# Capital Program Oversight Committee Meeting

# December 2009

#### **Committee Members**

- J. Walder, Chair
- A. Albert
- J. Blair
- A. Cappelli
- D. Frasca
- M. Page
- M. Pally
- N. Seabrook
- J. Sedore, Jr.
- E. Watt
- C. Wortendyke

#### **MEETING AGENDA**

#### MTA CPOC COMMITTEE

**December 14, 2009 – 12:00 noon** 

347 Madison Avenue Fifth Floor Board Room New York, NY

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## MINUTES OF MEETING MTA CAPITAL PROGRAM OVERSIGHT COMMITTEE

November 16, 2009 New York, New York 12:00 p.m.

#### MTA CPOC members present

Hon. Jay Walder, Chair

Hon. Andrew Albert

Hon. James Blair

Hon. Doreen Frasca

Hon. Mark Page

Hon. Mitchell Pally

Hon. James Sedore

Hon. Carl Wortendyke

#### MTA CPOC members not present

Hon. Allen Cappelli

Hon. Mitchell Pally

Hon. Norman Seabrook

Hon. Ed Watt

#### MTA staff present

Linda Kleinbaum

Ron Saporita

#### NYCT Transit staff present

Howard Roberts

Fred Smith

Mark Bienstock

Diane Morgenroth

Leonard Ciaccio

John Kivlehan

#### McKissack+Delcan staff present

Mike Kaleda

Chairman Walder called the November 16, 2009 meeting of the Capital Program Oversight Committee to order at 12:00 p.m.

#### **Public Comments Period**

There were no speakers in the public comments portion of the meeting.

#### **Meeting Minutes**

Upon motion duly made and seconded, the CPOC members approved the minutes to the previous meeting held on October 26, 2009.

#### Committee Work Plan

Mr. Saporita stated that beginning in December, there will be quarterly updates on Minority and Women-Owned Business Participation to the Committee.

Chairman Walder added that there is a process underway by staff to provide greater clarity and transparency to the materials which come to the Committee as well as to use statistical information to highlight areas both progressing well and raising concerns.

#### **Annual Review of CPOC Charter**

Chairman Walder noted that the committee charter is intended to outline the respective roles and responsibilities of the Committee members and the staff. CPOC is unique in that the independent engineer technically works for the Committee and is facilitated in that work by MTA staff.

Upon motion duly made and seconded, the Capital Program Oversight Committee approved its revised Charter.

#### Commitments and Completions Update

Mr. Saporita noted that staff is in the process of updating the tables in the status reports to insure project commitments do not exceed the project budgeted goals when awards are higher than the goal.

Chairman Walder encouraged Committee members to communicate any other changes they would like to appear in the reports. Mr. Page suggested that, to the extent possible, staff offer some insight into whether project delays are reasonable in the context of the work. Mr. Albert asked for greater consistency in reporting the specific elements of a project.

Mr. Saporita reported that the MTA committed \$4.25 billion through October 2009. This is 86% of the \$4.95 billion commitment plan. Actual commitments exceeding the budget have been included which inflate the percent committed. Next month's report will be changed to reflect credit only for the plan amount. The following summarizes commitments by agency.

- NYCT committed \$1.76 billion, or 71% of its \$2.48 billion for the period.
- LIRR committed \$306 million, or 95% of its \$323 million plan.
- MNR committed \$212 million, or 75% of its \$283 million plan.
- Capital Construction committed \$1.89 billion, or 117% of its \$1.62 billion plan.
- B&T committed \$19 million, or 16% of its \$121 million plan.
- MTA Bus committed \$24 million, or 37% of its \$65 million plan.
- MTA Police Department committed \$1.6 million, or 16% of its \$10 million plan.

Mr. Saporita reported that MTA completed projects valued at \$3.17 billion through October 2009. This is 102% of the completions plan for \$3.11 billion. Actual completions exceeding the budget have been included, inflating the percent completed. Next month's report will be changed to reflect credit only for the plan amount. The following summarizes the completion activity.

NYCT completed projects valued at \$1.61 billion, or 89% of its \$1.81 billion plan

- LIRR completed projects valued at \$181 million, or 79% of its \$229 million plan.
- MNR completed projects valued at \$443 million, or 503% of its \$88 million plan.
- Capital Construction completed projects valued at \$506 million, or 92% of its \$553 million plan.
- Bridges &Tunnels completed projects valued at \$428 million, or 100% of its \$426 million plan.

#### Semi-Annual Update of the Bus Procurement Program

In the absence of Joseph Smith, Mr. Kivlehan presented an update on the status and overall strategy for NYCT Bus and MTA Bus procurements. The remaining bus purchases in the current Capital Program are 1,166 for NYC Transit and 140 for MTA Bus.

In December 2007, Orion Bus was awarded a contract for 850 of the next generation of Hybrid buses (745 for NYCT Bus and 105 for MTA Bus). Thus far, NYCT Bus has received a total of 582 buses that have been deployed to its depots. MTA Bus has received 79 buses which have been deployed as well.

Another bus contract was awarded in November 2008 to DesignLine International for \$60 million to purchase 90 of its Turbo engine hybrid buses. If the testing benchmarks are met, all 90 buses should be delivered by the end of 2010.

In May 2009, a contract for \$71 million was awarded to Nova Bus for 90 low floor articulated buses. These buses will be used to replace older buses on the on the BX12 SBS (Select Bus Service) route and on the new M15 SBS route which will begin service on 1<sup>st</sup> and 2<sup>nd</sup> Avenues in Manhattan by the fall of 2010.

A contract is currently being prepared for award in a month or so to purchase 135 Compressed Natural Gas (CNG buses), 90 for NYCT Bus and 45 for MTA Bus. The new order will replace buses more than 12 years old and increase the CNG local bus fleet.

Mr. Kivlehan discussed the bus plan in the next 2010-2014 Capital Program, which includes the purchase of 2,480 buses for NYCT Bus at a cost of nearly \$2 billion. The buses are required largely to meet replacement needs due to the major increase in the size of the fleet during the 1990s. NYCT Bus has found that after 12 years, it is more cost effective to replace a bus than to rehabilitate it. The Capital Program has funds for the procurement of 290 buses for MTA Bus at a cost of \$121 million. Those include standard and articulated buses and express coaches.

Most of the NYCT Bus purchases, some 91%, will be for replacements. The new articulated buses will be to implement Select Bus Service (SBS) on four more routes as well as to replace standard buses on high-volume routes.

There are several reasons to make these bus purchases, including: replacing 12-year old buses to improve service; introducing advanced technologies to reduce fleet emissions and meet EPA requirements; and converting high-volume routes to articulated buses to reduce bus operator costs. Even taking into consideration the price differential of the capital cost of the bus, the net present value saving will on average be almost \$36,000 per bus per year. The plan is to increase the articulated bus fleet from 14% to 22%. The number of standard buses in the fleet will decrease from 74% to 67%. By 2015, when all the buses are delivered from the 2010-2014 Capital Program, the average fleet age will be about the mid-point of the expected useful life.

Mr. Kivlehan discussed the impact of fleet age on bus performance, which as it ages declines in performance. Significantly, investments in bus maintenance do not prevent Mean Distance

Between Failures (MDBF) from decreasing as the bus ages. In September 2008, standard buses less than two years old had an MDBF of 8,800 miles while those over 12 years old had an MDBF of 3,300 miles during the same period. The decline in MDBF for articulated buses is even sharper. Express buses less than two years old had an MDBF of 14,000 miles in September compared to a total fleet MDBF of 6,400 miles.

A pilot program is under way at 34<sup>th</sup> Street using Customer Information Systems (CIS). A demonstration project equipped 30 buses on the M34/M16 route with an Intelligent Vehicle Monitoring system. The pilot is being provided at no cost to NYCT Bus by Clever Devices and will operate through early February 2010. The demonstration includes automated voice announcements and on-board signage displays. It also includes customer information signs at eight bus stop shelters. Additionally, Clever Devices is providing a link to a Google-enhanced map to supervisors that will show the actual location of the bus, the bus operator pass number and the run number. MTA is preparing a Request for Expression of Interest (RFEI) so other companies will be given an opportunity to demonstrate their products. Two vendors, INIT and NEXTBus, have been asked to conduct demonstrations.

Chairman Walder noted that NYCT Bus is working with the City of New York to implement this program, which focuses specifically on customer information. It is expected there will be a full report on the program in several months.

Chairman Walder asked how choices are made about the type of buses to purchase, the CNG, hybrid and clean diesel. Mr. Kivhehan stated that the agency is conducting a cost-benefit analysis of the options. Chairman Walder stated that the Committee must ensure it has the analytical basis for the decisions that are being made. This type of information should come to the Committee for a discussion, particularly since the bus purchases are a large part of the Capital Program.

The Committee questioned Mr. Kivlehan on the operation and performance of the buses as well as the overall procurement program and alternatives. Mr. Kivlehan said he would follow-up on Mr. Page's question about whether liquidated damages are returned to the manufacturer after getting back on schedule.

Chairman Walder noted the success of NYCT Bus in getting foreign companies to build buses in this country. For example, Nova Bus, owned by Volvo, will manufacture three-door buses, which already operate in Europe. He emphasized it should be clearly stated what the MDBF performance projections are for the bus purchases in next Capital Program in order to measure these new buses against actual performance. Operating costs should be included in these analyses as well.

#### Independent Engineer's Report on the NYCT Bus Procurement Program

Mr. Kaleda stated that that the bus procurement program is proceeding with no concerns at this time. However, there are concerns related to construction of the Charleston Annex Bus Depot, which he laid out along with NYC Transit's responses.

#### NYC Transit Semi-Annual Update on the Signals and Systems Program

Mr. Bienstock updated the Committee on three projects: the SONET/ATM Communications Network System, The ATM-B Communications Network; and the Public Address/Customer

Information System (PA/CIS) for the subways A Division. The three systems work together to provide information to customers. The ATS-A system, which has been in service since last year, tracks the location of all trains in that Division and provides schedule and train location data to the PA/CIS system. The PA/CIS system then distributes the train arrival information to passenger stations via the SONET/ATM communications network. Mr. Bienstock reported the progress on

the SONET/ATM and the ATM-B contracts.

Those risks that had been identified in the MTA/NYCT joint workshops have been successfully mitigated: the contractor is maintaining a stable project management team; NYCT is providing the resources necessary to support the installation activities and field testing; NYCT has hired a consultant to provide support in estimating and negotiating system/software change orders, and has purchased a software tool to facilitate the estimating process; and PA/CIS scalability testing has been completed in the lab and will be repeated with the final software release.

#### **Executive Session**

Upon motion duly made and seconded, Chairman Walder adjourned the public CPOC meeting at 12:40 p.m. to go into Executive Session to discuss a matter of potential litigation.

#### <u>Adjournment</u>

Upon motion duly made and seconded, Chairman Walder adjourned the Executive Session, reconvened the public session and then immediately adjourned the November 16, 2009 meeting of the Capital Program Oversight Committee.

Respectfully submitted,

Miriam Cukier Secretary

#### 2009 - 2010 CPOC Committee Work Plan

#### I. RECURRING AGENDA ITEMS

Approval of Minutes
Committee Work Plan
Commitments/Completions Update
Risk Assessment Presentation
Program/Project Monitoring Reports

#### II. SPECIFIC AGENDA ITEMS

#### December 2009

Quarterly Update on MTA Capital Construction Projects Semi-Annual Update on NYCT Car Procurement Program Quarterly Update on Minority and Women-Owned Business Participation

#### January 2010

Semi-Annual Update on MNR Capital Program
Annual Update on LIRR & MNR Rolling Stock Programs

#### February 2010

Semi-Annual Update on NYCT Stations Division

#### March 2010

Quarterly Update on MTA Capital Construction Projects Semi-Annual Update on NYCT Infrastructure & Facilities Division Quarterly Update on Minority and Women-Owned Business Participation

#### **April 2010**

Semi-Annual Update on LIRR Capital Program Semi-Annual Update on B&T Capital Program

#### May 2010

Semi-Annual Update on NYCT Signals and Systems Division Semi-Annual Update on NYCT Buses Program Semi-Annual Update on NYCT Bus Procurement Program

#### June 2010

Quarterly Update on MTA Capital Construction Projects Semi-Annual Update on NYCT Car Procurement Program Quarterly Update on Minority and Women-Owned Business Participation

#### Responsibility

Committee Chair & Members
Committee Chair & Members
MTA
MTA Agencies
MTA Independent Engineering Consultant

#### Responsibility

President, MTACC Sr. V.P., NYCT Subways MTA Chief Diversity Officer

Senior Director, Capital Programs, MNR Vice Presidents, LIRR and MNR

Program Officer, NYCT CPM

President, MTACC Program Officer, NYCT CPM MTA Chief Diversity Officer

Chief Program Officer, LIRR Chief Engineer, B&T

V.P. and Dep. Chief Engineer, NYCT CPM

Program Manager, NYCT CPM Sr. Vice President, NYCT DOB

President, MTACC Sr. V.P., NYCT Subways MTA Chief Diversity Officer

#### **July 2010**

Semi-Annual Update on MNR Capital Program
Annual Update on MNR, LIRR and NYCT In-House Track Programs

Sr. Director, Capital Programs, MNR Program Officers: MNR, LIRR and NYCT

#### August 2010 No CPOC

#### September 2010

Semi-Annual Update on NYCT Stations Division

#### Program Officer, NYCT CPM

#### October 2010

Quarterly Update on MTA Capital Construction Projects Semi-Annual Update on NYCT Infrastructure & Facilities Division Quarterly Update on Minority and Women-Owned Business Participation

# President, MTACC Program Officer, NYCT CPM MTA Chief Diversity Officer

#### November 2010

Semi-Annual Update on LIRR Capital Program Semi-Annual Update on B&T Capital Program Chief Program Officer, LIRR Chief Engineer, B&T

## CONTRACT AWARD ACTIVITY 2007, 2008 and Mid Year 2009 M/W/DBE PARTICIPATION

		2007		2008			January - June, 2009			
	Total \$	Total \$ Awards For M/W/DBE	Actual M/W/DBE Percentage	Total \$	Total \$ Awards For M/W/DBE	Actual M/W/DBE Percentage	Total \$ Contract	Total \$ Awards For M/W/DBE	Actual M/W/DBE Percentage	
-EDEDAL	£4.40D*	COE ANA	0.520/	¢4 07D**	TOOM.	0.120/	\$670M***	\$66M	9.85%	
EDERAL	\$1.12B*	\$95.4M	8.53%	\$1.07B**	\$98M	9.12%	\$670IVI	ΦΟΟΙVI	9.00%	
STATE	\$2.92B	\$170M	5.83%	\$6.29B	\$174.5M	2.78%	\$2.57B	\$68M	2.60%	
TOTAL:	\$4.04B	\$265.5M	6.6%	\$7.36B	\$272.5M	4.00%	\$3.24B	\$134M	4.14%	

<sup>\*</sup> The federal share for the year was \$747.6M. With DBE participation of \$95.36M, the percentage is 13%.

FEDERAL - Federally regulated procurements
STATE - Non-Federally regulated procurements
DMWBE - Disadvantaged/Minority/Women-owned businesses

B - Billion

M - Million

<sup>\*\*</sup> The federal share for the year was \$454M. With DBE participation of \$98M, the percentage is 22%.

<sup>\*\*\*</sup>The federal share for the first two quarters was \$365M. With DBE participation of \$66M, the percentage is 18%.

#### MTA M/W/DBE PROGRAM ACTIVITIES OVERVIEW

The MTA Department of Diversity/Civil Rights ("DCCR") administers a Disadvantaged Business Enterprise ("DBE") Program pursuant to U.S. Department of Transportation regulations.\* In July 2009, the MTA Board approved a goal of 17% for DBE participation on federally-funded contracts for federal fiscal year 2009. DCCR also administers a Minority and Women-owned Business Enterprise ("M/WBE") Program under New York State regulations.\*\* In July 2009, the MTA Board also established a goal of 10% for MBE participation and a goal of 5% for WBE participation for State fiscal year 2009-2010.

Between January and June 2009, MTA and its constituent Agencies awarded \$3.24 billion in third party contracts. Of those contracts, \$670 million are federally funded contracts, and \$2.57 billion are state-funded contracts. On the federal side, a total of \$66 million was awarded to DBE firms, for a participation rate of 9.85%. On the state side, MTA and its constituent agencies awarded \$68 million or 2.60% of contracting dollars to M/WBE firms, of which \$49 million was awarded to MBEs and \$19 million was awarded to WBEs.

\*49 CFR Part 26.

<sup>\*\*5</sup> NYCRR Part 140, et seq.



# MTA Capital Program Status Report

through

**November 30, 2009** 

**December CPOC Monthly Report** 

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- > Status of 2009 Commitments and Completions
- > 2005-2009 Capital Program Historical Progress
- > Status of Overall MTA Capital Programs
  - 2005-2009
  - 2000-2004
  - 1992-1999
- > Status of MTA Capital Program Funding
  - 2005-2009
  - 2000-2004
  - 1992-1999

#### Summary of Capital Program Performance Thru November 2009

This report shows overall and individual agency progress against goals in the areas of commitments and completions. Agency sections also include the highlights of major commitments and completions achieved or slipped. A summary follows.

<u>Commitments</u> In the first Eleven months of 2009, the MTA as a whole committed over \$4 billion worth of work. This is 83% of planned commitments of \$5.3 billion. Agency progress against theirs goals is as follows:

- NYCT awarded 70% of their plan. Three projects estimated at \$506M (Purchase 23 "A" Division Subway Cars, Install CBTC Flushing Line, Purchase 90 Low Floor CNG Buses) slip from the 3<sup>rd</sup> quarter to 2010. Three projects estimated at \$496M (Purchase 151 Express Buses, Reconstruct Clara Hale Depot, VHF Radio System Upgrade-Phase 1) slip from December to 2010.
- LIRR awarded 95% of their plan. The bids received for Woodhaven Blvd Bridge & Queens Blvd Bridge project has significantly exceeded the budget. Project scope will be reduced and new procurement will be initiated.
- MNR awarded 76% of their plan. Three projects estimated at \$40M (Bronx Stations/Capacity Improvements, Drainage and Undercutting Program, Signal System Replacement-MN share) slip from October to December. M4 Remanufacturing Program slips from December 2009 to wait for CDOT funding of its share (Actual start date has yet to be determined).
- CCC awarded 106% of their plan. ESA: Award for Queens Bored-Tunnels and Structures was 141% greater than the budgeted amount.

  Award for Northern Boulevard Crossing slips from June to December due to continuing contract award negotiations (Award value is significantly higher (148%) because of market conditions).
- B&T awarded 17% of their plan. Robert F. Kennedy Bridge Rehabilitation and Queens Midtown Tunnel slip to 2010.

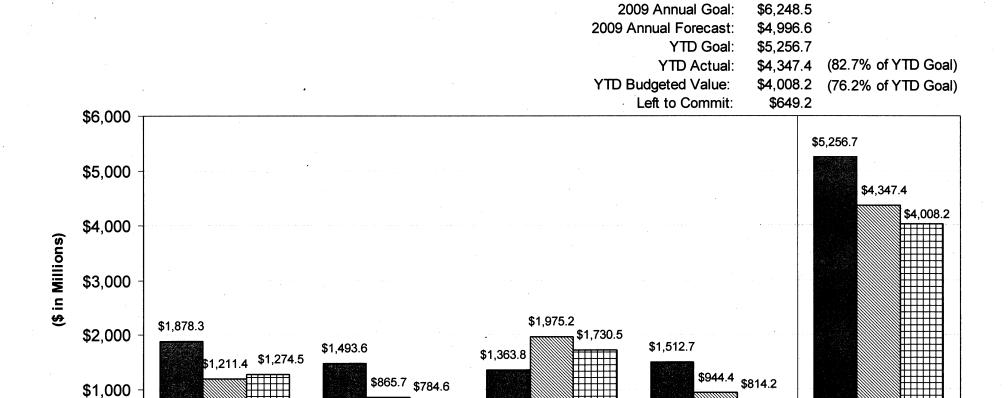
<u>Completions</u> In the first Eleven months of 2009, the MTA completed over \$3.2 billion in projects, which is 97% of planned completion of \$3.4 billion. Progress against the goal, by agency, follows.

- NYCT completed 84% of their plan. Completion of Charleston Annex Depot and Columbus Circle Stations Complex slip to 2010 (original projected completion: 4<sup>th</sup> quarter). Completion of Data Network is not yet determined due to continued claim settlement discussions.
- LIRR completed 81% of their plan. Completion of ROW Drainage Control has been delayed due to availability of resources.
- MNR completed 430% of their plan. Harmon Shop Replacement was completed four months ahead of schedule.
- CCC completed 92% of their plan. Completion of Peter Minuit Plaza and Bollards project slip to 2010 due to unexpected site conditions, changes in design plans, and seasonal timing requirements of landscaping work.
- B&T completed 96% of their plan. TB65 slips to 2010 pending completion of all Electronic Tolling System review.

# **2009 Commitments**

2Q

2009 Annual Goal



**3Q** 



\$0

■ Budgeted Value

**4Q** 

**1Q** 

**YTD** 

2009 Annual Goal: \$3,148.6

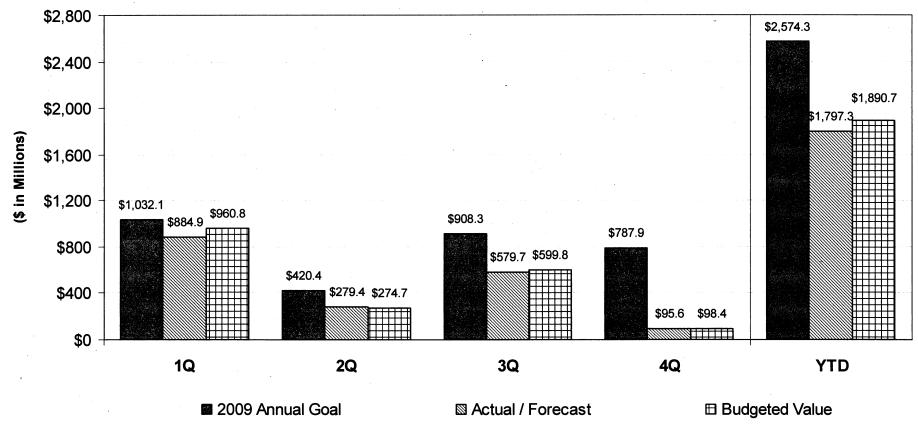
2009 Annual Forecast: \$1,839.6

YTD Goal: \$2,574.3

YTD Actual: \$1,797.3 (69.8% of YTD Goal)

YTD Budgeted Value: \$1,890.7 (73.4% of YTD Goal)

Left to Commit: \$42.3



#### MTA NYC Transit: Status of Major Commitments as of November 30, 2009

	Budget (\$	in Millions)	Au	ard Date		1
Project	2009 Goal	Actual / Forecast*	2009 Goal	Actual / Fore	ecast	Notes
Track and Switch Replacement Program (2009)	\$258.0	\$258.0	Jan-09	Jan-09	Α	
Rehab (5) Far Rockaway Line Stations - Beach 67 St to Beach 25 St	\$84.7	\$84.0	Jan-09	Jan-09	Α	
Modernize Interlockings: Lex Av, 5Av/ QBL	\$155.3	\$155.3	Jan-09	Jan-09	Α	а
Rehab (3) Rockaway Park Branch Stations - 90th St, 98th St, 105th St	\$51.5	\$51.5	Jan-09	Jan-09	Α	b
Culver Viaduct Phase II & Interlocking	\$313.0	\$257.5	Mar-09	Mar-09	Α	С
Vent Plant: Jackson Ave - QBL	\$76.0	\$76.0	Jun-09	Jun-09	Α	d
Jay St Substation: DC Feeders / CBH #579	\$31.7	\$31.7	Jul-09	Jul-09	Α	d
Rehab 3 IRT Power Substation Enclosures	\$11.7	\$11.7	Jul-09	Jul-09	Α	d
Rehab (5) Pelham Line Stations - Parkchester to Whitlock	\$121.8	\$130.7	Apr-09	Aug-09	Α	е
Rehab (7) West End Line Stations and Structure - Bay 50 St to 71 St	\$136.1	\$136.1	Aug-09	Aug-09	Α	d
Gap Fillers Union Sq Ph 3: Local Platfrm	\$23.8	\$23.8	Aug-09	Aug-09	Α	d
Rehab (5) West End Line Stations and Structure - 62 St to 9th Ave	\$99.9	\$99.9	Aug-09	Aug-09	Α	d
Induction Loops: 642 Booths	\$13.4	\$13.4	Aug-09	Aug-09	Α	d
E. 180th Station Rehab & ADA: WPR Line	\$81.2	\$61.4	Apr-09	Sep-09	Α	f
Yard Fencing: Priority I: 2 Locations	\$12.2	\$12.2	Sep-09	Sep-09	Α	d
Purchase 23 "A" Division Subway Cars	\$75.4	\$75.4	Jul-09	Mar-10		h
CBTC: Install CBTC: Flushing Line	\$347.5	\$378.8	Jul-09	Mar-10		17
Purchase 151 Express Buses	\$110.9	\$93.7	Dec-09	Mar-10		ī
Purchase 90 Low Floor CNG Buses	\$61.8	\$51.6	Sep-09	Apr-10		g
Reconstruct Clara Hale Depot	\$299.4	\$299.4	Dec-09	Jun-10		j
VHF Radio System Upgrade (Phase1)	\$74.0	\$102.9	Dec-09	Dec-10		k

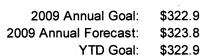
<sup>\*</sup> Forecast is equal to the most current engineer's estimate at award for a project that is scheduled to be committed.



#### MTA NYC Transit: Status of Major Commitments as of November 30, 2009

#### Notes:

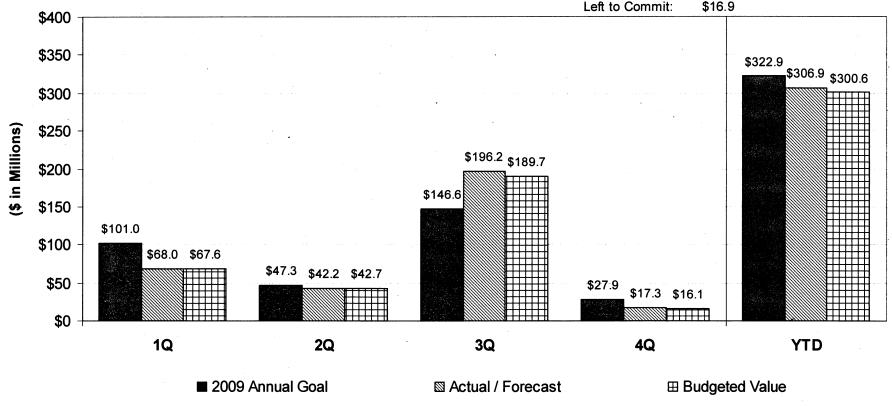
- a) Budget increased from \$123M (December 2008 estimate) to \$155M (January 2009 estimate) to reflect additional scope and higher bid cost of the awarded contract. The \$155M became the 2009 Goal value.
- b) Budget decreased from \$60M (December 2008 estimate) to \$51M (January 2009 estimate), reflecting good bid savings. The \$51M became the 2009 Goal value.
- c) Budget reduced reflecting good bid savings.
- d) New Project. Funded with American Recovery and Reinvestment Act (ARRA); reflected in Goal and Actual at award.
- e) Bid opening postponed to April 15th due to bidders request.
- f) Award was held pending resolution of the 10% Element problem by CPRB. Budget reduced reflecting good bid savings.
- g) Clarifications requested by potential bidders required changes to the technical specifications. Proposals were received in late November, but review of the proposals and completion of the RFP process were impacted by involvement of the same Procurement staff in another contract review. The current expectation is to go to the March Board. Project cost decreased because the initial plan called for the purchase of 110 Articulated buses. The current plan is for the purchase of 90 CNG buses.
- h) Bid opening for the Flushing CBTC was extended due to an arbitration issue involving one of the potential bidders and a bid protest by another potential bidder. The current bid opening is now mid-January and that may be optimistic given the submission requirements. Project cost increased due to the scope addition of 7/West CBTC Extension.
- i) Award schedule was extended mostly due to issues related to the availability of engines as well as structural warranties of potential new vendors.
- j) Project award is delayed pending approval of conceptual design, legal review of specifications, and completion of value engineering. All of these activities are expected to be completed in December prior to issuance of Request For Proposals (RFP).
- k) Due to funding constraints, the project was split into base and option. The option is funded in the 2010-2014 program. In addition, Risk Analysis was delayed but completed in November. RFP was issued on November 23rd with a proposals due date in late January 2010. The project's budget was reduced in October 2008 through Board action from \$101 million to \$74 million to pay for a budget shortfall in the Brighton Line Stations project. The current estimate of \$103 million merely reflects the full cost of this phase.
- I) Award was rescheduled to coordinate with Flushing CBTC. It is expected to have the Flushing car procurement package on the February Board agenda, for a March 2010 award.



\$306.9 (95.1% of YTD Goal) YTD Actual:

YTD Budgeted Value: \$300.6 (93.1% of YTD Goal)

Left to Commit: \$16.9



#### MTA Long Island Rail Road: Status of Major Commitments as of November 30, 2009

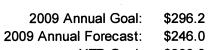
	Budget (\$ i	in Millions)	Aw	ard Date		
Project	2009 Goal	Actual / Forecast*	2009 Goal	Actual / Fore	ecast	Notes
Program Administration	\$25.8	\$26.7	Jan-09	Jan-09	Α	
2009 Annual Track Program	\$53.1	\$53.9	Feb-09	May-09	Α	
Ronkonkoma Parking Lot	\$1.9	\$1.9	Mar-09	Feb-09	Α	
Jamaica Interlocking Reconfiguration Study	\$5.1	\$5.3	Apr-09	Apr-09	Α	
Bridge Painting	\$6.0	\$2.9	May-09	Aug-09	Α	а
Jamaica Central Control Building Fitout - Phase 2B	\$5.8	\$3.3	Jun-09	Jul-09	A	b
Great Neck Elevators	\$2.5	\$2.1	Jul-09	Jun-09	Α	
Babylon Train Wash	\$20.4	\$26.1	Jul-09	Aug-09	Α	С
Life Cycle Maintenance Shop	\$38.1	\$41.5	Jul-09	Sep-09	Α	d
Bridge Abutments & Retaining Walls on PW Branch	\$17.5	\$16.6	Aug-09	Sep-09	Α	е
Merrick, Bellmore, & Massapequa Park Escalators	\$3.1	\$4.3	Sep-09	Dec-09		f
Powell Creek Bridge & Hog Island Channel Bridge	\$11.6	\$20.6	Sep-09	Sep-09	Α	g
Woodhaven Blvd Bridge & Queens Blvd Bridge	\$15.7	\$0.0	Oct-09	Jul-10		h
Atlantic Ave Viaduct - Phase 2A	\$75.8	\$75.8	Aug-09	Aug-09	Α	j
						H
						_

<sup>\*</sup> Forecast is equal to the most current engineer's estimate at award for a project that is scheduled to be committed.

#### MTA Long Island Rail Road: Status of Major Commitments as of November 30, 2009

#### Notes:

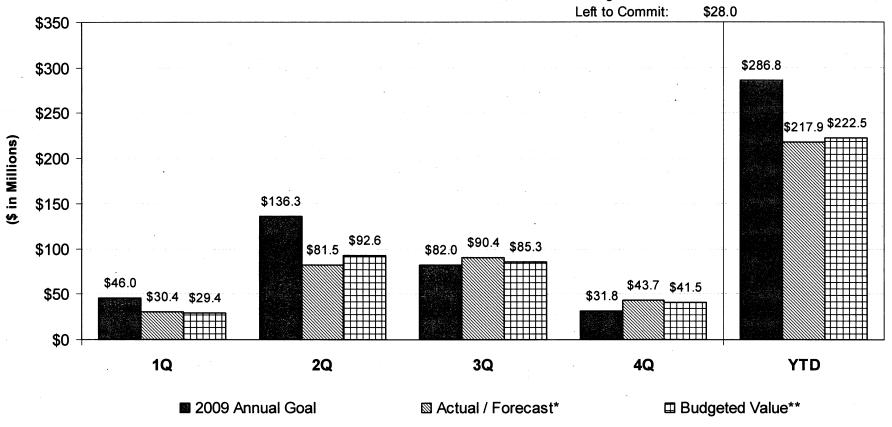
- a) Decrease due to limited resources and available track outages.
- b) Decrease due to favorable bids.
- c) Increase due to actual construction award amount, cost escalation and an increase in project duration and support requirements; projected funded with American Recovery and Reinvestment Act (ARRA)
- d) Delay due to additional time required for the procurement process.
- e) Commitment made September 2, 2009
- f) Increase due to change from concurrent installation to sequential installation to minimized disruption to customers; delay due to time required to finalize the design and time required for the procurement process
- g) Increase due to additional number and size of piles, complexity of construction with restricted access as well as limited competition.
- h) The bids received significantly exceeded the budget. The project scope will be reduced and a new procurement will be initiated.
- i) New project funded with ARRA; reflected in Goal and Actual Amounts.



