PMOC COMPREHENSIVE MONTHLY REPORT

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

Report Period June 1 to June 30, 2015

PMOC Contract No. DTFT6014D00017

Task Order No. 2, Project No. DC-27-5287, Work Order No.1

Urban Engineers of New York, D.P.C., 2 Penn Plaza, Suite 1103, New York, New York 10121
PMOC Lead: E. Williamson, 212-736-9100; ejwilliamson@urbanengineers.com
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:

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REPORT FORMAT AND FOCUS

This report is submitted in compliance with the terms of the Federal Transit Administration (FTA) Contract No. DTFT6014D00017, Task Order No. 002. Its purpose is to provide information and data to assist the FTA as it continually monitors the Grantee's technical capability and capacity to execute a project efficiently and effectively, and hence, whether the Grantee continues to be ready to receive federal funds for further project development.

This report covers the project 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 2nd Quarter 2015

a. Engineering/Design Progress

As of the end of May 2015, MTACC reported that the overall Engineering effort is at 98.7% complete, based on Earned Value for Design Deliverables, a slight drop from last month. Their Cost Report shows 90.6% of the overall EIS & Engineering category as invoiced and 90.7% of the budgeted section titled "Design" as having been invoiced.

b. New Contract Procurements

The proposal due date for Contract CM007, GCT Station Caverns and Track, has been extended a third time from July 1, 2015 to August 4, 2015, and the cost proposals are due 3 weeks later on August 25, 2015. The bid date for Contract CH057, Harold Structures Part 3, which includes construction of Tunnel D Approach Structure and the 48 St. Bridge Replacement, has been extended a second time from June 18, 2015, to July 9, 2015.

c. Construction Progress

The PMT reported in its May 2015 Monthly Progress Report that the total construction progress reached 54.6% complete; the Expedition Cost Report also shows 54.6% of Construction as having been invoiced.

d. Continuing and Unresolved Issues

The current potential shortfall in funding availability continues to be a major issue that could have a significant impact on the program schedule. This issue is discussed further in Section 6.0, Risk Management, of this report.

Additionally, the PMOC is concerned because it believes the MTACC burn rate of Unallocated Contigency is too fast and as a result there may not be sufficient contingency funding available for award of the remaining construction contracts. This issue is discussed further in Section 5.0, Project Cost, of this report.

In response to Amtrak's continued inability to provide necessary force account resources to support the Harold schedule re-plan of 2013/2014, ESA completed a Harold schedule re-sequencing in December 2014, also known as "ESA First", that advances work elements required for the new LIRR service to GCT and pushes back the Federal Railroad Administration (FRA) funded High Speed Rail Work beyond 2017. For this reason, MTACC is seeking a time extension from the FRA for the funding and has been actively engaging the FRA in discussions to reach this goal. As of June 30, 2015, FRA has not provided formal approval for the changes to the associated FRA Grant agreement.

The PMOC has continuing concerns regarding the impact to the ESA Harold work due to the Amtrak program to harden ERT Lines 3 and 4 in preparation for extended outages for ERT Lines 1 and 2 to complete Hurricane Sandy damage related reconstruction work, currently scheduled to commence in 2018. Amtrak has not provided any specific details about the ERT Lines 3 and 4 hardening work, but there is concern that significant Amtrak force account resources will be needed to support the hardening work which could further reduce the Amtrak resources available to support the ESA Harold Re-Sequencing Plan. Delays in completing the Harold Re-Sequencing Plan may result in essential ESA work being pushed back into the timeframe for Amtrak's extended outages for ERT Lines 1 and 2.

e. New Cost and Schedule Issues

ESA has begun showing its Forecast costs again, so now those can be compared to the EAC cost-forecast and includes both the possible costs that have not been fully reviewed and estimates that have not been officially included. [redacted]

At MTACC-ESA's meeting with Amtrak's new Chief Engineer in June 2015, the major planned work, scheduled for 2018, for Amtrak's reconstruction of ERT Lines 1 and 2 was discussed. According to MTACC, if Amtrak elects to re-build ERT-1 first, this will not affect the planned ESA work; however, if ERT-2 is first, this will have a major impact on ESA. Amtrak has not yet decided on the schedule because their consultant, Jacobs Engineering, was just awarded the engineering contract, but Amtrak is now aware of the MTA's concern.

The PMOC is concerned that 15 months out of the CS179 68-month contract are already expended and there is still no final "approved" Baseline Schedule. The Baseline Schedule represents an overall contract work plan that all stakeholders must agree upon and use to effectively progress the work. The PMOC recommends that the ESA CM convene another schedule workshop with all parties to discuss and finalize an "approved" CS179 Baseline Schedule.

3 PROJECT STATUS SUMMARY AND PMOC ASSESSMENT

a. Grantee Technical Capacity and Capability

There were no changes in key ESA personnel during 2Q2015.

b. Real Estate Acquisition

Details of the Real Estate acquisition activities are provided in Section 2.6 of this report. The major open issue remains the finalization of a Design Agreement with the property owners of 415 Madison Avenue for the 48th Street Entrance to be constructed under future Contract CM015. Discussions with the owner are continuing.

c. Engineering/Design

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

d. Procurement

MTACC advertised the Contract CM007 Contract package, GCT Stations Caverns and Track, on December 23, 2014. Proposal documents were made available on January 15, 2015. The pre-proposal conference and site visit were held in early March 2015. The technical proposal due date has been extended a third time from July 1, 2015, to August 4, 2015, and the cost proposals are due 3 weeks later on August 25, 2015. Thirteen Addenda have been issued. The PMOC is

concerned that the proposal due date has already been delayed three months and this significantly reduces the time for negotiations on this very large contract that is currently on the program schedule critical path. MTACC will be challenged to award this contract as planned before December 31, 2015.

Contract CH057, Harold Structures Part 3, was advertised on March 26, 2015, and the bid date has been extended a second time from June 18, 2015, to July 9, 2015. The bid date was extended in response to a bidder's request and because additional time has been made available due to the delay of H5, H6, and Location 30 cutovers.

e. Railroad Force Account (Support and Construction)

During 2Q2015, LIRR Force Account Signal personnel completed installation of signal trough and cables into the Harold "H3" CIL (Central Instrument Location), and continued to terminate and test cables and make other preparations necessary to cut the CIL over in November 2015. LIRR signal personnel also continued to install trough and conduit at the "H5", "H6", and Location 30 (Woodside) CILs. Communications personnel completed installation of the communications line between "H6" CIL and Woodside Interlocking. LIRR Electric Traction personnel continued limited installation of conduit and traction power cables at turnouts installed in 2014. Amtrak C&S personnel continued installation of trough, conduit and signal cables between "R" Interlocking and future "Loop" and "T" Interlockings. Although the remaining catenary work in the CH053 contract is extremely limited, nonetheless Amtrak Electric Traction personnel continued to make limited wire transfers between Sub 44 and the East River Tunnel portals and protect ESA contractors with their respective electric traction construction.

f. Third-Party Construction

Manhattan: Toward the end of 2Q2015, the CM005 contractor (Manhattan South Structures) placed concrete for the intermediate slabs and walls of GCT 1&2 West Wye Caverns, and began archway smoothing shotcrete application in GCT 1&2 East Wye, prepared to start raised bore shaft precast ring installation at the 38th St. Vent Facility, placed concrete for the lower level exterior walls in the Air Wye at 37th St., and continued waterproofing and invert concrete placement in Access Tunnel #1 at the south end of the Westbound Cavern. The contractor also continued installation of lower level exterior wall rebar and concrete at the south end of the Eastbound Cavern. The CM005 contract is progressing ahead of schedule.

The CM006 contractor (Manhattan North Structures) continued to place concrete for the intermediate level slab and interior walls on the east side of the cavern at the 50th St. Vent Facility, placement of pneumatically applied concrete (PAC) in the GCT 4 East Wye Cavern, waterproofing and installation of wall rebar in the GCT 5 East Wye Cavern, invert concrete placement in cross passages 6 and 7, and lower level slab rebar installation at 55th St. Air Plenum, placed archway concrete Tunnels 401 and 402, and overbreak repair and smoothing PAC in Tunnel WB3. The contractor also continued to place re-bar, concrete, and construct mezzanine level slab and beams at the north end of the Eastbound Cavern as part of its BOH contract amendment. The CM006 contract is not meeting the recovery schedule milestones.

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 continues to be unresolved and this has become an impediment to sign-off for substantial and final completion.

Queens: During 2Q2015, the CQ032 contractor completed structural steel erection for the Yard Services and Plaza Vent buildings, completed construction of bench walls in Tunnels B/C, D, 63rd St., and the Plaza Tunnel A approach, placed the C07 level concrete slab in the Early Access Chamber (EAC), continued to backfill the Bellmouth with mechanically stabilized earth (MSE), and began to construct bench wall in theYard Lead Tunnel.

Harold Interlocking:

Contract CH053 (Harold Interlocking, Part 1 and G.O.2 Substation): During 2Q2015, the CH053 contractor placed the new C3 12kV feeder circuit into service and completed work to place the C1 and C2 feeders into service. While testing the circuits in early June 2015, however, the contractor discovered that three splice jackets were defective. This caused the contractor to remove the working C3 feeder from service and not place the other two in service. Although this situation was not resolved by the end of June 2015, the contractor has indicated that it intends to make repairs and place all three 12kV circuits in service by mid-August 2015. The contractor also continued to construct subgrade and grade slopes for the Westbound Bypass Track between 48th and 39th Sts., pull and terminate cables in micro-tunnel bores #1 through #4 for G02 Substation, and make punchlist repairs in various construction locations throughout its work areas. The contractor has had several recovery schedules, but continues to progress work well behind its latest recovery schedule.

Contract CH054A (Harold Structures Part 2A): During 2Q2015, the CH054A contractor began and completed slope restoration between Honeywell and Thomson Sts. and construction of subgrade for Loop 1A Track and Access Road AR-1 in the same location. Additionally, the contractor began installation of snow melter units in "F" Interlocking. ESA and the contractor have scheduled Substantial Completion for CH054A in mid-July 2015, although this will be several months later than the original planned Substantial Completion date.

Contract CH057A (Westbound Bypass): During 2Q2015, the CH057A contractor began to drive secant piles on the East Approach of the Westbound Bypass Tunnel structure and completed installation of soldier piles in the West Approach of the structure. During the quarter, the contractor installed a total of 47 secant piles and 25 soldier piles. The contractor also continued to install de-watering wells throughout its job site, began construction of the pump house for the structure, and began installation of concrete foundations for the signal pole line between 48th St. and Woodside Interlocking. At present, the CH057A contractor is progressing its construction approximately two months behind its latest approved Baseline Schedule.

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

The 2Q2015 Quarterly Operational Readiness meeting was held June 18, 2015. Details are provided in Section 2.4 in this report.

i. Project Schedule

Table 1 provides a summary of critical milestone dates including PMOC and Grantee forecasts:

Table 1: Summary of Critical Dates

	FFGA	Forecast (F) Completion, Actual (A) Start	
		Grantee*	PMOC
Begin Construction	September 2001	September 2001(A)	September 2001(A)
Construction Complete	December 2013	December 2022 (F)	September 2023(F)**
Revenue Service	December 2013	December 2022 (F)	September 2023 (F)

* Source – Grantee forecast Revenue Operations Date per information presented to the MTA CPOC in June 2014.
**Source –Based on PMOC 2014 schedule trending analysis representing a medium degree of mitigation.

Table 2 provides a summary of project cost estimates and expenditures vs. the FFGA forecasts:

Table 2: Project Budget/Cost Table (May 2015)

	FFGA			MTA's Current Baseline Budget CBB		Expenditures as of May 2015	
	(Millions)	(% of Grand Total Cost)	Obligated	(Millions)	(% of Grand Total Cost)	(Millions)	(% of CBB)
Grand Total Cost	$7,386	100.00%	$4,724	**11,214.0**	**100.00%**	**6,119.8**	**54.57%**
Financing Cost	$1,036	14.00%	$617	1,036.0	9.24%	**617.6**	**59.61%**
Total Project Cost	$6,350*	86.00%	$4,107	10,178.0	90.76%	**5,502.2**	**54.06%**
Federal Share	$2,683	36.30%	$1,148	2,699.0	24.07%	1,989.1	**73.70%**
5309 New Starts share	$2,632	35.60%	$1,098	2,436.6	21.73%	1,727.0	**70.88%**
Non New Starts grants	$51	0.70%	$50	67.0	0.60%	66.7	**99.55%**
ARRA	0	0.00%	0	195.4	1.74%	195.4	**100.00%**
Local Share	$3,667	49.60%	$2,959	7,479.0	66.69%	3,513.1	**46.97%**

j. Project Risk

The last monthly risk meeting held by ESA was in Jaunary 2015. Since that time, ESA has not succeeded in addressing the risk topics as they had planned during the subsequent monthly cost and schedule review meetings. At the May 20, 2015, monthly cost/schedule review meeting, the PMOC requested that the monthly stand-alone risk meetings be resumed. ESA is planning to resume the dedicated monthly risk meetings in July 2015. Details are provided in 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 requested MTACC to update its TCC Plan in response to the FTA/PMOC comments that were generated in November 2013 as a result of significant changes in key ESA upper management level positions. MTACC submitted its revised Technical Capacity and Capability Plan (ESA and SAS) on April 13, 2015. The PMOC returned comments to the FTA on May 7, 2015. MTACC submitted a revised TCC Plan in response to FTA/PMOC comments on June 12, 2015. The revised plan is currently under review by the PMOC.
- **Continuing ELPEP Compliance:** The following ELPEP components continue to need improvement or are deficient: Management Decision; Design Development; Change Control Committee (CCC) Process and Results; Stakeholder Management; Issues Management; Procurement; Timely Decision Making; and Risk-Informed Decision Making.
- **Project Management Plan:** MTACC submitted PMP Rev. 10 to the FTA and PMOC on July 18, 2014. This revision incorporates changes stemming from FTA/PMOC comments on PMP Rev. 9.0 provided in December 2013, as well as changes that resulted from the MTACC's Candidate Revision process. Based on working meetings, dialogue, and additional clarifying review comments from the PMOC, the MTACC made additional changes to the PMP and submitted an updated Rev. 10 on September 18, 2014. The PMOC completed its review and evaluation of MTACC's revisions and responses and submitted its findings to FTA-RII in 4Q2014. MTACC subsequently submitted a revised Rev. 10 on March 13, 2015, that included updated information on the Change Control Committee. The PMOC is currently coordinating with MTACC to arrange a series of working meetings with ESA chapter authors and the corresponding PMOC reviewers to resolve the outstanding FTA/PMOC evaluation comments.

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 Schedule Management Plan (SMP) and Cost Management Plan (CMP) sub-plans to the PMP. The PMOC's opinion is that this continues to be a serious deficiency and needs to be resolved as soon as possible. [Ref: ESA-114-Sep13] The PMOC's major areas of concern include:

- **Schedule Management Plan (SMP)**: The ESA project remains non-compliant with requirements for Integrated Project Schedule (IPS) Updating, Forecasting, and Schedule Contingency Management against a current baseline schedule. Given that the new budget and schedule have been put in place, the PMOC expected that MTACC would start to meet the requirements set forth in its SMP in the above-referenced areas. MTACC plans to review and update the SMP after the TCC and CMP updates are completed.
- **Cost Management Plan (CMP)**: The ESA project remains non-compliant with requirements for Project Level EAC Forecasting, Project Level EAC Forecast Validation, and MTACC Cost Contingency Management and Secondary Mitigation. Given that the new budget and schedule were presented to the MTA CPOC in June 2014, these requirements should have been met by now but MTACC has made very little progress in this area. MTACC submitted its revised Cost Management Plan (ESA and SAS) on April 13, 2015. The PMOC returned comments to the FTA on May 8, 2015. MTACC submitted a revised CMP in response to FTA/PMOC comments on June 30, 2015. The revised plan is currently under review by the PMOC.

Revisions to the ELPEP Document: As part of the process of updating the ELPEP document, the PMOC has performed an independent evaluation of the minimum required cost and schedule contingencies going forward. The PMOC's recommendations were presented at several meetings with MTACC, the last on May 21, 2015. Additional discussion is required to reach agreement on the cost contingency minimums.

