PMOC COMPREHENSIVE MONTHLY REPORT

East Side Access (MTACC-ESA) Project
Metropolitan Transportation Authority
New York, New York

Report Period March 1 to March 31, 2014

PMOC Contract No. DTFT60-09-D-00007

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

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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. 007. 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 and quality 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

EXECUTIVE SUMMARY

1. PROJECT DESCRIPTION

The East River tunnels in Manhattan are at capacity. The ESA project is anticipated to improve LIRR tunnel capacity constraints and enable the growth of the overall system. The project comprises a 3.5 mile commuter rail extension of the Long Island Rail Road (LIRR) service from Sunnyside, Queens to Grand Central Terminal (GCT), Manhattan, utilizing the existing 63rd St. Tunnel under the East River and new tunnels in Manhattan and Queens, including new power and ventilation facilities. The project includes a new 8 track terminal constructed below the existing GCT and a new surface rail yard in Queens for daytime train storage. Ridership forecast is 162,000 daily riders (27,300 new riders) in 2020. The project will provide increased capacity for the commuter rail lines of the LIRR and direct access between suburban Long Island and Queens and a new passenger terminal in Grand Central Terminal (GCT) in east Midtown Manhattan, in addition to the LIRR's current Manhattan connection at Penn Station.

2. CHANGES DURING 1st Quarter 2014

a. Engineering/Design Progress

As of the end of February 2014, MTACC reported that the overall Engineering effort was 98.8% complete, an increase of 1.0% over the last quarter. Their Cost Report shows only 88.7% of the budgeted section titled "Design" as having been invoiced. Since ESA has now shown a revised/re-plan budget and total Engineering budget has increased by approximately $35M, all percentages of completion will be lower.

b. New Contract Procurements

Notice of award was issued for CM006 (Manhattan Northern Structures) and CS179 (Systems Package 1 – base contract) in 1Q 2014.

c. Construction Progress

The PMT reported in its March 2014 Monthly Progress Report that the total construction progress reached 48.9% complete (down from 55.1% in the last report due to calculation based on re-plan budget) which is confirmed by a review of the Expedition Cost Report.

d. Continuing and Unresolved Issues

During December 2013, the PMT submitted its confidential and 'working' new projections for the re-plan of the project cost and schedule and a series of meetings were convened by the MTA's Office of Construction Oversight (OCO with the PMOC, IEC, and the Supplemental Engineering Consultant (SEC), who have each submitted its forecasts. Up until this month the project schedule and cost projections were confidential but are shown in this month's report for the first time. However it should be noted that cost and schedule forecasts put forth by the oversight groups are higher and longer respectively than what the MTACC is forecasting.

The PMOC notes that since 2Q2013, the ESA Project continues to be non-compliant with ELPEP contingency forecasting and is also not meeting the cost and schedule forecasting and reporting requirements of the Schedule Management Plan (SMP) and Cost Management Plan (CMP) sub-plans to the PMP. The PMOC considers this a serious problem, especially because MTACC has not had a functional Integrated Project Schedule (IPS) since October 2012 and has still not finalized the forecast cost impacts to the project due to the cancellation of the CM012R procurement in November 2012 and the subsequent significant delays caused by the required repackaging and re-bidding of the CM012R scope of work. The PMOC provided the details of ELPEP non-compliance to MTACC on October 30, 2013. MTACC provided preliminary draft responses (partial) to the PMOC list of ELPEP non-compliances at the December 12, 2013 ELPEP Quarterly Compliance Meeting. A workshop was held on February 27, 2014 to address the FTA and PMOC's concerns. See Section "ELPEP COMPLIANCE SUMMARY" later in this report for more details.

e. New Cost and Schedule Issues

As noted above, MTACC had held that its projections for cost and schedule were confidential and the presentation of them in this month's reports is incomplete and not fully consistent with the analytic framework given in the OCO meetings. The PMOC will formally provide its analysis and opinions once this information is presented in full and with 'basis of estimate'' and 'basis of schedule' documents which layout the rationales and explanations of the objectives.

3 PROJECT STATUS SUMMARY AND PMOC ASSESSMENT

a. Grantee Technical Capacity and Capability

MTACC assigned a new Senior Program, Executive for the ESA project in 1Q of 2014 and has added two additional senior level positions, Program Executive for Project Controls; and Program Executive for Harold/.Queens/Systems & Start-up.

b. Real Estate Acquisition

Details of the Real Estate acquisition activities pertaining to the 48th Street Entrance of GCT are provided in Section 2.6 of this report.

c. Engineering/Design

Progress for remaining design work continues to lag design milestone targets. The GEC and PMT continue to consistently miss its target dates for completing the remaining design activities on the project. Details are provided in Section 2.1 of this report.

d. Procurement

The CS179 (Systems Package 1) was awarded in March 2014, almost two years after proposals were received. CM006 (Manhattan North Structures) was also awarded in March 2014. A recommendation for award of VS086 (Signal Equipment) was made to the MTA Board in January 2014, but award has not been made as of the end of March 2014. Advertise date for CM014B (GCT Finishes) is now forecast for April 2014. Advertise date for the CS084 (Traction Power) Package is now forecast for April 2014.

e. Railroad Force Account (Support and Construction)

During 1Q2014, LIRR C&S personnel continued to pre-test and make circuit revisions for the cutover of new Point Interlocking, which is scheduled for the weekend of April 25-27, 2014. LIRR C&S also continued to pre-test and break-down test at the H4 and H5 CIL locations in Harold Interlocking. LIRR Traction Power personnel continued to install cables and mechanical gear for the cutover of the signal power separation system, which has been further delayed until 2Q2014. Amtrak C&S personnel began construction for Loop Interlocking during 1Q2014, while Amtrak Electric Traction (ET) continued to relocate catenary wires and support the CH053/CH054A contractors during the quarter.

f. Third-Party Construction

Manhattan: The CM005 (southern Manhattan structures) contractor received the NTP in September 2013 and mobilized into the Eastbound and Westbound Caverns and the Tail Tracks to 37th St. MTACC reported a delay of two months from rebar installation in the East Cavern pits impacting Milestones #2 and #3, but does not impact Substantial and Final Completion. The PMOC believes the ESA Construction Manager is taking the correct approach in managing the circumstances. The contractor has submitted a revised CPM Schedule to change rebar installation logic and has added a second work shift (swing) to help mitigate lost time.

On CM013 (50th Street Vent Facility), the Contractor completed the requirement to release the partial Stop Work Order placed by the MTACC Code Compliance Unit (CCU) on placement of pneumatically applied concrete (PAC). Sign-off by the independent engineer is all that remains and will completed during project close-out.

Queens: The CQ032 (Plaza substation and Queens Structures) contractor continued its progress in the Open Cut (Plaza Substation) in Queens during 1Q2014 and has poured several sections of the concrete floors for the C06 and C07 substations. The contractor also completed concrete placement of the inverts for Tunnel A and the Yard Lead Tunnel from the Open Cut to the tunnel portals and continued to place shotcrete and waterproofing in the Q-Tip and sump pit. Additionally, the CQ032 contractor continued to make repairs in the 63rd St. tunnel. The contractor did submit its re-baselined schedule during the quarter. As of this report date, the ESA PMT continues to review it.

As noted in the PMOC's 4Q2013 Quarterly Report, although CQ039 contract construction is complete and the contractor has left the property, the pneumatically applied concrete (PAC) issue has prevented the declaration of Final Completion. ESA expects that the issue will be resolved in early 2Q2014.

The CH057A contractor has continued to make submittals and perform surveys during 1Q2014, but has not started any actual construction of the Westbound Bypass yet. The contractor anticipates that to begin in early 2Q2014.

Harold Interlocking: Contract CH053 (Harold Interlocking, Part 1 and G.O.2 Substation): During 1Q2014, the CH053 contractor continued construction of the 43-S2 retaining wall, the ML2/ML4 bridge over 48th St., 12kV cable pulls at various locations in Harold Interlocking, as well as construction of the MG (motor generator) control houses in Harold and Woodside Interlockings. Unfortunately, CH053 construction of the Tunnel A Approach structure east of 39th St., Queens, remained suspended during the entire quarter while the ESA and the contractor awaited a satisfactory re-design of the 12kV ductbank (which is directly in the middle of the construction path) and the commissioning plan for its eventual cutover. The PMOC believes that this situation will be resolved and construction resumed by mid-2Q2014. The PMOC also notes that the MTACC has extended its projection for Substantial Completion to December 29, 2014, for CH053. . Three sink holes were discovered on March 31, 2014 within the limits of the Harold Interlocking adjacent to CH053 work areas. An investigation as to the causes is underway.

Contract CH054A (Harold Structures Part 2A): The CH054A contractor continued its construction of the 12kV ductbank, including limited cable pulls, and installed several sewer manholes between Sub 44 and Thomson Ave. in F Interlocking during 1Q2014. The MTACC projects Substantial Completion of CH054A for December 30, 2014, an extension of approximately 6 months over its 4Q2013 projection.

g. Vehicles

Details of the vehicle procurement (non-federally funded portion) are provided in Section 2.5 of this report.

h. Commissioning and Start-Up

A Quarterly Operational Readiness meeting was held on March 27, 2014. Details are provided in Section 2.4 in this report.

i. Project Schedule

Table 1: 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	September 2021 (F)	April 2022(F)**
Revenue Service	December 2013	September 2021 (F)	April 2022 (F)

* Source – Grantee forecast Revenue Operations Date per information presented to PMOC in December 2013
**Source –Based on PMOC 2013 trending analysis representing a high degree of mitigation .

j. Project Budget/Cost

Table 2- Project Budget/Cost Table (as of March 2014)

(Despite ESA statement that they are using their Re-plan budget, this chart provided by ESA still uses the earlier budget).

	FFGA			MTA's Current Baseline Budget (CBB)	Expenditures	
	(Millions)	(% of Grand Total Cost)	Obligated (Millions)	(Millions)	(Millions)	(% of CBB)
Grand Total Cost	**$7,386.0**	**100.0%**		**$9,824**	***$5,440.10***	***55.38%***
Financing Cost	$1,036.0	14.0%		$1,116	***617.6***	***55.34%***
Total Project Cost	$6,350.0	86.0%	$4,107.0	$8,708*	***$4,822.50***	***55.38%***
Federal Share	$2,683.0	36.3%	$1,148.0	$2,699	***$1,929.10***	***22.15%***
5309 New Starts share	$2,632.0	35.6%	$1,098.0	$2,436.60	***$1,671.60***	***19.20%***
Non New Starts grants	$51.0	0.7%	$50.0	$67	$62.10	***0.71%***
ARRA	$0.0	0.0%	$0.0	$195.40	195.4	***2.24%***
Local Share	$3,667.0	49.6%	$2,959.0	***$6,009***	***$2,893.40***	***33.23%***

*CBB represents current MTA Board approved $8.245 million budget [redacted]
(regional investment not included)

k. Project Risk

The MTACC Risk Management Plan (RMP), Rev. 2.0 dated July 2012, a sub-plan within the ESA Project Management Plan (PMP), has been updated to conform to the ELPEP principles and requirements, and to incorporate FTA/PMOC comments. The FTA conditionally approved Rev. 2.0 on March 4, 2013.

MTACC routinely performs package level risk reviews for new contracts to be procured, although the PMOC notes that this was not done for the recently bid CM005 Contract. For a more detailed discussion, see Section 6.0 of this report.

MONTHLY UPDATE

The information contained in the body of this report is in accordance with Oversight Procedure 25, to "inform the FTA of the most critical project occurrences, issues, and next steps, as well as professional opinions and recommendations." Where a section is included with no text, there are no new "critical project occurrences [or] issues" to report this month.

ELPEP COMPLIANCE SUMMARY

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

- **Technical Capacity and Capability (TCC)**. The FTA is currently evaluating how the updated TCC Plan will be incorporated into the revised ELPEP. The PMOC had previously noted that a TCC review might be warranted given the significant personnel changes to many key upper management level positions that occurred in 4Q-2013. With the MTACC's announcement in January 2014 about changing the ESA Program Executive in April 2014, the PMOC's recommendation is further strengthened. The FTA has requested MTACC to update the TCC Plan in response to the comments from the FTA/PMOC that were developed in November 2013. At the March 31, 2014 ELPEP Quarterly Review Meeting, MTACC stated that the TCC Plan revisions will be completed upon finalization of the new ESA organization.
- **Continuing ELPEP Compliance:** The following ELPEP components continue to need improvement or are deficient: Management Decision; Design Development; CCC Process and Results; Stakeholder Management; Issues Management; Procurement; Timely Decision Making; Risk-Informed Decision Making.

The PMOC notes that since June 2013, the ESA project has continued to be non-compliant with ELPEP, and is not meeting some of the more important requirements of the SMP and CMP sub-plans to the PMP. The PMOC's opinion is that this is a serious deficiency and needs to be resolved immediately.

The PMOC's major areas of concern include:

- **ELPEP**: MTACC is not forecasting and trending either cost or schedule contingency accurately because it does not include the significant cost, schedule and contingency impacts of the CM012R bids over budget event and subsequent cancellation of the procurement in 4Q2012. ESA has not accurately calculated the schedule contingency utilization resulting from the repackaging of CM012R and the major procurement delays. ESA has also not addressed the need for utilizing project cost contingency to cover the budget shortfall.
- **Schedule Management Plan**: The ESA project is non-compliant with requirements for IPS Updating, Forecasting, and Schedule Contingency Management.
- **Cost Management Plan**: The ESA project is non-compliant with requirements for Cost Estimating, Contract Level EAC Forecasting, Project Level EAC Forecasting, Project Level EAC Forecast Validation, Monthly Update Process and MTACC Cost Contingency Management and Secondary Mitigation.

A workshop was held on February 27, 2014 to address the FTA and PMOC's concerns. MTACC acknowledged the need for more transparency and clarity in documenting the cost and schedule management processes to support traceability in the decision making process. MTACC noted also that both the Cost and Schedule Management Plans are currently being revised to improve the management processes and reporting. They believe that these changes will address most of the PMOC's concerns. The PMOC continues to work with MTACC at the monthly cost and schedule review meetings to advance progress in this area and has noted some improvement in this regard.

Revisions to the ELPEP Document: On March 19, 2013, MTACC provided the FTA and the PMOC with its proposed revisions to the ELPEP. The FTA and MTACC had agreed to hold working meetings to progress development of a revised ELPEP. These meetings had been expected to start during 2Q2013 but have been delayed pending agreement on how to proceed without the revised ESA cost and schedule baselines, which are needed to provide a comprehensive revision to the ELPEP document that will include the new cost and schedule contingency values. As of March 31, 2014, MTACC has still not issued the new revised cost and schedule baselines.

The ELPEP Quarterly Review Meeting was held on March 31, 2014. Summarizing the significant discussions:

- Revised TCC Plan is expected to be completed by mid-June 2014.
- MTACC responses to the December 2013 FTA comments on PMP Rev. 9.0 are pending finalization of the ESA re-organization.
- MTACC Project Procedures Audit (see discussion below)
- MTACC will input the Harold Interlocking/Queens risk review results (March 2014) into the Manhattan/Systems risk model (January 2014) and re-run the Manhattan/Systems risk model. Results are expected in the late April/May 2014 timeframe.

The next ELPEP Quarterly Review Meeting with MTACC, FTA-RII, SAS and ESA projects and the PMOC has been scheduled for June 9, 2014.

MTACC Project Procedures Audit Related to ELPEP: At the March 31, 2014 Quarterly ELPEP Compliance Meeting, MTACC advised that they have completed their audit of 22 ELPEP-related project procedures and the CMP, SMP and RMP Sub-Plans for ELPEP compliance. Audit findings have been reviewed by the ESA project, revised language has been approved for the CMP, SMP and RMP and the MTACC Quality Department will verify incorporation of the revised language. MTACC plans to audit 11 additional Project Procedures in April 2014.

1.0 GRANTEE'S CAPABILITIES AND APPROACH

1.1 Technical Capacity and Capability

a) Organization

There are currently no issues to report pertaining to the MTACC organizational structure.

b) Staffing

The ESA Project Office lost two key staff members in 2Q2013; the Project Controls Program Manager and the Operational Readiness Program Manager. ESA also lost its Harold Program

Manager, lead scheduler, and the Rail Systems Program Manager in Q3 2013. Replacements have been hired to fill the Harold Program Manager, Project Controls Program Manager, and Operational Readiness Program Manager. ESA needs to re-staff the remaining open key positions (Railroad Systems Program Manager and Lead Scheduler) as soon as possible.