\$286.8 YTD Goal:

(76.0% of YTD Goal) \$217.9 YTD Actual: (77.6% of YTD Goal)

YTD Budgeted Value: \$222.5



#### MTA Metro-North Railroad: Status of Major Commitments as of November 30, 2009

2009 Goal	Actual /				
	Forecast**	2009 Goal	Actual / Fore	ecast	Notes
\$11.3	\$11.3	Mar-09	Jun-09	Α	а
\$28.7	\$16.9	May-09	Jun-09	Α	b
\$7.2	\$6.1	Jun-09	Aug-09	Α	С
\$17.8	\$23.5	Jun-09	Aug-09	Α	d
\$42.1	\$0.4	Jul-09 (*)	TBD		е
\$30.4	\$28.6	Sep-09	Sep-09	Α	f
\$7.2	\$2.5	Sep-09 (*)	Sep-09	Α	g
\$9.4	\$8.1	Oct-09 (*)	Dec-09		h
\$7.0	\$7.0	Oct-09 (*)	Dec-09		Īi
\$25.1	\$25.1	Oct-09 (*)	Dec-09		Īj
\$7.8	\$0.0	Dec-09	TBD		k
\$37.8	\$37.8	Jun-09	Jun-09	Α	7
\$7.7	\$7.7	Jun-09	Jun-09	Α	7
\$4.6	\$4.6	Aug-09	Aug-09	Α	m
	\$28.7 \$7.2 \$17.8 \$42.1 \$30.4 \$7.2 \$9.4 \$7.0 \$25.1 \$7.8 \$37.8	\$28.7 \$16.9 \$7.2 \$6.1 \$17.8 \$23.5 \$42.1 \$0.4 \$30.4 \$28.6 \$7.2 \$2.5 \$9.4 \$8.1 \$7.0 \$7.0 \$25.1 \$25.1 \$7.8 \$0.0 \$37.8 \$37.8 \$7.7 \$7.7	\$28.7 \$16.9 May-09 \$7.2 \$6.1 Jun-09 \$17.8 \$23.5 Jun-09 \$42.1 \$0.4 Jul-09 (*) \$30.4 \$28.6 Sep-09 \$7.2 \$2.5 Sep-09 (*) \$9.4 \$8.1 Oct-09 (*) \$7.0 \$7.0 Oct-09 (*) \$25.1 \$25.1 Oct-09 (*) \$7.8 \$0.0 Dec-09 \$37.8 \$37.8 Jun-09 \$7.7 \$7.7 Jun-09	\$28.7 \$16.9 May-09 Jun-09 \$7.2 \$6.1 Jun-09 Aug-09 \$17.8 \$23.5 Jun-09 Aug-09 \$42.1 \$0.4 Jul-09 (*) TBD \$30.4 \$28.6 Sep-09 Sep-09 \$7.2 \$2.5 Sep-09 (*) Sep-09 \$9.4 \$8.1 Oct-09 (*) Dec-09 \$7.0 \$7.0 Oct-09 (*) Dec-09 \$25.1 \$25.1 Oct-09 (*) Dec-09 \$7.8 \$0.0 Dec-09 TBD \$37.8 \$37.8 Jun-09 Jun-09 \$7.7 \$7.7 Jun-09	\$28.7 \$16.9 May-09 Jun-09 A \$7.2 \$6.1 Jun-09 Aug-09 A \$17.8 \$23.5 Jun-09 Aug-09 A \$42.1 \$0.4 Jul-09 (*) TBD \$30.4 \$28.6 Sep-09 Sep-09 A \$7.2 \$2.5 Sep-09 (*) Sep-09 A \$9.4 \$8.1 Oct-09 (*) Dec-09 \$7.0 \$7.0 Oct-09 (*) Dec-09 \$25.1 \$25.1 Oct-09 (*) Dec-09 \$7.8 \$0.0 Dec-09 TBD \$37.8 \$37.8 Jun-09 Jun-09 A \$7.7 \$7.7 Jun-09 Jun-09 A

<sup>\*</sup> Date represents last month of multi commitments

<sup>\*\*</sup> Forecast is equal to the most current engineer's estimate at award for a project that is scheduled to be committed.

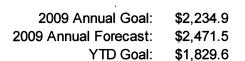
#### MTA Metro-North Railroad: Status of Major Commitments as of November 30, 2009

#### Notes:

- a) 2009 Cyclical Track Program Commitment approval was delayed from the goal award date of March 2009 to June 2009 due to the release of the grant funding by the FTA.
- b) NHL Station Improvements Pt Chester/Rye Bids for construction were significantly lower than budgeted. Contract executed on June 30, 2009.
- c) West of Hudson Locomotives- Negoitations for Best and Final Offer took longer than expected. As a result, contract award was delayed from June 2009 to August 2009. Actual budget is lower than the goal due favorable cost proposal.
- d) GCT Facility Rehabilitation 1) Project funded through the American Recovery and Reinvestment Act (ARRA); reflected into Goal and Actual at award. 2) Scope refinement has delayed the RFP process. As a result the award of the facility work was delayed from June 2009 to August 2009. MNR reserves the right to elect an option (\$1.5M) in the design/build contract by December 2009. Actual budget exceeds the goal amount due to added scope to the base project and refinement of the Engineers Estimate.
- e) Harlem and Hudson Line Power Improvements Deferred to 2010.
- f) Cortlandt Parking and Access Improvements Actual budget is lower than the goal due to favorable bids.
- g) Turnouts Main Line/High Speed The goal amount has been reduced due to the work at CP223 (between Rye Station and Harrison Station) and CP153 (south of the Southeast Station) being rescheduled to the next Capital Program.
- h) Bronx Stations/Capacity Improvements MNR review for selection of consultant for design of CP109 interlocking was completed in November 2009. A contract award for design of CP109 is in process. The goal award date of October 2009 has slipped to December 2009.
- i) Drainage and Undercutting Program The goal award date of October 2009 has slipped to December 2009 due to NYCDEP permitting review period.
- j) Signal System Replacement The goal award date for the New Haven signal cable installation was revised from October 2009 to December 2009 due to the increased length of time necessary to negotiate a fair price with the signal contractor on the pre-wired wayside signal houses for this project. Installation of signal cable is being staged slightly ahead of delivery of the wayside signal locations so that the vital cable will not sit in the field unused for any length of time.
- k) M4 Remanufacture Program Awaiting CDOT funding. Full share of CDOT funding has not yet been approved. An actual start date has yet to be determined.
- I) Project funded through the American Recovery and Reinvestment Act (ARRA); reflected into Goal and Actual at award.
- m) Project funded through the American Recovery and Reinvestment Act (ARRA); reflected into Goal and Actual at award; adjusted for commitment of Force Account supports costs



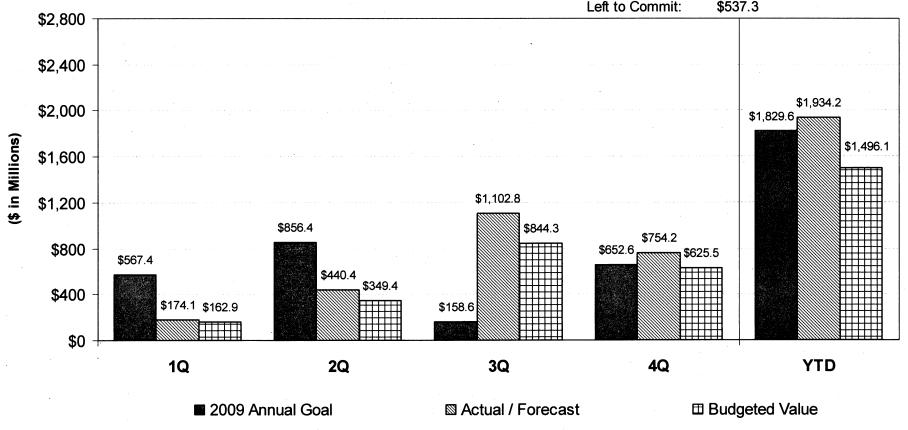
#### MTA Capital Construction: Actual / Forecasted Commitments as of November 30, 2009



YTD Actual: \$1,934.2 (105.7% of YTD Goal)

\$1,496.1 YTD Budgeted Value: (81.8% of YTD Goal)

Left to Commit: \$537.3



#### MTA Capital Construction: Major 2009 Commitments as of November 30, 2009

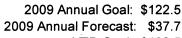
	Budget (\$	in Millions)	Aw	ard Date		
Project	2009 Goal	Actual / Forecast*	2009 Goal	Actual / Fore	ecast	Notes
East Side Access						
Harold CILs (VH051A)	\$30.9	\$30.9	Mar-09	Mar-09	Α	
44th St Demolition & 245 Park Ave Entrance(CM004)	\$43.6	\$42.8	Apr-09	Jul-09	Α	
Queens Bored-Tunnels & Structures (CQ031)	\$489.9	\$694.1	Apr-09	Sep-09	Α	а
Harold Structures Part 2 (CH054A)	\$51.0	\$22.9	Apr-09	Jul-09	Α	b
Northern Boulevard Crossing (CQ039)	\$61.1	\$90.5	Jun-09	Dec-09		С
Systemwide Materials (VS099)	\$100.0	\$37.9	Dec-09	Dec-09		d
Second Avenue Subway						
96th Street Station - Site Work and Heavy Civil	\$328.8	\$348.2	Feb-09	May-09	Α	g
86th Street Station - Open Cuts and Utilities Relocation	\$50.8	\$42.8	Jun-09	Jul-09	Α	е
Fulton Street Transit Center						T
FSTC - A/C Mezz & J/M/Z Vertical Circulation	\$211.9	\$159.0	Nov-09	Jul-0 <u>9</u>	Α	f
South Ferry Terminal Station	,					T
Peter Minuit Plaza, Bollards, and Sewer Work	\$20.6	\$22.7	Mar-09	Apr-09	Α	1

<sup>\*</sup> Forecast is equal to the most current engineer's estimate at award for a project that is scheduled to be committed.

#### MTA Capital Construction: Major 2009 Commitments as of November 30, 2009

#### Notes:

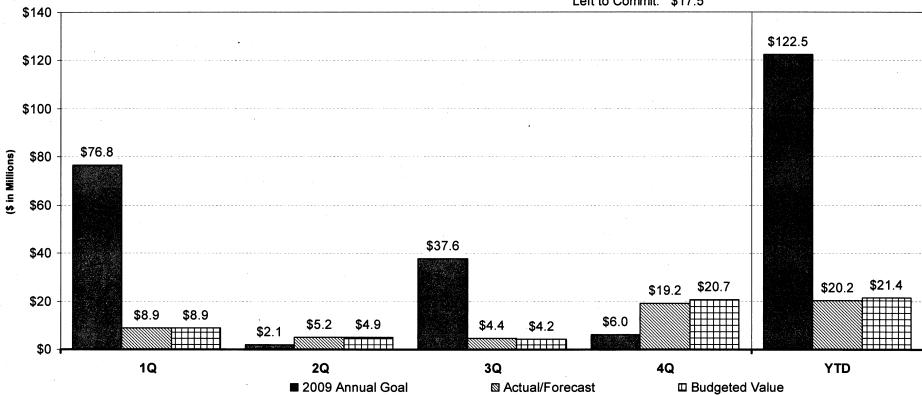
- a) The MTA Board approved contract award in June and MTACC made the actual award in September following the resolution of a bid protest filed with the FTA.
- b) Decrease due to favorable market conditions, reflecting efficiencies realized by the winner bidder already performing similar work in the vicinity, and a change in how force account support is budgeted and committed.
- c) The MTA Board approved award of this RFP contract in October. The award value is significantly higher than plan because of market conditions and risk as reflected in contractor contingencies applied to excavation and temporary support activities.
- d) Partial commitment for material to be procured through the use of ARRA funds; balance of commitment has been moved to 2010.
- e) The bid opening date for this contract was delayed at the bidders' requests. MTACC received a low bid below the engineer's estimate and awarded the contract in July.
- f) The A/C package was advanced and procured through a low bid rather than a request-for-proposal process to take advantage of available federal stimulus funds. MTACC awarded the contract in July. MTACC also awared the 4/5 Station Rehabilitation contract over the summer (August) to take advantage of stimulus funding.
- g) The contract award was greater than the goal amount due to difficult market condition at the time of the procurement.



YTD Goal: \$122.5

YTD Actual: \$20.2 (16.5% of YTD Goal)
YTD Budgeted Value: \$21.4 (17.4% of YTD Goal)

Left to Commit: \$17.5



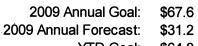
#### MTA Bridges and Tunnels: Status of Major Commitments as of November 30, 2009

Project		Budget (\$ i	in Millions)	Awa	ard Date		S
		2009 Goal	Actual / Forecast*	2009 Goal	Actual / Foreca	st	Note
TB59	Robert F. Kennedy Bridge: Rehab of Building 104 - Construction	\$67.3	\$0.0	Mar-09	2010		а
BW97	Bronx Whitestone Bridge: Concrete Anchorage Repairs - Construction	\$6.8	\$5.2	Aug-09	Dec-09		b
TB64	Robert F. Kennedy Bridge: Misc Steel and Concrete (TB64C) - Construction	\$6.0	\$4.5	Sep-09	May-Dec-09	Α	С
QM01	Queens Midtown Tunnel: Service & FE Building Rehab - Construction	\$11.3	\$0.0	Sep-09	2010		d

<sup>\*</sup> Forecast is equal to the most current engineer's estimate at award for a project that is scheduled to be committed.

#### Notes:

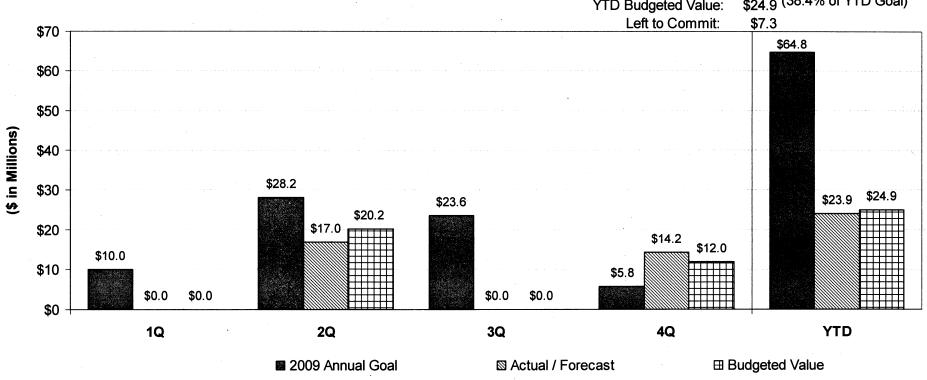
- a) In the December 2008 report, the award for TB59 was forecast for February 2009. Subsequently the prospective bidders have requested and were granted a time extension for submittal of bids. Budget also revised to reflect 100% design estimate for construction. Bids were received in February, however the low bidder has responsibility issues. Award is now forecast for 2010. This project has been deferred and will be re-evaluated.
- b) BW97 is forecast for December. Construction bids are under review.
- c) TB64C broken into several tasks to be awarded between May and December 2009. Actual to date is \$3.8M.
- d) QM01 is now forecast for 2010. Its scope has been revised to a design-build pre-engineered building to be constructed in 2010. QM01 budget revised to reflect adjustments to productivity and labor rates based on recent bid results.



YTD Goal: \$64.8

\$23.9 (36.9% of YTD Goal) YTD Actual:

\$24.9 (38.4% of YTD Goal) YTD Budgeted Value:



#### MTA Bus: Status of Major Commitments as of November 30, 2009

	Budget (\$	in Millions)	Aw	ard Date		
Project	2009 Goal	Actual / Forecast*	2009 Goal	Actual / Fore	ecast	Notes
Engineering Construction Management Services	\$5.0	\$5.0	Feb-09	May-09	Α	b.
Misc Design Consultant Services	\$5.0	\$5.0	Feb-09	May-09	Α	d
New Roof and Ventilation System at LGA	\$10.2	\$7.0	Jun-09	May-09	A	f
New Roof and Ventilation System at FR	\$4.7	\$6.9	Jun-09	Oct-09	Α	a, e
New Roof and Ventilation at Baisley Park	\$7.3	\$7.3	Aug-09	Dec-09		а
Electrical Upgrade Emergency Generators 6 Depots	\$13.9	\$13.9	Aug-09	Feb-10		С
New Roof and Ventilation at Eastchester Maintenance Bldg	\$3.1	\$3.1	Jun-09	Mar-10		g
Upgrade Parking Lot at JFK & Baisley Park	\$10.2	\$10.2	Jun-09	Mar-10		g
Facility & Fleet Assessment	\$2.5	\$2.5	Jul-09	Jun-10		g
Security Upgrade: College PT,Eastchester & Yonkers	\$2.8	\$2.8	Dec-09	Oct-10		g
Additional Fuel Capacity: BP, JFK & LG	\$3.0	\$3.0	Oct-09	Dec-10		g
	·					

<sup>\*</sup> Forecast is equal to the most current engineer's estimate at award for a project that is scheduled to be committed.

## MTA Bus: Status of Major Commitments as of November 30, 2009

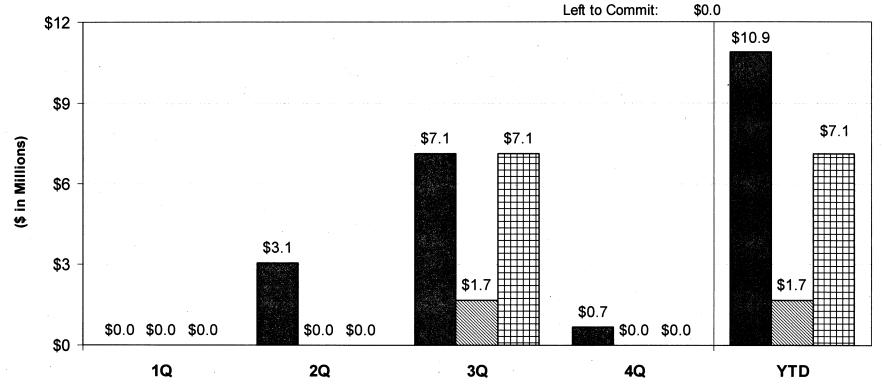
- a) Forecast dates were revised as the result of input received at the first MTABC's Quarterly meeting with the FTA, which was held in January after the annual goal was set.
- b) Engineering Construction Management Services was delayed due to longer than expected time to complete contract negotiations.
- c) Electrical upgrade emergency generators 6 Depots was pushed back out 2010 due to greater than expected efforts to conduct surveys and complete designs.
- d) Misc Design Consulting Services award was delayed in the processing of documentation
- e) New Roof and Ventilation System at FR, the lowest bidder for this project was disqualified, resulting in a new forecasted date.
- f) Award for New Roof and Ventilation System at LGA was less than planned.
- g) Forecast dates were revised as the result of input received at the first MTABC's Quarterly meeting with the FTA, which was held in January after the annual goal was set.

2009 Annual Goal: \$10.9 2009 Annual Forecast: \$1.7

YTD Goal: \$10.9

YTD Actual: \$1.7 (15.4% of YTD Goal)

YTD Budgeted Value: \$7.1 (65.3% of YTD Goal)



**⊞** Budgeted Value

2009 Annual Goal

## MTA Police Department: Status of Major Commitments as of November 30, 2009

	Budget (\$	Budget (\$ in Millions)		Award Date	
Project	2009 Goal	Actual / Forecast*	2009 Goal	Actual / Forecast	Notes
Merrick Facility-Construction	\$0.6	\$1.0	Jun-09	2010	а
Public Safety Radio Consultants-Specs & Design	\$7.1	\$1.7	Sep-09	Sep-09 <i>A</i>	b
K9 Facility Property Acquisition	\$2.5	\$1.0	Apr-09	2010	С
K-9 Facility Design	\$0.7	\$0.7	Nov-09	2010	d
			·		

<sup>\*</sup> Forecast is equal to the most current engineer's estimate at award for a project that is scheduled to be committed.

#### Notes:

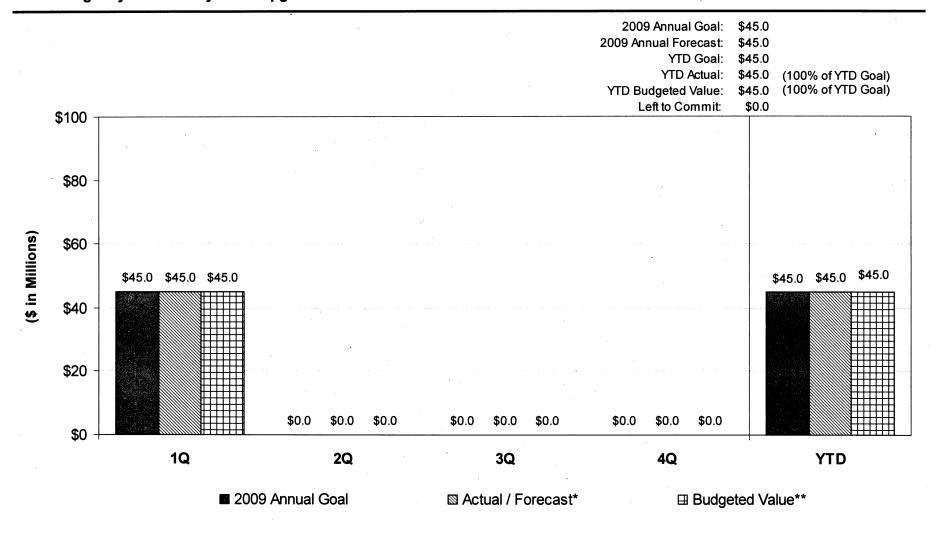
- a) June: due to an earlier delay in receiving 100% design start date re-forecast to August upon receipt of plans. August: Project moved to 2010 to allow for mitigating unanticipated site conditions.
- b) January: Radio Project Review has been completed and a new phased schedule has been established for this project. August: First Phase delayed to complete a full system asset inventory and needs assessment. September: Phase I system inventory underway
- c) January: MTAPD was searching for alternate locations for this Facility; planned to receive one appraisal for a location in February February: MTAPD received one proposal and are currently reviewing it.

April: Previous proposal not viable; the MTAPD is still currently looking for a location for the new K-9 facility.

August: Site identified. However, the assessments and acquisition processes will not be completed to make the purchase prior to 2010.

d) August: Design effort moved to 2010 due to delay in the K-9 Property Acquisition.

### MTA Interagency Financial Systems Upgrade: Actual / Forecasted Commitments as of November 30, 2009



## MTA Interagency Financial Systems Upgrade: Major Commitments as of November 30, 2009

Project	Budget (\$ in Millions)		Award Date				
	2009 Goal	Actual / Forecast*	Original Goal	ginal Goal 2009 Goal Forecast/		tual 🗧	
Business Service Center	\$42.0	\$42.0	Mar-09	Mar-09 Mar-09		Α	
Consultant QA / QC	\$3.0	\$3.0	Mar-09	Mar-09	Mar-09	Α	

<sup>\*</sup> Forecast is equal to the most current engineer's estimate at award for a project that is scheduled to be committed.

# **2009 Completions**

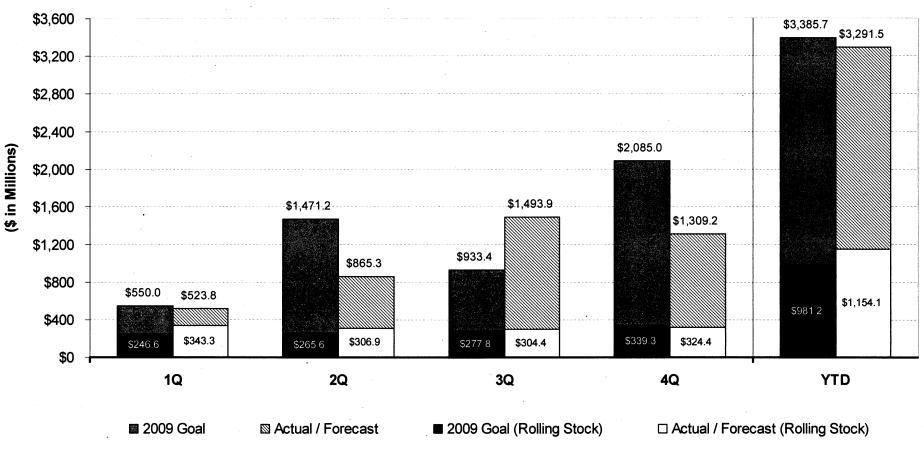
## MTA All Agency: Completions as of November 30, 2009



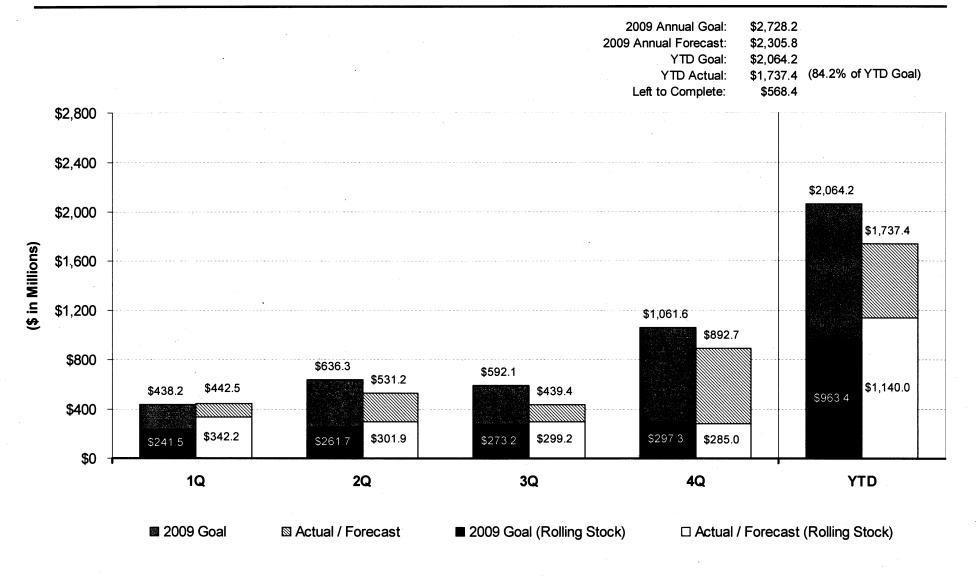
YTD Goal: \$3,385.7

YTD Actual: \$3,291.5 (97.2% of YTD Goal)

Left to Complete: \$900.7



## MTA NYC Transit: Completions as of November 30, 2009



## MTA NYC Transit: Status of Major Completions as of November 30, 2009

	Budget (\$	in Millions)	Сотр	oletion Date		
Project	2009 Goal	Actual / Forecast*	2009 Goal	Actual / Fore	ecast	Notes
Purchase 620 R160 "B" Div Cars: (YTD plan = 430; accepted = 430)	\$885.6	\$885.6	Various	Various	Α	а
Purchase 382 R160 "B" Div Cars: (YTD plan = 30; accepted =110)	\$176.6	\$331.1	Various	Various		b
Station Rehab & ADA: Chambers Street / Broadway/7th Ave	\$35.7	\$35.7	Mar-09	Apr-09	Α	С
Replace 10 Escalators: Parsons Blvd - Archer Ave	\$33.7	\$33.7	May-09	May-09	Α	Π
Subway Tunnel Rehab: Whitehall St - Canal St / Broadway	\$31.4	\$31.4	May-09	May-09	Α	
Pumping Facilities: 10 Locations / Queens Boulevard	\$41.0	\$44.9	Aug-09	Jul-09	Α	
Tunnel Lighting & Subway Rehab: 207 St - 168 St / 8th Ave	\$71.7	\$71.4	May-09	Oct-09	Α	d
Tunnel Lighting Rehab: 42 St - 96 St / Broadway/7th Ave	\$39.7	\$41.2	Nov-09	Dec-09		е
Antenna Cable Replacement Phase II NR	\$49.4	\$49.4	Dec-09	Dec-09		П
Track and Switch Replacement Program (2009)	\$258.0	\$258.0	Dec-09	Dec-09		
Columbus Circle Stations Complex	\$100.5	\$110.8	Nov-09	Apr-10		f
Charleston Annex Depot	\$133.1	\$140.7	Dec-09	May-10		g
Data Network (Sonet & IRT-ATM)	\$201.1	\$209.3	Jul-09	TBD		h
						Г

<sup>\*</sup> Forecast is equal to the project's most recently validated estimate at completion (EAC).

## MTA NYC Transit: Status of Major Completions as of November 30, 2009

- a) All 620 cars have been accepted.
- b) The current projection is of 150 cars to be accepted by year-end vs. 80 cars planned.
- c) Substantial completion delayed to correct operational problems with elevator door revealed during testing.
- d) Work is currently behind schedule due to unavailability of weekend G.O.'s and reduced track access during week night G.O.'s.
- e) Project was delayed due to reduced and/or canceled weeknight and weekend G.O.'s.
- f) Completion delay of one month from March to April 2010 due to additional work related to procurement of laminated safety glass for exposed trusses, replacement of ejector under Broadway Island stairs, and replacement of three corroded structural columns embedded in concrete. Prior delays were due to additional work at the Broadway Island structural steel, bearing walls, and steel stairs which required extensive repair and/or replacement. Additionally, more time is needed to procure additional floor and wall tiles as quantities have been depleted or submittals for approval are pending. Additional \$9.6 million due to unanticipated changes in the Broadway Island and Trump Plaza as well as other Additional Work Orders including support costs.
- g) Contractor's slow progress in enclosing the building was a major cause of the delay. The contractor has since accelerated the construction but can not meet the original schedule. In addition, obtaining easement rights and DEP's final approval for the installation of the sanitary and storm sewer lines caused delays. Easements have been obtained and all changes required by DEP have been completed. Project Cost increased by \$7.6 million due to additional work orders (\$3.1 million) mainly for perimeter security fence, temporary storm water basin, sheeting material and relocation of water main. Additional (\$4.5 million) needed to extend CCM contract and for additional support costs resulted from the extended construction duration.
- h) Continued claim settlement discussions.

## MTA Long Island Rail Road: Completions as of November 30, 2009

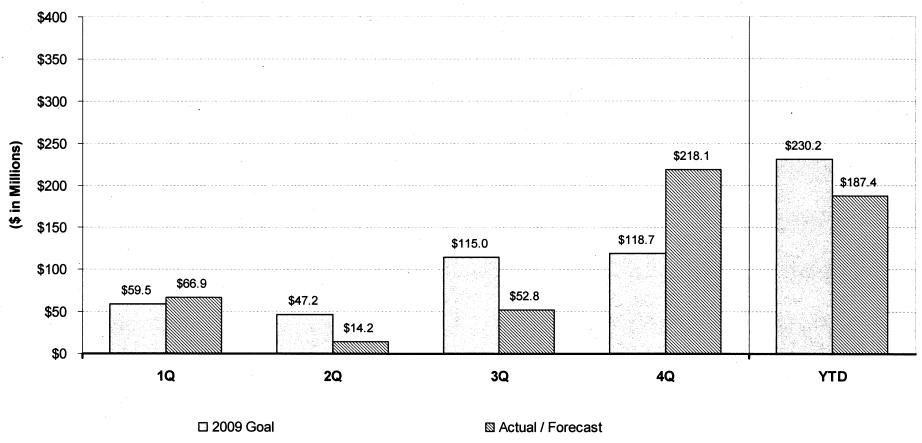
2009 Annual Goal: \$340.3

2009 Annual Forecast: \$352.1

YTD Goal: \$230.2

YTD Actual: \$187.4 (81.4% of YTD Goal)

Left to Complete: \$164.7



## MTA Long Island Rail Road: Status of Major Completions as of November 30, 2009

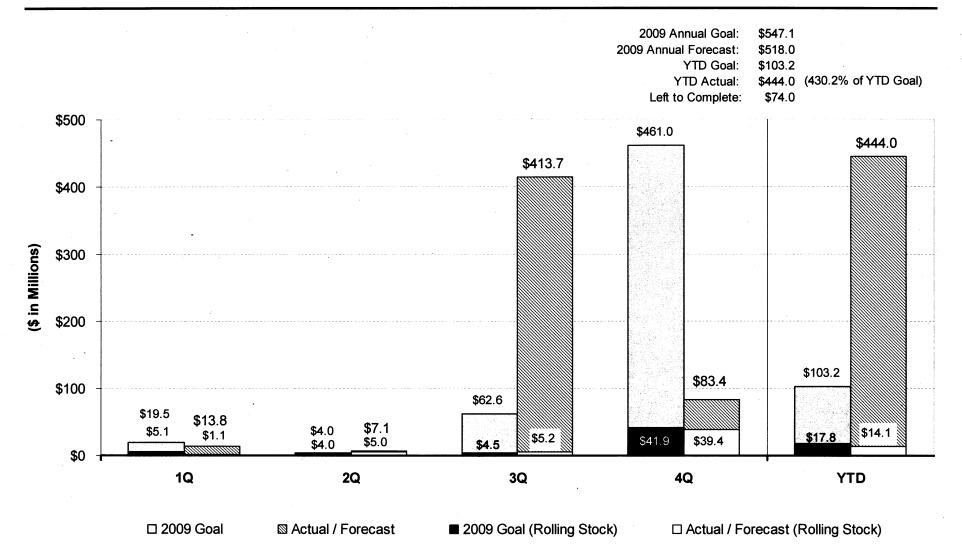
	Budget (\$ i	in Millions)	Сотр	oletion Date		
Project	2009 Goal	Actual / Forecast*	2009 Goal	Actual / Fore	ecast	Notes
Jamaica Interlockings	\$13.5	\$13.5	Jan-09	Jan-09	Α	
Third Rail Cable Replacement	\$5.4	\$5.9	Jan-09	Jan-09	Α	
Richmond Hill Improvements	\$22.9	\$22.9	Mar-09	Mar-09	Α	
Long Island City Yard - Phase 2	\$17.6	\$18.0	Mar-09	Mar-09	A·	
Broadway Station Platform Rehabilitation	\$13.6	\$12.5	May-09	Jun-09	Α	
Valley Stream Station Rehabilitation	\$6.2	\$6.8	Jun-09	Oct-09	Α	а
Third Rail System - Composite Rail	\$20.4	\$20.4	Jun-09	Sep-09	Α	b
Seaford Station Platform Replacement	\$13.2	\$13.9	Jul-09	Jul-09	Α	$\Box$
Atlantic Terminal	\$101.2	\$105.5	Jul-09	Dec-09		С
Communications Pole Line Replacement	\$7.2	\$7.2	Oct-09	Sep-09	Α	
Babylon Branch Stair Replacement	\$4.2	\$3.6	Dec-09	Dec-09		
ROW - Drainage Control	\$5.5	\$6.0	Dec-09	Jun-10		d
Amott Culvert	\$7.1	\$7.1	Dec-09	Nov-09	Α	
Valley Stream Interlocking	\$36.0	\$36.6	Dec-09	Oct-09	Α	е
2009 Annual Track Program	\$53.1	\$53.9	Dec-09	Dec-09		$ar{L}$

<sup>\*</sup> Forecast is equal to the project's most recently validated estimate at completion (EAC).

- a) Delay due to HVAC installation and clearance issues as well as slower than anticipated progress by the Contractor.
- b) Delay due to availability of track outages.
- c) Delay due to testing of Building Systems and the phased transition into the new Entry Pavillion.
- d) Delay due to the availability of resources.
- e) Rescheduled to coincide with the cutover planned for the weekend of October 24.



## MTA Metro-North Railroad: Completions as of November 30, 2009



## MTA Metro-North Railroad: Status of Major Completions as of November 30, 2009

	Budget (\$	in Millions)	Completion Date			
Project	2009 Goal	Actual / Forecast*	2009 Goal	Actual / Fore	cast	Notes
2008 Cyclical Track Program	\$10.9	\$10.9	Mar-09	Mar-09	A.	
Yankee-E.153 Street Station (MN Share)	\$53.0	\$53.0	Aug-09	Aug-09	Α	
Vital Processor System GCT	\$6.5	\$6.5	Nov-09	Mar-10		a
CTC Systems	\$30.0	\$30.0	Dec-09	Dec-09		
M2 Car Remanufacture (MN Share)	\$36.0	\$36.0	Dec-09	Dec-09		
Harmon Shop Replacement (MN Share)	\$357.3	\$350.3	Dec-09	Aug-09	Α	b

<sup>\*</sup> Forecast is equal to the project's most recently validated estimate at completion (EAC).

