PMOC MONTHLY REPORT

East Side Access (MTACC-ESA) Project

Metropolitan Transportation Authority New York, New York

Report Period April 1 to April 30, 2013



PMOC Contract No. DTFT60-09-D-00007

Task Order No. 7, Project No. DC-27-5235, Work Order No. 1

Urban Engineers of New York, P.C., 2 Penn Plaza, Suite 1103, New York, New York 10121

PMOC Lead: V. Simuoli, 212-736-9100; vrsimuoli@urbanengineers.com

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

TABLE OF CONTENTS

COV	/ER	1
TAB	LE OF CONTENTS	2
THII	RD PARTY DISCLAIMER	3
REP	ORT FORMAT AND FOCUS	3
MON	NITORING REPORT	3
1.0	PROJECT STATUS	3
a.	Design	3
b.	Procurement	4
c.	Construction	5
d.	Quality Assurance and Quality Control (QA/QC)	12
2.0	SCHEDULE DATA	12
3.0	COST DATA	13
4.0	RISK MANAGEMENT	14
5.0	ELPEP COMPLIANCE SUMMARY	15
6.0	SAFETY AND SECURITY	17
7.0	ISSUES AND RECOMMENDATIONS	17

APPENDICES

APPENDIX A – ACRONYMS

APPENDIX B – TABLES

- Table 1 Project Budget/Cost Table (as of March 31 2013)
- Table 2 Summary of Critical Dates
- Table 3 Comparison of Standard Cost Categories: FFGA vs. CBB
- Table 4 Core Accountability Items March 2013

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 March 31, 2013, MTACC reported that the Engineering/Design effort was 96.5% complete in the Quarterly Report; however the Cost Report shows only 88.5% complete on a cost invoiced basis. The percent complete varies monthly and depends on the award of tasks to the GEC.

The 100% submittal for the Stage 3 catenary design (FHA03) has been combined with the FHA03a preliminary design (which will provide electrification to additional tracks to facilitate Amtrak operations during Stages 3 and 4 work) at the request of Amtrak. This package is with the ET QA/QC design consultant for review. The ESA Project Management Team (PMT) anticipates submitting package to Amtrak in early May 2013.

The ESA PMT expected to receive comments from Amtrak on the 100% submittal for the loop track (FQA65) catenary design in the first week of March 2013, however Amtrak initially stated that it would like to see the carwash footprint (in CH059) before it accepts the loop track design (note: this design package has been with Amtrak since late 2012). Amtrak is now requesting more information. The ESA PMT is planning to meet with Amtrak the first week of May 2013 to discuss. This delay does not impact the overall project schedule at this point.

The CM014B drawing set has been updated to include the Biltmore Room transformer reconfiguration and a confirmatory set these drawings has been circulated among the major stakeholders (LIRR, MNR) to assure them that all of their comments have been adequately addressed.

The GEC has finalized the 90% drawing sets for CM015 (48th Street Entrance) and they are now being circulated among the railroads, property owners, and their consultants for review. The procurement of the CM015 Scope of Work as an option in the CM014B was approved by the Change Control Committee (CCC) on April 17, 2013. The GEC had forecast completion of the 100% drawing set by May 1, 2013; however the PMOC does not believe that this date will be met.

The CH057 (Harold Structures Part 3a) has been split into three separate packages. The installation of the track slab for the Westbound Bypass tunnel has been removed from the scope and was negotiated as a change order with the CQ031 Contractor to take advantage of a 30-day continuous track outage scheduled to begin in July 2013. The Westbound Bypass work is packaged separately and will be procured as Contract package CH057A. The package was sent to Procurement at the end of February 2013, with a plan to advertise in April 2013, however this date was not met. The remaining work will be procured as a separate package and the design drawings for this package are currently being finalized by the GEC with an anticipated 100% submittal in June 2013.

The 90% submittal for CH058 (Harold Structures- Part 3b) had been previously forecast by the PMT for mid-November 2012; however, this date was not met due to the GEC focus on the CH061 design. The design of the eastbound re-route structure is being revised (re-route track around eastbound bypass and not build jack shield tunnel) to permit construction with minimum impact to railroad operations. This revision continues and the 90% design submittal is now anticipated to be completed in May 2013 (previously forecast for April 2013). The GEC is examining alternative staging plans for the work.

The GEC completed the 100% design submittal for the CH061 (Tunnel A) work on February 13, 2013. The CCC approved transferring the scope of work in this package via a contract modification to the existing CQ031 Contract on December 19, 2012. A contract modification has been issued to the CQ031 Contractor for the temporary support of excavation, i.e. secant piles, bracing, and excavation. The permanent concrete tunnel work is still being negotiated with the CQ031 Contractor.

The GEC continued to provide support for the CM012R repackaging and re-bidding process. Design changes in the CM005 package were issued via an addendum. The GEC continues development of the bid package for CM006. Work (bench wall and ERT rehabilitation) that was going to be placed in a new contract package, CM003, will now be part of the CM006 package. The bid package for CM007 is under review and the cast-in-place concrete option is being analyzed.

b. Procurement

As of the end of March 2013, the total procurement activity on the project was reported to be 58.0% complete, with \$5.049 billion in contracts awarded out of the \$8.708 billion of the current baseline budget.

As discussed in previous monthly reports, the scope of work from the cancelled CM012R is being divided among several contract packages (existing and new). The plan was to split the scope of work into four new contract packages with the first one, CM005, to include work scope for the southern structures. This package was advertised for bid on March 21, 2013, with an anticipated bid opening date of May 16, 2013.

The second new contract package CM006 (northern structures) is under development and is planned to be advertised on June 13, 2013.

The third new contract package CM007 (caverns) is also under development. ESA plans to advertise this package later in the year, with an anticipated award in 2014.

The PMT was considering a fourth package (CM003) that will contain the East River Tunnel rehabilitation work and the bench wall scope that is currently in the CS179 (Systems Package 1) contract package; however they are now planning to incorporate this work into CM006.

The continuing slippage (since the December 1, 2012 forecast) of awarding CS179 (Systems Package 1) remains a major concern. The package is still being negotiated (since Q2 2012) and the PMT is anticipating a recommendation to award to be presented at the July 24, 2013 MTA Board meeting, with a planned Notice to Proceed (NTP) in August 2013. It is important to note that this Contract is on the critical path, with a direct impact on project schedule contingency because it was not awarded by the end of 2012 as originally planned. The PMT is also planning to split the Tunnel Systems Package (CS284) into two packages: one for track work, and one for the traction power work. Procurement dates for these packages are to be determined (TBD). This will have an impact on the Systems Package 1 Contractor. This proposed split was presented to the CCC on April 17, 2013 and approved by the committee. NTP for the Signal Equipment package (VS086), which is being negotiated as a Request for Proposal (RFP), is also TBD.