The ELPEP 2Q2015 Quarterly Review Meeting was held on June 20, 2015. Summarizing the significant discussion:

- MTACC has resolved all FTA/PMOC comments and issued the final revised SAS PMP. MTACC is not planning any further updates to the SAS PMP.
- Comments on the ESA/SAS Cost Management Plan (CMP) were received on June 2, 2015. There is one issue remaining and MTACC expected to issue the revised document during the week of June 15, 2015. [PMOC notes that the revised CMP was submitted on June 30, 2015]
- MTACC completed a programmatic risk review for SAS in May 2015.
- The PMOC noted a continuing issue with ESA scheduling documents that do not support complete and accurate comparisons between the monthly Integrated Project Schedule updates and the schedule baseline of July 2014.

- MTACC noted that a revised proposed minimum cost contingency curve for ESA was submitted on June 11, 2015. Cost contingency would be the topic of a separate discussion.

The next ELPEP 3Q2015 Quarterly Review Meeting with MTACC, FTA-RII, SAS and ESA projects and the PMOC will be held on either Wednesday, September 16, 2015, or Thursday, September 17, 2015, based on attendees availability.

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

There are currently no issues to report regarding MTACC staffing.

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 and 2014, ESA undertook 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 (e.g., CS179; CM014B). This is the third re-planning effort undertaken by ESA since the FFGA in 2006 (the second re-planning effort took place in 2009). The current re-planned budget ($10.177B) and schedule (RSD in December 2022) were presented to the MTA CPOC in June 2014 and approved.

b) PMP

MTACC submitted PMP Rev. 10 to the FTA and PMOC on July 18, 2014. This revision incorporates changes stemming from FTA/PMOC comments on PMP Rev. 9.0 provided in December 2013 as well as changes that resulted from the MTACC's Candidate Revision process. Based on working meetings, dialogue and additional clarifying review comments from the PMOC, MTACC made additional changes to the PMP and submitted an updated Rev. 10 on September 18, 2014. The PMOC reviewed Rev. 10 and provided its comments to the FTA in 4Q2014. A subsequent update to the Rev. 10 document was submitted on March 13, 2105, reflecting only revisions to the ESA Change Control Committee. The PMOC is currently coordinating with MTACC to arrange a series of working meetings with ESA chapter authors and the corresponding PMOC reviewers to resolve the outstanding FTA/PMOC evaluation comments.

1.3 Project Controls

a) Schedule

MTACC presented its new baseline schedule to the MTA CPOC in June 2014 with an RSD of December 2022. This date includes 22 months of Program level contingency. The PMT developed a draft schedule contingency drawdown plan as required by the ELPEP agreement and submitted it in December 2014. The ESA schedule contingency drawdown plan and the

FTA/PMOC minimum required schedule contingency levels were discussed at a meeting with MTACC on March 24, 2015, and follow-up meetings will continue going forward.

b) Cost

MTACC presented its new baseline budget of $10.177B (excluding Rolling Stock Reserve) to the MTA CPOC in June 2014. The PMT developed a draft cost contingency drawdown plan as required by the ELPEP agreement and submitted it in December 2014, The ESA cost contingency drawdown plan and the FTA/PMOC minimum required cost contingency levels were discussed at several meetings since March 2015 with the latest being on May 21, 2015. Additional discussion is required to reach agreement on the cost contingency minimums.

1.4 Federal Requirements

a) FFGA

As a result of MTACC's re-baselining of the ESA Project budget and schedule on three separate occasions (2009, 2012, and 2014) since the FFGA was signed in 2006, an FFGA amendment is in process. As mentioned above, MTACC presented a new project budget of $10.177B [redacted] and a new schedule with an RSD of December 2022 to the MTA CPOC in June 2014.

b) Federal Regulations

The MTACC received the FRA "Buy America" waiver for turnouts in early June 2015. While this FRA waiver will apply to 9 of the turnouts to be installed in the future, there are 53 additional turnouts for which the LIRR and Amtrak must update their respective specifications. The railroads continue to do so and the MTACC has scheduled the procurement for the 53 remaining turnouts for the 4Q2015. As a result, the impact of the FRA "Buy America" waiver, although important, will be minimal.

1.5 Safety and Security

a) Safety Certification Process

During 2Q2015, no design or construction packages were certified by LIRR. However, because Amtrak is currently focusing on safety issues related to the recent fatal accident on the Northeast Corridor, the safety certifications for FHA01, FHA02, FHA03 and FHA04 are being delayed. Metro North railroad force account packages FMM14 & FMM216 are also awaiting sign-off by the ESA safety certification committee.

For construction safety certification, ESA internal review of certification packages continued for Contracts CM004, CM013, CM014A, CH053, CM005 and CM006 with forecast completion dates for CM004, CM013 and CM014A in 4Q2015. Additionally packages for Contracts CH059 and CH053 are awaiting certifcations sign-off by the committee.

The Operational Readiness Group continue to develop a document control process to facilitate traceability of all related documents. Currently the Grantee is developing a master spreadsheet to track the safety certification process for all packages.

The PMOC remains concerned that the Safety and Security Committee has not met on a regular basis in accordance with the ESA Safety and Security Management Plan (SSMP). This lack of regular meetings will hamper the effectiveness of the Committee in coordinating activities related to the Safety Certification. A calendar showing general meeting dates (by quarter) was

presented at the December 18, 2014, Operational Readiness Quarterly Meeting; however, this item will remain open until more definitive meeting dates are put on a calendar. For June 2015, a committee meeting was scheduled but it was canceled for unspecified reasons. [Ref: ESA-96-Sep12]

b) Project Construction Safety Performance

Project safety statistics for lost time accidents and OSHA recordable injuries on active construction contracts are trending below the Bureau of Labor Statistics (BLS) national average with the project wide lost time rate at 1.35* vs. 1.80 lost time accidents (LTA) per 200,000 hours(national average).

The project wide OSHA recordable injury rate* is 3.10 compared to the national average of 3.20. In light of recent accidents and continued concern about safety, MTACC had required that the CM005 contractor utilize a third party safety consultant (Pro Safety) to help the contractor achieve project safety goals. After disagreement with Pro Safety's approach and performance, MTACC ended this requirement. Simultaneously, MTACC required the CM005 contractor to propose solutions to their poor safety performance. The CM005 Contractor proposed "27 principles" that they would incorporate into their safety program. MTACC's quality team audited the CM005 contractor to assess how well they are incorporating the 27 principles. The quality team found the implementation of these principles to be satisfactory at the time of the audit. The MTACC Vice President of safety and the ESA project safety manager report incremental improvements on the part of the CM005 contractor.

* The Grantee uses a 12 month rolling average for their OSHA statistics.

c) Security

The PMT did not report any significant security issues in its May 2015 Monthly Progress Report.

1.6 Project Quality

GEC Quality: The ESA Quality Manager performed an audit of ESA GEC Quality on June 24, 2015. The GEC Quality Manager did not have an audit schedule. He will issue one and then perform three audits during the remainder of 2015, one for each of the three construction phase procedures. The ESA GEC Quality Manager will be leaving the GEC when the right opportunity arises. The ESA Quality Manager will talk with the GEC Program Manager to discuss how he plans to staff the GEC Quality function. At present, the funding level is 0.25 of one person. The ESA Quality Manager believes that this is too low. The PMOC agrees with this assessment.

CS179 (Systems Package 1 – Base Contract): This contract was awarded fifteen months ago and the contractor has finally begun to transmit submittals. Several contractor Quality Managers have either left or been rejected by ESA and MTACC Quality Management. The contractor has several other ESA contracts and its ESA Quality Manager has been approved as the Quality manager for this contract for a period of 90 days.

Under the contractor's ESA Quality Manager, outstanding issues are beginning to get resolved. The PMOC recommends that the ESA Quality Manager continue to monitor progress and consider approving the contractor's ESA Quality Manager as the permanent Quality Manager if improvement continues. [Ref: ESA-118-Sep 14]

CM014B: The contractor is behind schedule with its submittals. Construction Work Plans (CWPs) need several revisions before they can be accepted. The ESA Quality Manager has offered to conduct workshops to help them if necessary.

Asset Management Audits: ESA Quality initiated Asset Management audits in June 2015. These audits are bi-annual walkthroughs to perform a visual site inspection of finished contracts wherein there are structures or appurtenances that have been completed but have not yet been turned over to the end user (LIRR). The first two audits for Contracts CQ031 and CQ039 went well with only minor observations noted.

As-Built Process Audits:

The ESA Quality Manager reviewed the As-Built Drawing Process on Contracts CH057A and CM006 earlier in 2015. CH057A was acceptable but CM006 is behind schedule. A follow-up review of CM006 has been conducted. Contracts CH053, CH054A, CQ032, CM004, CM014A, CM005, CM013 and CM013A were originally audited in 2014. Current status of each contract is being discussed at the Monthly Progress Meeting. The ESA Quality Manager will perform audits on a selective basis. This item is closed.[Ref: ESA-117-Sep 14]

Procedure Compliance Audits:

During 3Q2014, MTACC Quality conducted Procedure Compliance Audits on Contracts CM005, CM013, CM013A, CH057A and CQ032. The major finding in most of the audits was that the field engineers need to be trained in completing the daily construction reports. The auditors also recommended that columns providing additional information pertaining to RFIs need to be added to the RFI logs. Since there were similar findings and recommendations for other contracts, the ESA Heavy Civil Project Executive prepared a response to the auditors. MTACC Quality agreed with most of the response. The MTACC Chief of Quality and System Certification met with the ESA Heavy Civil Project Executive and resolved the outstanding issues. This item is closed.

Quality Training:

Quality training for CS179 and CS084 was conducted on both contracts by the ESA Quality Manager in June 2015.

1.7 Stakeholder Management

a) Railroads

During 2Q2015, the MTACC PMT continued to meet with internal MTA, MTA-IEC, and LIRR stakeholders and an external stakeholder, the Federal Railroad Adminstration (FRA), to develop its “ESA First” approach for future Harold Interlocking construction. Additionally, in June 2015, senior executives from the MTACC PMT met with Amtrak’s new Chief Engineer to introduce the “ESA First” concept to him and discuss Amtrak’s future Superstorm Sandy relief work in the East River Tunnels. The sequence of this work could have a profound impact on the “ESA First” schedule and both parties must continue to work together in order to develop a Sandy relief schedule that will have the least negative impact on ESA. At present, Amtrak’s work is not scheduled to begin until 2018, so there should be sufficient time to develop such a schedule.

b) Others

Although there are other stakeholder issues that ESA must address, at present there is no evidence that any might have a significant negative impact on the project schedule.

1.8 Local Funding

a) MTA/New York State (Capital Plan)

The funding request for ESA under the 2015 – 2019 Capital Program was submitted to the NYS Capital Program Review Board (CPRB) in September 2014. As it now stands, ESA does not currently have all of the funding in place needed to complete the project and this situation has impacted the procurement of several major contracts. The PMOC does note that MTACC is fully aware of this situation and the critical role that funding serves in the successful completion of the project. MTACC works closely with the MTA finance group and keeps the FTA up to date on developments and issues. The near term issue concerns availability of sufficient funding to award the very large [redacted] Contract CM007 by December 31, 2015, to maintain progress on the program schedule critical path.

b) Other Sources

The total FTA funding commitment as of June 2015 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 RMP, Rev. 2 dated July 2012, is a sub-plan within the ESA Project Management Plan (PMP). The RMP, Rev 2 was updated and 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. MTACC plans to update the RMP, if needed, after its current update of both the Cost Management Plan and the Schedule Management Plan.

b) Monitoring

The last monthly risk meeting held by ESA was in January 2015. Since that time, ESA has not succeeded in addressing the risk topics as they had planned during the subsequent monthly cost and schedule review meetings. In response to the PMOC's request, ESA will resume the dedicated monthly risk meetings.

c) Mitigation

Current mitigations are discussed in Section 6.3 below.

2.0 PROJECT SCOPE

At a technical meeting with the owners of 415 Madison Ave earlier this year, the owners decided that they will only relocate the existing utilities (including water service, sewer, steam, mechanical duct work, electrical lines and the telephone service) within their building. ESA will design the required structural reinforcing. MTACC has completed the design agreement (MOU) with the owner, which will enable the design to begin. Owner's comments have been received, but the agreement is not yet signed and meetings continue with the building owner. Once the

MOU is signed, the scope of work to repackage CM015 and CM015A will be completed and the Proposed Change Order, currently being prepared, will be finalized.

The anticipated advertise date for the CH057 package was previously forecast for July 2014 with NTP forecast for September 2014, however the forecast advertise date was not met. Signed and Sealed bid documents were issued by the GEC on February 27, 2015. The package is now structured to include 15 options. The contract was advertised on March 26, 2015, and the bid opening date has been extended a second time from June 18, 2015, to July 9, 2015.

Resolution is needed on the west end of the mid-day storage yard (CQ033) regarding what work is to be performed by Amtrak (track and signals) to tie into the ERT (East River Tunnels) and what work will be performed by the CQ033 contractor. The 100% design submittal for CQ033 was forecast for delivery in mid-June 2015, but the GEC was not able to make this submittal due to a large number of ESA comments which it was not able to properly address. Additionally, ESA continues to await 90% design comments from LIRR. The GEC submitted the 100% for the VQ033 Contract, Mid-day Storage Yard CILs Procurement, on June 9, 2015. Construction sequencing meetings are being held to coordinate the CQ033 work with the contiguous third party and force account work. The PMT will select the advertise date for CQ033, currently forecast for October 2015.

As detailed above, ESA continues to experience slippage in design completion and advertise dates across a number of packages.

2.1 Engineering/Design and Construction Phase Services

As of the end of May 2015, MTACC reported that the overall Engineering effort was 98.7% complete, based on Earned Value for Design Deliverables-a slight drop from the previous month, compared with a Planned status of 100%. Their Cost Report shows 90.6% of the overall EIS & Engineering category as invoiced and 90.7% of the budgeted section titled “Design” (including Design Settlement) as having been invoiced.

Status:

Design work on the new, stand-alone package CH061A (completion of Queens Tunnels”A” and “D”) continued. The 60% review submission has been completed and has been submitted to LIRR for review. The 90% review submission is scheduled for completion on July 8, 2015.

CH058 is being repackaged and the bid advertisement date has not yet been determined. The East Bound Re-route tunnel construction method has been revised from a top down to a traditional cut and cover method and ESA has split the scope of work into two separate contracts: CH058A will contain Tunnel B/C approach structure; CH058B will contain the East Bound Re-route. The design work for this package is currently on hold and a Proposed Change Order is being developed by the GEC.

The remaining work on the Track A Approach Structure will be deleted from the CH053 contract to eliminate the current 12kV ductbank issues. This work will be completed under the stand-alone Contract CH061A, Tunnel A Construction.

Observation:

The GEC and PMT continue to consistently miss many 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 continuing shifting of scope among various packages has made finalizing design documents and drawings extremely difficult. The PMOC had previously recommended that the PMT develop a design milestone tracking sheet for the remaining design work on the project, similar to what was done for the Harold catenary design work in 2012, in order to more effectively manage the design effort. The PMT however has not implemented this tracking sheet. [Ref: ESA-103-Dec12]

2.2 Procurement

As of end of May 2015, the Cost Report showed total procurement activity on the project as 69.4% complete, with $7.064B in contracts awarded out of the $10.117B current reported budget.

Status:

The PMT decided on a stand-alone package, CS086, for the signal installation work. The GEC design has been completed but now needs to be revised to incorporate the requirments for Positive Train Control (PTC). The Proposed Change Order is currently being developed by the GEC.

For Contract CM007, GCT Station Caverns and Track, the technical proposal due date has been extended a third time from July 1, 2015, to August 4, 2015, and cost proposals are due three weeks later on August 25, 2015.

Contract CH057, Harold Structures Part 3, was advertised on March 26, 2015, and the bid date has been extended a second time from June 18, 2015, to July 9, 2015.

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 2Q2015, making it difficult to fully understand the impact of these changes to the overall ESA Project. An updated draft Contract Packaging Plan (revision 10.0) was submitted on March 28, 2014, and the next revision still has not been issued as of June 30, 2015. It is noted, however, that in June 2015, the PMT did provide the PMOC with a summary that details the status of all current scope changes. ESA should make an effort to adhere to the current version of the CPP and minimize shifting scope for the remainder of the project.

