

FEDERAL TRANSIT ADMINISTRATION
PROJECT MANAGEMENT OVERSIGHT PROGRAM

Contract No. DTFT60-04-D-00012

Project No. DG 27-5006

Task Order No. 3

Grantee: METROPOLITAN TRANSPORTATION AUTHORITY
SECOND AVENUE SUBWAY (MTACG-SAS)

REGION II MAJOR CAPITAL PROJECTS

Monthly Report – Part I November 2007

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LIST OF ACRONYMS

AWO	Additional Work Order
CSI	Construction Standards Institute
DHA	DMJ M+Harris and ARUP
ESWA	Early Systems Work Agreement
FD	Final Design
FEIS	Final Environmental Impact Statement
FFGA	Full Funding Grant Agreement
FTA	Federal Transit Administration
MEP	Mechanical, Electrical, Plumbing
MTA	Metropolitan Transportation Authority
MTACC	Metropolitan Transportation Authority – Capital Construction
NA	Not Applicable
NYCT	New York City Transit
PE	Preliminary Engineering
PMOC	Project Management Oversight Contractor (Urban Engineers)
PMP	Project Management Plan
PQM	Project Quality Manual
RAMP	Real Estate Acquisition Management Plan
ROD	Record of Decision
SAS	Second Avenue Subway
SCC	Standard Construction Categories
SSMP	Safety and Security Management Plan
SSOA	State Safety Oversight Agency
SSPP	System Safety Program Plan
TBD	To Be Determined

SECTION III SECOND AVENUE SUBWAY (SAS) PROJECT

I EXECUTIVE SUMMARY

A Project Description

- **General Description** The Second Avenue Subway (SAS) project will connect Manhattan's Central Harlem area with the downtown financial district, relieving congested conditions on the Lexington Avenue line. The current project scope includes: tunneling; station/ancillary facilities; track, signal, and electrical work; vehicle procurement; and all other subway systems necessary for operation. The project consists of four phases, with Phase 1 providing an Initial Operating Segment (IOS) from 96th Street to 63rd Street, and will connect with the existing Broadway Line that extends to Lower Manhattan and Brooklyn. Subsequent phases will extend the line northward to 125th Street and to the southern terminus at Hanover Square in Lower Manhattan.
- **Length** Phase 1 - 2.3 miles from 63rd Street to 105th Street. Total Project - 8.5 miles from 125th Street and Lexington Avenue in Central Harlem to Lower Manhattan.
- **No. of Stations:** Total Project - 16 new stations. Phase 1 - two new mined stations located at 72nd and 86th Streets, One new cut and cover station at 96th Street, and modification of the existing 63rd Street Station on the Broadway Line.
- **Additional Facilities:** New storage tracks will be provided along the alignment and at the north and south terminals during the later phases of the project, but not as part of Phase 1.
- **Vehicles:** Total Project - Approximately 224 railcars that are 75 feet long (28 new 8-car train sets). Phase 1 - 68 new rail cars (includes 12 spares).
- **Ridership Forecast:** The full length SAS is forecast to carry 560,000 daily riders in 2030. Upon completion of Phase 1, ridership is expected to be 191,000 per the MTA's Regional Travel Forecast Model.

B Project Status

- The project is in the Final Design/Construction phase.

C Schedule

- **Preliminary Engineering (PE):** Entry into PE was approved by FTA on December 20, 2001; PE completed April 17, 2006.
- **Record of Decision (ROD):** Record of Decision issued on July 8, 2004.
- **Final Design (FD):** Entry into FD (Phase 1) was approved by FTA on April 18, 2006.
- **Final Funding Grant Agreement (FFGA):** The FFGA was signed by FTA and MTA on November 19, 2007 in the amount of \$1.3 billion in Federal funding.

In advance of the FFGA MTA requested approval of an Early Systems Work Agreement (ESWA) in the amount of \$693 million. The ESWA focused on efforts associated with Contract 1 (Tunnel Boring). The FTA approved the ESWA on January 5, 2007.

