

COMPREHENSIVE MONTHLY REPORT

January 2011

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

February 25, 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.

One Penn Square West

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PMOC Lead: [REDACTED]

Length of Time PMOC Assigned to Project: 10.5 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 *January 26, 2011* to conduct a monthly progress meeting (in conjunction with the FTA Quarterly Progress Meeting for the period October 2010 through December 2010) for work performed in January 2011. The full time on-site PMOC attended various project meetings and site tours throughout this reporting period and participated with MWAA and FTA representatives in a complete field tour of the Project on the morning of January 26, 2011. Additional information for this report was obtained from MWAA during the second week of February 2011. 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 *January 26, 2011* to conduct a monthly progress review meeting. The status information is as of *January 25, 2011*, 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 original proposed schedule showed the 64th 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 contractual requirements indicate that the 64th rail car will be *conditionally* accepted on January 15, 2015 as an early completion date, which does not comply with the FFGA date of December 1, 2014. WMATA committed by letter dated December 3, 2010 to provide necessary vehicles from the existing fleet to support the Project's Revenue Operations Date. However, this does not meet the requirements of the FFGA to have the 64th car by December 1, 2014. *The MWAA-WMATA "Cooperative Agreement" identifies WMATA as the responsible party to implement and manage the railcar procurement contract. The Agreement recognizes that delivery times are critical to the Project but does not extend any schedule control to the Airports Authority. WMATA and Kawasaki have not yet agreed to the schedule. MWAA continues to monitor the 7000 series railcar procurement contract closely and participates in monthly stakeholder meetings. The Conceptual Design Review phase was completed on January 31, 2011 and the program is in the Preliminary Design Review phase.*
- **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 *for the Tysons East and Tysons Central 123 Stations and the second quarter of 2011 for the Tysons Central 7, Tysons West and Wiehle Avenue Stations.* 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 remained at 95% complete as of the end of *January 2011.* However, design comment review resolution *continued to* progress during this period. 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. WMATA re-engaged in the ATC submittal review process in mid October 2010 and the review catch-up process has continued through *January* and into *February.* MWAA received an acceptable proposal from the Battelle Memorial Institute on January 5, 2011. MWAA *issued* NTP to Battelle on January 10, 2011 to begin the "Safety

Analysis Review and Assessment.” Battelle has proposed a six (6) month period of performance.

- **Construction progress** is broken into two components: utility relocation (UR), which is 99% complete and design-build (DB) construction, which is approximately 29% complete. Significant accomplishments for *January* included *the completion of the K-Line Tie-in communications by-pass ductbank and the installation of nine new fiber optic cables between the EFC and WFC Stations. Other significant work included continued progress in the installation of the deck of the O-1 Guideway, segmental box girder installation on the Tyson East Guideway including the commissioning of segmental erection Truss #3, significant pier construction progress on the Tysons West Guideway, major foundation work on all five stations and mezzanine steel erection at the Wiehle Avenue Station.*

Launching Truss #LG2 was shut down due to structural damage that occurred on the night of February 11, 2011. New parts are currently being manufactured and may take 30 to 60 days to replace. The LG2 crews have been shifted to help with LG3 and that work will be accelerated. DTP is also considering the assembly of the short segmental spans on the ground and lifting them into place with a crane. CTI will adjust its inspection coverage accordingly.

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

The O-1 Guideway is approximately 86% complete. The Tysons East Guideway is approximately 74%. The NATM Tunnel is approximately 56% complete with all excavation/mining completed on November 29, 2010 and the waterproofing and finish liner work has commenced. The Tysons West Guideway is approximately 22% complete. The Tysons East Station is approximately 19% complete and the Tysons Central 123 Station is approximately 18% complete. The Tysons Central 7 Station is approximately 5% complete and the Tysons West Station is approximately 9% complete. The Wiehle Avenue Station is approximately 22% complete. The pre-cast yard has cast 1,843 of 2,600 concrete box girder segments and station girders to date.

- **The Schedule** showed a *two day loss with the most current analyzed update schedule (data date of December 25, 2010) showing a total -113 calendar days (-111 in the November update) variance from the approved baseline schedule. This results in a projected ROD of March 27, 2014. The FFGA ROD is December 1, 2014.*

MWAA and DTP continued to meet regularly to review and discuss DTP’s recovery schedule, which included an acceleration cost of \$23.7 million. MWAA continued to negotiate with the goal of reaching a mutually agreed upon recovery plan. *This effort resulted in the issuance of two “Directive Letters” to DTP to conduct a constructive acceleration effective December 15, 2010 on a time and material basis not to exceed seven million dollars. DTP submitted a zero loss recovery schedule on January 12, 2011. The schedule proposes a mitigation period of fourteen months, extending from January 2011 through February 2012. A detailed review and additional discussions led to MWAA’s conditional acceptance of the Recovery Schedule via letter dated February 7, 2011. Both have agreed to*

work toward a lump sum Change Order based upon the *agreed Recovery Schedule scope*. *The Airports Authority is now conducting an independent estimate and plans to enter negotiations in the near future.*

The PMOC considers the issuance of *these* directive letters *and the agreement to a recovery schedule scope* to be *good* first steps toward recovery of the Contract Completion Date. *However, confidence that schedule recovery will begin and be sustained remains tentative until the recovery schedule costs have been agreed upon.* The Project will need to maintain this forward momentum in order to recover the -113 day mainline construction loss and to overcome any unforeseen delays that may yet be faced in the months to come.

The Project needs to increase its efforts to resolve disagreements relative to the West Falls Church Yard (WFCY) schedule in order to minimize the risk of irretrievable schedule creep leading to costly schedule compression or at least to minimize constructive acceleration costs. This need becomes increasingly critical as the WFCY yard completion date continues to fall further behind to February 19, 2014 as reflected in DTP's December schedule update.

- **Budget** status as of *December 25, 2010* indicates that *\$1,068,842,113 (35%)* has been expended of the *\$3,142,471,634* budget total. *MWAA reports \$118,457,285* of the available contingency for the first five contingency milestones have been utilized with a remaining balance of *\$81,542,715* available through completion of the utility relocation work and the Aerial and Station Foundations.

