

**COMPREHENSIVE MONTHLY REPORT**

**May 2015**

**Dulles Corridor Metrorail Project  
Phase 2  
(Wiehle Avenue Station to Route 772 Station)**

Metropolitan Washington Airports Authority  
Washington, DC

July 10, 2015

**PMOC Contract Number:** DTFT60-14-D-00011

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**OPs Referenced:** 01, 25

**Hill International, Inc.**

One Commerce Square  
2005 Market Street, 17<sup>th</sup> Floor  
Philadelphia, PA 19103

**PMOC Lead:** [REDACTED]

**Length of Time PMOC Assigned to Project:** 2 years

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## EXECUTIVE SUMMARY

The Project Management Oversight Contractor (PMOC) met with Metropolitan Washington Airports Authority (MWAA) on *June 10, 2015* to conduct the monthly progress meeting for work performed in *May 2015* on Phase 2 of the Locally Preferred Alternative (LPA) for the Dulles Corridor Metrorail Project. The Phase 2 project extends from the Wiehle Avenue Station in Fairfax County through Dulles International Airport to the Route 772 Station in Loudoun County. The PMOC plans to conduct future PMOC monthly progress meetings during the second 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), the Dulles Toll Road within Fairfax County, and the Dulles Greenway, a private toll road in Loudoun County. MWAA is implementing the LPA in two phases as described below.

Phase 1 of the Project (Initial Operating Segment), which went into revenue service on July 26, 2014, provided 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 constructed at Wiehle Avenue with a total project cost of \$3.142 billion. Included in the Project were five new stations (McLean, Tysons Corner, Greensboro, Spring Hill and Wiehle-Reston East), improvements to the existing yard at WFC, and tail tracks beyond the Wiehle Avenue station. The procurement of sixty-four new rail cars was also included for Phase 1.

Phase 2 of the Project will provide 11.4 route miles of new track from the interim terminus at Wiehle-Reston East Station through Washington Dulles International Airport ("Dulles Airport") to a terminus in eastern Loudoun County. Phase 2 includes six new stations (Reston Town Center, Herndon, Innovation Center, Dulles Airport, Route 606 and Route 772 Stations). Phase 2 also includes a maintenance and storage yard facility at Dulles Airport, wayside facilities (including traction power substations, tiebreaker stations, and stormwater management ponds along the alignment), 5 new parking facilities with a total of 8,900 parking spaces, and sixty-four new railcars. The current Phase 2 project budget is \$2,778,235,564 exclusive of parking facilities and finance costs. According to the last approved Package A schedule (March 2014 Schedule Update), Phase 2 Revenue Service would begin in early 2019. *However*, MWAA announced on April 27, 2015 that they anticipated a delay of thirteen months to the Project.

### **2. Project Status Summary**

The PMOC met with MWAA on *June 10, 2015* to conduct the Phase 2 monthly progress review meeting. The information provided is as of *May 31, 2015*, unless otherwise noted.

- **National Environmental Policy Act (NEPA)** – MWAA and FTA prepared an EA in April 2012 covering the preliminary engineering design refinements for Phase 2, which they released for public review on May 10, 2012. Subsequently, the FTA Regional Administrator issued a Finding of No Significant Impact (FONSI) on December 17, 2012.

- **Procurement Status** – Phase 2 is divided into several packages that were procured separately: Package A includes the final design and construction of 11.4 miles of the rail line, stations and systems elements; Package S (the Advanced Earthwork Contract) is for the removal and relocation of the Phase 1 soils currently stockpiled at the Maintenance Facility site associated with Package B; Package B includes the final design and construction of the WMATA Maintenance Facility at the northwest corner of the Dulles Airport property; and Parking Facilities (formerly Package C) includes the design and construction of the five parking facilities at the stations in Fairfax and Loudoun counties. MWAA awarded the contract for Package A on May 14, 2013 and issued the Notice-to-Proceed (NTP) on July 8, 2013. MWAA awarded the contract for Package S on November 1, 2013 and issued the NTP on November 18, 2013. Lastly, MWAA awarded the contract for Package B on July 29, 2014 and issued the NTP on August 18, 2014.
- **Disadvantaged Business Enterprise (DBE) Goal** – MWAA developed a DBE Project Goal of 25% of federal participation cost for Phase 2 that FTA reviewed and accepted. MWAA has continued to monitor DBE Subcontract awards and verify DBE payments. To date, Phase 2 DBE subcontractors have been awarded \$177,835,676 in contracts and have been paid a total of \$30,982,862. During *May 2015*, \$7,133,719 in new DBE subcontracts was awarded. Phase 2 Prime Contractors made \$1,313,948 in payments to DBE subcontractors.
- **Third Party Agreements** – MWAA reported that it required six Intergovernmental Agreements for Phase 2: WMATA, the Dulles Greenway, Loudoun County, Fairfax County, Virginia Department of Transportation (VDOT), and the Town of Herndon. All six Intergovernmental Agreements were executed as of December 5, 2013. A Local Funding Agreement to transfer to VDOT the project-related scope of work for Route 606, which includes an intersection improvement and addition of a turn lane, was signed by MWAA and executed by VDOT on June 11, 2014.
- **Real Estate Acquisition** – FTA approved the increase for threshold limits for the Dulles Phase 2 Project on July 3, 2014. FTA transmitted its comments on the Real Estate Acquisition Plan (RAMP), Revision 2 to MWAA on July 9, 2014 for incorporation into the next revision of the RAMP. MWAA addressed the comments and resubmitted Revision 3 to the RAMP, including Procedure P2M-3.01, on August 6, 2014. The PMOC recommended that FTA accept this revision and the FTA letter accepting the RAMP was sent to MWAA on August 18, 2014.
- **Permits** – MWAA resubmitted the Permit Management Plan on April 1, 2014 incorporating all previous FTA and PMOC comments. On April 22, 2014, the PMOC advised FTA that the comments to the earlier submissions of the Permit Management Plan had been incorporated, and recommended that FTA accept the Permit Management Plan. On August 8, 2014, FTA issued a letter approving the Phase 2 Permit Management Plan, Revision 1.
- **Design Progress** – MWAA reported that the outcome of the April 3, 2014 meeting with the AHJs was that the Preliminary Design submittal was conditionally accepted for the purposes of code basis and advancement of design; however, DGS has reserved accepting the Preliminary Design until CRC revises and resubmits the Route 772 Station design to address DGS comments. The 60% submittal was made on March 20, 2015 and underwent parallel reviews by MWAA and DGS. MWAA accepted the design submission with comments at the end of April 2015. *During May 2015, the overall design was reported at 83% complete*

*and the Issued for Permit (IFP) packages were reported to be 90% complete. In May 2015, three 90% packages, eleven 100% packages and twenty-two IFPs packages were submitted by CRC.*

Package S, the advanced earthwork contract to clear the on-airport site for the Package B rail yard, was awarded in November 2013 to Atlantic Contracting and Material Company (ACMC). Package S work was completed on December 8, 2014 with the exception of punch list work and seeding that cannot be completed until the spring. *MWAA reported at the June 10, 2015 update meeting that the punch list work was completed on May 15, 2015.*

Fairfax and Loudoun Counties will manage the final design and construction of the Parking Facilities (formerly Package C). Fairfax County provided formal notification via a letter to the Airports Authority, dated December 29, 2014, that Fairfax County will fund and build Herndon Station and Innovation Center Station parking facilities. Fairfax County plans to design, construct, own, maintain, and operate both parking facilities to be located in the County. Fairfax County anticipates issuing a Design-Bid-Build solicitation through the Public Works and Environmental Services Department for the construction of both of their parking facilities. Fairfax County started design development in September 2014 with twelve months for design, the NTP for construction in late 2015 and thirty months for construction with a project completion date of May 2018. Fairfax County has completed the schematic design and is awaiting MWAA's revised Project Schedule before proceeding further.

On January 15, 2014, the Loudoun Board of Supervisors voted in favor of the County taking responsibility for the funding and construction of the Route 606 Station and 772 Station North and South parking facilities, providing TIFIA funding was forthcoming. The County communicated this provisional commitment via a letter to the Airports Authority, dated January 23, 2014. Loudoun County has issued a solicitation through the Commonwealth of Virginia Public-Private Transportation Act of 1995 (PPTA) for proposals from qualified private entities for the design, construction, financing, operation and maintenance of up to three parking facilities in Loudoun County in conjunction with Phase 2 of the Dulles Corridor Metrorail Project. Loudoun County reviewed the Best and Final Offers (BAFOs) and issued a short list for each parking facility for negotiations for the Design-Build-Operate-Maintain and Finance (DBOM+F) contract award. Comstock was selected for the Route 772 North Parking Facility and Nexus was selected for the Route 772 South and Route 606 Parking Facilities. Loudoun County is in the process of negotiations for each of the parking facilities.. Loudoun County anticipates commissioning the parking garages in April 2018; three months prior to the Phase 2 project baseline scheduled substantial completion date of July 2018. However, the schedule for completion of two of the three parking facilities is dependent upon the completion of the Package A and Package B contracts. Since MWAA has announced a thirteen month delay to Package A, Loudoun will re-evaluate their schedule for the parking facilities' completion when a revised Project schedule is finalized. The developer, Comstock, of the Route 772 North Parking Facility has proposed relocating the facility to a site owned by Comstock. The Loudoun County Board of Supervisors voted to award negotiation rights to Comstock on this proposed change at their February 4, 2015 meeting. An interim agreement enumerating the key elements to be contained in the comprehensive agreement have been agreed to by Comstock and Loudoun County. Loudoun County also reached Interim Agreements with Nexus for the Route 772 South and Route 606

Parking Facilities. Loudoun County is meeting with both Comstock and Nexus on a bi-weekly basis to work out the details of the Comprehensive Agreements. *Loudoun County now expects the completion of the Comprehensive Agreements for the garages to be completed by the end of September 2015.*

- **Construction Progress** – MWAA issued a NTP for the Package A Contract on July 8, 2013. The contract is approximately 38.3% complete, based on time. The scheduled substantial completion date is July 7, 2018. MWAA also issued a NTP for Package S on November 18, 2013, and the scheduled substantial completion date was December 8, 2014. Package S is 100% complete based on time and has been completed with the exception of punch list items and seeding that will be completed in the spring of 2015. Lastly, MWAA issued a NTP for Package B on August 18, 2014, and the scheduled substantial completion date is August 17, 2018. Package B is approximately 20.3% complete based on time.
- **Budget Status** – The Phase 2 project budget is \$2,778,235,564, exclusive of the parking facilities. As of April 2015, project expenditures total \$438,217,480. Based on the budget and expenditures, the total project completion is 19%. This percentage does not include finance charges and contingency.

Primary funding for Phase 2 comes from MWAA (8.39%), Fairfax County (18.54%), Loudoun County (9.83%), Commonwealth of Virginia (11.62%), and the Dulles Toll Road (51.62%). On August 20, 2014, United States Department of Transportation (USDOT) Transportation Infrastructure Finance and Innovation Act (TIFIA) credit assistance program executed a loan with MWAA, not to exceed \$1.278 billion to assist in financing its share. The TIFIA Loan was closed with Loudoun County for up to \$195 million on December 9, 2014. The TIFIA Loan was closed with Fairfax County on December 17, 2014, for up to \$403 million. The U.S. Department of Transportation has provided a total of \$1.87 billion in TIFIA Loans to support the construction of Phase 2 of the Project.

- **Risk** – On November 13, 2013, MWAA resubmitted RCMP, revision 1c based on comments received from FTA and PMOC. The PMOC reviewed and recommended that FTA accept this revision on November 27, 2013. FTA forwarded a letter accepting the RCMP to MWAA on February 4, 2014.

With the commitment from both Fairfax and Loudoun Counties to fund and procure the parking facilities independently, MWAA has revised its Phase 2 project budget to \$2,778,235,564. MWAA revised and resubmitted RCMP Revision 1d to the FTA on June 20, 2014 for review. During the review of the RCMP Revision 1d, the PMOC noted that the Top Ten Risks list had been revised, ranking the change to the Stormwater Management Part-II B regulations as the top risk to the Phase 2 project. The PMOC has recommended to the FTA that the RCMP, Revision 1d be conditionally approved, and requested that MWAA provide documentation developed as a result of the MWAA internal risk workshop(s) performed to support the revisions between RCMP Revision 1c and 1d. Based upon the receipt of this information, FTA will determine whether a full risk workshop will be required. MWAA submitted the “Historical Development of Internal Risk Workshops” on December 19, 2014. The last formal MWAA risk workshop was in July 2012. On February 9, 2015, MWAA submitted the results of an internal risk workshop held on December 12, 2014 with proposed top ten risks for the fourth quarter of 2014. PMOC had questions with regard to some of the ranking scores and MWAA responded with additional information on March 23,

2015. This submission was discussed after the April 8, 2015 update meeting and MWAA is to provide additional details. *MWAA submitted a revised Risk Register and proposed Top Ten Risk List on May 5, 2015, which raised several questions by the PMOC relative to scoring and consistency. The issue was discussed with MWAA after the regular June 10, 2015 meetings. It was agreed that MWAA would update the risk register which would be discussed after the upcoming July 8, 2015 project update meetings. MWAA will submit updated risk scoring information prior to that meeting so the PMOC can review it.*

- **Schedule Status** – The Package A DB Contractor, CRC, formally submitted the draft Baseline Schedule on November 26, 2013, 11 days late, and met with MWAA in December to review the Baseline Schedule. On December 31, 2013, MWAA received CRC’s draft Final Baseline Schedule, which addressed MWAA’s comments. MWAA reviewed the document, accepted-as-noted the draft Final Baseline Schedule, and CRC made some minor changes to the schedule. The Final Baseline Schedule was resubmitted by CRC and was “accepted as noted” by MWAA in February 25, 2014. The critical path in the Final Baseline Schedule is through the Innovation Center Station and shows zero float.

The initial Package A Rolling Baseline Schedules were submitted on July 16, 2014 and August 19, 2014, were not accepted by MWAA. CRC’s Proposed Revised Baseline Schedule (PRBS), reflecting progress through February 28, 2015, was received on April 6, 2015 and showed a revised Scheduled Substantial Completion Date (SSCD) of August 7, 2019. The PRBS reflects a thirteen month delay to the contractual SSCD. MWAA determined that the submitted PRBS was not contractually compliant and failed to represent a realistic path forward. MWAA’s “not accepted” disposition was communicated to CRC by a letter dated April 15, 2015. *Subsequently, CRC submitted a revised final PRBS on May 4, 2015, which was “Accepted as Noted” by MWAA on May 12, 2015. The PRBS reflects progress through February 28, 2015 with an agreed revised Scheduled Substantial Completion Date (SSCD) of August 7, 2019 which incorporates the thirteen month time extension. CRC’s April 2015 Monthly Schedule Update was submitted on May 14, 2015 utilizing the “Approved as Noted” Revised Baseline Schedule (RBS). The Monthly Schedule Update reflected August 28, 2019 for the Project SSCD, a 21 calendar days slippage. The primary cause of the schedule slippage is due to the lack of progress on Herndon Station jack and bore operations. CRC is to develop plans mitigating this delay and is to incorporate them into its May 2015 Monthly Schedule Update. The April Monthly Schedule Update was “Accepted as Noted” predicated on CRC’s commitment to incorporate the agreed adjustments in its May 2015 Monthly Schedule Update.*

The SSCD for Package S was achieved on December 8, 2014 with the exception of punch list work. The major outstanding item is the establishment of turf that could not proceed until the spring of 2015. The contractor attempted to establish turf with seed and mulch but was unable to do so during the November/December 2014 timeframe. *During the June 10, 2015 meeting, MWAA reported that the remaining work was completed on May 15, 2015.*

Hensel Phelps Construction Company HPCC presented its baseline schedule to the Project senior management team on January 16, 2015. MWAA and HPCC have been meeting on a weekly basis to address MWAA’s comments and concerns. HPCC submitted its Final Baseline Schedule on January 28, 2015, and issued subsequent revisions on February 17 and February 24, 2015. MWAA “Accepted as Noted” the Final Baseline Schedule on March 13,

2015. This schedule *is* the basis for the Package B Monthly Updates and pay requests. *MWAA received HPCC's May 2015 Schedule Update on June 5, 2015 which was "accepted as noted." The schedule reflects thirty-nine days of delay to the SSCD to September 25, 2018.*

- **Rail Car Procurement** – On August 15, 2012, MWAA authorized WMATA to amend their contract with Kawasaki to exercise the option for an additional sixty-four 7000 Series railcars for Phase 2. WMATA's letter of August 30, 2012 to MWAA confirmed the amendment to the Kawasaki Contract for the Phase 2 railcars. The latest schedule from Kawasaki dated *May 25, 2015 continues to show* final delivery for the last Phase 2 vehicle no later than July 19, 2017.
- **Personnel** – On July 28, 2014, MWAA submitted its proposed re-organization chart, draft description of the roles and responsibilities of the key staff, and the resumes for five key staff members in the proposed reorganization of the Phase 2 Project. The PMOC reviewed the submittal and provided comments to MWAA on August 6, 2014. MWAA addressed the PMOC's comments in the next draft revision of PMP (Draft Version 2.0) transmitted to the PMOC for review and approval on November 14, 2014. FTA approved, with comments, the PMP Draft Version 2.0 and the accompanying Project Management Procedures on January 22, 2015. MWAA submitted the Final PMP Version 2.0 to FTA on February 6, 2015 which was reviewed by PMOC which recommended acceptance with comments to the FTA on March 27, 2015. *It was recommended that the PMP be updated by the end of September 2015 due to the recent MWAA Project Team departures, new hires and reassignment of duties and reporting relationships.*

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

MWAA's proposed reorganization of the Phase 2 staff includes several new staff positions that MWAA is in the process of filling. FTA needs to monitor closely the transition of staff from the Phase 1 project to Phase 2 to ensure that there are adequate levels of dedicated and experienced staff on both projects through the completion of Phase 1, and the procurement activities and the completion of final engineering of the Phase 2. The transition of staff from Phase 1 to Phase 2 has been impacted due to the delay in the substantial completion of Phase 1; however, this delay did not appear to have a major impact on the implementation of the Phase 2 project.