- **Construction:** Entry into the Construction Phase was authorized with the approval of the ESWA on January 5, 2007. The first construction contract, Contract 1 Tunnel Boring was awarded on March 20, 2007. A Ground-Breaking ceremony was held on April 12, 2007.
- **Project Complete:** *Phase 1 Project percent complete is 859% (based on total expenditures versus Phase 1 projected cost at completion) through November 30, 2007.*
- **Revenue Operations Date:**

Phase 1 (MOS)

Proposed FFGA	Proposed FFGA as Amended	Forecast		Actual
		Grantee	PMO	
Fall 2007	N/A	June 2014 ⁽¹⁾	June 2014	TBD

(1) Updated SAS Project Phase 1 Integrated Schedule, Revision 2.5.1 dated May 31, 2007

- **Other:** The Environmental Impact Statement was approved on April 8, 2004.
- **Next Quarterly Review Meeting:** TBD

D Cost Data for Phase 1

	Proposed FFGA Amount (1)		FFGA Amendments	Current Costs (2)		Expenditures Thru November 30, 2007	
	(\$ Millions)	(%)		(\$ Millions)	Percent of Total Current Cost	(\$ Millions)	Percent of Current Project Cost
Total Project Cost:	\$4,866.614	100	N A	\$4,866.614		\$417.981	8.59
Total Federal share:	1,350.692	27.75		40.076	-	39.682	.82
Total FTA share:	1,300.000	96.25		33.419	-		
5309 New Starts share	1,300.000	96.25		33.419	-		
Total FHWA share:	50.692	3.75		6.657	-		
CMAQ	48.233	95.15		4.198	-		
Special Highway Appropriation	2.459	4.85		2.459	-		
Total Local share:	3,515.922	72.25		273.984		378.299	7.77
State share:	450.000	12.80		-			
Agency share:	3,065.922	87.20		-			
City share:	0	0		-			

- (1) FFGA not yet negotiated. Initially, MFACT will seek a FFGA for Phase 1 only. Amounts based on SCC Funding Sources by Category Worksheets with today's date of 5/1/07. Finance charges now included in total project cost.
- (2) Current cost based on SCC Main Worksheet – Build Alternative dated of 5/1/07.
- (3) Financial data provided monthly by MFACT

E Technical Capacity Review

- Project Management Plan (PMP): Updated PMP (Revision 5) for the final design/construction phase of the project was conditionally approved by the FTA on March 22, 2007.
- Project Quality Manual (PQM) Plan: Updated PQM (Revision 2) for the final design/construction phase of the project was approved by the FTA on March 28, 2007.
- Bisheet Management Plan (BFMP): Updated BFMP dated February 2007 was conditionally accepted by the FTA in May 2007.

- Rail Fleet Management Plan (RFMP): Updated RFMP addressing the SAS project requirements was submitted for FTA acceptance on March 6, 2007. The FTA gave conditional approval on April 24, 2007.

E. System Safety Review

- The New York State Public Transportation Safety Board, the State Safety Oversight Agency (SSOA), re-certified NYCT's System Safety Program Plan (SSPP) on March 15, 2006 to the revised 49 CFR Part 659 requirements.

G. Major Issues/ Problems

- None.

Attachment A- Safety Checklist - Second Avenue Subway

Areas of Focus	Y N	Status
State Safety Oversight Agency		
Does the state have a designated State Safety Oversight Agency (SSOA) as defined in 49 CFR Part 659?	Y	New York Public Transportation Safety Board
If so, does the SSOA's authority extend to pre-revenue operations?	Y	Yes, All Phases.
Has the SSOA established its System Safety Program Standards (SSPS)?	Y	Standards are based on the requirements of 49 CFR Part 659.
Has the SSOA received, reviewed, and approved the Grantee's System Safety Program Plan (SSPP)?	Y	SSPP re-certified on March 15, 2006 per the revised 49 CFR Part 659 requirements.
Does SSOA participate in Project Development? Participation includes things such as: review design documents; attend review meetings; and comment on the how the safety aspects of the project are being addressed	Y	Reference section 2.2.7 of the SAS System Safety & Reliability Plan.
Has the SSOA performed a pre-revenue safety review of the Grantee's project?	N	No
System Safety		
Is the Grantee's overall Safety Program properly documented in its Project Management Plan (PMP)?	Y	See PMP Section 3
Do the Grantee's PMP and associated Safety Program include an appropriate safety policy adopted by its top management?	Y	By approving plan
Do the Grantee's PMP and associated Safety Program establish a specific organizational entity and/or individual responsible for the Safety Program?	Y	See PMP
Do the Grantee's PMP and associated Safety Program specify staffing requirements, procedures and authority for the safety activities?	Y	See PMP Section 3

Attachment A- Safety Checklist - Second Avenue Subway

Areas of Focus	Y N	Status
Do the Grantee's PMP and associated Safety Program include a formal Safety Certification Program(SCP)?	Y	See PMP (draft program is available) and SAS System Safety & Reliability Plan
Do the Grantee's PMP and associated Safety Program include the development/use of a Safety Design Criteria Manual or equivalent documents?	Y	See DCM Chapter 26 and SAS System Safety & Reliability Plan
Has the Grantee developed and the SSOA approved the Grantee's SSPP? What is the status of this process between the Grantee and SSOA?	Y	SSPP re-certified on March 15, 2006 per the revised 49 CFR Part 659 requirements.
Is the Grantee implementing its Safety Program as defined in the PMP? Are the safety milestones being met? (Note: This assumes that the Safety Program is properly documented in the PMP.)	Y	See Project Schedule
Construction Safety		
Is the Grantee's Construction Safety Program(CSP) documented in the PMP?	Y	Included in the Construction Phase PMP.
Has the Grantee implemented its CSP?	Y	Section 011150 of the General Requirements specifies the requirement for furnishing all labor, material, tools, equipment, procedures and safety plans necessary to create and maintain a safe work environment.

