has reported that it continues to disagree with the critical path and the degree of delay. DTP's most recent schedule update submission with a data date of November 25, 2010 (not yet analyzed) reflects a -111 day delay.* It is the PMOC's observation that MWAA continues to carefully scrutinize the schedule update submissions and meets with the contractor within two weeks of the schedule submission to discuss their observations and to discuss mitigation strategies with DTP. MWAA and DTP met weekly during the month of *November* to review DTP's recovery schedule, which was submitted to MWAA on July 26, 2010 with a Request for Change RFC-112 Rev. 0 (Rev. 1 submitted August 12, 2010) entitled "Design-Build Acceleration for Delays through June 25, 2010." RFC-112 provides a recovery schedule intended to mitigate ninety-one (91) days of delay to the forecast Project Substantial Completion. The RFC included an acceleration cost of \$23.7M. The RFC was rejected by MWAA in August. Discussions between MWAA and DTP continue at the executive level with regard to a recovery schedule. *Even though the November 25 schedule*

*update has not yet been analyzed, it is apparent that other UR and weather delays have since occurred and circumstances continue to change, affecting the Critical and Near Critical Paths and compounding the overall schedule criticality. It is therefore the PMOC's opinion that a prompt resolution of this RFC is crucial.* The FFGA ROD is December 1, 2014.

MWAA continues to monitor expenditures to date and update the estimate at completion. Through *October 25, 2010*, MWAA has utilized \$92,781,986 of the Phase 1, Phase 2 and Phase 3 allotted contingency of \$139,000,000.

The Quality Assurance (QA)/Safety group maintains an active schedule of audits and surveillances and accident data. Through *November 2010*, of the cumulative total of 4,489,391 hours worked, there has been one lost time accident. Revision 4 of the SCIL was issued by DTP on *November 24, 2010*. MWAA is currently reviewing the revision and expects to provide full approval.

DTP submitted revisions to the System Safety/Security Management Plan and DTP Procedures PPQ 01.06.02, Development and Maintenance of the Safety/Security Certifiable Items List and PPQ 01.06.03, Design Conformance Certification on August 16, 2010. Comments have been received from WMATA and actions have been taken to address and resolve these comments by both the Airports Authority and DTP. A meeting with MWAA, DTP and WMATA was conducted on November 3, 2010 and necessary changes to the document were agreed upon. The revised plan and procedures were resubmitted on *November 23, 2010*. MWAA anticipates that these documents will be accepted in early December. MWAA continues to monitor the risk status and reports this information on a monthly basis.

### **c. Compliance**

It is the PMOC's observation that MWAA continues to follow the required statutes, regulations and agreements.

MWAA submitted the required Record of Decision Mitigation Report to the FTA on November 2, 2010 for the third quarter of CY 2010.

FTA and the PMOC continue to review the May 19, 2010 submittal on proposed changes to Record of Decision mitigation measures at the Wiehle Avenue Station, primarily due to the joint development project proposed for that location. FTA submitted additional questions in September and is awaiting a response from MWAA and Fairfax County. MWAA expects to provide a consolidated response to the questions in early December.

## **2. Project Scope**

### **a. Design Status**

Work continues on the completion of designs, with *permit approval of station designs and WMATA approval of ATC submittals* continuing to lag. The problems with regard to stations *permit approvals* are due to a combination of poor quality control of the documents, *submittal of incomplete packages, and code interpretation by the designer which differs from that of the AHJ*



*on several specific issues. MWAA continues to stress to DTP the need for better quality control of their permit submittals.*

Efforts are also continuing by WMATA to improve their design review cycle times. Overall, design for all five stations is complete. However, preparation of the “Issued for Permit” (IFP) and subsequent “Issued for Construction” (IFC) drawings is proving to be a protracted process. Anticipated issuance dates for IFC design packages continue to change from month to month. As of *November 25, 2010*, the completion dates for all five station design packages with issuance of “Issued for Construction” (IFC) drawings have been further delayed to *early January 2011*. The associated station pavilion and pedestrian bridge designs are anticipated in early February 2011. Issuance of completed IFC design packages has not impacted the project’s critical path, due in part to DGS continuing to assist with the permitting of partial packages. However, various design packages continue to accumulate negative float on the Project schedule.

## **b. Bidding and Construction Status**

Through *October 2010*, \$231,673,253 of the \$437,278,511 Federal Allowance Items Budget had been awarded to subcontractors and suppliers. An \$11,870,978 overrun now exists for the 10 of 31 sub-contract packages awarded thus far for federally-funded allowance items.

Utility relocation is 99% complete and DB construction is approximately 25% complete. All utility relocation efforts relating to the remaining Route 7 road shifts in the Tysons West Station area have been completed. *However, DTP reported in its November schedule narrative that MCI cable and conduit conflicts are delaying caisson work for pier 5 on the Tysons West Guideway in the Route 7 median.* The remaining utility companies are expected to complete their last bit of work in *December 2010*. Facchina is now preparing the new roadway for the remaining Route 7 road shifts scheduled to be *completed in January 2011*.

The following are the major accomplishments of the DB contractor during *November 2010*:

- **Operations Areas OP-1, OP-2 and OP-3 (I-66/DCR/Laydown Area 1)** – *Continued with approach walls at abutment A-IB and B-IB. Set steel guideway girders at spans 2-IB, 3-IB, 4-IB, 5-IB, 5-OB, 6-OB and 7-OB for a total of twelve completed to date. Continued forming and pouring track way decks. Poured track way decking at spans 11-OB, 13-IB, 14-IB, 15-IB, 16-IB, 17-IB and 18-IB for a total of sixteen completed to date. Continued construction retaining walls and storm drains west of Magarity Road. Started invert slab installation at the first phase of the WFCY Cut and Cover Tunnel. Continued jack and bore crossings at the DCR and at TPSS #2. Commenced clearing work at the TBS #2 site.*
- **Operations Area OP-4/5A (Tysons East Guideway/Station/I-495 Crossing)** – *Completed pile caps at piers 36-OB, 36-IB, 39-OB, 40-IB, 41-IB, 63-IB and 62-OB for a total of sixty-nine completed to date. Poured columns at piers 27-IB, 27-OB, 29-OB, 36-OB, 36-IB, 38-IB/OB, and 39-OB for a total of eighty-one completed to date. Poured caps at piers 27-OB, 27-IB and 61-OB for a total of fifty-seven completed to date. Completed mezzanine beams at piers 34-IB/OB and 35-IB/OB for a total of six completed to date. Continued segmental box girder guideway erection with Truss 1, completing*

*spans 11-IB, 11-OB, 12-IB and 12-OB for a total of twenty-four to date. Continued with span 13-IB. Continued with construction of straddle bent 15. Continued segmental box girder erection with Truss 2, completing spans 55-IB, 55-OB and 58-IB for a total of seven completed to date. Continued with span 58-OB.*

- **Operations Area OP-5 (Tysons Central 123 Station)** – *Completed caissons at piers 67-IB and 70-IB for a total of seventeen completed to date. Completed pier columns at piers 73-OB, 74-IB and 74-OB for a total of seventeen completed to date. Continued pouring structural foundation slab along with floor drains and piping.*
- **Operations Area OP-6 (Laydown Area #6/NATM Tunnel/East Cut & Cover and Ventilation Structure)** - *Completed excavation of the IB tunnel with a total of 1,686 feet. Continued shotcrete liner in the OB tunnel in preparation for the invert slab and waterproofing installation.*
- **Operations Area OP-6 (West Cut and Cover Tunnel)** – *Continued pouring invert slabs at stage 1B and continued excavation and SOE at stage 2a.*
- **Operations Area OP-7 (Tysons Central 7 Station)** - *Excavation continues for the station as does pile driving for station foundations. Completed piles for TPSS #5 and continued installing storm drains and pouring mud mats.*
- **Operations Area OP-8 (Tysons West Station/Guideway)** – *Storm drain installation and grading work continues between Westwood Center Drive and the Toll Road. The westbound Route 7 road shift was completed between Ernst & Young and Spring Hill Road. Completed caissons at piers 4-IB/OB, 23-OB, 24-OB, 25-OB, 28-OB, 29-OB and 31-IB/OB for a total of thirty-one completed to date. Completed pile caps at IB/OB piers 43, 44, 45, 46 and 51 for a total of eight completed to date. Completed columns at IB/OB piers 45, 46, 52, 53 and 54 for a total of five completed to date.*
- **Operations Area OP-9 (DIAAH)** – *Completed waterproofing of the W&OD Bridge deck. Completed pouring the Hunter Mill Road Bridge deck. Construction of pile caps at the intermediate piers at Difficult Run Bridge continues. Continued with retaining wall and storm drain construction on the OB and IB sides between Hunter Mill Road and east of Difficult Run. Placing of track subgrade and track drainage continues between Wiehle Avenue and Hunter Mill Road. Grading work at Pond #6 continues.*
- **Operations Area OP-10 (Wiehle Avenue Station/Laydown Area 13)** - *Forming and pouring deck slabs continues. Pile cap construction is completed. Pouring of station IB and OB outboard columns continues. Setting of mezzanine structural steel started at the east end of the station.*
- **Laydown Area #10 (Pre-cast Yard)** - *Continued casting of segmental box girders, completed 1,601 to date.*

## b. Third Party Coordination & Agreement Status

All Intergovernmental Agreements and Agreements with utility companies were executed prior to the FFGA.

