

PMOC MONTHLY REPORT

East Side Access (MTACC-ESA) Project

Metropolitan Transportation Authority

New York, New York

Report Period July 1 to July 31, 2012



PMOC Contract No. DTFT60-09-D-00007

Task Order No. 2, Project No. DC-27-5115, Work Order No. 03

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Length of time on project: Five years on project for Urban Engineers

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THIRD PARTY DISCLAIMER

This report and all subsidiary reports are prepared solely for the Federal Transit Administration (FTA). This report should not be relied upon by any party, except FTA or the project sponsor, in accordance with the purposes as described below.

For projects funded through FTA Full Funding Grant Agreements (FFGAs) program, FTA and its Project Management Oversight Contractor (PMOC) use a risk-based assessment process to review and validate a project sponsor's budget and schedule. This risk-based assessment process is a tool for analyzing project development and management. Moreover, the assessment process is iterative in nature; any results of an FTA or PMOC risk-based assessment represent a "snapshot in time" for a particular project under the conditions known at that same point in time. The status of any assessment may be altered at any time by new information, changes in circumstances, or further developments in the project, including any specific measures a sponsor may take to mitigate the risks to project costs, budget, and schedule, or the strategy a sponsor may develop for project execution. Therefore, the information in the monthly reports will change from month to month, based on relevant factors for the month and/or previous months.

REPORT FORMAT AND FOCUS

This report is submitted in compliance with the terms of the Federal Transit Administration (FTA) Contract No. DTFT60-09-D-00007, Task Order No. 002. Its purpose is to provide information and data to assist the FTA as it continually monitors the grantee's technical capability and capacity to execute a project efficiently and effectively, and hence, whether the grantee continues to be ready to receive federal funds for further project development.

This report covers the project management activities on the East Side Access (ESA) Mega-Project managed by MTA Capital Construction (MTACC) with MTA as the grantee and financed by the FTA FFGA.

MONITORING REPORT

1.0 PROJECT STATUS

a. Design

As of June 30, 2012, the Engineering/Design effort was reported to be 89.1% complete (based on new baseline schedule).

Amtrak has not approved the 60% Stage 3 Catenary package submitted in April 2012; consequently the 90% catenary design package which was to have been submitted in June 2012, has been delayed. ESA is forecasting Amtrak approval for the 60% design package by mid-August, 2012. Continuing delay in obtaining approval of, and finalizing the Stage 3 catenary design could impact the CH058 procurement.

Preliminary design efforts for the 48th Street entrance to GCT (CM015) continued in July 2012, with the 30% design submittal currently forecast for mid-August 2012.

The 90% submittal for CH058 was previously forecast by ESA for the end of July 2012; this date has now slipped to November 2012 pending finalization of a contract modification with the GEC for changes in the B/C Tunnel Approach structure.

Comments were received on over 100 items on July 20, 2012 from the on-board review with Metro-North Railroad (MNR) of the CM014B final design held on April 25, 2012. These comments are presently under review for package impact. The bid date, which was previously forecast for mid-September 2012, is under review.

b. Procurement

As of June 2012, the total procurement activity on the project was reported to be 55% complete, with \$4.776 billion in contracts awarded out of the \$8.708 billion revised budget (note: MTACC reported 58% complete in its June 2012 Quarterly report, however this did not include the vehicles that will be procured with the Rolling Stock Reserve of \$463 million).

The CM012 solicitation was cancelled in November 2011 and the solicitation was reissued on March 12, 2012, with modifications to the Contract bid package based upon discussions with perspective bidders after the cancellation of the previous solicitation. Bid due dates continue to slip since the June 2012 reporting period (bids were previously due on May 8, 2012, May 22, 2012; May 30, 2012; June 20, 2012, July 10, 2012, and August 15, 2012) due to the issuance of several addenda, and the latest bid date is currently forecast for September 30, 2012. The latest addendum will transfer scope from the CS179 Systems Contract 1 back into this contract package. Consequently, ESA adjusted its forecast of Notice to Proceed (NTP) from September 2012 to December 2012. This delay will possibly impact the CM014B and CS179 contracts, which have interfaces with this contract. The PMOC notes that CM012 is on the IPS critical path.

Of particular concern is the continuing slippage of the proposal due date for the CS179 package. The ESA-PMT previously transferred a significant amount of work (by addenda) that is not systems-related into the CS179 package including: the tunnel bench walk, the 63rd Street tunnel rehabilitation work, and various scope items in the Manhattan running tunnels, which they have now decided to take out of this contract and transfer into CM012. Information meetings addressing cost and schedule questions were held with proposers during the months of June and July, 2012. The addendum for transferring scope into CM012 is planned to be issued on August 3, 2012, with revised cost proposals due on August 17, 2012. At this point, it will not be possible to make a recommendation for award at the September 2012 MTA Board meeting as ESA had planned; ESA is now forecasting that a recommendation for award will be ready in time for the October 2012 MTA Board meeting. Given the complexity of this procurement, the PMOC believes that is going to very difficult to have a recommendation for award ready in time to present at the October 2012 Board meeting. The PMOC notes that CS179 is on the IPS critical path.

The CM013A award to the apparent low bidder has been delayed again pending outcome of review by MTA Office of Civil Rights of DBE participation.

c. Construction

The total construction progress reached 44 % complete on a cost invoiced basis, in accordance with MTACC's re-baselined budget of May 2012. Details for each of the contracts are provided below.

