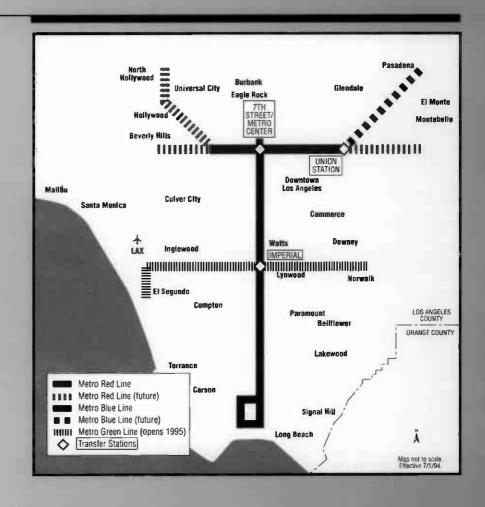
MTA METRO CONSTRUCTION



Executive Report Rail Program Status



RAIL PROGRAM STATUS SUMMARY

THE LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
METRO CONSTRUCTION DIVISION



Cost Status

Current Budget \$803,868,000

The Current Budget incorporates work scope approved by the MTA Board in February.

Schedule Status

Current Plan May 2001

Design Progress

Construction Progress

Plan

98.0%

9.1%

Actual

80.1% 6.8%

• The project was rebaselined to incorporate Value Engineering/Cost Containment items.

Safety Status Lost Time Rate Lost Work Days Project Rate 0.0 0.0

National Average

4.9 148.1

The project has completed 450,000 labor hours with no Lost Time Injuries.

Quality Assurance

MTA Quality Management facilitated a team alignment with MTA, EMC and MTC in March.

Monthly Highlights.

• The MTA continued working with the EMC to develop scope, time and resources required for the resumption of engineering design scheduled for June 1996.

 The MTA is analyzing areas where schedule compression may be accomplished to avoid impacts to the May 2001 ROD.

METRO RED LINE SEGMENT 2

Cost Status

Current Budget

\$1,640,781,000

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

Schedule Status

Design Progress 98.7%

Construction Progress

Wilshire Corridor

Plan

77.5%

Current Plan July 1996

Actual 99.6% 72.0%

· Wilshire Corridor is currently ahead of schedule. Vermont/Hollywood - Current Plan Dec 1998

 Vermont/Hollywood Corridor is delayed due to differing site conditions and tunneling construction contract termination.

Safety Status

Project Rate

National Average

Lost Time Rate Lost Work Days

2.8 74.9

4.9 148.1

The project completed 140,000 labor hours with no Lost Time Injuries.

Quality Assurance

• A Wilshire Corridor team alignment workshop was held on March 1, 1996.

Monthly Highlights

 Completion delays of the Vermont/Hollywood Corridor tunnel and stations continues to impact the B610 Track Installation contract and subsequently the forecast completion for this corridor.

 System Integration Testing of the Wilshire Corridor continued slightly behind schedule although the July 13, 1996 opening is on schedule.

METRO RED LINE SEGMENT 3 NORTH HOLLYWOOD EXTENSION

Cost Status

Current Budget \$1,313,848,000

The Current Budget remained unchanged.

Schedule Status Design Progress Construction Progress

Current Plan September 2000 Plan 96.0% 39.2% Actual 89.9% 20.3%

The project is behind schedule due to C0331 grouting delays.

Safety Status Project Rate National Average
Lost Time Rate 0.3 4.9
Lost Work Days 19.6 148.1

• The project completed 130,000 labor hours with no Lost Time Injuries.

Quality Assurance

Quality surveillances of work-in-progress were conducted at C0301, C0331, and C0351.

Monthly Highlights

- The MTA Board approved Contract A650 Passenger Vehicle Procurement option to procure additional vehicles.
- Systems and pre-revenue operation schedules are under review to mitigate schedule delays.
- The MTA is reviewing the reduction of costs for design services from the EMC.

METRO RED LINE SEGMENT 3 MID-CITY EXTENSION

Cost Status

Current Budget

\$490,663,000

The Current Budget value is contingent on the preferred alternative selected.

Schedule Status Design Progress Construction Progress

 Current Plan
 TBD
 Plan
 0%
 0%

 Actual
 0%
 0%

Safety Status Project Rate National Average
Lost Time Rate N/A 4.9
Lost Work Days N/A 148.1

• No Construction Safety activity for this period.

Quality Assurance

No Quality Assurance activity for this period.

Monthly Highlights

- Ongoing environmental studies, conducted by Enviro-Rail, have been placed on hold pending the exploration of a third alternative.
- The MTA is in the process of revising project commitments.
- The MTA is preparing a plan for the April 1996 MTA Board Meeting for the exploration of a third alternative involving a deep bore alignment along Wilton Place/Arlington Avenue.

METRO RED SEGMENT 3 EAST SIDE EXTENSION

Cost Status

Current Budget

\$979,601,000

• The Current Budget remained unchanged.

Schedule Status

Current Plan November 2002

Design Progress

Construction Progress

Plan Actual 15.0% 12.9% 0.0% 0.0%

Design Progress is behind the Current Plan due to authorized scope changes.

Safety Status

Lost Time Rate Lost Work Days Project Rate

National Average

N/A

N/A

4.9 148.1

· No Construction Safety activity for this period.

Quality Assurance

An East Side Project Team alignment was held on March 29, 1996.

Monthly Highlights

- The EMC submitted a revised Project Implementation Plan (PIP) to the MTA on March 4, 1996.
- The MTA is preparing a proposal for a Joint Project Office for the April MTA Board Meeting.
- Cost mitigation measures are under review to mitigate increases to the forecast as a result of project escalation.

VEHICLE ACQUISITION PROJECT

Cost Status

Current Budget

\$257,597,000

• The Current Budget remained unchanged.

Schedule Status

Design Progress

Fabrication Progress

Schedule Car Delivery

1st Car 52nd Car June 1997 Sept 1999 85%

25%

Sept 1505

• The schedule from the contractor reflects seven months delay in first car deliveries due to design and manufacturing problems.

Quality Assurance

MTA Quality Management met with FDI to discuss activities on the P2000 vehicle contract.

Monthly Highlights

- First Article Inspection and Design Conformance Testing of doors, Health Monitor and sanding system were completed.
- Termination cost estimates from Siemens are under evaluation.
- Design and manufacturing of vehicle subsystems is progressing.

STATUS DATE: 3/29/96

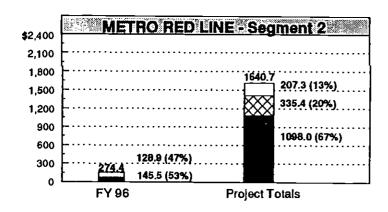
METROPOLITAN TRANSPORTATION AUTHORITY PROJECT COST REPORT - TOTAL RAIL PROGRAM SUMMARY BY COST ELEMENT (IN THOUSANDS)

PROJECT: TOTAL RAIL PROGRAM

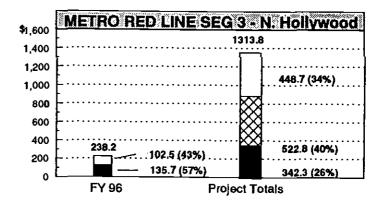
ELEMENT	<u>BU</u> D	GET	COMMIT	M <u>E</u> NTS	INCURR	ED COST	EXPEND	TURES	CURRENT	VARIANCE
DESCRIPTION	ORIGINAL	CURRENT	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	FORECAST	(9-2)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(6)	(9)	(10)
T CONSTRUCTION	5,153,507	5,244,746	37,933	3,596,415	37,615	2,645,008	18,803	2,617,484	4,860,619	(47,813
S PROFESSIONAL SERVICES	1,685,529	2,060,617	45,613	1,527,672	24,801	1,353,009	24,831	1,352,238	2,009,026	46,540
R REAL ESTATE	480,002	546,348	2,877	395,875	3,031	397,465	3,029	397,374	495,206	2,161
F UTILITY/AGENCY	146,279	159,681	36	128,535	252	106,477	252	105,957	155,632	1,040
FORCE ACCOUNTS							:•			
D SPECIAL PROGRAMS	11,045	16,911	O	5,649	0	4,603	0	4;690	15,864	(1,046
C CONTINGENCY	560,120	343,895	0	0	0	, 0	O	O	292,357	(53,710
A PROJECT REVENUE	(18,115)	(38,123)	0	(2,759)	0	(8,414)	0	(11,284)	(33,063)	5,060
PROJECT GRAND TOTAL	8,018,367	8,334,075	86,459	5,651,387	65,699	4,498,148	46,915	4,466,459	7,795,641	(47,768

