

## **PMOC MONTHLY REPORT**

### **Second Avenue Subway Phase 1 (MTACC-SAS) Project**

Metropolitan Transportation Authority

New York, New York

**Report Period February 1 to February 28, 2017**



PMOC Contract No. DTFT6014D00017

Project No. DC-27-5287, Task Order No. 0002, Work Order No. 04

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

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### **THIRD PARTY DISCLAIMER**

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

For projects funded through the FTA's Full Funding Grant Agreement (FFGA) program, the FTA and its Project Management Oversight Contractor (PMOC) use a risk-based assessment process to review and validate a project sponsor's cost, 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 may change from month to month, based on relevant factors for the current month and/or previous months.

### **REPORT FORMAT AND FOCUS**

This monthly report is submitted in compliance with the terms of the Federal Transit Administration (FTA) Contract No. DTFT6014D00017, Task Order 0002. Its purpose is to provide information and data to assist the FTA as it continually monitors the Project Sponsor's technical capability and capacity to execute a project efficiently and effectively, and hence, whether the Project Sponsor continues to be ready to receive federal funds for further project development.

This report covers the project management activities on the Second Avenue Subway (SAS) Phase 1 Project managed by Metropolitan Transit Authority Capital Construction (MTACC) of New York City (NYC). MTA is the Project Sponsor, financed by the FTA FFGA.

## MONITORING REPORT

### 1.0 PROJECT STATUS

On January 1, 2017, the Second Avenue Subway (SAS) Phase 1 Project began Revenue Service. The project, however, has not reached substantial completion. Corrections of open inspection observations and testing of various system elements are ongoing. Overall project completion is forecasted for November 30, 2017, and is being driven by the Systems contractor's schedule.

As of February 28, 2017, \$4.235 billion (94.85%) of MTACC's Current Working Budget of \$4.451 billion (exclusive of financing costs) has been expended. A revised cost Estimate at Completion (EAC) is being prepared by MTACC to determine if the remaining budget is adequate, given the scope of the open inspection observations, the level of testing still required, and the probability of future claims.

#### a. Procurement

All ten of the construction contracts for SAS Phase 1 have been awarded.

#### b. Construction

**Note: Forecast Substantial and Project Completion dates are from MTACC's February 22, 2017, Schedule Progress Meeting documentation.**

As of February 28, 2017, there are eight (8) active contracts on the SAS Phase 1 Project of which two are in the closeout process. Overall construction is 99.2% complete. The status of each is as follows:

- **Contract C-26005 (C2A) 96th Street Site Work and Heavy Civil**  
The Contractor achieved Substantial Completion on November 5, 2013. Contract closeout has been delayed because of NYCDEP field inspections. The inspections are being performed to verify that the work is as reflected on the revised "As-Built-Drawings". Closeout of the contract did not occur as anticipated by the end of the 4Q2016. The CM's efforts are ongoing to confirm a closeout date.
- **Contract C-26010 (C2B) 96th Street Station Civil, Architectural, and MEP**  
Subsequent to issuance of a Temporary Code Compliance Certificate on December 31, 2016, the contractor continued closeout of open observations and testing of mechanical, electrical, and plumbing systems. As of February 22, 2017, there are still 2,956 discrepancies that need to be addressed. Expenditures show the contractor at 99.1% complete. Substantial Completion and Project Completion are forecasted for May 12, 2017, and August 25, 2017, respectively.
- **Contract C-26006 (C3) 63rd Street Station Rehabilitation**  
Subsequent to issuance of a Temporary Code Compliance Certificate on December 31, 2016, the contractor continued closeout of open observations and testing of mechanical, electrical, and plumbing systems. As of February 22, 2017, there are still 1,721 discrepancies that need to be addressed. Expenditures show the contractor at 99.8% complete. Substantial Completion and Project Completion are forecasted for March 31, 2017, and June 30, 2017, respectively.
- **Contract C-26007 (C4B) 72nd Street Station Cavern Mining and Lining**  
Substantial Completion was achieved on January 14, 2014. Submittal of contract closeout documentation and completion of punchlist items are ongoing.