Attachment A- Safety Checklist - Second Avenue Subway

Areas of Focus	Y N	Status
How do the Grantee's OSHA statistics compare to the national average for the same type of work? If the comparison is not favorable, what actions are being taken by the Grantee to improve its safety record?	Y	Statistical data being accumulated for the SAS project.
Is the Grantee using wrap-up insurance on this project?	Y	Owner Controlled Insurance Program (OCIP) has been implemented. Insurance coverage by Allied North America, administered by Project Technologies International, LLC
Is the Grantee using safety incentives/disincentives on this project?	Y	Ongoing
Shared Track		
Does this project have shared track?	N	
Has the Grantee coordinated with FRA regarding waivers for shared track usage?	N A	
Shared Corridor		
Does this project include shared corridor? Please describe the geography of the shared corridor.	N	
What is the Grantee doing to specifically address safety concerns in the shared corridor portion of the project?	N A	

Table 1 – FFGA Application Checklist SAS Phase 1

Document	Agency	Target Date	Status/ Comments
Annual Certs & Assurances	MTA		
Grant Application	MTA	7/2007	
Federal STIP Approval	FTA		
Record of Decision/FONSI	FTA	07/08/04 (A)	
Civil Rights Program Review	FTA		
Project Management Plan (PMP)	MTA	03/22/07 (A)	Updated PMP (Revision 5) for the final design/construction phase of the project was conditionally approved by the FTA on March 22, 2007.
Quality Management Plan Project Quality Manual (PQM)	MTA	03/28/07 (A)	Updated PQM (Revision 2) for the final design/construction phase of the project was approved by the FTA on March 28, 2007.
Safety and Security Management Plan (SSMP)	MTA	11/15/07	The SSMP for Phase 1 of the project was conditionally approved by the FTA on November 15, 2007.
Rail Fleet Management Plan (RFMP)	MTA	04/24/07 (A)	The FTA gave conditional acceptance on April 24, 2007.
Bus Fleet Management Plan (BFMP)	MTA	May 2007 (A)	The Bus Fleet Management Plan was submitted to the FTA for acceptance on March 23, 2007. PMOC comments were provided and FTA subsequently conditionally accepted the BFMP in May 2007 with minor corrections noted for future update.
Real Estate Acquisition Plan (RAMP)	MTA	11/30/07	The RAMP was revised to incorporate lessons learned from the review of the Fulton Street Transit Center project. The RAMP was conditionally approved by the FTA on November 15, 2007.

Table 1 – FFGA Application Checklist SAS Phase 1

Document	Agency	Target Date	Status/ Comments
Interagency and RR/Joint Use Corridor Agreements	MTA	N/A	
Value Engineering	MTA		Completed for Phase 1 of the project.
Spot Report - Risk Assessment	PMOC	TBD	The PMOC held Risk Assessment workshops with MTA/ACC in March 2007 to review Risk Characterization, Escalation, Contingency and Project Delivery Methods. A Project Execution Strategy workshop was held April 10, 11 & 12, 2007. The Risk Register meeting was held in May 2007 and a draft Spot Report was issued for review. The initial draft of the Risk Mitigation Plan has been developed by a joint effort of the PMOC and SAS Project Team. A meeting is scheduled for December 5, 2007 to refine the Plan. A PG 40 Report is anticipated in late December 2007.
Financing Plan	MTA	09/06 (A)	Submitted as part of FY 08 New Starts submission.
Financial Capacity Review	FMOC	03/07	
Department of Labor (13c) Certification	DOL	03/07	
Part I- Full Funding Grant Agreement (FFGA)	MTA	Fall-07	
Attachment 1- Scope of Project	MTA	03/07 (A)	Submitted to FTA
Attachment 1A – Color Map	MTA	03/07 (A)	Submitted to FTA
Attachment 2- Project Description	MTA	03/07 (A)	Submitted to FTA
Attachment 3- Baseline Cost Estimate	MTA	05/07	Submitted to FTA
Attachment 3A Project Budget	MTA	05/07	Submitted to FTA
Attachment 4 Baseline Schedule	MTA	05/07	Submitted to FTA