The PMOC 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 *December 2010* is *45.09%*.

3. PMOC's Assessment of Project Status

The Full Time Equivalent (FTE) estimated total for *January* is *1,531*, which is a decrease of 193 from *the December actual* of *1,724* 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 was on-going in January on Pier 5B-OB. Three interim reports covering the acceptable continuity testing on ten of eleven piers *were transmitted* to the FTA by letters dated November 24, 2010, December 17, 2010 and January 24, 2011. A final report will be provided as soon as the remaining data becomes available.

MWAA submitted its draft PMP, Version No. 7, to the PMOC on September 3, 2010. 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 incorporated the recommendations and resubmitted the PMP on January 25, 2011. On February 11, 2011, the PMOC recommended that the FTA approve the MWAA PMP Version 7.0 Final dated January 2011.*

Through *December 2010*, \$239,392,357 of the \$437,278,511 Federal Allowance Items Budget had been awarded to subcontractors and suppliers. A \$14,440,289 overrun now exists for the 22 of 35 sub-contract packages awarded thus far for federally-funded allowance items. **The Airports Authority has forecast a major jump in the overrun costs due to Station finishes and mechanical, electrical and plumbing work in the next few months.**

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 *December 25, 2010*, reflects a *-113* 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 27, 2014. MWAA has fully analyzed the *December 25* update and has reported that it continues to disagree with the critical path and the degree of delay.

Discussions between MWAA and DTP *were concluded* at the executive level with regard to a recovery schedule. This effort resulted in the issuance of two "Directive Letters" to DTP to conduct a constructive acceleration effective December 15, 2010 on a time and materials basis not to exceed \$7 million. DTP submitted a zero loss recovery schedule on January 12, 2011. *The schedule proposes a mitigation period of fourteen months, extending from January 2011 through February 2012. A detailed review and additional discussions led to MWAA's conditional acceptance of the Recovery Schedule via letter dated February 7, 2011. Both parties have agreed to work toward a lump sum Change Order based upon the agreed Recovery Schedule scope. The Airports Authority is now conducting an independent cost estimate and plans to enter negotiations in the near future.* The FFGA ROD is December 1, 2014.

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 continues to monitor expenditures to date and to update the estimate at completion. Through *December 25, 2010*, MWAA has utilized \$118,457,285 of the Phase 1 through 5 allotted contingency of \$200,000,000. MWAA is in the process of updating the project Risk and Contingency Management Plan. A draft *Risk Analysis Report* has been prepared by their consultant and is under review by MWAA.

The Quality Assurance (QA)/Safety group maintains an active schedule of audits and surveillances and accident data. Through *January 2011*, of the cumulative total of 5,085,814 hours worked, there has been one lost time accident. Revision 4 of the SCIL was issued by DTP on November 24, 2010. *Comments were given to DTP on January 7, 2011. The Airports Authority is awaiting DTP's response to these comments.*

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 accepted these documents on December 6, 2010. 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 *late February*.

2. Project Scope

a. Design Status

Work continues on the completion of station designs with permit approvals. WMATA approval of ATC submittals continues to lag *but is making good progress*. 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 *January 25, 2011*, the completion dates for all five station design packages with issuance of *IFC* drawings have been further delayed to *as late as April 2011*. The associated station pavilion and pedestrian bridge designs are *delayed to as late as June 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 *December 2010*, \$239,392,357 of the \$437,278,511 Federal Allowance Items Budget had been awarded to subcontractors and suppliers. A \$14,440,289 overrun now exists for the 22 of 35 sub-contract packages awarded thus far for federally-funded allowance items. The Airports Authority has forecast a major jump in the overrun costs due to Station finishes and mechanical, electrical and plumbing work in the next few months.

Utility relocation is 99% complete and DB construction is approximately 29% complete. All utility relocation efforts relating to the remaining Route 7 road shifts in the Tysons West Station area have been completed. The remaining utility companies are expected to complete their last bit of work in *February 2011*. Facchina is now preparing the new roadway for the remaining Route 7 road shifts scheduled to be completed in *February 2011*.

The following are the major accomplishments of the DB contractor during *January 2011*:

- **Operations Areas OP-1, OP-2 and OP-3 (I-66/DCR/Laydown Area 1)** – *Continued with retaining walls at the K-Line tie-in area. Continued approach walls at abutment A-IB and B-IB. Continued forming and pouring track way decks. Poured track way decking at spans 4-IB, 5-IB, 6-IB, 7-IB, 8-OB, 9-OB and 10-OB for a total of twenty-nine completed to date. Continued construction of storm drain and under drain installation east of Idylwood Road. Continued constructing retaining walls in the median of the DCR. Continued invert slab installation and forming walls and roof at the first phase of the WFCY Cut and Cover Tunnel. Completed installation of communication manholes and*

ductbanks at the K-Line bypass. Completed installation of relocated communications cables in the bypass ductbank and preparing to start splicing and cutover.