Additionally, the effective working relationship between MWAA and WMATA during Phase 1 needs to continue for Phase 2. PMOC has expressed a concern to MWAA that MWAA senior staff has airport rather than transit experience. With the proposed staff reorganization for the Phase 2 project, and the recent turnover of MWAA staff, FTA will need to monitor the effectiveness of staff in the revised positions as well to ensure that there are adequate levels of dedicated and experienced staff on each of the packages within the Phase 2 project.

MWAA incorporated into the Phase 2 project the design changes to enhance the new/improved system requested by WMATA during Phase 1. MWAA continues to issue conformed specifications for late resolutions on design changes requested by WMATA on Phase 1 to ensure that the revisions are addressed during the design phase and not during construction. It is expected that this will reduce the number of WMATA-requested design changes under Phase 2. MWAA also included the contractual requirement for MWAA approval at the 60%, 90% and 100% phases of the design in Division 1 of the DB Contract Specifications, in an effort to initiate design issue resolution at an earlier phase in the design.



Likewise, MWAA implemented lessons learned from the Phase 1 project to mitigate some of the potential risks in the Phase 2 project. Most significant of the lessons learned and implemented in Phase 2 was the elimination of Allowance Items, institution of a cost-loaded schedule requirement and requiring the DB Contractor to be responsible for utility relocations. As the Phase 2 project progresses into construction, MWAA needs to remain proactive in identifying and mitigating potential risks.

MWAA has implemented the SWM Part II-B revisions into the Package A design and construction. FTA and PMOC have expressed concerns that the total cost and schedule impacts for the revised SWM Part II-B still remain unknown. On April 27, 2015, MWAA announced that there would be a thirteen month delay to the SSCD. Details of the revised schedule remain to be made available. **MWAA noted at the May 6, 2015 update meeting that the additional delay costs associated with the stormwater and early design changes will not be available until the end of September 2015. There was no mention of when the design and construction costs resulting from the stormwater and early design changes would be available.**

#### **4. Phase 1 Closeout**

*MWAA has announced that there is a \$76 million increase to the non-federal portion of the Project Budget. The major portion of the increase is for the global settlement with Dulles Transit Partners (DTP) for the design-build contract at \$45.9 million. In addition, the increase includes closeout of WMATA open issues which include: ATC Loss of Speed Readout Study, Heat Tape Upgrades, Art-In –Transit, Traction Power Remote Terminal Units and Remaining Punch List Items. It is anticipated that all of these items will be completed by December 31, 2015. In addition, there are remaining punch list items from VDOT and Fairfax County. Most of these items are expected to be completed by the end of 2015. The major outstanding item is the resolution of the Old Meadow Road Realignment issue with VDOT. This will entail the performance of a cost/benefit analysis to determine what the resulting work will be. Any resulting work is expected to be completed by December 2016. The closeout of the FFGA is expected to occur six to eight months following payment of final Project costs which is expected to extend until late 2016 or early 2017.*

# MAIN REPORT

## 1. Grantee's Capabilities and Approach

### a. Technical Capacity and Capability

Based on lessons learned during the Phase 1 project, Metropolitan Washington Airports Authority (MWAA) is implementing an integrated project management organization consisting of MWAA and Project Management Support Services (PMSS) staff. The Board approved the contract for the PMSS and the contract was executed on July 26, 2013. The first task order issued to the PMSS, Jacobs Engineering, was to provide staffing support for Phase 2. Prior to the new contract, the PMSS staff provided support for Phase 2 for preliminary engineering under a separate contract that expired on July 26, 2013.

MWAA submitted a draft Project Management Plan (PMP) for Phase 2, Version 1.1, which includes project organization and a staffing chart. Because most of the Phase 1 staff will be transitioning to Phase 2, labor distribution charts for each position were also provided to determine levels of staffing by month. The PMP, including the current Phase 2 staffing levels, was reviewed and comments returned to MWAA for issuance of the final PMP on November 3, 2013. On April 2, 2014, MWAA transmitted the final Phase 2 PMP, Version 1.1, including the Project Management Procedures, which were being submitted to FTA for initial review. On April 23, 2014, the PMOC recommended approval of the PMP and Project Management Procedures, and on May 19, 2014, FTA issued a letter approving the PMP and Project Management Procedures.

The MWAA Manager of Quality Assurance/Quality Control (QA/QC) and Safety position has been split into two separate positions; Manager of QA/QC and Manager of Safety. The Manager of QA/QC position closed on June 3, 2014, and Ahmed Aziz started on August 25, 2014, but has subsequently left the Project. The position was advertised, interviews have been held, and William Green has been selected and started in March 2015. The Manager of QA/QC reports directly to the VP Engineering. MWAA added two additional QA/QC lead positions to increase the level of QA/QC review on the Phase 2 Project and be more proactive in the field. MWAA intends to use the resumes received in response to the Manager of QA/QC position to fill those additional positions. The QA/QC lead positions will be used for Package A and Package B, and will report to the respective package leads. *Ronnie "Joe" Cook has been selected for the lead QA/QC position for Package A and starts on June 16, 2015. Henry Gilbert was selected to fill the lead QA/QC position for Package B and started on May 19, 2015. The position of Deputy Director of Package has been re-advertised and a selection is expected to made in July 2015.*

The Manager of Safety position closed on June 13, 2014. MWAA stated that the number of resumes received was limited, and after a review of those received, not many applicants had any FTA safety experience. MWAA added that it re-advertised the position, interviews were held and, as of September 19, 2014, MWAA had selected a potential candidate. David Law started as Manager of Safety on December 1, 2014. *Mark Webster has been selected as the Package A Construction Safety and Security*

*Manager. The advertisement to fill the Package B Construction Safety and Security Manager has been advertised. Mark Webster is also acting in this position until it is filled.*

At the January 8, 2014 meeting, MWAA reported that because Substantial Completion Date was delayed on Phase 1, MWAA has not been able to transfer the Phase 1 staff to the Phase 2 project as projected. A revised staffing plan was included in the final PMP submitted on April 2, 2014, showing the gradual transfer of the Phase 1 staff to the Phase 2 project through July 2014. However, MWAA's proposed reorganization of the Phase 2 staff includes several new staff positions that MWAA is in the process of filling. MWAA advertised for the position of Director of Project Controls and Contracts for Phase 2. At the January 8, 2015 meeting, MWAA reported that a selection had been made for the position of Director of Project Controls and Contracts for Phase 2 and that a background check is being made. Joseph Grantham, PE started as Director of Project Controls and Contracts in March 2015. The PMOC will continue to monitor the transition of staff from the Phase 1 project to Phase 2 to ensure that there are adequate levels of dedicated and experienced staff on Phase 2 to ensure effective and efficient progression of final engineering and project management. As of the end of *May 2015*, *twenty-three* full time equivalents were still working on Phase 1. These numbers *show a decrease of one* from the *April 2015* report.

Mr. Volbrecht reported during the November 6, 2014 monthly update meeting that new contracting officer assignments have been made. He reported that Eric Carey will serve as the Phase 1 Contracting Officer; Carlo Enciso will serve as the Package A Contracting Officer (Carlo Enciso has left the Project and the position has been advertised with a closing date of January 15, 2015). Eric Carey is acting as the Package A Contracting Officer in the interim); Shirley Diamond will serve as the Package S Contracting Officer and Liz Bryan will serve as the Package B Contracting officer. Claudia Womble who began on March 9, 2015 will support Eric Carey on Package A.

MWAA reported that the number of full-time equivalents for Phase 2 during *May 2015* is *847*, *an increase of 15* from the *April 2015 actual total of 832*. This is composed as follows: MWAA – 28, Virginia Department of Rail and Public Transportation (DRPT) – 1, Virginia Department of Transportation (VDOT) – 5, Washington Metropolitan Area Transit Authority (WMATA) – 33, Project Management Support Services (PMSS) – *111*, Capital Rail Constructors (CRC), Package A – *616*, Hensel Phelps Construction Company (HPCC), Package B – *51*, and Atlantic Contracting and Material Company (ACMC), Package S – 2. Of the *616* staff reported by CRC, some are located in the project office; the remainder is located in local design offices in Washington, DC and Virginia.

The Package A Design-Build (DB) Contractor, CRC, and WMATA project staffs are co-located with the MWAA project staff. CRC's design team is located in the adjacent building. During the September 2014 meeting, MWAA reported that it was acquiring additional office space within the building because of the proposed organizational structure.

Upon completion of the project, WMATA will become the owner/operator of this extension to the existing Metrorail system. WMATA personnel have been active

participants in the Phase 1 project, and the agency will have more staff involved on the Phase 2 project.

#### **b. Project Controls**

MWAA has developed project management procedures with regard to monitoring and controlling project scope, quality, schedule, cost, contingency management, and safety. These were submitted on November 14, 2014, and PMOC recommended on January 9, 2015 that FTA approve the Draft PMP Version 2.0 and accompanying Project Management Procedures with comments. On February 6, 2015, MWAA submitted the Final PMP Version 2.0 to FTA for approval which was recommended for acceptance, with comments, by the PMOC to the FTA on March 23, 2015. The PMOC noted that the PMP should be updated in the early part of the fourth quarter 2015 to reflect the replacements to the recent departures from the MWAA staff and revised Project responsibilities. MWAA has implemented lessons learned from the Phase 1 project for the Phase 2 contracts. Most significant of the lessons learned and implemented in Phase 2 was the elimination of Allowance Items, requiring the DB Contractor to implement a cost-loaded schedule and to be responsible for utility relocations. These elements led to significant cost overruns in Phase 1. It is the PMOC's observation that MWAA continues to monitor and control the project in accordance with their procedures.

MWAA has adopted an electronic document control system, Autodesk Constructware, for Phase 2. All submittals and correspondence are input into the system and made available for any staff member needing access to the documentation. As a part of the electronic document control process, MWAA is using LATISTA (a separate software application) to post and process review comments electronically. Reviewers can put their comments into the LATISTA system, the comments work their way back to CRC, and a record of the communication is retained. MWAA is utilizing an all-electronic distribution of plans.

MWAA accepted HPCC's request to use Prolog for their comment management system for design and submittal review in lieu of the electronic comment management system currently being used by MWAA on Phase 2, Package A (LATISTA). Prolog has been implemented by HPCC. Autodesk Constructware will remain the Phase 2 document control and permanent record management system.

#### **c. Compliance**

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

- **Disadvantaged Business Enterprise (DBE) Goal** – MWAA developed a DBE Project Goal of 25% of the federal participation cost for Phase 2, which the FTA's Region 3 Civil Rights Officer reviewed, and subsequently approved on August 26, 2013.
  - The PMSS Contract has a goal of 25%.
  - The Package A Contract has a goal of 14%.
  - The Package B Contract has a goal of 14%.
  - The Package S Contract has a goal of 15%.

- The Special Inspection Contract has a goal of 14%.

MWAA continues to review and verify reports DBE Subcontract awards and payments.

*Through the last assessment on May 31, 2015, DBE participation (subcontracts awarded toward the contractual DBE Goal) for each Prime Contract is:*

- *PMSS has subcontracted 74% of its goal,*
- *Package A has subcontracted 89% of its goal,*
- *Package B has subcontracted 16% of its goal,*
- *Package S has subcontracted 90% of its goal, and*
- *Special Inspections has subcontracted 100% of its goal.*

*The total new DBE awards for May 2015 were \$7,133,719.*

*Through the last assessment on May 31, 2015, the actual DBE participation (payments to DBE Subcontractors toward the Contractual DBE Goal) for each Prime Contract was:*

- *PMSS is 51%,*
- *Package A is 9.7%,*
- *Package B is 0.65%,*
- *Package S is 75%, and*
- *Special Inspections is 8.28%.*

*Total DBE payments for May 2015 were \$1,313,948.*

During the October 2014 meeting, MWAA reported that the Package S Contractor might fall short of meeting its goal of 25% by less than 10%. The Package S Contractor has shown improvement and is now expected to achieve at least 22% DBE participation. Currently, the Package S Contractor has attained 19% DBE participation. MWAA added that it anticipates that the Package B DB Contractor will exceed its DBE goal, thus attaining the overall Project Goal of 25% of the federal participation cost for Phase 2.

- **Davis-Bacon Act Verification** – MWAA is reporting Davis-Bacon Act verification activities in the Monthly Progress Report. As of the MWAA February 2015 Monthly Progress Report, DBA compliance monitoring is ongoing including the review of certified payroll reports and Prime Contractor requests for additional classifications and wage rates.
- **Title VI** – FTA stated that Fairfax and Loudoun Counties have to secure approved Title VI Plans because they will be recipients of TIFIA loan funds for the project.

Fairfax County: Fairfax County received FTA concurrence on the Interim Title VI Plan on April 8, 2014; however, FTA noted that Fairfax County's Interim Title VI program expired on August 1, 2014. Fairfax County reported that the Fairfax County Board of Supervisors approved the Title VI Plan on July 9, 2014. Subsequently, the

Fairfax County Board of Supervisors approved the Fairfax County Service Equity Analysis on July 29, 2014 and the Title VI Plan submitted to FTA for review, prior to the August 1, 2014 expiration date of the interim plan. At the December 2014 meeting, Fairfax County reported that they had received FTA approval. Fairfax County is working on some of the interim steps required by FTA, and anticipates that it will then take an additional 12 to 18 months to implement the plan.

Loudoun County: On January 16, 2014, the Loudoun Board of Supervisors approved adoption of the Title VI Plan. Loudoun County reported that the technical aspects of the Title VI Plan were assembled, reviewed by Loudoun County staff, and submitted to Mr. Michael Riess, FTA Region 3's Civil Rights Officer, for review on January 22, 2014. Loudoun County received FTA concurrence on the Title VI Plan on January 23, 2014 and Loudoun County is in the process of implementing its Plan. On March 10, 2014, the Loudoun Board of Supervisors held a Transit Summit to look at the future configuration of the entire bus system in Loudoun County. Any changes in service will be incorporated into the Title VI Plan. Loudoun County continues to implement their Title VI Plan.

During the April 8, 2014 meeting, Loudoun County reported that requests for proposals were issued to contract operators for the Loudoun County commuter and local bus services for which Loudoun County is assuming responsibility from the City of Leesburg. The required Title VI clauses have been included in the documentation issued. During the May 6, 2014 meeting, Loudoun County reported that bids were received in response to the Request for Proposals (RFP) for the local and commuter feeder bus services. During the July 9, 2014 meeting, Loudoun County reported that the existing operator, Veolia Transportation, won the contract. The recommendation for award was approved, and the contract executed by the Loudoun County Board of Supervisors in July 16, 2014.

MWAA: During the September 9, 2014 meeting, FTA confirmed that the MWAA Title VI Plan was scheduled to expire by October 1, 2014 and stated that MWAA will need to update and submit its Title VI Plan before the existing plan expires. MWAA submitted the updated Title VI Plan to the MWAA reviewers in September 2014; and the Title VI Plan was submitted to FTA on October 1, 2014. FTA responded to the submission on January 12, 2015, and placed the plan "In Review" status and requested some additional information. The Title VI Plan was approved at the MWAA Board of Directors on March 18, 2015 and was forwarded to FTA on April 1, 2015. *During the June 10, 2015 meeting, it was noted that the Title VI Plan was still under FTA review.*

- **Safety and Security** – The contractor's safety performance reports, including the accident/injury statistics, are included in the MWAA Monthly Progress Reports. However, the PMOC requested that the Accident/Injury Statistics be provided by the fifteenth of each month, ahead of each monthly progress meeting. As of *May 2015*, CRC has recorded *1,194,216* hours worked with *nine* first-aid cases, two OSHA recordable cases, *thirty-two* incidents, *eight* utility hits, *forty-six* environmental spills, *four* vehicular accidents, one property damage claim (>\$1500) and one lost time case. *One OSHA recordable case, two first aid cases, three incidents, one utility hit and seven environmental spills* occurred during the month of *May 2015*.

ACMC has recorded 50,775 hours worked with four incidents and four vehicular accidents and zero hours of lost time; *there were no incidents or vehicular accidents during the month of April 2015.*

*HPCC has recorded 64,517 hours worked with zero incidents and zero hours of lost time.*

- **QA/QC** – The Quality Management Plan, Revision 1, submitted by CRC was approved in January 2014. MWAA added that it has requested that the QC plans be submitted from the CRC subcontractors and vendors. CRC has started submitting inspection test plans for MWAA review.