1.2 Project Management Plan

a) History of Performance

MTACC re-baselined the ESA Project in May 2012. These baselines resulted in a risk adjusted budget of $8.24B (not including rolling stock reserve and finance cost) and a projected RSD in August 2019. During 2013, ESA has undertaken an extensive re-planning effort to revise the Program budget and schedule as a result of the CM012R bid overrun and continuing delays in several other major procurements (CS179; CM014B). This is the third re-planning effort undertaken by ESA since the FFGA in 2006.

b) PMP

The Grantee has updated the PMP and issued Rev. 9 on June 28, 2013. The PMOC completed its review of the revised PMP in August 2013 and incorporated the FTA comments in September 2013. The PMOC and FTA comments were then coordinated, consolidated and finalized. The FTA formally issued final PMP review comments and transmitted them to MTACC in December 2013. At the Quarterly ELPEP Compliance Review Meeting held on March 31, 2014, MTACC notified the FTA and the PMOC that MTACC responses to the December 2013 FTA comments on PMP Rev. 9.0 are pending finalization of the ESA re-organization.

1.3 Project Controls

a) Schedule

The PMT presented its re-planned Project Schedule in a meeting in December 2013. The RSDs developed by the PMOC, IEC, and SIR are at least a year or more beyond the PMT's date presented at the MTA CPOC meeting in January 2014. MTACC has not made it clear at this point how it will reconcile the difference between its schedule forecast for the project and that of the IEC and PMOC, nor when it will finalize its re-planned schedule and present it to the MTA CPOC for approval as the new project schedule baseline.

b) Cost

The project estimate at completion from the May 2012 Re-Baseline has remained at $8.7 billion however beginning with this month's Report ESA is now presenting a Re-plan Budget of $9.693B [redacted]. The CMP states (Section 5.7 – Monthly Update Process) that "each month the project level EAC is forecasted and the baseline budget is updated". The PMT has continually failed to meet that requirement.

The Grantee needs to follow the CMP as agreed to improve its project budget effectiveness and must assertively comply now that they have presented a Re-plan Budget. The Re-plan Budget had first been presented in meetings convened by the MTACC Office of Construction Oversight (OCO) in December 2013, when ESA presented a number approximately $85M less.

1.4 Federal Requirements

a) FFGA

As a result of MTACC's cost and schedule re-baseline effort in 2011/2012 and the independent risk assessment completed in May 2012, MTACC presented a new budget and RSD to the MTA Capital Program Oversight Committee (CPOC) on May 21, 2012: $8.24 billion (w/o vehicles and financing). At the December 12, 2012 special briefing to FTA-RII by MTACC on the decision to cancel the CM012R solicitation, the MTACC President said that MTACC's analysis of the cost and schedule impact to the ESA project budget would not be completed until January 2013, prior to presentation at the January 2013 CPOC meeting. At that time, FTA-RII advised MTACC that the FTA has decided to place on hold the FFGA Amendment pending written commitment from the MTA regarding details of an impact analysis and a recovery plan. As of the end of Q1 2014, MTACC has provided draft re-plans for cost and schedule that have not yet been finalized or approved by the MTA CPOC.

b) Federal Regulations

There are currently no issues to report with regard to the Uniform Property Acquisition and Relocation Act of 1970.

1.5 Safety and Security

a) Safety Certification Process

The MTACC Director of Construction Safety presented a brief status of remaining design packages that have to be reviewed and approved by the Safety Certification Committee at the March 21, 2014 Operational Readiness quarterly meeting, and a schedule for certification of preliminary hazards on remaining design packages. The PMOC requested that a tentative schedule for Safety Certification meetings based on the status of remaining packages be produced,

A brief status on the certification of construction was presented at the meeting. The PMOC remains concerned about the lag in certifying elements that have been built/installed to date. [Ref: ESA-A47-March13] The MTACC Director of Construction Safety stated that going forward, technical working groups will be convened to integrate the safety certification related activities of the GEC; CM: Safety; and Quality representatives for each contract package. The MTACC Director of Construction Safety noted that a Construction Manager (CM) Training Session was held on February 24, 2014 to present the safety certification requirements to the active construction packages CMs. He also noted that the first technical working group meeting will be scheduled for the CH053 Contract by the end of the 1Q (to the best of the PMOC's knowledge, this meeting did not occur).

The PMOC continues to recommend that the MTACC Director of Construction Safety stress the need to maintain a stable committee to all of the participating stakeholders having representation on the Committee. [Ref: ESA-96-Sep12] The PMOC will observe the continuity of the committee at the next meeting planned Safety Certification meeting.

b) Project Construction Safety Performance

Project safety statistics for lost time accidents on active construction contracts continue to trend slightly above the Bureau of Labor Statistics (BLS) national average at 2.23 vs. 2.00 lost time accidents per 200,000 hours. Project safety statistics for lost time accidents continue to trend

slightly above the Bureau of Labor Statistics (BLS) national average at 2.23 vs. 2.00 lost time accidents per 200,000 hours. This average has remained constant since November 2013. The PMT is performing safety assessments at the end of the 1Q and continues to track trends on daily hazard logs.

c) Security

The PMT did not report any significant security issues during March 2014.

1.6 Project Quality

a) ESA Project Quality Manual (PQM)

A Draft of Revision 7 to the PQM was prepared and sent to the PMOC for review in March 2014. The PMOC returned comments to the ESA Quality Manager who expects to issue Revision 7 in April or May 2014. [Ref: ESA-93-June 12]

b) Submission of As-Builts

The construction contractor working on the CH053, CH054A, and CQ032 contracts continues to be late in submitting as-built drawings and they are not in the correct format. Practically every other contractor is deficient in submitting their as-builts on time and in the proper format. The ESA Quality Manager plans to perform a process audit on as-builts in April 2014 on all contracts beginning with CH053, CH054A and CQ032. [Ref: ESA-100-Dec12]

c) Quarterly Quality Oversights (QQOs)

During the first quarter of 2014, the PMOC attended QQOs for the following contracts: CM004/CM014A, CM005, CM013, and CH053/ CH054A. The following are the PMOC's observations:

Contract	Observations
CM004/CM014A	1. No contractor Management Representative was present. 2. Action items from the previous audit were not discussed prior to this QQO. 3. There were nine action items including updates required to the Inspection and Test Plan, audit schedule, and training log. 4. The Nonconformance Report (NCR) form does not contain blocks for disposition and root cause. The disposition is placed in the corrective action block. 5. The ESA auditor did not conduct an exit interview.
CM005	1. This was the first QQO for this contract. 2. There were eight action items including updates required to the organization chart, NCR log, audit schedule, and training log. 3. Construction Work Plans (CWPs) and Readiness Reviews should be included on the six-week look-ahead schedule.

Contract	Observations
	4. Nonconformance Reports are submitted up to three weeks after the nonconformance is detected. They should be written and submitted when the nonconformance is identified. 5. The ESA auditor was thorough and professional. He conducted an exit interview.
CM013	1. Action items from the QQO that was conducted on October 24, 2013 were reviewed. 2. Hold points for CWPs are not listed on the six-week look-ahead schedule and there is no CWP for the fountain. 3. The contractor has not performed many of their scheduled audits. 4. There is no schedule for planned training.
CHO53/054A	1. There was no review or discussion of action items from the QQO that was conducted on October 29, 2013. 2. Although the auditor and contractor were well prepared for this QQO, there was no indication that responses to the questions were acceptable or not. 3. The ESA auditor did not conduct an exit interview.

The ESA quality auditors used a generic checklist when performing their Quarterly Quality Oversights. The contractor's Quality Plan that was approved by ESA often contains additional requirements. The PMOC recommended to MTACC Quality Management that each QQO checklist be tailored to include the additional requirements from the contractor's Quality Plan since that would be more meaningful than only auditing to the generic MTACC requirements. MTACC Quality agreed with this suggestion and the revised checklist that was issued in March 2014 includes blocks for additional requirements from the Quality Plan of the contractor being audited.

1.7 Stakeholder Management

a) Railroads

In coordination with Amtrak and LIRR, more weekend outages took place in Harold Interlocking with a focus on the installation of catenary and signal towers. Eighteen (18) catenary poles in Stage 1 remain to be installed, but all of the poles critical for the westbound bypass slab outage were installed in time for the past summer's outage on Lines 2 and 4.

b) Others

No other coordination efforts to discuss for this quarter.

1.8 Local Funding

a) MTA/New York State (Capital Plan)

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. Because of this, ESA has had to delay the planned Full NTP for CM007 and CQ033. It has also delayed the award of all the options in the CS179 Systems Package until after the commitment of funds in the 2015-19 Capital Plan.

b) Other Sources

The total Federal funding commitment as of November 2013 remained at $2.699 billion, as indicated in Table 2 in the Executive Summary.

1.9 Project Risk Monitoring and Mitigation

a) Risk Management Plan

The MTACC Risk Management Plan (RMP), Rev. 2 dated July 2012, is a sub-plan within the ESA Project Management Plan (PMP). The RMP, Rev 2 was updated and has incorporated the FTA/PMOC review comments to bring it into compliance with the ELPEP principles and requirements. The FTA formally notified MTACC of its conditional acceptance of the RMP by letter dated March 4, 2013. The RMP is currently being revised and is expected to be issued during June 2014.

b) Monitoring

The MTACC committed that PMT would hold monthly risk meetings with the PMOC to review current risk related activities at the end of 2Q2012. The kick-off meeting occurred in January 2013. The last meeting was held on July 31, 2013. The PMOC has recommended that the PMT reinstate these meetings as soon as possible.

c) Mitigation

Discussion of current mitigations is discussed in Section 6.3 below.

2.0 PROJECT SCOPE

2.1 Engineering/Design and Construction Phase Services

Status:

As of the end of February 2014, MTACC reported the percent complete for the Engineering effort as 98.8% complete, although the Cost Report shows only 88.7% of the budgeted section titled “Design” as having been invoiced. Since ESA has now shown a revised/re-plan budget and total Engineering budget has increased by approximately $35M, all percentages of completion will be lower.

The signed and sealed drawings for FHA04 (Harold Stage 4 Catenary) are completed.

The portion of the scope of work within the right of way of 48th Street – the structural box and the street utility work –was shifted from CM015 into CM014B contracts. Design has been negotiated with GEC for the proposed new Concourse Entrances at 43rd Street and 45th Street in Manhattan. The need for a design to incorporate the infrastructure needed to support future

Electronic Media into the Concourse at the 48th Street Entrance and the Cavern Station is being finalized, and will be negotiated with the GEC in April 2014.

The 100% drawings for CH057B were forwarded to Procurement in January 2014. The PMT added some additional track work (previously planned to be done under LIRR Force Account packages). This work was taken out of the CH057 package and will be performed by an MTA on-call track contractor in early 2014. Bids will be opened on April 3, 2014 with an expected notice to proceed on or about April 15, 2014. Repackaging of the remaining scope in the CH057 bid package has begun. Anticipated advertising for the package is June 2014

On December 20, 2013, the Change Control Committee (CCC) approved the repackaging and alternate method for constructing the Eastbound Reroute tunnel in Contract Package CH058 to make better use of available extended track outages in the summers of 2015 and 2016. A modification to incorporate these changes into the GEC contract was approved at the MTA March 2014 Board meeting and a design NTP is anticipated in early April 2014. Revisions to the CH058 package will then proceed with a 90% submission planned for July 2014.

The PMT is in the process of revising the scope of CM007 taking into account responses from potential proposers during the RFEI process. The new scope will include track work and the redesign of the GCT cavern walls for cast-in-place concrete (CIP). The CM007 Contract list will be divided into various volumes to facilitate the potential future repackaging of the south and north back of house structural work. Track work will now be added to the CM007 scope.

Completion of the specifications and drawings for the stand-alone Track and Signal Installation Contract package (CS284) was achieved in October 2013 (previously forecast for September 30, 2013). The CS284 scope of work is being repackaged. The track portion of the work will form the 4th part of the CM007 package, and it has not yet been decided whether the signal installation work will be bid as a separate package or moved into another package.

Technical drawings and specifications for the Traction Power Contract Package (CS084) were completed in September 2013. The specifications and drawings have been reviewed by MTACC Legal. The target for advertising is now April 2014 (previously forecast for March 2014).

Observation:

The GEC and PMT continue to consistently miss all of its target dates for remaining design activities on the project.

Concerns and Recommendations:

The PMT design management team needs to focus on achieving intermediate milestones in a timely fashion and work closely with the GEC to help make this happen. The PMOC continues to recommend that the PMT develop a design milestone tracking sheet for the remaining design work on the project; similar to what was done for the catenary design work; in order to more effectively manage the design effort. [Ref: ESA-103-Dec12]

2.2 Procurement

Status:

As of the end of February 2014, the total procurement activity on the project was reported to be 56.5% complete, with $5.479 billion in contracts awarded out of the $9.693 billion revised budget.

The Recommendation for Award for the CM006 (Northern Structures) Contract package was presented and approved at the January 2014 MTA Board meeting. The NTP was issued on March 28, 2014.

The CM007 (Caverns) Contract Package remains under development. The target date for completing the repacking is now October 2014. Due to funding constraints, a limited NTP for procurement of pre-cast concrete is forecast to be issued by July 1, 2015, with the full NTP not issued until April 2016.

The Recommendation for Award for the CS179 (Systems Package 1) Contract package was presented and approved at the January 2014 MTA Board meeting. The NTP was issued on March 31, 2014.

Advertising date for CS084 (RFP) -Traction Power Substations is now forecast for April 2014; procurement dates for CS284 (track and signal installation) remains TBD given that the package will now be split into two separate packages, with the track work going into CM007.

The Recommendation for Award for the VS086 (Signal Equipment) Contract package was presented and approved at the January 2014 MTA Board meeting, with award now forecast for April 2014.

An Industry Outreach for the CM014B package was held November 1, 2013, to familiarize the bidding community with the scope of work involved. Advertising of CM014B was previously forecast for mid-January 2014. Board approval was received in February 2014 to procure the package as an RFP. The Contract was forwarded to Legal for review during the first week in March 2014, with a planned advertising date in April 2014.

A Notice to Proceed (NTP) for a limited scope of work was issued to contract CH057A on November 21, 2013 (previously forecast for October 2013). The full NTP was granted in March 2014. On September 17, 2013, the CCC approved creating a new package (CH057B) to construct the relocated LIRR tracks ML2 and ML4. This work was taken out of the CH057 package and will be performed by an MTA on-call track contractor. NTP is anticipated on or about April 15, 2014. NTP for remaining work in the CH057 package is now forecast for September 2014.

Concerns and Recommendations:

The lack of stability in the contracting strategy and Contract Packaging Plan remains a concern. The PMT continued to shift and split scope among different packages during 1Q2014, making it difficult to fully understand the impact of these changes to the overall ESA Project. An updated Contract Packaging Plan was submitted on March 28, 2014. ESA should adhere to it without shifting scope for the remainder of the project. [Ref: ESA-113-June 13]

The PMOC remains concerned that MTACC has delayed NTP for the CM007 Contract Package out to July 2015 due to funding constraints and that it will be limited to the procurement of pre-cast concrete panels. Full NTP will not be issued until April 2016, pending funding availability. CM007 is a critical package and the continuing slippage of the procurement dates for them is of concern.

The PMOC also remains seriously concerned about delays to other significant procurements, namely: Systems Package 1 (CS179) (awarded almost two years after proposals were received); CS184 (Tunnel Systems which has now been split into two packages); VS086 (Signal Equipment) and CM014B (GCT Concourse and Fit-out).

2.3 Construction

ESA reported in its February 2014 Monthly Progress Report that the total construction progress reached 48.9% complete on a cost invoiced basis (vs. 50.0% planned), in accordance with its Re-plan budget of March 2014. The data dates for financial and progress figures are February 28, 2014 for all reported contracts. Details for active construction contracts are provided below.

Manhattan Contracts

CM004 – 44th St. Demolition and Construct Fan Plant Structure and 245 Park Ave. Entrance

Status: MTACC reports that through February 28, 2014, the EAC has slightly increased to $55.28 million from the previous $55.10 million. The Forecast Substantial Completion date for the CM004 contract continues to be April 1, 2014. Beneficial Use for the 245 Park Entrance was achieved October 21, 2013. The actual percent complete is 94.3% versus 100% planned.