The PMOC is concerned that the Contract CM007 proposal due date has already been delayed three months and this significantly reduces the time for negotiations on this very large contract that is currently on the program schedule critical path. MTACC will be challenged to award this contract as planned in December 31, 2015.

2.3 Construction

The PMT reported in its May 2015 Monthly Progress Report that the total construction progress reached 56.4% complete vs. 57.0% planned: the PMOC calculations based on data in the ESA Cost Report show each category approximately 0.7% higher. Details for active construction contracts are provided below:

Manhattan Contracts

CM005 – Manhattan South Structures

Status: As of May 31, 2015, the MTACC increased its forecast for Estimate at Completion for CM005 to $241,081,008. The forecast date for Substantial Completion remained at February 6, 2016. Actual construction progress was 3.6% versus 2.2% planned. Cumulative progress was 79.4% actual versus 78.5% 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)	$236.9M	+$36.3M +18.1%	$241.1M	+$40.5M +20.2%	+$4.2M +1.8%
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**
78.5%	79.4%	49.4%	4.1%	16.2%	2.7%	3.4%	2.6%/mo.

From May 2015 ESA Monthly Report

Construction Progress: During June 2015, the contractor started duct bench rebar and preparation activity to start Arch PAC next month in the GCT 1&2 East Wye Cavern, continued intermediate wall and slab concrete in the GCT 1&2 West Wye Cavern, upper level slab concrete and preparation activity to start raise bore shaft pre-cast ring installation next month at the 38th St. Vent Facility, continued to install mud slab, waterproofing and invert concrete in Access Tunnel #1, and continued to install lower level exterior wall re-bar and place concrete in the Eastbound Cavern.

Observations/Analysis: The contractor remains ahead of its construction schedule at each of its work locations and its actual progress continues to exceed planned progress each month. The PMOC has observed that ESA management and the contractor work well together to make this possible.

Concerns and Recommendations: The PMOC has no concerns about the CM005 contract at this time and recommends that ESA and the contractor continue to administer the contract in the same fashion until it is completed.

CM006 – Manhattan North Structures

Status: As of May 31, 2015, the Estimate at Completion for CM006 increased to $321,548,150 due to pending and potential contract modifications. The MTACC forecast for Substantial Completion was extended by one month to December 30, 2016. Actual construction progress was 3.3% versus 6.9% planned. Cumulative progress was 26.9% actual versus 49.9% 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	$294.2M	$316.5M	+$22.3M +7.6%	$321.5M	+$25.0M +8.5%	+$2.7M +0.9%
Scheduled SC Date	11/30/16	11/30/16		12/30/16		
Duration (NTP - SC)	32 mos.	32 mos.	0 mos. 0.0%	33mos.	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**
49.9%	26.9%	N/A	N/A	15.5%	2.6%	3.1%/mo.	3.8%/mo.

From May 2015 ESA Monthly Report

*November 2014 was the first month for which MTACC generated a progress curve for CM006. As a result, there is no historical data to populate these columns yet.

Construction Progress: During June 2015, the contractor continued to pneumatically apply concrete (PAC) in the GCT 4 East Wye Cavern, place intermediate level interior walls and the intermediate level slab on the east side of the plenum of the 50th St. Vent Facility, waterproof and install wall re-bar in the GCT 5 East Wye Cavern, install shoring and rebar for east side exterior walls at 55th St. Air Plenum, place archway concrete in Tunnels 401 and 402, completed invert concrete in Crosspassages 6 and 7, continued overbreak repair and smoothing PAC in Tunnel WB3, and placed concrete on the north face and constructed mezzanine level slab and beams at the north end of the Eastbound Cavern and started waterproof and mezzanine level rebar in the Westbound Cavern.

Observations/Analysis: As reported before, ESA changed its Construction Manager for the CM006 contract in March 2015 and the PMOC has observed that ESA management and the contractor are working well together to overcome historical problems. Currently, the contractor is not meeting the recovery schedule milestones. The PMOC notes that the average progress percentage that the contractor will have to maintain to finish the contract by the projected Substantial Completion remains at an increased level of 3.8%. This remains a significant

challenge. The PMOC is aware that the PMT has been working with the contractor to develop solutiuons to increase productivity and recover some of the schedule delay.

Concerns and Recommendations: The PMOC is concerned that the CM006 contractor must increase its construction pace in order to complete its contract by the present Substantial Completion date. The contractor can increase the number of locations where it is working, e.g. multiple tunnels can be worked simultaneously in order to accomplish this. The PMOC recommends that ESA continue to work with the contractor to correct the situation.

CM013A – 55th Street Vent Facility

Status: MTACC reports that through May 31, 2015, the EAC has decreased slightly to $57.21M from the previous $57.24M. Forecast Substantial Completion has changed slightly to August 3, 2015, from the previous July 29, 2015. MTACC reports that the actual percent complete is 87.4% vs.96.6% planned. MTACC continues to report that the forecast substantial completion date will be extended to October 2015 due to revisions in the hoisting system.

	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	$56.04M	$57.06 M	+$1.02M +1.82%	$57.21M	+$1.17 M 2.08 %	+$0.15 0.26 %
Scheduled SC Date	04/05/15	08/03/15		10/05/15		
Duration (NTP - SC)	31 mos.	35 mos.	+4.0 mos.	37 mos.	+6.0 mos.	+2.0 mos.

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo.**	**Total**	**Avg./mo.**	**Contract SC**	**Forecast SC**
96.6 %	87.4 %	42.5%	3.54 %	13.2 %	2.20 %	4.2 %	2.52 %

From May 2015 ESA Monthly Report

Construction Progress:

Plenum: Concrete placement of the Plenum Roof nears completion. Waterproofing of the Central Plenum Roof is complete. Installation of combination sewer manholes and connection sewer pipe is near completion at street level above the Plenum Roof. The contractor began mass backfill over the Central Plenum Roof, completed approximately 40' of encased steam main at the west Plenum, and completed the south side ventilator at the street level.

Cavern: Began installation of door frames and began painting of the staircase up to Elevation 320.

Shaft: The lining of the shaft is into the Central Plenum area. Began application of acoustical insulation to the walls and floor.

Observations/Analysis: The work of this contract continues to progress towards substantial completion.

Concerns and Recommendations: None at this time. This contract is not currently impacting any ongoing or future contracts.

CM014A – GCT Concourse & Facilities Fit-Out

Status: MTACC reports that through May 31, 2015, the EAC has decreased to $58.90 million from the previous $59.04 million. The decreased EAC is due to both pending and forecast contract modifications. MTACC reports that the new EAC is within the current revised budget. Forecast Substantial Completion remains September 7, 2015. The Project Office has reported to the PMOC that ConEd has agreed to work with them on inspection and energization of the system during their summer moratorium. Through May 2015, the actual percent complete reported was 92.2% versus 92.7% planned. This actual vs. planned percentage is different from what was reported by MTACC in their April 2015 report in which it states that the planned percent complete was 100% and the actual percent complete was 99.8%.

	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)	$57.12M	+$13.62M +31.31 %	$58.90M	+$15.40M +33.10 %	+% 1.78M +1.37%
Scheduled SC Date	04/25/13	09/07/15		09/07/15		
Duration (NTP - SC)	18 mos.	46 mos.	+26 mos. + 155.56 %	+46 mos	+26 mos. +155.56 %	+0 mo. +0.00%

% Complete		Actual - 12 mos.		Actual - 6 mos.		Avg. Req'd. Progress	
Plan	**Actual**	**Total**	**Avg./mo.**	**Total**	**Avg./mo.**	**Contract SC**	**Forecast SC**
92.7 %	92.2 %	27.8%	2.3%	9.6%	1.6%	1.9 %	1.9%/mo

From May 2015 MTA Monthly Report

Construction Progress: During June 2015, installation of fire stopping continued with regular quality inspections. Completed painting to CMU walls throughout and miscellaneous touchup. Ductwork and piping installation is being completed in all Zones. Sprinkler/Standpipe installation nears completion in Zones #4 & #5. 600V cable installation/terminations nears completion in Zones #4 & #5. Switchgear installation continues and nears completion. System grounding continues throughout. Installation of the FM200 fire suppression system and testing continues. Branch feeder and conduit installation is ongoing throughout. SCADA installation continues in Zones #1, #2 and #3. Installation of the Trapped Key Interlocking Hardware (Kirk Key) is ongoing throughout. Installation of the Batteries and Battery Room exhaust continues in Zone #2. Heat Trace installation is complete. Began demobilization.

Observations/Analysis: The PMOC notes that the continued extensions to this contract, in part due to scope changes and the contractor's overall slow progress in presecuting the work is now impacting the CM014B contract.

CM014B had an access restriction into the CM014A work area until July 2, 2015. A Contract Mod was approved and initated to pay the contractor for acceleration to complete all contract work (except energization) by July 2, 2015. This would have allowed CM014B full access to begin work for the new access to the Concourse from the GCT Biltmore Room and the GCT

Dinning Concourse without interface or conflict with CM014A workers. However, as of the date of this report, the CM014A contractor will not meet this accelerated end date. No new completion date has been forecast.

Concerns and Recommendation: The contractor must complete the current contract work as soon as possible. The PMOC will continue to monitor the impact of delays on the CM014B contract.

CM014B – GCT Concourse & Facilities Fit-Out

Status: MTACC reports that through May 31, 2015, the EAC was increased $433.32 million from the previous $404.62 million which is the original contract award price. This increase reflects contract owner options and prospective contract modifications that were scoped and established during pre-award negotiations. The forecasted Substantial Completion date remains August 18, 2018.

	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	$404.62M (Award)	$404.62M	+$0.0M	$433.32 M	+$28.7 M +7.09 %	+$ 28.7 M +7.09%
Scheduled SC Date	08/18/18	08/18/18		08/18/18		
Duration (NTP - SC)	42 mos.	42 mos.	+0 mos.	42 mos	+0 mos.	+0 mo.

% Complete		**Actual - 12 mos.***		**Actual - 6 mos.***		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo.**	**Total**	**Avg./mo.**	**Contract SC**	**Forecast SC**
0.9 %	1.2%	NA	NA	NA	NA	2.38%	2.38%

From May 2015 MTA Monthly Report

* ESA has not produced a progress curve for CM014B yet. Therefore, data for these cells is not be available.

Construction Progress: Work Trains are loaded/unloaded at the B/N Yard.
Preliminary Schedule – The preliminary schedule was submitted June 8, 2015. The schedule extends through 2015 and is the current tool being used to manage this phase of the project.

Concourse (Madison Yard) - Surveying of the concourse has begun and will be ongoing throughout the contract. Continuing to complete setup of temporary facilities. Began excavation for ductbanks and piping in Zone #1. Continued with installation of temporary power drops. Began rock excavation at the pit for the Biltmore Room access.

48th St. Entrance – Began installation of test pits. Completed setup of MPT at 48th St.

Observations/Analysis:
None at this time

Concerns and Recommendation: None at this time.

Queens Third-Party Contracts

CQ032 Contract – Plaza Substation and Queens Structures

Status: As of May 31, 2015, the Estimate at Completion for CQ032 decreased to $246,668,526 due to pending and potential contract modifications. The MTACC forecast for Substantial Completion was extended by one day to March 18, 2016. Actual construction progress for May 2015 was 2.2% versus 2.3% planned. Cumulative progress through May 31, 2015, was 80.8% actual versus 86.2% 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	$147.4M (Award)	$226.4M	$79.0M +53.6%	$246.7M	+$99.3M +67.4%	+$20.3M +9.0%
Scheduled SC Date	08/14/14	3/10/16		3/18/16		
Duration (NTP - SC)	36 mos.	55 mos.	+19 mos.	55 mos.	+19 mos. +52.8%	+0 mos. +0.0%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo.**	**Total**	**Avg./ mo.**	**Contract SC**	**Forecast SC**
86.2%	80.8%	21.4%	1.8%/mo.	10.1%	1.7%	2.8%/mo.	1.9%/mo.

From May 2015 ESA Monthly Report

Construction Progress: During June 2015, the CQ032 contractor completed steel erection and continued to install metal deck at all levels of the Yard Services Building, continued concrete placement for the upper level columns, roof beams, and parapet of the Plaza Air Intake/Exhaust Building, constructed walls and slabs in the Early Access Chamber, completed duct bank construction in the 63rd St. Tunnel, and continued mechanically stabilized earth backfill in the Bellmouth.

Observations/Analysis: Although the contractor has increased its construction pace over the past several months, it will need to continue this progress percentage to finish the contract by its projected Substantial Completion date of March 18, 2016.

Concerns and Recommendations: The PMOC has no specific concerns about the CQ032 contract at this time. The PMOC does recommend, however, that the contractor consider ways to increase its production wherever and whenever possible.

Harold Interlocking Contracts

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

Status: As of May 31, 2015, the Estimate at Completion for CH053 increased to $294,562,004 due to pending and potential contract modifications. The MTACC forecast for Substantial Completion increased by 11 days to August 14, 2015. Actual construction progress for May 2015 was 04.% versus 0.0% planned (contract was supposed to be complete). Cumulative progress through May 31, 2015, was 95.5% actual 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	$137.30M (Award)	$296.7M	+$159.4M +116.1%	$294.6M	+$157.3M +114.6%	-$2.1M -0.7%
Scheduled SC Date	05/05/10	2/18/15		8/14/15		
Duration (NTP - SC)	28 mos.	85 mos.	57 mos. +203.6%	91 mos.	+63 mos. +225.0%	+6 mos. +7.1%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo.**	**Total**	**Avg./mo.**	**Contract SC**	**Forecast SC**
100.0%	95.5%	6.1%	0.5%	3.0%	0.5%	N/A	2.3%/mo.

From May 2015 ESA Monthly Report

Construction Progress: During 2Q2015, the CH053 contractor continued to splice the C1 and C2 12 kV feeder circuits and placed the C3 circuit between Sub 44 and the Sunnyside Yard Frequnecy Converter in service for a short time. In early June 2015, while testing the C1 and C2 circuits prior to placing them in service, the contractor discovered three defective cable splice jackets in the circuits – one in each circuit. As a result, the contractor removed the C3 circuit from service, did not commission the C1 and C2 circuits, and began an investigation into the root cause of the problems. Once the cause is determined, the contractor will make the necessary repairs and resume testing of all three circuits. The contractor estimates that it will be mid-August 2015 before all three circuits will be placed in service. Additionally, the contractor also continued to create and ballast subgrade and grade slopes for the Westbound Bypass between 48th and 39th Sts., pull and splice cables in micro-tunnel runs #1 and through #4 at the new G02 Substation, install miscellaneous catenary structures throughout Harold Interlocking, and make punchlist repairs at work sites that were previously completed.

Observations/Analysis: Although the contractor was on the verge of fully commissioning all three 12kV circuits during 2Q2015, it did so while still being negatively affected by the lack of

sufficient Force Account substation resources. The cable splice issue setback further compounded the Contractor's 12kV problems, and this setback is expected to delay 12kV completion by at least another month. This will, in turn, delay demolition of the old duct bank, which itself has delayed completion of other work critical to the contractor's completion of its contract. As a result, the PMOC estimates that the MTACC's forecast completion date of August 14, 2015, will be extended by at least two months.

Concerns and Recommendations: For the PMOC's recommendation for the CH053 contract, please refer to its recommendation for the CH057A contract, below:

CH054A Contract – Harold Structures Part 2A

Status: As of May 31, 2015, the Estimate at Completion for CH054A was reduced slightly to $56,675,016. The MTACC forecast for Substantial Completion remained at September 8, 2015. Actual construction progress for May 2015 was 1.3% versus 0.0% planned (contract was supposed to be complete). Cumulative progress through May 31, 2015 was 97.0% 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	$21.8M (Award)	$51.6M	+$34.3M +157.3%	$56.7M	+$34.9M +160.1%	+$0.6M +1.1%
Scheduled SC Date	12/21/10	11/26/14		9/8/15		
Duration (NTP - SC)	16 mos.	64 mos.	48 mos.	73 mos.	+57 mos. +356.3%	+9 mos. 14.1%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo.**	**Total**	**Avg./mo.**	**Contract SC**	**Forecast SC**
100.0%	97.0%	16.9%	1.4%	5.8%	1.0%	N/A – Past Due	0.8%/mo.