Procurement dates for the CM014B package remain TBD.

The previous forecasted advertise date for CH057 package (February 1, 2013) is no longer valid, since it was not awarded, and the PMT is splitting this package into three separate packages as discussed in the design section of this report. The current IPS shows the advertise date for the CH057A (westbound bypass work) package as April 29, 2013, with NTP forecast for September 2013. This advertise date was not met. Construction of the slab will be done as a change order to the CQ031 contract. Remaining work in CH057 is currently forecast in the IPS to be advertised in August 2013, with NTP forecast for January 2014.

c. Construction

ESA reported in its March 2013 Monthly Progress Report that the total construction progress reached 50.2% complete, but the Cost Report values calculate it to be 48.0% on a cost invoiced basis, in accordance with its re-baselined budget of May 2012. The data date for financial and progress figures on all reported contracts is March 31, 2013. Details for active construction contracts are provided below.

Manhattan: CM009/019 – Manhattan Tunnels Excavation/Structures Part 1: The Estimate at Completion (EAC) for the CM009 contract was re-baselined in January 2012 to \$413,415,000, but an internal scope transfer in February 2013 reduced that amount to \$402,706,000. The currently approved Substantial Completion (SC) date is June 1, 2013, which is a milestone the

PMOC agrees can be attained based on its most recent field observations. Actual construction progress for March 2013 was 0.4% versus 0.0% planned (the MTACC offers no explanation for why no work was planned in its March 2013 Quarterly Report). The cumulative construction progress through March 31, 2013, was 97.0% actual versus 96.1% planned.

The EAC for the CM019 contract was re-baselined in January 2012 to \$793,879,000, but an internal scope transfer in February 2013 reduced that amount to \$791,205,000. The currently approved Substantial Completion (SC) date is June 1, 2013, which is a milestone the PMOC agrees can be attained based on its most recent field observations. Actual construction progress for March 2013 was 0.8% versus 0.6% planned. Cumulative construction progress through March 31, 2013, was 98.1% actual versus 95.5% planned.

The PMOC notes that, as both the CM009 and CM019 contracts approach their combined Substantial Completion date, the MTACC reports that neither Contract has any critical issues that might impede the SC date of June 1, 2013. The PMOC also notes that very little substantive work remains on either Contract until Substantial Completion.

Construction Progress:

- Completed GCT 5 West Wye and Westbound Cavern sump channel excavations.
- Continued punch list items throughout the project site areas, sump channel excavation in the Eastbound Cavern as well as initial shotcrete application to the cavern walls, invert concrete placement in GCT 3 East Wye and GCT 4 West Wye, and placement of invert mud slab in the 55th St. vent cavern.
- Began shotcrete placement in GCT 5 West Wye.

CM013 – 50th Street Vent Facility: The EAC has increased to \$126.41 million from the previous \$125.8 million in the February 2013 ESA Monthly Report. Forecast Substantial Completion date remains at October 9, 2013. As of March 31, 2013, MTACC reports that the actual percent complete was 78.3% vs. 89.8% planned. This contract is not currently on the project critical path.

Construction Progress:

- At the Loading Dock, the contractor completed concrete encasement of columns, completed the new steel stair to the 1st floor/roof & completed the placement of the dock concrete roof deck. The work for the parapet block wall & siding is ongoing.
- Supply and exhaust air and chilled water piping installation continued up through the Utility Chase. At the Public Plaza, the base concrete slab was placed and the crane previously placed on 50th Street was replaced with a crane on the Public Plaza slab base to continue to facilitate building erection.
- At the main Vent Plant Building Concrete slab placement is complete at the ground floor and 1st floor levels. Moving the crane opened up 50th Street for the completion of backfilling, new and existing utilities work, and repaying.
- Masonry wall construction and installation of hollow metal door frames, along with masonry enclosure of the Shaft opening is the focus on the project from the 2nd Basement through the Concourse Level. At the second basement roof over the Service Tunnel,

progression of the backfilling up to 50th Street decking, utilities and the support concrete retaining wall is ongoing.

CM013A – 55th Street Vent Facility: EAC has increased to \$59.07 million from the previous \$58.8 million. Forecast Substantial Completion date remains April 5, 2015. As of March 31, 2013 MTACC reports that the actual percent complete was 7.4% vs. 6.9% planned. This Contract is not currently on the project critical path.

Construction Progress:

- The MPT along 49th and 50th streets is ongoing and being maintained successfully. It is moved consistently to coordinate the installation of utilities and the Street Decking System.
- Completed installation of the water main and began hanging utilities from the street decking.
- Continued with excavation for and installation of the street decking system along 55th St. from Park Ave. to Madison Ave.
- Continued with excavation below the street decking. Temporary foundation work is ongoing,
- Steam Main design coordination with Con Ed is ongoing.

CM004 – 44th Street Demolition and Fan Plant Structure; 245 Park Avenue Entrance: EAC is currently \$63.33 million from the previous \$62.84 million. Forecast Substantial Completion date remains October 1, 2013. The actual percent complete is 89.3% versus 100% planned. This contract is not currently on the project critical path.

Construction Progress:

- 44th St. Vent Plant
 - o Completed dismantling the Gantry Crane.
 - o For the Vent Shaft, completed Pour #3 of the 6 pours of the concrete walls in the shaft extension. This work is now forecast for completion on May 14, 2013, from the previous May 9, 2013.
 - o For the Vent Building, above grade, continued to wait on NYDOB approval of the crawler crane for erection of structural steel. (see above)
 - Completed placement of the first, east, portion of the concrete slab in Access Tunnel #1. Began preparations for 2nd placement (there is a total of 3).
 - o Continued with work for the Concourse level Vestibule.
 - o 44th St. north and south utility connections remain on hold awaiting permit approval from NYDEP.

245 Park Ave.

o MNR continues to finalize their in-house work, and the "official" opening of the entrance is up to MNR.

The permits for utility work in 44th Street are still on hold pending completion of DEP review of the existing sewer videotape supplied by MTACC. This sewer work will be further delayed because it has to take place directly under the crane layout to be used for structural steel erection.

At 245 Park Ave. the Project Office advised that the contractor is working to resolve the issues with MNR preventing issuance of the Beneficial Use certificate: The contractor submitted the railing engineered drawings and is finalizing the required revisions. The issue with the stainless steel panels on the escalator has been corrected.