QA audit surveillance schedules for design were developed for the first, second and third quarters of 2014 for Package A; MWAA transmitted the QA Audit and Surveillance Schedule for the third quarter 2014 on July 3, 2014. MWAA has performed *and closed seventeen* QA audits/surveillances to date; no areas of non-conformance were noted. The report for *CRC's 1 Technical Submittal Processing* was closed by MWAA's Letter P2-03522. *The report for CRC's Environmental Management* was closed by MWAA's Letter P2-03484. *The Surveillance Report of Coastal Precast* is expected in mid-June 2015. *The Audit Report of CRC's Construction Safety/Security Programs* is also expected in mid-June 2015.

PMOC requested an updated QA Audit Schedule which was provided at the February 10, 2015 meeting and *MWAA has provided a rolling updated schedule at the Update Meetings. The most recent QA Audit Schedule for June through November 2015 is shown below from the June 10, 2015 Update Meeting.*

**DULLES CORRIDOR METRORAIL PROJECT**  
**Phase 2, Package A**  
**QA Audit and Surveillance 6 Month Schedule**  
*June through November 2015*

<b>Tentative Date</b>	<b>Audit (A) Surveillance (S)</b>	<b>Organization/Activity</b>	<b>Joint Audit or Surveillance?</b>	<b>Lead</b>
<i>TBD</i>	A	MWAA Internal Audit	N	MWAA
6/18/15	A	CRC System Safety/Security Certification Program	Y	MWAA
6/29/15	A	CRC Design Quality Management	N	MWAA
7/6/15	A	SOP 1.11 Cloud Plans	N	CRC
7/20/15	A	CRC – Right of Way Acquisitions	N	MWAA
8/10/15	A	Parsons Design Audit (Design Package XX)	Y	MWAA
8/24/15	S	High Steel Structures	Y	MWAA
9/7/15	A	Parsons Procedures Shop Drawing Review Process	Y	MWAA
9/21/15	A	Dewberry Civil Design (Design Package XX)	Y	MWAA
10/5/15	A	Dewberry Facilities (Design Package XX)	Y	MWAA
10/26/15	A	CRC Subcontractor Non-Conformance Control System	Y	MWAA
11/16/15	S	Banker Steel	Y	MWAA

- **Labor Agreement** – Only MWAA was required and has signed a 13(c) agreement with the Department of Labor for the TIFIA loan.
- **Community Outreach** – MWAA provided its Phase 2 Communications and Community Outreach calendar for *May 2015*. The Phase 2 outreach efforts continue with 132 community outreach activities held during the month of *May 2015*: including 54 business outreach efforts, 12 construction-specific notifications and 28 intergovernmental activities. MWAA continues to focus activities around the Dulles Airport with Airport tenants and communities beyond its perimeters, targeting the larger employers.



MWAA's new web site and twitter account were inaugurated during March 2015. Updates to the project website will be performed by the MWAA internal outreach team.

Based on lessons learned from Phase 1, the community outreach team is meeting with the property owners as well as their tenants, since the property owners do not always communicate with their tenants. The tenants are those usually most impacted by construction disruptions. MWAA is also notifying the public of project completion expectations.

CRC submitted a revised version of their Communications Management Plan, which was reviewed by MWAA and returned to CRC with minor comments. CRC resubmitted the revised Communications Management Plan on March 5, 2014. CRC has also expanded their community outreach team and is providing updates on upcoming work.

The Construction hotline is up and running. Traffic alerts are going out on a regular basis especially for the Dulles Toll Road. The plan for issuing construction alerts at the Airport has been recently revised, and MWAA will now issue the alerts in lieu of the Airport Information Technology (IT) Department.

## **2. Project Scope**

Phase 2 of the Project will provide 11.4 route miles of new track from the interim terminus at Wiehle Avenue Station through Dulles Airport to a terminus in eastern Loudoun County. Phase 2 includes six new stations (Reston Town Center, Herndon, Innovation Center, Dulles Airport, Route 606 and Route 772). Phase 2 also includes a Maintenance Facility (maintenance and storage yard facility) at Dulles Airport, wayside facilities, including traction power substations, tiebreaker stations, and stormwater management ponds, along the alignment, five new Metrorail parking facilities at four stations to provide 8,900 parking spaces, and sixty-four new rail cars.

### **a. National Environmental Policy Act (NEPA)**

MWAA prepared an Environmental Assessment covering the preliminary engineering design refinements for Phase 2, and issued it for public review on May 10, 2012. The FTA Regional Administrator issued a Finding of No Significant Impact (FONSI) on December 17, 2012, that stated there were "no significant environmental or socioeconomic impacts associated with the design refinements for Phase 2 of the Dulles Corridor Metrorail Project." FTA cautioned that should there be any changes in the location of the parking facilities by the counties, or if they need any additional property for the construction of the parking facilities, MWAA must notify FTA immediately to determine if the environmental documents would need revisions.

MWAA questioned whether a NEPA review/re-evaluation is still required if the parking facilities are being procured with local funds, and questioned whether only local requirements should be required. FTA stated that the requirement for a NEPA review/re-evaluation would depend on the location of the parking facilities. Fairfax County has formally notified MWAA of the revised site on the east side of the Herndon Station. Loudoun County has formally notified MWAA of the proposed relocation of the parking facility at the Route 772 North Station. MWAA has held several teleconferences with FTA to determine the documentation required for these changes in location. On April 24, 2015,

MWAA submitted a draft transmittal letter regarding the environmental re-evaluation for the DCMP Phase 2 parking garage refinements for review and comment. *FTA is reviewing the submittal.*

**b. Third Party Agreements**

MWAA reported that there are six Intergovernmental Agreements required for Phase 2: WMATA, Virginia Department of Transportation (VDOT), Fairfax County, Loudoun County, the Town of Herndon, the Dulles Greenway. As of November 4, 2013, MWAA had executed all six Intergovernmental Agreements.

MWAA reported that VDOT is widening Route 606 along the yard site under an on-going improvement project. After discussing the coordination of intersection improvements and an added turn lane required in Package B, MWAA and VDOT agreed to incorporate this work into the Route 606 widening project and MWAA will fund that portion of the work. This work has been included in the VDOT procurement package. MWAA and VDOT agreed on costs and MWAA drafted a funding agreement in early December 2013. During the week of February 28, 2014, VDOT requested that MWAA use a Local Funding Agreement, which is what VDOT uses with local jurisdictions for site improvements. This agreement allows VDOT to recover any additional costs for the work, above the initial funding amount. MWAA and VDOT agreed on the form of the Local Funding Agreement; MWAA signed the Agreement and sent it to VDOT for signature. In June 2014, the Local Funding Agreement was signed by MWAA and executed by VDOT on June 11, 2014. MWAA received approval from FTA for the advanced payment to VDOT; MWAA received an invoice from VDOT in December 2014 and has issued a check for the agreed cost. MWAA added that the work has been added to the design plans and a Notice of Intent to Award has been issued for the Route 606 widening project.

MWAA provided a summary of the status of the agreements below.

AGREEMENT	STATUS	NOTES
WMATA – New Agreement	Executed on August 7, 2013	Effective date August 7, 2013
VDOT – Amendment of Phase 1 Agreement	Executed on November 4, 2013	Effective date November 4, 2013
Fairfax County – Amendment of Phase 1 Agreement	Executed on May 28, 2013	Effective date May 28, 2013
Loudoun County	Executed on August 7, 2013	Effective date August 7, 2013
Town of Herndon	Executed on July 9, 2013	Effective date July 9, 2013
TRIP II (Dulles Greenway)	Executed on September 30, 2013	Effective date August 1, 2013
Local Funding Agreement with VDOT for Route 606 improvements	Executed on June 11, 2014	Work was added to the design plans prior to execution of the agreement.

### c. Design Status

Preliminary Engineering is complete for Phase 2. Final design and construction will be performed under the DB contracts for Package A as well as for Package B. Fairfax and Loudoun Counties will manage the final design of the parking facilities included in Parking Facilities (formerly Package C). The Counties confirmed their commitment to deliver those elements as a condition precedent to their TIFIA loans.

### d. Bidding and Construction Status

- **New Mass Transit Line (Package A)**

Procurement: In August 2012, MWAA issued a Request for Qualifications solicitation for the DB contract for Package A of the Phase 2 Dulles Corridor Metrorail Project. Five DB teams were shortlisted and a final RFP issued on February 6, 2013. At the opening of proposals on April 19, 2013, CRC, a joint venture consisting of Clark Construction Group, LLC and Kiewit Infrastructure South Company had the lowest responsible and responsive bid of \$1,177,777,000. On May 14, 2013, MWAA formally awarded the Package A Contract to CRC. NTP was issued on July 8, 2013 with a contractual duration for Package A of 1,825 calendar days from NTP. Thus, the Scheduled Substantial Completion Date for Package A is July 7, 2018.

Design: CRC is in the *twenty-third* month of their contract and is continuing design activities. MWAA received the Preliminary Design submittal to establish the code year for building code compliance on July 23, 2013. It is MWAA's position there are still some major deficiencies in the preliminary design document, but since this was the third submittal (second resubmittal) of the preliminary design document, MWAA decided to allow CRC to get a direct reading from the Authorities Having Jurisdiction (AHJ) in order for CRC to take MWAA's comments more seriously. On January 27, 2014, CRC made the Preliminary Design submittal for the entire alignment to the respective AHJs - the Virginia Department of General Services (DGS) and the Airports Authority Building Code Department - to establish the base building code year to be used for the project; CRC also gave the AHJs an overview of how the DB packages will be submitted for permit. The Preliminary Design submittal was transmitted to the AHJs with a cover letter from MWAA that identified what MWAA saw as the deficiencies in the submittal. In addition, MWAA sent a letter back to CRC stating that the Preliminary Design submittal was sent to the AHJs and that it is accepted-as-noted pending the final disposition by the AHJs.

MWAA reported that of the deficiencies, the most serious non-compliance is that CRC did not complete the Rational Analysis (Fire, Life, Safety analyses) which is the fire modeling demonstration of the safe egress path and confirmation of the distances and the egress time. Without the completion of the Rational Analysis, there are major building elements that are subject to change that could potentially change the actual building size itself. The Commonwealth of Virginia Construction and Professional Services Manual (CPSM) require that the final Rational Analysis be included with the Preliminary Design submittal to achieve the payment milestone.

At the April 2014 meeting, MWAA reported that CRC did submit Fire, Life, Safety analyses in time for the April 3, 2014 meeting with the AHJs. During the meeting with

the AHJs, CRC presented the Fire, Life, Safety analyses models to demonstrate to the AHJs that they had used proper methodology. MWAA reported that the outcome of the meeting was that the Preliminary Design submittal was conditionally accepted for the purposes of code basis and advancement of design; however, DGS has reserved accepting the Preliminary Design until CRC revises and resubmits the Route 772 Station design to address DGS comments. During the August 7, 2014 meeting, MWAA reported that CRC is in possession of a revised Fire-Life Safety Plan and the Exiting Model Study but does not plan to issue the revision as a whole, but as a revision to each station design package submittal. MWAA reported that the 60% submittal for the Route 772 Station was received on March 20, 2015, and MWAA and DGS are performing parallel reviews. During the May 6, 2015 update meeting, MWAA reported that the 60% was “accepted as noted” during the last week of April 2015. DGS is the AHJ for the Route 772 Station. MWAA needs the final disposition from the AHJ because the CRC payment milestone is tied to the approval by the AHJs. MWAA reported that based on the requirements of CPSM, the approval of the Phase 2 Preliminary Design submittal is a required predecessor to the approval of the 60% and 90% design submittals. The design of the Project is expected to continue through September 2015.

*CRC has submitted all of the 60 percent design submittals and all but one of the 90 percent design submittals and all but four of the 100 percent design submittals. All but fifteen of the Issued for Permit (IFP) submittals have been completed. MWAA estimates that the overall design is currently 83% complete.*

*There is a design issue with regard to the access to the tie-breaker stations. CRC has proposed a design which requires access to the rear of the DC circuit breaker enclosure be gained from outside the building. Although this configuration was used in Phase 1 of the Project and is used by other transit properties, WMATA believes this configuration exposes WMATA employees to an increased risk of electrical shock or burns, and exposes the equipment to the intrusion of dirt, debris and precipitation when the rear door of the building is opened. WMATA has formally notified MWAA that the proposed configuration is not acceptable. WMATA has disapproved any submittals that incorporate this tie-breaker configuration and has requested that MWAA provide a hazard analysis. The pros and cons of the two designs need to be documented and be presented to the Chief Executive Officers of WMATA and MWAA for resolution as soon as possible to avoid potential schedule impact.*

CRC has submitted 100% design submittals for utilities, trackwork, civil, systems, station facilities, wayside facilities, and structures. All 100% design submittal packages are scheduled to be submitted by *August 27, 2015*. Weekly design management and review meetings, which started on July 31, 2013, are held to advance the design. MWAA and CRC continue to meet on Wednesdays and Thursdays to review the designs, review comments provided, and discuss upcoming submittals. CRC has implemented a design management plan and has defined what will be included in every package and the interfaces between the packages. CRC also assigned two more senior design reviewers to review the design submittals before they are submitted to MWAA.

Commonwealth of Virginia’s Stormwater Management Regulations: MWAA has also requested that CRC comply with the latest stormwater management regulations. MWAA explained that the changes to revised stormwater regulations require that instead of

constructing water retention ponds, CRC will be required to construct a variety of water treatment facilities that focus on water quantity and treating water quality, which could affect stormwater facility right-of-way. CRC plans to integrate the stormwater redesign into design and construction schedules. During the June 5, 2014 meeting, MWAA explained that CRC is required to comply with the Commonwealth of Virginia's SWM Part II-B criteria. MWAA added that although the Virginia Stormwater Management Program (VSMP) Construction Permit allows CRC to be "grand-fathered" into the prior regulations, Virginia Department of Environmental Quality (DEQ) encouraged CRC to comply with the revised criteria to be current with the regulations. In addition, MWAA made a policy decision to implement the revisions to be compliant with the latest regulations.

In response to the PMOC request, MWAA provided a draft white paper explaining the revision to the regulations, when the revision went into effect, why the revisions are being implemented and the potential impact to the design and construction costs and schedule of the project on July 8, 2014. The PMOC responded that the white paper received does not address the total cost and schedule impacts to design and construction. A separate discussion regarding the white paper was held after the July 2014 meeting.

MWAA explained that preliminary engineering was performed during the transition in the regulations leaving MWAA with two options; change the criteria to SWM Part II-B and be in conformance with the latest regulations, or move forward with the prior regulations and race to complete the design to ensure that the project is "grand-fathered" into the prior regulations. MWAA made the determination to proceed with the new criteria. MWAA explained that the primary difference in construction is that the new regulations require a higher level of treatment for water quality. These treatment facilities, or Best Management Practices (BMP), are designed to eliminate pollutants to the stormwater entering the Chesapeake Bay.

Site-specific maintenance of the BMPs will be the responsibility of the facility owner. Maintenance at the Dulles Airport will be the responsibility of MWAA, along the Greenway will be the responsibility of TRIP II (Dulles Greenway) and the Maintenance Facility will be the responsibility of WMATA. MWAA added that WMATA is aware of the maintenance requirements once this extension to the existing Metrorail system is turned over to WMATA.

Revisions related to SWM Part II-B are being identified as design development proceeds. CRC has stated that the SWM Part II-B design is a change that would require increased design scope. Further design development will identify the extent of scope change, repackaging of design, and property impacts. MWAA added that the initial design submittals based on SWM Part II-B have been submitted for review. The 100% Dulles Airport Stormwater Management design submittal was received in June 2014 and the Issued for Permit (IFP) design submittal was submitted on August 28, 2014. The 60% Stormwater Management East design submittal was submitted on July 1, 2014 and the 100% design submittal was submitted on October 17, 2014. The 60% Stormwater Management West design submittal was received on August 13, 2014.

During the August 2014 meeting, MWAA reported that the Stormwater Study completed in February 2014 had been transmitted to the PMOC on July 29, 2014 along with a

revised version of the SWM White Paper; the PMOC provided comments on August 6, 2014. MWAA added that the design has been refined greatly since last month and they are continuing to assess opportunities to reduce the number of stormwater facilities and still meet the DEQ criteria. MWAA issued their response to the PMOC comments on August 27, 2014. MWAA reported that a level of effort agreement has been reached with CRC to resolve the additional design costs; however, discussions are still ongoing regarding construction and extended overhead costs. At the October 2014 meeting, MWAA reported that a preliminary independent cost estimate for design has been prepared for the change in the SWM Part II-B regulations. However, MWAA added that the lack of information makes the evaluation of construction and extended overhead costs difficult at this time. MWAA continues to hold discussions with CRC to refine the impacts to construction and MWAA plans to have an estimate of the construction costs and extended overhead impacts by the end of the third quarter of 2015. MWAA reported that a meeting was held with DEQ and CRC on August 28, 2014 to coordinate on the temporary drainage locations as a direct result of the implementation of SWM Part II-B. As a result of the meeting, criteria were established and 11 design packages had to be returned to CRC for revision. Discussions are ongoing on the temporary drainage locations. MWAA added that the project schedule is significantly impacted by the temporary drainage requirements; however, no agreement on the schedule has been reached. The PMOC questioned whether MWAA had looked at the staffing on the CRC design team to determine if the delay to the design can be mitigated. MWAA responded that CRC has applied an additional 25 full-time equivalents (FTE) to the SWM Part II-B design effort, MWAA has reduced the review time from four weeks to two for the design package submittals and the 90% Stormwater Management East and West design package submittals have been omitted. MWAA recognized that several design packages have been reviewed and rejected as a direct result of the need to comply with SWM Part II-B regulations; however, MWAA added that CRC is still forecasting completion of the design as originally scheduled.