- **Operations Area OP-4/5A (Tysons East Guideway/Station/I-495 Crossing)** – Poured pier cap at pier 28-IB, 28-OB, 29-IB, 29-OB, 32-IB, 32-OB, 33-IB, 33-OB, 44-IB/OB and 62-OB for a total of sixty-eight completed to date. Continued segmental box girder guideway erection with Truss #1 completing spans 14-IB, 15-IB and 15-OB for a total of thirty completed to date. Continued segmental box girder erection with Truss #2 completing span 59-OB and 59-IB for a total of ten completed to date. Started balanced cantilever segmental girder erection on spans 50 and 51 from pier 50 with Truss #3.
- **Operations Area OP-5 (Tysons Central 123 Station)** – Completed pile caps at piers 67-OB, 67-IB, 70-OB, 70-IB and 71-OB for a total of eighteen completed to date. Completed pier columns at piers 67-OB, 67-IB, 70-OB, 70-IB and 71-OB for a total of twenty-four completed to date. Completed platform cast in place beams at piers 72, 73 and 74 for a total of six completed to date. Continued forming and rebar placement for structural foundation walls.
- **Operations Area OP-6 (Laydown Area #6/NATM Tunnel/East Cut & Cover and Ventilation Structure)** - Completed shotcrete final liner in both OB and IB tunnels. Started the OB invert waterproofing membrane. Poured the first section of OB invert slab for the tunnel liner.
- **Operations Area OP-6 (West Cut and Cover Tunnel)** – Continued formwork and rebar placement for wall and roof sections at Stage 1C. Placing concrete for mat foundation for the West Vent Structure.
- **Operations Area OP-7 (Tysons Central 7 Station)** – Continued SOE and excavation. Continued driving H-piles for the station foundation. Continued foundation slab rebar installation. Continued under slab MEP installations. Continued pouring foundation base slab for TPSS #5. Continued guideway Abutment "A" wall forming and rebar installation.
- **Operations Area OP-8 (Tysons West Station/Guideway)** – Storm drain installation, curb and gutter and grading work continues between Westwood Center Drive and the Dulles Toll Road. Completed caissons at IB/OB piers 9, 10, 11, 12, 13, 14, 15, 16 and 17 for a total of forty-four completed to date. Completed pile caps at piers 5-IB/OB, 25-OB, 26-OB, 27-OB, 48-IB and 49-IB/OB for a total of twenty completed to date. Completed columns at 2-IB, 2-OB, 3-OB, 41-IB and 47-IB/OB for a total of thirteen completed to date. Completed H-piles for Abutment B in the DIAAH median.
- **Operations Area OP-9 (DIAAH)** – Completed pier caps and bearing pads at the intermediate piers at the Difficult Run Bridge. Continued with retaining walls on the OB and IB sides between Hunter Mill Road and east of Difficult Run. Storm drain construction east of Difficult Run continues in the median. Placing of track subgrade and track drainage continues west of Hunter Mill Road. Grading work at Ponds 5 and 6

continues. The Track subcontractor mobilized and began welding running rail east of Wiehle Avenue.

- **Operations Area OP-10 (Wiehle Avenue Station/Laydown Area 13)** – Completed forming and pouring of platform deck slabs. Completed pouring of station IB and OB outboard columns. Setting of mezzanine structural steel continues. Continue with footings for barrier walls between track way and the DIAAH. Completed support walls adjacent to platform for the pedestrian bridges.
- **Laydown Area #10 (Pre-cast Yard)** - Continued casting of segmental box girders; completed 1,843 of a total of 2600 segments to date.

c. 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 December 2010, 67 of the 99 parcels required for the Project have been acquired. The table below summarizes acquisition activities for the Project through December 2010.

PARCELS ACQUIRED¹
(Number of parcel packages)

LOCATIONS	TOTAL	Period			To Date		
		Planned ²	Actual	Var	Planned ²	Actual	Var
Route 66 / Dulles Connector	1	0	0	0	1	1	0
Route 123	23	0	0	0	21	19	(2)
Route 7	51	0	0	0	42	40	(2)
DIAAH	24	0	0	0	11	7	(4)
TOTAL	99	0	0	0	75	67	(8)

- 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 January, the appeal of the finding of the trial held in June 2010 (Parcel 23, Pike 7) was denied by the Virginia Supreme Court but an Amicus Brief is expected to be filed to support a request for a rehearing. Three cases moved into finalization including two new Agreements After Certificates (AAC) that are now in process for cases that were previously scheduled for trial in April 2011, thus there are two cases currently scheduled for trial that may

be held. A total of 15 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 *January 31, 2011* are:

Parcel 32, CDC, LP (8500, Clemente) – April 4, 2011
Parcel 36, Container Store – May 16, 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 *January 2011* includes the following:

- **Along Route 7 (123 Overpass to Marshall's)** – All work completed.
- **Along Route 7 (Marshall's to Gosnell/Westpark)** – MCI completed splicing and cutover of existing service.
- **Along Route 7 (Gosnell/Westpark to Spring Hill Road)** – No remaining conflicts.
- **Along Route 7 (Spring Hill Road to Tyco/Westwood)** – AboveNet continues splicing and cutover work on the north side of Route 7.
- **Along Route 7 (Tyco/Westwood to Route 267/Toll Road)** – AboveNet continues splicing on the north side of Route 7 at Koon's Toyota. MCI continues with splicing and cutover work. Verizon continues lowering the existing ductbank at the Sheraton due to storm drain conflict.
- **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 west of Pimmit Run and at the DCR/Chain Bridge Road. Continued installation of traction power ductbank *crossings at the eastbound DIAAH for the bridge crossing at the W&OD trail and Hunter Mill Road.* Washington Gas started *continues* work at the TPSS #10 site. *Completed the pipe liner installation in storm drain culverts.*

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 64th 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 requirements indicate that the 64th rail car will be *conditionally* accepted on January 15, 2015 as an early completion date, which does not comply with the FFGA date of December 1, 2014. The contractual milestones for this procurement are:

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

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 Conceptual Design Review phase was completed on January 31, 2011 and the program is in the Preliminary Design Review phase.* 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 *January*. All were related to Design-Build work. As of *January 31, 2011*, DTP had logged a total of *5.08* million project man-hours with *165* first aid cases and one lost time case. There have been a total of *287* incident investigation reports, *80* 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. *Comments on Revision 4 were transmitted to DTP on January 7, 2011.*

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) and Construction/Procurement/Installation Conformance Checklist (CCC) 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. Its review was completed 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 for MWAA’s review on December 2, 2010 with forty-eight items signed off. *Its review was completed with thirty-eight items accepted.*

A Construction/Procurement/Installation Conformance Checklist (CCC) was received on October 4, 2010 with six items signed off. MWAA transmitted final comments on this checklist to DTP on January 3, 2011. *MWAA and DTP are in the process of resolving disagreements related to the acceptability of the six items.* WMATA is also currently conducting a 100% review of the submitted DCC and CCC items.

Regular weekly visits to work sites by safety representatives from DTP, the Airports Authority and WMATA continue. 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 and accepted on December 6, 2010 *and forwarded to the FTA on December 8, 2010. The Airports Authority Safety and Security Management Plan is under revision and will be submitted to the FTA by February 18, 2011.*

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 walk downs with DTP.