Manhattan: CM009/019 Contracts – Manhattan Tunnels Excavation/Structures Part 1: *As of June 30, 2012, the total amount invoiced for CM009 was \$377,024,000, which represents 91.6% of the Current Contract Value of \$411,811,000. Thirty-seven (37) contract modifications for a total credit of \$16,142,240 (including scope transfers) have been executed. Actual work performed, calculated with the re-baselined schedule, is 91.5% versus 92.9% planned.*

As of June 30, 2012, the total amount invoiced for CM019 was \$653,243,000, which represents 84.6% of the Current Contract Value of \$772,010,000. Fifty-one (51) contract modifications for a total of \$38,010,115 have been executed. Actual work performed, calculated with the re-baselined schedule, is 84.6% versus 82.1% planned.

As of June 30, 2012, the contractor completed the 55th Street Phase II and Westbound Cavern Bench II T403 excavation, continued Westbound Cavern Bench II T404 excavation, and began 55th Street Phase III excavation.

All of the historical contract slippages for CM009 and CM019 have been incorporated into the latest revised MTACC baseline schedule, which was approved by the MTA Board in May 2012. In total, the PMOC estimates that the contracts experienced approximately 14 months of unrecoverable delay beyond their original Substantial Completion (SC) dates prior to this re-baseline effort. The re-baseline schedule indicates a Substantial Completion date of August 31, 2013, although the MTACC has forecast an actual completion date of June 1, 2013. To date, the MTACC 2Q2012 Quarterly Report indicates that the construction progress of both contracts remain on their revised schedules. Based on progress observed to date, the PMOC believes that the contractor is on schedule to meet the SC date of August 31, 2013, although whether or not the June 1, 2013 projection for early completion can be achieved remains to be seen.

CM013 – 50th Street Vent Facility: *As of June 30, 2012, the total amount invoiced was \$58,187,000 for CM013 and \$24,665,000 for CM013R (work performed by the property owner), for a total of \$82,852,000, which represents 70% of the Current Total Contract Value of \$119,118,000. There have been twenty-three (23) contract modifications executed for a total of \$763,338 and MTACC reports that the project is on budget. Actual work performed is 60.8%, calculated with the re-baselined schedule, versus 62.7% planned.*

During July 2012, the contractor continued concrete placement to the lower walls of the Vent Plant as well as the deep shaft and the Service Tunnel. The deep shaft concrete placement has been reported to the PMOC as being approximately 70% complete. Removal of the existing access ramp from 49th Street was completed and the contractor began installation of the new access drive. Structural steel work continued on the utility chase at the southeast section of the site at the 300 Park Avenue building.

The new Milestone #5, intended to allow early access to the deep shaft by the CM012 contractor, is delayed. The original milestone date of August 2012 has been extended to December 2012, and subsequently the Contract Substantial Completion forecast has been extended to July 2013. The schedule slippage is due to the slow production of the concrete placement in the deep shaft and walls from the concourse level to the ground level, which is required to begin erection of the structural steel. Due to the extension of the Bid Opening Date of CM012, currently posted as September 30, 2012 from the previous August 15, 2012, the CM012 contract will not be impacted if the new December 2012 date for Milestone #5 is met.

CM004 – 44th Street Demolition and Fan Plant Structure: *As of June 30, 2012, the total amount invoiced was \$34,784,000, which represents 82% of the Current Total Contract Value of \$42,161,000. ESA has also reported that the budgeted value of the scope transfer of the extended shaft work and lining from the CM019 to CM004 is \$7,500,000. Forty-seven (47) contract modifications have been executed for a total of \$1,396,716. Fifteen have been negotiated for a total of \$3,466,321 and are awaiting approval. Actual work performed is 83%, calculated with the re-baselined schedule, versus 100% planned.*

The change order to keep the Gantry crane in the vent plant building and the revised steel design for the erection of the building have been negotiated and approved. The contractor has advised the ESA Project Office that they have resolved the contractual issue with their steel fabricator subcontractor and, as a result, the shop drawings process, fabrication and erection can proceed. ESA reports in its April to June 2012 Quarterly Report that the extended forecast date for Substantial Completion of the Vent Plant is December 2012, and the extended forecast for 245 Park Avenue is September 2012. Negotiations are ongoing for an extension of time that includes the scope of the revised Gantry crane; revised steel; and blasting in the shaft.

CM014A – Concourse and Facilities Fit-Out: *As of June 30, 2012, the total amount invoiced was \$3,251,000, which represents 7% of the Current Total Contract Value of \$42,502,000. There has been one contract modification with no dollar value and MTACC reports that the project is currently within budget. Actual work performed is 7.5%, calculated with the re-baselined schedule, versus 10.3% planned.*

During July 2012 the contractor continued with preparations for work in the garage, which will be the access area for the Con Ed permanent power into the Concourse and Caverns. The turnover of Shaft #2 to this contractor has been completed and the contractor began review of as-built drawings and survey comparison in the shaft. Survey and layout continued in the Concourse along with trench excavation, air tunnel excavation, underground plumbing, forming of duct banks and miscellaneous demolition, removal and importation of new fill. The repair work that was caused by the overcutting of the column bases continued.