## d. Real Estate

Real Estate Acquisition continues to keep ahead of construction requirements, often resorting to ROE to gain access to required parcels. Through *November* 2010, 65 of the 99 parcels required for the Project have been acquired. The table below summarizes acquisition activities for the Project through *November* 2010 which remains unchanged from *October* 2010.

### PARCELS ACQUIRED<sup>1</sup> (Number of parcel packages)

LOCATIONS	TOTAL	Period			To Date		
		Planned <sup>2</sup>	Actual	Var	Planned <sup>2</sup>	Actual	Var
Route 66 / Dulles Connector	1	0	0	0	1	1	0
Route 123	23	0	0	0	20	19	(1)
Route 7	51	0	0	0	42	38	(4)
DIAAH	24	0	0	0	11	7	(4)
<b>TOTAL</b>	<b>99</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>74</b>	<b>65</b>	<b>(9)</b>

Notes: 1. Parcels secured through recordation of deed/easement and filing of Certificates of Take. These values include rights obtained for another 28 parcels for which Certificates of Take have been filed.  
2. Planned values are based on the March 31, 2010 Property Acquisition Status Update.

## Condemnation Status

A total of twenty-eight parcel packages have been obtained with the filing of twenty-four Certificates of Take. In *November*, the *major* case scheduled for trial in *November* for 2 parcels was held and completed with a favorable result for the Project. The landowner for these 2 parcels has the right to appeal through most of *December*. In addition, one new trial was scheduled, bringing the current total to five scheduled. A total of 18 Certificates of Take remain in process. The finalization timeframes are estimates as the length of a condemnation process for different cases varies substantially and is difficult to predict with accuracy. Trials scheduled as of November 30, 2010 are:

Parcel 30, Whisper Capital (Best Buy) – March 14, 2011,  
Parcel 32, CDC, LP (8500, Clemente) – April 4, 2011,  
Parcel 33, Office Depot – April 18, 2011  
Parcel 21, Trulies/Marshalls – April 18, 2011.

**e. Utility Coordination**

The various utility companies continue to relocate their facilities for the project. Utility coordination meetings are held with the various utilities to schedule and coordinate work. Specific utility relocation work completed in *November* 2010 includes the following:

- **Along Route 7 (123 Overpass to Marshall’s)** – All work completed.
- **Along Route 7 (Marshall’s to Gosnell/Westpark)** – MCI continues splicing/cutover.
- **Along Route 7 (Gosnell/Westpark to Spring Hill Road)** – No remaining conflicts.
- **Along Route 7 (Spring Hill Road to Tyco/Westwood)** – MCI continues splicing and cutovers on the north side of Route 7. AboveNet continues splicing and cutover work on the north side of Route 7.
- **Along Route 7 (Tyco/Westwood to Route 267/Toll Road)** – AboveNet *completed cable installations and splicing on the north side of Route 7 at Koon’s Toyota*. MCI continues with splicing and cutover work.
- **Along Route 123 (Route 7 to the Route 267 Connector Road)** – AboveNet continues relocation work at Route 123 and Scotts Crossing.
- **The DIAAH/Dulles Toll Road/Dulles Connector Road (Route 7 to Route 267 – DIAAH West)** – DTP/Lane continues the installation of the traction power ductbanks on the Dulles Connector Road *median and pipe liner installation in storm drain culverts*. Washington Gas *completed* split sleeve installation on existing gas lines near the K-Line.

**f. Vehicle Procurement**

WMATA is *procuring* the additional 64 rail cars required for the project. WMATA is *procuring* 300 additional cars under the same *contract*. The WMATA Board approved the award of a contract and a sharing of development costs with MWAA at its May 27, 2010 meeting. The MWAA Board agreed at its June 2, 2010 meeting to share the development costs associated with the railcar procurement equally with WMATA.

Rail car procurement moved forward with the July 27, 2010 contract award by WMATA to Kawasaki. The manufacturer’s proposed schedule showed the 64<sup>th</sup> car would be delivered by September 12, 2014 based on a July 12, 2010 notice to proceed (NTP). WMATA issued Notice-To-Proceed (NTP) on August 16, 2010. *The contractual milestones for this procurement are:*

	<u>Forecast Date</u>	<u>Actual Date</u>
<i>Notice to Proceed</i>		<i>August 16, 2010</i>
<i>Delivery of 4 Pilot Cars</i>	<i>September 16, 2013</i>	
<i>Conditional Acceptance of Pilot Cars</i>	<i>March 16, 2014</i>	
<i>Conditional Acceptance of 64<sup>th</sup> Car</i>	<i>January 15, 2015</i>	

A kick-off progress status meeting between WMATA, MWAA, and the PMOC was conducted on October 28, 2010 *for the purpose of monitoring this procurement. The PMOC also attended the Monthly Progress Review meeting held between WMATA and the Car builder on December 9, 2010.*

These *progress status* meetings are a concerted effort *by the PMOC* to ensure that either the new railcar procurement schedule is improved or that arrangements are made in advance to support the Project's Operational Readiness Date with existing fleet cars. *On December 3, 2010, WMATA confirmed in a letter to MWAA that "sufficient resources, including railcars, will be available to support dynamic testing and initial revenue service in accordance with the Project's current schedule". WMATA went on to say that cars from the existing fleet will be made available for dynamic testing. If there is a gap in the delivery of the 7000 Series Rail Car delivery and the revenue service date, WMATA outlined its strategies for being able to support initial revenue service using the existing WMATA fleet. The PMOC will continue to monitor both the progress of the procurement and WMATA's support of the project.*

*The procurement is currently in the Conceptual Design Review (CDR) phase, which is expected to continue through January 2011. This is slightly behind WMATA's original schedule, however WMATA has noted that the submittals are more detailed than expected, being closer to what is expected for Preliminary Design Review (PDR). As a result, some level of PDR work has already taken place and the design development is proceeding at the expected rate.*

#### **g. Safety and Quality Status**

The Airports Authority participated in *four* safety walk downs with DTP during the month of *November*. All were related to Design-Build work. As of *November 30, 2010*, DTP had logged a total of 4.48 million project man-hours with *140* first aid cases and one lost time case. There have been a total of *230* incident investigation reports, *79* utility hits and *15* vehicular accidents.

Revision 3 of the SCIL was issued by DTP on August 3, 2010. MWAA transmitted comments, including comments from WMATA, to DTP on August 26, 2010 and the SCIL, Revision 3 was "Accepted as Noted." DTP *addressed* the remaining comments and Revision 4 to the SCIL *was submitted on November 24, 2010. MWAA/QA expects to provide full approval in early December 2010.*

DTP and the Airports Authority continue to meet every two weeks to review the status of issued for construction designs (including subcontractor designs) and to determine the status of sign-offs of the Design Conformance Checklist (DCC) items related to all issued for construction designs. A DCC was submitted for MWAA's review on September 2, 2010 with seventy items signed off. Additional information was requested *and received* by MWAA. *Its review was completed and comments were transmitted to DTP on November 5, 2010 with forty-nine items accepted. The acceptance of another eleven items was deferred pending issuance of "Issued for Construction" associated design drawings and ten items were not accepted. DTP submitted another DCC on December 2, 2010. A*

Construction/Procurement/Installation Conformance Checklist was received on October 4, 2010 with six items signed off and is currently being reviewed. MWAA will transmit final comments on *this* checklist to DTP in *mid December 2010*. Regular weekly visits to work sites by safety representatives from DTP, the Airports Authority and WMATA *continue*.

WMATA is implementing a procedure that involves potential selection of additional items from a checklist population for Airports Authority review in addition to those chosen randomly by the Project team for review. These items will be safety critical items selected on a “judgment” basis by WMATA Safety. That process will likely *commence in December 2010*. The Tri-State Oversight (TOC) and the FTA’s on-site PMO representative continue to meet monthly with the Safety/Security Certification Working Group and continue ongoing involvement in the certification process.

DTP submitted revisions to the System Safety/Security Certification Management Plan and DTP Procedures PPQ 01.06.02, Development and Maintenance of the Safety/Security Certifiable Items List, and PPQ 01.06.03, Design Conformance Certification, on August 16, 2010. Comments have been received from WMATA and actions have been taken to address and resolve these comments by both the Airports Authority and DTP. A meeting with MWAA, DTP and WMATA was conducted on November 3, 2010, and necessary changes to the document were agreed upon. The revised plan and procedures *were* resubmitted on November 23, 2010. *It is anticipated that these documents will be accepted in early December 2010*.

MWAA’s QA group continues to monitor DTP’s quality program and maintains a schedule of audits and surveillances. In addition, MWAA continues to perform safety walkdowns with DTP.