CM014A – **Concourse and Facilities Fit-Out**: The EAC remains at \$51.99 million. Forecast Substantial Completion date is now February 15, 2014 due to the delays in submittals for the Systems Control and Data Acquisition (SCADA) system redesign. The actual percent complete is 35.2% versus 63.7% planned.

The PMOC has previously reported on the issues with the SCADA system redesign. As previously reported, this issue has been resolved with the GEC and LIRR and the Contractor has been issued a Notice to Proceed, and is in the process of resubmitting the SCADA design documentation. As of this report, 6 of the 12 ABB transformers have been delivered and the remaining 6 are to be turned over to MTACC for installation under the CM014B future contract.

Construction Progress:

- Continued air tunnel waterproofing in Zone 2 and concrete placement at air tunnel & ductbanks in Zones 2, 3 & 4.
- Continued placement of subgrade material in Zones 3 & 4 and excavation for site utilities on 43rd Street.
- Continued installation of grounding mat in Zones 3 & 4 and work on Subway Roof Opening.
- Continued slab on grade placement in Zones 3, 4 & 5 twice per week.
- Installed wire mesh installation for slab-on-grade is ongoing in Zones 2, 3 & 4.

Queens: CQ031 – Queens Bored Tunnels and Structures: EAC remained unchanged at \$757.2 million. The forecast Substantial Completion (SC) was February 15, 2013. Because the CQ031 contract has been amended by the additions of the support of excavation (SOE) and excavation of the Tunnel A Approach Structure and construction of the concrete slab for the Westbound Bypass Structure, however, the SC date will also be extended to December 31, 2013. The MTACC reports that the actual construction progress for April 2013 was 3.9% versus 0.0% planned (contract was supposed to be complete). The cumulative construction progress was 89.8% actual versus 100.0% planned. Neither the original contract nor the amended contract is on the program critical path.

Construction Progress:

- Completed tunnel finishes and clean-up in Tunnels A, B/C, and D, all original contract work for the Westbound Bypass Structure (WBBY), as well as installation of all secant piles for the E35 signal bridge (part of WBBY).
- Began installation of secant piles for support of excavation (SOE) for the Tunnel A
 Approach Structure as part of the amended CQ031contract.

CQ032 – Plaza Substation and Queens Structures: EAC increased slightly from \$192.5 million to \$192.7 million. The forecast Substantial Completion date slipped 4 weeks from June 5, 2015 to July 7, 2015. The actual percent complete is 18.4% versus 36.8% planned. This contract is not on the program critical path as reported in the last IPS update.

Construction Progress:

Progress continues on rehabilitation/reconstruction/modification of the five existing ventilation facilities along the 63rd Street Tunnel in Queens. Work at the Roosevelt Avenue vent plant is nearing completion with lead-based paint abatement continuing. Work at the Vernon Boulevard vent plant is complete and punch list work is ongoing. Work at the 23rd Street vent plant has been delayed awaiting completion of NYCDOT work in the vicinity of this facility. Work continued on concrete encasement of the columns and beams for the B10 Substation along Northern Boulevard, waterproofing/shotcreting in the Yard Lead Trench and mobilization of the subcontractor to excavate rock for the Sump Pit in the former TBM launch area. Full contractor access to the west end of the Queens Open-Cut Excavation Area has been delayed due to slow progress of work on the Northern Boulevard Crossing tunnel by the CQ039 contractor. This access delay, along with the earlier turnover delays due to late completion of the CQ031 work, has caused significant schedule impacts and are reflected in the current forecast Substantial Completion date that is now almost 11 months later than the original contract Substantial Completion date. The PMT reports that the turnover schedule controls the critical path of this contract. The CQ032 contract milestones will need to be adjusted accordingly.

CQ039 – Northern Boulevard Crossing: The EAC decreased \$900,000 from \$102.5 million to \$101.6 million. The forecast Substantial Completion slipped 5 weeks from April 29, 2013 to June 6, 2013. The actual percent complete is 95.2% versus 100% planned. This contract is not on the project critical path as reported in the last IPS update. The PMT reports that turnover of this staging area to the CQ032 contractor, now forecast to be 10 months late, controls the critical path of the CQ032 contract. The PMOC notes that the NYCT-BMT elevated subway line load transfer from the temporary underpinning system to the new tunnel structure scheduled for April 23, 2013 has been cancelled due to a stop work order from the ESA Code Compliance Unit. The stop work order is based on concerns about the concrete cover over the reinforcing steel in the tunnel lining structure meeting the minimum code requirements.

Construction Progress:

- Completed installation of reinforcing steel and pneumatically applied concrete for the permanent tunnel lining system.
- Continued the soil thawing process.

Harold Interlocking: CH053 Contract – Harold Structures Part 1 and G.0.2 Substation:

The EAC changed to \$281,038,000 due to February 2013 scope transfers from the future CH057 contract. As of April 30, 2013, the CH053 contractor installed all catenary structures which were planned to be installed prior to the construction of the concrete slab under Lines 2 and 4 in preparation for the July 2013 track outage. The MTACC continues to forecast Substantial Completion for March 31, 2014. Actual construction progress for March 2013 was 2.6% versus 0.0% planned (note: Contract was to be complete before this report period, hence 0.0% planned). The cumulative project completion, as of March 31, 2013, was 77.2% actual versus 100.0%

planned. This contract is not presently on the Harold critical path, although it remains approximately 4 years behind schedule.

As of April 30, 2013, the CH053/CH054A contractor has installed 152 of a total of 170 catenary poles (89.4%), which includes 16 catenary poles which were transferred from the future CH057A contract. Although the PMT previously estimated that all catenary poles would be installed by late March/early April 2013, the PMOC estimates that it will be late June 2013 before the remaining non-critical poles are erected.

Construction Progress:

- Completed installation of catenary poles transferred from the CH057A contract in preparation for the concrete slab installation under Lines 2 and 4, construction of the 12kV duct bank section DB508, and construction of the HON-N1 retaining wall.
- Continued construction of the 39-N1 and 39-N2 retaining walls, installation of 12kV negative return duct bank, demolition of the wing wall at the 43rd St. ML4 bridge, and remaining non-critical catenary structures.
- Resumed construction of the Track A Approach structure and installation of conduits in micro-tunnel Run 12 near 39th St.
- Began installation of sheet and soldier piles for SOE at the 48th Street bridge.