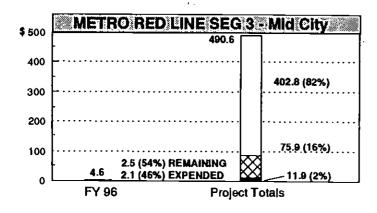
NEW REQUIREMENTS	BUD	GET	СОММІТ	MENTS	INCURR	ED COST	EXPEND	TURES	CURRENT	VARIANCE
DESCRIPTION	ORIGINAL	CURRENT	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	FORECAST	(9-2)
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(6)	(9)	(10)
T CONSTRUCTION	o	138,351	6,587	54,416	1,254	12,913	(600)	21,253	147,822	9,471
S PROFESSIONAL SERVICES	o.	50,873	(641)	17,933	(304)	11,157	(304)	11,454	51,043	170
R REAL ESTATE	o	O	0	1	0	37	0	37	0	0
F UTILITY/AGENCY FORCE ACCOUNTS	0	0	0	0	0	0	0	o	0	o
D SPECIAL PROGRAMS	o	20	o	20	O	20	o	20	20	0
C CONTINGENCY	o	8,131	o	0	0	o	o	0	7,739	(391)
A PROJECT REVENUE	o	О	o	0	0	o	o	0	(11,517)	(11,517)
NEW REQ. SUBTOTAL	0	197,375	5,946	72,370	950	24,127	(904)	32,764	195,107	(2,267)
PROJECT GRAND TOTAL	8,018,367	8,531,450	92,405	5,723,757	66,649	4,522,275	46,011	4,499,223	7,990,748	(50,035)

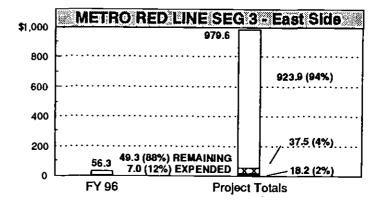
BUDGET STATUS - March 29, 1996 (in \$ Millions)



Page





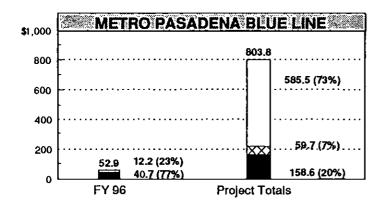


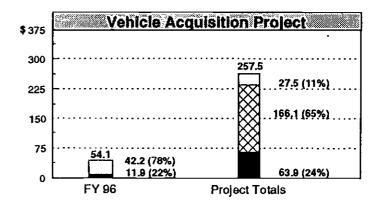
Actual Spent



_____ Remaining Budget

BUDGET STATUS - March 29, 1996 (in \$ Millions)





Page 6

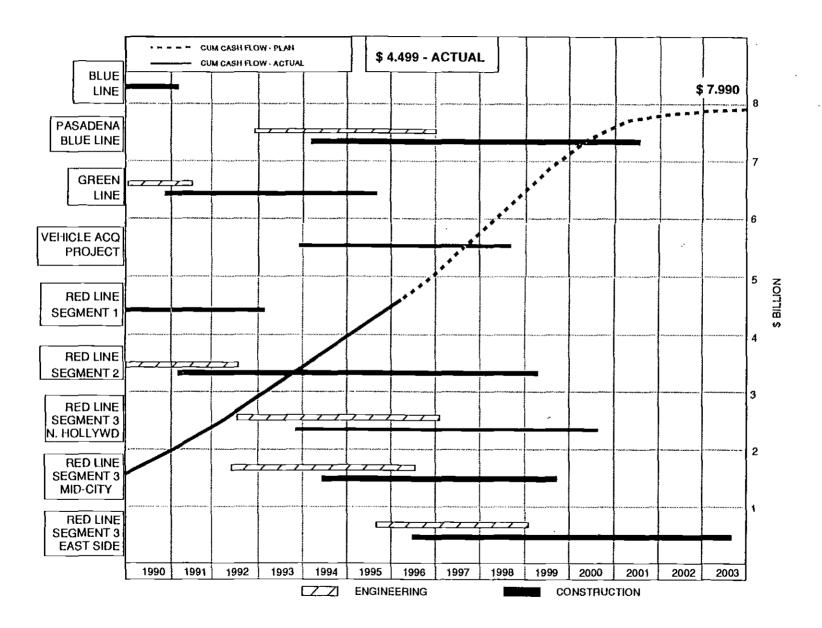
MARCH 1996

Actual Spent



Encumbered

Remaining Budget



Page 7

METROPOLITAN TRANSPORTATION AUTHORITY FUNDING SOURCES

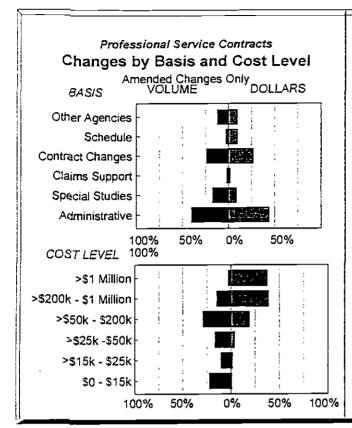
			1		,			(IN MILI	LIONS)		r———		,		1				MARCH	1996
	METRI		PASAI BLUE		METRO LIN		METRO SEGM	RED ENT 1**	METRO SEGMI		METRO I		METRO I		METRO :			ACOUIS JECT	TOTA PROQ	
	- 3	*	- \$	*	\$	*	- \$	_ *	3	*	5	×	3	*	\$	*	\$	*	- \$	×
FTA-SECTION 3							605.3	42	667.0	40	681.0	52	242.5	49	492.9	51			2688.7	3.
FTA - OTHER		•															11.9	4	11.9	
STEA - FED SURFACE TRANSIT PROGRAM					<u>.</u>				52.1	3	49.1	5			25.0	2	84.0	32	210,2	2
FED-ISTEA STP/CMAQ (REGIONAL)									2.5	1	39,9	3	40,4	8	86.1	9	6.1	3	175.0	
FTA-SECTION 9		İ					90.6	6	ļ .										90.6	
STATE			387.8	48	106.4	15	210.3	15	133.0	8	65.9	4	40.0	8	65.0	2	33,5	13	1041.9	,
STATE TSM MATCH											3.2	о	7.2	2	11.1	1			21.5	
98 1995 TRUST FUND											75,0	6					:		75.0	
PROPOSITION A	877.2	100	202.6	25	205.1	29	179.5	12	501.9	31									1966.3	2
PROP A/C (TRANSIT ENHANCEMENT)		•							68.7	4									68.7	
PROPOSITION C			213.5	27	400.3	56					195.5	15	151.6	32	299.1	36	122.0	48	1382.0	1
PROP C (AMERICAN DISABILITIES ACT)					6.0	1				ı									6.0	
CITY OF LOS ANGELES			-			; 	34.0	2	157.5	10	190.7	14	9.0	1	0.3		į		391.5	
BENEFIT ASSESSMENT							130.3	9	58.0	4	13.5	[1							201.8	
COST OVERRUN ACCOUNT							200.1	14											200.1	!
TOTAL	877.2	100	803.9	100	717.B	100	1450.1	100	1640.7	100	1313.8	100	490.7	100	979.5	100	257.5	100	8531.2	10

CONSISTS OF LIGHT RAIL LINE (\$847) AND MC-5 WORK (\$30).

LIT PORTION INCLUDED IN BLUE LINE FORECAST.

Note: Dete reflects Current Budget

Page 8



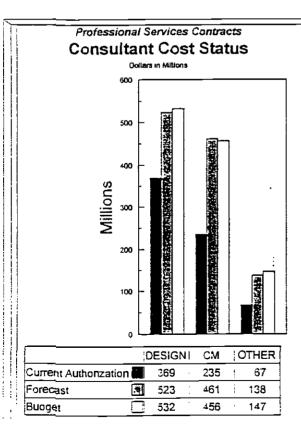
CHANGE BASIS ANALYSIS

Administrative changes account for approximately 40% or 284 of the 703 Consultant Change Notices overall. This equals 44% of the overall change cost of approved and amended changes.

CHANGE COST LEVEL ANALYSIS

As shown on the Cost Level Analysis chart opposite, the MTA Board approves 76% of all change costs associated with the Rail Project or \$90.5M of a total change cost of \$119.7M. This equal 19% of the total change volume or 132 of 703 total changes.

Note: Basis and Cost charts include only approved and amended changes. Starting with the February report, changes logged for Planned Scope Additions are no longer included in the Basis and Cost charts.

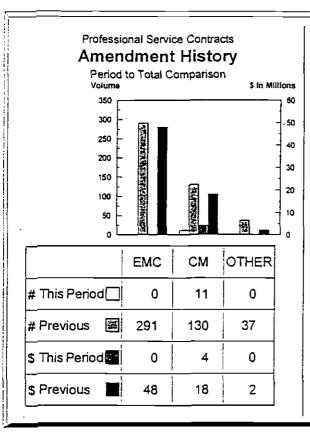


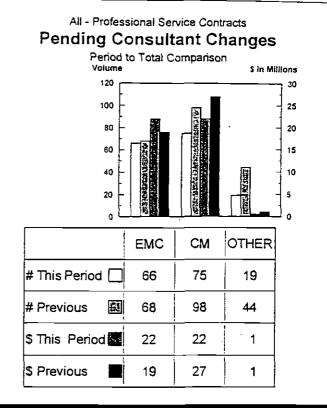
PROFESSIONAL SERVICES COST ANALYSIS

Report revised to show authorized, budgeted, and forecast consultant costs rather than changes, amendments, and planned scope additions.

Now includes all professional service contracts. Groups represent contract types not individual contracts (i.e. "design" includes all line item 11 contracts not just EMC.)

Forecasts for all professional services continues to exceed budget amounts.





CONSULTANT CHANGE REQUEST ANALYSIS

Eleven Consultant Change Notices (CCN) were approved by the MTA during the period with a total value of \$4.49 million.

Ten new Consultant Change Notices (CCN) were assigned during the period with an estimated value of \$3.95 million.

MTA rejected / cancelled five CCN's during the period with a Rough-Order-of-Magnitude value of \$240 thousand.