Previously, the PMOC has reported that the volume of GEC drawings requiring revision due to poor print quality was over 100. The ESA PMT now reports that the number of drawings requiring revision is approximately 240. This has delayed the submittals approval process, and the ordering of the Supervisory Control and Data Acquisition (SCADA), transformer and switchgear equipment. The ESA CM has advised the PMOC that in spite of this delay, his office is confident the manufacturers will still be able to meet the schedule for delivery of equipment by the end of the year 2012, to allow power up by May 2013.

Queens: CQ031 – Queens Bored Tunnels and Structures: *As of June 30, 2012, the Estimate at Completion (EAC) has decreased \$7.5 million from \$763.5 million to \$756.0 million, which reflects work scope transfers out of the Contract. The forecast Substantial Completion date slipped remained the same at March 2012, a 6-month delay to the original date. Based on the latest data available from the grantee, cumulative actual percent complete is 83.0% versus planned 95.7% on a cost expenditure basis, and 92% of the contract time to Substantial Completion has elapsed. Fifty-six (56) contract modifications (change orders) totaling \$107.1 million have been approved and represent 14.2% of the current EAC. The June 2012 Integrated Project Schedule (IPS) update (data date July 1, 2012) shows that CQ031 has 115 Calendar Days (CDs) of schedule float.*

Tunnel Boring Machine (TBM) mining of the Yard Lead Tunnel, the Track A Tunnel and the Track D Tunnel has been completed. TBM mining for the Track B/C Tunnel started on May 7, 2012 and was completed on July 23, 2012.

During June 2012, the contractor continued: construction of the cross passage at the Yard Lead Emergency Exit; construction of final portions of the Yard Lead Approach Structure; construction of the C.O.8 Substation; and installation of storm sewers along 43rd Street. The contractor completed substructure construction at the Yard Lead Emergency Exit and the installation of soldier piles and secant piles for the Westbound Bypass (WBBY) at the Honeywell Street Bridge.

CQ032 Contract – Plaza Substation and Queens Structures: *As of June 30, 2012, the EAC increased \$2.9 million from \$162.1 million to \$165.0 million and the forecast Substantial Completion has slipped 9 months from August 2014 to May 2015, reflecting the delay in getting access to the Milestone 1A area from the CQ039 contractor. As of June 30, 2012, based on the latest data available from the grantee, the cumulative actual percent complete is 8.6% versus planned 9.1% on a cost expenditure basis.*

The contractor has mobilized at the existing Roosevelt Island, Vernon Boulevard, 12th Street, 23rd Street and 29th Street ventilation facilities and continues asbestos and lead paint abatement, selective demolition work, installation of temporary power and lighting, removal of mechanical equipment, fire line repairs and modifications to platforms, floors and stairways, . The contractor completed installation of soldier piles and new duct bank for the B10 Substation. The June 2012 IPS update (data date July 1, 2012) shows that CQ032 has 90 CDs of schedule float.

CQ039 Contract – Northern Boulevard Crossing: *As of June 30, 2012, the EAC increased \$1.1 million from \$101.0 million to \$102.1 million and the forecast Substantial Completion slipped one month from March 2013 to April 2013, an 8-month delay to the revised Substantial Completion date of August 2012 and an 18-month delay to the original date of October 2011. As of June 2012, based on the latest data available from the grantee, the cumulative actual percent complete is 59.6% versus planned 96.4% on a cost expenditure basis, and 97% of the contract time to the current approved Substantial Completion date has elapsed. For the April-June 2012 period, the actual percent complete was 8.7% versus planned 17.7%. There were problems achieving acceptable ground freeze that required additional grouting to seal groundwater leaks and caused an additional three months of delay. Tunnel mining commenced on April 30, 2012. The May 2012 IPS update (data date June 1, 2012) showed that CQ039 has 89 CDs of schedule float. The PMOC notes that the CQ039 data was not updated in the June 2012 IPS update (data date July 1, 2012).*

Harold Interlocking: CH053 Contract – Harold Structures Part 1 and G02 Substation: *As of June 30, 2012, the EAC increased \$67.6 million from \$200.2 million to \$267.8 million to reflect the cost impact of the significant delay to the Substantial Completion date. The forecast Substantial Completion remained the same in December 2013, 23 months later than the current approved plan and 40 months later than the original plan. For this reporting period, based on the latest data available from the grantee, cumulative actual percent complete is 68.1% versus planned 100% on a cost invoiced basis, and 100% of the revised contract time to Substantial Completion has elapsed. For the April-June 2012 period, the actual percent complete was 3.8% versus planned 0% (the PMOC notes that the Contractor is re-baselining the schedule).*

Construction work continued on the following: the civil portion of the 12kV duct bank and foundations for catenary poles and signal towers at various locations in Harold Interlocking; excavation for Retaining Wall 39-N1; erection of catenary poles and signal towers; micro-tunnel runs 3/4 and 6/7; fabrication of catenary poles; internal wiring and equipment testing for the G.O.2 Substation; and installation of support-of-excavation for demolition of the existing abutment wing wall for construction of the new WBBY west abutment foundations. The contractor erected superstructure steel on the pier/east abutment span of the ML4 Bridge at 43rd Street. Completion of work on the Tunnel A Approach Structure has been delayed due to late approval of associated re-designs for adjacent existing catenary and signal power structures. The June 2012 IPS update (data date July 1, 2012) shows that CH053 has 35 CDs of schedule float.

CH054A Contract – Harold Structures Part 2A: The EAC increased \$8.1 million from \$38.1 million to \$46.2 million to reflect the cost impact of the significant delay to the Substantial Completion date. The forecast Substantial Completion date remains May 2013, 29 months later than both the original and current approved plan date of December 2010.

