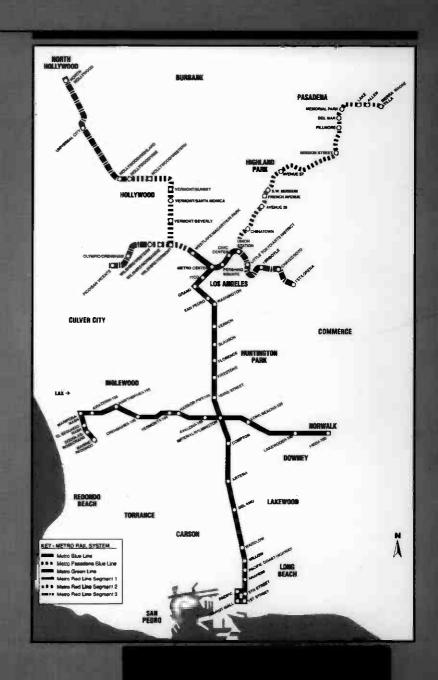
# MTA METRO CONSTRUCTION



Executive Report Rail Program Status



## **RAIL PROGRAM STATUS SUMMARY**

THE LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
METRO CONSTRUCTION DIVISION

Cindy Smouse 99-17-1

**JULY 1997** 

## **RAIL PROGRAM SUMMARY**

#### **COST STATUS**

**Current Budget:** 

\$803,868,000

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

## **SCHEDULE STATUS**

	<u>Design Progress</u>	<b>Construction Progress</b>
Current Plan: Aug 2001	Plan 100.0% Actual 80.3%	Plan 16.7% Actual 11.1%

 The construction variance is due to delays in the restart of design and the incorporation of cost containment items. Efforts to mitigate the schedule will be completed in August 1997.

#### SAFETY STATUS

· · · · · · · · · · · · · · · · · · ·	<u>Project Rate</u>	National Average
Lost Time Incident Rate	0.0	4.2

• The project has completed 712,000 work hours without a Lost Time Injury.

#### MANAGEMENT ISSUES

- The schedule is currently 153 calendar days from the August 2001 ROD. Project staff is
  reviewing the Basis of Design and the implementation of cost containment items to
  determine if the negative float can be recovered to maintain the ROD.
- A project task force was created to identify issues that may have an impact to the project. The task force is expected to complete their evaluation in August 1997.
- The allocation plan is expected to result in significant overruns to the specific line item budget for "agency costs." Project staff completed the technical analysis and is recommending revising the overhead rate, reducing overhead costs, and amending the project budget if necessary.

#### MONTHLY HIGHLIGHTS

 Project staff is conducting an extensive analysis of cost containment items and schedule delays. The results of the analysis will be presented to the MTA Board in September 1997.

## 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**

Wilshire Corridor:

July 13, 1996 (Actual ROD)

Vermont/Hollywood: December 19, 1998 (Current ROD)

<u>Design</u>	Progress	Construction Progress		
Plan	100.0%	Plan	93.2%	
Actual	96.0%	Actual	88.0%	

Construction Progress is behind the plan due to earlier delays in facilities (stations and tunnels) construction.

#### SAFFTY STATUS

ON ETT OTATOO	Project Rate	National Average
Lost Time Incident Rate	2.6	4.2

#### MANAGEMENT ISSUES

- The B710 contractor's lack of performance to deliver and perform contractual work due to the unavailability of full facility access remains a concern.
- The low-level of remaining unallocated contingency raises concerns that the forecast will exceed the current project budget. The Project Office conducted a review and risk analysis at the line item and contract level to determine if the remaining unallocated contingency is adequate.\*

## MONTHLY HIGHLIGHTS

The B610 Trackwork Contractor continued plinth concrete placement for the Vermont tunnels, completed B252 crossover concrete, and began concrete placement in the Hollywood tunnels and the B281 crossover area. Running rail placement continued in the Vermont tunnels.

## **METRO RED LINE Segment 3 North Hollywood**

#### **COST STATUS**

**Current Budget:** 

\$1,313,848,000

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

#### **SCHEDULE STATUS**

		<u>Design Progress</u>		<b>Construction Progress</b>	
Current Plan:	May 2000	Plan Actual	100.0% 91.3%	Pian Actual	46.0% 46.0%

 The project is currently on schedule. Focus continues on TBM progress and the risks associated with the tunnels under the Santa Monica Mountains, Contract C0311.

## **SAFETY STATUS**

	Project Rate	<u>National Average</u>
Lost Time Incident Rate	1.5	4.2

The project rate continues at approximately one-third of the National Average.

#### MANAGEMENT ISSUES

- TBM excavation increased to an average of 38 feet/day (a 10% improvement over the June 1997 rate). If the average daily excavation rates fall below 30 feet/day, turnover of the Phase III crossover to Contract C0321 Universal City Station will be impacted. Slower excavation rates could impact the Revenue Operations Date (ROD) of May 17, 2000.
- The allocation plan, in conjunction with the project's forecast completion date, is expected to
  result in significant overruns to the specific line item budget for "agency costs." Project staff
  has completed the technical analysis and is recommending revising the overhead rate,
  reducing overhead costs, and amending the project budget if necessary.

## MONTHLY HIGHLIGHTS

 Schedule improvements are being pursued on Contract C0311 and future contracts including C1610 Trackwork Installation, B620 Automatic Train Control, B645 SCADA and Integration Testing and Startup.

## **METRO RED LINE Segment 3 Mid-City**

#### **COST STATUS**

**Current Budget:** 

\$491,000,000

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

## **SCHEDULE STATUS**

	Design Progress	Construction Progress
Current Plan: July 2008	Plan 0% Actual 0%	Plan 0% Actual 0%

 The project baseline schedule will be finalized after Preliminary Engineering is completed and the project is adopted.

#### SAFETY STATUS

	Project Rate	National Average
Lost Time Incident Rate	0%	0%

There was no Construction Safety activity during the period.

#### MANAGEMENT ISSUES

- Finalization of the master schedule for design and construction is on hold pending completion of the SEIS/SEIR process and Board decision on the preferred alternative.
- Evaluation of the SEIS/SEIR draft by the FTA is currently twelve weeks behind schedule.
   The originally planned duration of 30 days for FTA review was extended to 45 days adding additional delay to the schedule.
- The allocation plan is expected to result in significant overruns to the specific line item budget for "agency costs." Project staff completed the technical analysis and is recommending revising the overhead rate, reducing overhead costs, and amending the project budget if necessary.

#### **MONTHLY HIGHLIGHTS**

 The SEIS/SEIR process continued with a review of the draft document and coordination with the FTA. The schedule was revised to reflect a longer FTA review period.

## **METRO RED LINE 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**

	<u>Design Progress</u>		Construction Progress	
Current Plan: May 2004	Pian	80.2%	Plan	0.0%
	Actual	77.5%	Actual	0.0%

 The variance in Design Progress is due to the repackaging of tunnel contracts C0502 and C0541 into a single tunnel contract.

## **SAFETY STATUS**

	Project Rate	National Average
Lost Time Incident Rate	0%	0%

There was no Construction Safety activity during the period.

#### MANAGEMENT ISSUES

- A recent court decision regarding the CM contract may set aside the selection of JMA as the Construction Management Consultant. A final court ruling is expected in August 1997.
- The FTA letter directives require the MTA to submit a revised recovery plan prior to negotiating a new Full Funding Grant Agreement (FFGA).
- The allocation plan is expected to result in significant overruns to the specific line item budget for "agency costs." Project staff completed the technical analysis and is recommending revising the overhead rate, reducing overhead costs, and amending the project budget if necessary

#### MONTHLY HIGHLIGHTS

Tunnel contracts C0502/C0541 and the excavation of the 1<sup>st</sup>/Boyle Station were combined into a single contract utilizing three TBMs resulting in a schedule slip of three weeks.

## **VEHICLE ACQUISITION PROJECT**

## **COST STATUS**

**Current Budget:** 

\$257,597,000

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

## **SCHEDULE STATUS**

		<u>Design Progress</u>	<u>Fabrication Progress</u>
ed _	livery ily 1998 ine 1999	90.0%	40.0%

• The current schedule reflects 21 months delay in first car deliveries.

#### **MANAGEMENT ISSUES**

- The destination sign characters have an undesirable "blocky" appearance inconsistent with the front end vehicle styling. STS and Luminator (destination sign supplier) are reviewing a more suitable character configuration.
- The first set of vehicle batteries were tested in Sacramento. Initial results were not satisfactory and indicate that voltage levels and capacity are lower than the specification requirements.
- Line breaker dropout timing related to the Automatic Train Control (ATC) interface has created complex technical issues.

#### MONTHLY HIGHLIGHTS

- Carshell No. 14 and 15 were completed and shipped for final assembly. The assembly of nine cars continued in Sacramento.
- Attended First Article Inspections of both powered and unpowered trucks.
- Conducted a Quality Issues Review at Siemens' Sacramento Plant.

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

	ORIGII	ORIGINAL SCOPE (IN MILLIONS)		STATUS DATE: 08/01/9
			BUDGET/	
COST ELEMENT	CURRENT	CURRENT	FORECAST	JULY CHANGE
	BUDGET	FORECAST	VARIANCE	IN FORECAST
CONSTRUCTION	\$5,379.0	\$5,428.3	\$49.3	\$1.1
PROFESSIONAL SERVICES	2163.3	2269.5	106.2	0.0
REAL ESTATE	541.8	531.6	-10.2	0.0
UTILITY/AGENCY	170.6	170.5	-0.1	0.1
FORCE ACCOUNTS		ļ		
SPECIAL PROGRAMS	16.1	17.6	1.5	0.0
CONTINGENCY	296.5	280.5	-16.0	-1.2
PROJECT RÉVENUE	-39.6	-33.2	6.4	0.0
TOTAL PROJECT	\$8,527.7	\$8,664.8	\$137.1	(\$0.0)

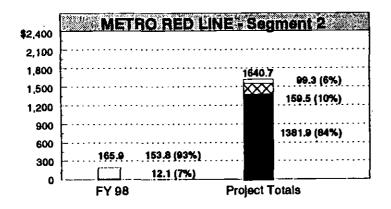
#### ADDITIONAL LOCALLY FUNDED ACTIVITIES

COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	BUDGET/ FORECAST VARIANCE	JULY CHANGE IN FORECAST
CONSTRUCTION	\$49.2	\$60.7	\$11.5	\$0.0
PROFESSIONAL SERVICES	17.5	22.3	4.8	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	-11.5	-12.8	0.0
TOTAL ADDITIONAL LOCALLY FUNDED ACTIVITIES	\$68.2	\$74.6	\$8.4	\$0.0

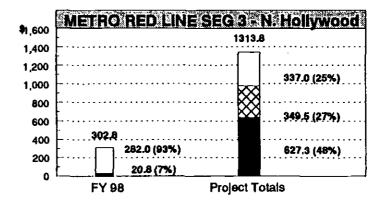
<sup>(1)</sup> The Mid-City budget of \$491 million is pending the selection of a preferred alternative.

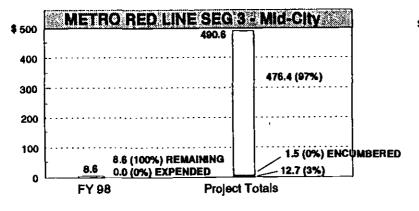
<sup>(2)</sup> The Mid-City forecast of \$663 million reflects the proposed alignment in the Rall Recovery Plan.

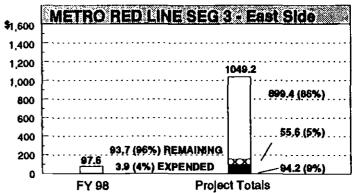
## BUDGET STATUS - August 01, 1997 (In \$ Millions)



Page 8



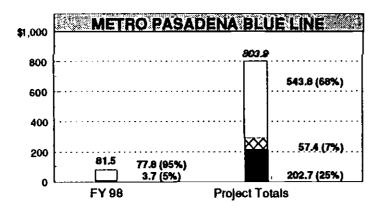


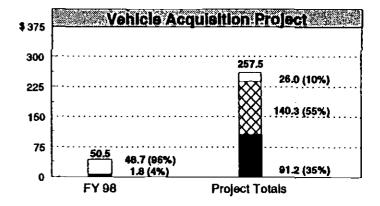


Actual Spent Encumbered Remaining Budget

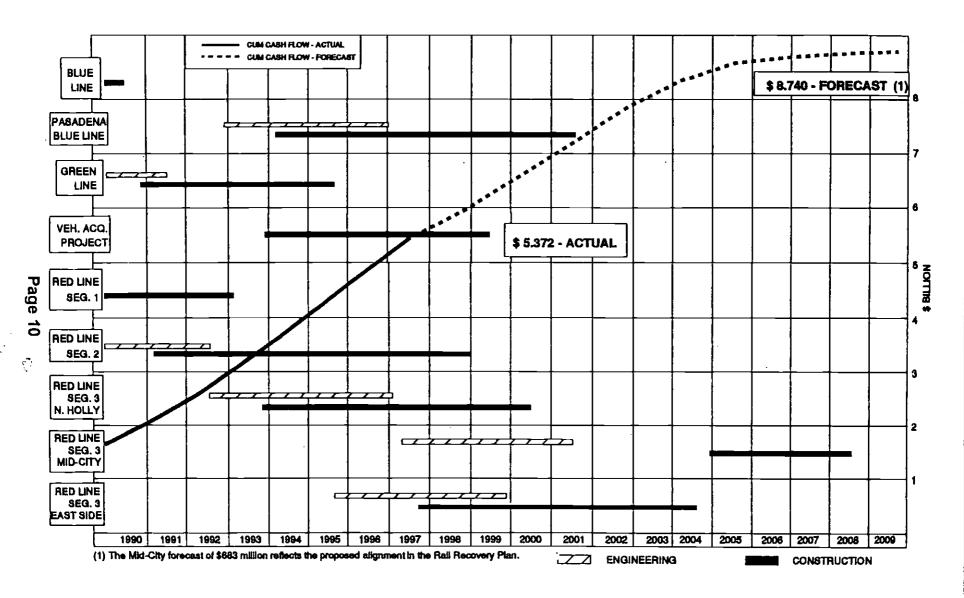
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## BUDGET STATUS - August 01, 1997 (in \$ Millions)





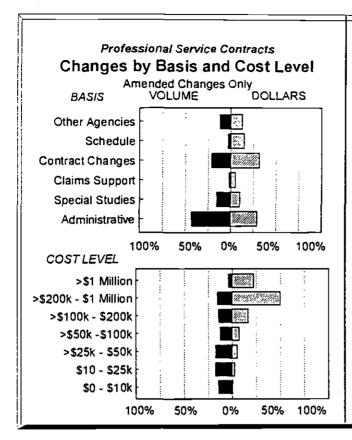
Actual Spent Encumbered Remaining Budget



#### METROPOLITAN TRANSPORTATION AUTHORITY

						_	FUNDI	<u>va sol</u>											ULY 1997	
		BLUE	PASAD			BREEN	METRO		METRO		METRO				METRO				TDT/	_
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ORIGINAL SCOPE:									·				·				·		Ť	<del>                                     </del>
FTA-SECTION 3				. 1	İ		605.3	42	867.0	40	681.0	52	242.6	36	492,9	47			2688.8	3
FTA - OTHER									:											
STEA - FEO SURFACE TRANSIT PROG									52.1	3	50.0	4			25,0	2	84.0	33	211.1	
FED-ISTEA RSTP/CMAQ							1				87.7	7	20,4	1	268.9	27	6.1	2	383.1	
FTA-SECTION 9							90.6	8											90.6	i
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	1
STATE TSM MATCH			· '								11.4	1	2.6	o	34.8	3			48.8	
SB (093 TRUST FUND			:		-						75.0	8							75.0	
PROPOSITION A	877.2	100	202.6	25	205.1	29	179.5	12	478.9	29					ļ				1943.3	2
PROPOSITION C			213.5	27	395.3	55					118.5	9	327.3	49	203,3	19	134.0	52	1389.9	1
PROPIC (AMERICAN DIBABILITY ADT)					8.0	1													6.0	1
CITY OF LOS ANGELES		}	1				34.0	2	96.0	6	190.7	14			9.3	1			330.0	
BENEFIT ASSESSMENT							130.3	9	25.4	2	13.5	1							169.2	
GOST OVERHUN ACCOUNT							200.1	14	123.1	8									323.2	
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	257.6	100	8719.5	9
ADDITIONAL LOCALLY FUNDED ACTIVITIES:																				
PROP C (TRANSIT ENHANCEMENTS)	,		]				}		62.7	4	2.7	o							65.4	
FEO ISTEA RSTP/CMAQ			ļ						2.5	o									2.5	
TOTAL			$\vdash$						65.2	4	2.7	0							67.9	$\vdash$

(1) The Mid-City budget of \$583 million reflects Total Funds Antiolpeted pending the selection of a preferred alternative.



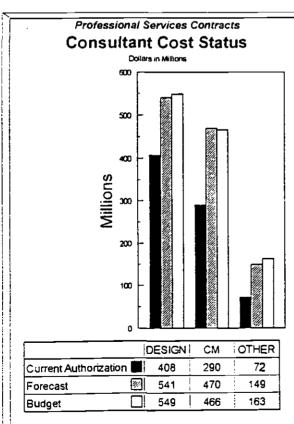
## **CHANGE BASIS ANALYSIS**

Administrative changes account for approximately 43% or 339 of the 778 Consultant Change Notices overall. Administrative changes include capital equipment, facilities and extra work requested by the MTA. This represents approximately 28% 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 69% of all change costs associated with the Rail Project or \$71.1M of a total change cost of \$102.6M. This equals 21% of the total change volume or 161 of 778 total changes.

Note: Data for Basis and Cost charts includes only MTA Board amended and executed changes. Previous months reports included changes which were approved by the MTA Board, but which had not been executed.