During *January* 2011 MWAA performed the following QA audits/surveillances:

- *Windsor Technology (Alstom supplier of vital relay drivers): Surveillance was conducted on the subject supplier on January 18, 2011. Five minor observations were made and a report is being prepared.*
- *Flippo Construction: Surveillance was conducted on the subject subcontractor on January 19, 2011. There were six observations and a report is being prepared.*
- *ADCO (Alstom supplier of printed circuit boards): Surveillance was conducted on January 25, 2011. There were three minor observations and a report is being prepared.*

The MWAA QA Audit and Surveillance Schedule through June 2011

Tentative Date	Audit (A) Surveillance (S)	Organization/Activity	Joint Audit/Surv.	Lead
2/2-3/11	A	Lane Construction (Early MEP)	Y	DTP
2/2-3/11	A	DTP Construction Safety Program	N	MWAA
2/9/11	S	Internal surveillance to verify compliance with PM-2.01, PM-2.03 and PM-5.06.	N	MWAA
2/15-16/11	A	DTP Acquisitions	N	MWAA
2/23-24/11	A	MWAA Project QA 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 QC	N	MWAA
3/9-10/11	A	DTP Environmental	N	MWAA
4/6-7/11	A	CTI Consultants (Special Inspection)	N	MWAA
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
5/24-25/11	A	DTP Engineering	N	MWAA
6/8-9/11	A	Delta Railroad (Rail)	Y	DTP
6/15-16/11	A	DTP Subcontractor Safety Program	N	MWAA

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, December *and January* with regard to MWAA's proposed revisions relative to the six recommendations *and the revised PMP was submitted to the FTA on January 25, 2011. On February 11, 2011 the PMOC recommended that the FTA approve PMP Version 7.0 Final dated January 2011.* 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 *was* reviewed and accepted by the FTA. The PMOC requested MWAA to begin the process to update the RMP by the end of the summer 2010 with a meeting to discuss the update to be scheduled after MWAA completes their risk plan update. A consultant submitted a draft *of the Risk Analysis, a primary component of the RMP, to MWAA* in December 2010. *MWAA and the PMOC discussed the draft on January 26, 2011 and determined that some refinements were needed. MWAA now expects to submit the final Risk Analysis to the FTA and PMOC in late February 2011. Upon incorporation of the PMOC review comments, the RMP will be completed by MWAA.*
- 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 after WMATA submits the revised RFMP.

- 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 provided that information on December 21, 2010.

4. Project Schedule

The most recent MWAA analyzed project schedule update has a data date of *December 25, 2010*. The primary critical path identified by DTP reflects a *-113* calendar day variance in the achievement of the SSCD from that reflected in the approved Baseline Schedule. This variance reflected a *two* day loss from that reflected in the critical path of the *November* schedule update and yields a March 27, 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. However, this contingency plan does not meet the FFGA requirement that the 64th car be accepted by December 1, 2014.

During the month of *January 2011*, 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, Tysons West 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, the WFCY Lead Tunnel; Early Roadway work at various locations; segmental erection by launch truss #1 and launch truss #2 continued, and launch truss #3 was commissioned in January.

The WFC Yard upgrade work schedule continues to drop further behind with a completion of the full facility in February 2014 *according to the December 25 schedule update*. 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. MWAA further reported during the December monthly meeting that it had issued a “Directive Letter” to DTP to continue the design and phase planning effort.

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. That plan begins with a three-day track outage in January 2011 to install four new loop track 3rd 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 awarded a subcontract to Lane Construction Company in December 2010 for early Civil Sitework *and work began* in mid January 2011.

The WFCY Civil/Sitework final design was completed and issued for permit in October 2010. The S&I Building final design has been submitted and is under review. The 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. *Discussion with MWAA and WMATA are ongoing.*

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 (*although significant progress has been made*) 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

improvement is being made but 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 *has become* an asset to the Project *and* significant progress with the backlog of WMATA submittal reviews *has been made*.

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. DTP's early roadwork subcontractor, Facchina, Inc. continues to pursue the remaining Route 7 road shifts expected to be completed in February 2011. The schedule update with a data date of *December 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.

In December 2010, the primary critical path identified by DTP reflects a -113 calendar day variance in the achievement of the SSCD as from that established by the approved Baseline Schedule. The December Critical Path, as described by DTP, originates with Launch Girder (LG) #2 segmental erection at Span 59 in the Tysons East corridor. This sequence of activities continued through segmental erection along the Tysons West Guideway and into the Tysons West Station and through build-up of the station platforms, thus releasing the track areas for the follow-on track and systems installations to commence followed by Commissioning activities. MWAA continues to disagree with DTP on the reasons cited for delays to the critical and subcritical paths. These include such items as the number of weather days and delays caused by the relocation of the VDOT HOT Lanes ramp, which directly or indirectly allowed negative float creep into other work sequences. In addition, MWAA is actively pursuing apparent omissions from DTP's schedule and schedule narrative. It has requested DTP further clarify and document the events that caused the delay to LG #2 which was primarily responsible for the delay to the critical path as identified in both the schedule and the schedule narrative. The schedule and schedule narrative address only those lost days caused by weather and temperature. It does not document the causes for the loss of LG #2 production for which DTP is responsible, including mechanical problems. In addition, it does not document nor reflect that had DTP taken the path

of Project execution contained in the approved Baseline Schedule, the night shift work necessary for relocation of the VDOT HOT Lanes ramp would not have been necessary.

MWAA and DTP met 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 completed negotiations with the goal of reaching a mutually agreed recovery plan. This effort resulted in the issuance of two "Directive Letters" to DTP to conduct a constructive acceleration effective December 15, 2010 on a time and material basis not to exceed seven million dollars. DTP submitted a zero loss recovery schedule on January 12, 2011. The schedule proposes a mitigation period of fourteen months, extending from January 2011 through February 2012. A detailed review and additional discussions led to MWAA's conditional acceptance of the Recovery Schedule via letter dated February 7, 2011. Both have agreed to work toward a lump sum Change Order based upon the agreed Recovery Schedule scope. The Airports Authority is now conducting an independent cost estimate and plans to enter cost negotiations in the near future.