As of June 30, 2012, based on the latest data from the grantee, the cumulative percent complete was only 58.7% versus planned 80.0% on a cost invoiced basis and based on a forecast progress curve. Substantial Completion was to have been achieved in December 2010. The PMOC notes that the contract has not been modified to reflect the current forecast substantial and final completion dates. The June 2012 IPS update (data date July 1, 2012) shows that CH054A has 33 CDs of schedule float.

Railroad Force Account: As of June 30, 2012, the total amount invoiced for FHA01 was \$15,027,000, which represents 89.3% of the Current Agreement Value of \$16,825,000. There has been one amendment to the agreement for \$1,500,000. Actual work performed is 77.3% versus 76.6% planned. Amtrak Electric Traction (ET) forces completed relocation of catenary wires and removal of existing cross spans between catenary poles B-928W, B-929W, B-930W, and B-931W and relocated bond wires for a LIRR signal tower. The personnel continued to bond, install hardware and switch installation, and make wire transfers between catenary structures B-926W and B-950C in Harold Interlocking, as well as to provide protection and support for the CH053 contractor to install catenary poles and signal towers.

As of June 30, 2012, the total amount invoiced for FHA02 was \$17,457,000, which represents 79.7% of the Current Agreement Value of \$21,891,000. There have been no agreement amendments to date. Actual work performed was 60.7% versus 54.0% planned. Amtrak personnel completed the installation of the #747 crossover in “F” Interlocking, assembly of new signal masts for the “F2” CIH, installation of signal #734E (with cutover to position colored light signal and removal of existing signal), and signal trough installation between locations “F2A” to the “F2” CIH. Signal personnel also continued to install and terminate cables and make circuit revisions and point check for the “F2” CIH.

As of June 30, 2012, the total amount invoiced for FHL01 was \$17,204,000, which represents 82.8% of the Current Agreement Value of \$20,782,000. There have been no agreement amendments to date. Actual work performed was 72.3% versus 73.9% planned. LIRR signal personnel completed the installation of fiber optic cables between 43rd and 48th streets and continued preparations to relocate signal tower wires between Towers #34 to #49 and continued to support Amtrak catenary wire relocation.

As of June 30, 2012, the total amount invoiced for FHL02 was \$14,359,000, which represents 62.1% of the Current Agreement Value of \$23,128,000. There have been no agreement amendments to date. Actual work performed was 24.7% versus 21.6% planned. LIRR personnel completed: trough, conduit, and pull box installations between Honeywell Street, the new "H3" CIL, and the existing Harold Interlocking CIL, installation of temporary poles and brackets for the temporary "F2" CIH and the "F2E" power supply, and installation of temporary communication cables between Q Tower and the Harold Interlocking communication hut. LIRR continued installation, point checking, and testing for the new Point Interlocking CIL, installation of trough, conduit, and cross-track conduit between future Harold Interlocking turnouts and the appropriate CILs, installation of insulated joints for future signal installations, and communication cable installation between the "Point" CIL and the Harold communication hut.

The completion of the Stage 1 ET construction has been negatively impacted by the March 2011 Arbitration Board ruling which overturned the MTACC's labor clearance agreement with Amtrak, allowing this work to be done by a third party. Although Amtrak's Force Account Labor personnel, by virtue of the ruling, have the right to do the work, they have not pressed the issue and have instead opted to supply twice the personnel than is necessary to protect the CH053 contractor's erection of catenary poles and signal towers. This accommodation has allowed construction to proceed, but at half speed due to the use of excessive personnel at the work site. Until MTACC can negotiate a more favorable construction process with Amtrak (talks are ongoing), this situation will remain an issue..

d. Quality Assurance and Quality Control (QA/QC)

The ESA Quality Manager conducted an audit of the GEC on June 13, 2012 and issued his report in July 2012. The PMOC attended this audit and notes that there were no major findings.

2.0 SCHEDULE DATA

The IPS #37 data date July 01, 2012 and its variance reports were submitted by ESA. Although the Revenue Service Date (RSD) has not changed in this schedule update, and is still August 31, 2019, the ESA PMT has made the following modifications to the new baseline schedule:

- *Bench and Existing Tunnel Rehab scope has been moved from CS179 and is now in CM012. Procurement dates for both packages have slipped one month as a result.*
- *CM013 internal milestones and substantial completion have been adjusted.*
- *CM004 internal milestones and substantial completion have been adjusted.*
- *ESA team is currently investigation different options regarding the CQ031/32/39 contracts as they affect the CQ032 contractor's ability to access the open cut.*
- *CH053/54A Catenary Progress – Bi-weekly tracking sheets are being kept for all catenary pole construction and 12kV construction.*

Project Critical Path: *The critical path of IPS is currently comprised of Contracts CM009/019, CM012, CS179, as well as Integrated Testing and Commissioning, and finally Start-up, Testing and Commissioning. The PMOC notes that the continued delays to award of the CM012 and CS179 contracts will likely impact the IPS critical path.*

Schedule Contingency: *The current project baseline schedule for ESA has 359 days of contingency added at the end of the project, bringing RSD from August 2018 to August 2019. Further analysis as to the adequacy of this contingency will be conducted by the PMOC.*

3.0 COST DATA

Funding: *MTACC states in its 2Q12 Report that an additional \$200 million is required in the MTA 2010 – 2014 Capital Program to fund scheduled commitments, and an additional \$717 million will need to be identified in the MTA 2015 – 2019 Capital Plan to cover the new project baseline budget. MTACC plans to obtain the \$200 million in the current Capital Plan through efficiencies in other MTACC projects and MTA’s inter-agency program.*

Budget/Cost: *MTACC reported that, as of June 30, 2012, the overall project completion was 48.3% based on the total invoiced amount of \$3.985B and the new baseline budget of \$8.245B (excluding vehicles to be purchased with rolling stock reserve).*

The current Budget and Cost data is shown in Table 1 in Appendix B of this report. Table 3 in Appendix B of this report shows a comparison of the MTA’s Current Working Budget (CWB) vs. the FFGA Baseline Budget in Standard Cost Categories (SCC).