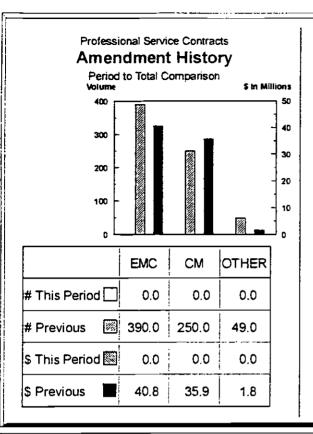
# PROFESSIONAL SERVICES COST ANALYSIS

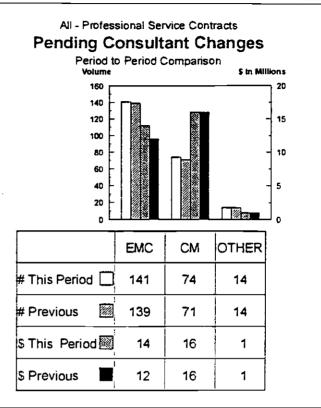
Categories represent all professional services contracts, not individual contracts (i.e. "design" includes all line 11 contracts not just EMC).

The forecast cost for all categories increased slightly during the period. However, the forecast for design and other remain 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.





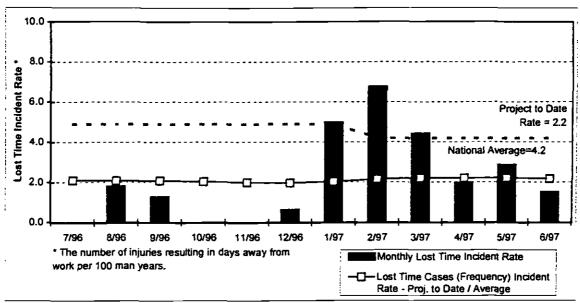
## CONSULTANT CHANGE NOTICE ANALYSIS

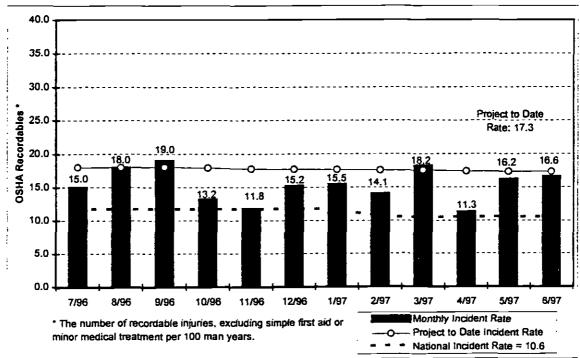
Tweleve new Requests for Change (RFC's) were received during the period with an estimated value of \$1.7 million.

Twenty-three new Consultant Change Notices (CCN's) were issued during the period with an estimated value of \$2.0 million.

One CCN, which had an estimated value of 250 thousand, was canceled or withdrawn during the period.

## **Safety Summary Status**





**EXECUTIVE SUMMARY** 

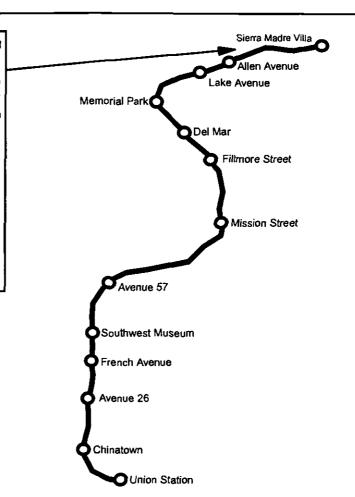
# Summary Status Report Period Ending - August 1, 1997



## **MAJOR ACTIVITIES THIS PERIOD (July 1997)**

## C6435 - Reconstruction & Retrofit of Steel & Concrete Bridges

- Lake Ave.: Completed top deck concrete placement of the new pre-cast girders, Bent cap and bottomdeck closure pour at Stage 2.
   Continued final finishing work for the sidewalk and concrete barrier at Stage 1. Began installation of the reinforcement for the concrete barrier & sidewalk, and utilities on the top deck.
- Allen Ave.: Completed installation of falsework & formwork; reinforcement & post-tensioning duct; and placement for the new cast-in-place box girder soffit, stem walls and top deck.
- Foothill Blvd.: Completed the forming, placement and reinforcement of post tensioning ducts; and placement of concrete for the new cast-in-place concrete box girder.
- Fremont Ave.: Continued the placement of reinforcement for the grade beams at the abutments. Began installation of C channels for the floor beams & other miscellaneous metal.



#### SYSTEMWIDE ACTIVITIES

- Project Staff is reviewing the current Basis of Design, which involves implementation of cost containment items; mitigating
  the incurred schedule delay to meet the Board-adopted Revenue Operations Date of August 2001; confirming the project
  budget of \$803.9M, and identifying & determining resolution for any open issues. The results of the analysis will be
  presented to the Board in September 1997.
- MTA has obtained Board approval for Contract Work Orders (CWO's) 039 and 041, and is currently preparing the appropriate CWO's to be issued to EMC.
- Final Section Designer negotiations on Contracts C6390 Chinatown Aerial Guideway Structure and C6450 Del Mar to Memorial Park Line Segment have been initiated by EMC.
- Section Designer, Benito Sinclair, has incorporated the design of the standard canopy support connection for C6440 into the project plans.
- The technical negotiations between EMC and the Section Designer, Willdan Associates, for Contract C6420 L.A. River to Arroyo Seco Line Segment have been completed.
- EMC is currently preparing the pre-final submittal for Contract C6440.
- The preliminary structural analysis has been completed for Contract C6390. Design efforts for final Structural, Traffic, Civil, and Utility drawings will begin this period.
- EMC's review on the City of Pasadena traffic coordination requirements has been completed and forwarded to the MTA.

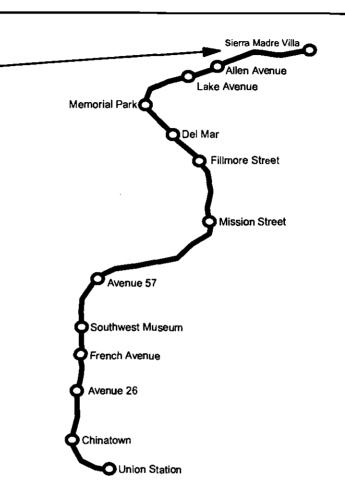
## Summary Status Report Period Ending - August 1, 1997



## **MAJOR ACTIVITIES NEXT PERIOD (August 1997)**

## C6435 - Reconstruction & Retrofit of Steel & Concrete Bridges

- Lake Ave.: Complete installation and reinforcement of the miscellaneous metal for the pilaster and the concrete barrier wall; and post tensiohing of the new cast-in-place girders at Stage 2. Remove the falsework towers, and place concrete for the barrier, pilaster and sidewalk at Stage 2. Install utilities, including water supply line.
- Fremont Ave.: Continue placing concrete for the grade beams at the abutments and the catch blocks at the pier; reinforce and install catch plates, and high strength bolts & cables as part of the retrofit work.
- Lacy St.: Commence retrofit work on spans 1, 2, and 3. install walkway plates at span 4.
- Arroyo Seco Parkway: Complete torquing bolts and removing formwork.
- Foothill Blvd. and Allen Ave.: Continue post-tension for the new CIP concrete box girders.
- All Bridges: Continue punch list items.



## SYSTEMWIDE ACTIVITIES

- Project Staff will finalize an extensive analysis of cost/schedule items and mitigate the schedule delay to the Revenue Operations Date of August 2001. The status will be brought forward to the Board in September 1997.
- EMC to complete negotiations and issue a Notice-to-Proceed with Section Designers for Contracts C6420 L.A. River to Arroyo Seco Line Segment, C6390 - Chinatown Aerial Guideway Structure, and C6450 - Del Mar to Memorial Park Line Segment.
- The final structural analysis for aerial structure will be completed for Contract C6390. Design efforts for final Structural, Traffic, Civil, and Utility drawings will continue.
- Negotiations will begin for Contract Work Order (CWO) 042 Design Build. This is predicated on MTA Fact Finding and subsequent development of a negotiation schedule.
- EMC will issue a Project Implementation Plan (PIP) for CWO 043 Elevators, Landscaping, Signage, and all remaining design contracts.
- Pre-final submittal for Contract C6440 Arroyo Seco to Del Mar Line Segment will be forwarded from EMC to MTA and Third Parties.
- Contracts H0060 Train Control and H0070 Traction Electrification will continue to provide general facilities support for critical contracts.
- Work efforts by EMC will continue to provide Design Support During Construction.
- Work scope for Corrosion Control on Contract C6450 will be developed by EMC.

## METRO PASADENA BLUE LINE Summary Status Report Period Ending - August 1, 1997



## **FINANCIAL STATUS**

## Budget/Forecast Variance (\$ in millions)

Original Scope Activities

COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	VARIANCE	JULY CHANGE IN FORECAST
CONSTRUCTION	\$431.5	\$436.8	\$5.3	\$0.0
PROFESSIONAL SERVICES	258.9	269.8	10.9	0.0
REAL ESTATE	55.5	55.5	0.0	0.0
UTILITY/FORCE ACCOUNT	12.4	13.4	1.0	0.0
SPECIAL PROGRAMS	2.2	2.2	0.0	0.0
CONTINGENCY	44.6	27.5	(17.1)	0.0
PROJECT REVENUE	(1.2)	(1.3)	(0.1)	0.0
TOTAL PROJECT	\$803.9	\$803.9	\$0.0	\$0.0

#### Additional Locally Funded Activities

COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	VARIANCE	JULY 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 AOOTIONAL LOCALLY FUNDED ACTIVITIES	\$0.0	\$1.2	\$1.2	\$0.0

#### **Budget/Forecast Variance Analysis**

A revised Rail Recovery Plan based on an August 2001 Revenue Operations Date (ROD) was approved by the Board in June 1997.

Project Staff is reviewing the current Basis of Design, which involves implementation of cost containment items; mitigating the incurred schedule delay to meet the Board-adopted Revenue Operations Date of August 2001; confirming the project budget of \$803.9M, and identifying & determining resolution for any open issues. The results of the analysis will be presented to the Board in September 1997.

The forecast for July remained unchanged.

Commitments to date are \$260.1M. Expenditures to date are \$202.7M.

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 to offset this cost.

## METRO PASADENA BLUE LINE Summary Status Report Period Ending - August 1, 1997



## CONTRACT/LINE ITEM VARIANCE REPORT

CONTRACT VARIANCE: Current Forecast differs from Current Budget by 10% or more and Current Budget is \$50M or more.

No items to report this period.

LINE ITEM VARIANCE: Current Forecast differs from Current Budget by 10% or more for the Line Item total:

#### LINE ITEM 19 - PROJECT ADMINISTRATION:

% Variance:

 Current Budget
 \$ 47,560,900

 Forecast:
 \$ 52,627,500

 Variance:
 \$ 5,066,600

+10.7%

The change in forecast was attributable to a forecast slip in the Revenue Operations Date (ROD) from August 2001 to January 2002. However, Project Staff is in the process of revising the staffing plan as part of the Rail Recovery Plan, as well as mitigating the negative float within the schedule. The target completion for this task is next period. During this timeframe, the interim Project Manager will be briefing the Board as to the overall status of the budget, scope and schedule for Pasadena Blue Line. It is anticipated that the forecast slip can be mitigated and the project will be completed on schedule.

#### LINE ITEM 24 - PROJECT CONTINGENCY:

Current Budget \$ 44,585,800 Forecast: \$ 27,464,500 Variance: \$ (17,121,300) % Variance: (38.4%)

The decrease in forecast is attributable to the added costs in construction contracts due to escalation (extending the mid-points for construction), as well as extending administration staff for five months. (Schedule ROD of August 2001 versus forecast ROD of January 2002). Project Staff is working to mitigate the negative float; this will result in reductions in construction escalation and in MTA administration costs. As with MTA agency costs, the Project Contingency will be addressed by the interim Project Manager in the briefing for the Board. The target completion for this task is next period.

# FINANCIAL DETAIL STATUS OF FUNDS BY SOURCE

(IN THOUSANDS OF DOLLARS)

SOURCE	ORIGINAL BUDGET	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	COMMITM	MENTS	EXPENDIT	TURES	BILLED TO S	OURCE	
		(1)		\$	%	\$	%	\$	<u>%</u>	
STATE PROP 108	\$368,300	\$20,000	\$20,000	\$20,000	100%	\$20,000	100%	\$20,000	100%	
STATE PROP 116	\$37,263	\$40,000	\$40,000	\$40,000	100%	\$40,000	100%	\$40,000	100%	
STATE HIGHWAY ACCOUNT	\$0	\$327,800	\$76,500	\$33,567	10%	\$33,567	10%	\$28,000	9%	
PROP C (HIGHWAY 25%)	\$0	\$152,974	\$123,452	\$126,548 _	83%	\$69,111	43%	\$67,032	44%	
PROP C (40% DISC.)	\$435,437	\$60,534	\$40,000	\$40,000	66%	\$40,000	66%	\$40,000	66%	
PROP A (35% RAIL)	\$0	\$202,561	\$0	\$0	0%	\$0	0%	\$O	0%	
TOTAL	\$841,000	\$803,86 <b>9</b>	\$299,952	\$ <b>2</b> 60,115	32%	\$202,678	25%	\$195,032	24%	

NOTE: (1) Based on Current Budget

Expenditures are through June 1997



## METRO PASADENA BLUE LINE Summary Status Report Period Ending - August 1, 1997



## FINANCIAL DETAIL

## **Funds by Source Analysis**

## **Status of Funds Anticipated**

State Highway Account:

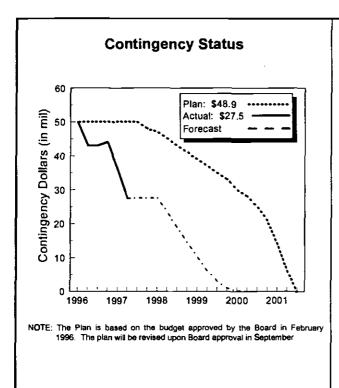
The CTC allocated \$48.5M from the State Highway Account Fund at its November 1996 meeting. The Fund Transfer Agreement by Caltrans was executed on July 3,

1997. Funds are now available for drawdown.

Summary Status Report Period Ending - August 1, 1997



## FINANCIAL STATUS



## **Contingency Status Analysis**

On June 4, 1997, the Board approved the revised Rail Recovery Plan. The Plan calls for a change in the Revenue Operations Date (ROD) from May 2001 to August 2001 with a budget to remain at \$803.9M.

Project Staff is reviewing the current Basis of Design, which involves implementation of cost containment items; mitigating the incurred schedule delay to the Board-adopted August 2001 ROD; confirming the project budget of \$803.9M; and identifying & determining resolution for any open issues.

The total project unallocated contingency forecast remained unchanged for July at \$27.5M. Based on the contingency draw-down to date, the total contingency appears lower than normal for this stage of the project. Analysis is underway to determine if this contingency is adequate to complete the balance of the project. The analysis is expected to be completed in August and presented to the Board in September 1997.

## **Professional Service Contracts Consultant Cost Status** Dollars in Millions 125 100 DESIGN СМ OTHER Current Authorization 90 24 8 69 Forecast 126 22 67 22 Budget 122 DATA SOURCE:

CMS: Consultant Current Authorization, Forecast, and Budget

Values

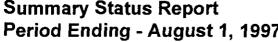
## **Professional Services Cost Analysis**

The forecast for the Design Consultant remained unchanged for the July 1997 period. This forecast reflects the extension of project management support required for the design effort (CWO 039), as well as extending Design Support During Construction (CWO 025).

The forecast for the Construction Management consultant remained the same at a total of \$68.7M for the July period. The forecast represents a January 2002 Revenue Operations Date (ROD) based on the negative float from the design engineering effort.

Unless design durations are reduced, the forecast will continue to increase by \$0.8M to \$1.0M per month for additional delays to ROD. This increase is only for the level of effort required for EMC Project Management support, Design Support During Construction and Construction Management staff.

## **Summary Status Report** Period Ending - August 1, 1997





## SCHEDULE STATUS

#### **Schedule**

#### Change from Last Month Current R.O.D. August 2001 None Design Progress\* 80.3% None Constr. Progress 11.1% +0.8 Critical Path -153 days None

Float (Calendar Days)

\*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.

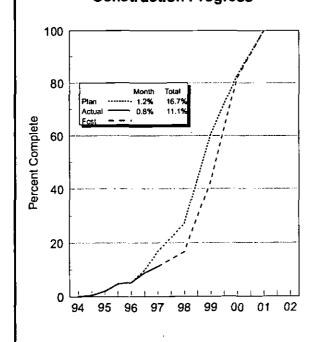
## **Current Critical Path Analysis**

The PBL Master Schedule through July 1997, reflects -153 calendar days (c.d.) of float due primarily to the delays to the restart of design and incorporation of cost containment. An effort to mitigate the schedule delays will be completed in August 1997 to meet the August 2001 Revenue Operations Date (ROD). The focus will be on critical Contracts C6420 - LA River to Arroyo Seco Line Segment, C6450 - Del Mar to Memorial Park Line Segment, H0060 - Train Control System, & H0070 - TPSS and OCS. In addition, the following options will also be considered:

- the addition of crews on critical line segment work
- starting construction work on the cut and cover from both ends of the project versus starting work from south to north
- allowing systems contractor earlier site access
- reducing the time for systems installation and testing on Contract C6450

The critical path continues to run through the design, bid cycle and construction of Contracts C6420, C6450 and continues through installation of trackwork, H0060, H0070, Integrated systems, and Pre-Revenue Operations.

## Construction Progress



## **Construction Progress Analysis**

The current forecast shows 2 construction contracts to be advertised by the end of 1997.

The forecast remains behind the plan due to design delays related to finalizing scope definition; obtaining community concurrence with cost reduction items; contract changes; and continued negotiations between EMC and their Section Designers. These delays have impacted all contracts.

Summary Status Report Period Ending - August 1, 1997



## SAFETY STATUS / MANAGEMENT ISSUES

#### **Construction Safety Statistics**

# 10.6 4.5 0.8

None

0.0

## **Construction Safety Summary**

- The Project is producing 17,000 work hours per month and has continued with zero Lost Time Cases and no Lost Work Days.
- To date, over 712,000 work hours were completed without a Lost Time Injury.
- The OSHA-200 incidence rate is less than half of the National Average of 10.6.

NOTE: Based on June 1997 statistics.

Recordable Injury Rate:

Lost Time Incident Rate: The number of injuries resulting in days away from work per 100 man years. 1995 National Average

per 100 man years.