Table 1 – FFGA Application Checklist SAS Phase 1

Document	Agency	Target Date	Status/ Comments
Attachment 5- Schedule of Prior Grants and Related Documents	MTA	03/07 (A)	Submitted to FTA
Attachment 6- Schedule of Capital New Starts Funds	MTA	03/07 (A)	Submitted to FTA
Attachment 7- Measures to Mitigate Environmental Impacts	MTA	03/07 (A)	Submitted to FTA
Attachment 8- New Starts “Before and After Study”	MTA	03/07 (A)	MTACC submitted the Before and After Study Plan for PMOC review on October 24, 2006, and comments were returned to MTACC in February 2007. MTACC sent the updated plan to the FTA for review and acceptance in March 2007. FTA’s Planning Office is currently reviewing the plan.
Submittal of Grant Application in TEAM (Part II- FFGA included)	MTA	TBD	
Congressional Review	OST	TBD	

II. ACTION ITEMS – ITEMS FOR GRANTEE ACTION

Status of Action Items

The status of Action Items is shown in the following summary chart.

Note: Items marked with a “C” in the “PMO Contractor Status” column will be dropped from future reports.

Key Item

2. XX PMO CLIN5 – Project Management Plan

3. XX PMO CLIN3 – Project Monitoring

Legend

Priority (Pr)	Grantee Action	PMO Contractor Status
1 – Most Critical	D – Remedial Action Developed	R – Review On-going
2 – Critical	A – Remedial Action Approved	C – Completed - No further review required
3 – Least Critical	I – Action Implemented	

Items for Action

Pr	Item	Identification	Nature of Problem	Grantee Action			Comments	Status
				D	A	I		

There are no open items.

III. OBSERVATIONS AND CURRENT ISSUES

Construction Contracts

The construction effort associated with Phase 1 of the SAS Project is currently defined in 6 Construction Packages (contracts) as indicated below. Efforts however are under way to reallocate the scope of work in Contracts 2, 4, and 5 because each has an estimated value greater than \$400 million. MTAACC is taking this action because contractors are having difficulty getting bonding on projects valued greater than \$400 million. The rescoping of the work will give more contractors the opportunity to bid on the project.

Contract 1: G 26002 (Tunnels from 92nd to 63rd Streets)

This first contract provides for the construction of tunnels between 92nd Street and the existing Lexington Ave./63rd Street Station, using a Tunnel Boring Machine (TBM) and other mining methods. It includes all preparatory work for tunneling such as utility relocation and construction of a launch box and two vertical shafts. It also includes preparatory work for the subsequent contracts, such as maintenance of electrical and other facilities. Contract 1 was awarded to S3 Tunnel Contractors (a joint venture of Skanska, Schiavone and Shea). This project is currently 36 days behind schedule due to the discovery of utilities and a large subsurface wall, which were not on the plans. The contractor is working Saturdays to recover the lost time. *The project is within budget, with 10 Additional Work Orders (AWO) approved for \$666,400. There have been no lost time accidents.*

Contract 2: G 26005 (New Station at 96th Street)

This contract provides for the construction of a new station at 96th Street and 2nd Avenue. The repackaging of this contract will reallocate the scope of work into two separate packages (2A-Station Structure and Heavy Civil and 2B-Station Finishes & MEP). Contract 2A's scope of work will include construction of the station structure, the station entrances, mezzanines, platforms, ancillary buildings, ventilation plants, and modification of the existing tunnel section between 96th Street and 105th Street. Contract 2B's scope of work will include the construction of the station architectural finishes and mechanical, electrical and plumbing (MEP) elements. It also provides for the infrastructure (structure, finishes, power, and MEP requirements) for the Systems Contract (Contract G 26009).

Contract 3: G 26006 (Rehabilitation of Existing Lexington Avenue/63rd Street Station)

This contract provides for the rehabilitation of the existing Lexington Avenue/63rd Street Station to accommodate the connection to the SAS Line. The scope of this contract consists of opening half of the station, on both the upper and lower levels, to full revenue service. New entrances are to be added at the 3rd Avenue end of the station. Employee facilities and all MEP facilities are to be added and rehabilitated to support both the existing "F" and new "Q" Line services. It also provides for the infrastructure (structure, finishes, power, and MEP requirements) for the Systems Contract (Contract G 26009). *As part of the rescoping of the Phase 1 contracts, Contract 3's scope of work will include the mining of tunnels G3 and G4 from the 63rd Street Station to the 72nd Street Station. Final Design will begin in January 2008.*

