



KEY - METRO RAIL SYSTEM

- Metro Blue Line
- Metro Pasadena Blue Line
- Metro Green Line
- Metro Red Line Segment 1
- Metro Red Line Segment 2
- Metro Red Line Segment 3

RAIL PROGRAM STATUS SUMMARY

**THE LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
METRO CONSTRUCTION DIVISION**

MARCH 1997

RAIL PROGRAM SUMMARY

METRO PASADENA BLUE LINE

Cost Status

Current Budget \$803,868,000

- There were no changes to the Current Budget during the period.

Schedule Status

Current Plan May 2001

	Design Progress	Construction Progress
Plan	100.0%	13.1%
Actual	80.3%	9.5%

- The construction variance is due to delays in finalizing work scope definition and delays in the start of final design.

Safety Status

Lost Time Rate

Lost Work Days

Project Rate

0.0

0.0

National Average

4.2

148.1

- The project is incurring 13,000 work hours per month with no Lost Time injuries.

Areas of Concern

- The EMC is developing a recovery plan to mitigate the projected schedule slip.

Monthly Highlights

- Continued final design of C6450 Del Mar to Memorial Park Line Segment.
- Continued negotiations with Section Designer for C6420 LA River Bridge to Arroyo Seco Line Segment and C6450 Del Mar to Memorial Park Line Segment.
- Continued to support cash flow and funding special studies.

METRO RED LINE SEGMENT 2

Cost Status

Current Budget \$1,640,800,000

- There were no changes to the Current Budget during the period.

Schedule Status

	Design Progress	Construction Progress
Plan	95.0%	92.0%
Actual	96.1%	85.0%

Wilshire Corridor - Revenue operations date - July 13, 1996

Vermont/Hollywood - Current Plan Dec 1998

- Mitigation efforts continue for the 8610 and 8620 contracts.

Safety Status

Lost Time Rate

Lost Work Days

Project Rate

2.5

71.5

National Average

4.2

148.1

- The project completed 169,000 work hours with one Lost Time injury.

Areas of Concern

- The low-level of remaining unallocated contingency raises concerns that the forecast will exceed the current project budget.

Monthly Highlights

- The 8610 Trackwork contractor continued form and rebar installation for the Vermont tunnel.
- The 8620 Automatic Train Control installation contractor continued limited work in the tunnel and station areas in preparation for formal access.
- The 8740/745 Air Handling/Ventilation contractors began installation at the first station.

METRO RED LINE SEGMENT 3 NORTH HOLLYWOOD EXTENSION

Cost Status

Current Budget \$1,313,848,000

- There were no changes to the Current Budget during the period.

Schedule Status

Current Plan May 2000

Design Progress

Plan 93.5%

Actual 93.1%

Construction Progress

38.0%

38.0%

- Overall construction progress is equal to the revised baseline plan.

Safety Status**Project Rate****National Average**

Lost Time Rate

1.6

4.2

Lost Work Days

25.6

148.1

- The project has completed 2,886,712 work hours with nine Lost Time Injuries.

Areas of Concern

- The unknown risks associated with the C0311 tunnels remains a concern. TBM production rates for running tunnel excavation on C0311 are lower than those in the baseline schedule. Six mitigation options were identified to improve production and mitigate potential delays.

Monthly Highlights

- Schedule mitigation efforts for Trackwork Installation, Automatic Train Control, SCADA, and Integration Testing and Start-up continued.

METRO RED LINE SEGMENT 3 MID-CITY EXTENSION

Cost Status

Current Budget \$682,731,000

- The Current Budget reflects the Rail Recovery Plan as approved by the MTA Board.

Schedule Status

Current Plan July 2009

Design Progress

Plan

0%

Construction Progress

0%

Actual

0%

0%

- The Current Plan reflects a revised ROD of July 2009 approved by the MTA Board.

Safety Status**Project Rate****National Average**

Lost Time Rate

N/A

4.2

Lost Work Days

N/A

148.1

- No Construction Safety activity during the period.

Areas of Concern

- Finalization of the Mid-City cost estimate and master schedule.

Monthly Highlights

- Developed plans for a panel of tunnel and construction experts to address the community on tunneling and construction issues.
- Continued community outreach activities through meetings with various homeowner groups, and local Chamber of Commerce groups.
- Ultrasystems Environmental, Inc., incorporated the Wilton/Arlington and Crenshaw alignment alternatives in the draft SEIS/SEIR document.

METRO RED SEGMENT 3 EAST SIDE EXTENSION

Cost Status

Current Budget \$1,049,200,000

- There were no changes to the Current Budget during the period.

Schedule Status

Current Plan November 2004

Design Progress

Plan 69.0%

Actual 65.3%

Construction Progress

0.0%

0.0%

- The Current Plan reflects a revised ROD of November 2004 approved by the MTA Board.

Safety Status

Lost Time Rate

Lost Work Days

Project Rate

N/A

N/A

National Average

4.2

148.1

- No Construction Safety activity for this period.

Areas of Concern

- MTA approval of RFC's for C0502 which will have a direct impact on the camera ready date and NTP for construction.

Monthly Highlights

- The EMC submitted Amendment #11 to the MTA for continuation of Final Design Services.
- EMC Quality Management performed a review of C0551 and C0502 Section Designers.
- The EMC received 17 sub-surface and building protection easements for C0541 and 26 sub-surface and building protection easements for C0502.

VEHICLE ACQUISITION PROJECT

Cost Status

Current Budget \$257,597,000

- There were no changes to the Current Budget during the period.

Schedule Status

Schedule Car Delivery

1st Car April 1998

52nd Car June 1999

Design Progress

90%

Fabrication Progress

35%

Areas of Concern

- The current schedule reflects 18 months delay in first car deliveries due to equipment and manufacturing problems.
- TransEd's (TEI) lack of progress in the development of the Repair and Parts manuals and the Vehicle Training Program.

Monthly Highlights

- Carsheil No. 3 was completed and shipped to Sacramento for final assembly.
- Carsheils No. 9, 10, and 11, are scheduled for shipment in April.
- The assembly of eight cars progressed at the Sacramento facility.

TOTAL RAIL PROGRAM
BUDGET/FORECAST VARIANCE
ORIGINAL SCOPE (IN MILLIONS)

STATUS DATE: 03/28/97

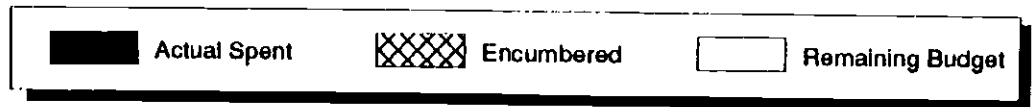
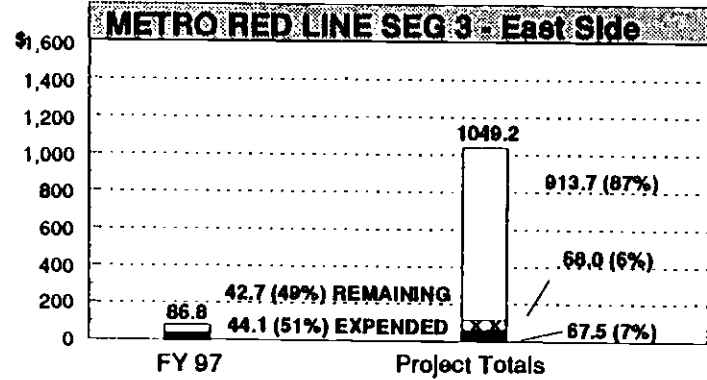
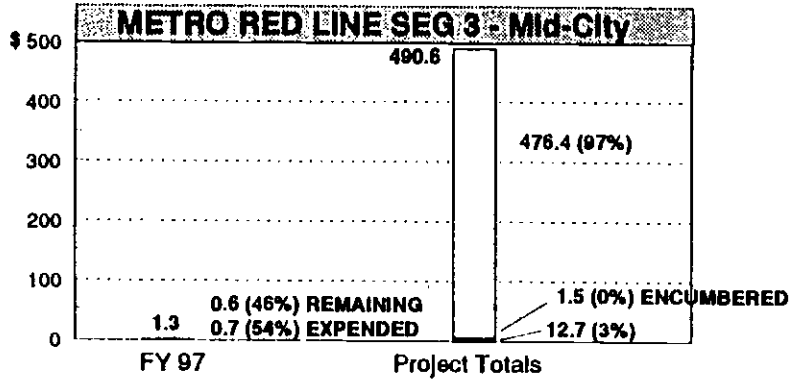
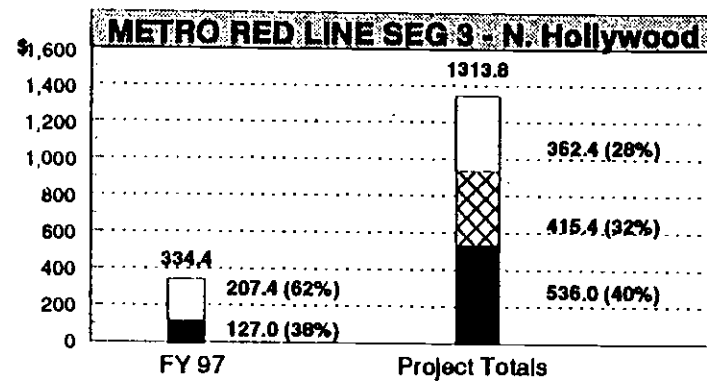
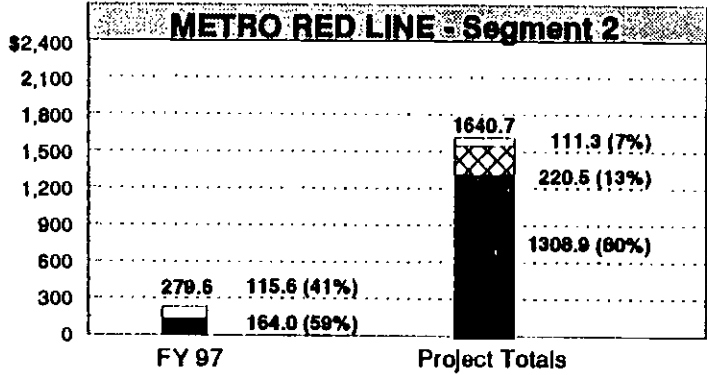
COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	BUDGET/ FORECAST VARIANCE	MARCH CHANGE IN FORECAST
CONSTRUCTION	\$5,397.6	\$5,400.7	3.1	\$54.5
PROFESSIONAL SERVICES	2129.2	2262.4	133.2	13.2
REAL ESTATE	549.1	531.7	-17.4	0.2
UTILITY/AGENCY FORCE ACCOUNTS	170.4	174.3	3.9	-1.1 0.0
SPECIAL PROGRAMS	16.8	17.7	0.9	-0.8
CONTINGENCY	307.4	315.3	7.9	-72.6
PROJECT REVENUE	-37.3	-33.1	4.2	0.0
TOTAL PROJECT	\$8,533.2	\$8,669.0	\$135.8	\$0.0

ADDITIONAL LOCALLY FUNDED ACTIVITIES

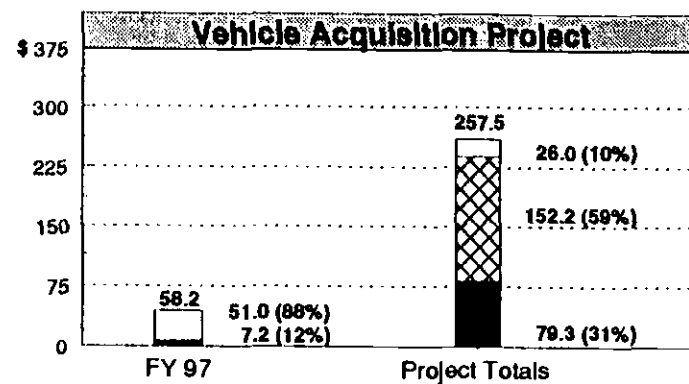
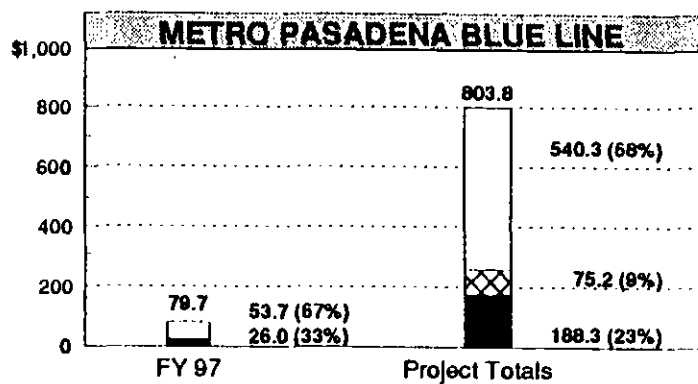
COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	BUDGET/ FORECAST VARIANCE	MARCH CHANGE IN FORECAST
CONSTRUCTION	\$49.2	\$59.7	10.5	(\$0.1)
PROFESSIONAL SERVICES	17.5	17.7	0.2	0.0
REAL ESTATE	0.0	0.0	0.0	0.0
UTILITY/AGENCY FORCE ACCOUNTS	0.0	0.0	0.0	0.0
SPECIAL PROGRAMS	0.0	3.1	3.1	0.0
CONTINGENCY	0.4	0.0	-0.4	0.0
PROJECT REVENUE	1.1	-10.2	-11.3	0.1
TOTAL ADDITIONAL LOCALLY FUNDED ACTIVITIES	\$68.2	\$70.3	\$2.1	\$0.0

* The Mid-City budget reflects the current baseline of \$491 million pending project adoption.

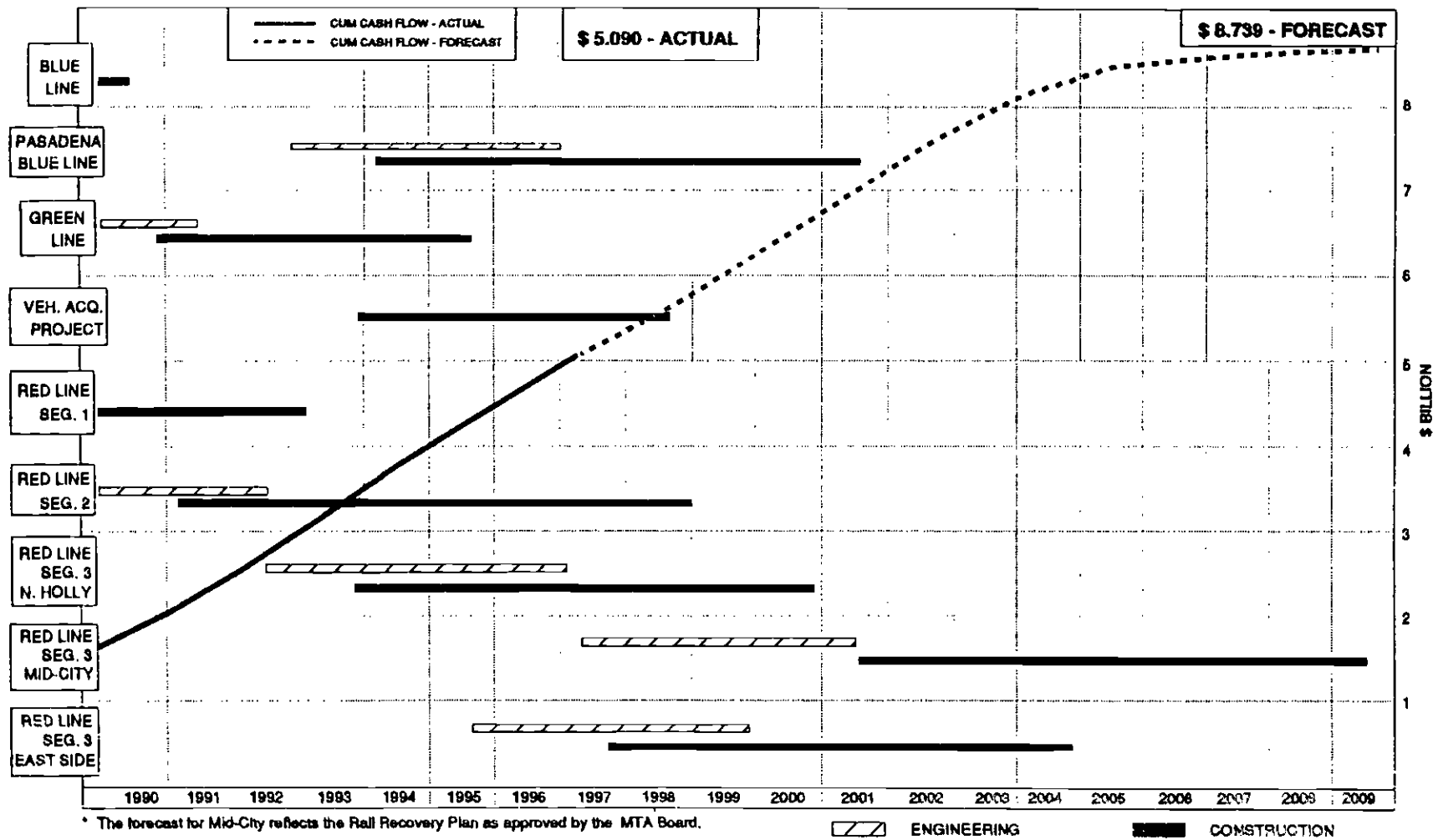
BUDGET STATUS - March 28, 1997
(in \$ Millions)



BUDGET STATUS - March 28, 1997
(In \$ Millions)