CCN's for Planned Scope Additions, which are not true changes to the Contract, have been removed from the Professional Service Contract Change statistics.

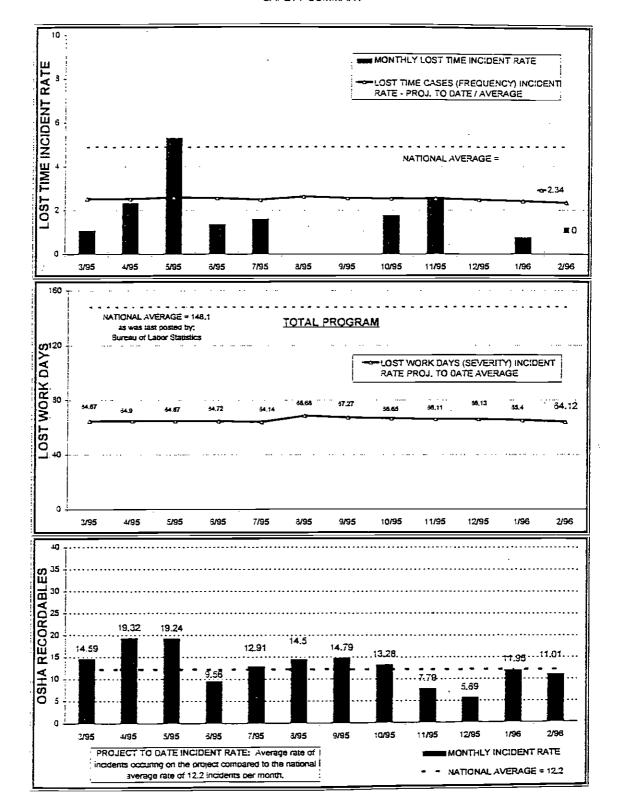
Cost Performance Relative to Corporate Goals (INTHOUSANDS)

	WEILDS	BUTTE (TIME)			METRO GI	EEN ONE		ED UNE		RED UNE	METRO		WEITO				VEI INCLE A		101		Ī
			BITTE					IENT I		MENT 2	SEGMEN		SEGMEN		SEGMEN		PRO.		PACG	FAM	00
											PRALICO		PATICO	PERCENT	DOLLARS.		COLLEGE	PERCENT	COLLARS	PERCEIS	44
CONSTRUCTION	657,487	74 95%	432,340	53.78%	477,236	68 49%	812,270	56.02%	1,142,573	69 64%	820,356	82 55%	Ŏ,	Ó	644,445	65 22%	180,644	89 72×	5,167,351	64 67%	1
VEAL ESTATE	55,592	6 34%	69,259	8 62%	26,047	3 63%	140,000	9.66%	87,773	5,35%	89,076	6.79%	0	٥	27,459	2.78%	٥	0 00%	495,208	6.20%	
PROFESSIONAL SERVICES:												,									
ENGINEERING/DES	69,587	7.93%	117,940	14 67%	83,296	11,60%	221,659	15 29%	164,900	10 05%	90,711	6.92%	0	0	102,702	10,39%	1,700	0.64%	852,495	10 67 %	
CONSTRUMENT,	91,642	10.45%	66,076	6.22%	78,213	10 90%	116,429	6 03%	159,290	9.71%	115,919	8 64%	o	٥	84,983	9.60%	0	0.00%	712,552	8.92%	
STAFF	17,655	2.01%	44,196	5.50%	24,179	3,37%	95,558	6.59%	55,739	3.40%	59,588	4.54%	0	a	/37,565	3.6b%	3,840	1.91%	338,320	4.23%	۰.
OTHER	14,222	1.62%	16,459	2 30%	17,337	2.42%	32,571	2.25%	20,030	1 22%	39,316	3,00%	0	a	17,358	1,76%	9,237	4.59%	168,632	2,11%	۵.
SUBTOTAL	193,106	22.01%	246,671	30,69%	203,025	28 28%	466,317	32,16%	399,959	24.38%	305,536	23.30%	- 0	ō	242,608	24,55%	14,777	7.34%	2,071,999	25 93%	: 2
CONTINGENCY	963	0.11%	56,809	7.07%	12.757	1.78%	31,432	2.17%	11,188	0 68%	106,129	8 24%	0	o	73,567	7.45%	5,930	2.95%	300,775	3.76%	ŀ
PROJECT REVENUE	(29,877)	-3,41%	(1,211)	-0.15%	(1,263)	-0.18%	0	0 00%	(712)	001%	(11,517)	-0 88%	٥	0	٥	0.00%	٥	0.00%	(44,580)	-0,56%	
BRAND TOTAL	577.271	100 00%	803,868	100 00%	717,802	100 00%	1,450,019	100.00%	1,640,781	100.00%	1,311,580	100 00%	0	0	968,079	100.00%	201,351	100,00%	7,990,751	100.00%	

METRO RED UNE SEGMENT 3 MID CITY FORECAST NOT AVAILABLE.

NOTE: Data reflects Current Forecast.

TOTAL METRO SAFETY SUMMARY Prepared by: MASS TRANSIT GROUP

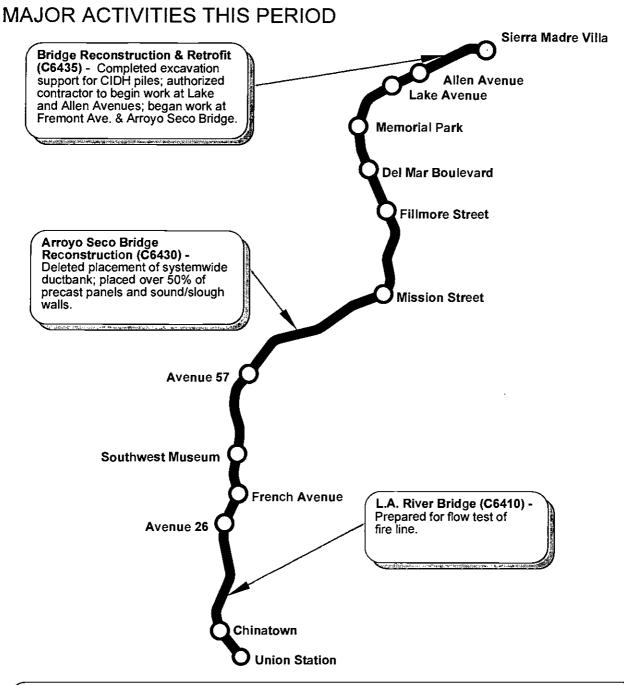


METRO PASADENA BLUE LINE EXECUTIVE SUMMARY

Summary Status Report

Period Ending - March 29, 1996





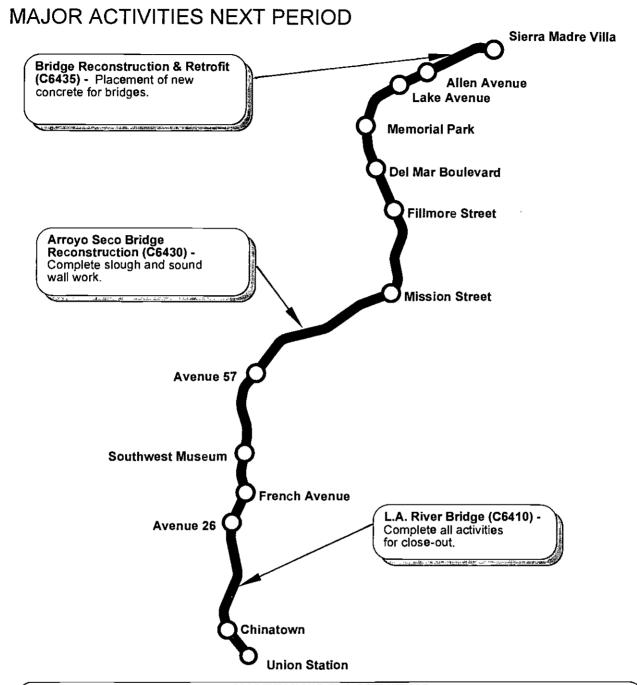
SYSTEMWIDE ACTIVITIES

The MTA Board approved Pasadena Blue Line Cost Containment/Revised Design Criteria project scope on 2/28/96 based on a budget of \$803.9M and a ROD of May 2001. CWO #037 for \$3M has been initiated for the EMC to develop a detailed Project Implementation Plan (PIP) which defines the work scope, final design requirements, and path-forward for resumption of critical design work. During the period, MTA staff worked with EMC to detail the scope, time and resources required for resumption of engineering design. These evaluations must be completed and engineering must resume by June 1996 in order to avoid impacting the May 2001 ROD.

Summary Status Report

Period Ending - March 29, 1996

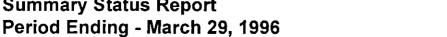




SYSTEMWIDE ACTIVITIES

- MTA will complete a draft Execution Plan for Board review in June 1996 which defines the baseline Project scope. Urban Planning consultants will meet with community representatives to receive input relating to potential impacts associated with cost reduction work scope changes.
- MTA Environmental Group will identify and evaluate the potential for additional or Supplemental Environmental Impact Statements (SEIR's) resulting from cost reduction work scope changes.
- MTA staff and consultants will review the impact of cost reduction work scope changes to the design criteria and identify any required waivers.
- MTA Operations will prepare input for the Marmion Way Operations Scenario community presentation.
 Caltrans will execute the Fund Transfer Agreement to allocate \$28.0M from the State Highway Account Fund.