- **Contract C-26011 (C4C) 72nd Street Station – Station Finishes, MEP, Ancillary Buildings and Entrances**  
Subsequent to issuance of a Temporary Code Compliance Certificate on December 31, 2016, the contractor continued closeout of open observations and testing of mechanical, electrical, and plumbing systems. As of February 22, 2017, there are still 4,895 discrepancies that need to be addressed. Expenditures show the contractor at 96.8% complete. Substantial Completion and Project Completion are forecasted for May 2, 2017, and January 8, 2018 respectively.
- **Contract C-26008 (C5B) 86th Street Station Cavern Mining and Lining**  
Substantial Completion of all contract work was achieved on December 16, 2014. Contract closeout is ongoing.
- **Contract C-26012 (C5C) 86th Street Station Finishes, MEP Systems, Ancillary Buildings and Entrances**  
Subsequent to issuance of a Temporary Code Compliance Certificate on December 31, 2016, the contractor continued closeout of open observations and testing of mechanical, electrical, and plumbing systems. As of February 22, 2017, there are still 2,176 discrepancies that need to be addressed. Expenditures show the contractor at 98.0% complete. Substantial Completion and Project Completion are forecasted for May 31, 2017, and August 29, 2017, respectively.
- **Contract C-26009 (C6) Track, Power, Signals and Communication Systems**  
Subsequent to Revenue Service, the contractor continued closeout of discrepancies, installation of equipment and integration testing of communication systems. As of February 22, 2017, the number of open discrepancies increased to 1,153. Expenditures show the contractor at 98.4% complete. Substantial Completion and Project Completion are forecasted for November 20, 2017, and November 30, 2017, respectively.

### **c. Quality**

#### **Quality Assurance and Quality Control (QA/QC)**

##### Status:

During February 2017, the Second Avenue Subway Quality Management Team's primary focus was on the resolution of open observations and Non-Conformance Reports.

##### Observations:

As of February 22, 2017, there are still 12,901 discrepancies on the "Observations Lists" that need to be addressed on the five contracts that have not achieved Substantial Completion. This is a reduction of 4,359 discrepancies from the previous month, when there were 17,260.

##### Concerns and Recommendations:

The large number of discrepancies is a concern to the PMOC. Such a large number of discrepancies indicate a breakdown in the contractors' quality assurance program, the subcontractors' quality control program, and that quality was compromised for schedule acceleration. MTACC's Project Procedure No. CO.10 (Beneficial Use, Substantial Completion and Final Completion) suggests that these items must be addressed before project completion can occur with subsequent turnover to the user group(s). The PMOC recommends that adequate QA/QC staffing be maintained to resolve all of the current and future open observations.

### **d. Readiness for Revenue Operation**

##### Status:

On January 1, 2017, the Second Avenue Subway (SAS) Phase 1 Project began Revenue Service. The service began with a number of open items which are documented in NYCT's Certification for Temporary Certificate of Occupancy Memorandum dated December 29, 2016. The memorandum stipulates that the open items must be completed within 60 days of revenue service i.e. March 1, 2017. As of February 22, 2017, there are still 3,111 open items, designated as critical that need to be completed by March 1, 2017.

##### Observations:

The work associated with 1,034 of these 3,111 discrepancies has been completed and requires NYCT inspection and close out. However, 2,077 of the discrepancies are expected to remain open after March 1, 2017.

##### Concerns and Recommendations:

The PMOC recommends that the MTA Code Compliance Office address the issue that not all the "RSD+60" observations will be closed by March 1, 2017, and that the Code Compliance Office document its position. MTACC should also provide the status of NYCT's Certification for Temporary Certificate of Occupancy Memorandum dated December 29, 2016.

## 2.0 SCHEDULE DATA

### Status:

Netpoint Schedules issued in January 2017 were replaced with Excel Spreadsheets in February 2017. The spreadsheets provide greater details, i.e., activity number with name and description, durations, and start and finish dates for each task. Task completion dates for the ongoing activities were updated in February 2017 and are presented in the tables below.