Contract 4: G 26007 (New Station at 72nd Street)

This contract provides for the construction of a new station at 72nd Street and 2nd Avenue. The repackaging of this contract will *now* reallocate the scope of work into two separate packages (4A—Station Cavern and Heavy Civil and 4B—Station Finishes and MEP). Contract 4A's scope of work will include excavation for a three track cavern, construction of the station structure, the station entrances, mezzanines, platforms, ancillary buildings and ventilation plants. Contract 4B's scope of work will include the construction of the station architectural finishes and MEP elements. It also provides for the infrastructure (structure, finishes, power, and MEP requirements) for the Systems Contract (Contract 6: G 26009).

Contract 5: G 26008 (New Station at 86th Street)

This contract provides for the construction of a new station at 86th Street and 2nd Avenue. The repackaging of this contract will reallocate the scope of work into two separate packages (5A—Stations Structure and Heavy Civil and 5B—Station Finishes & MEP). Contract 5A's scope of work will include excavating the station cavern, construction of the station's structure, entrances, mezzanines, platforms, ancillary buildings and ventilation plants. Contract 5B's scope of work will include the construction of the station architectural finishes and MEP elements. It also provides for the infrastructure (structure, finishes, power, and MEP requirements) for the Systems Contract (Contract 6: G 26009).

Contract 6: G 26009 (Systems Contract –Track, Signals, Power and Communication)

This contract provides for the installation of all of the systems equipment, integration of the systems that link the new stations to each other and to the existing systems, and the commissioning of the systems for the revenue operation of the new SAS Line.

General Agency Assessment

Funding and Budget: *At a total of \$417.981 million has been expended on the project through November 30, 2007, including \$5.455 million on the Manhattan East Side Access (ESA) study and related FEIS work during the 1995-1999 capital program and \$412.526 million as part of the 2000-2004 capital program*

The MTA submitted an Early Systems Work Agreement (ESWA) request to the FTA for Phase 1 of the Second Avenue Subway (SAS) project on October 13, 2006 in the amount of \$693.0 million, which FTA approved on January 5, 2007.

The MTA and FTA signed a FFGA grant on November 19, 2007 in the amount of \$1.3 billion in Federal funding

Budget Control: MTAACC continued to effectively monitor, control, and report project costs and expenditures. The PMOC will continue monitoring MTAACC's Budget Control during the Final Design phase and beyond.

Schedule: The following table identifies major project milestones established by the MTAACC through a ward of the first construction contract. Not all milestones/activities/events are included

Table 2 – Project Milestones

Activity/ Event	MTACC's Schedule Information	
	Current	Previous Report
FTA Approval of Final Environmental Impact Statement (FEIS)	Apr. 8, 2004 (A)	Apr. 8, 2004 (A)
MTA Board Approval to Advertise First DB Tunneling Contract	Apr. 28, 2004 (A)	Apr. 28, 2004 (A)
Notice of Availability of FEIS in Federal Register	May 7, 2004 (A)	May 7, 2004 (A)
MTACC In-House Risk Analysis for entire Phase 1	June 4, 2004 (A)	June 4, 2004 (A)
Contractor Session for SAS and No. 7 Line Extension	May 25, 2004(A)	May 25, 2004(A)
Advertise 1 st Design/ Build Tunneling Contract	June 21, 2004 (A)	June 21, 2004 (A)
Value Engineering 2 nd Stage for Phase 1	June 7, 2004 (A)	June 7, 2004 (A)
Pre-Bid Meeting for 1 st DB Tunneling Contract	July 20, 2004 (A)	July 20, 2004 (A)
Record of Decision (ROD)	July 8, 2004 (A)	July 8, 2004 (A)
Submit request to enter Final Design (Phase 1)	Sept. 13, 2004 (A)	Sept. 13, 2004 (A)
Revised request to enter Final Design (Phase 1)	Nov. 15, 2005 (A)	Nov. 15, 2005 (A)
PE for the Full Length of SAS Substantially Complete	Dec. 20, 2004 (A)	Dec. 20, 2004 (A)
FTA Approval to Enter Final Design	April 18, 2006(A)	April 2006 (A)
FTA Approval of Early Systems Work Agreement (Approval of ESWA also viewed as authorization to enter Construction)	Jan. 5, 2007 (A)	Jan. 5, 2007 (A)
Award Contract for Tunnel Work (1 st Contract)	Mar 20, 2007 (A)	Mar 20, 2007 (A)
Complete Extended Preliminary Engineering	Nov. 30, 2005(A)	Nov. 30, 2005(A)
Complete Final Preliminary Engineering	April 17, 2006(A)	April 17, 2006 (A)
Award Final Design for Phase 1	April 18, 2006 (A)	April 2006 (A)
Receipt of Full Funding Grant Agreement	Nov. 19, 2007 (A)	Anticipated - Fall 2007