Actual Spent
 Encumbered
 Remaining Budget

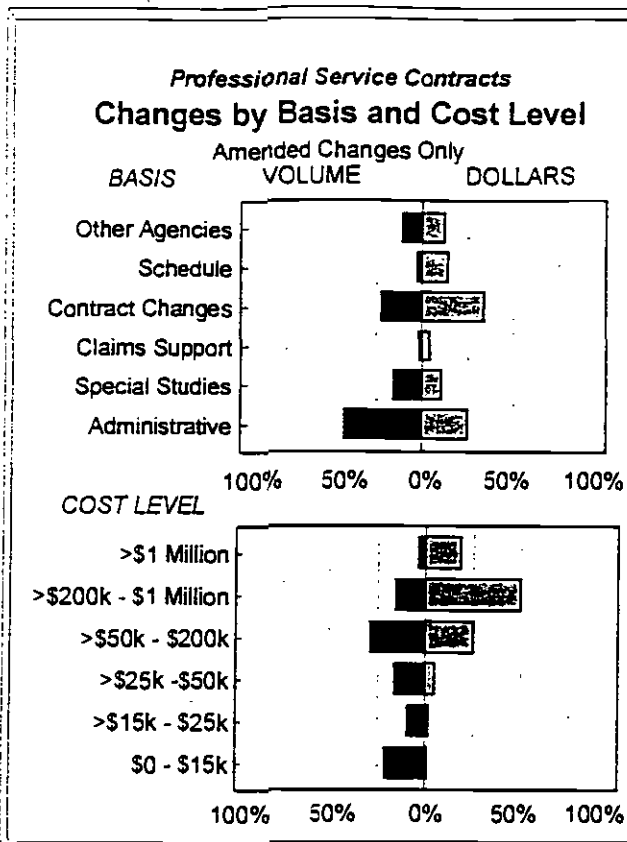


**METROPOLITAN TRANSPORTATION AUTHORITY
FUNDING SOURCES (IN MILLIONS)**

MARCH 1997

	METRO BLUE LINE		PASADENA BLUE LINE		METRO GREEN LINE		METRO RED SEGMENT 1		METRO RED SEGMENT 2		METRO RED SEGMENT 3 - NH		METRO RED ** SEGMENT 3 - MC		METRO RED SEGMENT 3 - ES		VEHICLE ACQ. PROJECT		TOTAL PROGRAM	
	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%	\$	%
ORIGINAL SCOPE:																				
FTA-SECTION 3							605.3	42	667.0	40	681.0	52	242.6	48	492.9	47			2688.8	32
FTA - OTHER																				
ISTEA - FED SURFACE TRANSIT PROG									52.1	3	50.0	4			25.0	1	84.0	33	211.1	3
FED-ISTEA RSTP/CMAQ											67.9	5	20.4	1	288.6	28	6.1	2	383.0	2
FTA-SECTION 9							90.6	6											90.6	1
STATE			387.8	48	105.9	15	210.3	15	133.0	8	85.0	6	90.0	14	15.0	1	33.5	13	1060.5	12
STATE TSM MATCH											8.8	1	2.6	1	37.4	4			48.8	0
SB 1995 TRUST FUND											75.0	6							75.0	1
PROPOSITION A	877.2	100	202.6	25	205.1	29	179.5	12	540.5	31									2004.9	23
PROPOSITION C			213.5	27	395.3	55					138.9	11	327.3	36	181.0	18	134.0	52	1390.0	16
PROP C (AMERICAN DISABILITY ACT)					6.0	1													6.0	0
CITY OF LOS ANGELES							34.0	2	157.5	10	190.7	14			9.3	1			391.5	5
BENEFIT ASSESSMENT							130.3	9	25.4	4	13.5	1							169.2	2
COST OVERRUN ACCOUNT							200.1	14											200.1	2
TOTAL	877.2	100	803.9	100	712.3	100	1450.1	100	1575.5	96	1310.8	100	682.9	100	1049.2	100	257.8	100	8719.5	99
ADDITIONAL LOCALLY FUNDED ACTIVITIES:																				
PROP C (TRANSIT ENHANCEMENTS)									62.7	4	2.7	0							65.4	1
FED ISTEA RSTP/CMAQ									2.5	0									2.5	0
TOTAL									65.2	4	2.7	0							67.9	1

** The Mid-City budget reflects the Rail Recovery Plan as approved by the MTA Board.

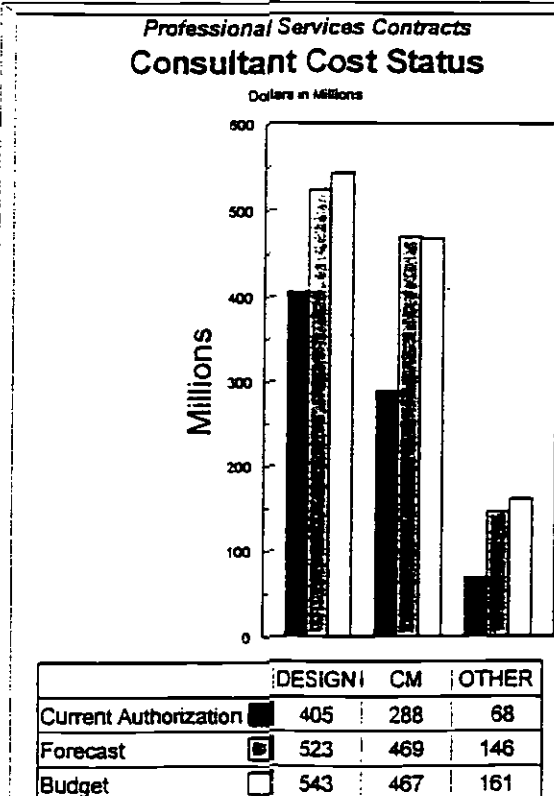
**CHANGE BASIS ANALYSIS**

Administrative changes account for approximately 43% or 329 of the 768 Consultant Change Notices overall. Administrative changes include capital equipment, facilities and extra work requested by the MTA. This represents approximately 25% of the overall change cost of amended changes.

CHANGE COST LEVEL ANALYSIS

As shown on the Cost Level Analysis chart opposite, the MTA Board approves 68% of all change costs associated with the Rail Project or \$65.8M of a total change cost of \$97.2M. This equals 21% of the total change volume or 161 of 768 total changes.

Note: Data for Basis and Cost charts includes only MTA Board amended changes.

**PROFESSIONAL SERVICES COST ANALYSIS**

Categories represent all professional services contracts, not individual contracts (i.e. "design" includes all line 11 contracts not just EMC).

The forecast cost for design and other consultant contracts is below the current budget. While the forecast for construction management contracts continues to slightly exceed the budget amount, due to delays in project activities on the Metro Red Line Eastside Extension and Pasadena Blue Line

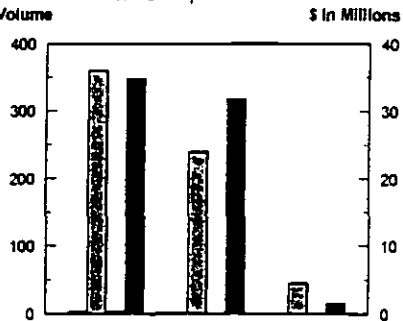
Data Source:

CMS: Consultant Contract Authorization, Forecast and Budget Values.

CHNGSAMP00387

Professional Service Contracts Amendment History

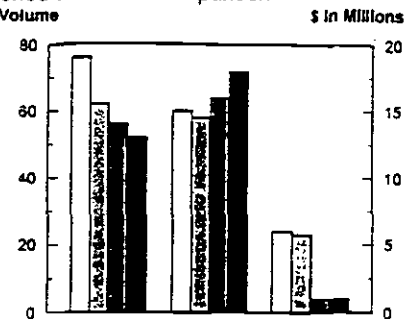
Period to Total Comparison
Volume



	EMC	CM	OTHER
# This Period <input type="checkbox"/>	3.0	0.0	0.0
# Previous <input checked="" type="checkbox"/>	359.0	239.0	45.0
\$ This Period <input type="checkbox"/>	0.3	0.0	0.0
\$ Previous <input checked="" type="checkbox"/>	34.8	31.7	1.5

All - Professional Service Contracts Pending Consultant Changes

Period to Period Comparison
Volume



	EMC	CM	OTHER
# This Period <input type="checkbox"/>	76	60	24
# Previous <input checked="" type="checkbox"/>	62	58	23
\$ This Period <input type="checkbox"/>	14	16	1
\$ Previous <input checked="" type="checkbox"/>	13	18	1

CONSULTANT CHANGE NOTICE ANALYSIS

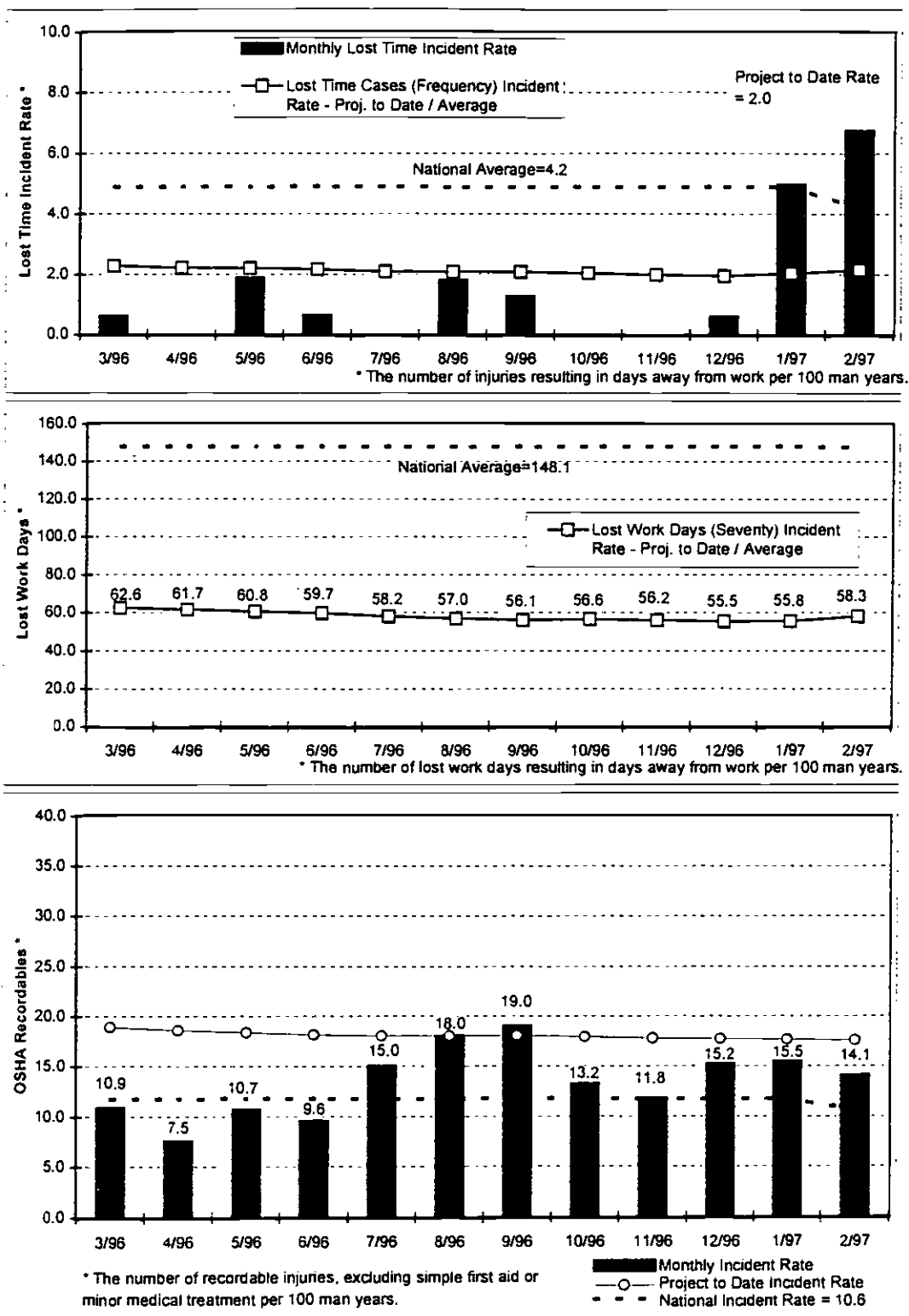
Sixteen new Requests for Change (RFC's) were received during the period with an estimated value of \$4.8 million.

Thirty-nine new Consultant Change Notices (CCN's) were assigned or issued during the period with an estimated value of \$5.8 million.

Three CCN's were approved for amendment by the MTA Board during the period with an estimated value of \$300 thousand.

Six CCN's, which had an estimated value of \$1.4 million, were canceled or withdrawn during the period.

Safety Summary Status



METRO PASADENA BLUE LINE

EXECUTIVE SUMMARY

METRO PASADENA BLUE LINE

Summary Status Report

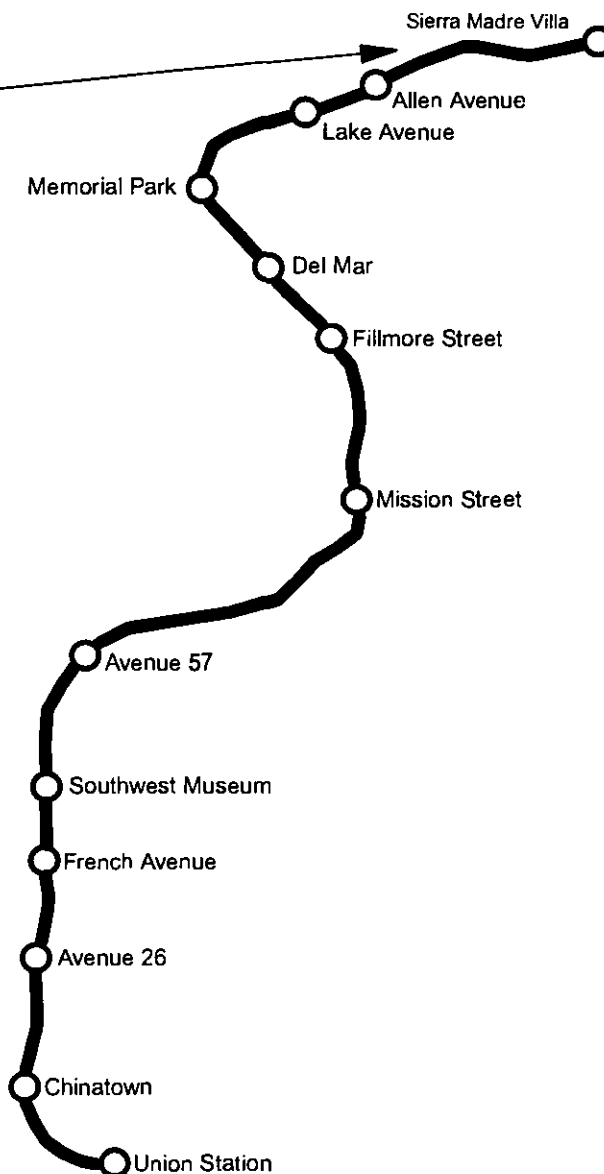
Period Ending - March 28, 1997



MAJOR ACTIVITIES THIS PERIOD

C6435 - Reconstruction & Retrofit of Steel & Concrete Bridges

- Lake Ave.: Completed the backfill operation behind the backwalls; completed concrete placement for the closure between the new and existing girders at the overcrossing. Installed miscellaneous metals for the concrete barrier walls. Began installation of conduits for the utilities in the sidewalk.
- Allen Ave.: Completed drilling and concrete placement for sixty-two (62) CIDH piles for the retaining walls at Abutment 1. Completed the placement of concrete for Abutment 3 footing. Began installation of reinforcement for Abutment 1 footing.
- Arroyo Seco Bridge: Completed concrete placement for the catch blocks. Completed torquing bolts and performed a final check of the catch plates at the piers and the abutments. Finalized the removal of K-rails as part of the traffic control plan.
- Lacy St. Bridge: Fabrication of span 4 is in progress and was inspected by the QA Manager.
- Fremont Ave.: Completed excavation for the grade beams at the abutments. Activities in progress are: layout of the catch plates at the pier; cables at the abutments; and high strength bolts at the concrete girders.



SYSTEMWIDE ACTIVITIES

- Continued final design for Contract C6450, Del Mar to Memorial Park Line Segment.
- Continue to negotiate with Section Designers for Contracts C6420, L.A. River to Arroyo Seco Line Segment, and C6450, Del Mar to Memorial Park Line Segment.
- Continue to support cash flow and funding special studies.
- Project records for Contract C6410, L.A. River Bridge, were transferred in early March to Records Management Center (RMC) for archiving.
- Two change notices were executed into change orders this period for close-out Contract C6430.

METRO PASADENA BLUE LINE

Summary Status Report

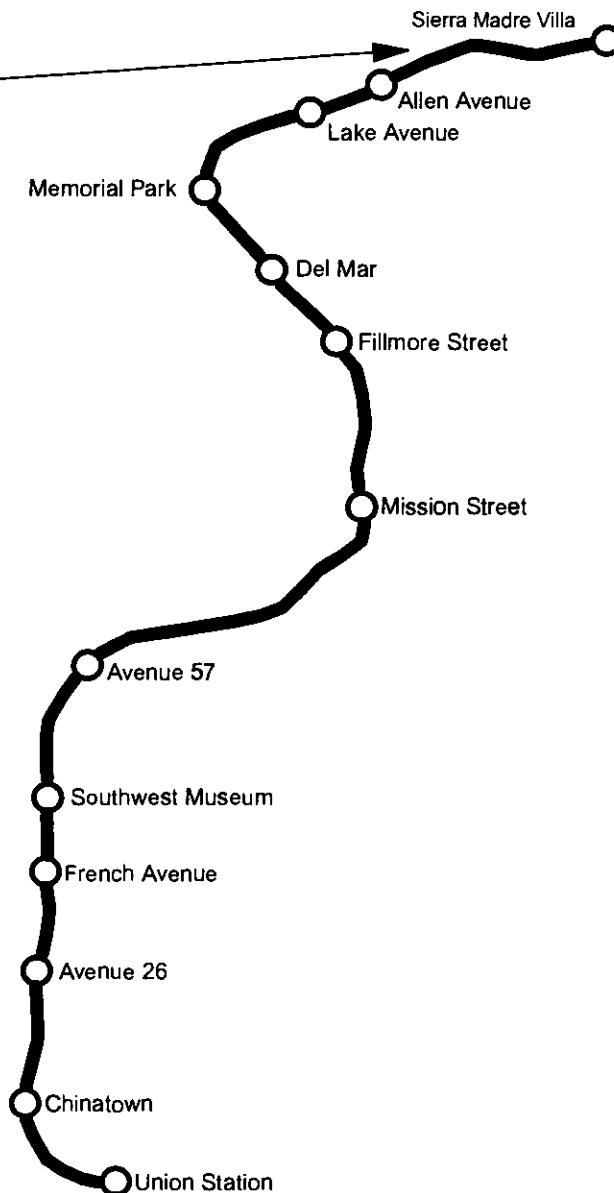
Period Ending - March 28, 1997



MAJOR ACTIVITIES NEXT PERIOD

C6435 - Reconstruction & Retrofit of Steel & Concrete Bridges

- Lake Ave.: Begin construction of the concrete barrier and sidewalk. Install the metal railing and metal plates for pilasters on the concrete barrier. Complete installation of electrical conduits for the utilities in the sidewalk at Stage 1. Begin demolition of the specified overhang of the existing girder and erection of the new pre-cast girders at Stage 2.
- Allen Ave.: Complete concrete placement for the Abutment 1 footing.
- Fremont Ave Bridge: Continue reinforcement placement for the grade beams at the abutments. Continue installation of high strength bolts and cables at the existing girder; and the catch plates at the pier.
- Foothill Blvd. Bridge: Complete installation of sheet piles and excavation at Abutment 1 footing.
- Lacy St. Bridge: Begin installation of traffic control devices (advance construction signs, k-rails, delineators, etc.) as part of the traffic control plan.
- Continue paint all column casings at Lake Ave., Allen Ave., and Sierra Madre Blvd. Bridges.
- Begin erection of the falsework at Allen Ave. Bridge and Lake Ave., Stage 2.



SYSTEMWIDE ACTIVITIES

- Continue to support cash flow and funding special studies.
- Continue final design for Contract C6450, Del Mar to Memorial Park Line Segment.
- EMC to complete negotiation with Section Designers for Contracts C6420, L.A. River to Arroyo Seco Line Segment, and C6450, Del Mar to Memorial Park Line Segment.
- EMC to submit revised CWO 041 estimated costs of final design in preparation for final negotiations.
- Two change orders for close-out Contract C6430 will be presented to the MTA Board for approval.