- a) Vital Processor System GCT Unanticipated extended factory testing of the touch screen local panels has delayed shipment. As a result, project completion has slipped from completion goal of November 2009 to March 2010.
- b) Harmon Shop Replacement (MNR Share) MNR elected not to exercise all options therefore substantial completion was obtained on August 31, 2009. Project budget was reduced to remove surplus funds.

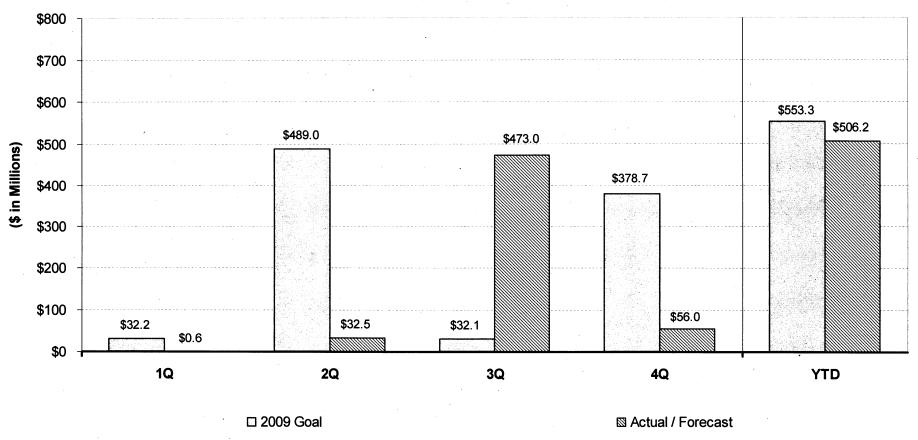
## MTA Capital Construction: Completions as of November 30, 2009

2009 Annual Goal: \$932.0 2009 Annual Forecast: \$562.2

YTD Goal: \$553.3

YTD Actual: \$506.2 (91.5% of YTD Goal)

Left to Complete: \$56.0



## MTA Capital Construction: Status of Major Completions as of November 30, 2009

		Budget (\$ in Millions)		Completion Date		
Project		2009 Goal	Actual / Forecast*	2009 Goal	Actual / Forecast	Notes
South Ferry						
South Ferry Terminal Structure		\$291.2	\$290.8	Apr-09	Sep-09 <i>A</i>	а
Battery Place Vent Plant: Enclosure		\$25.0	\$25.0	Apr-09	Sep-09 <i>A</i>	а
South Ferry Terminal Finishes/System		\$147.4	\$147.3	Apr-09	Sep-09 <i>A</i>	b
Battery Place Vent Plant: Equipment/Finishes		\$10.0	\$10.0	Apr-09	Sep-09 <i>A</i>	b
Peter Minuit Plaza and Bollards		\$20.6	\$22.7	Dec-09	May-10	С

<sup>\*</sup> Forecast is equal to the project's most recently validated estimate at completion (EAC).

- a) MTACC delayed substantial completion to develop a comprehensive settlement of open issues with the contractor and a long-term leak remediation plan.
- b) The new South Ferry Terminal Station opened to customer service on March 16. Work between that time and September included only items that did not affect customer service.
- c) MTACC has pushed out the substantial completion date due the impact of unexpected site conditions, changes in design plans, and the seasonal timing requirements of the landscaping work.

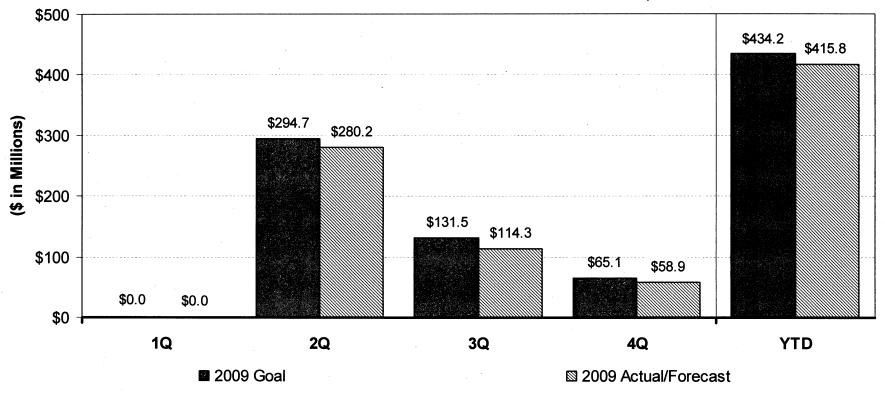
## MTA Bridges and Tunnels: Completions as of November 30, 2009

2009 Annual Goal: \$491.3 2009 Annual Forecast: \$453.4

YTD Goal: \$434.2

YTD Actual: \$415.8 (95.8% of YTD Goal)

Left to Complete: \$37.6



## MTA Bridges and Tunnels: Status of Major Completions as of November 30, 2009

		Budget (\$	in Millions)	Comple	tion Date		4.0
Project		2009 Goal	Actual / Forecast*	2009 Goal	Actual / Forecast		Notes
MP02	Marine Parkway Bridge: Structural Steel Repairs - Construction	\$22.0	\$20.8	Apr-09	Apr-09	Α	
AW41	All Facilities: Toll Registry Systems Replacement - Construction	\$9.1	\$8.9	Jun-09	Jun-09	Α	
TB64	Robert F. Kennedy Bridge: Replace Deck-RI Viaduct - Construction	\$257.8	\$250.5	Jun-09	Jun-09	Α	
TB66	Robert F. Kennedy Bridge: Anchorage Rehab and Dehumid - Construction	\$21.1	\$21.3	Jul-09	Oct-09	Α	а
TN85	Throgs Neck Bridge: Suspended Span Cable Rewrap - Construction	\$15.6	\$15.4	Aug-09	Aug-09	Α	
VN17	Verrazano Narrows Bridge: Rehabilitation of Approach - Construction	\$90.2	\$87.1	Aug-09	Aug-09	Α	
BW85	Bronx Whitestone Bridge: Critical Panel Unwrapping - Construction	\$6.7	\$6.2	Nov-09	Jul-09	Α	b
BB80	Brooklyn Battery Tunnel: Rehabilitation of Ventilation - Construction	\$32.5	\$30.5	Dec-09	Dec-09		
TB65	Robert F. Kennedy Bridge: Deck Rpl: Bronx Plaza & RI - Design	\$24.7	\$24.9	Dec-09	2010		С

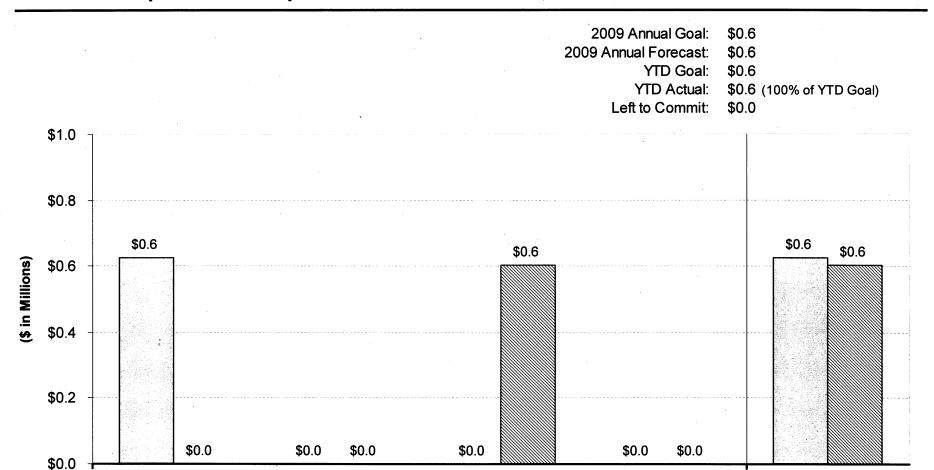
<sup>\*</sup> Forecast is equal to the project's most recently validated estimate at completion (EAC).

- a) TB66 was delayed to October 2009 due to a power outage and Operational lane closure restrictions.
- b) BW 85 was completed early because of additional resources provided by the contractor on the painting of the 2 bridge towers
- c) TB65 is forecast for 2010 pending completion of the All Electronic Tolling system (AET) review.

## MTA Police Department: Completions as of November 30, 2009

2Q

■ 2009 Goal



**3Q** 

4Q

**1Q** 

**YTD** 

## MTA Police Department: Status of Major Completions as of November 30, 2009

		in Millions)	Сотр	oletion Date	
Project	2009 Goal	Actual / Forecast*	2009 Goal	Actual / Forecast	Notes
Emergency Service Units (3)	\$0.6	\$0.6	Feb-09	Aug-09 <i>A</i>	а

<sup>\*</sup> Forecast is equal to the project's most recently validated estimate at completion (EAC).

#### Notes:

a) January: MTAPD received 1 ESU Unit and planned to receive the other 2 units in February to complete the project.

February: Acceptance of two remaining ESU Vehicles moved to March 2009 due to a Manufacturer's recall on the truck's engine with the vendor making all necessary repairs.

March: MTAPD has received two vehicles and planned to receive the final vehicle in April.

April: MTAPD has received two vehicles and the Vendor is finishing the punch list for the third vehicle, re-forecast to June

June: extended to September due to vendor delays.

# 2005-2009 Capital Program Historical Progress

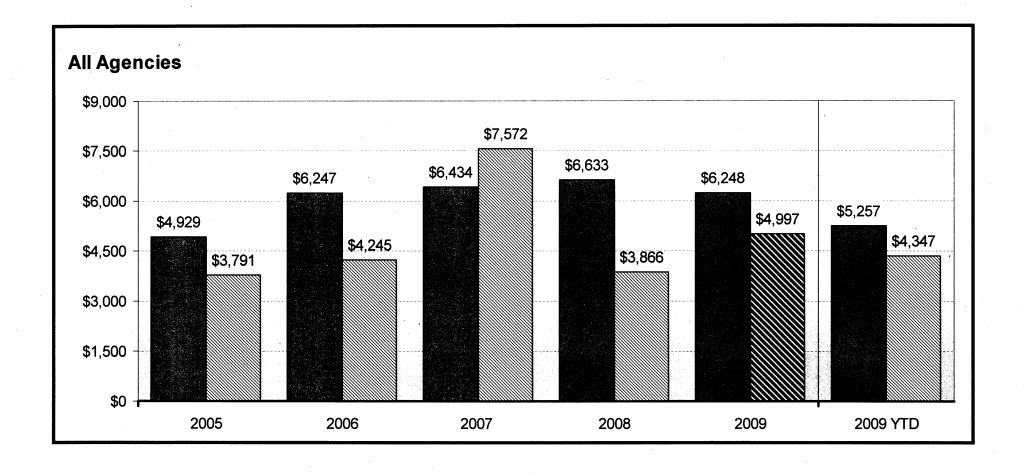
## **Historical Progress Since 2005**

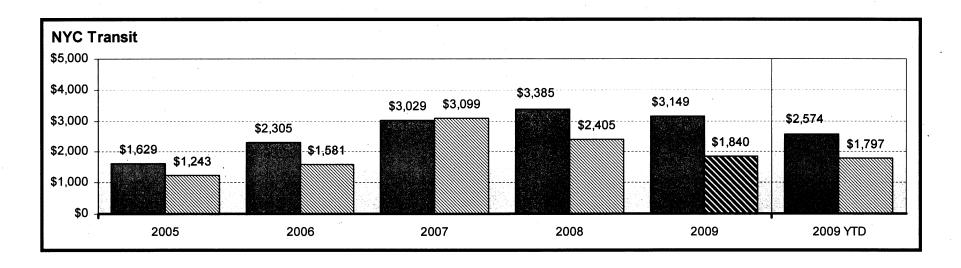
Charts apply to all projects committed or completed for a five year period and funded in multiple capital programs.

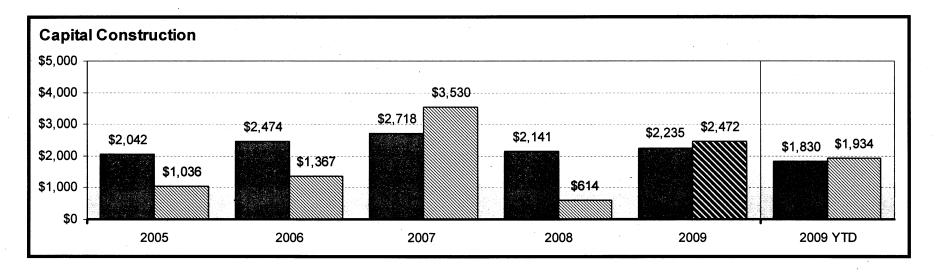
Commitment and completion charts reflect full-year for all amounts, except 2009, which reflects both full-year and year-to-date amounts.

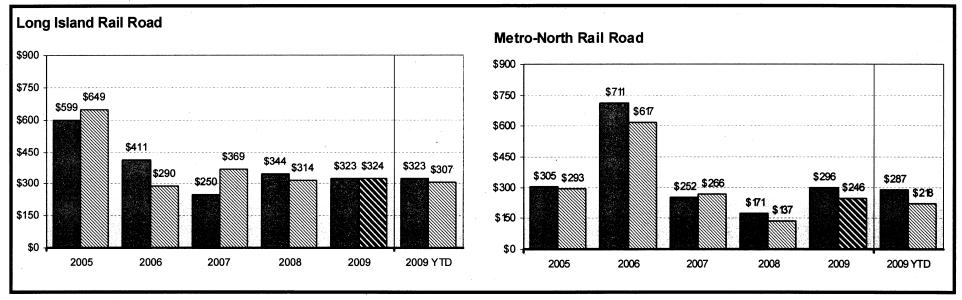
Rolling stock commitments and completions are included within NYC Transit, LIRR, MNR and Bus Company amounts.

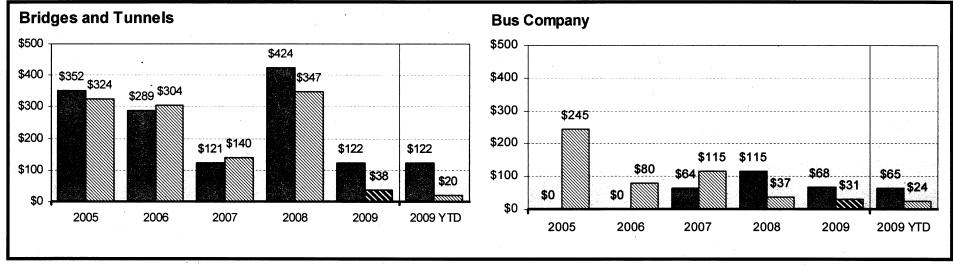
Rolling stock completions are reported on a prorated basis that reflects the value of vehicles that have been accepted for revenue service. Therefore, the full value of a specific rolling stock project may be reported over the course of more than one year.

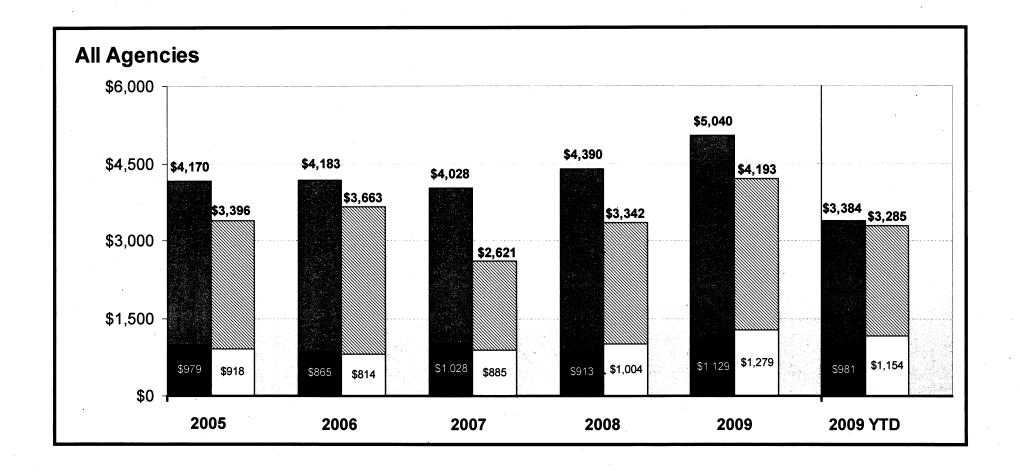


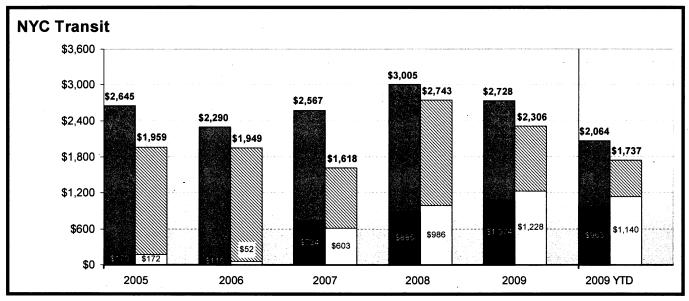


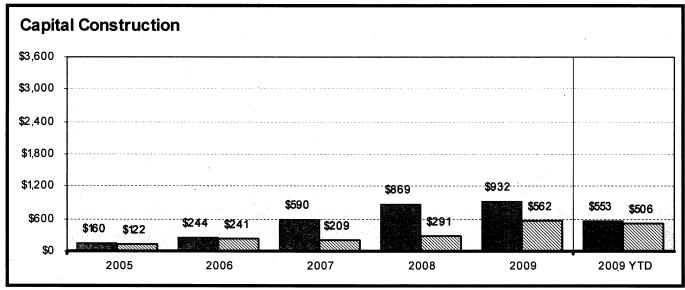






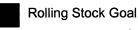


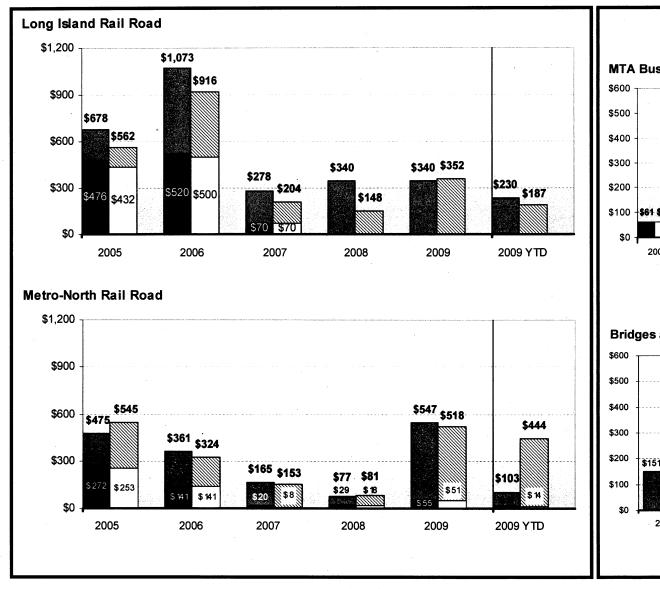


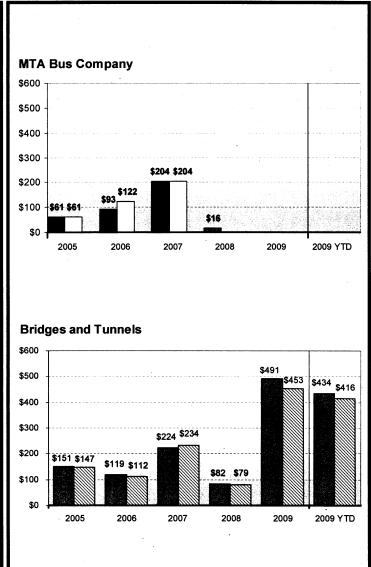








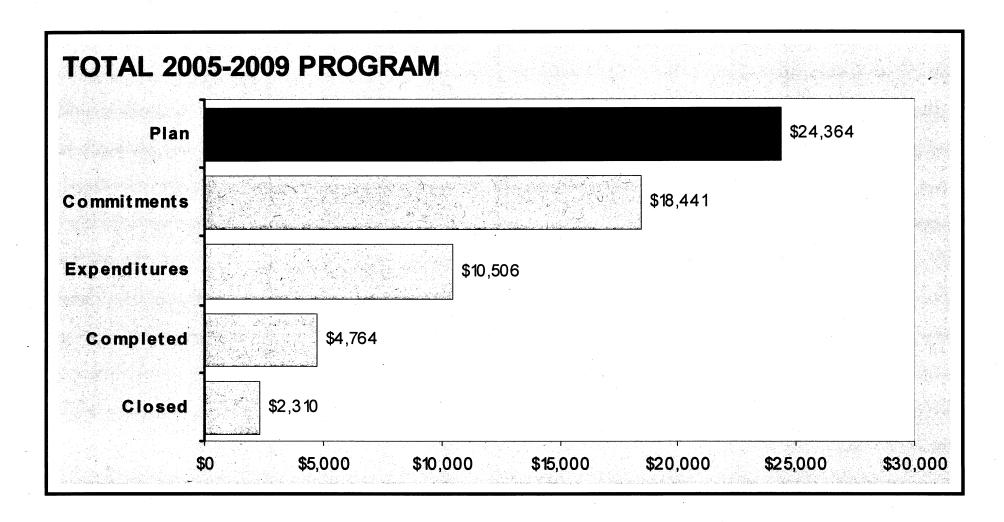




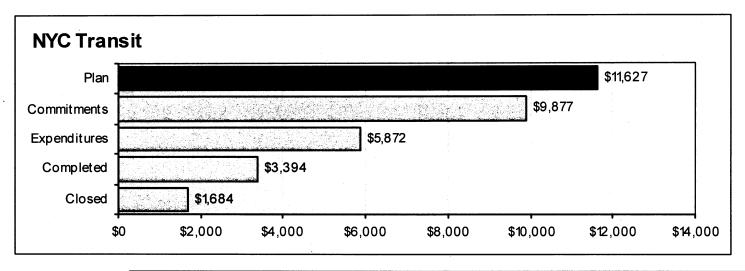
# Status of Overall MTA Capital Programs

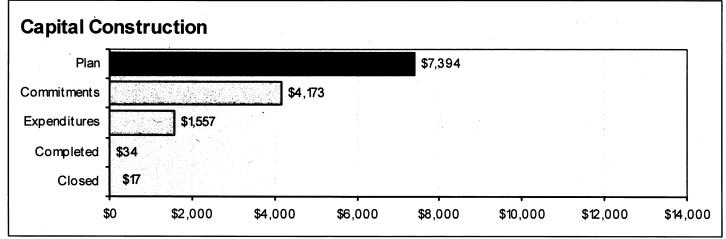
MTA 2005 – 2009 Capital Program

\$ in Millions

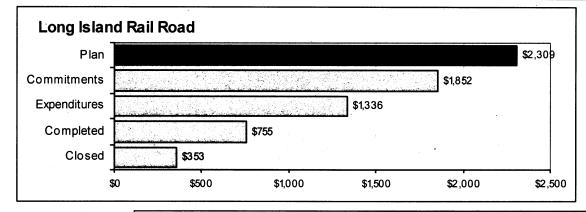


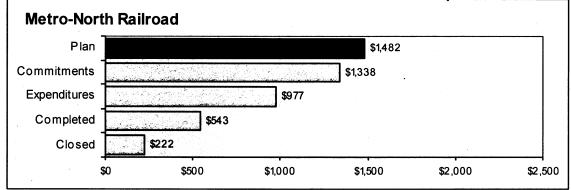
\$ in Millions

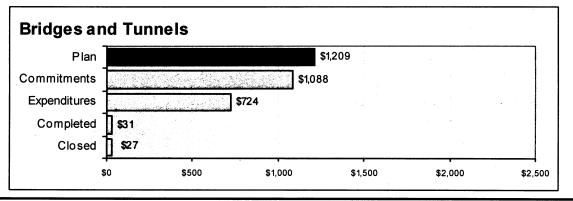




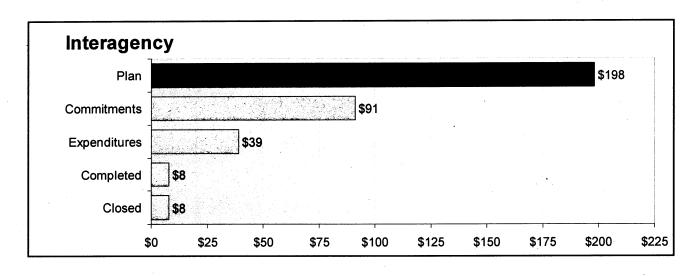


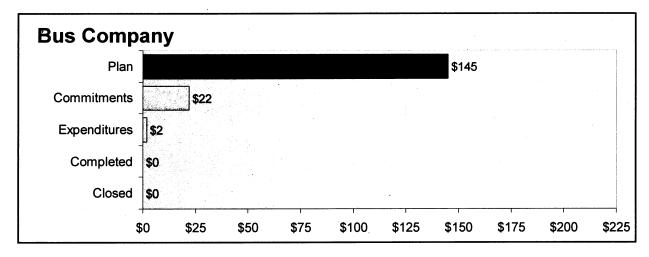






\$ in Millions





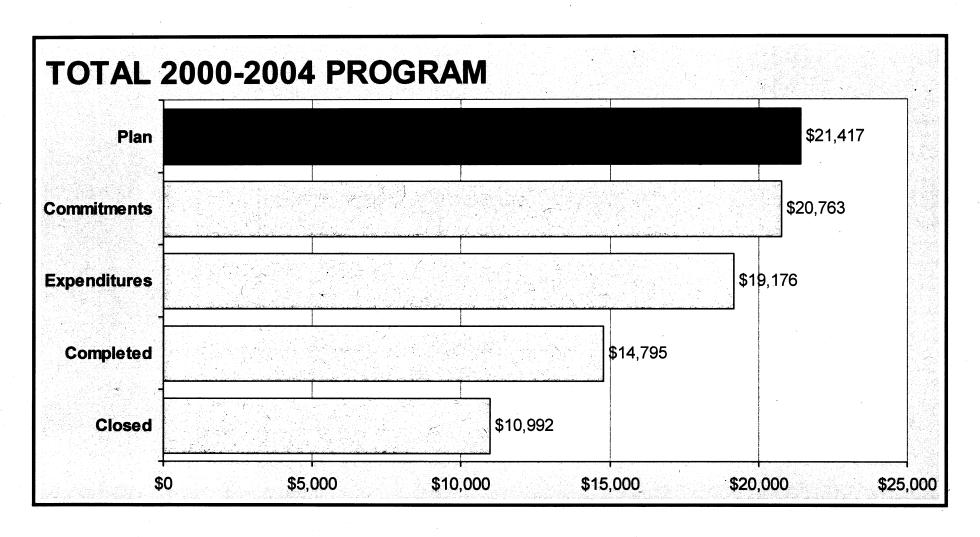
## Status of Overall MTA Capital Programs

MTA 2000 – 2004 Capital Program

MTA 1992 – 1999 Capital Program

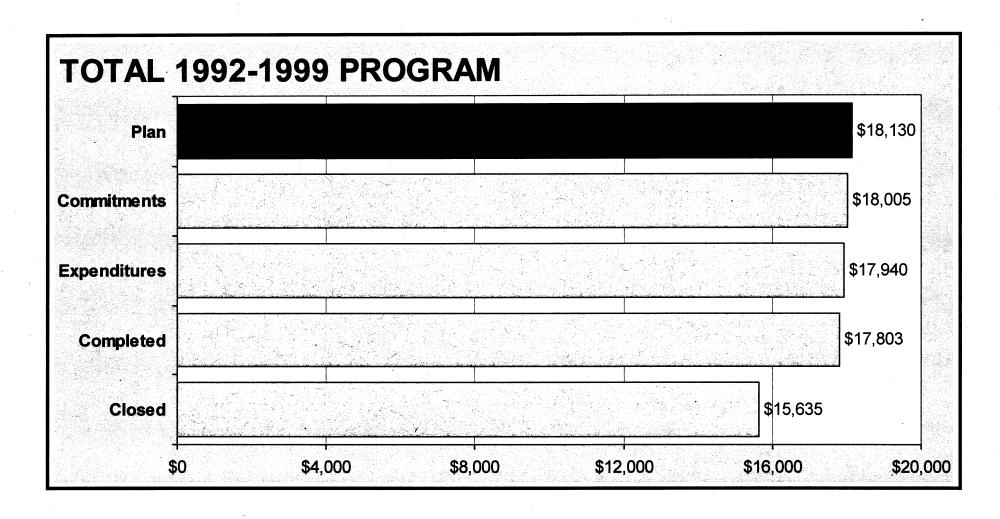
MTA 1982 – 1991 Capital Program

\$ in Millions

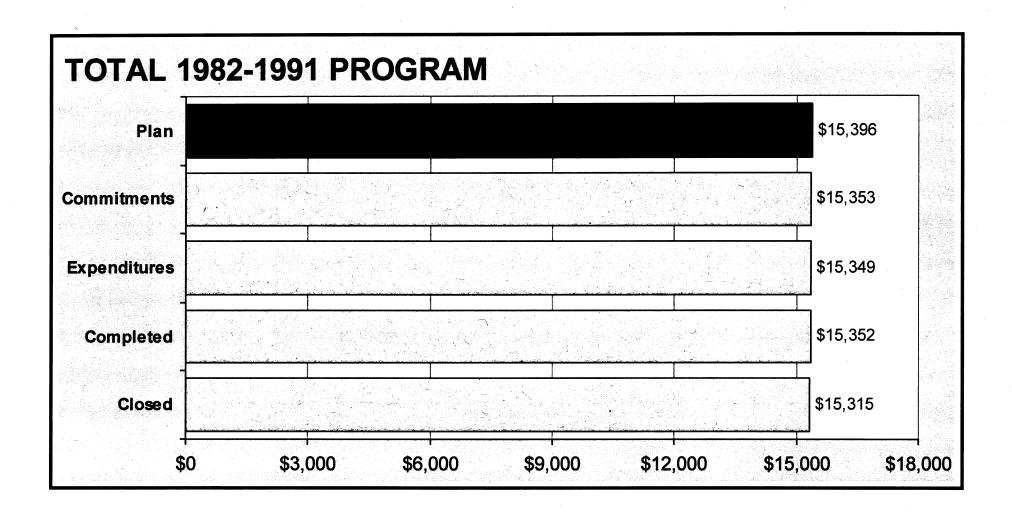


## Status of MTA 1992-1999 Capital Program Thru November 2009

\$ in Millions



## Status of 1982-1991 MTA Capital Program Thru November 2009



# **Status of MTA Capital Program Funding**

## Status of MTA 2005-2009 Funding Capital Program Funding Thru November 2009

	•		Funding Receipts	
	2005-2009	Through	In	Through
MTA WIDE (Does not include B&T)	<u>Plan</u>	Oct-2009	Nov-2009	Nov-2009
Federal Formula and Flexible Funds	\$5,251.5	\$4,627.6	\$611.6	\$5,239.2
Federal New Start	3,286.2	726.6	0.0	726.6
Federal Security	352.3	85.9	12.1	97.9
Federal Other	2.0	4.7	0.0	4.7
Federal ARRA - Stimulus	647.8	647.8	0.0	647.8
City of New York	407.3	316.3	0.0	316.3
City #7 Line Extension Funds	2,100.0	691.2	25.8	717.0
City Match for Buses	27.6	12.4	0.0	12.4
Operating to Capital	32.1	10.8	6.5	17.3
Asset Sales, Carryover, and Program Income *	1,091.8	435.6	0.3	435.9
LaGuardia Airport - Board Approved	69.7	0.0	0.0	0.0
LaGuardia Airport - New Initiatives	134.8	0.0	0.0	0.0
State Transportation Bond Act	1,450.0	284.5	0.0	284.5
MTA Bonds	3,162.2	2,266.1	0.0	2,266.1
Bonds from New Sources	5,100.0	1,042.4	0.0	1,042.4
Other	40.1	39.8	0.0	39.8
Total 2005-2009 Program Funding	\$ 23,155.3	\$ 11,191.6	\$ 656.3	\$ 11,847.9
Total 2005-2009 Program Budget	\$ 23,155.3		,	

<sup>\*</sup> Program Income includes receipts thru October 2009. \* Carryover numbers were corrected to reflect actual transfers between capital programs.