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$40.77M (Award)	$55.28M	+14.51M 35.59%	$55..28M	+$14.51M 35.59%	+0M 0%
Scheduled SC Date	09/16/11	12/31/13		04/01/14		
Duration (NTP - SC)	24 mos.	51 mos.	+27 mos.	54.75 mos.	+30.75 mos.	+3.75 mos. 7.35%

% Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
100%	94.3%	*N/A	*N/A	*N/A	*N/A	*N/A	*N/A

From January 2014 ESA Monthly Report
*MTACC reports that the curve for percentage of completion was redesigned again.

Construction Progress: At the Vent Plant work continued with pipe connections in the Water Meter Room, completion of roof installation, railings and installation of hollow metal doors and frames. Painting has not begun. Punch list work in the shaft and Access Tunnel #1 is complete.

The Final Inspection for this contract was conducted on March 31, 2014.

Observations/Analysis: The work for the building storm and sanitary drains connection has been transferred to the CM014-A contract where the tie-in will be made to the E. 46th St. sewer connection which runs under Madison Yard. The PMOC has observed, during the final inspection walkthrough, that the forecast substantial completion date will not be met, as there is a significant amount of work remaining at the Vent Plant building. Also, at the 245 Park Entrance portions of new terrazzo flooring had to be removed and the flooring replaced.

Concerns and Recommendations: The PMOC is concerned that the ongoing delays in achieving substantial completion will affect turnover of the Vent building to the CM005 contractor for access. The PMOC recommends that MTA/MNR determine the source of the water at 245 Park prior to having the flooring replaced. There are indications that this water may be outside the control of the contractor.

CM005 – Manhattan South Structures

Status: MTACC reports that the Estimate at Completion (EAC) is $200.1 million. Forecast Substantial Completion date is set for February 6, 2016. Cumulative progress through February 28, 2014 was 14.2% actual versus 11.2% planned.

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$200.6M (Award)	$200.6M	0.0M 0.0%	$200.1M	-$0.5M -0.2%	-$0.5M -0.2%
Scheduled SC Date	02/06/16	02/06/16		02/06/16		
Duration (NTP - SC)	29 mos.	29 mos.	0 mos. 0.0%	29 mos.	0 mos. 0.0%	0 mos. 0.0%

% Complete		**Actual - 12 mos.***		**Actual - 6 mos.***		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
11.2%	14.2%	NA	NA	NA	NA	N/A	3.6%/mo.

From February 2014 ESA Monthly Report

Construction Progress:

The contractor continued to prepare submittals, to receive material and equipment deliveries, and inspection of existing facilities for takeover. Current ongoing work include: Waterproofing in the West Cavern pits and walls; Waterproofing in the East Cavern is complete; GCT 1&2 East Wye drainage and waterproofing; GCT 1&2 West Wye smoothing shotcrete; 38th Street Ventilation Facility smoothing shotcrete; East Cavern sump pits rebar, and concrete placement has started; South Tunnel L402 arch waterproofing; and South Tunnel L403 drainage and rebar.

Observations/Analysis: Mobilization has continued. Work is not progressing to meet the accepted Baseline Schedule. MTACC is showing a delay of two months for two milestones, MS #2 – North End of the East Cavern Slab, and MS #3 – Portion of West Cavern and Remainder of East Cavern Slab3. The contractor has changed East Cavern rebar installation logic to show invert slab rebar installation to start prior to the completion of pit rebar installation, and has submitted a request to revise the CPM Schedule to mitigate delay anticipated to affect the critical path. In mid-March 2014, the contractor added a second work shift (swing) to help mitigate lost time.

Concerns and Recommendation: In accordance with contract specifications, it is the opinion of the PMOC the ESA Construction Manager is taking the correct approach in managing the circumstances.

CM013 – 50th Street Vent Facility

Status: MTACC reports that through February 28, 2014, the EAC is $96.82 million. Forecast Substantial Completion date was March 20, 2014 from the previous March 3, 2014. As of February 28, 2014, the actual percent complete was 96.9% vs. 98.2% planned.

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$118.35M (Award)* $94.35M	$96.57M	+$2.2M +2.35%	$96.82M	+$2.47M 2.61%	+.25M .25%
Scheduled SC Date	06/10/12	3/3/14		3/20/14		
Duration (NTP - SC)	29 mos.	50 mos.	+21mos. +72.4%	.5 mos.	+50.5 mos. +74.13%	+0.5mos. 1%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
98.2%	96.9%	NA	NA	NA	NA	NA	NA

From January 2014 ESA Monthly Report

*Previously, MTA has reported the financial summary to include the total award price of $118,355,000 which included $94,355,000 for CM013 and $24,000,000 for work performed by the owner of the 300 Park Ave. building. The $24,000,000 has been removed from the current reporting. No reason for this change is provided.

Construction Progress:

Completed building and Utility Chase cladding and stone facing. Completed installation of opaque glass at Stair #1 and completed installation on overhead doors at Drive-through entrance and exit. In the Public Plaza the stone pavers and stone planter and fountain walls were completed. Lighting and plumbing work was completed along with the Water Feature were completed.

Observations/Analysis:

The PMOC observes that the extended substantial completion dates for this contract is not impacting any other existing contract. All of the requirements to resolve the stop-work-order for Pneumatically Applied Concrete (PAC) have been completed by the contractor. The Project Office has advised the PMOC that the Code Compliance Unit (CCU) must hire a new independent engineer to sign off on the coring results. This will be finalized during Project Closeout and will not affect substantial completion.

Concerns and Recommendations:

None at this time.

CM013A – 55th Street Vent Facility

Status: MTACC reports that through February 28, 2014 the EAC decreased to $56.41 million from the previous $59.2 million. Forecast Substantial Completion remains April 5, 2015. As of February 28, 2014, MTACC reports that the actual percent complete continues to track ahead of schedule at 30.6% vs.26.3% planned.

	Original Baseline	Current Approved Baseline	Change to Original (2 – 1)	EAC / Forecast	Change to Original (4 – 1)	Change to Current (4 – 2)
Contract Cost	$56.04M	$56.38M	+$.34M +.60%	$56.41M	+$.37M .66%	+.37M +.66%
Scheduled SC Date	04/05/15	04/05/13		04/05/15		
Duration (NTP - SC)	31 mos.	31mos.	+0 mos.	31 mos.	+0mos.	+0mos.

Percent Complete		Actual - 12 mos.		Actual - 6 mos.		Avg. Req'd. Progress	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
26.3%	30.6%	5.1%	2.13%	18.4%	2.21%	60.4%	4.64%

From January 2014 ESA Monthly Report

Construction Progress:

Mucking of the shaft/excavation spoils was completed. Erection of the construction stairway from the Plenum to the Cavern Invert was completed. Installation of waterproofing in the Plenum and the cavern walls continued. Placement of the invert slab in the cavern is ongoing.

Observations:

Through the first quarter of this contract the project continues to track ahead of schedule.

The breakthrough of the shaft to the cavern has opened the entire site for work access, allowing for significant progress.

Concerns and Recommendations:

None at this time.

CM014A – GCT Concourse & Facilities Fit-Out

Status: MTACC reports that through February 28, 2014, the EAC has decreased to % 54.57 million from the previous $54.70 million. Forecast Substantial Completion continues to be December 15, 2014. Through February 28, 2014, the actual percent complete reported was 58.6% versus 90.4% planned. The large gap between percent complete versus planned continues to be largely attributed to the Supervisory Control and Data Acquisition (SCADA) system redesign (based on LIRR requirements), which resulted in a hold being placed on fabrication and delivery of all power system equipment. This, the added scope transfer work from CM014-B and the contractor's rate of progress has also caused continuing extensions to the SC date.

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$43.50M (Award)	$49.03M	+$5.53M +.12.71%	$54.57M	+$11.07M +25.44%	+5.54M +11.29%
Scheduled SC Date	04/25/13	02/26/14		12/15/14		
Duration (NTP - SC)	18 mos.	28 mos.	+10 mos. +55.55%	+38 mos	+20 mos. +111.11%	+10 mos. +35.71%

% Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total.**	**Avg./mo**	**Contract SC**	**Forecast SC**
90.4%	58.6%	34.1%	2.04%	45.5%	2.2%	41.1%	4.11%/mo.

From January 2014 MTA Monthly Report

Construction Progress: The SCADA and switchgear equipment remains in various stages of fabrication and testing, permanent stair installation in Shaft #2 is underway and installation of fire standpipes resumed. Ductwork, piping, branch feeder conduit installation is ongoing. Concrete slab placement nears completion. Erection of CMU walls and installation of firestopping continued. Switchgear is scheduled to be delivered in April 2014.

Observations/Analysis: There are ongoing repairs to deteriorated concrete on street and building support columns and the deck underside in Madison Yard. However some of the columns belong to individual building owners, and these owners have not to date been cooperative, so these columns cannot be repaired. Repairs are necessary prior to continuing with installation of finish ceilings and above ceiling equipment (mostly in CM014-B). The PMOC will continue to monitor this issue.

Concerns and Recommendation: The PMOC is concerned with the MTACC forecast that coordination with ConEd for energizing the transformers could further impact the substantial completion date. Permanent power is needed to complete all equipment field testing.

The PMOC remains concerned that MNR has still not proceeded to relocate the existing utilities that are obstructing construction of the permanent ramp to the Dining Concourse.

Queens Third-Party Contracts

CQ032 Contract – Plaza Substation and Queens Structures

Status: The Estimate at Completion was reduced to $213,066,634 as of February 28, 2014. The MTACC forecast Substantial Completion date remained at October 7, 2015. Monthly construction progress for February 2014 was 3.1% actual versus 3.6% planned. As of February 28, 2014, cumulative progress was 49.8% actual versus 79.8% planned. The contractor submitted its re-baselined schedule and continues to review it with the MTACC. It is intended that this schedule will incorporate prior access delays, time for additional work in the 63rd St. tunnel, and time to revise the re-bracing support in the Early Access Chamber.

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$147.4M (Award)	$207.4M	+$60.0M +40.7%	$213.1M	+$65.7M +44.6%	+$5.7M +2.7%
Scheduled SC Date	08/14/14	08/14/14		10/7/15		
Duration (NTP - SC)	36 mos.	36 mos.	(no change)	50 mos.	+14 mos. +38.9%	+14 mos. 38.9%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
79.8%	49.8%	16.4%	1.4%	10.6%	1.8%	2.8%/mo.	2.8%

From February 2014 ESA Monthly Report

Construction Progress: The contractor completed concrete placement of the Yard Lead and Tunnel A inverts between the Open Cut and the tunnel portals (inverts are now complete from the Bellmouth to the portals), and continued to pour concrete for the floors of the C06 and C07 levels in the future Plaza Substation, placement of waterproofing in the sump pit and Q-Tip, and concrete repairs in the 63rd St. tunnel.

Observations/Analysis: The contractor continues to make significant construction progress in the Open Cut and Q-Tip areas although the percent actually complete lags behind the planned cumulative progress by approximately 30.0%. Prior access delays which have since been removed account for the majority of this lag. The re-baselined schedule is intended to mitigate this lag.

Concerns and Recommendations: The PMOC remains concerned about the lag between actual and planned construction and recommends that the MTACC and the contractor agree on the re-baselined schedule as soon as possible. [Ref: ESA-105-Mar13]

Harold Interlocking Contracts

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

Status: As of February 28, 2014, the Estimate at Completion (EAC) for CH053 was reduced to $245,076,678. The MTACC extended its forecast Substantial Completion date to December 29, 2014, an increase of 4 months over its January 2014 forecast. Actual construction progress for February 2014 was 1.2% versus 0.0% planned (contract was supposed to be complete). Cumulative progress as of February 28, 2014, was 86.7% actual versus 100.0% planned.

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$137.30 M (Award)	$236.9M	+$99.6M +72.5%	$245.1M	+107.8M +78.5%	+$8.2M +3.5%
Scheduled SC Date	05/05/10	01/16/12		12/29/14		
Duration (NTP - SC)	28 mos.	48 mos.	+20 mos. +71.4%	84 mos.	+56 mos. +200.0%	+36 mos. +75.0%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
100%	86.7%	11.7%	1.0%	4.3%	0.7%	N/A – Past Due	1.5%

From February 2014 ESA Monthly Report

Construction Progress: The contractor continued to pull 12kV cable and is now approximately 85% complete with the installation. The contractor also continued to construct the 43-S2 retaining wall, install cross bracing and pour the concrete backwall on the east side of the 48th St. ML2/ML4 bridge, and continued TBM micro-tunnel bores 1 – 4 at the G02 Substation.

Observations/Analysis: The PMOC forecasts that based on its present rate of progress, the Contractor will achieve Substantial Completion in 11 months, or February 2015. This is two months later than the MTACC forecast for SC. Actual monthly construction continues to fall short of planned and it is not evident to the PMOC that the MTACC has placed the priority on CH053 that it needs to in order to finish by its forecast date of December 29, 2014. Three sink holes were discovered on March 31, 2014 within the limits of the Harold Interlocking adjacent to CH053 work areas. An investigation as to the causes is underway.

Concerns and Recommendations: The PMOC remains concerned that, despite the MTACC's efforts to complete the CH053 Contract by 3Q2014, construction continues to fall further behind the progress curve necessary to make that possible. The PMOC therefore recommends that the MTACC re-prioritize its other contracts that require Force Account support in order to more

fully support CH053 to achieve Substantial Completion. The PMOC will report on the findings of the investigation into the causes of the sink holes in the next monthly report.

CH054A Contract – Harold Structures Part 2A

Status: Harold Structures Part 2A: As of February 28, 2014, the Estimate at Completion for CH054A was reduced to $52,474,628. The MTACC forecast for Substantial Completion was extended an additional 2 months to October 2, 2014. Actual construction progress for February 2014 was 4.2% versus 0.0% planned (the contract was supposed to be complete). Cumulative construction progress as of February 28, 2014, was 71.5% actual versus 100.0% planned.

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$21.80M (Award)	$44.8M $44.6M	+$23.0M +105.5%	+$52.5M	+$30.7M +140.8%	+$7.7M +17.2%
Scheduled SC Date	12/21/10	12/21/10		10/2/14		
Duration (NTP - SC)	16 mos.	16 mos.	(no change)	62 mos.	+46 mos. +287.5%	+46 mos. +287.5%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress ***	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
100.0%	71.5%	22.8%	1.9%	16.1%	1.3%	(N.A. - past date).	4.8%

From February 2014 ESA Monthly Report

Construction Progress: The contractor continued to install 12kV ductbank, manholes, and sewer line between Thomson Avenue and Sub 44, as well as continue construction of the 43-S1 retaining wall behind the GM building.

Observations/Analysis: The PMOC forecasts that, based on its present rate of construction, the CH054A contract will require an additional 7 months of construction in order to achieve Substantial Completion. The PMOC therefore agrees with the MTACC forecast SC date of October 2, 2014.

Concerns and Recommendations: The PMOC is concerned that, although construction is presently on target for an October 2014 SC date, as has historically happened with CH053 and CH054A, something will occur to extend the SC date. The PMOC recommends that the MTACC continue to aggressively prosecute the CH054A construction and, if an unforeseen event does occur that threatens the SC date, that the MTACC do everything reasonably possible to overcome that obstacle.

Systems Contracts

VH051A (Part 1) – Harold and Point Central Instrument Locations (CILs)

Status: The Estimate at Completion is $30.24M through February 2014. Forecast Substantial Completion remained the same. Actual Progress through February 2014 was 74%% versus 80% planned.

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$30.89M (Award)	$30.72M	-0.17M -0.6%	$30.24M	-.13M -.4%	.04M .13%
Scheduled SC Date	06/25/12	06/25/12		07/31/15		
Duration (NTP - SC)	37 mos.	37 mos.	+ 0mos. (+0%)	74 mos.	37 mos. 100.5%	37 mos. 100.5%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
80%	74%	-	-	-	-	(N/A)	

From February 2014 ESA Monthly Report

Construction Progress:

H3 CIL was set on site in March 2014. H1 and H2 CILs are in manufacturing being readied for testing in preparation for shipment in Q2 2014. LIRR received FRA approval for the communications and synchronization boards, allowing cut-over of POINT interlocking to proceed.

Observations/Analysis:

LIRR has issued a signal design criteria change resulting from the recent MNR derailment. This change may affect operations through Harold Interlocking and could impact future CIL cut-over dates. The GEC is evaluating the impact of the design criteria change on this package.

