### PMOC MONTHLY REPORT

#### East Side Access (MTACC-ESA) Project

Metropolitan Transportation Authority New York, New York

Report Period February 1 to February 29, 2012



PMOC Contract No. DTFT60-09-D-00007 Task Order No. 2, Project No. DC-27-5115, Work Order No. 03

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#### TABLE OF CONTENTS

COV	ER	1
TABI	LE OF CONTENTS	2
THIR	RD PARTY DISCLAIMER	3
REPO	ORT FORMAT AND FOCUS	3
MON	ITORING REPORT	3
1.0	PROJECT STATUS	3
a.	Design	3
b.	Procurement	4
c.	Construction	5
d.	Quality Assurance and Quality Control (QA/QC)1	0
2.0	SCHEDULE DATA 1	0
3.0	COST DATA	1
4.0	RISK MANAGEMENT1	2
5.0	ELPEP 1	4
6.0	SAFETY AND SECURITY 1	5
7.0	ISSUES AND RECOMMENDATIONS 1	5

## **APPENDICES**

#### **APPENDIX A – ACRONYMS**

#### **APPENDIX B – TABLES**

- Table 1 Project Budget/Cost Table
- Table 2 Summary of Critical Dates
- Table 3 Comparison of Standard Cost Categories: FFGA vs. CWB
- Table 4 ESA: Catenary Review Schedule
- Table 5 Core Accountability Items

## THIRD PARTY DISCLAIMER

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

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

## **REPORT FORMAT AND FOCUS**

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

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

## MONITORING REPORT

## 1.0 PROJECT STATUS

## a. Design

As of January 31, 2012, the design activities were reported to be 95.4% completed vs. 100% completed planned for this period. Total percent complete dropped from last month due to additional design tasks being given to the GEC (due primarily to scope shifts and repackaging. Progress on the remaining Electric Traction (ET) design work continues to trend behind schedule. Overall design progress continues to be hampered by minimal progress in the ET design. Progress was made in advancing the ET design work during the month of February 2012. A meeting was held with Amtrak on February 29, 2012, resulting in the approval of several packages: Stage 2 - 60% Catenary design; Stage 3 - 30% Catenary design was approved ten days ahead of the latest schedule; and the 30% design for FQA65 was approved.

For CH057 Contract (Harold Structures 3A), all design efforts except the catenary are completed. The catenary design cannot be completed and incorporated into the final design package until Amtrak approval is obtained. As of this report, the 90% and 100% ET design packages are pending submittal to Amtrak (note: Amtrak cannot review 100% design until 90% has been reviewed and approved). The ESA PMT is planning to advertise the CH057 Package

by June 1, 2012. It is important to note that the catenary installation is on the critical path for the Harold work, and is on the near critical path for the project schedule.

Preliminary design efforts for the 48<sup>th</sup> Street entrance to GCT (CM015) continued in February 2012.

The ESA-PMT issued a Notice-to-Proceed (NTP) to the GEC to begin development of the bid documents for CM014B Contract (GCT Concourse/Cavern Finishes) in January 2012. The NTP includes pending scope revisions to access at 44<sup>th</sup> and 50<sup>th</sup> streets

. Current schedule projects have the bid set being

completed in late June 2012.

#### b. Procurement

As of January 31, 2012, the total procurement activity on the project was reported to be 59.9% complete, with \$4.663B in contracts awarded out of the \$7.791B budget. Only the first two years of the 2010 – 2014 MTA Capital Program have been funded by the NYS Capital Program Review Board (CPRB). The CPRB was to approve additional funding by December 31, 2011; however, this has not happened. The MTA will not be able to award the ESA contracts CM014B – GCT Concourse/Cavern Finishes; CS179 – Systems Package 1 (Facilities); and CS084 – Systems Package 2 (Tunnels) if this funding is not in place. In the PMOC's opinion, if the CPRB does not act soon to quickly approve additional funding after the April 1, 2012 resubmittal of the MTA Capital Program Plan (see discussion below), the project will suffer unrecoverable delays. The extent of the delays will be determined by the level of funding approved for the next phase of the Capital Program, and the length of time it will take for the funding to be authorized.

The procurement process for CS179, CM012 and CM014B contract packages, which are highdollar value contracts with long durations, is trending significantly behind schedule, due in large part to continuing scope shifts, volume of questions from bidders and proposers, and the addenda needed to address them.

Of particular concern is the continuing slippage of the proposal due date for the CS179 package.

FOIA To address this delay, ESA \_

separated the due dates for the Technical proposals and Cost and Schedule proposals. The Exemption 5 Technical proposals are now due on March 7, 2012, a delay of three weeks since last month, and S.C. § the Cost and Schedule proposals due date has moved out to April 17, 2012. Based on the above 52(b)(4) and because CS179 is a negotiated procurement (RFP), the PMOC believes that there is insufficient time to issue the NTP in August 2012 (as currently forecast) given the significant delays in proposal due date and the time required for contract negotiation.

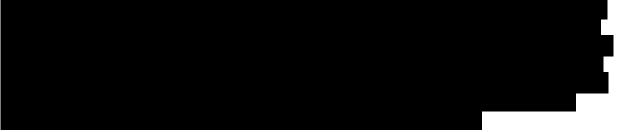
The CM012 solicitation was cancelled in November 2011 after the ESA-PMT was informed by several potential bidders that it would be difficult, if not impossible, to submit a reasonable bid given the requirements in the bid package. The ESA-PMT scheduled meetings with perspective bidders and is currently planning to reissue the solicitation on March 12, 2012, a one-week slip since last month. Bids were previously due on May 8, 2012; ESA has not adjusted this date in its latest schedule update Prior to cancellation of the bid, the NTP was forecast for March 2012, and ESA is now forecasting NTP in August 2012. MTACC is still forecasting January 2013 for construction to begin on this contract. The PMOC believes that it will be difficult to start

construction on this contract in January 2013 given the significant procurement delay. The PMOC notes that the CM012 package will have to be carefully evaluated for its The PMOC notes that the CM012 package will have to be carefully evaluated for its impact on the revised ESA schedule baseline,

Procurement of the 55<sup>th</sup> Street Vent Plant (CM013A) continues to trend behind schedule. The Contract scope of work has been re-defined due to access constraints and includes a reduction in the excavation effort and the addition of tunnel lining. This scope change is being incorporated into the contract by addenda. The bid due date of November 17, 2011 was extended to the end February 2012 to allow time to issue addenda for the scope adjustments, and the bid date has been extended again to March 13, 2012.