Summary Status Report





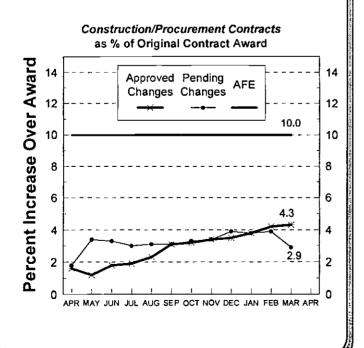
BUDGET

	Amount (\$ in mil)	Change from Last Month (\$ in mil)
Original Budget	841	None
Approved Budget	804	None
Current Forecast	804	None
Expenditures	159	+4

BUDGET ANALYSIS

- The Approved Budget of \$803.9M is based on a May 2001 ROD; the budget was approved on February 28, 1996 by the MTA Board and incorporates new work scope to address Value Engineering and Cost Containment items.
- The MTA staff is currently preparing detailed project baseline scope and cost for inclusion in an Execution Plan to be submitted to the MTA Board in June 1996.
- The Current Forecast remained at \$803.9M to reflect the approved project scope, schedule and cost.
- The Original Budget had been based on a work scope and schedule resulting in a November 1997 ROD.

CONTRACT CHANGES



CONTRACT CHANGE ANALYSIS

- Approved and pending changes processed to date are less than the AFE values. In general, the cumulative value of changes is forecast to remain below the cumulative value of AFE's.
- New work scope to repair the fire damaged Lacy St. Bridge will result in an increase to the AFE for the Reconstruction and Retrofit of Concrete and Steel Bridges Contract (C6435). The fire damage occurred after the contract award and was therefore not included in the original AFE amount. The MTA is currently pursuing a recovery of this cost from the insurance company.

Summary Status Report

Period Ending - March 29, 1996



SCHEDULE

Change from **Last Month**

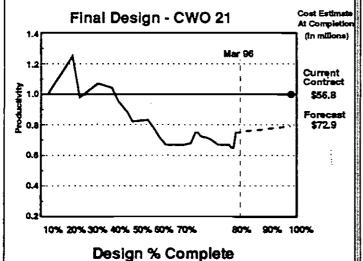
Current ROD M	ay 2001	None
Design Progress*	80.1%	+0.1
Constr. Progress**	6.8%	+0.2
Critical Path Float	O days	None

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

SCHEDULE ANALYSIS

- The Project schedule was rebaselined last period to incorporate approved Value Engineering/Cost Containment items.
- Design has been on hold since June 1995 initially due to resolution of outstanding CCR's and cost overruns; later, it was concurrently on hold pending MTA Board decision on Value Engineering & Cost Containment items.
- In order for design to resume, the MTA and EMC must assure a detailed Project Implementation Plan (PIP) is prepared which defines the Project scope and resources necessary for execution. The Plan must be completed and section designers must be available to begin work by June 1996 in order to avoid impacting the ROD.
- MTA staff will also prepare a report for submittal to the Board in June 1996 which validates the schedule & recommends optimized contract packaging.
- The Critical Path runs through final design & construction for the Del Mar/Memorial Park Line Section, trackwork installation, OCS, train control and pre-revenue operations.

EMC COST PERFORMANCE



NOTE: The chart above reflects information for the EMC's current CWO only (CWO No. 0021). Additional CWO's to reflect final design for Value Engineering/Cost Containment are pending.

EMC COST PERFORMANCE ANALYSIS

- The final design forecast exceeds the EMC Current Contract Value, resulting in a Cost Performance Index (CPI) of less than 100%. An amendment to EMC's current CWO will be submitted to the Board next period to resolve CCR's and increase the EMC's contract value.
- Design has been on hold through March; initially due to resolution of outstanding CCR's/cost overruns and later for resolution of Value Engineering and Cost Containment issues.
- MTA Board action on February 28, 1996 established a new budget & initiated the process of design re-start pending preparation of a PIP. CWO #037 for \$3.0M is for development of the PIP, definition of final design requirements and initial resumption of some design work.
- The total budget and forecast for EMC has been impacted by, (1) redesign for approved Value Engineering & Cost Containment items, (2) levelof-effort costs incurred during the "design hold" period, (3) current approved and pending CCR's and (4) cost overruns to date.

^{**}Assumes no change to contract packaging, except for deletion of Safety, Security and SCADA contracts per Value Engineering/Cost Containment items. MTA is analyzing & documenting contract re-packaging options for submittal to the Board in June 1996; consolidation of contracts into approximately 15 to 20 packages may provide an economiesof-scale cost advantage & reduce administration costs.

Summary Status Report Period Ending - March 29, 1996



SAFETY

Change from Last Month

Recordable Injury Rate

1993 National Average 12.2

Project Rate (Cum.) 3.6 -0.1

Lost Time Rate (Frequency)

1993 National Average 4.9

Project Rate (Cum.) 0.0 None

Lost Work Days (Severity)

1993 National Average 148.1

Project Rate (Cum.) 0.0 None

NOTE: The most recent national statistics available are for 1993; MTC statistics are based on February data.

SAFETY ANALYSIS

- Continued with eight (8) OSHA-200 recordable cases to date, resulting in a further reduction of the cumulative project rate.
- Continued with zero Lost Time case rate to date.
- Continued with no lost work days;
 Pasadena Blue Line is approaching 450,000 construction hours worked without a lost time injury.
- Completed Safety Training this period which included emphasis on the proper use of power hand tools.

COMMUNITY ISSUES

• MTA Public Affairs is continuing to interface with community representatives regarding the station redesign cost savings efforts which will be presented to the MTA Board in June.

Summary Status Report Period Ending - March 29, 1996



QA/TQM ISSUES

- MTA Quality Management met with the Project Management Oversight (PMO) to discuss corrective actions as a result of recent MTA audits of the EMC.
- MTA Quality Management facilitated a team alignment session for MTA, EMC and MTC senior management personnel on March 22, 1996.
- MTA Quality Management completed the audit of the C6430 contractor. The audit report was issued on March 30, 1996. The audit of the C6435 Resident Engineer will be completed by mid-April.

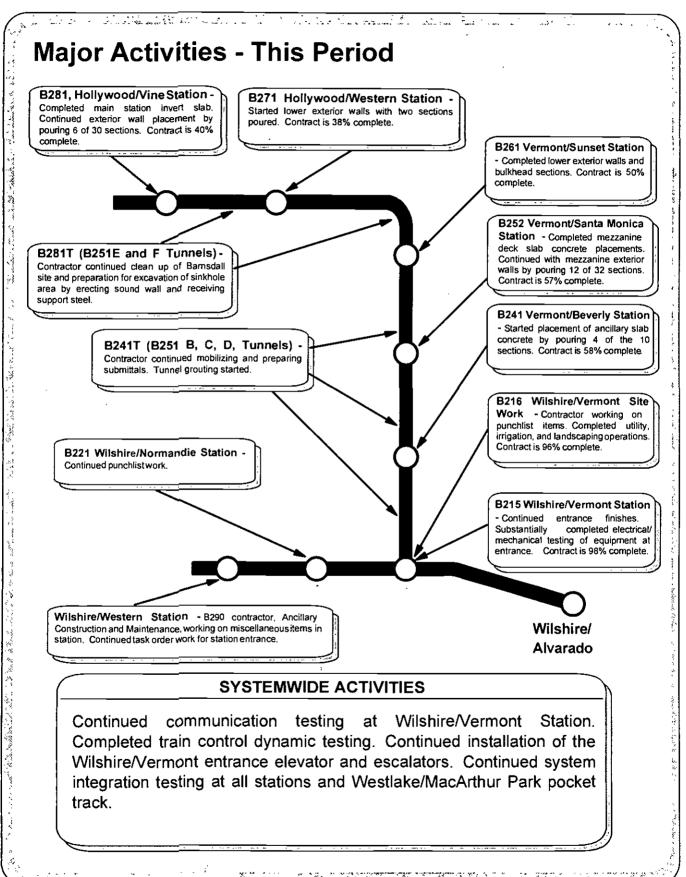
CCR BACKLOG STATUS

- 10 Consultant Change Requests (CCRs) are pending approval of the Change Control Review Board (CCRB) at an estimated value of \$5,570,133.
- 36 CCRs have been approved by the CCRB for an estimated value of \$3,952,649.