From May 2015 ESA Monthly Report

Construction Progress:

During 2Q2015, the CH054A contractor began and completed slope restoration, including hydro-seeding, between Honeywell and Thomson Sts. and construction of subgrade for Loop 1A Track and Access Road AR-1 in the same location. Additionally, the contractor began installation of snow melter units in "F" interlocking.

Observations/Analysis:

The contractor completed its last two major tasks in its contract, construction of Loop 1A subgrade and Access Road AR-1 in early June 2015 and worked on punchlist items for the

reminder of the month. At the June 2015 Progress Meeting, the MTACC Construction Manager informed the PMOC that he plans to declare Substantial Completion for CH054A in mid-July 2015.

Concerns and Recommendations:

Since Substantial Completion (SC) for CH054A appears to be imminent, the PMOC recommends that the contractor and the MTACC work together to ensure that all the necessary documentation to declare SC is in place.

Contract CH057A – Part 3 Westbound Bypass

Status: As of May 31, 2015, the Estimate at Completion for CH057A was increased to $120,679,088 due to a $4.5M transfer to fund the Woodside Supplemental Pole Line contract modification. The MTACC forecast for Substantial Completion was extended by 3 weeks to November 17, 2016. Actual construction progress for May 2015 was 2.3% versus 5.7% planned. Cumulative progress through May 31, 2015 was 22.1% actual versus 61.1% 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	$103.3M	$109.2M	+$5.9M	$120.7M	+$17.4M +16.8%	+$11.5M +10.5%
Scheduled SC Date	1/31/16	1/31/16		11/17/16		
Duration (NTP - SC)	26 mos.	26 mos.	0	36 mos.	+10 mos. +38.5%	+10 mos. +38.5%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo.**	**Total**	**Avg./mo.**	**Contract SC**	**Forecast SC**
61.1%	22.1%	22.1%	1.8%	9.1%	1.5%	3.8%/mo.	4.3%/mo.

From May 2015 ESA Monthly Report

Construction Progress: During 2Q2015, the CH057A contractor installed 25 soldier piles in the West Approach of the Westbound Bypass Structure, thus completing installation of all 167 piles on that the end of the structure. The contractor also began installation of secant piles in the East Approach of the structure and completed installation of 47 (of 79 total) in that location. The contractor also continued to install de-watering wells throughout its job site, began construction of the pump house for the structure, and began installation of concrete foundations for the signal pole line between 48th St. and Woodside Interlocking.

Observations/Analysis: The majority of the remaining 32 secant piles in the East Approach require Line 4 Track outages. Through June 30, 2015, the contractor continued to have difficulty

obtaining its required outages due to competing outages. This, coupled with the historic struggle to obtain sufficient Force Account protection personnel, slowed the contractor's pile installation process during the second half of 2Q2015. Although the contractor continues its efforts to obtain the necessary track outages, nonetheless it has delayed delivery of its "jacked box" tunnel shield until late August/early September 2015 as a result. This could delay actual mining operations until late summer/early fall, about two months behind schedule.

Concerns and Recommendations: In order to supply sufficient Force Account resources to the CH057A contractor, which appears to be falling further behind schedule, the PMOC recommends that ESA prioritize completion of the CH053 contract, which competes with CH057A for the same resources. Although CH057A would suffer a temporary setback, once CH053 declares Substantial Completion, CH057A will be the only Harold Contractor still working. As a result, CH057A would be the only contractor that would need Force Account support until the other CH contracts begin.

Systems Contracts

VH051 (Part 1) – Harold and Point Central Instrument Locations (CILs)

Status: As of May 31, 2015, the Estimate at Completion for VH051 (Part 1) remained at $29,330,054. The MTACC forecast for Substantial Completion remained at August 20, 2017, based on the "ESA First" schedule. Fabrication of all CILs is complete and the only remaining scope of VH051 work is contractor support of CIL installation when each occurs and delivery of As Built drawings afterward.

	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)	$27.7M	-$3.2M -10.4%	$29.3M	+$1.6M +5.2%	+$1.6M +5.8%
Scheduled SC Date	6/25/12	4/30/15		8/20/17		
Duration (NTP - SC)	37 mos.	70 mos.	+33 mos. +81.1%	98 mos.	+61 mos. +164.9%	+28 mos. +75.7%

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%	100.0%	N/A	N/A	N/A	N/A	N/A	N/A

From May 2015 ESA Monthly Report

Construction Progress: Fabrication of all CILs for VH051 is complete. The only remaining scope of work is contractor support during each CIL installation and delivery of As Built drawings after the work is completed.

Observations/Analysis: The contractor will support the testing and cutover of the LIRR "H3" CIL during 4Q2015. Cutovers for the "H1", "H2", "H5", "H6", and Location 30 CILs are scheduled for 2016 and later.

Concerns and Recommendations: Since all CILs are fabricated and ready for placement, the PMOC has no concerns about the VH051 (Part 1) contract. The PMOC is concerned, however, about when the LIRR will cutover each CIL and how each cutover will impact the entire Harold schedule. This concern is driven by LIRR Force Account construction and will be expressed in the FHL01, 02, and 03 sections of this report at the appropriate time.

VH051 (Part 2) – Harold Tower Supervisory Control System (HTSCS)

Status: As of May 31, 2015, the Estimate at Completion for VH051 (Part 2) remained at $9,121,475. The MTACC forecast for Substantial Completion remained at August 20, 2017 based on the "ESA First" schedule. Fabrication of system components is complete and the only VH051 (Part 2) scope remaining is contractor support of CIL cutovers as they occur and delivery of As Built drawings after each cutover.

	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)	$7.9M	+$0.8M +11.3%	$9.1M	+$2.0M +28.2%	+$1.2M +15.2%
Scheduled SC Date	08/24/10	4/30/15		8/20/17		
Duration (NTP - SC)	18 mos.	74 mos.	+56 mos. +311.1%	102 mos.	+ 84 mos. +466.7%	+28 mos. +37.8%

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%	100.0%	N/A	N/A	N/A	N/A	N/A	N/A

From May 2015 ESA Monthly Report

Construction Progress: Fabrication of all system components is complete. The only remaining scope in VH051 (Part 2) is contractor support as the Harold CILs are tested and cutover and delivery of As Built drawings when complete.

Observations/Analysis: The contractor will support the testing and cutover of the LIRR "H3" CIL during 4Q2015. Cutovers for the "H1", "H2", "H5", "H6", and Location 30 CILs are scheduled for 2016 and later.

Concerns and Recommendations: Since all components for the Harold Supervisory Control System are fabricated and ready for placement, the PMOC has no concerns about the VH051 (Part 2) contract. As with VH051 (Part 1), the PMOC is concerned about when the LIRR will cutover the component CILs that Harold will control and how each cutover will impact the schedule. This concern is driven by LIRR Force Account construction performance and will be addressed in the FHL01, 02, and 03 sections of this report at the appropriate time.

CS179 (Systems Package 1-Base Contract)

Status: As of May 31, 2015, the Estimate at Completion for CS179 increased slightly to $554,266,902. The MTACC forecast for Substantial Completion remained at November 25, 2019. Since there is no "apporoved" Baseline Schedule, the MTACC is unable to develop to a progress curve for CS179 yet, so no monthly or cumulative progress percentages are available.

Construction Progress: During 2Q2015, the CS179 contractor continued to install conduit systems in: 1) the Roosevelt Island and Vernon Blvd. Ventilation Facilities; 2) the B10 substation; and 3) the Yard Lead Tunnel. During this period, the contractor also began concrete demolition at the 2nd Ave. Vent Structure and temporary power installations in Madison Yard.

Observations/Analysis: In its 1Q2015 report, the PMOC reported that the ESA CM informed the PMOC that the CS179 contractor improved the quality and timeliness of its submissions. However, during the 2Q2015, it has become apparent that the ESA team was unprepared for the number of submittals prepared and submitted by the contractor, as the backlog of overdue submittal reviews by ESA continues to increase every month. Further, the development of an "approved" baseline schedule remains elusive. Both of these areas remain a source of concern to the PMOC.

Concerns and Recommendations: The PMOC remains concerned that the backlog in overdue submittal reviews has not been significantly reduced and recommends that ESA, the GEC, and the contractor work together to improve the review process. Further, the PMOC is concerned that 15 months out of this 68-month contract are already expended and there is still no "approved" Baseline Schedule. The Baseline Schedule represents an overall contract work plan that all stakeholders must agree upon and use to effectively progress the work. The PMOC recommends that the ESA CM convene another schedule workshop with all parties to discuss and finalize an "approved" Baseline Schedule.

CS084 (Traction Power System Packege #4)

Status: The Estimate at Completion for CS084 is at $71,248,884 and the project budget remains at $78,373,772. The MTACC forcast for Substantial Completion remains at February 1, 2020. Since there is no "approved" Baseline Schedule, MTACC is unable to develop a progress curve for CS084 yet, so, no monthly or cumulative progress percentages are available.

Construction Progress: At the June 26, 2015, Quality Kickoff meeting, the CS084 contractor indicated that field work on the current contract scope would not begin until December 2015 at the earliest. However, the contractor did indicate that it expected to begin some change order work for temporary power for signal huts and the CS084 and CS179 contracts in September 2015. ESA must prepare a retroactive change order for this work.

Observations/Analysis: One June 26, 2015, eight months after Notice To Proceed on this contract, the contractor finally submitted its initial Baseline Schedule for review. The PMOC is concerned that it has taken so long for the contractor to develop and submit its Baseline Schedule.

Concerns and Recommendations: The PMOC is concerned that eight months of its contract are already expended and there is stll no "approved" Baseline Schedule. The Baseline Schedule represents an overall contract work plan that all stakeholders must agree upon and use to effectively progress the work. The PMOC recommends that ESA promptly review the submitted schedule and convene a meeting with the contractor to discuss and resolve any comments on, or issues found with, the schedule to facilitate the timely development and "approval" of a Baseline Schedule.

Harold Stage I Amtrak FA (FHA01)

Status: As of May 31, 2015, the Estimate Completion for the FHA01 remained at $18,824,861. The MTACC forecast for Substantial Completion remained at Janary 28, 2018. Actual construction progress for May 2015 was 0.0% versus 0.1% planned. Cumulative progress through May 31, 2015, was 97.8% actual versus 99.2% 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	$9.5M	$18.8M	+$9.3M +97.9%	$18.8M	+$9.3M +97.9%	$0.0 0.0%
Scheduled SC Date	09/30/10	2/4/16		1/28/18		
Duration (NTP - SC)	39 mos.	103 mos.	+64 mos. +164.1%	128 mos.	+89 mos. +228.2%	+25 mos. +24.3%

Percent Complete		Actual - 12 mos.		Actual - 6 mos.		Avg. Req'd. Progress	
Plan	Actual	Total	Avg./mo.	Total	Avg./mo.	Contract SC	Forecast SC
99.2%	97.8%	1.6%	0.1%	0.5%	0.1%	N/A – Past Due	0.1%/mo.

From May 2015 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 2Q2015, Amtrak Electric Traction personnel continued to make catenary wire transfers and modifications between Sub 44 and the East River Tunnel portals, including installation of

ground wires in 4 locations, bond wires in 5 locations, catenary wire transfers in 5 locations, and final catenary wire profiling at the #821 and #823 crossovers.

Observations/Analysis:

Current direct catenary work locations remain limited due to the sequence of contract construction and impediments to it, although Amtrak does take advantage of opportunities presented to it.

Concerns and Recommendations:

Since the FHA01 catenary work is close to completion and is dependent upon CH053 construction, the PMOC has no specific concerns or recommendations about it at this time.

Harold Early Stage 2 Amtrak FA (FHA02)

Status: As of May 31, 2015, the Estimate at Completion for FHA02 remained at $45,369,618. The MTACC's forecast for Substantial Completion remained at January 19, 2020. Actual construction progress for May 2015 was 1.0% versus 0.7% planned. Cumulative progress through May 31, 2015, was 95.8% actual versus 97.1 % 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	$45.4M	+$35.7M +368.0%	$45.4M	+$35.7M +368.0%	$0.0 0.0%
Scheduled SC Date	9/30/13	8/15/17		1/19/20		
Duration (NTP - SC)	58 mos.	106 mos.	+48 mos. +82.8%	135 mos.	+77 mos. +132.8%	+29 mos. +27.4%

Percent Complete		Actual - 12 mos.		Actual - 6 mos.		Avg. Req'd. Progress	
Plan	**Actual**	**Total**	**Avg./mo.**	**Total**	**Avg./mo.**	**Contract SC**	**Forecast SC**
97.1%	95.8%	14.2%	1.2%	5.4%	0.9%	1.7%	0.1%/mo.

From May 2015 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: During 2Q2015, Amtrak C&S personnel relocated signal trough adjacent to "Q" Tower so that the CH057A contractor could begin construction of the pump house for the westbound Bypass Tunnel.

Observations/Analysis: Substantial Completion for FHA02 has been extended as a result of the MTACC's adoption of the "ESA First" Schedule. The PMOC remains confident that Amtrak will be able to react favorably to the changes this will present to its construction.

Concerns and Recommendations: The PMOC has no concerns about or recommendations for FHA02 construction at this time other than to encourage ESA and Amtrak to continue to work together to complete the project.

Loop Interlocking CIL Amtrak FQA65

Status: As of May 31, 205, the Estimate for Completion for FQA65 remained relatively unchanged at $29,663,652. The MTACC's forecast for Substantial Completion remained at September 11, 2022. Actual construction progress for May 2015 was 0.4% versus 3.7% planned. Cumulative progress through May 31, 2015, was 9.7% actual versus 40.0% planned.

FQA65	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	$9.1M	$21.0M	+$11.9M	$29.7M	+$20.6M +226.4%	+$8.7M +41.4%
Scheduled SC Date	8/12/18	8/12/18		9/11/22		
Duration (NTP - SC)	55 mos.	55 mos.	(no change)	104 mos.	+49 mos. +89.0%	+49 mos. +89.0%

Percent Complete		Actual – 12 mos.		Actual – 6 mos.		Avg. Req'd Progress	
Plan	Actual	Total	Avg./mo.	Total	Avg./mo.	Contract SC	Forecast SC
40.0%	9.7%	3.8%	0.3%	2.4%	0.6%	1.8%/mo.	1.1%/mo.

From May 2015 ESA Monthly Report

Construction Progress:

During 2Q2015, Amtrak C&S personnel continued construction of "T" Interlocking by pulling, terminating and testing cables at the CIL and installation of signal trough between new "T" and new "Loop" Interlockings.

Observations/Analysis:

Due to the new Substantial Completion date established by the "ESA First" re-baslined schedule (2019), the PMOC remains confident that Amtrak will be able to accomplish all of its present remaining FQA65 work by then.

Concerns and Recommendations: The PMOC has no concerns or recommendations about the FQA65 at this time.

Harold Stage 1 LIRR FA (FHL01)

Status: As of May 31, 2015, the Estimate at Completion for FHL01 remained at $20,804,621. The MTACC forecast for Substantial Completion increased by 10 days to May 16, 2016. Actual construction progress for May 2015 was 0.0% versus 0.0% planned. Cumulative progress was 100% versus 100%.

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	$28.8M	$20.8M	-$8.0M -27.8%	$20.8M	-$8.0M -27.8%	$0.0 0.0%
Scheduled SC Date	09/30/10	4/9/15		5/16/16		
Duration (NTP - SC)	39 mos.	94 mos.	+55 mos. +141.0%	107 mos.	+68 mos. +174.4%	+13 mos. 13.8%

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%	100.0%	16.9%	1.4%	0.9%	0.2%	0.1%/mo.	0.0%/mo.

From May 2015 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: No significant FHL01 work was performed during 2Q2015. The only remaining authorized Stage 1 work is the LIRR portion of the work to cutover the new G02 Substation. The CH053 contractor has not completed its construction necessary to turn the Substation over to LIRR, however.

Observations/Analysis: The PMOC notes that LIRR personnel continue to work in locations to complete tasks started earlier in the schedule. It is important to complete all work and equally important to establish a checklist of all locations where work started earlier was not completed so that LIRR is aware of all the remaining work necessary to cutover Harold Interlocking.