Concerns and Recommendations:

The PMT needs to assess the GEC findings and agree upon an effective course of action that minimizes schedule impacts to the extent possible.

VH051B (Part 2) – Harold Tower Supervisory Control System (HTSCS)

Status: The Estimate at Completion was $7.976M through February 2014. Forecast Substantial Completion remained the same. Actual Progress through February 2014 was 88% versus 100% planned.

	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline**	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$7.10M (Award)	$8.10M	+$1.00M +14.1%	$7.92M	+$.88M +12%	$-.12M -1.4%
Scheduled SC Date	08/24/10	08/24/10		TBD		
Duration (NTP - SC)	18 mos.	18 mos.	+0 mos. 0%	58 mos.	TBD	TBD

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
100%	88%					(N/A)	

From February 2014 ESA Monthly Report

Construction Progress:

The PSCC and HTSCS have been tested and are awaiting the cut-over of POINT interlocking

Observations/Analysis:

Additional cost and schedule impacts are being negotiated with the Contractor due to continuing changes in the Harold footprint.

Concerns and Recommendations:

The PMT needs to stop making changes to the configuration of the Harold Interlocking and if changes are absolutely required, should review the changes with the LIRR and GEC to confirm constructability and operability.

CH057A – Part 3 Westbound Bypass:

Status: As of February 28, 2014, the Estimate at Completion for the CH057A contract was reduced to $103,200,000. The MTACC forecast for Substantial Completion remained at January 29, 2016. The CH057A contractor has not begun any field construction yet, so there is no construction progress to report.

Construction Progress: As of March 31, 2014, the CH057A contractor had not yet begun construction. The contractor continues to make submittals, prepare permit applications, and perform site surveys. The PMOC will begin to report progress when the contractor begins its construction of the Westbound Bypass.

Summary Observation: Although the contractor has not begun field construction yet, it appears to be on schedule with its early administrative activities.

Summary Concerns and Recommendations: The PMOC has no concerns at this time.

Railroad Force Account Construction Packages

Harold Stage I Amtrak FA (FHA01)

Status: As of February 28, 2014, the Estimate at Completion for FHA01 was increased to $18,824,861. The MTACC's forecast for Substantial Completion was extended to February 23, 2016, an increase of 3 weeks. Actual construction progress was 0.3% versus 0.7% planned. Cumulative progress as of February 28, 2014, was 95.1% actual versus 97.7% planned.

FHA01	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline***	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$9.50M	$18.8M	+$9.3M +97.9%	+$18.8M	+$9.3M +97.7%	0 0
Scheduled SC Date	09/30/10	01/03/12		2/23/16		
Duration (NTP - SC)	39 mos.	54 mos.	+15 mos. +38.5%	104 mos.	+65 mos. +166.7%	+50 mos. +92.6%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
97.7%	95.1%	8.5%	0.7%	0.7%	0.1%	N/A – Past Due	0.2%

From February 2014 ESA Monthly Report *The term "baseline" is a misnomer with Force Account work. In Amtrak's case, the "original baseline" has increased to account for scope changes as detailed in the Project Initiations (PIs) that have been executed for Stage 1. It is presented in the table to be consistent with the contract tables contained elsewhere in this report.

Construction Progress: During March 2014, Amtrak Electric Traction personnel continued to relocate catenary wires on new poles and remove wires from old poles on structural work done by the CH053 contractor in Harold and "F" Interlockings. Amtrak ET also assisted LIRR Traction Power personnel to install cables between the HP-1 and HP-2 towers for the LIRR signal power separation portion of the project.

Observations/Analysis: The new construction schedule that the MTACC has adopted for Harold Interlocking accounts for a more leveled ET headcount to produce the work. Although Amtrak ET has made great ESA construction strides in the past two years, nonetheless it has not been without negative impact elsewhere on the project. The new schedule will help to ease some of the daily strain off the ET forces and is intended to produce a more reliable source of manpower for all aspects of the ESA construction.

Concerns and Recommendations: Amtrak support for the FHA01 ESA work continues to progress well. Since the new MTACC schedule will help to ease the previous manpower problems, the PMOC has no immediate concerns about the Amtrak Stage 1 participation. The PMOC does recommend, however, that Amtrak and the MTACC continue to work together to continue the progress they have jointly made in recent years.

Harold Early Stage 2 Amtrak FA (FHA02)

Status: As of February 28, 2014, the Estimate at Completion for FHA02 remained at $41,683,606. The MTACC's forecast for Substantial Completion was extended an additional 2 weeks to September 1, 2017. Actual progress for February 2014 was 0.3% versus 1.2% planned. Cumulative construction progress through February 28, 2014, was 77.9% actual versus 81.8% planned.

FHA02	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline***	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$9.70M	$38.6M	+$28.9M +298.0%	$41.7M	+$32.0M +329.9%	+$3.1M +8.0%
Scheduled SC Date	9/30/13	08/30/14		9/1/17		
Duration (NTP - SC)	58 mos.	69 mos.	+11 mos. +19.0%	105 mos.	+47 mos. +81.0%	+36 mos. +52.2%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
81.8%	77.9%	26.0%	2.2%	8.3%	1.4%	1.7%	0.5%

From the February 2014 ESA Monthly Report

* The term "baseline" is a misnomer with Force Account work. In Amtrak's case, the "original baseline" has increased to account for the scope changes as detailed in the Project Initiations (PIs) that have been executed for Stage 2. It is presented in the above table to be consistent with the contract tables contained elsewhere in this report.

Construction Progress: Although the "F1" and "F2" Interlocking cutovers were done several months ago, Amtrak C&S personnel continued to set signal cases and install trough that were not critical to the cutovers. Additionally, C&S continued to support LIRR preparations for the cutover of Point Interlocking and perform tests for the cutover of #771 crossover in "F1".

Summary Observation: The main construction milestones for FHA02, the cutovers of "F1" and "F2" Interlockings, were accomplished relatively on schedule and the only work that remains in Stage 2 are non-critical C&S items and prepared signal bridge E34 for installation. Additionally, Electric Traction personnel made catenary wire transfers that correspond with the signal cutovers in both sections of "F".

Summary Concerns and Recommendations: Since most of the work in Stage 2 has been done, the PMOC has no remaining concerns or recommendations for FHA02 at this time.

Harold Early Stage 3 Amtrak (FHA03)

Status: As of February 28, 2014, the Estimate at Completion (EAC) for FHA03 was increased to $10,608,828 due to recent Project Initiations (PIs) which the MTACC authorized for additional Stage 3 construction. The initial phase of Stage 3 was completed during the summer of 2013 when Amtrak forces reconstructed parts of Lines 2 and 4 in Harold Interlocking to allow the installation of a concrete slab by the CQ031 contractor. The slab was installed early to allow the CH057A contractor to construct the Westbound Bypass Tunnel under the tracks at a later date. No additional construction work was done on FHA03 since 2013 and no work was planned to be done. Cumulative construction progress as of February 28, 2014 was 100.0% actual versus 100.0% planned.

Observations/Analysis: All the work planned for the 2013 Summer outage was very well coordinated and executed and completed within the planned schedule.

Concerns and Recommendations: Although the PMOC has no concerns about FHA03 at this time, nonetheless the PMOC recommends that the MTACC use the planning efforts and coordination it employed for the summer 2013 outage as a template for all its future Force Account work.

Harold Stage 1 LIRR FA (FHL01)

Status: As of February 28, 2014, the Estimate at Completion (EAC) for FHL01 remained at $20,804,621. The MTACC's forecast for Substantial Completion (SC) was reduced to February 3, 2015, a reduction of two months. Actual progress for February 2014 was 0.0% versus 0.5% planned. Cumulative construction progress through February 28, 2014, was 77.4% actual versus 85.4% planned.

FHL01	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline***	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$28.80M	$20.80M	-$8.00M -27.8%	$20.8M	-$8.0M -27.8%	$0 0%
Scheduled SC Date	09/30/10	10/10/11		2/3/15		
Duration (NTP - SC)	39 mos.	52 mos.	+13 mos. +33.3%	91 mos.	+52 mos. +133.3%	+39 mos. +75.0%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
85.4%	77.4%	2.2%	0.2%	2.2%	0.4%	N/A – Past Due	2.3%

From the February 2014 ESA Monthly Report

* The term "baseline" is a misnomer with Force Account work. In the LIRR's case, the "original baseline" has decreased to account for the scope changes as detailed in the Memoranda of Understandings (MOUs) that have been executed for Stage 1. It is presented in the above table to be consistent with the contract tables contained elsewhere in this report.

Construction Progress: The LIRR did not progress any FHL01 construction during March 2014.

Observations/Analysis: The LIRR has scheduled much of the remaining FHL01 construction for the summer of 2014, including the installation of 9 turnouts and construction and cutover of the new ML2 and ML4 tracks in Harold Interlocking. If the LIRR is successful with these installations in the upcoming months, it should be able to consider the work substantially completed well before February 2015, as the MTACC has forecast.

Concerns and Recommendations: The PMOC remains concerned that the LIRR can prepare Site Specific Work Plans in sufficient time to properly support the aggressive construction schedule for 2014. To date, the LIRR has not been able to produce SSWPs any earlier than the day before construction on a work task has begun. To help alleviate this problem, the PMOC recommends that the LIRR begin to prepare its 2014 SSWPs immediately to avoid a future "crush" that procrastination will bring.

Harold Early Stage 2 LIRR FA (FHL02)

Status: As of February 28, 2014, the Estimate at Completion (EAC) for FHL02 remained at $71,189,359. The MTACC's forecast for Substantial Completion also remained at November 25, 2016. Actual progress for February 2014 was 0.6% versus 5.1% planned. Cumulative progress through February 28, 2014, was 32.9% actual versus 49.9% planned.

FHL02	1	2	3	4	5	6
	Original Baseline	**Current Approved Baseline***	**Change to Original (2 – 1)**	**EAC / Forecast**	**Change to Original (4 – 1)**	**Change to Current (4 – 2)**
Contract Cost	$7.40M	$48.2M	+$40.8M +551.4%	$71.2M	+$63.8M +862.2%	+$23.0M +47.7%
Scheduled SC Date	11/30/15	11/30/15		11/25/16		
Duration (NTP - SC)	75 mos.	75 mos.	+0 mos. 0.0%	87 mos.	+12 mos. +16.0%	+12 mos. +16.0%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo**	**Total**	**Avg./mo**	**Contract SC**	**Forecast SC**
49.9%	32.9%	9.3%	0.8%	3.5%	0.6%	1.3%	2.1%

From February 2014 ESA Monthly Report

*The term " baseline" is a misnomer with Force Account work. In LIRR's case, the "original baseline" has increased to account for the scope changes in the Memoranda of Understanding (MOUs) that have been executed for Stage 2. It is presented in the above table to be consistent with the contractor tables contained elsewhere in this report.

Construction Progress: LIRR C&S personnel continued to make circuit revisions, cable terminations, and pre-test for the Point Interlocking cutover, which is scheduled for the weekend of April 25-27, 2014. C&S personnel also continued to install cables in the H3 CIL, revise circuits and pre-test in the H4 CIL, and perform breakdown tests in the H5 CIL.

Summary Observation: Preparations for the cutover of Point Interlocking continue to progress according to plan and it appears to be on schedule. This cutover has been delayed several times already and it is imperative that the cutover take place on schedule to avoid further delay which could have a negative impact on the LIRR's entire 2014 construction schedule.

Summary Concerns and Recommendations: The PMOC recommends that LIRR continue to make the Point cutover its #1 priority until it is actually complete. Once it is, the PMOC recommends that the LIRR make the next 2014 schedule item its #1 priority until this year's program is complete.

Harold Early Stage 3 LIRR F/A (FHL03)

Status: As of February 28, 2014, the Estimate at Completion for FHL03 increased from $10,301,564 to $37,099,271 due to an additional MOU the MTACC and the LIRR executed. No actual construction has been done for this new authorization, but the initial phase of FHL03 was completed during the summer track outage in 2013. At that time, LIRR personnel reconstructed portions of Lines 2 and 4 and installed 3 new turnouts in Harold Interlocking while the CQ031 contractor installed the concrete slab for the Westbound Bypass tunnel. No additional work has been done since then and the cumulative construction progress remains at 100.0% actual versus 100.0% planned.

Construction Progress: No construction on FHL03 has occurred since the 2013 summer track outage.

Concerns and Recommendations: The PMOC has no concerns or recommendations about FHL03 at this time.

2.4 Operational Readiness

A Quarterly Operational Readiness meeting was held on March 21, 2014. There were several topics discussed at the meeting including: status of operational readiness documents; asset management plan; and a report on safety certification activities during the 1Q 2014. It was announced that the Asset Manager for the Operational Readiness team resigned, and a search for a replacement is underway.

Current Status-ESA Operational Readiness Documents

The draft outline of Volume 3 of the Rail Activation Plan (Monitoring and Verification) is complete and kick-off discussions with MNR and LIRR began in February 2014.

Asset Management Plan

.Verification of asset listings for contract repackaging is ongoing. The Asset Management group will activate the Maximo asset management software package and begin uploading assets on a QA server to test.

Operational Readiness Schedule

The Operational Readiness Team has uploaded a detailed schedule of Operational Readiness Activities into the current ESA re-planned base IPS.

Quarterly Report on Safety Certification Activities

This item is discussed in Section 1.5 above.

Observation:

The Operational Readiness group continues to progress activities comprising system start-up and commissioning.

Concerns and Recommendations:

Given that many of the operational readiness activities are still several years away, the Operational Readiness team need to keep the momentum going. The Operational Readiness Program has been well structured and necessary pre-revenue activities have been clearly defined.

2.5 Vehicles

Board Approval was received and Notice of Award executed September 18, 2013 for the LIRR M-9 vehicle procurement. These cars will initially be part of the M-3 replacement program and will be used for ESA when it comes on line (this procurement does not use federal funding).

Status:

Since the last reporting period, the following spec review meetings have taken place with Contractor and their Major Subcontractors to progress the design of the M-9 Cars: Diagnostics; Propulsion; Lighting; Passenger Counting System; Communications.

LIRR and MNR have also exercised a $6M Option for manuals and a $2.8M Contract Option for the addition of Linear Motor Doors.

The first Initial Design Review (IDR) was held for the truck system and over the next reporting period IDRs will be held for all car systems

Observation:

The Contractor has achieved the first 3 milestone payments associated with Contract award and the submittal and approval of various contract documents.

Concerns and Recommendations:

There are no significant concerns at this time.

2.6 Property Acquisition and Real Estate

415 Madison Ave:

MTACC Design team has been meeting with the property owner's technical staff to review the needed easements. The owner is in possession of MTACC 100% complete design drawings for the new entrance. An addendum to the Business Agreement will cover owner's review of 100% design. Owner comments are expected next week.

The owner wants to be responsible for the relocation of all of their utilities, underpinning of their structure and construction of the project's demising wall, all which are necessary due to the new entrance. This will eliminate the need for the project to acquire most of the temporary easements previously identified.

Discussion about the work will do as well as the consultants they will need to hire and the reimbursement for consultants and construction is underway. The details and terms will be included in the Design and Construction document. The draft document will be sent to the owner's counsel for review. MTACC legal department is drafting the document.

There is a possibility that MTACC will end up acquiring the needed permanent easement through a "friendly condemnation" process since there will be a need to terminate the HSBC lease which could cause a challenge to reaching a deal on valuation. This concept and process of "friendly condemnation" will be discussed during next meeting with the owner.

280 Park:

The Sub-surface excavation for elevator complete. The final details of design being coordinated with the owners of 280 Park.

335 Madison Ave:

Decision to follow a dual track (negotiated agreement and condemnation) for property acquisition has been implemented since communication with Milstein's is difficult. MTARE took Staff Summary and Resolution to MTA's February Board which approved the negotiated purchase or condemnation of permanent and temporary easements for elevators.

Appraisal being updated based on new acquisition drawings.

Extensions of two easements in Queens are being negotiated. No Change

- 48-39 Barnett Ave East (Block 119 Lot 150)

- 39-10 43rd Street (Block 183 Lot 332)

# of Parcels Identified	# Parcels Closed	# Parcels Under Contract	# Parcels In Negotiation	# Parcels In Appraisal	# Parcels In Condemnation	# Parcels Right of Occupancy
127	117	0	5	3	0	2

Concerns and Recommendations:

The PMOC remains concerned about the length of time it is taking to finalize all of the Real Estate aspects of the 48th Street Entrance to GCT.