## Status of MTA 2000-2004 Funding Capital Program Funding Thru November 2009

		<u> </u>	Funding Receipts	<b>:</b>
	2000-2004	Through	In	Through
MTA WIDE (Does not include B&T)	<u>Plan</u>	Oct-2009	Nov-2009	Nov-2009
Federal Title III	\$4,127.7	\$4,121.0	\$0.0	\$4,121.0
Federal Title I	291.7	291.7	0.0	291.7
Federal New Start	600.0	575.5	0.0	575.5
Federal Other	1,498.6	1,498.6	0.0	1,498.6
Federal ARRA - Stimulus	266.9	266.9	0.0	266.9
City of New York	450.9	462.4	0.0	462.4
City Match for Buses	46.1	46.1	0.0	46.1
Coliseum	140.4	140.4	0.0	140.4
Program Income	312.8	312.8	0.0	312.8
TBTA Investment Income	88.8	88.8	0.0	88.8
CDOT Admin Assets Reimbursement	18.3	18.3	0.0	18.3
MNR Operating Savings Transfer	10.3	10.3	0.0	10.3
LIRR Operating	16.5	0.0	0.0	0.0
Operating to Capital PAYG	194.1	147.1	0.0	147.1
Debt Restructuring	4,523.2	4,523.2	0.0	4,523.2
MTA Bonds	7,061.2	7,029.0	0.0	7,029.0
Insurance Recovery for WTC Damage	248.9	248.9	0.0	248.9
Asset Leasing	172.7	173.4	0.0	173.4
Other (includes Carryover)	349.2	349.3	0.0	349.3
Total 2000-2004 Program Funding	\$ 20,418.2	\$ 20,303.7	\$ -	\$ 20,303.7
Total 2000-2004 Program Budget	\$ 20,418.2			

## Status of MTA 1992-1999 Funding Capital Program Funding Thru November 2009

			Funding Receipt	S
	1992-1999	Through	In	Through
MTA WIDE (Does not include B&T)	<u>Plan</u>	Oct-2009	Nov-2009	Nov-2009
Federal Title III	\$4,466.7	\$4,466.7	\$0.0	\$4,466.7
Federal Title I	528.2	528.2	0.0	528.2
Federal New Start	45.7	45.7	0.0	45.7
Route 9A/ Westway Trade-in	524.7	524.7	0.0	524.7
State of New York	104.5	104.5	0.0	104.5
City of New York	1,472.8	1,472.8	0.0	1,472.8
Municipal Assistance Corporation	649.9	649.9	0.0	649.9
MTA Bonds	6,500.0	6,500.0	0.0	6,500.0
Investment Income	1,106.1	1,106.1	0.0	1,106.1
Pay-As-You-Go Capital	696.2	696.2	0.0	696.2
Asset Sales & Leasing	258.2	258.2	0.0	258.2
Operating to Capital	229.2	229.2	0.0	229.2
Nassau County	237.5	237.5	0.0	237.5
Other (includes Carryover)	173.3	173.3	0.0	173.3
Total 1992-1999 Program Funding	\$ 16,993.0	\$ 16,993.0	\$ -	\$ 16,993.0
Total 1992-1999 Program Budget	\$16,993.0			

			11.4 11.50 11.50	

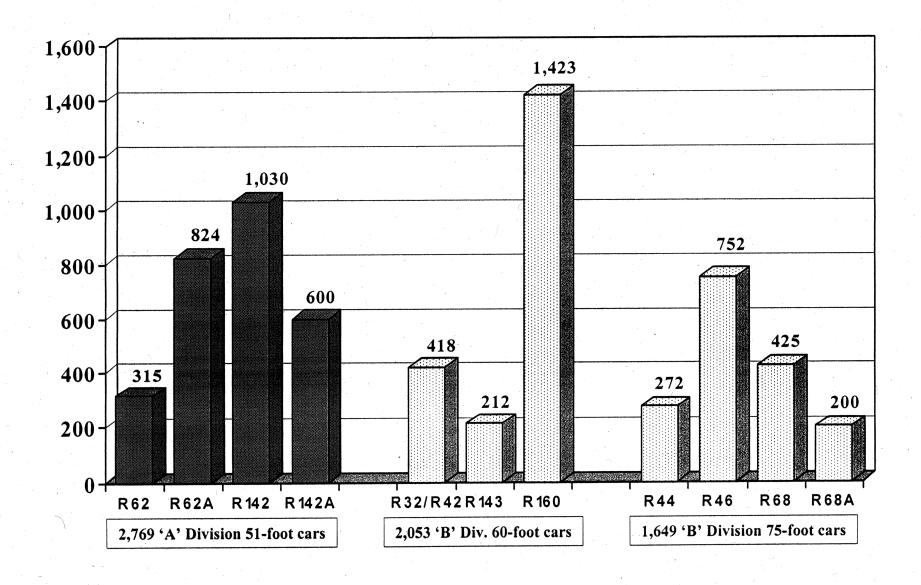
# New Subway Car Procurement

Steven Feil Senior Vice President, Subways

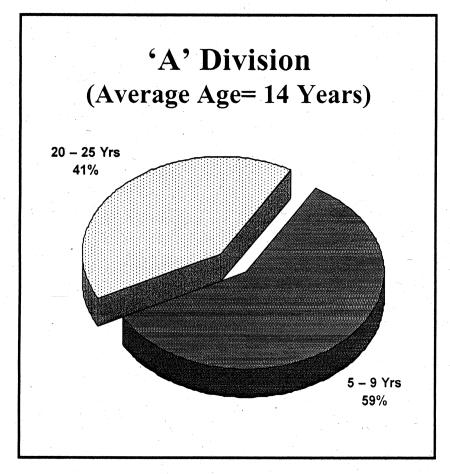


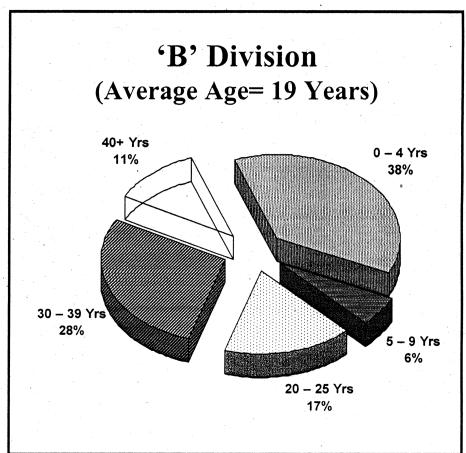
New York City Transit

Capital Program Oversight Committee December 14, 2009

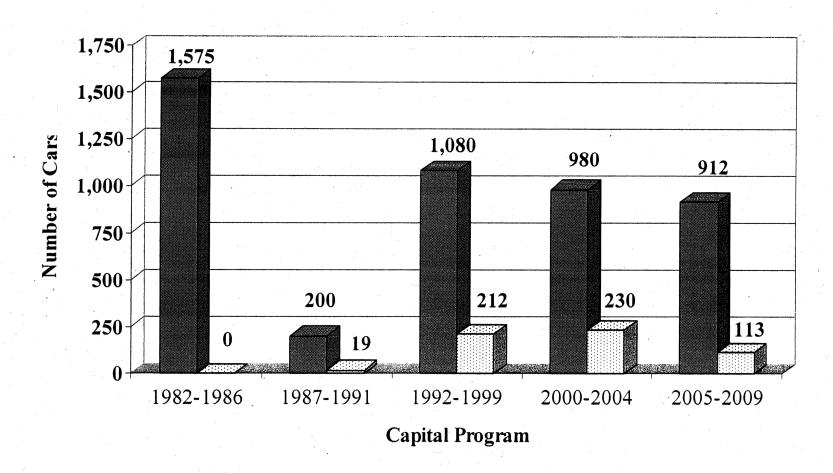


4-2

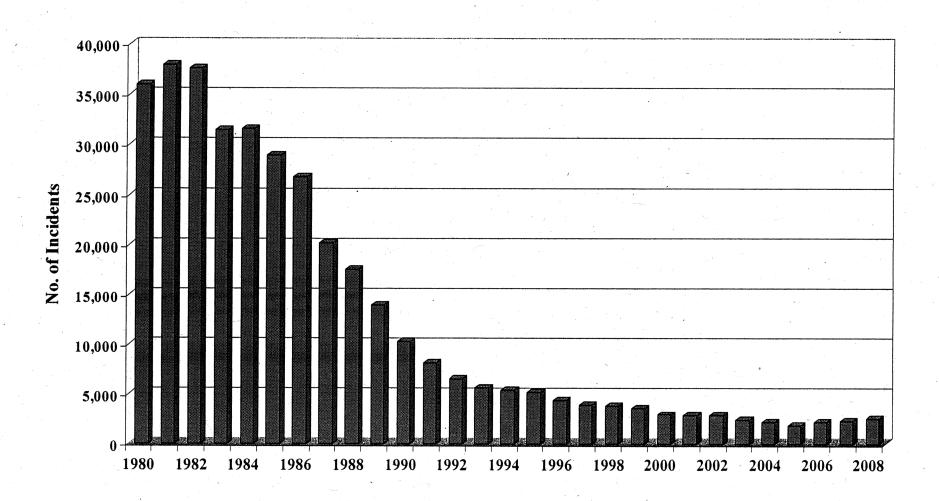




# Capital Program Car Awards 1982 – 2009



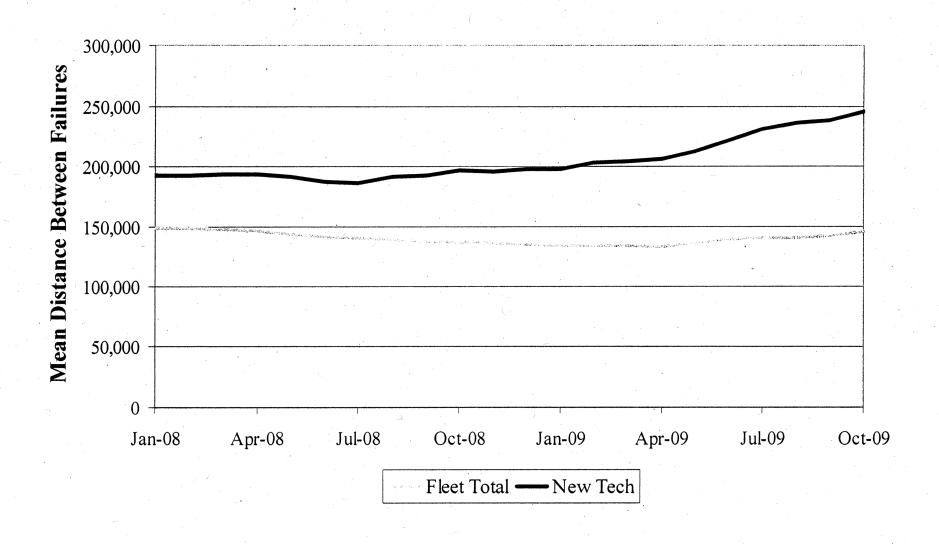
■ Normal Replacement ■ Fleet Growth



4-5

## **MDBF Trends**

(12-Month Average)



# **New Car Savings**

- Car Equipment Division productivity
- Operating Budget reductions taken (148 positions)
  - ♦ Inspection Cycle lengthened
  - ♦ Size of Inspection Teams reduced
  - ♦ Reduced Unscheduled Maintenance
- Potential future savings
  - ♦ Energy Conservation
  - ♦ Control Fleet Growth
  - ♦ Inspection Team Reduction
  - ♦ Extend Schedule Inspection Cycle to all car classes

4-7

# 1,662 New R160 'B' Division Rail Cars

■ Base Contract of 660 cars 100% Accepted

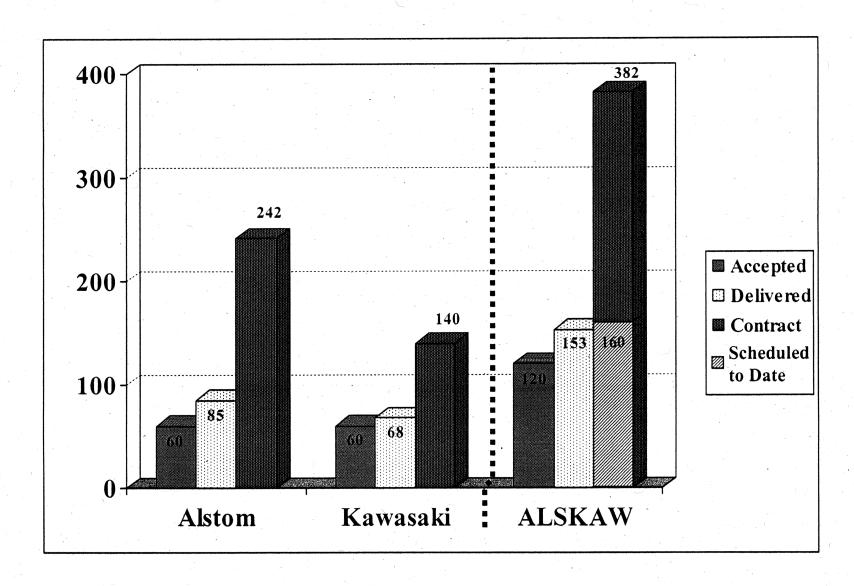
Option 1 for 620 cars

4-8

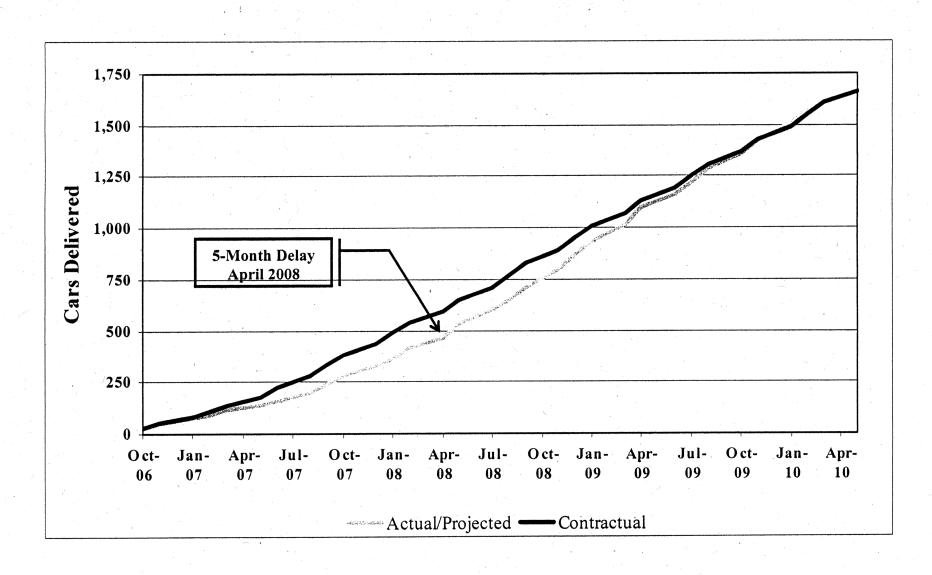
100% Accepted

Option 2 for 382 cars

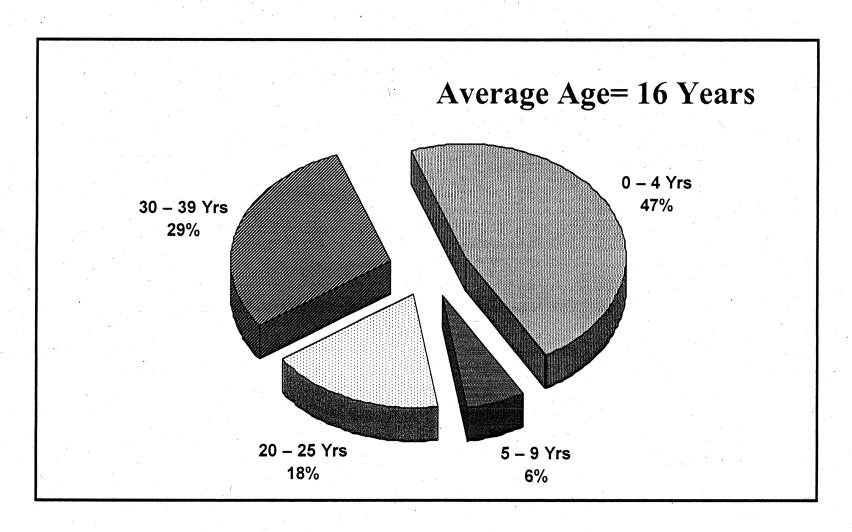
**May 2010** 



# R160 Delivery Recovery Schedule Cars Delivered



# **'B' Division Fleet Age After R160 Project Completion**



# R160 Open Issues

- Propulsion Gear Unit low fluid levels
  - ♦ 130 Kawasaki R160B cars
- Traction Motor Bearings premature wear
  - ♦ Monitoring insulated and non-insulated bearings
- Strike at Alstom's gearbox supplier (Renold)
  - ♦ Ongoing strike began in September
  - ♦ Existing availability through December
  - ♦ Renold producing at slower rate

# R160 Budget Status Current MTA Approved Budget (\$M)

	<b>Base</b>	Option 1	Option 2
Bid	\$954.0	\$1,110.2	\$765.6
Contingency			
(3.9% Base / 1.5% Option 1 / 1.5% Option 2)	\$37.7	\$20.2	\$11.4
Consultant Admin & Design	\$53.2	\$20.3	\$13.4
Support Costs	\$114.9	\$97.3	\$52.7
Train Operator Simulator	\$2.0		
Two A/C Dynamometers	\$1.2	\$1.3	
Total Budget	\$1,163.0	\$1,249.2	\$843.1

# Proposed Car Purchases (2010 – 2014)

- Cars for Flushing Line and 7 Extension
  - ♦ <u>Base (2005 2009)</u>: 23 new cars (two 11-car trains, one C-car) + conversion of one 10-car train
  - ♦ Option (2010 2014): 123 new cars (8 11-car trains, 35 C-cars) + conversion of 35 10-car trains
  - ♦ All trains CBTC-ready
- Normal Replacement of R44 fleet (272 cars)
  - ♦ Award Base: October 2010 for 200 cars
  - ♦ Award Option: August 2014 for 140 cars
- Staten Island Railway
  - ♦ Target for replacement of 64 R44 cars



Status as of November 2009

### **December 2009 CPOC Report**

## **NYC Transit Subway Car Procurement**

#### **Program Description:**

NYC Transit is purchasing railcars for the B Division with the R160 car contract. The new rail cars for the B Division continue the process of fleet replacement and growth. The purchase of 1662 R160 cars is the main focus of this report. In a related effort, this report includes updates for the proposed purchase of new subway cars (R 188) and the conversion of existing cars (R142/R142A) for proposed CBTC operations on the Flushing Line. The current Flushing Line service provided by R62A cars will be replaced by a combination of converted cars and new purchases.

In McKissack-	+Delcan's opini	on, these project	s are currently demon	strating	Phase	% Phase
notable success	s:				Filase	Complete
NA						-

In McKissack+Delcan's opinion, these projects are currently proceeding in a satisfactory manner:	Phase	% Phase Complete
R188 Car (23 A Division Subway Cars)	Procurement	75%
R160 Car (Base Order 660 Cars)	Construction	100%
R160 Car (Option 1 Order 620 Cars)	Construction	96%
R160 Car (Option 2 Order 382 Cars)	Construction	11%

In McKissack+Delcan's of concern:	opinion, these	projects currentl	y have one o	r more areas	Phase	% Phase Complete
NA			N			

A summary of budget and schedule status for the projects included in this program is found in the Appendix.

#### **Discussion:**

There are two projects in this program which warrant comment:

- R188 Car 23 A Div. Cars and Conversion of 10 Existing Cars (in procurement): Negotiations continue. Award of this contract is to be coordinated with the Flushing CBTC Flushing Line Signal procurement (S32748). The car procurement and conversions must be coordinated with the Flushing Line CBTC installation to ensure that the delivery of the new cars and conversion of exiting cars are available prior to the start of revenue service utilizing CBTC operations.
- R160 Car Option 2 (in construction): There are three main areas that warrant comment. Car performance in terms of MDBF is stellar. Warranty work to address latent defects (Failure Analysis Reports) are improving but not yet current. The carbuilder is experiencing material supplier problems including a labor strike and a bankruptcy. Car deliveries may start to be affected by supplier issues in the coming months. Currently deliveries are

**Agency:** New York City Transit

**Design Performance** 

On target: Total:

**Procurement Performance** 

On target: 1 Total: 1

**Construction Performance** 

On target: 3 Total: 3

McKissack+Delcan Team:

Gerald Gardrvits - Sr. Project Manager

slightly behind contract schedule but are trending to catch up and meet contract completion date.

**Safety:** As car procurement contracts are "supply and delivery" activities by a manufacturer, lost time incidents are not tracked as they would be in construction contracts.

MCKISSACK+DELCAN
MTA Independent Engineer

Status as of November 2009

## December 2009 CPOC Report Appendix: NYC Transit Subway Car Procurement

Current Program Contracts:								Budget						S	chedule		
Description (Agency project number)	Designer	Contractor	Completion	Capital Plan Approved Budget (\$M)	Budget at Award (\$M)	Current Approved Budget	Contingency Committed (%)	Agency EAC (\$M)	Change Orders (neg.& pend'g) (\$M)	Trend to Completion EAC (\$M)	Trended EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Forecast Completion	Sched. Index
DESIGN							10.0		4				Design Start		Design 0	Complete	
None																	
PROCUREMENT													Procurement Start		Constr.	. Award	
Purchase 23 Railcars R-188 "A" Div (R34188)	NYC Transit	NA	75%	75.9	NA	75.9	NA	81.3			81.3		Jul-08	Jul-09	Dec-09	Dec-09	NA
CONSTRUCTION	5.												Constr. Award		Constr. 0	Complete	
Purchase 660 Railcars R-160 "B" Div (R34160)	NYC Transit	ALSKAW	100%	1,140.2	1,132.9	1,1390.5	99%	1,159.7			1,159.0	102%	Oct-02	May-08(1)	Nov-08(A)	NA	109%
Purchase 620 Railcars R-160 "B" Div (R34160)	NYC Transit	ALSKAW	95%	1,249.3	1,249.3	1,249.3	0%	1,247.9			1,247.0	108%	Aug-07	Aug-09	Oct-09(A)	NA	108%
Purchase 382 Railcars R-160 "B" Div (R34160)	NYC Transit	ALSKAW	11%	843.1	776.9	843.1	0%	887.9			887.9	114%	Nov-08	Jun-10	Jun-10	Aug-10	100%

#### TABLE NOTES:

Cost Index = Agency EAC/Budget at Construction Award (projects in construction.)

Schedule Index = (Current Approved Completion-Start Date) / (Originally Approved Completion-Start Date)

(A) = Actual value.

#### NUMBERED NOTES:

(1) Includes 2 months time extension granted for DRID change order.

		•	

## MTA CAPITAL CONSTRUCTION PROJECT UPDATE Fulton Street Transit Center

#### **Project Description**

MTA Capital Construction is managing construction of the Fulton Street Transit Center on Broadway between Fulton and John Streets. The investment will tie together and improve access to the 4/5, A/C, J/M/Z, 2/3, R/W, 1 and E subway lines, PATH services, and World Financial Center ferry services. The work includes construction of a concourse under Dey Street to link the Transit Center with the new PATH Station and the rest of the World Trade Center site.

#### **Budget and Estimate at Completion (EAC)**

		Last Reported	Current Month	•
	Budget	<u>EAC</u>	<u>EAC</u>	<b>Expenditures</b>
Design	\$ 110,600,000	\$110,600,000	\$ 110,600,000	\$ 94,849,717
Construction	965,800,000	965,800,000	965,800,000	281,177,966
Construction Management	102,700,000	102,700,000	102,700,000	32,483,143
Real Estate	220,900,000	220,900,000	220,900,000	167,536,072
<b>Total Project Cost</b>	\$ 1,400,000,000	\$ 1,400,000,000	\$ 1,400,000,000	\$ 576,046,897

#### **Major Milestones and Forecasts**

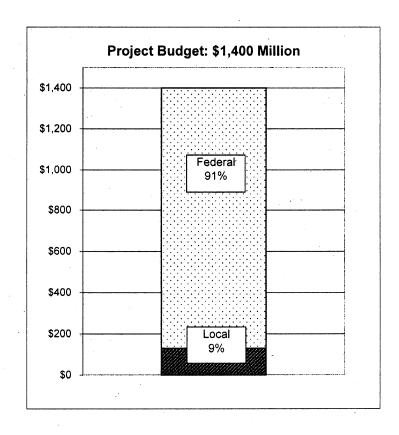
	<u>Previous Month</u>	Current Month
Original Schedule	<u>Schedule</u>	<u>Schedule</u>
Aug 1, 2003	Aug 1, 2003	Aug 1, 2003
Oct 2004	Apr 2010	Apr 2010
Sep 2004	Dec 30, 2004	Dec 30, 2004
Dec 2007	Jun 2014	Jun 2014
	Aug 1, 2003 Oct 2004 Sep 2004	Original Schedule         Schedule           Aug 1, 2003         Aug 1, 2003           Oct 2004         Apr 2010           Sep 2004         Dec 30, 2004

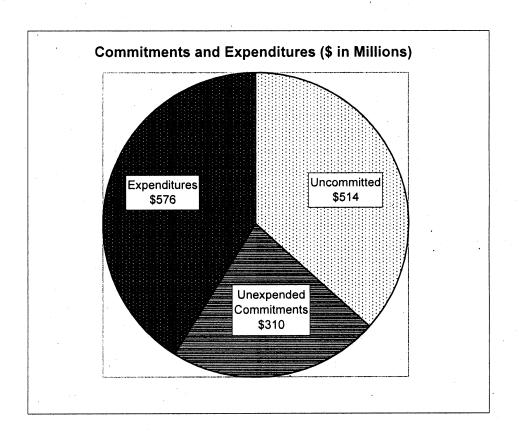
#### **Current Issues/Highlights**

- The northbound platform of the R/W Cortlandt Street Station opened to customer service before the holiday weekend on November 25.
- Excavation for the Fulton Street Transit Center foundation is nearly complete. Concrete pours for the foundation mat slab began November 16.
- On-site construction began on the A/C Mezzanine and J/M/Z Vertical Circulation contract. Temporary stairs have been installed on both ends of the A/C platform, allowing the contractor to remove a portion of the mezzanine from customer service to begin the first phase of work. The contractor also began removal and storage of the existing public art in the station.
- The contractor for the 4/5 Station Rehabilitation and Dey Street Entrance Building Finishes has mobilized and began site preparation.
- MTACC advertised the Corbin Building Restoration contract on October 12. Bids are due December
- MTACC advertised the contract for the Dey Street Concourse and R/W Underpass Finishes on November 23.

## Fulton Transit Center Status thru November 2009

		<u>F</u>	<u>und</u>	ing Source	<u>es</u>		<u>Status</u>	<u>of (</u>	comr	<u>nitmeni</u>	<u>:S</u>	•
MTA Capital Program		Local		Federal		Federal						
\$ in Millions	 Budgeted	 Funding		Funding		Received	 Committed	Uı	ncom	mitted		Expended
2000-2004	\$ 875	\$ 56	\$	819	\$	819	\$ 654	\$		221	\$	576
FTA Reserve (2000-2004)	28	-		28		-	-			28		-
2005-2009	74	74		-		<b>-</b>	-			74		-
ARRA (Federal Stimulus)	423	-		423		• .	233			191		-
Total	\$ 1,400	\$ 130	\$	1,270	\$	819	\$ 886	\$		514	\$	576





## MTA CAPITAL CONSTRUCTION PROJECT UPDATE 7 Line Extension

#### **Project Description**

MTA Capital Construction is managing design and construction of the extension of the 7 Line from the current terminal at Times Square to 11<sup>th</sup> Avenue and 34<sup>th</sup> Street, where the Javits Convention Center is located and where significant future development is anticipated. The investment includes construction of over a mile of new tunnel and the 34<sup>th</sup> Street terminal subway station.

#### **Budget and Estimate at Completion (EAC)**

		Last Reported	Current Month	
	<b>Budget</b>	EAC	<u>EAC</u>	<b>Expenditures</b>
EIS and Prelim Engineering	\$ 52,946,333	\$ 52,946,333	\$ 52,946,333	\$ 52,861,616
Extended PE and Final Design	127,204,990	127,204,990	127,204,990	98,949,328
Construction	1,907,807,768	1,907,807,768	1,907,807,768	675,908,839
Construction Management	64,987,242	64,987,242	64,987,242	13,855,403
<b>Total Project Cost</b>	\$ 2,152,946,333	\$ 2,152,946,333	\$ 2,152,946,333	\$ 841,575,186

#### **Major Milestones and Forecasts**

		Previous Month	<b>Current Month</b>
	Original Schedule	Schedule	Schedule
Project Design Start	Sep 30, 2002	Sep 30, 2002	Sep 30, 2002
Project Design Completion	Dec 2006	TBD*	TBD*
Project Construction Start	2006	Dec 15, 2007	Dec 15, 2007
Project Substantial Completion **	2012	Dec 2013	Dec 2013

<sup>\*</sup> In order to develop a design completion schedule, MTACC requires the City's agreement on a basis of design and easements for the five developer sites at which project facilities (e.g., entrances or systems buildings) will be constructed.

#### Current Issues/Highlights

- The first TBM, which is excavating the northbound tunnels, reached the southern boundary of the 34<sup>th</sup> Street Station cavern on October 30. It has been pulled through the cavern and is being positioned to tunnel north of the station cavern to a point where the new tunnel will be connected to the existing 7 Line under 41<sup>st</sup> Street. The second TBM, which is excavating the southbound tunnels, is scheduled to break through into the station cavern by mid-December.
- TBM mining is proceeding, with over 2,200 feet of tunnel, 24 percent of the planned total length, mined through November 24.
- Excavation and underpinning continues on the lower level of the 8<sup>th</sup> Avenue Subway and the existing 7 Line tail tracks at Times Square.
- Permanent cast-in-place reinforced concrete wall placement continues in the 34<sup>th</sup> Street Station cavern. Over 7,450 cubic yards of concrete, 14 percent of the 55,000 cubic yards planned, has been placed.

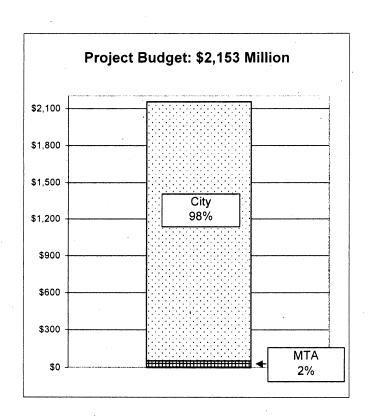
MTA Capital Construction Status Report - December 2009

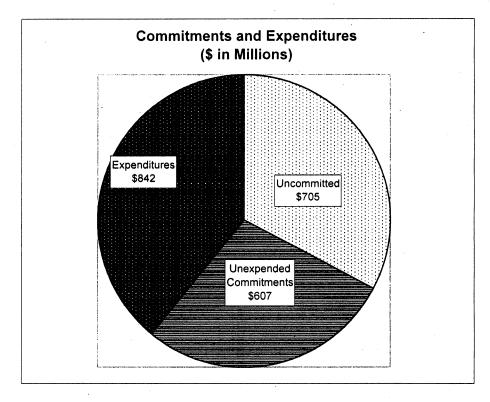
<sup>\*\*</sup> Project Substantial Completion refers to the revenue service start date.

## No. 7 Line Extension Status thru November 2009

				<u>F</u>	und	ling Sour	ces		Status o	f Cor	<u>nmitments</u>		
MTA Capital Program			M	ГΑ		City	Cit	y Funds					
\$ in Millions	B	udgeted	Fu	nds*	F	Funds	Re	eceived_	 Committed	Und	committed	Exp	ended
2000-2004	\$	53	\$	53	\$	-	\$	-	\$ 53	\$	0	\$	53
2005-2009		2,100		-		2,100		1,395	\$ 1,395		705		789
Total Authorized	\$	2,153	\$	53	\$	2,100	\$	1,395	\$ 1,448	\$	705	\$	842

<sup>\*</sup> MTA funding was for preliminary engineering and environmental review work.





## MTA CAPITAL CONSTRUCTION PROJECT UPDATE Second Avenue Subway

#### **Project Description**

MTA Capital Construction is managing construction of the Second Avenue Subway on Manhattan's east side from 125<sup>th</sup> Street to the Financial District in Lower Manhattan. The investment will create a two-track, 8.5-mile subway line with 16 new ADA-accessible subway stations, alleviate congestion on the system's most crowded subway line, the 4/5/6 Line on Lexington Avenue, and greatly reduce customer travel times. The line will be built in phases, with the first segment being an extension of the Q Line to the Lexington Avenue/63<sup>rd</sup> Street Station, where a transfer to the F Line will be available, and up Second Avenue to new 72<sup>nd</sup>, 86<sup>th</sup>, and 96<sup>th</sup> Street Stations.

#### **Budget and Estimate at Completion (EAC)**

		Last Reported	Current Month	
	<u>Budget</u>	<u>EAC</u>	<u>EAC</u>	<b>Expenditures</b>
Design	\$ 445,000,000	\$ 445,000,000	\$ 445,000,000	\$ 375,092,628
Construction	3,548,000,000	3,548,000,000	3,548,000,000	349,188,092
Construction Management	166,000,000	166,000,000	166,000,000	13,715,212
Real Estate	292,000,000	292,000,000	292,000,000	65,951,125
Rolling Stock*	0	0	0	0
<b>Total Phase I Cost</b>	\$ 4,451,000,000	\$ 4,451,000,000	\$ 4,451,000,000	\$ 803,947,057

<sup>\*</sup> Assumes \$222 million in savings opportunities, including meeting rolling stock needs through a small reduction to NYC Transit's existing spare fleet.

#### **Major Milestones and Forecasts**

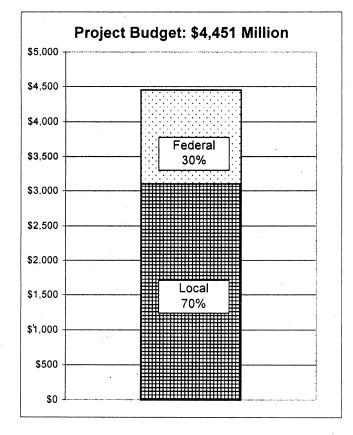
		Previous Month	Current Month
	Original Schedule	<b>Schedule</b>	Schedule
Project Design Start	Dec 20, 2001	Dec 20, 2001	Dec 20, 2001
Project Design Completion (Phase I)	2008	Feb 2010	Feb 2010
Project Construction Start	Dec 2004	Mar 20, 2007	Mar 20, 2007
Project Substantial Completion (Phase I)	2012	Dec 2016	Dec 2016

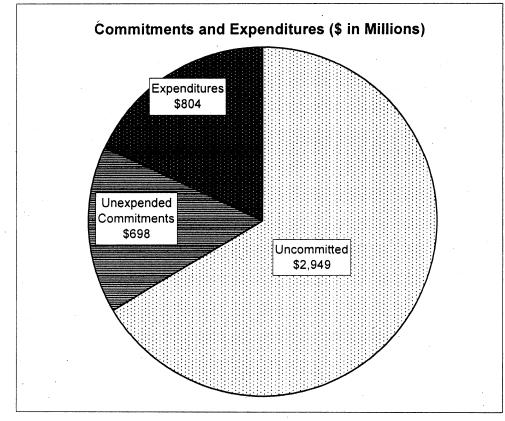
#### **Current Issues/Highlights**

- Controlled blasting began in the TBM launch box on November 4. To date, approximately 65 percent of the excavation in the launch box has been completed.
- MTACC has decided to procure the 72<sup>nd</sup> Street Station Cavern and G3/G4 Tunnels Contract (C-26007) through a low-bid rather than RFP process to capitalize on current market opportunities for bidding contracts.
- The demolition of Century Lumber Yard on Second Avenue adjacent to the project site is scheduled to begin in December.

#### Second Avenue Subway Status (Phase 1 Only) thru November 2009

			<u>F</u> t	<u>und</u>	ing Source	<u>es</u>		<u>Statu</u>	s of C	<u>commitmen</u>	<u>ts</u>	
MTA Capital Program \$ in Millions	_	Budgeted	Local Funding		Federal Funding		Federal Received	Committed	Unc	committed		Expended
\$ III WIIIIIOUS		uugeteu	 runung		runung		<u>keceiveu</u>	 Committee	Onc	Johnnitted		Lxperided
2000-2004	\$	1,050	\$ 1,014	\$	. 36	\$	36	\$ 1,021	\$	29	\$	720
2005-2009		1,914	\$ 599	\$	1,315	\$	193	481		1,433		84
2010-2014		1,487	1,487		-		-	-		1,487		
Total	\$	4,451	\$ 3,100	\$	1,351	\$	229	\$ 1,502	\$	2,949	\$	804





## MTA CAPITAL CONSTRUCTION PROJECT UPDATE East Side Access

#### **Project Description**

The East Side Access project brings Long Island Rail Road (LIRR) train service to a new lower level of Grand Central Terminal. The connection significantly improves travel times for Long Island and Queens commuters to the Midtown business district and alleviates pressure at a crowded Penn Station.