Concerns and Recommendations: Since LIRR is progressing its FHL01 work in the manner railroad projects are normally performed (i.e. non-sequentially), the PMOC is not overly concerned about partially completed work at this time. This will, however, become critical if future cutover dates approach and seemingly small tasks remain incomplete. This could lead to much bigger problems with corresponding schedule delays if tasks are postponed over and over again. The PMOC therefore recommends that LIRR establish a comprehensive checklist of all partially done work so that it can complete all work left undone and then perform the overall Harold Interlocking on schedule.

Harold Early Stage 2 LIRR FA (FHL02)

Status: As of May 31, 2015, the Estimate of Completion for FHL02 remained at $79,055,829. The MTACC forecast for Substantial Completion remained at April 11, 2018. Actual construction progress for May 2015 was 1.5% versus 1.8% planned. Cumulative progress through May 31, 2015, was 71.6% actual versus 82.3% 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	$55.0M	+$47.6M +643.2%	$79.1M	+$71.7M +968.9%	+$16.7M +30.4%
Scheduled SC Date	11/30/15	11/25/16		4/11/18		
Duration (NTP - SC)	75 mos.	87 mos.	+12 mos. +16.0%	104 mos.	+29 mos. +38.7%	+17 mos. +19.5%

Percent Complete		**Actual - 12 mos.**		**Actual - 6 mos.**		**Avg. Req'd. Progress**	
Plan	**Actual**	**Total**	**Avg./mo.**	**Total**	**Avg./mo.**	**Contract SC**	**Forecast SC**
82.3%	71.6%	34.0%	2.8%	10.0%	1.7%	1.3%/mo.	0.8%/mo.

From May 2015 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 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: During 2Q2015, LIRR signal personnel completed cable installation and began to test circuits for the new "H3" CIL in Harold Interlocking, which remains on schedule for its November 2015 cutover. Signal personnel also continued to install signal trough and cables at other new CILs "H5" and "H6". LIRR Traction Power personnel continued limited installation of signal power cables between poles T29B and T29E and completed installation of traction power at all LIRR turnouts installed in 2014. 3rd Rail personnel installed 3rd rail at the #821 and #823 crossovers. LIRR Communications personnel completed installation of the new wood pole communications line between 43rd St. and Woodside Interlocking.

Observations/Analysis: The "ESA First" Re-based Schedule will not have a great impact on the timing of the signal cutovers that LIRR needs to complete for the program, i.e. cutovers are scheduled at relatively the same times in the "ESA First" schedule as they were in the previous schedule. The PMOC notes that the LIRR will need to maintain the "ESA First" schedule to keep Harold construction off the overall project critical path, however.

Concerns and Recommendations:

The PMOC has no immediate concerns about or recommendations for FHL02 at this time.

2.4 Operational Readiness

The 2Q2015 Quarterly Operational Readiness meeting was held on June 18, 2015. The following Operational Readiness progress was made since the last quarterly meeting:

- Volume 3, sections 5 & 6 of the Rail Activation Plan are being re-written as a result of comments received on earlier revisions. The final draft of sections 1 thru 7 is now scheduled to be complete during 3Q2015;
- Task Group #2, Train Service and Operations: Developed additional requirements for updating the LIRR Train Operating Rules and Special Instrautions associated with train operations in ESA territory, as well as began preliminary work on the development of ESA Service Disruption Plans;
- Task Group #3, Infrastructure, Systems, and Engineering: Interim Maintenance Records of Concurrence and Approval for substantial completion of contract CM013 are complete and awiting a final walk-thru, which must be scheduled, with LIRR personnel;
- Task Group #4, Asset Management: Two Contracts (CQ031 and CM004) have had asset data loaded into the Maximo Database Production environment and failure analysis data was developed and loaded intothe Maximo Production environment for CQ031 and CM004;
- Task Group #4, Asset Management: Contractor training on the Maximo database is completed for 6 out of 13 identified contractors and data verification is on-going for CM014A and CM013A;
- Task Group #4, Asset Management: Continued to develop procedures for interim testing and maintenance of system components between Substantial Completion and the Revenue Service Date to assure components will remain operational;
- Task Group #5, Grand Central Terminal: The Biltmore Room switchgear components were ordered, with a forecasted delivery in July 2015;
- Task Group #6, Staffing and Training: Continued refining LIRR staffing and training requirements and timelines for all discplines by occupation to determine peak hiring and training periods; and
- Task Group #7, Safety and Security: Continued to develop the system safety requirements for certification of the designs of each of the ESA contracts.

Observation: The Operational Readiness Group continues to coordinate ESA PMT activities into a cohesive plan required to commission the project for daily operations.

Concerns and Recommendations: LIRR expressed concerns that the LIRR staffing and training requirements remain as very important Operating Budget activities dictated by the ESA project's Integrated Project Schedule. The PMOC previously recommended and continues to recommend that the planning effort should tie staffing and training activities to a specified period of time prior to the RSD rather than definite calendar date; as actual RSD date could move based on the progression of construction activities. By doing so, the MTA could potentially avoid the costs and other ramifications of hiring and training personnel too early.

2.5 Vehicles

During 2Q2015, LIRR and MNR participated in two reviews for the M-9 vehicles at Kawasaki's manufacturing facility in Kobe, Japan. In April 2015, the railroads reviewed the 1st Stage mock-up and also took part in a follow-up review in June 2015 to review progress made since the April 2015 meeting. Additionally, as of June 30, 2015, 18 of 21 total Preliminary Design Reviews (PDRs) have been completed. Only toilet, Automatic Train Control(ATC) and event recoder PDRs remain.

Status:

The status is as indicated in the above paragraph.

Observations:

The ESA PMT and the railroads continue to progress the procurement of the M-9 vehicles, although behind schedule.

Concerns and Recommendations:

Although the design reviews were completed slightly behind schedule, the PMOC has no significant concerns about or recommendations for the ESA vehicle procurement at this time.

2.6 Property Acquisition and Real Estate

Status/Observations

During 2Q2015, the MTA continued to conduct internal meetings to discuss Manhattan easements needed from 335 and 415 Madison Avenue and 280 Park Avenue property owners for CM014B and CM015 construction. The MTA also conducted internal meetings to discuss easements needed from the property owners at 41-02 Northern Boulevard in Queens for CH057 construction.

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

2.7 Community Relations

Status:

The ESA Community Relations staff continued its outreach efforts during 2Q2015, which included:

- Weekly Community Outreach Site Condition Checklist inspections;
- Community Outreach update meetings in Queens and Manhattan;
- Meetings with property owners and other stakeholders to address concerns or issues which may have arisen due to ESA work;
- Notification to the 55th St. community in Manhattan about planned street closures to allow the contractor to remove the temporary street deck and restore the street;

- The start of monthly meetings with the Yale Club to inform it of ongoing work and introduce the construction management team for the CM014B contract.

Observation:

The PMOC notes that the MTACC Community Relations staff continues to perform its outreach campaign in an entirely effective manner.

Concerns and Recommendations:

The PMOC has no concerns about ESA community relations at this time and recommends that the ESA Community Relations staff continue to perform its duties in the same manner as it has in the past.

3.0 PROJECT MANAGEMENT PLAN AND SUB PLANS

Status:

MTACC submitted PMP Rev. 10 to the FTA and PMOC on July 18, 2014. This revision incorporates changes stemming from FTA/PMOC comments on PMP Rev. 9.0 provided in December 2013, as well as changes that resulted from the MTACC's Candidate Revision process. Based on working meetings, dialogue and additional clarifying review comments from the PMOC MTACC made additional changes to the PMP and submitted an updated Rev. 10 on September 18, 2014. The PMOC completed its review and evaluation of MTACC's revisions and responses and submitted its findings to FTA-RII in 4Q2014. MTACC subsequently submitted a revised Rev. 10 on March 13, 2015, that included updated information on the Change Control Committee. The PMOC is currently coordinating with MTACC to arrange a series of working meetings with ESA chapter authors and the corresponding PMOC reviewers to resolve the outstanding FTA/PMOC evaluation comments.

Observation: The PMOC is working with MTACC to resolve the remaining issues with the PMP and will follow up with FTA in finalizing responses.

Concerns and Recommendations: There are no major concerns at this time.

3.1 PMP Sub-Plans

Status:

The status of the key PMP sub-plans is discussed in the ELPEP Compliance Section of this report. MTACC issued updates to its TCC Plan and Cost Management Plan in June 2015 and the PMOC is currently reviewing the updates. After that is complete, the MTACC will begin to update its SMP.

Observations:

MTACC has revised its TCC Plan and Cost Management Plan. The PMOC anticipates updates to the Schedule Mangement Plan and the Risk Management Plan.

Concerns and Recommendations:

MTACC needs to ensure that the proper candidate revisions are prepared and presented to the CCC for approval before any changes are incorporated into these plans. Regarding updating the SMP, the PMOC recommends that ESA's SMP address at least the following items in its next revision:

- Provide logic diagram of schedule control
- Demonstrate traceability in decision making procedure
- Establish its usefulness as a management tool
- Demonstrate MTACC's project control capabilities
- Present a viable plan to allocate schedule contingency
- Provide a reliable forecasts for significant milestones
- Define, responsibilities, authorities and measure of performance

3.2 Project Procedures

Status: Revisions to the CMP and SMP may require upates to the referenced Project Procedures. The PMOC will evaluate this upon receipt and review of the revised CMP and SMP.

Observations: None

Concerns and Recommendations: There are no significant concerns at this time.

4.0 PROJECT SCHEDULE

4.1 Integrated Project Schedule

Status: This report is based on the submitted ESA IPS #70, data date June 1, 2015, and its variance report. The IPS reflects an early Revenue Service Date (RSD) of March 25, 2020, a target RSD of February 12, 2021, inclusive of 324 days of IST contingency, and a late RSD of December 13, 2022, inclusive of 324 days of IST contingency plus 669 days of program-level contingency. Overall, the IPS has had 993 calendar days of contingency since the July 1, 2014, baseline. This amount of contingency is equivalent to 47% of the remaining IPS duration.

ESA's critical path goes through the following contracts and tasks, and it is slightly different from the baseline IPS of July 2014 (see discussion under Section 4.2);

- Procurement of CM007
- Design/fabrication/delivery of the first CM007 precast elements
- CM007 structural element construction at the Mezzanine level in the Cavern GCT
- CM007 overhead smoke plenum construction in the Cavern GCT
- CM007 platform element construction at the Lower Level Cavern GCT
- CM007 Elevator 6/8/5/7/18/19 construction from the Lower Level to the Upper Level in the GCT Cavern
- CM007 ready for IST and turnover to CS179 in the Caverns
- CS179 commence IST at various locations/systems; Jamaica Station, CM007 installed equipment, TMC, MTA Police, TOC
- CS179 Contract Contingency
- CS179 Substantial Completion
- Various ESA contingency activities
- LIRR Revenue Service Date (RSD)

Additionally, completion dates and hand-offs for the following contracts are less than 45 days off the ESA critical path detailed above;

- CM014B: GCT Concourse & Facilities Fit Out (hand off to CS179 IST)
- CM005: Manhattan South Structures (hand off to CM007 access via critical path above)
- CM006: Manhattan North Structures (hand off to CM007 access via critical path above)
- CH053: Harold Structures Part 1 & G02 Substation (hand off to CH057A)
- CH057A: Westbound Bypass Structure (hand off to CH057D)
- CH057D: Harold Track Work: PW1/NH1/WBY (hand off to CH058A) – Future Contract
- CH058A: B/C Structure / Catenary Structures (hand off to CS179 IST) – Future Contract
- FHA01/02/03: Harold Amtrak Force Account Work (integral with the CH contracts)
- FHL02: Harold LIRR Force Account Work (integral with the CH contracts)

Observations and Analysis:

It is noted that the ESA 2012 Schedule Re-Baseline was in place for only two years before the next re-baseline was established in 2014. This is indicative of the need for an updated Basis of Schedule that would address the issues that caused the failure of the 2012 baseline.

The PMOC is concerned about the basis of ESA's schedule and the fact that the IPS baseline has not been preserved since July 2014. Table 4.1, below, indicates a considerable amount of schedule slippage:

1. ESA IPS does not have a WBS and it is not clear how the PMT traces productivity from the Contract Packaging Plan to Package-Specific Estimates and the IPS. An example of this issue is that the PMT does not have total Work-Hours in its estimate for contract CM007 [redacted] nor does it include Work-Hours in its IPS or package-specific schedule. The PMOC's estimate for contract CM007 Work-Hours is at least 4 million Work-Hours based on the performance of Contracts CM005, CM006, and SAS Contract C-26007 (C4B).

2. The ESA Basis of schedule has stated that the ESA critical path goes through substantial completion of CM005 Manhattan South Structures, then through CM007 GCT Caverns Completion. The critical path then goes from Substantial Completion of CM007, to CS179 System Package 1 – Facilities Systems installation, then to Integrated Systems Testing in the GCT caverns. Less than a year later, the PMT pushed back the NTP of CM007 for 4 months. Unfortunately, however, Contract CM006 Manhattan North Structures is experiencing significant delay in its Milestone #2 which will constrain physical access, as originally planned, to the caverns for Contract CM007. The PMOC's schedule had considered that NTP for Contract CM007 depends upon the three conditions shown below. Simply creating a start milestone for the NTP in the IPS does not address the complexities of either access or funding issues. The PMOC's schedule, on the other hand, clearly stated that there are three conditions that need to be satisfied before CM007 NTP:

    a. CM005 finishes on time in 1Q2016

    b. CM006 achieves it MS#2 in 1Q2016

    c. Funding is available to award CM007

    Currently, only the first condition is forecast to be satisfied. The next two conditions continue to slip, however, which indicates that ESA's basis of schedule included faulty assumptions.

3. In the ESA Basis of Assumption, it explains the reasons why the Harold portion of the July 2014 Schedule Re-Baseline could not be sustained and that a new schedule with new assumptions based on more realistic levels of railroad force account support would be required. Accordingly, ESA developed the "ESA First" for the remaining Harold work with a new packaging plan and a revised work sequencing schedule that would prioritize completion of the work required for LIRR to provide service to GCT. The PMOC notes, however, that its analysis shows that only 75% of the Harold tasks scheduled per month have been completed since 4Q2014.

4. The Basis of Schedule states that "Systems Integration Testing will be tracked in the IPS," but the document does not demonstrate how this will be achieved [ESA-109-June13]. The PMOC also notes that the contractor for CS179, which is going to do the Integrated Systems Testing, has not been able to obtain final approval of its baseline schedule in more than a year after the NTP for the contract[ESA-119-Jun15].

ESA schedule performance is summarized below and it shows that ESA is still unable to maintain its baseline milestone dates. Additionally, as mentioned above, there are too many contractor schedules operating near the ESA critical path. It should be noted that ESA has 27 months of contingency but it is not clear how the PMT is going to use this contingency for any specific package. The PMOC is concerned that ESA will need to use future contingency earlier than planned because of the presence of multiple critical paths in the near future. The PMOC recommends that the PMT develop a schedule that matches the realities of the contractors' performances. The PMOC further recommends that ESA use half of the contingency to create a realistic schedule and also use about 12 months of contingency as "actual contingency" in order to develop a drawdown based on their risk report in 2014.

Additionally, ESA must report forecasts of their contractors' progress and their potential impacts in interface milestones. Since July 2014, when ESA published its baseline IPS, the PMOC has been in disagreement with the PMT regarding the conditions required for award of Contract CM007.

The PMOC's baseline schedule (July 2014) for ESA and the PMT's are plotted in table below.