Project Rate

**Project Rate** 

1995 National Average

The number of recorded injuries (excluding simple first aid or minor medical treatment)

## **MANAGEMENT ISSUES**

#### NEW

Item (Date Initiated: July 1997)

Schedule Mitigation and Cost Validation for the August 2001 ROD

#### Concern/Impact

The schedule, as it stands, is 153 calendar days from the August 2001 Revenue Operations Date (ROD). This slippage is primarily due to delays in the initiation of final design on line sections. An analysis is underway to see if the negative float could be recovered and the August 2001 ROD maintained.

#### Status/Action

Project Staff is reviewing the current Basis of Design, which involves implementation of cost containment items; validating the Board-adopted ROD of August 2001; confirming the project budget of \$803.9M, and identifying any open issues which require Board action for closure. The analysis will be completed in August and presented to the Board in September 1997.

## Summary Status Report Period Ending - August 1, 1997



## **MANAGEMENT ISSUES (Con't)**

## NEW (Con't)

Item (Date Initiated: July 1997)
Issues Resolution Task Force

## Concern/Impact

In July, a PBL project task force was initiated to identify all issues that may have an impact to the PBL project. The intent was to evaluate all issues, and determine any action that may be required relative to each issue. Resultant evaluation may determine the issue is a non-issue or that it requires developing a mitigation plan, at which time the appropriate action will be implemented.

#### Status/Action

The task force is expected to complete its determination of issues and their evaluation in August 1997, and present their findings, along with any recommendations, to the Board in September 1997.

#### **ONGOING**

Item (Date Initiated: May 1997)

#### **Agency Cost Overrun**

## Concern/Impact

Agency Costs are an element of the Project Budget and incorporate management issues, non-labor administrative costs, fringe benefits and overhead costs. An allocation plan, in conjunction with the project's forecast completion date, is expected to result in significant overruns to the specific line item budget for "agency" costs.

#### Status/Action

The Project Staff has completed the technical analysis. The analysis has been forwarded to MTA management for their review, recommendation, and development of a cost mitigation strategy. The strategy would include revising the overhead rate, reducing overhead cost, and amending the Project Budget, if necessary.

## 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 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 submitted the estimates for the construction work packages in December 1996. Project Staff reviewed these estimates and found that some elements of project scope were not included in the estimates. The scope of these items were identified by EMC in April. EMC prepared a proposal identifying the man hours required to complete the estimates and integrate costs into the total capital cost estimates. The work began in July 1997, and is due in August. The validation of the project budget will be presented to the Board in September.

## Summary Status Report Period Ending - August 1, 1997



## **MANAGEMENT ISSUES (Con't)**

## ONGOING (Con't)

Item (Date Initiated: April 1997)

**Project Cost Forecast** 

## Concern/Impact

The remaining unallocated contingency of 4.7% unexpended forecast raises concerns that the forecast will exceed the total current project budget.

#### Status/Action

Project Management is reviewing each contract work package to determine the adequacy of the remaining unallocated contingency. This will be resolved during August 1997 and included in the presentation to the Board in September 1997.

Item (Date Initiated: April 1997)

## Yard and Shops

## Concern/Impact

Design activities on Contract C6400 - Yard and Shops have been suspended in order to evaluate the necessity of having a full yard and shops. A limited maintenance yard is being evaluated where excess capacity from other yards could be utilized. In order to eliminate delays to the camera-ready submittal, a decision needs to be finalized as to the requirements of service capabilities. In addition, if a decision is not made in a timely manner, system contracts will be impacted.

#### Status/Action

An agreement has been reached with Operations to proceed with a six-week Preliminary Engineering effort to establish requirements for a limited service Yard and Shops, and modifications to other yards to be utilized as well as evaluate alternatives for transporting vehicles between facilities. Results will be presented to management for a final decision on this matter.

Item (Date Initiated: March 1996)

#### Start of Final Design

## Concern/Impact

The current schedule shows 153 calendar days of negative float because progress of final design is behind plan.

## Status/Action

Final design production started on Contract C6390 - Chinatown Aerial and continues on a limited basis for C6450 - Del Mar to Memorial Park Line Segment and C6420 - LA River to Arroyo Seco Bridge Line Segment. Final design for the remaining contracts has not progressed because EMC continues to experience delays in mobilizing Section Designers. An agreement between EMC and the Section Designers for C6420 and C6450 on scope and contract terms is expected in August. A project schedule potentially mitigating design delays is expected in August 1997.

## Summary Status Report Period Ending - August 1, 1997



## **MANAGEMENT ISSUES (Con't)**

## ONGOING (Con't)

Item (Date Initiated: August 1996)

**Community Concurrence With Design** 

## Concern/Impact

Marmion Way, between Avenues 57 and 61, was never included as part of this redesign and upgrade effort. However, the Highland Park Preservation Overlay Zone Association is pressing for this section to be included along with Avenues 50 and 57. There is concern that incorporation of the redesign and upgrade may raise construction costs above the budget for this section.

#### Status/Action

In July 1997, the Highland Park Preservation Overlay Zone Association approved the Urban Design concept for Marmion Way, between Avenues 50 to 57. A change notice is being prepared for a redesign and upgrade of the corridor from Avenues 57 to 61. Planning has agreed to seek additional funding should final design estimates indicate that construction costs will exceed the budget. Status of this issue will be included in the report to the Board in September.

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:

<u>Terminal Annex Property</u>: A parcel which is owned by the Federal Government and leased by Ratkovich Villanueva Partnership is required for the Chinatown Aerial. This property should be available in sufficient time to support the construction schedule. A resolution must be reached with the Ratkovich Villanueva Partnership because this parcel is not eligible for the condemnation process. In order to support the schedule, the property must be available by November 1998.

#### Status/Action

<u>Terminal Annex Property</u>: The Ratkovich Villanueva Partnership requested a traffic plan from the MTA for the "Vignes Street access" prior to continuing negotiations concerning their property. The traffic plan study was completed and approved by the City of Los Angeles. The MTA has agreed to commit limited funds for landscaping the property entrance. A meeting is being scheduled with the Ratkovich Villanueva Partnership to continue negotiations.

# **METRO RED LINE SEGMENT 2**

**EXECUTIVE SUMMARY** 



## **Major Activities - This Period**

B281 Hollywood/Vine Station and Crossover - Continued concreting appendages and relocating utilities in preparation for street deck removal. Continued installing ductwork, dampers, piping, and conduit. Continued applying acoustical spray in the entrance and ancillary areas. Continued installing film reel ceilings at platform level. Achieved the train control milestone this period. The Contractor has achieved 6 liquidated damage milestones to date. Contract is 80% complete.

B271 Hollywood/Western Station - Continued backfilling and utility relocations in preparation for street deck removal. Continued concreting side structures; continued installing metal ceiling panels at platform and mezzanine level; continued installing electrical equipment in preparation for providing permanent power to the station. Continued installing mechanical piping and conduit. The Contractor has achieved 9 liquidated damage milestones to date. Contract is 86% complete.

B241 Vermont/Beverly Station
Continued installing wall tile and finish work in
the entrance; continued installing rockwork,
metal ceilings, and floor tile in the platform area.
Continued concreting appendages, backfilling
main station and performing utility work in
preparation for street deck removal in late
August. Continued installing ductwork,
mechanical piping, electrical equipment, and
conduit in preparation for permanent power and
testing. Achieved the elevator/escalator access
milestone this period. The Contractor has
achieved 8 liquidated damage milestones to
date. The contract is 87% complete.

Operating

B261 Vermont/Sunset Station Continued placing entrance level rebar and concrete, continued excavating west side structures and concreting east side structures, continued backfilling and utility relocation work; continued installing ductwork, mechanical piping, elevator enclosures, handrails, and electrical equipment. Continued installing metal ceiling system at platform level. The Contractor has achieved 6 liquidated damages milestones to date. Contract is 82% complete.

B252 Vermont/Santa Monica Station and Crossover - Completed removal of the street deck. Substantially completed appendages concrete work and continued placing the red concrete roof deck at the north entrance. Continued installing ductwork, dampers and electrical items; station functional testing; continued continued installing tile at the platform and mezzanine levels. Continued installing metal ceiling panels at the mezzanine level. The Contractor has achieved 12 liquidated damage milestones to date. Contract is 92% complete.

Wilshire/

Alvarado

\_\_\_\_

Wilshire/

Western

B610, Trackwork, completed plinth concrete placement for Vermont tunnels, B252 crossover concrete, and began concrete placement in the Hollywood tunnels and B281 crossover area. Running rail placement continued in Vermont tunnels.

Normandie

SYSTEMWIDE ACTIVITIES

Vermont

B620, Automatic Train Control Installation, continued installation of communications interface cabinets (CICs) in the crosspassages, trainway feeders conduit, and main distribution frame (MDF) in the train control rooms.

B631, Traction Power, Contractor completed installation and test in the Vermont/Santa Monica Station; Contractor continued installation and started testing in the Vermont/Beverly Station, Hollywood/Western Station, and Hollywood/Vine Station.

B641, Radio, continued installation in the Vermont/Santa Monica and Hollywood/Western stations.

B642, Public Address, equipment is in storage with Communications Installation contractor.

B644S, Fiber Optic and Cable Transmission, MTA awarded the contract to WilTel Communications.

B646, Fire and Emergency Management, continued design development of blue light stations, emergency management panels (EMPs), auxiliary EMPs, programmable logic controller modules (PLC) for Vermont/Beverly and Vermont/Santa Monica Stations, and the fire smoke detectors have been delivered to the B648B contractor.

B648B, Communication Installation, Change Notice is in process for procuring closed circuit television equipment (B643 scope of work). Installation of gas sensors is 90% complete, the installation for vital power (VP-1) and power conduit started at Vermont/Santa Monica Station.

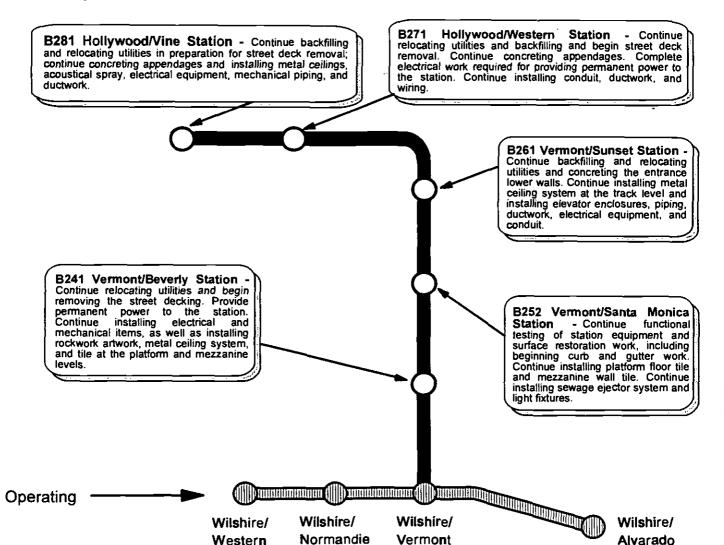
B710, Elevator/Escalator, commenced elevator equipment deliveries to Hollywood/Vine and Vermont/Santa Monica stations.

B740/B745, Air Handling/Ventilation, continued installation of fan equipment at available stations.

Fabrication of remaining systemwide equipment continued.



## **Major Activities - Next Period**



#### SYSTEMWIDE ACTIVITIES

B610, Trackwork, Contractor is to complete plinth concrete, and to continue running rail placement, and to begin contact rail plinth placement in the Vermont tunnels.

B620, Automatic Train Control Installation, Contractor is to continue installation in tunnels and available station areas.

B631, Traction Power, Contractor is to make final connections and test to energize permanent power in the Vermont/Beverly Station and to continue installing equipment and cabletray in the Hollywood/Western Station and Hollywood/Vine Station.

B641, Radio, Contractor is to continue installing radio cable in the Vermont/Beverly, Hollywood/Western and Hollywood/Vine stations.

B648B, Communication Installation, Contractor is to continue installation at available stations.

B740/B745, Air Handling/Ventilation, Contractors are to continue installation of fan equipment at available stations.

Fabrication of remaining systemwide equipment is to continue.



## **FINANCIAL STATUS**

## **Budget/Forecast Variance (in millions)**

**Original Scope** 

COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	BDGT/FCST VARIANCE	JULY CHANGE IN FORECAST
Construction	\$1,056.1	\$1,056.2	\$0.1	\$(3.0)
Professional Services	389.2	401.5	12.3	0.0
Real Estate	88.1	88.3	0.2	0.0
Utility/Force Account	31.8	28.3	(3.5)	0.0
Special Programs	2.5	2.4	(0.1)	0.0
Contingency	7.9	6.6	(1.3)	3.0
Project Revenue	0.0	(0.8)	(0.8)	0.0
Total Project	\$1,575.6	\$1,582.5	<b>\$6</b> .9	\$0.0

## Additional Locally Funded Activities

COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	BDGT/FCST VARIANCE	JULY CHANGE IN FORECAST
Construction	\$47.3	\$48.1	0.8	0.0
Professional Services	16.8	17.1	0.3	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	0.0	(1.1)	0.0
Total Additional Locally Funded Activities	65.2	65.2	0.0	0.0

Due to rounding, some values may differ from Cost Management System (CMS) values (refer to Current Forecast, June 1997 QPSR).

## **Budget/Forecast Variance Analysis**

Original Scope

Expenditures to date for Original Scope are \$1,339.4 million or 85% of current total forecast.

Commitments to date for Original Scope are \$1,487.1 million or 94% of current total forecast.

The forecast changes this period consist of a Construction decreased of \$3.0 million. The \$3.0 million decrease was offset by an increase of \$3.0 million to project unallocated contingency. There was no change to the Total Project forecast cost.

The \$3.0 million decrease is due to:

Construction-decrease of 3.0 million, including:

 Maintenance Equipment—This scope of work was decreased to reflect the current estimate to complete (ETC) from the MTA Rail Activation group.

Continued on ES-4



## FINANCIAL STATUS

## **Budget/Forecast Variance Analysis**

Original Scope (Contd.)

- Testing and Operations—This scope of work was revised to reflect the current estimate to complete from the MTA Rail Activation Group.
- B252, Vermont/Santa Monica Station—The forecast decreased due to reassessment and reevaluation
  of the contractor's pending claims issues. Some claims that have been negotiated in July 1997 are now
  reclassified as Pending Notice/Change Orders.
- B281T, Tunnel Repair/Completion—The forecast decreased due to the following:
  - Work Authorization Change Notice (WACN) 8.01, mitigation measures due to the sinkhole on Edgemont/Hollywood; WACN 19, remove walkway forms from AL tunnel for use by the contractor; WACN 52, doors and hardware submittals; and WACN 89, removal of sump pumps at Barnsdall Shaft.
  - Pending Change Notices 18.02, starter wall construction joint and supplemental reinforcement; CN 40.03, electrical design change notice to Hollywood tunnel; CN 67.01, schedule mitigation for E section (PCO 25) and F section; and CN 83, crosspassage drophole blockout repairs.
  - Reduction in unresolved pending claims.



## **Budget/Forecast Variance Analysis**

Additionally Locally Funded Activities

Expenditures to date for Additionally Locally Funded Activities are \$42.5 million or 65% of current total forecast.

Commitments to date for Additionally Locally Funded Activities are \$54.3 million or 83% of current total forecast.

There were no changes this period to the budget and forecast 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 Monthly Project Status Report Period ending-August 1, 1997



#### **CONTRACT/LINE ITEM VARIANCE REPORT**

**CONTRACT VARIANCE:** (Current Forecast differs from Current Budget by 10% or more, and Current Budget is \$50 million or more.)

Contract E0070—Design Engineering

Current Budget:

\$ 93,445,000

Forecast:

104,700,000

Variance:

11,255,000

Percent Variance

+12

**Mitigation:** The scope of the contract to complete is under review and negotiation. Project staff anticipates the value of the forecast will decrease when negotiations with the Engineering Management Consultant are complete.

**LINE ITEM VARIANCE:** (Current Forecast differs from Current Budget by 10% or more for the Line Item Total.)

LINE ITEM 10-OCIP

**CONTRACT MR 040 SEDGEWICK JAMES** 

Current Budget:

\$ 37,228,000

Forecast:

26,950,454

Variance:

10.277,546

Percent Variance

-27.6

**Mitigation:** The renegotiations of insurance coverage, as well as the reorganization of the Risk Management Department, has resulted in forecasting difficulties, specifically with regard to deductible exposure. The present forecast is based upon the costs incurred to date plus the amount budgeted for Fiscal Year 1998, at which point construction should be complete. Project staff continues to work with the Risk Management Department to finalize a more definitive and accurate forecast, which could result in a budget adjustment.

LINE ITEM 24—PROJECT CONTINGENCY

Current Budget:

\$ 8,992,703

Forecast:

6,637,178

Variance:

2.355,525

Percent Variance

-26.2

**Mitigation:** Project management is conducting a thorough review and risk analysis at the individual line item and contract level to determine if the remaining unallocated contingency is adequate. The analysis is under final review by the MTA, and presentation to the MTA Board is anticipated in the first quarter of Fiscal Year 1998.