METRO RED LINE SEGMENT 2

EXECUTIVE SUMMARY

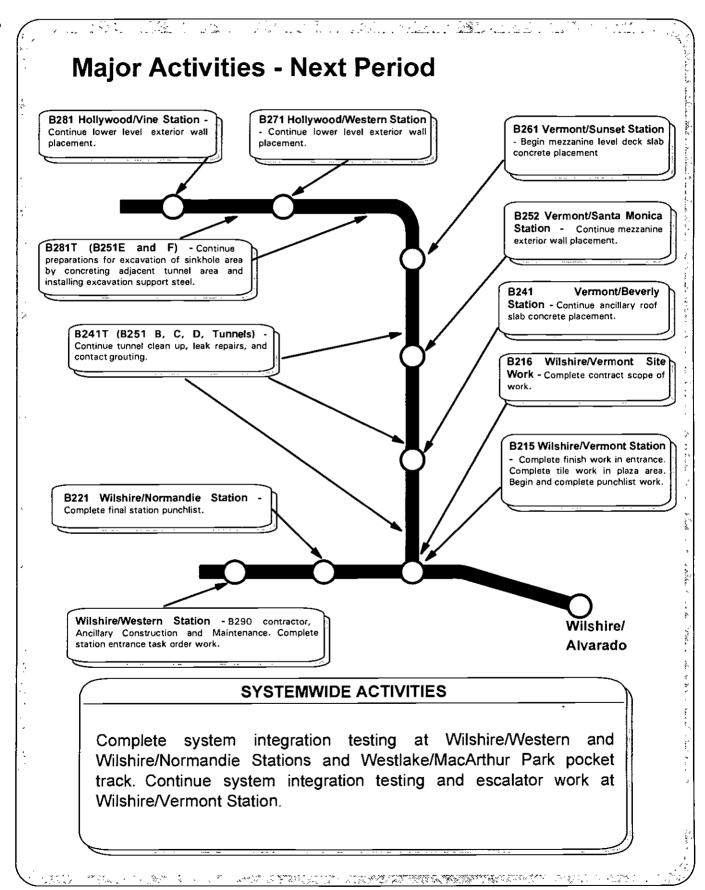




METRO RED LINE Segment 2 Summary Status Report

Period ending - March 29, 1996





MAAC150.PRE ES-2



BUDGET

	Amount	Change from Last Month
	(in \$ mil)	<u>(in \$ mil)</u>
Original Budget	1,446	None
Approved Budget	1,641	None
Current Forecast	1,641	None
Expenditures	1,098	+17.5

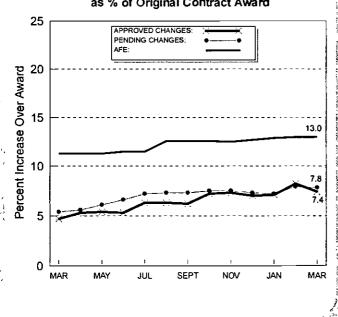
BUDGET ANALYSIS

Overall, there are no changes to the various budget and forecast categories this period, but administrative changes were made to the distribution of federal, state, and local funds.

The expenditures increased \$17.5 million in February, primarily caused by \$6.4 million in Construction and \$10.7 million in Professional Services.

CONTRACT CHANGES

Construction/Procurement Contracts as % of Original Contract Award



CONTRACT CHANGE ANALYSIS

The percent of approved and pending changes relative to the contract award total was adjusted this period to account for the inclusion of B241T and B281T in the contract award base total.



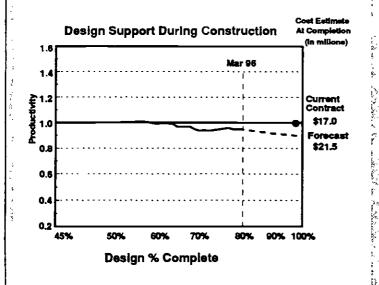
SCHEDULE

Wilshire Corrido	<u>or</u>	Change from Last Month
Current ROD	July 13, 1996	3 days
Design Progress	100%	None
Critical Path Float	+13 Days	-5 days
Vermont/Hollyw	ood Corridor	Change from Last Month
Current ROD	Dec. 31, 1998	None
Design Progress	99%	None
Critical Path Float	-82 Days	-19 days
Const. Progress	72.0%	1.7%

SCHEDULE ANALYSIS

- The Grand Opening for Wilshire Corridor has been scheduled for July 13, 1996. The positive float has been reduced from positive 18 to positive 13 calendar days due to the slowerthan-planned progress in completing systems integration tests. To date, only eight tests have final reports issued; 23 tests are 80% or greater completed; 28 tests are 40% or more completed; and most other tests have undergone some pretest checking.
- The critical path is through completion of Transit Automatic Controls testing and resolution of discrepancy reports, substantial completion of systems integration testing by May 17, 1996, and beginning pre-revenue operations on May 18, 1996, with completion forecast for June 30, 1996.
- Vermont/Hollywood Corridor critical path continued through Contract B271, completion of station structure concrete, B610 trackwork installation, B620 train control installation, and system integration testing and pre-revenue operations.
- Concrete pouring activities at the B271 station continued to progress slower-than-planned, causing the project float to increase from negative 63 to negative 82 calendar days. To mitigate schedule slippage by the Contractor, P-D and the Contractor are reviewing the Contractor's staffing to ensure adequate manpower. In addition, P-D continued to review and return submittals so that future concrete work can proceed unimpeded. It is expected that mezzanine concrete activities will proceed faster than planned, mitigating some of this delay.

EMC COST PERFORMANCE



EMC

COST PERFORMANCE ANALYSIS

- The chart represents the cost performance for design support during construction (DSDC) and has been revised this month to reflect cumulative, rather than period data..
- This chart compares the actuals versus the earned values in terms of work hours and reflects an estimated cumulative to date Cost Perform Index (CPI) through March 1996 of 0.95.
 The CPI data is in terms of budget values only and reflect unfavorably when more work is required than budgeted. The request for additional budget to cover the additional scope of work was approved; however, it is not yet reflected in the chart data.



CONSTRUCTION SAFETY STATISTICS

CIATIONIOC								
		Change from Last Month						
Recordable Injury Rate								
National Average	12.2							
Project Rate (Cum.)	21.0	-0.3						
Lost Time Rate (Frequency)	ı							
National Average	4.9							
Project Rate (Cum.)	2.8	N/C						
Lost Work Days (Severity)								
National Average	148.1							
Project Rate (Cum.)	74.9	-0.5						
Segment 2 is averaging over 140,000 work hours per month.								

CONSTRUCTION SAFETY SUMMARY

- Metro Red Line Segment 2 construction contracts combined to produce over 140,000 work hours in February (143,154) with zero Lost Time Injuries and only four OSHA 200 cases. This produced a monthly Lost Time Case Rate of 0.0, compared to the National Average of 4.9 Lost Time Cases per 200,000 labor hours. The four OSHA 200 cases produced a monthly OSHA 200 case rate of 5.6, compared to the 1993 National Average of 12.2 per 200,000 hours worked.
- The Wilshire field safety office opened during March to serve job sites in the Wilshire and Vermont/Hollywood Boulevard areas.
- Preparations continue for oversight of the B251 completion contracts, including obtaining tunnel gas classifications from Cal-OSHA.

COMMUNITY ISSUES

WILSHIRE CORRIDOR

The MTA Marketing Department is developing plans for the July 1996 opening.

VERMONT CORRIDOR

The Construction Art Wall at Sunset and Vermont was opened to the public on March 28, 1996.

HOLLYWOOD AND VERMONT (BARNSDALL AREA)

A Community Outreach Program is being implemented for Contract B251 E and F.



QA/TQM ISSUES

- An agreement was reached between the MTA and the EMC that will assure more detail on electrical lift drawings to
 provide for complete electrical inspections. The previous level of detail made electrical inspections very difficult, and
 sometimes required inspection forces to perform additional inspections.
- A Wilshire Corridor team alignment workshop was held on March 1, 1996.
- Quality Assurance completed an audit of the B271 Resident Engineer. The audit report was issued March 29, 1996.
- Quality Assurance surveillance of work-in-progress was conducted at B215, B646 and the Systems integration Testing operations.
- Results of the National Institute for Certification Engineering Technology (NICET) examinations were received from the NICET examining board. Thirty individuals were tested and 22 successfully completed the examination. Joint NICET/MTA certifications will be presented during the month of April 1996.

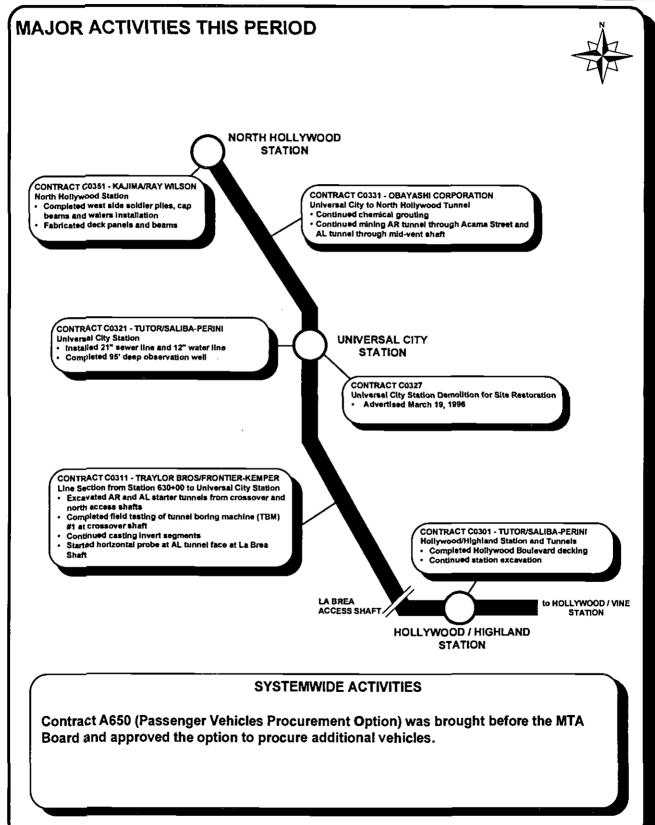
CCR BACKLOG STATUS

- 13 CCRs pending approval of the CCRB at an estimated value of \$8,285,845.00.
- 71 CCRs have been approved by the CCRB for an estimated value of \$17,502,384.00.