METRO PASADENA BLUE LINE

Summary Status Report

Period Ending - March 28, 1997



FINANCIAL STATUS

Budget/Forecast Variance (\$ in millions)				
Original Scope Activities				
COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	VARIANCE	MARCH CHANGE IN FORECAST
CONSTRUCTION	\$430.3	\$434.2	\$3.9	\$2.2
PROFESSIONAL SERVICES	252.6	263.8	11.2	6.0
REAL ESTATE	59.4	55.5	(3.9)	0.0
UTILITY/FORCE ACCOUNT	13.5	13.3	(0.2)	(0.1)
SPECIAL PROGRAMS	2.2	2.2	0.0	0.0
CONTINGENCY	46.9	36.1	(10.8)	(8.1)
PROJECT REVENUE	(1.0)	(1.2)	(0.2)	0.0
TOTAL PROJECT	\$803.9	\$803.9	\$0.0	\$0.0

Additional Locally Funded Activities				
COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	VARIANCE	MARCH CHANGE IN FORECAST
CONSTRUCTION	\$0.0	\$1.2	\$1.2	\$0.0
PROFESSIONAL SERVICES	0.0	0.0	0.0	0.0
REAL ESTATE	0.0	0.0	0.0	0.0
UTILITY/FORCE ACCOUNT	0.0	0.0	0.0	0.0
SPECIAL PROGRAMS	0.0	0.0	0.0	0.0
CONTINGENCY	0.0	0.0	0.0	0.0
PROJECT REVENUE	0.0	0.0	0.0	0.0
TOTAL ADDITIONAL LOCALLY FUNDED ACTIVITIES	\$0.0	\$1.2	\$1.2	\$0.0

Budget/Forecast Variance Analysis

The Current Budget of \$803.9M is based on a May 2001 ROD and incorporates cost reduction items approved by the MTA Board in February 1996, as amended by staff and approved in the Board report submitted in June 1996.

The forecast was adjusted because delays addressed in the June 1996 Board report have continued, resulting in further delays to the start of final design. Therefore, the forecast is adjusted to reflect escalation and administration costs associated with additional potential delays.

These forecast changes were offset by decreases to several of the Project Cost Elements and the Project Contingency, resulting in no change to the Total Project Forecast.

Additional Locally Funded Activities (ALFA) are defined as work scope not covered under the original scope such as the repair of the fire damaged Lacy St. Bridge at Contract C6435. The cost associated with completing this work is \$1.2M, resulting in an overall Project Forecast of \$805.1M. Recovery from the liable party's insurance company is currently being pursued; with an insurance rebate anticipated to reduce or eliminate this potential overrun.

METRO PASADENA BLUE LINE

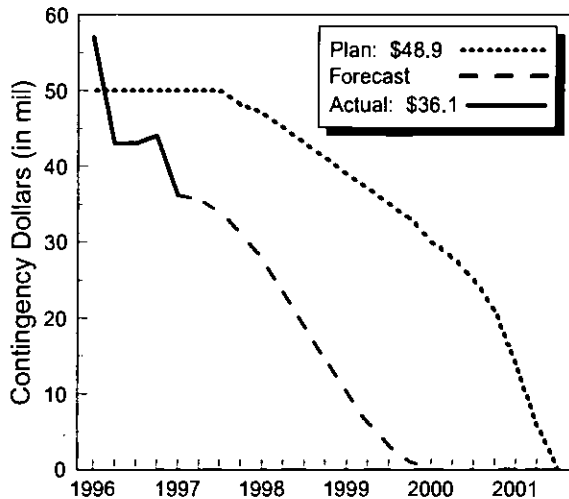
Summary Status Report

Period Ending - March 28, 1997



FINANCIAL STATUS

Contingency Status

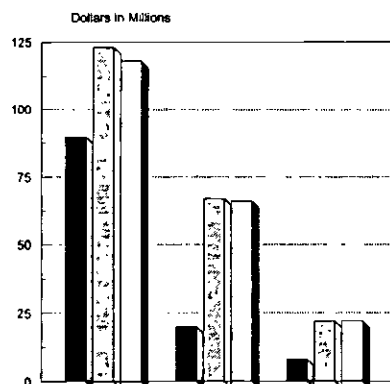


Contingency Status Analysis

The planned Project Contingency to date is \$48.9M while the actual is \$36.1M. The decrease of \$8.1M is due to the incorporation of escalation and administration costs associated with continuing delays to the ROD.

A more representative contingency would be \$52.3M based on 9% of the remaining escalated unexpended. However, for each month of additional negative float, a cost impact of \$2.5M to \$3.0M will be necessary to drawdown from Project Contingency to maintain the \$803.9M budget and forecast.

Professional Service Contracts Consultant Cost Status



	DESIGN	CM	OTHER
Current Authorization	90	20	8
Forecast	123	67	22
Budget	118	66	22

Professional Services Cost Analysis

The current Forecasts for all Professional Services are based on the project scope, schedule and budget approved by the MTA Board on February 28, 1996, as amended in the Board report submitted in June 1996.

The Professional Services forecast increased this period to reflect the delays in the commencement of the redesign efforts. Unless design durations are reduced, the forecast will continue to increase by \$0.8M to \$1.0M per month for additional delays to the ROD. This increase is for the level of effort required for EMC Project Management support, Design Support During Construction and construction management staff.

Design and construction durations are currently under review for further cost mitigation measures by Project Staff.

METRO PASADENA BLUE LINE

Summary Status Report

Period Ending - March 28, 1997



SCHEDULE STATUS

Schedule		Change from Last Month
Current R.O.D.	May 2001	None
Design Progress*	80.3%	None
Constr. Progress	9.5%	+0.2
Critical Path Float (Calendar Days)	-177 days	-28

*Based on original design work scope; design will be rebaselined pending an evaluation of design status, detailed definition of new work scope & preparation of an execution plan.

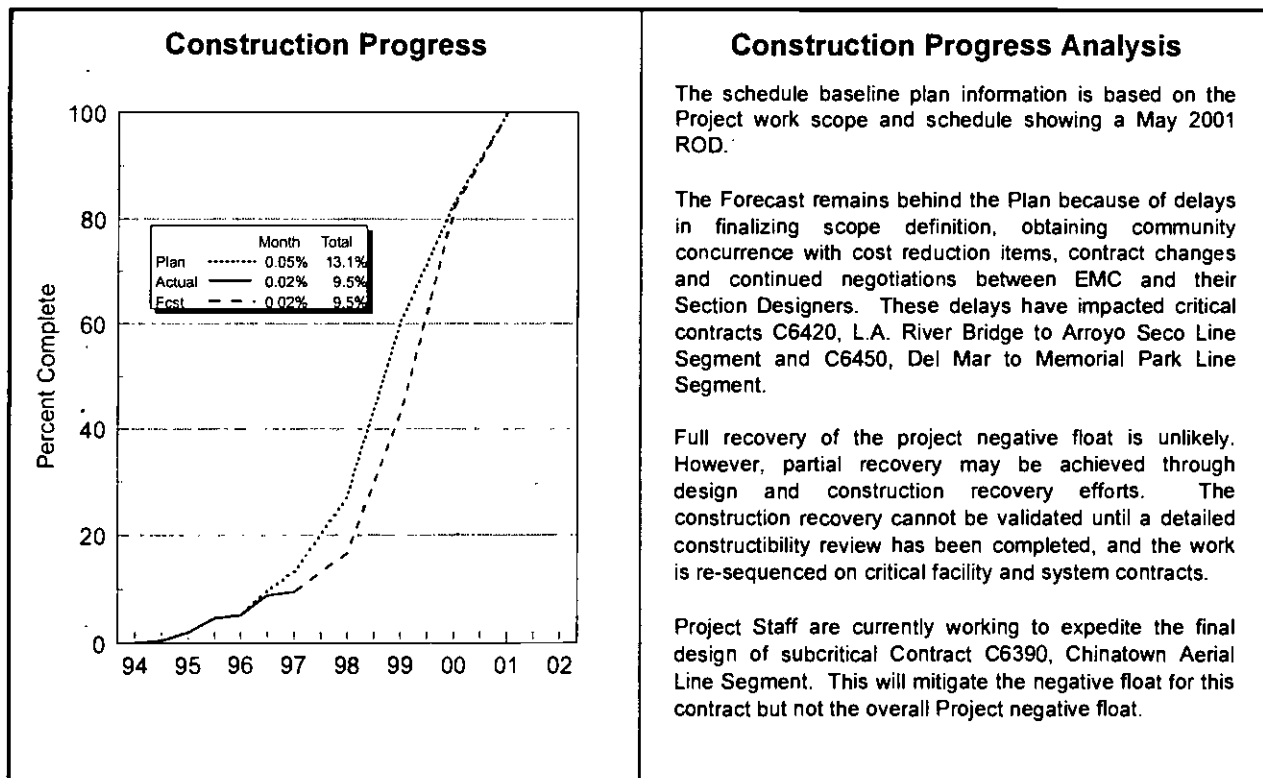
Current Critical Path Analysis

The schedule update for March shows 177 calendar days (CD) of negative float. The 28 day slippage reflects continued delay to the final design effort.

Final design is on the critical path; a phased approval process, whereby design packages are being submitted to the MTA Board based on criticality, was implemented in August and will continue through July 1997.

Final design of the most critical Contract C6450, Del Mar to Memorial Park Line Segment, continues on a limited basis due to the transfer of responsibility of design from EMC to the Section Designer. The start-up of final design on critical Contract C6420, L.A. River Bridge to Arroyo Seco Line Segment, is being delayed by the finalization of an agreement in defining the scope and contract terms with the Section Designer. This contract will be a Cost-Plus-Fixed-Fee (CPFF). A resolution was made in March to split subcritical Contract C6390, Chinatown Aerial Line Segment and Station, into two contracts (C6390, Chinatown Aerial Line Segment and C6391, Chinatown Station). The implementation of the contract split will mitigate the negative float of this package and reduce any potential risk to the ROD for these two contracts.

Final design recovery and construction re-sequencing is necessary to maintain viability of May 2001 ROD.



METRO PASADENA BLUE LINE
Summary Status Report
Period Ending - March 28, 1997



SAFETY STATUS / AREAS OF CONCERN

Construction Safety Statistics			Construction Safety Summary	
		Change from <u>Last Quarter</u>	<ul style="list-style-type: none">• The Project is producing 13,000 work hours per month and has continued with zero Lost Time Cases and no Lost Work Days.• To date, over 645,000 work hours were completed without a Lost Time Injury.• OSHA-200 incidence rate is approximately one third of the National Average of 10.6.• Statistics for "Lost Work Days" will not be reported in future reports due to the lack of National Average data.	
Recordable Injury Rate: The number of recorded injuries excluding simple first aid or minor medical treatment per 100 man years.				
1995 National Average	10.6			
Project Rate	3.7	+0.1		
Lost Time Incident Rate: The number of injuries resulting in days away from work per 100 man years.				
1995 National Average	4.2			
Project Rate	0.0	None		
Lost Work Days: The number of lost work days per 100 man years.				
1991 National Average	148.1			
Project Rate (Cum.)	0.0	None		
NOTE: Based on Dec. '96 thru Feb. '97 statistics.				

AREAS OF CONCERN

ONGOING

Item (Date Initiated: March 1996)

Start of Final Design

Concern/Impact

The current schedule shows -177 calendar days of negative float because final design has not begun as planned.

Status/Action

Final design production continues on a limited basis for C6450, Del Mar to Memorial Park Line Segment. Final design on the remainder of the projects has not started because the EMC is experiencing delays in mobilizing Section Designers. Completion of CWO negotiations, and agreement between EMC and section designers for C6420 and C6450 on scope and contract terms remains outstanding. The delays to the start of engineering may potentially impact the projected ROD with a corresponding impact to the Project Forecast for additional escalation and administrative cost. The EMC has been asked to submit a recovery plan to mitigate this projected schedule slip.

METRO PASADENA BLUE LINE

Summary Status Report

Period Ending - March 28, 1997



AREAS OF CONCERN (Con't)

ONGOING (Cont'd)

Item (Date Initiated: August 1996)

Real Estate Availability

Concern/Impact

In general, real estate availability is a concern to the extent that certain parcels may not be available to support the schedule for contracts on the critical path. The most critical real estate issues are related to:

Ratkovich Property: A parcel which is owned by the Federal Government and leased by Ratkovich Property is required for the Chinatown Aerial. This property may not be available in sufficient time to support the construction schedule. A resolution must be reached with Ratkovich because this parcel is not eligible for the condemnation process. In order to support the schedule, the property must be available by January 1998.

Certification of Parcels for Underpinning: Certification of parcels required for underpinning associated with Contract C6450, Del Mar to Memorial Park Line Segment, is required in order to obtain necessary easements for construction. To support the current construction schedule, these parcels must be available by January 1998.

Status/Action

In regards to the Ratkovich property, Project Staff submitted follow-up letters to Ratkovich requesting additional information concerning the lease on the property. Ratkovich's non-responsiveness has compelled the Real Estate Department to solicit the involvement of the U.S. Postal Service's Attorneys for the property agreement.

The parcels for underpinning were certified in mid-November 1996. The first meeting was held in February with the owners and tenants of the Pasadena Old Town buildings along the alignment requiring underpinning.

Item (Date Initiated: August 1996)

Community Concurrence With Design

Concern/Impact

Community concurrence with the Chinatown Station redesign and upgrades to Marmion Way between 50th and 58th Avenues remain outstanding. Issues relating to the canopy, platform, and plaza design remain to be resolved. These issues may delay the final design of the station and impact the schedule.

Status/Action

Chinatown Community concurrence with the station design concept was received in March 1997, allowing the preliminary design work to proceed.

Additional conceptual designs for Marmion Way have been prepared and are currently being reviewed within MTA prior to presentation to the community in April. Separate funding is being pursued to fund the community requested upgrades.

METRO PASADENA BLUE LINE

Summary Status Report

Period Ending - March 28, 1997



AREAS OF CONCERN (Con't)

ONGOING (Cont'd)

Item (Date Initiated: September 1996)

Validation of \$803.9M Baseline Estimate

Concern/Impact

When the Pasadena Blue Line Project was re-adopted in February 1996, the EMC had not prepared updated estimates which included the proposed Value Engineering/Cost Containment items approved by the MTA Board. Part of the scope of CWO 037 was the development of capital cost estimates based on the new construction work scope.

Status/Action

EMC has submitted the estimates for the construction work packages. PBL Project Controls staff has reviewed these estimates while attempting to formalize the forecast for indirect costs such as Professional Services, Real Estate, and Master Cooperative Agreements so that a total Project Forecast can be completed. There have been certain questions raised as to how escalation was calculated as well as the full extent of the project scope of work.

The EMC Project Unit Managers and Estimators are also coordinating their efforts to ensure that the final scope of the Value Engineering/Cost Containment studies have been fully integrated into the capital cost estimates. Once these issues have been addressed and resolved a revised total Project Forecast will be formally issued. The completion of this action is forecast to complete by April 1997 (a 2-month slip from February 1997).

METRO RED LINE SEGMENT 2

EXECUTIVE SUMMARY

METRO RED LINE Segment 2
Summary Status Report
Period ending—March 28, 1997



Major Activities - This Period

B281 Hollywood/Vine Station and Crossover - Continued installation of interior concrete masonry walls, ductwork, and piping. Completed construction of floating slab. Began finish work (acoustical spray, artwork), fire protection, and water lines. Placed roof deck and track platform sections. Appendage concrete installation progressed. Contract is 71% complete.

B271 Hollywood/Western Station - Continued excavation and concreting of appendage structures. Continued installation of station mechanical, electrical, and ceiling systems. Achieved 6 liquidated damage milestones to date. Contract is 75% complete.

B261 Vermont/Sunset Station - Completed preparation of trainway area for track access. Excavation continued on the east side appendage structures and at station entrance. Started installation of interior concrete masonry walls, ductwork, conduit, cabletray, and piping. Achieved 1 liquidated damage milestone to date. Contract is 71% complete.

B281T (B251 E & F Tunnel Work Packages) - Section E and F tunnel sections essentially completed, except for electrical/mechanical work in crosspassages, testing, and completion of punchlist items. Change Order is 99% complete.

B252 Vermont/Santa Monica Station and Crossover - Continued concrete activities for north and south entrances. Continued installation of main station mechanical and electrical equipment. Achieved 11 liquidated damage milestones to date. Contract is 87% complete.

B241 Vermont/Beverly Station - Continued station entrance concrete activities and east appendage structure activities. Continued main station installation of ductwork, plumbing, electrical equipment, conduit, and cabletray. Achieved 7 liquidated damage milestones to date. Contract is 81% complete.

= Operating

Wilshire/
Western

Wilshire/
Normandie

Wilshire/
Vermont

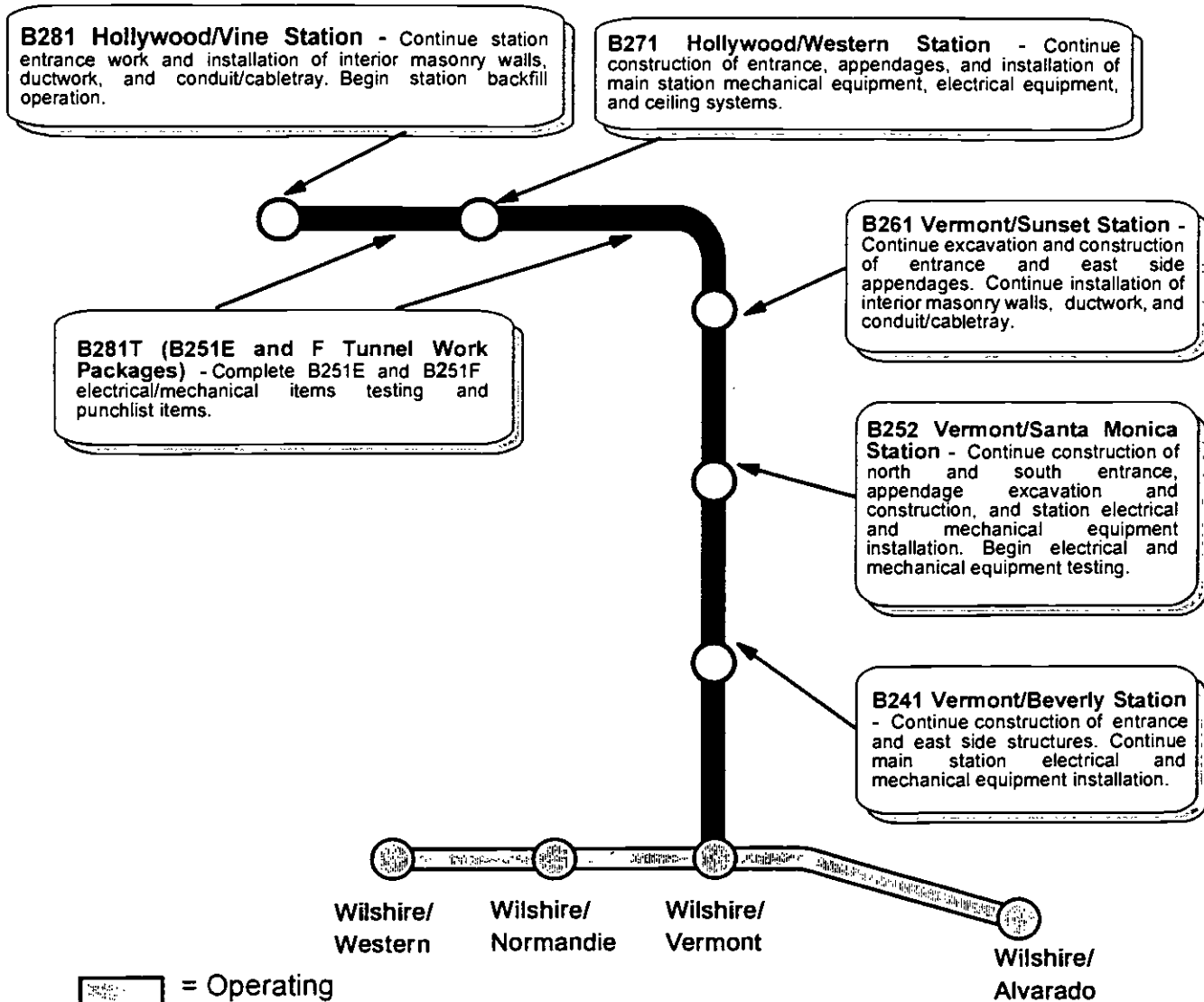
Wilshire/
Alvarado

SYSTEMWIDE ACTIVITIES

B610, Trackwork, Contractor continued form and rebar installation for Vermont tunnel concrete plinth placement. B620, Automatic Train Control Installation, Contractor continued limited work in station areas to progress work, in advance of formal access. B631, Traction Power, Contractor advanced installation of equipment in available station areas. B740/B745, Air Handling/Ventilation, contractors started installation at first station. Fabrication of systemwide equipment continued.