METRO

egment

#### METRO RAIL PROJECT SEGMENT 2 (IN THOUSAND OF DOLLARS)

#### STATUS OF FUNDS BY SOURCE

	(A) ORIGINAL BUDGET	(B) TOTAL FUNDS	(C) TOTAL FUNDS	(D) COMMIT	(D/B) MENTS	(E) EXPEN	(E/B) DITURES	(F) BILLED TO	(F/B) O SOURCI
SOURCE	B0DGE1	ANTICIPATED (5)	AVAILABLE	<b>\$</b>	%	\$ (6)	%	\$	%
ORIGINAL SCOPE:									
FTA-SECTION 3	\$667,000	\$522,396	\$522,396	\$522,396	100%	\$522,396	100%	\$522,396	100%
FTA-SECTION 3 DEFERRED LOCAL SHA	RE (1)	\$144,604	\$144,604	\$144,604	100%	\$144,604	100%	\$144,604	100%
FED ISTEA STP (STATE)	\$0	\$52,100	\$52,100	\$52,100	100%	\$52,100	100%	\$52,100	100%
STATE	\$185,985	\$133,029	\$133,029	\$133,029	100%	\$133,029	100%	\$133,029	100%
PROPOSITION A	\$439,447	\$478,699	\$326,999	<b>\$</b> 461,241	96%	\$326,999	68%	\$326,999	6 <b>8%</b>
CITY OF L.A.	\$96,000	\$96,000	\$69,600	\$96,000	100%	\$67,467	91%	\$67,467	91%
BENEFIT ASSESS.	\$58,000	\$25,400	\$0	\$25,400	100%	\$25,400	100%	\$0	0%
BENEFIT ASSESS. SHORTFALL (2)	\$0	\$0	\$25,400	\$0	0%	\$0	0%	\$25,400	
COST OVERRUN ACCOUNT (3)	\$0	\$123,123	\$47 <u>,</u> 413	\$52,351	43%	\$47,413	39%	\$47,413	39%_
TOTAL	\$1,446,432	\$1,575,551	\$1,341,541	\$1,467,121	94%	\$1,339,428	65%	\$1,339,426	65%
OTHER LOCALLY FUNDED ACTIVITIES	(4):		-					<del></del>	
PROP C (TRANSIT ENHANCEMENTS)	\$0	\$62,702	\$42,529	\$54,265	67%	\$42,529	66%	\$42,529	68%
ISTEA CMAQ/RSTP (TRANSIT ENH.)	\$0	\$2,526	\$0	\$0	0%	\$0	0%	\$0	0%
TOTAL	\$0	\$85,230	\$42,529	<b>\$54,265</b>	63%	\$42,529	65%	\$42,529	65%

- (1) FTA Section 3 Deferred Local Share. Commitments and expenditures are effective starting July 1st. 1992.
- (2) The current Benefit Assessment District revenue shortfall is being funded by Proposition A 35% Rail Capital.
  - The Cost Overrun Account includes CAPRA funds es well as MTA Proposition A to cover cost overruns.
- (4) This includes approximately \$6M for the Kalser Portal scope which is anticipated to receive \$2.5M from Federal ISTEA CMAQ/RSTP funds.
- 5) Based on Current Budget
- (6) Expenditures are cumulative through June 1997.



# METRO RED LINE Segment 2 Monthly Project Status Report Period ending-August 1, 1997



# STATUS OF FUNDS BY SOURCE

# **Funds by Source Analysis**

Status of Funds Anticipated

Benefit Assessment:

No funds are expected to be available until Fiscal Year 2003.

**Cost Overrun Account:** 

The CAPRA account cash balance as of June 30, 1997 is

\$23,623,669.

The revised budget growth is funded as follows:

CAPRA

\$21.6M

Proposition A

\$101.5M

# METRO RED LINE Segment 2 Monthly Project Status Report Period ending-August 1, 1997

#### **SCHEDULE STATUS**

# Schedule

	,	Change from Last Month
Current ROD	Dec. 19, 1998	0
Design Progress	96.0%	-1.6
Critical Path Float	-76 Days	+14
Const. Progress	88%	1.1%

Note: Design progress decreased this month due to incorporation of CCN 500 budget authorization into the baseline.

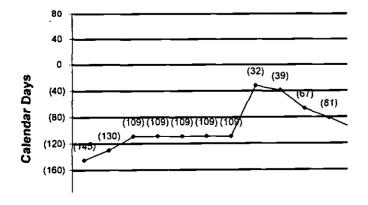
#### **Current Critical Path Analysis**

The 76 calendar days of negative float forecast this period represents an 14-calendar-day gain since last period. The decrease of negative float is due to increased Project Office confidence in the B610 Contractor meeting its planned progress toward the first of two critical completion milestones in September 1997.

The Project Office is continuing to evaluate selective mitigation opportunities, such as concurrent trackwork operations, automatic train control work, and acceleration of dynamic testing.

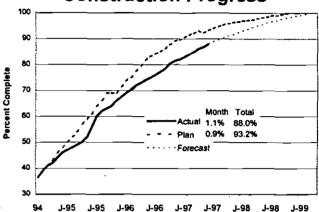
The project critical path continues to be controlled by the progress of the B610 Trackwork Contractor's plinth placement, running rail and contact rail installation activities—leading to the next critical project milestone event—tunnel access for the Automatic Train Control B620 Contractor so it can begin installation.

#### Float Trend









#### **Construction Progress Analysis**

A developing trend is that actual progress is equal or better than the monthly plan progress. This period the actual progress was 0.2% better than planned.

The overall project progress remains behind the actual progress by 5.2%, due to earlier delays in facilities (stations and tunnels) construction by unforeseen conditions, design changes, and later-than-planned placement of station and tunnel concrete and finish work.

The project variance to date decreased by 0.2% this period. It is forecast that as the station work moves toward substantial completion by the first quarter of 1998, the progress variance will be reduced significantly.

# METRO RED LINE Segment 2 **Monthly Project Status Report** Period ending-August 1, 1997 SAFETY STATUS



**Construction Safety Summary** 

#### **Construction Safety Statistics**

Project-to-Date Rates		ge From Quarter	•	The Project-to-Date Lost Time Injury Rate is 2.6. This rate is slightly above
Recordable Injury Rate		one-half the 1995 National Average of		
The number of recorded injuries, excluding simple first aid or minor medical treatment, per 100 work years.				4.2.
1995 National Average	10.6			
Project Rate	18.8	-0.3		
Lost Time Rate (Frequency)				
The number of injuries resulting in				

4.2

2.6

N/C

#### MANAGEMENT ISSUES

#### **ONGOING**

years.

Project Rate

#### Item (Initiated June 1997)

days away from work per 100 work

(Based on June 1997 statistics)

1995 National Average

Elevators and Escalators, Delivery and Installation (B710) contractor performance remains a concern.

#### Concern/Impact

The B710 contractor's lack of performance to deliver and perform contractual work. This has impacted the station contractors completing their work in the area surrounding elevators and escalators and may impact station contractor completion their milestones.

#### Status/Action

The Contractor began delivering and installing some elevator equipment this period at the B252 Vermont/Santa Monica Station and the B281 Hollywood/Vine Station. However, no escalator equipment has been delivered to date. Work progress is still unacceptable and may impact station milestone dates. Discussions are underway regarding talking severe action against the contractor to enforce contractual schedule requirements.

# METRO RED LINE Segment 2 Monthly Project Status Report Period ending-August 1, 1997



#### **ONGOING**

#### *Item*

Agency Cost Overrun

#### Concern/Impact

Agency costs are an element of the project budget and incorporate management issues, non-labor administrative costs, fringe benefits, and overhead costs. The allocation plan is expected to result in significant overruns to the specific line item budget for "agency" cost.

#### Status/Action

The Project Office has completed the technical analysis. The analysis has been forwarded to MTA management for its review, recommendation, and development of a cost mitigation strategy. The strategy would include revising the overhead rate, reducing overhead cost, and amending the project budget, if necessary.

#### **ONGOING**

#### 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

The Project Office has conducted a thorough review and risk analysis at the individual line item and contract level in determining if the remaining unallocated contingency is adequate. The result of that review is reflected in the \$6.9 million increase reported last month. Certain areas still must be finalized, which may increase the overall project forecast.

#### 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 (CM) is concerned that the contractor is not proceeding with the work in a timely fashion to support interim system milestones and overall contract completion requirements.

#### Status/Action

The CM and the Contractor have developed a path forward plan. Several schedule review and coordination meetings have been conducted to establish a realistic schedule to complete work as early as possible. The Contractor has put more emphasis on completing critical areas and rooms by resequencing work for turnover access. However, the Contractor has not made significant progress. The Contractor's performance has improved somewhat over the past few weeks, but additional efforts are required to mitigate the current delays. The MTA continues to withhold liquidated damages to encourage contractor performance.

# METRO RED LINE Segment 2 Monthly Project Status Report Period ending-August 1, 1997

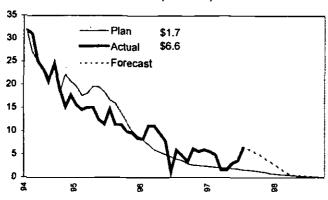


#### **COST STATUS**

#### **Contingency Status**

Original and Locally Funded Activities

Dollars (millions)



#### **Contingency Status Analysis**

The actual unallocated contingency this period is \$6.6 million, an increase of \$2.9 million from last period.

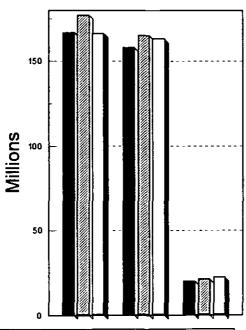
The total project unallocated contingency forecast increased this period, due to a net forecast decrease in the Construction contracts:

#### Construction

- Maintenance Equipment contracts
- Testing and Operations
- B252, Vermont/Santa Monica Station
- B281T, Tunnel Repair/Completion

For details refer to ES-3, Budget/Forecast Variance Analysis.

#### Consultant Cost Status



	DESIGN	СМ	OTHER
Authorization	167	158	20
Forecast	<b>177</b>	165	21
Budget [	<u> </u>	163	: 22

#### Professional Services Cost Analysis

#### **Design Services**

There were no adjustments to the forecast this period. A trend will be prepared to update the forecast when Fiscal Year 1998 budget negotiations, currently underway, have been completed. The design forecast exceeds the budget, a condition that will be addressed by Project Budget Change Request (PBCR) and/or MTA Board review. The forecast has increased over time, due to the cumulative effect of changes, such as station redesign for "great space" and enhancements, changes to the sprinkler system, sanitary sewer cross-connects, the Kaiser Hospital second entrance, additional effort required of the rail activation group, increases in the volume of Requests for Information (RFIs) and submittals, the B251 contract repackaging, and other activities.

#### Construction Management Services

The forecast was unchanged this month and remains as it was reported on the estimate at completion (EAC) analysis. The forecast has not increased this period, but it has grown over time because of increased level of effort, resulting from MTA Consultant Change Notices.

#### Other Professional Services

The forecast was unchanged this month.

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

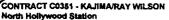
# METRO RED LINE SEGMENT 3 NORTH HOLLYWOOD EXTENSION

**EXECUTIVE SUMMARY** 



#### **MAJOR ACTIVITIES - THIS PERIOD**

#### **NORTH HOLLYWOOD** STATION



- Received access to Staging Area 5 on August 1
- Started HDPE and grounding grid in Staging Area 5
   Completed lower exterior walls and columns in platform
- · Started lower exterior walls in Staging Area 4
- Continued to complete mezzanine decks
- Continued to complete upper walls
- Continued shoring for roofs L6 and L7

#### CONTRACT C0331 • OBAYASHI CORPORATION North Hollywood Tunnel

- Turned over Staging Area 5 of the crossover area to C0351 contractor
- Completed AR arch HDPE and rebar insta
- Placed 7,193 If (69%) out of 10,429 If of AR arch concrete to date
- Installed 8,647 If (83%) out of 10,429 If of walkway rebar to
- Placed 6,053 If (58%) out of 10,429 If of AL walkway to date
- Completed MVS invert concrete
- Completed MVS slide rail modifications

#### CONTRACT C0321 - TUTOR/SALIBA-PERINI Universal City Station

- Placed 2,323 cy of concrete in ancillary level floor slabs and 2, and roof slab lifts 2-4
- Placed 848 cy of concrete in upper mezzanine exterior walls tifts 9-11 east/west and 124 cy in the mezzanine level interior walls of lifts 9-11
- Installed rebar and placed concrete in Blast Relief Shaft #3 and stairway #7
- installed repar for the upper ancillary level exterior walls
- 29,729 cy out of 62,792 cy of structural concrete has bee placed to date (47% complete)

#### **UNIVERSAL CITY STATION**

CONTRACT C0327 - WILLIAM L. OLSON CONTRACTING Universal City Station Demolition for Station Acce Contract closeout was completed on June 30, 1997

#### CONTRACT C0311 - TRAYLOR BRDS/FRONTIER-KEMPER

- Line Section from Universal City Station to Station 630+00
- Completed 599' edditional TBM excavation in the AR (88% total)
- Completed 1,205' additional TBM excavation in the AL (87% total)
- . Completed seismic section excavation in AR and AL except for 8 bench
- Continued grouting of seasonal spring at Reach 1A/18 interface
- Completed excavation for Crosspassages 53 and 55
- Began excavation on heading for Crosspassages 51 and 52 Continue face grouting at seismic/running tunnel interfaces
- - Completed drop hole for concrete at Sycamore Avenue and Hollywood Boulevard

#### CONTRACT C0301 - TUTOR/SALIBA-PERINI Hollywood/Highland Station and Tunnels Completed AR arch concrete placement

- Commenced AL walkway concrete placement (60% complete as of
- cut-on date)
  Completed lifts 5-12 mezzenine level exterior walls
  Commenced rebar/formwork and concrete placement for roof slab

- Commerced repartromwork and concrete placement for roof stab work, lifts 5-12. Continued backfill and remaining concrete work at McCadden Place! Completed concrete placement at stairs 8 and 9. Completed forming and pouring columns, highbay to roof. Completed concrete placement mezzanine to roof columns. Continued utility relocation and installation at McCadden Place. Completed mezzanine level interior wall rebar/formwork and concrete placement.
- Commenced pile installation for Main Entrance Plaza (33/70 piles
- placed)
  Commenced tunnel crosspassage electrical work
  Commenced shoring operations for roof deck installation lifts 5-12
  Delivered equipment for west and rooms (Contracts B740 and B745)
  Delivered electrical transformers for west and of station

1 A RREA ACCESS SHAFTS C

to HOLLYWOOD / VINE STATION

**HOLLYWOOD / HIGHLAND** STATION

#### SYSTEMWIDE ACTIVITIES

Contract B645 (Transit Automatic Controls and SCADA) completed DCN and sent for CTE review.

Contract B646 (Fire and Emergency Management) sent DCN to LKG for distribution.

Contract C1610 (Trackwork Installation) prepared addenda.

Contract H0122 (Closed Circuit Television) completed Final Design on July 24.

Contract H0123 (Variable Message Signs) prepared interim documents.

Contract H0631 (Traction Power Installation) advertised on July 22. Contract H0648 (Communication Installation) prepared Pre-Final design documents.

Contract MS201 (Hollywood Blvd. Restoration) completed Final Design documents and awaiting Front-End document to issue submittal.



#### **MAJOR ACTIVITIES - NEXT PERIOD NORTH HOLLYWOOD STATION** CONTRACT C0351 - KAJIMA/RAY WILSON CONTRACT C0331 - OBAYASHI CORPORATION North Hollywood Statio North Hollywood Tunnel Complete mezzanine decks in the platform area Complete AR arch concrete; AL and AR invest and arch · Start rebar for mezzanine decks in Staging Area 4 100% complete Pour lower interior walts L6 Complete AL walk way concrete · Pour roofs L6 and L7 Commence AR walkway concrete at 300 fl/day at 6-day Start rebar for L1, L2 and L3 invert pours week production Commence AL fire protection beginning at C0321 and proceeding north to C0351 at 500 lf/day Commence mechanical finish installation in cros Suspend mid-vent concrete operations in preparation for February 24, 1998 C1610 coordination access requirement to the tunnel CONTRACT C0321 - TUTOR/SALIBA-PERINI Universal City Station **UNIVERSAL CITY** Place concrete for the upper ancillary exterior walls in lifts 1 STATION and 2 Install shoring and rebar for roof slab lifts 5-7 · Install rebar, mechanical/electrical embeds, and formwork for the lower interior walls of the entrance Install rebar for Blast Relief Shaft #2 invert CONTRACT C0301 - TUTOR/SALIBA-PERINI Hollywood/Highland Station and Tunnels Complete shoring for roof concrete placement Commence roof deck concrete placement for lifts 5-12 Complete main entrance plaza pile installation CONTRACT C0311 - TRAYLOR BROS/FRONTIER-KEMPER . Commence demolition of slab on grade for existing parking Line Section from Universal City Station to Station 630+00 structure for excavation of main entrance; this will start after lift Continue TBM excavation in the AR and AL lunnels 9 roof deck concrete placement is completed Complete face grouting at seismic/running tunnel interfaces Complete AL tunnel walkway concrete Continue grouting of seasonal spring at Reach 1A/1B interface Complete AR tunnel contact grouting Complete excavation of Crosspassages 51 and 52 Commence AR tunnel walkway concrete placement Continue to refurbish invert concrete form for CN-41 work Commence AL tunnel wat standpipe installation Start concrete work at Crosspassages 39, 39A and 40 per CN-4 Continue McCedden Place valve pit work I A RREA to HOLLYWOOD / VINE ACCESS SHAFTS STATION HOLLYWOOD / HIGHLAND STATION SYSTEMWIDE ACTIVITIES Contract B645 (Transit Automatic Controls and SCADA) send DCN to LKG for distribution by August 8. Contract B646 (Fire and Emergency Management) EMC to provide support to CM for DCN negotiation. Contract C1610 (Trackwork Installation) complete addenda and provide support for bid analysis. Contract H0122 (Closed Circuit Television) complete Camera Ready documents by August 8. Contract H0123 (Variable Message Signs) complete interim documents and issue Pre-Final by August 24. Contract H0631 (Traction Power Installation) attend pre-bid meeting, response to bidders issues and prepare addenda. Contract H0648 (Communications Installation) complete Pre-Final submittal and hold review meetings.

Contract MS201 (Hollywood Blvd. Restoration) receive Front-End document and issue Final Design submittal; work toward Camera Ready.



#### FINANCIAL STATUS

# Budget / Forecast Variance (in millions) Original Scope Activities

COST ELEMENT	CURRENT BUDGET			JULY CHANGE IN FORECAST
CONSTRUCTION	\$825.1	\$809.8	(\$15.3)	\$4.1
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	25.6	(0.7)	0.1
SPECIAL PROGRAMS	0.0	0.0	0.0	0.0
PROJECT CONTINGENCY	69.6	89.8	20.2	(4.2)
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 \$1,310.8 million.

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

- Contract C0311 (Tunnel between Hollywood/Highland and UC) Forecast increase \$5.4 million primarily due to (i) potential claim for DSC in Reach 1-\$4.0 million, (ii) anticipated claim for additional excavation and support for crosspassages in Reach 1-\$0.4 million, and (iii) estimated time extension for Reach 5 shear zone and other miscellaneous conditions-\$1.0 million.
- Contract B646 (Fire and Emergency Management) Forecast increase \$0.9 million primarily due to procurement of CIC backplanes, control points and adjustments in the quantities of equipment.
- Contract H0648 (Communications Installation) Forecast decrease \$2.5 million primarily due to reduction of scope of the gas monitoring system.
- Contract C0301 (Hollywood/Highland Station) increase of \$0.4 million for a claim by TSP for MASA approved self-rescuers.
- Project Contingency Forecast decreased \$4.2 million 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 \$3.0 million in ALFA categories under the Construction, Professional Services and Contingency elements.

