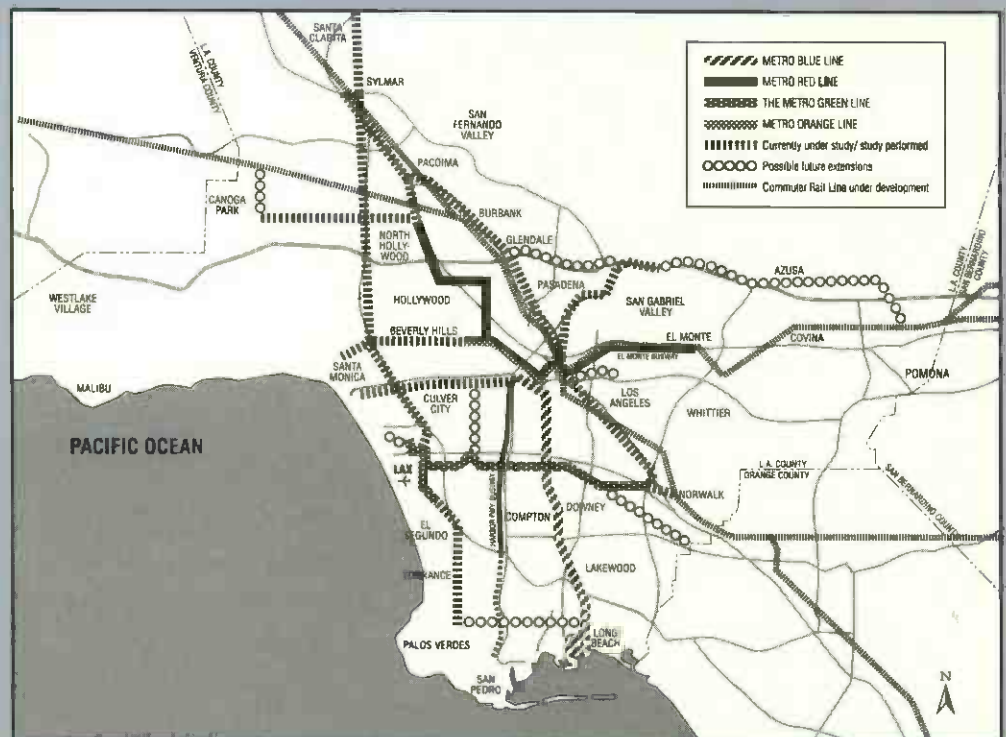


# RAIL CONSTRUCTION CORPORATION



## Executive Report Rail Program Status



**Rail  
Construction  
Corporation**

A Subsidiary of  
the Los Angeles County  
Transportation Commission

# RAIL PROGRAM STATUS SUMMARY

## RAIL PROGRAM STATUS SUMMARY

### Metro Red Line Segment 1

**Cost Status** (\$000)  
 Original Budget 1,249,900  
 Expended to Date 1,150,979  
 Current Budget 1,450,019

**Schedule Status**  
 Revenue Operations Date:  
 Original April 1992  
 Forecast June 1993

**Project Progress**  
 Design:  
     Plan 100%  
     Actual 98%  
 Construction:  
     Plan 92%  
     Actual 91%

### Metro Red Line Segment 2

**Cost Status** (\$000)  
 Original Budget 1,446,432  
 Expended to Date 141,570  
 Current Budget 1,446,432

**Schedule Status**  
 ROD: Wilshire Vermont/Hlywd  
 Original Jul '96 Sep '98  
 Forecast Jul '96 Sep '98

**Project Progress**  
 Facilities Design:  
     Plan 87%  
     Actual 83%  
 Construction:  
     Plan 6%  
     Actual 4%

### Metro Green Line

**Cost Status** (\$000)  
 Original Budget 814,000  
 Expended to Date 110,908  
 Current Budget 886,000

**Schedule Status**  
 Revenue Operations Date:  
 Original October 1994  
 Forecast HOLD

**Project Progress**  
 Design: NES NCE  
     Plan 100% 42%  
     Actual 99% 42%  
 Construction:  
     Plan 14% 0%  
     Actual 13% 0%

### Commuter Rail (includes 3 start-up lines, shared facilities, and LAUPT)

**Cost Status** (\$000)  
 Original Budget 379,082  
 Expended to Date 58,819  
 Current Budget 379,082

**Schedule Status**  
 Revenue Operations Date:  
 Original October 1992  
 Forecast October 1992

**Project Progress**  
 Design:  
     Plan 98%  
     Actual 94%  
 Construction:  
     Plan 14%  
     Actual 14%

RAIL CONSTRUCTION CORPORATION  
PROJECT COST REPORT - TOTAL RAIL PROGRAM  
SUMMARY BY COST ELEMENT

STATUS DATE: 11/29/91

(IN THOUSANDS)

PROJECT: TOTAL RAIL PROGRAM

DESCRIPTION	BUDGET		COMMITMENTS		INCURRED COST		EXPENDITURES		CURRENT FORECAST (9)	VARIANCE (9-2) (10)
	ORIGINAL (1)	CURRENT (2)	PERIOD (3)	TO DATE (4)	PERIOD (5)	TO DATE (6)	PERIOD (7)	TO DATE (8)		
CONSTRUCTION	2,607,946	2,854,180	5,866	1,687,142	17,480	1,239,144	26,911	1,210,606	2,990,445	136,265
PROFESSIONAL SERVICES	967,497	1,105,748	(799)	893,599	2,293	733,065	3,530	712,444	1,103,234	(2,514)
REAL ESTATE	260,484	321,895	23	238,523	34	230,924	34	230,835	332,866	10,971
UTILITY/AGENCY FORCE ACCOUNTS	114,075	94,232	299	81,100	38	65,036	38	64,651	99,949	5,717
SPECIAL PROGRAMS	6,063	14,537	8	2,274	101	743	101	644	25,577	11,040
CONTINGENCY	343,734	315,633	0	0	0	0	0	0	154,454	(161,179)
PROJECT REVENUE	(18,115)	(46,503)	0	(681)	0	(6,213)	(468)	(7,443)	(46,803)	(300)
PROJECT GRAND TOTAL	4,281,684	4,659,722	5,397	2,901,957	19,946	2,262,699	30,146	2,211,737	4,659,722	0

ALL DATA FOR THE METRO GREEN LINE IS THROUGH SEPTEMBER 1991.

Figure 1 - Rail Construction Plan

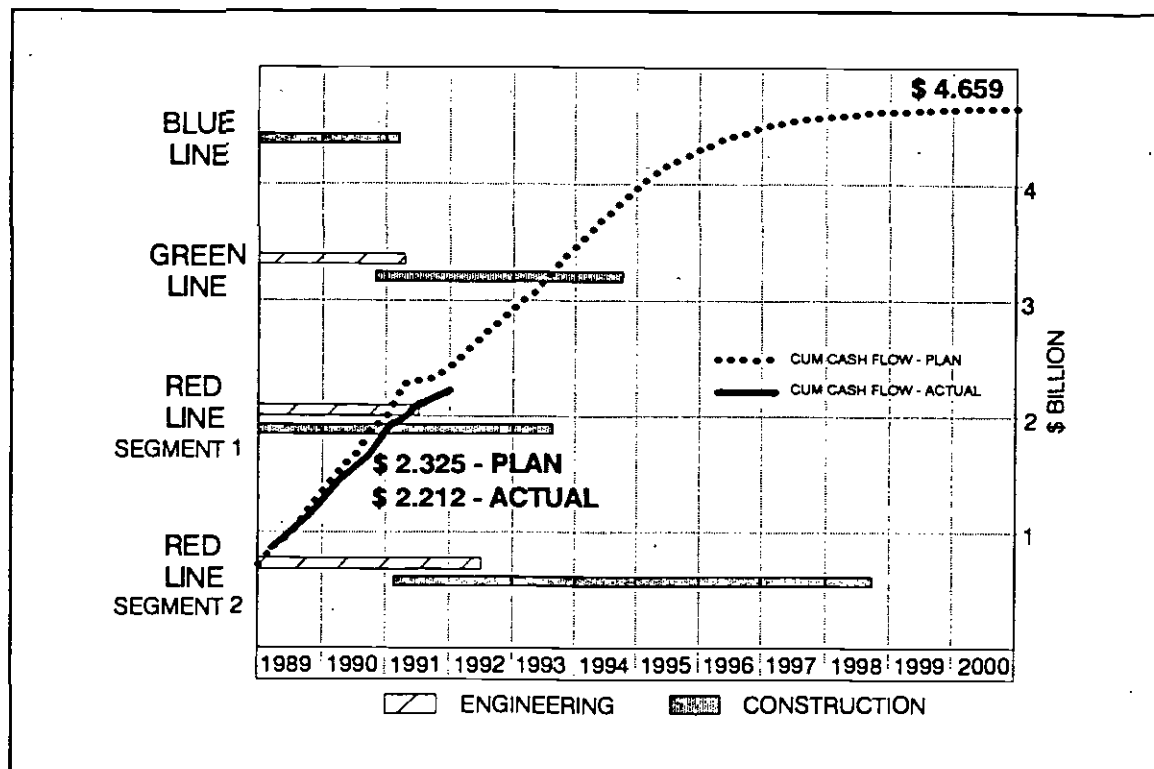


Figure 2 shows the funding sources for each project and for the total program. Data included in this figure is based on the current forecast total cost of each project.

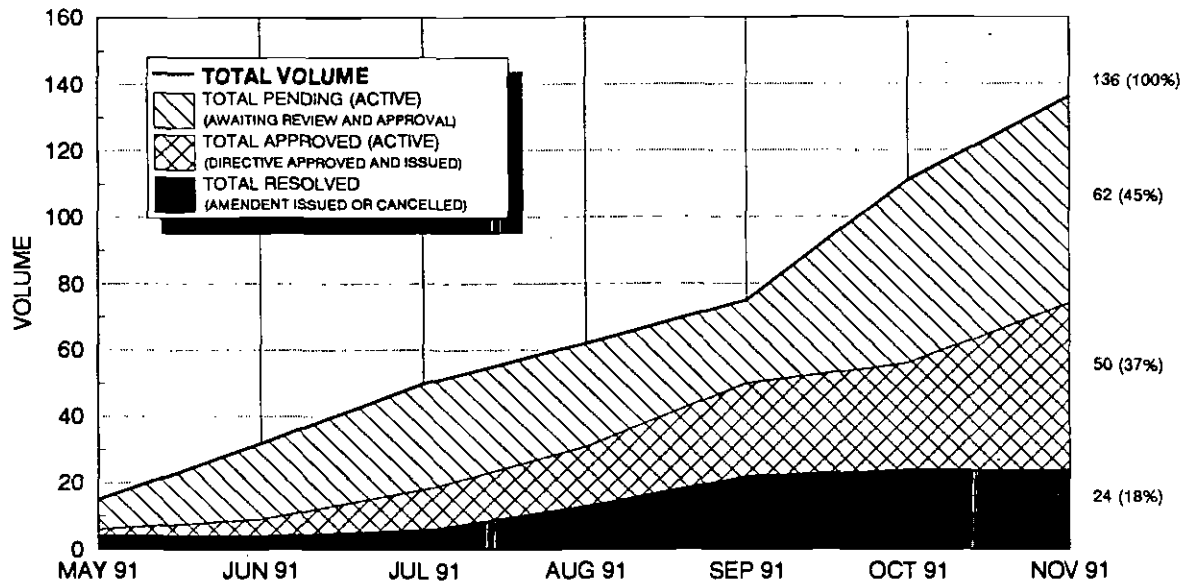
Figure 2 - Rail Construction Funding Sources

	METRO BLUE LINE*		METRO GREEN LINE		METRO RED SEGMENT 1**		METRO RED SEGMENT 2		TOTAL PROGRAM	
	\$	%	\$	%	\$	%	\$	%	\$	%
UMTA-SEC 3					605.3	42	667.0	46	1272.3	27
UMTA-SEC 9					90.6	6			90.6	2
STATE			107.5	12	213.1	15	186.0	13	506.6	11
LOCAL (PROP A)	877.0	100	778.5	88	176.6	12	439.4	30	2271.5	49
CITY OF L.A.					34.0	2	96.0	7	130.0	3
BENEFIT ASSESS					130.3	9	58.0	4	188.3	4
FORECAST					200.1	14			200.1	4
TOTAL	877.0	100	886.0	100	1450.0	100	1446.4	100	4659.4	100

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

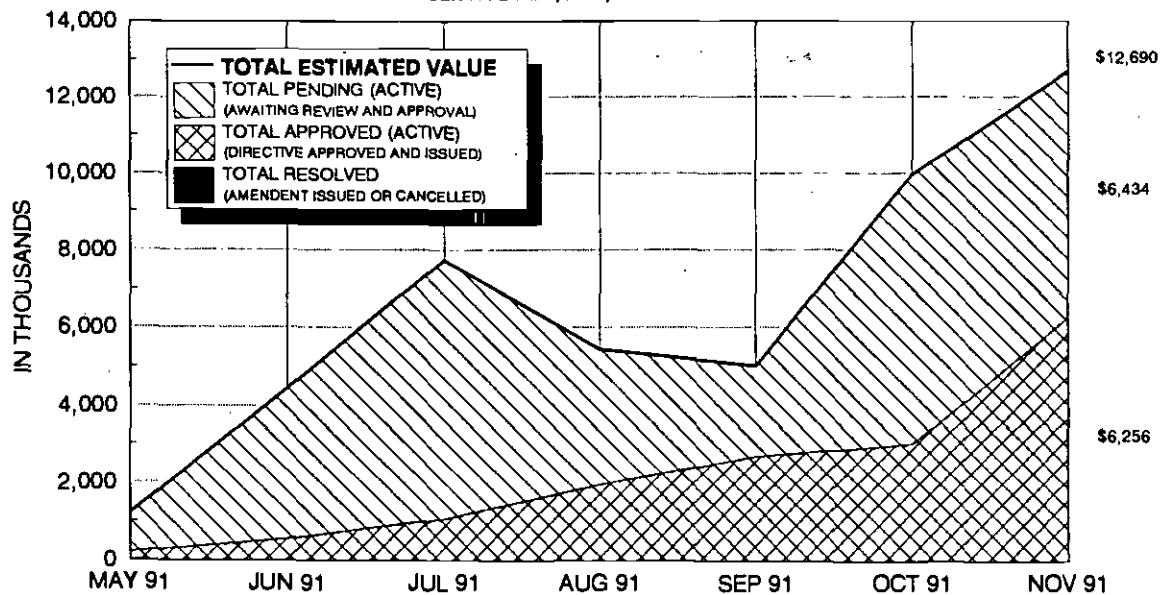
\*\* LRT PORTION INCLUDED IN BLUE LINE FORECAST.

**CONSULTANT CONTRACT CHANGE SUMMARY  
CONSULTANT CHANGE REQUEST RESOLUTION  
CUMULATIVE R23, R80, AND R81**



AGE OF UNRESOLVED CONSULTANT CHANGES					
TIME	0-30 DAYS	30-60 DAYS	61-90 DAYS	OVER 90	TOTAL ACTIVE
VOLUME	26	35	8	43	112
PERCENT	23%	31%	7%	39%	100%

**CONSULTANT CONTRACT CHANGE SUMMARY  
CONSULTANT CHANGE REQUEST VALUES  
CUMULATIVE R23, R80, AND R81**



## EXECUTIVE SUMMARY

**CONSULTANT CONTRACT CHANGE STATUS SUMMARY  
PENDING CHANGES/AMENDMENTS  
AS OF 11/29/91**

( \$ = THOUSANDS)

CONSULTANT CONTRACTS	TRANSCAL: E2301/MC005		MRTC: 2997/E0002		PO: 3369		OKA: MC008		OTHER		PROJECT TOTAL		LAST MONTH		VARIANCE	
	#	\$	#	\$	#	\$	#	\$	#	\$	#	\$	#	\$	#	\$
R01: BLUE LINE	9	1,438									9	1,438	9	1,438	0	0
R23: GREEN LINE	40	3,216					9	756	1	31	50	4,003	41	3,416	9	587
R80: RED LINE S1			1	91	38	6,028					39	6,119	31	5,463	8	656
R81: RED LINE S2			11	1,870	12	698					23	2,568	15	1,086	8	1,482
R82: RED LINE S3			5	1,769							5	1,769	6	1,655	(1)	114
CONTRACT TOTAL	49	4,654	17	3,730	50	6,726	9	756	1	31	126	15,897	COMMENTS:			
LAST MONTH	40	4,067	14	2,336	38	5,868	9	756	1	31	102	13,058				
VARIANCE	9	587	3	1,394	12	858	0	0	0	0	24	2,839				

NOTE: DOLLAR VALUES SHOWN INCLUDE CONSULTANTS ROUGH-ORDER-OF-MAGNITUDE ESTIMATES AND DO NOT NECESSARILY REFLECT RCC'S FORECAST OF FINAL CHANGE COSTS.