2.7 Community Relations

Status:

During January and February 2014, the ESA Community Relations staff Began the outreach effort for Community Boards 5 and 6 in Manhattan providing updates on ESA planned activities.

The ESA staff sponsored a tour of the Queens alignment for the community and entertained comments and feedback. The staff met with the Arts for Transit and Urban Design representatives to discuss additional plans for the artwork installation at Roosevelt Island, and discussed budgeting needs for future installations elsewhere on the project. A monthly project update meeting with the Yale Club was held to discuss the progress report and address any ongoing or new concerns.

The Community Relations staff distributed flyers and sent email notification regarding the planned overnight work by the Harold Structure Part 1 contractor and the GO2 Substation (CH053) contractor in the proximity to the Sunnyside Garden community.

The staff received comments from the community regarding issues surrounding the work that is underway at 37th Street and Park Avenue performed by the Manhattan South Structures (CM005) contractor and responded to concerns accordingly.

The ESA Community Relations staff plans the following activities:

- Continue to respond and address concerns and impacts from ongoing work by the ESA project;

- Convene a Community Outreach Kick Off meeting for the Manhattan North Structures (CM006) contract and Systems the Package 1 - Facilities Systems (CS179) contract;
- Meet with elected officials representing areas of Queens in which ESA project work well be underway to provide an update and address concerns; and
- Continue to work with Outward Bound to address its concerns regarding planned ESA construction work and any potential impacts to their building.

Observation:

The PMOC observed that the ESA Community Relations staff, working with the ESA Construction Managers and MTACC management, is reaching out appropriately and effectively to inform the Manhattan and Queens communities of upcoming construction work and planned changes, and has properly handled concerns and complaints from the community.

Concerns and Recommendations:

There are no significant concerns at this time.

3.0 PROJECT MANAGEMENT PLAN AND SUB PLANS

3.1 Project Management Plan

Status:

The Grantee updated the Project Management Plan (PMP) and issued Rev. 9 on June 28, 2013. The PMOC completed its review of the revised PMP in August 2013 and incorporated the FTA comments in September 2013. The PMOC and FTA comments were then coordinated, consolidated and finalized. The FTA formally issued final PMP review comments and transmitted them to MTACC in December 2013.

Observation:

MTACC utilized a task force approach to updating the PMP and Candidate Revisions to the PMP were presented to the CCC for review and approval. However, they were presented to the CCC after the PMOC had already reviewed them and the PMOC notes that this in not in the correct order.

Concerns and Recommendations:

Candidate changes to the PMP should not be in the revision given to the FTA and PMOC for review until after they have been approved by the CCC.

3.2 PMP Sub-Plans

Status: The status of the key sub-plans is discussed in the ELPEP section of this report. At the Quarterly ELPEP Compliance Review Meeting held on December 12, 2013, MTACC notified the FTA and the PMOC that they anticipate full revisions to the CMP and SMP, using the Candidate Revision process, within the next few months.

3.3 Project Procedures

Status: In November 2012, the MTACC indicated to the PMOC that it had completed development of all procedures that it intended to revise. As of March 2014, the total count of revised ESA procedures remains at 77.

Observations: In the PMOC's opinion, the MTACC has developed all the revised procedures necessary to support its revised Project Management Plan (PMP).

Concerns and Recommendations:

None.

4.0 PROJECT SCHEDULE

4.1 Integrated Project Schedule

Status:

ESA submitted its IPS# 55 data date March 1, 2014, and variance report, however, the variance report does not contain any useful information, and the IPS has some significant changes compared to last month IPS. This is contrary to ESA PMT's agreement at last month's schedule meeting to explicitly define the schedule RSD, the basis of schedule, proper analysis of active contract packages, develop a list of critical milestone for the IPS and active contact packages. The current IPS has RSD of September 10, 2021 with one year of contingency from September 2020 to September 2021. Project critical path still goes through contract CM005, CM007, then CS179 IST, and start up and commissioning. Contract CM006 NTP was issued, but the PMOC is not aware of contract CS179's NTP status.

Observation:

The PMOC reviewed the current IPS#55 which in its opion contains several flaws; notably:

- ESA had conducted risk analysis for Harold contracts and its result casts more doubt in the validity of ESA's Harold schedule which has a substantial completion of April 2018 excluding the IST. The report states that "Schedule (including summer outage windows, excluding funding constraints) has 80% confidence that Harold IST-ready date <Aug 2019, i.e., 16 months later than IPC (April 2018, which has <1% of being met)
- The results of the Harold Risk Assessment have to be fed into the Manhattan/Systems Risk Assessment, which may alter the project critical path
- All ESA's contract floats have been calculated against the RSD of September 10, 2021. The PMOC believes that the contract floats should be calculated against the substantial completion of CS179 before the beginning of IST for more accurate assessment of contracts. Having performed this calculation, the PMOC discovered there are more than 900 activities in the IPS that are driving activities and would lose significant amount of float. The majority of these activities are in contract CS179. ESA presumes it has 90 days' float for all its milestone turnovers from Manhattan contracts of CM005, 006, and 007.
- ESA has not developed a schedule contingency drawdown plan at key decision points. Table 4-1 below shows packages that have less than two month of float calculated based on substantial completion of contract CS179.

Table: 4.1: Total Float Calculation Based On S.C. Of Contract CS179 Excluding IST

Activity ID	Total Float
CH058: Harold Structures - Part 3, Eastbound Reroute, D Approach, B/C	42
CS084 System Package 2 - Traction Power	27
CM014B GCT Concourse and Facilities Fit Out	35
VM014: Vertical Circulation - Escalators & Elevators	25
FHL03: Harold Stage 3 - LIRR F/A	42
FHA03: Harold Stage 3 - Amtrak F/A	60
FHL04: Harold Stage 4 - LIRR F/A	45
FML14: GCT Concourse - LIRR F/A	35
FMM14: GCT Concourse - MNR F/A	35
TBD Contract: Bellmouth Enclosure	53

Concerns and Recommendations:

The PMOC recommends that ESA submit its basis of schedule and clearly identify the critical milestone and its critical decision points. Additionally, the ESA should demonstrate its management plan for usage of its one year contingency.

4.2 90-Day Look-Ahead of Important Activities

Appendix G, Table G-2 shows significant activities to be done in next 90 days with associated float calculated against CS179 substantial completion.

4.3 Critical Path Activities

As stated above, the ESA's critical path goes through contracts CM005 and CM007, and part of Integrated System Testing (IST) and LIRR testing and commissioning. As it was also stated, because of Harold risk analysis, the ESA's schedule might change, and this change might affect the current IPS critical path as well. Per the current IPS, there were no critical path milestones for the Harold work in Q1 2014. The next major milestone for Harold is the POINT CIL cutover, which is planned for the weekend of April 26, 2014.

4.4 Project Schedule Contingency Analysis

ESA's IPS#55 shows the RSD of September 2021 with one year of contingency. Since ESA has conducted risk analysis for Harold and its schedule results were presented above, the PMOC is not certain that one year proclaimed contingency is enough. Additionally the PMOC highly recommends that ESA update its Schedule management plan with precise decision points to shows its contingency draw down based on risk practice of January, and March 2014.

5.0 PROJECT COST

Note: All references to expenditures in this report are with respect to the current cost baseline that was agreed upon at the MTA CPOC meeting in May 2012.

5.1 Budget/Cost

Table 5.1: Comparison of Standard Cost Categories: FFGA vs. CBB

(ESA has not provided its new Re-plan Budget broken down by SCCs, so this following chart reflects the values of the previous month, before the Re-plan.).

Standard Cost Category (SCC) No.	FFGA SCC baseline (YOE $) M	July 2, 2012 Re-baseline (YOE $)	January 2014 SSC (YOE $) M	February 2014 SSC (YOE $) M	Feb 2014 % of Rebaseline	Jan '14 to Feb '14 Change $M	CBB Variance from FFGA %
10	1,989	2,943	3,073	3,073	104.42%	0	54.50%
20	1,169	1,514	1,396	1,396	92.21%	-1	19.42%
30	356	388	325	325	83.76%	0	-8.71%
40	205	488	519	519	106.35%	0	153.17%
50	619	698	717	717	102.72%	0	15.83%
60	165	204	204	204	100.00%	0	23.64%
70	957	674	674	674	100.00%	0	-29.57%
80	1,184	1,649	1,650	1,650	100.06%	1	39.36%
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Subtotal	**6,813**	**8,708**	8,708	8,708	**100.00%**	0	**27.81%**
100	1,036	1,116	1,116	1,116	100.00%	0	7.72%
Total Project Cost (10 – 100)	**7,849**	**9,824***	**9,824**	**9,824**	**100.00%**	0	**25.16%**

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

Observations:

Although ESA has submitted a Re-plan budget that reflects an increase from $8,708M (before Financing) to $10,156M, it has not yet been broken down into the FTA Standard Cost Categories (SCC). The Re-planning effort provided the opportunity for the PMT to re-examine each of the Contract packages and every active Contract Package value was adjusted. Some budgets changed due to major re-estimates, other due to adjustments in the Contingencies. Some

Contracts packages were redefined by splitting off sections of work or re-allocating portions of the budget to Regional Investments (RI).

Concerns and Recommendations:

The coding of work elements in the SCC should be realigned to properly reflect the costs for the type of work specified by the SCC. [Ref: ESA-106-Dec12], however ESA has shown no inclination to performing this change.

In November 2013, ESA started providing the PMOC with more in-depth presentations on the probable impacts of the higher estimates and longer schedules for future packages; at the same time, none of that was reflected in the PWB or RSD dates provided in the Monthly Reports. At the beginning of December 2013 ESA, the IEC, the Supplemental Engineering Consultant, and the PMOC began meetings on an unofficial basis to provide each group's current projections and rationales for a new Budget and RSD. This was done in preparation for ESA's plan to present the preliminary results of its re-planning exercise at the January 2014 CPOC meeting. The PMOC recommends that ESA continue its efforts to finalize the re-plan cost and schedule baselines for the Project and formally submit these to the FTA.

5.2 Project Cost Management and Control

Status:

The PMT has reported that as of November 30, 2013, the actual total project progress was 58.9% vs. 63.0% planned progress resulting from the July 2012 re-baseline, however the actual construction progress was 55.3% vs.60.7% planned based on invoiced amount. This also represents an increase over the last quarter of 0.6% vs. the 1.8% construction progress planned, as shown in Table 5.2.

Table 5.2: Project Budget and Invoices as of February 28, 2014

Elements	Baseline Total Budget	Current Baseline Budget (February 2014)	Actual Awards (February 2014)	Paid to Date (February 2014)	Actual % Budget Invoiced
Construction	$7,230,916,480	$7,230,916,480	$4,018,467,044	$3,428,049,269	47.41%
Soft Costs Subtotal	**$2,462,573,223**	**$2,462,573,223**	**$1,460,340,425**	**$1,427,211,340**	**57.96%**
Engineering	$706,910,398	$706,910,398	$620,321,761	$615,763,805	87.11%
OCIP	$288,913,620	$288,913,620	$156,523,857	$152,881,590	52.92%
Project Mgmt.	$925,930,891	$925,930,891	$572,800,949	$549,859,149	59.38%
Real Estate	$166,318,314	$166,318,314	$110,693,858	$108,706,796	65.36%
Rolling Stock	$7,500,000	$7,500,000	$0	$0	0.00%
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Project Subtotal w/o Financing & RI	**$9,693,489,703**	**$9,693,489,703**	**$5,478,807,469**	**$4,855,260,609**	**50.09%**
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Subtotal W. Rolling Stock	**$10,156,489,703**	**$10,156,489,703**	**$5,478,807,469**	**$4,855,260,609**	**47.80%**
Regional Investment Subtotal	**$632,029,343**	**$632,029,343**	**$170,369,394**	**$40,742,423**	**6.45%**
Construction (RI)	$506,313,421	$506,313,421	$134,487,550	$24,193,955	4.78%
Design (RI)	24,595,433	24,595,433	$15,976,887	$210,872	0.86%
OCIP (RI)	$16,939,198	$16,939,198	$16,939,198	$15,100,284	89.14%
Project Mgmt. (RI)	$24,181,291	$24,181,291	$2,965,759	$1,237,312	5.12%
Real Estate (RI)	$0	$0	$0	$0	0.00%
Rolling Stock(RI)	$0	$0	$0	$0	0.00%
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Project Subtotal W/O Financing	**$10,788,519,046**	**$10,788,519,046**	**$5,649,176,863**	**$4,896,003,032**	**45.38%**
Finance Charges	$1,116,453,993	$1,116,453,993	$617,607,000	$617,607,000	55.32%
Grand Total	**$11,904,973,039**	**$11,904,973,039**	**$6,266,783,863**	**$5,513,610,032**	**46.31%**

Table 5-3: PMOC ESA Cost Forecast

Category	Cost
Construction*	$ 7,859,922,230
PM/CM; OCIP; RE; and Engineering*	$ 2,243,759,078
Rolling Stock	$ 202,000,000
[redacted]	[redacted]
ESA Budget Forecast	$10,455,681,308
[redacted]	[redacted]
ESA Total Forecast	$10,918,681,308

*PMOC Forecast is based on Historical trends; known costs; and schedule slippage. ESA provided data is utilized

Observations:

The PMOC notes that ESA had continued to report its Management Reserve under the Construction budget when computing Construction progress and to exclude rolling stock reserve in its calculation of project progress. The PMOC believes that Management Reserve is a Program reserve and should not be included in the Construction progress calculation and also that the rolling stock reserve should be included in the project progress calculation.

The PMT has been providing package estimates for future contract packages; however what is provided often is in formats without the underlying coding structures which hinders analysis, and without an adequate Basis of Estimates (BOE). Without a BOE, thorough analysis is difficult and one cannot identify the assumptions of the Estimator. [Ref: ESA-107-Dec12]

Concerns and Recommendations:

The PMT provides monthly cost reporting data in a series of update documents provided by separate PMT staff instead of in a unified report. This lack of singular reporting responsibility and the lack of a single integrated cost document weaken the capacity for analysis and for a joint review of the cost relationships. In June 2013, ESA stated it was working on an Integrated Cost System but no progress has been demonstrated although the new Project Controls Manager discussed several changes to the reporting and measures to assure greater validity of the data. But this data is not backed up with any methodology for integrated cost management and reporting. It is recognized that the major ESA effort has been on developing a Re-Plan budget but without developing controls mechanisms at the same time ESA runs the risk of accruing cost overruns in the future. At a March 19, 2014 meeting with the PMOC, ESA described its progress in integrating data in its Primavera Oracle Unifier system which should be providing reports within two months. While this shows an advance, the lack of data migration or data warehousing structures renders it still underdeveloped as too much physical hand re-entry will be required.

The PMOC is concerned about the lag of invoiced amount for construction and total project to date compared to the forecast amount in the projected cash flow. This continues the trend of ESA not keeping up with its monthly expenditure plans; the cash flow is currently averaging approximately only 50% of the planned value. The PMT should reforecast its monthly cash flow curve, linking it to the current schedule forecast [Ref: ESA-99-Dec12]

5.3 Change Orders

Table 5.4 below shows the executed mods greater than $100,000 during February 2014.

Table 5.4: ESA's Change Order Log in February 2014 (>$100,000)

BA # *	Package	Mod#	Description	Mod. Amount ($)	February 2014 package value ($)
N/A	CH053	121	Amtrak Rail Return Cable Relocation (DC Negative Return)	208,000	336,070,307
N/A	CQ032	39	12th and 29th Street Curb Reinforcement	257,947	234,177,227
N/A	CQ032	38	Changes to the Roosevelt Island Mechanical Room	245,000	234,177,227
N/A	GEC-D0600	51	Miscellaneous Changes	115,720	425,607,582

When multiple MODs are executed in same month for the same contract, ESA supplied documentation does not indicate order of execution or values before or after that specific MOD.

The majority of the Contract Modifications were funded from Mod Allowance, AWO Contingency, and Package Scope Transfer sub-budgets. The PMOC does not recognize sub-budgeting for Mod Allowance and Scope Transfer.

* Due to Budget Re-plan, ESA did not treat any Changes made last month as Budget Adjustments.

Status/Observation:

In analyzing the data, the PMOC found that executed MODs were running over 12% of the budget for packages and when the Pending, Possible, and Potential were added, the percentage was close to 20%, although a recent analysis on a more defined classification system shows nearly 40% of MODs are due to Re-Packaging. . ESA had not budgeted enough to cover these changes and it is not yet clear that the Re-plan will be adequate, although it is more clearly developed. The Re-plan Budget shows a category for Risk Contingency which is used in place of Management Reserve on the Contingency Chart.