CH054A – Harold Structures Part 2A: The MTACC reported that the EAC for CH054A increased from \$60.2 million to \$64.3 million in its March 2013 Quarterly Report (latest one available to PMOC), due to scope transfers and contingency transfers for future contract modifications. The forecast for Substantial Completion (SC) was also adjusted to March 14, 2014. Actual construction progress for March 2013 was 0.8% versus 0.0% planned (contract was to be complete prior to this report period). The cumulative construction progress as of March 31, 2013, was 69.2% versus 100.0% planned (per cent complete decreased due to increase in contract value). This contract, like CH053, is not currently on the Harold critical path although it continues to trend behind schedule.

Construction Progress:

- Completed installation of manhole UPB ET-7A in preparation for the "F2" cutover.
- Continued construction of storm sewer between manhole #13 and manhole #14.
- Resumed construction of 12kV ductbank.
- Began installation of formwork to connect wing wall at Thomson Avenue bridge to THOM-S2 retaining wall.

Railroad Force Account:

FHA01 – Harold Stage 1 Amtrak: The EAC for FHA01 has been reduced from \$16.7 million to \$16.4 million due to an adjustment in Project Initiation (PI) values. The Substantial Completion date forecast by the MTACC is March 31, 2014. Actual progress for March 2013 was 0.5% versus 1.1% planned. The cumulative construction progress as of March 31, 2013, was 87.1% actual versus 87.5% planned. The bulk of the remaining work in FHA01 consists of

Electric Traction (ET) relocation of catenary wires on structures erected by the CH053/CH054A contractor as well as ET protection support for the contractor.

Construction Progress:

- Completed installation of body span and relocation of catenary wires at 3 catenary structures, installation of signal transformers and the transfer of signal power between B-911-1/2W and B-911-1/4W poles, and installation of feeder switch on B-914E catenary structure.
- Continued bonding, installation of guy wires and hardware on 6 new catenary structures between Thomson Ave. and Sub 44.

FHA02 – **Harold Stage 2 Amtrak:** The EAC for FHA02 has been reduced from \$40.54 million to \$38.5 million due to a transfer of past charges to work package FHA65. Substantial Completion is forecast to be November 14, 2014, one month later than the MTACC's February 2013 forecast. Actual construction progress for March 2013 was 1.0% versus 4.0% planned. As of March 31, 2013, the cumulative construction progress was 52.9% actual versus 72.8% planned. Remaining work in FHA02 includes Communications and Signals (C&S) installation and cutovers of the "F1" and "F2" Interlockings and installation of alternate control system for "F" and Harold Interlockings (FHACS).

Construction Progress:

- Completed installation of 3 signals in Lines 1 and 3 and on Loop 2, trough and conduit installation between "F2J" and "F2K" locations, fiber optic cable for the "F2" CIH cutover, 3rd rail conduits and switches for #747 and #771 crossovers, and temporary power supply for the "F2" CIH and the "F2E" location.
- Continued C&S testing and preparation for the "F2" cutover, installation of trough at 6EA location for the "F1" CIH, and construction of track panels for the reconstruction of Lines 2 and 4 in July 2013.

FHL01 – Harold Stage 1 LIRR: The EAC for FHL01 remains at \$21.9 million. The MTACC has forecast Substantial Completion for May 16, 2014. Actual construction progress for March 2013 was 0.0% versus 1.2% planned (the MTACC offered no explanation for why there was no apparent progress although construction did occur). The cumulative progress as of March 31, 2013, was 75.2% actual versus 80.0% planned due to the late installation of track turnouts and a late relocation of a signal power cable. Remaining work in FHL01 includes installation of track turnouts, C&S installation and cutovers of Harold and Point Interlockings, traction power relocations and cutover of the signal power line and cable installation for the re-located GO2 Substation.

Construction Progress:

- Completed conduit installation and signal power cable pulls at Signal Tower 40.
- Continued Communications and Signals (C&S) construction at various project sites throughout Harold Interlocking.

FHL02 – **Harold Stage 2 LIRR:** The EAC for FHL02 remains at \$64.5 million. The MTACC has forecast the Substantial Completion date for October 26, 2015. Actual construction progress for March 2013 was 0.4% versus 0.9% planned due to a revised turnout installation schedule resulting from a delay in the Point Interlocking cutover. The cumulative construction progress as of March 31, 2013, was 24.0% actual versus 25.6% planned. Remaining work in FHL02 includes the installation of 15 track turnouts and construction of two additional main line tracks along with all associated signal and traction power improvements, C&S installation and cutover of 6 CILs in Harold Interlocking, as well as the installation of the Harold Tower Supervisory Control System (HTSCS).

Construction Progress:

- Completed installation of 9 signal cases in Harold Interlocking, new Micro-lock racks in the new Point CIL and Genessee Hut, and temporary power feed to the new Harold trailers.
- Continued installation of duct line and 3rd rail cables at various locations throughout Harold Interlocking and C&S installation of trough and conduit throughout Harold Interlocking.
- Began pre-testing of the new Micro-lock system in the new Point CIL.

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

<u>Project Quality Manual</u>: The ESA Quality Manager has revised the PQM (Rev. 7). MTACC's Chief of Quality, Safety, and Security are currently reviewing it and it is expected to be issued in June 2013. Since the issuance of Revision 7 has slipped several times, the PMOC recommends that extra efforts be made to meet the revised June 2013 date.

As-Built Drawings: The Quarterly Quality Oversights conducted of the contractors by the East Side Access Quality Staff indicated that many of the contractors are not current or in compliance with the as-built requirements as per the contract specifications. The ESA Quality Manager will issue Discrepancy Reports (DRs) to the CH053/CH054A/CQ032 contractor by the middle of May 2013. He is scheduled to perform a surveillance audit of the CM004/CM014A Contractor on May 9, 2013 and anticipates issuing DRs to that contractor by the middle of May 2013. The CM009/CM019 contractor is endeavoring to complete their as-built drawings.

ELPEP Related Procedure Training: MTACC conducted a series of audits for ELPEP procedure compliance. A draft report was prepared and is being reviewed internally. MTACC is auditing the PMP, RMP, CMP, and SMP. A report will be released by mid-May, 2013 and ELPEP procedure training is scheduled to begin by the end of May 2013.