## REAL ESTATE

Figure 3 summarizes the real estate status for Metro Green Line and Metro Red Line Segment 2.

Figure 3 - Real Estate Acquisition Status Summary

	Number of Parcels	Number of Parcels Available	Parcels Not Available (on Schedule)	Parcels Not Available (Behind Schedule)	
				Number	Avg. Days Behind
Green Line	40	39	1	0	0
Red Line Seg 2	71	28	34	9	26.1

## RAIL CONSTRUCTION CORPORATION STAFF DEVELOPMENT

Figure 4 shows that 143 positions are filled with regular full time staff and 25 positions are filled with contract or temporary employees.

Figure 4 - RCC Staff Levels

\* The contract/temporary number was revised to exclude SCRTD staff.

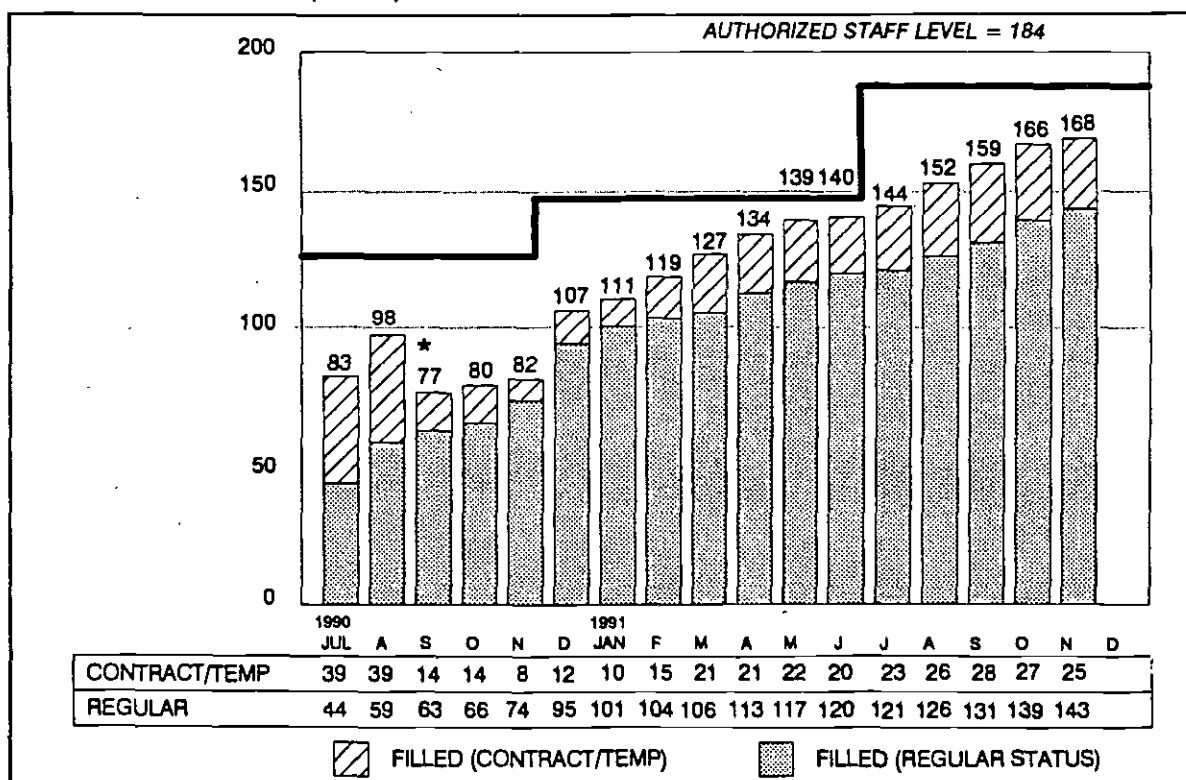
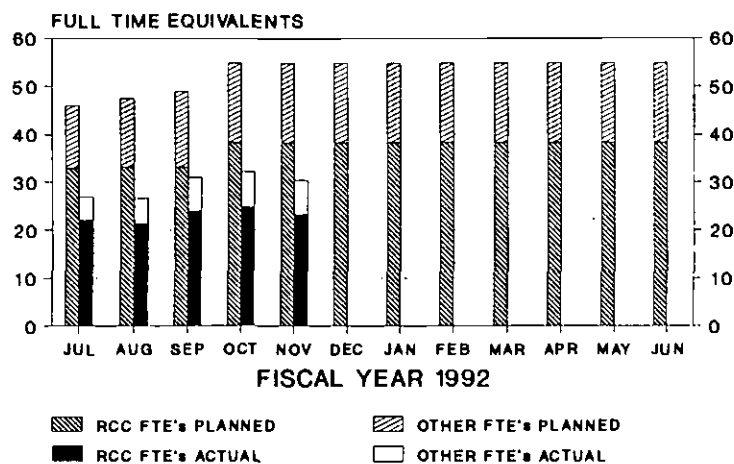


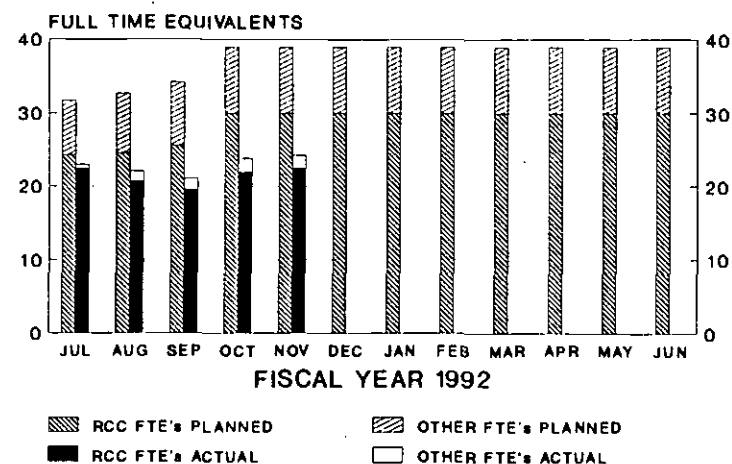
Figure 5 (on the following page) shows the LACTC/RCC staff full time equivalents and wage rate for the rail projects.



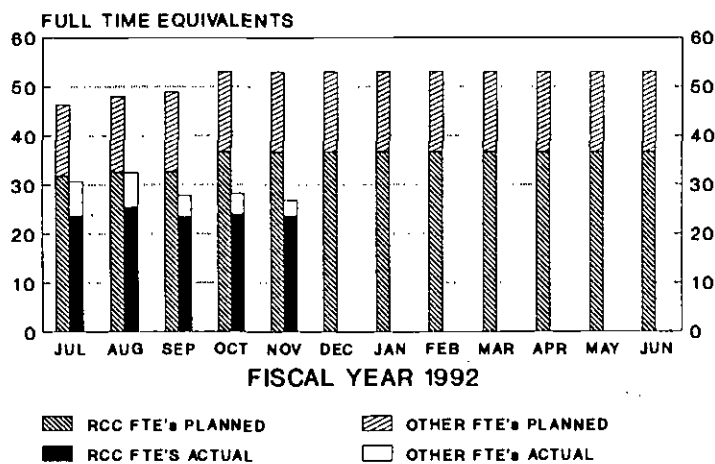
### STAFFING PLAN VS. ACTUAL RED LINE SEGMENT 2



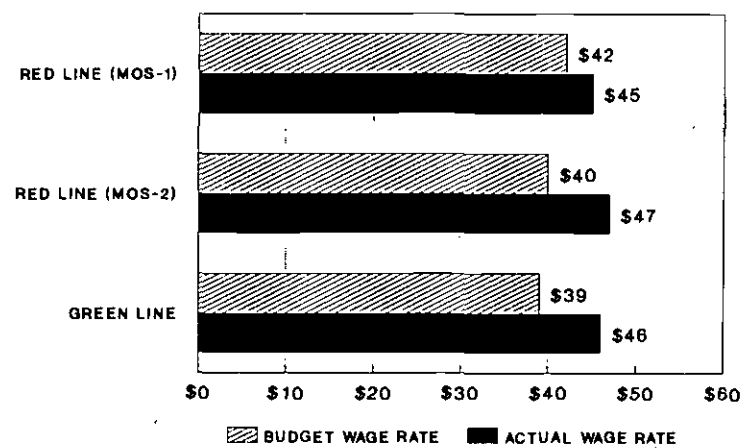
### STAFFING PLAN VS. ACTUAL RED LINE SEGMENT 1



### STAFFING PLAN VS. ACTUAL GREEN LINE



### LABOR WAGE RATE\* RED LINE (SEGMENT 1 & 2), GREEN LINE



\*Salaries and Fringe Benefits Only

NOVEMBER 91

Figure 5

**CORPORATE COST TARGETS RELATIVE TO CONSTRUCTION**

The corporate goals of the RCC include limitations on the percentage of total project costs which will be spent on project administration and on RCC/LACTC staff.

The RCC corporate goal for project administration costs is 20%. Based on the current cost forecast data for each project, the project administration cost totals 24.2%, the same figure as last month. The percentage includes all costs previously expended by the SCRTD when the Metro Red Line Segment 1 project was under SCRTD management.

Staff costs are projected at 4.5% of total program costs, the same figure as last month, which exceeds the 4.0% corporate goal. Figure 6 illustrates the forecast figures for each project and for total program.

Figure 6 - Cost Performance Relative to Corporate Goals

(IN THOUSANDS)

	METRO BLUE LINE		METRO GREEN LINE		METRO RED LINE SEGMENT 1		METRO RED LINE SEGMENT 2		TOTAL PROGRAM		CORPORATE GOAL
	DOLLARS	PERCENT	DOLLARS	PERCENT	DOLLARS	PERCENT	DOLLARS	PERCENT	DOLLARS	PERCENT	
CONSTRUCTION	657,487	74.95%	653,736	73.79%	807,199	55.67%	971,972	67.20%	3,090,394	66.32%	
REAL ESTATE	55,592	6.34%	47,682	5.38%	139,679	9.63%	89,914	6.22%	332,867	7.14%	
PROFESSIONAL SERVICES:											
ENGINEERING/DES	69,587	7.93%	78,655	8.88%	220,154	15.18%	84,414	5.84%	452,810	9.72%	
CONSTR MGMT.	91,642	10.45%	50,165	5.66%	140,300	9.68%	131,058	9.06%	413,165	8.87%	
STAFF	17,655	2.01%	26,189	2.96%	107,365	7.40%	56,551	3.91%	207,760	4.46%	4%
OTHER	14,222	1.62%	9,689	1.09%	988	0.07%	30,177	2.09%	55,076	1.18%	
SUBTOTAL	193,106	22.01%	164,698	18.59%	468,807	32.33%	302,200	20.89%	1,128,811	24.22%	20%
CONTINGENCY	963	0.11%	36,510	4.12%	34,334	2.37%	82,646	5.71%	154,453	3.31%	
PROJECT REVENUE	(29,877)	-3.41%	(16,626)	-1.88%	0	0.00%	(300)	-0.02%	(46,803)	-1.00%	
GRAND TOTAL	877,271	100.00%	886,000	100.00%	1,450,019	100.00%	1,446,432	100.00%	4,659,722	100.00%	

## CONSTRUCTION SAFETY

Figure 7 shows the combined Construction Safety report for the Metro Blue Line, the Metro Green Line and the Metro Red Line, Segment 1 and Segment 2 projects. The frequency index of accidents (Lost Time) for October was above the national average. The severity index of the accidents (Lost Days) was below the national average but has been slowly increasing over the past few months.

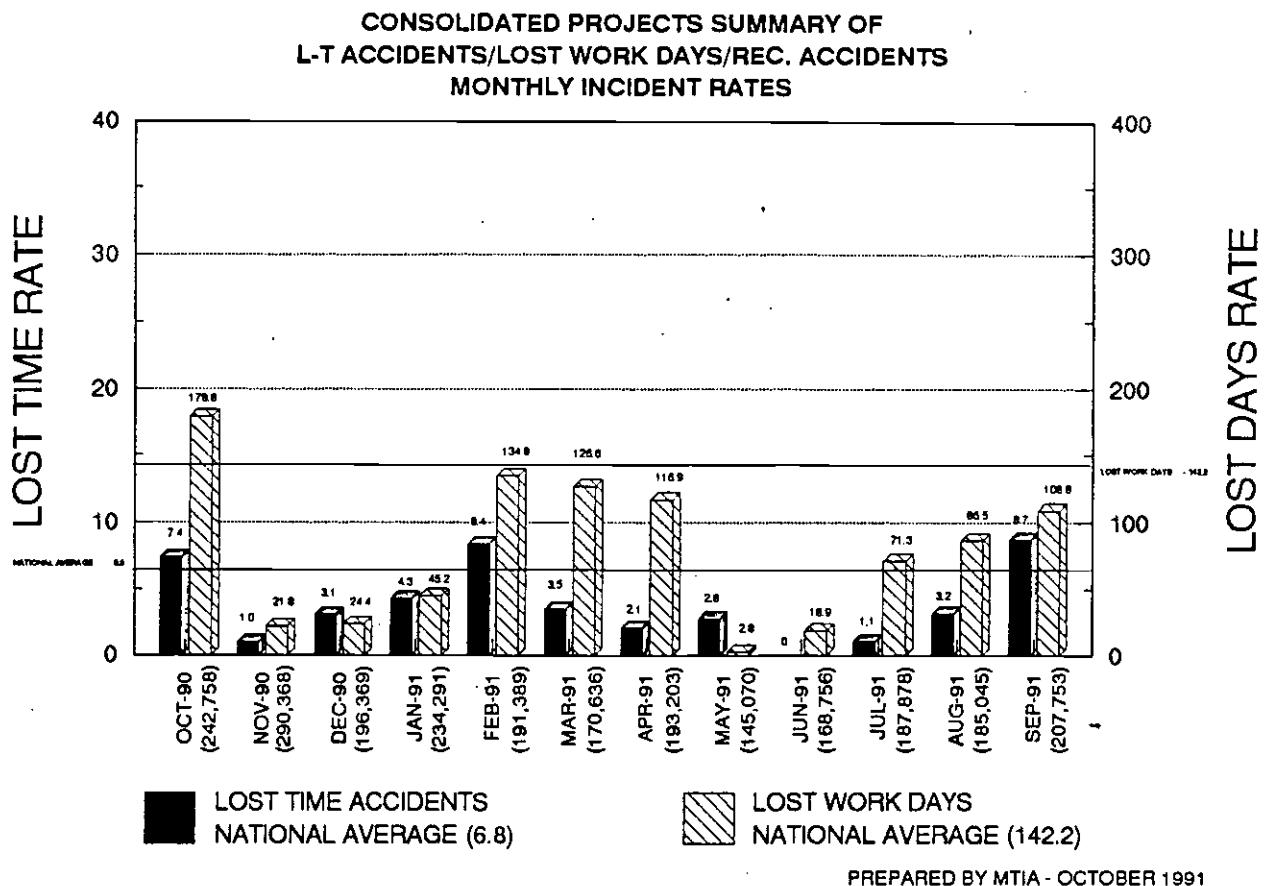


Figure 7

## INVOICE PROCESSING

- The average time taken to pay invoices for Construction and Procurement contracts (including Insurance) was 18.9 days.

- 40 invoices were paid this month for a total value of \$ 23,243,165.