Concerns and Recommendations:

The PMOC recommends that the PMT perform a more thorough analysis of the change order trends and budget for them, and also prepare an analysis and outline its plan for allocated and unallocated contingency consumption. It also suggests the PMOC be invited to attend major negotiations where MODS exceed $10M or relate to settlements. [Ref: ESA-108-May12]

5.4 Project Funding

a) Federal Funding

As shown in Table 5.2, as of February 28, 2014, the PMT has awarded a total of $5.479B, in contract work. The Federal share of awarded contracts is $2.030B. The total Federal funding commitment as of February 28, 2014 remained at $2.699 billion (See Appendix G.1 for re-baseline project cash flow and Appendix G.2 for detailed cost distribution)

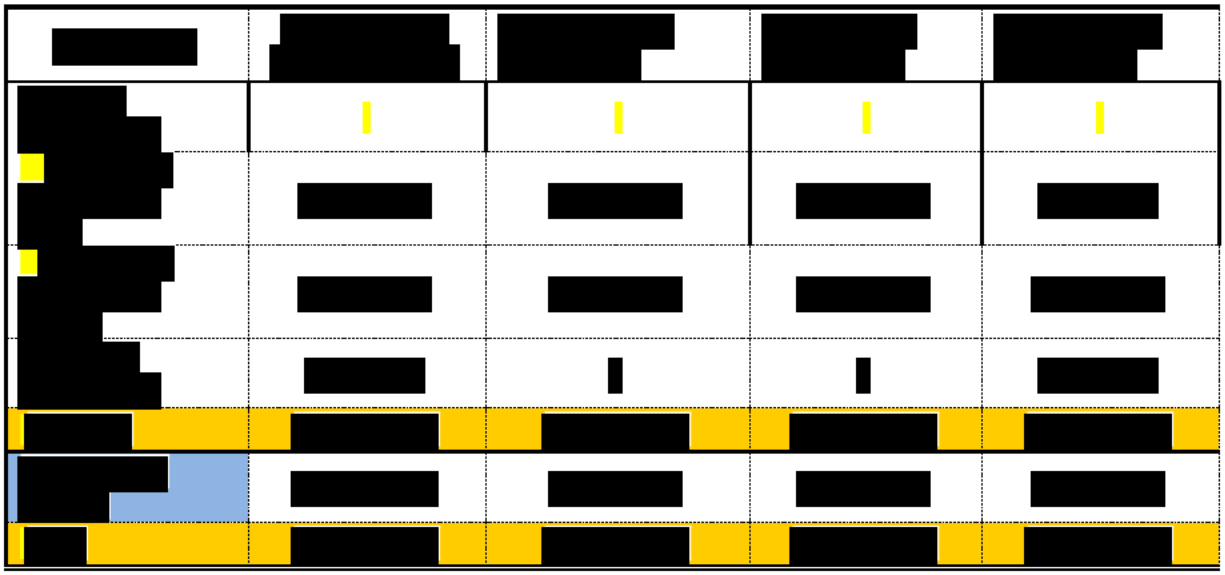
b) Local Funding

The obligated local share was $3.449B. There has been a $617,607,000 incurred finance cost (for local share) to date.

5.5 Cost Variance Analysis

As stated earlier, a meaningful cost variance analysis cannot be performed until a CBB is submitted that takes into account the cost variances resulting from the CM012R bid overrun and subsequent repackaging of the work, as well as delay the procurement delays incurred since 2012. ESA is working on that and has provided preliminary figures in December 2013 and a first pass at a Re-plan Budget in March 2014, but those are not yet finalized.

[redacted]



[redacted]

Concerns and Recommendations:

PMOC continues to recommend that ESA finalize its re-planned project cost estimate as soon as possible and provide this is a stable and official status.. [Ref: ESA-112-June 13]

6.0 RISK MANAGEMENT

6.1 Risk Process

Status/Observations:

The MTACC conducted a limited high-level Risk Assessment Workshop of the remaining Manhattan civil construction and the systems installation, testing and overall integrated testing in January 2014. The premise of the limited workshop was that Manhattan and Systems represent the controlling elements (critical path) of the project and will determine the overall completion date. MTACC stated that time limitations inhibited the ability to conduct an in-depth analysis so in the interests of expediency the ESA-PMT conducted a high-level risk assessment. The intent was to identify uncertainties and risks in cost and schedule. The exact basis for the cost and schedule inputs was not provided to the PMOC. A Preliminary Draft Risk Report was distributed by the PMT in January 2014 and the PMOC sent comments on the Preliminary Draft Risk Report to MTACC in February 2014. MTACC has not addressed these comments as of this report.

The PMT conducted an ESA Harold Risk Workshop in March 2014. This risk assessment is based on the schedule changes made to the Harold work since the 2012 baseline schedule, including repackaging of the work; shifts in priorities due to the FRA High Speed Rail (HSR) grant; and construction progress to date. The PMOC participated in the workshop and provided comments to MTACC on a preliminary draft presentation of the workshop results in March 2014. MTACC has not addressed these comments as of this report.

Concerns and Recommendations:

The PMOC is concerned about the continuing failure to fully follow the risk management processes in the Risk Management Plan (RMP). The last monthly risk meeting with the PMOC was held in July 2013. The PMT has also not provided updated risk registers on a regular basis as required. This in combination with lack of regular risk meetings with PMOC makes it difficult to determine the effectiveness of the ESA Risk Management process and its integration into the Program.

Although, a limited Manhattan/Systems Risk workshop was held in January, 2014, the results of the Workshop were never finalized to the best of the PMOC's knowledge, and there has been no indication as to how the results of the Workshop will be used to modify the cost and schedule estimates presented at the January 2014 CPOC meeting. The PMOC continues to suggest a Post-Workshop session be held with the Workshop Facilitator and the ESA-PMT to discern how the inputs from the Workshop were evaluated in the risk model; how any results were ultimately determined; and how this information will be used to adjust/inform the cost and schedule estimates.

The PMOC also remains concerned that MTACC has not committed to performing a full programmatic risk assessment once the new cost and schedule baselines are completed. The PMT plans to input the results of the Harold Risk Assessment into the Manhattan/Systems Risk Assessment. Given the limitations of the Manhattan/Systems Risk Assessment the PMOC believes that an integrated project level risk workshop is still needed. Project cost and schedule contingency levels are generally determined on the basis of the risk assessment results on the entire. The PMOC is concerned that cost and schedule contingency levels may not adequately

take into account the future project risk profiles and it is not at all clear how MTACC will utilize the results of its risk assessments to adjust the current base schedule and budget.

MTACC is planning to conduct a package level risk assessment for the CM014B (GCT Finishes) in June 2014, two months after it plans to advertise the package. The PMOC has commented in the past about the timing of package level risk assessments and the necessity to perform them before the packages are advertised for bid. MTACC has stated that they plan to perform a package level risk assessment for CM007 once the design is finalized.

Funding availability continues to be a major risk on the ESA project, and is a significant concern. Funding uncertainty has resulted in: the PMT's delay of CM007 contract award until July 2015 with a limited NTP due to budget constraints; and the restructuring of the CS179 contract by splitting it into a base contract with seven options, based predominately on access restraints imposed by the CM005; CM006; CM007; and CM014B packages, which will significantly increase the interface risks. This segmentation of construction packages has resulted in multiple inter contract interfaces and milestones. The probability of a successful achievement of all of them on time is slight in the PMOC's opinion, and leads to the possibility of a ripple effect of delays and coordination difficulties between contracts. There is little room for contractors to make up time. Managing the network of inter-contract handoffs will be difficult. Schedule risks will be exacerbated if funding is not in place to award the options as planned.

The continued contract scope adjustments continue to make assessing the overall status of the project difficult. For example, the change of the CS179 Contract Package structure to a base contract with seven options could have a significant impact on the remainder of the ESA Program. These options represent approximately 40% of the total contract budget. This approach makes interfacing with other packages more difficult. The PMT has been working on a contract Packaging Plan (CPP) Rev 9 dated in November 2009 to manage the project. A significant amount of scope shifts has occurred in the intervening time which makes that revision of the CPP out of date. The PMT submitted a Contract Packaging Plan CPP Rev 10 on March 28, 2014.

The PMOC remains concerned about the "coordination risk" retained by MTACC on the completion of the work in Manhattan, especially with regard to the construction and testing interface management for the systems work. When combined with the extensive scoping re-configuration changes anticipated for the Harold Interlocking work, the PMOC believes that this could create significant changes to the overall project risk profile.

6.2 Risk Register

Status/Observation:

The PMT has maintained a programmatic and contract Risk Register and updated it as specific risk reviews are conducted. The PMT provided a Systems risk register in November 2013. The last full project risk register was issued in August 2013.

Concerns and Recommendations:

Updating and distribution of the ESA Program Risk Register has been infrequent and ESA should automatically submit Risk Register updates to the FTA and PMOC on a regular basis as called for in the RMP.

6.3 Risk Mitigations

Status/Observation:

Current Risk Mitigation Efforts: Through March 2014, the PMT continued its efforts to identify risks that may adversely affect the program's cost and schedule performance. As discussed above, risk workshops were held for the Manhattan/Systems work and the Harold work in 1Q 2014.

Concerns and Recommendations:

Having performed the risk workshops noted above, the next step for MTACC is start to develop mitigation strategies for the risks identified in the workshops and track and report on them on a regular basis as required by the RMP.

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7.0 PMOC CONCERNS AND RECOMMENDATIONS

Priority in Criticality column

1 – Critical 2 – Near Critical

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
ESA-93-June12	1.6 Quality	Project Quality Manual (PQM): The ESA Quality Manager had committed to update Revision 6 of the ESA Project Quality Manual (PQM) that was issued in February 2009 by the end of February 2013. Status Update: The PMOC received a Draft copy of Revision 7 to the PQM in March 2014 and provided comments to the ESA Quality Manager that same month. Recommendation: The PMOC requested that Revision 7 be issued in April or May 2014.	2
ESA-95-Sep12	2.3 Construction: Queens	Contract CQ032: The PMOC is concerned about the potential cost and schedule impacts to the CQ032 contract resulting from the access delays created by late turnover of work areas by the CM009/019, CQ031 and CQ039 contractors. Status Update: The CQ032 contractor and the ESA PMT have completed negotiations for the re-baselined schedule and now await approval from senior management of the MTACC. The PMOC believes that the ESA PMT will receive approval by mid-2Q2014. Recommendation: The PMOC recommends that the ESA CM monitor the approval as closely and as aggressively as possible.	1
ESA-96-Sep12	1.5 Safety and Security	Safety Certification Process: The PMOC is concerned about the fact that personnel assigned to the Safety Certification Committee are continually changing; thus hampering the continuity and effectiveness of the Committee. The PMOC is also concerned that the Safety and Security Committee has not met on a regular basis as per the ESA SSMP. This lack of regular meeting will hamper the effectiveness of the Committee in coordinating activities related to the Safety Certification Process. Status Update: As of the end of March 2014, the PMOC has not seen a calendar	2

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
		produced for Safety Certification Committee meetings for 2014. Recommendation: The PMOC recommends that the Safety Certification Committee produce a calendar for regularly scheduled meetings and adhere to it. The PMOC also recommends that the MTACC Safety Director stress the need to maintain a stable committee to all of the participating stakeholders.	
ESA-98 Sep 12	5.6 Cost Contingency Analysis	ELPEP Contingency Drawdowns: The schedule and cost contingency drawdown plans in the ELPEP document have been superseded by the new (2012) schedule and cost baseline. Status Update: MTACC provided to the FTA and the PMOC their proposed revisions to the ELPEP on March 19, 2013. This document was an abridged version of the original ELPEP agreement. Until ESA determines a revised schedule and budget for the project; meaningful update of the schedule and cost contingency drawdowns will not be possible. As of the end of February 2014, ESA has submitted a tentative revised re-plan schedule and budget for the project. It must now finalize these and establish Contingency Drawdown and Cash Flow schedules from them.. Recommendation: MTACC needs to update the ELPEP document and create new contingency drawdown plans. ESA will first have to provide a finalized re-plan budget and schedule. .	1
ESA-99-Dec12	5.2 Project Cost Management	The PMOC is concerned about the continuing lag of invoiced amount for construction and total project to date compared to the forecast amount in the re-baseline cash flow. This continues the trend of ESA historically not keeping up with its monthly expenditure plans. Status Update: As of the end of February 2014, ESA has only achieved 48.9% of Construction against the Planned 50.0% (those figures are per the re-plan budget, previously they had been 56% vs. 58.9%).. Recommendation: ESA should reforecast its monthly cash flow curve, linking to the adjusted schedule forecast, and extend the date for the end of the payout curve.	1

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
ESA-100-Dec12	1.6 Quality	As-Builts: The construction contractor working on the CH053, CH054A, and CQ032 contracts continues to be late in submitting As-Built drawings and they are not in the correct format. Practically every other contractor is deficient in submitting their as-builts on time and in the proper format. Status Update: The ESA Quality Manager plans to perform a process audit on as-builts in April 2014 on all contracts beginning with CH053, CH054A and CQ032. Recommendation: The PMOC is concerned that this issue is still not resolved and that the contractors are not complying with their contractual requirement. The PMOC continues to recommend that ESA management press to immediately resolve this issue.	2
ESA-101-Dec12	2.3 Construction (FHL02)	The PMOC remains concerned that the LIRR can produce the quantity of SSWPs that will be required for future construction on the fast pace that will dictate their need. Status Update: The LIRR developed Site Specific Work Plans (SSWPs) for all of the track work that it scheduled during 2013, including a separate SSWP for each of the 5 turnouts it installed, although none was complete earlier than the day before each task was to begin. Recommendation: The PMOC recommends that the LIRR begin development of its 2014 SSWPs immediately.	2
ESA-103-Dec12	2.1 Engineering Design	The GEC and PMT continue to consistently miss all of their target dates for remaining design activities on the project. In several instances (CM014B; CH057), this has resulted in delaying the procurement packages. Status Update: As of the end of March 2014, the PMT has not developed a design milestone tracking sheet. Recommendation: The PMOC recommends that the PMT develop a design milestone tracking sheet for the remaining design work on the project, similar to what was done for the catenary design work, in order to more effectively manage the design effort.	2
ESA-105-	2.3	Contract CQ032: The PMOC is concerned that actual progress continues to lag planned progress at a rate that has increased from 2.7% to 15.9% in the last 6 months.	1

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
Mar13	Construction: Queens	Status Update: The gap between actual construction progress versus planned continues to be quite high (30.0% through February 28, 2014), although construction progress continues to improve in the field. The contractor and the ESA PMT have agreed on the re-baselined schedule and both parties await senior MTACC management approval. Recommendation: The PMOC recommends that the ESA CM continue to monitor the approval of the re-baselined schedule as closely and as aggressively as possible.	
ESA-106-Dec12	5.2 Project Cost Management and Control	SCC Tracking and Control: The SCC categories were used in Contract setup in a way that does not reflect the actual category of work if scope is transferred to other packages. The PMT provides identification of the SCC's affected strictly through scope transfers that then drive budget transfers; however budget is identified not by the type of work but by a pro-rata percentage of the existing package. Status: The PMOC continues to observe that the values of some of the SCCs vary month to month and re-estimation of packages or actual bid values cause unexpected changes to SCCs. The PMT has not updated the SCC to reflect the current re-planned budget. Recommendation: The cost allocation setup for SCC should be modified (best time would be when ESA completes evaluation of its' CBB). Budget Transfer approvals by the Change Control Committee should also note the SCCs affected.	1
ESA-107-May13	5.1 Budget Cost	Contract Package Engineer's Estimates: ESA has more frequently been providing the PMOC with the backup for the package Estimates; however, what is provided often is not in formats useful for analysis. The Basis of Estimate, when provided, generally does not provide enough detail for thorough analysis, nor to identify to the PMT the assumptions of the Estimator. No opportunity for reconciliation or explanation as to why those costs are to be used was provided. Status Update: The ESA PMT provided the CM007 Contract Estimate in December 2013. Recommendation: The PMOC recommends that the MTACC's Project Control Manager submit estimates and proper documentation for review as well as a full	1