Major Activities - Next Period



SYSTEMWIDE ACTIVITIES

B610 Contractor to continue Vermont Corridor plinth concrete installation and start survey of Hollywood tunnels. B740/B745, Air Handling/Ventilation, contractors to continue installation of equipment. Fabrication of systemwide equipment to continue.

METRO RED LINE Segment 2
Summary Status Report
Period ending—March 28, 1997



FINANCIAL STATUS

Budget/Forecast Variance (in millions)
Original Scope

COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	BDGT/FCST VARIANCE	MARCH CHANGE IN FORECAST
Construction	\$1,060.5	\$1,050.4	(\$10.1)	\$(7.5)
Professional Services	389.0	401.3	12.3	10.6
Real Estate	88.1	88.3	0.2	0.0
Utility/Force Account	31.8	33.3	1.5	0.0
Special Programs	2.5	2.5	0.0	0.0
Contingency	3.7	0.6	(3.1)	(3.1)
Project Revenue	0.0	(0.8)	(0.8)	0.0
Total Project	\$1,575.6	\$1,575.6	\$0.0	\$0.0

Additional Locally Funded Activities

COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	BDGT/FCST VARIANCE	MARCH CHANGE IN FORECAST
Construction	\$47.3	\$47.3	0.0	0.1
Professional Services	16.8	16.8	0.0	0.0
Real Estate	0.0	0.0	0.0	0.0
Utility/Force Account	0.0	0.0	0.0	0.0
Special Programs	0.0	0.0	0.0	0.0
Contingency	1.1	1.1	0.0	(0.1)
Total Additional Locally Funded Activities	65.2	65.2	0.0	0.0

Budget/Forecast Variance Analysis
Original Scope

Expenditures to date for Original Scope are \$1,271.0 million or 81% of current total forecast.

Commitments to date for Original Scope are \$1,475.2 million or 94% of current total forecast.

An Estimate at Completion evaluation is underway and a further forecast analysis will be done across the project during April.

The forecast changes this period consist of a Construction decrease of \$7.5 million and a Professional Services increase of \$10.6 million. These changes resulted in an increase of \$3.1 million, which was offset by a decrease of \$3.1 million from project unallocated contingency. There was no change to the Total Project forecast cost.



FINANCIAL STATUS

Budget/Forecast Variance Analysis (Contd)

Original Scope

The \$3.1 million increase is due to:

Construction–decrease of \$7.5 million:

- MR040, Sedgewick James OCIP Coverage–as a result of the Fiscal Year 1998 budget plan and the scheduled completion of construction, the outlook is for an underrun in the OCIP program. Therefore, initial indications are that the forecast should be reduced. Closer analysis will occur in April 1997.
- B631, Traction Power System Installation–the forecast increased as the result of miscellaneous costs, due to responses to Request for Information (RFIs), potential changes, and additional allocated contingency.
- B710, Escalators and Elevators–the forecast increased as the result of additional cost for CN 20, Survey and repair of escalator damage, and CN 7, Add escalator interface work at Wilshire/Normandie Station.

Professional Services–increase of \$10.6 million:

E0070, Engineering Management Consultants–The forecast increased as a result of work associated with the Contract B251 termination and repackaging, changes to the sprinkler system, sanitary sewer cross-connects, additional effort by the rail activation group, and increases in the volume of RFIs and submittals. This increase reflects the cumulative impact of these and other changes. Cost reduction analysis is being conducted to determine realistic measures to mitigate a portion of this increase.

Budget/Forecast Variance Analysis

Additionally Locally Funded Activities

Expenditures to date for Additionally Locally Funded Activities are \$37.9 million or 58% of current total forecast.

Commitments to date for Additionally Locally Funded Activities are \$ 54.2 million or 83% of current total forecast.

The forecast changes consist of a Construction increase of \$0.1 million, due to a funding allocation adjustment. This change was offset by a decrease of \$0.1 million from project unallocated contingency. There was no change to the Total Project.

There was no changes this period to the expenditures and commitment values.

Note: The real estate acquired to support the Transit Enhancement covered under Additional Locally Funded Activities Budget and Forecast is \$38.1 million.

METRO RED LINE Segment 2
Summary Status Report
Period ending—March 28, 1997

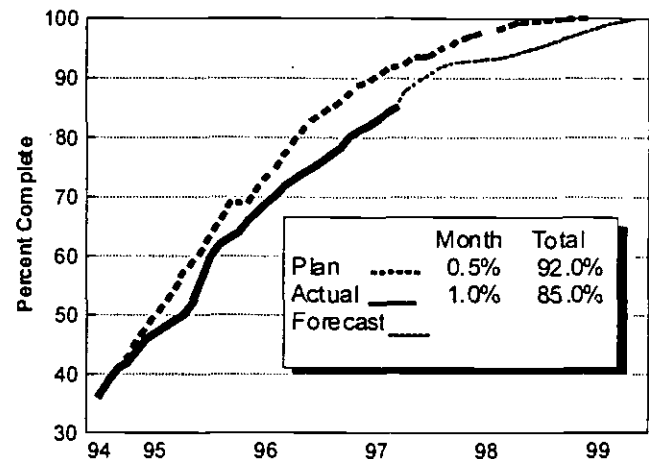


SCHEDULE STATUS

Schedule

		Change from Last Month
Current ROD	Dec. 31, 1998	None
Design Progress	96.1%	1.3
Critical Path Float	-67 Days	28
Const. Progress	85.0%	1.0%

Construction Progress



Current Critical Path Analysis

The 67 calendar days of negative float forecast this period reflect the B610 contractor's limited ability to progress work as planned. This is due to lack of concrete plinth progress plus access restrictions. The additional twenty-eight days of negative float this period is attributable to the Contractor's work through a learning curve for revised concrete/rail installation methods. Strategies to mitigate these delays, via alternative access conditions between B610 and B620 and/or by acceleration of B610 installation, will be considered when an actual production method and history have been established.

The project critical path continued to be controlled by the progress of the B610 Trackwork Contractor's efforts. Access to all locations has been granted to B610 pending completion of minor punchlist items.

Construction Progress Analysis

Recent progress has advanced at an average rate of 1.0% per month to bring the overall construction progress to 85%. This progress compares to the planned progress of 92%.

The difference in the cumulative progress-to-date can be attributed to past station and tunnel progress affected by unforeseen conditions (conflicts of utilities with station piles and decking, contaminated soil, rain delays, stop work notices, and termination of B251 tunnel activities), design changes, and later-than-planned placement of station and tunnel concrete.

Although actual progress is behind plan, most work is being accomplished prior to late program schedule requirements. To maintain overall schedule objectives, mitigations are under evaluation for the B610 and B620 contracts.

METRO RED LINE Segment 2
Summary Status Report
Period ending—March 28, 1997



SAFETY STATUS

Construction Safety Statistics

Project-to-Date Rates		Change From Last Quarter
Recordable Injury Rate		
The number of recorded injuries, excluding simple first aid or minor medical treatment, per 100 man years.		
1995 National Average	10.6	
Project Rate	19.5	-0.3
Lost Time Incident Rate (Frequency)		
The number of injuries resulting in days away from work per 100 man years.		
1995 National Average	4.2	
Project Rate	2.5	+0
Lost Work Days (Severity)		
The number of lost work days per 100 man years.		
1991 National Average	148.1	
Project Rate	71.5	+2.4

(Includes December 1996 through February 1997 statistics)

Construction Safety Summary

- Over 169,000 work hours were completed in February, with only one Lost Time Injury.
- The Project-to-Date Lost Time Injury Rate is 7.5. This rate is slightly above one-half the 1995 National Average of 4.2.
- Statistics for Lost Work Days will not be reported in future reports, due to the lack of National Average data.

AREAS OF CONCERN

NEW

Item (Initiated March 1997)

Project Cost Forecast

Concern/Impact

The low-level of remaining unallocated contingency raises concerns that the forecast will exceed the current project budget.

Status/Action

Project Management is conducting a thorough review and risk analysis at the individual contract level to determine if the remaining unallocated contingency is adequate. The results of this review are expected by May 1997.

METRO RED LINE Segment 2
Summary Status Report
Period ending—March 28, 1997



NEW

Item (Initiated March 1997)

Trackwork Concrete Plinth (B610) progress

Concern/Impact

As a result of several test sections being placed, major concerns have been raised about the Contractor's ability to make the IRON-HORSE forming system work.

Status/Action

PD/EMC/MTA and the Contractor are working together to establish a path forward to minimize impact to the project critical path, such as six-days-per-week concrete placement and overlap of critical activities.

ONGOING

Item (Initiated December 1996)

Vermont/Sunset Station (B261) interim and final milestone completion

Concern/Impact

The level of Contractor cooperation in addressing settlement of time and safety-related issues over the past several months has been limited. As a result, the Construction Manager has little confidence that the Contractor will proceed with the work in a timely fashion to support B610, B631, B740, B745, and overall contract completion requirements.

Status/Action

Contractor has implemented key staff changes. Several schedule review and coordination meetings have been conducted. Initial indications are that the Contractor has put more emphasis on completing critical areas and rooms for turnover access. Some later-than-desired completion forecasts still exist, but, with continued cooperation, these delays can be mitigated.

METRO RED LINE Segment 2

Summary Status Report

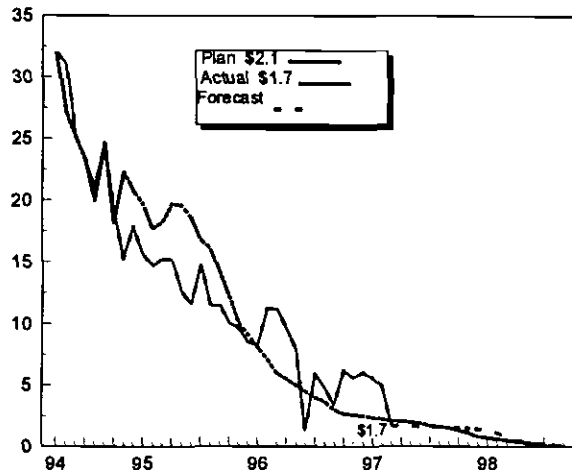
Period ending—March 28, 1997



COST STATUS

Contingency Status

Original and Locally Funded Activities
Dollars (millions)



Contingency Status Analysis

The actual unallocated contingency remaining is \$1.7 million, a decrease of \$3.2 million from last period.

The total project unallocated contingency forecast decreased this period, due to a net forecast increase in the following Construction and Professional Services contracts:

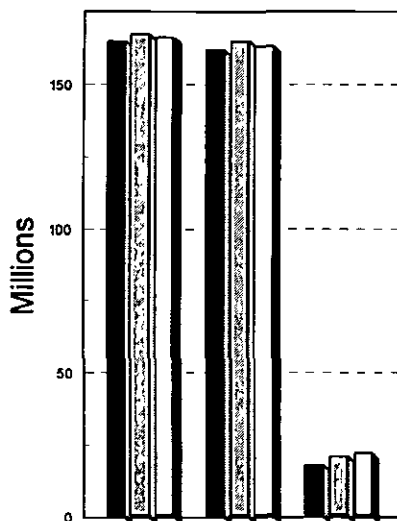
- B631, Traction Power System Installation
- B710, Escalators and Elevators
- E0070, Engineering Management Consultants

The increases were partially offset by a decrease in MR040, Sedgewick James OCIP.

For details refer to ES-6, Areas of Concern.

Professional Service Contracts

Consultant Cost Status



	DESIGN	CM	OTHER
Authorization	165	162	18
Forecast	167	165	21
Budget	166	163	22

Professional Services Cost Analysis

Design Services

A trend was prepared for \$10.2 million to increase the design forecast because of the cumulative effect of changes to the sprinkler system, sanitary sewer cross-connects, the Kaiser Hospital second entrance, additional effort by the rail activation group, increases in the volume of RFIs and submittals, the B251 contract repackaging, and other out-of-scope activities. CCN 500, when amended to the contract, will increase the contract value by \$4.5 million. A cost reduction analysis is being conducted to determine realistic measures to further mitigate the budget versus forecast disparity.

Construction Management Services

The MTA is reviewing required staffing levels with the Construction Manager to reduce the forecast amount. Once the appropriate manpower requirements are determined, the Authorization limit will be revised.

Other Professional Services

For Other Professional Services, Authorization will be increased as the scope becomes more defined.

**METRO RED LINE SEGMENT 3
NORTH HOLLYWOOD EXTENSION**

EXECUTIVE SUMMARY

METRO RED LINE - Segment 3 North Hollywood

Summary Status Report

Period Ending - March 28, 1997



MAJOR ACTIVITIES THIS PERIOD



CONTRACT C0351 - KAJIMA/RAY WILSON North Hollywood Station

- Placed 9 of 13 invert pours in tailtrack
- Placed 7 of 9 invert pours in station area
- Continued rebar and concrete for tailtrack exterior walls
- Continued lower exterior walls in station area
- Continued with the finalization/implementation of the schedule mitigation plan

NORTH HOLLYWOOD STATION

CONTRACT C0331 - ODAYASHI CORPORATION North Hollywood Tunnel

- Started AL arch concrete and completed 1,144' (13% of total for this period)
- Completed AR invert concrete to mid-vent (100% by April 23)

CONTRACT C0321 - TUTOR/SALIBA-PERINI Universal City Station

- Placed structural concrete for ten track level columns and four highbay columns
- Completed installation of the shoring system for mezzanine floor slabs lifts 1, 2, and 3
- Completed rebar for the mezzanine level floor beams lifts 1-3
- Started installation of wall formwork and rebar for lower interior walls lifts 10 and 11
- Completed installation of rebar for upper highbay exterior walls lifts 4 and 5

UNIVERSAL CITY STATION

CONTRACT C0327 - WILLIAM L. OLSON CONTRACTING Universal City Station Demolition for Station Access Road

- Contract closeout in progress

CONTRACT C0311 - TRAYLOR BROS./FRONTIER-KEMPER Line Section from Universal City Station to Station 630+00

- Completed 1,418' of TBM excavation in the AR (63% total)
- Completed 1,217' of TBM excavation in the AL (59% total)
- Excavated 76' of heading in AL Seismic Section for a total to date of 252'
- Excavated 68' of heading in AR Seismic Section for a total to date of 204'
- Completed excavation of Crosspassage 58
- Excavated heading for Crosspassage 57
- Began installation of flood control gate at crossover shaft

CONTRACT C0301 - TUTOR/SALIBA-PERINI Hollywood/Highland Station and Tunnels

- Completed AL tunnel invert concrete
- Moved invert forms to AR tunnel and commenced AR tunnel invert concrete
- Commenced mobilization of arch forms in AL tunnel
- Completed main station slab on grad for lifts 5-12
- Continue backfill and concrete placement at McCadden
- Completed exterior walls at platform levels for lifts 5-10
- Complete 9 column pours
- Removed all struts at level D
- Commenced rebar work for west bulkhead and for exterior walls at platform level for lift 4

LA BREA
ACCESS SHAFTS

to HOLLYWOOD / VINE
STATION

HOLLYWOOD / HIGHLAND STATION

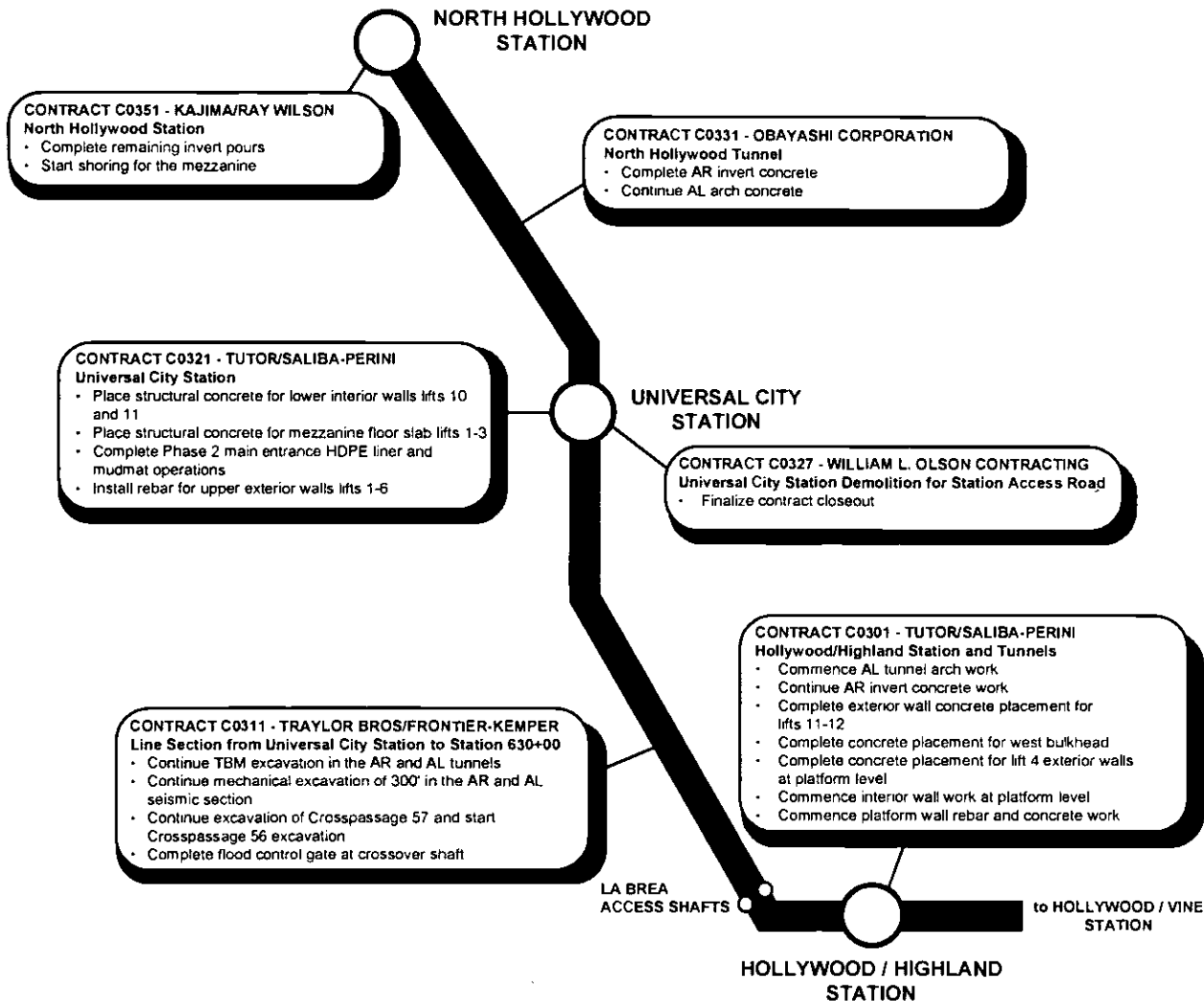
SYSTEMWIDE ACTIVITIES

- Contract B620 (Automatic Train Control) provided drawings and specifications for DCN-70, reviewed and commented on contractor's cost proposal.
- Contract B641 (Radio Communication) compiled new set of reference drawings and transmitted to contractor.
- Contracts B642, B643, B644 (Communications) approved DCNs that resulted from bidding the multi-year procurement contract prior to completion of the North Hollywood final design.
- Contract B645 (SCADA) reviewed and responded to the TRACS/Traction Power Substation interface design.
- Contract B646 (Fire Management Equipment) generated contract exhibit tables summarizing System Device quantities by zones.
- Contract C1610 (Trackwork Installation) submitted second Final Submittal on March 14 and responded to the comment received.
- Contract H0631 (Traction Power System Installation) held review meetings, responded to comments, and incorporated as needed.
- Contract H0648 (Communication Installation) prepared In-Progress Submittal.