TABLE 4.1- ESA July 2014 Baseline

Contract	Start	Duration (month)	Finish
CM005	1-Sep-13	31	6-Apr-16
CM007	6-Apr-16	39	8-Jul-19
IST	8-Jul-19	10	13-May-20
Start up	13-May-20	15	10-Sep-21
Contingency	10-Sep-21	15	**13-Dec-22**

TABLE 4.2 - PMOC Baseline

Contract	Start	D	Finish
CM005, CM006 (MS#2), and funding certainty	1-Sep-13	**34**	15-Jul-16
Contingency	15-Jul-16	**3**	16-Oct-16
CM007	16-Oct-16	**53**	15-Apr-21
Contingency	15-Apr-21	**3**	15-Jul-21
IST	15-Jul-21	**15**	15-Oct-22
Start Up	15-Oct-22	**8**	15-Jun-23
Contingency	15-Jun-23	**6**	**31-Dec-23**

The fundamental differences between the two schedules are the PMOC's estimated duration for CM007 is 53 months with three months of contingency versus ESA's original estimate of 40 months, although ESA's new schedule shows this contract's duration at 42 months. It should also be noted that ESA conducted a risk analysis specifically for this package to re-assure all stakeholders that the 42 month schedule and NTP of Jan. 2016 is a viable strategy. Additionally, the PMOC believes that Integrated Systems Testing will require a full 15 months, without

disturbance, at the end of all construction work. ESA's schedule, however, indicates that the majority of IST will be done while other construction work is going on. This represents a fundamental disagreement and is the basis for a significant part of the schedule differences between ESA and the PMOC.

It should also be noted that the PMOC has assumed three conditions should be satisfied so Contract CM007 can start its work, and that's a major reason for such difference between the PMOC and ESA dates for NTP of this package. These three conditions are:

- CM005 finishes on time; contract is currently scheduled to finish on Feb. 2016.
- CM006 MS#2 to be finished before April 2016. The Contractual date of this milestone is Feb. 2016; however, current contractor's forecast for this milestone is delayed 6 months although ESA only recognized 45 calendar days.
- There won't be a funding constraint for the award of this package.

Table 4.3 below shows the total number of Start & Finish Milestones in ESA baseline schedule of 2014 (214) versus total number of Milestone date changes in 2Q2015 which have not been changed more than 30 days. Only 47% of original Start Milestone dates and 38% have remained unchanged (less than 30 days) since July 2014.

TABLE 4.3 -ESA Performance Metrics Table Planned V. Actual, July 2014 to 2Q2015

Location	Count of Start ML	No. of Start ML Unchanged since Re-baseline	Count of Finish ML	No. of Finish ML Unchanged since Re-baseline
Start up/Testing & Commissioning			8	7
Harold	33	8	223	42
IST			2	2
Operation Readiness	2	2	3	3
Manhattan	46	29	87	60
Queens	9	0	38	13
Rolling Stock	1	1	3	3
Systems	123	62	83	39
Grand Total	**214**	**102**	**447**	**169**

The Table 4.3 indicates that ESA's planning and execution in Harold has has not been effective and that the PMT needs to develop an action plan which results in a viable forecast. Additionally, project performance with regard to Manhattan's Start Milestones and Systems Start and Finish Milestones is only marginally better.

4.2 90-Day Look-Ahead of Important Activities

The upcoming contract procurement schedule is:

- CM007 Bid Proposal has been extended, for the third time, to August 4, 2015, from the original May 1, 2015.

- CH057 – Bid opening is due July 2015, a two month delay since last quarter and March 2015 Harold re-baseline
- CH058A – 100% design December 2015
- CH058B – 100% design December 2015
- CH061 – 100% design & Bid advertisement in August 2015
- CS 284 (Tunnel Systems Package 2) – 100% design in October 2015

Please see Appendix F-2 for full 90 days milestones look ahead.

Critical Path Activities

The ESA Critical path has changed since its re-baseline of July 2014. The Table 4.4 below shows the changes:

TABLE 4.4 - IPS# 70, Data Date June 1, 2015, Critical Path

Activity ID	Original Duration	Start	Finish
CM007 PROCUREMENT	258	23-Dec-14 A	31-Dec-15
CM007 NTP	0	4-Jan-16	4-Jan-16
Precast Procurement (From Shop Drawings to Start Delivery - Mezz Beams & Panels)	190	4-Jan-16	29-Sep-16
Mezzanine level	65	30-Sep-16	3-Jan-17
Upper Level	174	4-Jan-17	7-Sep-17
Upper Level	42	8-Sep-17	6-Nov-17
Lower level	21	9-Oct-17	6-Nov-17
CM007 MS #3 - Superstructure Complete (No longer a contract MS per Addendum #2)			6-Nov-17
Elevators & Escalators in East Cavern (South)	167	5-Feb-18	28-Sep-18
Elevators & Escalators in East Cavern (North)	88	27-Sep-18	31-Jan-19
CM007 MS #5A - Caverns Ready for Integrated Systems Testing			31-Jan-19
CM007 Ready for IST Turnover to CS179 Start IST in Caverns	56	1-Feb-19	19-Apr-19
GCT Caverns	64	19-Apr-19	22-Jul-19
CS 179 Communications	89	22-Jul-19	26-Nov-19
CS179 MS 13 - Substantial Completion Including Completion of IST	0		26-Nov-19
Contingency	1113	27-Nov-19	13-Dec-22

Highlights of key critical contracts and near critical contracts include CM006 – Manhattan North Structures, and Harold 3rd party and force account contracts as well as the CS179 Systems contract.

- CM006 continues to trend behind its baseline and recovery schedules. Milestone #2, completion of lower level tunnels is currently forecasted for March 17, 2016, 45 days behind the milestone's February 1, 2016, contractual completion date. Any delay to the CM006 milestone could potentially impact site access for CM007.

- In Harold, CH053, CH057A, CH057D, and the corresponding Force Account contracts are monitored closely due to their interface with Amtrak resources. Contractor performance issues are due primarily to limited Amtrak resource availability.
- Contract CS179 is a very complicated contract with 5 options and 63 interface milestones dates involving interface with 13 ongoing and future MTA ESA contracts. In addition, CS179 is also required to interface with multiple outside agencies and is required to coordinate its work with work installed by LIRR, MNR, NYCT, and Amtrak Force Account personnel. Table 4.5 below shows contractor's schedule variance and the reasons thus far:

TABLE 4.5 - CS179 Contractor Milestone Dates

MS	Baseline Finish	Update #3 Finish	Variance Calendar Days	Reason
1	8/18/15	3/5/16	-199	Stop Work Order issued April 13, 2015. No CPR issued. Once the modification is approved the recovery plan will be issued.
2	4/19/16	6/14/16	-57	Resubmittal was transmitted March 12, 2015. FCR #4 submitted April 20, 2015 scheduled for approval June 3, 2015
3	8/28/16	12/21/16	-107	Late submittals approval pending design approval. Look into Recovery Plan on next Update.
4A	5/4/16	6/17/16	-44	Late submittals approval pending design approval. Look into Recovery Plan on next Update.
48	5/4/16	4/13/16	22	Stop Work Order issued October 31, 2014. On hold
5	8/8/16	12/19/16	-125	Late submittals approval pending design approval. Look into Recovery Plan on next Update.
6	6/23/16	8/5/16	-42	Stop Work Order issued April13, 2015 related to B-10 Comms Room CR-127.
7	12/25/16	3/3/17	-74	Late submittals approval pending design approval. Look into Recovery Plan on next Update.
8	5/30/17	3/3/17	1	
9	8/27/17	11/28/16	191	
10	8/27/17	12/19/17	-105	Late submittals approval pending design approval. Look into Recovery Plan on next Update.
11	12/25/17	10/11/17	74	
12 A	9/1/18	10/30/18	-71	Late submittals approval pending design approval. Look into Recovery Plan on next Update.
12 B-1	7/23/19	7/20/19	3	
12 B-2	7/23/19	7/20/19	4	
12 B-3	7/23/19	6/22/18	397	

- PMOC notes that the Manhattan and Harold critical path work must be completed to commence Integrated Systems Testing. Because the CS179 contractor has stated that there are multiple critical paths in its baseline schedule, the PMOC believes that it will likely undergo many changes and not be predictable.

ESA PMT has included a list of activities as "Harold Critical Path" on page 12 of its variance report. The PMOC is not able to verify, however, that these activities are really on Harold critical path because IPS #70, data date June 01, 2015, has a "Harold Critical" path that starts on August 19, 2017, as if there is nothing critical in Harold until then. A second path, identified as "Harold Longest Path", doesn't have the same activities that the variance report states for the "Harold Critical" path.

The PMOC notes that, since July 2014, ESA has changed the activity ID numbers of approximately 60% of its milestones. The PMOC continues to work with the PMT to establish a corrected baseline IPS so all activities and milestones can be tracked and reported on. This is an important element required under SMP section 5.1 "Work Breakdown Structure" that requires that activity IDs should be traceable.

Finally, the PMOC recommends that ESA consider developing a resource constrained schedule with Amtrak and LIRR resource availability assumptions below the maximum number of available resources, and consider changing its current RSD of March 2020 to a more realistic date rather than just adding an inordinate amount of schedule contingency as is currently being done. The MTACC indicated that more realistic force account resource levels were used in the Harold Re-Plan ("ESA First"), which it submitted to the PMOC in mid-March 2015. On average, since November of 2014, third-party contractors have only been able to achieve approximately 75% of the planned (assumed) productivity rate. It should be noted that ESA had a much higher planned (assumed) productivity rate for its baseline Harold schedule in March 2014, almost double, compared to the current planned (assumed) productivity rates for the current Harold Re-Plan ("ESA First"). Therefore, taking 75% of the original productivity assumption results into account, ESA has experienced an approximate 50% reduction in productivity since its March 2014 baseline productivity assumption.

Additionally, procurement milestones for CQ033 (scheduled for Bid advertisement of May 2015 so the NTP would be Jan. 2016, although VQ033 should be awarded by August 2015), and CH057 (scheduled to be awarded in July 2015) have been missed. [Ref: ESA-109-June 13]

4.3 Project Schedule Contingency Analysis

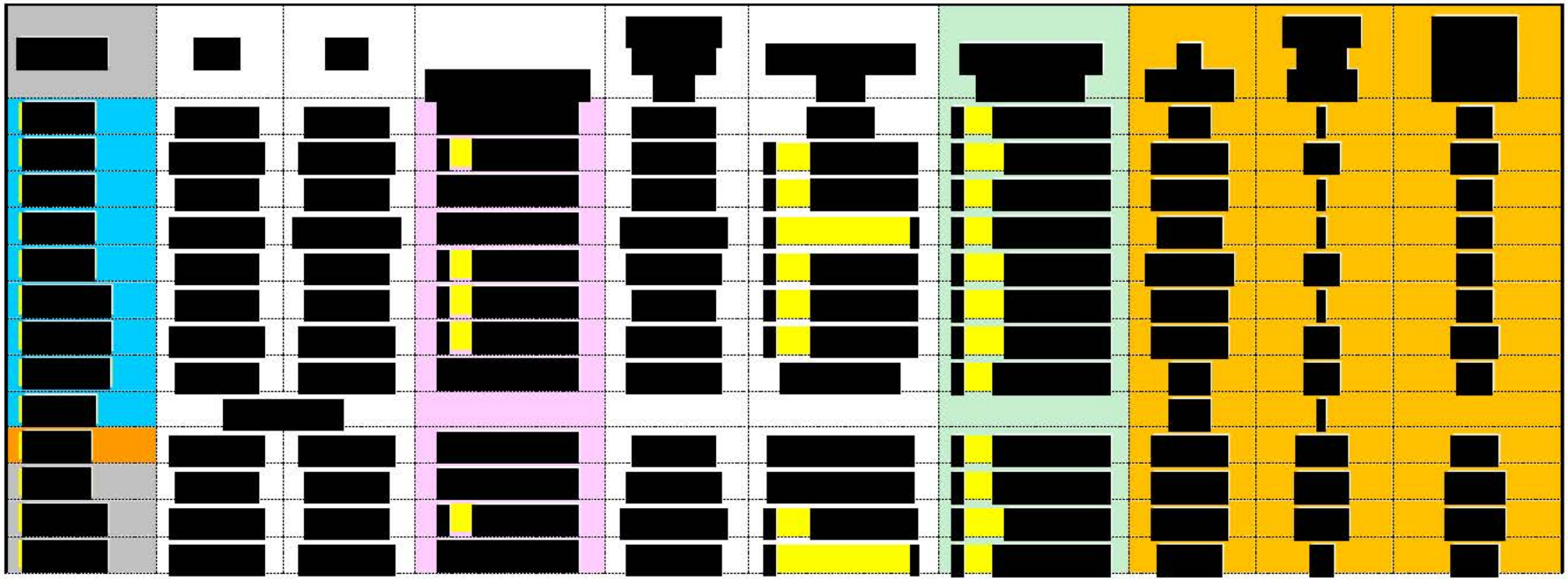
ESA's IPS #70 reflects an early Revenue Service Date (RSD) of March 25, 2020, a target RSD of February 12, 2021, inclusive of 324 days of IST contingency, and a new late RSD of December 13, 2022, inclusive of 324 days of IST contingency and 669 days of program-level contingency," Overall, the IPS has had 993 calendar days of contingency since July 1, 2014,

baseline. This amount of contingency is equivalent to 47% of the IPS duration. Due to the very high percentage of schedule contingency, the PMOC believes that the ESA IPS is not presently a useful management tool. Evidence of this can be observed in the current variance report that provides no discussion regarding an analytical forecast or schedule contingency drawdown for the IPS despite the PMT's acknowledgement that Contract CM006 MS#2 is 45 calendar days late, that there are additional delays in the CM007 procurement, and that there is not yet any assurance that funding will be available in time to award Contract CM007 by December 31, 2015. As a result, the PMT maintains a vague explanation of the three RSD dates.

The PMOC's schedule has been presented in Section 4.1 with specific contingency allocated to packages that have a total of 12 months of contingency for the RSD of December 2023.

[redacted]

[redacted]



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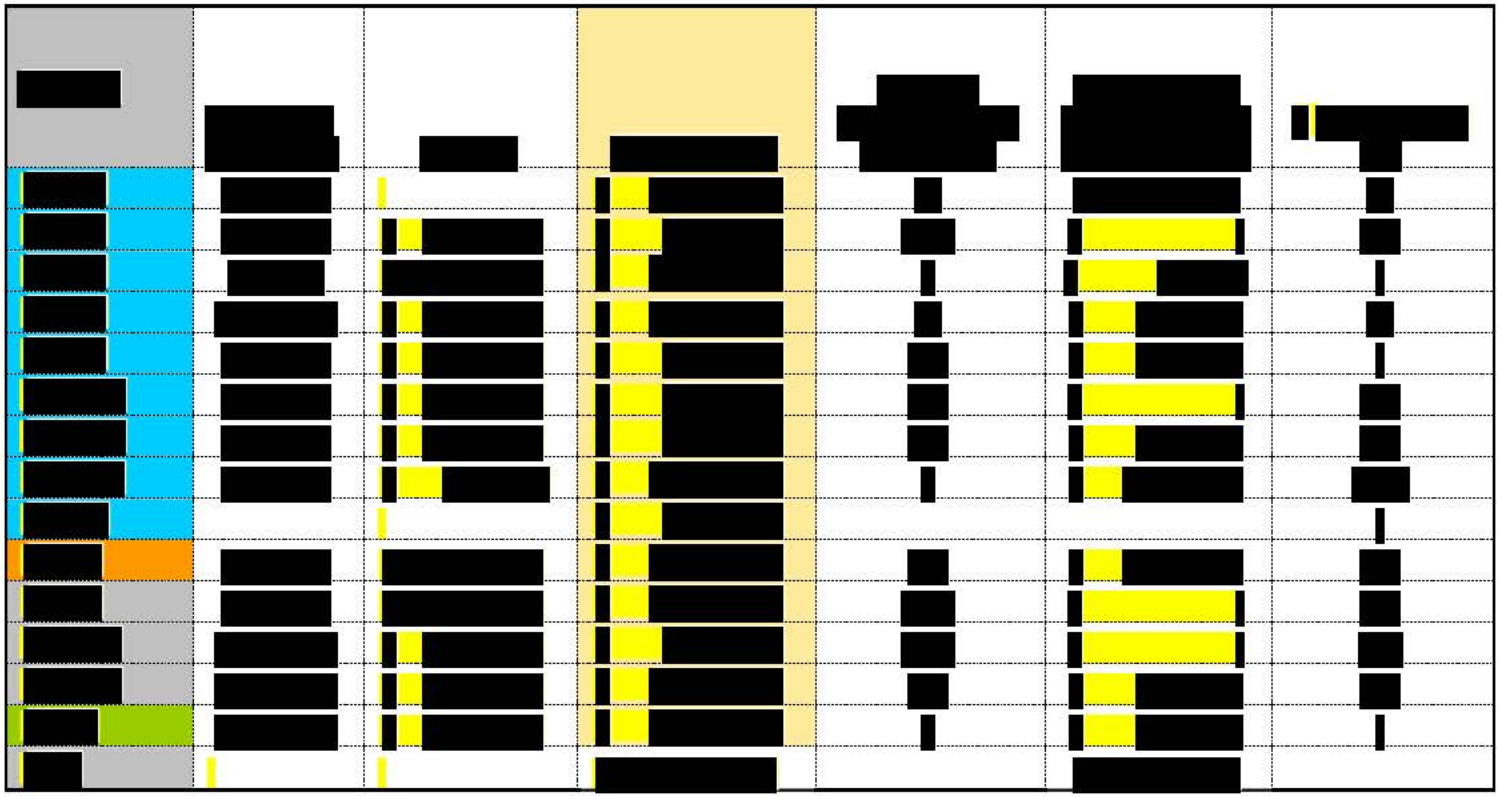

[redacted]

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 June 2014.