#### c. Construction

The average monthly construction progress rate has decreased from 1.2% per month through 2010 to 1.0% in the last 12 months. MTACC reported in its January 2012 Monthly Progress Report that the actual project construction progress reached 44.2% completion, which falls short of the planned 64% construction progress planned for this period (on a cost expenditure basis in accordance with MTACC's re-baselined budget of September 2009).



MTACC continues to look for ways to improve contract performance; however, based on its analysis, the PMOC believes that the lost time will not be recoverable.

<u>Manhattan</u>: CM009/CM019 Contracts – Manhattan Tunnels Excavation/Structures Part 1: As of January 31, 2012, the total amount invoiced for CM009 was \$375,365,000, which represents 83.7% of the Current Contract Value of \$448,421,000. Thirty-four contract modifications for a total of \$20,467,318 have been executed. Actual work performed, computed in the MTACC's normal fashion, is 83.7% (based on percent invoiced), although, due to the schedule re-baseline, the MTACC does not show planned spending in its January 2012 monthly report.

As of January 31, 2012, the total amount invoiced for CM019 is \$562,950,000, which represents 74.8% of the Current Contract Value of \$752,347,000. Forty-eight contract modifications for a total of \$18,347,328 have been executed. Actual work performed, computed in the MTACC's normal fashion, is 74.8%. Once again, due to the schedule re-baseline, the MTACC does not show planned spending in its January 2012 monthly report.

The progress of both contracts continued to slip throughout the last 3 quarters of 2011 and into the first two months of 2012. During the latter part of 2011, the MTACC realized that the slippage would be unrecoverable and began a schedule re-baseline effort of the project. In its last several 2011 monthly reports, the MTACC showed the Substantial Completion (SC) date for CM009/019 as, "Under Review", but is now preliminarily forecasting SC to be August 31, 2013.

Although the contractor has made significant progress with archway concrete placement and bench removal in both caverns since November 2011, it has not been able to recover any significant amount of schedule it had previously lost.

As of February 29, 2012, the contractor completed excavations of the GCT3 West Wye, the 403 Bench II between the upper and lower Westbound Caverns, and T404/T403 cheeks. The contractor continued excavations of the T402/T401 cheeks; the GCT4 West Wye and Escalator Way #1 incline; installation of invert re-bar in Escalator Way #3 and archway re-bar in Escalator Way #2; and concrete placement on the archway of the Eastbound Cavern (14 of 23 pours made). The contractor began excavation of the 302 Bench II between the upper and lower levels of the Eastbound Cavern and resumed excavation of the GCT3 crossover. Although this work represents significant recent progress, the PMOC remains concerned that the CM009/CM019 contracts remain behind schedule and continue to be on the project critical path for the current baseline and on a near critical path for the new re-baselined schedule.

The contractor and the MTACC continue to jointly develop optimal work plans that will allow site access to follow-on contracts in an effort to regain some overall project schedule. The MTACC believes that it will be able to regain a limited amount of overall project schedule through specific phased turnovers for follow-on contractors rather than wait for CM009/019 to achieve full Substantial Completion. The enactment of such a plan would enable the other contractors to begin work sooner than originally anticipated, but would introduce MTACC retained risk in the form of construction coordination.

**CM004 – 44<sup>th</sup> Street Demolition and Fan Plant Structure:** ESA-PMT's latest forecast for Substantial Completion of excavation in vertical Shaft #1 by CM004 to the original Contract invert of Elevation 282 is March 2012; an additional one month later than the previous month's forecast of February 2012. As a result, CM004 is now approximately 9 months behind its currently approved baseline schedule. The additional delay is due primarily to excessive equipment breakdowns and extensive architectural changes. At the request of ESA, the contractor has submitted a cost proposal to continue the excavation of Shaft #1 to its final invert elevation in the caverns, or approximately 62 additional feet. The added schedule time as a result of this proposed change cannot be determined at this time.

ESA has decided that the Gantry Crane will remain in place at the site to assist in future contract construction activity such as lining of the horizontal Shaft #1. This will require a "Leave Out" in the building for approximately the first 2 floors. The change will cause the Gantry to be disassembled and removed as a part of the CM014B contract. As a result of this change, the GEC has been directed to prepare revised drawings as needed to the structural steel and other building components. The impact to the schedule related to this change has not yet been determined.

As of January 31, 2012, the total amount invoiced was \$28,942,000, which represents 69.0% of the Current Contract Value. Thirty-nine contract modifications have been executed for a total of \$1,152,000. Actual work performed is 69% versus 100%% planned.

**CM013 – 50<sup>th</sup> Street Vent Facility:** CM013 Substantial Completion of the 50<sup>th</sup> Street ventilation plant is 6 months behind its original baseline schedule, mainly due to problems encountered during excavation of the site. The MTACC and the contractor have agreed to add a new Milestone #5, which will allow interfacing contractors access to the site and is intended to

lessen the schedule impact to the project due to the delayed work. The current proposed milestone date in the February 2012 schedule update is August 27, 2012 (note: this date has to be approved). The MTACC now forecasts Substantial Completion of CM013 in December 2012.

During February 2012, the deep shaft rock excavation reached the final invert of approximately Elevation 220. The contractor is preparing to begin the sequence of shotcrete, waterproofing and finish concrete placement in the Shaft. The mud slab was completed in the Service Tunnel, and the contractor continued with installation of electrical duct banks and completed the installation of electric manholes. Waterproofing in the Service Tunnel is ongoing. Work on the vertical utility shaft at the existing building continued.

**CM014-A** – **Concourse and Facilities Fit-Out**: The contract was awarded in November 2011, with a Notice-to- Proceed date of November 7, 2011. The Kick-Off Meeting was held on November 15, 2011. The contractor is continuing with project startup and mobilization. The ESA-PMT submitted and reviewed the preliminary schedule. Site surveys have been ongoing, and test pits at the 43<sup>rd</sup> Street garage determined that no historic materials were present. MTA issued the construction permit and Substantial Completion is April 2013.

Queens: CQ031 (Queens Bored Tunnels and Structures): As of January 31, 2012, the EAC remained at \$778.5 million. The forecast Substantial Completion date recovered three months from April 2013 to January 2013, which is a 4-month delay to the original date. Based on the latest data available from the grantee, cumulative actual percent complete is 69.5% versus planned 84.0% on a cost expenditure basis, and 78% of the contract time to Substantial Completion has elapsed. As of January 31, 2012, fifty contract modifications (change orders) totaling \$103.3 million have been approved, which represents 13.3% of the current EAC. From January 2010 through July 2011, the ESA has reported varying levels of float from 0 calendar days (on critical path) to 76 calendar days and most recently reported 76 days of float in the July 2011 IPS update (data date August 1, 2011). The PMOC notes that, due to the ongoing comprehensive schedule re-baselining, the IPS was not updated since July 2011.