2.0 SCHEDULE DATA

The ESA-PMT issued the IPS #46 with data date of April 1, 2013 with its associated variance report on April 29, 2013. This schedule has a Revenue Service Date (RSD) of September 1, 2019, and the amount of contingency is "to be determined". Additionally, the PMT has split up the contract CM012R into the following packages:

- Early work as change orders to existing contracts
- Concrete Lining work South of the Caverns, including the cavern inverts (CM005)

- Concrete Lining work North of the Caverns (CM006)
- Lining and fit out of the Caverns (CM007)

The IPS update incorporates current procurement dates for and a summary level duration for CM005, and summary level durations for CM006 and CM007 (note: the PMT stated that schedules for CM006 and CM007 are under development. These two schedules are to be built based on independent estimates and risk assessments of these two packages in next few months. Until then, schedules for these two packages will be presented in summary format). Additionally the ESA has made some changes to activities in Contract CS179. In making these changes, the PMT has altered the logic in baseline schedule; making analysis of the overall impact of these changes on the current approved baseline schedule impossible. The PMT stated that they have done this to show current progress in its planning for the above mention Contracts.

The PMT stated in its update that there are no major changes in the Harold portion of the IPS this month.

<u>Project Critical Path</u>: The Current IPS#46 data date of April 1, 2013 shows two independent critical paths. One goes through future Manhattan Contracts, CM005, 006, 007, then CS 179, and IST, and the other critical path starts in 2015 and goes through Harold Contracts of FHL02, 03, 04 and FHA04, then its IST. It should be noted that having two concurrent critical paths in the IPS is due to changes in contract CS179 IST schedule. This is an artifact of the changes to the schedule logic in this latest IPS; and in the PMOC's opinion; is not a valid representation of overall project baseline. By making these changes, the PMT is artificially preserving the current approved RSD.

Schedule Contingency: The latest IPS update continues to indicate that project contingency is TBD.

3.0 COST DATA

<u>Funding</u>: MTACC announced at the May 2012 CPOC meeting that an additional \$720 million will need to be identified in the MTA 2015 – 2019 Capital Plan to cover the new project baseline budget. The funding request for the 2015 – 2019 Capital Program will be submitted to the NYS Capital Program Review Board (CPRB) in September 2014. The MTA will review any budget changes resulting from the new packaging plan for CM012R and compare it to the current MTA Capital Plan. Results of this comparison will be discussed internally with the MTA Board in July 2013.

<u>Budget/Cost</u>: ESA has reported that as of March 31, 2013, the actual total project progress was 54.5% vs. 55.7% planned progress resulting from the July 2012 re-baseline and the actual construction progress was 50.2% vs. 52.0% planned based on invoiced amount.

As of March 31, 2013, the Current Baseline Budget (CBB) as shown in the Standard Cost Categories (SCCs) has gone down by \$1 million to \$8.709, only \$1 million above the re-baseline value. This is not shown in the Quarterly Report but was obtained solely through 'cost updates' the PMOC independently had requested from ESA staff. That method should not substitute for the PMT's obligation to make cost shifts clear in its official reporting.

SCC changes occurred in SCC #10 (-\$13M), #20 (+\$9M), and #40 (+\$3M) based on scope transfers among CM004, CM009, CM012, CM013, CM019, CH053, CH054, CQ031, and FHA02. (Further details appear in Ch. 5). Although the ESA staff informally provided the

identification of shifts between packages, no explanations were given as to why the scope changed SCCs. The SCC is defined by types of work, not by package, and unless the work execution type is changed (i.e., tunneling vs. cut and cover) costs should not be moved between SCCs. The PMT does not provide explanations for the changes in SCC values, and since the SCC is a basic FTA budget tracking method, the PMOC has requested that the ESA PMT provide a written explanation of changes in SCC values in its monthly reporting. In general the list of scope transfers reflects Budget Adjustments approved at CCC meetings, but at no time at those meetings were transfers across SCC categories mentioned or approved.

Also, despite the rejection of the October 2012 low bid for CM012R because it was more than \$350M above the ESA budget for this package, the PMT continues to maintain its pre-bid estimate value in the Current Baseline Budget (CBB).

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 FFGA Baseline Budget in Standard Cost Categories (SCC).vs. the MTA's CBB.



<u>Change Orders/Budget Adjustments</u>: The PMT reported that during March 2013, there were 6 change orders executed over \$100K, with a net value of \$12.561M.

4.0 RISK MANAGEMENT

Status: The PMOC again notes its concern that neither a risk assessment nor a constructability review was performed on the CM005 Contract Package prior to its being advertised on March 21, 2013. The ESA PMT stated that it believes the constructability review for CM012R, completed in June 2012, is adequate, although it also acknowledged that not all of the constructability issues for that package were resolved. The PMOC was also informed in April 2013 that the package level risk assessment for CM006, which was planned for May 2013 prior to the advertise date for this package, has now been moved to August 2013. The PMOC questions the rationale for doing this since any changes to the package resulting from the risk assessment will have to be done via addenda, thus complicating the solicitation and possibly delaying the procurement schedule.

The PMT conducted a two-day risk workshop on February 26 and 27, 2013 for the Westbound Bypass scope of work (now CH057A) that was split from the original CH057 contract package. The PMOC has not received any indication that results from this workshop changed the Contract Package. As of the end of April 2013, this contract had not been advertised.

The PMT held a risk workshop on April 18 and 19, 2013 for the Systems Contract CS179. The PMT is currently negotiating with proposers about the costs for access impacts prior to recommending an award of the contract. Any risk items identified through the risk assessment would assist the PMT in contract negotiation efforts. During the workshop, 37 Interface Risks were identified. Attendees had not been supplied in advance with either detailed or summary level estimates, project schedules, or the Integrated Project Schedule (IPS), making it difficult for

them to develop realistic risk impacts. The PMT stated the IPS now shows the overlapping of civil activities and the start of the Integrated Systems Testing (IST). The ESA PMT stated that this schedule showed the overlaps of construction work and the IST, and only three months of project contingency, and will become the official baseline for the IPS.

In March 2013, FTA Region II directed the PMOC to perform a refresh of the 2012 PG-47 risk assessment to evaluate the impact of the cancellation of the CM012R procurement in November 2012 and the subsequent MTACC plan to re-package and re-bid the CM012R work scope. The PMOC obtained preliminary results in the first part of April 2013 and presented these to the Region:

Mitigation Level	Cost*	Revenue Service Date*		
High Degree of Mitigation	\$9.566 billion	4 th Quarter 2020		
Medium Degree of Mitigation	\$9.845 billion	4 th Quarter 2012		
Low Degree of Mitigation	\$10.184 billion	3 rd Quarter 2022		

^{*}Figures are preliminary

These preliminary results were presented to the FTA Administrator on April 18, 2013 and to the MTA and MTACC on April 26, 2013.