<b>Post RSD Station Excel Spreadsheet Schedule Completion Dates (Feb. 23, 2017)</b>				
<b>Description of Tasks</b>	<b>63rd Street</b>	<b>72nd Street</b>	<b>86th Street</b>	<b>96th Street</b>
Code RSD+60 day Observation List	3/2/2017	3/2/2017	3/2/2017	3/2/2017
Contract Work & Observations Required for SC	3/31/2017	5/1/2017	5/31/2017	6/1/2017
Submit O&M, Training Manuals, As Builts	3/31/2017	5/2/2017	5/31/2017	4/28/2017
Roadway Restoration	NA	5/2/2017	5/17/2017	5/12/2017
Testing Completion (excluding seasonal)	3/31/2017	3/31/2017	5/1/2017	4/28/2017
Seasonal Testing (HVAC)	6/30/2017	9/8/2017	6/30/2017	4/4/2017
AWOs (required for SC)	3/31/2017	6/30/2017	4/11/2017	5/12/2017
Substantial Completion	3/31/2017	5/2/2017	5/31/2017	5/12/2017
AWOs (required for Final Completion)	4/30/2017	8/24/2017	4/17/2017	5/12/2017
Punchlist and remaining observation list items	4/30/2017	8/18/2017	5/31/2017	5/12/2017
Project Completion	6/30/2017	1/18/2018	8/29/2017	8/25/2017

<b>Post RSD System Excel Spreadsheet Schedule Completion Dates (Feb. 23, 2017)</b>	
<b>Description of Tasks</b>	<b>System Contractor</b>
Code RSD+60 day Observation List	3/2/2017
Contract Work & Observations Required for SC 63rd St	11/20/2017
Contract Work & Observations Required for SC 72nd St	9/4/2017
Contract Work & Observations Required for SC 86th St	10/10/2017
Contract Work & Observations Required for SC 96th St	10/20/2017
Submit O&M, Training, Manuals, As-BUILTs	8/31/2017
Testing Complete	11/20/2017
AWOs (required for SC)	11/20/2017
Fire Alarm Testing at 63rd St	11/20/2017
Fire Alarm Testing at 72nd St	6/19/2017
Fire Alarm Testing at 86th St	5/19/2017
Fire Alarm Testing at 96th St	7/17/2017
Substantial Completion	11/20/2017
AWOs (required for Final Completion)	11/30/2017
Punchlist and remaining observation list items	11/30/2017
Project Completion	11/30/2017

**Observations:**

Correction of discrepancies while the system is operational will require considerably more time. General Orders (GOs) for track outages or track foul time will be limited and of shorter durations, thus limiting what can be accomplished.

**Concerns and Recommendation:**

The PMOC recommends that coordination/progress meetings be held on a regular basis so schedule adjustments can be made to minimize the impact on the schedule. The PMOC notes that the forecast duration between the Substantial Completion and Project Completion dates for the Stations Contracts ranges from approximately 90 to 225 days. For the Systems Contract, this forecast duration is only 10 days and does not appear to be realistic for the scope of work planned for the 10-day period that includes completion of AWOs, punchlist items and remaining open observation list items.



### **3.0 COST DATA**

#### **Status:**

Total project expenditure as of February 28, 2017, is \$4.235 billion. This is 95.1% of MTACC's \$4.451 billion Current Working Budget (exclusive of financing costs).

Construction expenditures as of February 28, 2017, are \$2.653 billion. This is 99.2% of the \$2.674 billion construction budget. The completion status of each individual construction contract is as follows:

- C26002 (C1 Tunnel Boring) – 100.0%;
- C26005 (C2A 96th Street Station) – 100.0%;
- C26010 (C2B 96th Street Station) – 99.1%;
- C26013 (C5A 86th Street Station) – 100%;
- C26008 (C5B 86th Street Station) – 99.6%;
- C26012 (C5C 86th Street Station) – 98.0%;
- C26006 (C3 63rd Street Station) – 99.8%;
- C26007 (C4B 72nd Street Station) – 100.0%;
- C26011 (C4C 72nd Street Station) – 96.8% ; and,
- C26009 (C6 Systems) – 98.3%.

Soft Cost expenditures as of February 28, 2017, are \$1.260 billion and this is 91.5% of the \$1.377 billion budget.

Allocated contingency expenditures plus pending expenditures as of February 28, 2017, are \$343.8 million and is 92.9% of the \$370 million budget. The remaining total contingency is \$57.7 million which consist of \$26.2 million allocated and \$31.5 million unallocated (management reserved).