The PMOC considers the issuance of these directive letters and agreement on the recovery schedule scope to be a good first step toward recovery of the Contract Completion Date. However, the Project will need to reach a timely agreement on the acceleration costs and maintain this forward momentum in order to recover the -113 day mainline construction loss and to overcome any unforeseen delays that may yet be faced in the months to come. In addition, the Project needs to increase its efforts to resolve disagreements relative to the West Falls Church Yard (WFCY) schedule in order to minimize the risk of irretrievable schedule creep leading to costly schedule compression or at least to minimize constructive acceleration costs. This need becomes increasingly critical as the WFCY yard completion date continues to fall further behind to February 19, 2014 as reflected in DTP's December schedule update.

In addition, MWAA does not agree with the schedule for the WFC yard contained in DTP's December Update. MWAA's position has been that DTP's completion date is incorrect in light of the inaccurate WFC Yard Scope. MWAA has reviewed the Final Design Submittal of the Service and Inspection Annex Building and developed a schedule which indicates completion of the WFC Yard much closer to the original SSCD of July 31, 2013 is feasible. It is also MWAA's position that, because a large portion of the West Falls Church Yard construction will be accomplished as Allowance items, the opportunity exists to make the original scheduled completion a requirement for prospective bidders and as such any necessary acceleration cost would be competitively bid. The PMOC is in agreement with this assessment.

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 begin and be sustained remains tentative until the mainline recovery schedule costs and the WFC Yard recovery schedule and cost have been agreed upon.

The following table compares the milestone dates relative to the approved baseline schedule. The PMOC concurs with MWAA's assessment of the updated schedule.

MILESTONE	June 2008 Baseline Schedule	November 2010	December 2010	December 2010 RECOVERY SCHEDULE
Receipt of FFGA	03/03/09	03/10/09 ^A	03/10/09 ^A	03/10/09 ^A
Station Design Complete	10/21/09	02/10/11	02/18/11	02/18/11
Utility Relocation Complete	03/05/10	08/17/11	09/13/11	09/13/11
Aerial and Station Foundations Complete	3/4/11	06/09/11	09/01/11	09/01/11
NATM Tunnels Mined	01/29/11	12/03/10	12/03/10 ^A	12/03/10 ^A
K-Line Tie-In	12/23/11	03/29/12	03/29/12	03/28/12
Guideway Complete	2/12/12	10/15/12	11/08/12	09/13/12
Train Control Complete	10/26/12	12/26/12	01/18/13	10/29/12
Substantial Completion	07/31/13	11/19/13	11/21/13	07/31/13
Revenue Operations - Target	11/27/13	03/25/14	03/27/14	01/20/14
FFGA Revenue Operations	12/01/14	12/01/14	12/01/14	12/01/14

^A Actual Date

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 *December 25, 2010* is as follows. Overall, approximately 34.0 % of the budget has been expended through *December 25, 2010*.

FTA SCC CODE	DESCRIPTION	BASELINE BUDGET	CURRENT BUDGET ¹	EXPENDED TO DATE	ESTIMATE AT COMPLETION
10	Guideway and Track Elements	\$ 666,500,284	\$ 649,438,815	\$ 251,773,488	\$ 649,438,815
20	Stations	\$ 317,023,979	\$ 314,530,699	\$ 40,964,233	\$ 314,530,699
30	West Falls Church Yard	\$ 51,789,539	\$ 49,943,380	\$ 1,970,010	\$ 50,305,150
40	Site Work & Utility Relocation	\$ 232,936,987	\$ 233,205,942	\$ 144,134,314	\$ 255,067,902
50	Systems	\$ 278,157,645	\$ 281,843,420	\$ 40,177,768	\$ 280,610,642
60	Right of Way Acquisition	\$ 45,953,303	\$ 67,631,026	\$ 50,878,521	\$ 67,795,262
70	Vehicles	\$ 211,629,775	\$ 211,629,775	\$ 20,825,600	\$ 210,926,012
80	Professional Service	\$ 698,471,472	\$ 716,271,902	\$ 488,318,100	\$ 727,656,021
90	Contingency Mgmt. Reserve	\$ 130,000,075	\$ 107,992,103	\$ -	\$ 76,156,560
100	Finance Charge	\$ 509,984,571	\$ 509,984,571	\$ 29,800,079	\$ 509,984,571
TOTAL (Federal portion)		\$ 3,142,471,634	\$ 3,142,471,634	\$ 1,068,842,113	\$ 3,142,471,634

Current budget equals FFGA amount plus approved Change Orders CO-001-062, Directive Letters 001-022, and UR-CO-001-033. Estimate at Completion (EAC) includes changes and forecast.