During *November 2010* MWAA performed the following QA audits/surveillances:

- *Dubrook Concrete QA/QC Program: Surveillance was conducted on the subject program on November 3, 2010. There were no issues and the audit is closed.*
- *DTP Sub/Supplier Submittal Process: DTP/Subcontractor Nonconformance Control Systems. Surveillance was conducted on the subject program on November 17, 2010. Two issues were documented and a response is due in early December.*

**The MWAA QA Audit and Surveillance Schedule through June 2011**

<b>Tentative Date</b>	<b>Audit (A) Surveillance (S)</b>	<b>Organization/Activity</b>	<b>Joint Audit/ Surv.</b>	<b>Lead</b>
12/08/10	S	DTP Subcontractor Safety Program	N	MWAA
1/5-6/11	A	<i>DTP Environmental</i>	<i>N</i>	<i>MWAA</i>
<i>TBD</i>	A	<i>ADCo, Rochester, NY (Alstom ATC Subcontractor –Relays)</i>	<i>Y</i>	<i>DTP</i>
<i>1/19-20/11</i>	A	<i>Flippo Construction (Wayside Facilities Subcontractor)</i>	<i>Y</i>	<i>DTP</i>

<b>Tentative Date</b>	<b>Audit (A) Surveillance (S)</b>	<b>Organization/Activity</b>	<b>Joint Audit/ Surv.</b>	<b>Lead</b>
2/2-3/11	A	Lane Construction (Early MEP)	Y	DTP
2/15-16/11	A	DTP Acquisitions	N	MWAA
2/23-24/11	A	Facchina Construction (Segments)	Y	DTP
2/23-24/11	A	DTP Construction Safety Program	N	MWAA
3/2/11	S	DTP Sub/Supplier Submittal Process: DTP/Subcontractor Nonconformance Control Systems	N	MWAA
3/9-10/11	A	DTP Construction and QA	N	MWAA
4/6-7/11	A	CTI Consultants (Special Inspection)	N	MWAA
4/13-14/11	A	Brayman Construction (Caissons)	Y	DTP
4/27-28/11	A	DTP QA, Document Control, and Training	N	MWAA
5/4-5/11	A	DTP System Safety and Security	N	MWAA
5/11-12/11	A	Turner Construction (Shell Enclosure Trades)	Y	DTP

### 3. Project Management Plan and Sub-plans

- MWAA's Project Management Plan (PMP), Version 6.0 dated September 26, 2008 has been accepted by the FTA. The PMOC did a review of MWAA's compliance with the PMP and issued a Spot Report on December 8, 2009. MWAA updated its PMP based on the PMOC's observations and the recent MWAA reorganization to an integrated MWAA and PMSS organization. MWAA submitted its draft PMP update of Version 7.0 on September 3, 2010. This plan was reviewed by the PMOC and six recommendations were made for inclusion in the PMP. FTA forwarded the PMOC's comments to MWAA for them to address in Version 7.0 Final. *Dialogue continued between MWAA and the PMOC during November with regard to MWAA's proposed revisions relative to the six recommendations.* The PMOC's various compliance reviews performed during 2009 have found MWAA to be in compliance with their various project plans and sub-plans.
- MWAA's Quality Program Plan (QPP), Revision 6, dated June 25, 2008 was accepted by the FTA on September 19, 2008. MWAA submitted a revised QPP, Revision 7 to FTA on January 7, 2010. MWAA awaits FTA's comments on the revised plan or an indication that no comments will be forthcoming. MWAA reported that three Project Management Procedures were updated in the period from March through May 2010.
- MWAA's Real Estate Acquisition Management Plan (RAMP), Revision 2, dated September 15, 2009, has been reviewed by the PMOC with a recommendation that the FTA concur, with comments, with the revised RAMP. On January 21, 2010, the FTA provided comments to MWAA, and MWAA staff has revised Procedure PM-

3.01(Monitoring the Design-Build Contractor Property Acquisition Services) and has requested DTP to revise their Procedure PIQ-5.1.

- MWAA's Risk Management Plan (RMP) dated October 2008 has been reviewed and accepted by the FTA. The PMOC requested MWAA to begin the process to update the RMP by the end of the summer with a meeting to discuss the update to be scheduled after MWAA completes their risk plan update. MWAA is in the process of revising the RMP and submission to the PMOC is anticipated *in early January with a meeting anticipated in late January* to discuss the revised RMP.
- Since WMATA, rather than MWAA, will be the operator of the completed project the WMATA Rail Fleet Management Plan (RFMP) is the applicable document. The FTA accepted the WMATA RFMP on September 25, 2007. However, WMATA updated the RFMP to reflect the 7000 Series *Rail Car procurement* and submitted a draft copy dated February 26, 2010 to the FTA for review and comment. The PMOC issued its Spot Report on its review of the draft RFMP on March 11, 2010, finding the plan to be deficient in many areas. The FTA provided comments to WMATA on March 15, 2010 based on the PMOC's Spot Report. The PMOC met with WMATA on April 6, 2010 to review the comments on the draft RFMP. The PMOC again met with WMATA on June 2, 2010, at WMATA's request, to further discuss the comments. WMATA submitted the revised draft RFMP on September 17, 2010 and a draft Spot Report summarizing the PMOC's review findings was issued to the FTA on November 8, 2010. The PMOC held a meeting with WMATA on November 15, 2010 to review the findings. *A follow-up meeting will need to be scheduled in the near future.*
- MWAA's Safety and Security Management Plan, Revision No. 6 dated January 2009 was accepted by the FTA on January 27, 2009. MWAA submitted the SSMP, Revision 7, to the FTA on September 23, 2009. The changes in Revision 7 were minor in nature and reflected changes in personnel assignments, integration of the Fire/Life Safety Working Group with the Safety/Security Certification Working Group, and updates to schedules. Due to the minor nature of the changes, no response is expected from the FTA.
- FTA requested an update to the Appendices in the Permitting Plan on June 17, 2010. MWAA has not provided that information to date.

#### **4. Project Schedule**

The most recent MWAA analyzed project schedule update has a data date of *October 25, 2010*. The primary critical path identified by DTP reflects a -97 calendar day variance in the achievement of the SSCD from that reflected in the approved Baseline Schedule. This variance *reflected a one day improvement from that* reflected in the critical path of the *September* schedule update and yields a March 19, 2014 ROD. The FFGA ROD is December 1, 2014.

*On December 3, 2010, WMATA sent a letter to MWAA confirming WMATA will provide sufficient cars to support dynamic testing and initial revenue service for the Dulles Project. WMATA will use cars from the existing fleet for dynamic testing. If there is a gap between the*



*delivery of the 7000 Series cars and revenue service date, WMATA will make sufficient cars available from within the existing WMATA fleet to support initial revenue service.*

During the month of *November* 2010, construction continued with the Tysons West guideway; the O-1 Guideway and Tysons East corridor aerial substructure; at Magarity, Pimmit, Hunter Mill, Difficult Run and W&OD bridges; Tysons East, Tysons Central 123, Tysons Central 7 and Wiehle Avenue Stations; detention ponds at the DIAAH and West Cut-Cover Tunnel; MOT, retaining walls and storm drainage along the DCR and DIAAH; NATM tunnel work continues to progress on schedule for the inbound and outbound tunnels; the WFCY Lead Tunnel continues; Early Roadway work continues at various locations; segmental erection by launch truss #1 and launch truss #2 continues and launch truss #3 is currently being assembled.

The WFC Yard upgrade work schedule continues to reflect a completion of the full facility in January 2014. DTP stated in its May schedule narrative that this date “incorporates a number of assumptions with regards to permitting and access to perform the work. DTP continues to finalize the WFCY schedule, which will be provided in a revised RFC-065 proposal.” The WFCY work is still disconnected from the schedule’s critical path. DTP’s reason was stated in response to MWAA’s review comment on the February schedule as follows: “DTP has previously advised MWAA that the WFCY schedule will be excluded from the Project SSCD due to the delay imposed on the WFCY work. Until design progression allows for a firm schedule for this work and resolution of the commercial issues surrounding the WFCY, DTP’s position remains unchanged. Therefore, the MWAA/PMSS suggestion that the WFCY is the primary critical path is not valid.” MWAA continues to state its disagreement with DTP’s completion date in light of the incomplete WFCY scope. DTP’s June Schedule narrative states that “DTP resubmitted RFC-065 for the West Falls Church Yard schedule showing a completion in *February 2014*. DTP anticipates that a new and separate contractual completion date for the WFCY will be established independent of the Project SSCD.” It is the PMOC’s opinion that the ‘independent contractual completion date’ must still support the Project Operational Readiness Date”. During the *November* monthly meeting, MWAA reported that the schedule and costs presented by DTP are still being reviewed and that they are confident that the schedule can be adjusted to support the Project’s Operational Readiness Date.

*DTP has made numerous presentations of its West Falls Church Yard K-Line Tie-In Phase Plan to MWAA and WMATA as it continues to refine the plan. The last presentation was on November 16, 2010. It was a very detailed and informative presentation that helped to involve more key WMATA personnel who will be needed to support the tie-in and integration process. The plan outlined the necessary track outage schedule for 2011 and detailed the activities for the special trackwork installation (#10 double crossover and the two #15 turnouts) along with the automatic train control installation. DTP provided a good overview of its plan and a tentative track outage schedule was officially submitted to MWAA in October. The plan begins with a three-day track outage in January 2011 to install four new loop track 3<sup>rd</sup> rail power disconnect switches in order to manage partial power outages needed to minimize the impacts to the daily operations of the yard during the sound box construction. DTP hopes to install work area fencing within the loop track and commence clearing and grubbing in December 2010 with only nightly track outages.*

The WFCY Civil/Sitework final design was completed and issued for permit in October 2010. The S&I Building and Sound Cover Box final design is progressing. DTP has obtained the

federal permit for the necessary stream restoration. DTP also submitted its 30% Tie-in Plan to MWAA in October 2010 to include its proposed track outage plan. Five bids have been received for the early Civil Sitework subcontract and bid evaluation is ongoing. DTP forecasts award by mid-December 2010.