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

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

- Total Original Scope and ALFA Expenditures to date are \$627.3 million
- Total Original Scope and ALFA Commitments to date are \$976.8 million



#### \_ FINANCIAL STATUS\_

#### Contract / Line Item Variance Report

CONTRACT VARIANCE: (Current Forecast differs from Current Budget by 10% or more and Current Budget is \$50 million or more).

#### CONTRACT B251 - TUNNEL SEGMENT HOLLYWOOD/VINE TO ROCK INTERFACE (603+00)

Current Budget: \$60,500,000 Forecast: \$44,859,587 Variance: (\$15,640,413) % Variance: (25,9%)

Mitigation: The Current Budget was updated through PBCR #3 which allocated additional budget to the contract for original contract delays, grouting, work resequencing and potential claims as a result of the tunnel settlement and termination of the SKK contractor. The forecast reflects the last know information prior to the sinkhole and street settlement.

#### CONTRACT C0351 - NORTH HOLLYWOOD TUNNEL

Current Budget: \$83,742,000 Forecast: \$70,948,199 Variance: (\$12,793,801) % Variance: (15.3%)

Mitigation: The Current Budget reflects the final engineer's estimate prior to contract award. Forecast is less than the budget due to the contract bid coming in at a lower than anticipated value. However, this period the forecast was increased by \$0.03M to include installation of air handling equipment.

LINE ITEM VARIANCE: (Current Forecast differs from Current Budget by 10% or more for the Line Item Total).

#### **LINE ITEM 03 - HAZARDOUS MATERIAL HANDLING**

Current Budget: \$15,058,000 Forecast: \$6,383,451 Variance: (\$8,674,549) % Variance: (57.6%)

Mitigation: The Current Budget reflects the worst case scenario presented by MTA Environmental at the inception of the North Hollywood Project. Forecast is less than the budget due to less than anticipated contaminated soil encountered to date. Adjustment to budget and forecast will occur once the tunnel drives and significant soils excavation are complete.

#### **LINE ITEM 24 - PROJECT CONTINGENCY**

Current Budget: \$69,570,800
Forecast: \$89,763,997
Variance: \$20,193,197
% Variance: (29.0%)

Mitigation: The Current Budget reflects Project Budget Change Request #4 which did not include areas of exposure which have been recently identified. The forecast includes significant areas of growth in the near future including project administration, claims exposure in Contracts C0311 and C0331 and deferral of the Mid Line Vent Shaft. This period project contingency was decreased by approximately \$4M, mainly due to the additional procurement of Communication Interface Cabinets Backplanes and potential exposure related to anticipated claims. Adjustment will be made to both budget and forecast upon further analysis of the proposed cost increases.

ES-4 EXE 10

**JULY 1997** 

# **Monthly Project Status Report METRO RED LINE - Segment 3 North Hollywood**

Period Ending - August 1, 1997

FINANCIAL STATUS

ظ ق	METRO RED LINE NORTH HOLLYWOOD PROJECT (IN THOUSANDS OF DOLLARS)
	ROJECT

	(A) ORIGINAL BUDGET	(B) TOTAL FUNDS	(C) TOTAL FUNDS	(D) COMM	(D/B) MITMENTS	(Ē) EXPEN	(E/B) IDITURES	(F) BILLED TO	(F/B) SOURC
SOURCE		ANTICIPATED (1)	AVAILABLE	\$	%	\$	%	\$	%
ORIGINAL SCOPE:							-		
FTA-SECTION 3	\$681,037	\$544,830	\$318,569	\$544,830	100%	\$318,569	58%	\$299,654	55%
FTA-SECTION 3 DEFERRED LOCAL SHA	ARE	\$138,207	\$79,142	\$136,207	100%	\$79,142	58%	\$74,913	55%
FED ISTEA STP (STATE)	\$0	\$50,000			0%		0%		0%
FED ISTEA STP/CMAQ (REGIONAL)	\$25,000	\$70,143	\$59,679	\$59,679	85%	\$59,679	85%	\$59,679	85%
FED ISTEA RSTP DEFERRED LOCAL SP	ARE	\$17,536	\$7,694	\$7,694	44%	\$7,694	44%	\$6,845	39%
SB 1995 TRUST FUND	\$53,000	\$75,000	\$75,000	\$75,000	100%	\$66,901	89%	\$66,901	89%
STATE SHA/ARTICLE XIX	\$115,000	\$60,000	\$20,855	\$20,855	35%	\$20,855	35%	\$20,855	35%
STATE PROP 116	\$0	\$25,000	\$25,000	\$25,000	100%	\$25,000	100%	\$25,000	100%
STATE TSM Match	\$0	\$11,360	\$0	\$0	0%	\$0	0%	\$0	0%
CITY OF LA	\$101,500	\$190,703			0%		0%		0%
PROP C	\$316,185	\$116,543	\$54,007	\$105,889	91%	\$51,455	44%	\$30,668	26%
BENEFIT ASSESS. DISTRICT	\$17,100	\$13,500			0%		0%		0%
TOTAL	\$1,310,822	\$1,310,822	\$637,946	\$975,154	74%	\$627,295	48%	\$584,515	45%
OTHER LOCALLY FUNDED ACTIVITIES	:								
PROP C (ARTWORK)	\$0	\$2,435	\$610	\$536	22%	\$0	0%	\$0	0%
PROP C (NON-REV. CONNECTOR)	\$0	\$285	\$3	\$1,035	363%	<b>\$</b> 3	1%	\$3	1%
TOTAL	\$0	\$2,720	. <b>\$</b> 613	\$1,571	58%	<b>\$</b> 3	 0%	<b>\$</b> 3	0%

STATUS OF FUNDS BY SOURCE

(1) Based on Current Budget

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH JUNE 1997.



EXE 12

**Monthly Project Status Report** 

Period Ending - August 1, 1997

METRO RED LINE TOTAL SEGMENT 3 PROJECT FINANCIAL STATUS

(IN THOUSANDS OF DOLLARS)

**METRO RED LINE - Segment 3 North Hollywood** 

**JULY 1997** 

#### STATUS OF FUNDS BY SOURCE

	(A) ORIGINAL	(B) TOTAL	(C) TOTAL	(D) COMMI	(D/B) TMENTS	(E) EXPE	(E/B) NDITURES	(F) BILLED TO	(F/B) SOURC
SOURCE	BUDGET	FUNDS ANTICIPATED (1)	FUNDS AVAILABLE	\$	%	\$	%	<b>s</b>	%
ORIGINAL SCOPE:					_				
FTA-SECTION 3	\$1,230,000	\$1,133,192	\$377,753	\$645,209	57%	\$377,753	33%	\$360,838	32%
FTA-SECTION 3 DEFERRED LOCAL SHARE	\$0	\$283,298	\$94,438	\$161,301	57%	\$94,438	33%	\$90,209	32%
FED ISTEA STP (STATE)	\$0	\$75,000	\$0	\$0	0%	\$0	0%	\$0	0%
FED ISTEA STP/CMAQ (REGIONAL)	\$166,400	\$301,538	\$61,326	\$61,326	20%	\$61,326	20%	\$61,326	20%
FED ISTEA RSTP DEFERRED LOCAL SHARE	\$0	\$75,385	\$7,924	\$7,924	11%	\$7,924	11%	\$7,034	9%
SB 1995 TRUST FUND	\$53,000	\$75,000	\$75,000	\$75,000	100%	\$66,901	89%	\$66,901	89%
STATE SHAVARTICLE XIX	\$115,000	\$100,000	\$20,855	\$20,855	21%	\$20,855	21%	\$20,855	21%
STATE PROP 116	\$144,600	\$40,000	\$25,000	\$25,000	63%	\$25,000	63%	\$25,000	63%
STATE FLEXIBLE CONGESTION RELIEF	\$52,000	\$50,000	\$0	\$0		\$0		\$0	
STATE TSM Match	\$0	\$48,834	\$1,323	\$692	1%	\$692	1%	\$0	0%
CITY OF LA	\$177,000	\$200,000	\$0	\$0	0%	\$0	0%	\$0	0%
PROP C	\$496,385	\$647,131	\$81,967	\$141,811	22%	\$79,318	12%	\$45,709	7%
BENEF ASSESS. DISTRICT	\$17,100	\$13,500	\$0	\$0	0%	\$0	0%	\$0	0%
TOTAL	\$2,451,485	\$3,042,878	\$745,586	\$1,139,118	37%	\$734,207	24%	\$677,872	22%
OTHER LOCALLY FUNDED ACTIVITIES:				<del></del>					
PROP C (ARTWORK)	\$0	\$2,435	\$610	\$536	22%	\$0	0%	\$0	0%
PROP C (NON-REV. CONNECTOR)	\$0	\$285	\$3	\$1,035	363%	<b>\$</b> 3	1%	<b>\$</b> 3	1%
TOTAL	\$0	\$2,720	<b>\$</b> 613	\$1,571	58%	\$3	0%	<b>\$</b> 3	0%

(1) BASED ON CURRENT BUDGET

NOTE: EXPENDITURES ARE CUMULATIVE THROUGH JUNE 1997.



#### FINANCIAL STATUS

Metro Red Line Segment 3 Project **Funds by Source Analysis** 

#### STATUS OF FUNDS ANTICIPATED

**FTA SECTION 3** MTA submitted a grant application to the FTA on December 13, 1996, for \$69,475,000. Grant

award is expected in August 1997.

MTA submitted a grant application to the FTA on December 23, 1996 for \$20,000,000. Grant FTA SECTION 9

FED ISTEA/CMAQ award is expected in August 1997.

**FTA SECTION 9** The State allocated \$75 million at the May 1996 California Transportation Commission meeting. FED ISTEA/STP

Those funds have been allocated as Federal STP funds. MTA submitted a grant application

to the FTA on December 23, 1996. Grant award is expected in August 1997.

STATE PROP 116 MTA submitted on April 8, 1997 a grant application and an allocation request to the California

Transportation Commission for \$15 million of Prop 116 Rail Bond Funds. Approval is expected

in September 1997.

STATE SHA MTA submitted on June 27, 1997 an allocation request to the CTC for \$20 million of State

Highway Account (SHA) funds. Approval is expected in September 1997.

BENEFIT ASSESSMENT No funds are expected to be available until Fiscal Year 2003.

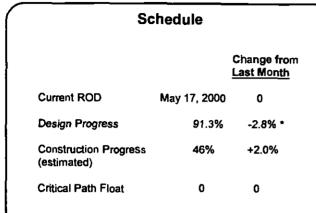
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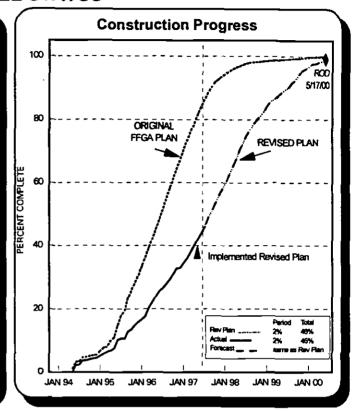
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#### SCHEDULE STATUS



<sup>\*</sup> Due to addition of scope, the Design Progress percent complete shows a reduction from last month.



#### **Current Critical Path Analysis**

The July 1997 Project Master Schedule shows the project to be on schedule. 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 TBM progress and risks associated with the tunnels under the Santa Monica Mountains, Contract C0311.

Additionally, the continuing goal of further schedule improvements are being pursued on Contract C0311 as well as downstream contracts, i.e., C1610 (Trackwork Installation), B620 (Automatic Train Control), B645 (SCADA) and Integration Testing and Start-up.

To better coordinate the testing and commissioning of the stations, as well as the project integrated testing, system access milestones are being reviewed to coordinate with system need dates. In addition, a systems integration testing plan for Phases I and II is being prepared.

#### **Construction Progress Analysis**

The overall construction progress through August 1 is 46% complete. Current facilities contracts delays do not impact ROD of May 17, 2000.

Contract C0301 (Hollywood/Highland Station and tunnel work) remains behind contract schedule. The total forecast delay for station completion is 210 workdays which includes CN-63 impacts. After mitigation, delays will be 152 workdays, Interim milestones' language and dates are being revised to better coordinate follow-on system contracts and establish a better sequence for testing and commissioning of the station. Contractor is proceeding with two of the acceleration options to mitigate its own delays on the west end of the station. Two CNs to partially mitigate the delay on the east end are being reviewed. Station entrance excavation and concrete work has been identified to proceed with a 6-day week schedule. There is no impact to ROD.

Contract C0311 (Line Section from Universal City Station to Station 613+00) five workdays were lost through the TBM excavation during this period. An allowance of 55 workdays for ground conditions, ground stabilization, seasonal springs grouting and 429 additional standard tunnel section is included in the forecast delay of 142 workdays for the AL tunnel. Milestone 10, Phase 3 Crossover Tumover to C0321, may be delayed to the first week of December 1997. Options to accelerate the hand-over of 50% of the crossover (north section) and to remove TBM from the La Brea Shafts are being reviewed. There is no impact to ROD.

Contract C0321 (Universal City Station) continues to stay on schedule. The contract critical path starts at Phase 3 access in November 1997 and runs through contract completion. The contractor is progressing out of sequence work in Phase 2 and the main entrance to increase the overall field efficiency. This work is being done concurrently with the north mezzanine activities in lifts 1-3. There is no impact to ROD.

Contract C0331 (North Hollywood Tunnel) completed turnover of all crossover staging areas to C0351 on July 31.

Contract C0351 (North Hollywood Station) contractor improved on the forecasted invert concrete placement dates. If this effort is maintained through Stage 5, the forecasted trackwork access date of February 1998 will be met.

ES-8 EXE 14



# **SAFETY STATUS**

Construction Safety Statistics						
Project-to-Date Rates		Change from				
Recordable Injury Rate The number of recorded injuries excluding		Last Month				
simple first aid or minor medical treatment per 100 man years.						
1995 Natioπal Average Project Rate	10.6 15.4	+0.6				
Lost Time Rate (Frequency) The number of injuries resulting in days away from work per 100 man years.						
1995 National Average Project Rate	4.2 1.5	0				

#### **Construction Safety Summary**

Project-to-Date Lost Time Injury Rate continues at approximately one-third of the National Average of 4.2.

(Based on June 1997 statistics)



#### MANAGEMENT ISSUES\_

#### **ONGOING**

Item (Date initiated: May 1997)

Agency Cost Overrun

#### Concern/Impact

Agency Costs are an element of the Project Budget and incorporate management issues, non-labor administrative costs, fringe benefits and overhead costs. The allocation plan, in conjunction with the project's forecast completion date, is expected to result in significant overruns to the specific line item budget for "agency" costs.

#### Status/Action

The project staff has completed the technical analysis. The recommended strategy would include revising the overhead rate, reducing overhead cost and amending the project budget, if necessary. The analysis is presently with the Executive Office of Construction for review and development of a cost mitigation strategy.

#### **ONGOING**

Item (Date Initiated: May 1997)

Ground Conditions and TBM Production in Reaches 1A and 1B

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

#### Concern/Impact

Average rate of TBM excavation this period is 38 feet/day (a 10% improvement over the June rate) because of poorer ground conditions, ground stabilization and seeping water. If average daily excavation rates fall below 30 feet/day for the remaining 4,000 feet of tunnel (2,000 feet each for AL and AR), turnover of the Phase III crossover to Contract C0321 (Universal City Station) scheduled for November 18, 1997 will be impacted. Even slower excavation rates could impact the Revenue Operations Date (ROD) of May 17, 2000.

#### Status/Action

Immediate, short term action includes changing the face probing and grouting procedure which was adopted to protect seasonal springs and reduce water seepage. The procedure was reassessed in June and grouting ahead of the face was replaced by supplementary grouting performed from staging behind the TBMs. To improve softer ground mining, the TBM cutting head, in the AL tunnel, was overhauled and modified in June. Similar TBM modification for the AR tunnel was completed, as planned, this period.

Ongoing, long term action to mitigate impact to the project includes: C0321 track access contingency studies and mitigation schedule studies which have been reviewed with the C0311 contractor. The C0311 options which were adopted are: (1) shotcrete north and south crossover transition; (2) resequence track level room excavation and concrete work; and (3) concrete lining south of La Brea Shaft to be done immediately following the seismic section excavation. Additional mitigation options were identified during a formal brainstorming session and are being reviewed with the contractor. Contingency plans are being studied and recommendations will be made to address potential delays to crossover turnover to Contract C0321. Also, Contract C1610 trackwork installation milestone turnover date was split into two phases for each tunnel. Turnover dates will be staggered, offering gradual access as scheduled.

ES-10 EXE 16



#### MANAGEMENT ISSUES\_

#### **ONGOING**

Item (Date initiated: April 1997)

TBM Junction with Special Seismic Section

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

#### Concern/Impact

A long probe hole has established that the last 280 feet of tunnel north of the Special Seismic Section may not be suitable for TBM excavation.

#### Status/Action

A program of ground strengthening by cement grouting continued in the Special Seismic Section. Both top headings have been completed to 250 feet. Additional holes in the AL and AR at bench levels will be drilled and grouted to complete the grout pattern.

#### **ONGOING**

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

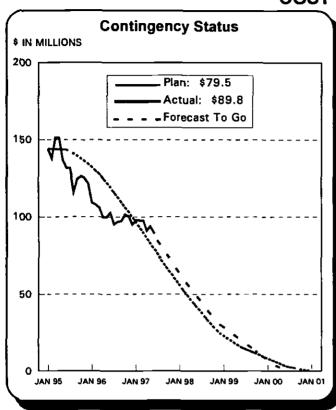
The forecast cost and schedule impacts to Contract C0311 have been incorporated into the program. The seasonal springs protective measures included the cost and schedule contingencies for four known spring zones and two unknown spring zones. As planned, the six spring zones are being grouted ahead of the tunnel face and with supplemental grouting as tunneling progresses. Supplemental water sources have been installed in several locations for Nichols Canyon Creek, Senalda Road, and the Oakshire Catchment to mitigate the decline of perennial springs. The blast vibration monitoring system is in place and operational.