Contingency:

During June 2012, the project contingency was reported as \$402,366,988 (\$399,876,349 from the new baseline budget plus \$2,490,369 from savings resulting from executed mods providing a net credit). There is also an additional \$150 million in unallocated contingency that the project is holding in reserve...

Change Orders: *In June 2012, MTACC reported that there were 6 additional executed change orders for a total of 712 executed change orders totalling \$345.7 million, representing 7.2 % of the total awarded contracts (\$4,776.3 million). The 6 additional change orders are in the amount of \$1.07 million and are shown below:*

ESA’s Change Order Log in June 2012

Contract	MOD #	Date	Change Order Log	Value
CM004	00054	6/13/2012	TVM Booth Size Change:245 Park Avenue	\$34,000.00
CM004	00056	6/13/2012	Revised HVAC Dwgs	\$4,217.00
CM013	00024	6/1/2012	49th St Curb and DEP Revisions	\$23,145.00
CQ031	00063	6/4/2012	Underpinning CIL Struct at Harold	\$873,130.00
CQ032	00011	6/1/2012	Relocate Fire Alarm Box at 23rd St	\$82,700.00
CQ032	00012	6/1/2012	12th St Stl Deck Shaft Obstruction	\$53,000.00
Total				\$ 1,070,192

4.0 RISK MANAGEMENT

Background Summary: An initial Risk Assessment was performed on the ESA project in 2004 in accordance with FTA Project Management Oversight Program Operating Guidance #22 (PG22). Prior to the signing of the FFGA in 2006, a more comprehensive Risk Assessment was performed in accordance with PG40, followed by an update in 2007/2008. In October 2008, the PMOC issued to the FTA the Technical Capacity and Capability analysis in accordance with PG31C. In early 2009, the ESA project team provided an updated project budget and schedule. The PMOC subsequently provided modified PG33 and PG34 reports with a focus on changes from FFGA to 2009 Budget and Schedule reports as well as assisting in the development of the Cost Risk Summary and PG47 support documents. From late 2009 through to the current period, MTACC and ESA-PMT, working with the FTA and PMOC, have concurrently progressed both the development and the implementation of the ELPEP. MTACC-ESA has also revised or rewritten most of the PMP sections/sub-plans/procedures associated with meeting the risk management requirements of the ELPEP.

2006 Risk Mitigation Commitments at FFGA: A detailed risk mitigation plan was developed in May 2008, based on the MTACC risk mitigation commitments made in 2006, just prior to the FFGA. The PMOC observes that many of the forecast risks were realized and the project also encountered new risks such as contract default (CQ028) and the need for extensive slurry wall repairs in the Queens Open-Cut Excavation Area. As a result, MTACC has missed all but one of the basic annual mitigation milestones from Q4-2006 through Q4-2011 for the following performance metrics: Design Completed; Contracts Awarded (based on current contract/package values); and Construction Completed (cost expenditure basis).

Current Risk Mitigation Efforts: *During July 2012, the ESA-PMT has continued its efforts to identify and mitigate risks that may adversely affect the program's future cost and schedule performance. Ongoing and recent significant risk mitigation initiatives include the following:*

- *In response to continued delays experienced on the Queens contracts to date, ESA-PMT and the associated ESA construction managers continued to manage all Queens area work to the critical CQ031 milestones related to TBM mining of the remaining rail tunnel for Track B/C. All TBM mining was completed in July 2012.*
- *ESA-PMT worked with LIRR, Amtrak and the ESA-CMs to evaluate the impacts that the Amtrak planned capital improvements for the East River Tunnels (ERT) will have on the track outages needed for the Harold Interlocking work. This effort continued into early 2012. However, Amtrak has experienced delays in their ERT program due to a broken rail situation and this continues to affect track outage coordination with the ESA project.*
- *ESA-PMT is transferring construction of the tunnel bench walk and 63rd Street Tunnel rehabilitation from CS179 to CM012 to improve construction access and to minimize contractor work area conflicts. The PMOC's opinion is that this approach will help to increase productivity of the remaining construction work within the new tunnels; however, this scope transfer will have a significant impact on the procurement dates for these two Contract Packages.*
- *The ESA Change Control Committee (CCC) approved electrification (catenary) of the Eastward Passenger Track and the new Revised Primary Route (RPR) Track to provide Amtrak operational flexibility when critical track crossovers and track switches are*

temporarily placed out-of-service during underpinning of the 39th Street Bridge pier. The PMOC's opinion is that the additional operational capability will help mitigate potential delays to the underpinning work.