Bi-weekly meetings held between MWAA and DTP with regard to the schedule and schedule mitigation efforts continue to yield work-arounds and some increased work shifts, particularly with regard catch-up work related to the late UR work, VDOT MOT approvals and design package reviews. It remains the PMOC's opinion that MWAA is maintaining control over the Project master schedule, with the exception of the WFCY schedule that continues to be of concern relative to meeting the scheduled Project Operational Readiness Date (ORD). In addition, the critical path, weather delays and schedule logic issues are yet to be resolved. Also, MWAA and DTP continue to voice concern with WMATA's, VDOT's and DGS' abilities to provide timely design review comments and to issue timely permits. Improvement with VDOT's turnaround time continues to be observed. WMATA continues to lag with its submittal reviews and DGS continues to lag with its reviews and building permit issuance. MWAA has repeatedly requested WMATA to improve its support to the Project and DTP has repeatedly requested MWAA and DGS to improve its support of the Project. Also, MWAA, WMATA and DGS continue to voice concern about the quality of the DTP design packages without substantial improvement by DTP. It is the PMOC's opinion that more could and should be done by MWAA, DTP, WMATA and DGS to overcome these potentially costly delays. In October 2010, WMATA dedicated an ATC Engineer and a Communications Engineer to the DCMP Phase 1 and an Assistant Project Manager to handle DCMP Phase 2 issues. The additional staff is beginning to be an asset to the Project. Improvement with the backlog of WMATA submittal reviews is expected to continue during the months to come.

Other problem areas with potential delays identified by MWAA include the following:

- *Potential conflict with Launcher #3 erecting segmental box girders over I-495 and the on-going Hot Lanes work in the area.*
- *Utility companies meeting the project schedule.*
- *Utility company redesign/relocation due to interferences.*
- *WFCY design, construction and commissioning.*
- *Weather Delays.*
- *Inability of DTP to achieve design finalizations.*
- *A potential systemwide upgrade program by WMATA could have numerous technical scope changes impacting Traction Power, Automatic Train Control and Communications.*

#### **a. Critical Path Evaluation**

The PMOC agrees with MWAA's assessment regarding the critical path. The Project will need to continue its efforts to resolve disagreements relative to the WFC yard, critical path, logic and delay issues in order to minimize the risk of irretrievable schedule creep leading to costly schedule compression or constructive acceleration. All critical UR work related to necessary road shifts have been accomplished. DTP's early roadwork subcontractor, Facchina, Inc. continues to pursue the remaining Route 7 road shifts *expected to be completed in January 2011.*

*MWAA continues to disagree with the schedule and has contracted with an independent party to conduct an independent schedule analysis that is expected in early January 2011.*

The schedule update with a data date of *October 25, 2010* was again not agreed to by MWAA. MWAA has not agreed to the critical path in any schedule update submitted by DTP for more than a year.

*The critical path, as presented by DTP in October continues to show the origin being incomplete utility relocations which impacted the Route 7 traffic shift that creates the work zones necessary to construct the Tysons West Aerial Guideway and Tysons West Station. This is despite the fact that accomplishment was achieved with the completion of UR Program work within Operation Area 8 on October 2, 2010. This was the driving factor in completing the temporary west-bound detour of Route 7 in the vicinity of Tysons West Station which was completed on October 12, 2010 and subsequent progress was improved due to the utilization of an additional caisson crew. The Project team continues to disagree with DTP designating this path as the critical path. The Authority believes that Truss 2 will continue to set precast spans (23, 24, etc.) after setting span 22 and not be constrained by the cure time of pier 31 as currently shown in the schedule. This one 'adjustment' to the critical path results in a twelve calendar-day improvement. For this and other reasons such as inaccurate progress reporting, inappropriate ties and the need for supportable durations on a number of down-stream activities, the critical path(s) as presented by DTP are inaccurate resulting in the Project Team's disagreement with the schedule as submitted.*

*Notwithstanding the above, DTP submitted its schedule with a data date of November 25, 2010 (not yet analyzed) with a similar critical path that now reflects a -111 day delay. DTP states in its narrative that "This Critical Path involves additional utility work along the Route 7 corridor in the vicinity of Westpark Drive that was identified on or about November 8, 2010. Specifically, a UR conflict exists between an existing MCI cable and conduit and the Tysons West Guideway Pier 5 caissons being installed by DTP's subcontractor Brayman Construction Company."*

In addition, the Project team does not agree with the schedule for the WFC yard contained in DTP's *October Update*. As submitted, it reflects a completion date of January 2014 and does not fully reflect the scope reflected in the 60% Design Submittal for the Service and Inspection (S&I) Annex Building. *DTP's November Schedule update now shows the WFCY yard falling further behind to February 7, 2014.*

MWAA started a concerted effort during July to resolve the continuing disagreements with DTP over schedule updates. Although meetings have been held with the contractor, resolution of differences has not been reached. MWAA reported during the October 27 Quarterly Progress Review Meeting that their goal was to arrive at a mutually agreed upon schedule and constructive acceleration plan to regain the schedule's losses. *That goal has not been realized and does not appear to be imminent.*

*It continues to be the PMOC's opinion that the design related permit issues will be resolved within the next few months. However, confidence that schedule recovery will continue during the fourth quarter of 2010 and into the first quarter of 2011 has now eroded.*

The following table compares the milestone dates relative to the approved baseline schedule. The PMOC concurs with MWAA’s assessment of the updated schedule and expects that discussions will continue with DTP to reach resolution on the schedule. However, the PMOC is not optimistic that DTP’s goal is to reach resolution with regard to the schedule disagreement.

<b>MILESTONE</b>	<b>June 2008 Baseline Schedule</b>	<b>September 2010</b>	<b>October 2010</b>
Receipt of FFGA	<b>03/03/09<sup>1</sup></b>	03/10/09 <sup>A</sup>	03/10/09 <sup>A</sup>
Station Design Complete	<b>10/21/09</b>	01/25/11	02/01/11
Utility Relocation Complete	<b>03/05/10</b>	02/14/11	07/15/11
Aerial and Station Foundations Complete	<b>3/4/11</b>	07/06/11	07/05/11
NATM Tunnels Mined	<b>01/29/11</b>	12/28/10	12/15/10
K-Line Tie-In	<b>12/23/11</b>	04/06/12	05/23/12
Guideway Complete	<b>2/12/12</b>	10/02/12	10/4/12
Train Control Complete	<b>10/26/12</b>	01/16/13	01/23/13
Substantial Completion	<b>07/31/13</b>	11/06/13	11/5/13
Revenue Operations - Target	<b>11/27/13</b>	03/20/14	03/19/14
FFGA Revenue Operations	<b>12/01/14</b>	12/01/14	12/01/14

<sup>A</sup> Actual Date

<sup>1</sup> Date was not met. See narrative in section D.1.3.

#### **b. Important Activities – 90-Day Look Ahead**

The important milestones that are expected to be completed during the next 90 days include the following:

- Completion of stations design with issuance of IFC Drawings.
- Completion of utility relocation.
- Property acquisitions for the Tysons West Aerial Guideway (OP-8).

## 5. Project Cost

The SCC Budget and Expenditures summary for the period ending *October 25, 2010* is as follows. Overall, approximately 30.9 % of the budget has been expended through *October 25, 2010*.

FTA SCC CODE	DESCRIPTION	BASELINE BUDGET	CURRENT BUDGET <sup>1</sup>	EXPENDED TO DATE	ESTIMATE AT COMPLETION
10	Guideway and Track Elements	\$ 666,500,284	\$ 649,438,815	\$ 196,338,273	\$ 649,438,815
20	Stations	\$ 317,023,979	\$ 314,530,699	\$ 31,177,123	\$ 314,530,699
30	West Falls Church Yard	\$ 51,789,539	\$ 49,943,380	\$ 1,593,107	\$ 50,305,150
40	Site Work & Utility Relocation	\$ 232,936,987	\$ 231,369,434	\$ 127,287,402	\$ 251,703,055
50	Systems	\$ 278,157,645	\$ 281,616,298	\$ 33,092,193	\$ 280,383,520
60	Right of Way Acquisition	\$ 45,953,303	\$ 67,631,026	\$ 50,541,437	\$ 67,795,262
70	Vehicles	\$ 211,629,775	\$ 211,629,775	\$ 9,557,938	\$ 210,926,012
80	Professional Service	\$ 698,471,472	\$ 716,271,902	\$ 465,762,757	\$ 725,490,602
90	Contingency Mgmt. Reserve	\$ 130,000,075	\$ 110,055,733	\$ -	\$ 81,913,949
100	Finance Charge	\$ 509,984,571	\$ 509,984,571	\$ 29,800,079	\$ 509,984,571
<b>TOTAL (Federal portion)</b>		<b>\$ 3,142,471,634</b>	<b>\$ 3,142,471,634</b>	<b>\$ 945,150,309</b>	<b>\$ 3,142,471,634</b>

Current budget equals FFGA amount plus approved Change Orders CO-001-054 except CO-0049, Directive Letters 001-016, and UR-CO-001-033.

### a. Explanation of Variances

The major variances in the project budget are associated in four categories as noted below:

1. SCC10 – Guideway and Track Elements has been reduced approximately \$31 million due to the decision by the DB contractor to self perform the NATM tunnel work. Of this major reduction, \$18 million was transferred to SCC 80.
2. SCC40 – Site work and Utility Relocation has been increased by approximately \$19 million as a result of executed utility relocation change orders.
3. SCC60 – Right of Way Acquisition experienced nearly \$24 million increase in the right-of-way (ROW) acquisition. This was due to a single property that had been anticipated as being a dedication having to be acquired by condemnation.
4. SCC80 – Professional Services increased approximately \$28 million due to the \$18 million for design, project management and construction management of the tunnel. \$1.3 million is associated with Final Design of the tunnel and \$17.5 million is associated with Project Management and Construction Management.