The minimum available contingency required by ELPEP is approximately \$45 million at the Hold Point for 100.0% Construction Bid and 85.0% Construction Complete.

#### **Observations:**

A revised cost Estimate at Completion (EAC) is being prepared to determine if the remaining budget is adequate given the scope of the discrepancies on the "Observation List", the level of testing still required, probability of future claims, and ongoing need for project support personnel.

#### **Concerns and Recommendation:**

The PMOC is concerned that the remaining budget might not be sufficient to complete the project, given the scope of the open inspection observations, the level of testing still required, and the probability of future claims. The PMOC recommends expediting the completion of the revised EAC. If additional funds are required, the process to allocate the local funds identified in the amended FFGA should be initiated.

## 4.0 RISK MANAGEMENT

### Status

At this stage of the project, risks are well understood by the SAS Project Team. Mitigations implemented to allow the start of revenue service are ongoing and continue to be monitored. See item 4 below.

### Observation and Analysis:

Risks involving MTACC's schedule acceleration initiative can be classified as either management and organizational risk or technical and coordination risk. Major risks within each of these categories are summarized as follows:

Management and Organizational Risks		
Risk		Status
1.	MTACC's ability to implement its schedule acceleration program through compression of construction schedules.	Revenue Service began on January 1, 2017. However, equipment installation and integration and acceptance testing is ongoing. Netpoint Schedules issued in January 2017 were replaced with Excel Spreadsheets in February 2017. The spreadsheets provide greater details, i.e., activity number with name and description, durations, and start and finish dates for each task.
2.	Design and scope changes requested by NYCT during the late stages of construction. NYCT has agreed that changes not related to safe operation of the railroad and station facilities will be deferred until after the start of Revenue Service.	MTACC continues to manage and mitigate this risk. No new design change AWOs were initiated during February 2017. Requested design changes that will be implemented should be included in the revised EAC.
3.	Availability of NYCT staff to support testing, commissioning, and final acceptance of work performed by SAS contractors	Ongoing NYCT support is being provided subsequent to revenue service. This is being driven by the 12,901 discrepancies on the "Observation List". The Systems Contractor's schedules shows all punchlist and remaining "Observation List" discrepancies to be completed by November 30, 2017, i.e., Project Completion.
4.	MTA code compliance reviews. Past experience suggests that risks involve delayed inspections, unrealistic code interpretation, and disregard for project operational goals.	Reverse Service commenced on January 1, 2017, with unresolved code compliance issues. Temporary Code Compliance Certificates were issued for the 63rd, 72nd, 86th, and 96th Street Stations with the terms that unresolved code compliance issues must be corrected within 60 days of revenue service, i.e. March 1, 2017. It is anticipated that 2,077 of the discrepancies will still be open after March 1, 2017. Code compliance needs to address the issue that not all the "RSD+60" observations will be closed by March 1, 2017, and Code Compliance's position needs to be documented.

Technical and Coordination Risks		
Risk		Status
1.	Critical communication systems: fire alarm system, police radio installation, installation, and startup at all stations.	Adequate testing of all the interfaces to the fire alarm system continues as a major risk. The Systems Contractor's schedule shows testing of the fire alarm system extending to July 2017.

## 5.0 ELPEP

The SAS Project Team has implemented the principles and requirements embodied in the ELPEP. The procedural changes triggered by the ELPEP have become an integral part of the management of the project and have given the FTA/PMOC greater insight into the risk, cost, and schedule elements of the project. It must be noted, however, that the total contingency is expected to fall below the minimum \$45 million specified in the ELPEP. Refer to Section 3.0 of this report for further discussion.

## 6.0 SAFETY AND SECURITY

Each construction contractor continued implementation of the Safety Requirements as specified in Section 01 11 50 of the General Requirements.

As of January 31, 2017, a total of 14,908,576 construction hours have been logged on the project with 105 lost time and 196 recordable incidents documented. The total hours and incidents equates to a Lost Time Rate (LTR) of 1.40 and a Recordable Rate (REC) of 4.02. The LTR is below and the REC is above the US Bureau of Labor Statistics (BLS) national rates (Heavy and Civil construction) of 1.8 and 3.2 respectively. Both the LTR and REC have been trending downward over the last twelve months.