5.0 ELPEP

The current status of each of the main ELPEP components is summarized as follows:

- **Technical Capacity and Capability (TCC):** The PMOC has completed its review of the Candidate Revisions for the ESA-PMP and has discussed them with the FTA Region II Office. The PMOC and the FTA met with MTACC in April 2012 to discuss the status of the consolidated comments. *A working session to resolve comments was held on July 17, 2012 and a follow-up meeting is planned for early August 2012 to review MTACC's responses to the FTA/PMOC comments.* Also related to TCC compliance are two outstanding issues requiring MTACC action: MTACC completion of the final sub-plan element, the RMP as discussed below, and the need for MTACC to develop and implement the PMP training process.
- **Schedule Management Plan (SMP):** On November 3, 2011, the FTA confirmed that MTACC has responded to the Candidate Revisions identified in FTA's conditional approval letter, dated October 26, 2010, and that the SMP is fully approved.
- **Cost Management Plan (CMP):** FTA conditional approval of the Cost Management Plan, including five (5) Candidate Revisions was received on September 1, 2011. MTACC has submitted its final revisions to the CMP, which incorporate its responses to those Candidate Revisions.
- **Risk Mitigation Capacity Plan (RMCP):** FTA-RII provided its conditional acceptance of the RMCP in its May 24, 2012 letter to MTACC.
- **Conformance and Compliance:** MTA's final conformance and compliance document, the ELPEP Whitepaper, was completed and submitted to FTA-RII. In its May 30, 2012 letter to MTACC, the FTA acknowledged that ESA was in compliance with the ELPEP requirements.
- **Risk Management Plan (RMP):** A draft of the ESA Project Risk Management Plan was transmitted to FTA Region II during October 2011. FTA/PMOC review comments on the ESA RMP were sent to MTACC on April 12, 2012. The PMOC met with MTACC on April 17, 2012 and June 6, 2012 to finalize comments and discuss resolution. *MTACC had forecast completion of its final draft of the update by July 20, 2012, but this is now expected in early August 2012.*

The ELPEP Quarterly Review Meeting with MTACC, FTA-RII and the PMOC was held on June 13, 2012. The status of MTACC's incorporation of FTA/PMOC comments on the ESA Risk Management Plan was discussed. Also discussed was the status of FTA/PMOC review comments on incorporation of the Candidate Revisions to the ESA PMP, as well as use of the ELPEP compliance checklist. *The next ELPEP Quarterly Review Meeting is scheduled for September 12, 2012.*

6.0 SAFETY AND SECURITY

Although there has been some improvement in the safety statistics for the CM009 Contract, the lost time accidents hours continue to trend above the ESA Program average (2.99 vs. 2.59 lost time accidents per 200,000 hours). On the CQ039 Contract, the lost time accident statistics continue to trend well above the Program average (5.02 vs. 2.59 per 200,000 hours). MTACC did a presentation to FTA on April 26, 2012, discussing its Safety Program Plan and measures being taken (root cause analyses, lessons learned, etc.) to improve safety performance. The PMOC recommends that MTACC does a follow-up presentation, specifically addressing findings and actions being taken to improve safety performance on contracts that are lagging behind overall Program performance.

7.0 ISSUES AND RECOMMENDATIONS

Harold Electrical/Catenary Design: *Progress was made in getting design approval from Amtrak during Q1 2012; however there are several packages that are currently trending behind schedule (see Table 4 below). The PMOC recommends that MTACC Management continue to focus on the resolution of catenary design package approvals through better communication and coordination among the GEC, the 3rd party design checker, Amtrak and the ESA construction manager. Key milestone dates and status are shown in Table 4 in Appendix B.*

Contracts CM009/019: *Based on observations during its most recent site visits, the PMOC continues to note the significant progress that the Contractor has made since 4Q2011, and believes that the Contractor and the ESA PMT have the capacity and capability to achieve Substantial Completion by August 31, 2013. The PMOC, therefore, recommends that the two parties continue to progress the project in the same manner as they have since late 2011 in order to ensure that the present SC date is attained.*

Contract CM013: *Although the project has been given approval to work in the lane closure area on 50th Street, there is concern that the utility work and transfer of the temporary decking to the new permanent deck may be delayed. This is because the mobile crane is currently sitting on a temporary platform in the lane closure area. The ESA Project Office has asked the GEC for a review and recommendation for placing the crane on the upcoming, new building structural steel, thus freeing the area for new utility and deck work.*

The PMOC is concerned that there is a considerable amount of work to be done to meet the Milestone #5 December 2012 completion date. The PMOC will continue to monitor the progress of the completion of the concrete wall placement, which is critical to completing Milestone #5.

CM004: *The PMOC is concerned that the time required to get approved submittals, fabricate, erect steel and dismantle and re-install the Gantry crane is very tight based on the current agreed Substantial Completion date.*

Contract CQ031: *Contract CQ031 has achieved a significant milestone with completion of the four new tunnels in Queens. The PMOC remains concerned about the costs of the additional CQ031 work required to mitigate the potential delays caused by late completion of key work by the CH053 Contractor. The PMOC continues to recommend that the ESA-CMs closely monitor the schedule performance of both the CQ031 and CH053 contractors to ensure adherence to current work schedules, thus minimizing additional costs exposure.*