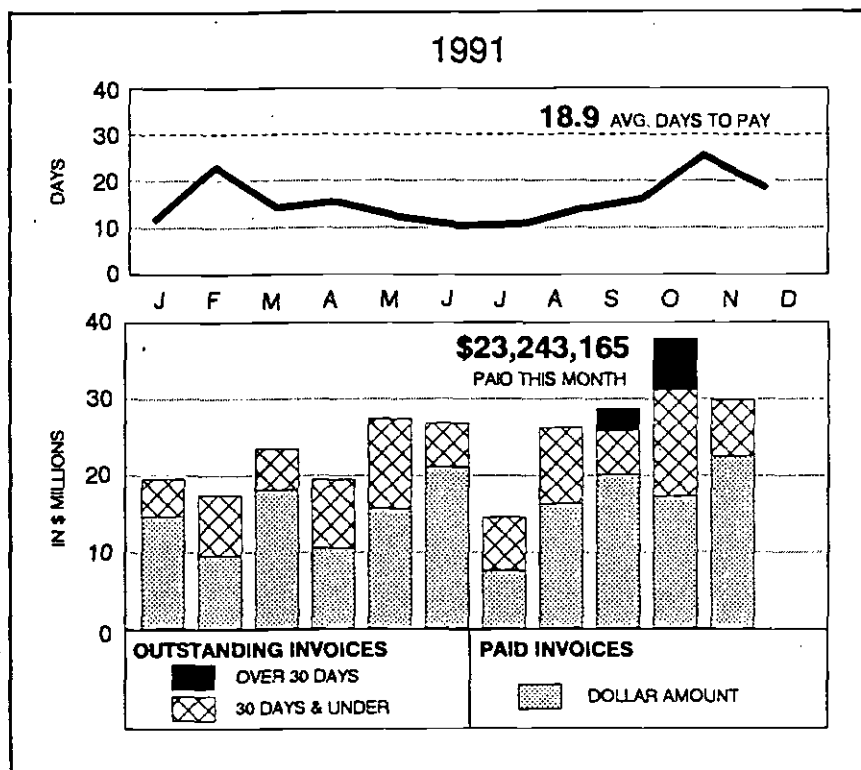
- There were 16 outstanding Construction or Procurement invoices under 30 days old for \$ 7,640,255.

- There were 2 outstanding Construction or Procurement invoices over 30 days old for \$ 27,063.

- Note Insurance invoices were adjusted to include only those actually due during the current period.

Note: The average days to pay is the time from when the Resident Engineer approves a progress payment (invoice) to when Accounting issues a check for this invoice.

Construction/Procurement Invoice Status



## OUTSTANDING INVOICES

Month	Construction/Procurement Invoices				Other Invoices			
	30 Days and Under		Over 30 Days		30 Days and Under		Over 30 Days	
	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value
JUL 1991	9	7,105,141	0	0	29	1,232,385	10	860,903
AUG 1991	47	10,276,078	0	0	25	3,553,708	17	1,278,235
SEP 1991	30	5,942,306	18	3,107,172	34	3,436,076	19	1,670,643
OCT 1991	17	14,328,654	30	6,818,530	44	7,513,568	17	876,002
NOV 1991	16	7,640,255	2	27,063	49	7,791,884	22	1,218,880

**METROLINK - COMMUTER RAIL****NOVEMBER 1991  
VEHICLE PROGRESS REPORT  
PASSENGER COACHES (UTDC)****PROGRESS THIS PERIOD:**

- Five (5) of the base cab cars have been "spliced"; subsections for an additional six (6) cars (base 40) are in production floor assembly fixtures.
- Participated in a joint meeting with UTDC, EMD, and their respective communications subsuppliers to resolve the SCRRA - Amtrak - California Car compatibility issue regarding the Public Address-Radio-Intercom interconnecting (jumper) trainlines.

Total quantity of passenger vehicles remains at 70: 24 cab cars plus 46 trailer cars.

**UPCOMING MILESTONES/ISSUES FOR NEXT THREE MONTHS:**

- Issuance of Change Order for spare parts for option cars.
- Pricing for pending Change Orders resulting from modifications required for ADA compliance (due Dec-Jan).
- Production rate to maintain level of 2 vehicles every 3 weeks until mid-February '92 when a rate of 1 vehicle a week will be achieved.
- Total contract dollar value decrease resulting from the reduction of Canadian Custom Duties and Processing Fees should be forwarded by UTDC in late December.

**CRITICAL NEEDS:**

- None

**METROLINK - COMMUTER RAIL****NOVEMBER 1991  
VEHICLE PROGRESS REPORT  
LOCOMOTIVES (GM)****PROGRESS THIS PERIOD:**

- Participated in a joint meeting with UTDC, EMD, and their respective communications subsuppliers to resolve the SCRRA - Amtrak - California Car compatibility issue regarding the Public Address - Radio - Intercom interconnecting (jumper) trainlines.
- Finalizing of engineering details of modifications to base locomotives for SCRRA operations, e.g., radios, dynamic braking grids, head-end power, etc., to insure start of production fabrication of sub-components in mid-January 1992.
- Discussion with engine manufacturer on possible NOx emission reductions.

**UPCOMING MILESTONES/ISSUES FOR NEXT THREE MONTHS:**

- Processing and cleanup of Change Orders and Change Notices.
- Decision on optioning additional locomotives above base order of seventeen (17) F59PH's.
- Continuing discussions with engine manufacturer on NOx reductions.

**CRITICAL NEEDS:**

- None

## LACTC COST RECOVERY STATUS REPORT

as of 11/30/91

November changes shaded

## OPEN ITEMS

Agency	Contract	Description	Claim Amount	Agreed Amount	Invoiced	Paid	Unpaid Balance	Unbilled Balance	Status	Action Items
<b>BLUE LINE</b>										
Compton	F202	MC-5 Alternative (See Note 1)	10,156,808	5,812,993	5,823,590	5,397,783	425,807	0	Status of elements assessed	LACTC \$ exposure/45 day ltr
HJO	C140	C140 Counterclaim	5,171,204	1,000,000	1,000,000	1,000,000	0	0	HJO Claim	Balance to E&O - TBD
	C117	Third Party Backcharges	35,674		Included in line above				Reduction (8/91)	
Long Beach	C335	LB Station Superstructures - Indirect	211,733						In Negotiation	Follow with Long Beach
	Various	Long Beach Prop A Projects	193,673						In Negotiation	Develop addl documentation
LA-BSL	C117/C140	Betterments & Backcharges	788,848						In Negotiation	Most issues resolved Ready to discuss
LA-CRA	C510	105th Street Pedestrian Crossing	376,000						In Negotiation	Structure deal incl land
	C510	105th Street Land Issues	250,000						In final appraisal stage	
LA-DPW	C117	Flower St. Improvements	2,146,803						In Negotiation	Verify boundaries (A165/C140)
	C140	8" Sewer Relocation	500,000						In Negotiation	Waiting for DPW analysis
	C140	Roof Drains	150,000						In Preparation	
LA County	F208	Florence-Graham Park-N-Ride	400,000						Developing cash out strategy	
	F208	Graham Avenue Widening	TBD							Monitoring TIA action
Owens Corning		Mealy Street Spur	80,000						Wait on W Alameda Grade Sep	Bill on completion
	C325	Install Duct Bank at PCH	19,114	19,114	19,114		19,114	0	Invoiced 8/13/91	Track invoice progress
SCRTD	H812	Maintenance Parts	70,000	70,000	70,000		70,000	0	Invoiced 7/30/91	Track invoice progress
SPTC	C415/F208	Firestone Bridge	830,000	830,000	830,000	783,078	46,922	0	Check expected by 11/15	Track invoice progress
	C510	105th Street Ped Crossing	17,700						Agmt at SPTC	Awaiting SP response on 105th
	C510	SPTC Share - Caldwell Ave Ped Xing	32,550						Invoiced 12/6/91	Track invoice progress
CNA Insurance	Various	Errors & Omissions	9,297,199						In Process	
<b>BLUE LINE TOTALS</b>			<b>30,727,306</b>	<b>7,732,107</b>	<b>7,742,704</b>	<b>7,180,861</b>	<b>561,843</b>	<b>0</b>		
<b>RED LINE</b>										
LA-BSL	A165	7th Street Streetscape	300,000						Add betterments to be discussed	Analyze amount of claim
SCRTD	A165	Duplicate Indirect Costs	4,400,000	Credit due Red Line from RTD					In proc - Acknowl by RTD	
<b>RED LINE TOTALS</b>			<b>4,700,000</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>		
<b>TOTALS</b>			<b>35,427,306</b>	<b>7,732,107</b>	<b>7,742,704</b>	<b>7,180,861</b>	<b>561,843</b>	<b>0</b>		

10-Dec-91

## LACTC COST RECOVERY STATUS REPORT

as of 11/30/91

Agency	Contract	Description	Claim Amount	Agreed Amount	Invoiced	Paid	Unpaid Balance	Unbilled Balance	Status	Action Items
<b>OTHER LINES</b>										
TIA (Argonaut Insurance)		Refund, W/C Ins premiums	2,052,000	2,052,000	2,153,207	2,153,207	0	(101,207)	Refund larger than estimated	
Various		Refund, Gen Liab Ins premiums	490,000	490,000	247,417	247,417	0	242,583	A/R after Ins Co rate audit	
Glendale		Route Refinement Study	75,000	75,000	57,181	57,181	0	17,819		
Lawndale		Costal Corridor Study	16,800	16,800	16,800	16,800	0	0		
Pasadena		Route Refinement Study	150,000	150,000	104,786	104,786	0	45,214	Billed as Bechtel bills LACTC	
Redondo Beach		Costal Corridor Study	7,000	7,000	7,000	7,000	0	0		
Torrance		Costal Corridor Study	48,200	48,200	48,200	48,200	0	0		
CalTrans	64K576	LAUPT Access Study	200,000	200,000	149,302	147,809	1,493	50,698		
<b>OTHER LINE TOTALS</b>			<b>3,037,000</b>	<b>3,037,000</b>	<b>2,781,893</b>	<b>2,780,400</b>	<b>1,493</b>	<b>255,107</b>		
<b>GRAND TOTALS</b>			<b>38,464,306</b>	<b>10,769,107</b>	<b>10,524,597</b>	<b>9,961,261</b>	<b>563,336</b>	<b>255,107</b>		

## NOTES

Note 1 - MC-5

Courtesy Billings for Willdan Associates involving MC-5 projects billed to LA County, through LACTC, on behalf of Compton

	Authorized	Willdan Charges	Invoiced	Paid	Unpaid Balance	Available	Status	Action Items
West Alameda Underpass	702,680	528,519	528,519	528,519	0	174,141	In progress	
Administration Charges			9,277	0	9,277		Not allowable per LA County	Invoice Compton
Mealy St - Environmental Assessment	87,899	84,284	84,284	84,284	0	3,415	Completed	
Administration Charges			1,320	0	1,320		Not allowable per LA County	Invoice Compton
<b>SUBTOTALS</b>	<b>790,359</b>	<b>612,803</b>	<b>623,400</b>	<b>612,803</b>	<b>10,567</b>			

Funding for Compton for its MC-5 share

Grant	Original Amount	Crawdowns	Invoiced	Paid	Unpaid Balance	
FWHA (C421)	5,983,498	2,995,590	2,995,590	2,995,590	0	
LA County (C420 & other MC-5)	5,500,000	2,195,323	2,195,323	1,780,113	415,210	LA Co reviewing obligation to pay
<b>SUBTOTALS</b>	<b>11,483,498</b>	<b>5,190,913</b>	<b>5,190,913</b>	<b>4,775,703</b>	<b>415,210</b>	
<b>MC-5 TOTALS</b>	(figures transferred to Page 1)		<b>5,803,716</b>	<b>5,814,313</b>	<b>5,388,506</b>	<b>425,807</b>

10-Dec-91



## CLOSED ITEMS

Agency	Contract	Description	Claim Amount	Agreed Amount	Invoiced	Paid	Unpaid Balance	Unbilled Balance	Status	Action Items
<b>BLUE LINE</b>										
CalTrans	C415	Firestone Bridge	458,000	458,000	458,000	458,000	0	0	Cash Collected (7/91)	
	C415	Firestone Bridge - Indirect	232,651	0	0	0	0	0	Payment capped at \$458,000	
Compton	F202	MC-5 Administration Cost	345,874	345,874	345,874	345,874	0	0	Cash Collected	
	C510	SPTC/Watson Land	24,117	24,117	24,117	24,117	0	0	Cash Collected (7/91)	
	C510	SPTC/Right-of-Way Acquisition	108,984	108,984	108,984	108,984	0	0	Cash Collected (7/91)	
LongBeach	C335	LB Station Superstructures	415,000	415,000	415,000	415,000	0	0	Cash Collected (9/91)	
LA-BSL	C140	Supplemental Agreement	259,000	259,000	259,000	259,000	0	0	Cash Collected (3/91)	
LA-CRA	C510	Century Blvd. Grade Crossing	544,052	544,052	544,052	544,052	0	0	Cash Collected	
LA-DWP-W	C140	HJO Repairs - Faulty DWP Joints	17,500	17,500	17,500	17,500	0	0	Cash Collected (8/91)	
Simmons Cable TV		Install Duct Bank - 10th St. & LB	6,084	6,084	6,084	6,084	0	0	Cash Collected	
SCRTD	F815	Central Control Facility	1,580,000	1,580,000	1,580,000	1,580,000	0	0	Cash Collected	
	F815	7th & Flower Sta. Ref of Ins Prem	655,970	655,970	655,970	655,970	0	0	Cash Collected	
United Logistics		K-Line Spur	325,000	325,000	325,000	325,000	0	0	Cash Collected	
BLUE LINE TOTALS			4,988,232	4,735,581	4,735,581	4,735,581	0	0		

10-Dec-91

## LEGEND

O	Open. Action still required.
	Completed or Not Applicable

CONTRACT CLOSE OUT STATUS  
METRO BLUE LINE

CONTRACT NUMBER	DESCRIPTION	CLOSE OUT STATUS					COMMENTS	PROJECTED CLOSE-OUT DATE
		CLAIMS/ CHANGE ORDERS	FINAL PROG. PAYMENT	FINAL RELEASE	FINAL ACCEPT. CERTIF.	EQUIP. FINAL DELIV.		
H840	Fare Collection						Board Approval Completed; GFI Submittals Due	Jan 92
P851	Hi-Rail Trucks						Awaiting Delivery of Truck	Jan 92
C355R	Long Beach Landscaping	O					Transferred to RCC	Jan 92

**METRO PASADENA LINE  
NOVEMBER 1991 STATUS REPORT**

**EXECUTIVE SUMMARY**

The Pasadena team developed the scope of work for Preliminary Engineering to cover the alignment from Union Station to Sierra Madre Villa Station. As a result of the decision by PMIC to limit the scope to acquired property only, Preliminary Engineering was restricted to the LA River Bridge and onward to the Taylor Yard. Twenty-eight deliverable items were identified in the package delivered to the EMC for the purpose of proposing a Rough Order of Magnitude cost and schedule for the work. Weekly meetings have been held with the EMC to clarify each of the deliverables as a prelude to the EMC's final proposal due on December 6th.

The RCC core Project team is now in place (with the exception of the DPM - Construction) and is working with the EMC to establish a partnership and set of common goals. Members from Real Estate, Third Party, and the Area Teams have been actively involved in the project, coordinating their efforts with the core group.

**AREAS OF CONCERN**

**ONGOING**

Concern: Interface with the Commuter rail and freight traffic at the Cornfield Site and into the Taylor Yard may require adjustments to the Pasadena alignment which would be costly and operationally disadvantageous.

Action: Alternates to the Taylor Yard are under investigation by the Project/Area team.

Status: A Preliminary feasibility study will be completed and submitted by the EMC to the Area Team leader by 12/6. The Project Team is holding interface meetings with the Commuter Rail staff to minimize conflicts in the area.

Concern: The interface between the Pasadena LRT alignment with an access roadway proposed in the Alameda District plan for the Union Station vicinity.

Action: The EMC has been directed to address this concern and to meet with Kolve (the District's A and E firm) to refine the upper level

roadway design and alignment.

**Status:** A status report will be submitted by December 9th detailing the current status of the development and a plan of action to ensure the integration of the LRT alignment into the overall plan.

**Concern:** Terminal Annex property (adjacent Union Station/Chinatown) alternative alignments are under review by Kolve which, at a minimum, might result in the widening of Vignes Street thus creating a possible interference between the LRT aerial structure and the road.

**Action:** EMC will prepare a set of plan and profile drawings which will accurately illustrate the alignment through the area in question based on input from the Area Team.