At the October 2014 meeting, the PMOC questioned the issuance of a change order for the SWM Part II-B regulations stating that the Package A DB Contract required CRC to obtain and comply with required permits and environmental controls needed for the design, construction, and acceptance of the Work. The PMOC expressed their opinion that the Package A proposers had sufficient direction regarding the need to comply with the current SWM Part II-B regulations and codes. Since the successful proposer's (CRC) schedule to implement the Project indicated that they would not meet the schedule associated with the older codes (i.e. VSMP Part II-C), then the VSMP Part II-B regulations applied. MWAA submitted a response to FTA dated December 5, 2014 with regard to PMOC's concerns regarding the timeline of activities related to the VSMP and award of the Package A Contract. The response is under review by FTA and PMOC.

The PMOC also requested that the Counties provide white papers on the impact of SWM Part II-B relative to the design and construction of the parking facilities. Loudoun County stated that the new Stormwater Management requirements are included in the contracts for the parking facilities. Loudoun County submitted their White Paper on November 7, 2014 and Fairfax County issued their White Paper on December 5, 2014.

Permits: MWAA attained the Wetlands permit from the Army Corps of Engineers during preliminary engineering. CRC considered doing a re-delineation because they found some areas that were wet on Airport property had not been included in the initial delineation. After discussions with the Airport and DEQ, an accommodation was made that the permit will not be re-delineated, but a permit modification submitted to the Army Corps of Engineers and DEQ showing changed areas based on refinements for technical accuracy. The permit modification was submitted to the Army Corps of Engineers and DEQ on April 7, 2014. CRC continues to meet with the various permitting agencies as necessary.

Construction: As of the *June 8, 2015* meeting, MWAA reported that of the 197 pier structures, 101 (51%) of drilled shafts had been completed, 87 (44%) of the pier columns had been cast, and 61 (33%) of the pier caps had been cast in aerial guideway substructure Sections S3 (Dulles Airport) and S4. Crews continue to drill and set anchor bolts and bearings on the pier caps for girders working north through the Airport. Crews are continuing to work on temporary bridges in the Yard Lead area in preparation for girder shipments and erection. *These bridges are ready for traffic. Girders continue to be cast at Coastal Precast and are ready for shipment to the site. Girder erection began on April 20, 2015, with spans 48 and 49 being placed over three days of work. CRC has moved their staff into the trailers at the AP-4 field office complex. The MWAA and WMATA trailers remain to be completed. The contractor has repaired the roof leaks and is completing repairs to the sprinkler system.*

*Modification work continues along the DIAAH and Dulles Toll Road (DTR) to enable the construction of the Innovation, Herndon and Reston Stations. Jack and bore work at Innovation and Herndon Stations is proceeding. Difficulties are being experienced with the type of rock being encountered and different types of equipment are being brought in to break through the rock. The contractor is considering the use of directional boring equipment to install the required systems and utilities under the DTR and the DIAAH. Jack and bore work continues in areas where conditions are permitting this type of excavation and drilling. Mass excavation has begun at Innovation Station in preparation for constructing foundations. Concrete barriers are being set along the DIAAH and DTR and work areas are being made safe with approved pull off areas set in place and truck turnarounds installed to minimize Project related truck travel times. Excavation east of the Aerial abutment A in the median of the DIAAH to the west side of Horsepen Run Bridge has begun for future guideway construction. Horsepen Run Bridge deck plates are being set and welded. Storm drain extension work is ongoing on the eastbound Greenway adjacent to the widening area for stations. The installation of sanitary sewer and water line continues at Dulles Station. The realignment of Saarinen Circle for future station work continues along with modifications to the storm drains to accommodate the new roadway location.*

*Work for the 34.5 Kv Traction Power Feeder continues with the installation of ductbank and manholes along DIAAH near the Innovation and Herndon Stations. Ductbank and manhole installation also continues along Rudder Road north of the former GSE building site on the Airport. Installation of ductbank along the west side of Route 28 continues for the future 34.5 Kv feeds from Dominion Virginia Power substation. Utility relocation*

*work continued with the relocation of lighting conduits and feeder cables in Saarinen Circle and the relocation of communication lines at Piers 61 and 67.*

Schedule: MWAA accepted CRC's cost-loaded Proposal Schedule for the first six months with a maximum payment of \$50 million, in addition to the cost of bonds, and insurance as a condition of the contract award. In August 2013, CRC resubmitted a revised cost-loaded Proposal Schedule. The revised Proposal Schedule was "Accepted as Noted" by MWAA Letter No. MWAA-P2-01014 dated September 4, 2013.

The Baseline Schedule was to be submitted by CRC on November 5, 2013, 120 days from NTP, per contract. CRC did not meet this contract milestone on time and MWAA requested the immediate submission of the first draft of the Baseline Schedule via Letter No. MWAA-P2-01115 dated November 8, 2013. CRC formally submitted the draft Baseline Schedule on November 26, 2013 and meetings were held in December with CRC to review the draft Baseline Schedule and provide comments. On December 31, 2013, MWAA received CRC's draft Final Baseline Schedule, which addressed MWAA's previous comments. MWAA has accepted-as-noted the draft Final Baseline Schedule, and CRC made some minor changes to the schedule. CRC resubmitted the Final Baseline Schedule on February 14, 2014 and MWAA "Accepted-as-Noted the schedule on February 25, 2014. As of February 28, 2014, CRC was working and billing to the Final Baseline Schedule. As requested, the Final Baseline Schedule was transmitted to the PMOC on March 6, 2014 for review. The Final Baseline Schedule is both cost-and resource-loaded and includes about 12,500 activities.

The initial Package A Rolling Baseline Schedules were submitted on July 16, 2014 and August 19, 2014, were not accepted by MWAA. CRC's Proposed Revised Baseline Schedule (PRBS), reflecting progress through February 28, 2015, was received on April 6, 2015 and showed a revised Scheduled Substantial Completion Date (SSCD) of August 7, 2019. The PRBS reflects a thirteen month delay to the contractual SSCD. MWAA determined that the submitted PRBS was not contractually compliant and failed to represent a realistic path forward. MWAA's "not accepted" disposition was communicated to CRC by a letter dated April 15, 2015. *Subsequently, CRC submitted a revised final PRBS on May 4, 2015, which was "Accepted as Noted" by MWAA on May 12, 2015. The PRBS reflects progress through February 28, 2015 with an agreed revised Scheduled Substantial Completion Date (SSCD) of August 7, 2019 which incorporates the thirteen month time extension. CRC's April 2015 Monthly Schedule Update was submitted on May 14, 2015 utilizing the "Approved as Noted" Revised Baseline Schedule (RBS). The Monthly Schedule Update reflected August 28, 2019 for the Project SSCD, a 21 calendar days slippage. The primary cause of the schedule slippage is due to the lack of progress on Herndon Station jack and bore operations. CRC is to develop plans mitigating this delay and is to incorporate them into its May 2015 Monthly Schedule Update. The April Monthly Schedule Update was "Accepted as Noted" predicated on CRC's commitment to incorporate the agreed adjustments in its May 2015 Monthly Schedule Update.*

During the July 2014 meeting, the PMOC questioned what is being done by MWAA to ensure that a workable schedule is received from CRC for the Phase 2 Project. MWAA responded that 5% is withheld from CRC's monthly payment application for the rejection of the monthly schedule update; therefore, there is an incentive for CRC to submit a



workable schedule for MWAA review and approval. MWAA added that 5% was withheld from the April 2014 payment application due to the rejection of the April 2014 schedule update.

In a follow up, the PMOC requested that going forward, the Revenue Service Date be updated during the monthly progress meeting, MWAA stated that there is a concern in providing a Revenue Service Date before the resolution of the SWM Part II-B criteria and other design changes. During the meeting, the PMOC added that a Phase 2 Project schedule also be provided. MWAA is awaiting resolution of the rolling design schedule associated with the early design changes before completing the overall Phase 2 Project schedule. *At the June 10, 2015 update meeting, MWAA stated that the overall Phase 2 Project Schedule was in draft form for review by the Project partners and would be submitted to the FTA and PMOC before the end of June 2015.*

- **Dulles Maintenance Facility (Package B)**

Procurement: Package B includes the final design and construction of the WMATA Maintenance Facility and Storage Yard at the northwest corner of the Dulles Airport property. The yard storage tracks will have an initial storage capacity of 168 railcars, with the ability to expand to 228. The scope of Package B also includes the design and construction of at-grade rail tracks; facilities for railcar service and inspection; facilities for train dispatch, operation, and supervisory personnel facilities; facilities for police and security personnel; facilities for maintenance of way and materials warehouse; a yard control tower; communications, traction power substations, and train control facilities and equipment; roadway construction and improvements.

MWAA stated that there were no major changes resulting from the WMATA review. The contract drawings went through two cycles of reviews by MWAA and WMATA, which included the specifications and the statement of work. MWAA sent a letter to WMATA confirming a budget for Package B of \$280 million, stating what scope will and will not be included in the base contract package. MWAA added that the procurement included options for the other scope items requested by WMATA but not in the base contract package.

A two-step solicitation method similar to the procurement of Package A was followed wherein MWAA issued a Request for Qualifications Information (RFQI) followed by a request technical proposals and price proposals. The change from Package A is that instead of issuing a shortlist in response to the RFQI, MWAA just prequalified potential bidders on a pass/fail basis. The RFQI provided the minimum requirements for qualification. MWAA then issued a RFP package to all qualified potential bidders, and held collaboration meetings with each team to clarify the understanding of the requirements. The technical proposals were evaluated again on a pass/fail basis, and the price proposal will be low bid. This process was presented to the MWAA Board of Directors in October 2013 for concurrence and the MWAA Board of Directors did concur with this approach.

MWAA issued the RFQI solicitation for the Package B Contract on November 12, 2013, and four qualification statements were received on December 20, 2013. A meeting of the

evaluation panel was held to determine which offerors are qualified. The RFQI process was completed and all four offerors were determined to be qualified. Two teams had also been bidders on Package A. MWAA issued the RFP to each of the four teams on February 11, 2014 and began the collaboration meeting process during the week of February 17, 2014. Collaboration meetings continued through the week of April 4, 2014 and MWAA issued amendments and clarifications to the RFP based on feedback and questions received during the collaboration meetings.

Technical Proposals were received from all four offerors on April 18, 2014. However, MWAA required clarifications to the technical proposals from all of the offerors, resulting in a delay to the procurement of about two weeks. Supplements to the technical proposals were received on May 22, 2014 and the evaluation completed by MWAA on June 3, 2014. All four offerors were determined to meet the technical requirements and invited to submit a price proposal. Price proposals were received on June 27, 2014. MWAA Procurement performed a responsibility determination and the lowest qualified bidder was selected. Final contractor selection and Notice of Recommended Award was announced on July 2, 2014, to Hensel Phelps Construction Company (HPCC). HPCC signed the contract on July 29, 2014 and MWAA issued NTP on August 18, 2014. The Preconstruction meeting was also held on August 18, 2014.

The lowest qualified bid was \$252,989,000, which is under the Package B budget of \$280 million. The \$252,989,000 bid includes two options for the other scope items requested by WMATA but not in the base contract package: the Warehouse Building expansion and the Track S-5 Hoists. MWAA added that the SWM Part II-B regulations are included in the Package B Contract.

Substantial completion is scheduled for August 17, 2018. MWAA advised that because this is a construction contract approval, an award by the MWAA Board of Directors is not required; the Contracting Officer awarded the contract.

Design: The Package B DB Contractor, HPCC, submitted the Design Management Plan and other required management plans in September 2014; MWAA “Accepted-as-Noted” the Design Management Plan and other required management plans. The 30% design package was submitted by HPCC on October 31, 2014. Construction is set to begin in the second quarter 2015. A meeting has been held with HPCC, MWAA and WMATA to discuss design development, including a two-day workshop on the Basis of Design. The PMOC requested a copy of the Basis of Design that was received from MWAA on October 13, 2014. WMATA and MWAA reviewed HPCC’s 30% Design Development submittal and comment resolution meetings continue to be held. At the May 6, 2015 update meeting, MWAA reported that the HPCC 60% design submittal had been reviewed and was not accepted. *A major issue is HPCC’s desire to use shallow pit lifts for the rail car shop hoists rather than the deep pit hoist configuration specified in the Project Technical Requirements. HPCC has submitted a Design Change Request (DCR) for WMATA’s consideration.*

Schedule: HPCC submitted its Final Baseline Schedule on January 28, 2015, and issued subsequent revisions on February 17 and February 24, 2015. MWAA “Accepted as Noted” the Final Baseline Schedule. This schedule is the basis for the Package B Monthly Updates and pay requests.

*MWAA received HPCC's May 2015 Schedule Update on June 5, 2015, which was "Accepted as Noted". The monthly schedule update reflects a forecasted Substantial Completion Date of September 25, 2018, which represents 39 days of delay to the contractual SSCD. The primary critical path is the early site design packages (Integrated Permit Package IPP #1) 90% and 100% approvals and site permitting. The permitting is followed by the implementation of the Stormwater Pollution Prevention Plan (SWPPP) measures and site clear and grub activities. After the site clearing, the path leads to the Service and Inspection (S&I) building construction.*

### **Advanced Earthwork for Maintenance Facility (Package S)**

The Phase 1 contractor used the site of the proposed Dulles Maintenance Facility to stockpile excavated material. To construct the new facility, it was necessary to move most of the stockpiled material and re-grade the site. MWAA has awarded an Advanced Earthwork contract to move the stockpile to another site on Dulles Airport property. MWAA reported that the Package S contract documents were revised prior to advertisement to ensure that the work for Package S is no longer within the Dulles Airport Air Operations Area. The same coordination procedures used during Phase 1 are already in place with the Dulles Airport staff and notices have been re-issued.

Procurement: MWAA issued a Notice of Recommended Award to the third lowest bidder, ACMC, on November 1, 2013. Their bid was \$5.950 million, well under the engineer's estimate of \$18.52 million. NTP was issued on November 18, 2013, with a contractual duration of 385 calendar days from NTP, which resulted in a December 8, 2014 completion date.

Design and Permits: The interim final design submittal received on March 4, 2014 was the basis of MWAA permit application to begin the early erosion and sediment controls activities; however, the soil stability calculations were missing from the design package. The MWAA Construction Permit was issued on April 23, 2014; however, the approval for the installation of the erosion and sediment controls was issued prior to the issuance of the construction permit. Installation of the erosion and sediment controls began on April 21, 2014.

MWAA received the request for minor modification to the Section 404 permit, which MWAA submitted to the Army Corps of Engineers and DEQ on February 7, 2014. The DEQ Water Protection Permit modification was approved on March 6, 2014. Approval from the United States Army Corps of Engineers was also received on March 6, 2014. The VSMP permit application was submitted to DEQ on March 12, 2014 and approved on April 7, 2014.

During the July 9, 2014, meeting MWAA reported that DTP had completed the soil stabilization work, closed-out the DEQ and MWAA permits and fulfilled its environmental permit obligations required for the VSMP permit for the Laydown Area 11 site. As of June 25, 2014, control and custody of the Laydown Area 11 site was turned-over to ACMC.

Construction: Installation of erosion and sediment control measures began on April 21, 2014 and was completed by July 11, 2014. Construction of the haul road and the clearing work began in May 2014 and were completed by July 11, 2014. Removal of the soil

began in July 2014 and MWAA reported in the November 6, 2014 update meeting that soil removal was completed in mid-October 2014. Survey confirmed that ACMC has provided the required finished grade elevations. Final grading and roadway restoration has been completed, and substantial completion was reached on December 8, 2014. Punch list work is underway. *The final turf establishment work was completed on May 15, 2015.*

Schedule: MWAA held a start-up meeting with ACMC on December 6, 2013 to review their management plans and to review their detailed baseline schedule. During the month of December 2013, ACMC submitted their management plans all of which were accepted by December 31, 2013. The Baseline Schedule for Package S was submitted by ACMC in December 2013 and returned Accepted as Noted on January 10, 2014.

The Package S Schedule Update for September 2014 was received on October 10, 2014 that indicated the most critical activity, removal of the existing soils stockpile, was to be completed on October 2, 2014, a gain of two days over the targeted date. ACM's schedule also forecasted an improved SSCD of October 6, 2014 that represents 63 days of gain compared to the Contractual SSCD of December 8, 2014. The schedule update was "accepted as noted." During the November 6 meeting, MWAA reported that the soils removal was completed in mid-October and the SSCD *was* anticipated to be December 1, 2014. During the December 2014 meeting, MWAA reported that substantial completion was reached on December 8, 2014 with the exception of punch list work. Turf establishment will be accomplished in the spring of 2015 and MWAA is withholding funds to complete that work. *MWAA reported that the punch list work was completed on May 15, 2015.*

### **Parking Facilities (formerly Package C)**

At present, Fairfax County and Loudoun County plan to design and construct the five required parking facilities. Loudoun County is in the procurement process and Fairfax County is in the design process. Fairfax County has finalized the locations of the garages located at Herndon and Innovation Center Station. Any NEPA issues will be resolved once counties identify the final locations of the parking facilities. Fairfax County has submitted to MWAA the new locations for coordination with FTA on the NEPA approvals.