Schedule Control: MfACC issued an updated SAS Project Phase 1 Integrated Schedule, Revision 2.4.1 dated May 8, 2007 on May 15, 2007. This update reflects the following changes:

Contract #1 (Tunnel Boring) – The forecast start of construction date of March 1, 2007 was actualized as March 20, 2007. The construction duration remains 40 months

Contract #2 (96th Street Station) – Due to the changes in the ancillary facilities design, the start of the RFP process was delayed from November 29, 2007 to December 31, 2007. The award date for this contract remains June 2, 2008. The duration of the RFQ process remains the same, 3 months.

Contract #3 (63rd Street Station) – The MfACC has reforecast that real estate acquisition will be completed on June 1, 2010 in lieu of October 23, 2008 (award of the construction contract not impacted). *The anticipated start of Final Design is January 2008, with an award date of June 2010.*

Contract #4 (72nd Street Station) – The study conducted to minimize the residential real estate impact delayed the start of the final design. The design schedule was subsequently revised from 18.5 months to 17 months. The interims submission was forecast for December 14, 2007. The final submission of RFP drawings is forecast for October 17, 2008. The start of RFP procurement process was revised for October 20, 2008, which will support the award date of April 20, 2009, four months later than original award date of December 18, 2008.

Contract #5 (86th Street Station) – No major changes of the procurement and construction dates.

Contract #6 (Systems) – The MfACC revised its forecast date for interims submission to December 2007. The final submission was forecast for April 16, 2008 and the RFP drawing date revised to June 30, 2008. The RFP procurement start date was set for July 28, 2008, which will support the original award date of January 28, 2009.

MfACC added six months of program float as recommended by the Risk Assessment Team subsequently resulting in a Revenue Operations Date of June 2014. However the schedule is being reevaluated as a result of the proposed repackaging plan.

FTA Requirements for Entering into Final Design: In accordance with the FTA's April 18, 2006 letter approving entry into Final Design, MfACC must address and resolve seven technical and financial issues during Final Design and prior to FTA entering into a Full Funding Grant Agreement (FFGA). The following list enumerates those items and their current status:

1. **Update and Maintain a Current Project Level Capital Cost Estimate** – MfACC has updated the SAS Project Phase 1 cost estimate to address the concerns noted during the risk assessment process. It has made adjustments to increase the unallocated contingency and support an additional 6 months' float. The cost estimate and its various attachments have been submitted to the FTA. **This action is considered closed.**
2. **Update and Maintain a Current Safety and Security Management Plan** – MfACC submitted an informal draft SAS Safety and Security Management Plan (SSMP) to the PMOC on January 26, 2007 and it was reviewed by the PMOC's Safety and Security Specialists. Following a conference call between the PMOC and FTA, the PMOC requested MfACC to update its Design Criteria Manual to include a

chapter on Security Design similar to those utilized on the East Side Access project. This chapter was received in October 2007, reviewed by the PMOC and comments were returned. *The SSMP Spot Report was submitted November 12, 2007. FTA approved the SSMP on November 15, 2007. This action is considered closed*

3. **Advance the Project Design and Construction Consistent with the Environmental Mitigation Measures from the FEIS and ROD – MTACC**
committed to developing a tracking mechanism to ensure that all environmental mitigation measures, identified in Attachment A of the Record of Decision, are being addressed during Final Design. To date, 3 Technical Memorandums have been issued that address changes to the project subsequent to the FEIS and ROD. On July 30, 2007, the FTA concurred with Memorandum 3 that the design changes to the SAS Project will not result in additional significant adverse environmental impacts. If changes are made in the future, FTA will need to determine if additional environmental studies will be necessary before the changes are approved. MTACC is preparing Technical Memorandum No. 4 to address a change to entrance number 3 at the 72nd Street Station.
4. **Develop and Implement a Management Plan for Accomplishing the Risk Mitigations** – The SAS Project Team and the FTA's Risk Assessment Team have worked effectively in addressing issues, which could impact the success of the project. They have developed a Risk Management Program through various workshops and mutual cooperation. The PMOC has documented the efforts of the Risk Assessment Team in various draft Spot Reports. On June 6, 2007 the PMOC forwarded the reports to FTA Headquarters for review. The PMOC will monitor the implementation of the Risk Management Program as the project progresses through the design, construction and test phases. The MTACC has identified and documented the risk mitigation initiatives in a scoping document for incorporation into the PMP. This document was reviewed by the PMOC and FTA. All concerns were subsequently resolved.
5. **Provide the Required Documentation to Support the Current “Medium” New Starts Rating** – The PMOC received the FY 2008 New Starts submission from MTACC on August 30, 2006. The PMOC review of the SCC Worksheets revealed several anomalies associated with the number of required rail vehicles, project description, and SCC Worksheet revision status. MTACC made the required corrections and submitted new worksheets. The PMOC documented its findings in a Spot report that it issued on October 9, 2006. A copy containing FTA requested corrections was transmitted to MTACC on October 23, 2006. **This action is considered closed**
6. **Update the PMP and each Sub-plan as Applicable to Support Future Construction Activities** – Updated PMP (Revision 5) for the final design/construction phase of the project was approved by the FTA on March 22, 2007. The FTA approved an updated PQM (Revision 2) for the final design/construction phase of the project on March 28, 2007. MTACC has updated all