A hydrogeological study is planned to assess water infiltration through the tunnel lining and to ascertain if additional protective measures are needed. The study is expected to start in late August.

Planning for the utilization of explosives is underway.



#### **COST STATUS**



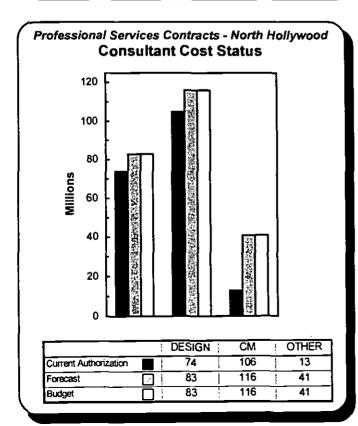
#### **Contingency Status Analysis**

#### **July 1997 Period Status**

The Contingency Forecast decreased \$4.2 million this period to offset a net increase of \$4.2 million in the Construction Element.

#### **Cumulative Contingency Status**

The variance between the actual and planned contingency of \$10.3 million is primarily due to a timing difference of early completions of the facilities contracts. The original planned contingency curve had the facility contracts finishing, on average, eight months earlier than the current schedule. Therefore, the plan has less contingency because contracts' CNs, DCNs and claims issues would have already been quantified.



#### **Professional Services Cost Analysis**

The Construction Management current authorization forecast and budget remained the same.

The EMC Forecast at Completion is currently being reevaluated.

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:

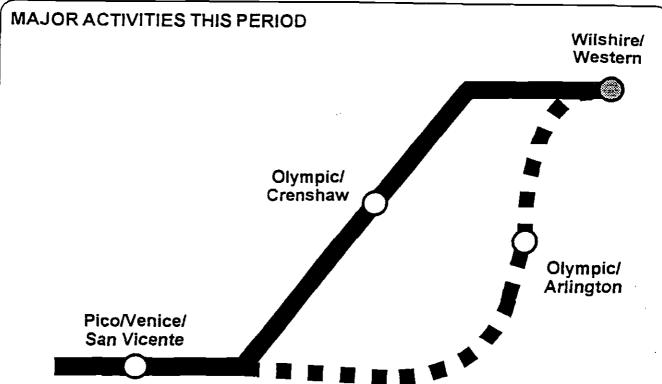
CMS: Consultant Contract Authorization, Forecast, and Budget Value.

METRO RED LINE SEGMENT 3
MID-CITY EXTENSION

**EXECUTIVE SUMMARY** 

# METRO RED LINE - Segment 3 / Mid-City Extension Summary Status Report Period Ending - August 1, 1997





#### SYSTEMWIDE ACTIVITIES

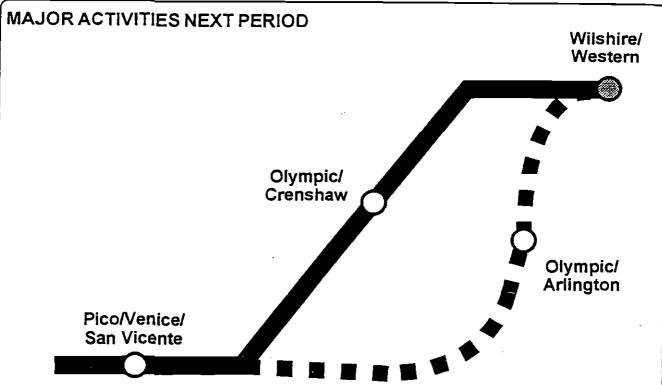
- Public outreach efforts continued with a briefing for Councilman Nate Holden's Office regarding alternatives; various community meetings; interface with Home Owner Association and community leaders regarding environmental mitigation measures; and outreach to Pico Corridor businesses.
- ◆ The Supplemental Environmental Impact Statement/Subsequent Environmental Impact Report (SEIS/SEIR) process continued with a review of the draft document and coordination with the FTA; the schedule was revised during the period to reflect a longer FTA review period.

17.0

# METRO RED LINE - Segment 3 / Mid-City Extension Summary Status Report

Period Ending - August 1, 1997





#### SYSTEMWIDE ACTIVITIES

- FTA coordination and interface will continue as the SEIS/SEIR process progresses; the report will be revised as required, per FTA comments.
- Public outreach efforts will continue through meetings with various community and governmental groups; a Public Notice will be prepared regarding availability of the SEIS/SEIR document for review.
- A Communication/Marketing Plan will be developed and implemented to address press releases, fact sheets, etc.

#### FINANCIAL STATUS

#### Budget/Forecast Variance (in Millions)

Original Scope Activities

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

Additional Locally Funded Activities

	T			JULY
	CURRENT	CURRENT		CHANGE IN
COST ELEMENT	BUDGET	FORECAST	VARIANCE	FORECAST
CONSTRUCTION	\$0	\$0	\$0	so
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 Budget is based on the original Project alignment and a July 1999 ROD; the Forecast is based on the Wilton/Arlington underground alignment and July 2009 ROD contained in the Rail Recovery Plan. A revision to the Rail Recovery Plan which results in a July 2008 ROD was approved by the MTA Board in May 1997. Since the revised plan is conditional on receipt of anticipated ISTEA funding, the forecast will not be adjusted until adoption of the Full Funding Grant Agreement.

A trend will be prepared to formally adjust the forecast when the preferred alternative is selected, now forecast for late Fall 1997. The budget baseline will be finalized after the Preliminary Engineering is completed and the Project is adopted, now forecast to occur in late 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, and environmental engineering services.

ms-4

TOTAL

PROP C (ARTWORK)

**GRAND TOTAL** 

0%

1%

0%

24% \$677,872

37% \$734,207

\$0

3

\$3

22%

363%

58%

22%

0%

1%

0%

\$0

\$3

#### FINANCIAL DETAIL **METRO RED LINE - SEGMENT 3 PROJECT TOTAL**

STATUS OF FUNDS BY SOURCE (in thousands of dollars)

	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
	ORIGINAL	TOTAL FUNDS	TOTAL FUNDS	COMMITMENTS		EXPENDITURES		BILLED TO SOURCE	
SOURCE	BUDGET	ANTICIPATED (1)	AVAILABLE	\$	%	\$	%	\$	%
ORIGINAL SCOPE:									
FTA - SECTION 3	\$1,230,000	\$1,133,192	\$377,753	\$645,209	57%	\$377,753	33%	\$360,838	32%
FTA - SECTION 3 DEFERRED LOCAL SHARE	0	283,298	94,438	161,301	57%	94,438	33%	90,209	32%
FED ISTEA STP (STATE)	0	75,000	0	0	0%	0	0%	0	0%
FED ISTEA STP/CMAQ (REGIONAL)	166,400	301,538	61,326	61,326	20%	61,326	20%	61,326	20%
FED ISTEA RSTP DEFERRED LOCAL SHARE	0	75,385	7,924	7,924	11%	7,924	11%	7,034	9%
SB 1995 TRUST FUND	53,000	75,000	75,000	75,000	100%	66,901	89%	66,901	89%
STATE ARTICLE XIX	115,000	100,000	20,855	20,855	21%	20,855	21%	20,855	21%
STATE PROP 116	144,600	40,000	25,000	25,000	63%	25,000	63%	25,000	63%
STATE FLEXIBLE CONGESTION RELIEF	52,000	50,000	0	0		0	. !	0	
STATE TSM MATCH	0	48,834	1,323	692	1%	692	1%	0	0%
CITY OF LOS ANGELES	177,000	200,000	0	0	0%	0	0%	0	0%
PROP C	496,385	647,131	81,967	141,811	22%	79,318	12%	45,709	7%
BENEF ASSESS. DISTRICT	17,100	13,500	0	0	0%	0	0%	0	0%

\$3,042,878

\$2,435

\$2,720

285

\$745,586

\$610

\$613

\$1,139,118

\$536

1,035

\$1,571

\$2,451,485

\$0

0

\$0

NOTE: Expenditures are cumulative through June 1997.

OTHER LOCALLY FUNDED ACTIVITIES:

PROP C (NON-REV CONNECTOR)

<sup>(1)</sup> Anticipated Funds Information as available at time of closing; funding information to be reconciled with Board approved schedule and budget for Mid-City.

#### FINANCIAL DETAIL **METRO RED LINE - SEGMENT 3 / MID-CITY EXTENSION**

STATUS OF FUNDS BY SOURCE (in thousands of doilars)									
	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
		TOTAL	TOTAL			_		BILLED	
SOURCE	ORIGINAL	FUNDS	FUNDS	COMMITM		EXPENDITURES		TO SOURCE	
SOURCE	BUDGET	ANTICIPATED (1)	AVAILABLE	\$	_ %	\$	*	\$	<u>%</u>
FTA - SECTION 3	\$242,563	\$194,050	\$4,107	\$4,107	2%	\$4,107	2%	\$4,107	2%
FTA - SECTION 3 DEFERRED LOCAL SHARE	0	48,513	1,027	1,027	2%	1,027	2%	1,027	2%
FED ISTEA STP (STATE)	0	0							
FED ISTEA STP/CMAQ (REGIONAL)	55,400	16,320	1,418	1,418	9%	1,418	9%	1,418	9%
FED ISTEA RSTP DEFERRED LOCAL SHARE	0	4,080	184	184	5%	184	5%	163	4%
STATE ARTICLE XIX	0	40,000	:				i.		
STATE PROP 116	72,300	0						:	
STATE FLEXIBLE CONGESTION RELIEF	26,000	50,000							
STATE TSM MATCH	0	2,643	0	0		0			
CITY OF LOS ANGELES	34,400	0				ļ			
PROP C	60,000	327,252	6,109	7,423	2%	6,012	2%	5,946	2%
TOTAL	\$490,663	\$682,858	\$12,845	<b>\$</b> 14,1 <u>5</u> 9	2%	\$12,748	2%	\$12,661	2%

<sup>(1)</sup> Anticipated Funds information as available at time of closing; funding information to be reconciled with Board approved schedule and budget.

NOTE: Expenditures are cumulative through June 1997.

#### FINANCIAL DETAIL

#### **FUNDS BY SOURCE ANALYSIS**

Status of Funds Anticipated (Segment 3 Projects)

FTA Section 3 A Grant Application was submitted to the FTA on December 13, 1996 for

\$69.5M. Grant award is anticipated in August 1997.

FTA Section 9
FED ISTEA/CMAQ

A Grant Application for \$20.0M was submitted to the FTA on December 23, 1996.

The grant award is expected in August 1997

FTA Section 9
FED ISTEA STP

The state allocated \$75.0M at the May 1996 California Transportation Commission meeting. Those funds have been allocated as Federal STP

funds. A Grant Application was submitted to the FTA on December

23, 1996; the Grant award is expected around August 1997.

State Prop. 116

MTA submitted a Grant Application and an Allocation Request on April 8, 1997

to the California Transportation Commission (CTC) for \$15.0M of Proposition

116 Rail Bond Funds. Approval is expected in September 1997.

State SHA

MTA submitted an Allocation Request on June 27, 1997 to the CTC for \$20.0M

of State Highway Account (SHA) funds. Approval is expected in September

1997

**Benefit Assessment** 

No funds are expected to be available until FY 2003.

#### SCHEDULE STATUS

<u> </u>		SCHEDU —————	ILE STATUS					
SCHEDULE			SCHEDULE ANALYSIS					
		Change From Last Month	The Supplemental Environmental Impact Statement/ Subsequent Environmental Impact Report (SEIS/SEIR)					
Current ROD	July 22, 2008	None	document preparation which addresses the Wilton/ Arlington & Crenshaw alignment alternatives is on the critical path for the overall Mid-City Project. The FTA					
Design Progress	0%	None	began its review of the document during the period, approximately twelve weeks behind schedule. The delay					
Construction Progress	0%	None	was due to the length of time required to prepare sup- porting information. The schedule was further impacted					
Critical Path Float	N/A	None	during the period to reflect an additional two weeks for the FTA to complete their review.					
			The August 1997 plan date for Board LPA selection is now forecast for November; the Project Adoption and Record of Decision milestones have also been pushed out as a result of these delays.					
			The July 2008 ROD is contingent on adoption of the Full Funding Grant Agreement. The Project baseline schedule will be finalized after Preliminary Engineering is completed.					
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ES-8

#### CONSTRUCTION SAFETY

There is no construction activity at this time.

#### MANAGEMENT ISSUES

ONGOING

#### **Item**

Agency Cost Overrun (initiated 5/97)

#### Concern/Impact

Agency costs are an element of the Project Budget and incorporate management issues, non-labor administrative costs, fringe benefits, and overhead costs. The allocation plan, in conjunction with the project's forecast completion date, is expected to result in significant overruns to the specific line item budget for "agency" cost.

#### Status/Action

The Project Office has completed the technical analysis. The analysis has been forwarded to MTA management for their review, recommendation, and development of a cost mitigation strategy. The strategy would include revising the overhead rate, reduce overhead cost, and amending the Project budget, if necessary.

#### ltem

Finalization of Mid-City Cost Estimate and 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 SEIS/SEIR process and the Board decision on the preferred alternative.

#### Status/Action

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.

#### **MANAGEMENT ISSUES (continued)**

#### ONGOING

#### Item

Draft SEIS/SEIR Preparation Schedule Variance (initiated 4/97)

#### Concern/Impact

The Supplemental Environmental Impact Statement/Subsequent Environmental Impact Report (SEIS/SEIR) document preparation will not be completed as scheduled and the Board cannot formally select the preferred alignment and configuration alternative in August 1997.

#### Status/Action

Evaluation of the SEIS/SEIR draft by the FTA began in early July, about twelve weeks behind schedule. The originally planned duration of 30 days for FTA review was extended to 45 days during the period, adding additional delay to the schedule. Mitigating the delay by compressing either the FTA review or the public review circulation periods is not possible. Therefore, the Project Adoption and Record of Decision milestones have slipped accordingly. If comments/changes resulting from these reviews are minimal, it may be possible to mitigate some portion of the delay; MTA will evaluate this possibity as review comments are received.

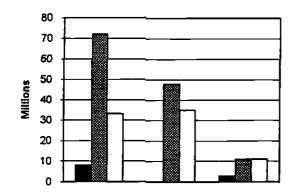
#### RESOLVED

No outstanding issues were resolved this period.

#### **COST STATUS**

#### Consultant Cost Status

# Professional Service Contracts Dollars in Millions



	 DESIGN	СМ	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 July. The Forecast information on the chart reflects data contained in the Rail Recovery Plan. The Budget and Forecast information will be finalized after Preliminary Engineering is completed and the project is adopted in the Spring of 1998.

#### DATA SOURCE:

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

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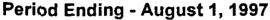
METRO RED LINE SEGMENT 3

EAST SIDE EXTENSION

**EXECUTIVE SUMMARY** 

# METRO RED LINE - Segment 3 East Side

Monthly Project Status Report





#### **MAJOR ACTIVITIES THIS PERIOD**

#### C0502

LITTLE TOKYO / ARTS DISTRICT STATION and LINE SECTION EMC issued Final Design submittal (100%) to MTA on July 21, 1997 after completion of the QA/QC audit. MTA issued WACN for \$200,000 for CCN #658 to combine C0502 and C0541 into a single contract. EMC started work on the CCN and preparation of the CSP.

#### C0521

1st / BOYLE STATION
The Final submittal was made on
July 11, 1997. EMC and Section
Designers prepared drawings and

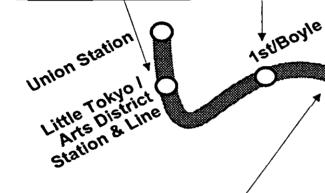
specifications for the upcoming Camera Ready submittal.

#### C0531

CHAVEZ / SOTO STATION

EMC and Section Designer completed the specifications review and mark-ups. The Specifications department processed the specification mark-ups. The Criteria Conformance Master Checklist was compiled, reviewed, and updated. The SBCN, DCN, and checklists were reviewed and marked-up. EMC and Section Designer performed the intradiscipline Pre-Final review of the drawings and specifications.

15tl Lorena



#### C0541

1st / BOYLE to 1st / LORENA LINE SECTION

Contract C0541 is on hold at the Camera Ready level. EMC worked on proposal to MTA to combine contracts C0502 and C0541 into one package.

#### C0551

1st / LORENA STATION

Chavezisoto

No work was performed this period. The contract is on hold at the Final level

#### SYSTEMWIDE ACTIVITIES

#### EMC:

Continued work on contract P1614 drawings and specifications for Final submittal planned for September 21, 1997. Work was put on hold July 8, 1997. Contract P1616 was put on hold June 23, 1997. No work performed on P1616. Issued the Interim submittal for C0595 on July 25, 1997. Awaiting DWP-Water comments. Work for P0650 is progressing toward the Pre-Final submittal by September 2, 1997. An Industry Review by the major manufacturers has been completed.

#### MTA Public Affairs:

Conducted Coordination Communications team meetings to facilitate interdepartmental construction issues such as relocations & security. Conducted tour of operational segment of MRL for the Boyle Heights Sr. Citizen Center. Provided bus tour of the East Side alignment. Coordinated 10 meetings and events such as the Boyle Heights Community Clean-Up Day where MTA joined members of the community to clean areas around Mariachi Plaza Station.

# METRO RED LINE - Segment 3 East Side

Monthly Project Status Report

Period Ending - August 1, 1997



#### **ACTIVITIES PLANNED FOR NEXT PERIOD**

#### C0502

LITTLE TOKYO / ARTS DISTRICT STATION and LINE SECTION EMC to receive and disposition comments on Final Design submittal; complete and issue CSP on CCN #658 to combine Contracts C0502 and C0541; continue efforts related to CCN #658 under the NTE of \$200,000.

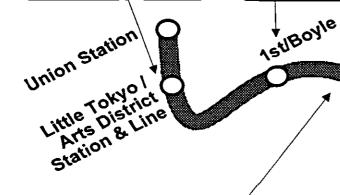
#### C0521

1st / BOYLE STATION
EMC to complete design for
Camera Ready submittal; revise
Civil and Utility drawings, as the
C502 Contract will be excavating
the station area per CCN 658.01;
prepare proposal for seismic
redesign and smoke exhaustion
fan deletion.