Fairfax County: Fairfax County is currently responsible for two parking facilities: one at the Innovation Center Station and one at the Herndon Station. At the December 5, 2013 monthly PMOC meeting, Fairfax County reported that it has hired the architectural, parking, engineering and traffic consultants for both the Innovation Center and Herndon parking facilities. Both the Innovation Center and Herndon parking facilities have completed the schematic design phase.

The final locations for the parking facilities have been determined and all Land Use approvals have been obtained from the Fairfax County Board of Supervisors. On July 30, 2013, Fairfax County approved a Real Estate Exchange Agreement for the site of the Innovation Center Station parking facility. The Agreement provides for the exchange of property and property acquisition necessary to implement a joint development plan. On May 15, 2014, Fairfax County obtained unanimous approval of the land use case from the Fairfax County Department of Planning and Zoning. Final acceptance to proceed with

the relocation of the Innovation Center Station parking facility was approved by the Fairfax County Board of Supervisors on July 29, 2014. The parking facility will be moved to the south of the location shown in the preliminary engineering plan. Fairfax County stated that the scope and size of the Innovation Center Station parking facility would not change from what was provided in the NEPA documents. *MWAA submitted the results of their Environmental Re-Evaluation for Locality Parking Garage Refinements for Herndon and Innovation Center to the FTA on June 4, 2015. This submission is under review by FTA.*

At the Herndon Station, Fairfax County evaluated a concept to shift the location of the parking facility from what is shown in the preliminary engineering plan from the west side to the east side of the station location. The County owns the site shown in the preliminary engineering plans on the west side and has reached an agreement with the adjacent landowner on the east side for a land acquisition in order to relocate the Herndon Station parking facility. Final acceptance to proceed with the relocation of the Herndon Station parking facility was approved by the Fairfax County Board of Supervisors on October 7, 2014. Fairfax County added that the scope and size of the Herndon Station parking facility would not change from what was provided in the NEPA documents.

Fairfax County reported that the design schedule for the parking facilities has slipped by 30 to 60 days. With the start of final design in fall 2014, and anticipating twelve months for design, the NTP for construction is scheduled in the spring of 2016. Project completion is scheduled in April 2018. *However, with MWAA's announcement that the Project will be delayed for thirteen months, Fairfax County is awaiting MWAA's updated Project schedule before proceeding.*

The County's Department of Public Works and Environmental Services is the lead county agency for the design and construction of both parking facilities, and will be responsible for the project management and oversight of both projects. Fairfax County anticipates issuing a Design-Bid-Build solicitation through the Public Works and Environmental Services Department for the construction of both of their parking facilities. The County plans to design, construct, own, maintain, and operate both parking facilities. Fairfax County has selected the design team and awarded the contracts for both parking garages. Fairfax County has been coordinating with MWAA on the NEPA reviews based on the shift of the garage locations. A teleconference was held between MWAA and FTA on March 13, 2015 to discuss the documentation required for the site changes of the garages at the Herndon and Innovation Center Stations.

Fairfax County has authorized approximately \$2.5 million to start design work on both parking facilities, and completion of construction is expected in April 2018. The schematic design has been completed and a Value Engineering review has been held during the last week in March 2015. The series of recommendations is being evaluated. Design completion is scheduled for April 2016.

Loudoun County: Loudoun County is currently responsible for three parking facilities: one at the Route 606 Station and two at the Route 772 Station. On November 16, 2012, Loudoun County issued a Solicitation for Conceptual Proposals through the Commonwealth of Virginia Public-Private Transportation Act of 1995 (PPTA) for the Loudoun County Parking Facilities. The solicitation requested the submittal of

conceptual proposals from qualified private entities for the finance, design, development, construction, and operation of the parking facilities for Route 606 and 772 Stations. Following a detailed review of the proposals by Loudoun County staff, an action item was presented to the Loudoun County Board of Supervisors requesting their approval to proceed with a Best and Final Offer for the three parking facilities. At its meeting on July 17, 2013, the Board voted to reject the three initial proposals received through a Request for Information process. The Board voted instead to solicit new proposals through a RFP process.

Loudoun County has affirmed its strong desire to procure the parking facilities outside of the MWAA program, and intends to privatize the three parking facilities. However, should the privatization process fall short of the County's expectation for acceptance, Loudoun County would move forward with the second option for acceptance of responsibility for the parking facilities, which would be to build the parking facilities through the County using a DB approach.

Procurement of the parking facilities in Loudoun County is proceeding on schedule. On September 3, 2013, Loudoun County issued a RFP for the design, construction, financing, operation and maintenance of the three Phase 2 parking facilities. Bidders could propose on one, two or all three sites, and the bidder for the Route 772 North parking facility will have to provide proof of ownership of the site. During the November 6, 2013 meeting, Loudoun County reported that they received four proposals for the privatization of each of the three parking facilities on October 30, 2013. Loudoun County has reviewed the proposals and one was deemed nonresponsive at the Route 772 North parking facility because the offeror did not provide proof of legal ownership of the property or the ability to own the property, which was a requirement of the RFP. Loudoun County has assembled a procurement team that is reviewing and scoring the proposals received. Jones Lang LaSalle is leading the procurement review team due to the financial component of the proposal, and both MWAA and WMATA members were added to the procurement review team as technical members. The procurement review team has met twice to summarize the financials and to perform a cursory review of the financials and feasibility of the proposals received.

Oral interviews were held in December 2013 with each of the teams. The RFP required that offerors adhere to the preliminary engineering location of each of the facilities; all did with the exception of one team that is proposing that the Route 772 North site be moved to a site that they own within walking distance of the station area. Loudoun is looking at what kinds of impacts, (time delay, penalties, etc.) will be incurred due to a change in the site location.

On January 16, 2014, the Loudoun Board of Supervisors voted in favor of the County taking responsibility for the funding and construction of the Route 606 and 772 North and South parking facilities. In addition, in the same motion the Board directed staff to pursue further evaluation of all four of the Public-Private Partnership (PPP) offers for each of the parking facilities, citing that all are in the range of general acceptance. Linked to the garage procurement, the Chairman indicated that staff was in the process of obtaining DB estimates for the parking facilities as well. This will establish a parallel path should the PPP approach fall short. The estimates will also provide an independent design and construction estimate for each garage.

At the January 8, 2014 meeting, FTA requested a timeframe for Loudoun County to make a recommendation to the Loudoun Board of Supervisors for a selected offeror(s) to procure the parking facilities. Loudoun County reported that at the January 15, 2014, Loudoun Board of Supervisors meeting, the Board voted to finance and construct the Loudoun County garages separate from the Dulles Corridor Metrorail Project, subject to receiving TIFIA funds for their share of the Project. Subsequently, in accordance with the PPTA, on February 12, 2014 there was a public hearing on the four proposals that were posted on the Loudoun County website ([www.loudouncounty.gov/procurement](http://www.loudouncounty.gov/procurement)).

Loudoun County distributed a second round of questions to each team. The questions are specific to each team's submittal and focus on clarification of financial areas in their respective proposals. Questions were derived from an early series of one-on-one discussions with the offerors. All questions received from the offerors during the week of February 28, 2014 were financial in nature.

On March 5, 2014, the Loudoun Board of Supervisors met in closed session for staff to provide the Board with the following information:

- 1) In-depth financial details for each of the four offerors. This information is currently being assembled with the assistance of Jones Lang LaSalle.
- 2) Two independent DB cost estimates based on similar specified parking facilities in order to establish a baseline for negotiation. Loudoun County contacted MBP Engineering and requested that they contact DB contractors that build parking facilities for a detailed breakdown and capital cost estimate in order to compare to the types of costs received from the four offerors. Loudoun County asked that the DB contractors not be identified so as not to preclude them should opportunities become available.
- 3) Details on the approach and content to be used during the negotiations and to identify benchmarks for each negotiation.
- 4) Once negotiations are completed, provided the process of assessing whether the benchmarks were achieved during negotiations, and what the follow-up activities would be. The Board will also be provided with a decision matrix for the final approval for privatization that will identify and determine the factors for selection.

During the closed session on March 5, 2014, the Loudoun Board of Supervisors approved the Design-Build-Operate-Maintain and Finance (DBOM+F) method for the procurement of the parking facilities. They discussed and decided on the parameters for the Best and Final Offer (BAFO). The request for a BAFO was transmitted to all four of the bidders on April 11, 2014 and the BAFOs were received from all bidders on May 14, 2014. Loudoun County reviewed the BAFOs and issued a short list for each parking facility for negotiations. A recommendation to start negotiations for the DBOM+F contract award for each of the parking facilities was approved by the Board of Supervisors at the June 10, 2014 meeting. Jones Lang LaSalle will lead formal negotiations for the County.

During the *June 10, 2015* meeting, Loudoun County provided an update on each of the parking facilities:

**Route 772 North (Ashburn North)** – *The Interim Agreement with Comstock was signed on February 18, 2015. Loudoun County reported that they expected the Final*

*Comprehensive Agreement to be reached by the end of September 2015. The completion of Final Design is expected by January 2016 with the completion of construction anticipated by February 2017. MWAA submitted the results of their Environmental Re-Evaluation for Locality Parking Garage Refinements for the Route 772 North (Ashburn) to the FTA on June 4, 2015. This submission is under review by FTA.*

**Route 772 South (Ashburn South) and Route 606 (Loudoun Gateway)** – The recommended DBOM+F contractor, Nexus Properties, Inc., has proposed that both of the facilities be constructed on the sites identified in preliminary engineering. As of the September 2014 meeting, Loudoun County reported that negotiations are advancing and Loudoun County is in the process of assembling the legal documents for all three parking facilities. In addition, Nexus Properties has requested the design criteria for the parking facilities. During the September 2014 meeting, Loudoun County reported that it anticipates commissioning the parking garages in March 2018 in accordance with the original PPTA schedule. During the February 10, 2015 meeting, Loudoun County reported that there was no change to this schedule. Loudoun County legal staff is preparing the Interim Agreements with Nexus for the Route 772 South and Route 606 Parking Facilities. *At the June 10, 2015 meeting, Loudoun County reported that they were negotiating the Final Agreement for both locations with Nexus and expected agreement to be reached by the end of September 2015. However, Loudoun County is awaiting MWAA’s recovery schedule relative to the reported thirteen months delay to the Project before determining their schedule for these two parking facilities.*

**e. Other Phase 2 Contracts**

- Structural Tests and Special Inspections

- An RFP was issued December 27, 2013, for a contract to perform structural *tests* and special inspections on rail stations, guideways, bridges and substations, which are part of the Project. Proposals were received on January 30, 2014. The contract was approved by the MWAA Board of Directors on April 16, 2014, and was awarded to Professional Services Industries (PSI) on April 18, 2014. CTI Consultants, Inc. filed a protest on April 28, 2014. The protest was denied on May 1, 2014, by the Manager of Procurement and Contracts. On May 13, 2014, CTI requested a review, by the MWAA CEO, of the rejection of the protest. On June 9, 2014, the CEO confirmed the protest denial decision and denied CTI’s review request. PSI continues to perform testing and inspections of the construction activities, which will include Package A and Package B.

- Building Code Plan Review and Inspection Services

An RFQI was issued on December 23, 2013, for a consulting firm to conduct building code plan review and inspection services for the Project. The firm will also conduct review of stormwater management plans, provide associated erosion and sediment control inspections, plan review and enforcement services, and provide general environmental services as assigned during construction of the Project. Qualifications were submitted on January 23, 2014, and the contract was approved by the Airports Authority Board of Directors on April 16, 2014. The contract was awarded to IBTS Government Solutions on May 29, 2014. Task Order 1 was issued with NTP on June 5, 2014.



- Environmental Professional Services

The contract for environmental professional services needed to support the completion of Environmental Due Diligence Reports (Environmental Screening Assessments, Phase I Environmental Site Assessments, and Phase II Environmental Site Assessments) for real estate acquisition on the Project was awarded to Environmental Alliance, Inc. on March 25, 2014.

**f. Real Estate and Project Development**

MWAA submitted their Real Estate Acquisition Management Plan (RAMP), Revision 0, for Phase 2 on August 19, 2013. The PMOC requested the appendix listing the Phase 2 properties, which was received by the PMOC via the Property Acquisition List letter dated September 27, 2013. Details of the required properties will be developed during the design phase of the Package A Contract. The PMOC reviewed the RAMP and provided comments to FTA on November 13, 2013. A teleconference to discuss the comments and the changes from the Phase 1 RAMP was held on November 15, 2013, and MWAA resubmitted the RAMP, Revision 1, in response to the comments on February 5, 2014. FTA provided comments on the RAMP, Revision 1, on February 26, 2014 and MWAA resubmitted the RAMP, Revision 2, on April 1, 2014 incorporating all previous FTA and PMOC comments, including those provided on February 26, 2014. Prior to the June 2014 meeting, a conference call was held with Pamela Peckham, FTA Realty Specialist, to discuss FTA comments to the RAMP. FTA also transmitted its comments on the RAMP to MWAA on July 9, 2014 for incorporation into the next revision of the RAMP. MWAA addressed the comments and resubmitted Revision 3 to the RAMP, including Procedure P2M-3.01, on August 6, 2014. The PMOC recommended that FTA accept this revision and the FTA letter accepting the RAMP was forwarded to MWAA on August 18, 2014.

MWAA reported that the letter submitted to FTA in 2007 requesting to raise the threshold values to \$100,000 and \$1,000,000 respectively was for the entire 23-mile corridor and not only Phase 1. In addition, FTA's approval letter October 5, 2007 did not preclude Phase 2 nor did it specify Phase 1. As a result, MWAA determined that the threshold increase applied to the entire corridor, and in response to FTA, MWAA submitted a letter requesting to reauthorize the threshold limits used for Phase 1 for Phase 2 by January 8, 2014. MWAA submitted a supplement to the letter, in accordance with the FTA Circular 5010.1D, to FTA on February 6, 2014. FTA stated that approval of the threshold letter is pending FTA review of the revised RAMP. At the May 6, 2014 meeting, MWAA expressed the need for the approval to increase the threshold limits as there are several acquisitions that will be above the current threshold. On July 3, 2014, FTA approved the increase for threshold limits for the Dulles Phase 2 Project.

Responsibility for Phase 2 right-of-way will be directly under MWAA and not the DB Contractor as in Phase 1. The exception to this is that CRC is responsible for utility relocation and property acquisitions outside of the parcels that MWAA has identified as part of the preliminary engineering plans. In conjunction with CRC, MWAA has identified the project parcels and broken them into priorities (1, 2A, and 2B) under the contract.

Priority 1 parcels were identified by MWAA during preliminary design as the primary parcels that would be needed by the Package A Contractor. MWAA has developed Property Identification Plans (PIP) for the Priority 1 parcels based on CRC's current design and CRC is responsible for verifying the PIPs are adequate to support construction. The Project team will be the negotiator and relocation manager for the Priority 1 parcels and MWAA has retained consultants for the appraisal and appraisal review work associated with the acquisition of the Priority 1 parcels. MWAA has one year to deliver the property once the PIP is verified by CRC. CRC has verified the Priority 1 PIPs for parcels 207, 214, 220 and 237. MWAA reported that no new properties would be moved into Priority 1; however, Priority 1 properties can be deleted. In addition, any additional properties identified as high priority (not identified as Priority 1) will become Priority 2A.

Priority 1 parcels are primarily for the stormwater ponds and the ancillary facility locations. MWAA continues to develop the property appraisals and the right-of-way plans for the Priority 1 acquisitions where access was due to CRC by March 15, 2014. The PMOC requested the new schedule for Priority 1 acquisitions now that the March 1, 2014 deadline has passed. MWAA responded that an additional year was incorporated into the process to bring the date for Priority 1 acquisitions to March 1, 2015. MWAA reported that the Priority 1 parcels were developed by MWAA during preliminary engineering; however, CRC had different priorities. MWAA added that it is working with CRC and has provided CRC with early access/rights of entry, which has been largely successful. MWAA provided a revised property acquisition schedule on October 3, 2014.

*The status of the Property Acquisitions is shown in the following table.*

## *Property Acquisition Status*

Priority	Total Anticipated <sup>1</sup>	PIP <sup>2</sup> Complete	Initial Appraisal Complete <sup>3</sup>	Revised PIP/ Appraisal Pending	Offer Made <sup>4</sup>	Revision in Process	Settlement Reached/ Condemnation Processed	Acquisition Complete
1	9 <sup>5</sup>	8	7	3 <sup>6</sup>	7	0	3 <sup>7</sup>	2 <sup>8</sup>
2A <sup>9</sup>	20	6 <sup>10</sup>	3	0	3	0	0	0
2B <sup>11</sup>	25	0	0	0	0	0	0	0
<b>Total<sup>12</sup></b>	<b>54</b>	<b>14</b>	<b>10</b>	<b>3</b>	<b>10</b>	<b>0</b>	<b>3</b>	<b>2</b>

Right of Entry (ROE) Status:

- Full Access for Construction has been provided for Parcels 238, 240, 235, and 237.
- Full Access to Fairfax County-owned property was provided in 2013 for Parcels 213, 223,232, and 234.
- Early Right-of-Entry for selected utility work has been provided for Parcel 208 in January 2014, which allows access across Parcel 209 on Edmund Halley Drive.