Contract CQ039: The PMOC *remains* concerned about the contractor's ability to maintain acceptable progress during the sequential excavation method (SEM) tunneling due to the particular characteristics of this contract including: very limited site access; labor intensive excavation/construction work; NYCT oversight of the construction work; a high probability of encountering unforeseen field conditions during tunnel excavation that will result in re-design and a change in the construction means and methods. *Difficulties with the ground freeze have caused significant schedule slippage to the start of tunnel excavation that has, in turn, delayed turnover of the Milestone 1A Area and the start of Contract CQ032 (Plaza Substation and Queens Structures) work in the Early Access Chamber area.*

Contracts CH053/54A: Overall, the CH053 contractor failed to meet the rate of construction progress required to meet the goals of the Contract re-baselined schedule. Because of this, the PMOC remains concerned that the contractor may not be able to achieve and maintain the higher production rate called for in re-baselined schedule. *Historical progress on CH053 has averaged approximately 1.3% per month and the contractor will need to achieve 1.77% progress per month to meet the current forecast Substantial Completion date of December 2013. The current production rate for the period of January 2012 through June 2012 was 6.7%, an average of only 1.12% per month. Construction progress on Contract CH054A continues at an extremely slow rate. The PMOC is concerned about the continuing adverse impacts to the CQ031 Contract as well as the follow-on Harold Interlocking Contracts CH057 and CH058, now forecast to be awarded in 2013.*

Railroad Force Account: *The completion of Stage 1 Electric Traction (ET) construction has been negatively impacted due to the CH053 (Harold Structures) contractor that is doing preliminary construction prior to Amtrak ET forces installation of final catenary wires. Although the MTACC mitigated the effect of the Amtrak ruling, the ensuing arrangement led to Amtrak furnishing twice the personnel necessary to properly protect the contractor's construction. This, in turn, slowed production due to Amtrak's limited resources. It is the PMOC understands that the MTACC continues to seek a more permanent resolution that would require fewer ET personnel per job site, which would allow construction to occur at additional job sites concurrently, thus increasing production. To date, however, the MTACC's attempts have been unsuccessful. Although recent Amtrak management and labor personnel changes have helped to mitigate the situation, the possibility of labor action will remain until a permanent formal resolution is negotiated.*

Procurement: In the PMOC's opinion, MTACC has not effectively managed the procurement process. The continued procurement delays consume valuable schedule time before contract award and deprive individual contract packages of schedule float needed during construction. *CS179 and CM012 are high-dollar-value contracts and have long durations, and target dates for these procurements continue to slip (see discussion above). Although ESA initially adjusted the procurement dates in the new baseline schedule, the continuing slippage will most likely impact the new schedule. This situation will affect the IPS critical path and require use of schedule contingency.*

Project Funding/Budget: The NYS legislature allocated \$770 million in the NYS budget in March 2012 for the MTA Capital Program. *The allocation of this funding among the projects in the MTA Capital Program (including ESA) remains to be finalized.* The PMOC is concerned that MTACC stated at the May 2012 CPOC meeting that it is assuming that efficiencies in

MTACC projects and the inter-agency Program will fund an additional \$200 M commitment needed in the current 2011-2014 Capital Program Plan. *The PMOC believes that there is a reasonable possibility that this level of forecast efficiency savings will not be realized, resulting in a budget shortfall.*

Project Schedule: *The PMOC is concerned about the necessity to adjust the project baseline schedule as discussed above, only one month after the baseline was finalized.* In addition, the ESA PMT should submit an updated Schedule Basis for the revised baseline, and address the following SMP requirements in the revised baseline schedule:

- Establish critical path of the project (SMP section 5.5; Schedule Forecasting and Reporting Process)
- Establish 20 milestones that would be tied to the RSD with a reasonable amount of float (SMP section 5.5; Schedule Forecasting and Reporting Process)
- Establish contingencies for each package and the overall project (SMP section 6.1 FFGA Schedule Contingency Management).
- Establish 4 near critical paths with the amount float and risk associated with these paths (SMP section 6.1 FFGA Schedule Contingency Management).

APPENDIX A – ACRONYMS

ARRA	American Recovery and Reinvestment Act
BA	Budget Adjustment
BAFO	Best and Final Offer
CCC	Change Control Committee
CCM	Consultant Construction Manager
CD	Calendar Days
CM	ESA Construction Manager assigned to each contract
CMP	Cost Management Plan
CIL	Central Instrument Location
CPOC	Capital Program Oversight Committee
CPRB	Capital Program Review Board
CPP	Contract Packaging Plan
CWB	Current Working Budget
CWP	Construction Work Plan
EAC	Estimate at Completion
ELPEP	Enterprise Level Project Execution Plan
ERT	East River Tunnel
ESA	East Side Access
ET	Electric Traction
FA	Force Account
FFGA	Full Funding Grant Agreement
FTA	Federal Transit Administration
GCT	Grand Central Terminal
GEC	General Engineering Consultant
IPS	Integrated Project Schedule
LIRR	Long Island Rail Road
MNR	Metro-North Railroad
MTA	Metropolitan Transportation Authority
MTACC	Metropolitan Transportation Authority – Capital Construction
NATM	New Austrian Tunneling Method
NTP	Notice to Proceed