#### **Budget and Estimate at Completion (EAC)**

		Last Reported	<b>Current Month</b>	
	<b>Budget</b>	EAC	<u>EAC</u>	<b>Expenditures</b>
EIS and Engineering	\$ 564,664,653	\$ 564,664,653	\$ 564,664,653	\$ 448,001,660
Construction	5,781,343,484	5,781,343,484	5,781,343,484	1,005,714,867.
Project Management	608,623,549	608,623,549	608,623,549	308,430,881
Real Estate	171,368,314	171,368,314	171,368,314	84,365,626
Rolling Stock*	202,000,000	202,000,000	202,000,000	. 0
<b>Total Project Cost</b>	\$ 7,328,000,000	\$ 7,328,000,000	\$ 7,328,000,000	\$ 1,846,513,034

An additional \$463 million budgeted for ESA rolling stock is included in a reserve in the Board-approved 2010-2014 Capital Plan pending completion of a simulation of opening day service and fleet need.

#### **Major Milestones and Forecasts**

		Previous Month	Current Month
	Original Schedule	<b>Schedule</b>	<u>Schedule</u>
Project Design Start	Mar 1999	Mar 31, 1999	Mar 31, 1999
Project Design Completion	4 <sup>th</sup> Q 2008	Mar 2012	Mar 2012
Project Construction Start	Sep 2001	Sep 5, 2001	Sep 5, 2001
Project Substantial Completion	$2^{nd} Q 2012$	Sep 2016	Sep 2016

#### **Current Issues/Highlights**

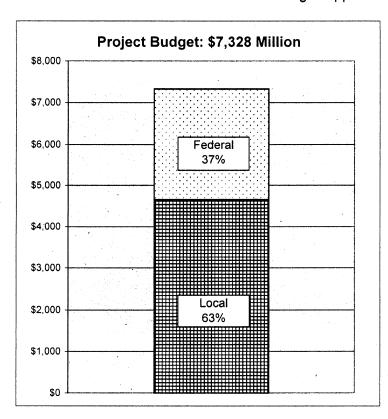
- Within Grand Central Terminal's (GCT's) Madison Yard area, structural beams that support Metro-North Railroad's upper level have been reframed to allow for the excavation of the first of four escalator wellways. The escalators to be installed will provide access between the future Long Island Rail Road (LIRR) concourse being built in the Madison Yard area and the caverns where the TBMs are now operating and future LIRR trains to GCT will terminate in the future.
- Construction commenced on what will be the east perimeter wall of the future LIRR concourse.
- Excavation of Shaft 5 within Madison Yard is complete and a temporary elevator will be installed in early December to provide worker and material access to the tunnel and cavern levels. Shaft 5 provides the first direct connection between the concourse and the caverns.
- All surface work at 37<sup>th</sup> Street and Park Avenue was completed ahead of the Holiday moratorium.
- Harold Access Bridge deck beams and additional catenary poles were installed as part of the Harold Structures Part 1 contract.
- LIRR Forces successfully installed and placed in service a new cross-over switch within Harold Interlocking.
- The FTA Administrator visited several East Side Access work sites, including Madison Yard, the Manhattan TBM tunnels, and the Oueens work site.

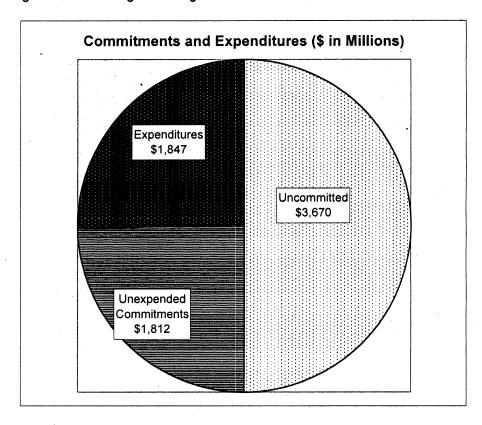
MTA Capital Construction Status Report - December 2009

## East Side Access Status thru November 2009

			Fu	undi	ing Sourc	<u>es</u>		<u>Status</u>	of Co	mmitments		
MTA Capital Program \$ in Millions	В	udgeted	Local Funding		Federal Funding*		eceived	Committed	Un	committed	Fx	pended
ψ III WIIIIOIIS		aagetea	 1 dilding		r arraing		COCIVOU	 Oommittee		oomminicou		pondod
1995-1999	\$	158	\$ 112	\$	46	\$	46	\$ 158	\$	•	\$	157
2000-2004		1,534	941		593		593	\$ 1,476		57	\$	1,164
2005-2009		2,683	639		2,044		506	2,024		659		525
2010-2014		2,954	2,954		-		-	-		2,954		-
Total	\$	7,328	\$ 4,646	\$	2,683	\$	1,144	\$ 3,658	\$	3,670	\$	1,847

<sup>\*</sup> All Federal funding is approved through a Full Funding Grant Agreement with the FTA.





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### **December 2009 CPOC Report**

#### **MTACC Fulton Street Transit Center**

#### **Project Description:**

The Fulton Street Transit Center (FSTC) project ties together a number of subway lines which will create a new focal point for entry into the Lower Manhattan subway network and integrate it with urban redevelopment plans. The existing Fulton Street Station complex is the busiest in lower Manhattan, with over 275,000 passenger entries, exits, and transfers each day. The current complex is made up of five separate subway stations (2/3, 4/5, A/C, R/W, and J/M/Z) built between 1905 and 1932. The FSTC project will improve customer safety and experience by addressing access deficiencies, crowding conditions; by bringing vertical circulation elements and station equipment up to modern standards and, by establishing seamless interconnectivity between lines. The scope of the FSTC project includes:

- A high visibility entrance structure, the Transit Center, is to be located on Broadway Avenue between Fulton and John Streets
- An underground concourse under Dey Street will link the Transit Center with the R/W line Cortlandt Street Station and the PATH WTC Terminal
- Improvements to surfaces in the connector between the R/W and E lines
- Mezzanine and platform access improvements at the A/C Broadway-Nassau Street Station
- Improvements to street access to all of the subway lines
- Rehabilitation of the 2/3 and 4/5 line Stations

In McKissack+Delcan's opinion, these project components are currently demonstrating notable success:	Phase	% Phase Complete*
Transit Center Building Foundations: Contract 4A	Construction	38%

In McKissack+Delcan's opinion, these project components are proceeding in a satisfactory manner:	Phase	% Phase Complete*
Transit Center Enclosure: Contract 4F	Design	86%
Dey Street Corridor and R/W Underpass: Contract 4E	Procurement	5%
Corbin Building Restoration: Contract 4G	Procurement	90%
4/5 Station Rehabilitation and Dey St Head House Finishes: Contract 4C/D	Construction	0%
R/W Cortlandt Street Station Northbound Platform (Work Order 55/44): Contract 4I	Construction	58%
Construction Management (In-house & Consultant)	Construction	30%
TA Labor & Other Soft Costs	Construction	68%

In McKissack+Delcan's opinion, these project components currently have one or more areas of concern:	Phase	% Phase Complete*
A/C Mezzanine Reconstruction and J/M/Z Vertical Circulation: Contract 4B	Construction	0%

<sup>\*</sup>Based on dollars expended as reported by the agency.

A summary of budget and schedule status for the contracts included in this project follow in the Appendix.

Total: 1

### **December 2009 CPOC Report**

#### **MTACC Fulton Street Transit Center**

#### **Discussion:**

This project has several aspects that warrant comment:

- Schedule: The current Integrated Project Schedule (IPS) continues to show the Transit Center Enclosure (Contract 4F) on the critical path from design to the project completion in June 2014. The Transit Center Enclosure procurement has been advanced to begin in January 2010, six months earlier than reflected in the IPS. The agency reports that the IPS is being updated based on the revised procurement schedule and that the critical path is being reanalyzed. A critical element to the Transit Center Enclosure is the stakeholder approved testing and commissioning schedule which is being completed. The updated IPS will also clarify if a temporary power supply for the Corbin Building (open to public by December 2012) and the Dey Street Concourse R/W Underpass (open to public by November 2012) is needed. The permanent power supply is currently planned by June 2013. (See Schedule in Appendix). The A/C Mezzanine Reconstruction and J/M/Z Vertical Circulation (Contract 4B) baseline schedule approval is pending.
- Budget: The agency is preparing a federal stimulus grant amendment for two additional contract packages, Dey Street Corridor and R/W Underpass (Contract 4E) and Corbin Building Restoration (Contract 4G). Dey Street

On target: 2 Total: 2

Construction Performance
On target: 5 Total: 6

Commissioning Performance
On target: 0 Total: 0

McKissack+Delcan Team:
Renée Leslie – Project Manager
Kurt Egger – Sr. Project Manager

Agency: Capital Construction

**Procurement Performance** 

**Design Performance** 

On target: 1

- Concourse Structural Box (Contract 2) close-out was completed and remaining funds were shifted to Contract 4I, Cortlandt Street Station N/B Platform. Two modifications were approved by the November 2009 MTA Board for the design repackaging and design support during construction, and the construction management services. Force Account (TAL) estimates are in the process of being completed for contract packages: Dey Street Corridor and R/W Underpass (Contract 4E), Corbin Building Restoration (Contract 4G) and the Transit Center Enclosure (Contract 4F). The project EAC remains in line with the current budget of \$1.4B.
- Program Management: Program management is coordinating maintenance and protection of pedestrian and traffic (MPT) with several active contracts and adjacent city projects to provide adequate lay-down areas, site access and system interfaces. A risk matrix is being developed to coordinate all contract interfaces. The agency is in the final stages of drafting the Church Street Corridor Agreement (Lower Manhattan Transportation Infrastructure Improvement) with the Port Authority which will include the scope and funding of the R/W to E Connector and the R/W Cortlandt Street Station southbound platform and underpass. Until this agreement is signed, the southbound R/W Cortlandt platform cannot proceed with advertisement as planned in late 2009, and the R/W to E Connector contract work cannot be incorporated into the Integrated Project Schedule.
- **Procurement:** On October 12, 2009, the Corbin Building Restoration (Contract 4G) was advertized as an Invitation-For-Bid. Two pre-bid conferences were held in November 2009 with bid opening planned for December 8, 2009. The repackaging effort for the Dey Street Corridor and R/W Underpass (Contract 4E) is 100% complete and the contract was advertised on November 23, 2009. Under the final contract, the Transit Center Enclosure (Contract 4F), is planned to start procurement in March 2010.
- Design: Repackaging for the Transit Center Enclosure (Contract 4F) is planned to be completed by January 2010. This repackaging includes the commissioning and integration which is being coordinated with NYC Transit operations and a schedule framework is being incorporated into the bid documents. In an effort to increase opportunities for a competitive bid, the self perform requirement for the contractor was reduced to zero percent. A similar approach was used for the Corbin Building Restoration (Contract 4G). A modification approved by the November 2009 MTA Board increased the design consultant contract by \$12.2M which covers the repackaging effort and extends their construction phase services to the project completion date.
- Real Estate/Cost-to-Cure: The cost-to-cure agreement for relocating a heating fuel tank at 135 Williams Street was signed and approved by the October 2009 MTA Board for \$800K, which is included in the current EAC. The succeeding

Status as of November 2009

### **December 2009 CPOC Report**

#### **MTACC Fulton Street Transit Center**

project construction activities in the contract schedule show these work areas as critical for the A/C Mezzanine Reconstruction and J/M/Z Vertical Circulation (Contract 4B) phasing plan. Once the contractor's baseline schedule is approved, any delay and impact will be analyzed.

- Commissioning: The project management team has started developing the Testing and Commissioning (T&C) plan for work elements and systems for the Transit Center Enclosure (Contract 4F). Weekly workshops lead by the MTACC construction manager include project controls, commissioning manager and the contract management team to identify the systems to be included in the T&C plan, the structural components impacting the T&C schedule, as well as the integration between the Corbin Building, Slot Building (utility building) and the Transit Center Enclosure. The goal is to complete an approved T&C plan in January 2010 to coincide with completion of the design repackaging effort of Transit Center Enclosure (Contract 4F).
- Customer Impact: The customer benefit milestone, the opening of the R/W Cortland Street Station Northbound Platform (Contract 4I), was met before Thanksgiving weekend, one month ahead of schedule. This station has been closed since 2005 and the southbound platform remains closed.

The A/C Mezzanine Reconstruction and J/M/Z Vertical Circulation (Contract 4B) requires a 4-phase schedule. The four phases allow for continued passenger flow while construction is in progress. The current phase, Phase 1, consists of work around the J/M/Z Subway line. Barricades were erected and minimal closures were put in place this period. NYCT Operations are providing staff to control pedestrian flow and are supplying the work force as required. The contractor of Contract 4B proposed a change in the phasing plan which could result in time savings. The phasing plan is currently under review by MTACC and NYC Transit.

**Safety:** The Fulton Street Transit Center project has a Lost Time Injury Rate of 0.86 lost time cases per 200,000 man-hours worked on their active construction contracts. This compares very favorably to the national industry average rate for heavy and civil construction of 2.6 lost time cases per 200,000 man-hours as published by the Bureau of Labor Statistics.

#### **MTACC Fulton Street Transit Center**

Transit Center Building Foundation:

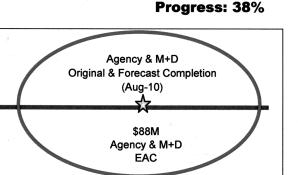
**TODAY** 

\$88M

Current

**Budget** 

Contract 4A: (A36119)



#### **Approved Scope:**

Award

(Dec-08)

\$77M

**Budget** 

This 20-month contract includes the construction of the foundations including the support of excavations and foundations, and all of the new structural work to street level. Work includes: the deconstruction of remaining structures below street level; temporary bracing; underpinning; completion of secant pile installation; concrete mat foundation; steel framing and supporting slabs through the street level.

#### **Scope Modifications:**

The scope was modified to include the underpinning of the Corbin Building, which was removed from the contract scope prior to procurement. The added work did not change the contract completion date.

## Notable Success (♥):

- Schedule: The latest schedule update shows the contractor is on schedule. Secant pile work continues under Additional Work Order (AWO) No. 1 at the Corbin Building and this activity is planned to be complete by mid-December 2009, followed by the underpinning. The mud mat for the base slab is on schedule and will reach completion in February 2010. The completion of the mud mat is the second contractual milestone and work is currently trending ahead by approximately one month.
- Quality: The Corbin Building showed settlement while performing the dewatering and the jet grouting activities. Construction management, designer, and contractors teamed up and analyzed and reassessed the building structural capacity, the instrumentation limits, and related construction activities. The contractor stopped work and evaluated the well drawdown rates and elevations, and made adjustments to the jet grouting sequencing and procedures, installed additional instrumentation, and re-sequenced the foundation soil excavation in order to reduce the risk of further settlement. As excavation and future underpinning activities continue, the project team continues to closely monitor the building, meet regularly to evaluate monitoring data, and to inform all stakeholders. McKissack+Delcan commend the contractor and agency for a prompt execution of a contingency plan which curtailed further settlement.

#### McKissack+Delcan currently have no additional comments in the following categories:

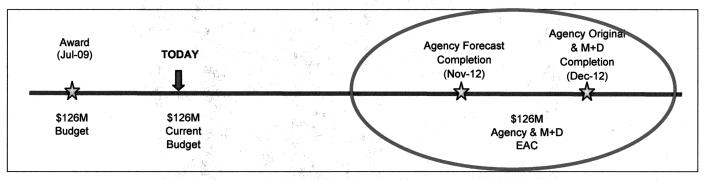
- Budget
- Project Management
- Risk Management
- Commissioning
- Customer Impact

# December 2009 CPOC Report

## **MTACC Fulton Street Transit Center**

# A/C Mezzanine Reconstruction and J/M/Z Vertical Circulation: Contract 4B: (A36121)

**Progress: 0%** 



#### **Approved Scope:**

This 40-month duration contract includes the reconstruction of the A/C Mezzanine at Broadway-Nassau Street station, ADA access to J/M/Z Fulton Street station, and vertical circulation to improve pedestrian access. The reconstruction of the A/C Mezzanine includes systems and finishes, and the vertical circulation (elevations and escalators) for the J/M/Z and 2/3 stations.

#### **Scope Modifications:**

No significant modifications have been made to the approved scope.

#### Areas of Concern (\*):

Schedule: The contractor is on-site and mobilized. The baseline schedule has been reviewed and returned with comments. The Phase 1 barricade plans have been submitted and approved and the barricades are in place. The primary access points, 135 Williams and 129 Fulton, are not available to the contractor due to existing DOB and DEP permits held by contractors not associated with this project. This situation creates access problems and delays to the contract schedule, which, if not mitigated, could be ongoing for up to six months. Meanwhile the contractor is performing selective demolition and starting to build the Temporary Stair East at other locations. McKissack+Delcan recommend to resolve the access problems at 135 Williams Street and 129 Fulton Street and to address any schedule delays early to allow mitigation.

#### **Agency Comments:**

MTACC is working with NYC DOT to secure approval of the contractor's proposed Maintenance and Protection of Traffic Plan (MPT). The MPT is consistent with the contractor's pending baseline schedule, and does not forecast any delays. MTA is also working with the owners of 135 William and 129 Fulton Street on an ongoing basis. Based on this relationship, MTACC does not foresee any problems.

#### McKissack+Delcan currently have no additional comments in the following categories:

- Budget
- Project Management
- Risk Management
- Commissioning
- Customer Impact
- Quality

# **MTACC Fulton Street Transit Center**

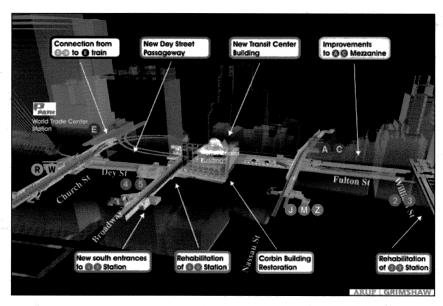


Figure 1: Project Lay-out

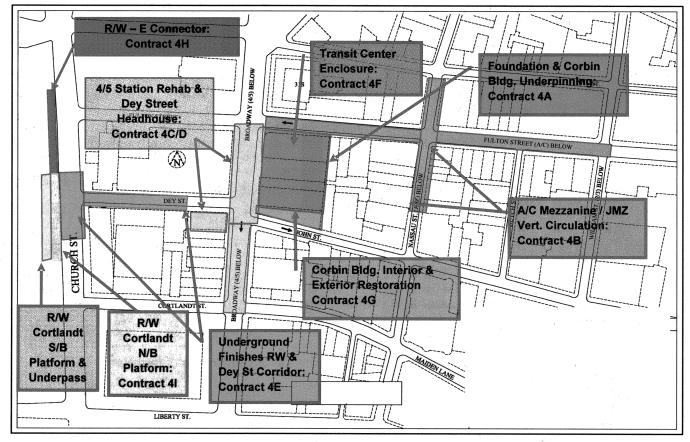


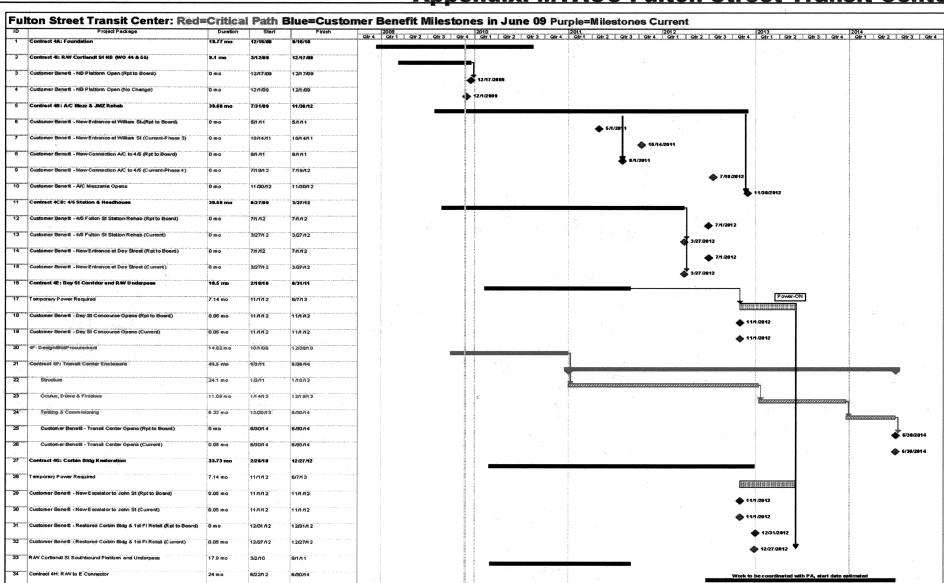
Figure 2: Fulton Street Transit Center Enclosure: Active and Future Contracts

MTA Independent Engineer

Status as of November 2009

# **December 2009 CPOC Report**

# **Appendix: MTACC Fulton Street Transit Center**



# **December 2009 CPOC Report Appendix: MTACC Fulton Street Transit Center**

Jun-14

Jun-14

Current Project Components (as of Octob	er 31, 2009):	10 m			Bud	get			Schedule				
Description (Agency project number)	Organization	Completion (%)	Budget at Award (\$M)	Current Budget (\$M)	Contingency (%)	Agency EAC (\$M)	M+D EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Forecast Completion	Schedule Index
DESIGN									Design Aw	ard	Design Con	nplete	
Project Design / ER	MTACC/ARUP	86	97.5	108.6	NA	108.6	108.6	100	Aug-03	Oct-04	Aug-10	Jan-10	599
CONSTRUCTION MANAGEMENT								Tr.	CM Award		CM Complet	e	
In-House Construction Management	MTACC/NYCT	30	36.5	93.9	NA	46.6	97.5	110					
Consultant Construction Management	PB Americas	30	36.5	93.9	NA	57.1	97.5	110	Mar-04	Dec-07	Jun-14	Jun-14	273
Total Construction Management		30	36.5	93.9	NA	103.7	97.5	110					
TA LABOR & OTHER SOFT COST									Other Awa	rd	Other Comp	lete	
TA Labor	NYCT	38	29.0	59.2	NA	55.3	59.0	93					£
Utilities	Others	71	8.0	18.6	NA	16.9	18.6	91					
Real Estate	MTA	76	76 153.0 220	220.9	NA	220.9	220.9	100	A 40	lul 40	i lim 4.4	l 4.4	206
Artwork	MTA	0	2.0	2.0	NA	2.0	.0 2.0 100 Aug-10 J	Jul-12	Jun-14	Jun-14	200		
NYCT Equip & PA Agreement	NYCT/PANYNJ	64	3.5	4.1	NA	4.1	4.1	99					
Total TA Labor and Other Soft Costs		68	195.5	304.8	. NA	299.2	304.6	98		4.7			
CONSTRUCTION									Const Award		Const Complete		
Completed Construction Contracts: 1-3	Various	100	170.3	209.6	378	210.0	210.0	100	Dec-04	Nov-07	Nov-08	Nov-08	134
Transit Center Building Foundation: Contract 4A (A36119)	Skanska	38	76.7	88.3	7	82.2	88.2	100	Dec-08	Aug-10	Aug-10	Aug-10	100
A/C Mezzanine Reconstruction and J/M/Z Vertical Circulation: Contract 4B (A36121)	Skanska	0		164.5	0	126.0	126.0	77	Jul-09	Dec-12	Nov-12	Dec-12	98
4/5 Station Rehabilitation and Dey Street Headhouse: Contract 4C/D (A36137)	WDF Inc.	0		45.8	7	60.6	60.6	132	Aug-09	Feb-12	Mar-12	Mar-12	105
R/W Cortlandt Street Station Northbound Platform: Contract 4I (A36155)	F&S Contractors Inc.	88	277.4	2.5	100	3.3	3.3	132	Feb-09	Nov-09	Nov-09	Nov-09	100
R/W Cortlandt Street Station Northbound Platform: Contract 4I (A36155)	Prude Construction	29 <sup>(2)</sup>		0.7	65 <sup>(1)</sup>	2.2	2.2	314	Aug-09	Dec-09	Nov-09	Nov-09	80
Future Contracts: Dey Street Corridor & R/W Underpass (4E), TC Enclosure(4F), Corbin Building Restoration (4G)	TBD	0		292.4	0	318.2	371.5	109	Mar-10	Jun-14	Jun-14	Jun-14	TBD
RW to E Connector: Contract C4H (A36139)	TBD	0	15.0	6.0	NA	6.0	6.0	0	TBD	TBD	TBD	TBD	TBD
TOTAL CONSTRUCTION		30	539.4	809.7		814.5	866.8	101	Nov-08	Jul-12	Jun-14	Jun-14	154

#### TOTAL PROJECT TABLE NOTES:

RESERVE

Approved Budget = Budget at Award = Original FFGA (Oct 25, 2005) Current Budget = Includes Contingency Cost Index = Agency EAC / Approved Budget Completion = Based on Project Reported Expenditure Schedule Index = (Current Approved Completion - Start Date) / (Originally Approved Completion - Start Date)

#### **NUMBERED NOTES:**

83.0

1,400.0

34.5

904.0

(1) Increased contingency budget by \$0.4M with the close-out of Contract C3.

74.0

1,400.0

22.5

1,400.0

100

Dec-04

(2) Reflects Payment.

# **MTACC South Ferry Terminal Station**

#### **Project Description:**

The South Ferry Terminal Station (SFTS) was designed and constructed to improve operations on the No. 1 line by creating a new terminal station with a 10-car center platform. The new South Ferry Terminal Station was constructed beneath the existing terminal and underneath Peter Minuit Plaza and State Street. The scope of the South Ferry Terminal Station project includes:

- A full-length center platform that will accommodate two 10-car subway trains
- Additional station entrances to reduce congestion and provide improved access to the Staten Island Ferry Terminal and Battery Park
- A new free transfer between the No. 1 line at the South Ferry Terminal Station and the R/W subway lines at the Whitehall Street Station
- Station accessibility compliant with the Americans with Disabilities Act
- Sufficient overrun track south of the platform to allow trains to safely enter at normal speeds

The existing track loop and station has been retained, but will not be used for revenue service.

A new vent plant for New York City Transit (NYC Transit) and improvements to Peter Minuit Plaza, both project components which are not federally funded, are also being completed as part of this project.

In McKissack+Delcan's opinion, these project components are currently demonstrating notable success:	Phase	% Phase Complete*
NA		

In McKissack+Delcan's opinion, these project components are currently proceeding in a satisfactory manner:	Phase	% Phase Complete*
TA Labor and Other Soft Costs	Construction	94%
Project / Construction Management	Construction	90%
Design - Build of the Structural Box	Construction	99%
Design - Furnish Signal Equipment	Construction	89%
Finishes and Systems	Commissioning	94%

Once the three contracts close-out is complete McKissack+Delcan will report construction / close-out phase 100% complete.

In McKissack+Delcan's opinion, these project components currently have one or more areas of concern:	Phase 1	% Phase Complete*
Reconstruction of Peter Minuit Plaza	Construction	21%

<sup>\*</sup> Based on dollars expended, as reported by the agency.

A summary of budget and schedule status for the contracts included in this project follow in the Appendix.

# ITACC South Form Torminal Station

**December 2009 CPOC Report** 

# **MTACC South Ferry Terminal Station**

#### **Discussion:**

This project has several aspects that warrant comment:

- Schedule: The project completion date is June 2010 in line with the completion of the Reconstruction of Peter Minuit Plaza contract. The Design Furnish Signal Equipment contract and the Finishes and Systems contract were declared substantially complete on September 21, 2009. Completion of testing of all controls, which was removed from the Design Furnish Signal Equipment Contract, will be completed by NYC Transit. The installation of the T-1 line by NYC Transit is on track to be completed by December 11, 2009. Substantial completion for the Structural Box contract was retroactively declared by MTACC for December 31, 2008 after a global settlement with the contractor for all outstanding claims was reached. Signature of the substantial completion certificate by NYC Transit for this contract is pending.
- Budget: The agency reports an EAC of \$553.4M, \$7.1M over the current budget. The majority of the variance resides in the in-house and consultant construction management cost.
- Beneficial Use, which includes the approval and subsequent certification by "sign-off" of the Beneficial Use Certificates (BUC). MTACC (managing agency) declares substantial completion, which succeeds the completion of all substantial or safety related "punchlist" items. Substantial completion initiates the contractual close-out process. NYC Transit has representation within MTACC and their interests and concerns are addressed by these representatives during the process. Final acceptance of SFTS depends on two activities:
  - The approval of Operating and Maintenance Manuals by the NYC Transit Operating departments and signature of the BUCs. One of the 12 BUCs has been signed. Ten BUCs are in circulation for sign-off, with no further contractual work anticipated. One certificate regarding the HVAC may require confirmation.
  - The installation of the T-1 line connection by NYC Transit which began in April 2009 was completed this quarter
    and testing is on-going. This will complete the communications connections for the control systems until completion
    of SONET/ATM project.

**Safety:** The South Ferry Terminal Station project has a Lost Time Injury Rate of 2.72 lost time cases per 200,000 man-hours worked on their active construction contracts. This rate is above the national industry average rate for heavy and civil construction of 2.60 lost time cases per 200,000 man-hours as published by the Bureau of Labor Statistics. In the last six months, the Lost Time Injury Rate has been 0.0, with zero lost time accidents.

**Agency:** Capital Construction

**Design Performance** 

On target: 0

Total: 0

**Procurement Performance** 

On target: 0

Total: 0

**Construction Performance** 

On target: 4

Total: 5

**Commissioning Performance** 

On target: 1

Total: 1

McKissack+Delcan Team:

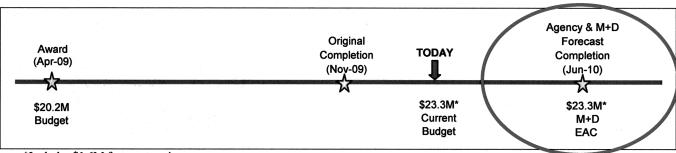
Renée Leslie – Project Manger Kurt Egger – Sr. Project Manager

Progress: 21%

# **December 2009 CPOC Report**

# **MTACC South Ferry Terminal Station**

# Reconstruction of the Peter Minuit Plaza (A36066)



<sup>\*</sup>Includes \$1.6M for construction management.

#### **Approved Scope:**

The construction contract includes the reconstruction of the Peter Minuit Plaza, including construction of the security-rated bollards along the perimeter of the Whitehall Ferry Terminal, plus the replacement of the sewer along the Whitehall Street between South and State Streets. The reconstruction of the Peter Minuit Plaza includes construction of stone pavers, drainage, landscaping, park finishing, bus canopy, and lighting; bus loop roadway and markings, traffic signaling, stone sidewalk curbs and miscellaneous plumbing. The designer, AECOM, is contracted by the Department of Parks and Recreation (DPR).

#### **Scope Modifications:**

The scope modifications predominantly address utility and structural interference related issues.

#### Areas of Concern (♥):

Schedule: The contract schedule has not slipped in the last reporting period. This contract was originally planned to be complete in 8 months, the current estimated duration is 15 months however the time extension has not been negotiated with the contractor. Contract production has been hampered by design delays caused by multiple utility and structural interferences in the field. The remaining construction activities include conduit installation, bus loop concrete placement, lighting, fixtures, finishes, landscaping planning and planting. McKissack+Delcan recommend resolution of the time extension, which is yet to be quantified and negotiated, within a 3 month time frame to increase the contract's cost and schedule certainty.

#### **Agency Comments:**

Utility construction permits that should have been secured by NYC DOT's design consultant were not in place at the time of contract award. This adversely affected the schedule. At the November 2009 schedule update meeting the Contractor revised the project schedule with an August 2010 completion date. MTACC rejected this completion date and is presently working to negotiate a time extension agreement with the Contractor.

Budget: The contract was awarded at \$19.2M with a contract contingency of \$1.0M for a total of \$20.2M. MTACC currently reports an EAC of \$21.7M, a \$1.5M increase. The total project budget equals \$23.3M, and includes \$1.6M for construction management.

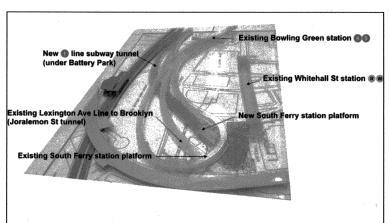
#### McKissack+Delcan currently have no additional comments in the following categories:

- Project Management
- Commissioning

Quality

- Risk Management
- Customer Impact

# **MTACC South Ferry Terminal Station**





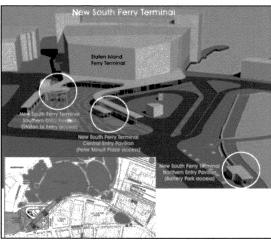
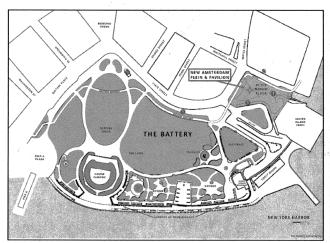


Figure 2: South Ferry Terminal Station Entrance Layout



**Figure 3:** Location of New Amsterdam Plein & Pavilion in the Peter Minuit Plaza



Figure 4: Opening Ceremony of the New Amsterdam Plein & Pavilion

# **Appendix: MTACC South Ferry Terminal Station**

Current Project Components (a	of October 21	2000):			Doda					Schedule					
Current Project Components (as	of October 31,	2009):	(A)		Budg	et					Scheau	ie			
Description (Agency project number)	Organization	Complete (%)	Approved Budget (\$M)	Current Budget (\$M)	Contingency Committed (%)	Agency EAC (\$M)	M+D EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Forecast Completion	Schedule Index		
DESIGN									Design	Award	Design Complete				
EIS and Design	NYCT	100	16.7	17.3	NA	16.4	16.4	99	Nov-03(A)	Apr-04	Aug-04(A)	NA	180%		
PROJECT / CONSTUCTION MANAGEMENT									CM A	Award	CM Co	omplete			
In-House Construction Administration	NYCTA	90	18.5	28.0	NA	32.9	32.9	178							
Construction Management	MTACC	90	3.9	0	NA.	1.6	3.2	82	1						
Construction Management (PMP)	MILACC	30	3.5		INA	1.6	3.2		Feb-05(A)	Sep-09	Jun-10	Jun-10	116%		
Total Management		90	22.4	28.0	NA	36.1	36.1	161							
TA LABOR & OTHER SOFT COST	TA LABOR & OTHER SOFT COST								Other	Award	Other C				
TA Labor	NYCTA	100	12.0	21.0	NA	21.0	21.0	175							
Utility Fee	MTA	87	19.7	5.1	NA	5.1	5.1	26	Feb-05(A)	Sep-09	Jun-10	Jun-10	116%		
Artwork Allowance	MTA	100	1.0	1.0	NA	1.0	1.0	100	1						
Total Soft Costs		94	32.7	27.1	NA	27.1	27.1	83							
CONSTRUCTION									Constr	. Award	Construction	n Complete			
Design - Build of the Structural Box (Contract A35976, C52035)	Schiavone/ Granite Halmer JV	99	264.6	287.2	83	282.0	282.0	107	Feb-05(A)	Aug-07	Dec-09	Dec-09	199%		
Design - Furnish Signal Equipment (Contract A36052)	Alstom Signaling Inc.	89	8.3	9.3	49	8.9	8.9	108	Jun-05(A)	Oct-07	Sep-09(A)	Sept-09	188%		
Finishes and Systems: (Contract A36006, C52041, C34791, C34893)	Judlau Contracting Inc.	94	122.9	132.1	217 (1)	140.8	140.8	115	Aug-06(A)	Aug-08	Sept-09(A)	Sept-09	156%		
Settlement Reserve		NA	0	8.5	NA	5.3	5.3	NA							
Construction Total		97	395.7	437.1	130	437.0	437.0	110				47.			
TOTAL PROJECT		96	467.5	509.5		516.6	516.6	111	Feb-05	Aug-08	Dec-09	Dec-09	140%		
Fund transfer for Park Conservancy (Contract A	\36066)	100		15.1	NA	15.1	15.1	100							
Reconstruction of Peter Minuit Plaza (PMP) (Contract A36066)	Tully Construction Inc.	21	22.1	21.7	43	21.7 <sup>(2)</sup>	21.7	94	Apr-09(A)	Nov-09	Jun-10	Jun-10	199%		
TOTAL PROJECT		91	489.6	546.3		553.4	553.4	113							

#### **TABLE NOTES:**

Approved Budget = Original FFGA
Current Budget = Includes Contingency
Cost Index = Agency EAC/ Approved Budget
Completion = Based on Project Reported Expenditure Schedule
Index = (Current Approved Completion - Start Date) / (Originally
Approved Completion - Start Date)

#### **NUMBERED NOTES**

(1) Does not include scope additions Crew Quarters (\$2.8M) and Canopy (\$3.4M).