<sup>1</sup> Total based on current understanding, including changes due to SWM II-B criteria revisions.

<sup>2</sup> PIP = Property Identification Plan

<sup>3</sup> Initial appraisals complete for Priority 1 Parcels 207, 214, 220, 237, 262, 255, and 253. One other appraisal placed on hold initially due to dedication revision (Parcel 258). Appraisal complete for Priority 2 Parcels 231, 275, and 276.

<sup>4</sup> Offers made for Parcel 207, 220, 214, 240, 237, 231, 262, 254, 275, 276, and ~~253~~. Negotiations ongoing for Parcels 220, 240, 237 231, 262, 254, 275, 276, and ~~253~~. Condemnation package prepared for Parcel 220 due to impasse.

<sup>5</sup> Includes one parcel to be dedicated to Loudoun County (Parcel 258) for which a Proffer Condition Amendment by the County was completed in July 2014 that redefines the area to be dedicated. Appraisal will be conducted once revised area needed for Project have been identified.

<sup>6</sup> Pending revisions to PIP due to Route 772 station area configuration and revised SWM: Parcel 255. New appraisal required for Parcel 237 due to revised utility relocation approach. Revised PIP for Parcel 253 accepted in March 2015.

<sup>7</sup> Parcels 207 and 214 complete. Revised Certificate of Take for Parcel 220 materials provided to VDOT, per their comments, in May 2015.

<sup>8</sup> Parcels 207 and 214.

<sup>9</sup> Acquisitions will be based on Final Design plans provided by Contractor. Includes one new parcel package, Parcel 320, for an additional area on parcel Parcel 220 due to updated design.

<sup>10</sup> Priority 2A PIP status: Parcels 240, 238, 231, 275, 276, and 254, PIPs Accepted by MWAA. PIPs that have been reviewed by MWAA and were under revision by CRC in May 2015: Parcels 265 and 271, for which comments have been returned to CRC. Two PIPs were submitted by CRC in May: Parcel 254 (resubmittal) and Parcel 320.

<sup>11</sup> Priority 2B PIP status: Parcels 225, 226, and 227 submitted by CRC in February 2015 for which comments have been returned to CRC in March 2015.

<sup>12</sup> Does not include those parcels on which construction will be performed by permit/permission (TRIP II and Fairfax County). Acquisitions/conveyances will be based on as-built conditions and completed prior to Substantial Completion.

MWAA has received Rights-of-Entry with the users at the Dulles Airport to accelerate the acquisition process. MWAA is working with the Real Estate Manager at the Dulles Airport to review leases and is using the lease provisions for the Rights of Entry. MWAA is also relocating tenants within the Dulles Airport to accommodate CRC's construction activities. In addition, to accommodate CRC's construction activities, MWAA has expedited obtaining access rights to some of the Dulles Airport properties.

Third-Party Appraisal Review Services Contract: An RFP for Phase 2 appraisal review services was issued on June 7, 2013 and an award issued to Appraisal Review Specialists, LLC, on October 10, 2013. The majority of the Priority 1 appraisals has been completed by the appraisal consultant, Parli Appraisal, Inc., and is with the review appraiser. MWAA added that the PMSS team would be the negotiator and relocation manager for the Priority 1 parcels. Because some of the properties are at the airport, MWAA is dealing with leaseholds as opposed to the property owners for the acquisition of airport parcels.

Third-Party Property Acquisition Consultant Contract: MWAA has also retained a property acquisition consultant for the remainder for the parcels (Priority 2 and 3) using VDOT's specifications. The RFP was issued on May 23, 2013, and the contract was awarded on August 26, 2013 to Stantec Consulting Services, Inc. A kickoff meeting was held on November 8, 2013.

Archeological Investigation: During the January 8, 2014 meeting, MWAA reported that although they had hoped to have the archeological investigation completed by the end of 2013, the archeological investigation was suspended with concurrence from the State Historic Preservation Office (SHPO), as the water table had risen. MWAA estimated that there are six test pits remaining; however, completion of the remaining test pits was not holding up the remaining geotechnical work that CRC needed to complete.

At the June 5, 2014 meeting, MWAA reported that the archeological investigation in the area of the Yard Lead west of the guideway line will resume the week of June 9, 2014 and the remaining work should take approximately two weeks. The archeological investigation was reported as being completed during the July 9, 2014 meeting. Nothing of significance was found. MWAA understands that it has concurrence from SHPO not to perform the last step of the investigation, which was to be mechanical exploration, since they have found nothing of significance thus far. SHPO has issued their concurrence that the activity in that western area of the Yard Lead is subject to no further evaluation because it is wetland and due to the realignment of the guideway, no structures or track will be built in that area. A draft report was submitted by the archaeology team in November 2014 and comments were provided back for incorporation into a revised draft report which was submitted to SHPO in December. SHPO commented on security fencing drawings on roadway overpasses in mid-February. At the March 11, 2015 meeting, MWAA noted that they had responded to SHPO the previous week. At the April 8, 2015 meeting, MWAA reported that they had forwarded SHPO's comments to CRC for disposition.

Commonwealth of Virginia's Stormwater Management Regulations: MWAA reported no additional right-of-way should be needed because of revisions in regulations and,

therefore, no new agreements are being contemplated at this time. MWAA added that at most, temporary construction easements might be needed. No new private ponds or shared use private ponds are anticipated at this time. At the September 9, 2014 meeting, the PMOC questioned MWAA's July 2014 monthly report that identified two new parcels for stormwater quality swales as part of the Priority 2A parcels.

**g. Utility Coordination**

MWAA submitted their Permit Management Plan, Revision 0, for Phase 2 on August 19, 2013. The PMOC has completed its review of the Permit Management Plan and provided a draft spot report with recommendations to FTA for review on October 8, 2013. The draft Spot Report was transmitted to MWAA for review on December 9, 2013. MWAA resubmitted the Permit Management Plan, Revision 1, on April 1, 2014 incorporating all previous FTA and PMOC comments. On April 22, 2014, the PMOC advised FTA that the comments to the earlier submissions of the Permit Management Plan had been incorporated and recommended that FTA accept the Permit Management Plan with the understanding that it may need to be updated as the design of Phase 2 proceeds and additional requirements are identified. Initially, FTA advised that its approval of the Permit Management Plan would be coupled with the RAMP review; however, at the July 9, 2014 meeting FTA stated that it would accept the Permit Management Plan independent of the RAMP. On August 8, 2014, FTA issued a letter approving the Phase 2 Permit Management Plan, Revision 1.

MWAA advised that if the counties build the parking facilities, the counties themselves would be the code officials and not the Department of General Services. In addition, the counties will be responsible for compliance with local requirements for stormwater design and other design requirements. The contract with CRC states that all utility relocations associated with Package A are the contractor's responsibility.

**h. Vehicle Procurement**

On August 15, 2012, MWAA authorized WMATA to amend their contract with Kawasaki to exercise the option for an additional sixty-four 7000 Series railcars for Phase 2. WMATA's letter of August 30, 2012 confirmed the executed amendment to the Kawasaki Contract. The MWAA budget including contingency, in year of expenditure dollars, for the Phase 2 railcars is \$213.383 million. The latest schedule from Kawasaki dated *May 25, 2015* shows final delivery for the last Phase 2 vehicles *remains as* no later than *July 19, 2017*.

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

MWAA has submitted the PMP and required sub-plans. Below is the status of each plan received by FTA through *May 31, 2015*.

- MWAA submitted that latest version of the draft Phase 2 **Project Management Plan** (PMP), Version 1.1 to FTA on May 16, 2013 for FTA review and approval. Version 1.1 included modifications based on the comments received from FTA to Version 1.0, dated November 2012 submitted to FTA on December 7, 2012. The résumé summaries of key personnel were received on June 21, 2013. On August 2, 2013, the PMOC recommended that FTA accept the PMP Version 1.1, with comments, and on November 3, 2013, FTA

directed MWAA to address the comments provided and formally issue the final PMP for this stage of the Phase 2 project for approval.

On April 2, 2014, MWAA transmitted the final Phase 2 PMP, Version 1.1, including the Project Management Procedures, which were being submitted to FTA for initial review. The PMOC advised FTA that the previous comments to the draft PMP have been satisfactorily addressed and recommended FTA acceptance on April 23, 2014. The FTA letter approving the PMP was sent to MWAA on May 19, 2014 and the final PMP, version 1.2 (without track-changes) was issued. On June 4, 2014, MWAA met with FTA to discuss potential reorganization plans for the Phase 2 Project. A subsequent meeting was held on June 13, 2014. On July 28, 2014, MWAA submitted its proposed organization chart, draft description of the roles and responsibilities of the key staff, and the resumes for five key staff members in the proposed reorganization of the Phase 2 Project. The PMOC reviewed the submittal and provided comments to MWAA on August 6, 2014. MWAA addressed the PMOC's comments in the next revision of PMP, Draft PMP Version 2.0, which, along with Project Management Procedures were submitted to PMOC on November 14, 2014. PMOC recommended that FTA accept the Draft PMP and associated Project Management Procedures with comments on January 9, 2015. FTA accepted the Draft PMP with comments on January 22, 2014. MWAA submitted the Final PMP Version 2.0 on February 6, 2015 that is under review. PMOC recommended that FTA accept the PMP Version 2.0, with comments, on March 27, 2015. PMOC's comments included the requirement that the PMP be updated early in the fourth quarter of 2015 due to the recent departures of several MWAA staff members and the planned reassignment of some duties.

- MWAA submitted the latest revision of the Phase 2 **Quality Program Plan (QPP)**, Revision 1, to the FTA on March 26, 2013 for FTA review and approval. The QPP incorporates the changes to address the PMOC comments to QPP Revision 0, dated October 24, 2012 submitted to FTA on December 12, 2012. The comments were discussed after the March 7, 2013 FTA/PMOC monthly meeting. The PMOC recommended acceptance, with comments, of the QPP to FTA on May 17, 2013, and on September 23, 2013, FTA approved the Phase 2 QPP, Revision 1, and requested that MWAA update it as needed as Phase 2 continues to move forward through final design and construction. In addition, FTA requested that MWAA submit the Phase 2 Project Management Procedures to FTA and the PMOC for review. MWAA submitted the Phase 2 Project Management Procedures with the April 2, 2014 resubmittal of the PMP and PMOC recommended FTA acceptance on April 23, 2014. The FTA letter approving the Project Management Procedures was sent to MWAA on May 19, 2014. Project Management Procedures, revised to reflect the re-organization, were submitted to PMOC on November 14, 2014. PMOC recommended that FTA accept the revised Project Management Procedures on January 9, 2015.
- MWAA submitted the Phase 2 **Safety and Security Management Plan (SSMP)**, Revision Draft dated February 28, 2013, to the FTA on March 27, 2013 for review and approval. On May 17, 2013, the PMOC recommended that the FTA accept the SSMP contingent upon the signature by WMATA's Chief Safety Officer. MWAA addressed the three recommendations included in the PMOC review and the SSMP, Revision 0 dated July 2013 was signed by WMATA's Chief Safety Officer on August 6, 2013. The

PMOC recommended acceptance of the SSMP, Revision 0 to FTA on September 3, 2013. The FTA letter accepting the SSMP was sent to MWAA on November 15, 2013. At the January 2015 meeting, MWAA reported that a revised SSMP is expected to be completed by the end of February 2015. SSMP, Revision 1 dated February 28, 2015 was submitted to FTA and PMOC on March 16, 2015. PMOC completed its review and recommended acceptance with comments on May 5, 2015. *FTA forwarded the PMOC's comments to MWAA on June 15, 2015 with the request that MWAA obtain WMATA's concurrence of the SSMP prior to formal acceptance by FTA.*

The Tri-State Oversight Committee (TOC) stated that they are revising the Safety and Security Oversight Management Plan for Phase 2 to clearly outline the lines of authority between the TOC, MWAA and WMATA.

- MWAA submitted Revision 1 of the Phase 2 **Risk and Contingency Management Plan** (RCMP), to the FTA on April 24, 2013 for review and approval. Revision 1 included modifications based on the comments received from FTA to Revision 0, Draft 2, dated December 2012. MWAA submitted their draft SCC Budget Workbook to the PMOC on May 28, 2013. MWAA, FTA, and the PMOC met on July 9, 2013 to review MWAA's development of project costs. Based on the discussions during the review meetings, MWAA issued a revised RCMP Revision 1 a for PMOC review on July 31, 2013.

The July 2013 RCMP included a lower secondary mitigation target than that recommended by the PMOC in the July 9, 2013 meeting based on MWAA's assessment that some of the beta factors assumed by the PMOC could be lowered by this stage of the project. On August 8, 2013, a subsequent meeting was held with MWAA to discuss the development of secondary contingency provided. On August 14, 2013, the PMOC completed a sensitivity analysis of the Modeled Contingency Requirement and concluded that there is still the indication that additional contingency is needed over that currently included in the project budget of \$2,902 million. The PMOC recommended that the project budget should include ample contingency for all project risks and recommended a project budget of \$3,126 million.

Upon further review of the PMOC comments and further consideration of the overall status of the Phase 2 program, MWAA issued a revised draft RCMP, Revision 1b, for PMOC review on August 30, 2013, adjusting the total project cost to \$3,126,450,757, including base contingency of \$477,143,052 and a secondary cost contingency of \$146,211,294. The PMOC has completed its review of the RCMP and on September 3, 2013 recommended acceptance, with comments, to FTA. On November 12, 2013, MWAA resubmitted RCMP, Revision 1c based on comments received from FTA. The PMOC recommended that FTA accept this revision and the FTA letter accepting the RCMP was forwarded to MWAA on February 4, 2014.

With the commitment from both Fairfax and Loudoun Counties to fund and procure the parking facilities independently, MWAA has revised its Phase 2 project budget to \$2,778,235,564. On February 25, 2014, MWAA provided a revised project contingency to the PMOC due to the reassignment of the parking facilities from the Project to the Counties. The revised base contingency is \$422,105,181 and a secondary cost contingency of \$129,345,998 for a revised total contingency of \$551,451,179. On April 8, 2014, a meeting was held with MWAA to discuss the PMOC's recommended

revisions to the contingency presented by MWAA and suggested a revised distribution of the project phase contingencies. MWAA resubmitted the RCMP on April 28, 2014 and a meeting was held to discuss the PMOC's comments directly after the Monthly Progress Meeting on May 6, 2014. MWAA needed to revise the Contingency Drawdown table based on the meeting subsequent to the Project meeting. After receiving the PMOC's concurrence, MWAA incorporated the revisions into RCMP Revision 1d and resubmitted the RCMP to the FTA on June 20, 2014 for review. During the review of the RCMP Revision 1d, the PMOC noted that the Top Ten Risks list had been revised, ranking the change to the Stormwater Management Part-II B regulations as the top risk to the Phase 2 project. The PMOC questioned the methodology behind the scoring for Risk Register and what assumptions were made in determining the scoring for the Top Ten Risks. The PMOC stated that it has reviewed the RCMP, Revision 1d and recommended that it be conditionally accepted by FTA. MWAA requested that the RCMP be approved independent to a decision of whether or not to perform an FTA sponsored workshop. MWAA explained that the contingency drawdown and the procedures included in the RCMP need to be approved.

Discussions continued regarding a possible FTA sponsored Risk Assessment Workshop for the Phase 2 Project as was done for Phase 1. The PMOC reported that as part of the recommendation to conditionally accept the RCMP, Revision 1d, and the FTA will be requesting any documentation developed as a result of MWAA internal risk workshop(s) performed to support the Top Ten Risks. The PMOC added that this information would assist FTA with the decision of whether or not to hold a FTA sponsored Risk Assessment Workshop and at what level of involvement.

MWAA submitted a paper dated December 2014 on December 19, 2014 describing the historical development of internal risk workshops. The document indicated that there was only one formal risk workshop which was held on July 24 and 25, 2012. The FTA and PMOC are reviewing the document to determine if MWAA should perform an updated workshop with FTA and PMOC as observers. MWAA submitted revised proposed Top Ten Risks, a revised risk register and a list of participants in their internal risk workshop which was held on December 12, 2014 for review on February 9, 2015.

MWAA reported that there is a concern with the contingency procedure because MWAA does not have a non-federal budget from which to fund work to be reimbursed by MWAA's funding partners. With the TIFIA loan, the entire Phase 2 project budget is considered federal. During the June 2014 meeting, several suggestions were discussed and MWAA committed to a resolution of the issue. RCMP, Revision 1d, submitted on June 20, 2014 included the updated procedure P2M 5.07, Revision 1, Management of Project Contingency Procedure, with language confirming MWAA's commitment to secure funding for any "Betterment" and "Concurrent Non-Project Activity (CNPA)" related changes.