METRO RED LINE - Segment 3 North Hollywood Summary Status Report Period Ending - March 28, 1997



MAJOR ACTIVITIES NEXT PERIOD



SYSTEMWIDE ACTIVITIES

Contract B641 (Radio Communication) markup applicable specification sections for installation of equipment by B641's contractor.

Contracts B642, B643, B644 (Communications) provide support for MTA and CM as required.

Contract B645 (SCADA) continue preparing technical update for external subsystem interface.

Contract B646 (Fire Management Equipment) generate technical update and net change summaries.

Contract C1610 (Trackwork Installation) continue with incorporation of comment received in the contract document and submit Camera Ready Submittal on April 28.

Contract H0631 (Traction Power System Installation) add new section for UPS battery installation and continue with the incorporation of comments received and submit Camera Ready Submittal on May 19.

Contract H0648 (Communications Installation) work toward In-Progress Submittal on May 6.

METRO RED LINE - Segment 3 North Hollywood
Summary Status Report
Period Ending - March 28, 1997



Budget / Forecast Variance (in millions)
Original Scope Activities

COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	BDGT/FCST VARIANCE	MARCH CHANGE IN FORECAST
CONSTRUCTION	\$825.1	\$802.9	(\$22.2)	\$0.2
PROFESSIONAL SERVICES	300.8	298.3	(2.4)	0.0
REAL ESTATE	89.0	87.3	(1.8)	0.0
UTILITY/AGENCY FORCE ACCOUNTS	26.3	24.5	(1.8)	0.0
SPECIAL PROGRAMS	0.0	0.0	0.0	0.0
PROJECT CONTINGENCY	69.6	97.8	28.2	(0.2)
PROJECT REVENUE	0.0	0.0	0.0	0.0
TOTAL PROJECT	\$1310.8	\$1310.8	\$0.0	\$0.0

Additional Locally Funded Activities

CONSTRUCTION	\$1.9	\$11.4	\$9.5	\$0.0
PROFESSIONAL SERVICES	0.7	0.9	0.2	0.0
REAL ESTATE	0.0	0.0	0.0	0.0
UTILITY/AGENCY FORCE ACCOUNTS	0.0	0.0	0.0	0.0
SPECIAL PROGRAMS	0.0	0.0	0.0	0.0
PROJECT CONTINGENCY	0.4	0.0	(0.4)	0.0
PROJECT REVENUE	0.0	(11.5)	(11.5)	0.0
TOTAL ADDITIONAL LOCALLY FUNDED ACTIVITIES	\$3.0	\$0.8	(\$2.2)	\$0.0

Budget / Forecast Variance Analysis

Original Scope Activities

The Current Budget and Current Forecast totals remain unchanged at \$1,310.8M.

However, there were a number of forecast changes within the Project Elements which were offset by Project Contingency as follows:

- Contract C0301 (Hollywood/Highland Station) - Forecast increase \$1.1M due to added cost exposure for material cost adjustments and extended overhead costs related to the deletion of tunnel work scope.
- Environmental Contracts (Hazardous Material Disposal) - Forecast decrease \$0.9M due to a reassessment of the remaining hazardous material disposal costs based on contaminated soils encountered to date.
- Contract PC000 (Project Contingency) - Forecast decrease \$0.2M due to the cumulative forecast increases.

Additional Locally Funded Activities (ALFA)

"Additionally Locally Funded Activities" (ALFA) are defined as work scope not originally covered under the FFGA such as Station Artwork, Hollywood Boulevard Settlement, Non Revenue Connector, etc. The Current Budget contains approximately \$3.0M in ALFA categories under the Construction, Professional Services and Contingency elements.

The Current Forecast carries \$12.3M in total for the ALFA work scope. In addition, Project Revenue is anticipated in the amount of (\$11.5M) which reduces the ALFA work scope costs to \$0.8M. This cumulative Current Forecast total compared to the Current Budget accounts for the (\$2.2M) variance.

The ALFA Scope Forecast did not change for the March 1997 period.

- Total Original Scope and ALFA Expenditures to date are \$536.0M
- Total Original Scope and ALFA Commitments to date are \$951.4M

METRO RED LINE - Segment 3 North Hollywood

Summary Status Report

Period Ending - March 28, 1997

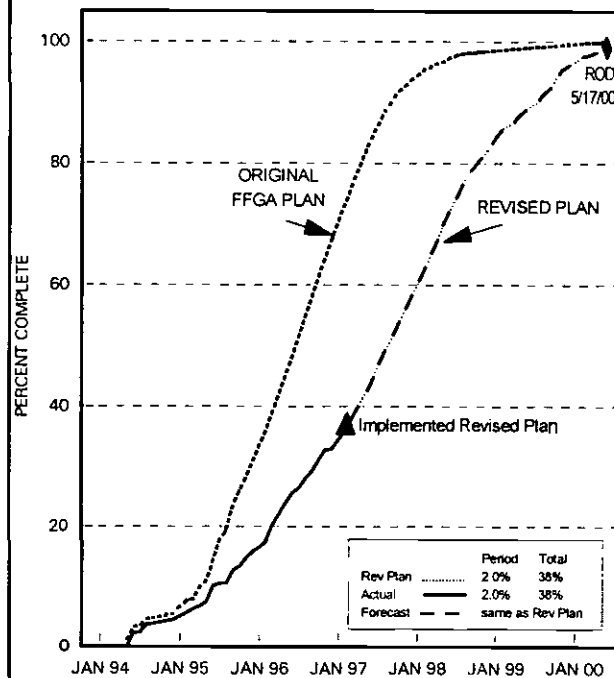


Schedule

		Change from Last Month
Current ROD	May 17, 2000	0
Design Progress	93.1%	+0.6%
Construction Progress	38.0%	+2.0%
Critical Path Float		0

To provide a more useful plan for the completion of this project, it was decided to adopt a revised plan that represents the current facilities forecast completion dates for the remaining work without affecting ROD. These forecast completion dates include all current delays and mitigation work for Contracts C0301, C0331, and C0351. Several mitigation options to partially recover current delays on C0311 contract are being negotiated. If implemented, these options will add contingency to the program. Future progress analysis will be measured against this revised plan.

Construction Progress



Current Critical Path Analysis

The March 1997 Project Master Schedule includes additional refinements to C1610 Trackwork Installation planning schedule, revisions to schedule impacts to C0301 Hollywood/Highland Station due to CN-63, Tunnel Deletion and C0351 (North Hollywood Station) mitigation schedule. These changes had no impact to ROD. The project completion date forecast remains May 17, 2000.

Critical path runs through Contract C0311 (Line Section from Universal City Station to Station 630+00), C1610 (Trackwork Installation), B620 (Automatic Train Control), B645 (SCADA) and Integration Testing/Pre-Revenue Operations.

Focus continues on the risks associated with the tunnels under the Santa Monica Mountains, Contract C0311. Six different mitigation options to recover some of the lost time and to add contingency back into the program have been identified and discussions with the contractor are proceeding. See page ES-7.

Additionally, the continuing goal of further schedule improvements are being pursued on downstream contracts, i.e. C1610 (Trackwork Installation), B620 (Automatic Train Control), B645 (SCADA) and Integration Testing and Start-up.

Construction Progress Analysis

The overall construction progress through March 28, 1997 is 38% complete. The plan has been rebaselined as of January 31, 1997. Project completion forecast date remains May 17, 2000.

Current facilities contracts delays do not impact program schedule, nor ROD of May 2000.

Contract C0301 (Hollywood/Highland Station) station and tunnel work remain behind contract schedule. The current station work delays amount to approximately 94 workdays. The allowance for delays related to CN-63 impact was revised from 54 workdays to 82 workdays, which brings the total forecast delay to 176 workdays.

Contract C0311 (Line Section from Universal City Station to Station 613+00) tunneling work is currently 106 and 97 working days behind contract schedule in AR and AL respectively. Additional 35 workday allowances for remaining seasonal spring protection and excavation of additional 429' standard tunnel will bring the total forecast delay to 141 workdays. Several mitigation options are being implemented.

Contract C0331 (North Hollywood Tunnel) turnover of crossover, center, to C0351 is May 30, 1997. Final access to C0351 is scheduled for July 31, 1997.

Contract C0351 (North Hollywood Station) scheduled rate of progress must be met in April to meet the scheduled milestone dates within the schedule rebaseline.

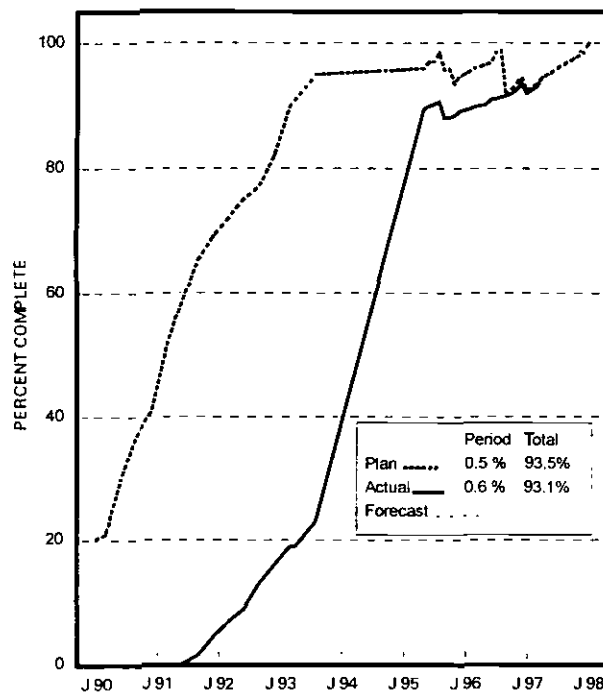
METRO RED LINE - Segment 3 North Hollywood

Summary Status Report

Period Ending - March 28, 1997



Design Progress



Design Progress Analysis

The overall design progress through March 1997 was 93.1% complete versus 93.5% planned, reflecting a Schedule Performance Index (SPI) of 99.6%.

The Camera Ready submittal for Contract H0631, Traction Power System Installation, that was advanced to March has been replanned to May. This date is ahead of baseline of July 14, 1997.

The Camera Ready submittal for Contract C1610, Trackwork Installation, is now forecasted for April 28. This date change is for an additional Final Design submittal that was needed due to transfer of scope from Segment 2, single crossover and other revisions. The new forecast has no impact to the construction schedule.

The Preliminary Design submittal for Contract C2326, Widen L.A. River Bridge at Lankershim Blvd., was submitted on March 24. The Pre-Final is planned for June 23. The current plan to start Final Design for Contract C1326, Access Road and Freeway Overcrossing, is April 15, pending receipt of the WACN. The CCN for Contract C0322, Pedestrian Underpass, was approved by the CCRB and is scheduled for the April MTA Board meeting. Contract C4326, Widen Lankershim Blvd., is planned to start on May 5.

The 7% reduction in the planned percent complete that occurred in July 1996 represents the change in design schedule approved at that time to reconcile design with the construction delays.

Note: Contract C4326, Widen Lankershim Blvd., is a new CUD.

Construction Safety Statistics

Project-to-Date Rates

Change from
Last Quarter

Recordable Injury Rate:

The number of recorded injuries excluding simple first aid or minor medical treatment per 100 man years.

1995 National Average	10.6	
Project Rate	13.8	+0.5

Lost Time Rate (Frequency):

The number of injuries resulting in days away from work per 100 man years.

1995 National Average	4.2	
Project Rate	1.6	+1.0

Lost Work Days (Severity):

The number of lost work days per 100 man years.

1991 National Average	148.1	
Project Rate	25.6	+6.3

- Segment 3 North Hollywood is incurring over 120,000 work hours per month.

Note: Includes Dec. 96 - Feb. 1997 statistics

Construction Safety Summary

- To date, the project has completed 2,886,712 work hours with nine Lost Time Injuries.
- Project-to-Date Lost Time Injury Rate continues at approximately one-third of the National Average of 4.2.
- On February 15, 1997, the first fatal injury occurred. This injury counted as five Lost Time Cases which significantly impacted the Lost Time Case rate.
- Statistics for "Lost Work Days" will not be reported in future reports due to the lack of National Average data.

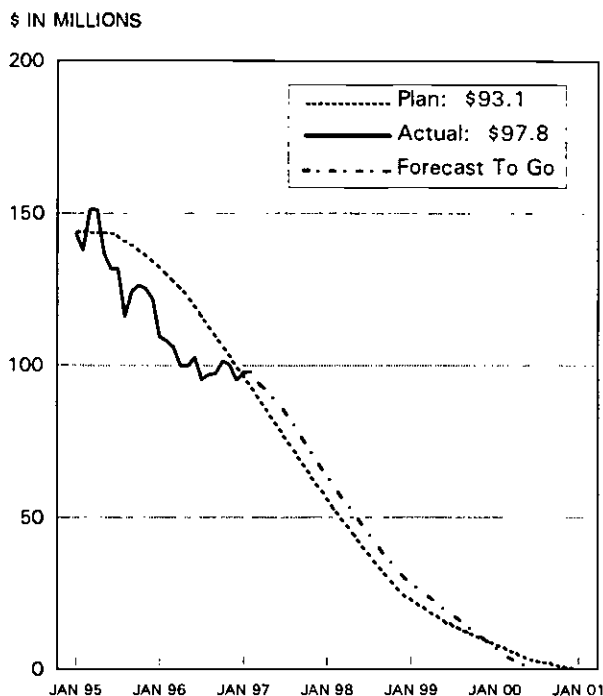
METRO RED LINE - Segment 3 North Hollywood

Summary Status Report

Period Ending - March 28, 1997



Contingency Status



Contingency Status Analysis

March 1997 Period Status

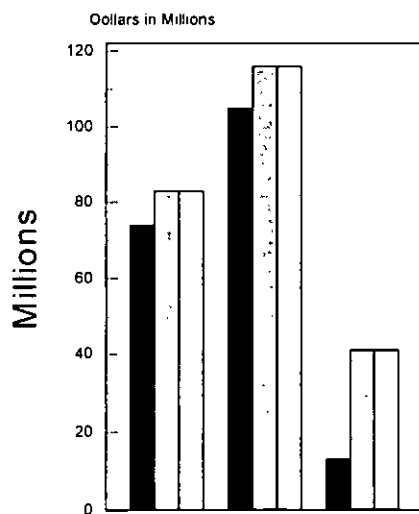
The Contingency Forecast decreased \$0.2M this period to offset a net increase in the Construction Element. Contract C0301 increased \$1.1M due to added exposure related to the tunnel liner deletion. Environmental contracts for hazardous material disposal decreased \$0.9M due to a reassessment of remaining costs to go based on contaminated soils encountered to date.

Cumulative Contingency Status

The planned drawdown of Project Contingency this period was \$3.4M down to \$93.1M. The actual period drawdown was \$0.2M down to \$97.8M. The variance of \$4.7M is largely due to contingency adjustments for the Construction and Professional Service Elements.

Professional Services Contracts - North Hollywood

Consultant Cost Status



	DESIGN	CM	OTHER
Current Authorization	74	105	13
Forecast	83	116	41
Budget	83	116	41

Professional Services Cost Analysis

The Construction Management forecast decreased by \$5.6M due to a reassessment of the forecast to completion based on consultant change notices submitted to date and the contract budget performance.

EMC has submitted several change proposals that will allow continuation of design support during construction services through May 2000. These change requests are currently under review.

Other specialty consultant forecasts include costs for Configuration Management Services, Systems Engineering and Analysis, Rail Vehicle Procurement Services, Environmental Services, Legal Services, Construction Support Services, and Project Management Assistance.

DATA SOURCE:

CMS: Consultant Contract Authorization, Forecast, and Budget Value.

METRO RED LINE - Segment 3 North Hollywood

Summary Status Report

Period Ending - March 28, 1997



AREAS OF CONCERN

ONGOING

Item (Date initiated: January 1997)

TBM Production Rates

Contract C0311 (Line Section from Universal City Station to Station 630+00)

Concern/Impact

The production rates achieved for the running tunnel excavation for Contract C0311 are lower than those in the baseline schedule which have resulted in delays and the continued erosion of project schedule contingency.

Status/Action

In an effort to increase production rates and mitigate further delays to ROD, six schedule studies have been reviewed with the contractor and recommendations provided to MTA. The six options are: (1) shotcrete north and south crossover transition; (2) resequence track level room excavation and concrete work; (3) concrete lining south of La Brea Shaft to be done immediately following the seismic section excavation; (4) accelerate TBM drive, (5) accelerate tunnel concrete lining south of track level room; and (6) accelerate north/south crossover shotcrete and concrete. Acceleration for options 4, 5, and 6 can be accomplished by working six days a week.