#### C0531

CHAVEZ / SOTO STATION EMC: Pre-Final intradiscipline corrections, interdiscipline review and corrections of drawings and specifications, System Integration and Fire/Life Safety review, disposition and corrections, completion of QCCD binders, Quality Assurance verification / audit of documents, plot Pre-Final package, MTA review and verification meeting.

1st/Lorena



#### C0541

1st / BOYLE to 1st / LORENA LINE SECTION

EMC to work on resolving earlier review comments and continue efforts related to CCN #658 under the NTE of \$200,000.

#### C0551

1st / LORENA STATION

Chavez/Soto

No work is anticipated. The contract is on hold at the Final level.

#### SYSTEMWIDE ACTIVITIES

#### EMC:

Contract P1614 was put on hold July 8, 1997, contract P1616 was put on hold June 23, 1997, and contract C2610 was put on hold July 8, 1997. No work is anticipated for these contracts in August. Contract C0595 Pre-Final submittal due August 15, 1997. Contract P0650 working towards Pre-Final submittal on September 2, 1997.

#### MTA Public Affairs:

Will co-sponsor Nisei Week Festival; coordinate merchant breakfast for Chavez/Soto station area to discuss construction impact management issues; update business surveys around stations to develop a station specific mitigation plan; conduct neighborhood meeting with residents, businesses, schools and neighborhood associations.



\$0.0

#### FINANCIAL STATUS

Budget/Forecast Variance (In Millions)							
COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	VARIANCE	JULY CHANGE IN FORECAST			
Construction	\$664.8	\$689.6	\$24.8	\$0.0			
Professional Services	\$247.6	\$247.6	\$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	\$78.1	\$53.3	(\$24.8)				
Project Revenue	\$0.0	\$0.0	\$0.0	\$0.0			

Other Locally Funded Activities

\$1049.2

\$1049.2

(\$0.0)

COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	VARIANCE	JULY CHANGE IN FORECAST
Construction Professional Services Real Estate		\$4.3	\$4.3	\$0.0
Utility/Force Account Special Programs Contingency	\$0.0	\$3.1	\$3.1	\$0.0
Total Other Locally Funded Activities	\$0.0	\$7.4	\$7.4	\$0.0

#### Budget/Forecast Variance Analysis

#### July Forecast Variance

**Total Project** 

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 May, the R.O.D. was moved forward to May 2004. In July there was no change in either the current budget or the current forecast. Contingency increased slightly from \$53.2M to \$53.3M due primarily to trends T-099, Retrofit of B641 Data Radio System and T-101, Final Design Estimate for Contract P1616 Procurement and Direct Fixation Rail Fasteners (please see page ES-14 for further discussion). In July, expenditures increased by \$3.9M. The MTA & EMC continue analyzing the project for cost reduction measures to reduce overall project costs. Commitments increased by \$10.1M. primarily due to increased commitments of \$8.3M. for EMC and \$1.7M. for Fluor Daniel.

Total Expenditures To Date Are: \$94.2M
Total Commitments To Date Are: \$149.8M

"Other Locally Funded Activities" are defined as work scope not covered under the Full Funding Grant Agreement (FFGA). During the month of April, the expenditures and current forecast for Professional Services under "OLFA" increased by \$4.3M due to reconciliation with the FIS General Ledger expenditure account. Prior to the reconciliation, these expenditures were kept in a separate account, apart from the project cost, as they were not eligible for federal funding since they occurred before the FTA's issuance of the Letter of No Prejudice (LONP) dated 9/7/93. The current forecast of \$7.4M also includes the MTA Art Program forecast of \$3.1M. MTA is awaiting Board approval to update the current budget to reflect these commitments and forecast.



#### **FINANCIAL STATUS**

#### CONTRACT / ITEM VARIANCE REPORT

1. CONTRACT VARIANCE (CURRENT FORECAST DIFFERS FROM CURRENT BUDGET BY 10% OR MORE AND CURRENT BUDGET IS \$50 MILLION OR MORE)

No items to report this period.

2. LINE ITEM VARIANCE (CURRENT FORECAST DIFFERS FROM CURRENT BUDGET BY 10% OR MORE FOR THE LINE ITEM TOTAL)

Line Item 24 - Project Contingency

Current Budget

\$78,082,000

Forecast

\$53,285,000

Variance % Variance

(\$24,797,000) -31.8%

Mitigation:

This variance is due to drawdown from contingency to cover increased estimates for various construction elements of the project. Major items that have also impacted contingency are as follows:

May 1997: Net drawdown of \$10.4 million to cover increased estimates for the Chavez/Soto station and for the Electrical Equipment Procurement contracts.

April 1997: Net drawdown of \$3.1 million to cover increased estimates for the 1st/ Lorena station and the Project Management Assistance contract.

March 1997: Net drawdown of \$6.4 million to cover increased estimates for the Little Tokyo/Arts District Station and Line Section contract.

The East Side Extension Project Team began reporting in the April Monthly Project Status Report a new "Area of Concern/Management Issue" relating to adequacy of remaining contingency.

Mitigation of these rapid depletions of the contingency amounts is a high project priority and depends on a number of factors, including accuracy of the estimates. The Project Team, along with the EMC and the CM continue to investigate Value Engineering/Cost Reduction options and will implement those which are possible and practical. Currently under study for potential savings are the elimination of the Smoke Exhaust Systems and schedule acceleration within funding constraints. Concurrent with those efforts, estimate reviews are being undertaken with staff and consultants to verify the scope and content of estimates for design packages, to identify specific areas of increase, and to review those areas for cost reduction potential.



#### **FINANCIAL STATUS**

#### CONTRACT / ITEM VARIANCE REPORT

#### Line Item 24 - Project Contingency - continued

The following project management decisions were made during the period:

implementation of the work repackaging option suggested by the PMOC to combine the tunnel work into one contract rather than two, thus eliminating one Tunnel Boring Machine.

Excavation of the 1st/Boyle Station will be included with the tunnel contract, rather than with the station contract, permitting skidding of the TBMs through the station site.

Construction of a separate access shaft at the 1st/Lorena Station to allow the C0541 contractor to salvage the TBMs.

Significant cost savings associated with these recent decisions are expected, which will be incorporated in August and September. These savings will add to the forecast contingency and reduce the variance.

#### Line Item 26 - Art-In-Transit Program

Current Budget \$0
Forecast \$3,122,000
Variance \$3,122,000
% Variance 100%

Mitigation:

The forecast for the Art Program was established in accordance with the Board adopted policy of allocating 1/2 of 1% of the station construction costs for the Art Program. Since the Art Program was not included as part of the Full Funding Grant Agreement for the East Side, there is no Board approved budget. The Metro Art Department has been advised to prepare a Board item to obtain Board approval of a budget.

# FINANCIAL STATUS METRO RED LINE - SEGMENT 3 / EAST SIDE EXTENSION

	(A)	(B) TOTAL	(C) TOTAL	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
	ORIGINAL	FUNDS	FUNDS	COMMITME	NTS	EXPENDITURES		BILLED TO SOURCE	
SOURCE	BUDGET	ANTICIPATED (1)	AVAILABLE_	\$	%	\$	1%	\$	%
ORIGINAL SCOPE:				-		:			
FTA - SECTION 3	\$1,230,000	\$1,133,192	\$377,753	\$645,209	57%	\$377,753	33%	\$360,838	32%
FTA - SECTION 3 DEFERRED LOCAL SHARE	0	283,298	94,438	161,301	57%	94,438	33%	90,209	32%
FED ISTEA STP (STATE)	0	75,000	0	0	0%	0	0%	0	0%
FED ISTEA STP/CMAQ (REGIONAL)	166,400	301,538	61,326	61,326	20%	61,326	20%	61,326	20%
FED ISTEA RSTP DEFERRED LOCAL SHARE	0	75,385	7,924	7,924	11%	7,924	11%	7,034	9%
SB 1995 TRUST FUND	53,000	75,000	75,000	75,000	100%	66,901	89%	66,901	89%
STATE SHAVARTICLE XIX	115,000	100,000	20,855	20,855	21%	20,855	21%	20,855	21%
STATE PROP 116	144,600	40,000	25,000	25,000	63%	25,000	63%	25,000	63%
STATE FLEXIBLE CONGESTION RELIEF	52,000	50,000	0	0		0		0	
STATE TSM MATCH	0	48,834	1,323	692	1%	692	1%	0	0%
CITY OF LOS ANGELES	177,000	200,000	0	0	0%	0	0%	0	0%
PROP C	496,385	647,131	81,967	141,811	22%	79,318	12%	45,709	7%
BENEF ASSESS. DISTRICT	17,100	13,500	0	0	0%	0	0%	0	0%
TOTAL	\$2,451,485	\$3,042,878	\$745,586	\$1,139,118	37%	\$734,207	24%	\$677,872	22%
OTHER LOCALLY FUNDED ACTIVITIES:									
PROP C (ARTWORK)	\$0	\$2,435	\$610	\$536	22%	\$0	0%	\$0	0%
PROP C (NON-REV CONNECTOR)	0	285	3	1,035	363%	3	1%	3	1%
GRAND TOTAL	\$0	\$2,720	\$613	\$1,571	58%	\$3	0%	\$3	0%

(1) Based on Current Budget

NOTE: Expenditures are cumulative through June 1997.



# FINANCIAL STATUS METRO RED LINE - SEGMENT 3 / EAST SIDE EXTENSION

STATUS OF FUNDS BY SOURCE (in thousands of dollars)									
	(A)	(B)	(C)	(D)	(D/B)	(E)	(E/B)	(F)	(F/B)
	ORIGINAL	TOTAL FUNDS	TOTAL FUNDS	COMMITMENTS		EXPENDITURES		BILLED TO SOURCE	
SOURCE	BUDGET	ANTICIPATED (1)	AVAILABLE	\$	%	\$ %		\$ %	
FTA - SECTION 3	\$306,400	\$394,312	\$57,077	\$96,272	24%	\$57,077	14%	\$57,077	14%
FTA - SECTION 3 DEFERRED LOCAL SHARE	0	98,578	14,269	24,067	24%	14,269	14%	14,269	14%
FED ISTEA STP (STATE)	0	25,000							
FED ISTEA STP/CMAQ (REGIONAL)	86,000	215,075	229	229	0%	229	0%	229	0%
FED ISTEA RSTP DEFERRED LOCAL SHARE	0	53,769	46	46	0%	46	0%	26	0%
STATE SHA/ARTICLE XIX	0	0							
STATE PROP 116	72,300	15,000							
STATE FLEXIBLE CONGESTION RELIEF	26,000	o							
STATE TSM MATCH	0	34,831	1,323	692	2%	692	2%		!
CITY OF LOS ANGELES	41,100	9,297							
PROP C	118,200	203,336	21,851	28,499	14%	21,851	11%	9,095	4%
TOTAL	\$650,000	\$1,049,198	\$94,795	\$149,805	14%	\$94,164	9%	\$80,696	8%

<sup>(1)</sup> Based on Current Budget



<sup>(2)</sup> Expenditures include actuals spent prior to FTA issuance of their Letter of No Prejudice (LONP) dated 9/7/93. NOTE: Expenditures are cumulative through June 1997.



#### FINANCIAL STATUS

#### **FUNDS BY SOURCE ANALYSIS**

#### Status of Funds Anticipated

FTA Section 3 MTA submitted a grant application to the FTA on December 13, 1996 for

\$69,475,000. The Grant Award is expected in August 1997.

FTA Section 9 MTA submitted a grant application to the FTA on December 23, 1996 for

FED ISTEA/CMAQ \$20,000,000. The Grant Award is expected in August 1997.

FTA Section 9 The state allocated \$75,000,000 at the May 1996 California Transportation Commission meeting. Those funds have been allocated as Federal STP

funds. MTA submitted a grant application to the FTA on December 23, 1996.

The Grant Award is expected around August 1997.

State Prop 116 MTA submitted on April 8, 1997 a grant application and an allocation request

to the California Transportation Commission for \$15,000,000 of Prop 116

Rail Bond Funds. Approval is expected in September 1997.

State SHA MTA submitted on June 27, 1997 an allocation request to the CTC for

\$20,000,000 of State Highway Account (SHA) funds. Approval is expected

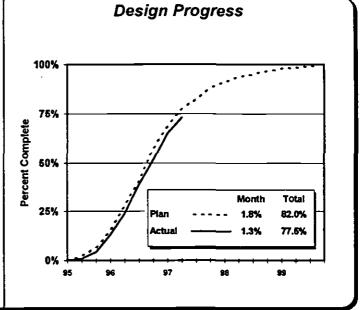
in September 1997.

Benefit Assessment No funds are expected to be available until FY 2003.



#### SCHEDULE STATUS

Sch	edule	
		Change from <u>Last Month</u>
Current R.O.D.	May 2004	3 weeks
Final Design progress	77.5%	1.3%
Construct. Progress	N/A	N/A
Critical Path Float	0	0



#### **Current Critical Path Analysis**

The FFGA ROD is November 2002. The forecast ROD is May 2004, which was approved by the Board on June 4, 1997. The actual date of May 27 is about three weeks later than last month, and results from revised contract packaging based on a combined C0502/C0541 single tunnel contract strategy utilizing three TBMs. This approach combines the existing C0502 and C0541 contract scopes and the excavation of 1st/Boyle station into one tunneling contract with separate contracts for construction of 1st/Boyle, for construction of Chavez/Soto and for excavation and construction of 1st/Lorena.

The critical path includes completion of the C0502/C0541 package, tender/award, purchase and setup of TBMs, tunneling from Little Tokyo to 1st/Lorena, Chavez/Soto station box, trackwork, Automatic Train Control, SCADA and other systems, testing and Pre-revenue Operations to ROD.

MTA and Consultant Staff continue conducting various schedule mitigation studies to improve the ROD.

#### Design Progress Analysis

The plan reflects the design baseline schedule as approved by the MTA in October 1996 and amended by approved changes.

Through July, overall final design was 77.5% complete versus a plan of 82.0%. Revisions to the scope of work since March 1995 were negotiated and finalized in a revised PIP to the MTA dated August 2, 1996. The total value of the WACNs received through July is \$1,765,083, bringing the latest final design cost baseline to \$59.884,826.

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. The effect of this delay, coupled with such factors as a more extensive quality assurance program and incorporation of other technical changes, caused C0502 submittal dates to shift and begin to conflict with those of other contracts. Therefore, in order to distribute the sequence of submittals more evenly and solve a potential staffing shortfall, EMC elected to delay submittals for C0551 and C0521 by two weeks and three weeks respectively. Contract C0551 was placed on hold prior to the Carnera Ready submittal.

Recently EMC was directed to combine contracts C0502 and C0541 forming a single tunneling contract. This has caused a delay in submitting Camera Ready for contract C0502 by approximately two months

EMC's production work on scope changes also impacts as variance from plan as more CCNs are added and the work is re-prioritized.



#### Construction Safety Statistics

Not applicable at this time

#### Construction Safety Summary

Not applicable at this time

#### **MANAGEMENT ISSUES**

#### **NEW**

Item [Initiated July 1997]

**Construction Management Consultant Contract** 

#### Concern/Impact

A recent court decision regarding the CM contract may set aside the selection of JMA as the CM Consultant on the East Side Extension. Status is uncertain until a final court ruling is issued (expected by August 15, 1997). Should the preliminary ruling stand, MTA will have to begin the selection process again. With C0502 scheduled to begin construction early in 1998, it is imperative that a CM consultant be selected quickly. In the interim, and if the current CM is prohibited from performing work, ongoing CM work will have to be distributed to MTA, EMC, PMA, or other consultants.

#### Status/Action

Contingency plans to transfer CM work to other entities are being formulated. Maintenance of the project schedule could be returned to EMC and PMA; remaining constructability reviews could be performed by PMA; CM duties for demo contracts let in advance of new CM selection could be performed by MTA. EMC will retain production of the MPSR/QPSR and maintenance of CMS. Plans for reopening the CM selection process are also underway.



### **MANAGEMENT ISSUES (Continued)**

#### **NEW**

*Item* [Initiated July 1997] FTA letter directives of August 1, 1997

#### Concern/Impact

The subject letter directives require MTA to submit a revised recovery plan prior to negotiating a new Full Funding Grant Agreement (FFGA). The directives are:

- No federal funds shall be drawn down for the East Side Extension project
- No new contracts shall be awarded for the East Side Extension project
   Clarification is being sought on what impact the directives have on ongoing projects.

#### Status/Action

MTA is seeking clarification from the FTA on the specific limitations of the letter. MTA is also beginning to revise the recovery plan by examining alternative project schedules, funding plans, and consequent impacts to the project budget.

#### **ONGOING**

Item [Initiated May 1997]
Agency Costs

#### Concern/Impact

Agency Costs are an element of the Project Budget and incorporate management issues, non-labor administrative costs, fringe benefits, and overhead costs. The allocation plan, in conjunction with the project's forecast completion date, is expected to result in significant overruns to the specific line item budget for "agency" costs.

#### Status/Action

The project staff has completed review of the forecast staff levels and has forwarded analysis to MTA management for final recommendations and development of mitigation measures. Possible mitigations include reductions to overhead costs and rates as well as reduced project staffing levels, or amending the project budget if necessary.



### MANAGEMENT ISSUES (Continued)

#### ONGOING

Item [Initiated April 1997]
Adequacy of Remaining Contingency

#### Concern/Impact

Substantial drawdowns on contingency have occurred recently as more detailed estimates of construction work based on advancing stages of design completion have become available. Remaining contingency is about 5.5% of remaining project expenditures. With no construction underway and Final Design about 77.5% complete, this is not considered an adequate contingency for future project unknowns.

#### Status/Action

MTA will closely monitor remaining contingency and continue to assess the adequacy of this amount. The first major construction work will be bid in the 2nd Quarter of 1998, at which time a more realistic analysis of remaining contingency can be completed. In the interim, MTA continues with the EMC and the CM to pursue identification and implementation of cost reduction opportunities. MTA has implemented a new program wide contingency management policy and procedure which provides improved visibility of contingency status.

#### 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 August 1997. This delay at present is not impacting the critical path and the current R.O.D. of May 27, 2004; however, further delays could impact the project schedule.