NYCT	New York City Transit
NYSPTSB	New York State Public Transportation Safety Board
OSHA	Occupational Safety and Health Administration
PE	Preliminary Engineering
PMOC	Project Management Oversight Contractor (Urban Engineers)
PMP	Project Management Plan
PMT	ESA's Project Management Team
QA	Quality Assurance
RAMP	Real Estate Acquisition Management Plan
RFP	Request for Proposal
<i>RMP</i>	<i>Risk Management Plan</i>
RMCP	Risk Mitigation Capacity Plan
ROD	Revenue Operations Date
RSD	Revenue Service Date
SC	Substantial Completion
SCADA	Systems Control and Data Acquisition
SCC	Standard Cost Category
SEM	Sequential Excavation Method
SMP	Schedule Management Plan
SSMP	Safety and Security Management Plan
SSPP	System Safety Program Plan
SWP	Safety Work Plan
TBM	Tunnel Boring Machine
TCC	Technical Capacity and Capability
VE	Value Engineering
WBBY	Westbound Bypass
WBS	Work Breakdown Structure

APPENDIX B – TABLES

Table 1 – Project Budget/Cost Table 

	FFGA (as of December 18, 2006)			FFGA Amendments	MTA's Current Working Budget (CWB)		Expenditures as of June 30, 2012	
	(\$ Millions)	(% of Grand Total Cost)	Obligated (Millions)	Anticipated Values (\$ Millions)	(\$ Millions)	(% of Grand Total Cost)	(\$ Millions)	(% of CWB)
Grand Total Cost	\$7,386	100			\$9,744.1	100	\$3,824.6	39.3
Financing Cost	\$1,036	14.0			\$1,036 (FFGA est.)	10.6		
Total Project Cost	\$6,350	86.0	\$4,107		\$8,708*	89.4	\$3,824.6	43.9
Federal Share	\$2,683	36.3	\$1,148		\$2,699	31.0	\$1,701.4	19.5
5309 New Starts share	\$2,632	35.6	\$1,098		\$2,436.6	25.0	\$1,455.6	16.7
Non New Starts grants	\$51	0.7	\$50		\$67	0.7	\$50.4	0.6
ARRA	0	0	0		\$195.4	2.0	195.4	2.2
Local Share	\$3,667	49.6	\$2,959		\$6009	69.0	\$2123.2	24.4

* CWB represents MTA Board approved revised re-baseline budget that includes \$463 million for Rolling Stock Reserve, but excludes financing cost (May 2012).

Table 2 – Summary of Critical Dates

	FFGA	Forecast (F) Completion, Actual (A) Start	
		Grantee*	FTA**
Begin Construction	September 2001	September 2001(A)	September 2001(A)
Construction Complete	December 2013	August 2019	September 2019
Revenue Service	December 2013	August 2019	September 2019

* Source – Grantee forecast Revenue Operations Date per information presented to MTA CPOC on May 21, 2012

**Source – ELPEP baseline needs to be adjusted based on 2012 risk assessment results.

Table 3 – Comparison of Standard Cost Categories: FFGA vs. CWB

Standard Cost Category (SCC) No.	Description	FFGA baseline (\$)	MTA’s CWB (\$) – Reporting Period May 31, 2012	MTA’s June 2012 Reporting Period CWB (\$)	% Change from FFGA to June 30, 2012 CWB
10	Guideway & Track Elements	1,988,741	2,605,412	2,941,955	47.9
20	Stations, Stops, Terminals, Intermodal	1,168,655	1,511,388	1,515,208	29.6
30	Support Facilities: Yards, Shops	356,264	349,132	384,583	7.9
40	Site Work & Special Conditions	205,105	366,861	491,341	139.6
50	Systems	619,343	640,216	698,296	12.7
60	ROW, Land, Existing Improvements	165,280	203,639	203,639	23.2
70	Vehicles	493,982	674,372*	674,372*	36.5
80	Professional Services	1,184,000	1,439,978	1,648,606	39.2
90	Unallocated Contingency	168,529	0	150,000	(11)
Subtotal		6,349,899	7,791,000	8,708,000	37.1
100	Finance Charges	1,036,104**	1,036,104**	1,036,100**	0
Total Project Cost (10 – 100)		7,386,003	8,827,104	9,744,000	31.9

* Rolling Stock (“Vehicles”) includes passenger revenue vehicles, construction locomotives, and construction flat cars.

** Current Finance Charges are estimated at the same value as the FFGA.

**Table 4 – July 2012
ESA: Catenary Review Schedule**

Catenary Package	30% Submittal HNTB/Amtrak Review		60% Submittal HNTB/Amtrak Review		90% Submittal HNTB/Amtrak Review		100% Submittal HNTB/Amtrak Review	
	Submit	Return	Submit	Return	Submit	Return	Submit	Return
STAGE 1							8/8/11	8/26/11 10/06/11 (A)
STAGE 2			9/7/11 11/16/11 (A)	9/21/11 2/29/12 (A)	10/28/11 3/9/12 (A)	12/1/11 4/18/12 4/27/12 (A)	1/6/12 4/27/12 5/10/12 (A)	2/6/12 6/01/12 5/30/12 (A)
STAGE 3	10/14/11 12/14/11 (A)	11/18/11 2/29/12 (A)	12/23/11 4/18/12 4/27/12 (A)	1/30/12 5/24/12	3/9/12 6/20/12	4/15/12 7/30/12	5/18/12 8/17/12	6/18/12 9/18/12
FQA65	9/29/11 12/14/11 (A)	10/21/11 2/29/12 (A)	11/25/11 4/3/12 4/13/12 (A)	1/06/12 5/10/12 7/13/12 (A)	2/10/12 6/11/12	3/20/12 7/18/12	4/20/12 8/3/12	5/26/12 9/4/12

A = Actual

Note: yellow highlights denote missed target dates.