5.1 Budget/Cost

On June 23, 2014, MTACC presented a Budget for the ESA project of $10,178M [redacted] to the MTA CPOC. The detailed monthly cost reports received by the PMOC reflect the budget as of the end of May 2015. Table 5.1 below shows the changes in the SCC budget breakdown between the FFGA Baseline budget and the 2014 re-planned budget.

Observations: During the re-planning effort, the PMT re-examined each of the contract packages. Some budgets changed due to major re-estimates, others due to adjustments in the Contingencies. Some scope transfer between packages occurred and some work was rebudgeted to Regional Investments (RI). Subsequent to the Budget Re-Plan, several packages have required re-estimating and other have exceeded the re-plan budget.

Concerns and Recommendations: Whereas SCC breakdowns are assigned to scope transfers, there still remain issues of proper allocation of contingencies by SCC.

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

Standard Cost Category (SCC) No.	FFGA SCC baseline (YOE $) M	June, 2014 Re-Plan (YOE $)	Apr 2015 SSC (YOE $) M	May 2015 SSC (YOE $) M	May 2015 % of Re-Plan	Apr '15 to May '15 Change $M	CBB Variance from FFGA %
10	1,989	3,405	3,417	3,419	100.41%	2	71.90%
20	1,169	2,238	2,341	2,339	104.51%	-2	100.09%
30	356	474	474	474	100.00%	0	33.15%
40	205	611	608	608	99.51%	0	196.59%
50	619	606	579	579	95.54%	0	-6.46%
60	165	220	219	219	99.55%	0	32.73%
70	957	210	210	210	100.00%	0	-78.06%
80	1,184	1,975	1975	1975	100.00%	0	66.81%
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Subtotal	**6,813**	**10,178**	**10,178**	**10,178**	**100.00%**	**0**	**49.39%**
100	1,036	1,036	1,036	1,036	100.00%	0	0.00%
Total Project Cost (10 – 100)	**7,849**	**11,214***	**11,214***	**11,214***	**100.00%**	**0**	**42.87%**

*This total amount does not include Regional Investment amount of $758,260,953.

Reasons for Changes to SCC Codes: All changes are the result of changes to Pending and Potential MOD Issues.

5.2 Project Cost Management and Control

Status:

The PMT has reported that, as of May 31, 2015, the actual total project progress was 57.1% vs. 57.2% planned progress resulting from the June 2014 re-baseline; a review of the actual project progress vs. the planned based on invoiced amount and the new budget shows the same percentage, for actual progress but the planned progress should be 57.8%. In addition, since the ESA Cash Flow chart goes one-year farther than ESA's current target schedule, the Planned performance is lower than needed to make its target dates. Table 5.2 shows the budget status of contracts awarded to date and invoiced amounts to date.

Table 5.2: Project Budget and Invoices As of May 2015

Elements	Baseline Total Budget (June 2014)	Current Baseline Budget (May 2015)	Actual Awards (May 2015)	Paid to Date (May 2015)	Actual % Budget Paid
Construction	$7,379,296,706	$7,463,883,775	$5,424,988,232	$4,067,318,987	54.49%
Soft Costs Subtotal	**$2,798,474,304**	**$2,713,887,235**	**$1,638,654,278**	**1,582,062,115**	**58.30%**
Engineering	$720,615,810	$720,615,810	$657,458,121	$641,130,110	88.97%
OCIP	$282,613,620	$282,613,620	$206,370,653	$194,378,468	68.78%
Proj Mgmt.	$972,168,644	$972,168,644	$658,935,545	$632,271,446	65.04%
Real Estate	$182,076,230	$182,076,230	$115,889,959	$114,282,091	62.77%
Rolling Stock	$202,000,000	$202,000,000	$0	$0	0.00%
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
Project Subtotal w/o Financing & RI	**$10,177,771,010**	**$10,177,771,010**	**$7,063,642,510**	**$5,649,381,102**	**55.51%**

Note: The Engineering Change is due to reclassification of some MODs from ESA to RI/Non-ESA

Observations:

The PMT has been providing package estimates for future contract packages but sometimes without the latest cost updates. What is provided often is in formats without the underlying coding structures and without an adequate Basis of Estimate (BOE), which hinders analysis. Without a BOE, thorough analysis is difficult and one cannot identify the assumptions of the Estimator. [Ref: ESA-107-May 13] At a March 19, 2014, meeting with the PMOC, ESA stated that it would provide reports within two months, which did not occur. Due to the ongoing estimate reconciliation process for CM007, ESA had not been able to provide all the final package estimates with backup, but recently submitted a reconciliation summary.

Concerns and Recommendations:

The use of a single integrated cost reporting system would strengthen the capacity for analysis and for a joint review of the cost relationships. The PMOC recommends that ESA continue to work to finalize its new cost reporting and control system as soon as possible to verify the new re-plan budgets and management of costs.

5.3 Change Orders

Table 5.3 below shows the executed mods greater than $100,000 during May 2015.

Table 5.3: ESA's Change Order Log in May 2015 (>$100,000)

BA #	Package	Mod#	Description	Mod. Amount ($)	May 2015 package value ($)
800	CM014A	38	Soil and Muck Removal in Madison Yard	328,338	57,581,832
801	CQ032	50	EAC Stages 3 and 4 Construction Sequencing	2,400,000	248,822,068
801	CQ032	58	Add Duct Bench at Yard Lead Track Tunnel	6,525,000	248,822,068

Notes: 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.

Status/Observation

The estimated values for MODs at the Pending and Potential levels used for Assigned to MODs is often far off from the settlement amounts. This has led to significant swings in the contingency levels from month to month. The level of variance between estimates by the CM and the Executed MODs are too great and the CM estimating approach needs to be reviewed to increase reliability.

Concerns and Recommendations:

While the cost forecasts before the Re-Plan included all the possible costs for MODs, no matter their status, some of these costs are now excluded, which does not appear to be prudent and does not follow widely accepted Good Practices. The PMOC recommends that these exclusions be reinstated as a policy. [Ref: ESA-108-May12] ESA should directly address the reliability of CM estimated MODs and the large variance that occurs to ensure more reliable work so that forecasting can improve on the project.

5.4 Project Funding

a) Federal Funding

As shown in Table 5.2 above, as of May 31, 2015, the PMT has awarded a total of $7.064B in contract work. The Federal share of awarded contracts is $2.333B. The total Federal funding commitment as of February 28, 2015, remained at $2.699 billion (See Appendix G.1 for project cash flow, and Table 2 for detailed cost distribution.)

b) Local Funding

The obligated local share was $4,831M. There has been a $617,607,000 incurred finance cost (for local share) to date.

5.5 Cost Variance Analysis

ESA has not been presenting any cost variance reporting or analyses for review by the PMOC.

[redacted]

6.0 RISK MANAGEMENT

The last monthly risk meeting held by ESA was in Januray 2015. Since that time, ESA has not succeeded in addressing the risk topics as they had planned during the subsequent monthly cost and schedule review meetings. In response to the PMOC's request, ESA will resume the dedicated monthly risk meetings.

The Contract CM007 risk workshop was conducted over a two-day period on April 8 & 9, 2015. The preliminary risk report was forecast to be issued by April 28, 2015, but this did not occur. At the FTA/MTACC Executive Meeting on May 21, 2015, the FTA and the PMOC were advised that the distribution of the draft risk report was discussed by upper management at ESA-PMT, MTACC, MTA and included the MTA President. Because of the very high level of conern about the confidentiality of the risk results, MTA decided to proceed with a very limited internal distribution of the draft risk report and a very small group participated in the May 1, 2015, internal briefing. The FTA noted that they and the PMOC had participated in the workshops and would now like to review the report written by the MTACC's risk facilitator. MTACC responded that they would discuss FTA's request with MTA upper management and provide an answer to the FTA. As of June 30, 2015, MTACC has not provided the draft risk report.

Based on long standing issues and concerns regarding Amtrak's ability to provide sufficient force account support to the ESA project, especially Electric Traction (ET) resources, ESA completed a Harold schedule re-sequencing in December 2014, also know as "ESA First", that advances work elements required for the new LIRR service to GCT and pushes back the FRA funded High Speed Rail Work beyond 2017. This work was also falling behind schedule due to the overall delays to much of the Harold work. MTACC will require FRA approval for a time extension for the funding, but formal approval will only occur after FRA approves the MTA generated grant amendment. In early April 2015, MTACC presented the Harold Re-Sequencing Plan to Amtrak engineering department.

6.1 Risk Process

Status/Observations:

As discussed above, MTACC has not released the results of the package level risk assessment completed in April 2015 for the CM007 contract. Conducting the CM007 Risk Assessment after the RFP is advertised is of concern, given the fact that ESA did not conduct a full

constructability review for the final configuration of this package as called for in its management plans.

Concerns and Recommendations:

In the PMOC's opinion, funding availability continues to be a significant risk on the ESA project. Funding uncertainty has resulted in the PMT's delay of CM007 contract award until late 2015 or early 2016 due to budget constraints and the restructuring of the CS179 contract by splitting it into a base contract with seven options, based on access restraints imposed by the CM006, CM007, and CM014B packages, which will significantly increase the interface risks. The CM007 proposal due date is now delayed 3 months and the PMOC is concerned that there is no longer sufficient time to successfully complete negotiations and have a recommendation for award approval to meet the December 31, 2015, forecast date.

The segmentation of construction packages has resulted in multiple inter-contract interfaces and milestones. The probability of successfully achieving all of them is low, in the PMOC's opinion, and leads to the possibility of a ripple effect of delays and coordination difficulties between contracts. There are limited opportunities for the contractors to make up time lost to interface delays. Managing inter-contract handoffs and interfaces will be challenging. Schedule risks will be exacerbated if funding is not in place to award the options in the CS179 contract Package as planned. Access Restraints in the CS179 contract are correlated to the options in the Contract and the CS179 contract will also have multiple interfaces with the CM007 contract which has not yet been awarded. Given that this work is on the project critical path, delays in awarding the options will result in the use of Program schedule contingency.

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 associated with the Harold Interlocking work, the PMOC believes that this may create significant changes to the overall project risk profile.

6.2 Risk Register

Status/Observation:

The PMT has begun submitting its risk register on a regular basis.

Concerns and Recommendations:

ESA should continue to automatically submit Risk Register updates to the FTA and PMOC on a regular basis as called for in the RMP.

The PMOC considers the major risks for the East Side Access Program to be:

- Program Funding;
- Successful execution of dozens of hand-off interfaces across multiple contracts;
- Contractor access and work area coordination in Manhattan;
- Duration of integrated systems testing;
- Continued availability of adequate Amtrak and LIRR force account resources for both construction and third-party contractor support in Harold Inetrlocking;
- Continued availability of required track outages in the Harold Interlocking.

6.3 Risk Mitigations

Status/Observation:

Current Risk Mitigation Efforts: The PMOC notes that the PMT is implementing mitigation strategies for a number of identified risks. Examples include: advancing procurement of the 8 CILs for the Mid-Day Storage Yard and actively engaging Amtrak to develop some specific strategies for mitigating many of the identified risks, especially regarding intiatives with Amtrak to pursue labor agreements to allow more third-party work in the Harold Inetrlocking to provide flexibility and additional resources. Implementation of the Harold schedule re-sequencing to support the "ESA First" approach of advancing work elements required to provide LIRR service into GCT will help mitigate schedule delay risks. Success of the Harold re-sequenced schedule, however, is contingent on both Amtrak and LIRR providing the necessary force account support to the third-party contractors and completing their own force account construction work elements on schedule.

Concerns and Recommendations:

Having performed several programmatic risk assessments and multiple package level risk reviews, MTACC is capable of developing mitigation strategies for the risks identified and tracking and reporting on them on a regular basis as required by the RMP. MTACC needs to continue to focus on developing, updating, and implementing effective mitigation plans for the identified major risks.

The many external stakeholder issues with Amtrak and LIRR will remain beyond MTACC's direct control and this is likely to complicate problem resolution essential to completion of the project, especialy those portions related to the Harold Interlocking.

7.0 PMOC CONCERNS AND RECOMMENDATIONS

Priority in Criticality column

1 – Critical 2 – Near Critical

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
ESA-96-Sep12	1.5 Safety and Security	Safety Certification Process: The PMOC remains 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: To the PMOC's knowledge, the scheduled April 2015 Safety and Security Committee Meeting was not held as planned. Recommendation: The PMOC continues to recommend that the Safety Certification Committee produce a calendar for regularly scheduled meetings and adhere to it. The PMOC intends to close this issue in its 3Q2015 Comprehensive Report and re-open it at a later date if and when the Committee begins to function as intended.	2
[redacted]	[redacted]	[redacted]	[redacted]

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
		[redacted]	
ESA-107-May 13	5.2 Project Cost Management and Control	Contract Package Engineer's Estimates: ESA has been providing the PMOC with the backup for the package Estimates more frequently; however, what is provided often is not in formats useful for analysis and generally delivered too late to fully prepare for Risk Workshops. The Basis of Estimate, when provided, generally does not provide enough detail for thorough analysis, nor to identify the assumptions of the Estimator. No opportunity for reconciliation, records of any reconciliation meetings that may have occurred, or explanation as to why those costs are to be used are 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 Basis of Estimate documents without the planned scope movement of the Track and has stated it will provide an updated independent Estimate by an independent estimator retained by MTACC. ESA had stated it would provide the reconciled Architectural and MEP Estimates prior to February 1, 2015, and the Track Estimate by mid-February 2015; however, those were only received in early June 2015. [redacted] Recommendation: The PMOC notes that there has been some progress made by ESA with regard to the issues discussed and information exchange has improved somewhat. **This issue will be closed.** Working with the Sponsor, the PMOC will continue to pursue improvements in the processes noted.	1
[redacted]	[redacted]	[redacted]	[redacted]

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
			
ESA-109-June 13	4.1 Schedule	Project Schedule: The IPS update does not adequately represent the current state of the project and events. The Harold portion of the IPS will have to be changed based upon the recent re-sequencing and re-planning of the Harold work in Q4-2014. Status Update: ESA committed to placing the latest re-plan of the Harold work in the November 2014 IPS update. This commitment was later shifted to April 2015 due to incorporation of the Harold Re-Sequencing. Although the Harold Re-Sequencing has now been included, not all of the Integrated System testing activity details are complete. Recommendation: ESA has completed incorporation of the Harold Interlocking "ESA First" Re-Sequencing in the Integrated Project Schedule. The Integrated System Testing schedule details are pending finalization of the systems design and testing program. **This issue will be closed.**	1

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
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 June 2015, 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 Update: 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. Since that time, the PMOC has endeavored to engage the ESA Project Controls is productive discussions regarding improvements to cost and schedule reporting during the monthly cost and schedule review meetings. MTACC noted that both Cost and Schedule Management Plans will be revised, after completion of the PMP update, to improve the management processes and reporting. MTACC submitted the revised CMP on Juen 30, 2015. The PMOC notes that the updated TCC Plan was expected earlier in 2014 but was submitted on June 11, 2015 based on finalization of the role, responsibilities and level of authority of the ESA Change Control Committee. Recommendation: The PMOC will continue to work with MTACC at the monthly cost and schedule review meetings to advance progress in this area. Although some improvements to the transparency/clarity and traceability of the decision-making process with regard to cost and schedule have been noted, the PMOC's opinion is that MTACC's continued efforts to improve are still needed.	1