The contractor has received the design criteria for Option 1 and will complete design by mid-May. The contractor has also submitted preliminary plans for Option 2 and biweekly meetings with the CM have begun to review the plans and implement the CN for this option by April 1997. Option 3 is planned to start in April 1997 and Options 4, 5, and 6 are still under consideration.

AREAS OF CONCERN

ONGOING

Item (Date initiated: October 1996)

Project Schedule Contingency

Concern/Impact

Successful mitigation efforts to maintain ROD of May 17, 2000, have left the project schedule with no unallocated contingency. Allowances for all C0311 known-to-date schedule impacts due to ground conditions encountered in Reach 6C, seasonal springs protection, enclosure at La Brea shafts, additional 429 feet of standard tunnel excavation and Special Seismic Section redesign have been incorporated into the schedule. However, no other project contingency allowances exist for future risks associated with the excavation of the tunnels under the Santa Monica Mountains.

Status/Action

In addition to the six options to improve C0311 TBM production rates, as described above, other efforts to maintain ROD of May 2000 include acceleration and resequencing of C1610 (Trackwork Installation) and returning Contract B620 (Automatic Train Control) to its original schedule. The acceleration of Contract B620 will be maintained as an option to mitigate future delays, if needed. Efforts have begun to further refine downstream systems contracts such as B645 (SCADA) and start-up.

METRO RED LINE - Segment 3 North Hollywood
Summary Status Report
Period Ending - March 28, 1997



AREAS OF CONCERN

RESOLVED

Item (Date initiated: February 1996)

MTA Board Motion Dated January 24, 1996

Concern/Impact

The MTA Board Motion to adopt community protection measures due to tunneling under the Santa Monica Mountains has added additional cost and time to Contract C0311 and to the project. The protective measures instituted by the Board are being implemented on the tunneling Contract C0311 and include reducing the amount and intensity of blasting, increasing tunnel grouting to prevent surface springs leaking into the tunnel, and monitoring tunneling effects on the surrounding public and private property ecosystems.

Status/Action

The forecast cost and schedule impacts to Contract C0311 have been incorporated into the program. The seasonal springs protective measures included cost and schedule contingencies for four known springs and an allowance for two unknown springs. One known spring was encountered this period, bringing the total number of springs encountered to date to two known and two unknown. As additional measures are implemented, cost and schedule forecasts will be adjusted accordingly.

METRO RED LINE SEGMENT 3

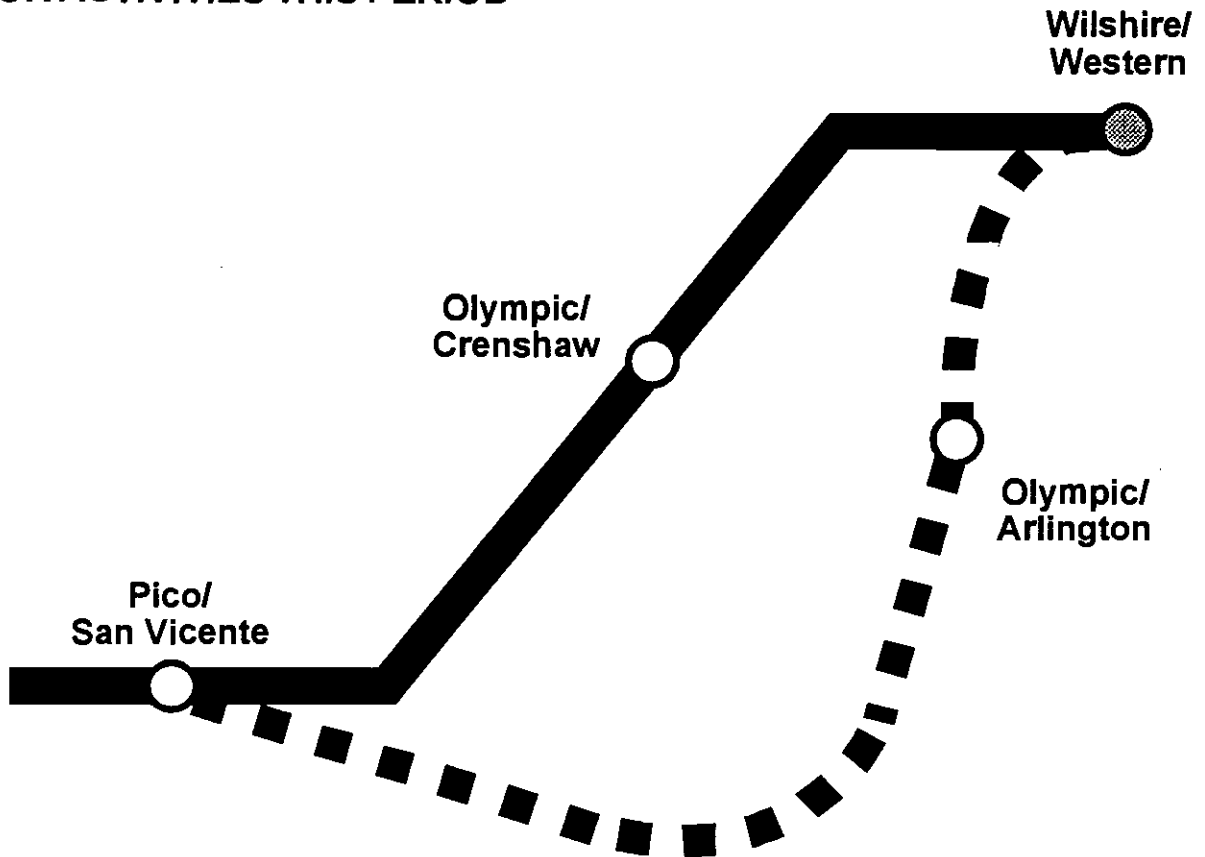
MID-CITY EXTENSION

EXECUTIVE SUMMARY

METRO RED LINE - Segment 3 / Mid-City Extension
Summary Status Report
Period Ending - March 28, 1997



MAJOR ACTIVITIES THIS PERIOD



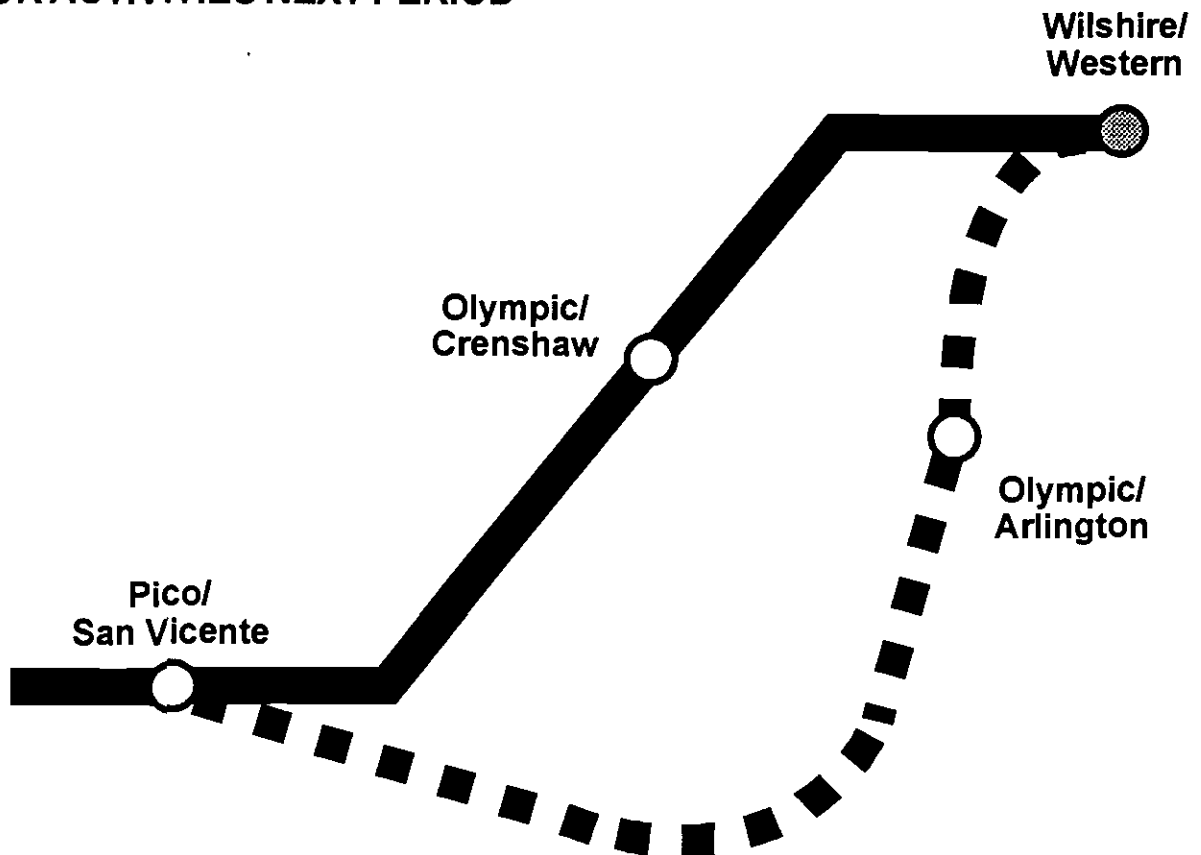
SYSTEMWIDE ACTIVITIES

- Efforts to assemble a panel of tunnel and construction experts began; the panel will convene to address the community on tunneling and construction issues.
- The environmental consultant, Ultrasystems Environmental, Inc., continued to collect and analyze information necessary for the preparation of the Draft SEIS/SEIR incorporating the Wilton/Arlington and Crenshaw alignment alternatives.
- Community outreach activities continued through meetings with homeowner groups, chambers of commerce, and other organizations.
- EMC submitted the final Bus Facility Feasibility Letter Report to the MTA.

METRO RED LINE - Segment 3 / Mid-City Extension
Summary Status Report
Period Ending - March 28, 1997



MAJOR ACTIVITIES NEXT PERIOD



SYSTEMWIDE ACTIVITIES

- Ultrasonics Environmental Inc., will submit the internal administrative draft of the SEIS/SEIR incorporating the Wilton/Arlington and Crenshaw alignment alternatives for MTA review.
- MTA will continue to meet with community and homeowner groups; the panel of tunnel and construction experts will convene to discuss tunneling and construction issues with area homeowner association representatives and community leaders.

FINANCIAL STATUS**Budget/Forecast Variance (in Millions)****Original Scope Activities**

COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	VARIANCE	MARCH CHANGE IN FORECAST
CONSTRUCTION	\$334	\$377	\$43	\$0
PROFESSIONAL SERVICES	98	187	89	0
REAL ESTATE	54	44	(10)	0
UTILITY/FORCE ACCOUNTS	5	9	4	0
SPECIAL PROGRAMS	0	2	2	0
CONTINGENCY	0	64	64	0
PROJECT REVENUE				
TOTAL PROJECT	\$491	\$683	\$192	\$0

Additional Locally Funded Activities

COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	VARIANCE	MARCH CHANGE IN FORECAST
CONSTRUCTION	\$0	\$0	\$0	\$0
PROFESSIONAL SERVICES	0	0	0	0
REAL ESTATE	0	0	0	0
UTILITY/FORCE ACCOUNTS	0	0	0	0
SPECIAL PROGRAMS	0	0	0	0
CONTINGENCY	0	0	0	0
PROJECT REVENUE				
TOTAL ADDITIONAL LOCALLY FUNDED ACTIVITIES	\$0	\$0	\$0	\$0

Budget/Forecast Variance Analysis

The \$192M variance between budget and forecast results from the budget which is based on the original Project alignment and a July 1999 ROD and the forecast which is based on the alignment contained in the Rail Recovery Plan and a July 2009 ROD. The Plan, which was approved by the Board and submitted to the FTA in January 1997, is based on the Wilton/Arlington underground alignment alternative and incorporates cash flow constraints.

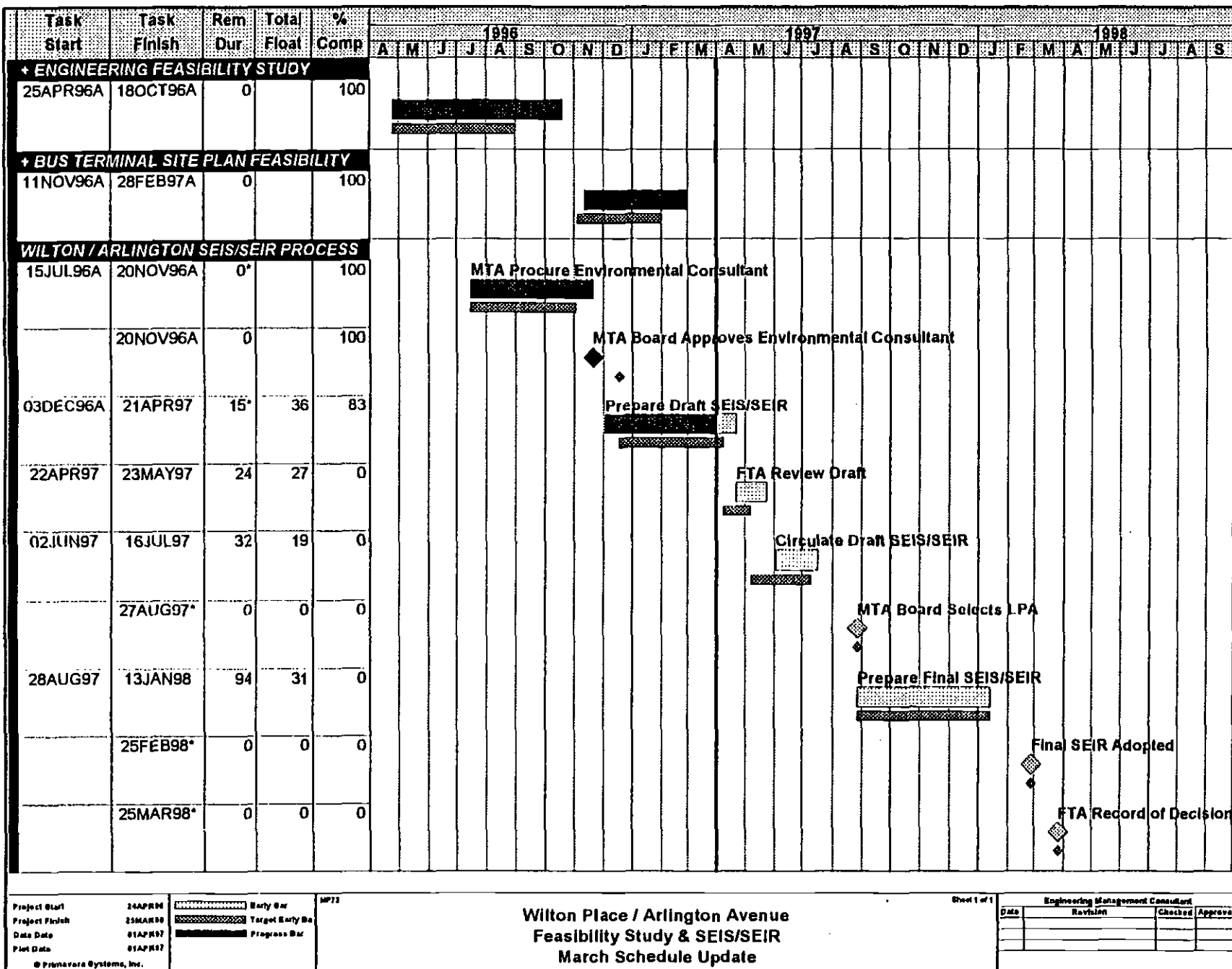
A trend will be prepared to formally adjust the forecast when the preferred alternative is selected in Summer 1997. The budget baseline will be finalized when the preliminary engineering is completed and the Project is adopted, which is scheduled to occur in Spring 1998.

Commitments to date are \$14.2M; Expenditures to date are \$12.7M. These costs are primarily associated with engineering management services, project administration, environmental engineering services, and the Mid-City pro-rata share of special trackwork procurement.

There are no Additional Locally Funded Activities at this time.

SCHEDULE STATUS

SCHEDULE			SCHEDULE ANALYSIS
		<u>Change From Last Month</u>	
Current ROD	July 28, 2009	None	<p>The Supplemental Environmental Impact Statement/ Subsequent Environmental Impact Report (SEIS/SEIR) document preparation which addresses the Wilton/ Arlington & Crenshaw alignment alternatives is on the critical path for the overall Mid-City Project. This documentation must be completed as scheduled in order for the Board to formally select the preferred alignment and configuration in August 1997. During March, the MTA's environmental consultant (Ultrasystems, Inc.) continued to work on this process with support from the MTA and EMC.</p> <p>The Wilton/Arlington underground option was incorporated into the Rail Recovery Plan in January. This plan, which shows a July 2009 ROD, corresponds to the forecast also approved by the Board as a part of the Rail Recovery Plan. The schedule baseline will be finalized and preliminary engineering work will resume pending selection of the preferred alignment alternative by the Board.</p>
Design Progress	0%	None	
Construction Progress	0%	None	
Critical Path Float	N/A	None	
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ES-5

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CONSTRUCTION SAFETY

- There is no construction activity at this time.

AREAS OF CONCERN

- NEW

There are no new areas of concern this period.

- ONGOING

Item

Finalization of Mid-City Cost Estimate & Master Schedule (initiated 8/95)

Concern/Impact

The Mid-City Project cost and schedule baseline cannot be finalized until an alignment alternative is selected. Finalization of the master schedule for design and construction is on hold pending completion of the draft SEIS/SEIR and Board decision on the preferred alternative.

Status/Action

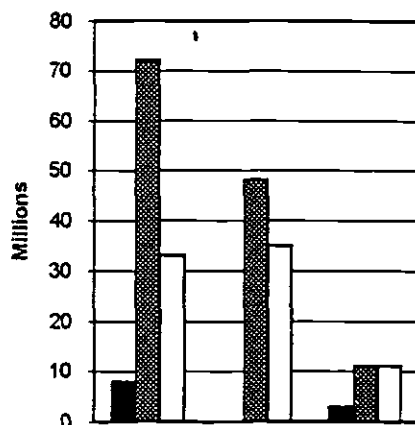
MTA is proceeding with a draft SEIS/SEIR to incorporate the Wilton/Arlington & Crenshaw alignment alternatives. When the draft SEIS/SEIR is completed, the Board can make a decision on the alignment. Preliminary engineering and a final SEIS/SEIR will be done after the Board has selected the alignment. The Project Master Schedule and budget baseline will be finalized when the preliminary engineering is completed and the Project is adopted.




- RESOLVED

No outstanding issues were resolved this period.

FINANCIAL STATUS

Consultant Cost Status
Professional Service Contracts
 Dollars in Millions



		DESIGN	CM	OTHER
Current Authorization		8	0	3
Forecast		72	48	11
Budget		33	35	11

Professional Services Cost Analysis

There were no changes to Professional Service Contract values in March. The Forecast information on the chart reflects data contained in the Rail Recovery Plan. The Budget and Forecast information will be finalized when the Board selects the preferred alignment and configuration alternative in the spring of 1998.