			1		
		Visit 18			
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				en e	

### **MTACC East Side Access**

#### **Project Description:**

The objective of the East Side Access (ESA) project is to provide a new Long Island Rail Road (LIRR) commuter service into Grand Central Terminal (GCT) utilizing the vacant lower level of the existing 63rd Street tunnel to cross under the East River. The current project scope of work includes:

- An ADA compliant terminal beneath Metro North Railroad's (MNR) existing facility at GCT.
- Connection of the LIRR to GCT through new tunnels and the existing 63<sup>rd</sup> Street Tunnels under the East River.
- New rail yards and maintenance shops at Highbridge in the Bronx and Arch Street in Long Island City, Queens, and a mid-day rail storage yard in Sunnyside, Queens.
- Track and structure modifications throughout Harold Interlocking that will facilitate train movements through the proposed tunnels.
- Traction power, signal, communications, and life safety systems.
- New vehicles for LIRR to operate the connection to GCT.
- Commissioning of all new facilities and systems.

As the project evolved, the ESA scope was revised to separately advance some of the modifications at Harold Interlocking in connection with Alignment Revision 14-4M, the Sunnyside Station and some new vehicles, all as regional improvements. There are ancillary regional improvements, which are work elements funded outside ESA that must be built concurrently with ESA. The \$482.5M needed to build the regional improvements will be funded in the pending 2010-2014 Capital Plan.

In McKissack+Delcan's o notable success:	pinion, these proj	ect compo	nents are curr	rently demor	strating	Phase	% Phase Complete
NA							

In McKissack+Delcan's opinion, these project components are currently proceeding in a satisfactory manner:	Phase	% Phase Complete
Program Management – In-house (MTACC)	Construction	54%
Program Management – Program Management Consultant (PMC)	Construction	74%
Construction Management – Construction Management Consultant (CCM)	Construction	10%
Construction Management – Program Management Consultant (PMC)	Construction	19%
Construction Management – Others (Amtrak/LIRR/NYCT)	Construction	34%
Owner Construction Insurance Program (OCIP)	Construction	46%
Real Estate	Construction	48%
Rolling Stock	Design	0%
Emergency Work – Civil/Structural (CQE28-01)	Construction	97%
Emergency Work – Environmental (CQE28-02)	Construction	67%
GCT Protection Works (CS790)	Construction	41%
Queens Instrumentation (CS810)	Construction	22%
Subsurface Utility Engineering (CS840)	Construction	25%
245 Park Avenue Entrance/44th Street Vent Facility (CM004)	Construction	0%
Madison Yard Site Clearance (CM008A)	Construction	47%
Force Account Support to CM009	Construction	59%
Force Account Support to all GCT Contracts	Construction	16%
50 <sup>th</sup> Street Vent Facility Structure (CM013)	Procurement	95%
MNR Traction Power MODs &13.2 kV Loop (FM216)	Construction	41%
Force Account Support to CQE28-1 & CQE28-2	Construction	4%

# **MTACC East Side Access**

In McKissack+Delcan's opinion, these project components are currently proceeding in a satisfactory manner (continued):	Phase	% Phase Complete
MNR Portion of FM216	Construction	57%
Queens Bored Tunnels (CQ031)	Construction	0%
Force Account Support to CQ031	Construction	0%
Northern Boulevard Crossing (CQ039)	Procurement	95%
Force Account Support to CH053	Construction	35%
Harold Stage 1 - Amtrak Force Account (FHA01)	Construction	48%
Procure Harold Material - Stage 1 (VHA01)	Procurement	99%
Harold Stage 1 – LIRR Force Account (FHL01)	Construction	47%
Procure Harold Material – Stage 1 (VHL01)	Procurement	99%
Harold Structures Part 2A (CH054A)	Construction	0%
Force Account Support to CH054A	Construction	0%
Harold Stage 2 (Early Work) - Amtrak Force Account (FHA02)	Construction	69%
Procure Harold Material - Stage 2 (VHA02)	Procurement	9%
Harold Stage 2 (Early Work) – LIRR Force Account (FHL02)	Construction	14%
Procure Harold Material – Stage 2 (VHL02)	Procurement	7%
Harold and Point CIL (VH051A)	Construction	4%
Harold Tower Supervisory Control System (VH051B)	Construction	24%
F Interlocking CIH (VHA62)	Construction	49%
Amtrak Equipment (VH067)	Procurement	95%

In McKissack+Delcan's opinion, these project components currently have one or more areas of concern:	Phase	% Phase Complete
GEC Final Design and Construction Support Services		
■ 55 <sup>th</sup> Street Vent Plant (CM013A) & 38 <sup>th</sup> Street Vent Plant (CM013B)		
<ul> <li>Plaza Substation Structure (CQ032)</li> </ul>		
<ul> <li>Mid-Day Storage Yard Facility (CQ033)</li> </ul>		1.00
<ul> <li>Harold Structures Part 2B (CH057)</li> </ul>		
<ul> <li>Harold Structures Part 3 (CH058)</li> </ul>		-
<ul> <li>Harold Structures Part 4 (CH059)</li> </ul>	Design	62%
<ul> <li>Harold Stage 2 - Amtrak Force Account (FHA02)</li> </ul>	Design	0270
<ul> <li>Harold Stage 2 - LIRR Force Account (FHA02)</li> </ul>		
<ul> <li>Harold Stage 3 - Amtrak Force Account (FHA03)</li> </ul>		
<ul> <li>Harold Stage 3 - LIRR Force Account (FHA03)</li> </ul>		12
<ul> <li>Harold Stage 4 - Amtrak Force Account (FHA04)</li> </ul>	, A.	
<ul> <li>Harold Stage 4 - LIRR Force Account (FHA04)</li> </ul>	*	4.
<ul><li>Signals ESA Tunnels (CS086)</li></ul>		
Manhattan Tunnels Excavation (CM009)	Construction	59%
Manhattan Structures Part 1 (CM019)	Construction	15%
Harold Structures Part 1 and GO2 Substation (CH053)	Construction	30%

A summary of budget and schedule status for the contracts included in this program follow in the Appendix.

# **December 2009 CPOC Report**

#### **MTACC East Side Access**

#### **Discussion:**

This project has several aspects that warrant comment:

- Schedule: The ESA Integrated Project Schedule (IPS) shows a Revenue Service Date to GCT in September 2016. The project critical path runs through the construction contracts in Queens and later shifts to systems contracts and integrated systems testing. The IPS was updated using the actual award date for the Queens Bored Tunnels (CQ031) contract and the construction schedule submitted by the contractor. As a result of the updates, the overall schedule contingency was increased from 103 days to 141 calendar days. McKissack+Delcan agree with the current IPS, however remain concerned in the following areas:
  - o In Harold a new baseline schedule for Harold Stage 1 (CH053) third party work still has not been developed and incorporated into the IPS. The progress of Contract CH053 and the impact on related contracts such as, Harold Stage 1 force account work, Harold Stage 2 force account and third party work, and Queens Bored Tunnels cannot be monitored and potential delays cannot be mitigated as long as there is no baseline schedule in place.

Agency: Capital Construction

**Design Performance** 

On target: 1 Total: 2

**Procurement Performance** 

On target: 7 Total: 7

**Construction Performance** 

On target: 31 Total: 34

**Commissioning Performance** 

On target: 0 Total: 0

McKissack+Delcan Team:

Kurt Egger – Senior Project Manager

- o In Manhattan, where work now is off the project critical path by approximately two months, the project team is closely monitoring delays in the TBM work at the Manhattan Tunnels Excavation (CM009) contract and cavern excavation work at the Manhattan Structures Part 1 (CM019) contract.
- o In Queens the delivery of the design for the Plaza Substation Structure (CQ032) has already experienced two months of delay and has to be managed to the latest schedule without further slippage, since part of the construction work is on the critical path.

McKissack+Delcan recommend finalizing schedule negotiations with the contractor of Contract CH053 without further delay and incorporate the agreed-on contract schedule into the IPS to determine if hand-over milestones with adjacent contracts and the Revenue Service Date are still valid.

#### **Agency Comments:**

MTACC shares the concerns over the impact that CH053 delays may have on the overall program. We have been working closely with the contractor to develop a new baseline which is currently being reviewed. It is expected that this re-baseline will be reflected in the IPS before the end of the year. In addition, workarounds and contingency planning is taking place to mitigate any delays. Absent a new schedule, a detailed analysis of all major milestones and interface points with CQ031 that impacts the overall ESA completion has taken place and is closely monitored on a weekly basis. This information has been shared with McKissack+Delcan.

MTACC acknowledges that both CM009/CM019 and also the CQ032 are near critical and are working on mitigation strategies for both that will increase float.

**Budget:** The project budget remains at \$7.328B as reported in October 2009. However, higher than anticipated construction contingency expenditures for major construction contracts in Manhattan and at Harold Interlocking indicate that the current project budget could be exceeded without mitigation. McKissack+Delcan recommend performing a review of contract cost trends/projections and a contingency trend analysis for the individual contracts to allow a more accurate assessment of the project estimate at completion.

# December 2009 CPOC Report

#### MTACC East Side Access

#### **Agency Comments:**

MTACC regularly reviews cost projections and suggests that this information is shared with McKissack+Delcan on a quarterly basis for their input and concurrence.

**Project Management:** The position of the Program Executive for this project is still vacant. McKissack+Delcan recommend filling the position prior to the completion of the FTA recovery plan. Also, the involvement of LIRR in the project should be strengthened during the upcoming systems work by nominating a Deputy Program Executive from the future, operating agency to the team. The mitigation of the negative variances to the design and individual construction contracts should be assigned to individual ESA staff members for tracking and weekly reporting to management.

#### **Agency Comments:**

Comment acknowledged. A search is currently underway for this position and it is expected that the position filled by the end of January. The project team, under the leadership of the Deputy Program Executive, continues to advance the job.

The LIRR's ESA & Special Projects Department, headed by a Vice President, was created to strengthen the LIRR involvement through coordinating and facilitating the involvement of all Operating Departments of the LIRR in not only the Systems Contracts, but in all aspects of the ESA Project. MTACC's ESA Team works closely with this unit on all issues.

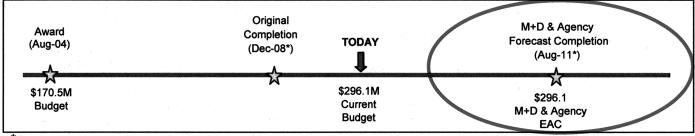
- Commissioning: The ESA/LIRR Testing and Commissioning (T&C) Team completed workgroup meetings in October to finalize the sequencing, completeness and durations of activities and labor estimates across each system (track, power, signal, and communications). The ESA/LIRR T&C team presented preliminary results in November 2009 of their analysis to support their position that the T&C schedule is achievable and that the \$50M budget for force account costs associated with the T&C efforts is sufficient. The final analysis is expected by the end of January 2010. Upon receipt and review of the final analysis, McKissack+Delcan will make an independent assessment.
- Rolling Stock: The technical specifications for the cars are being developed through a Joint Rolling Stock Strategy Task Force composed of representatives from the LIRR and MNR. The base car design is modeled on the M-7 EMU cars currently in service on both railroads. Upon completion of the base car design concept, the technical specifications will be ready for a Request for Proposal (RFP) that can be issued to car-builders. The Proposed 2010-2014 Capital Program has funding for procurement of 52 cars (\$202M) in 2012. However, the number of cars required on opening day and beyond will be determined by a full simulation that includes a comprehensive operating plan and considers several service capacity enhancements.
- **Procurement:** MTACC has received bids for the 50<sup>th</sup> Street Ventilation Facility Structure (CM013) and has held responsibility hearings with the apparent low bidder. The 44<sup>th</sup> Street Demolition/Construction of Fan Plant Structure and 245 Park Avenue Entrance (CM004) contract was awarded to Yonkers Construction Company on September 14, 2009. The Queens Bored Tunnels (CQ031) contract was awarded to a joint venture consisting of Granite Construction, Traylor Brothers and Frontier-Kemper on September 28, 2009. In November 2009 the MTA Board approved the Northern Boulevard Underpass (CQ039) contract and the award is planned for early December 2009.

**Safety:** The East Side Access project has a Lost Time Injury Rate of 2.1 lost time cases per 200,000 man-hours worked on their active construction contracts. This compares favorably to the national industry average rate for heavy and civil construction of 2.6 lost time cases per 200,000 man-hours as published by the Bureau of Labor Statistics.

#### **MTACC East Side Access**

# **GEC Final Design and Construction Phase Services**

Progress: 62%



<sup>\*</sup> Design completion only; completion of Construction Phase Services to coincide with completion of construction.

#### **Approved Scope:**

The scope for this work includes the completion of the final design for the remaining contracts and providing construction phase services for ongoing and future construction contacts. The work is performed by the General Engineering Consultant (GEC), a joint venture of Parsons Brinckerhoff, STV and Parsons Transportation Group, which was formed out of the Tunnel Engineering Consultant (TEC) and Systems Engineering Consultant (SEC) to provide an integrated design. The design integration was previously handled by the program manager.

#### **Scope Modifications:**

Notable design modifications include repackaging efforts and reallocation of space at the GCT concourse level.

#### Areas of Concern (♥):

Schedule: The design schedule continues to slip for some near-term contract packages, but also for the project-wide systems contracts, where some 90% submissions have been pushed into the first quarter of 2010. The delayed near-term packages are Harold Stage 2 Amtrak and LIRR force account work, where the 100% design delivery of the non-catenary work continues to slip. Considering that early work on these contracts already started, the completion of the design is of the utmost importance to avoid a repeat of the complications experienced during Harold Stage 1 work. The design for Contract CQ032, Plaza Substation Structure, where portions of the construction work are on the critical path, is approximately two months behind in the delivery of the 90% submittal. This delay will have to be made-up with an expedited review of the design package by other stakeholders and an expedited procurement.

With the exception of traction power, where the 90% design submittal is on target for a January 2010 delivery, the design packages for track, third rail, communications, tunnel ventilation and facilities power are delayed between one and six weeks. The 30% design submittal for signals in the ESA tunnels is now scheduled for January 2010 and the ESA project management team and LIRR are coordinating closely to provide the GEC with the required information to keep the design on schedule. Interim milestones that lead to the 30% design have been established and are monitored by the ESA project team.

Project Management: Design resources allocated to complete signal, traction power, third rail, track, catenary and communications design work for the Harold Stage 2, Amtrak and LIRR force account work, are currently being used to finish-up the remaining design work for Harold Stage 1, which greatly contributes to the delay in Stage 2 design work. The investigation of recently detected survey errors in the original survey work performed at Harold Interlocking further drains resources.

As discussed, project-wide systems design work also continues to slip. McKissack+Delcan reiterate their recommendation that the project management team review staffing levels for force account and third party systems work with the GEC and adjust staffing levels as required. Considering the ongoing and upcoming design work for force account systems at Harold Interlocking and the project-wide third party systems contracts, the ESA project will, in McKissack+Delcan's opinion, experience resource shortages in these system areas for most of 2010. In

# **December 2009 CPOC Report**

#### **MTACC East Side Access**

addition, ESA should use their experience with Amtrak regarding design requirements and review periods during Harold Stage 1 work, as Lessons Learned, in establishing their schedule for future Harold Interlocking design work.

#### **Agency Comments:**

None of the design delays currently have an impact on the IPS schedule and 2016 delivery date. GEC, PMT and MTACC are working closely together to reevaluate schedules, especially for the Manhattan and Harold contracts, so that schedule deliverables and staffing are optimized. There is an emphasis on continuity of qualified staffing.

Evaluation of Harold Stage 2 schedule takes into consideration three key items: determination of start and end dates for construction packages; planning for coordination between the packages that comprise Stage 2 so as to ensure smooth transitions and quality; and incorporation of realistic review turn-around times by Amtrak. Accomplishing these three goals will ensure program delivery. The need for additional catenary engineers has been identified and GEC is reaching out within and beyond the tri-venture to secure them. The Project Team has also initiated regular meetings with AMTRAK's Chief Engineer.

Concerning the survey at Harold, re-survey is complete and monument verification is underway. Impacts on the civil side are limited to minor adjustments in the height of the 43<sup>rd</sup> St Bridge and the associated design changes. The impact on control lines will be fully known by the end of the year but are currently not anticipated to have an impact on the VH051 design work currently underway by the vendor. Some Stage 2 packages will see delays as a result of this issue: a close co-ordination with construction is taking place to mitigate any adverse construction impacts and work-around design plans have been identified to accomplish this.

It is accepted that an expedited review of the 90% design of CQ032 will make up time lost and increase float. Further, the construction schedule is being looked at to see if there are any opportunities to lessen the impact this work has on the overall ESA critical path.

#### McKissack+Delcan currently have no additional comments in the following categories:

- Budget
- Risk Management
- Commissioning
- Customer Impact
- Quality

Progress: 59%

# **December 2009 CPOC Report**

### **MTACC East Side Access**

# Manhattan Tunnels Excavation (Contract CM009)

Original Award **TODAY** Completion Agency Forecast M+D Forecast (Jul-06) (Jul-10) Completion Completion (Aug-12) (Oct-12) \$449.4M M+D \$449.4M \$449.4M **Budget** Current **EAC** Agency **Budget** TBD\* **EAC** \* To be updated based on cost trend/projections and contingency trend analysis.

#### **Approved Scope:**

The core work of this contract is the boring of the approximately 25,000 linear feet of running tunnels from 2<sup>nd</sup> Avenue and 63<sup>rd</sup> Street to the future caverns under the existing GCT by two tunnel boring machines (TBM). In addition, the excavation of the single level Wye-Caverns GCT 3 (east and west) and GCT 5 (east and west) by drill and blast or mechanical means, as well as the lining of the running tunnels and the wye-caverns are part of the scope. Work at the existing 63<sup>rd</sup> Street Tunnel and the excavation of approach tunnels and TBM assembly chambers are also included in the scope.

#### **Scope Modifications:**

The following scope modifications were made to this contract:

- Extension of two of the four tail track tunnels and a crossover of the TBM from the eastbound to the westbound tracks at the upper level; scope was removed from Contract CM013B, 38<sup>th</sup> Street Vent Plant.
- Addition of a flat invert in running tunnels; scope removed from Contract CS078, Track, Third Rail and Tunnel Bench Wall.

### Areas of Concern (♥):

Schedule: The contract is falling behind the substantial completion date established in the recovery schedule, which was conditionally approved by MTACC on August 31, 2009. The substantial completion date for the contract as per recovery schedule is August 21, 2012. According to the latest MTACC schedule analysis of November 4, 2009, this date has now slipped to October 17, 2012, which is almost two months behind the planned substantial completion date and precisely the completion date in the current IPS. The TBM excavation is approximately 9% behind the planned excavation volume at this stage of the contract which expected 67% of the TBM excavation to be complete. MTACC reports that bad ground conditions are the reason for the difficulties in the advance of the TBM and states that these conditions could persist for another 150 ft. of tunnel excavation according to the Geotechnical Baseline Report (GBR). McKissack+Delcan recommend adjusting excavation rates for this and future tunnel drives to the ground conditions predicted in the GBR, to avoid falling behind the planned excavation volume. Furthermore, McKissack+Delcan recommend that MTACC develop mitigation strategies to avoid falling further behind the substantial completion date and reverse the negative trend, if possible. If the contract schedule slippage continues, this work will be on the project critical path within two months.

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#### **MTACC East Side Access**

#### **Agency Comments:**

The schedule productions consider an average of 50 feet/day and do not differentiate between different support classes based on bad ground. We will consider adjusting the schedule to better reflect predicted ground and not use an overall average.

Certain mitigation strategies are being reviewed including the possible re-sequencing of the final drives in an attempt to mitigate time. Other opportunities are also being explored including reconfiguring the GCT 3 and 4 crossovers and wyes to reduce excavation and the related schedule time. This information will be reviewed with McKissack+Delcan as it is developed.

• **Budget:** The budget for this contract is \$449.4M and the contract is 59% complete based on expenditures. This is slightly below the range of the current progress curves established by the ESA project team. To date approximately 68% of the contingency for this contract has been allocated for negotiated and pending additional work orders (AWO). The higher than anticipated contingency expenditure indicates that the current contract budget could be exceeded. McKissack+Delcan recommend performing a cost trend/projections and contingency trend analysis for this contract to allow a more accurate assessment of the contract EAC.

#### **Agency Comments:**

As noted in the General Budget section, costs are regularly analyzed by the Project Team. At this time, recognizing that much of the tunnel excavation which represents the riskier work elements has been completed, MTACC is comfortable with the allocated contingency for contract modifications.

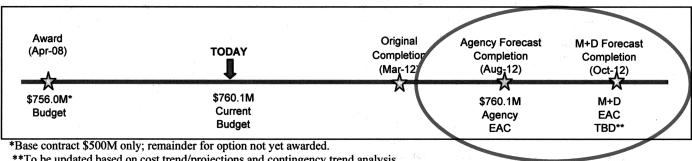
#### McKissack+Delcan currently have no additional comments in the following categories:

- Project Management
- Risk Management
- Commissioning
- Customer Impact
- Quality

**Progress: 15%** 

# **December 2009 CPOC Report** MTACC East Side Access

## **Manhattan Structures Part 1** (Contract CM019)



\*\*To be updated based on cost trend/projections and contingency trend analysis.

#### **Approved Scope:**

The major scope elements of this work includes: drill and blast excavation of the main Grand Central Terminal (GCT) Caverns below the existing terminal; drill and blast excavation of the vertical and inclined shafts; reframing of escalator-ways at GCT; and cast-in-place lining of the station arch and cross passageways. The contract is broken into a base contract and an option, to be exercised upon completion of certain tasks within the base work. The option work has to be exercised prior to Milestone 4A in August 2011.

#### **Scope Modifications:**

Preparation work within the Madison Yard for the future construction of the LIRR Concourse, as well as protective and monitoring work within GCT during the excavation of the caverns below were removed from the scope during contract negotiations and procured separately as general conditions contracts. In order to avoid delays to this contract, some of the preparation work within Madison Yard was added back to this contract's scope. In addition, scope from Contract CM013B. 38th Street Vent Plant, such as the completion of the underground ventilation structure, was added to this contract.

#### Areas of Concern (\*):

Schedule: This contract, which is closely linked to the Manhattan Tunnel Excavation (CM009) contract, currently shows a one month delay in achieving Milestone 5A, which allows the follow-on contract (Contract CM012) access to the caverns. Milestone 5A was extended from its contractual date of December 2, 2011 to mid April 2012 in the recovery schedule and is now forecast to be achieved on May 15, 2012. The delays occur in the east cavern where the excavation work is on the contract critical path. The underground excavation, excluding TBM and Madison Yard work, is currently 7% complete. McKissack+Delcan recommend a review of the contractor's means and methods, make necessary adjustment and bring the contract in line with the recovery schedule. The substantial completion date for this contract is not directly impacted by the delay in Milestone 5A, since Contract CM009 is pushing out the shared substantial completion date at a faster rate than the slippage of Milestone 5A.

#### **Agency Comments:**

The contractual baseline milestones have not been changed. The recovery schedule establishes revised forecasted dates for these milestones. The ESA October IPS was finalized prior to an approval of the contractor's monthly update and the next IPS update will be adjusted accordingly.

It is also felt that it is premature to make judgments on the production within the cavern as this is a 12-14 month activity and we are still in the development/learning stage phase (approximately 15% complete). Further, we are working with the contractor and GEC to develop opportunities to recover schedule. It is anticipated that following the planned improvements to ventilation with the completion of Shaft 5, the excavation production will increase.

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#### **MTACC East Side Access**

■ Budget: The budget for this contract is \$760.1M and the contract is 15% complete based on expenditures. This is within the range of the current progress curves established by the ESA project team. To date, approximately 25% of the contingency for this contract has been allocated for negotiated and pending additional work orders (AWO). The higher than anticipated contingency expenditure indicates that the current contract budget could be exceeded. McKissack+Delcan recommend performing a cost trend/projections and contingency trend analysis for this contract to allow a more accurate assessment of the contract estimate at completion.

#### **Agency Comments:**

As noted in the General Budget section, costs are regularly analyzed by the Project Team. At this time, recognizing that much of the tunnel excavation which represents the riskier work elements has been completed, MTACC is comfortable with the allocated contingency for contract modifications. In addition, there are several Value Engineering proposals being studied that may lead to credit changes.

Project Management: MTACC and MNR report great improvements in planning and coordination between MNR and MTACC since the last report was issued in October 2009. With the exception of Contract FM216, MNR Traction Power MODS & 13.2 KV Loop, where a shortage of outages exists (see below), MTACC reports no delays in their blasting or construction activities within GCT. A schedule that addresses ESA force account needs and MNR resources in 2010 is being developed jointly between MTACC and MNR.

#### There is one contract associated with Contract CM019 warranting comments:

Contract FM216 - MNR Traction Power MODS & 13.2 KV Loop (in construction): This contract is 41% complete and currently running behind schedule as a result of a shortage in track outages. MTACC forecasts a July 2010 substantial completion date, which constitutes a four months delay from the original completion date of March 2010. To date, three contract modifications have been issued for approximately \$344K. A fourth contract modification, to relocate an existing duct bank, is currently being processed. This relocation work is required to facilitate steel erection work in Contract CM019, Manhattan Structures Part 1, scheduled for November 2009. The ESA project team has indicated this relocation work will further delay the substantial completion date for the installation of Motor Operated Disconnects (MODs) for MNR use in the East Yard, but does not delay the ESA work within Madison Yard, which directly relates to Contract CM019.

#### McKissack+Delcan currently have no additional comments in the following categories:

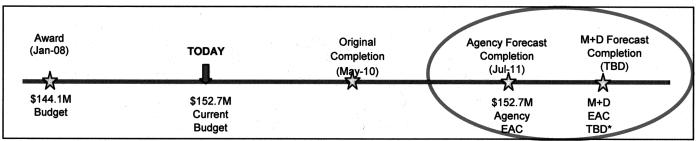
- Risk Management
- Commissioning
- Customer Impact
- Quality

**Progress: 30%** 

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#### **MTACC East Side Access**

# Harold Structures Part 1 and GO2 Substation (Contract CH053)



<sup>\*</sup> To be updated based on cost trend/projections and contingency trend analysis.

#### **Approved Scope**

The initial scope includes the construction of various civil infrastructure elements at Harold Interlocking and the expansion of existing LIRR/Amtrak right-of-way for future TBM tunnels and mainline track diversions. The scope also covers the design and installation of a prefabricated substation, the construction of modular retaining walls, the construction of a new Harold Access bridge and, an access road and foundation for a new master Central Instrumentation Location (CIL) for signal control. Furthermore, the construction of the reception pit for tunnel boring machine (TBM) Run A for the Queens Bored Tunnels Contract (CQ031), nine micro-tunneling runs, the demolition of a building, and the transfer of catenary wires based on track realignments are part of the scope.

#### **Scope Modifications:**

Work from force account contracts for Harold Stage 1 and third party Contract CH054 and force account contracts from Harold Stage 2 has been added to the scope.

## Areas of Concern ( ):

• Schedule: MTACC is currently reporting 30% actual completion versus 67% planned completion for this contract. The ESA project team reports that the contract has slipped an additional two months from the previously reported substantial completion date of July 2011. This is in line with the currently reported substantial completion date shown in the integrated project schedule (IPS). The revised completion date constitutes a 14 months delay from the original completion date of May 2010. MTACC continues to work on developing a revised baseline of the contract schedule that incorporates all unforeseen conditions to date, design changes, changes to sequence of work and staging. The impact of the delays in Contract CH053 on the Queens Bored Tunnels (CQ031) contract have been reviewed by the project team and will be addressed in the approved CQ031 contract schedule. McKissack+Delcan are concerned that Contract CH053 continues to operate without a revised contract schedule, making it very difficult for MTACC to effectively manage or measure progress. This also precludes evaluating the impact of the contract's delay on the IPS. McKissack+Delcan are currently forecasting a completion date beyond September 2011, based on the amount of design and construction work remaining.

MTACC continues to experience delays in the completion of several design packages. This has been a result of several factors: the GEC failing to design to Amtrak standards in preliminary design submissions, Amtrak's revised design requirements and the prolonged time required for the GEC to incorporate these changes into their design submittals. This has resulted in up to a two month delay in the submittal of several design packages by the GEC. In an effort to expedite the construction of the various tasks, many of the design packages have been split up into smaller packages. In addition, several of the previously completed design packages are now being revised by the GEC to incorporate additional field data received. The ESA project team has expressed concerns on GEC staffing levels and is working towards addressing this globally for all of Harold Interlocking.

# December 2009 CPOC Report MTACC East Side Access

McKissack+Delcan remain concerned that these continued delays and GEC staffing issues be reflected accurately in the new contract baseline schedule.

#### **Agency Comments:**

MTACC's project team meets weekly to closely monitor the situation, including the coordination with AMTRAK and LIRR. Design approvals with AMTRAK have had an impact and MTACC is working to expedite the review process going forward. Overall, we concur that there will be a significant impact to the completion of this contract and a revised date will be available by the end of the year. While there may be an impact to this contract, the focus of the team is to ensure that there are no impacts to the overall IPS.

■ Budget: The budget for this contract is \$152.7M and the contract is 30% complete based on expenditures. This is half the progress required at this stage of the contract according to the progress curves established by the ESA project team. To date approximately 68% of the contingency for this contract has been allocated for negotiated and pending additional work orders (AWO). The substantially higher than anticipated contingency expenditure indicates that the current contract budget will be exceeded. McKissack+Delcan recommend performing a cost trend/projections and contingency trend analysis for this contract to allow a more accurate assessment of the contract EAC. The current budget of \$152.7M includes \$8.6M for catenary work transferred from Harold Stage 1 force account contracts and the Harold Stage 2 third party contract (Contract CH054) and does not include any costs for impacts resulting from the recently detected survey error.

#### **Agency Comments:**

MTACC acknowledges that the final cost will exceed the allocated contingency for this contract as a result of the numerous design and field changes as well as the increase to the overall duration of the contract. All known changes should be negotiated by the end of February at which time the EAC will be updated. The survey errors should not add significantly to the cost overruns.

Project Management: Several tasks continue to be put on hold as a result of the delay in final approval of design packages and/or issuance of contract modifications. In addition, the ESA project team recently detected survey errors in the original survey work performed at Harold. Additional survey to verify the existing conditions in the North, South and Loop areas is ongoing and scheduled to be completed by November 2009. As a result, re-profiling design work is required for all three areas. These vertical track realignments will also require the lowering of catenary wires. The ESA project team indicates redesign of the horizontal alignment is not required and the special track-work design remains unchanged. McKissack+Delcan recommend the ESA Project team consider LIRR and Amtrak review time for all survey and re-profiling design work, as well as any additional time required to incorporate comments generated by the review. This time should be accounted for in the contract re-baseline schedule. MTACC indicates the impact to civil and signal design work is currently being evaluated and that there is no impact to any completed construction.

#### **Agency Comments:**

The re-survey at Harold is complete and monument verification is underway. Impacts on the civil side are limited to the lowering of the 43<sup>rd</sup> St Bridge by two inches and the associated design adjustments. The impact on control lines will be fully known by the end of the year but are currently not anticipated to have an impact on the Contract VH051 (Harold and Point Central Instrumentation Locations and Harold Tower Supervisory Control System) design work currently underway by the vendor. Some Stage 2 packages will see delays as a result of this issue: a close coordination with construction is taking place to mitigate any adverse construction impacts and work-around design plans have been identified to accomplish this.