During February 2012, the contractor completed installation of the secant pile guide walls for the West-Bound Bypass (WBBY) structure. The contractor continues: excavation at the Yard Lead Emergency Exit; construction of final portions of the Yard Lead Approach Structure; construction of the C.O.8 Substation; disassembly of the Track A Tunnel and the Yard Lead Tunnel TBMs and transport back to the launch area; and preparation of the Tunnel B/C and Tunnel D TBM launch area. The contractor's supplier continued fabrication of the last scheduled pre-cast concrete tunnel liner panels.

**CQ032 Contract – Plaza Substation and Queens Structures:** As of January 2012, the EAC remained the same at \$162.1 million and the forecast Substantial Completion date remained unchanged at August 2014. Based on the latest data available from the grantee, the cumulative actual percent complete is 2.8% versus planned 3.1% on a cost expenditure basis, and 14% of the contract time to Substantial Completion has elapsed. The PMOC notes that this progress is consistent with the current cost projection baseline that shows only 14-15% progress during the first 12 months of the project. The contractor has mobilized at the existing Roosevelt Island, 12<sup>th</sup> Street, 23<sup>rd</sup> Street, 29<sup>th</sup> Street and Vernon Boulevard ventilation facilities and continued asbestos and lead paint abatement, fencing installation, demolition work and installation of temporary power and lighting.

CQ039 Contract - Northern Boulevard Crossing: As of January 31, 2012, the EAC remained at \$101.0 million and the forecast Substantial Completion date slipped one month from December 2012 to January 2013, a five-month delay to the revised Substantial Completion date of August 2012 and a 15-month delay to the original date of October 2011. As of January 31, 2012, based on the latest data available from the grantee, the cumulative actual percent complete is 50.7% versus planned 69.1% on a cost expenditure basis, and 80% of the contract time to the current approved Substantial Completion date has elapsed. The contractor has completed construction of the Early Access Chamber down to the invert, installation of all freeze piping, thaw piping and monitoring pipe and waterproofing of the Plaza Invert Slab. The contractor continued the ground freeze, construction of vertical support columns, and installation of the tunnel access ramp for the sequential tunnel excavation work. The contractor is currently experiencing difficulties achieving complete ground freeze of the tunnel arch and this has caused a six-week delay to the start of soft earth machine (SEM) tunnel mining. Ground freeze had been expected to be completed by about January 17, 2012. Recent de-watering tests indicated the presence of groundwater leaks through the freeze zone. The leaks were located using "thermal profiling" of the frozen soil arch. External grouting was used at two locations to seal off the leaks and reduce the velocity of the incoming groundwater to allow the soil to freeze.

#### Harold Interlocking

**CH053 Contract – Harold Structures Part 1 and G02 Substation:** As of January 31, 2012, the EAC decreased \$3.7 million from \$203.9 million to \$200.2 million. The forecast Substantial Completion date recovered one month from February 2014 to January 2014, 24 months later than the current approved plan and 41 months later than the original plan. For this reporting period, based on the latest data available from the grantee, cumulative actual percent complete is 63.6% versus planned 100% on a cost expenditure basis, and 100% of the revised contract time to Substantial Completion has elapsed. For the January 2012 period, the actual percent complete was 1.4%, versus planned 2.1%. The contractor completed installation of piles for Pier 1 of the ML4 Bridge over 43<sup>rd</sup> Street. Construction work continued on the following: the civil portion of the 12kV duct bank and foundations for catenary poles and signal towers at various locations in Harold Interlocking; construction of the support-of-excavation for the Westbound Bypass bridge west abutment foundation; erection of catenary poles and signal towers; fabrication of catenary poles; and internal wiring and equipment testing for the G.O.2 Substation. Completion of work on the Tunnel A Approach Structure has been delayed due to late approval of associated redesigns for adjacent existing catenary and signal power structures.

**CH054A Contract – Harold Structures Part 2A:** The EAC decreased \$200,000 from \$38.3 million to \$38.1 million. The forecast Substantial Completion date remains April 2013, 28 months later than both the original and current approved plan date of December 2010.

As of January 31, 2012, based on the latest data from the grantee, the cumulative percent complete was only 52.9% versus planned 100% based on a cost expenditure basis. Substantial Completion was to have been achieved in December 2010.



During February 2012, Amtrak replaced both its ESA Project Director and its Electric Traction Supervisor. The PMOC is aware of the management capabilities of both of the new managers and believes that this change will result in a significant improvement in Amtrak's support of the program. Additionally, Amtrak also initiated the necessary labor changes that could result in as many as 10 additional ET support personnel being available on a daily basis, while extending work hours and providing overlapping shift coverage. This is expected to greatly mitigate a problem which has persisted for the project's third-party contractors virtually since their respective contracts began.

As of January 31, 2012, the total amount invoiced for FHA01 was \$13,503,000, which represents 80.3% of the Current Agreement Value of \$16,825,000. Actual work performed was 70.4% versus 100.0% planned. There has been one amendment to the agreement for a budget increase of \$1,500,000. Amtrak Force Account personnel completed installation of signal power switches on Towers 28 and 32, signal wire transfer between Towers 25 and 32, bond wire installation on new catenary structures B926W and B929W, and the new overhead Harold Utility Bridge.

As of January 31, 2012, the total amount invoiced for FHA02 was \$12,320,000, which represents 126.9% of the Current Agreement Value of \$9,706,000 (by mutual consent, Amtrak continues to work on early Stage 2 Communication &Signals construction on a "time and material" basis until the Stage 2 Project Initiation is approved). Percentage of work performed has not been calculated because the work has not been fully authorized. Amtrak Force Account personnel completed installation of the west end of the #747 crossover on Line 3 in "F" Interlocking along with the associated signal cable installation for switch point protection for the #747 and the #771 crossovers, as well as circuit revisions for both, and installation of the "F2B" and "F2C" signal cases. The labor forces continued installation of conduits across Lines 1 and 3 for the "F2" Central Instrument House (CIH), and off-track assembly of the east end of #747 crossover and the entire #771 crossover.

As of January 31, 2012, the total amount invoiced for FHL01 was \$17,190,000, which represents 82.7% of the Current Agreement Value of \$20,782,000. Actual work performed is 72.0% versus 100.0% planned. LIRR Force Account personnel continued the relocation of 3<sup>rd</sup> rail power cables for the 12kV duct bank work at Substation 44 and supported Amtrak signal wire transfers.