DATA SOURCE:

CMS: Consultant Contract Authorization, Forecast, and Budget values. See Glossary for definitions (AP-1 - AP-2).

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METRO RED LINE SEGMENT 3

EAST SIDE EXTENSION

EXECUTIVE SUMMARY

METRO RED LINE - Segment 3 East Side Extension

Summary Status Report

Period Ending - March 28, 1997



MAJOR ACTIVITIES THIS PERIOD

C0502 LITTLE TOKYO/ARTS DISTRICT STATION AND LINE SEGMENT FROM UNION STATION TO FIRST/BOYLE

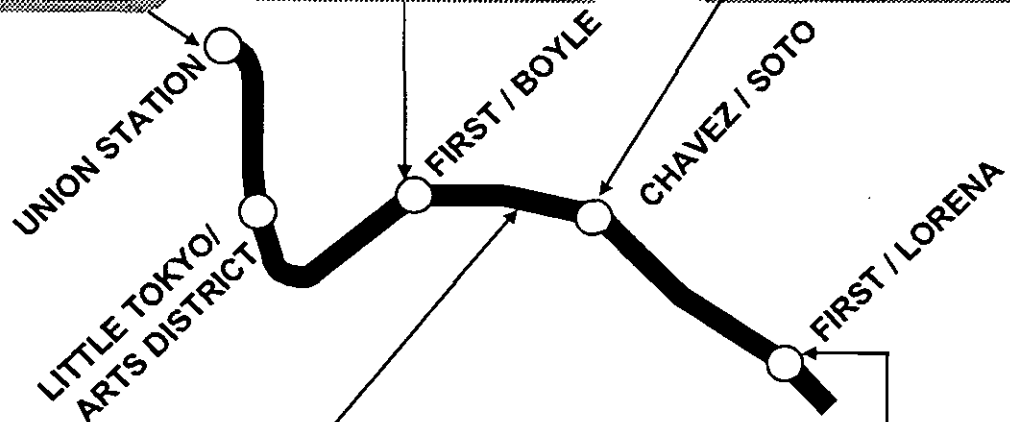
Completion of Pre-Final Design Review comment dispositions continued through March. An Intradiscipline and Interdiscipline Review was completed and the design was finalized for the Final Submittal scheduled for April 4. MTA and EMC met with Fluor Daniel and reviewed the Constructibility Report. Section Designer for Little Tokyo Station submitted their Final Design in March.

C0521 FIRST/BOYLE STATION

EMC and Section Designer continued design to meet Pre-Final Submittal date of April 28. The Specification preparation is underway. The Intradiscipline and Interdiscipline reviews are underway. Interface Management started review on March 17, for verification of SBCN's, DCN's, and Lessons Learned. MTA QA Audit started on March 24, 1997. Meetings were held with Third Parties for coordination purposes.

C0531 CHAVEZ/SOTO STATION

EMC and the Section Designer completed the Interim Submittal Milestone Package including the Index of Drawings and the Specifications Table of Contents. The Interim Submittal will be ready for issuance on April 1, 1997. CADD checking and QA verification for QC Document compliance is complete. As of the March Plan audit, Section Designer is 60.2% complete. EMC Cost Estimating was provided with documents to start the Interim Estimate.



C0541 FIRST/BOYLE TO FIRST/ LORENA LINE SEGMENT

Contract C0541 is on hold at the Camera Ready level except for building certification work that continues at MTA's request. Final draft report on pressuremeter testing was issued to MTA-TAP for review. A meeting was held on March 26, to discuss results of analytical work.

C0551 FIRST/LORENA LINE STATION

The C0551 Pre-Final Review took place by MTA and Third Parties. Seventy-five percent of Pre-Final Design review comments were received by March 13, 1997. The Pre-Final Design Review Comment workshops were held on March 19, 20 and 25. Disposition of comments and revisions to the contract documents continued through the end of March.

SYSTEMWIDE ACTIVITIES

EMC SUBMITTED TO MTA PROPOSED AMENDMENT #11 FOR CONTINUATION OF FINAL DESIGN SERVICES THRU APRIL 30, 1997. EMC WILL REFLECT RESULTS OF THE PROGRAMWIDE SEISMIC STUDIES ON EAST SIDE EXTENSION STATIONS DESIGN. A LETTER PROVIDING EMC RECOMMENDATIONS WAS TRANSMITTED MARCH 14. AN RFC IDENTIFYING ADDITIONAL DESIGN EFFORT FOR EMC AND TANAKA WAS SUBMITTED FOR C0502 LITTLE TOKYO STATION. EMC HAS RECEIVED 17 SUB-SURFACE EASEMENTS AND BUILDING PROTECTION EASEMENTS FOR C0541, AND 26 SUBSURFACE AND BUILDING PROTECTION EASEMENT FOR C0502. EMC QA PERFORMED REVIEW OF C0551 AND C0502 SECTION DESIGNER WORK.

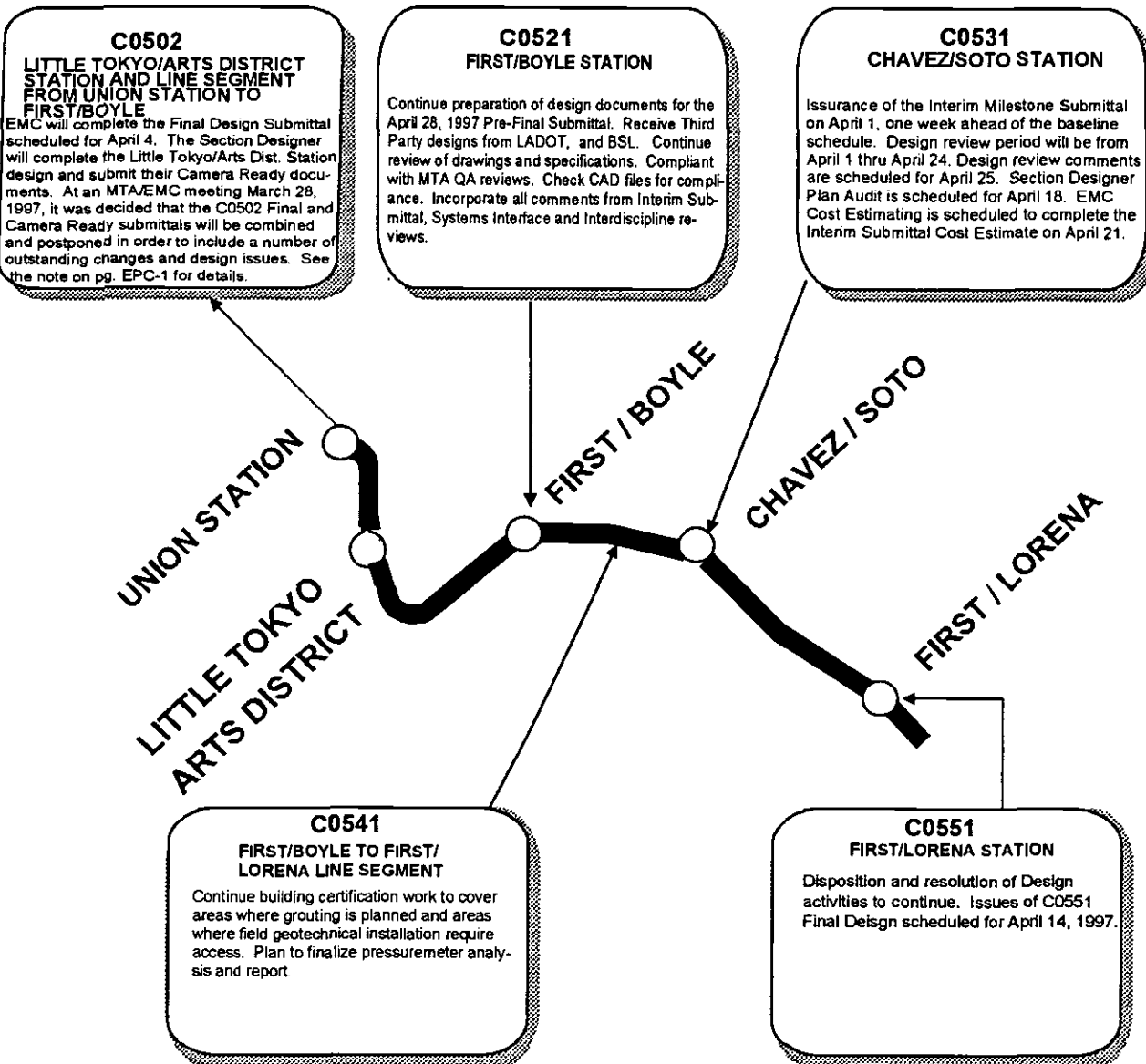
METRO RED LINE - Segment 3 East Side Extension

Summary Status Report

Period Ending - March 28, 1997



ACTIVITIES PLANNED FOR NEXT PERIOD



SYSTEMWIDE ACTIVITIES

EMC TO RECEIVE APPROVAL FROM MTA FOR AMENDMENT #11 FOR CONTINUATION OF FINAL DESIGN SERVICES THROUGH APRIL. EMC TO RECERTIFY 8 SUB-SURFACE EASEMENTS AND BUILDING PROTECTION EASEMENTS FOR C0541. EMC QA PLANS SURVEILLANCE OF C0551 SECTION DESIGNER AND C0521 SECTION DESIGNER. ADDITIONAL TRAINING BY EMC QA WAS PROVIDED TO C0551 SECTION DESIGNER TEAM (AN EMC AUDIT AND AN MTA REVIEW INDICATED THAT SELECTED SUBCONSULTANTS ON SOME SECTION DESIGNER TEAMS HAD SOME QUALITY CONTROL PROBLEMS THAT REQUIRED TRAINING).

METRO RED LINE - Segment 3 East Side

Summary Status Report

Period Ending - March 28, 1997



FINANCIAL STATUS

Budget/Forecast Variance (In Millions)

COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	VARIANCE	MARCH CHANGE IN FORECAST
Construction	\$668.4	\$677.4	\$9.1	\$9.1
Professional Services	\$246.7	\$246.7	\$0.0	\$0.0
Real Estate	\$34.8	\$34.8	\$0.0	\$0.0
Utility/Force Account	\$23.9	\$23.9	\$0.0	\$0.0
Special Programs	\$0.0	\$0.0	\$0.0	\$0.0
Contingency	\$75.4	\$66.3	(\$9.1)	(\$9.1)
Project Revenue	\$0.0	\$0.0	\$0.0	\$0.0
Total Project	\$1049.2	\$1049.2	(\$0.0)	(\$0.0)

Other Locally Funded Activities

COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	VARIANCE	MARCH CHANGE IN FORECAST
Construction				
Professional Services				
Real Estate				
Utility/Force Account				
Special Programs	\$0.0	\$3.1	\$3.1	\$0.0
Contingency				
Total Other Locally Funded Activities	\$0.0	\$3.1	\$3.1	\$0.0

Budget/Forecast Variance Analysis

March Forecast Variance

In January 1997, the MTA Board adopted a revised schedule which moved the R.O.D. to November 2004 and changed the East Side Extension current budget and forecast to \$1,049.2M. In February, there were no new trends incorporated and the four trends incorporated in March had no impact on the current budget or the current forecast. The March trends combined to reduce the contingency by \$9.1M.* The MTA & EMC continue analyzing the project for cost reduction measures to reduce overall project costs.

Expenditures To Date Are: \$67.5M

Commitments To Date Are: \$135.6M

* Please see page FD-1 for further details and trend information.

"Other Locally Funded Activities" are defined as work scope not originally covered under the Full Funding Grant Agreement (FFGA). The current forecast includes the MTA Art Program forecast of \$3.1M which includes EMC Contract Work Order 0036 for \$311,000, as well as contracts for four station artists at \$30,000 each. The inclusion of the Art Program increases the overall project forecast by \$3.1M. Awaiting MTA Board approval to update the current budget to reflect commitments and forecast.

METRO RED LINE - Segment 3 East Side

Summary Status Report

Period Ending - March 28, 1997

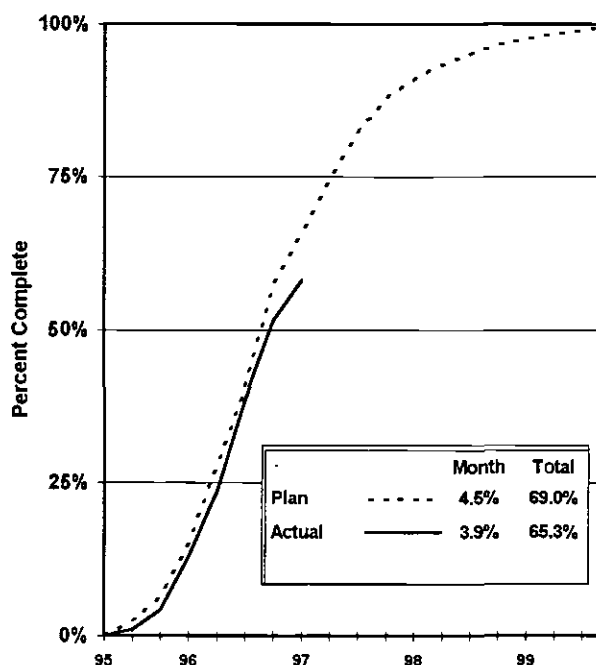


SCHEDULE STATUS

Schedule

		Change from Last Month
Current R.O.D.	Nov. 2004	0
Final Design progress	65.3%	3.9%
Construct. Progress	N/A	N/A
Critical Path Float	0	0

Design Progress



Current Critical Path Analysis

The Board adopted current R.O.D. is November 3, 2004.

Real Estate acquisition of parcel EB-037 in Contract C0502 may not be complete in time to meet MTA's target construction NTP date in September 1997. MTA is working with the owner to acquire the parcel in time, but if this effort is unsuccessful, a work-around has been established to mobilize on the site the last 30 workdays of the four-month mobilization window.

Although Contracts C0531 and C0541 appear on the critical path plot, the total float for both contracts stands at 40 working days. The true critical path (total float = 0) does not include anything prior to trackwork. The imposed start dates on the five major facility contracts allow this to occur. The critical path starts at trackwork access and contains trackwork installation, ATC, systems integration tests, and continues through testing and pre-revenue operations to R.O.D.

Design Progress Analysis

The plan reflects the Design Baseline Schedule as approved by the MTA in October 1996.

Through March, overall final design was 65.3% complete versus a plan of 69.0%. Revisions to the scope of work since March 1995 were negotiated and finalized in a revised PIP to the MTA dated August 2, 1996. With the addition of Amendment #7 for \$331,500 to prepare contract documents for bulk procurement of running rail, direct fixation rail fasteners, signs and graphics, elevators and ventilation equipment, the latest final design cost baseline stands at \$58,119,743.

EMC is slightly behind schedule for several reasons. Changes in direction of the tunnel liner configuration resulted in a certain amount of rework, and therefore, delays in tunnel contracts C0502 and C0541. MTA and EMC have also initiated for the East Side Extension a much more extensive quality assurance program, whose reviews are taking more time than originally foreseen. The cumulative effect of these factors as well as incorporation of other technical changes caused C0502 submittal dates to shift and begin to conflict with those of other contracts. Because of the resulting production and staffing problems, EMC elected to delay by two to three weeks submittals for C0521 and C0551.

METRO RED LINE - Segment 3 East Side

Summary Status Report

Period Ending - March 28, 1997



Construction Safety Statistics

Not applicable at this time

Construction Safety Summary

Not applicable at this time

AREAS OF CONCERN

NEW

Item [Initiated February 1996]

Tunnel Boring Machine Capabilities and Construction Sequencing.

Concern/Impact

Based on a presentation by TBM Manufacturer's Chief Tunneling Engineer on March 14, regarding TBM capabilities, it has become necessary to review construction sequencing and contract repackaging. It would be unwise to start construction without all facts at hand. Any changes in construction sequencing and contract repackaging could delay R.O.D.

Status/Action

If a second TBM Manufacturer's Chief Tunneling Engineer, in his upcoming April presentation, indicates problems like those expressed by Mitsubishi in removing and reassembling machines, EMC and MTA will re-evaluate construction sequencing and contract packaging.

METRO RED LINE - Segment 3 East Side
Summary Status Report
Period Ending - March 28, 1997



AREAS OF CONCERN (Continued)

NEW

Item [Initiated March 1997]

MTA approval of outstanding EMC RFCs for C0502.

Concern/Impact

It was decided in March that the C0502 Final and Camera Ready submittals will be combined and postponed in order to include a number of outstanding changes and design issues. EMC has identified durations of up to three months to incorporate the various changes. Since EMC can begin work only upon receipt of a contract amendment, the length of the approval process has direct impact on the Camera Ready date, and subsequently on NTP for construction.

Status/Action

MTA will attempt to expedite the change approval process, especially on the items that will take the most time to incorporate.

ONGOING

Item [Initiated February 1996]

Real Estate acquisitions for the parcel EB-037 is critical.

Concern/Impact

Acquisition of parcel EB-037 at C0502 may not be complete in time to meet MTA's target construction NTP in September 1997. Note that the MTA Board-adopted schedule has eliminated from the critical path all other previously critical parcels, because of the one-year time extension to complete the project.

Status/Action

MTA is working with the owner to acquire parcel EB-037 in time to meet the target date for start of construction. If this proves to be impossible, a work-around plan has been established to mobilize on this site the last 30 workdays of the four-month mobilization window.

METRO RED LINE - Segment 3 East Side

Summary Status Report

Period Ending - March 28, 1997



AREAS OF CONCERN (Continued)

ONGOING

Item [Initiated September 1996]

EIS/EIR Addendum Approval Process

Concern/Impact

Twenty full take property acquisitions cannot be authorized by the MTA Board until the EIS/EIR Addendum has been approved. The EIR Addendum is expected to be approved by the Board in July 1997. This delay at present is not impacting the critical path and the current forecast R.O.D. of November 3, 2004, however, further delays could impact the project schedule.

Status/Action

The earliest date foreseen for approving the EIS/EIR Addendum is July 1997. The Addendum has been submitted for FTA comments and MTA is responding to comments as they are received.

ONGOING

Item [Initiated December 1996]

Design is critical for C0502 NTP.

Concern/Impact

Due to continued slippage in the Final and Camera Ready submittals on contract C0502, design for this contract is critical for NTP of C0502. The initial delay was due to late design decisions related to the "Two-Pass" vs. "One-Pass with Option" tunnel liner, realignment of the CR tunnel at the Unocal Tank Farm, and development of specs due to the C0541 delay, all of which required rework of drawings and specs. The additional delay is due to receipt of about 2,000 Pre-Final design comments within the last 48 hours of the comment submittal period, out of scope design effort which did not receive proper authorization and Third Party issues not completely resolved. At present, it appears Final Design Submittal will be April 4, 1997, and Camera Ready on April 28, 1997. [See page EPC-1 for status update.]

Status/Action

C0502, as the first major construction contract, remains vital to project success and the EMC and MTA are working to resolve comments as quickly as possible to assure a quality product and to avoid further delays. Potential schedule impact to R.O.D. is being reviewed and mitigation strategies developed.

