

**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 (MTACC-SAS)**

REGION II MAJOR CAPITAL PROJECTS

Monthly Report – Part I July 2007

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LIST OF ACRONYMS

CSI	Construction Standards Institute
DHA	DMJM Harris and ARUP
ESWA	Early Systems Work Agreement
FD	Final Design
FES	Final Environmental Impact Statement
FFGA	Full Funding Grant Agreement
FTA	Federal Transit Administration
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)
PM	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 railcars (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):** Anticipated FFGA – Fall 2007.

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 5.93% (based on total expenditures versus Phase 1 projected cost at completion) through July 31, 2007.*
- **Revenue Operations Date:**

Phase 1 (MOS)

Proposed FFGA	Proposed FFGA as Amended	Forecast		Actual
		Grantee	PMO	
Fall 2007	N/A	<i>June 2014 (1)</i>	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 July 31, 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		\$288.554	5.93
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		248.871	5.11
State share:	450.000	12.80		-			
Agency share:	3,065.922	87.20		-			
City share:	0	0		-			

- (1) FFGA not yet negotiated. Initially, MFACC 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 with today's date of 5/1/07.
- (3) Financial data provided monthly by MFACC.

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.
- Bis Heet 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?	N A	Will be implemented during Construction
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?	TBD	Project is in Final Design.
Is the Grantee using wrap-up insurance on this project?	Y	NYCT has decided to use OUP for Phase 1. MTA's Board approved purchasing the policy in December 2006.
Is the Grantee using safety incentives/disincentives on this project?	TBD	

Attachment A- Safety Checklist Second Avenue Subway

Areas of Focus	Y N	Status
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	08/18/06	MTACC submitted the Safety and Security Management Plan (SSMP) for PMOC review on January 26, 2007. The PMOC met with the SAS team for three days in March 2007 and provided written comments the first week in May 2007. <i>SAS project team submitted an updated SSMP on May 30, 2007. PMOC reviewed comments with SAS team on July 6, 2007 and the updated version was submitted July 19, 2007. PMOC is preparing a Spot Report on the plan.</i>
Rail Fleet Management Plan (RFMP)	MTA	04/24/07 (A)	The FTA gave conditional acceptance on April 24, 2007.

Table 1 – FFGA Application Checklist SAS Phase 1

Document	Agency	Target Date	Status/ Comments
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	07/25/06 (A)	The updated RAMP was received on February 22, 2007 and PMOC comments were sent to MFACC on March 30, 2007. MTA is addressing the comments. Enhancements to the RAMP are required as a result of a review of the process utilized on the Fulton Street Transit Center project. An updated RAMP was submitted during the last week of May 2007. This RAMP will be revised to incorporate lessons learned from the review of the Fulton Street Transit Center project.
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 MFACC 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. <i>PMOC is developing a Risk Mitigation plan and a Spot Report on Risk Mitigation and Oversight.</i>
Financing Plan	MTA	09/06 (A)	Submitted as part of FY 08 New Starts submission.
Financial Capacity Review	FMOC	03/07	

Table 1 – FFGA Application Checklist SAS Phase 1

Document	Agency	Target Date	Status/ Comments
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
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 underway to reallocate the scope of work in Contracts 3, 4, and 5 because each has an estimated value greater than \$500 million. MTAACC is taking this action because contractors are having difficulty getting bonding on projects valued greater than \$500 million. The rescoping of the work will give more contractors the opportunity to bid on the effort. The impact on the project is being evaluated.

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).

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 scope of this contract consists of the construction of the station entrances, mezzanines, platforms, ancillary buildings, ventilation plants, and modification of the existing tunnel section between 96th Street and 105th Street. It includes the construction of the station structure, 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 6: 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 arrival of the new 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 6: G 26009).

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 scope of this contract consists of the excavation for a three-track cavern, construction of station entrances, station mezzanines, platforms, ancillary buildings and ventilation plants. It includes the construction of the station structure, 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 scope of this contract consists of the excavation for station cavern, station entrances, station mezzanines, platforms, ancillary buildings and ventilation plants. It includes the construction of the station structure, architectural finishes, and MEP elements. It also provides for the infrastructure (structure, finishes, power, and MEP requirements) for the Systems contract (Contract 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 \$288.554 million has been expended on the project through July 31, 2007, including \$5.455 million on the Manhattan East Side Access (ESA) study and related FEIS work during the 1995-1999 capital program and \$283.099 million as part of the 2000-2004 capital program*

The current project budget of \$337.584 million is for work associated with the consultant, DHA Joint Venture, for PE (\$187 million), Extended PE (\$6.9 million), Final Design (\$116 million), and Construction Phase Design Support (\$27 M). *Payments amounting to \$194.099 million for PE and \$46.135 million for Final Design and Construction Phase Design Support for a total of \$239.769 million have been made to DHA as of July 31, 2007.*

Note: The total amount paid for PE was reduced by \$59,426 due to a 2003 Overhead adjustment. One contract modification in the amount of \$44,772.00 has been approved. A summary table of funding and cost allocations is shown on page III-19.