**Status:** Engineering work will begin on this item during the month of December.

#### KEY ACTIVITIES - OCTOBER/NOVEMBER

- Colorado Grade Separation Feasibility study was completed and submitted to the City of Pasadena 10/91.
- Preliminary Engineering Scope of Work definition was completed and sent to the EMC for proposal 10/91.
- Received Rough Order of Magnitude Proposal from the EMC for Preliminary Engineering (limited to Union Station through the Taylor Yard) 11/91.
- Held proposal review with the EMC. Provided instructions for completing the final proposal 11/91.
- Issued limited NTP to EMC on November 5th.
- Issued RFP for Owner Controlled Insurance Program (OCIP) 10/91.

**KEY ACTIVITIES - PLANNED FOR DECEMBER**

- Receive final Preliminary Engineering proposal from the EMC 12/6.
- Evaluate/Negotiate a Contract Work Order for Preliminary Engineering 12/30.
- Prepare feasibility study for alternate Yard and Shop location (Cornfield Site) 12/6.
- Present In-house Construction Management Plan for the Pasadena LRT project 12/16.
- Receive proposals for the OCIP 12/20.

## EXECUTIVE SUMMARY

### COST STATUS

Due to the delays in awarding of Contract P1900 (High Performance Transit Vehicles) and Contract H1100 (Automatic Train Control), the project schedule and its impact on the project forecast must be reevaluated. Consequently, an update on Cost Status is unavailable at this time. A budget change will be proposed in December to cover the increased expenses.

### SCHEDULE STATUS

- Current Revenue Operations Date      October 1994
- Design Progress                      - Plan                      100%  
   - Actual                      99%
- Construction Progress               - Plan                      14.4%  
   - Actual                      12.9%
- The Green Line is 99 working days behind the target revenue operations date (ROD) of October 1994.
- Contract H1100 (Automatic Train Control) was not awarded in October as anticipated. Delay in the award of Contracts H1100 and P1900 (High Performance Transit Vehicles) will directly impact automatic train control and systems testing.

### REAL ESTATE

	Number of Parcels	Number of Parcels Available	Parcels Not Available (On Schedule)	Parcels not Available (Behind Schedule)	
				Number	Avg. Days Behind
This Month	40	39	1	0	0
Last Month	40	37	3	0	0

## AREAS OF CONCERN

### ONGOING

#### **Chevron Oil Line Relocation**

- Concern:** A further delay has been caused in the relocation of the six oil lines belonging to Chevron on the TRW property (south of Rosecrans Avenue). Chevron's last completion date of November 23, 1991 has slipped to a December date.
- Action:** The RCC is working with Chevron to minimize impacts this present slippage may cause.
- Status:** RCC and Chevron discussions now place the completion of the Chevron oil line relocation to early December.

#### **Vehicle Delivery Schedule**

- Concern:** Currently, Contract P1900 (High Performance Transit Vehicles) is scheduled for award in December, with a Notice to Proceed date in January, 1992. With the delay in award of Contract H1100 (Automatic Train Control), the control line testing (scheduled for January, 1994) will have to be performed using substitute vehicles. Furthermore, the first two Metro Green Line vehicles will not be available for systems integrated testing until early August 1994. Consequently, a workaround has to be developed to use alternate vehicles for much of the control line testing and the initial stages of integrated testing.
- Action:** The H1100 (Automatic Train Control) contractor is expected to plan testing using alternate vehicles. Integrated test plans will address the workaround.
- Status:** Addendum 5 to Contract H1100 (Automatic Train Control) documents has given the option of using alternate vehicles to the proposers. In order to use the alternate method for testing, the successful proposer will have to submit plans incorporating this for review and approval.

**Construction Permits**

**Concern:** The City of Los Angeles permit for construction of the guideway crossing Aviation Boulevard is not yet in hand. The requirement for approval of the City of Los Angeles permit was potentially a problem to the Contract C0100 (Aerial Guideways) contractor. A slight resequencing of the schedule has relieved some of the criticalness of the issue. However, additional concerns on the part of the City continue to surface which require further documentation and review.

**Action:** The RCC continues to assist the contractor in securing the necessary permits.

**Status:** It is anticipated that the City of Los Angeles will issue final approval for construction in December 1991 prior to any schedule impacts.

**RESOLVED****Kramer Property Hazardous Waste**

**Concern:** The total effect that the treatment and handling of Kramer property hazardous waste material will have on the Kramer Bridge construction or on SCE utility relocations is no longer an apparent concern.

**Action:** The method of construction and the handling of the hazardous waste material located on the Kramer property has been closely monitored by the RCC consultant responsible for supervising hazardous waste issues.

**Status:** The contractor was directed to start work at the Kramer Bridge in July, 1991. Coordination efforts have been made between DHS and RCC/consultants. Presently, work is progressing at the Kramer site with the close supervision of the RCC's consultant TetraTech as needed. However, no further apparent action or concern is warranted.



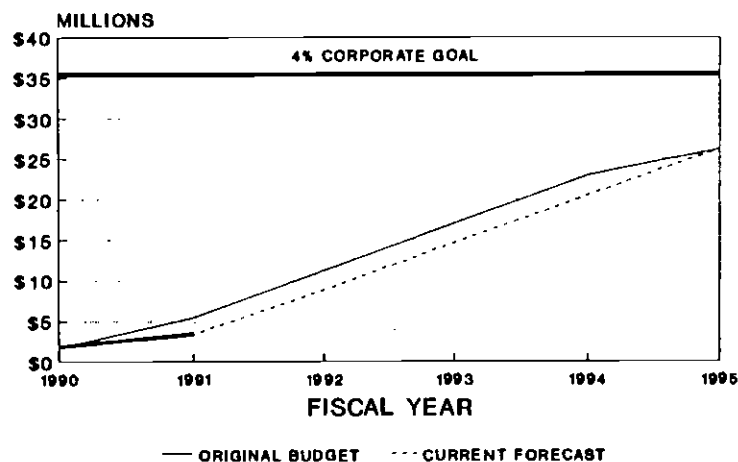
**KEY ACTIVITIES -- November**

- Contract C0600 (Century Trackwork Installation) was approved for award to Morrison-Knudsen.
- Revised Best and Final Offers were received for Contract P1900 (High Performance Transit Vehicles).
- Contract H1400 (Overhead Contact System) was awarded to Mass Electric.

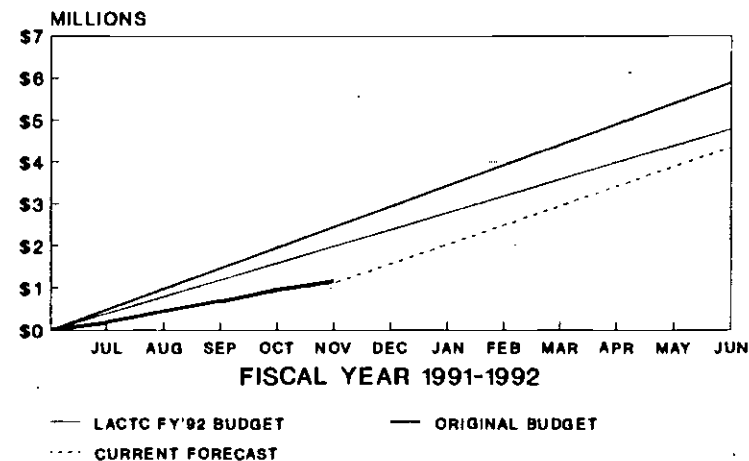
**KEY ACTIVITIES -- Planned for December**

- Notice to Proceed will be issued for Contract C0600 (Century Trackwork Installation).
- Contract H1100 (Automatic Train Control) will be submitted for the LACTC award approval.
- Contract P1900 (High Performance Transit Vehicles) will be submitted for the LACTC award approval.
- A court ruling is anticipated regarding approval to award Contract H1200 (Traction Power Supply System).

### AGENCY COSTS GREEN LINE



### FISCAL 1992 AGENCY COSTS GREEN LINE



### PROJECT AGENCY COSTS GREEN LINE (\$000)

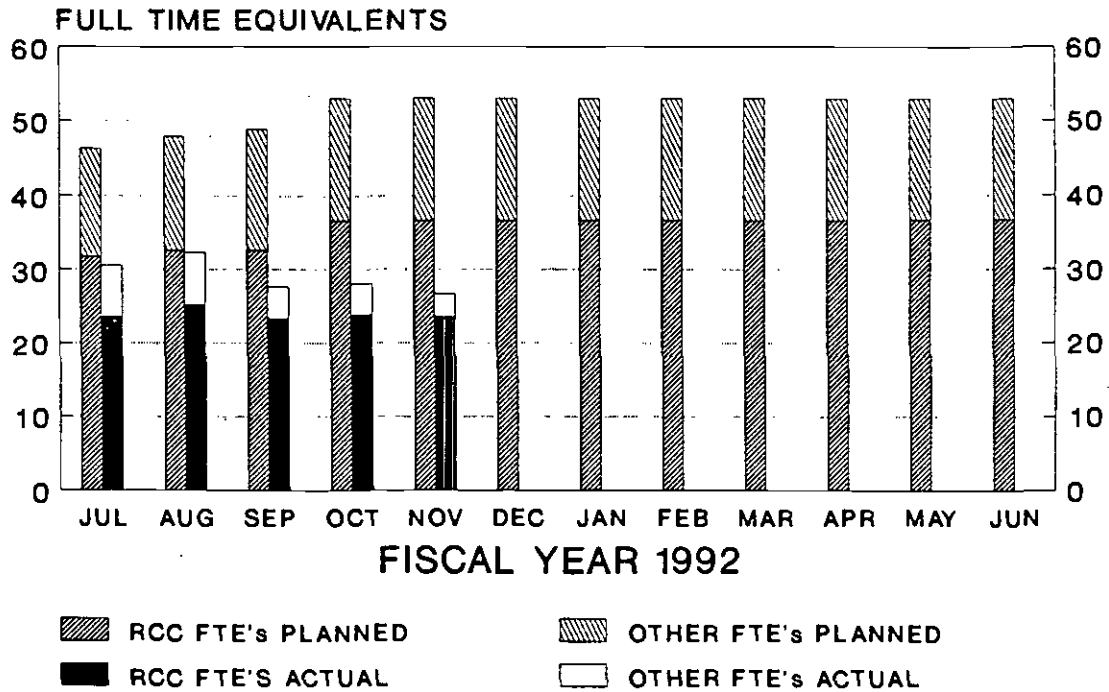
TOTAL PROJECT BUDGET	\$886,000
ORIGINAL BUDGET	\$26,189
BUDGET % OF TOTAL PROJECT	3.0%
CURRENT FORECAST	\$26,189
FORECAST % OF TOTAL PROJECT	3.0%
4% CORPORATE GOAL	\$35,440

### FISCAL YEAR 1992 AGENCY COSTS GREEN LINE (\$000)

LACTC FY'92 BUDGET	\$4,781
ORIGINAL BUDGET	\$5,833
CURRENT FORECAST	\$4,332
ACTUAL \$ TO DATE	\$1,116

Revised forecast as of September 1991.

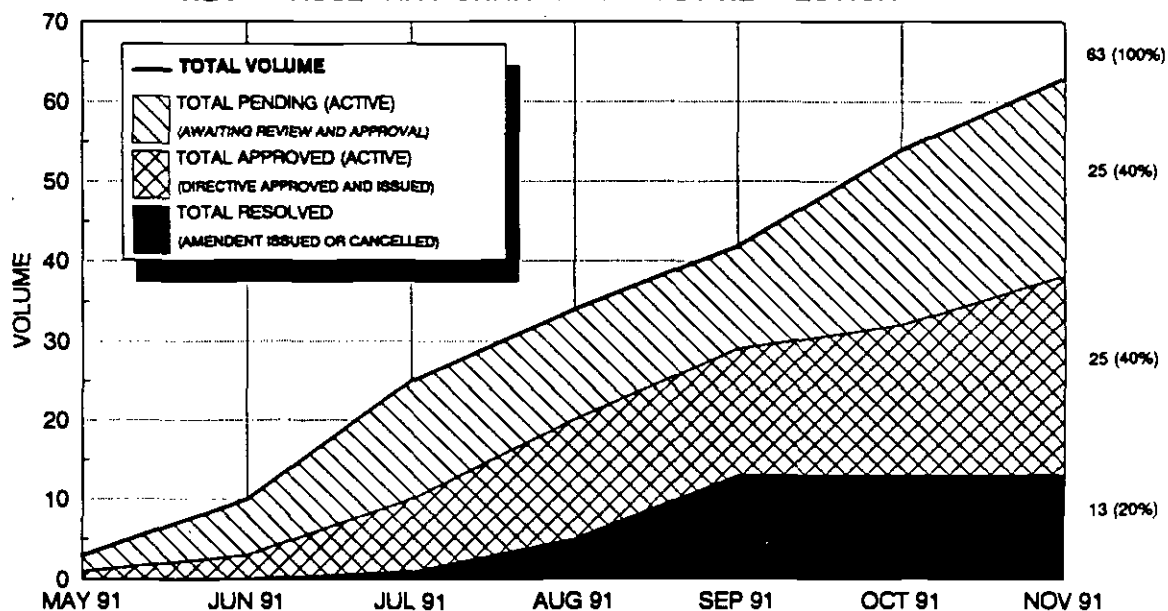
## STAFFING PLAN VS. ACTUAL GREEN LINE



## GREEN LINE STAFFING PLAN FISCAL YEAR 1992

BUDGET WAGE RATE (\$/HOUR)	\$39
ACTUAL WAGE RATE (\$/HOUR)	\$46
RCC FTE's PLANNED	37
RCC FTE's ACTUAL	24
OTHER FTE's PLANNED	16
OTHER FTE's ACTUAL	3
TOTAL FTE's PLANNED	53
TOTAL FTE's ACTUAL	27

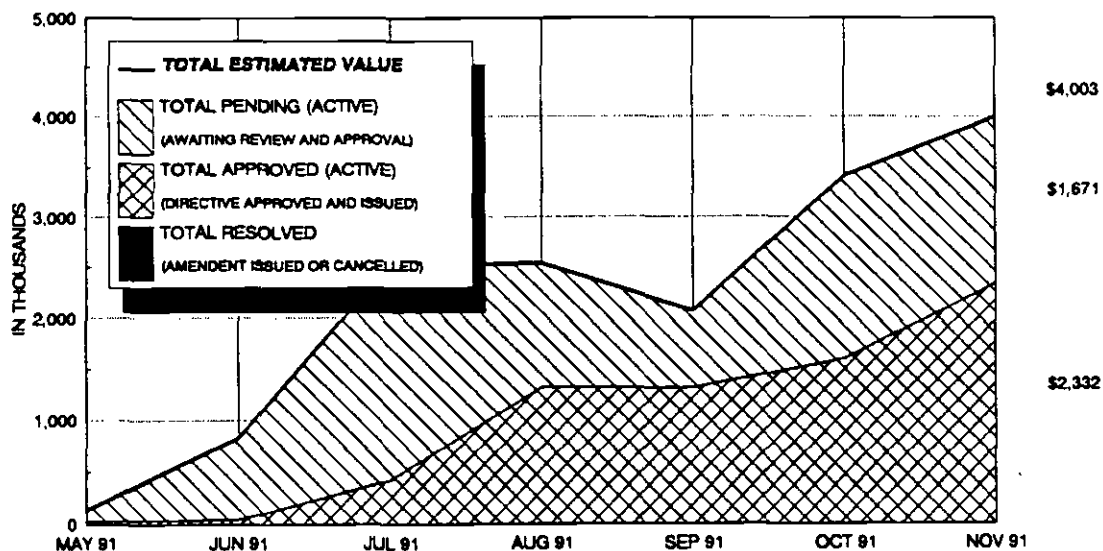
**CONSULTANT CONTRACT CHANGE SUMMARY  
R23 CONSULTANT CHANGE REQUEST RESOLUTION**