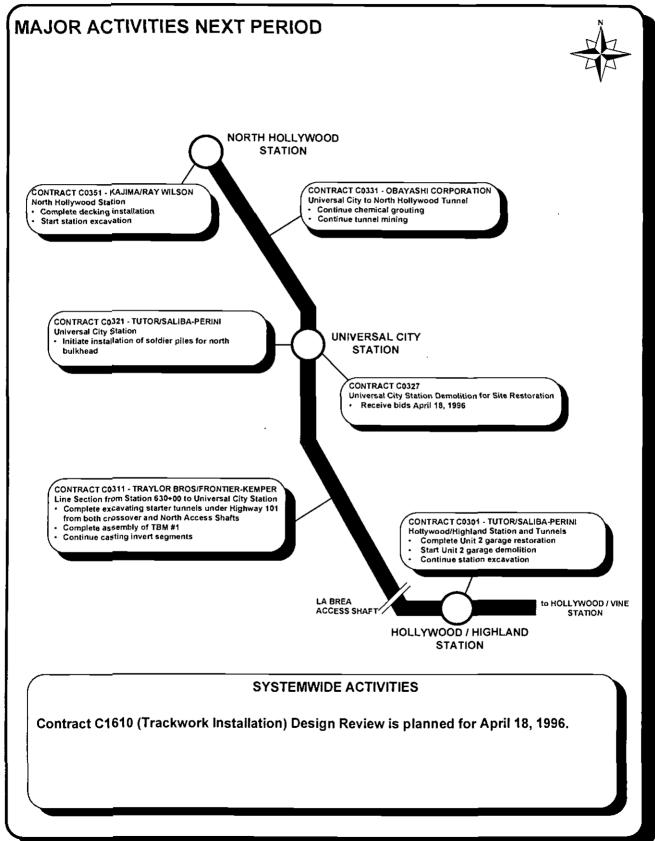
METRO RED LINE SEGMENT 3 NORTH HOLLYWOOD EXTENSION

EXECUTIVE SUMMARY







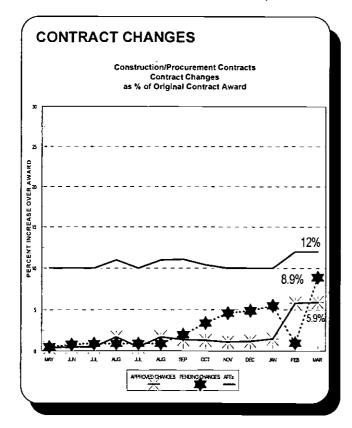




Amount (in \$ mil) Driginal Budget 1310.8 Approved Budget 1313.8 Current Forecast 1311.6 Expenditures 342.3 Change from Last Month (in \$ mil) None (11.8)	BUDGET		
Approved Budget 1313.8 None Current Forecast 1311.6 (11.8)	·		Last Month
Current Forecast 1311.6 (11.8)	riginal Budget	1310.8	None
(4.1.2)	pproved Budget	1313.8	None
expenditures 342.3 21.0	urrent Forecast	1311.6	(11.8)
	xpenditures	342.3	21.0
		•	
·			

BUDGET ANALYSIS

- The Original Budget of \$1,310.8M was established by MTA Board action on March 25, 1993 with the approval of the Full Funding Grant Agreement (FFGA) with the FTA. The budget has been modified on three occasions through the Project Budget Change Request process for a net increase of \$3.02M, resulting in an Approved Budget of \$1,313.8M. This \$3.02M increase provides for Other Locally Funded Activities (New Requirements) as follows: Non Revenue Connector; Artwork in Stations; Northridge Earthquake Impact.
- The Current Forecast is the estimate of the total project cost with all invoices paid and all obligations satisfied. The Current Forecast is \$1311.6M or \$0.8M over Approved Budget. This increase over Approved Budget is due to the addition of Other Locally Funded Activities such as the Artwork Program.
- The Current Forecast decreased this month due to anticipated expenditures for remaining Northridge Earthquake impacted work scope being reclassified to above the line approved budget, the Non Revenue Connector work scope being deleted from Contract C0311 (Line Section from Universal City Station to Station 630+00) and the addition of Contract B251 (Vermont/Hollywood Tunnel) potential claims and insurance reimbursement which are under review by legal counsel. The B251 potential claims and insurance reimbursement has been identified as Project Revenue as noted in the detail financial pages.
- Expenditures increased by \$21M this month in keeping with progress on the project.



CONTRACT CHANGE ANALYSIS

- Approved Changes and Pending Changes, together, accounted for an approximate 14.8% cumulative increase over Contract Award Value.
- Total Pending Changes percentage rose 7.9% and Approved Changes rose 0.1% over last month. Total Pending Changes showing a significant increase from a somewhat reduced value due to the conversion of prior Pending Changes into Approved Changes. The 14.8% total change exposure exceeds the AFE amount. MTA staff is working to formalize AFE adjustments in accordance with Board direction to finalize award of rail vehicles.
- Pending Changes increased \$39.1M over last period mainly due to a \$36.7M authorization to exercise an option for 18 additional rail vehicles for A650 (Passenger Vehicle Procurement) and increases to C0331 (North Hollywood Tunnel) for additional grouting activities and other miscellaneous.
- Approved Changes increased \$97K over last period due to miscellaneous changes.

Footnote: Data cutoff date for Change Analysis is the end of the month while the data cutoff date for Forecasting is mid-month. Discrepancies in numbers may result.



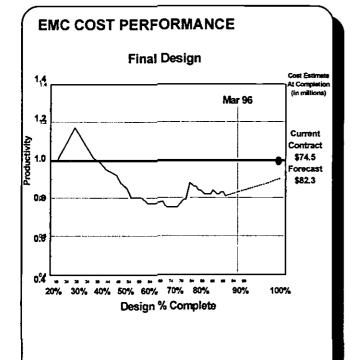
SCHEDULE

		Change from Last Month
Current ROD Septem	nber 2000	0
Design Progress	89.9%	+0.4%
Construct. Progress	20.3%	+1.4%
Critical Path Float -12	D Cal. Days	0

Note: Actual Construction Progress for February 1996 was 18.9% as compared to estimate of 17.7% reported in February.

SCHEDULE ANALYSIS

- Project critical path did not change during this period.
 Forecast project completion date is September 14,
 2000, 120 calendar days late, compared to the official
 ROD date of May 17, 2000. The forecast is within the
 Full Funding Grant Agreement schedule obligation.
- Systems and pre-revenue operation schedules are being reviewed with the expectation of modifying these activities to recover from the delay of 120 calendar days.
- Critical path continues to run through C0311 (Line Section from Universal City Station to Station 630+00), C1610 (Trackwork Installation), B620 (Automatic Train Control), B645 (SCADA) and Testing/Pre-Revenue Operations.



EMC COST PERFORMANCE ANALYSIS

- Final Design is approximately 90% complete, with all of the Major Facilities Design (Stations and Tunnels) at 100% complete. Although the Major Facilities Design has been completed, substantial design work remains to be done on the Facilities Restoration and the Systems Contracts.
- The MTA has calculated a Forecast at Completion of \$82.3M and represents staff's efforts to contain costs which is lower than EMC's forecast.
- The MTA is working with the EMC to reduce the overall cost forecast for the EMC by as much as 15% as project construction requires only limited design services.

ES-4 FXE 10



CONSTRUCTION SAFETY STATISTICS

Project-to-Date Rates		Change from Last Month
Recordable Injury Rate		
1993 National Average	12.2	
Project Rate	13.0	0.5
Lost Time Rate		
1993 National Average	4.9	
Project Rate	0.3	0
Lost Work Days		
1993 National Average	148.1	
Project Rate	19.6	-2.1

 Segment 3 North Hollywood Is averaging over 130,000 work hours per month.

(Based on February statistics)

CONSTRUCTION SAFETY SUMMARY

- Although recordables are slightly above the National Average, both Lost Time Rate and Lost Work Days are significantly lower than the National Average.
- Planning meetings were held to ensure proper handling of the hazards associated with safety activities for Runyon Canyon tunneling.

COMMUNITY ISSUES

HOLLYWOOD/HIGHLAND STATION

MTA's Public Affairs is securing an alternative parking area for contractors to replace the McCadden parking site.

NORTH HOLLYWOOD STATION

- MTA's Public Affairs staff is developing a Public Information Office for the North Hollywood community.
- MTA's Public Affairs staff is assisting local merchants with advertising and signage for station decking activities.

RUNYON CANYON

• MTA's Public Affairs staff is developing a field information office in the vicinity of the Hollywood Hills.

EXE 11 ES-5



QUALITY ASSURANCE / TOTAL QUALITY MANAGEMENT (QA / TQM) ISSUES

- Quality Management completed an audit of the Resident Engineer at C0351. The audit report was issued March 20,
 1996. An audit of the C0351 contractor is in progress and will be completed by mid-April.
- Quality surveillances of work-in-progress were conducted at C0301(2), C0331 and C0351.

CONSULTANT CHANGE REQUEST (CCR) BACKLOG STATUS

- 15 CCRs pending approval of the Consultant Change Review Board (CCRB) at an estimated value of \$4,672,845.
- 4 CCRs have been approved by the CCRB for an estimated value of \$568,960.