METRO RED LINE - Segment 3 East Side

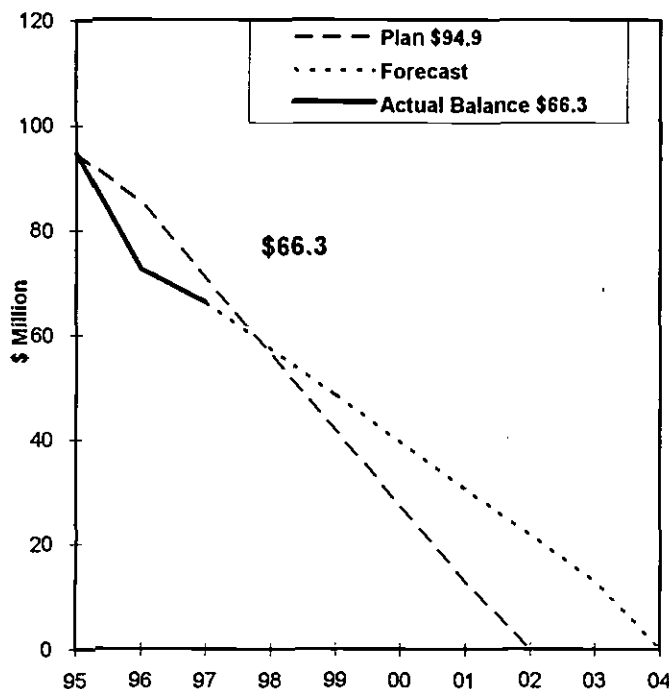
Summary Status Report

Period Ending - March 28, 1997



FINANCIAL STATUS

Contingency Status Original and Locally Funded Activities



Contingency Status Analysis

(Excludes non-construction allocated contingency)

Contingency balance this quarter decreased overall due to the following major trends:

T-077 (\$12.2M) This trend is based on EMC's Pre-Final Estimate of Contract C0502 as modified by MTA to consider changes that occurred subsequent to the Pre-Final submittal. This trend reduces project contingency by \$12,244,750.

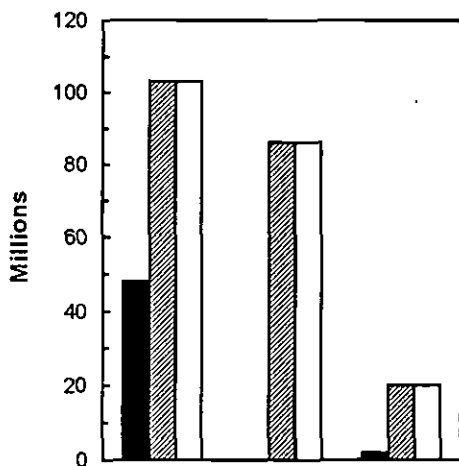
T-072 \$2.7M Cost reduction in the floating slab for Contracts C0502 and C0541. This trend increased project contingency by \$2,759,100.

T-075 \$3.3M Reduces the construction estimate for Contract P1616 Procurement of Direct Fixation Rail Fasteners from the Interim Estimate primarily by the deletion of the option schedule. This trend increases project contingency by \$3,314,000.

T-076 (\$0.2M) Revised Interim Estimate of Contract C0521 by reduction of the station length, deletion of 120' shaft, raising the station 6' 8", and incorporation of costs for the Mariachi Plaza. This trend reduces project contingency by \$178,000.

Professional Services Contracts Consultant Cost Status

Dollars in Millions



		DESIGN	CM	OTHER
Current Authorization		48	0	2
Forecast		103	86	20
Budget		103	86	20

Professional Services Cost Analysis

Categories represent all professional services contracts, not individual contracts ("Design" includes all Line Item 11 contracts. CM is Line Item 12 and Other is Line Item 13).

Professional Services budgets and forecasts have been revised in accordance with the Board's approved \$1,049.2M budget.

There remain several areas where differences of opinion still exist between EMC and MTA over scope of work. These include the tunnel liner configuration, and demolition contract repackaging. These issues are being resolved through the Change Control process.

VEHICLE ACQUISITION PROJECT

EXECUTIVE SUMMARY

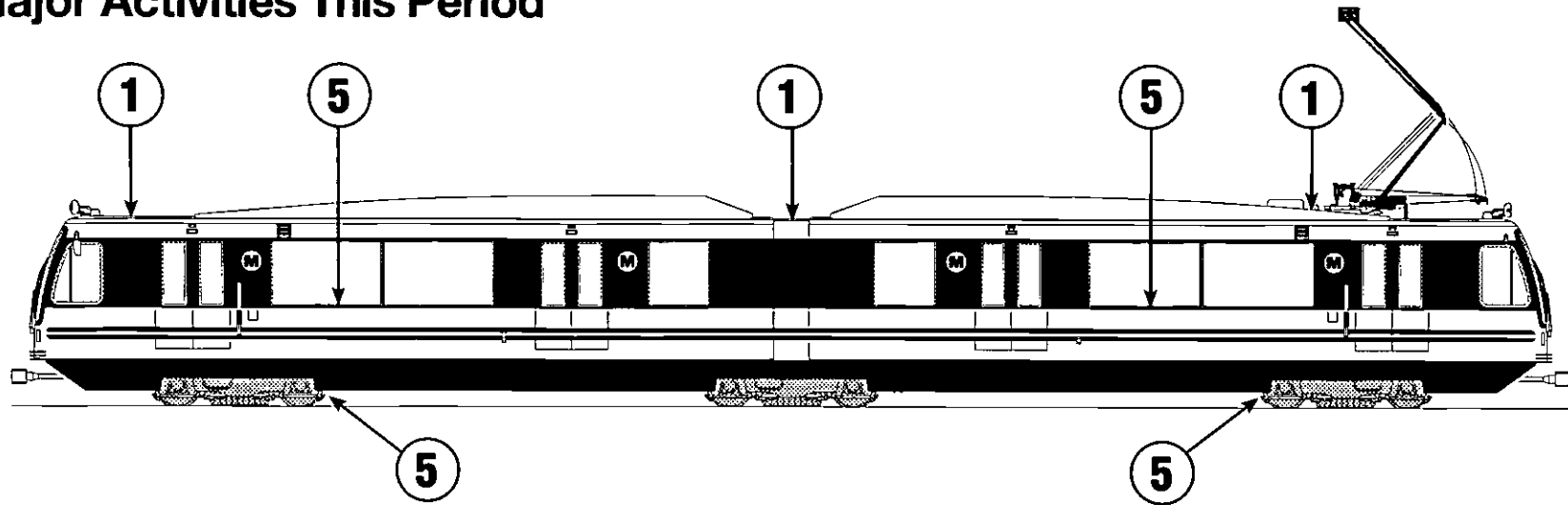
L.A. Light Rail Vehicle

Summary Status Report

Period Ending - March 28, 1997



Major Activities This Period



1. Carshell No. 8 was completed and shipped to Sacramento for final assembly. Carshells No. 9, 10, and 11, are scheduled for shipment in April. The assembly of eight cars continued in Sacramento.
2. Design of vehicle delivery site improvement progressed and site survey was completed (Washington Street crossing).
3. Met with Siemens to discuss vehicle delivery logistics and testing requirements (manpower, shop facilities, and office and storage space).
4. Participated in the MTA and PMO Quality Audits of LTK and Siemens.
5. Participated in the First Article Inspection of passenger seats and traction motor testing.

ES-1

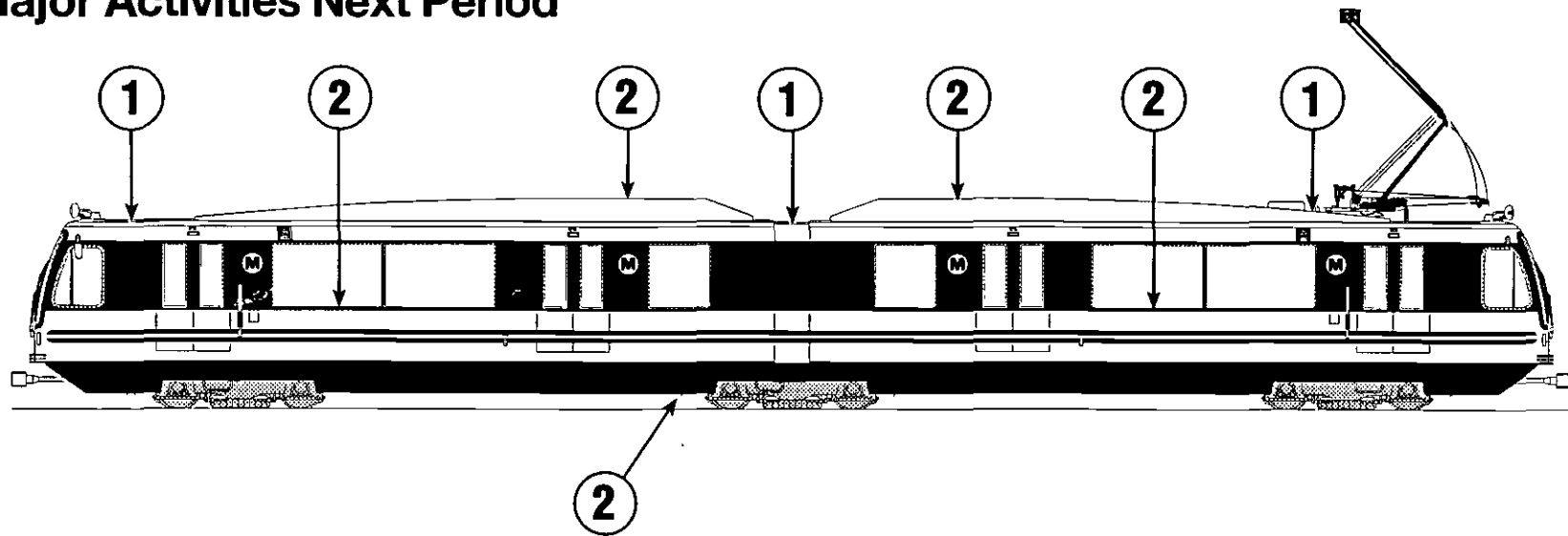
L.A. Light Rail Vehicle

Summary Status Report

Period Ending - March 28, 1997



Major Activities Next Period



1. Complete and ship three carshells to Sacramento for final assembly. Continue the assembly of eight cars in Sacramento.
2. Participate in the First Article Inspection of the battery and battery box, HVAC unit and passenger seats.
3. Meet with new Siemens management to begin negotiations on schedule, options, and LD's.
4. Complete LTK and Siemens Quality Audit.

L.A. LIGHT RAIL VEHICLE PROCUREMENT
Summary Status Report
Period Ending - March 28, 1997



FINANCIAL STATUS

Budget/Forecast Variance (\$ in millions)				
Original Scope Activities				
COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	VARIANCE	MARCH CHANGE IN FORECAST
CONSTRUCTION	\$232.4	\$180.6	(\$51.7)	0
PROFESSIONAL SERVICES	\$12.9	\$14.8	\$1.8	0
CONTINGENCY	\$12.3	\$5.9	(\$6.3)	0
PROJECT REVENUE	\$0	\$0	\$0	0
TOTAL PROJECT	\$257.6	\$201.4	(\$56.2)	\$0.0

Budget/Forecast Variance Analysis

The Budget/Forecast Variance chart includes only those elements for the project as initially adopted by the MTA Board.

Expenditures to date are \$79,394,000.

Commitments to date are \$231,520,000. Once the cost impact of the reduced car order is approved by the MTA, a reduction in project commitments will occur.

The Current Project Budget is \$258 million. The Total Project Forecast for March 1997 remained unchanged at \$201,351,000. The \$56 million variance between the current forecast and the current budget is a result of the reduction of the P2000 Contract from 74 cars to 52 cars, and a reduction in forecast of indirect costs.

STS' claim is currently under review. Findings will be reported once termination liability is negotiated.

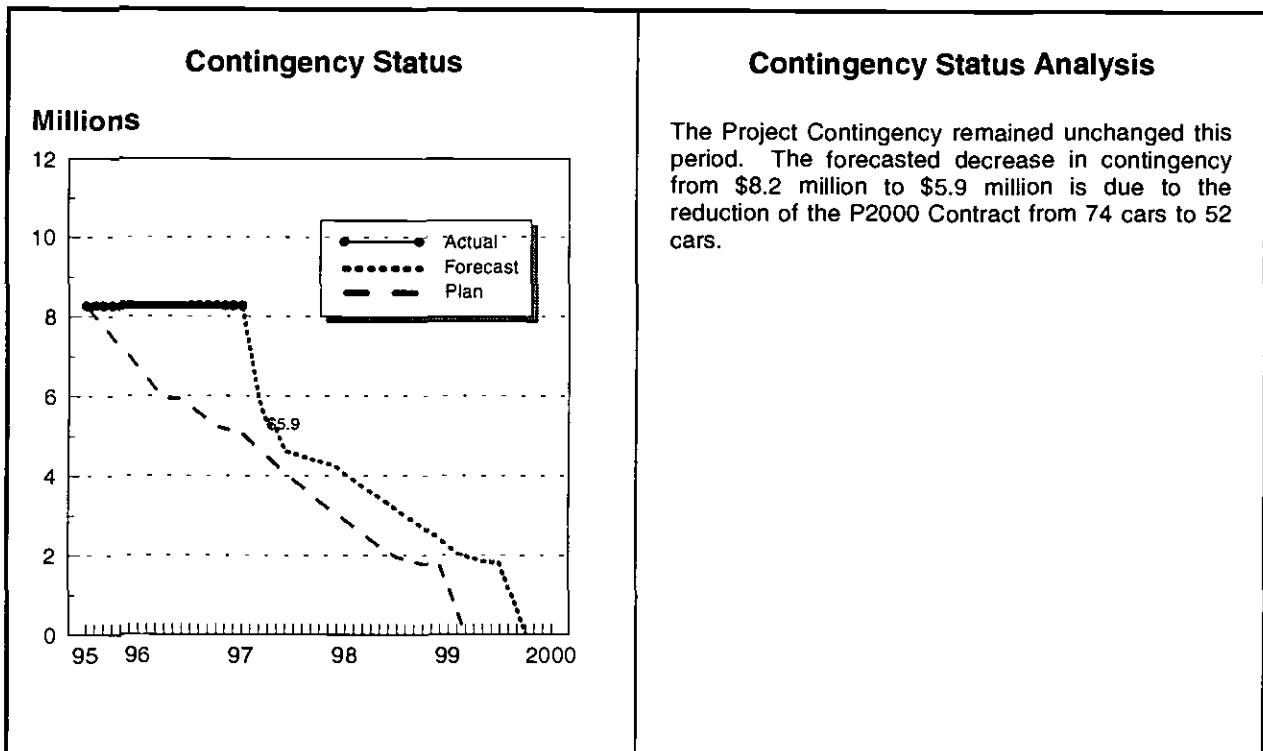
L.A. LIGHT RAIL VEHICLE PROCUREMENT

Summary Status Report

Period Ending - March 28, 1997



FINANCIAL / SCHEDULE STATUS



Schedule		
		Change from <u>Last Month</u>
Schedule Car Delivery		
1 st Car	April 1998	-34 Days
52 nd Car	June 1999	N/C
Design Progress	90-95% complete	N/C
Fabrication Progress	35-40% complete	N/C
Critical Path	Car assembly	N/C
Delay (1 st Car)	-18 months	-1 Month
Data Date	March 3, 1997	

Schedule Analysis
<p>The Contractor's last forecast schedule reflected a total of 18 months delay in 1st car deliveries. The schedule further indicates -43 days float, which if not rectified will further increase delays. Subsystems with potential impact on delivery are air conditioning and communications equipment. Car assembly is still on the critical path. Acceleration of the delivery schedule for the first several cars is unlikely, however, the delivery schedule is projected to improve for later units.</p> <p>In recent schedules, STS assumed that the MTA can accept cars at a higher rate than specified (2 cars per month).</p>

L.A. LIGHT RAIL VEHICLE PROCUREMENT
Summary Status Report
Period Ending - March 28, 1997



AREAS OF CONCERN

ONGOING

Item (Date Initiated: September 1996)

Lack of Progress in the Development of Manuals and Training

Concern/Impact

TransEd (TEI), Siemens' DBE Subcontractor for the User Education portion of the Contract, evidenced a lack of progress in both the development of Repair and Parts Manuals, and in the Vehicle Training Program.

Status/Action

STS determined that TransEd, the DBE subcontractor for training and manuals is in default. As a result, they are requesting the MTA allow them to contract with MRA, TransEd's sub-supplier. The MTA is reviewing Siemens' request.

Item (Date Initiated: June 1996)

Vehicle Weight

Concern/Impact

Vehicle Weight Report, No. 13, indicates a margin of approximately 1,800 pounds under the specified weight. This news is encouraging in that the new estimate increased the margin by approximately 1,000 lbs. The total margin is now 1.3%.

Status/Action

Vehicle Weight Report, No. 13, dated March 7, 1997, indicates that the margin increased to 1.3%, or just over 1,800 lbs. The estimate reflects actual equipment weights. STS continues to monitor vehicle weight during the assembly of the first car and make improvements wherever possible.

Item (Date Initiated: February 1996)

Schedule Slippage

Concern/Impact

The March delivery schedule indicates a delay of 18 months for the first car with delivery of the last car approximately 7 months late. Furthermore, the schedule shows -43 days float, which if not rectified, will further increase delays by 43 days.

Status/Action

Siemens is expected to start a two shift operation after the first few cars have reached a stable production rate.

L.A. LIGHT RAIL VEHICLE PROCUREMENT
Summary Status Report
Period Ending - March 28, 1997



AREAS OF CONCERN (Con't)

ONGOING (Con't)

Item (Date Initiated: November 1995)

Carborne Signal Equipment for 16 Standard Cars

Concern/Impact

The current plan calls for 16 L.A. Standard Cars to be assigned to the Metro Blue Line (LA → Long Beach Branch). The Standard Cars require on-board signal equipment compatible with the Blue Line wayside equipment before they can enter revenue service. STS was requested to provide a proposal for the supply of on-board equipment. MTA is finalizing a Light Rail Fleet Plan which may alter the number of cars assigned to various lines and the quantity of on-board signal equipment required for purchase.

Status/Action

Siemens submitted a revised ROM cost which is under review by MTA. An MTA Board Report is being prepared to authorize staff to negotiate procurement of the required Carborne Signal Equipment.

Item (Date Initiated: July 1995)

Vehicle Weight

Concern/Impact

STS requested \$10 million in damages from the cancellation of 22 cars. This claim must be validated before payment can be made.

Status/Action

Back-up data from STS has been evaluated by technical staff and submitted to the Audit Department for final determination. However, due to the Audit Department work load, this task may be delayed.

Item (Date Initiated: March 1995)

HVAC Design

Concern/Impact

Sutrak completed a Prototype Unit, which was physically inspected. Completion of the Design Conformance Test or the First Article Inspection are delayed due to a number of postponements by Sutrak.

Status/Action

Completion of the Design Conformance Test and the First Article Inspection is presently scheduled for the week of 07APR97 at Sutrak's manufacturing facility in Lamar, CO.