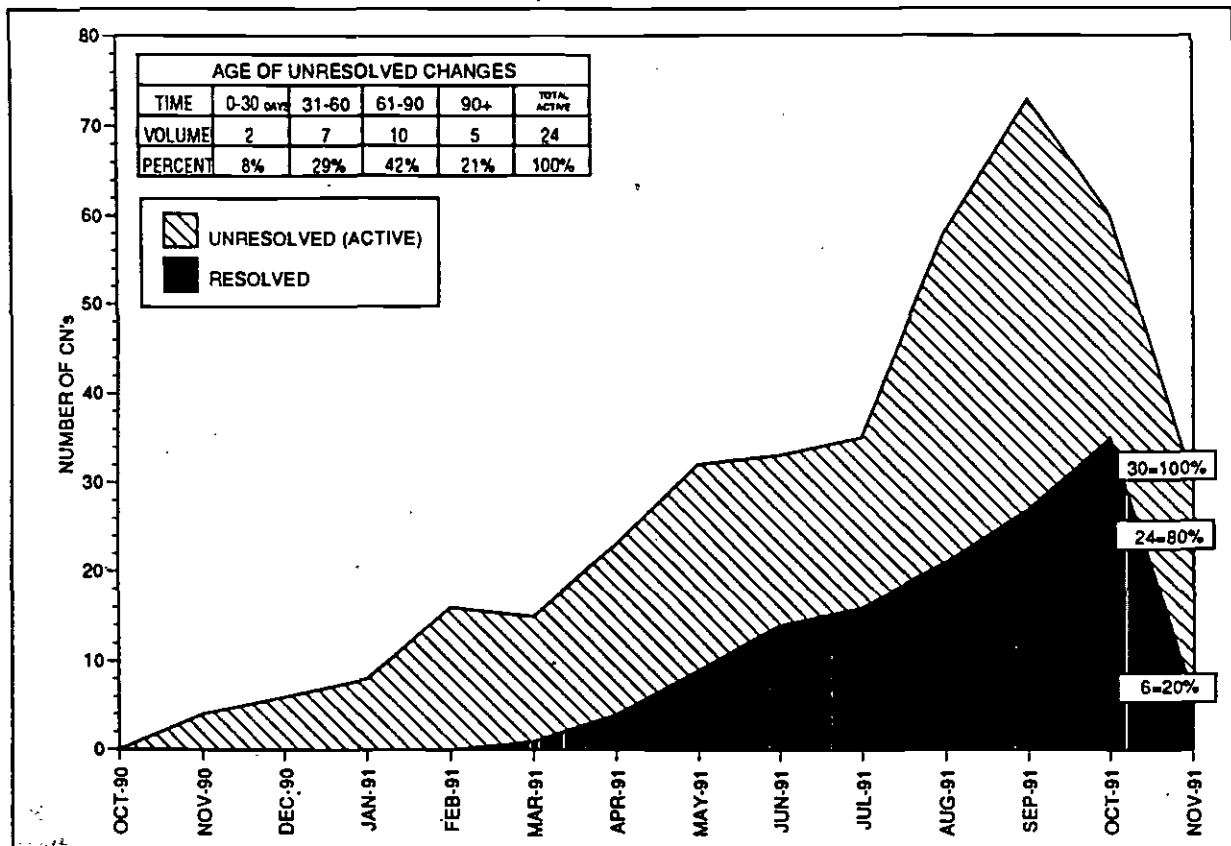
**AGE OF UNRESOLVED CONSULTANT CHANGES**

TIME	0-30 DAYS	30-60 DAYS	61-90 DAYS	OVER 90	TOTAL ACTIVE
VOLUME	10	11	4	25	50
PERCENT	20%	22%	8%	50%	100%

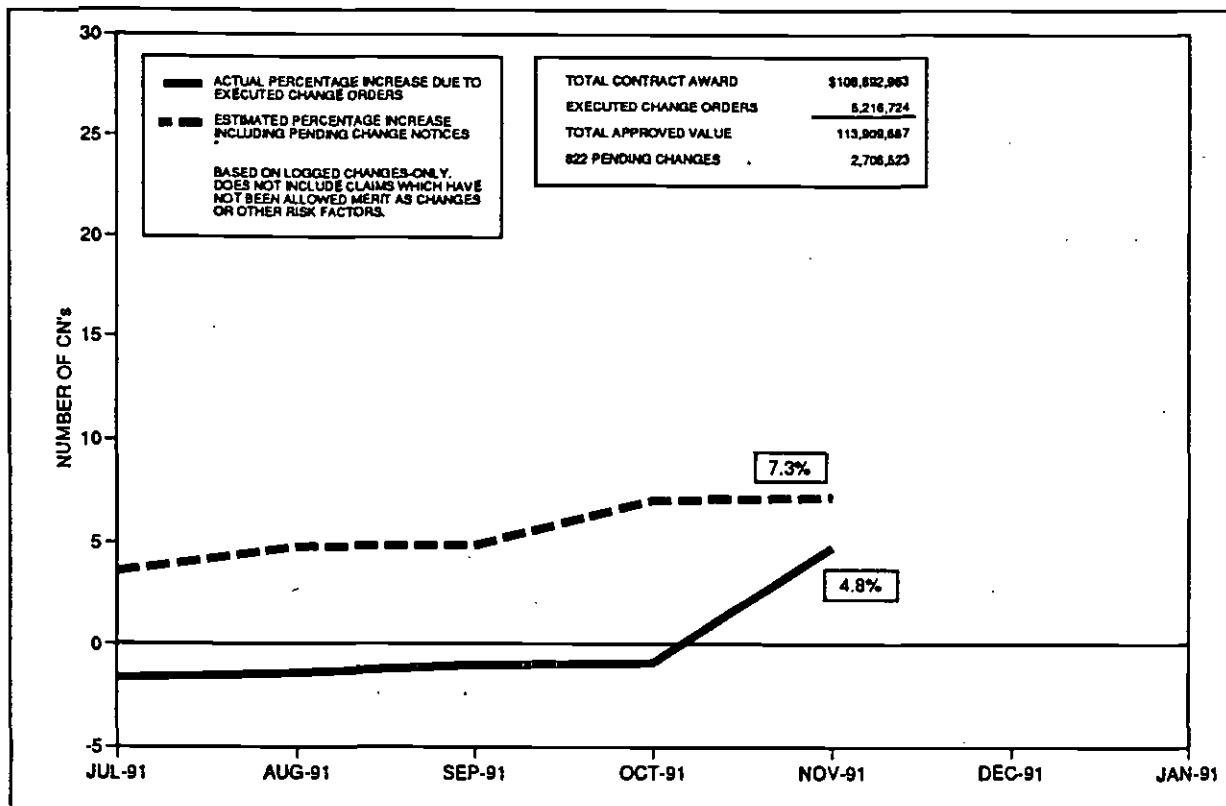
**CONSULTANT CONTRACT CHANGE SUMMARY  
R23 CONSULTANT CHANGE REQUEST VALUES**



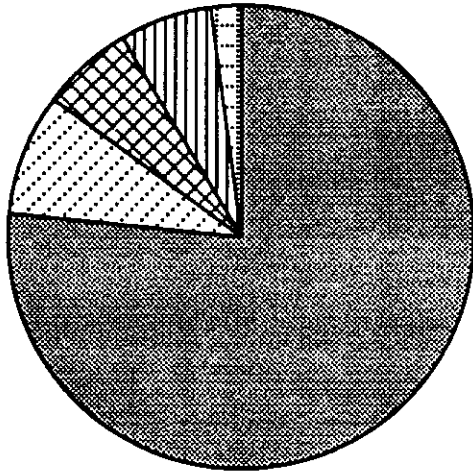
# CONSTRUCTION/PROCUREMENT CONTRACT CHANGES Change Notice Resolution



# CONSTRUCTION/PROCUREMENT CONTRACT CHANGES Change Dollars as a Percentage of Original Contract Award



# CONSTRUCTION/PROCUREMENT Change Volume and Cost By Cost Level



CHANGE VOLUME  
TOTAL AS OF 11/22/91 = 48

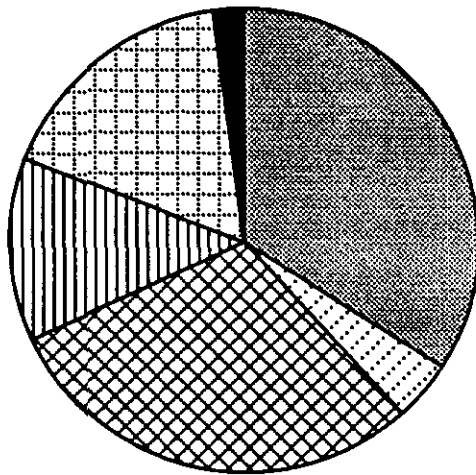
## CHANGE VOLUME ABSOLUTE VALUES

36	75%		<25,000
4	8.33%		<50,000
3	6.25%		<200,000
3	6.25%		>200,000
1	2.08%		>1,000,000

## CHANGE COST ABSOLUTE VALUES

\$316,872.15		<25,000
\$77,229.98		<50,000
\$307,298.00		<200,000
(\$1,250,375.00)		>200,000
\$5,788,000.00		>1,000,000

# CONSTRUCTION/PROCUREMENT Change Volume and Cost By Change Basis Type



CHANGE BASIS VOLUME  
TOTAL AS OF 11/22/91 = 48

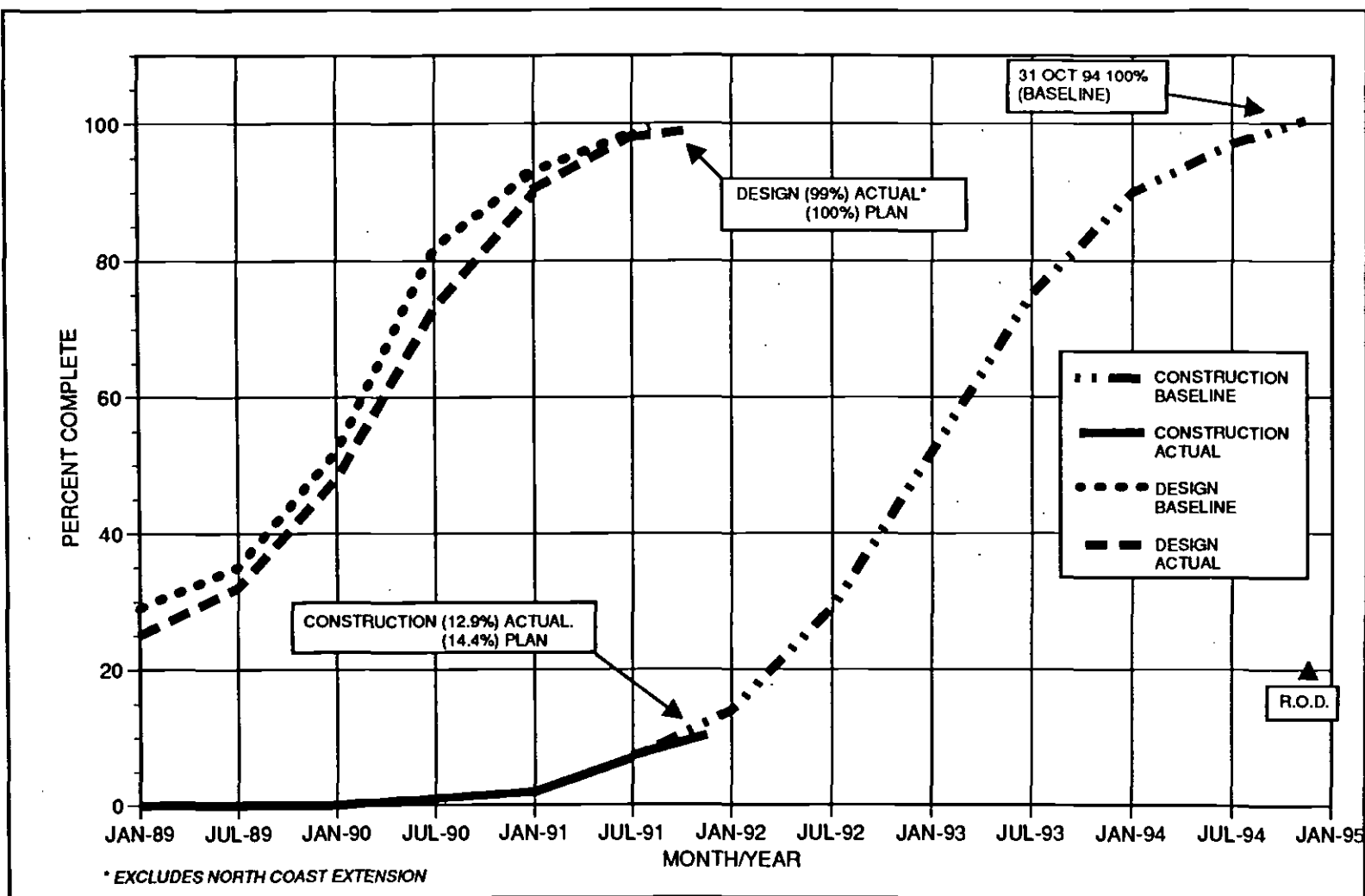
## CHANGE BASIS VOLUME ABSOLUTE VALUES

15	33.3%	Work Scope Changes
2	4.17%	Schedule Changes
14	29.17%	Differing Conditions
6	12.5%	Administrative Changes
8	16.67%	Design Changes
1	2.08%	Other

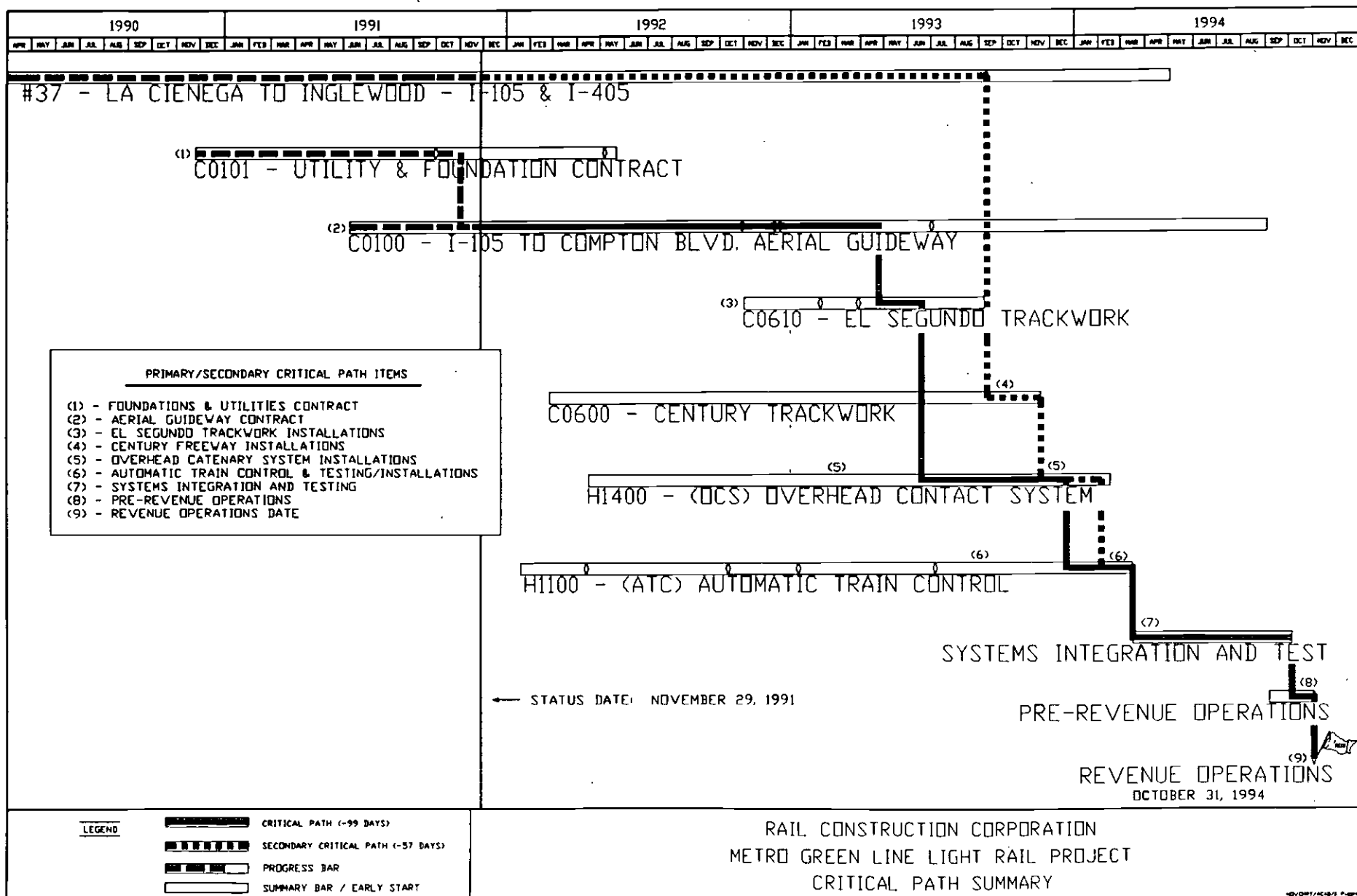
## CHANGE BASIS COST ABSOLUTE VALUES

(\$189,403.75)	Work Scope Changes
\$10,685.00	Schedule Changes
\$6,173,586.34	Differing Conditions
(\$267,371.71)	Administrative Changes
(\$647,768.75)	Design Changes
\$159,298.00	Other