#### Status/Action

The earliest date foreseen for approving the EIS/EIR Addendum is August 1997. The Addendum has been approved by the MTA Board and submitted to FTA for final approval and issue of a Finding Of No Significant Impact (FONSI). MTA is proceeding with property appraisals but purchase offers cannot be made until the addendum is fully approved.



# **MANAGEMENT ISSUES (Continued)**

#### CLOSED

*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 related to the "Two-Pass" vs. "One-Pass with Option" tunnel liner and realignment of the CR tunnel at the Unocal Tank Farm. 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, Third Party issues not completely resolved, and seismic redesign due to changes in MTA's design criteria. At present, it appears the Camera Ready Submittal will be on October 13, 1997. The latest delay is due to CCN #568 (combining contracts C0502 and C0541) which has moved the Camera Ready Submittal out approximately 2 months.

#### Status/Action

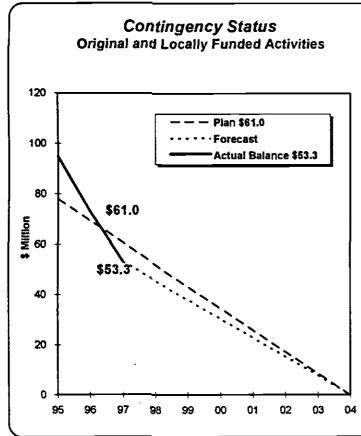
C0502, as the first major construction contract, remains vital to project success and the EMC and MTA are working to resolve comments as quickly as possible to assure a quality product and to avoid further delays. This contract is critical-path work and MTA and EMC are focusing on completing this design package. This item is considered closed this month as further schedule delay is not anticipated.

# METRO RED LINE - Segment 3 East Side Monthly Project Status Penort

Monthly Project Status Report Period Ending - August 1, 1997



#### **COST STATUS**



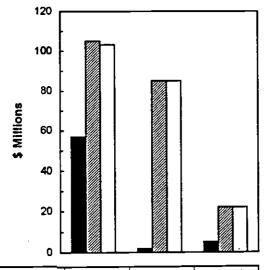
#### Contingency Status Analysis

(Excludes non-construction allocated contingency)
Contingency balance this month increased slightly
(\$31K) due to the following major trends:

T-099 (-\$270K) Retrofit of the B641 Data Radio System. The system was purchased and installed under Segment 1 and no is longer supported by the manufacturer. Therefore, it must be retrofitted.

T-101 \$326.0K The Final estimate of the P1616 Direct Fixation Rail Fasteners. The Final estimate was less than the Pre-Final estimate due to deletion of the cost adjustment allowance and miscellaneous price adjustments.

### Professional Services Contracts Consultant Cost Status



	DESIGN	СМ	OTHER
Current Authorization	57	2	5
Forecast	105	85	22
Budget	103	85	22

### 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).

A recent court decision regarding the CM contract may invalidate the CM selection for the project. (Please see "Management Issues" page ES-10)

The design commitments were increased in July for the EMC by \$8.3M for a total of \$46.5M commitments for Final Design. Commitments for Line Item 12 were increased by \$720K and commitments for Other Specialty Services (Line Item 13) were increased by \$1.8M, of which Fluor Daniel was \$1.7M. There were no changes to the forecasts or budgets.

The Design Services forecast was increased by \$2.5M over the budget when the FIS reconciliation was completed increasing the 9979 locally funded source expenditures by \$4.3M overall.

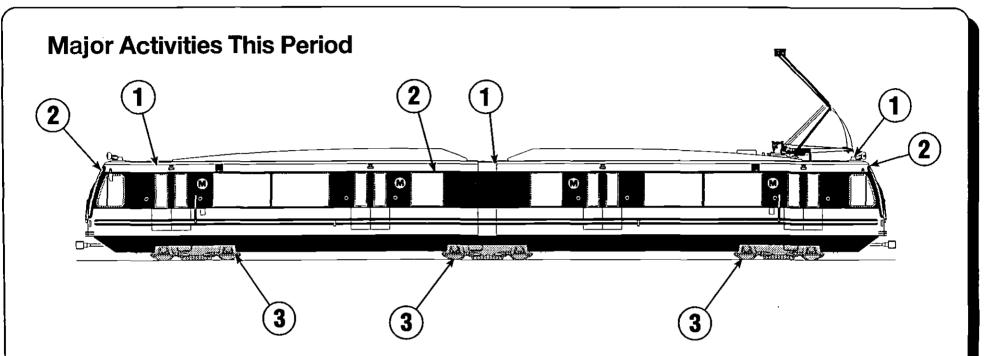
# VEHICLE ACQUISITION PROJECT

**EXECUTIVE SUMMARY** 

# L.A. Light Rail Vehicle

Summary Status Report Period Ending - August 1, 1997



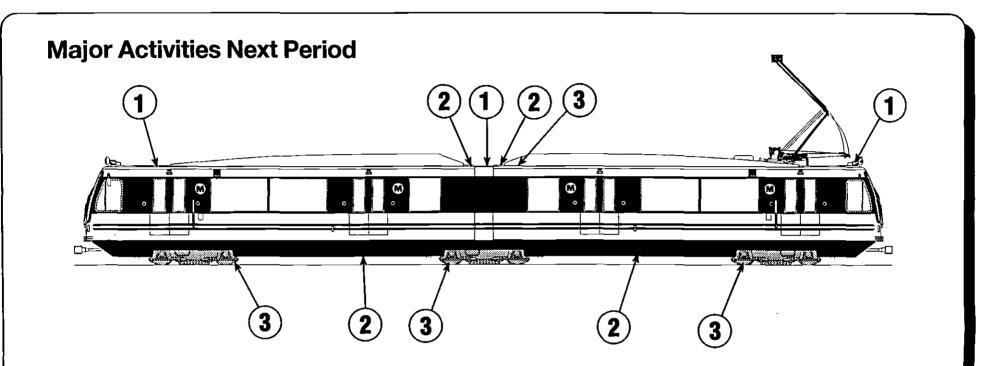


- 1. Carshells No. 14 and 15 were completed and shipped for final assembly. Assembly of nine cars continued in Sacramento, though at a lower rate than expected. The remaining carshells are stored in Stockton, California until the assembly line can accommodate additional cars.
- 2. Met Siemens Project Management to review the assembly progress and resolve open technical issues. Viewed the destination sign operation and discussed the appearance concerns.
- 3. Attended First Article Inspection of both powered and unpowered trucks. Both trucks are now fully approved.
- 4. Attended vehicle commissioning and vehicle delivery logistics meetings. Progress is being made in delivery site improvement permitting and site construction (at Washington Street Station).
- 5. Conducted a Quality Issues Review at Siemens' Sacramento Plant.

# L.A. Light Rail Vehicle

Summary Status Report Period Ending - August 1, 1997





- 1. Complete Carshells No. 16 and 17 and ship for final assembly. Continue final assembly of nine cars in production line.
- 2. Continue static testing of the first car and resolve wiring issues.
- 3. Attend Truck Equalization Test meeting. Plan EMI Testing of P2000 EMI detector on Metro Blue Line cars.
- 4. Inspect first car progress and review open issues with Siemens Project Management.
- 5. Initiate negotiations with Siemens for the final phase of 22 car cancellation.

# L.A. LIGHT RAIL VEHICLE PROCUREMENT Monthly Project Status Report Period Ending - August 1, 1997



### **FINANCIAL STATUS**

Budget/Forecast Variance (	in millions)
Original Scope	-

COST ELEMENT	CURRENT BUDGET	CURRENT FORECAST	VARIANCE	JULY 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 \$91,213,928.

Commitments to date are \$231,522,973. 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 \$257.6 million. The Total Project Forecast for July 1997 remained unchanged at \$201.4 million. The \$56.2 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 the forecast of indirect costs.

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

#### FINANCIAL DETAIL

# LA LIGHT RAIL VEHICLE PROCUREMENT (IN THOUSANDS OF DOLLARS)

#### STATUS OF FUNDS BY SOURCE

**JULY 97** 

	ORIGINAL	TOTAL FUNDS	TOTAL FUNDS	COMMITME	ENTS	EXPENDIT	JRES	BILLED TO	SOURCE
SOURCE	BUDGET	ANTICIPATED (1)	AVAILABLE	<b>\$</b>	%	\$	%	\$	%
FTA RSTP (ISTEA)		\$6,077	\$6,077	\$6,077	100%	\$0	0%	\$0	0%
FTA - OTHER	\$18,000	\$0	\$0	\$0	0%	\$0	0%	\$0	0%
FED ISTEA STP	\$84,000	\$84,000	\$55,100	\$84,000	100%	\$42,060	50%	\$42,060	50%
STATE PROP 116	\$33,550	\$33,550	\$16,398	\$33,550	100%	\$16,398	49%	\$16,398	49%
PROP C	\$118,450	\$133,970	\$32,756	\$107,896	81%	\$32,756	24%	\$32,162	24%
TOTAL	\$254,000	\$257,597	\$110,331	\$231,523	90%	\$91,214	35%	\$90,620	35%

#### (1) BASED ON CURRENT BUDGET

NOTES: EXPENDITURES ARE THROUGH JUNE 1997.



# L.A. LIGHT RAIL VEHICLE PROCUREMENT Monthly Project Status Report Period Ending - August 1, 1997



### FINANCIAL DETAIL

#### **FUNDS BY SOURCE ANALYSIS**

#### **STATUS OF FUNDS ANTICIPATED**

#### **FED ISTEA STP**

MTA submitted a grant application to the FTA for \$28.9 million of Federal STP funds in March 1997.

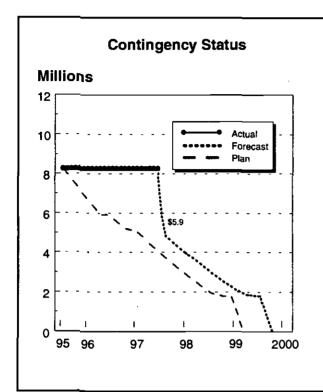
Grant award is expected in September 1997.

# L.A. LIGHT RAIL VEHICLE PROCUREMENT Monthly Project Status Report

Period Ending - August 1, 1997



# FINANCIAL / SCHEDULE STATUS



#### **Contingency Status Analysis**

The Project Contingency remained unchanged this period. The forecasted decrease in contingency from \$8.2 million to \$5.9 million is due to the reduction of the P2000 Contract from 74 cars to 52 cars.

#### **Schedule**

#### Change from Last Month

Schedule Car Delivery		
1 <sup>st</sup> Car	July 1998	N/C
52 <sup>nd</sup> Car	June 1999	N/C
Design Progress	90-95% complete	N/C
Fabrication Progress	40-45% complete	N/C
Critical Path	Car assembly	N/C
Delay (1 <sup>st</sup> Car)	-21 months	N/C
Data Date	June 1, 1997	

#### **Schedule Analysis**

The Contractor's last forecast schedule reflected a total of 21 months delay in 1<sup>st</sup> car deliveries. However, recent verbal inputs from the contractor indicate that delivery may slip an additional 2 to 3 months. 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.

In recent schedules, STS assumed that the MTA can accept cars at a higher rate than specified (2 cars per month).

# L.A. LIGHT RAIL VEHICLE PROCUREMENT Monthly Project Status Report

Period Ending - August 1, 1997



#### **MANAGEMENT ISSUES**

#### NEW

Item (Date Initiated: July 1997)

**Destination Sign Character Appearance** 

#### Concern/Impact

The destination sign characters are comprised exclusively of square pixels, giving them an undesirable "blocky" appearance, inconsistent with the front end vehicle styling.

#### Status/Action

STS and Luminator (destination sign supplier) have been tasked to review the destination sign appearance and prepare a more suitable character configuration.

#### **ONGOING**

Item (Date Initiated: June 1997)

#### **Line Breaker Dropout Timing**

#### Concern/Impact

A complex technical issue related to the Automatic Train Control (ATC) interface arose in June 1997. In order to insure the presence of electric brake, AdTranz (the propulsion supplier) needs to retain the Line Breaker energized for three seconds following a command to drop propulsion and initiate emergency braking. During this three seconds, the ATC designer (Union Switch and Signal) must assume the worst case for their Safe Braking Distance (SBD) model; that is, that propulsion remains in the selected mode. This assumption leads to block lengths longer than planned. US&S has asked that the Line Breaker be de-energized almost immediately. This is possible, but could translate to reduced, or no, electric braking in emergency; only friction braking would be present. With only friction braking, the stop would be less efficient, and may not meet select portions of the CPUC emergency braking requirements at heavy vehicle loads.

#### Status/Action

Attempts are being made to facilitate a resolution of this issue between STS and US&S. It is preferred that the electric brake remain in force during emergency braking, as this appears to be a common sense approach. The system must be configured, however, such that the risk of the line breaker being energized does not outweigh the benefit of supplemental electric braking in emergency.

# L.A. LIGHT RAIL VEHICLE PROCUREMENT

# Monthly Project Status Report Period Ending - August 1, 1997



# **MANAGEMENT ISSUES (Con't)**

Item (Date Initiated: May 1997)

#### **Battery Capacity**

#### Concern/Impact

The first set of vehicle batteries were informally tested in Sacramento. Initial results were not satisfactory, in that voltage levels and capacity were lower than the specification requirements. STS proposed changes to the system that may resolve the concern.

#### Status/Action

Awaiting results of formal capacity testing to confirm that the proposed fixes are adequate.

#### Item (Date Initiated: September 1996)

#### Lack of Progress in the Development of Manuals and Training

#### Concern/Impact

Lack of progress in both the development of Repair and Parts Manuals, and the Vehicle Training Program.

#### Status/Action

Although behind schedule, progress is being made now. Siemens continues to await the MTA Contract Compliance Department's sanction of TransEd's removal. Such relief was formally requested (along with the MTA-requested back up) in January 1997 of this year.

#### Item (Date Initiated: June 1996)

#### Vehicle Weight

#### Concern/Impact

The most recent revision of the Vehicle Weight Report, No. 13, indicates a margin of about 1860 pounds under the specified weight.

#### Status/Action

All indications are that the vehicle weight is decreasing; not increasing. This issue will be dropped as a management issue in future reports unless we detect cause for concern.

# L.A. LIGHT RAIL VEHICLE PROCUREMENT Monthly Project Status Report Period Ending - August 1, 1997



# **MANAGEMENT ISSUES (Con't)**

Item (Date Initiated: February 1996)

#### Schedule Slippage

#### Concern/Impact

The June 1, 1997 delivery schedule indicates a delay of 21 months for the first car with delivery of the last car approximately 7 months late.

#### Status/Action

Although we have been informally informed that the official shipping date for the first LRV has been pushed back to December (with November a possibility, however), we are still awaiting the STS 01AUG97 Schedule.

Item (Date Initiated: November 1995)

#### Carborne Signal Equipment for 16 Standard Cars

#### Concern/Impact

Those Standard Cars assigned to the Blue Line will need on-board signal equipment compatible with the wayside before they can enter revenue service. STS has been asked to provide a proposal for the supply of this equipment.

#### Status/Action

The MTA's draft Fleet Allocation Plan, recently Board approved, indicates that 24 cars will be assigned to the Metro Blue Line. Contrary to reports on this issue, there are no Carborne ATP packages on order. The only on-board signal equipment contracted for to date are the 36 Metro Green Line US&S signal packages. Purchase of 24 Metro Blue Line type carborne signal packages (plus an appropriate number of spares) must be approved by the MTA Board. Moreover, it does not appear that sufficient time exists in which to have the 24 Metro Blue Line packages procured and installed before these cars arrive. In this case the installation must be made at MTA.

Item (Date Initiated: July 1995)

#### Cancellation of 22 Standard Cars

#### 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 was submitted to the Audit Department for final determination; their findings were just received and negotiations with Siemens should be completed by September 30, 1997.

### L.A. LIGHT RAIL VEHICLE PROCUREMENT

# Monthly Project Status Report Period Ending - August 1, 1997



# **MANAGEMENT ISSUES (Con't)**

Item (Date Initiated: March 1995)

#### **HVAC Design**

#### Concern/Impact

Although Sutrak has completed a Prototype Unit, which has been physically inspected, the Design Conformance Test or the First Article Inspection is yet to be completed due to a number of postponements by Sutrak.

#### Status/Action

To date, there has been no response to our audit findings despite Sutrak's pledges to provide same. We discussed this issue with Siemens, who were similarly disappointed in Sutrak's lack of responsiveness. We advised Siemens to intensify their quality surveillance of the HVAC contractor, especially now that we are entering the production phase. We will continue to monitor this situation until satisfactory performance from Sutrak is a reality.

#### RESOLVED

Item (Date Initiated: May 1997)

Side Exterior Paint Flaking Off Car 202

#### Concern/Impact

A 3" x 5" patch of paint detached from Car 202 when masking tape in the window vicinity was removed. A subsequent test revealed very little paint adhesion on the "A" half of Car 202, but that other cars in the fleet were OK.

#### Status/Action

Car 202A has been satisfactorily re-painted. This issue will now be dropped as a management issue.

# L.A. LIGHT RAIL VEHICLE PROCUREMENT Monthly Project Status Report Period Ending - August 1, 1997



# **MANAGEMENT ISSUES (Con't)**

Item (Date Initiated: May 1997)
Procedure Problems at Carson

#### Concern/Impact

A number of procedural discrepancies have been noted in the Carson operation. For example, manufacturing does not wait for Engineering sign-off on Engineering Change Notices (ECR's) before implementing changes. Additionally, configuration control recording is inconsistent between Engineering and Manufacturing. Finally, Inspection Problem Reports are being used as the controlling document to resolve configuration discrepancies.

#### Status/Action

Prompted by complaints from the MTA inspector at Carson, we met with both Carson Management and STS Sacramento Engineering at Carson to resolve issues regarding the documentation and approval of engineering changes, as well as the logging of discrepancies against carshells under construction. This loop has now been closed, with Carson QA requiring Sacramento sign-off before proposed changes are implemented.

The second issue was that discrepancies logged against carshells in Carson were going unrepaired before the carshells were shipped to Sacramento, shifting the burden of the clean-up work to the assembly facility. In response to this complaint, a new procedure was instituted at Carson wherein shop leaders will convene following the application of the finish paint coat (the final step in carshell fabrication) on any given carshell to discuss all open discrepancies and their resolution. The LTK inspector will be a part of this meeting.

This issue is resolved and will no longer be carried a management issue.