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, December 2010

DESCRIPTION	FFGA AMOUNT (Original)	EXPENDITURE TO DATE ¹	ESTIMATE TO COMPLETE	ESTIMATE AT COMPLETION
FEDERAL (FFGA SCOPE)				
Design-Build				
Firm Fixed Price	\$ 1,112,052,172	\$ 597,755,114	\$ 810,210,178	\$ 1,407,965,292
Firm Fixed Price Insurance and Bonds	\$ 65,109,408	\$ 64,630,077	\$ 4,644,192	\$ 69,274,269
Firm Fixed Price Subtotal	\$ 1,177,161,580	\$ 662,385,191	\$ 814,854,370	\$ 1,477,239,561
Subcontract Allowance	\$ 430,199,817		\$ 225,884,050	\$ 225,884,050
Design-Build Contract Prices	\$ 1,607,361,397	\$ 662,385,191	\$ 1,040,738,420	\$ 1,703,123,611
Indexed Commodity Escalation	\$ 77,469,926	\$ -	\$ 57,907,009	\$ 57,907,009
Design-Build Contract Total	\$ 1,684,831,324	\$ 662,385,191	\$ 1,098,645,429	\$ 1,761,030,620
Utility Relocation				
Utility Work	\$ 84,312,807	\$ 87,078,359	\$ 16,922,517	\$ 104,000,876
Terf Tax		\$ -	\$ 0	\$ 0
Project Management and Final Design	\$ 8,423,426	\$ 16,446,904	\$ 1,695,839	\$ 18,142,742
Utility Relocation Total	\$ 92,736,233	\$ 103,525,263	\$ 18,618,356	\$ 122,143,619
Right of Way				
Right Of Way Total	\$ 42,443,132	\$ 50,878,521	\$ 16,916,741	\$ 67,795,262
WMATA Agreement				
Vehicles	\$ 195,138,329	\$ 20,825,600	\$ 173,608,966	\$ 194,434,567
Construction and Procurement	\$ 31,484,799	\$ 1,794,832	\$ 28,772,192	\$ 30,567,024
WMATA Force Account Startup	\$ 13,777,100	\$ 1,265,653	\$ 12,139,368	\$ 13,405,021
Project Management and Final Design	\$ 31,235,400	\$ 12,779,930	\$ 20,449,087	\$ 33,229,017
WMATA Agreement Total	\$ 271,635,628	\$ 36,666,016	\$ 234,969,613	\$ 271,635,628
Preliminary Engineering^{2,3}				
Preliminary Engineering Total	\$ 100,968,646	\$ 100,730,999	\$ -	\$ 100,730,999
Airports Authority Services				
General Conditions ⁴	\$ 28,879,153	\$ 5,103,917	\$ 21,568,072	\$ 26,671,989
Airports Authority Project Management and Wiehle Ave Garage	\$ 23,225,717	\$ 17,355,268	\$ 6,568,049	\$ 23,923,317
Project Management Support	\$ 90,004,649	\$ 62,396,859	\$ 31,968,724	\$ 94,365,583
Airports Authority Services Total	\$ 142,109,519	\$ 84,856,044	\$ 60,104,844	\$ 144,960,889
Contingency⁵				
Contingency Total	\$ 297,762,579	\$ -	\$ 164,190,046	\$ 164,190,046
Finance Costs				
Finance Costs Total	\$ 509,984,571	\$ 29,800,079	\$ 480,184,492	\$ 509,984,571
Total Federal (FFGA Scope)	\$ 3,142,471,634	\$ 1,068,842,113	\$ 2,073,629,521	\$ 3,142,471,634
INTERRELATED HIGHWAY IMPROVEMENTS				
Design-Build				
Firm Fixed Price - Engineering	\$ 5,929,082	\$ 4,088,719	\$ 23,551,985	\$ 27,640,704
Firm Fixed Price Insurance and Bonds	\$ 2,889,450	\$ 937,967	\$ 152,114	\$ 1,090,082
Firm Fixed Price Subtotal	\$ 8,818,532	\$ 5,026,686	\$ 23,704,099	\$ 28,730,785
Subcontract Allowance	\$ 18,854,682	\$ -	\$ 18,854,682	\$ 18,854,682
Design-Build Contract Total	\$ 27,673,214	\$ 5,026,686	\$ 42,558,781	\$ 47,585,467
Utility Relocation				
Utility Work	\$ 31,552,369	\$ 35,382,071	\$ 6,283,973	\$ 41,666,044
Terf Tax		\$ -		
Project Management and Final Design	\$ 4,727,549	\$ 7,562,387	\$ 777,724	\$ 8,340,111
Utility Relocation Total	\$ 36,279,918	\$ 42,944,458	\$ 7,061,697	\$ 50,006,156
Right of Way				
Right Of Way Total	\$ 44,772,663	\$ 17,039,543	\$ 2,860,336	\$ 19,899,879
Airports Authority Services				
General Conditions ⁴		\$ 1,306,585	\$ 108,672	\$ 1,415,256
Airports Authority Services Total	\$ -	\$ 1,306,585	\$ 108,672	\$ 1,415,256
Contingency⁵				
Contingency Total	\$ 14,482,435	\$ -	\$ 4,301,471	\$ 4,301,471
Total Interrelated Highway Improvements	\$ 123,208,229	\$ 66,317,272	\$ 56,890,957	\$ 123,208,229
TOTAL PROJECT COST	\$ 3,265,679,863	\$ 1,135,159,385	\$ 2,130,520,478	\$ 3,265,679,863

¹ Reflects Paid costs through December 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.

⁵ Estimate at Completion for Contingency reflects the amount approved for utilization per PM-5.07.

c. Project Funding Sources: December 2010

SOURCES OF CAPITAL FUNDING	GRANT ID	PERCENT AT COMPLETE	TOTAL	EXPENDED TO DATE ¹	PERCENT FUND SOURCE EXPENDED TO DATE	REMAINING
Sec 5309 New Starts Federal Funds						
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		\$ -
FFGA Construction Grant	VA-03-0113-02		\$ 28,809,000	\$ 28,809,000		\$ -
FFGA Construction Grant	VA-03-0113-03		\$ 85,000,000	\$ 22,796,923		\$ 62,203,077
FFGA Balance	Planned		\$ 495,516,636	\$ -		\$ 495,516,636
Subtotal - New Starts		28.64%	\$ 900,000,000	\$ 342,280,287	38.03%	\$ 557,719,713
Other Federal Funds						
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
STP/Sec. 5307		2.39%	\$ 75,000,000	\$ 47,218,109	63%	\$ 27,781,891
Local Funds						
VTA 2000			\$ 51,700,000	\$ 51,700,000		\$ -
Commonwealth Transportation Bonds ²			\$ 125,000,000	\$ 113,437,837		\$ 11,562,163
Fairfax County Funds ³			\$ 523,750,000	\$ 94,000,000		\$ 429,750,000
Dulles Toll Road Revenues ^{2,4}			\$ 1,467,021,634	\$ 420,205,880		\$ 1,046,815,754
Subtotal - Local Funds		68.97%	\$ 2,167,471,634	\$ 679,343,717	31.34%	\$ 1,488,127,917
Total Project Budget		100%	\$ 3,142,471,634	\$ 1,068,842,113		\$ 2,073,629,521
Interrelated Highway Activities						
DTR Revenues/Commonwealth Funds³			\$ 123,208,229	\$ 66,317,272	53.83%	\$ 56,890,957
Total			\$ 3,265,679,863	\$ 1,135,159,385		\$ 2,130,520,478

¹ Reflects costs through December 2010

² 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

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

⁴ 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 December 25, 2010, MWAA reports that it has utilized \$118,457,285 of the available authorized federal contingency of \$200,000,000 for Contingency Phases 1 through 5. 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 be fully complete in the third quarter of 2011. MWAA now reports that it has \$15,115,250 obligated from Phase 6 through 10 monies. Of the total project contingency of \$297,762,579, the project has \$164,190,044 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 113 calendar days of the total of 510 calendar days. The balance in schedule contingency is 397 calendar days.