As of January 31, 2012, the total amount invoiced for FHL02 was \$10,692,000, which represents 145.4% of the Current Agreement Value of \$7,351,000 (by mutual consent, LIRR continues early Stage 2 C&S construction on a "time and material" basis until the Stage 2 Memorandum of Understanding is consummated). Percentage of work performed has not been calculated because the work has not been fully authorized. LIRR Force Account personnel completed installation of pedestal signals for the Signal Bridge 16 relocation, installation of insulated joints for the #771 crossover, and cutover the #833, #831, and #829 switches from the new "Point" Central Instrument Location (CIL). The labor forces continued signal cable pulls, switch point checks, and break-down tests for the new "Point" CIL.

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

The PMOC attended the MTACC 4th Quarter 2011 Quarterly Quality Oversights (QQOs) for the CQ039, CH053, CH054A, CQ032, CM004 and CM013 contracts (note: QQOs audit the management of a contractor's quality system, as opposed to the Monthly Quality Management Meetings, which only focus on specific issues). The QQOs found that all of the contractors for the above-listed contracts are delinquent with submitting As-Built drawings in a timely fashion.

On contracts CH053, CH054A, and CQ032 (all with the same contractor), the QQOs revealed that there was inadequate document and submittal control. Training, Nonconformance Report, Corrective Action Request, and Construction Work Plan logs were either not current or missing entirely.

## 2.0 SCHEDULE DATA

The ESA-PMT is still in the process of finalizing its revised baseline schedule. Consequently, the IPS update #33 (data date February 1, 2012) was not updated but was only statused (i.e., some of the actual start and/or finish dates are updated, other activities are not).

The decision to revise the baseline schedule resulted from an acknowledgement by the MTACC in 2011 that the current Revenue Service Date (RSD) of September 2016 is not achievable given the current status of the project progress and the Amtrak's East River Tunnel project. A series of workshops for each of the major program areas (Manhattan, Queens, Harold Interlocking, and Systems) were held from October 2011 through December 2011. The original goal was to have a revised baseline schedule finalized by the end of 2011 for presentation to the MTA Capital Program Oversight Committee (CPOC) in February 2012. MTACC informed the FTA Region II Office and the PMOC at the January 2012 FTA/MTACC Executive Meeting that it would not be ready to present the revised baseline project schedule to the MTA CPOC in February 2012 as originally planned. The ESA-PMT distributed a schedule of current status cost/schedule rebaseline swould be finalized by February 27, 2012, and a risk assessment of the new schedule and cost baselines would begin in March 2012. As of this report, neither the schedule or cost rebaselines have been finalized. The risk assessment workshops are scheduled to begin on March 13, 2012.

The results of the risk assessment is planned to be finalized in April 2012, and presented to the MTA CPOC in May 2012.

**Project Critical Path:** The PMOC observed that the revised baseline schedule has the same two critical paths as the current project schedule. The critical path now runs through Harold. A second, near-critical path runs through Manhattan, Queens and Systems (note: this path is less than 25 days off the critical path). A significant driver of the second path is the work of the CM009/019 contracts. The finalized baseline schedule will reflect the key milestone dates in settlement agreement between the MTACC and the CM009/019's contractor.

The summary of current project critical dates is shown in Table 2 in Appendix B of this report.

**Schedule Contingency:** Schedule contingency will be analyzed once the re-baselined schedule is finalized and issued.

#### 3.0 COST DATA

**Funding:** There is no change in project obligated funding from the previous report.

**Budget/Cost**: The ESA-PMT reported that, as of January 31, 2012, the overall project completion was 49.6%, (not including the budget allocated for the rolling stock reserve of \$463 million), representing a 0.7% progress increase since the December 2011 reporting period; and, the overall project completion significantly lags the planned total progress of 65.9% for this period.

The PMT also reported that the project expenditures as of January 31, 2012 were \$3,473.0 million. This amount represents 44.6% of the Current Working Budget (CWB) of \$7,791 million, approved in September 2009 by the MTA Board (excluding financing costs).

As of January 31, 2012, the ESA-PMT reported that the project expenditures increased by \$77.0 million, representing a monthly growth rate of 0.7% vs. 4.13% required. If this rate continues, the PMOC estimates that the project planned expenditure will only reach 76.0% by September 2016 (the currently MTA approved Revenue Service Date).

FOIA Exemption

The ESA-PMT has acknowledged that the RSD in 2016 will not be met, and they are in the U.S.C.  $\S$  process of re-baselining its project schedule. To date, the ESA PMT has not reported the **5602**(\$) (4) of the cost re-baseline effort to accompany the on-going schedule re-baselining, though changes to schedule will need to be accommodated by adjustments to the project cost. The ESA-PMT had forecast last month the completion of the cost portion of the re-baselining by the end of February 2012; however, the PMT has not provided any cost re-baseline information as of this report.

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

#### **Contingency**

The contingency for the last 12 months averaged \$40.3 million above the Baseline Contingency of \$424.4 million established in September 2009. Project contingency decreased from \$452.0 million in December 2011 to \$440.7 million in January 2012 (overall project representing a decrease of \$11.3 million):

The decrease in the project cost contingency for the current reporting period resulted from the following:

- <u>Executed Contract Modifications: The total value for executed contract modifications for</u> January 2012 was \$10.5 million.
- <u>Budget Increase</u>: One (1) Budget Adjustment in the amount of \$1.0 million was executed for the GEC for additional engineering services. \$0.8 million of this was moved to the GEC budget, while \$0.2 million remained in the GEC's contingency.

<u>Change Orders</u>: As of January 31, 2012, MTACC reported that four additional change orders were executed valued at \$10.5 million, for a total cumulative value of \$389.8 million in project change orders, representing 8.3% of the total of awarded contracts value (\$4,686.7 million).

The PMOC reviewed selected Authorized Work Orders (AWOs) valued at over \$100,000 for four contracts: CM009, CM019, CQ031, and CH053 during the latter part of 2011. Results of the review will be presented in the PMOC's comprehensive monthly report for March 2012.