<u>Current Risk Mitigation Efforts</u>: Through April 2013, ESA-PMT continued its efforts to identify and mitigate specific risks that may adversely affect the program's cost and schedule performance. Ongoing and significant new risk mitigation initiatives include the following:

■ The ESA PMT is splitting the scope of the CS284 Contract package into two separate packages. The CS284 will consist of the furnishing and installation of the track work; special track work; and the 3rd rail system; as well as the testing and installation of the tunnel signal system. The new CS084 Contract will furnish and install the traction power substations. The PMT believes that this split will mitigate the risk of the long lead times associated with procuring this equipment. This proposed split was approved by the CCC in April 2013.

5.0 ELPEP COMPLIANCE SUMMARY

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

Technical Capacity and Capability (TCC): FTA formally notified MTACC of its acceptance of Project Management Plan (PMP) Revision 8.1 by letter dated March 4, 2013. MTACC plans to issue PMP Revision 9.0 by June 30, 2013. MTACC has stated that it has implemented the PMP training process. PMOC discussions with the head of MTACC Chief of Quality, Safety and Security in January 2013 indicated that although some training has begun on sub-procedures, there has been no formal training on the PMP. As stated in the QA/QC section of this report, MTACC is planning to begin training in late May 2013. The PMOC will continue to monitor progress in this area. On March 19, 2013, MTACC submitted its current revised Technical Capability and Capability Plan, dated March 2013, which is in review by the PMOC.

- **Risk Mitigation Capacity Plan (RMCP):** FTA-RII provided its conditional acceptance of the RMCP in its May 24, 2012 letter to MTACC. The PMOC has verified the RMCP final acceptance based on its incorporation into the RMP.
- Conformance and Compliance: The PMOC continues reporting to the FTA regarding the ESA project's continuing ELPEP compliance based on the PMOC's review of the 1Q2013 performance. See details below.
- **Risk Management Plan (RMP):** FTA formally notified MTACC of its conditional acceptance of the RMP by letter dated March 4, 2013. FTA's conditional acceptance is based on MTACC correcting an error and expanding discussion of certain risk and mitigation topics in the next revision of the RMP.

MTACC, FTA-RII and the PMOC attended the ELPEP Quarterly Review Meeting on March 13, 2013. The current ELPEP compliance checklist completed by MTACC is in review by the PMOC and FTA/PMOC review comments are anticipated to be completed in May 2013. The next ELPEP Quarterly Review Meeting is tentatively scheduled for June 12, 2013

Revisions to the ELPEP Document

On March 19, 2013, MTACC provided to the FTA and the PMOC its proposed revisions to the ELPEP. The FTA and MTACC have agreed to hold working meetings to progress development of a revised ELPEP. These meetings are expected to start during 2Q2013.

Continuing ELPEP Compliance

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

- o Management Decisions
 - Status: IMPROVEMENT NEEDED.
- o Design Development
 - Status: IMPROVEMENT NEEDED.
- o CCC Process and Results
 - o Status: ATTENTION NEEDED.
- o Stakeholder Management
 - Status: IMPROVEMENT NEEDED.
- o Issues Management
 - Status: IMPROVEMENT NEEDED.
- o Procurement
 - Status: Decision process for procurement methodology had improved in 2012, however additional improvement is needed.
- o Timely Decision Making
 - Status: IMPROVEMENT NEEDED.
- Risk Informed Decision Making

Status: IMPROVEMENT NEEDED.

6.0 SAFETY AND SECURITY

Project safety statistics for lost time accidents continue to trend above the Bureau of Labor Statistics (BLS) national average at 2.34 vs. 2.20 lost time accidents per 200,000 hours. Although there has been improvement in the overall project safety statistics (2.34 vs. 2.40 during last reporting period), several contracts continue to perform below the average for the project. For the CM009 contract, the lost time accidents continue to trend above the ESA Program average (2.62 vs. 2.34 lost time accidents per 200,000 hours). For the CM004 contract, the lost time accidents are trending above the ESA Program average (3.54 vs. 2.34 lost time accidents per 200,000 hours). On the CQ039 contract, the lost time accident statistics continue to trend well above the ESA Program average (5.33 vs. 2.34 lost time accidents per 200,000 hours).

ESA did not report any significant security issues for the March 2013 reporting period.

7.0 ISSUES AND RECOMMENDATIONS

<u>Design</u>: The PMOC remains concerned that GEC and PMT continue to consistently miss all of their target dates for remaining design activities on the project, not just catenary design.

Procurement: The PMOC remains concerned about the results of the CM012R bid and its impacts to the project budget and schedule (discussed in respective sections of this report). The PMOC is also seriously concerned about delays to other significant procurements; namely Systems Package 1 (CS179) (currently in negotiations since 2Q2012, and which is also on the critical path); GCT Concourse and Facilities Fit-out (CM014B); and the remaining Harold Structures Contracts, CH057, which has been split into separate packages; and CH058. In addition, the lack of stability of the Contract Packaging Plan remains a concern. The PMT continues to shift and split scope among different packages making it difficult to fully understand the impact of these changes to the overall ESA Program at this time. The PMOC recommends that the PMT give priority to producing an updated Contract Packaging Plan and adhere to it without shifting scope for the remainder of the project.

<u>Contract CM004</u>: At 245 Park Ave. although MNR has advised MTACC verbally that they accept the testing performed on the escalator that was conducted in approximate October 2012, neither MTACC nor MNR has issued an acceptance document to the Contractor. This document is important when establishing the turnover of the escalator and commencement of the warranty period.

<u>Contract CM013</u>: A stop work order was issued from the New York City Fire Department (FDNY) through the MTACC Code Compliance Office concerning the temporary construction stair in the Ventilation Shaft that delayed work in the shaft from late January 2013 through mid-April 2013. The Contractor replaced that stair and the stop-work order was lifted in late April 2013. This delay will likely extend the project milestones. There are currently no time impacts to other contracts resulting from extending the milestones.