The balance is primarily due to utility relocation design overruns and the design for TPSS #9 and #11 in the amount of \$1.2 million which was transferred to the non-federal portion of the project. SCC80 was increased by approximately \$4.4 million for 33 change orders and \$2.4 million for other budget transfers, as well as \$3.5 million increase for VDOT.

## b. Monthly Cost Report, October 2010

DESCRIPTION	FFGA AMOUNT (Original)	EXPENDITURE TO DATE <sup>1</sup>	ESTIMATE TO COMPLETE	ESTIMATE AT COMPLETION
<b>FEDERAL (FFGA SCOPE)</b>				
<b>Design-Build</b>				
Firm Fixed Price	\$ 1,112,052,172	\$ 501,061,307	\$ 893,602,787	\$ 1,394,664,094
Firm Fixed Price Insurance and Bonds	\$ 65,109,408	\$ 64,571,847	\$ 4,683,294	\$ 69,255,141
Firm Fixed Price Subtotal	\$ 1,177,161,580	\$ 565,633,154	\$ 898,286,081	\$ 1,463,919,235
Subcontract Allowance	\$ 430,199,817		\$ 230,549,846	\$ 230,549,846
Design-Build Contract Prices	\$ 1,607,361,397	\$ 565,633,154	\$ 1,128,835,927	\$ 1,694,469,081
Indexed Commodity Escalation	\$ 77,469,926	\$ -	\$ 57,907,009	\$ 57,907,009
Design-Build Contract Total	\$ 1,684,831,324	\$ 565,633,154	\$ 1,186,742,936	\$ 1,752,376,090
<b>Utility Relocation</b>				
Utility Work	\$ 84,312,807	\$ 79,641,479	\$ 22,595,487	\$ 102,236,966
Terf Tax		\$ -	\$ 0	\$ 0
Project Management and Final Design	\$ 8,423,426	\$ 15,880,697	\$ 96,626	\$ 15,977,323
Utility Relocation Total	\$ 92,736,233	\$ 95,522,176	\$ 22,692,113	\$ 118,214,289
<b>Right of Way</b>				
Right Of Way Total	\$ 42,443,132	\$ 50,541,437	\$ 17,253,825	\$ 67,795,262
<b>WMATA Agreement</b>				
Vehicles	\$ 195,138,329	\$ 9,557,938	\$ 184,876,628	\$ 194,434,567
Construction and Procurement	\$ 31,484,799	\$ 1,180,044	\$ 29,386,980	\$ 30,567,024
WMATA Force Account Startup	\$ 13,777,100	\$ 1,187,569	\$ 12,217,452	\$ 13,405,021
Project Management and Final Design	\$ 31,235,400	\$ 9,926,104	\$ 23,302,914	\$ 33,229,017
WMATA Agreement Total	\$ 271,635,628	\$ 21,851,655	\$ 249,783,973	\$ 271,635,628
<b>Preliminary Engineering<sup>2,3</sup></b>				
Preliminary Engineering Total	\$ 100,968,646	\$ 100,730,999	\$ -	\$ 100,730,999
<b>Airports Authority Services</b>				
General Conditions <sup>4</sup>	\$ 28,879,153	\$ 4,873,325	\$ 22,034,235	\$ 26,907,559
Airports Authority Project Management and Wiehle Ave Garage	\$ 23,225,717	\$ 15,837,130	\$ 7,863,587	\$ 23,700,717
Project Management Support	\$ 90,004,649	\$ 60,360,354	\$ 34,005,230	\$ 94,365,583
Airports Authority Services Total	\$ 142,109,519	\$ 81,070,808	\$ 63,903,051	\$ 144,973,859
<b>Contingency</b>				
Contingency Total	\$ 297,762,579	\$ -	\$ 176,760,934	\$ 176,760,934
<b>Finance Costs</b>				
Finance Costs Total	\$ 509,984,571	\$ 29,800,079	\$ 480,184,492	\$ 509,984,571
<b>Total Federal (FFGA Scope)</b>	<b>\$ 3,142,471,634</b>	<b>\$ 945,150,309</b>	<b>\$ 2,197,321,325</b>	<b>\$ 3,142,471,634</b>
<b>INTERRELATED HIGHWAY IMPROVEMENTS</b>				
<b>Design-Build</b>				
Firm Fixed Price - Engineering	\$ 5,929,082	\$ 3,866,728	\$ 23,638,975	\$ 27,505,704
Firm Fixed Price Insurance and Bonds	\$ 2,889,450	\$ 935,383	\$ 154,699	\$ 1,090,082
Firm Fixed Price Subtotal	\$ 8,818,532	\$ 4,802,112	\$ 23,793,674	\$ 28,595,785
Subcontract Allowance	\$ 18,854,682	\$ -	\$ 18,854,682	\$ 18,854,682
Design-Build Contract Total	\$ 27,673,214	\$ 4,802,112	\$ 42,648,355	\$ 47,450,467
<b>Utility Relocation</b>				
Utility Work	\$ 31,552,369	\$ 37,395,844	\$ 3,477,633	\$ 40,873,477
Terf Tax		\$ -		
Project Management and Final Design	\$ 4,727,549	\$ 7,178,665	\$ 195,837	\$ 7,374,502
Utility Relocation Total	\$ 36,279,918	\$ 44,574,510	\$ 3,673,470	\$ 48,247,980
<b>Right of Way</b>				
Right Of Way Total	\$ 44,772,663	\$ 15,231,988	\$ 4,667,891	\$ 19,899,879
<b>Airports Authority Services</b>				
General Conditions <sup>4</sup>		\$ 1,306,585	\$ 108,672	\$ 1,415,256
Airports Authority Services Total	\$ -	\$ 1,306,585	\$ 108,672	\$ 1,415,256
<b>Contingency</b>				
Contingency Total	\$ 14,482,435	\$ -	\$ 6,194,647	\$ 6,194,647
<b>Total Interrelated Highway Improvements</b>	<b>\$ 123,208,229</b>	<b>\$ 65,915,194</b>	<b>\$ 57,293,035</b>	<b>\$ 123,208,229</b>
<b>TOTAL PROJECT COST</b>	<b>\$ 3,265,679,863</b>	<b>\$ 1,011,065,503</b>	<b>\$ 2,254,614,359</b>	<b>\$ 3,265,679,863</b>

1 Reflects Paid costs through October 25, 2010

2 Preliminary Engineering Period (PE) - Prior to August 1, 2007

3 Preliminary Engineering actuals have been agreed to be \$100,730,999. This is \$237,646 under the original budget of \$100,968,646. The under run is transferred to unallocated contingency.

4 The line item marked General Conditions includes Temporary Facilities Development, Hazardous Material Remediation, Miscellaneous Access Roads and Wiehle Ave Garage.

### c. Project Funding Sources: October 2010

SOURCES OF CAPITAL FUNDING	GRANT ID	PERCENT AT COMPLETE	TOTAL	EXPENDED TO DATE <sup>1</sup>	PERCENT FUND SOURCE EXPENDED TO DATE	REMAINING
<b>Sec 5309 New Starts Federal Funds</b>						
Preliminary Engineering Grants			\$ 54,412,526	\$ 54,412,526		\$ -
Final Design Grant	VA-03-0113-00		\$ 159,001,838	\$ 159,001,838		\$ -
ARRA Construction Grant	VA-36-0001-00		\$ 77,260,000	\$ 77,260,000		\$ -
FPGA Construction Grant	VA-03-0113-02		\$ 28,809,000	\$ 28,809,000		\$ -
FPGA Construction Grant	VA-03-0113-03		\$ 85,000,000	\$ 3,702,915		\$ 81,297,085
FPGA Balance	Planned		\$ 495,516,636	\$ -		\$ 495,516,636
<b>Subtotal - New Starts</b>		<b>28.64%</b>	<b>\$ 900,000,000</b>	<b>\$ 323,186,279</b>	<b>35.91%</b>	<b>\$ 576,813,721</b>
<b>Other Federal Funds</b>						
Sec 5307 Surface Transportation Program						
Construction Grant	VA-95-X056-01		\$ 47,218,109	\$ 47,218,109		\$ -
Construction Grant	VA-95-X056-02		\$ 21,281,890	\$ -		\$ 21,281,890
STP Balance	Planned		\$ 6,500,001	\$ -		\$ 6,500,001
<b>STP/Sec. 5307</b>		<b>2.39%</b>	<b>\$ 75,000,000</b>	<b>\$ 47,218,109</b>	<b>63%</b>	<b>\$ 27,781,891</b>
<b>Local Funds</b>						
VTA 2000			\$ 51,700,000	\$ 51,700,000		\$ -
Commonwealth Transportation Bonds <sup>2</sup>			\$ 125,000,000	\$ 93,102,694		\$ 31,897,306
Fairfax County Funds <sup>3</sup>			\$ 523,750,000	\$ 47,000,000		\$ 476,750,000
Dulles Toll Road Revenues <sup>2,4</sup>			\$ 1,467,021,634	\$ 382,943,227		\$ 1,084,078,407
<b>Subtotal - Local Funds</b>		<b>68.97%</b>	<b>\$ 2,167,471,634</b>	<b>\$ 574,745,921</b>	<b>26.52%</b>	<b>\$ 1,592,725,713</b>
<b>Total Project Budget</b>		<b>100%</b>	<b>\$ 3,142,471,634</b>	<b>\$ 945,150,309</b>		<b>\$ 2,197,321,325</b>
<b>Interrelated Highway Activities</b>						
DTR Revenues/Commonwealth Funds <sup>3</sup>			\$ 123,208,229	\$ 65,915,194		\$ 57,293,035
<b>Total</b>			<b>\$ 3,265,679,863</b>	<b>\$ 1,011,065,503</b>	<b>53.50%</b>	<b>\$ 2,254,614,360</b>

<sup>1</sup> Reflects costs through October 2010

<sup>2</sup> In January 2010, \$23.6M previously identified as pay-go Dulles Toll Road (DTR) Revenues were reclassified as Commonwealth Transportation Board (CTB) funds, reducing the contribution from DTR revenues and increasing the contribution from CTB funds.