## 4.0 RISK MANAGEMENT

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

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

**Current Risk Mitigation Commitments:** The management baselines included in the ELPEP derive from the modified PG33 and PG34 reports, PG47 analysis and the Cost Risk Summary completed in 2009. Based on the ELPEP, MTACC-ESA has committed to the following: managing the project to the revised ESA cost and schedule baselines approved by the MTA Board in September 2009; establishment of risk baselines and a risk mitigation framework with milestones; adherence to minimum cost and schedule contingency requirements; development of cost and schedule risk mitigation capacity including secondary mitigation strategies required to offset reserved contingency drawdowns; and implementation of specific design development, geotechnical, real estate, utility and construction risk mitigation strategies. It is the PMOC's opinion that MTACC-ESA currently does not yet have a fully integrated approach, along with

the required coordinated processes, to be fully compliant with the risk mitigation requirements in ELPEP. The PMOC notes that a number of the risks identified in the 2009 PG47 analysis have been realized and include: Stakeholder Risk (Amtrak on CH053 and CH054A); Construction Management Risk (CM019); Geotechnical Risk (potential - CQ039); Design and Pre-Construction Planning Risk (CH053 and CH054A); Schedule Delays (CM019, CH053, CH054A, CQ039); Differing Site Conditions (CH053, CH054A). The PMOC believes that MTACC's failure to effectively manage stakeholder, construction management and design/pre-construction planning risks has resulted in substantial schedule delays in both Manhattan and Queens. MTACC has, however, managed the potential schedule delay risks quite well on the CQ031 contract, but at a high cost.

**Current Risk Mitigation Efforts:** ESA-PMT has continued its efforts to identify and mitigate risks that may adversely affect the program's cost and schedule performance. Recent risk mitigation efforts initiated to address both previously identified risks, as well as new risks not addressed in the 2009 PG47 analysis, include the following:

- Through February 2012, the ESA-PMT continued to work very closely with Amtrak and LIRR to evaluate impacts to the ESA project created by Amtrak's planned East River Tunnel (ERT) capital improvements program. Amtrak's program requires a large number of track outages and is likely to require four years to complete. The ESA-PMT is working with the construction managers on the active Queens/Harold work to coordinate reviews with the contractors. ESA-PMT has also engaged a senior level team to complete an Independent Study of Harold Progress that included a review of the ESA Harold construction schedule and development of independent schedule recommendations for completion of the Harold work. ESA-PMT anticipates that this intensive planning effort, now nearing completion, will result in a re-baselined IPS that accounts for all impacts. The PMOC believes that this is a critical planning effort that needs to consider all potential cost and schedule risks. Amtrak, however, has experienced delays in their ERT Program and this is affecting track outage coordination with the ESA Project. This situation also complicates the ESA planning process for the Harold Interlocking work and introduces additional schedule risk. The PMOC recommends the ESA-PMT ensure that all affected stakeholders are fully involved in the review and decision-making process. Any additional costs would accrue to the \$120 million of Cost Risk identified for Construction Schedule Delays identified in the 2009 PG47 analysis. [New Risk]
- During March 2012, MTACC-ESA plans to complete a programmatic risk assessment of the re-baselined IPS and budget to develop new, risk-informed management baselines. This represents the first programmatic risk assessment performed since 2009. The PMOC concurs with the MTACC-ESA decision to assess risks for the re-baselined schedule and budget in order to develop risk-informed management baselines. [New Risk]
- The ESA-PMT completed an initial presentation to the Change Control Committee (CCC) in the 4<sup>th</sup> quarter of 2011 regarding Manhattan scope transfers to re-configure and optimize site access for future contracts. The effort is based on transfer of considerable work scope from the CM019 contract to multiple future contracts at the Manhattan site. Subsequently, this transfer was finalized in January 2012 in a global settlement with the

CM009/019 Contractor. It is the PMOC's opinion that while this approach offers an opportunity to mitigate some schedule risk, it does increase project coordination risk taken on by MTACC (retained risk) that will need to be accounted for as an additional project risk, and closely monitored and managed. Any additional costs due to risk realized would accrue to the \$120 million of Cost Risk identified for Construction Schedule Delays identified in the 2009 PG47 analysis. [New Risk]

In response to delays experienced on the Queens contracts to date, the ESA PMT and the associated ESA construction managers have managed, and continue to manage, all Queens area work to the critical CQ031 milestones related to TBM mining. Two of the four tunnels are now complete. It is the PMOC's opinion that this approach has been generally effective in minimizing potential delays to the start and continuance of CQ031 TBM mining due to three critical issues: termination of the CQ028 contractor for default in May 2008; significant repairs to the slurry walls constructed by the CQ028 contractor; and significant delays to completion of the CH053 contract. [2009 Risk]

## 5.0 ELPEP

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

- Technical Capacity and Capability (TCC) The PMOC has completed its review of the Candidate Revisions for the ESA-PMP and will discuss them with the FTA Region 2 Office before discussing them with MTACC. Also related to TCC compliance are two outstanding issues requiring MTACC action: MTACC completion of the final sub-plan elements, discussed above, and the need for MTACC to develop and implement the PMP training process.
- Schedule Management Plan (SMP) On November 3, 2011, the FTA confirmed that MTACC has responded to the Candidate Revisions identified in FTA's conditional approval letter, dated October 26, 2010, and that the SMP is fully approved. The process of transferring the verification process to the respective project teams has been discussed in general terms at several recent ELPEP meetings (see Compliance Demonstration below).
- Cost Management Plan (CMP) FTA conditional approval of the Cost Management Plan, including five (5) Candidate Revisions, was provided on September 1, 2011. MTACC responded to these Candidate Revisions in November 2011. The FTA/PMOC will prepare a response to MTACC in March 2012.
- Risk Mitigation Capacity Plan (RMCP) Drafts of the ESA and SAS Risk Management Plans were transmitted to FTA Region II during October 2011. MTA addressed all PMOC comments in its submittal of the RMCP on October 28, 2011. Resolution of final comments to the RMCP is being coordinated and combined with a review of the ESA and SAS Project Risk Management Plans. Both efforts are currently in progress.
- Compliance Demonstration At the November 3, 2011 ELPEP meeting, the previously submitted MTACC "white paper" was discussed. FTA provided input regarding ELPEP performance requirements, MTACC reporting and documentation, and FTA and PMOC validation. Significant discussion occurred regarding the intent and implementation of

"Secondary Schedule Mitigation" as described in the ELPEP document. One area of concern is MTACC's ability to adequately develop, maintain and track specific risk mitigation capacities and how this is actively integrated into the package level retained risks. A workshop session was held in early December 2011 to work through unresolved issues. MTACC revised the ELPEP compliance white paper and initially resubmitted in late January 2012, with a revised resubmission in late February 2012. PMOC is reviewing the document and the compliance demonstration methodology.