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
		analysis of the elements in the ESA estimate prior to each package bid date, allowing adequate time for review and comment. The PMT should also invite the PMOC to attend reconciliation meetings with the Estimating Firm(s) providing the Estimates. ESA should make sure the Estimating firms provide full and inclusive Basis of Estimate (BOE) documents as an integral part of the Estimate deliverable. The PMOC additionally recommends that the PMT have the estimates for the major packages, to be identified in collaboration with the PMOC, for independent cost review, as well as have the CCM perform a "check estimate" and conduct a constructability review prior to estimate. The PMOC recommends that all costs provided by ESA to MTA as the basis for the Contract Bid be incorporated into the PWE and EAC for the package/project and then be replaced upon actual opening of Bids. A thorough analysis of the Estimate is essential for estimate validation needed for the Risk Assessment that must be held prior to going out to Bid.	
ESA-108-May 13	5.6 Project Cost Contingency	Contract Package Engineer's Estimates: ESA has more frequently been providing the PMOC with the backup for the package Estimates; however, what is provided often is not in formats useful for analysis. The Basis of Estimate, when provided, generally does not provide enough detail for thorough analysis, nor to identify to the PMT the assumptions of the Estimator. No opportunity for reconciliation or explanation as to why those costs are to be used was provided. Status Update: The ESA PMT provided the CM007 Contract Estimate in December 2013, but at the March 2014 Harold Risk Assessment provided only summary level estimate values with no BoE documents.. Recommendation: The PMOC recommends that the MTACC's Project Control Manager submit estimates and proper documentation for review as well as a full analysis of the elements in the ESA estimate prior to each package bid date, allowing adequate time for review and comment. The PMT should also invite the PMOC to attend reconciliation meetings with the Estimating Firm(s) providing the Estimates. ESA should make sure the Estimating firms provide full and inclusive Basis of Estimate (BOE) documents as an integral part of the Estimate deliverable. The PMOC	1

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
		additionally recommends that the PMT have the estimates for the major packages, to be identified in collaboration with the PMOC, for independent cost review, as well as have the CCM perform a "check estimate" and conduct a constructability review prior to estimate. The PMOC recommends that all costs provided by ESA to MTA as the basis for the Contract Bid be incorporated into the PWE and EAC for the package/project and then be replaced upon actual opening of Bids. A thorough analysis of the Estimate is essential for estimate validation needed for the Risk Assessment that must be held prior to going out to Bid.	
ESA-109-June 13	4.1 Schedule	Estimate at Completion: ESA had introduced a budget line item named "allocated for mods" in its CBB to adjust active packages budget for specified anticipated change orders, and in late 2013 removed this category in preparation or their Re-plan budgets. . [redacted] Recommendation: The PMOC recommends that the PMT perform a more thorough analysis of the change order trends and budget for them, and also prepare an analysis and outline its plan for allocated and unallocated contingency consumption, and then provide a finalized Re-plan budget. .	1
ESA-112-June 13	5.6 Project Contingency	Project Cost Reporting: The ESA PMT continues its monthly financial reporting without changing its underlying Budget and has taken the estimate value for CM007 totally off its EAC and has shifted the costs for CQ033 fully to Contingency. Between CM007 & CQ033, over $600M in Estimated costs have been removed. . Status: The ESA PMT has provided a draft of its re-planned project cost estimate in	1

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
		December 2013 and presented it to the MTA CPOC in January 2014, however this has cost estimate has not yet been officially approved. Recommendation: The PMOC recommends that ESA continue to work to finalize its re-planned project cost estimate, and it should show its full package and Project EACs on its Cost Sheets even if it shows Over Budget.	
ESA-113-June13	2.2 Procurement	Contract Packaging Plan: ESA needs to produce a Contract Packaging Plan that reflects the current state of the project and should adhere to it. Status: ESA has not updated its Contract Packaging Plan since 2009. An update packaging plan (CPP rev. 10) was submitted to the FTA/PMOC on March 28, 2014. Recommendation: The PMOC continues to recommend that ESA stabilize its contract packaging and stop shifting scope among contract packages.	1
ESA-114-Sep13	3.0 ELPEP Compliance	ELPEP Compliance: With MTACC's submission of its East Side Access FTA Quarterly Report (Apr, May, June '13) and then continuing with all subsequent reports through March 2014, the PMOC notes that the ESA project continues to not be in compliance with ELPEP and is not meeting some of the more important requirements of the SMP and CMP sub-plans to the PMP. Status: Specific areas of non-compliance were provided to MTACC at the September 12, 2013 ELPEP Quarterly Review Meeting and additional details provided on October 30, 2013. MTACC provided preliminary draft responses (partial) to the PMOC list of ELPEP non-compliances at the December 12, 2013 ELPEP Quarterly Compliance Meeting. MTACC and the PMOC met on February 27, 2014 to discuss the FTA and PMOC's concerns. At that meeting, MTACC acknowledged the need for more transparency/clarity in documenting the cost/schedule management processes to support traceability in the decision making process. MTACC noted that both Cost and Schedule Management Plans are currently being revised to improve the management processes and reporting, and believe that these changes will address most of the PMOC's concerns. Recommendation: The PMOC will continue to work with MTACC at the monthly cost	1

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
		and schedule review meetings to advance progress in this area. The PMOC has noted some improvements to the transparency/clarity and traceability of the decision-making process with regard to cost and schedule.	
ESA-115-Dec13	1.6 Quality	Special Inspector Certifications: The MTACC Code Compliance Officer stated that the CH053/CH054A contractor is using uncertified inspectors on Special Inspections for the bridges it has installed. Status Update: MTACC's Code Compliance Officer met with the ESA Construction Manager and the Special Inspection Agency. The ESA Construction Manager must resolve how they will handle the compaction test results which the MTACC Code Compliance Officer rejected. The Code Compliance Officer resigned in March 2014. His staff previously resigned. The PMOC contacted MTACC's Chief of Quality, Safety, and Site Security who will follow-up on this issue. Recommendation: The PMOC is concerned that uncertified inspectors are working for the CH053/CH054A contractor and recommends that these inspectors become certified or replaced with inspectors who are certified.	2

8.0 GRANTEE ACTIONS FROM QUARTERLY AND MONTHLY MEETINGS

Priority in Criticality column 1 – Critical 2 – Near Critical

Number with Date Initiated	Section	Grantee Actions	Criticality	Projected Resolution Date
ESA-A46-Dec12	Section 4.2	The ESA PMT agreed at a meeting held with FTA/PMOC on July 30, 2012 to develop a set of critical metrics jointly with the FTA/PMOC and MTA IEC that would be used as an early indicator of issues that need to be addressed by senior management. The need to do this was re-iterated at the November 8, 2012 ESA/SAS mini-quarterly meeting. The IPS #47 has not been updated fully, and therefore the critical metrics have not been completely developed by the PMT.	2	3/31/14
ESA-A47-Mar13	Section 1.5	ESA Safety Director stated at the Operational Readiness meeting held in March 2013 that one of his goals in the upcoming quarter is to brief the CMs on active Construction Contracts on their role in the safety certification process. The PMOC stated that he would like a status report on this activity at the next Operational Readiness meeting in June 2013. The ESA Safety Director reported on the process, but did not have any tangible results to report in the September 2013 Operational Readiness Meeting.	2	12/30/13

APPENDIX A -- LIST OF ACRONYMS

AFI	Allowance for Indeterminates
ARRA	American Recovery and Reinvestment Act
BA	Budget Adjustment
CBB	Current Baseline Budget
C&S	Communication and Signals
CCC	Change Control Committee
CCM	Consultant Construction Manager
CM	ESA Construction Manager assigned to each contract
CMP	Cost Management Plan
CPOC	Capital Program Oversight Committee
CR	Candidate Revision
CSSR	Contact Status Summary Report
CIL	Central Instrument Location
CPRB	Capital Program Review Board
CPP	Contract Packaging Plan
DCB	Detailed Cost Breakdown
ELPEP	Enterprise Level Project Execution Plan
EPC	Engineering-Procurement-Construction
ERT	East River Tunnel
ESA	East Side Access
ET	Electric Traction
FA	Force Account
FAMP	Force Account Management Plan
FHACS	"F" Harold Alternate Control System
FFGA	Full Funding Grant Agreement
FTA	Federal Transit Administration
GCT	Grand Central Terminal
GEC	General Engineering Consultant
HTSCS	Harold Tower Supervisory Control System
IEC	Independent Engineering Consultant (to MTA)
IFB	Invitation for Bid

IPS	Integrated Project Schedule
IST	Integrated System Testing
LIRR	Long Island Rail Road
MNR	Metro-North Railroad
MTA	Metropolitan Transportation Authority
MTACC	Metropolitan Transportation Authority Capital Construction
N/A	Not Applicable
NTP	Notice-to-Proceed
NYAR	New York and Atlantic Railroad
NYCDEP	New York City Department of Environmental Protection
NYCDOB	New York City Department of Buildings
NYCT	New York City Transit
NYSPTSB	New York State Public Transportation Safety Board
OCO	Office of Construction Oversight (MTA)
PE	Preliminary Engineering
PEP	Project Execution Plan
PMOC	Project Management Oversight Contractor (Urban Engineers)
PMP	Project Management Plan
PMT	Project Management Team
PQM	Project Quality Manual
PWE	Project Working Estimate
QA	Quality Assurance
RAMP	Real Estate Acquisition Management Plan
RFP	Request for Proposal
RMCP	Risk Mitigation Capacity Plan
RMP	Risk Management Plan
ROD	Revenue Operations Date
ROW	Right of Way
RSD	Revenue Service Date
SC	Substantial Completion
SCC	Standard Cost Category
SMP	Schedule Management Plan

SSMP	Safety and Security Management Plan
SSOA	State Safety Oversight Agency
SSPP	System Safety Program Plan
TBD	To Be Determined
TBM	Tunnel Boring Machine
TCC	Technical Capacity and Capability
VE	Value Engineering
WBS	Work Breakdown Structure
WBY	Westbound Bypass Tunnel

APPENDIX B-- PROJECT OVERVIEW AND MAP

Project Overview and Map – East Side Access

Scope

Description: This project is a new commuter rail extension of the Long Island Rail Road (LIRR) service from Sunnyside, Queens to Grand Central Terminal (GCT), Manhattan, utilizing the existing 63rd Street tunnel under the East River and new tunnels in Manhattan and Sunnyside yard. Ridership forecast is 162,000 daily riders (27,300 new riders).

Guideway: This two-track project is 3.5 route miles long, it is below grade in tunnels and does not include any shared use track. In Harold interlocking, it shares ROW with Amtrak and the freight line.

Stations: This project will add a new 8 track major terminal to be constructed below the existing GCT. The boarding platforms and mezzanines of the new station will be located approximately 90 feet below the existing GCT lower level. A new passenger concourse will be built on the lower level of the terminal.

Support Facilities: New facilities will include: the LIRR lower level at GCT, new passenger entrances to the existing GCT, the East Yard at GCT, the Arch Street Shop and Yard, a daytime storage and running repair/maintenance shop facility in Queens, and ventilation facilities in Manhattan and Queens.

Vehicles: The scope and budget for the ESA project include the procurement of 160 new electric rail cars to support the initial service.

Ridership Forecast: MTA projects that, by 2020, the ESA project will handle approximately 162,000 daily riders to and from GCT. This Ridership projection is based on a 2005 study performed by DMJM/Harris (AECOM).

Schedule

9/98	Approval Entry to PE	12/10	Estimated Rev Ops at Entry to PE
02/02	Approval Entry to FD	06/12	Estimated Rev Ops at Entry to FD
12/06	FFGA Signed	12/13	Estimated Rev Ops at FFGA
08/19	Revenue Service Date at date of this report (MTA schedule)		

Cost ($)

4,300 million	Total Project Cost ($YOE) at Approval Entry to PE
4,350 million	Total Project Cost ($YOE) at Approval Entry to FD
7,386 million	Total Project Cost ($YOE) at FFGA signed
9,744.1 million	Total Project Cost ($YOE) at Revenue Operations
11,905.0 million	Total Project Cost ($YOE) at date of this report including $ 1,116.5 million in Finance Charges
4,885.5 million	Amount of Expenditures as of February 28, 2014 based on the Total Project Budget of $10,156.5 million
47.8	Percent Complete based on the Re-plan budget of $10,156.5 million and expenditures in the March 2014 report
[redacted]	[redacted]
48.9*	Construction Percent Complete
51.3*	Overall Project Percent Complete

*As of February 28, 2014, based on the March 2014 ESA proposed Re-plan Budget [redacted] as provided by ESA in its March 2014 Report.

[redacted]

APPENDIX C – LESSONS LEARNED

#	Date	Phase	Category	Subject	Lessons Learned
1	Dec-12	Construction	Construction	Muck Handling	During cavern excavation, the CM019 contractor became muck-bound, which caused a project delay of several months. The PMOC recommended that the contractor make extraordinary effort to evacuate the muck. After several months, it finally did, but the schedule time could not be recovered by that point. Lesson learned was to develop a well thought out muck handling plan (including establishment of proper haul roads) before work begins and to follow it during excavation.
2	Dec-12	Construction	Management	Stakeholder Management	The CH053 contractor incurred many months of initial construction delay because Amtrak did not approve the Electric Traction design documents on the project's schedule. A major contributing factor to this was because the MTACC had not established a contractual working relationship with Amtrak prior to letting the CH053 contract. The PMOC recommended that the MTACC and its GEC more closely design the project in accordance with the comments that Amtrak was submitting. To date, the MTACC has exhibited some improvement in this matter, but there are still 2+ Stages to construct, and improvement has not been fast enough or consistent over time. Lesson learned was to develop good working relationships with all project stakeholders before any contracts are let.
3	June-13	Construction	Planning/ Construction	Haul Roads	Haul roads to remove muck need to be passable (preferably paved with a mudslab) with locations pre-determined in areas of confined space such as caverns and tunnels. Deep,

#	Date	Phase	Category	Subject	Lessons Learned
					muck-filled haul roads contributed to the contractor's slow progress in removal of muck during construction. Lesson learned was to plan haul roads in advance and ensure that the muck haulers can travel at a specific rate of speed in order to meet production goals.
4	June-13	Construction	Training	Operator Skill with drill rigs	Lack of proper operator training contributed to inconsistent drilling of 10' deep blast holes which resulted in under/overbreak of excavated material, thus requiring rework to achieve desired results. Lesson learned was to ensure that drill rig operators are properly trained before being allowed to operate a production drill rig.
5	June-13	Procurement	Contract Development	Contract Packaging	Access to work sites, interface with other contracts, and contract staging must be considered when projects employ multiple contractors that may conflict with each other, particularly in confined spaces such as tunnels and caverns. Lesson learned is to carefully consider the access that each contractor may require, perhaps developing a scale model of the expected operation, so that expected operation of each contractor is included in its contractual requirements.
6	June-13	Administration	Quality	Submittals	Identification and resolution of quality issues (e.g. As-Built drawings, NCRs, etc.) must be managed on a daily basis to avoid creation of a backlog. Lesson learned is for the owner to have a well-trained staff with a consistent, coordinated approach (including appropriate pre-approved corrective action) when obtaining contractually required documents from contractors.

#	Date	Phase	Category	Subject	Lessons Learned
7	June-13	Contract Specs/ Construction	Construction	Pneumatically Applied Concrete (PAC)/ Shotcrete	Mismanagement of PAC/Shotcrete application has many different aspects which could adversely affect a project. Lesson learned is that all projects which anticipate use of PAC/shotcrete should carefully examine all aspects of its use and that a careful engineering analysis of the expected use be made so that the approved use can included in the contract documents for the project.
8	June-13	Procurement/ Construction	Procurement	Qualified Personnel	Ensure that project key personnel are properly qualified and experienced for the positions they will fill on the project. Lesson learned is that personnel not properly qualified, experienced, or possessing the requisite credentials can do more harm than good. The owner should ensure that it is getting the contractor's best personnel when excavating a tunnel or cavern.
9	June-13	Scheduling	Construction	TBM Production	Project management should ensure that accurate, up-to-date, production rates for machinery are used when project schedules are developed. PMOC analysis has revealed that ESA schedules for the Manhattan Tunnel Boring Machines were based on a planned excavation rate of 53 linear feet/day. Actual TBM excavation averaged 34 LF/day, a difference of 35%. Lesson learned is that, depending on the length of excavation, inaccurate estimates can have a large negative impact on project schedule.