MWAA has submitted revisions to the Risk Register and Top Ten Risks as of December 2014. The first was on February 9, 2015 that PMOC has discussed with MWAA resulting in a resubmission with additional information provided on March 23, 2015. PMOC's observations on that submission were discussed with MWAA after the April 8, 2015 update meeting. MWAA was to provide additional information. *On May 5, 2015, MWAA submitted a revised Risk Register and Top Ten Risks to FTA which the PMOC found were*



*inconsistent with previous submissions. In discussions after the June 10, 2015, MWAA agreed to revisit the Risk Register scoring and meet with the PMOC after the July 8, 2015 Update Meeting. MWAA will provide the revised Risk Register to PMOC prior to the meeting.*

- Since WMATA, rather than MWAA, will be the operator of the completed project, the WMATA **Rail Fleet Management Plan (RFMP)** is the applicable document. WMATA submitted RFMP, Revision J, on August 1, 2013 and FTA accepted it on August 8, 2013.

#### 4. Project Schedule

Phase 2 is currently in the design/construction phase. Construction began on Package A in June 2014 with the start of utility relocation. The commencement of revenue service is to begin on January 10, 2019, according to the last accepted overall Program Schedule. *Since MWAA announced on April 27, 2015 that the Project was incurring a thirteen month delay, a revised baseline schedule has been submitted. Revised Project Milestones will be forthcoming once the monthly schedule update is reviewed and accepted.*

The table below shows the Phase 2 milestones, as provided by MWAA December 10, 2014 meeting.

<b>DULLES CORRIDOR PHASE 2 MILESTONES</b>	
<b>DESCRIPTION</b>	<b>DATE</b>
Package A – Design-Build Contract Award	05/14/2013(A)
Package S – Advanced Earthwork Contract IFB	06/27/2013 (A)
Package A – Contract NTP	07/08/2013(A)
Package S – Advanced Earthwork Contract Award	11/01/2013 (A)
Package S – Advanced Earthwork Contract NTP	11/18/2013 (A)
Package B – Contract RFQI	11/12/2013 (A)
Package B – Contract RFP	02/11/2014 (A)
Loudoun County Garages – Board Action on BAFOs	06/10/2014 (A)
Package B – Contract Award	07/29/2014 (A)
Package A – Start of Construction	June 2014 (A)
Fairfax County – Approval of Land Use Cases for Parking Facilities	07/29/2014 (A)
Package B – Contract NTP	08/18/2014 (A)
Package S – Advanced Earthwork Contract Substantial Completion	12/08/2014(A)
Deadline for Fairfax and Loudoun Counties' decision to construct the Parking Facilities	12/29/2014(A)
Fairfax County – Design of Parking Facility Complete	June 2015
Package A – Complete Design	February 2016
Package A – Complete Elevated Guideway Construction	September 2016*
Package A – Complete At-Grade Guideway Construction	April 2018*
Package A – Station Build-out	December 2017*
Package A – Systems Installation	April 2018*
Fairfax County – Construction of Parking Facilities Complete	TBD
Loudoun County - Construction of Parking Facilities Complete	TBD
Package A – Contract Substantial Completion	07/07/2018*
Begin Operations Readiness Testing	07/07/2018*
Package B – Contract Substantial Completion	08/17/2018
Complete Operations Readiness Testing	09/04/2018
Project Final Acceptance	09/04/2018
Begin WMATA Revenue Operations Readiness (ORD) Acceptance Testing	09/04/2018
Complete WMATA Revenue Operations Acceptance Testing	01/10/2019
Revenue Service Date	01/10/2019

\* New date will be presented upon finalization of delay negotiation.

**a. Important Activities – 90-Day Look Ahead**

- MWAA and the AHJs approve the Preliminary Design submitted by CRC.
- MWAA to provide the cost and schedule impacts of SMP Part II-B *and design changes at end of September 2015*.
- FTA approval of Final PMP, Version 2.0, and Project Management Procedures.
- FTA approval of the RCMP.
- Start of final design by Fairfax County for the Innovation Center Station and Herndon Station parking facilities.
- Loudoun County to complete negotiations and issue contract award and NTP for the design, construction, financing, operation and maintenance of the three Phase 2 parking facilities.

**5. Project Cost**

MWAA's Phase 2 project budget was \$3,126,450,757, including the cost of the parking facilities funded by Fairfax and Loudoun Counties. This figure is in year-of-expenditure dollars and excludes the finance costs. With the commitment from both Fairfax and Loudoun Counties to fund and procure the parking facilities independently, MWAA has revised its Phase 2 project budget to \$2,778,235,564. This is a deduction of \$348,215,194, which includes associated primary and secondary mitigation for the parking facilities. The SCC budget and expenditure summary for the period ending *April 2015* is shown below. As of *April 2015*, project expenditures total \$438,217,480. Based on the budget and expenditures, the total project completion is 19%. This percentage does not include finance charges and contingency.

## PROJECT COST SUMMARY BY SCC CODE –April 2015 Phase 2

### Dulles Corridor Metrorail Project - Phase 2

#### All Packages Cost Summary by SCC Code, April 2015

FTA SCC CODE	DESCRIPTION	ORIGINAL BUDGET <sup>1</sup>	BASELINE BUDGET <sup>2</sup>	EXPENDITURE IN APRIL	EXPENDITURE TO DATE	ESTIMATE AT COMPLETION	CONTINGENCY TO DATE
10	Guideway and Track Elements	\$ 344,946,326	\$ 167,928,670	\$ 514,900	\$ 8,197,316	\$ 169,437,000	\$ 2,422,000
20	Stations	\$ 228,424,057	\$ 227,697,000	\$ -	\$ -	\$ 227,121,183	\$ (166,817)
30	Yards, Shops, Admin. Bldgs	\$ 229,857,097	\$ 213,730,843	\$ -	\$ 5,386,876	\$ 214,030,843	\$ 300,000
40	Site Work & Utility Relocation	\$ 394,075,868	\$ 545,160,692	\$ 3,462,910	\$ 110,706,490	\$ 577,391,893	\$ 25,184,531
50	Systems	\$ 193,794,178	\$ 215,516,247	\$ 928,530	\$ 12,230,606	\$ 213,968,247	\$ 4,176,000
60	Right of Way Acquisition	\$ 58,523,267	\$ 58,600,000	\$ 56,578	\$ 3,988,948	\$ 58,600,000	\$ -
70	Vehicles	\$ 212,765,000	\$ 213,613,334	\$ -	\$ 39,832,723	\$ 213,613,334	\$ -
80	Professional Services	\$ 564,398,592	\$ 574,696,366	\$ 10,607,863	\$ 257,874,521	\$ 596,351,092	\$ 21,654,726
90	Contingency <sup>3</sup>	\$ 551,451,179	\$ 561,292,412	\$ -	\$ -	\$ 507,721,972	\$ (53,570,440)
<b>TOTAL PROJECT FEDERAL COST</b>		<b>\$ 2,778,235,564</b>	<b>\$ 2,778,235,564</b>	<b>\$ 15,570,781</b>	<b>\$ 438,217,480</b>	<b>\$ 2,778,235,564</b>	<b>\$ -</b>

1 Original Budget is based on Table 2-1 "Program Budget Breakdown" of RCMP Rev1c submitted to FTA in November 2013

2 Baseline Budget reflects cost loading of package A baseline schedule approved in February 2014 and redistribution of spares parts budget Baseline Budget for Package B and S is adjusted to matched the Contract Price Baseline Budget for Contingency is adjusted by \$9.8 million increase which is the net of the underrun in package S and overrun in package B

3 All of the contingency resides in SCC 90

4 Package A expenditure to date include \$5 million of retainage released in December 2014

On May 14, 2013, MWAA awarded the Package A Contract for final design and construction of the line and stations in the amount of \$1,177,777,000. This was \$307.6 million below the engineer's estimate, which did not take into account the Insurance line item that was deleted from the contract award amount; MWAA will now issue an Owner Controlled Insurance Program (OCIP), estimated to cost \$50 million. The net savings realized was approximately \$258 million. MWAA incorporated these changes into the Baseline Budget. In April 2014, MWAA redistributed the SCC budgets to reflect the cost-loaded Final Baseline Schedule for Package A and in April 2015 the SCC budgets were redistributed to reflect the cost-loaded Final Baseline Schedule for Package B.

As of April 2015, 121 Contingency Drawdown Requests (CDR) totaling \$53,570,440 including \$51,265,168 for Package A have been issued.

**a. Monthly Cost Report – April 2015**

DESCRIPTION	ORIGINAL BUDGET	BASELINE BUDGET <sup>3</sup>	EXPENDITURE TO DATE <sup>4</sup>	ESTIMATE AT COMPLETION	PERCENT OF EAC EXPENDED TO DATE
<b>Design-Build</b>					
Design Build Main Line - Package A	\$ 1,177,777,000	\$ 1,177,777,000	\$ 216,329,123	\$ 1,229,042,168	
Commodity Escalation - Package A	\$ 16,000,000	\$ 16,000,000	\$ -	\$ 16,000,000	
Yard - Package B + Yard Soil Preparation - Package S	\$ 269,280,530	\$ 258,939,297	\$ 22,855,139	\$ 259,315,297	
Commodity Escalation - Package B	\$ 4,000,000	\$ 4,000,000	\$ -	\$ 4,000,000	
Parking Garages - Package C	\$ -	\$ -	\$ -	\$ -	
<b>Design-Build Contracts Total</b>	<b>\$ 1,467,057,530</b>	<b>\$ 1,456,716,297</b>	<b>\$ 239,184,262</b>	<b>\$ 1,508,357,465</b>	<b>16%</b>
<b>Right of Way</b>					
Parcels & Project Management	\$ 58,600,000	\$ 58,600,000	\$ 3,988,948	\$ 58,600,000	
<b>Right Of Way Total</b>	<b>\$ 58,600,000</b>	<b>\$ 58,600,000</b>	<b>\$ 3,988,948</b>	<b>\$ 58,600,000</b>	<b>7%</b>
<b>WMATA Agreement</b>					
Vehicles	\$ 205,868,200	\$ 205,868,200	\$ 39,832,723	\$ 205,868,200	
WMATA Non Revenue Vehicles	\$ 9,250,751	\$ 9,250,751	\$ -	\$ 9,250,751	
WMATA Project Management and Other Costs	\$ 90,205,767	\$ 90,205,767	\$ 5,252,505	\$ 90,205,767	
<b>WMATA Agreement Total</b>	<b>\$ 305,324,718</b>	<b>\$ 305,324,718</b>	<b>\$ 45,085,228</b>	<b>\$ 305,324,718</b>	<b>15%</b>
<b>Preliminary Engineering</b>					
<b>Preliminary Engineering Total</b>	<b>\$ 75,000,000</b>	<b>\$ 75,000,000</b>	<b>\$ 71,107,066</b>	<b>\$ 75,000,000</b>	<b>95%</b>
<b>Airports Authority Services</b>					
Airports Authority Project Management	\$ 64,620,000	\$ 64,620,000	\$ 7,011,280	\$ 64,620,000	
Project Management Support	\$ 140,000,000	\$ 140,000,000	\$ 44,146,967	\$ 140,560,000	
Other Costs <sup>1</sup>	\$ 116,182,137	\$ 116,682,137	\$ 27,693,729	\$ 118,051,409	
<b>Airports Authority Services Total</b>	<b>\$ 320,802,137</b>	<b>\$ 321,302,137</b>	<b>\$ 78,851,976</b>	<b>\$ 323,231,409</b>	<b>24%</b>
<b>Contingency</b>					
<b>Contingency Total</b>	<b>\$ 551,451,179</b>	<b>\$ 561,292,412</b>		<b>\$ 507,721,972</b>	
<b>TOTAL PROJECT FEDERAL COSTS</b>	<b>\$2,778,235,564</b>	<b>\$2,778,235,564</b>	<b>\$ 438,217,480</b>	<b>\$2,778,235,564</b>	<b>19%<sup>2</sup></b>

1 Includes Airports Authority Allocated Costs, Rent, Relocation, OCIP, VDOT, DRC, Testing Consultant, DGS, TRIP II, DEQ, Airports Authority Permits/Inspection, Testing Power and Historic/Archaeological Mitigation

2 This percentage does not include Contingency

3 Baseline Budget for Package A, B and S reflects the Contract Price. Baseline Budget for Contingency is adjusted by \$9.8 million increase which is the net of the underrun in Package S and overrun in Package B

4 Package A expenditure to date includes \$5 million of retainage released in December 2014

**b. Funding Sources**

Primary funding for Phase 2 (excluding parking facilities) comes from MWAA (8.50%), Fairfax County (18.98%), Loudoun County (9.95%), Commonwealth of Virginia (11.64%), and the Dulles Toll Road (50.93%). MWAA, Fairfax County, and Loudoun County anticipate receiving a total of \$1.876 billion in direct loans under the United States Department of Transportation (USDOT) Transportation Infrastructure Finance and Innovation Act (TIFIA) credit assistance program to assist in financing their shares.

Funding Source	Phase 2 Funding	Percentage of Total
Commonwealth of Virginia	\$ 323,300	11.64%
Fairfax County	\$ 527,352	18.98%
Loudoun County	\$ 276,478	9.95%
MWAA (Aviation Funds)	\$ 236,158	8.50%
MWAA (Dulles Toll Road)	\$ 1,414,948	50.93%
<b>Total Sources of Funding</b>	<b>\$ 2,778,236</b>	<b>100.00%</b>

### **c. TIFIA Funding Status**

The TIFIA working group continues to meet on a weekly basis. On June 21, 2013, MWAA, and Fairfax and Loudoun Counties presented the financial plans for the project to the USDOT TIFIA staff and consultants. All parties within the TIFIA working group are fully engaged in ensuring TIFIA has all deliverables, and MWAA, Fairfax and Loudoun Counties submitted an application. Fairfax and Loudoun Counties have agreed to remove the parking facilities from the TIFIA loan and construct the parking facilities using funding outside of the TIFIA eligible budget. In exchange for removing the funds from the TIFIA eligible costs, the Counties will agree to deliver the parking facilities without requesting funding from the Phase 2 project budget. This agreement is pending completion. MWAA, Fairfax, and Loudoun Counties have each remitted \$233,000 to TIFIA to prefund financial advisory and legal work by the TIFIA office. On February 24, 2014, the TIFIA working group extended a formal invitation to apply for a federal low-interest TIFIA loan for the Dulles Corridor Metrorail Project. MWAA completed the preliminary draft application form and developed a coordinated schedule with the Counties. Applications from MWAA, Fairfax County and Loudoun County were submitted on March 27, 2014. The TIFIA working group had 30 days to review the completeness and correctness of the application, followed by the financial review. On April 9, 2014, the entities received notice from USDOT that the TIFIA applications were deemed complete. Financial review was completed, and the TIFIA working group extended a formal authorization to MWAA, Fairfax County and Loudoun County to submit the final applications.

On August 20, 2014, United States Department of Transportation (USDOT) Transportation Infrastructure Finance and Innovation Act (TIFIA) credit assistance program executed a loan with MWAA, not to exceed \$1.278 billion to assist in financing its share. The Counties advised that they would need to go back to their respective Boards of Supervisors for approval before submitting their closing documents for the loan agreement. FTA cautioned the Counties that the first project drawdown would not be accepted until January 2015. The TIFIA Loan with Loudoun County for up to \$195 million closed on December 9, 2014 and the TIFIA Loan with Fairfax County for up to \$403 million closed on December 17, 2014. The US Department of Transportation has provided \$1.87 billion in TIFIA Loans to support the construction of Phase 2. To date, this represents the largest TIFIA assistance for a single project in the program's history.

Because of the Office of the Inspector General (OIG) audit of Phase 1, MWAA has taken steps to better manage the accounting for Phase 2. FTA performed an Agreed Upon Procedures (AUP) review with a Financial Management Oversight contractor in January 2015 following up on the findings from the OIG audit. A draft and final report are forthcoming.

## **6. Project Risks**

With the commitment from both Fairfax and Loudoun Counties to fund and procure the parking facilities independently, MWAA revised the RCMP and the PMOC provided comments to the proposed contingency drawdown on March 31, 2014. MWAA submitted the latest revision of the Phase 2 Risk and Contingency Management Plan (RCMP), Revision 1d, to the FTA on

June 20, 2014, including MWAA's proposed Top Ten Risks to FTA for review and approval. The submission included updated procedure P2M 5.07, Revision 1, Management of Project Contingency Procedure, with language confirming MWAA's commitment to secure funding for any "Betterment" and "Concurrent Non-Project Activity (CNPA)" related changes. MWAA has identified four primary mitigation strategies; however, MWAA and the PMOC agree that the primary and secondary mitigation measures should be developed in more detail following the award of all the DB contracts. RCMP, Revision 1d, included the updated Top Ten Risks List, lowering the severity and hence the removal of risks associated with parking garages as the garages will be funded and managed by the counties and addition of three new risks. Also, included in the revised RCMP were updated contingency drawdown milestones.

- **Budget Risks:** MWAA has allocated \$551 million in contingency for the overall project. Contingency is further broken down by Package as follows: \$289 million for Package A and \$109 million for Package B. With the assumption of the responsibility for the Parking Facilities to the counties, the \$72 million for Parking Facilities (formerly Package C) included in the RCMP revision 1c was deleted in Revision 1d. A contingency management plan has been established for the release of contingency based on contract milestones. The Phase 2 budget of \$3,126,450,757 includes a base cost contingency of \$422,105,181 and a secondary cost contingency of \$129,345,998.

At the October 9, 2014 meeting, MWAA reported that the \$9,841,233 budget under-run from the award of Packages B and S was transferred to the project contingency.