# December 2009 CPOC Report MTACC East Side Access

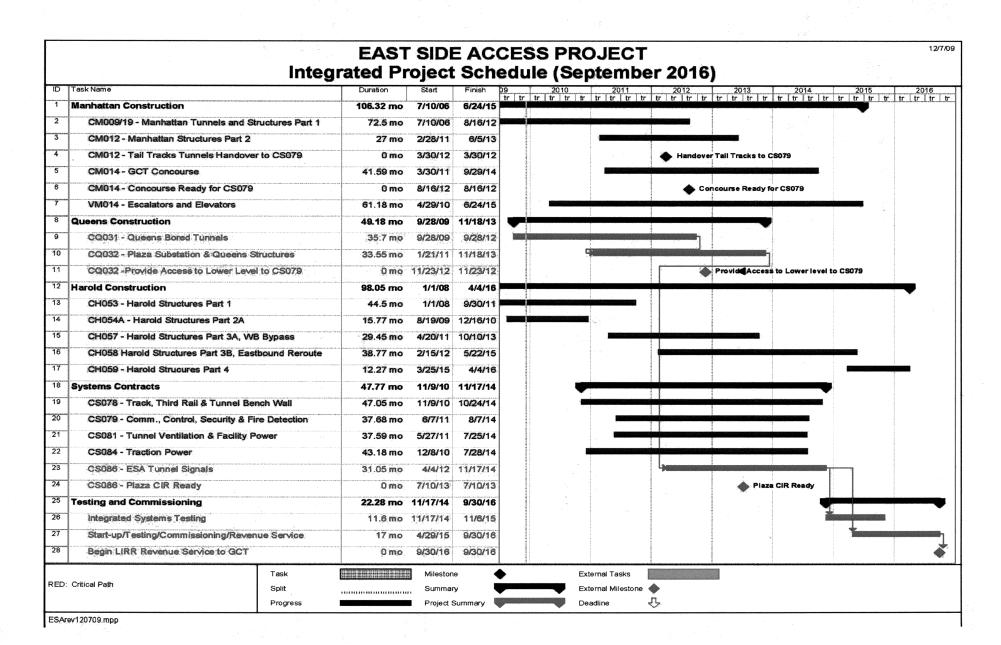
#### There are several contracts associated with Contract CH053 warranting comments:

- Contract FHA01 Harold Stage 1 Amtrak Direct Force Account (in construction): This contract is 48% complete and is currently running behind schedule as a result of the delayed start of the Contract CH053 (Harold Structures Part 1) work and the Harold Stage 1 catenary work. MTACC forecasts a July 2011 substantial completion date in line with the completion of Contract CH053, which constitutes a 10-month delay from the original completion date of September 2010. Several catenary construction tasks have been delayed as a result of material procurement issues. Catenary material for these tasks was to be procured as part of Contract VHA01, Procure Harold Material Stage 1 Amtrak, which as reported by MTACC achieved substantial completion. The ESA project team indicates that there were a few items missing that were not listed in the original bill of materials for Stage 1. As a result, the remaining Amtrak materials will be procured by Perini under a contract modification(s) for Contract CH053. These modifications are waiting final sign off from Perini before being executed.
- Contract FHL01 Harold Stage 1 LIRR Direct Force Account (in construction): This contract is 47% complete and is currently running behind schedule as a result of the delayed start of the contract CH053 Harold Structures Part 1 work. MTACC forecasts a May 2011 substantial completion date, which constitutes a 7-month delay from the original completion date of October 2010. As a result of the verification survey and re-profiling design work required for Contract CH053, switch installation work (Switch #823) originally scheduled for September 2009 has been delayed to 2010. The date for this installation has not yet been determined. In addition, subsequent switch installations (Switch #865) have not been scheduled until the survey verifies no changes are required for the installations.
- Contract VHA/L02 Procure Harold Material Stage 2 Amtrak: As of September 2009, 9% of Amtrak materials and 7% of LIRR materials have been procured under these contracts. MTACC reports alternative materials are being submitted by the vendors, which have hampered the procurement and award process. In response to the delays incurred to Contract FHA01, as a result of Amtrak material procurement issues, the ESA project team has requested a detailed schedule be developed to account for all material deliveries and milestones. This schedule needs to be integrated into the current schedule of construction activities. Switch procurement needs to be closely monitored by the ESA project team as the lead times for these switches can exceed one year. The Harold Stage 2 switches are scheduled for delivery in 2011.
- Contract FHA02 Harold Early Stage 2 Amtrak Direct Force Account (in construction): This contract is currently 69% complete and is currently running ahead of schedule as a result of an early start. MTACC forecasts an April 2010 substantial completion date, four months earlier than the original completion date of August 2010. Although ahead of schedule, McKissack+Delcan are concerned Amtrak material procurement issues, which caused substantial delays in Stage 1, will continue for Stage 2 if not addressed in a timely manner (see discussion under Contract VHA/L02 above).

#### McKissack+Delcan currently have no additional comments in the following categories:

- Risk Management
- Commissioning
- Customer Impact
- Quality

#### **MTACC East Side Access**



# December 2009 CPOC Report Appendix: MTACC East Side Access

Current Project Components (as of October 3	1, 2009):				Budg	et					Schedule		
Description (Agency project number)	Organization	Completion (%)	FFGA Budget (\$M)	Current Budget (Approval pending)	Contingency Committed (%)	Agency EAC (\$M)	M+D IEC EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Forecast Completion	Schedule Index
DESIGN							977		Design Award		Design Co	omplete	
EIS and Preliminary and Final/Detailed Engineering	SEC/TEC	100	241.2	241.5	NA	241.5	241.2	100	Jan-99	Jul-04(A)	Jul-04(A)	Jul-04(A)	100
GEC Final Design and Construction Support Services	GEC	62	170.5	296.1	NA	295.8	296.1	173	Aug-04	Dec-08	Aug-11	Aug-11	161
Other Designs (incl. EIS)	NA .	96	26.3	27.1	NA	27.1	27.2	103	NA ,	NA	NA NA	NA	NA
Design Reserve	New York	0	48.3	0	NA	0	0	NA	NA	NA	NA	NA	NA
Total Design		80	486.3	564.7	NA	564.7	564.7	116	Jan-99	Dec-08	Aug-11	Aug-11	127
PROGRAM AND CONSTRUCTION MANAGEMENT									CM Award		CM Con		
Program Management – In-house	MTACC	54	115.2	126.8	NA	126.8		110	Sep-98	Jun-14	Mar-17	Mar-17	117
Program Management - PMC	URS	74	153	185.0	NA	185		121	Sep-98	Jun-14	Mar-17	Mar-17	117
Construction Management – CCM	Jacobs	10		78.4	NA	78.4	573.7		Feb-08	Dec-13	Sep-16	Sep-16	157
Construction Management – PM	URS	19	167.2	153.7	NA	153.7		178	Sep-98	Dec-13	Sep-16	Sep-16	118
Construction Management – Others	Amtrak/LIRR/ NYCT/3 <sup>rd</sup> Party	34		64.7	NA	64.7			NA	NA	NA	NA	NA
Total Construction Management		44	435.4	608.6	NA	608.6	573.7	140	Sep-98	Dec-13	Mar-17	Mar-17	121
OTHER SOFT COST								Take Time	Other Award		Other Co	mplete	
OCIP	MTA Risk	46	250	190.9	NA	190.9	272.0	76	NA	NA	NA NA	NA	NA
Real Estate	MTA RE	48	165	171.4	NA	171.4	171.4	104	NA	NA	NA NA	NA NA	NA
Rolling Stock	LIRR	0	531.2	202	NA NA	202	202	38	Jun-08	Sep-16	Sep-16	Sep-16	100
Amtrak	Amtrak	100	15	37.3	NA	37.3	37.2	249	NA	NA	NA .	NA	NA
Force Account Support		0	0	5.4	NA	5.4	0	NA	NA	, NA	NA	NA	NA
Total Other Soft Costs		34	961.2	607.0	NA	607.0	682.6	63	Jun-08	Sep-16	Sep-16	Sep-16	100

# December 2009 CPOC Report Appendix: MTACC East Side Access

Current Project Components (as of October 31, 2009):					Budg	et		Schedule					
Description (Agency project number)	Organization	Completion (%)	FFGA Budget (\$M)	Current Budget (Approval pending)	Contingency Committed (%)	Agency EAC (\$M)	M+D IEC EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Forecast Completion	Schedule Index
GENERAL CONDITIONS									GC Awards		GC Con	plete	
Emergency Work – Civil/Structural (CQE28-01)	RCC	97		9.1	0	9.1	7.5		Apr-08	Sep-08	Nov-09	Nov-09	378
Emergency Work – Environmental (CQE28-02)	Impact	67		8.4	10.5	8.4	8.4		Apr-08	Aug-09	Nov-09	Nov-09	112
GCT Protection Works (CS790)	Ad-Tech	41		12.8	64.9	12.8	11.5		Oct-08	Oct-09	Jun-10	Jun-10	167
Queens Instrumentation (CS810)	Wang	22	20.5	7.0	0	7.0	7.0	508	May-09	Jun-10	May-10	May-10	92
Subsurface Utility Engineering (CS840)	.1	25		0.3	0 '	0.3	0.4		NA	NA	NA	NA	NA
Completed General Conditions Contracts		100		20.4	0	14.2	16.8		NA	NA	NA	NA	NA NA
Remaining General Conditions Contracts		0		46.2	0	52.4	54.4		NA .	NA	NA	NA	NA
Total General Conditions	,	40	20.5	104.2	NA	104.2	106.0	508	NA	NA	NA	NA	NA

# **December 2009 CPOC Report Appendix: MTACC East Side Access**

Current Project Components (as of October 31, 2009):				Budget				Schedule					
Description (Agency project number)	Organization	Completion (%)	FFGA Budget (\$M)	Current Budget (Approval pending)	Contingency Committed (%)	Agency EAC (\$M)	M+D IEC EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Forecast Completion	Schedule Index
CONSTRUCTION									Construc t. Award		Construction	Complete	
MANHATTAN													
245 Park Avenue Entrance/44 <sup>th</sup> Street Vent Facility (CM004)	Yonkers	0	0	45.3	0	45.3	43.6	NA	Aug-09	May-11	Aug-11	Aug-11	114
Madison Yard Site Clearance (CM008A)	Gramercy	47	0	40.9	0	40.9	40.9	⇒ NA	Mar-09	Jun-10	Jun-10	Jun-10	100
Manhattan Tunnels Excavation (CM009)	Dragados/ Judlau JV	59	449.4	449.4	68	449.4	449.4 <sup>2</sup>	100	Jul-06	Jul-10	Aug-12	Oct-12	152
Force Account Support to CM009	MNR/NYCT	34	4.0	4.0	0	4.0	4.1	103	Jul-06	Jul-10	Aug-12	Oct-12	152
Manhattan Structures Part 1 (CM019)	Dragados/ Judlau JV	15	651.1	760.1	26	760.1	760.1 <sup>2</sup>	117	Apr-08	Mar-12	Aug-12	Oct-12	111
Force Account Support to all GCT Contracts	MNR/NYCT	16	36.0	36.0	NA	36.0	33.7	93	Apr-08	Mar-12	Aug-12	Oct-12	111
MNR Traction Power MODs &13.2 kV Loop (FM216)	TC Electric	41	0	14.8	131	14.8	14.8 <sup>2</sup>	NA	Sep-08	Mar-10	Jul-10	Sep-10	122
MNR Portion of FM216	MNR	4	4.3 <sup>1</sup>	4.3 <sup>1</sup>	0	4.3 <sup>1</sup>	4.3 <sup>1</sup>	100	Sep-08	Mar-10	Jul-10	Sep-10	122
Completed Contracts Manhattan		100	127.0	128.3	NA	128.3	133.3	101	NA	NA	NA	NA	NA
Remaining Contracts Manhattan		0	1,063.1	986.0	0	986.0	949.0	93	NA	NA	NA	NA	NA
Subtotal Construction Manhattan		21	2,330.6	2,464.8	NA	2,464.8	2,428.9	106	NA	NA	NA	NA	NA
QUEENS													
Force Account Support to CQE28-1 & CQE28-2	Amtrak/LIRR/ NYCT/NYAR	57	5.1	5.7	0	5.7	5.1	112	Apr-08	Aug-09	Oct-09	Oct-09	113
Queens Bored Tunnels and Structures (CQ031)	Granite/FK/ Traylor	0	382	694.1	0	694.1	694.1	182	Sep-09	Aug-12	Aug-12	Aug-12	100
Force Account Support to CQ031	Amtrak/LIRR	0	11.7	22.7	0	22.7	34.2	194	Sep-09	Aug-09	Aug-09	Aug-09	100
Completed Contracts Queens 100		100	250.9	208.2	NA	208.2	208.8	83	NA	NA	NA	NA	NA
Remaining Contracts Queens		0	513.7	552	0	552	387.5	107	NA	NA	NA	NA NA	NA
Subtotal Construction Queens		14	1,163.4	1,482.7	NA	1,482.7	1,329.7	127	NA	NA	NA	NA	NA

MCKISSACK+DELCAN

Status as of November 2009

# December 2009 CPOC Report Appendix: MTACC East Side Access

Current Project Components (as of October 31, 2009):				Budget					Schedule				
Description (Agency project number)	Organization	Completion (%)	FFGA Budget (\$M)	Current Budget (Approval pending)	Contingency Committed (%)	Agency EAC (\$M)	M+D IEC EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Forecast Completion	Schedule Index
HAROLD						6.							
Harold Structures Part 1 and GO Substation (CH053)	Perini	30	135.7	152.7	148.6	152.7	152.7 <sup>2</sup>	133	Dec-07	May-10	Jul-11	TBD	141
Force Account Support to CH053	Amtrak/LIRR	43	14	20.6	0	20.6	20.6	147	Dec-07	May-10	Jul-11	TBD	141
Harold Stage 1 - Amtrak Force Account (FHA01)	Amtrak	48	9.5	16.8	0	16.8	16.8	177	Jun-07	Nov-09	Jul-10	Jul-11	169
Procure Harold Material - Stage 1 (VHA01)	NA	99	3.1	5.2	NA	5.2	5.2	168	Jun-07	Nov-09	Nov-09	Nov-09	100
Harold Stage 1 – LIRR Force Account (FHL01)	LIRR	47	28.8	20.1	0	20.1	20.1	70	Jun-07	Apr-10	May-11	May-11	138
Procure Harold Material – Stage 1 (VHL01)	NA	99	10.4	8.3	NA	8.3	8.3	80	Jun-07	Apr-10	Nov-09	Nov-09	85
Harold Structures Part 2A (CH054)	Perini	0	59.9	39.2	0	39.2	50.7	65	Aug-09	Dec-10	Dec-10	Dec-10	100
Force Account Support to CH054A	Amtrak/LIRR	0	19.3	3.2	0	3.2	3.9	NA	Aug-09	Dec-10	Dec-10	Dec-10	100
Harold Stage 2 – Amtrak Force Account (FHA02)	Amtrak	69	13.7	27.3	0	27.3	26.4	199	Dec-08	Aug-10	Apr-10	Apr-11	80
Procure Harold Material – Stage 2 (VHA02)	NA	9	17.2	13.2	NA	13.2	12.9	77	Dec-08	Aug-10	Apr-10	Apr-11	- 80
Harold Stage 2 – LIRR Force Account (FHL02)	LIRR	14	41.9	57.1	0	57.1	54.7	136	Aug-09	Apr-10	Арг-11	Feb-11	250
Procure Harold Material – Stage 1 (VHL02)	NA .	7	28.9	26.2	NA	26.2	25.3	91	Aug-09	Apr-10	Apr-10	Apr-10	100
Harold and Point CILs (VH051A)	Ansaldo	4	42.8	30.8	0	30.8	31.5	72	May-09	Jun-12	Jun-12	Jun-12	100
Harold Tower Supervisory Control System (VH051B)	ARINC	24	3.1	7.1	0	7.1	7.4	229	Feb-09	Aug-10	Aug-10	Aug-10	100
F Interlocking CIH (VHA62)	Amtrak	49	16.7	8.2	0	8.2	8	49	Sep-08	Aug-10	Nov-10	Nov-10	113
Amtrak Equipment (VH067)	Vendor	95	1.7	1.6	0	1.6	1.9	94	NA	NA	NA	NA	NA
Completed Contracts in Harold		100	6.7	17.1	NA	17.1	17.2	255	NA	NA	NA .	NA	NA
Remaining Contracts in Harold		0	154.1	252.4	. 0	252.4	320.5	168	NA NA	NA	NA	NA	NA.
Subtotal Construction Harold		14	607.5	707.1	NA	707.1	811.2	117	NA	NA	NA	NA	, NA

# **December 2009 CPOC Report Appendix: MTACC East Side Access**

Current Project Components (as of October 31, 2009):					Budg	et			Schedule				
Description (Agency project number)	Organization	Completion (%)	FFGA Budget (\$M)	Current Budget (Approval pending)	Contingency Committed (%)	Agency EAC (\$M)	IM+D IEC EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Forecast Completion	Schedule Index
SYSTEMS													
Remaining Contracts Systems		0	248.3	788.9	0	788.9	858.9	318	NA	NA	NA	NA	NA
Subtotal Construction System		0	248.3	788.9	0	788.9	858.9	318	NA	NA *	NA	NA	NA
Total Construction		15	4,349.8	5.443.5	NA	5,443.5	5,428.7	125	NA	NA	NA NA	NA	NA .
RESERVE		0	96.7	0	NA	0	0	NA					
TOTAL PROJECT		24	6,349.9	7,328.0	NA	7,328.0	7,328	115	Jan-99	Dec-13	Sep-16	Sep-16	118

#### TABLE NOTES:

FFGA Budget = Budget at Award

Cost Index = Agency EAC / Budget at Award

Schedule Index = (Agency Forecast Completion - Start Date) / (Originally Approved Completion - Start Date)

(A) = Actual Value

#### NUMBERED NOTES:

- (1) Paid for by MNR; amount not included in total amounts.
- EAC pending cost trend/projections and contingency trend analysis.

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## **MTACC Second Avenue Subway**

#### **Project Description:**

The full Second Avenue Subway project will create an 8½ mile, two-track subway line beneath Second Avenue from 125<sup>th</sup> Street to the financial district in lower Manhattan. Under the current plan, the project will be built in four phases. Phase One is under construction and covered by this report. Phase One includes new tunnels from 105<sup>th</sup> St and Second Avenue to 63<sup>rd</sup> St and Third Avenue, with new stations along Second Avenue at 96<sup>th</sup>, 86<sup>th</sup> and 72<sup>nd</sup> Streets and new entrances and a newly opened portion of the existing Lexington Ave/63<sup>rd</sup> St Station at 63<sup>rd</sup> St and Third Avenue.

	+Delcan's opinion g notable success:	, these project compo	nents are currently	Phase	% Phase Complete
Safety	v 1 - r			Construction	7%

In McKissack+Delcan's opinion, these project components are currently proceeding in a satisfactory manner:	Phase	% Phase Complete	
96 <sup>th</sup> Site Work and Heavy Civil (Contract 2A)	Construction	4%	
86 <sup>th</sup> Open Cuts & Utility Relocation (Contract 5A)	Construction	7%	
Soft Costs (TA Labor, Real Estate, Utilities & Artwork)	Construction	11%	
Project/Consultant Construction Management	Construction	8%	

In McKissack+Delcan's opinion, these project components currently have one or more areas of concern:	Phase	% Phase Complete
Engineering Services for the SAS Project (Final Design)	Design	93%*
TBM Tunnels from 92 <sup>nd</sup> St to 63 <sup>rd</sup> St (Contract 1)	Construction	57%

<sup>\*</sup> Physical % Complete for Final Design only as reported by SAS Project Team.

A summary of budget and schedule status for the contracts included in this project follow in the Appendix.

#### **Discussion:**

This project has several schedule and budget pressures that warrant comment:

■ Schedule – Critical Path: The portion of the Project's critical path which runs through Contract 1 TBM Tunnels from 92<sup>nd</sup> St to 63<sup>rd</sup> St has slipped 55 days since May 2009. The immediate impact of this delay has been absorbed by a reduction in the duration of the hand-off activities to Contracts 5B 86<sup>th</sup> St Station Cavern and 5C 86<sup>th</sup> St Station Finish which are also on the critical path. However, McKissack+Delcan remain concerned that these hand-off periods, which are based on past lessons learned on South Ferry and intended as a buffer for both procurement and construction delays, have been greatly reduced before tunnel boring has actually commenced. McKissack+Delcan recommend that the original duration of these hand-off activities be restored. This and other specific areas of concern with Contract 1 TBM Tunnels from 92<sup>nd</sup> St to 63<sup>rd</sup> St are profiled on the pages following this discussion section.

**Agency:** Capital Construction

**Design Performance** 

On target: 0

Procurement Performance

Total: 1

On target: 0

Total: 0

**Construction Performance** 

------

Construction 1 cm

On target: 4

Total: 5

McKissack+Delcan Team:

Kent Haggas – Dep Project Director

# December 2009 CPOC Report MTACC Second Avenue Subway

#### **Agency Comments:**

MTACC has utilized schedule float in hand off activities between Contracts C1 to C5B and C1 to C4B as an interim measure until such time an acceptable schedule recovery plan can be provided by Contract 1. Upon receipt and approval of an acceptable schedule recovery plan, to the extent possible, schedule float will be replenished in these activities.

Schedule – Design Completion: The project team reports its physical completion of design as 93% with completion of design now expected by March 2010. This represents a slip of three months in the eight months since the last forecast was made in March 2009. However, McKissack+Delcan remain concerned that unresolved system design issues will push completion of the Final Design into May 2010. The schedule plan for completion of design calls for NYC Transit final review and comment on five design packages plus comment incorporation and final submittal by the designer, all in less than four months. This and other specific areas of concern with the Contract for Engineering Services for the SAS Project are profiled on the pages following this discussion section.

#### **Agency Comments:**

A three month extension of time was granted to the Designer for changes in Contract 6 Systems by MOD No. 48. There are only two outstanding system design issues which remain open. The design team has reviewed these and will be able to incorporate them concurrent with their time extension to March 2010. The review period of 5 days for Contract 6 Systems is being increased to 20 days as part of the schedule update for November. It should be noted that MTACC has conducted a number of on-board design reviews with the NYCT reviewers which should facilitate a shorter review period.

**Budget:** The Project's Current Budget and Agency EAC remain at \$4.451B as last reported in October 2009. However, McKissack+Delcan and the MTACC/Project Team are in the midst of reviews of an updated working estimate (Rev 7) for Construction Costs. McKissack+Delcan recommend the MTACC/Project review of this estimate continue with priority, since preliminary results indicate an increase in estimated construction costs for contracts still in design.

#### **Agency Comments:**

The current MTACC working budget for construction of \$3.303B is based upon Revision 6 of the cost estimate. MTACC's review of the Revision 7 estimate is still underway at this time.

• Schedule – Real Estate: The relocation efforts for 300 E72nd Street were affected by the late issue by the Federal Transit Administration of its Finding of No Significant Impact (FONSI) for Entrance 3 and they not expected to be completed until July 11, some 12 months after award of Contract 4B 72<sup>nd</sup> St Station Cavern. This delayed access has been accounted for in the bid documents.

As has been reported previously, the relocation program and cost-to-cure agreements are near-critical. McKissack+Delcan recommend that the SAS Project Team now bring its Integrated Project Schedule information to the SAS Real Estate Coordinating Meetings for joint confirmation and reforecast of activity completions. McKissack+Delcan repeat its recommendation of October 2009 that MTACC and MTA Real Estate initiate a "lessons learned" exercise on the real estate/cost-to-cure process.

# **December 2009 CPOC Report**

## MTACC Second Avenue Subway

#### **Agency Comments:**

The need dates in the IPS are based upon either availability at the Notice of Award date, or alternatively, by the required start of anticipated physical construction work in the area. This is a common approach to real estate acquisitions in mega-projects of this duration and complexity. The Project Team will ensure that Real Estate is fully conversant in the IPS activities that represent their effort.

- Schedule Cost-to-Cure: Currently, there are 4 out of 6 cost-to-cure actions continue to lag project need dates thus requiring the Project Team to develop contingency plans to avoid construction delays and to program access restraints into the contract documents for contracts yet to be procured. The situation with cost-to-cure work at 250 E87th St ("Chase Bank") is a prime example where efforts to secure timely design and construction agreements have not progressed to schedule. McKissack+Delcan are concerned that the projected completion for this work in April 2010 will not be met, raising the risk of delay to Contract 5A 86<sup>th</sup> Street Excavation/Utilities now in construction.
- Schedule Agency Approvals for Construction: The October update to the Integrated Project Schedule notes that DEP approval of contract drawings for Contract 5A 86<sup>th</sup> Street Excavation/Utilities remains outstanding. This activity was slated for a 5 day period to finish in September and is apparently being held up pending agreement on the size of the replacement water main. McKissack+Delcan are concerned that continued stand-off on this issue will cause Contract 5A to become critical and recommend that MTACC elevate this issue to MTA as soon as practical.

#### **Agency Comments:**

This issue has been elevated to the MTACC President who met with the Acting DEP Commissioner and staff on November 20. As of this date, the DEP provided its approval for all DEP work with the exception of the 48 inch water main. Discussions continue with DEP and MTACC Senior management regarding both temporary and permanent water main replacement work including the DEP funding of any betterment to DEP's system.

Procurement: There are four contract packages scheduled to enter procurement within the next four months. Together, they are scheduled to average just over 8 months in the procurement process. Because recent MTACC RFPs have averaged 12 months in procurement, McKissack+Delcan believe that these upcoming SAS procurements have the potential to delay the critical path and, therefore again recommend that MTACC and NYC Transit both review and report on its procurement process history, take appropriate steps to reduce activity time history for key process steps and prioritize actions to minimize schedule risk. This review would incorporate quality procedures to assure a minimal number of inconsistencies among sections of the documents that could provoke bidder questions and extend the procurement period, the "lesson learned" from the South Ferry Terminal Station Project.

#### **Agency Comments:**

MTACC has reviewed its planned procurement strategy for the mined cavern contracts and has decided to convert the 72<sup>nd</sup> St Station contract from an RFP to an IFB to minimize schedule risk and capitalize on favorable current market conditions. We are considering a similar action for the 86<sup>th</sup> St Station contract.

(\*) Notable Success - Construction Safety: The Second Avenue Subway project has a Lost Time Injury Rate of 0.98 lost time cases per 200,000 man-hours worked on their active construction contracts. This compares very favorably to the national industry average rate for heavy / civil construction of 2.6 lost time cases per 200,000 man-hours as published by the Bureau of Labor Statistics.

## **December 2009 CPOC Report**

# **MTACC Second Avenue Subway**

#### **Engineering Services for the SAS Project Progress:** (C-81188)93%\* Agency Forecast Original M+D Forecast **TODAY** Completion Completion Completion Award (Mar-10) (Nov-01) (Nov-08) (May-10) \$445M \$410M \$445M Current **Budget** Agency & M+D **Budget EAC**

#### **Approved Scope:**

The scope now includes completion of eleven final design packages including specifications, drawings, cost estimates and associated supporting documents. Four of the eleven packages are completed and three of those packages are now in construction. The contract design scope encompasses station envelopes, ancillary facilities, utilities, mechanical systems, electrical systems, life-safety systems, traction power, communications systems, environmental engineering, fare collection, maintenance facilities, storage yards and, integration of track & signal systems designed by NYC Transit.

#### **Scope Modifications:**

Subsequent to the award of this contract, the project was divided into four incremental operating phases. The scope was modified in November 2005 to include Final Design (FD) and Construction Support Services for the first operating segment. The modified scope includes the full design of tunnels from 92<sup>nd</sup> St to 62<sup>nd</sup> St and subway stations at 96<sup>th</sup>, 86<sup>th</sup>, 72<sup>nd</sup> and 63<sup>rd</sup> Streets. Also included in this modification is the design of systems from 105<sup>th</sup> St to 63<sup>rd</sup> St Station. The last major Contract Modification (No. 38) provided for the redesign of 72<sup>nd</sup> Street Station, which was reduced to two tracks from a three track station. This contract modification and associated work extended the design through December 2009.

#### Areas of Concern (♥):

Schedule: The project team reports its physical completion of design as 93% with completion of design now forecast by end of March 2010. This represents a slip of three months in the eight months since the last forecast was made in March 2009. The schedule plan for completion of design calls for NYC Transit final review and comment on five design packages plus comment incorporation and final submittal by the designer, all in less than four months (December - March). The review periods vary from 5 to 20 days with four packages planned for review by NYC Transit in the same two week period, an intensity of activity which has little precedent. The project team recognizes the risks of this plan and the success of their strategy will depend on close management of the designer and high level priority by NYC Transit engineering departments. A slip of several days in completing Contract 5B 86<sup>th</sup> St Station Cavern will put this ten month procurement on the critical path. McKissack+Delcan suggest that the project team's strategy to complete design continue to receive high level attention by MTACC and NYC Transit and that it ensures rapid resolution of lingering technical issues with external agency acceptance (eg-DEP, NYCDOT, ConEd).

<sup>\*</sup> Progress is reported by the Project Team for completion of Final Design only, excluding support for preliminary engineering and construction support services.

## **December 2009 CPOC Report**

## MTACC Second Avenue Subway

#### **Agency Comments:**

A three month extension of time was granted to the Designer for changes in Contract 6 Systems by MOD No. 48. The review period of 5 days for Contract 6 Systems is being increased to 20 days as part of the schedule update for November. It should be noted that MTACC has conducted a number of on-board design reviews with the NYCT reviewers which should facilitate a shorter review period. The design for Contract 5B 86<sup>th</sup> Street Station Cavern is 95% complete. The design documents have been reviewed by NYCT and CCM. Designer will be incorporating comments into the design documents in January 2010. We believe there is more than two months of float between the design completion and issuance of RFP to the prospective bidders. We therefore do not think that the design completion of Contract 5B in February 2010 will impact the overall critical path of the project.

Project Management (Design Completion - Systems): The design package for Contract 6 Systems is slated for a five day formal review period by NYC Transit following completion in late December. Two of four elements of the design (Track & Signals) are actually designed by NYC Transit and are essentially complete with SAS needing to assure coordination of specifications and contract milestone/access dates. Traction Power design is planned for a rolling review with NYC Transit in December. Completion of the Communications design needs issue resolution and formal direction to the designer for any agreed changes to meet NYC Transit requirements. Without evidence of progress of resolving outstanding communications design issues since our last report in October 2009, McKissack+Delcan are now forecasting an additional two months for completion of Contract 6 Systems (to May 2010) beyond that forecasted by the SAS Project Team. This forecast would put Contract 6's ten month procurement near-critical with less than a month's float. It is recommended that the Project Team promptly meet with NYC Transit to resolve open systems design issues and issue appropriate direction to the designer.

#### **Agency Comments:**

As stated above, the review period of 5 days for Contract 6 *Systems* is being increased to 20 days as part of the schedule update for November. There are only two outstanding communications design issues which remain open. The design team has reviewed these and will be able to resolve these and incorporate them concurrent with their time extension to March 2010.

**Commissioning:** Project Management issued the Systems Integration Testing Plan, Volume 1 of 2, as a draft for external review on July 28, 2009. As of November 1, Volume 1 (Plan) has been reported complete but unissued and, the drafting of Volume 2 (test descriptions/procedures) remains incomplete. In addition, the mechanical & electrical systems testing at 86<sup>th</sup> St Station (Contract 5C) and subsequent hand-off to Contract 6 Systems is now critical. McKissack+Delcan are concerned about a loss of momentum for completion of these Test & Commissioning/Pre-Revenue Plans and recommend that a schedule for completion of these remaining plans in advance of the completion of Contract 6 Systems be developed and committed as soon as practical. It is recommended that these plan documents be completed and accepted by NYC Transit in advance of the completion of Contract 6 Systems in order to assure proper coordination of the testing specifications and activities and that the Test & Commissioning Schedule is included as part of the bid documents. It is also suggested that, if not already planned, the Project Team and NYC Transit complete a review of the IPS promptly after completion of the Test & Commissioning Plan to verify activities and durations.

# December 2009 CPOC Report MTACC Second Avenue Subway

#### **Agency Comments:**

A "Stand Alone" Testing and Commissioning Schedule is under development and will be used to confirm the duration for each component to be both field tested and through the full integration process, including input from and full review with NYCT.

McKissack+Delcan are also concerned that the completion date for the Project's Integrated Test & Commissioning activities leaves only two months in advance of the Revenue Service Date that are free and clear of systems construction work for NYC Transit's Pre-Revenue activities. McKissack+Delcan's opinion is, that at this early point in the project's construction, Transit should have its four months for Pre-Revenue activities scheduled free and clear of any final construction. McKissack+Delcan recommend that NYC Transit prepare a detailed Pre-Revenue Operations Plan, which is coordinated with the Project's Test & Commissioning plan activities, in order to verify the Pre-Revenue period now agreed in the Project's schedule.

#### **Agency Comments:**

MTACC has not changed the duration for NYCT Pre-Revenue testing which remains 4 months. This activity is overlapped with the finish of Systems Integrated Test and Commissioning. This has been reviewed with NYCT Department of Subways which concurs with this approach.

- **Risk Management:** A risk assessment for Contract 5B 86<sup>th</sup> St Station Structure and Contract 5C 86<sup>th</sup> St Station Finish was facilitated by McKissack+Delcan's risk consultant and is intended for presentation to CPOC at its January 2010 meeting. The Project Team is in the process of completing a program-wide Risk Assessment to identify and track priority projects risks that are targeted for mitigation for the next CPOC Report. McKissack+Delcan will assist in and review the plan for evaluating and managing risks and verify the mitigation program throughout the project.
- **Budget:** In the past seven months (March October), the SAS reports it has advanced its overall design by 8% (85 to 93%) and expended \$25M (or 3.1M/mo) for design services excluding construction support. Extrapolating this rate to completion, it could be estimated that design services may cost at least an additional \$22M above the \$141M spent through October 31 or \$162M. If a two month contingency is added to reflect McKissack+Delcan's opinion of likely time required to gain design acceptance by Transit, the estimate at completion becomes \$168M against a budget of \$193M (without design reserve).

- Quality
- Customer Impact

**Progress: 57%** 

### **December 2009 CPOC Report**

### **MTACC Second Avenue Subway**

# TBM Tunnels from 92<sup>nd</sup> to 63<sup>rd</sup> St: Contract 1 (C-26002)

Original Agency & M+D **TODAY** Completion Award **Forecast Completion** (Jul-10) (Mar-07) (Jul-11) \$354M \$354M \$354M Agency & M+D Current **Budget** EAC **Budget** 

#### **Approved Scope:**

The scope includes construction of a water-tight structure for TBM launch between 91<sup>st</sup> and 95<sup>th</sup> Streets that is 75 ft wide by 900 ft long and approximately 75 ft below street level, the boring of two tunnels 22 ft in diameter below Second Avenue, access shafts at 69<sup>th</sup> and 72<sup>nd</sup> Sts and related preparatory/restorative work. In addition, the contractor is to provide sumps, drainage, lighting systems, and temporary decking that will be turned over to NYC Transit at the end of construction.

#### **Scope Modifications:**

The approved and negotiated scope modifications are predominantly a result of utility-related issues. Approved additional work orders (AWO) total \$10.8M or 64% of budgeted contingency.

#### Areas of Concern (♥):

Schedule: The critical path for the project lies in this TBM Tunnel construction contract which continues to run substantially behind schedule. In the three months since McKissack+Delcan's last report, dates for Contract Milestone 1 and the Substantial Completion have slipped an additional five weeks. The immediate impact of this slippage on the critical path has been absorbed by reducing the duration in the hand-off periods to Contract 5B 86<sup>th</sup> St Station Cavern and 5C 86<sup>th</sup> St Station Finish which are all on the critical path. However, McKissack+Delcan remain concerned that these hand-off periods, which are based on past lessons learned on South Ferry and intended as a buffer for both procurement and construction delays, have been greatly reduced before tunnel boring has actually commenced. McKissack+Delcan recommend that the original duration of these hand-off activities be restored.