- MWAA has been following their Risk Management Plan dated October 2008. *The consultant submitted a draft of the Risk Analysis, a primary component of the RMP, to MWAA in December 2010. MWAA and the PMOC discussed the draft on January 26, 2011 and determined that some refinements were needed. MWAA now expects to submit the final Risk Analysis to the FTA and PMOC in late February 2011. Upon incorporation of the PMOC’s review comments, the RMP will be completed by MWAA.*

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. <i>Twenty-two of thirty-five</i> sub-contract packages have been awarded to date. The variance of the awarded cost versus allowance budget is \$14.44 million. However, a sharp increase is expected in the coming quarter.
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 self-performed 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.

Risk No.	Risk Description	SCC Reference	Risk Category Cost Sched		Status (Change from Previous Month)
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.
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>Cost risk closed. Schedule risk remains.</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. PMOC requested MWAA to include a schedule risk since the schedule does not currently meet the FFGA date.
M-12	Unpredictability of ROW settlement costs.	10.04	X		Unchanged. Use of condemnation has increased the ROW costs.

Risk No.	Risk Description	SCC Reference	Risk Category		Status (Change from Previous Month)
			Cost	Sched	
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.
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	Y	Y	The integrated organizational structure has been formally implemented, and the PMP <i>has</i> 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>and subsequently to MWAA. MWAA submitted the revised PMP to the FTA on January 25, 2011. PMOC recommended approval on February 11, 2011.</i>	C
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 be submitted for all eleven newly constructed piers on existing pier foundations. <i>Corrective action was on-going in January on Pier 5B-OB. Three interim reports covering the acceptable continuity testing on ten of eleven piers were transmitted to the FTA by letters dated November 24, 2010, December 17, 2010 and January 24, 2011. A final report will be provided as soon as the remaining data become available.</i>	R
3	2A.02	Update Permitting Plan Appendices (June 2010)	Appendices need to reflect actual permitting agencies roles and responsibilities	Y	Y	Y	MWAA was requested to update the Permitting Plan Appendices at the June 2010 meeting. MWAA submitted the updated permitting appendices on December 21, 2010.	C

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 <i>a revised Risk Analysis and following receipt of the PMOC's comments the RCMP will be completed.</i>	R
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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

AAC	Agreement After Certificate
ARRA	American Reinvestment and Recovery Act
ASSHTO	American Association of State Highway and Transportation Officials
BFMP	Bus Fleet Management Plan
CCC	Construction/Procurement/Installation Conformance Checklist
CD	Calendar Days
CPM	Critical Path Method
CTI	CTI Consultants, Inc.
CY	Calendar Year
DB	Design-Build
DCC	Design Conformance Checklist
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
RCMP	Risk and Contingency Management Plan
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
WFCY	West Falls Church Yard
WMATA	Washington Metropolitan Area Transit Authority
XO	Executive Officer

APPENDIX B -- PROJECT OVERVIEW AND MAP

Project Overview

Date: February 25, 2011 (reporting current through January 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.