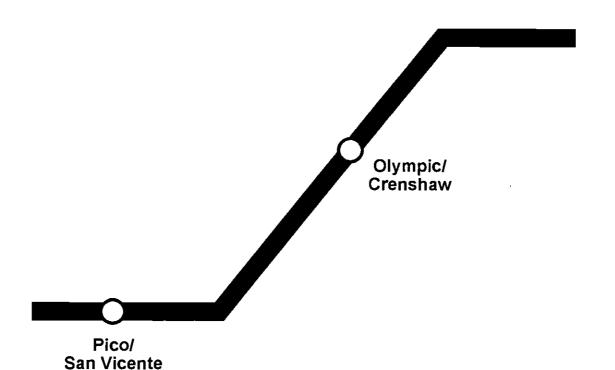
METRO RED LINE SEGMENT 3
MID CITY EXTENSION

EXECUTIVE SUMMARY

METRO RED LINE - Segment 3 / Mid-City Extension Summary Status Report Period Ending - March 29, 1996







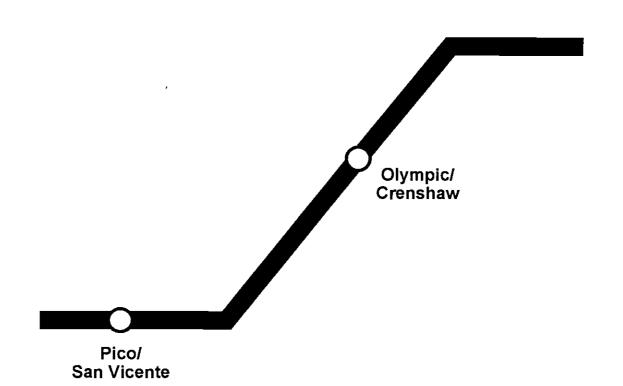
SYSTEMWIDE ACTIVITIES

- MTA is preparing a plan for presentation to the MTA Board proposing exploration of a third alternative, a deep bore alignment along Wilton Place/Arlington Avenue. Due to this change in direction, ongoing environmental studies have been placed on hold.
- Enviro-Rail, MTA's environmental consultant, was put on hold in March.
- Mid-City project cost commitments are being reviewed for appropriateness since the project is on hold, and pending the Board's potential approval of study of a third alternative.

METRO RED LINE - Segment 3 / Mid-City Extension Summary Status Report Period Ending - March 29, 1996



MAJOR ACTIVITIES NEXT PERIOD



SYSTEMWIDE ACTIVITIES

- MTA will seek Board approval in April to explore a third alternative, a deep bore alignment along Wilton Place/Arlington Avenue.
- MTA will go before the Board in April with a proposal suggesting that appropriate construction procurement commitment and expenditure dollars be transferred to the East Side Extension or simply decommitted. In support of that proposal, all amounts are being verified and, where appropriate, revised.

METRO RED LINE - Segment 3 / Mid-City Extension Summary Status Report Period Ending - March 29, 1996



BUDGET		
Orîginal Budget	Amount (In \$ mil) 490.7	Change from Last Month (In \$ mil) None
Approved Budget	490.7	None
Current Forecast	TBD	TBD
Expenditures	11.9	0.8

BUDGET ANALYSIS

 Budget and Forecast values are subject to outcome of alignment alternative selected.

SCHEDULE		
Current ROD	7/16/99	Change from <u>Last Month</u> None
Design Progress	0%	None
Construction Progress	0%	None
Critical Path Float	N/A	None

SCHEDULE ANALYSIS

- An Administrative Draft SEIS/SEIR document detailing the two Boardapproved alternatives was completed.
- The current estimate for project completion from MTA Board alternative selection is eight years.
- A proposal to explore a third alternative is being prepared for submission to the MTA Board in April. If accepted, this will cause approximately a one-year adjustment to the current schedule.

CCR BACKLOG STATUS

- 2 CCRs pending approval of the CCRB at an estimated value of \$88,900.
- 6 CCRs have been approved by the CCRB for an estimated value of \$1,082,253.

SAFETY

No activity for this period.

COMMUNITY ISSUES

No activity for this period.

QA / TQM ISSUES

No activity for this period.

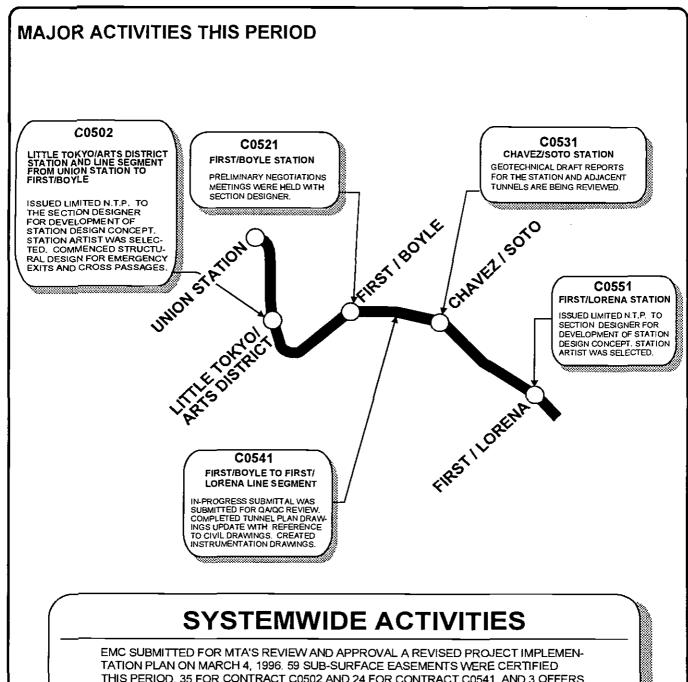
METRO RED LINE SEGMENT 3

EAST SIDE EXTENSION

EXECUTIVE SUMMARY

METRO RED LINE - Segment 3 East Side Extension Summary Status Report Period ending - March 29, 1996



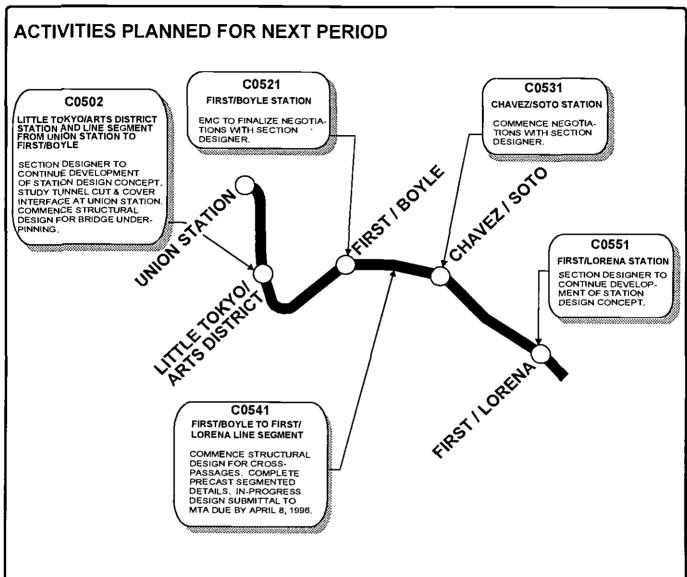


EMC SUBMITTED FOR MTA'S REVIEW AND APPROVAL A REVISED PROJECT IMPLEMENTATION PLAN ON MARCH 4, 1996. 59 SUB-SURFACE EASEMENTS WERE CERTIFIED THIS PERIOD, 35 FOR CONTRACT C0502 AND 24 FOR CONTRACT C0541, AND 3 OFFERS WERE MADE FOR PARCELS FOR CONTRACT C0521. THE PROJECT IMPLEMENTATION PLAN (PIP) FOR THE METRO ART WAS SUBMITTED BY EMC. DESIGN KICK-OFF MEETING WITH SECTION DESIGNERS' ARCHITECTS AND STATION ARTISTS WAS HELD FOR CONTRACTS C0502 AND C0551. COMPLETED IN-PROGRESS (INTERIM) DESIGN SUBMITTAL FOR MTA'S REVIEW FOR CONTRACTS C0528 AND C0558. MTA BOARD APPROVAL OF THE RECOMMENDED CONSTRUCTION MANAGEMENT CONTRACT WAS DELAYED.

METRO RED LINE - Segment 3 East Side Extension

Summary Status Report Period ending - March 29, 1996





SYSTEMWIDE ACTIVITIES

CERTIFY 30 SUB-SURFACE EASEMENTS FOR CONTRACT C0541 WHICH IS ON THE CRITICAL PATH. CONTINUE GEOTECHNICAL SERVICES: SECOND PUMP TEST DRAFT REPORT IS DUE ON MARCH 8, 1996. REVISE FINAL REPORT OF NOISE & VIBRATION MITIGATION STUDY. MTA STAFF WORKING TOWARDS RECOMMENDATION ON THE JOINT PROJECT OFFICE FOR THE APRIL MTA BOARD MEETING. MTA STAFF TO RECOMMEND AWARD OF THE CONSTRUCTION MANAGEMENT CONTRACT AT THE APRIL, MTA BOARD MEETING.

METRO RED LINE - Segment 3 East Side Summary Status Report Period Ending - March 29, 1996



BUDGET

	Amount (in \$ mil)	Change from Last Month (in \$ mil)
Original Budget	979.6	None
Approved Budget	979.6	None
Current Forecast	988.1	-20.9
Expenditures	18.2	2.7

BUDGET ANALYSIS

- Measures taken to mitigate the \$29M increase to the forecast (as a result of project escalation) are as follows:
 - -Deletion of the stations' air conditioning system.
 - -Reduction of the stations' length.
 - -Procurement of sixteen vehicles, instead of the twenty-four (as indicated in the FFGA, dated 1/31/95).
- Other cost mitigation measures under review include:
 - -Revised Power Distribution System
 - -Floating slab reduction
 - -Revisions to construction work packaging and sequencing

EMC COST PERFORMANCE

Cost Performance Chart is not applicable at this time, but will be provided at the time a baseline schedule is approved.