- **Schedule Risks:** The result from MWAA's schedule risk analysis shows that there is less than five percent chance that the Schedule Substantial Completion Date (SSCD) will take place on July 7, 2018. The 80% confidence level date for the SSCD is December 6, 2018, indicating a hypothetical delay of 152 calendar days. The schedule risk analysis performed by the project team was limited to the SSCD. For the Revenue Service Date, the project team has accepted the recommendation by PMOC to include a time contingency of 14 months in the overall program schedule. Overall, the schedule contingency, including the WMATA testing through the Revenue Service Date, is 14 months.
- **Top Ten Risks:** In its June 2014 RCMP, Revision 1d, MWAA provided a summary of the Top Ten Risks for review and approval. MWAA has moved the implementation of the Stormwater Management Regulations to the number one spot on the Top Ten Risks list. The PMOC questioned the methodology behind the scoring for Risk Register and what assumptions were made in determining the scoring for the Top Ten Risks. MWAA suggested that FTA perform Risk Assessment Workshop for the Phase 2 Project as was done for Phase 1. FTA will consider the suggestion and advise MWAA. MWAA held an internal Risk Workshop on December 12, 2014 which resulted in a change in nine of the Top Ten Risks. FTA and PMOC are reviewing the revised Risk Register and Top Ten Risks dated December 2014, which were submitted on May 5, 2015. The PMOC is concerned that the Top Ten Risks are constantly changing *which indicates a lack of consistency in scoring. MWAA is to revise the Risk Register and submit it to the PMOC prior to a meeting on July 8, 2015 to discuss the revisions.*

Below is MWAA's Top Ten Risks list from RCMP, Revision 1d, submitted to FTA on June 20, 2014.

### Summary Status of the Top Ten Project Risks, June 2014 RCMP

RCMP Revision 1d - June 2014			
Risk ID	Event Description	(Proposed Primary) Risk Mitigation	Risk Rating
Proposed NEW Item 40.D.1 and Top Ten Risk	Storm Water 2B	Define the detail scope requirements and mitigate any potential cost and schedule overruns ASAP	45
80.R.1	Project Team and various Agencies add new design requirements not currently included in the PE documents.	Project Team earliest possible exploration and identification of politically based/influenced issues from any and all sources and the timely implementation of a solution that minimizes cost and schedule impact to the Project.	32
Proposed NEW Item 80.D.2 and	CRC's ability to secure approval from AHJ for Preliminary Design (PD)	CRC is to secure PD approval ASAP.	32
40.C.98	Utility Companies involved in the utility relocation delay the DB.	DB to establish agreements with utility companies to start relocations work in advance of construction and complete by earliest need date in DB schedule for timely Project Completion.	27
80.D.39	Fairfax and Loudoun Counties, VDOT, Reston and Town of Herndon require local roadway improvements & traffic signal integration not currently planned or represented in the PE design.	DB to undertake early coordination with the Project Team, Loudoun and Fairfax Counties, Reston and Town of Herndon, VDOT and the owners/developers of congruous and adjacent real property..	24
80.D.43	Initial PE design addressing issues of real property acquisition is incomplete, vague or ambiguous.	Project Team to perform advance supplemental analysis of PE design and real estate requirements; Project Team include pessimistic availability dates in DB Contract Documents.	24
40.R.96	VDOT, Loudoun County, Fairfax County, Reston, and/or Town of Herndon do not provide new roadways or alteration connecting existing roadways to Project station and parking facility access points.	The Project Team is to coordinate and clarify the responsibilities and obligations of Loudoun and Fairfax Counties, the Town of Herndon, Reston, and VDOT, in the IGA and engage the above named counties and local authorities to solidify buy-in from owners and developers of contiguous and adjacent properties for completing access roadways availability to meet the DB schedule for Project Completion.	21
Proposed new to Top Ten Risks List Item 80.C.196	WMATA does not complete testing and start-up and final acceptance in a timely manner.	DB to monitor critical path activity progress during design and construction, coordinate with the Project Team WMATA's participation, and resolve potential delays to testing and start-up and WMATA final acceptance of the Project as they occur. To maximize the amount of testing/witnessing that WMATA does alongside Airports Authority and the DB contractor - this approach is being tried in Phase 1.	21
80.C.19B	DB does not issue complete and coordinated documents for use in design, construction and the permitting process.	The Project Team is to coordinate the clear articulation in the DB RFP documents the expectations for DB early establishment of submissions procedures and compliance therewith during design and construction, to include establishment of interim milestones during the design phase that are enforceable. Furthermore, the Project Team has to ensure that the DB Contract Documents clearly articulate the DB responsibilities and obligations to provide full and complete submissions to include the work scope of all disciplines required to complete construction and that submittals are staggered to prevent overloading of the review systems.	18
60.R.22	Project Team or DB does not make timely acquisition of right-of-way permanent and temporary easements.	The Project Team shall coordinate the early acquisition of right-of-way and easements so as to not impact the DB design and construction process and progress.	18

## 7. Action Items

### MWAA – DULLES CORRIDOR METRORAIL PROJECT PHASE 2- Items for Grantee Action

PR	ITEM	IDENTIFICATION	NATURE of PROBLEM	D	A	I	COMMENTS	STATUS
3	2B	FTA to approve MWAA management plans	MWAA submitted the PMP, QPP, SSMP, RCMP, Permit Management Plan and RAMP.	Y	Y	N	The draft PMP, Version 2.0, and the Project Management Procedures were submitted on November 14, 2014. PMOC recommended acceptance with comments on January 9, 2015, and FTA accepted the Draft PMP on January 22, 2015. <i>MWAA submitted the Final PMP Version 2.0 on February 9, 2015 that was recommended for approval with comments to FTA on March 27, 2015.</i>	R
1	2B	FTA to confirm whether further NEPA review will be required for changes to the Loudoun and Fairfax parking facility locations.	Loudoun and Fairfax Counties are procuring the parking facilities with local funds only.	N	N	N	FTA stated that the requirement for a NEPA review/re-evaluation would depend on the location of the parking facilities. NEPA review/re-evaluation may be required for changes to the parking facility locations. Loudoun and Fairfax counties need to submit location plans for the parking facilities if they have changed from the prior NEPA review.	R
2	2A	MWAA to report on the updated Revenue Service Date during the monthly progress meetings.	The Package A schedule shows a significant delay that will affect the overall Phase 2 Project schedule including the Revenue Service Date.	N	N	N	<i>On April 27, 2015, MWAA announced that the stormwater management and other early design changes have resulted in a thirteen month delay to the Project.</i>	R
2	2A	MWAA suggested that FTA perform Risk Assessment Workshop for the Phase 2 Project as was done for Phase 1.	The PMOC questioned the methodology behind the scoring for Risk Register and what assumptions were made in determining the scoring for the Top Ten Risks.	N	N	N	FTA requested any documentation developed because of MWAA internal risk workshops performed to support the Top Ten Risks. MWAA submitted documentation of the July 2012 Internal Risk Workshop on December 19, 2014 which is under review. MWAA submitted results of their December 12, 2014 risk workshop on February 9, 2015. <i>MWAA submitted revised Risk Register and Top Ten Risks on May 5, 2015 which is under review.</i>	R

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

Subtask 2A CLIN 0002A – PMP Review  
Subtask 2B 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



## **APPENDICES**

## APPENDIX A – LIST OF ACRONYMS

ACMC	Atlantic Contracting and Material Company
AHJ	Authority Having Jurisdiction
Airport	Dulles Airport
AUP	Agreed Upon Procedures
BAFO	Best and Final Offer
BMP	Best Management Practices
Board	MWAA Board of Directors
CDR	Contingency Drawdown Requests
CPSM	Construction and Professional Services Manual (Commonwealth of Virginia)
CRC	Capital Rail Constructors
DB	Design-Build
DBE	Disadvantaged Business Enterprise
DBOM	Design-Build-Operate-Maintain
DBOM+F	Design-Build-Operate-Maintain-Finance
<i>DCR</i>	<i>Design Change Request</i>
DEQ	Department of Environmental Quality
DHR	Department of Historical Resources
DIAAH	Dulles International Airport Access Highway
DIDB	Disparate Impact and Disproportionate Burden
DTP	Dulles Transit Partners, LLC
EA	Environmental Assessment
FONSI	Finding of No Significant Impact
FTA	Federal Transit Administration
HPCC	Hensel Phelps Construction Company
IFP	Issued for Permit
<i>IPP</i>	<i>Integrated Permit Package</i>
LPA	Locally Preferred Alternative
MWAA	Metropolitan Washington Airports Authority
NEPA	National Environmental Policy Act
NTP	Notice to Proceed
OCIP	Owner Controlled Insurance Program
PIP	Property Identification Plans
PMOC	Project Management Oversight Contractor
PMSS	Project Management Support Services
PMP	Project Management Plan
PPP	Public-Private Partnership
PPTA	Commonwealth of Virginia Public-Private Transportation Act of 1995
PRBS	Proposed Revised Baseline Schedule
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
RFQI	Request for Qualifications Information
RFP	Request for Proposal
RBS	Revised Baseline Schedule
SCC	Standard Cost Category
SHPO	State Historic Preservation Office
<i>S&amp;I</i>	<i>Service and Inspection</i>
SSCD	Schedule Substantial Completion Date
SSMP	Safety and Security Management Plan
SWM	Storm Water Management
<i>SWPPP</i>	<i>Stormwater Pollution Prevention Plan</i>
TBD	To Be Determined
TOC	Tri-state Oversight Committee
TIA	Time Impact Analysis
TIFIA	Transportation Infrastructure Finance and Innovation Act
USDOT	United States Department of Transportation
VDOT	Virginia Department of Transportation
VSMP	Virginia Stormwater Management Program
WFC	West Falls Church
WMATA	Washington Metropolitan Area Transit Authority

## APPENDIX B – PROJECT OVERVIEW AND MAP

**Project Name:** Dulles Corridor Metrorail Project – Phase 2  
**Grantee:** Metropolitan Washington Airports Authority (MWAA)  
**FTA Regional Contact:** Corey Walker, P.E. - FTA Region III, DC Metro Office Engineer  
**FTA Headquarters Contact:** Dale Wegner, P.E. - FTA Headquarters, Project Manager

### Scope

**Description:** Phase 2 of the Project consists of the design and construction 11.4 route miles of new track from the interim terminus at Wiehle-Reston East Station through Washington Dulles International Airport to a terminus in eastern Loudoun County. The current Phase 2 project budget is \$2,778,235,564 exclusive of parking facilities and finance costs.

**Guideway:** Phase 2 consists of 11.4 miles of elevated and at-grade guideway.

**Stations:** Phase 2 includes six new stations (Reston Town Center, Herndon, Innovation Center, Dulles Airport, Route 606 and Route 772 Stations).

**Support Facility:** Phase 2 includes a maintenance and storage yard facility at Dulles Airport, wayside facilities (including traction power substations, tiebreaker stations, stormwater management ponds along the alignment), and five new parking facilities with 8,900 parking spaces.

**Vehicles** Phase 2 includes sixty-four new railcars.

### Current Delivery Milestone Schedule

12/01/2009	Preliminary Engineering Commenced
02/29/2012	Preliminary Engineering Completed
07/08/2013	Package A Design-Build NTP issued
11/18/2013	Package S Design-Build NTP issued
08/18/2014	Package B Design-Build NTP issued
08/20/2014	MWAA TIFIA Loan Executed
01/10/2019	Phase 2 Revenue Service Date
19%	Percent Work in Place Complete at the date of this report
36.7%	Percent Project Schedule Complete at the date of this report

### Cost

\$2,778,235,564	Total project cost in year-of-expenditure dollars (\$YOE) at the date of this report
\$438,217,480	Amount of expenditures at the date of this report from a total project budget of \$2,778,235,564
19%	Percent Complete expenditures at the date of this report. (This percentage does not include finance charges and contingency)
\$507,721,972	Total project contingency remaining (allocated and unallocated contingency)

## **APPENDIX C – PROJECT MAP**



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

<b>Project Overview</b>	<b>Dulles Corridor Metrorail Project – Phase 2</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>	<b>Version</b>	<b>Review By FTA</b>	<b>Status</b>
Safety and Security Management Plan	July 2013	Approved on November 15, 2013	MWAA submitted SSMP Rev. 0 dated July 2013 for review and approval in August 2013 in response to comments provided in May 2013. FTA approved the SSMP on November 15, 2013. <i>MWAA submitted SSMP Rev.1 dated February 28, 2015 and PMOC recommended acceptance with comments on May 5, 2015.</i>
Safety and Security Certification Plan			MWAA has adopted their contractors' SSCPs as the guiding certification documents. MWAA "Accepted as Noted" CRC's SSCP on October 14, 2014. MWAA accepted HPCC's SSCP on February 20, 2015.
System Safety Program Plan	January 2013		WMATA's 2014 SSPP is effective January 2014 and approved by TOC on April 25, 2014.
System Security Plan or Security and Emergency Preparedness Plan (SEPP)	3/2012	N/A	WMATA submitted a revised SEPP to TOC in March 2012, which the TOC approved on April 23, 2012.

Construction Safety and Security Plan (CSSP)		CRC's CSSP was accepted on December 13, 2013. <i>The CSSP procedures were submitted on June 4, 2014 for information. CRC's CSSP was resubmitted in January 2015 and accepted on February 5, 2015.</i> APMC's CSSP was Accepted as Noted on December 23, 2014. HPCC's CSSP, Rev.1, was accepted by MWAA on December 15, 2014. The Procedures were accepted on March 5, 2015.
<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?	Y	TOC approved an updated WMATA SSPP dated January 2013 on February 15, 2013.
Has the oversight agency reviewed and approved the grantee's Security Plan or SEPP as per Part 659.21?	Y	WMATA SEPP approved on April 23, 2012.
Did the oversight agency participate in the last Quarterly Program Review Meeting?	Y	TOC and/or its contractor (TRA) routinely attend the quarterly meetings, including the most recent on November 24, 2014.
Has the grantee submitted its safety certification plan to the oversight agency?	Y	
Has the grantee implemented security directives issued by the Department of Homeland Security, Transportation Security Administration?	Y	WMATA will be operator. TSA representatives participate in the monthly SCWG meetings.



<b>SSMP Monitoring</b>	<b>Y/N</b>	<b>Notes/Status</b>
Is the SSMP project-specific, clearly demonstrating the scope of safety and security activities for this project?	Y	MWAA's SSMP, Revision 0, dated July 11, 2013 was approved by FTA on November 15, 2013. <i>MWAA submitted SSMP Rev.1 dated February 28, 2015 and PMOC recommended acceptance with comments on May 5, 2015.</i>
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.	Y	
Does the grantee maintain a regularly scheduled report on the status of safety and security activities?	Y	
Has the grantee established staffing requirements, procedures and authority for safety and security activities throughout all project phases?	Y	
Does the grantee update the safety and security responsibility matrix/organizational chart as necessary?	Y	
Has the grantee allocated sufficient resources to oversee or carry out safety and security activities?	Y	
Has the grantee developed hazard and vulnerability analysis techniques, including specific types of analysis to be performed during different project phases?	N	Contractors (CRC and HPCC) are responsible for PHAs. A draft copy of the PHA was provided by CRC on June 25, 2014. HPCC's PHA is expected in June 2015. WMATA is responsible for TVA.
Does the grantee implement regularly scheduled meetings to track to resolution any identified hazards and/or vulnerabilities?	N	CRC and HPCC will resolve all identified hazards and vulnerabilities with final review by the SCWG.
Does the grantee monitor the progress of safety and security activities throughout all project phases? Please describe briefly.	Y	Yes, through SCWG.
Does the grantee ensure the conduct of preliminary hazard and vulnerability analyses? Please specify analyses conducted.	N	MWAA is developing the PHAs through its contractors, CRC and HPCC, and WMATA is responsible for the TVA.
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	The project is in the early DB stage.
Has the grantee identified safety and security critical tests to be performed prior to passenger operations?	N	
Has the grantee verified conformance with safety and security requirements during testing, inspection and start-up phases?	N	
Does the grantee evaluated change orders, design waivers, or test variances for potential hazards and /or vulnerabilities?	N	
Has the grantee ensured the performance of safety and security analyses for proposed work-arounds?	N	
Has the grantee demonstrated through meetings or other methods, the integration of safety and security in the following: <ul style="list-style-type: none"> <li>• Activation Plan and Procedures</li> <li>• Integrated Test Plan and Procedures</li> <li>• Operations and Maintenance Plan</li> <li>• Emergency Operations Plan</li> </ul>	N	
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>	<b>Y/N</b>	<b>Notes/Status</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	
Does the grantee's contractor(s) have a site-specific safety and security program plan?	Y	MWAA has accepted the contractor's Safety and Security Plan.

Provide the grantee's OSHA statistics compared to the national average for the same type of work. If the comparison is not favorable, what actions are being taken by the grantee to improve its safety record?	Y	System in place, construction activities <i>have started on Package A. Package B construction has not yet started.</i>
Does the grantee conduct site audits of the contractor's performance versus required safety/security procedures?	Y	<i>MWAA has developed an Audit schedule. MWAA has conducted two audits of Construction Safety and Security and two audits of System Safety and Security.</i>

<b>Federal Railroad Administration</b>	<b>Y/N</b>	<b>Notes/Status</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	This is a Heavy Rail Transit Project. There is 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	



[Redacted]

[Redacted]