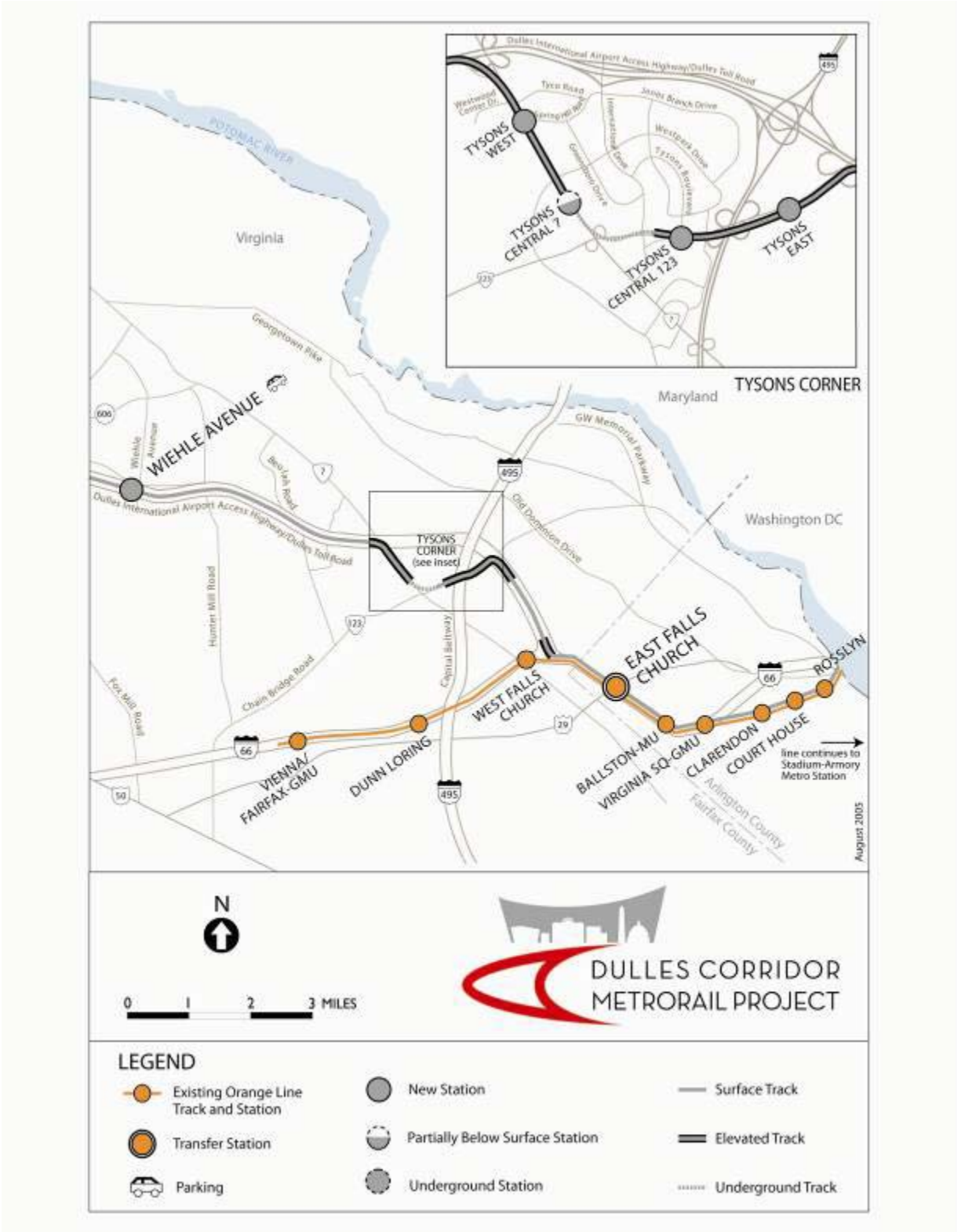
Schedule

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
03/27/14	Revenue Operations Date (ROD) <i>as of December 25, 2010</i>		
27.0%	Percent Complete Construction <i>as of January 31, 2011.</i>		
33.3%	Percent Complete Time based on ROD of December 1, 2014 (based on FFGA)		
45.09%	MWAA's Estimate of Project Earned Value through <i>December 2010</i>		

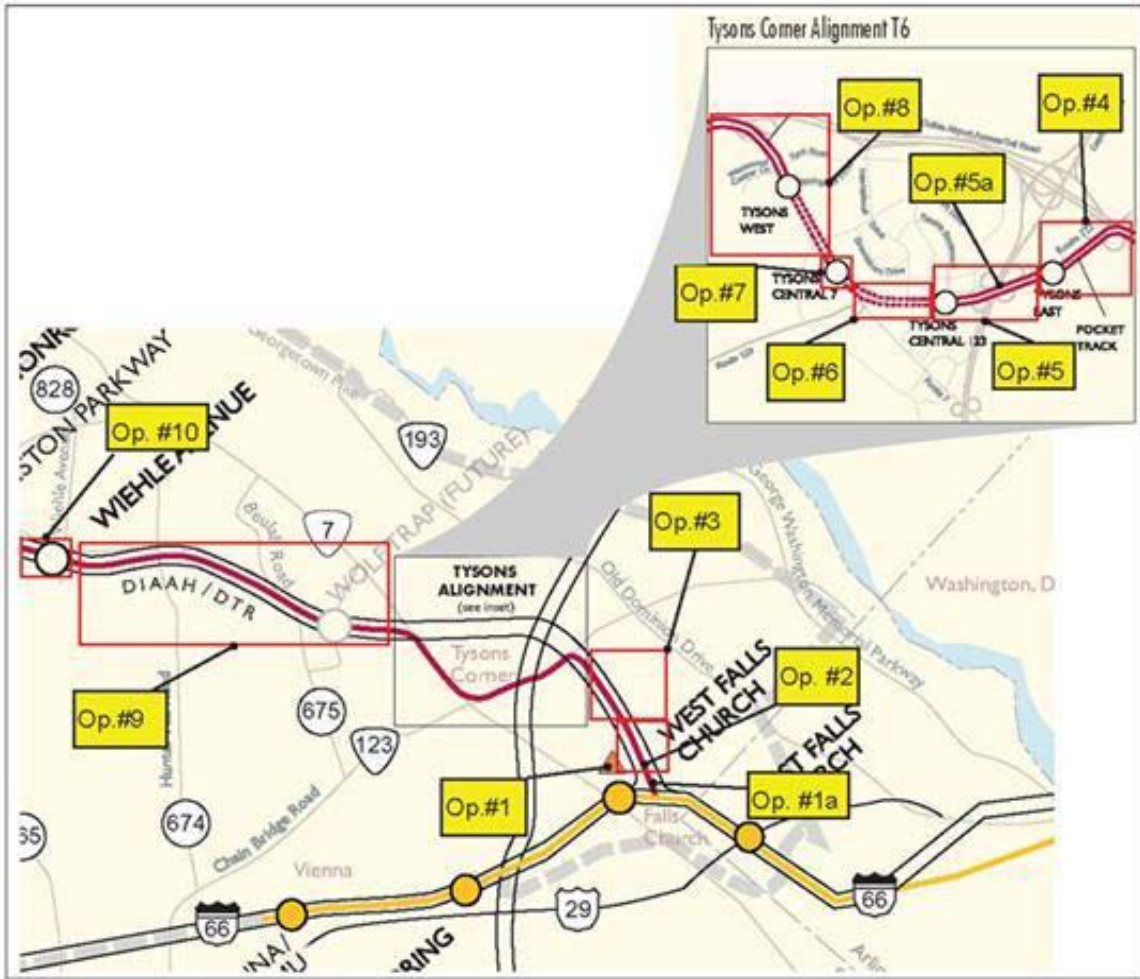
Cost

\$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
<i>\$1.068 billion</i>	Expenditures through <i>December 2010</i> from total project budget of \$3.142 billion
<i>34%</i>	Percent complete based on <i>federal</i> expenditures through <i>December 2010</i> .
<i>\$164.190 million</i>	Total project contingency remaining (allocated and unallocated) through <i>December 2010</i> .

Project Map



Construction Operational Areas



APPENDIX C – MWAA SAFETY AND SECURITY CHECKLIST

Project Overview	Dulles Corridor Metrorail Project		
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		
Project Plans	<i>Version</i>	<i>Review By FTA</i>	Status
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.
Safety and Security Authority	Y/N		Notes/Status
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 was 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 January 26, 2011 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.
SSMP Monitoring		
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	

Construction Safety		
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	
Federal Railroad Administration		
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]

[REDACTED]

[REDACTED]

[REDACTED]

[REDACTED]

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