**Safety and Security Certification:** Safety and Security Certification Requirements are specified in Section 01 77 12 of the General Requirements for each station and system contract. The certifiable elements of the SAS project have been identified and the Certifiable Items List (CIL) has been established and documented on checklists. The test reports that serve as the "Bodies of Evidence" for the verification of the certifiable items are not being issued in a timely manner. The delay in the issuance of the test reports caused the Systems Safety Certification Committee to deviate from the certification process. In December 2016, the SAS Systems Safety Certification Committee issued an Interim Acceptance Certificate of Conformance that allowed all SAS stations to open for revenue service on an interim basis until final system integration can be substantiated. Full certification for each station will be granted by the SAS Systems Safety Certification Committee upon evidentiary review of system integration provided by the Systems contractor's management team, C-26009.

## 7.0 ISSUES AND RECOMMENDATIONS

**Schedule:** Correction of discrepancies while the system is operational will require considerably more time. GOs for track outages and track foul time will be limited and of shorter durations thus limiting what can be accomplished. Coordination/Progress meetings should be held on a regular basis so adjustments can be made to minimize the impacts on the schedule

**Technical Issues:** Design flaws have become apparent and have resulted in the need for mitigation actions. Errors and omissions in the design are being tracked by the project team and MTACC is considering seeking compensation from the designer.

**Systems Testing:** Delays in completing the installation of equipment have had a ripple effect on the overall integration and test program. Updated projected schedule date February 22, 2017 shows some communication systems being tested as late as November 20, 2017.

Volume 2 of the Facilities System Test Program identifies the System Acceptance Phase (SAP) as the period after substantial completion (completion of FAT, FIAT, SIST and FSIT), when systems and subsystems will be operated to demonstrate that all interfaces and systems are functioning as designed and intended. Neither the Netpoint schedules presented at the January 24, 2017, Schedule Progress Meeting nor do the replacement Excel files provided in February reflect the SAP. MTACC has stated that an addendum to the Facilities System Test Program (FSTP) will be issued. However, to date, the PMOC has not observed that the FSTP addendum has been issued or implemented.

**Compliance Inspections:** MTACC's commitment to expedite the Compliance Inspection process is ongoing. As of February 22, 2017, there are still 12,901 open discrepancies on the "Observation List". Completion of work identified by these inspections will extend into the August 2017 time frame as indicated on MTACC's February 22, 2017, schedule update.

**Safety Certification:** The test reports that serve as the "Bodies of Evidence" for the verification of the certifiable items are not being issued in a timely manner and this has caused the Systems Safety Certification Committee to deviate from the certification process.

The SAS Safety Certification Committee agreed to the opening of the Second Avenue Subway stations for revenue service on an interim basis until final system integration can be substantiated. An Interim Acceptance Certificate of Conformance was issued on December 28, 2016. The PMOC notes that one committee member did not sign the Certificate of Conformance. The certification stated that "risk mitigation methods will be strictly enforced providing an equivalent efficacy of those final systems until full certification can be achieved. Full certification for each station will be granted by the SAS Certification Committee upon evidentiary review of system integration provided by the System C-26009 construction management team".

The PMOC is concerned that the certification process has been circumvented. Objective evidence should have been presented as verification that the Certifiable Items List associated with each certifiable element at each station had been completed

**Financial:** As of February 28, 2017, \$4.235 billion, 95.1% of the MTACC's Current Working Budget of \$4.451 billion (exclusive of financing costs) has been expended. A revised cost estimate at completion (EAC) should be completed to determine if the remaining budget is adequate given the scope of the open inspection observations, the level of testing still required, pending AWOs and the probability of future claims. If additional funds are required, the process to allocate the local funds identified in the amended FFGA should be initiated.