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 FFGA grant application is anticipated to be submitted in fall of 2007.

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

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

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 view 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)
Anticipated Receipt of Full Funding Grant Agreement	Fall 2007	Fall 2007

Schedule Control: Updated SAS Project Phase 1 Integrated Schedule, Revision 2.4.1 dated May 8, 2007 was issued 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, from October 1, 2007 to December 28, 2007.

Contract #3 (63rd Street Station) – The real estate acquisition was reforecasted to be completed on June 1, 2010 in lieu of October 23, 2008 (award of the construction contract not impacted). The actual start of the design activities was actualized to June 1, 2006 in lieu of the forecast date of September 1, 2006.

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 forecasted for December 14, 2007. The final submission of RFP drawings is forecasted 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 forecasted date for interims submission was revised to November 7, 2007. The final submission was forecasted 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.

Six months of program float was added as recommended by the Risk Assessment Team subsequently resulting in revenue operations of June 2014.

FTA Requirements for Entering Into Final Design

In accordance with the FTA's April 18, 2006 letter approving entry into Final Design, seven technical and financial issues must be addressed during Final Design and resolved 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** – The SAS Project Phase 1 cost estimate has been updated to address the concerns noted during the risk assessment process. Adjustments have been made 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** – MTACC 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. Interviews of key SAS personnel were held on March 27, 28 and 29, 2007 and verbal comments were given to the author on a page by page basis. Written comments were sent to MTACC in early May 2007. The plan needed to be strengthened in the security area and with responsibilities assigned. The informal draft SSMP was updated and resubmitted to the PMOC during the last week of May 2007. *The PMOC provided additional comments on July 6, 2007 with MTACC subsequently updating the SSMP on July 19, 2007. The PMOC is currently reviewing this update and anticipates issuing a draft Spot Report in August 2007. Formal submission of the SSMP to the FTA is anticipated in August 2007 as well.*

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. On July 24, 2006 MTA issued Technical Memorandum 1, which assessed the impact of design modifications made to Phase 1 since the issuance of the FEIS and the ROD. The assessment was conducted to determine if any additional impacts not discussed in the FEIS and ROD would result from the design revisions. The PMOC concurred with the MTA's conclusion that there were no significant environmental impacts as a result of the refinements. FTA concurrence was subsequently obtained on January 5, 2007. On February 12, 2007, MTA sent Technical Memorandum 2 concerning the 96th Street Station design listing additional changes, which are different than the FEIS scope, that have been made for improvement. Technical Memorandum 3 was issued in May 2007. The PMOC will continue to monitor the different contract packages through the final design process.
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. A Risk Management Program has been developed through various workshops and mutual cooperation. The efforts of the Risk Assessment Team have been documented in various draft Spot Reports. On June 6, 2007 the reports were forwarded 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 risk mitigation initiatives will be defined in a scoping document for incorporation into the PMP. *The PMOC will review the scoping document with MTACC in August 2007.*
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. Corrections were subsequently made and new worksheets were submitted. The PMOC documented its findings in a Spot report that was issued on October 9, 2006. A copy containing FTA requested corrections was transmitted 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. Updated PQM (Revision 2) for the final design/construction phase of the project was approved by the FTA on March 28, 2007. All documents required in support of the FFGA application have been updated (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. Comments were provided to the SAS Team in February 2007. MTACC officially submitted the Before and After plan to the FTA on March 6, 2007. The FTA Planning Office is currently reviewing the plan.

July 31, 2007 Funding and Cost Data for the NYCT Second Avenue Subway Project

Project Component	Funding Sources	Funding Allocations to Date (in \$ thousands)			Cost Allocations to Date		
		Funding ID	Federal @ 80% of Total Value (TeamWeb)	Local (TeamWeb)	Total Eligible Cost	Grant Drawdown (TeamWeb)	Current Project Budget
Funding							
MESA Study							
CMAQ	NY-90-X274-01	4,198,400.00	1,049,600.00	5,248,000.00	4,198,400.00		4,198,400.00
MTA Funding (MESA Study)	MAC CF-93		973,427.48	973,427.48			
MTA Funding (MESA Study)	POOL		178,478.06	178,478.06			
Total		4,198,400.00	2,201,505.54	6,399,905.54			
2nd Av EIS/PE							
FTA 5309 New Starts Grant (2nd Av PE)	NY-03-0397	4,980,026.00	1,245,006.00	6,225,032.00	4,980,026.00		4,980,026.00
FTA 5309 New Starts Grant FFY03 (2nd Av PE cont.)	NY-03-0408	1,967,165.00	491,791.00	2,458,956.00	1,967,165.00		1,967,165.00
FTA 5309 New Starts Grant FFY04 (2nd Av PE cont.)	NY-03-0408-1	1,968,358.00	492,090.00	2,460,448.00	1,574,686.00		1,968,358.00
FTA 5309 New Starts Grant FFY06 (2nd Av PE cont.)	NY-03-0408-2	24,502,500.00	6,125,825.00	30,628,325.00	24,502,500.00		
FTA 5309 New Starts Grant FFY06 (2nd ESWA)	NY-03-0408-3	-	-	-			
FHWA Special Appropriation (5307)	NY-17-X001-01	2,459,821.00	614,955.00	3,074,776.00	2,459,500.00		
MTA Funding (2nd Av EIS/PE) - CFY0102	LOCAL		500,000.00	500,000.00			500,000.00
MTA Funding (2nd Av EIS/PE) - CFY03	LOCAL		250,000.00	250,000.00			250,000.00
MTA Funding (2nd Av EIS/PE) - CFY04	LOCAL		250,000.00	250,000.00			250,000.00
MTA Funding (2nd Av EIS/PE)	POOL		258,612,089.28	258,612,089.28			199,898,129.80
Total		35,877,870.00	273,984,567.36	305,459,416.28			
Total Funding		40,076,270.00	273,984,567.36	311,859,321.82	39,682,277.00		209,813,678.80