<sup>3</sup> Includes Tax District Revenues (\$400M) plus debt service costs allocated to Project Budget

<sup>4</sup> Includes pay-as-you-go revenues and bond proceeds

### 6. Project Risks

The PMOC commenced the risk assessment process with the first workshop held April 4-7, 2006. Risk Assessment Workshops were held on June 12-14, 2007 and July 10-12, 2007 at the Project offices.

In August 2008, the PMOC was directed by the FTA to resume the risk process and to prepare a report that combines the requirements of PG-40: Subtasks PG-40E, PG-40F, and PG-40G. These subtasks are to identify the framework for primary and secondary mitigation of project cost and schedule. A draft PG-40EFG report was prepared and the Risk Register was updated. The documents were shared with MWAA and a workshop was held on August 26-27, 2008 to review the Risk Register, reach a consensus on the top ten costs and schedule risks and to identify MWAA's cost, schedule and secondary mitigation procedures. The PMOC issued the Final PG-40EFG spot report on October 6, 2008.

Through *October 25, 2010*, MWAA reports that it has utilized \$92,781,986 of the available authorized federal contingency of \$139,000,000 for Contingency Phases 1, 2 and 3. Phases 1 and 2 were to carry the Project through the completion of stations design which was anticipated to have been completed by the end of the third quarter of 2009. The completion of stations design is now anticipated during the first quarter of 2011. Phase 3 would complete the Utility Relocation Program now anticipated to complete in late *December 2010*. MWAA now reports

that it has \$28,219,660 obligated from Phase 4 through 10 monies. Of the total project contingency of \$297,762,579, the project has \$176,760,933 available. The PMOC also requested that MWAA update the Risk Management Plan. The Project Team has engaged the Risk Consultant used to prepare the original Risk Analysis to prepare the update to the Risk and Contingency Management Plan. During the quarter there were two two-day sessions held for the purpose of updating the data inputs to the revised analysis. It is expected that the results will be reported in the next quarterly report.

With regard to Schedule Contingency, the Project has utilized 97 calendar days of the total of 510 calendar days. The balance in schedule contingency is 413 calendar days.

MWAA has been following their Risk Management Plan dated October 2008. It is now reevaluating the risks and plans to have a draft re-assessment ready to meet and discuss sometime in *December* 2010. The following are the Project’s current top 10 cost and schedule risks, along with their current status.

### Top 10 Project Risks

Risk No.	Risk Description	SCC Reference	Risk Category		Status (Change from Previous Month)
			Cost	Sched	
M-21	Allowance items- a substantial part of the contract price is tied to “Allowance Subcontracts.” There is potential risk for increased project cost and schedule if the actual subcontracts exceed the allocated cost and schedule components in the contract.	10, 20, 30, 40, 50	X	X	Unchanged. Thirteen of thirty-one sub-contract packages have been awarded to date. The variance of the awarded cost versus allowance budget is \$11.87 million.
C-8	NATM tunnel—there are a limited number of qualified tunneling contractors, unforeseen conditions, tunnel collapse, production rate slower than anticipated, and possible critical path delay.	10.07	X	X	<i>Closed.</i> The contractor <i>self-performed</i> this work. Mining construction was completed with 1,670-feet of excavation complete on the outbound tunnel and 1,686-feet of excavation complete on the inbound tunnel.
C-29	Soils Management – risk that costs for disposal of soil (clean and contaminated) may exceed budget.	40.1	X	X	Unchanged. Agreements with MWAA allow “clean” soils, which represent about 90% of all project soils to be transferred to Laydown Area #11, and management of contaminated soils is being mitigated as schedule progresses.



Risk No.	Risk Description	SCC Reference	Risk Category		Status (Change from Previous Month)
			Cost	Sched	
D-29	WFCY maintenance annex – Design constraints and WMATA requirements may erode the cost reductions anticipated.	30	X		Unchanged.
C-34	Utility companies performing utility relocation are not performing in accordance with the durations incorporated in the project schedule.	40.02	X	X	Unchanged. (Replaced risk C-14.) Utility contractors have completed all critical relocation work in October 2010. However, the cost and schedule impacts are not yet known and forecast completion dates remain behind schedule as the road work contractor works toward regaining schedule losses.
M-16	Cost risk for vehicle procurement – size and timing of base order and options could change the car manufacturer’s interest in project and proposal pricing; vehicles may not be available in time for revenue operations.	20.01 20.02	X	X	<i>Unchanged.</i> Bids were received on June 19, 2009. The WMATA Board approved an award recommendation to Kawasaki on May 27, 2010. However, the delivery of the last car, as contained in the bid, is not scheduled to occur until September 12, 2014 which does not support Project needs. The WMATA Board awarded the contract to Kawasaki on July 27, 2010. NTP was issued on August 16, 2010. A revised delivery date schedule has not been submitted.
M-12	Unpredictability of ROW settlement costs.	10.04	X		Unchanged. Use of condemnation has increased the ROW costs.
C-20	WMATA scope of work, including site access support, technical support and WMATA construction elements may exceed the budget and schedule. In addition, there is the risk that WMATA will have difficulty supporting the DB contractor’s requirements.	10.00 20.00 50.00	X	X	Unchanged. Technical support for design has been generally provided in a timely manner, although the backlog of design reviews continues to increase. SSWPs required to access WMATA property are lengthy. There is potential risk with WMATA directing systems design upgrades for ATC, Traction Power and Communications systems.

Risk No.	Risk Description	SCC Reference	Risk Category Cost Sched		Status (Change from Previous Month)
D-19	Cost of Dominion Virginia Power (DVP) 34.5 kV distribution – Level of design is not typical of 100% PE design.	50.04	X		Unchanged. Design of ductbank that will contain 34.5 kV power the length of project has been completed and the ductbank construction continues. Design by DVP to bring power to project has not been completed.
D-27	Permit Approvals – Potential delays due to the Virginia Department of Transportation (VDOT) requiring their review/approval of final design plans prior to Issued for Proposal (IFP) submittals. Potential delays due to the Department of General Services (DGS) making design-related comments rather than strictly permit/code comments.	10.00 20.00 40.00	X	X	Unchanged. The issuance of construction permits is taking longer than anticipated and the contractor is claiming that its costs are increasing. The Six Sigma process improved turn-around time with VDOT. The VDOT requirement for final design plans prior to IFP submittals may increase the risk. In addition, DGS is making design-related comments rather than strictly code/permit evaluations.

## 7. Action Items

### MWAA – DULLES CORRIDOR METRORAIL PROJECT - Items for Grantee Action

PR	ITEM	IDENTIFICATION	NATURE of PROBLEM	D	A	I	COMMENTS	STATUS
1	2A.01	PMP Update (Nov. 2009)	MWAA's PMP needs to be updated to reflect the new integrated organization.	Y	N	N	The integrated organizational structure has been formally implemented, and the PMP is now being updated to reflect this. MWAA received the PMOC's comments from the PMP Compliance Review held on October 14, 2009. MWAA submitted a draft PMP Version 7.0 to the PMOC on September 3, 2010. PMOC review comments were submitted to the FTA on November 4, 2010. <i>MWAA is currently addressing the comments.</i>	R
1	2B.01	Final Testing Plan for Re-used Piers (Feb. 2010)	MWAA approved the final testing plan (Rev 0) proposed by DTP for the Re-used Piers on March 30, 2010.	Y	Y	N	DTP and CTI Final Reports and MWAA's audit of the findings and pier designs were submitted to the FTA, PMOC and WMATA on October 19, 2010 for review. The PMOC recommended that continuity testing data <i>be submitted for all eleven newly constructed piers on existing pier foundations.</i>	R
3	2A.02	Update Permitting Plan Appendices (June 2010)	Appendices need to reflect actual permitting agencies roles and responsibilities	N	N	N	MWAA was requested to update the Permitting Plan Appendices at the June 2010 meeting.	R
4	2A.03	Update Risk and Contingency Management Plan (RCMP) (October 2010)	The original Risk Management Plan was prepared in October 2008 and needs to be updated to reflect the current Project Status.	N	N	N	MWAA has engaged their Risk Management Consultant and is preparing a draft RCMP that is expected to be ready in <i>January</i> .	R

#### KEY ITEM

Subtask 2A  
Subtask 2B

CLIN 0002A – PMP Review  
CLIN 0002 – On-Site Monitoring

#### LEGEND

##### PRIORITY (PR)

1- Most Critical  
2- Critical  
3- Least Critical

##### GRANTEE ACTION

D – Remedial Action Developed  
A – Remedial Action Approved  
I – Action Implemented