In addition, the Contractor's productivity on the hard rock excavation for the launch box, a critical activity, has been slowed by the lack of a timely approval to remove rock by blasting. The blasting permit was held by FDNY for correction of NYC Dept of Buildings violations and other actions related to the leaning buildings at 1766/68 Second Avenue. While this work was not the responsibility of the Project, the Project undertook some of the remedial work in order to expedite its resolution and protect the Project Schedule. With a blasting permit now in hand, the Contractor has begun removing rock by blasting.

McKissack+Delcan recommend that, once the Contractor has some initial actual experience with rock removal by blasting, the Project Team renew its push for a recovery schedule.

#### **Agency Comments:**

MTACC has utilized schedule float in hand off activities between Contracts C1 to C5B and C1 to C4B as an interim measure until such time an acceptable schedule recovery plan can be provided by Contract 1. Upon receipt and approval of an acceptable schedule recovery plan, to the extent possible, schedule float will be replenished in these activities.

## **December 2009 CPOC Report**

# **MTACC Second Avenue Subway**

• **Budget:** The total exposure to Additional Work Orders, both negotiated and pending, now approximates the budget for contingency. Given that the project reports this contract is 57% completion by expenditure, McKissack+Delcan is concerned that the contingency will end up over budget at completion. Of further concern is that this contract is reporting over half complete with its main activity, the TBM tunneling of two bores, yet to start.

#### **Agency Comments:**

MTACC's projection for approved, negotiated, and pending AWO's is less than the contract contingency.

The cost included in the approved detailed cost breakdown for the major TBM tunneling activities totals \$90M. There is an additional \$12M in TBM Launch Box construction remaining. This total of \$102M represents 70% of the remaining \$146M in contract pay items.

- Project Management
- Risk Management
- Commissioning
- Customer Impact
- Quality

# **MTACC Second Avenue Subway**

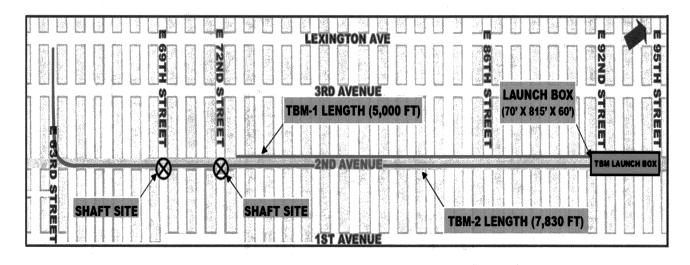
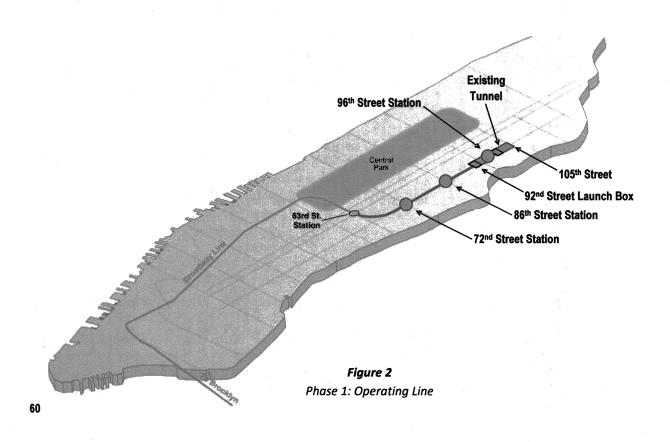
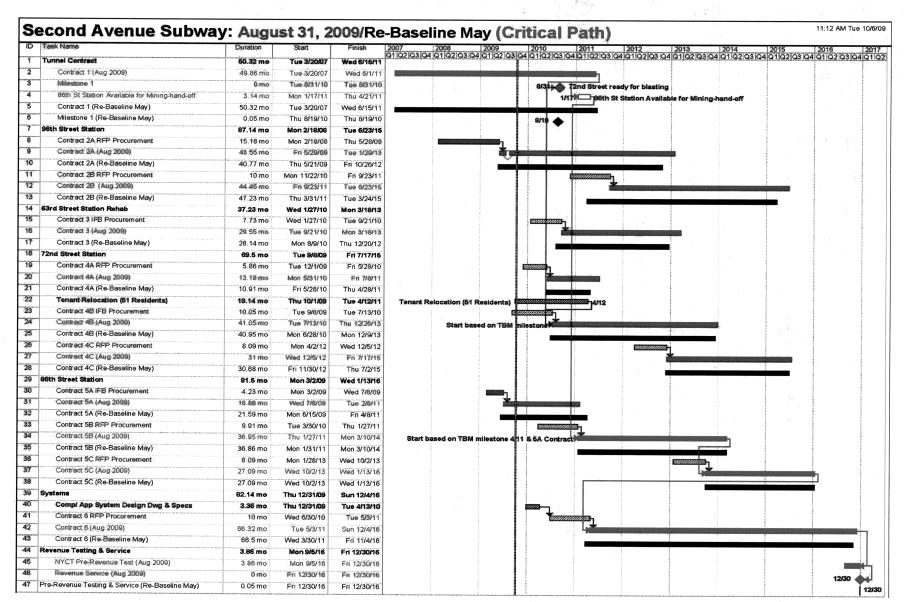


Figure 1: Contract 1: Scope of Work



## **Appendix: MTACC Second Avenue Subway**



MCKISSACK+DELCAN
MTA Independent Engineer

Status as of November 2009

# **December 2009 CPOC Report**

# **Appendix: MTACC Second Avenue Subway**

Current Project Components (as			Budge	t (\$M)		Schedule							
Description (Agency project number)	Organization	Completion (%)	Original Budget	Current Budget	Conting'cy Exp'd (%)	Agency EAC	M+D EAC	Cost Index	Start Date	Original Completion	Agency Forecast	M+D Forecast	Schedule Index
DESIGN					•			Design Award		Design C	omplete (1)		
EIS and Preliminary Engineering	NYC Transit	99		240.5		240.5	240.5						
Final Design (C-81188)	DHA/ NYC Transit	93	410	192.8		204.5	204.5		Apr 06	Nov 08	Mar-10	May-10	158
Design Reserve		4		11.7	0	0	0						
Total Design	:	95	410	445	0	445	445	100					
PROJECT / CONSTRUCTION MANAGEMENT									CM Award		CM Co	omplete	
Consultant Construction Mgm't (C-81338)	PB Americas	12	81	96		96	96	100					
MTA Project Management	MTACC/ NYC Transit	4	42	70		70	70	100	May -07	Dec-13	Dec-16	Mar-17	146
Total Project/Construction Management 8			123	166		166	166	100	4.	1 2			
SOFT COSTS									Other Award	Other Award Other Complet			
TA Labor	NYC Transit	nil	28	33		33	33	100					*.
Real Estate	MTA	21	245	245		245	245	100		ur.			
Cost-to Cure	MTACC			47		47	47	100	Mar-07(A)	Dec-13	Dec-16	Mar-17	144
Utilities	MTACC	13	58	64		64	64	100	Wai-07(A)	Dec-13	Dec-10	IVICII-17	1
Artwork	MTA	0	6	6		6	6	100					
Total Soft Costs		11	337	395		395	395	100					
CONSTRUCTION									Constr. Award		Construction	on Complete	
Tunnels from 92 <sup>nd</sup> to 63 <sup>rd</sup> St (C-26002)	S3TC	57	337	354	65	354	354 <sup>(4)</sup>	100	Mar-07(A)	Jul-10	Jul-11	Jul-11	130
96 <sup>th</sup> Site Work and Heavy Civil (C-26005)	EE Cruz/Tully	4	158	341	2	341	341	100	May-09(A)	Jan-13	Feb-13	Feb-13	102
86 <sup>th</sup> Open Cuts & Utilities Relocation (C-26013)	D'Annunzio & Sons	7	N/A	39	0	39	39	100	Jul-09(A)	Jan-11	Jan-11	Jan-11	100
Remaining Construction Contracts (Packages 2B, 3, 4A, 4B, 4C, 5B, 5B, 6)	TBD	NA	2232	2274	NA	2274	2274 <sup>(4)</sup>	100	var	Dec-13	Nov-16	Nov-16	NA
OCIP		73	160	172	NA	172	172 <sup>(4)</sup>	100			\$ 5.44 5		
Construction Contingency (unallocated)		91	123		123	123 <sup>(4)</sup>	100					-	
Total Construction 19		3023	3303		3303	3303	100	Mar-07(A)	Dec-13	Nov-16	Nov-16	144	
Project Reserve		NA	173	142		142	0	100					
TOTAL PROJECT		17.5	3897	4451 <sup>(3)</sup>		4451 <sup>(3)</sup>	4451 <sup>(3)</sup>	100	Apr-06	Dec-13	Dec-16	Dec-16	163

## **December 2009 CPOC Report**

# **Appendix: MTACC Second Avenue Subway**

#### TABLE NOTES:

Cost Index = Agency EAC/ Current Budget

Schedule Index = (Agency Forecasted Completion-Start Date) / (Originally Approved Completion-Start Date)

Completion = Per Agency Reporting except as otherwise noted

Original Budget = Approved amount at adoption of the original FFGA

(A) = Actual Value

#### NUMBERED NOTES:

- (1) For design services only, does not include construction support services
- (2) Not used
- (3) Assumes \$222M in savings opportunities, including meeting rolling stock needs through a small reduction to NYC Transit's existing spare fleet.
- (4) Forecast pending further review

## **MTACC No. 7 Subway Extension**

#### **Project Description:**

The No.7 Subway Extension project will expand the existing No.7 Subway services to the west beneath 41<sup>st</sup> Street then curving south and continuing beneath 11<sup>th</sup> Avenue to a new terminal station at 34<sup>th</sup> Street. The project is comprised of two parallel single-track subway tunnels of approximately 6,360 feet in length and the new terminal station at 34<sup>th</sup> Street. The alignment also includes approximately 1,800 feet of tail track south of the terminal station for train lay-up. A station at 10<sup>th</sup> Avenue and 41<sup>st</sup> Street has been removed from the original scope.

In McKissack+Delcan's opinion, these project components are currently demonstrating notable success:	Phase	% Phase Complete
Running Tunnels and 34 <sup>th</sup> Street Station (Construction Contract 1)	Construction	57%

In McKissack+Delcan's opinion, these project components are currently proceeding in a satisfactory manner:	Phase	% Phase Complete
EIS and Preliminary Engineering	Design	100%
Construction Management (In-house, consultant and others)	Construction	26%
TA Labor & Other Soft Cost	Construction	7%

In McKissack+Delcan's opinion, these project components have one or more areas of concern:	Phase	% Phase Complete
Extended Preliminary Engineering and Final Design:		
Site J Core and Shell Construction	Design	74%
Site L Core and Shell Construction		

A summary of budget and schedule status for the contracts included in this project follow in the Appendix.

#### **Discussion:**

This project has several aspects that warrant comment:

Schedule: The latest integrated project schedule with a data date of September 1. 2009 shows a Revenue Service Date in December 2013 and a project completion date in July 2015. These dates did not change since the previous report by McKissack+Delcan. The work beyond the Revenue Service Date consists of the construction of a second permanent entrance to 34<sup>th</sup> Street Station at Site P (see attached Key Plan). The schedule includes one active construction contract and seven contracts in design close to the 60% design completion level. The schedule is based upon the anticipated early substantial completion date of Construction Contract 1 in February 2012, seven months earlier than the contractually agreed-on substantial completion date of September 22, 2012. The absence of a contractually revised substantial completion date; the aggressive schedule for the remaining design work; and the lack of a more detailed testing and commissioning schedule will, without mitigation, in McKissack+Delcan's opinion, push the forecast Revenue Service Date into 2014. Furthermore, recent updates in the logic of the schedule for Construction Contract 1 have put the TBM work and the associated hand-over milestone at Site A near the critical path.

Agency: Capital Construction

**Design Performance** 

On target: 1 Total: 2

**Procurement Performance** 

On target: 0 Total: 0

**Construction Performance** 

On target: 3 Total: 3

**Commissioning Performance** 

On target: 0 Total: 0

McKissack+Delcan Team:

Kurt Egger – Senior Project Manager

### **MTACC No. 7 Subway Extension**

#### **Agency Comments:**

MTACC recognizes this risk as it continues to work toward the current schedule. The testing/commissioning schedule is under development and will continue through the design process.

**Budget:** The current working budget for the project is \$2.153B, which includes \$53M for preliminary design. The project reserve stands at approximately \$45M and will have to cover funding for in-house construction management (EFA) beyond Construction Contract 1 and an extension of the current consultant construction management (CCM) contract to the end of the project. The TA labor budget intended to cover the remaining construction contracts and the testing and commissioning phase of the project cannot be fully validated at this time as it does not provide sufficient detail. These costs must be supported by a comprehensive testing and commissioning schedule and backed-up with a detailed cost estimate. Updated construction estimates for the remaining construction contracts including the ventilation structure at Site L, which are close to a 60% design level, have been forwarded to McKissack+Delcan recently and are currently under review. McKissack+Delcan will be able to comment on the adequacy of the current working budget once this review is completed.

#### **Agency Comments:**

MTACC continues to manage the project to this budget, which we recognize to be a challenge. In 2010, we will be conducting a project risk assessment with the Independent Engineer and Office of Construction Oversight.

- Risk Management: McKissack+Delcan in cooperation with the MTA Office of Construction Oversight and MTACC have planned a risk assessment for the remaining construction contracts, including the ventilation structure at Site L, in December 2009. The outcome of the risk assessment, which is expected by February 2010, will help increase cost and schedule certainty for the remaining work.
- Real Estate: MTACC, in cooperation with HYDC, are continuing efforts to finalize agreements with developers and various City agencies on project limits, configurations and easements. The easement agreement for Site L, the site for the new ventilation structure on 41<sup>st</sup> Street and 10<sup>th</sup> Avenue, is being drafted and will then be forwarded to the developer for review. A generic easement document is being developed for remaining Sites A, J, K and P. Specific additional language pertaining to Site J is also currently being prepared. Without these agreements, MTACC cannot advance construction of permanent work. MTACC must also closely monitor the advancement of the FedEx Building demolition on Site J, since any delay in the demolition contract will impact the subsequent civil/structural and finishes contracts at Site J.

At Site K, HYDC directed MTACC to progress their design based on a previously made agreement between OMB and NYCDOT that two blocks (35<sup>th</sup> to 37<sup>th</sup> Streets) of the existing 11<sup>th</sup> Avenue Viaduct would be torn down and replaced by retaining walls and fill as part of this project.

#### **Agency Comments:**

MTACC is working to address these issues.

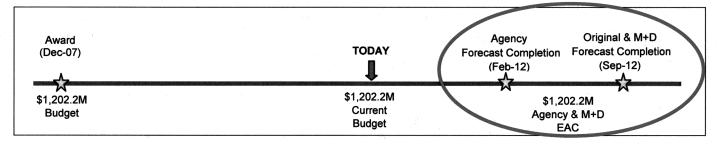
**Safety:** The No. 7 Subway Extension project has a Lost Time Injury Rate of 1.7 lost time cases per 200,000 man-hours worked on their active construction contract. This compares favorably to the national industry average rate for heavy and civil construction of 2.6 lost time cases per 200,000 man-hours as published by the Bureau of Labor Statistics.

### **December 2009 CPOC Report**

### **MTACC No. 7 Subway Extension**

# Running Tunnels and 34<sup>th</sup> Street Station (Contract 1 – C26503)

Progress: 57%



#### **Approved Scope:**

The base contract awarded in December 2007 to a Joint Venture of Shea/Schiavone/Skanska (S3II), includes the excavation and lining of the running tunnels from the existing No. 7 line tail tracks to 25<sup>th</sup> Street. The tunnel section also includes the underpinning of the existing 8<sup>th</sup> Avenue Station and portions of the Port Authority bus ramp. The excavation and lining of the cavern for 34<sup>th</sup> Street Station and project work at Site A, Site K and Site P are also part of the contract.

#### **Scope Modifications:**

The shell for the station at 10<sup>th</sup> Avenue, included as a now-expired option in this contract, was not awarded in order to stay within the project budget. Tunnel invert and benches, and excavation and concrete work for the ventilation structure at Site L could potentially be added as additional work orders (AWO) to the scope.

#### Notable Success (♥):

- Schedule: The contractor continues to make excellent progress and as of October 31, 2009 the contract work is 203 calendar days ahead of the baseline schedule considering time savings from the re-sequencing of the concrete work at 34<sup>th</sup> Street Station. The approved contract schedule currently shows a substantial completion date of February 22, 2012, seven month ahead of the contractual substantial completion date. The TBM in Tunnel CC2 reached 34<sup>th</sup> Street Station on October 30, 2009 and the second TBM in Tunnel CC1 is scheduled to reach 34<sup>th</sup> Street Station in early December 2009. The outcome of the negotiations regarding: the completion of the tail track tunnels at the south end of the project; changes to the vertical alignment of the TBM tunnels north of 34<sup>th</sup> Street Station; and the horizontal re-alignment of the TBM tunnels near the Port Authority Bus Terminal (PABT) may influence the handover milestone at Site A and could cause a reduction in the accumulated contract schedule float.
- Project Management: Despite the contracts ongoing success in maintaining schedule and cost, McKissack+ Delcan are concerned about the number of incomplete additional work orders (AWO). As of November 11, 2009, 32 AWO's have been identified, of which nine have been negotiated and five have been cancelled or are on hold. The 18 open work orders are mainly based on: changes to the contract drawings; modifications to the tunnel and cavern configurations; and scope advances from future contracts. To date the negotiated AWOs have resulted in a net credit of \$5.7M, however some of the open AWOs might add significant cost to the contract. In addition, some AWO's are time sensitive and their negotiations should be expedited as not to impact the actual work.

#### **Agency Comments:**

MTACC is aware of the impact of Site A milestones on meeting the December 2013 revenue service goal and is working to resolve all three issues identified by McKissack+Delcan.

Regarding the change orders, MTACC is expediting their resolution.

# December 2009 CPOC Report MTACC No. 7 Subway Extension

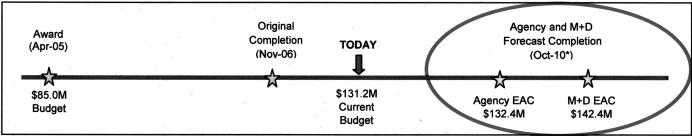
- Budget
- Risk Management
- Commissioning
- Customer Impact
- Quality

## **December 2009 CPOC Report**

## **MTACC No. 7 Subway Extension**

# Extended Preliminary Engineering and Final Design (C26501)

Progress: 74%



<sup>\*</sup> Design completion only, construction support services to continue to end of construction

#### **Approved Scope:**

The scope of work for the final design includes the completion of the design work for the civil/structural work at the running tunnels, 34<sup>th</sup> Street Station and the ancillary structures and facilities. It also includes the finish-out work at the 34<sup>th</sup> Street Station and the project-wide systems work. The design scope is currently split into seven design contracts.

#### **Scope Modifications:**

The civil/structural, finish-out and systems design work for the Tenth Avenue Station was removed from the original design scope and the design for the additional ventilation facility at Site L was added to the design scope. In addition, design work for tunnel inverts and benches and Site J support of excavation was packaged as two major additional work orders (AWO) to be added to Construction Contract 1.

#### Areas of Concern (♥):

Schedule: The integrated project schedule shows a final design completion on October 7, 2010, which is in line with the completion date shown in the Repackaging Arrangement Design Milestones Table (Revision 10 of June 2009) issued by the designer. However, there is already pressure on design elements for Site J, the future main entrance to the 34<sup>th</sup> Street Station, and Site L, the location of a ventilation facility. These design elements have to be completed in time to allow facilitating the negotiations of AWOs with the contractor of Construction Contract 1 and the procurement of subsequent contracts concerning work at these locations. This work is near the critical path of the project and any delay in the design of the packages could negatively impact subsequent work and the planned Revenue Service Date. McKissack+Delcan recommend the project team focus on tightly managing the design packages for AWOs and the first contracts to follow Construction Contract to preserve the current integrated project schedule and Revenue Service Date.

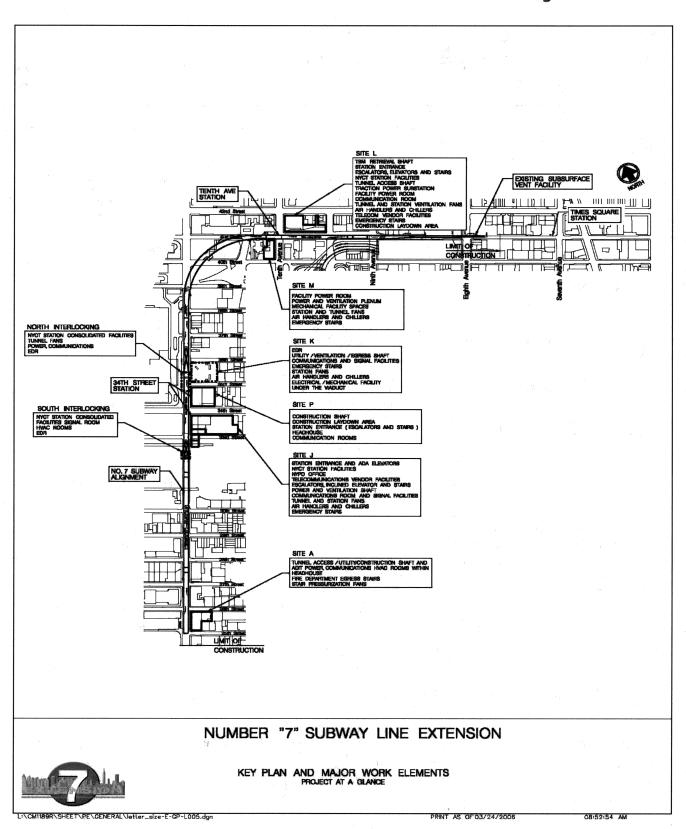
#### **Agency Comments:**

MTACC is currently managing these efforts in an aggressive fashion.

- Budget
- Project Management
- Risk Management
- Commissioning

- Customer Impact
- Quality

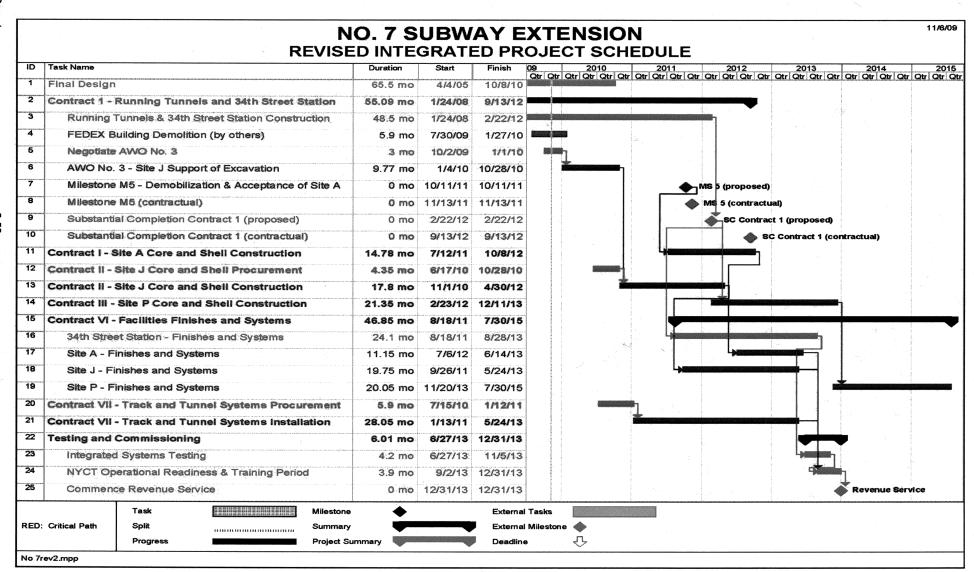
# **MTACC No. 7 Subway Extension**



MCKISSACK+DELCAN
MTA Independent Engineer

Status as of November 2009

# December 2009 CPOC Report MTACC No. 7 Subway Extension



MCKISSACK+DELCAN MTA Independent Engineer

Status as of November 2009

# October 2009 CPOC Report Appendix: MTACC No. 7 Subway Extension

Current Project Components (as of Octob	×1			Buc	lget	Schedule							
Description (Agency project number)	Organization	Completion (%)	Budget at Award <sup>4</sup> (\$M)	Current Working Budget	Contingency Committed (%)	Agency EAC (\$M)	M+D IEC EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Forecast Completion	Schedule Index
DESIGN								200	Design Award		Design	Complete	
EIS and Preliminary Engineering	NYC Transit/PB	100	53.0	53.0	NA	52.6	52.6	99	Sep-02	Apr-05(A)	Apr-05(A)	Apr-05(A)	100
Extended Preliminary Engineering and Final Design (C 26501)	NYC Transit/PB	74	85.0	131.2	NA	132.4	142.4 <sup>2</sup>	156	Apr-05	Nov-06	Oct-10	Oct-10	348
Total Design		81	138.0	184.2	· NA	185.0	195.0	134	Sep-02	Nov-06	Oct-10	Oct-10	194
CONSTRUCTION MANAGEMENT			nan i						CM Award		см с	omplete	
Consultant Construction Management	Hill/Liro/HDR	23	NA	35.8	NA .	37.2	TBD	104 <sup>3</sup>	Mar-07	Oct-13	Jul-15	TBD	127
In-house Construction Administration	MTACC/ NYC Transit	34	NA	15.4 <sup>1</sup>	NA	14.2	TBD	92 <sup>3</sup>	Dec-07	Sep-12 <sup>1</sup>	Feb-12	Sep-12	88
Other Consultants	NA	10	NA NA	0.5 <sup>1</sup>	NA	3.2	3.2	640 <sup>3</sup>	Dec-07	Sep-12 <sup>1</sup>	Feb-12	Sep-12	88
Total Construction Management	26	60.0	51.7	NA	54.6	TBD	106³	Mar-07	Oct-13	Jul-15	TBD	127	
TA LABOR & OTHER SOFT COST									Other Award		Other (	Complete	
TA Labor	NYC Transit	10	NA	4.7 <sup>1</sup>	NA	4.7	TBD	100 <sup>3</sup>	Dec-07	Sep-12 <sup>1</sup>	Feb-12	Sep-12	88
Outside Agencies and Other	LIRR/PANYNJ/ Amtrak	53	NA	3.0 <sup>1</sup>	NA	3.0	TBD	100 <sup>3</sup>	Dec-07	Sep-12 <sup>1</sup>	Feb-12	Sep-12	88
Support for Remaining Work	NA	0	NA ·	22.3	NA	22.3	TBD	NA	Oct-10	Nov-13	Jul-15	TBD	151
Total TA Labor and Other Soft Costs		7	35.0	30.0	NA	30.0	TBD	100 <sup>3</sup>	Dec-07	Dec-13	Jul-15	TBD	125
CONSTRUCTION									Constr. Award		Constructi	on Complete	
Running Tunnels and 34 <sup>th</sup> Street Station (Contract 1 – C 26503)	\$311	57	1,214.0	1,202.2	-4.4%	1,202.2	1,202.2	99	Dec-07	Sep-12	Feb-12	Sep-12	88
Remaining Construction Contracts (Contracts 2 - 8)	TBD	0	606.0	636.8	NA	636.8	TBD	105	Nov-10	Nov-13	Jul-15	TBD	157
Total Construction		37	1,820.0	1,839.0	NA	1,839.0	TBD	101	Dec-07	Nov-13	Jul-15	TBD	127
RESERVE		0	100.0	48.1	NA	44.4	TBD	NA					
TOTAL PROJECT		39	2,153.0	2,153.0	NA	2,153.0	TBD	100	Sep-02	Dec-13	Jul-15	TBD	114

# October 2009 CPOC Report Appendix: MTACC No. 7 Subway Extension

#### TABLE NOTES

Cost Index = Agency EAC / Budget at Award
Schedule Index = (Agency Forecast Completion - Start Date) / (Original Completion - Start Date)
Completion = Expenditures as per PSR

(A) = Actual Value

#### NUMBERED NOTES

- (1) Covers Construction Contract No.1 only
- (2) Includes additional \$10M for construction support services
- (3) Calculated from current working budget
- (4) Budget at Award is budget established in November 2006.

## **December 2009 CPOC Report**

### **Reconstructed Cortlandt Street Station**

(Project to be funded, designed, constructed and managed by PANYNJ)

#### **Project Description:**

The Reconstructed Cortlandt Street Station will be located at the existing Broadway-7<sup>th</sup> Avenue Line Cortlandt Street Station site at Greenwich Street between Vesey and Liberty Streets in Lower Manhattan. The station is being redesigned and reconstructed to integrate with the new World Trade Center (WTC). This integration will include space planning refinements to fully coordinate required station program elements with the space-planning needs of the WTC Stakeholders, as well as coordination with the on-going design for the underpinning structures to support the station.

In McKissack+Delcan's opinion, these project components are currently demonstrating	Phase % Phase Complete	
notable success:	Pnase	Complete
NA	· ·	

In McKissack+Delcan's opinion, these project components are currently proceeding in	Phase	% Phase
a satisfactory manner:		Complete
Cortlandt Street Station	Design	0%

In McKissack+Delcan's opinion, these project components currently have one or more areas of concern:	% Phase Complete
NA .	

A summary of budget and schedule status for the contracts included in this project follow in the Appendix.

#### **Discussion:**

This project has several aspects that warrant comment:

■ Project Management: A Memorandum of Understanding (MOU) between the Metropolitan Transportation Authority and the Port Authority of New York and New Jersey (PANYNJ) is being developed to outline responsibilities going forward for the design and construction of the Reconstructed Cortlandt Street Subway Station. It is expected that the PANYNJ will assume responsibility to fund (up to \$150M), manage and implement the design and construction of this station. The station will be designed to NYC Transit specifications and standards and, it will be operated and maintained by NYC Transit.

Currently on behalf of the MTA organization the Reconstructed Cortlandt Street Subway Station project is managed by MTACC staff which, based on their previous experience with the PANYNJ on MTACC projects, is appropriate during negotiations and completion of the MOU. But upon completion of the MOU and before preliminary design begins, McKissack+Delcan recommends that NYC Transit, the ultimate user agency, is better suited to manage the project under their Stations Program.

**Agency:** (pending)

**Design Performance** 

On target: NA

Total: NA

**Procurement Performance** 

On target: NA

Total: NA

**Construction Performance** 

On target: NA

Total: NA

McKissack+Delcan Team:

Amy Laurence – Project Manager James Castle – Sr. Project Manager

## **December 2009 CPOC Report**

#### **Reconstructed Cortlandt Street Station**

(Project to be funded, designed, constructed and managed by PANYNJ)

#### **Agency Comments:**

MTACC's President will confer with the new NYCT President on the best way to proceed with the management of this project.

- Scope, Schedule & Budget: Scope, schedule and budget commitments for contracts included in this project are still being developed and therefore, as noted on the previous page, the performance scores in the box to the right are not available (NA). The draft MOU and an agreed upon scope, schedule and budget for the project are currently under review by PANYNJ. Although no completion date has been formally established, the current draft MOU states that the PANYNJ shall make its best effort to complete the station reconstruction prior to or coincident with the scheduled opening of the WTC Transportation Hub in 2015.
- Funding: In addition to the MOU, the MTACC and PANYNJ have drafted a letter of agreement for PANYNJ funding of the Station. The agreement states, in part, that the PANYNJ has committed to funding the project with a budget of up to \$150M as authorized by the PANYNJ Board on March 5, 2009. The \$150M budget is expected to include all NYC Transit support services including engineering force account and design review services. As a consideration for this funding, MTACC and PANYNJ developed an access agreement that will provide PANYNJ both access and a leased area for the installation of three caissons with 4'-0' diameter structural columns at the NYC Transit WTC E line Station platform. These are required for the construction of WTC Tower 2 at 200 Greenwich Street. The MTA Board approved the Sublease and License Agreement for these columns at its July 2009 Meeting.
- Risk Management: MTACC and NYC Transit have raised a concern to the PANYNJ about the structural integrity of the No. 1 line box at the WTC site. Both vertical and lateral movement of the box has been detected, apparently a result of the PANYNJ's underpinning and adjacent structural work. The PANYNJ has now installed sensing equipment on the box to monitor any movement and forwards daily readings on current conditions to MTACC/NYC Transit. PANYNJ performed a comprehensive survey of current conditions, prepared and submitted a report and provided data to the MTACC that is currently being analyzed in order to coordinate design of the track realignment. After the MTACC has completed its review, remediation methods will be discussed. It is McKissack+Delcan's opinion that appropriate measures are being taken by both MTACC/NYC Transit and PANYNJ to ensure that the No. 1 line box's structural integrity is not compromised.

# December 2009 CPOC Report Appendix: Reconstructed Cortlandt Street Station

Current Project Components:		1.5			Budget								Schedule					
Description (Agency project number)	Designer	Contractor	Completion	Capital Plan Approved Budget (\$M)	Budget at Constr. Award (\$M)	Current Approved Budget	Contingency Committed (%)	Agency EAC (\$M)	Change Orders (neg.& pend'g) (\$M)	Trend to Completion EAC (\$M)	Trended EAC (\$M)	Cost Index	Start Date	Original Completion	Agency Forecast Completion	M+D Foreca st Compl etion	Sched. Index	
DESIGN						100							Design Award		Design Co	mplete		
Cortlandt Street Station	DDP	N/A	N/A	(1)		(1)	N/A	N/A			N/A	N/A	(2)		(2)			
PROCUREMENT													Design Complete		Constr. A	ward		
NONE																		
CONSTRUCTION													Constr. Award		Constr. Co	mplete		
NONE								·										

#### **TABLE NOTES:**

Cost Index = Agency EAC/Current Approved Budget

Schedule Index = (Current Approved Completion-Start Date) / (Originally Approved Completion-Start Date)

#### NUMBERED NOTES:

(1) The PANYNJ has committed to funding the project budget up to \$150M, as authorized by the Port Authority Board at their March 5, 2009 meeting. This funding is contingent upon the Federal Transit Administration (FTA) transfer of existing federal funding of \$70M that is currently assigned to the Cortlandt Street Station project from MTA to the Port Authority. As a result the Port Authority's net contribution to the project will be \$80M. The project budget is expected to include all costs to support the design and reconstruction, including NYCT engineering force account support and design review costs.

As a consideration for this funding, MTACC and PANYNJ are developing an access agreement that will provide PANYNJ access and leased area for the installation of three caissons with 4'-0'' diameter structural columns at the NYC Transit WTC E Train Station platform that are required for the construction of WTC Tower 2 at 200 Greenwich Street. The MTA Board approved the Sublease and License Agreement for these columns at its July 2009 Meeting.

(2) MTACC is still working with PANYNJ to finalize the MOU along with an agreed upon scope, schedule and budget for the project.