### 6.0 SAFETY AND SECURITY

The contractor's safety performance statistics for the CM009/019 (Manhattan Tunnels Excavation/Structures Part 1) contracts continue to be poorer than the industry norm, despite senior management involvement from both the contractor and the MTACC. For January 2012 (the latest up-to-date report available), the injury ratio for CM009 was 3.19 lost time accidents, and for CM019 it was 3.0 lost time accidents per 200,000 hours worked. The Bureau of Labor Statistics national industry average is 2.20 lost time accidents (note: overall project rate is 2.85). MTACC completed its Q4 2011 Safety Audit for all active construction contracts on ESA. ESA Safety will continue to monitor the CM009/019 management training plan and provide assistance when requested to improve the hazard recognition and control skills of field management and supervision personnel

## 7.0 ISSUES AND RECOMMENDATIONS

#### Harold Electrical/Catenary Design<mark>:</mark>

Contracts

CH053/054A have been significantly impacted by the failure to obtain timely approvals from Amtrak, and late completion of work by the CH053/054A contracts has also impacted the progress on the follow-on Contract CQ031, Queens Bored Tunnels and Structures. Progress was made in advancing the ET design work during the month of February 2012. A meeting was held with Amtrak on February 29, 2012, resulting in the approval of several packages which were outstanding for a considerable length of time (See Table 4 below): Stage 2 60% Catenary design; Stage 3 30% design was approved ten days ahead of the latest schedule; and the 30% design for FQA65 was approved.

The PMOC recommends that MTACC management continue to focus on the resolution of catenary design package approvals through better communication and coordination among the GEC, Amtrak and the ESA construction manager.

<u>Contracts CM009/019</u>: The PMOC notes that the CM009/019 contractor has kept pace with its construction schedule for the last several months, which has resulted in completion of archway concrete placement in the Westbound Cavern and 2/3 of the Eastbound Cavern. There has been no opportunity, however, for the contractor to regain any time it lost during the earlier portion of its contract.

**Contract CQ039:** The PMOC remains concerned about the contractor's ability to maintain acceptable progress during the New Austrian Tunneling Method (NATM) excavation due to the particular characteristics of this Contract including: very limited site access; labor intensive excavation/construction work; NYCT oversight of the construction work; a significant probability of encountering unforeseen field conditions during tunnel excavation that could result in re-design and a change in the construction means and methods. Some of the delays, currently totaling about twelve weeks as of the end of February 2012, have already emerged and include: encountering bedrock at an elevation lower than anticipated and installing additional freeze pipes; requiring additional time to achieve adequate ground freeze prior to the start of tunnel excavation; and correcting the ground freeze groundwater leakage at two locations.

**Contract CQ031:** Due to late completion of relocation of existing catenary and signal tower poles along the Track A alignment by the CH053 Contractor, the Track A Tunnel TBM drive was terminated approximately 300ft. short of its original location at the western end of the Track A Approach Structure being constructed by CH053.

PMOC notes that this may be closer to a 500ft. long structure due to the horizontal curve added to the tunnel to move the TBM extraction off the tangent alignment to avoid interference with the existing Amtrak 12kV duct bank. The existing duct bank is still in service because completion of the new replacement duct bank by the CH053 contractor is significantly behind schedule. The PMOC further notes that no work in this area can be done until the existing 12kV duct bank is de-energized and de-commissioned after completion and commissioning of the new replacement 12kV duct bank later this year.

<u>Contracts CH053/54A</u>: Overall, the CH053 contractor failed to meet the rate of construction progress required to meet the goals of the contract re-baselined schedule. Because of this, the PMOC remains concerned that the contractor may not be able to achieve and maintain the higher production rate called for in re-baselined schedule. Historical progress has averaged approximately 1.3% per month, yet the contractor will need to achieve 1.52% progress per month to meet the current forecast Substantial Completion date of February 2014. The production rate was 14.0% for the period of January 2011 through January 2012, an average of 1.08% per month.

The PMOC remains concerned about the continuing adverse impacts to the CQ031 contract as well as the follow-on Harold Interlocking Contracts CH057 and CH058. The PMOC continues to recommend that ESA prioritize the GEC construction support to this Contract, expedite resolution of utility interferences, and prioritize contractor's requests for track outages and force account support.



Although Contract CH054A work is not currently on the project critical path, the PMOC is concerned that construction progress continues to be very slow and late completion will put continued additional demands on both Amtrak and LIRR force account support services. The

## FOIA Exemption 5 U.S.C. § 552(b)(4)

**Procurement:** Contract Packages CS179 (Systems Package 1), CM012 (Manhattan Structures 2) and CM014B (GCT finishes) are high dollar value contracts and have long durations.

In the PMOC's opinion, MTACC has not effectively managed the procurement process. The continued procurement delays consume valuable schedule time before contract award and deprive individual contract packages of needed schedule float during construction. The significant number of scope shifts, referenced in Section 1-b above, is a significant contributor to the delays in the procurement process for the above-referenced packages. The technical proposal due date for CS079 slipped again from last month, as well as the advertise date for CM012. Continuing procurement delays may have significant impacts on the entire ESA project schedule.

**Project Funding:** The PMOC remains concerned about the ability of the MTA and the State of New York to provide future local funding for the project. The MTA Five Year Capital Program is currently being funded in two year increments and it remains to be seen if the next two-year increment for the 2012-2014 period will be fully funded. In 2011, MTACC did propose a revised financial plan that identified some additional funding streams including a potential Railroad Rehabilitation and Improvement Funding (RRIF) loan from the FRA for \$2.2 billion. MTACC informed the FTA/PMOC during the February 2012 Executive Review Meeting that the funding request for the next two year funding increment was withdrawn from the CPRB, and will be resubmitted by April 1, 2012.

**Project Schedule:** The ESA-PMT issued revision 1 of the revised baseline schedule (data date February 2, 2012) in February 2012. This revision reflected a change in milestones, durations, and start dates for various contracts (CM012; CM013A; CM014B; CM015; and CS 179), but did not affect the new RSD. This is not the final baseline schedule; the ESA-PMT is planning to issue at least one more revision during the month of March 2012, which will serve as the basis for a risk assessment of the new baseline schedule, schedule to begin on March 13, 2012.

The PMOC believes that performing the risk assessment on the entire project schedule is a critical activity that should be completed before the finalized baseline is presented to the MTA CPOC.