## **APPENDIX A – ACRONYMS**

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ARRA	American Recovery and Reinvestment Act
AWO	Additional Work Order
BLS	Bureau of Labor Statistics
CBDS	Computer Based Dispatch System
CBH	Circuit Breaker House
CCM	Consultant Construction Manager
CCTV	Closed Circuit Television
CD	Calendar Days
CIL	Certifiable Items List
CMP	Cost Management Plan
CPRB	Capital Program Review Board
CSSR	Contact Status Summary Report
CWB	Current Working Budget
CY	Cubic Yards
DCB	Detailed Cost Breakdown
EAC	Estimate at Completion
EBCS	Emergency Booth Communication System
ELPEP	Enterprise Level Project Execution Plan
FAS	Fire Alarm System
FIAT	Field Installation Acceptance Test
FFGA	Full Funding Grant Agreement
FSIT	Final Systems Integrated Testing
FSTP	Facilities System Test Program
FTA	Federal Transit Administration
GO	General Orders
IAC	Intrusion Access Control
IPS	Integrated Project Schedule
LAN	Local Area Network
LTR	Lost Time Rate
MO	Month
MPT	Maintenance and Protection of Traffic

MTA	Metropolitan Transportation Authority
MTACC	Metropolitan Transportation Authority – Capital Construction
N/A	Not Applicable
NYCT	New York City Transit
NYSPTSB	New York State Public Transportation Safety Board
OSS	NYCT Office of System Safety
PACIS	Public Address Customer Information Screens
PEP	Project Execution Plan
PMOC	Project Management Oversight Contractor (Urban Engineers)
PMP	Project Management Plan
PQM	Project Quality Manual
QA	Quality Assurance
RAMP	Real Estate Acquisition Management Plan
REC	Recordable Rate
RMCP	Risk Mitigation Capacity Plan
RMP	Risk Management Plan
RMS	Remote Monitoring System
ROD	Revenue Operations Date
ROW	Right of Way
RSD	Revenue Service Date
SAS	Second Avenue Subway
SCC	Standard Cost Category
SIST	Simulated Integrated System Testing
SMP	Schedule Management Plan
SSCC	Safety and Security Certification Committee
SSOA	State Safety Oversight Agency
SSPP	System Safety Program Plan
TBD	To Be Determined
TCC	Technical Capacity and Capability
TPSS	Traction Power Substation
TSSM	Tunnel Station Smoke Management
TWG	Technical Working Group
WAN	Wide Area Network (WAN)

WBS	Work Breakdown Structure
WD	Work Days

## APPENDIX B – TABLES

**Table 1 - Summary of Schedule Dates**

	FFGA (March 2015)	Forecast Completion	
		Project Sponsor	PMOC
Begin Construction	January 1, 2007	March 20, 2007A	March 20, 2007A
Construction Complete	August, 2016	August 31, 2017*	October 2017
Revenue Service	February 28, 2018	January 1, 2016A	February 2018

\* Substantial Completion revised to reflect Schedule Update dated February 22, 2017.

**Table 2 - Project Budget/Cost** 

	FFGA			FFGA Amend	MTA Current Working Budget (CWB)		Expenditures as of February 28, 2017	
	\$ Millions	% of Total	Obligated (\$ Millions)	3/17/2015	\$ Millions	% of Total	\$ Millions	% of Total
Grand Total Cost	4,866.614	100	4,572.942	5,574.614	5,267.614	100	4,234.557	80.39
Financing Cost	816.614	16.78		816.614	816.614	15.50	(N.A.)	(N.A.)
Total Project Cost	4,050.000	83.22	4,572.942	4,758.000	4,451.00	84.50	4,234.557	80.39
Total Federal	1,350.693	27.75	1,063.942	1,373.893*	1,350.693	24.60	1,228.204	23.32
Total FTA share	1,300.000	96.25	990.049	1,300.000	1,300.000	23.68	1,154.311	21.91
5309 New Starts share	1,300.000	100	990.049	1,300.000	1,300.000	23.68	1,154.311	21.91
Total FHWA share	50.693	3.75	73.893	73.893	50.693	0.96	73.893	1.40
CMAQ	48.233	95.15	71.433	71.433	48.233	0.88	71.433	1.35
Special Highway Appropriation	2.460	4.85	2.460	2.460	2.460	0.04	2.460	0.05
Total Local share	2,699.307	55.47	3,509.000**	3,384.107	3,509.000 **	63.92	3,006.353	57.07
State share	450.000	16.67	100.000		450.000	8.20		
Agency share	2,249.307	83.33	1,145.782		3,059.000	55.72		
City share	0	0			0	0		

\* Obligated and expended amounts obtained from the FTA's Transit Award Management System (TrAMS) and MTACC's Grant Management Department.