<u>Contract CM014A</u>: SCADA re-design delay is currently driving the critical path in the Contractor's schedule update. Although the design issue has been resolved, the schedule will continue to slip until the new submittals have been approved and the Contractor can confirm new fabrication and delivery dates from the manufacturer. These issues have resulted in a slip in the approved baseline Substantial Completion date of July 8, 2013 to a forecasted February 15,

2014. Further delays to finalizing the SCADA submittals will result in further delay to substantial completion.

Contract CQ032: The contractor continues to make progress at a much slower rate than has been planned. Actual progress continues to lag planned progress at an increasing rate. The PMOC is concerned about this trend and the contractor's ability to recover schedule delays. Future planned progress is at a higher rate but will be constrained by late access to the work area at the west end of the Queens Open-Cut Excavation (turnover from CQ039) and this delay is impacting the contract critical path. The cumulative forecast delay due to this late turnover from CQ039 and the two previous late turnovers now totals 10 months. The PMOC recommends that MTACC-ESA expedite development of a recovery plan for this Contract.

Contract CQ039: The PMOC notes that the load transfer for the elevated NYCT subway line from the temporary underpinning system to the new tunnel structure has been delayed twice. First, in March 2013, NYCT cancelled the track outages (General Orders) required for the load transfer. The rescheduled date of April 23, 2013 was cancelled by MTACC-ESA due to the stop work order issued by the ESA Code Compliance Unit. The PMOC understands the earliest this could be rescheduled is during the third week of May 2013 provided that the stop work order is rescinded early enough to schedule the required track outages with NYCT. Late completion of this contract has delayed turnover of the Milestone 1A area, originally scheduled for July 30, 2012, and the start of Contract CQ032 work in the Early Access Chamber area (CQ032 Access Restraint #1, August 24, 2012) at the west end of the Queens Open-Cut Excavation Area. Although some partial access has been granted to the CQ032 contractor since then, the contractor still does not have access to the tunnel structure itself. The PMOC notes that ESA PMT has reported that this late turnover controls the contract CQ032 critical path. The PMOC recommends that MTACC-ESA expedite resolution of the stop work order issued for the concrete cover over the reinforcing steel in the tunnel lining structure meeting the minimum code requirements.

<u>Contracts CH053/54A</u>: The PMOC remains concerned that costs continue to increase in response to continuing delays to the Substantial Completion date. Although the Contractor has stated that it is developing a construction schedule that will result in a substantial completion date three months earlier than the ESA PMT forecast (December 31, 2013), the PMOC does not believe that the railroads will be able to furnish the increased force account personnel necessary to support an accelerated schedule. The PMOC recommends that the ESA PMT place increased priority for its CH053/54A contracts in making its daily force account allocations if it intends to support the Contractor's accelerated schedule.

Railroad Force Account: The ESA PMT, Amtrak, and the LIRR continue to develop the 2013 construction program. There are 5 milestones in this year's program: installation and cutover of "F2" Interlocking in May (the preparations for which are, as of April 30, 2013, on schedule), construction of the concrete slab under Lines 2 and 4 in July, installation and cutover of "F1" Interlocking in September 2013, installation and cutover of Point Interlocking in October, and installation and cutover of the "H4" location in Harold Interlocking in November 2013. Although the PMOC has observed that construction is on schedule to meet the "F2" completion date, the PMOC will closely monitor the stakeholder's capability to meet this year's aggressive schedule.

Project Funding/Budget: The PMOC remains concerned about the results of the CM012R bid and its impact on the project budget. The ESA-PMT presented an analysis to the FTA/PMOC on March 5, 2013, showing how the new packaging plan would reduce the bid overrun on the CM012R procurement by approximately \$200 million. It did this by taking the results of the lowest bid and modifying certain work scope estimates based on information obtained from bidders during post-bid debriefing sessions. The PMOC does not believe that the ESA PMT will be able to realize the full amount of these projected savings, particularly in light of ESA commissioned independent estimates on the CM005 portion which were 14% above the ESA new projection. In any event, since there is only \$150 million of management reserve for the entire ESA project, the results of the cancelled CM012R solicitation will leave the ESA project with a budget contingency shortfall, which will impact the project's ability to mitigate future cost risk events, and may also impact the ability to make timely awards of the CM006 and CM007 packages. The PMOC remains concerned that although the cancellation of the CM012R solicitation occurred approximately six months ago; the full impact to the CBB has yet to be determined and the ESA PMT continues its monthly financial reporting as if the bid cancellation had not occurred.

Project Schedule: ESA's current IPS #46 shows two concurrent critical paths (Manhattan Future packages and Harold contracts) resulting from inserting the summary level updates of the CM005;6; & 7 packages, as well as changes to the start of IST in the CS179 Contract Package; essentially changing the schedule logic and project critical path of the approved 2012 baseline schedule. This was done without following requirements set forth in MTACC's Program Change Control Procedure and Schedule Management Plan calling for presenting a major Program schedule change to the CCC for review and approval and then to the MTACC Management for approval. In addition to the fact that PMT is not compliant with its own project control procedures, the PMOC questions the validity of moving the start of IST in order to preserve the current RSD. The PMOC met with the ESA Project Controls Manager in April 2013 and requested that documentation of the schedule analysis done to justify the change in the IST start be provided. As of this report, this documentation has not been provided. As it now stands, it is not possible to properly assess the viability of the current baseline schedule from the updated IPS.

Risk Management: ESA has greatly compressed the schedule for the remaining work on the Project due to delays which have occurred or longer durations for future work. It has tried to 'mitigate' these delays by overlapping the civil construction work with the Integrated System Testing. No justification or documentation for validating this critical change in sequencing and logic in the approved 2012 project baseline schedule has been given, and consequently, the PMOC believes that the outcome of the CS179 risk workshop will be of limited value for developing realistic cost and schedule impacts to the project. As mentioned in the Schedule section of this report, the ESA PMT is not compliant with its own project control procedures, and in the PMOC's opinion should not have conducted a risk assessment with a new base schedule that has yet to be approved. In addition, the PMT mentioned at the risk workshop that the proposers for CS179 consist of joint venture teams of civil contractors and system contractors. The PMOC believes that there is a significant risk that the civil partner could use up the Contract float for its work; leaving the systems integrator with inadequate float. The PMT did not acknowledge this as a risk at the workshop, stating that the risk is with the Contractor. The PMOC disagrees that this risk should not be modeled, since the overall schedule could be

impacted, along with associated costs, regardless of who "owns the risk" (since this Contract is on the critical path).

The PMOC again notes its concern that neither a risk assessment nor a constructability review was performed on the CM005 Contract Package prior to advertising the package on March 21, 2013, nor are any planned. Consequently, the estimated cost of this package has not been adjusted for potential risks that might be incurred.