documents required in support of the FFGA application (RFMP, BFMP, RAMP, etc.).
This action is considered closed.

- 7. Prepare an Acceptable Before and After Study Plan** – The PMOC received the SAS Before and After Study Plan on October 24, 2006 and provided comments to the SAS Team in February 2007. MTACC officially submitted the Before and After plan to the FTA on March 6, 2007. *FTA approved the Before and After plan on November 15, 2007.*
This action is considered closed.

TABLE 3 - COST AND SCHEDULE SUMMARY

Project	Cost (in Millions)					Schedule						
	Original Budget	Latest Estimate at Completion (EAC)	Percent (%) Difference (+ or -)**	Spent Through 11/30/07 (Funding Report)	Percent (%) Complete Planned Actual	Award/NTP Date	Original Completion Date*	Actual Forecasted Completion	Original Duration (Months)	Duration Percent (%) Difference (+ or -)**	Percent (%) Complete	
Contract 1 - Tunnel Boring S3 Joint Venture (Skanska/Schiavone/Shea)	\$337,025,000	\$337,025,000		\$30,752,696		9.1%	3/20/2007	7/20/2010	7/20/2010	40 months	N/A	
Contract 2 - 96th Street Station Name of Contractor	N/A											
Contract 3 - 63rd Street Station Name of Contractor	N/A											
Contract 4 - 72nd Street Station Name of Contractor	N/A											
Contract 5 - 86th Street Station Name of Contractor	N/A											
Contract 6 - Track and Systems Name of Contractor	N/A											
Contracts to Be Bid	\$2,225,975,000	\$2,225,975,000										
OCIP (Insurance)	\$160,000,000	\$160,000,000		\$51,083,169		31.9%						
TA Labor	\$28,000,000	\$28,000,000										
Engrg. Force Account	\$42,000,000	\$42,000,000		\$269,865		0.6%						
3rd Party Reimbursement	\$58,000,000	\$58,000,000		\$553,753		1.0%						
Artwork Allowance	\$6,000,000	\$6,000,000										
Preliminary Engr. & EIS	240,814,507	240,814,507		236,675,046		98.3%						
Final Design	\$169,185,493	\$169,185,493		\$67,946,875		40.2%	4/18/2006					
Construction Mgmt.	\$86,000,000	\$86,000,000		\$875,374		1.0%	5/31/2007					
Rolling Stock	\$157,000,000	\$157,000,000										
Property Acquisition	\$245,000,000	\$245,000,000		\$29,155,387		11.9%						
Contingency	\$129,000,000	\$129,000,000		\$668,400		0.5%						
Project Reserve	\$6,000,000	\$6,000,000										
Executive Reserve	\$160,000,000	\$160,000,000										
Subtotal	4,050,000,000	4,050,000,000		417,980,565		10.3%						
Financing	816,614,000	816,660,000										
Totals	4,866,614,000	4,866,660,000		417,980,565		8.6%						

Project Cost Estimate: The MFACC has updated the SAS Project Phase 1 cost estimate to address the concerns noted during the Risk Assessment process. Adjustments have been made to increase the unallocated contingency, real estate cost, and support an additional 6 months' float. The MFACC has submitted the cost estimate and its various attachments to the FTA in preparation for the FFGA application. Total project cost (including finance charges) is \$4.867 billion.

Quality Management: The PMOC reviewed the Quality Management System addressed in SAS Project Quality Manual (PQM), Revision 2, dated November 2006, and found that it complied with FTA guidance and was therefore acceptable. The FTA subsequently approved an updated PQM on March 28, 2007. The SAS Quality Management System as described in the PQM establishes a systematic approach to ensure that the contracted products and services meet the requirements of the specifications. The SAS Project quality team continues to be proactive in the implementation of the quality management system. The SAS Quality Assurance Manager approved the Quality Management System to be utilized by S3 (Contract 1-tunnel boring contractor) in July 2007. S3's quality personnel are actively conducting preparatory phase session meetings, design process control reviews, incoming and in-process materials inspections, test monitoring and performing quality system audits.