EMC COST PERFORMANCE ANALYSIS

The Cost Performance Index baseline is no longer consistent with the original \$48.5M budget due to authorized scope changes incorporated into the work in progress. The revised scope of work is documented in the revised Project Implementation Plan as submitted by the EMC on March 4, which is currently being reviewed by MTA. Once the Final Design Project Implementation Plan is reviewed/negotiated/approved, the revised baseline will be established and a Cost Performance Chart which accurately reflects the work scope will be included.

METRO RED LINE - Segment 3 East Side Summary Status Report Period Ending - March 29, 1996



SCHEDULE		
		Change from <u>Last Month</u>
Current R.O.D.	Nov 2002	None
Final Design Progress	12.9%	2.5%
Construct. Progress	N/A	N/A
Critical Path Float	-319	-11

SCHEDULE ANALYSIS

 During the month of March, the forecast R.O.D. slipped 11 calendar days (8 working days) because of the MTA's request to lengthen the bid and award process on the three demolition contracts from 4 months to 6 months.

The forecast R.O.D. is September 2003, or 319 calendar days (228 working days) behind the FFGA scheduled R.O.D. of November 2002 due to delay in full release of final design and delay in the section designers' Notice to Proceed.

- Schedule mitigation measures currently being evaluated include:
 - -Revisions to construction work packaging and sequencing
 - -Construction/design activity resequencing
 - -Simplified contractor interfaces
 - -Possible second tunnel concreting crew
 - -Possible second fiber optics crew

MTA will formulate a team of in-house and consultant personnel to carry out the required constructability review, and at that time, evaluation will be complete and a revised schedule will be available.

CONTRACT CHANGES

SAFETY

No activity for this period.

COMMUNITY ISSUES

- MTA's Public Affairs sponsored a Vendor Workshop on March 6, 1996.
- MTA's Public Affairs is reviewing a draft Community Outreach Plan for the community.

METRO RED LINE - Segment 3 East Side Summary Status Report Period Ending - March 29, 1996



QA / TQM ISSUES

- Final Quality Management comments to the EMC Project Implementation Plan have been forwarded to EMC for their incorporation.
- An MTA alignment workshop was held on March 16, 1996 for the East Side Project Team.

CCR BACKLOG STATUS

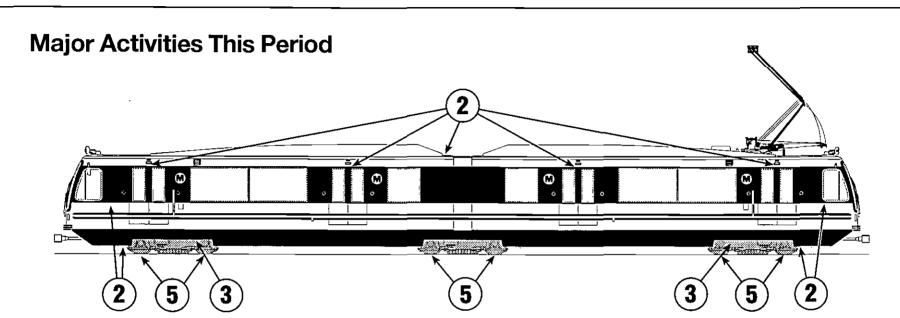
- 3 CCRs pending approval of the CCRB at an estimated value of \$62,500.
- 1 CCR was approved by the CCRB during the period for an estimated value of \$331,500.

VEHICLE ACQUISITION PROJECT EXECUTIVE SUMMARY

L.A. Light Rail Vehicle

Summary Status Report Period Ending - March 29, 1996



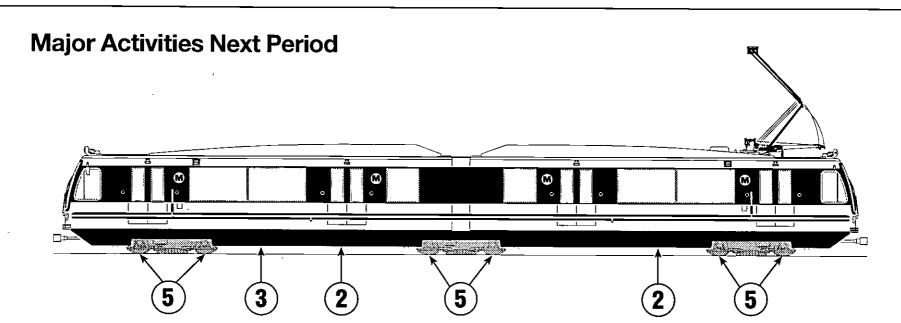


- 1. Termination cost estimates from Siemens are under evaluation by MTA and consultants.
- 2. First Article Inspections (FAI) and Design Conformance Tests of Doors, Health Monitor and Sanding System successfully completed.
- 3. Life cycle test of PowerTruck frame was rejected. Design of the friction brake support arm is being reviewed by Duewag due to welding cracks. Power Truck Bolster life cycle test was completed.
- 4. Design and manufacturing of vehicle subsystems progressing.
- 5. Axle and brake disc hub assembly FAI was rejected due to out of spec. pressing forces. Manufacturing procedures and materials used are under review.
- 6. ATPDP Product "B" Radar plans were completed for installation on the Metro Green Line start-up vehicle. Product "C" Air Conditioning R & D test continued by Aerojet on the bench test unit.

L.A. Light Rail Vehicle

Summary Status Report Period Ending - March 29, 1996





- 1. Termination cost evaluation and audit by the MTA will continue.
- 2. First Article Inspection of the car underframe structure will be performed in April.
- 3. Auxiliary Power supply design conformance test and FAI is scheduled for early May.
- 4. Continue design activity of all subsystems and manufacturing of vehicle components.
- 5. Axle/disk hub assembly FAI to be completed upon resolution of procedures and material selection review.
- 6. ATPDP Product "B" Radar will be prepared for installation on the Metro Green Line start-up vehicle.

L.A. LIGHT RAIL VEHICLE Summary Status Report

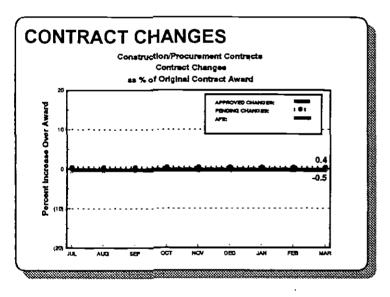
Period ending - March 29, 1996



BUDGET Change from **Amount Last Month** <u>(in \$ mil)</u> (in \$ mil) **Original Budget** 257.6 -0-Approved Budget 257.6 -0-201.4 **Current Forecast** -0-**Expenditures** 63.9 +1.2

BUDGET ANALYSIS

- Car reduction effected 9/08/95 which will reduce contract value from \$215 million to about \$170 million after termination liability is negotiated (2-4 months from now).
- Current forecast includes reduction of both procurement contract value and other project costs.



CONTRACT CHANGE ANALYSIS

The figures for March 1996 are as follows:

SCHEDULE Change from **Last Month** Schedule Car Delivery June 1997 N/C 1st Car 52nd Car Sept. 1998 N/C **Design Progress** 85-95% complete N/C N/C Fabrication Progress 25-30% complete **Critical Path** Carshell delivery N/C Delay (1st Car) -7 months N/C

SCHEDULE ANALYSIS

Contractor's last forecast schedule reflected a total of seven months delay in 1st car deliveries. Other subsystems with potential impact on delivery are air conditioning, doors and communications equipment. Carshell delivery is still on the critical path. Acceleration of delivery schedule for first several carshells is unlikely, however, delivery schedule is projected to improve for later units.

In the January and February schedule, STS has assumed that the MTA can accept cars at a higher rate than specified (2 cars per month).

L.A. LIGHT RAIL VEHICLE Summary Status Report Period ending - March 29, 1996



SAFETY

COMMUNITY ISSUES

No activity for this period.

QA / TQM ISSUES

- Quality Management met with personnel from FDI to discuss MTA Quality Management activities in the P-2000 vehicle contract. Quality Management will perform audits of LTK next month. The audit will focus on LTK compliance with their contract scope of services and their overall management of STS.
- LTK is still waiting for STS to submit Carson Quality Assurance procedures. More than 90% of the shop welding
 procedures have been submitted and approved.
- STS responded to LTK concerns for material control by fencing-in a new area for non-conforming material and adding parts identification and inspection status to parts in stored areas. In-process inspection activity has increased and another inspector was added. The roof assembly sequence was modified to address workmanship problems.
- One of the STS subcontractor Quality Assurance Manuals was received and is being translated into English.
 Two subcontractor manuals require upgrade for approved status.
- First Article Inspections continue and FAI open items are nearly verified as complete for the Propulsion and Braking systems.
- The motor truck brake caliper support must be re-designed after failing the fatigue test. This failure and weld
 quality issues are being addressed by Duewag.
- LTK performed a Quality Assurance System audit at WABCO, the friction brake supplier. LTK will follow-up WABCO's response to findings.

CCR BACKLOG STATUS

- 1 CCR pending approval by the CCRB for an estimated value of \$113,000.
- No CCR's were approved by the CCRB during the period.