APPENDIX A – ACRONYMS

ARRA American Recovery and Reinvestment Act

BAFO Budget Adjustment
Best and Final Offer

C&S Communications and Signals
CBB Current Baseline Budget
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
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
IST Integrated System Testing

LIRR Long Island Rail Road

MNR Metro-North Railroad

MPT Maintenance and Protection of Traffic
MTA Metropolitan Transportation Authority

MTACC Metropolitan Transportation Authority – Capital

Construction

NATM New Austrian Tunneling Method

NTP Notice to Proceed

NYCT New York City Transit

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
RMP Risk Management Plan

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 Segmental Excavation Method

SMP Schedule Management Plan

SSMP Safety and Security Management Plan

SSPP System Safety Program Plan

SWP Safety Work Plan
TBD To Be Determined

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 (as of March 31, 2013)

		FFGA		MTA's Current Baseline Budget (CBB)		Expenditures	
	(Millions)	(% of Grand Total Cost)	Obligated (Millions)	(Millions)	(% of Grand Total Cost)	(Millions)	(% of CBB)
Grand Total Cost	\$7,386	100		\$9,824	100.0	\$4,876	49.6
Financing Cost	\$1,036	14		\$1,116	11.4	\$557	5.7
Total Project Cost	\$6,350*	86	\$4,107	\$8,708*	88.6	\$4,319	49.6
Federal Share	\$2,683	36.3	\$1,148	\$2,699	27.5	\$1,863	21.4
5309 New Starts share	\$2,632	35.6	\$1,098	\$2,437	24.8	\$1,606	18.4
Non New Starts grants	\$51	0.7	\$50	\$67	0.7	\$62	0.7
ARRA	0	0	0	\$195	2.0	\$195	2.2
Local Share	\$3,667	49.6	\$2,959	\$6,009	61.2	\$2,456	28.2

^{*} CBB represents current MTA Board approved \$8,245 million budget

The ELPEP Estimated Total Project Cost (ETPC) is \$8.119 billion (exclusive of financing cost), reflecting the medium level of risk mitigation.

Table 2 - Summary of Critical Dates

	EECA	Forecast (F) Completion, Actual (A) Start			
	FFGA	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 -Based on PMOC 2012 risk assessment results.

Table 3 - Comparison of Standard Cost Categories: FFGA vs. CBB

FFGA March Standard July 2, February February'13 **CBB** SCC 2013 March 2013 2012 Re-2013 SSC to March Cost Variance baseline SSC % of Category baseline (YOE \$) '13 Change from (YOE \$) (YOE \$) Rebaseline (SCC) No. **(YOE \$)** FFGA % \mathbf{M} **\$M** \mathbf{M} \mathbf{M} 10 1,989 2,943 2,942 2,929 99.52% 47.26% 13 20 1,169 1,514 1,484 1,493 98.61% -9 27.72% 30 356 388 389 389 100.26% 0 9.27% 40 205 488 520 523 107.17% -3 155.12% 50 619 698 698 698 100.00% 0 12.76% 60 165 204 204 204 100.00% 0 23.64% 70 957 674 674 674 0 100.00% -29.57% 0 80 1,184 1,649 1,649 1,649 100.00% 39.27% Subtotal 6,813 8,708 8,710 8,709 100.01% 1 27.83% 100 1,036 100.00% 0 1,116 1,116 1,116 7.72% Total 7,849 **Project Cost** 9,824* 9,826 9,825 100.01% 25.18% 1 (10 - 100)

^{*}This total amount does not include Regional Investment amount of \$590,732,003.

Table 4 -- Core Accountability Items - March 2013

Project Status:				Original at FFGA C		ırrent*	ELPEP **	
Cost Estimate			\$7.386B \$9		\$9	.824B	\$8.119B	
Schedule	Revenue Service Date		December 31, 2013 Sept		Septe	mber 2019	April 30, 2018	
Total Project Per	cent Based on Exper		nditures			54.5 ***		
Complete	Based on Earne			ed Value		NA		
Major Issue			Statu	18			Comments	
Major Upcoming Procurements Major Upcoming Procurements		Scope from cancelled CM01 (Manhattan Structures 2) solicitation is being split am existing and three new contract packages. Work from CM0 package is on the project cripath. First new contract pac (CM005) was advertised on March 21, 2013. Package CH057 was split in parts and CH057A is expect be bid in April 2013. Procurement of CS179 (Sys Package 1) continues to slip Latest NTP forecast date of 1, 2013 will not be met. Otl System Packages (CS284 at VS086) procurement dates a now TBD; as well as procur dates for CM014B package.		nong tract 012R ritical ickage in nto 3 cted to estems p. f April ther and are	ESA is currently working on developing the remaining two contract packages (CM006, CM007). Impact on project cost and schedule contingency remains TBD. CH057A is necessary to advance the Harold work however the Change Order being given to the CQ031 contract for the support slab is critical for a July/August 2013 Outage. CS179 is on the project critical path (since Jan. 1, 2013) and current delay will impact project schedule contingency.			
2			2012	Project IPS has not been completely updated since October 2012.			Until the remaining contingency is determined; and TBD dates for major procurements determined; and the IPS fully updated; it is not possible to properly assess the viability of the current baseline schedule. ESA re-baseline was initially	
Amuak East River Tunner Work			Amtrak original plan for two tunnel outages during 2012 was changed to one tunnel due to a			was	based on two tunnel outages. Impact (if any) on new baseline	

	track replacement program initiated by Amtrak as a result of a broken rail Schedule impact review has not yet been submitted to the FTA. Work on the tunnels ceased at the end of October 2012 as a result of hurricane Sandy and resumed in January 2013.	has to be evaluated and impact of ERT shutdowns as a result of the storm will also have to be evaluated. ESA is currently scheduling work around one tunnel outage.		
Amtrak Integrated Master Schedule	Develop an integrated master schedule that will lay out the upcoming Amtrak projects (Moynihan, ERT Track Rehab., Brookfield, etc.) and overlay the ESA work at Harold. This schedule has not yet been provided to the FTA.	This issue has been outstanding since MTACC committed to producing the Integrated Master schedule in June 2012. At the March 21, 2013 FTA/MTACC Executive Meeting, the ESA Project Executive stated that they have an ESA staff member coordinating this activity on a part-time basis until a dedicated scheduler is hired.		
Next Quarterly Meeting:	June 2013 (tentative)			

^{*} Note that \$9.824B (finance included) and the September 2019 RSD are the MTA cost and schedule baselines in the FFGA amendment.

^{** 2010} Enterprise Level Project Execution Plan (ELPEP) reflecting medium level of risk mitigation, excluding financing cost of \$6,116 million. ELPEP is to be updated.

^{***} Expenditure percentage based on invoiced and project value