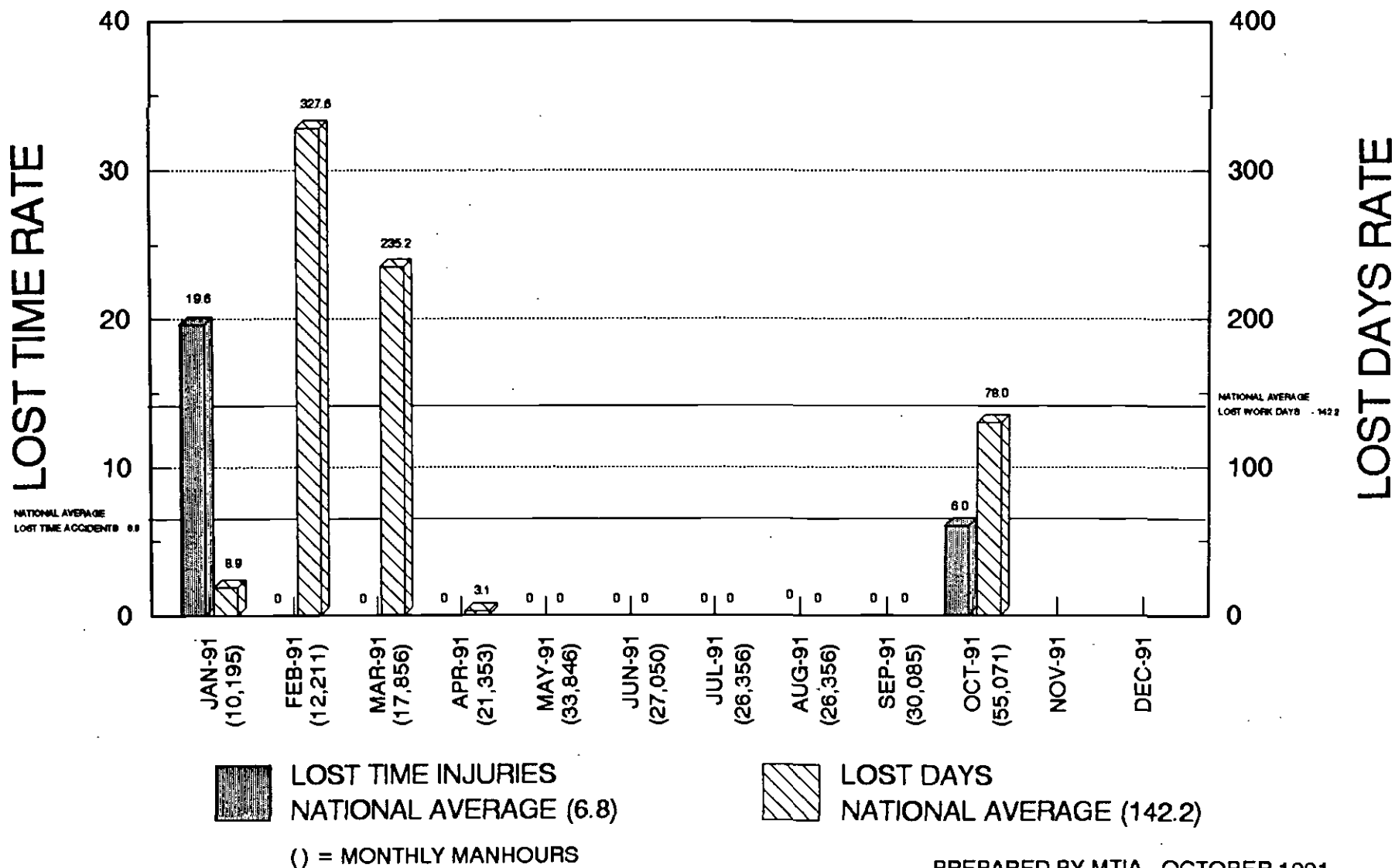
## PROGRESS SUMMARY







# GREEN LINE PROJECT - SUMMARY OF LOST TIME ACCIDENTS/LOST WORK DAYS MONTHLY INCIDENT RATES

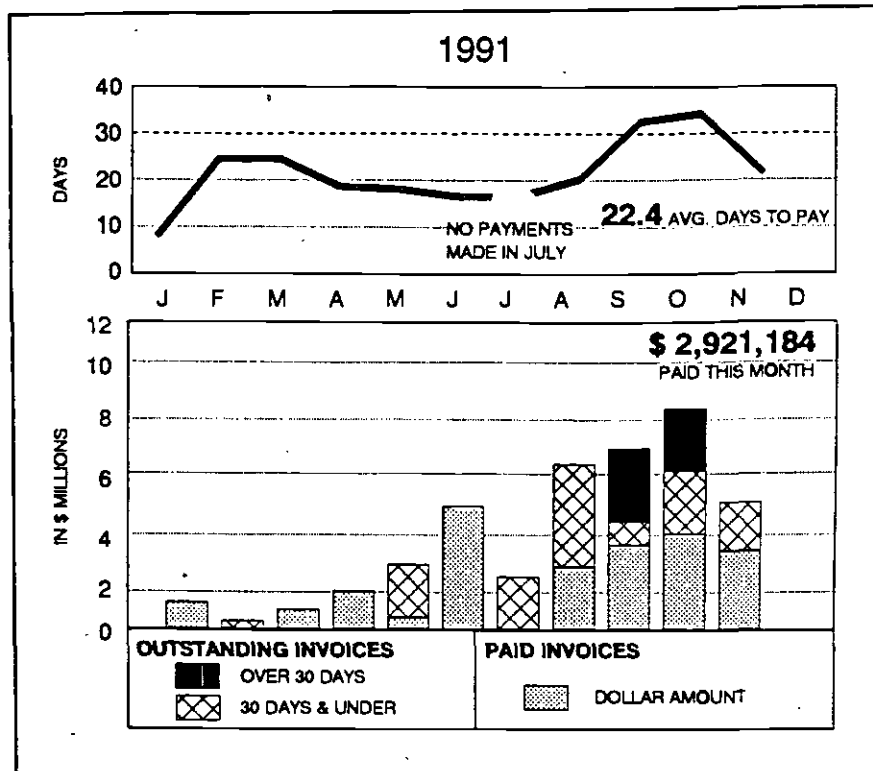


PREPARED BY MTIA - OCTOBER 1991

## INVOICE PROCESSING

- The average time taken to pay invoices for Construction and Procurement contracts (including Insurance) was 22.4 days.
- 9 invoices were paid for a total value of \$ 2,921,184.
- There were 5 outstanding Construction or Procurement invoices under 30 days old for \$ 1,953,086.
- There were no outstanding Construction or Procurement invoices over 30 days old.
- Note Insurance invoices were adjusted to include only those actually due during the current period.

Construction/Procurement Invoice Status



Note: The average days to pay is the time from when the Resident Engineer approves a progress payment (invoice) to when Accounting issues a check for this invoice.

## OUTSTANDING INVOICES

Month	Construction/Procurement Invoices				Other Invoices			
	30 Days and Under		Over 30 Days		30 Days and Under		Over 30 Days	
	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value
JUL 1991	2	1,944,180	0	0	13	984,391	1	128
AUG 1991	17	3,782,404	0	0	9	1,422,542	2	9,013
SEPT 1991	2	837,776	12	2,725,230	10	1,591,965	1	520
OCT 1991	2	2,334,769	10	2,271,025	12	3,566,036	3	8,800
NOV 1991	5	1,953,086	0	0	15	4,892,586	6	105,454

## EXECUTIVE SUMMARY

### COST STATUS

in \$ million

- Current Budget 1,450
- Current Forecast 1,450
- The Construction Forecast increased this period mainly due to mechanical, utility and finish work changes at the Stage II contracts, the 480V DC control power to the Yard and mainline disconnect switches, third rail activation test support, and procurement of free-standing station entrance signs. Increases to the forecast are offset by a corresponding decrease in the Project contingency. The current forecast for the Project remains at \$1,450 million.

### SCHEDULE STATUS

- Current Revenue Operations Date June 1993
- Construction Progress
  - Plan 92%
  - Actual 91%
- The current Project schedule shows zero days of total float. Prior to November 1991, Project total float in excess of 70 days had been maintained. The reduction of the Project total float is a result of the advancement of the ROD.

### SAFETY STATUS

- The Safety Training Program implemented for third rail activation has trained over 600 personnel from the RCC, Parsons-Dillingham, CAL-OSHA, MRTC and the contractors.

## EXECUTIVE SUMMARY (CON'T)

### REAL ESTATE

- All of the real estate required for Segment 1 construction is available under ownership by the Rapid Transit District or under a right-of-entry. Currently, seven parcels are in the final acquisition process.

### RAIL ACTIVATION

The Rail Activation Group continued coordination and management activities related to system integration, testing and commissioning activities for the Project.

#### Activities

During the reporting period, the activities of the Rail Activation Group included the following:

- Provided logistical support and coordination for delivery of first married pair of Metro-Dade Transit vehicles.
- Reviewed the training schedule and the availability of associated materials.
- Continued research of Facilities and Yards/Shops contracts in order to define additional training not contractually required in the original document.
- Continued support of Breda vehicle testing at the Transportation Test Center in Pueblo, Colorado.
- Continued support of SCRTD personnel training at the Transportation Test Center in Pueblo, Colorado and Miami, Florida, for the Metro-Dade Transit vehicle arrival.
- "Rules and Procedures for conducting Test Operations" completed and approved by the RCC. Procedures will be distributed in early December.

Future activities will focus on:

- Continue support of vehicle testing at the Transportation Test Center in Pueblo, Colorado by SCRTD/RCC personnel.

## EXECUTIVE SUMMARY (CON'T)

- Present to RCC an evaluation of areas within each contract.
- Logistical support and coordination of delivery of second married pair of vehicles.
- Yard testing of Metro-Dade Transit vehicles.

## AREAS OF CONCERN

### ONGOING

#### Contract A650, Vehicles (Booz Allen Hamilton)

Concern: The delivery of vehicles in time for system testing is a concern for maintaining the Project schedule.

Action: The Rail Construction Corporation (RCC) has developed a plan which would alter the vehicle testing sequence at the Transportation Test Center (TTC) in Pueblo, Colorado, to release the first pair of vehicles directly to Los Angeles by the dates required to support systems testing.

The RCC has also developed a plan which will use four vehicles from the Metro-Dade Transit System (Miami) in order to support the integrated testing program.

Status: The Metro-Dade Transit vehicles arrived as scheduled during November 1991, to support integrated testing.

The vehicle testing sequence at the Transportation Test Center (TTC) in Pueblo, Colorado, is proceeding. Deliveries to Los Angeles of production vehicles is under review.

## AREAS OF CONCERN (CON'T)

### Contract A640, Communications

**Concern:** Completion of the design review of the technical proposal submitted by the A640 contractor, Bechtel, for the Rail Control Center relocation to the Central Control Maintenance Facility (A640-CO-025) is behind schedule.

**Action:** A "Fast Track" team has been organized to pursue completion of the relocation.

**Status:** This activity is no longer on the critical path. The Fast Track team has been successful in keeping the relocation progressing. The required equipment for the Control Center has been ordered. Installation activities related to the Rail Control Center relocation are progressing.

Negotiations to finalize Change Order A640-CO-025 are ongoing and will be completed by the end of December.

### Contract A640, Communications

**Concern:** Procurement of the fire and emergency panels equipment has been delayed due to the submittals review and acceptance process. This delay could potentially impact the Project schedule.

**Action:** Parsons-Dillingham has taken the following mitigating actions:

- Worked with MRTC/RCC to expedite design submittals
- Directed contractor to procure critical items; scheduled remaining procurements
- Met with contractor to target issues and obtain commitment to maintain schedule
- Worked with the contractor to make up the time lost
- Established a Quick Response Team Task Force to review design changes and incorporate them immediately

### AREAS OF CONCERN (CON'T)

- Developed a mitigation plan which includes resequencing of work

Status: A manloaded schedule is being used to track and manage the critical path items. Design requirements for Fire and Emergency Management throughout the system have been established, pricing and design data (CN 224) was issued in late November.

The complete impact of CN 224 is now being evaluated. As a result, a formal Change Notice has been defined and issued to Bechtel. There still exists a high level of confidence that all contractual milestones will be met. However, delays to the completion of Contract A640 caused by CN 224 could impact the Project schedule and create additional costs. Schedule submittals received from the contractor have been reviewed to determine time impacts. The contractor has been requested to submit additional breakdowns of costs associated with the revised schedules.

#### Contract A640, Communications

Concern: Installation of additional radiax cable throughout the tunnels to support LAPD radio frequencies. Costs of this undertaking could directly impact contingency funds.

Action: Review of alternate design concepts are under study to provide data allowing for the determination of cost and schedule impact to Contract A640.

Status: The police radio system requirements are currently under review by the Contractor and the Resident Engineer for Contract A640, and are expected to be completed by late December 1991. There exists a high level of confidence that additional radiax cabling can be avoided through system reconfiguration at minimal costs.

#### Contingency Drawdown Rate

Concern: The rate of contingency drawdown is causing concern as projections based on the current rate indicate a possible depletion of the contingency fund prior to Project completion.



**AREAS OF CONCERN (CON'T)**

**Action:** Continue to identify and mitigate forecast increases, where possible. Also, Change Orders and Change Notices in the change control data base have been prioritized, and a process developed to manage backchargeable items to their final resolution.

**Status:** Staff has been dedicated to analyze individual Change Notices and Change Orders for cost recovery potential. The Construction Manager has completed an extensive review and identified potential construction contract backcharges. Refinement of this backcharge data base is continuing.

**Increase in Change Notice Backlog**

**Concern:** An increase in Change Notice backlog as a result of electrical/mechanical interface issues.

**Action :** The construction manager has increased the estimating staff to mitigate the Change Notice backlog increase.

**Status:** Efforts have been prioritized to identify and decrease the Change Notice backlog.

**UMTA PROJECT MANAGEMENT OVERSIGHT CONSULTANT  
ITEMS FOR RCC ACTION**

The following items reflect action requirements identified in the October Monthly Project Report submitted to UMTA by their Project Management Oversight Consultant, Hill International.

ONGOING      NONE

NEW            NONE

RESOLVED    NONE

**KEY ACTIVITIES - NOVEMBER**

- Managed the activation of all programs related to test train arrival and pre-revenue operations. A comprehensive test program was developed to ensure that all elements of the system provided under the various construction, procurement, and installation contracts conform to specifications, and all elements of the system and personnel who will operate and maintain the system are able to function in an effective, safe, and dependable manner.
- Energized the DWP substation at Contract A147, Civic Center Station, Stage II.
- Completed Yard track circuits test.
- Identified potential construction contract backcharges.
- Participated in the settlement of the Contract A146 claim and final close-out Change Order.
- Participated in the settlement of the Contract A135 asbestos litigation case.
- Received one married pair of Metro-Dade Transit vehicles at the Yard and Shops on November 22, 1991.
- Implemented "Red Tag" procedures in the Yard and tunnel.

**KEY ACTIVITIES - PLANNED FOR DECEMBER**

- Continue close-out of the following contracts: A130, Yard Leads and Transfer Zone; A135, Union Station, Stage I; A141, Line Section, Union Station to 5th/Hill and Civic Center Station, Stage I; A145, Pershing Square Station, Stage I; A146, Line Section, 5th/Hill - 7th/Flower; A165, 7th/Flower Station, Stage I; A175, Wilshire/Alvarado, Stage I.
- Conduct Yard testing of Metro-Dade Transit vehicles.
- Conduct police radio test at Westlake/MacArthur.