**Property Acquisition and Real Estate:** There has been no change in status since last month's January 2012 report. MTA Real Estate is still waiting for a more advanced design of the preferred 48<sup>th</sup> Street entrance before continuing appraisals. ESA is in the process of negotiating an easement agreement with the Rudins and refining the design of the preferred scheme. Tech Memo #6, which describes the updated 48<sup>th</sup> Street design, was approved by the FTA on November 23, 2011. The ESA-PMT is managing the negotiations with the Rudins. MTA Real Estate is waiting for an updated construction schedule from ESA before choosing a suitable timeframe for the public hearing.

ESA has requested that MTA Real Estate obtain preliminary appraisals for budgetary purposes of the temporary and permanent easements at 335 Madison Avenue associated with the construction and operation of an employee elevator. This elevator will connect the ESA/LIRR

Station Master's Office on the ESA concourse level to the GCT Terminal Management Center on the GCT concourse level and another in the Biltmore room. Elevator designs have been stalled because the property owner, the Milstein family, has not yet granted access. Since designs of these elevators are preliminary, the review of the draft appraisals is on hold.

In terms of other real estate activities, there are the three Long Island City easements that are in the process of being extended: the Milstein garage coordination (48-39 Barnett Ave East, Block 119 Lot 150), which is the easement that will be required at the former Gaseteria lot at (37-31 48th Street Block 119 Lot 158), the easement for the utility pole that will be displaced by a track in the pocket park, and the ongoing discussion with the Parks Department regarding the work at Queensbridge Park.

## **APPENDIX A -- ACRONYMS**

ARRA	American Recovery and Reinvestment Act	
BA	Budget Adjustment	
CCC	Change Control Committee	
ССМ	Consultant Construction Manager	
СМ	ESA Construction Manager assigned to each contract	
CMP	Cost Management Plan	
CIL	Central Instrument Location	
CPOC	Capital Program Oversight Committee	
CPRB	Capital Program Review Board	
CPP	Contract Packaging Plan	
CWB	Current Working Budget	
CWP	Construction Work Plan	
ELPEP	Enterprise Level Project Execution Plan	
ERT	East River Tunnel	
ESA	East Side Access	
ET	Electric Traction	
FA	Force Account	
FFGA	Full Funding Grant Agreement	
FTA	Federal Transit Administration	
GCT	Grand Central Terminal	
GEC	General Engineering Consultant	
IPS	Integrated Project Schedule	
LIRR	Long Island Rail Road	
MNR	Metro-North Railroad	
MTA	Metropolitan Transportation Authority	
MTACC	Metropolitan Transportation Authority – Capital Construction	
NATM	New Austrian Tunneling Method	
NTP	Notice to Proceed	
NYCT	New York City Transit	
NYSPTSB	New York State Public Transportation Safety Board	
PE	Preliminary Engineering	
February 2012 Monthly Report	A-1	MT

February 2012 Monthly Report

PMPProject Management PlanPMTESA's Project Management TeamQAQuality AssuranceRAMPReal Estate Acquisition Management PlanRMCPRisk Mitigation Capacity PlanRODRevenue Operations DateRSDRevenue Service DateSCStandard Cost CategorySMPSchedule Management PlanSSMPSafety And Security Management PlanSSPPSafety Work PlanFBMTunnel Boring MachineTCCTechnical Capacity and CapabilityVEValue EngineeringWBSWork Breakdown Structure	РМОС	Project Management Oversight Contractor (Urban Engineers)
QAQuality AssuranceRAMPReal Estate Acquisition Management PlanRMCPRisk Mitigation Capacity PlanRODRevenue Operations DateRSDRevenue Service DateSCSubstantial CompletionSCCStandard Cost CategorySMPSchedule Management PlanSSMPSafety and Security Management PlanSSPPSystem Safety Program PlanSWPSafety Work PlanTBMTunnel Boring MachineTCCTechnical Capacity and CapabilityVEValue Engineering	PMP	Project Management Plan
RAMPReal Estate Acquisition Management PlanRMCPRisk Mitigation Capacity PlanRODRevenue Operations DateRSDRevenue Service DateSCSubstantial CompletionSCCStandard Cost CategorySMPSchedule Management PlanSSMPSafety and Security Management PlanSSPPSafety Work PlanSWPSafety Work PlanTBMTunnel Boring MachineTCCTechnical Capacity and CapabilityVEValue Engineering	PMT	ESA's Project Management Team
RMCPRisk Mitigation Capacity PlanRODRevenue Operations DateRSDRevenue Service DateSCSubstantial CompletionSCCStandard Cost CategorySMPSchedule Management PlanSSMPSafety and Security Management PlanSSPPSystem Safety Program PlanSWPSafety Work PlanTBMTunnel Boring MachineTCCTechnical Capacity and CapabilityVEValue Engineering	QA	Quality Assurance
RODRevenue Operations DateRSDRevenue Service DateSCSubstantial CompletionSCCStandard Cost CategorySMPSchedule Management PlanSSMPSafety and Security Management PlanSSPPSystem Safety Program PlanSWPSafety Work PlanTBMTunnel Boring MachineTCCTechnical Capacity and CapabilityVEValue Engineering	RAMP	Real Estate Acquisition Management Plan
RSDRevenue Service DateSCSubstantial CompletionSCCStandard Cost CategorySMPSchedule Management PlanSSMPSafety and Security Management PlanSSPPSystem Safety Program PlanSWPSafety Work PlanTBMTunnel Boring MachineTCCTechnical Capacity and CapabilityVEValue Engineering	RMCP	Risk Mitigation Capacity Plan
SCSubstantial CompletionSCCStandard Cost CategorySMPSchedule Management PlanSSMPSafety and Security Management PlanSSPPSystem Safety Program PlanSWPSafety Work PlanTBMTunnel Boring MachineTCCTechnical Capacity and CapabilityVEValue Engineering	ROD	Revenue Operations Date
SCCStandard Cost CategorySMPSchedule Management PlanSSMPSafety and Security Management PlanSSPPSystem Safety Program PlanSWPSafety Work PlanTBMTunnel Boring MachineTCCTechnical Capacity and CapabilityVEValue Engineering	RSD	Revenue Service Date
SMPSchedule Management PlanSSMPSafety and Security Management PlanSSPPSystem Safety Program PlanSWPSafety Work PlanTBMTunnel Boring MachineTCCTechnical Capacity and CapabilityVEValue Engineering	SC	Substantial Completion
SSMPSafety and Security Management PlanSSPPSystem Safety Program PlanSWPSafety Work PlanTBMTunnel Boring MachineTCCTechnical Capacity and CapabilityVEValue Engineering	SCC	Standard Cost Category
SSPPSystem Safety Program PlanSWPSafety Work PlanTBMTunnel Boring MachineTCCTechnical Capacity and CapabilityVEValue Engineering	SMP	Schedule Management Plan
SWPSafety Work PlanTBMTunnel Boring MachineTCCTechnical Capacity and CapabilityVEValue Engineering	SSMP	Safety and Security Management Plan
TBMTunnel Boring MachineTCCTechnical Capacity and CapabilityVEValue Engineering	SSPP	System Safety Program Plan
TCCTechnical Capacity and CapabilityVEValue Engineering	SWP	Safety Work Plan
VE Value Engineering	TBM	Tunnel Boring Machine
	TCC	Technical Capacity and Capability
WBS Work Breakdown Structure	VE	Value Engineering
	WBS	Work Breakdown Structure