\*\* Current MTA Board approved budget.



**Table 3 - Estimate at Completion**

<b>Category</b>	<b>Current Working Budget</b>	<b>EAC Forecast As of September 2016</b>
<b>Total Construction</b>	\$2,674,814,299	\$3,050,065,727
<b>Engineering Services Subtotal</b>	\$622,862,000	\$690,022,317
<b>Third Party Expenses</b>	\$554,086,273	\$556,586,000
<b>TA Expenses</b>	\$131,160,085	\$141,514,683
<b>Contingency</b>	\$468,077,343	\$0
<b>Total</b>	\$4,451,000,000	\$4,438,188,727

EAC is being updated to reflect current project status

**Table 4 - Allocation of Current Working Budget to Standard Cost Categories**

<b>Std. Cost Category (SCC)</b>	<b>Description</b>	<b>FFGA (January 2008)</b>	<b>FFGA Amended (March, 2015)</b>	<b>MTA's Current Working Budget (September, 2016)</b>
10	Guideway & Track Elements	\$612,404,000	\$195,346,781	\$189,310,484
20	Stations, Stops, Terminals, Intermodal	\$1,092,836,000	\$1,666,605,679	\$1,659,830,395
30	Support Facilities	\$0	\$0	\$0
40	Site Work & Special Conditions	\$276,229,000	\$793,118,232	\$880,457,220
50	Systems	\$322,707,000	\$250,379,966	\$212,886,484
60	ROW, Land, Existing Improvements	\$240,960,000	\$281,500,000	\$281,500,000
70	Vehicles	\$152,999,000	\$0	\$0
80	Professional Services	\$796,311,000	\$1,026,608,168	\$1,198,669,050
90	Unallocated Contingency	\$555,554,000	\$544,441,174	\$28,346,367
Subtotal		\$4,050,000,000	\$4,758,000,000	\$4,451,000,000
Financing Cost		\$816,614,000	\$816,614,000	\$816,614,000
<b>Total Project</b>		<b>\$4,866,614,000</b>	<b>\$5,574,614,000</b>	<b>\$5,267,614,000</b>

Note: Table updated to reflect latest allocations by MTACC (3rd Quarter 2016)

**Table 5 - Core Accountability Items**

Project Status:		Original at FFGA	Current*	ELPEP**
Cost	Cost Estimate	\$4,050 million	\$4,451 million (exclusive of financing)	\$4,980 million
Contingency	Unallocated Contingency	\$555.554 million	\$31.5 million (As of February 28, 2017)	\$45 million
	Total Contingency (Allocated plus Unallocated)	\$555.554 million	\$57.7 million (As of February 28, 2017)	\$45 million
Schedule	Revenue Service Date	June 30, 2014	January 1, 2017A	February 28, 2018
Total Project Percent Complete	Based on Expenditures	95.1%		
	Based on Earned Value	N/A		
Major Issue		Status	Comments	
Substantial and Project Completion Excel Spreadsheets		Open	Correction of discrepancies while the system is operational will require considerably more time. GOs for track outages and foul time will be limited and of shorter durations, thus limiting what can be accomplished. Coordination/Progress meetings should be held on a regular basis so adjustments can be made to minimize the impacts on the schedule	
Construction Quality		Open	On January 1, 2017, the Second Avenue Subway (SAS) Phase 1 Project began Revenue Service. The service began with a number of open items which are documented in NYCT’s Certification for Temporary Certificate of Occupancy Memorandum dated December 29, 2016. The memorandum stipulates that the open items must be completed within 60 days of revenue service i.e. March 1, 2017. As of February 22, 2017, there are still 3,111 open items that need to be completed by March 1, 2017. A total of 12,901 discrepancies are still open.	
Date of Next Quarterly Meeting:		TBD		

\* MTACC's Current Working Budget

\*\* Enterprise Level Project Execution Plan (ELPEP), reflecting median level of risk mitigation  
Financial data based upon MTACC reporting through 02/28/2017.