**KEY ACTIVITIES - PLANNED FOR DECEMBER (CON'T)**

- Continue to assess and resolve electrical/mechanical interfaces for all Stage II contracts as they surface.
- Continue management of pre-revenue operations.
- Complete trainway duct support system at Contract A136, Union Station, Stage II.
- Complete analyses of Bechtel's proposed schedules which show impacts of CN 224 to the A640 contract schedule. Provide the RCC with a recommendation of an acceptable mitigated schedule for incorporation into the Project schedule.
- Complete power substation installation and testing at all stations.

**RAIL CONSTRUCTION CORPORATION**  
PROJECT COST REPORT  
COST BY ELEMENT

STATUS PERIOD: NOVEMBER 2, 1991 TO NOVEMBER 29, 1991  
STATUS DATE : NOVEMBER 29, 1991  
UNITS : DOLLARS IN THOUSANDS

PROJECT : RBO METRO RAIL RED LINE SEGMENT 1

ELEMENT	DESCRIPTION	ORIGINAL BUDGET (1)	CURRENT BUDGET		COMMITMENTS		INCURRED COST		EXPENDITURES		CURRENT FORECAST		VARIANCE (12)
			PERIOD (2)	TO DATE (3)	PERIOD (4)	TO DATE (5)	PERIOD (6)	TO DATE (7)	PERIOD (8)	TO DATE (9)	PERIOD (10)	TO DATE (11)	
T	CONSTRUCTION	698,158	0	751,872	4,181	667,552	8,109	620,841	18,248	612,315	3,784	795,181	43,209
S	PROFESSIONAL SERVICES	397,755	0	481,830	(78)	410,215	381	407,538	381	407,538	551	487,818	5,889
R	REAL ESTATE	90,894	0	139,820	(10)	123,587	(10)	123,587	(10)	123,587	0	139,879	(141)
F	UTILITY RELOCATIONS	10,820	0	12,140	0	12,018	8	8,297	8	8,297	0	12,018	(122)
O	SPECIAL PROGRAMS	948	0	948	0	948	95	484	95	484	0	988	40
C	PROJECT CONTINGENCY	53,225	0	83,209	0	0	0	0	0	0	14,345	34,334	(48,875)
A	PROJECT REVENUE	0	0	0	0	0	0	0	(488)	(1,230)	0	0	0
PROJECT GRAND TOTAL		1,249,900	0	1,450,019	4,075	1,234,330	9,583	1,180,535	18,252	1,150,879	0	1,450,019	0

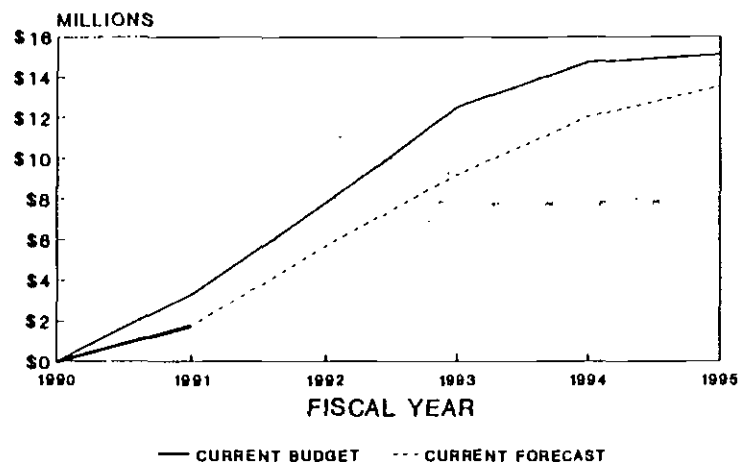
NOTE: REFER TO APPENDIX FOR REPORT DEFINITIONS

RAIL CONSTRUCTION CORPORATION  
METRO RAIL PROJECT MOS - 1  
(IN THOUSAND OF DOLLARS)

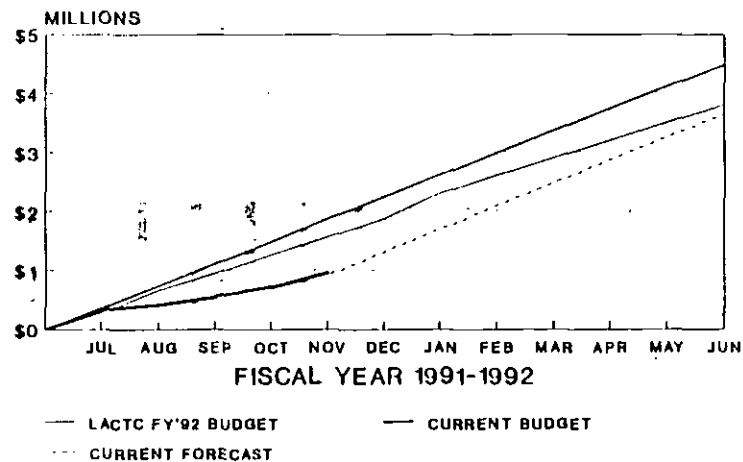
STATUS OF FUNDS BY SOURCE

SOURCE	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	COMMITMENTS		EXPENDITURES		BILLED TO SOURCE	
			\$	%	\$	%	\$	%
UMTA-SECTION 3	\$605,300	\$605,300	\$590,890	98%	\$557,756	92%	\$533,241	88%
UMTA-SECTION 9	\$90,584	\$90,584	\$87,590	97%	\$85,345	94%	\$84,553	93%
STATE	\$213,076	\$214,016	\$194,098	91%	\$180,479	85%	\$206,578	97%
LACTC	\$176,640	\$175,701	\$175,701	99%	\$155,381	88%	\$154,397	87%
CITY OF L.A.	\$34,000	\$34,000	\$29,456	87%	\$28,684	84%	\$27,591	81%
BENEFIT ASSESS.	\$130,300	\$19,082	\$112,710	87%	\$112,710	87%	\$19,082	15%
(1) COST OVERRUN ACCOUNT	\$200,119	\$34,818	\$41,561	21%	\$18,495	9%	\$15,838	8%
(2) BENEFIT ASSESS. SHORTFALL	\$0	\$0	\$0		\$0		\$93,628	
TOTAL	\$1,450,019	\$1,173,501	\$1,232,005	85%	\$1,138,850	79%	\$1,134,908	78%
NOTES:								
(1) The Cost Overrun Account includes CAPRA funds as well as LACTC and City of Los Angeles contributions to cover cost overruns								
(2) The current Benefit Assessment District revenue shortfall is being funded by SCRTD and LACTC								

# AGENCY COSTS RED LINE SEGMENT 1



# FISCAL YEAR 1992 AGENCY COSTS RED LINE SEGMENT 1



## PROJECT AGENCY COSTS RED LINE SEGMENT 1 (\$000)

TOTAL PROJECT BUDGET	\$1,450,019
CURRENT BUDGET *	\$15,091
CURRENT FORECAST *	\$13,516

\*Does not include \$80,864 in agency costs expended by SCRTD prior to June 30, 1990.

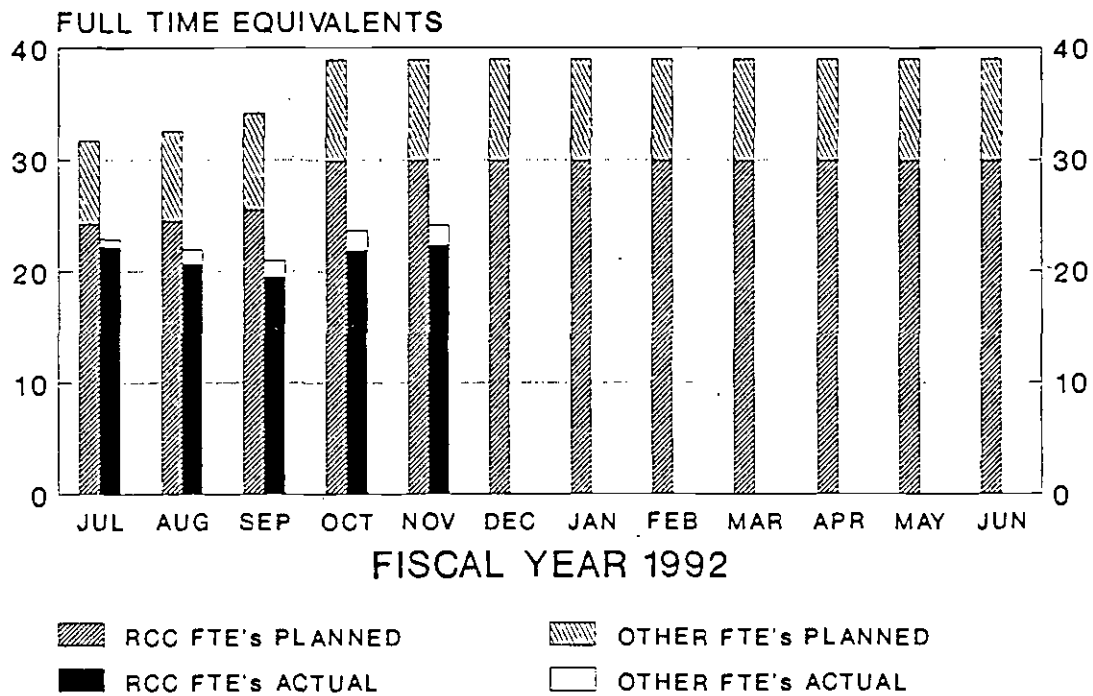
## FISCAL YEAR 1992 AGENCY COSTS RED LINE SEGMENT 1 (\$000)

LACTC FY'92 BUDGET	\$3,792
CURRENT BUDGET	\$4,477
CURRENT FORECAST	\$3,641
ACTUAL \$ TO DATE	\$924

Current forecast as of September 1991.

## STAFFING PLAN VS. ACTUAL

### RED LINE SEGMENT 1

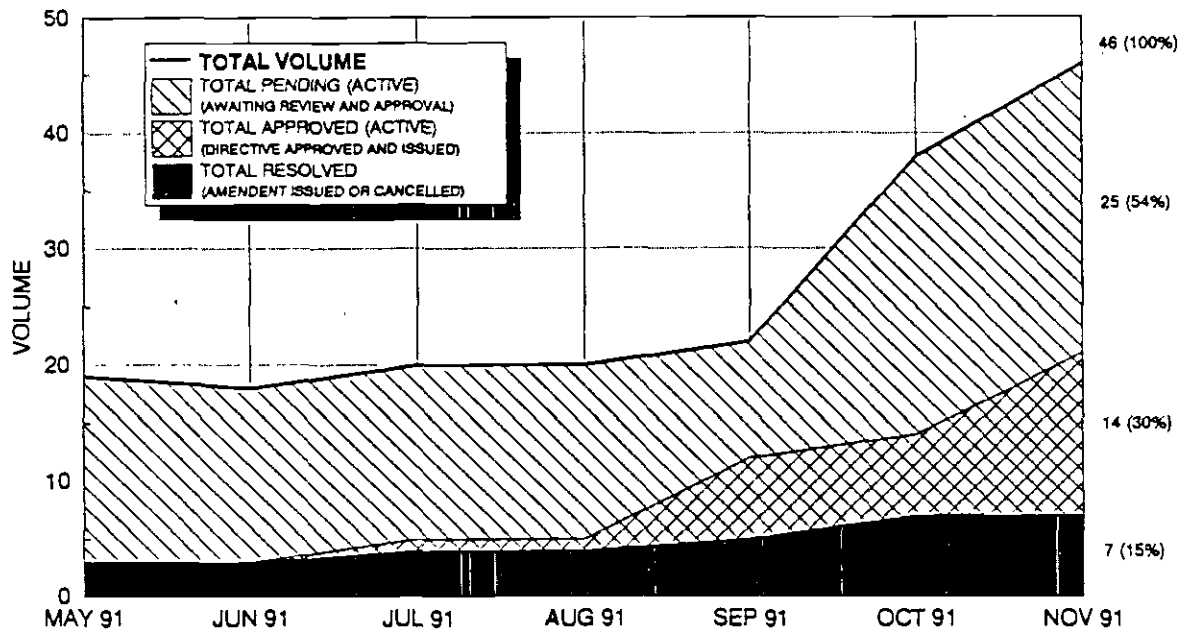


## RED LINE (SEGMENT 1) STAFFING PLAN

### FISCAL YEAR 1992

BUDGET WAGE RATE (\$/HOUR)	\$42
ACTUAL WAGE RATE (\$/HOUR)	\$45
RCC FTE's PLANNED	30
RCC FTE's ACTUAL	22
OTHER FTE's PLANNED	9
OTHER FTE's ACTUAL	2
TOTAL FTE's PLANNED	39
TOTAL FTE's ACTUAL	24

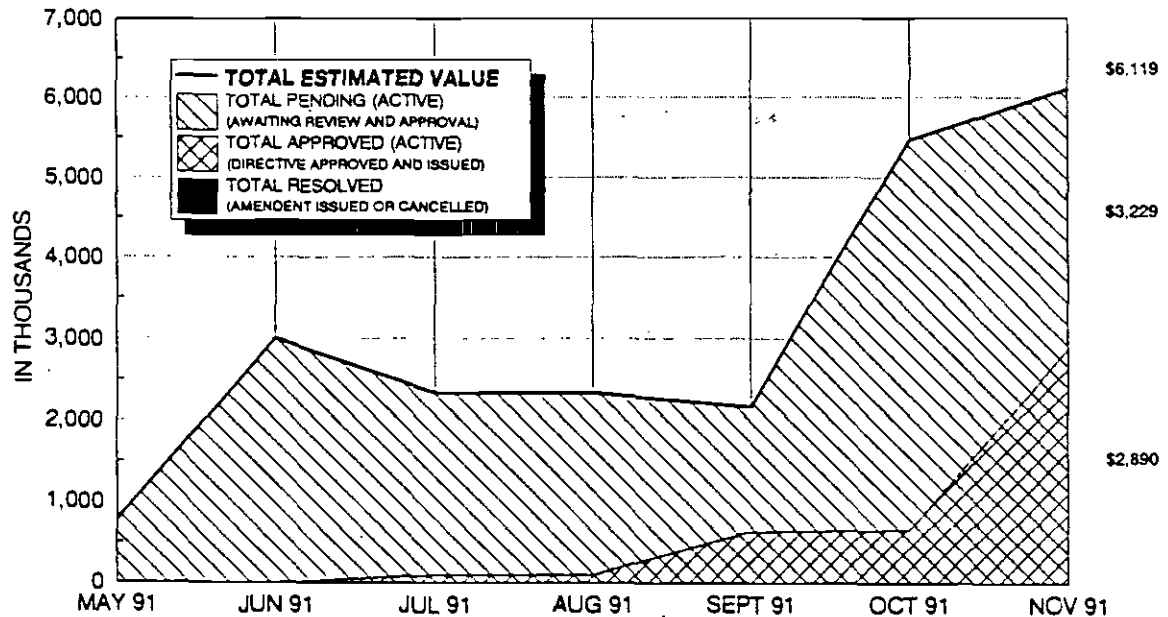
**CONSULTANT CONTRACT CHANGE SUMMARY  
R80 CONSULTANT CHANGE REQUEST RESOLUTION**