Number/ Date Initiated	Section	Issues/Recommendations	Criticality
ESA-118-Sep14	1.6 Quality	CS179 (Systems Package 1- Base Contract): The CS179 Contractor is not meeting its Quality requirements. Status Update: This contract was awarded fourteen months ago. Submittals have finally started to be transmitted. Several contractor Quality Managers have either left or been rejected by ESA and MTACC Quality Management. The contractor has several other ESA contracts and its ESA Quality Manager has been approved as the Quality Manager for this contract for a period of 90 days. Recommendation: The PMOC notes that ESA has acted on the issue and is making progress toward resolution of the problems. **This issue will be closed.**	1
ESA-119-Jun15	4.1 Schedule	Contract Schedule: The Baseline Schedule for Contract CS179 has yet to be approved. The Baseline Schedule represents an overall contract work plan that all stakeholders must agree upon and use to effectively progress the work. Status Update: As of end of June 2015, 15 months out of this 68-month contract are already expended and there is still no "approved" Baseline Schedule. Several iterations of the proposed baseline schedule have been submitted by the contractor, but the ESA has not approved any of them and has retirned them to the contractor for re-submittal. Recommendation: Have the ESA CM convene a schedule workshop with all parties to discuss and finalize an "approved" Baseline Schedule.	1

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. Critical metrics cannot be properly updated until approved baseline schedule is fully incorporated into the IPS. At present, ESA has incorporated the latest Harold Re-Sequencing, developed in December 2014, into the IPS schedule. MTACC is currently working to correct discrepancies in the schedule baseline so that an accurate comparison can be completed between July 2014 baseline and the monthly IPS updates..	2	7/31/15

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
LTA	Lost Time Accidents
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)
PCO	Preliminary Change Order
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 ($YOE) at FFGA signed
11,936.0 million	Total Project Cost ($YOE) at Revenue Operations
11,972.1 million	Total Project Cost ($YOE) at date of this report including $ 1,036.1 million in Finance Charges
5,649.4 million	Amount of Expenditures as of May 31, 2015 based on the Total Project Budget of $10,177.8 million
57.1	Percent Complete based on the Re-plan budget of $10,177.8 million and invoices in the May 2015 report
[redacted]	[redacted]
56.4*	Construction Percent Complete
57.1	Overall Project Percent Complete

*As of February 28, 2015, based on the June 2014 ESA [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 mud slab) 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 D – 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	Grantee has forwarded the revised SSMP directly to FTA,
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 certification process for ESA until such a time as it is signed and certified by LIRR.

Project Overview		
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 New York State Public Transportation Safety Board (NYSPTSB) is the SSOA. The SOA has stated that they will not interface with the security review process for ESA until such a time as it is signed and certified by LIRR.
Did the oversight agency participate in the last Quarterly Program Review Meeting?	N	The SOA has no plans on attending these meetings. Grantee to transmit SSMP to SSOA through the Grantee's System Safety Dept., 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. The SOA has stated that they will not interface

Project Overview		
		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?	Y	Grantee has forwarded the revised SSMP directly to FTA.
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 safety certification designee for MTACC, as well as the MTACC quality chief, meets regularly with the project

Project Overview		
		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.
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

Project Overview		
		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 Safety Certification 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	Safety certification 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 Safety Certification Committee process provides for TVRA, safety, and security analysis as well as input from subject matter experts on the SSMP Committee.
Has the Grantee ensured the development of safety design criteria?	Y	The Safety Certification Committee has validated the safety design criteria developed by the GEC.
Has the Grantee ensured the development of security design criteria?	Y	Accomplished through the SSMP Committee

Project Overview		
		process.
Has the Grantee ensured conformance with safety and security requirements in design?	Y	Achieved through the Safety Certification Committee process.
Has the Grantee verified conformance with safety and security requirements in equipment and materials procurement?	Y	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. Since the 4th quarter of 2014, the grantee has begun to document said verifications by use of their Quality Department reports and CM inspection reports.
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 system certification.

Project Overview		
		PMOC has expressed concerns, both at meetings and in reports, about the non-linear pattern of completed construction vs. incomplete critical testing. Grantee believes that all hazards listed on the PHA log are either safety and/or security critical.
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. The Grantee is in the process of implementing requirements of the SSMP to conform to construction testing and integration requirements.
Does the Grantee evaluate 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. Controls have been put in place whereby the GEC verifies that any change orders and/or waivers do not affect the certification analysis process.
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	Y	An Emergency Preparedness Plan was promulgated by the Grantee in 11/2010. The EAP operational readiness group has been finalized to include

Project Overview		
Emergency Operations Plan		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 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 reflecting the incident management hierarchy is being presented to the respective executives of each railroad, with the recommendation that LIRR and MNR's GCT incident commanders report to a unified incident commander from 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 E – ON-SITE PICTURES

(TRANSMITTED AS A SEPARATE FILE)

APPENDIX F - COST AND SCHEDULE ANALYSIS TABLES

Table F-1: ESA Planned Cash Flow as of 3/31/15

Quarter/year	Construction $(000)	Engineering $(000)	OCIP $(000)	Project Mgmt. $(000)	Real Estate $(000)	Rolling Stock $(000)
Paid To Date	**3,660,194,771**	**646,377,892**	**155,604,955**	**580,041,291**	**112,634,547**	**0**
Remaining	**3,719,144,273**	**74,237,918**	**127,008,665**	**392,127,353**	**69,441,683**	**202,000,000**
3Q2014	209,340,620	-3,311,163	4,774,951	16,667,454	0	0
4Q2014	168,280,817	-3,290,689	4,774,951	16,667,454	75,948	0
1Q2015	134,568,200	-3,183,384	4,619,246	16,123,950	4,506,241	0
Remaining Planned	**3,206,954,636**	**84,023,154**	**112,839,518**	**342,668,494**	**64,859,494**	**202,000,000**
Remaining Actual	**3,283,624,272**	**77,581,669**	**97,288,553**	**336,910,027**	**67,826,147**	**202,000,000**
FF	147,357,357	-3,290,689	4,774,951	16,667,454	4,658,137	0
3Q2015	169,688,509	-3,290,689	4,774,951	16,667,454	4,658,137	0
4Q2015	201,239,698	-3,290,689	4,774,951	16,667,454	4,658,137	0
1Q2016	193,275,933	-3,219,153	4,671,147	16,305,118	4,556,873	0
2Q2016	180,854,738	-3,290,689	4,774,951	16,667,454	4,658,137	8,666,545
3Q2016	181,988,455	-1,983,850	4,774,951	16,652,320	4,658,137	13,070,855
4Q2016	214,173,807	6,728,414	4,774,951	15,971,281	4,658,137	13,070,855
1Q2017	210,556,624	6,509,009	4,619,246	15,450,479	4,506,241	12,644,631
2Q2017	199,737,103	6,728,414	0	15,971,281	4,658,137	13,070,855
3Q2017	189,382,506	6,728,414	4,774,951	15,971,281	4,658,137	13,070,855
4Q2017	182,084,699	0	4,774,951	15,971,281	4,658,137	13,070,855
1Q2018	174,210,593	6,509,009	4,619,246	15,450,479	4,506,241	12,644,631
2Q2018	170,524,739	6,728,414	4,774,951	15,971,281	4,658,137	13,070,855
3Q2018	168,497,619	6,728,414	4,774,951	15,971,281	4,658,137	14,014,767
4Q2018	155,245,094	6,728,414	4,774,951	15,971,281	50,632	14,014,767
1Q2019	148,441,548	6,509,009	4,619,246	15,450,479	0	13,557,764
2Q2019	110,893,994	6,728,414	4,774,951	15,971,281	0	14,014,767
3Q2019	93,559,944	6,728,414	4,774,951	15,971,281	0	14,014,767
4Q2019	71,649,848	6,728,414	4,774,951	15,971,281	0	14,014,767
1Q2020	20,704,406	6,582,144	4,671,147	15,624,080	0	5,043,553
2Q2020	11,682,057	6,728,414	4,774,951	15,971,281	0	943,912
3Q2020	7,573,078	2,267,183	4,947,825	5,381,627	0	0
4Q2020	2,750,374	0	5,035,679	0	0	0
1Q2021	881,913	0	3,256,771	0	0	0
BL Subtotal	**3,719,144,273**	**74,237,918**	**127,008,665**	**392,127,353**	**69,441,683**	**202,000,000**

Table F-2: 90 Day Look-Ahead Schedule

Activity ID	Activity Name	2Q2015 Start	2Q2015 Finish	LOCAT -ION
Design Phase (from Design to Advertisement Readiness)				
CH061A-2080	100% Design Submission - Contract CH061A		7-Aug-15	H
CH057D-0010	Issue directive GEC	2-Sep-15		H
CQ033-P1310	GEC 100% Design Resubmission		1-Oct-15	Q
Procurement Phase (from Advertisement to NTP)				
VQ033-1030	VQ033 IFB Advertise Date	21-Jul-15		Q
CH057-2050	Issue Notice of Award (CH057)		6-Aug-15	H
VQ033-1050	VQ033 Bid Due Date		1-Sep-15	Q
CH061A-2200	CH061A Advertise Date	28-Sep-15		H
VQ033-1090	VQ033 Notice To Proceed (NTP)	29-Sep-15		Q
CM007-0160	CM007 Bid Open		30-Sep-15	M
Construction Phase (from NTP to Substantial Completion)				
CH053-2020	MILESTONE 02A Tunnel A Approach Structure - East of 39th Street.		10-Jul-15	H
CH053-1010	Milestone #2 - Track A Pit & Approach Structure		10-Jul-15	H
FHL02-CSR140	Ready to start testing / Revision (H3)		10-Jul-15	H
SUMFHA02-1630	Install ZN1 Switch (749):		12-Jul-15	H
CS078-T1300	Completion of 1st Concrete Slab (Invert) Ready for Trackwork @ Yard Lead		22-Jul-15	Q
SUMFHA02-1650	Install DN2 Switch (743B)		25-Jul-15	H
SUMFHA02-1540	Cutover - ZJ1/ZJ2 (747)		26-Jul-15	H
CH053-2040	MILESTONE 4 Church Parking Lot		30-Jul-15	H
VH51C0340	FIAT COMPLETED (w/HTSCS Contract)		30-Jul-15	H
CM014B-AR08	CM014B AR08 - Existing Hog Houses		1-Aug-15	
FHL02.SI.00084	Installation of Switch P1 (3234 W)		2-Aug-15	H
CM013A-060	CM013A Substantial Completion		3-Aug-15	M
CM014B-4110	(VM014 Opt G) EL-20 (48th St Plaza)		4-Aug-15	
FHL01-1130	Complete Trough H1 to 48th Street (Drainage)		6-Aug-15	H
CH057NTP	NTP CH057-Harold Struct Pt 2/3: 48th Bridge and D pit & Appr	7-Aug-15		H
CH053-DM001B	CH053 - Substantial Completion		14-Aug-15	H
CH053SC	Milestone #9 - CH053 - Substantial Completion		14-Aug-15	H
FHL01-1210	Testing & Commissioning G02 Substation	17-Aug-15		H
CH057D-1000	Remove Switch 813E		29-Aug-15	

Activity ID	Activity Name	2Q2015 Start	2Q2015 Finish	LOCAT -ION
CM014B-2320	Start EL-14, T-01	1-Sep-15		M
FHL01-1140	Complete Trough H1 to H2 (WBY)		3-Sep-15	H
CM014B-7810	(VM014 ARIIIB-3a) Commence Installation of EL-01,02,09,11,13,14,21, ES-01,02,30,31,32		4-Sep-15	
CM014B-2640	Main Concourse Area - 46th St. Cross Passage Connection Complete (Ready for MNR to install Track Ladder N)		4-Sep-15	M
CM014A-1100	CM014A - Substantial Completion (535CDs from NTP)		7-Sep-15	M
CM014A-1090	Permanent Power Available @ B30		7-Sep-15	M
CH054A-890	Milestone #3 - Substantial Completion - CH054A within 485 calendar days from NTP		8-Sep-15	H
FHA02-1060	CH054A - Completed SMUS 1 & 2 / Install New RTU		11-Sep-15	H
FHL02.SI.00005	Installation of Switch S1 (3164) T.PP		20-Sep-15	H
CS078-T1490	(YL Bench Walk) Completion of Bench Walk		1-Oct-15	Q
CM014B-AR02	CM014B AR02 - North Transfer Station		2-Oct-15	
FHL02.SI.00205	Install Signal Bridge 16 (H4 & H5)		5-Oct-15	H
No IPS-EPC				
CH053-5140	Con-Ed Energize High Voltage Service at G02 Substation		15-Jul-15	H
CM006-MS5	CM006 Milestone #5 (GCT 4 Facility Room - 460 CD from NTP (7/4/2015)		27-Jul-15	M
CH053-6140	CH053 Complete Building Manhole Platforms		31-Jul-15	H
CH053-6110	G02 Accepted - CH053 Perini Complete		14-Aug-15	H
CH053-5190	Turnover G02 Substation to LIRR - Prior to Burn In of Substation		14-Aug-15	H
CH057C.1120	CH057C - Access Restraint For LIRR Freight Track Removal		15-Aug-15	
FHL02-3190	Ready to Demo Rack at Woodside		11-Sep-15	H
FHL02-3290	Ready to Install Loc 30 CIL		25-Sep-15	H
CH057A-5580	CH057A Milestone 2 - Signal Bridge 16		4-Oct-15	H
CQ032-MS11	Milestone #11 Complete YLT Ductbench Work Between Station 1181+89--1225+10		6-Oct-15	Q

APPENDIX G - ESA CORE ACCOUNTABILITY ITEMS

Table G – ESA Core Accountability Items

Project Status:		Original at FFGA	Current*	ELPEP **
Cost	Cost Estimate	$7.368B	$10.178B	$8.119B
[redacted]	[redacted]	[redacted]	[redacted]	[redacted]
		[redacted]	[redacted]	[redacted]
Schedule	RSD	December 31, 2013	December 2022	April 30, 2018

Total Project Percent Complete	Based on Invoiced Amount	57.1(ESA Figure)
	Based on Earned Value	0.72(PMOC Calculation)

Major Issue	Status	Comments
Major Procurements Delays	CM014B was advertised in May 2014; ESA did not make its recommendation to award forecast date of November 2014, and did not make its last forecast date of November 2014 for advertising CM007. CM007 was advertised in late December 2014, with proposals due on May 1, 2015, and the CM014B Award and NTP were issued February 2, 2015. Award of CM007 is contingent upon funding availability.	PMOC remains concerned about the potential project schedule impacts of procurement delays on these two packages, CM014B and CM007, since they are on the critical and near critical paths for the project. CM007 procurement is being delayed as the proposal due date has been extended by three months to August 4, 2015.
Project Schedule	MTACC presented a new baseline schedule to the MTA CPOC in June 2014, with an RSD in December 2022. This schedule incorporates 22 months of Program level contingency. It should be noted that there have been significant changes in elements comprising the baseline schedule, including full re-sequencing of the Harold work and restructuring of the CM007 package.	CM006 has experienced significant delays and has yet to meet the approved recovery schedule production targets. The PMOC is also concerned about the ability of the CS179 Contractor to manage this key Contract that is complex and on the critical path based on the difficulties it continues to have in providing an "approved" baseline schedule.
Harold Re-planning	The Harold baseline schedule that formed the basis of the Program schedule presented to the CPOC in June 2014, is no longer valid. Based on current issues with slow progress and inadequate force account support, ESA completed a Harold schedule re-sequencing in December 2014, also known as "ESA First," that advances work elements required for the new LIRR service to GCT and pushes back the FRA funded High Speed Rail Work beyond 2017.	Work on the Harold Interlocking is subject to influences outside of the control of ESA. The FRA and Amtrak need to accept the most recent Harold re-sequencing plan completed in December 2014. Continuing issues with the level of Amtrak force account support could further delay the Harold Interlocking work.

* Current Budget was approve d by MTA CPOC in June 2014.

** 2010 Enterprise Level Project Execution Plan (ELPEP) reflecting medium level of risk mitigation, excluding financing cost of $1,116 million.