Costs	Base Budget	Current Budget	Vouchered
			As Of July 31, 2007
MESA Study	5,368.00	\$ 5,454,700.00	\$ 5,454,700.00
EIS for SAS (Incl. Lower Man. Ser. Study)	11,901.30	\$ 12,174,678.00	\$ 10,893,583.57
Preliminary Engineering (I/H)			
Master Plan Development	2,500,000.00	\$ 2,197,642.90	\$ 2,197,642.90
Arch/Eng Services	316,525.00	\$ 316,525.00	\$ 267,940.97
TA Labor Services	1,000,000.00	\$ 975,000.00	\$ 874,588.91
Outside Agencies	50,000.00	\$ 22,960.14	\$ 22,960.14
Property Acquisition	-	\$ 7,500.00	\$ 7,500.00
Preliminary Engineering (I/H)	43,510,000.00	\$ 27,139,110.38	\$ 27,139,110.38
Consultant design	-	\$ 267,559.00	\$ 267,559.00
Consultant Design (PE)	210,452,138.00	\$ 194,099,207.00	\$ 193,634,575.00
PE Consultant Contin. Reserve	-	\$ 2,332,716.00	\$ 44,772.00
Consultant (Final Design)		\$ 116,026,944.00	\$ 46,134,772.35
Consultant (Final Design/Const. Support)		\$ 27,458,735.00	\$ 332,339.60
I/Q Consultant	21,155.00	\$ 1,110,915.22	\$ 1,110,915.22
Artwork	-	\$ 78,000.00	\$ 77,896.00
Miscell		\$ 92,691.60	\$ 92,891.60
Sub-Total (MESA, EIS, & PE)	257,867,087.30	\$ 389,754,886.24	\$ 288,553,647.64

Project Cost Estimate: The SAS Project Phase 1 cost estimate has been updated 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 cost estimate and its various attachments have been submitted to the FTA in preparation for the FFGA application. Total project cost (including finance charges) is \$4.867 billion.

Quality Management: The Quality Management System addressed in SAS Project Quality Manual (PQM), Revision 2, dated November 2006, was reviewed for compliance with FTA guidance and found to be acceptable. An updated PQM was subsequently approved by the FTA 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. Procedures are being updated and training is ongoing as new individuals join the project team. *The Quality Management System to be utilized by S3 (Contract 1-tunnel boring contractor) was approved by the SAS Quality Assurance Manager in July 2007. S3's quality personnel are actively conducting preparatory phase session meetings, design process control reviews, in-process inspections and test monitoring.*

Design and Engineering Management: MTACC 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. 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, MTACC 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. The PMOC will continue to monitor the meetings and the job site.*

Construction Contract #1 (G 26002 Tunnel Boring): Final design was completed by DHA in July 2006. During October 2006, MTACC and NYCT completed its internal review process and advertised the contract for bid on October 26, 2006. A site tour and pre-bid conference were held on November 14, 2006. Two bids were received and opened on January 18, 2007. The bids were \$337.025 million and \$495.077 million. Contract 1 was subsequently awarded on March 20, 2007 to S3, a joint venture of Skanska, Schiovone, and Shea. *Contract submittals are ongoing. S3 has developed a CPM schedule and has submitted it for MTACC approval. PMOC has requested a copy of the approved schedule. Work is progressing between 96th and 90th streets, including tree removal, utilities relocation, installation of traffic signals, pre-trenching for secant/slurry walls and installation of replacement wooden staircases for building access.*

Real Estate: MTA Real Estate has taken the lead in 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) dated July 2006. A PMOC review revealed that the RAMP needed to be updated to

comply with the Uniform Relocation Assistance and Real Property Acquisition Policies Act (Uniform Act). An updated RAMP was submitted during the last week of May 2007. As a result of lessons learned on the Fulton Street Transit Center project which utilized the same process as the SAS project, the May 2007 RAMP will be revised. Additional details are forthcoming from the FTA real estate group to the MTA.

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.