##### PMO CONTRACTOR STATUS

R – Review On-going  
C – Completed – No further review required

**Note** – Items marked with a 'C' in the 'PMO Contractor Status' column will be dropped from future reports.

# APPENDICES

## APPENDIX A – LIST OF ACRONYMS

ARRA	American Reinvestment and Recovery Act
ASSHTO	American Association of State Highway and Transportation Officials
BFMP	Bus Fleet Management Plan
CD	Calendar Days
CPM	Critical Path Method
CTI	CTI Consultants, Inc.
<i>CY</i>	<i>Calendar Year</i>
DB	Design-Build
DGS	(Virginia) Department of General Services
DIAAH	Dulles International Airport Access Highway
DTP	Dulles Transit Partners, LLC
DTR	Dulles Toll Road
DVP	Dominion Virginia Power
FFGA	Full Funding Grant Agreement
FTA	Federal Transit Administration
FTE	Full Time Equivalent
FY	Fiscal Year
HOT	High Occupancy Toll
IFC	Issued For Construction
IFP	Issued for Proposal
KSA	KSA, INC – Producer of Concrete Crossties
MH	Manhole
MCI	A communication company now owned by Verizon
MEP	Mechanical, Electrical and Plumbing
MOT	Maintenance of Traffic
MWAA	Metropolitan Washington Airports Authority
NATM	New Austrian Tunneling Method
ORD	Operational Readiness Date
PDA	Pile Driving Analysis
PE	Preliminary Engineering
PMOC	Project Management Oversight Contractor
PMSS	Project Management Support Services
PMP	Project Management Plan
QA	Quality Assurance
QC	Quality Control
QPP	Quality Program Plan
RAMP	Real Estate Acquisition Management Plan
<i>RCMP</i>	<i>Risk and Contingency Management Plan</i>
RFMP	Rail Fleet Management Plan
RMP	Risk Management Plan
ROD	Revenue Operations Date
ROE	Right-of-Entry
ROW	Right-of-Way
SAIC	Scientific Applications International Corporation

SCC	Standard Cost Category
SCIL	Safety and Security Certifiable Items List
SOE	Support of Excavation
SSCD	Scheduled Substantial Completion Date
SSMP	Safety and Security Management Plan
SSWP	Site Specific Work Plan
STP	Surface Transportation Program
TBD	To Be Determined
TOC	Tri-state Oversight Committee
TPSS	Traction Power Substation
UR	Utility Relocation
VDOT	Virginia Department of Transportation
W&OD	Washington and Old Dominion
WFC	West Falls Church
<i>WFCY</i>	<i>West Falls Church Yard</i>
WMATA	Washington Metropolitan Area Transit Authority
XO	Executive Officer

## APPENDIX B -- PROJECT OVERVIEW AND MAP

### Project Overview

**Date:** January 4, 2011 (*reporting current through November 2010*)

**Project Name:** Dulles Corridor Metrorail Project – Extension to Wiehle Avenue

**Grantee:** Metropolitan Washington Airports Authority (MWAA)

**FTA Regional Contact:** Brian Glenn, P.E.

**FTA Headquarters Contact:** Dale Wegner, P.E.

### Scope

- **Description:** MWAA The Project is the initial 11.7-miles of the LPA, which will run from the current Metrorail Orange Line near the West Falls Church (WFC) station to Wiehle Avenue in Reston, providing direct service to the commercial and office center of Tysons Corner. The Project will be constructed in or parallel to the Dulles Connector Road, Routes 123 and 7 through Tysons Corner, and the Dulles International Airport Access Highway (DIAAH). It will include five new passenger stations, one 2,300-car parking facility (provided through a joint development agreement at Wiehle Avenue Station), improvements to the existing WFC Service and Inspection Yard, tail tracks outbound of the interim terminus station at Wiehle Avenue, and the procurement of 64 rail cars.
- **Guideway:** Phase 1 is approximately 11.7 miles in length consisting of two tracks.
- **Stations:** There are five stations in Phase 1. Each station will include a kiss-n-ride area; bus drop-off facilities; station platforms with benches, canopies, ticket vending machines; and other amenities.
- **Support Facilities:** There will be a modification to the West Falls Church Yard and service building. A tail track will be constructed beyond the Wiehle Avenue Station.
- **Vehicles:** The Project will include the purchase of sixty-four vehicles for Phase 1 that will be procured by WMATA.

### Ridership

The Project is estimated to carry 69,700 average weekday riders during opening year.

### Schedule

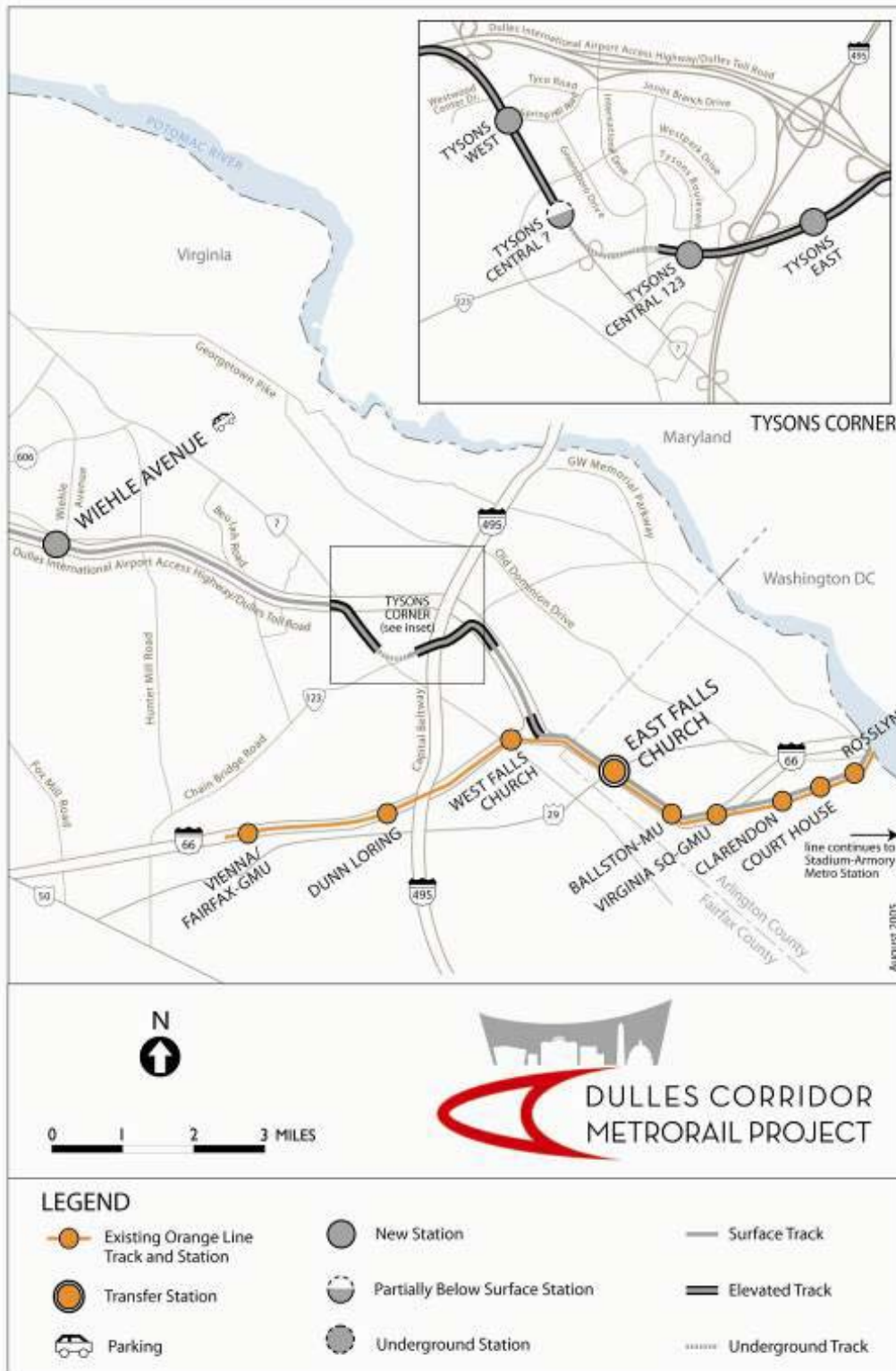
06/10/04	Approval to Enter PE	2011	Estimated Rev Ops at Entry to PE
05/12/08	Approval to Enter FD	12/04/13	Estimated Rev Ops at Entry to FD
03/10/09	FFGA signed	12/01/14	Estimated Rev Ops at FFGA
03/19/14	Revenue Operations Date (ROD) <i>as of October 25, 2010</i>		
25.0%	Percent Complete Construction <i>as of November 30, 2010.</i>		
30.38%	Percent Complete Time based on ROD of December 1, 2014 (based on FFGA)		
41.35%	MWAA's Estimate of Project Earned Value through <i>October 2010</i>		