#### **APPENDIX B – TABLES**

	FFGA (as of December 18, 2006)		Proposed FFGAMTA's Current Working BudgetAmendments(CWB)		Expenditures as of January 31, 2012			
	(\$ Millions)	(% of Grand Total Cost)	Obligated (Millions)	(\$ Millions)	(\$ Millions)	(% of Grand Total Cost)	(\$ Millions)	(% of CWB)
Grand Total Cost	\$7,386	100		\$8,119*	\$8,827	100	\$3,473.0	39.3
Financing Cost	\$1,036	14.0		TBD	\$1,036 (FFGA est.)	11.7		
Total Project Cost	\$6,350	86.0	\$4,107	\$8,119*	\$7,791**	88.3	\$3,473.0	44.6
Federal Share	\$2,683	36.3	\$1,148	\$2,699	\$2,699	30.6	\$3,473.0	20.9
5309 New Starts share	\$2,632	35.6	\$1,098	\$2,436.6	\$2,436.6	27.6	\$1,381.8	17.7
Non New Starts grants	\$51	0.7	\$50	\$67	\$67	0.8	\$50.4	0.6
ARRA	0	0	0	\$195.4	\$195.4	2.2	195.4	2.5
Local Share	\$3,667	49.6	\$2,959	\$5,420	\$5,092	57.7	\$1,845.4	23.7

Table 1 – Project Budget/Cost Table

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

\*\* CWB represents MTA Board approved \$7,328 million and additional \$463 million reserve for a total of \$7,791 million budget exclusive of financing cost (September 2009).

	EECA	Forecast (F) Complet	tion, Actual Start (A)	
	FFGA	Grantee*	PMO**	
Begin Construction	September 2001	September 2001 (A)	September 2001 (A)	
Construction Complete	December 2013	September 2016 (F)	April 2018 (F)	
Revenue Service	December 2013	September 2016 (F)	April 2018 (F)	

**Table 2 – Summary of Critical Dates** 

\* Source – Grantee forecast Revenue Operations Date per updated MTA approved schedule information in September 2009 and July 2011 IPS update (the most recent complete IPS update).

\*\*Source -ELPEP baseline.

Standard Cost Category (SCC) No.	Description	scription FFGA baseline (\$) MTA's Previous CWB (\$) – (December 31, 2011)		MTA's CWB (\$) (January 31, 2012)	% Change from FFGA to CWB
10	Guideway & Track Elements	1,988,741	2,691,399	2,691,161	35.3
20	Stations, Stops, Terminals, Intermodal	1,168,655	1,434,850	1,434,089	22.8
30	Support Facilities: Yards, Shops	356,264	352,271	352,271	[1.2]
40	Site Work & Special Conditions	205,105	367,214	367,214	79.0
50	Systems	619,343	632,769	632,769	2.2
60	ROW, Land, Existing Improvements	165,280	203,639	203,639	23.2
70	Vehicles	956,982	674,372*	674,372*	[29.6]
80	Professional Services	1,184,000	1,434,485	1,435,485	21.2
90	90 Unallocated Contingency		Unallocated Contingency 168,529 0 0		0
	Subtotal		6,812,899***	7,791,000	7,791,000
100	Finance Charges	1,036,104	1,036,100**	1,036,100**	0
Total F	Total Project Cost (10 – 100)		7,849,003	8,827,100***	8,827,100***

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

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

\*\* Current Budget Finance Charges are estimated at the same value as the FFGA. \*\*\* The ELPEP Estimated Total Project Cost is \$8.119 billion, reflecting the medium level of risk mitigation

# Table 4 – February 2012ESA: Catenary Review Schedule

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

Note: yellow highlights denote missed target dates.

		Table 5	– Core Accou	ntabili	ty Items	5		
Project Status:			Original at F	FGA	Cu	rrent: *	ELPEP **	
Cost Cost Estimate			\$7.386B	\$7.386B \$7		7.791B	\$8.119B	
		located ingency	\$168.5N	\$168.5M		\$0	\$260M	
Contingency	(Allo	Contingency ocated plus located)	\$855M		\$440.7M		\$722M	
Schedule	Reve Date	nue Service	December 2013	31,	· · · ·	ember 30, 2016	April 30, 2018	
Total Project Per	cent	Based on Expe	enditures			49.6%	)	
Complete		Based on Earn	ed Value			NA		
Major Issue		1	Status			Comments		
Availability of local funding Re-baseline (cost and schedule)			Capital Prog to NYS by A Cost and sel baseline to b February. F Assessment performed i 2012, with p	MTA to submit revised Capital Program Budget to NYS by April 2012.Further construction awa 2012 may belayed until M funding of the current Ca Plan is resolved.Cost and schedule re- baseline to be finalized in February. RiskMTA initially committed having new baseline com by the end of December 22 and presented to the MTA CPOC in February 2012.Output Cost and schedule re- baseline to be finalized in February. RiskMTA initially committed having new baseline com by the end of December 22 and presented to the MTA CPOC in February 2012.			elayed until NYS he current Capital lved. lly committed to baseline completed of December 2011, ed to the MTA	
Amtrak East River Tunnel Work			Amtrak original plan for two tunnel outages duringESA re-baseline is base tunnel outages. Impact on new baseline has to b evaluated.			ges. Impact (if any)		
Approval of ET Design Work by Amtrak continues to lag			60% design Amtrak in N 2011, was a	60% design submitted to Amtrak in NovemberDelay in approving 100% ET Design F could impact adver CH057.		esign Packages		
CM012 Cancelled Solicitation			Rebid now planned for March 2012. Still holding August 2012 for NTP.Rebid was initially planned the end of January 2012.			•		
Date of Next Qua	rterly	Meeting:			Mar	ch 19, 2012		

\* MTA's Current Working Budget.
\*\* Enterprise Level Project Execution Plan (ELPEP), reflecting median level of risk mitigation.