APPENDIX E – SAFETY AND SECURITY CHECKLIST

Project Overview			
Project mode (Rail, Bus, BRT, Multimode)	Rail		
Project phase (Preliminary Engineering, Design, Construction, or Start-up)	Construction		
Project Delivery Method (Design/Build, Design/Build/Operate/Maintain, CMGC, etc.)	Primarily Design Bid/Build		
Project Plans	**Version**	**Review by FTA**	**Status**
Safety and Security Management Plan	12/2010 Rev. 2	2012	The Grantee has set a target date of Q2 2014 for updating the SSMP. Among other items, newly formulated flow charts associated with the safety certification process will be added.
Safety and Security Certification Plan	11/2008 Rev. 1		Is within the SSPP of LIRR.
System Safety Program Plan	11/2008 Rev. 1		N/A
System Security Plan or Security and Emergency Preparedness Plan (SEPP)	11/2010		Is within the SSPP of LIRR.
Construction Safety and Security Plan	3/2007 Rev. 1		Project Construction Safety and Security Plan, contractors' site specific safety and security plans,
Safety and Security Authority	**Y/N**		**Notes/Status**
Is the grantee subject to 49 CFR Part 659 state safety oversight requirements?	Y		
Has the state designated an oversight agency as per Part 659.9?	Y		The New York State Public Transportation Safety Board (NYSPTSB) is the SSOA. The SOA has stated that they will not interface with the safety

Project Overview		
		certification process for ESA until such a time as it is signed and certified by LIRR.
Has the oversight agency reviewed and approved the grantee's SSPP as per Part 659.17?	In Development	In Q4 of 2013, The SSOA has asked the FTA for guidance on approving the SSPP.
Has the oversight agency reviewed and approved the grantee's Security Plan or SEPP as per Part 659.21?	In Development	The Grantee is currently in communication with a representative of NYS SSOA.
Did the oversight agency participate in the last Quarterly Program Review Meeting?	N	Grantee to transmit SSMP to SSOA through the Grantee's System Safety Dept. The SSOA's representative has had a meeting with NYCT system safety and the grantee. The PMOC attended a meeting with the grantee and the SSOA. Additionally, in accordance with new MAP- 21 provisions, the FTA recently audited the NYS SSOA. Preliminary FTA findings indicate a need for more funding in order for the SSOA to accomplish its mandate from FTA. Simultaneously, the SSOA was able to transfer an existing NYS employee into the SSOA. It is anticipated that the above events will lead to a greater ability for the SSOA to more effectively and efficiently accomplish its mission moving forward.

Project Overview		
		The SOA has stated that they will not interface with the safety certification process for ESA until such a time as it is signed and certified by LIRR**.**
Has the grantee submitted its safety certification plan to the oversight agency?	Y	The Grantee has submitted its safety certification plan to the NYS SSOA.
Has the grantee implemented security directives issues by the Department Homeland Security, Transportation Security Administration?	N	The MTA unified threat vulnerability methodology was applied to the ESA design. A vulnerability log was developed for ESA based on the feedback from the applied methodology. Controls within the design have been implemented to reduce the relative risk of those vulnerabilities identified. Analysis indicated that the controls within design were adequate for the vulnerabilities identified.
SSMP Monitoring	**Y/N**	**Notes/Status**
Is the SSMP project-specific, clearly demonstrating the scope of safety and security activities for this project?	Y	
Grantee reviews the SSMP and related project plans to determine if updates are necessary?	In review by MTACC Assistant Chief of Safety and Security.	The Grantee will undertake an update of the SSMP in the second quarter of 2014. A flowchart was created representing the next phase (from design into construction) for

Project Overview		
		incorporation into the SSMP. The PMOC reminded the grantee o this.
Does the grantee implement a process through which the Designated Function (DF) for Safety and DF for Security are integrated into the overall project management team? Please specify.	Y	The Assistant Chief of Safety and Security for the MTACC meets regularly with the project management team. The CCM and the Grantee's safety and security personnel are integrated into the management team. Integration is also achieved through implementation of ESA HASP, monthly project wide safety meetings, quarterly audits, OCIP inspections, weekly MTACC and contractor joint safety audits, and interface w/ MTA Police and NYPD Infrastructure Protection Unit of the NYPD's Counter-Terrorism Division. The grantee has added a "security function" assessment to its internal quarterly contractor audit.
Does the grantee maintain a regularly scheduled report on the status of safety and security activities?	Y	Safety and Security are reported on during the monthly safety meeting and are incorporated into Grantee's monthly project reports.
Has the grantee established staffing requirements, procedures and authority for safety and security activities throughout all project phases?	Y	Contained within the Grantee's safety procedure documents.

Project Overview		
Does the grantee update the safety and security responsibility matrix/organizational chart as necessary?	Y	To be incorporated into the next revision of the SSMP.
Has the grantee allocated sufficient resources to oversee or carry out safety and security activities?	Y	MTA, GEC, CCM, and contractors provide personnel and resources to carry out safety and security activities. Additionally, an MTACC consultant conducted a safety and security review of all MTACC projects. The consultant's report included programmatic and system security recommendations that are currently being reviewed by MTACC and MTA Police.
Has the grantee developed hazard and vulnerability analysis techniques, including specific types of analysis to be performed during different project phases?	Y	The SSMP Committee process is comprehensive and provides for this.
Does the grantee implement regularly scheduled meetings to track to resolution any identified hazards and/or vulnerabilities?	Y	SSMP committee meetings as well as project wide monthly safety meetings take place.
Does the grantee monitor the progress of safety and security activities throughout all project phases? Please describe briefly.	Y	Accomplished through daily audits by contractor and CCM and through the comprehensive SSMP Committee process.
Does the grantee ensure the conduct of preliminary hazard and vulnerability analyses? Please specify analyses conducted.	Y	The SSMP Committee process provides for TVRA, safety, and security analysis as well as input from subject matter experts on the

Project Overview		
		SSMP Committee.
Has the grantee ensured the development of safety design criteria?	Y	The SSMP Committee has established the safety design criteria.
Has the grantee ensured the development of security design criteria?	Y	Accomplished through the SSMP Committee process.
Has the grantee ensured conformance with safety and security requirements in design?	Y	Achieved through the SSMP Committee process.
Has the grantee verified conformance with safety and security requirements in equipment and materials procurement?	N	The grantee has not verified conformance for materials procured to date. Thus far, the grantee has relied on design specifications and manufacturers' quality controls for verification. The PMOC has advised that this course of action is insufficient and does not align with FTA established guidelines. The grantee is attempting to devise a workable solution.
Has the grantee verified construction specification conformance?	Y	Through ongoing contract review.
Has the grantee identified safety and security critical tests to be performed prior to passenger operations?	N	Although the Grantee has established preliminary hazard analysis (PHA) and a system test plan, the Grantee needs to identify safety and security critical tests in its Test Program Plan. The grantee is working within the PMP to identify critical submittals relevant to

Project Overview		
		system certification. PMOC has expressed concerns, both at meetings and in reports, about the non-linear pattern of completed construction vs. incomplete critical testing. The grantee is uncertain as to what determines criticality for testing purposes.
Has the grantee verified conformance with safety and security requirements during testing, inspection and start-up phases?	In Development	Project is not at these phases yet.
Does the grantee evaluated change orders, design waivers, or test variances for potential hazards and /or vulnerabilities?	In Development	Systems area design modifications not originally evaluated per the unified methodology are analyzed and controls are incorporated into the design.
Has the grantee ensured the performance of safety and security analyses for proposed workarounds?	In Development	
Has the grantee demonstrated through meetings or other methods, the integration of safety and security in the following: Activation Plan and Procedures Integrated Test Plan and Procedures Operations and Maintenance Plan Emergency Operations Plan	Y	An Emergency Preparedness Plan was promulgated by the Grantee in 11/2010. The EAP operational readiness group has been finalized to include MNR, LIRR, MTAPD, and FDNY. The first meeting took place in March of 2013. A Safety Certification update has been incorporated into this meeting, with the MTACC Assistant Chief of Safety and Security providing regular status report. Task work group

Project Overview		
		meetings have resulted in a white paper being formulated. The paper suggests that management hierarchy of GCT be presented as a single establishment (incorporating MNR and LIRR) in accordance with SIMS and NIMS requirements. The grantee has advised that the white paper is finalized and that it is undetermined at this time who the incident commander will be employed by; LIRR, MNR or MTA Headquarters.
Has the grantee issued final safety and security certification?	N	Project is not at this stage.
Has the grantee issued the final safety and security verification report?	N	Project is not at this stage.

APPENDIX F – ON-SITE PICTURES

(to be transmitted in a separate file)

APPENDIX G

COST AND SCHEDULE ANALYSIS TABLES

Table G-1: ESA Planned Cash Flow

(Must be updated as part of ESA Re-plan Budget)

Quarter/year	Construction $(000)	Engineering $(000)	OCIP $(000)	Project Mgmt. $(000)	Real Estate $(000)	Rolling Stock $(000)
Remaining	**3,378,075**	**72,979**	**70,377**	**320,650**		**665,000**
2Q2012	0	0	0	0	0	0
3Q2012	222,294	4,316	6,491	19,004	27,996	0
4Q2012	210,086	4,316	0	19,231	12,762	0
1Q2013	197,258	4,222	13,158	18,693	100	0
2Q2013?	140,095	4,269	0	18,300	100	0
3Q2013	88,877	4,316	0	17,696	25,065	0
4Q2013	107,716	4,316	0	17,842	0	133,000
1Q2014	133,847	2,451	16,724	18,016	0	2,015
2Q2014	187,386	2,478	0	17,870	0	6,045
3Q2014	231,954	2,506	0	17,244	0	50,761
4Q2014	253,979	2,506	0	17,000	0	50,761
1Q2015	260,374	2,451	18,186	16,146	0	50,761
2Q2015	270,030	2,478	0	15,630	0	50,761
3Q2015	272,517	2,506	0	14,082	0	50,761
4Q2015	246,154	2,506	0	13,742	0	50,761
1Q2016	194,243	2,478	15,818	12,390	0	50,761
2Q2016	143,159	2,478	0	12,046	0	50,761
3Q2016	90,925	2,506	0	11,260	0	50,761
4Q2016	50,410	2,506	0	11,109	0	67,091
1Q2017	25,987	2,451	0	8,481	0	0
2Q2017	14,425	2,478	0	7,519	0	0
3Q2017	10,051	2,506	0	6,377	0	0
4Q2017	9,116	2,506	0	5,352	0	0
1Q2018	5,911	2,451	0	3,497	0	0
2Q2018	5,439	2,478	0	1,649	0	0
3Q2018	4,584	2,506	0	379	0	0
4Q2018	1,256	0	0	94	0	0
1Q2019	0	0	0	0	0	0
2Q2019	0	0	0	0	0	0
3Q2019	0	0	0	0	0	0
4Q2019	0	0	0	0	0	0
Subtotal	**3,378,075**	**72,979**	**70,377**	**320,650**	**66,023**	**665,000**

Table G-2: 90 day look ahead Schedule

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	IPS-CONTRACT
VM014	VM014-Vertical Circulation - Escalators & Elevators Construction	1200	27-Sep-10 A	24-Jul-19	25	VM014
FML14	FML14-GCT Concourse & Cavern Finishes-LIRR	1235	07-Nov-11 A	24-Jul-19	35	FML14
FMM14	FMM14-GCT Conc. & Cavern Finishes - MNR Support	1235	07-Nov-11 A	24-Jul-19	35	FMM14
LOE1010	Submittal/Review Process	41	09-Sep-13 A	28-Apr-14	50	CM005
CM005	New Contract (CM005) - Manhattan South Structures (22 Months)	554	09-Sep-13 A	5-Feb-16	0	CM005
LOE580	GCT 1 & 2 EB - Invert Concrete	28	26-Mar-14	2-May-14	0	CM005
LOE180	Waterproof - WB GCT Caverns 1 & 2	10	26-Mar-14	8-Apr-14	74	CM005
1080	CM005 Access thru Eastbound	281	28-Mar-14	11-May-15	92	CM006
200	Mobilization	63	28-Mar-14	25-Jun-14	92	CM006
A16669	Install B-924WA K-Frame (South)	1	19-Apr-14	19-Apr-14	65	CH053
BLAM02-8640	Cutover F1/F2 Crossover (771): ****WITH OUT NEW SNOW MELTER**	2	26-Apr-14	27-Apr-14	84	FHA02.2
BLAM02-6820	Cutover: F1/F2 (771) (Signal) **WITH OUT NEW SNOW MELTER CASE**	2	26-Apr-14	27-Apr-14	84	FHA02.2
FHL0203580	Point CIL Cutover (2C)	2	26-Apr-14	27-Apr-14	84	FHL02
SUMFHA02-1530	Cutover - F1/F2 (771)	0		27-Apr-14	84	FHA02.2

Activity ID	Activity Name	Original Duration	Start	Finish	Total Float	IPS-CONTRACT
FHL02.MS.00015	Cutover New Point CIL	0		27-Apr-14	84	FHL02
LOE910	Prep & Install Services @ 30th Street Vent Facility (Relocate Tel/EMH/Electrical/Hydrant/Water Ser)	27	29-Apr-14	5-Jun-14	48	CM005
LOE590	GCT 1 & 2 EB - East Sidewalls (Inv. to Mezz)	19	5-May-14	30-May-14	0	CM005
LOE600	GCT 1 & 2 EB - West Sidewalls (Inv. to Mezz)	19	2-Jun-14	26-Jun-14	0	CM005
LOE1300	Vent Building Underground - Base Slab	17	6-Jun-14	30-Jun-14	48	CM005
LOE650	WB GCT 1 & 2 - Invert Concrete	23	20-Jun-14	23-Jul-14	0	CM005
CH057A-5100	Erect Signal Bridge 30 Structure - Loc 30	2	21-Jun-14	22-Jun-14	86	CH057A
400	Additional Backfill Invert	5	26-Jun-14	2-Jul-14	92	CM006
LOE610	EB GCT 1&2 Interior Walls and Mezzanine Slab	95	27-Jun-14	12-Nov-14	37	CM005
LOE1310	Vent Building Underground - Lower Walls	21	1-Jul-14	30-Jul-14	48	CM005
100142	Tunnel 404 Invert	4	3-Jul-14	9-Jul-14	92	CM006

Table H – Core Accountability Items

Project Status:		Original at FFGA	Current*	ELPEP **
Cost	Cost Estimate	$7.368B	$10.156B	$8.119B
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]
	[redacted]	[redacted]	[redacted]	[redacted]
Schedule	Revenue Service Date	March 2020	March 2020	April 30, 2018
Total Project Percent Complete	Based on Expenditures	51.3 ***		
	Based on Earned Value	NA		

Major Issue	Status	Comments
Impact of CM012R solicitation cancellation, scope repackaging and re-bidding.	Scope from cancelled CM012R (Manhattan Structures 2) solicitation was split among existing and three new contract packages (CM005;CM006; CM007). CM005 and CM006 packages have been awarded and are underway. Design work for a hybrid design (pre-cast and cast in place concrete) based on input from RFEI is underway for CM007.	The PMT continues working on developing the remaining contract package (CM007). A preliminary cost estimate for this package has been developed, however that may change due to change in design from resulting from information received from the contracting community in the RFEI process.
Major Procurements Delays	The CS179 package was awarded in March 2014, almost two years after proposals were received. A recommendation for award of VS086 (Signal Equipment) was also made to the MTA Board in January 2014, but award has not been made as of the end of March 2014.. Advertise date for CM014B is now forecast for April 2014. Advertise date for the CS084 (Traction Power) Package is now forecast for April 2014..	Partial NTP for the CM007 Package cannot be made before July 2015 due to budget constraints. ESA changed the structure of the CS179 Package to include a base contract and seven options. The ESA PMT has also stated that it only has funding in place to award the base contract for CS179 at present.
Project Schedule	The ESA project does not have an official baseline schedule as of the end of March 2014. A schedule was presented by	PMOC does not agree with the critical path logic in the current base schedule. This schedule has not been approved by the

	MTACC to the MTA CPOC in January 2014, showing an RSD in September 2021 (with 12 months of contingency/risk included).	MTA CPOC
Next Quarterly Meeting:	TBD	

* Current Budget has not been formally approved by MTA CPOC
** 2010 Enterprise Level Project Execution Plan (ELPEP) reflecting medium level of risk mitigation, excluding financing cost of $1,116 million. ELPEP is to be updated.
*** Expenditure percentage based on dividing ESA Invoiced" figure by "Current Baseline Budget" [redacted]