**Cost**

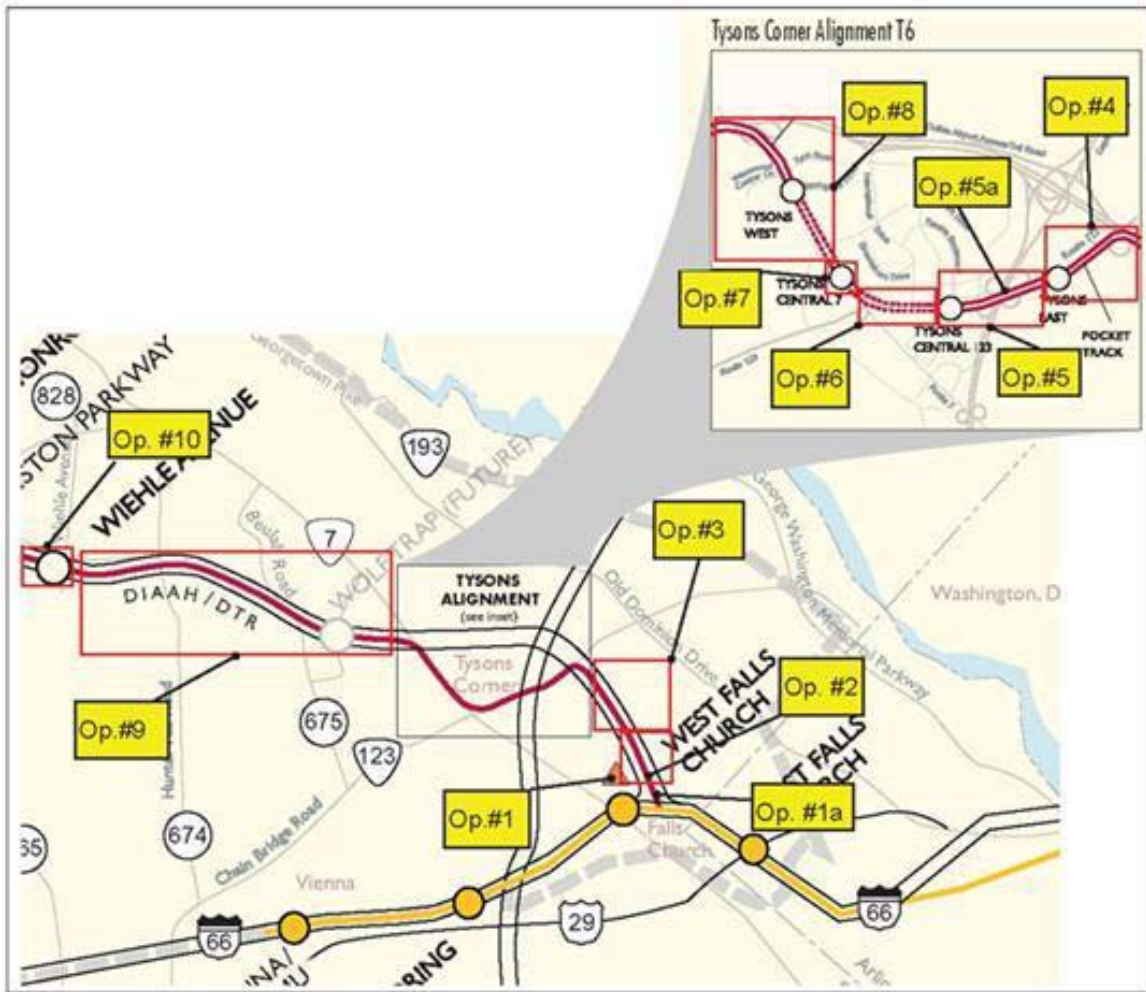
\$1.490 billion	Total Project Cost (\$YOE) at Approval to Enter PE
\$2.961 billion	Total Project Cost (\$YOE) at Approval to Enter Final Design
\$3.142 billion	Total Project Cost at date of report including \$510 million in Finance Costs
\$945.15 million	Expenditures through <i>October 2010</i> from total project budget of \$3.142 billion
30%	Percent complete based on <i>federal</i> expenditures through <i>October 2010</i> .
\$176.76 million	Total project contingency remaining (allocated and unallocated) through <i>October 2010</i> .



# Project Map



**Construction Operational Areas**



**APPENDIX C – MWAA SAFETY AND SECURITY CHECKLIST**

<b>Project Overview</b>	<b>Dulles Corridor Metrorail Project</b>		
Project Mode (Rail, Bus, BRT, multimode)	Rail		
Project Phase (Preliminary Engineering, Design, Construction, or Start-up)	Design and Construction		
Project Delivery Method (Design/Build, Design/Build/Operate/Maintain, CMGG, etc)	Design/Build		
<b>Project Plans</b>	<i>Version</i>	<i>Review By FTA</i>	<b>Status</b>
Safety and Security Management Plan	9/2009		Accepted
Safety and Security Certification Plan			Under development; 98% complete
System Safety Program Plan			WMATA's SSPP will be used. In response to FTA's Safety and Security Oversight Audit of TOC/WMATA and TOC Triennial Review findings, WMATA is updating its SSPP which is to be approved by TOC and submitted to FTA in January 2011.
System Security Plan or Security and Emergency Preparedness Plan (SEPP)			WMATA submitted a revised SEPP to TOC in March 2010. TOC approved the SEPP on August 2, 2010.
Construction Safety and Security Plan			Addressed in PMP, which is under revision.
<b>Safety and Security Authority</b>	<b>Y/N</b>		<b>Notes/Status</b>
Is the grantee subject to 49 CFR Part 659 State Safety Oversight requirements?	Y		Tri-State Oversight Committee (TOC)
Has the State designated an oversight agency as per Part 659.9?	Y		Tri-State Oversight Committee (TOC)

Has the oversight agency reviewed and approved the grantee's SSPP as per 659.17?	N	WMATA's SSPP will be used. Revised SSPP is to be submitted in January 2011.
Has the oversight agency reviewed and approved the grantee's Security Plan or SEPP as per Part 659.21?	Y	Approved on August 2, 2010
Did the oversight agency participate in the last Quarterly Program Review Meeting?	Y	TOC had two representatives at the October 27, 2010 QPRM.
Has the grantee submitted its safety certification plan to the oversight agency?	N	Plan in progress. TOC participates in monthly meetings.
Has the grantee implemented security directives issues by the Department Homeland Security, Transportation Security Administration?	N	WMATA will be operator.
<b>SSMP Monitoring</b>		
Is the SSMP project-specific, clearly demonstrating the scope of safety and security activities for this project?	Y	
Grantee reviews the SSMP and related project plans to determine if updates are necessary?	Y	
Does the grantee implement a process through which the Designated Function (DF) for Safety and DF for Security are integrated into the overall project management team? Please specify.	N	WMATA
Does the grantee maintain a regularly scheduled report on the status of safety and security activities?	N	WMATA
Has the grantee established staffing requirements, procedures and authority for safety and security activities throughout all project phases?	N	WMATA
Does the grantee update the safety and security responsibility matrix/organizational chart as necessary?	N	WMATA
Has the grantee allocated sufficient resources to oversee or carry out safety and security activities?	N	WMATA
Has the grantee developed hazard and vulnerability analysis techniques, including specific types of analysis to be performed during different project phases?	Y	

Does the grantee implement regularly scheduled meetings to track to resolution any identified hazards and/or vulnerabilities?	Y	
Does the grantee monitor the progress of safety and security activities throughout all project phases? Please describe briefly.	Y	Design and Construction only. WMATA participates
Does the grantee ensure the conduct of preliminary hazard and vulnerability analyses? Please specify analyses conducted.		
Has the grantee ensured the development of safety design criteria?	Y	
Has the grantee ensured the development of security design criteria?	Y	
Has the grantee ensured conformance with safety and security requirements in design?	Y	
Has the grantee verified conformance with safety and security requirements in equipment and materials procurement?	Y	
Has the grantee verified construction specification conformance?	Y	
Has the grantee identified safety and security critical tests to be performed prior to passenger operations?	Y	In progress, 98% complete.
Has the grantee verified conformance with safety and security requirements during testing, inspection and start-up phases?	N	After SSCD
Does the grantee evaluate change orders, design waivers, or test variances for potential hazards and /or vulnerabilities?	Y	
Has the grantee ensured the performance of safety and security analyses for proposed work-arounds?	Y	
Has the grantee demonstrated through meetings or other methods, the integration of safety and security in the following: • Activation Plan and Procedures • Integrated Test Plan and Procedures • Operations and Maintenance Plan • Emergency Operations Plan	Y	
Has the grantee issued final safety and security certification?	N	
Has the grantee issued the final safety and security verification report?	N	
<b>Construction Safety</b>		
Does the grantee have a documented/implemented Contractor Safety Program with which it expects contractors to comply?	Y	

Does the grantee's contractor(s) have a documented company-wide safety and security program plan?	Y	DTP's Construction Safety, Health and Security Plan accepted on January 6, 2009.
Does the grantee's contractor(s) have a site-specific safety and security program plan?	Y	
Provide the grantee's OSHA statistics compared to the national average for the same type of work?	N	
If the comparison is not favorable, what actions are being taken by the grantee to improve its safety record?		
Does the grantee conduct site audits of the contractor's performance versus required safety/security procedures?	Y	
<b>Federal Railroad Administration</b>		
If shared track: has grantee submitted its waiver request application to FRA? (Please identify specific regulations for which waivers are being requested)	N/A	Heavy Rail Transit Project. No FRA involvement.
If shared corridor: has grantee specified specific measures to address shared corridor safety concerns?	N/A	
Is the Collision Hazard Analysis underway?	N/A	
Other FRA required Hazard Analysis – Fencing, etc.?	N/A	
Does the project have Quiet Zones?	N/A	
Does FRA attend the Quarterly Review Meetings?	N/A	

**APPENDIX D – PMOC TEAM PERFORMING THIS REVIEW**

[REDACTED]

[REDACTED]

[REDACTED]

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