Design and Engineering Management: MFACC awarded the FD of Phase 1 to DHA on April 18, 2006 at a value of approximately \$143.485 million (\$116.000 million FD and \$27.485 million construction phase design support). Design completion milestones have been incorporated into the project schedule. Because of the rescoping of Contracts 3, 4 and 5 these milestones might be impacted. Working group meetings are ongoing to support the Final Design of the various contract packages. PMOC continues to monitor these meetings.

Construction Management: On May 31, 2007, MFACC awarded a contract to PB Americas to perform Construction Management services for Phase 1 of the SAS project. As Consultant Construction Manager (CCM), PB Americas will provide services for 91 months with a not-to-exceed value of \$80.9 million. PB is playing an active role coordinating activities among the various agencies, the contractor (S3) and the SAS Project Team. S3 concerns are being addressed with action items being assigned and tracked for closure. Working Group and Job Progress Meetings are being held bi-weekly to keep all parties informed.

Construction Contract #1 (G26002 Tunnel Boring): Contract 1 was awarded on March 20, 2007 to S3, a joint venture of Skanska, Schiavone, and Shea. Contract submittals (Shop Drawings, RFIs, etc.) are being handled on time per the contract. The CPM schedule was approved in August 2007 by MFACC. The PMOC is reviewing the approved schedule, which was received on October 24, 2007. At the October 10, 2007 Construction Progress Meeting, the contractor stated the design of the TBMs substation would be completed at the end of 2007 and given to Con Ed for review, approval and put into service the end of December 2008. Since Con Ed needed 17 months to review and certify the East Side Access substation, the PMOC suggested a schedule fragment (fragmentary network) be prepared for the contractor's design and Con Ed's review and certification of the SAS TBM substation. This would provide intermittent milestones to confirm the process is on schedule.

Work continues at the Launch Box between 96th and 90th streets, with utilities relocation and pre-trenching for secant/slurry. *Construction of the pile supported sewer began at the end of*

October 2007 and is continuing. Ten AWOs have been negotiated with the contractor for a cost of \$666,400.

Environmental controls are in place with noise, dust, and vibration monitoring ongoing. MTACC's Public Information Office is very active on the project and maintains a continuous interface with the local residents and businesses. S3 and the insurance carrier continue their proactive safety programs. The OCP carrier held a luncheon at the end of October 2007 for all of the workers on the project as a reward for their excellent record of no lost time occurrences. This will be repeated each month in which there are no lost time accidents. Safety meetings are held weekly for the workers with various topics such as proper use of power tools, rigging ladders, etc. being discussed. Any person needing to get on the site must receive safety orientation training. The PMOC has arranged to have a training session for the FTA and PMOC representatives when it is convenient.

Real Estate: MTA Real Estate is handling all real estate matters related to the SAS project and is responsible for acquiring the real estate interests needed for the project. MTA's real estate acquisition process is addressed in the Real Estate Acquisition Management Plan (RAMP). The initial PMOC review determined that the RAMP did not comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act). MTACC submitted an updated RAMP during the last week of May 2007.

Following this update, FTA Real Estate met with MTA's Real Estate group to review lessons learned on the Fulton Street Transit Center project, which utilized the same process as the SAS project. The FTA sent MTA a list of the required additions in an August 13, 2007 letter. The MTA incorporated the comments into the RAMP and resubmitted it to the FTA in October 2007. The PMOC reviewed the Plan and recommended a few changes. *A meeting on the lessons learned on the Fulton project was held on November 1, 2007. As a result, the SAS RAMP was revised and submitted. The FTA gave conditional approval of the RAMP on November 15, 2007.*

The MTA has retained a Consultant, O R Colan, to assist with the relocating residential and commercial tenants.

The last Public Hearing required for the proposed acquisition of temporary, permanent and fee interests in the properties for the four stations (63rd, 72nd, 86th & 96th streets) was held on September 20, 2007. Respondents have until the end of 2007 to challenge the MTA's property taking, after which time they cannot challenge them. All Contract 1 properties have been acquired.

Attachment B-Summary of Concerns and Recommendations

Pr	Item	Identification	Cat	Nature of Concern	PMO Recommendation	Grantee Action			Status	Status
						D	A	I		

There are no Summary of Concerns and Recommendations for SAS.