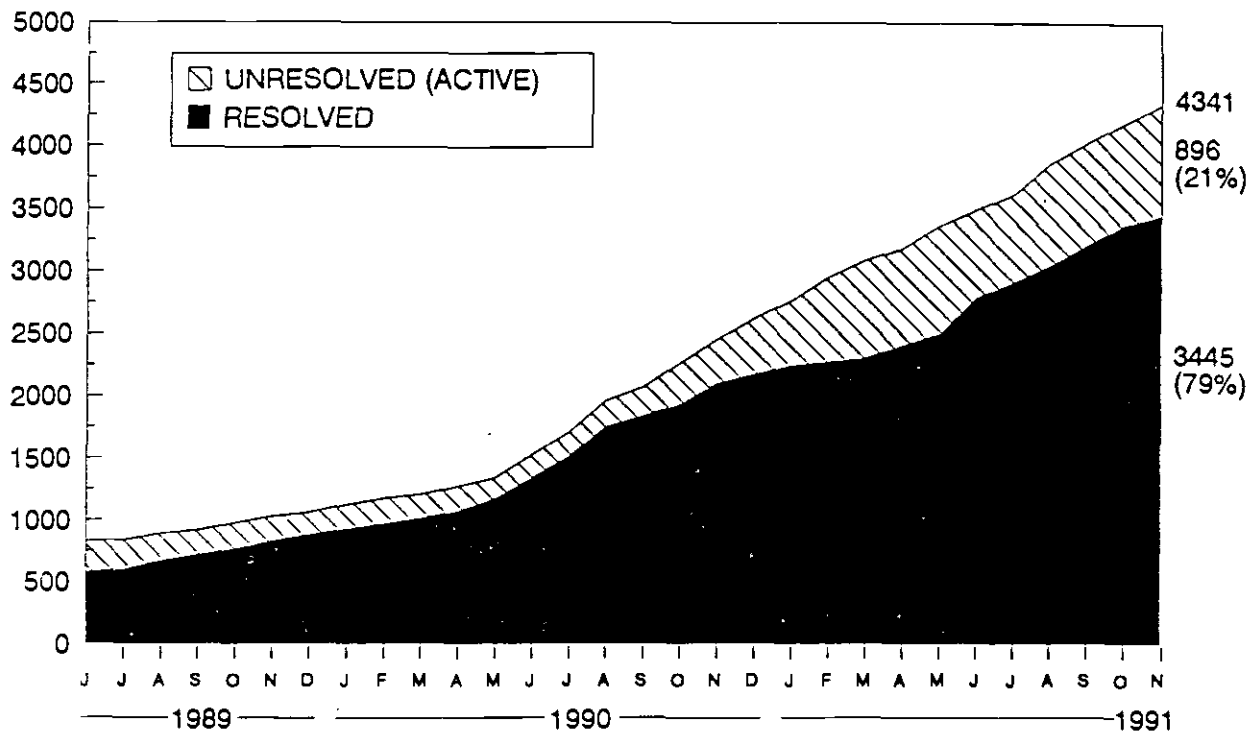
**AGE OF UNRESOLVED CONSULTANT CHANGES**

TIME	0-30 DAYS	30-60 DAYS	61-90 DAYS	OVER 90	TOTAL ACTIVE
VOLUME	8	16	0	15	39
PERCENT	21%	41%	0%	38%	100%

**CONSULTANT CONTRACT CHANGE SUMMARY  
R80 CONSULTANT CHANGE REQUEST VALUES**



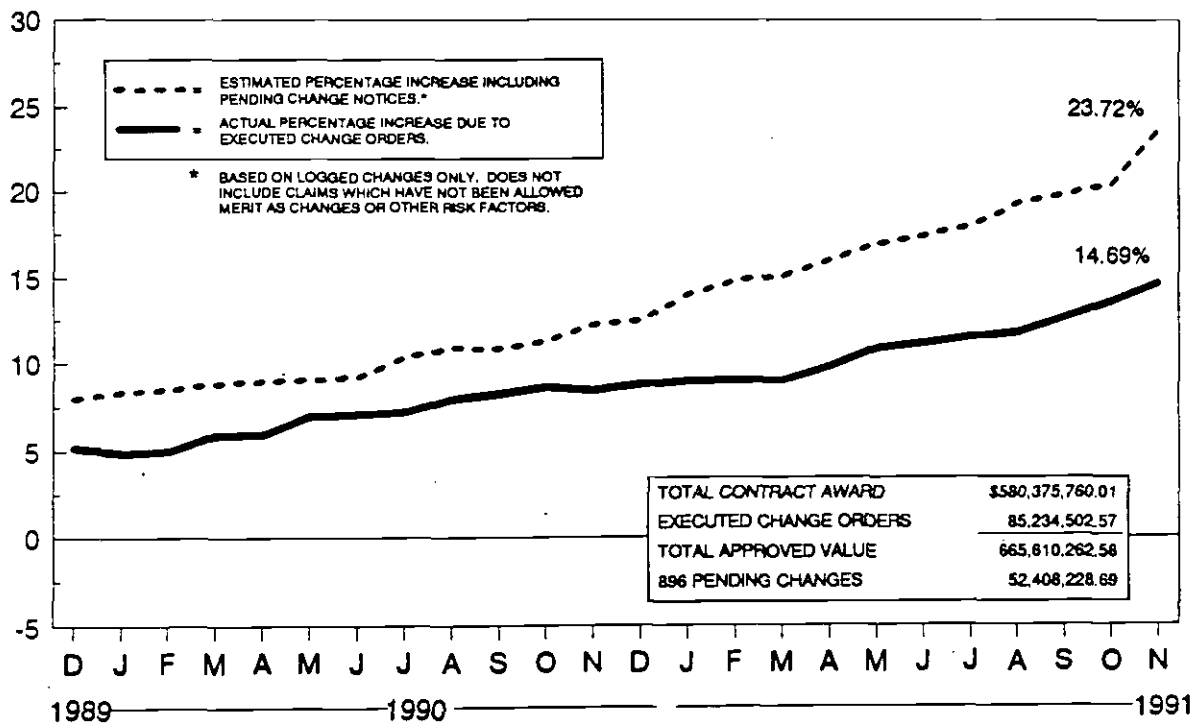
### CONSTRUCTION/PROCUREMENT CONTRACT CHANGES CHANGE NOTICE RESOLUTION



### AGE OF UNRESOLVED CHANGES

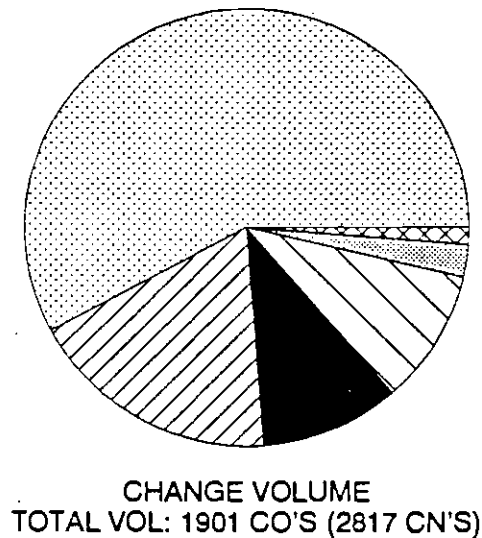
TIME	0-30 DAYS	31-60	61-90	OVER 90	TOTAL ACTIVE
VOLUME	322	95	120	359	896
PERCENT	36%	11%	13%	40%	100%







### CONSTRUCTION/PROCUREMENT CONTRACT CHANGES CHANGE DOLLARS AS A PERCENTAGE OF ORIGINAL CONTRACT AWARD

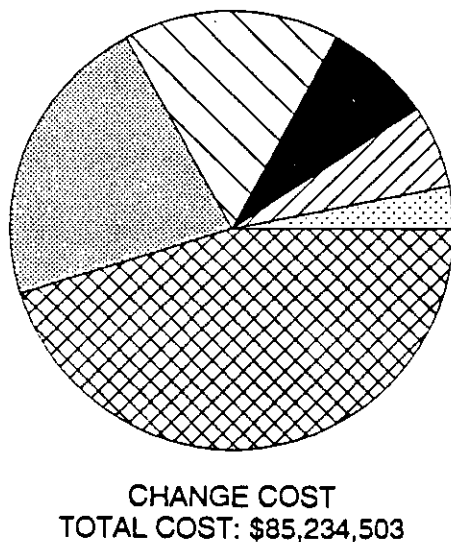










**CONSTRUCTION/PROCUREMENT  
CHANGE VOLUME AND COST BY COST LEVEL  
BASED ON EXECUTED CHANGES AS OF 11/27/91**

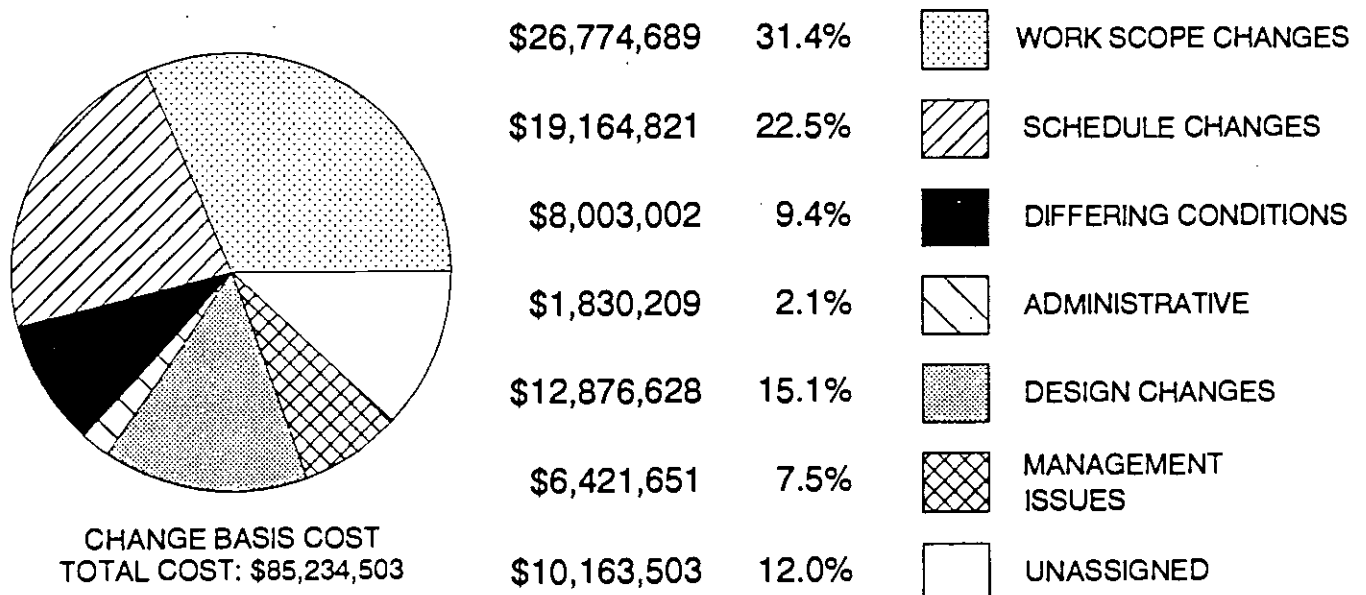
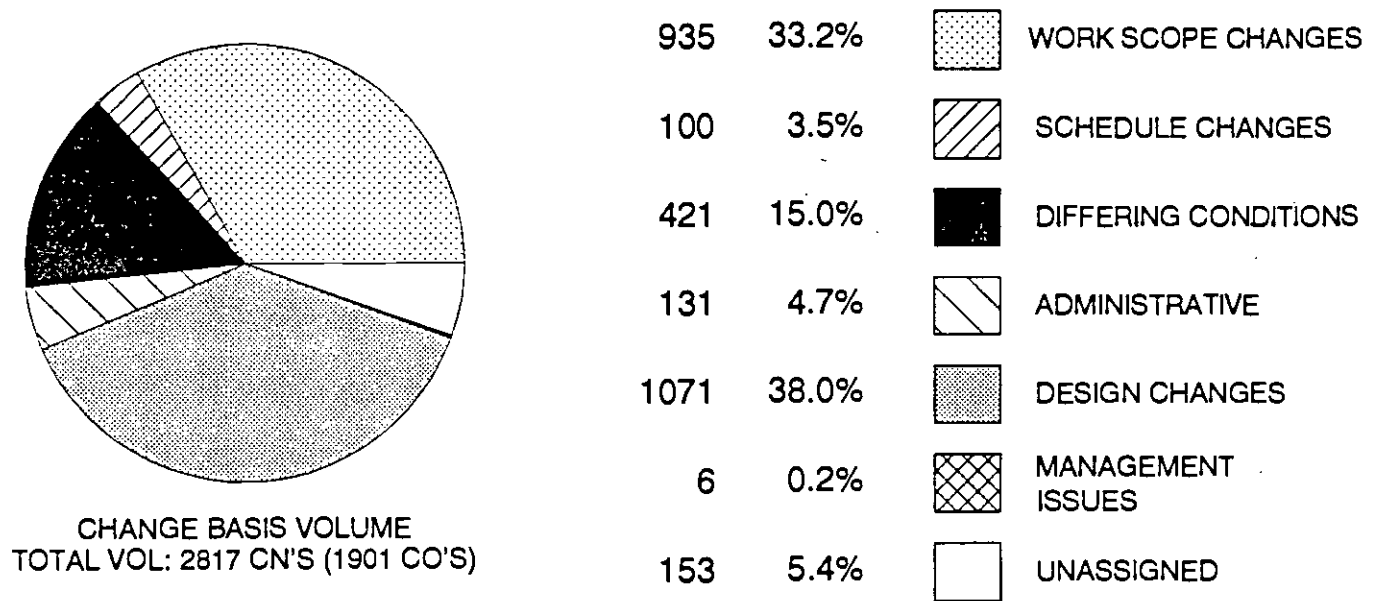


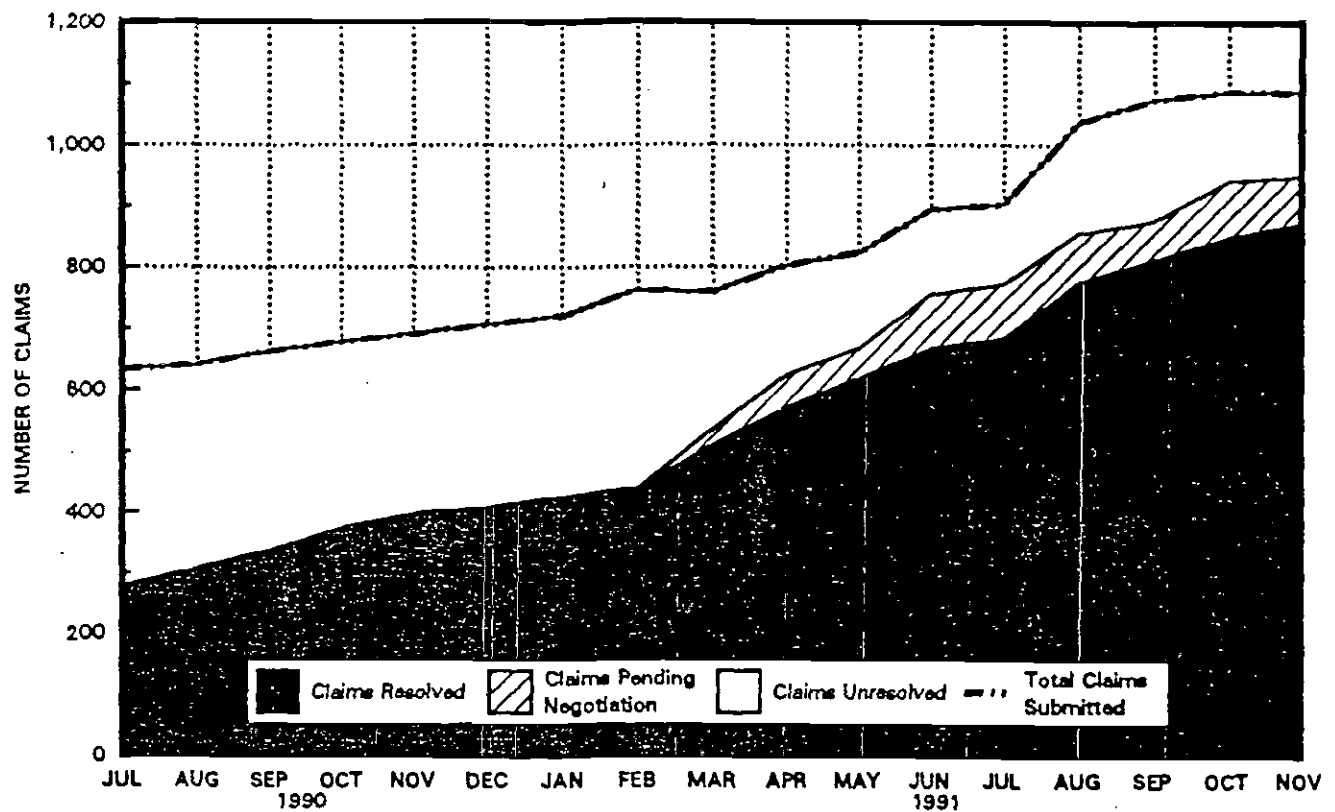
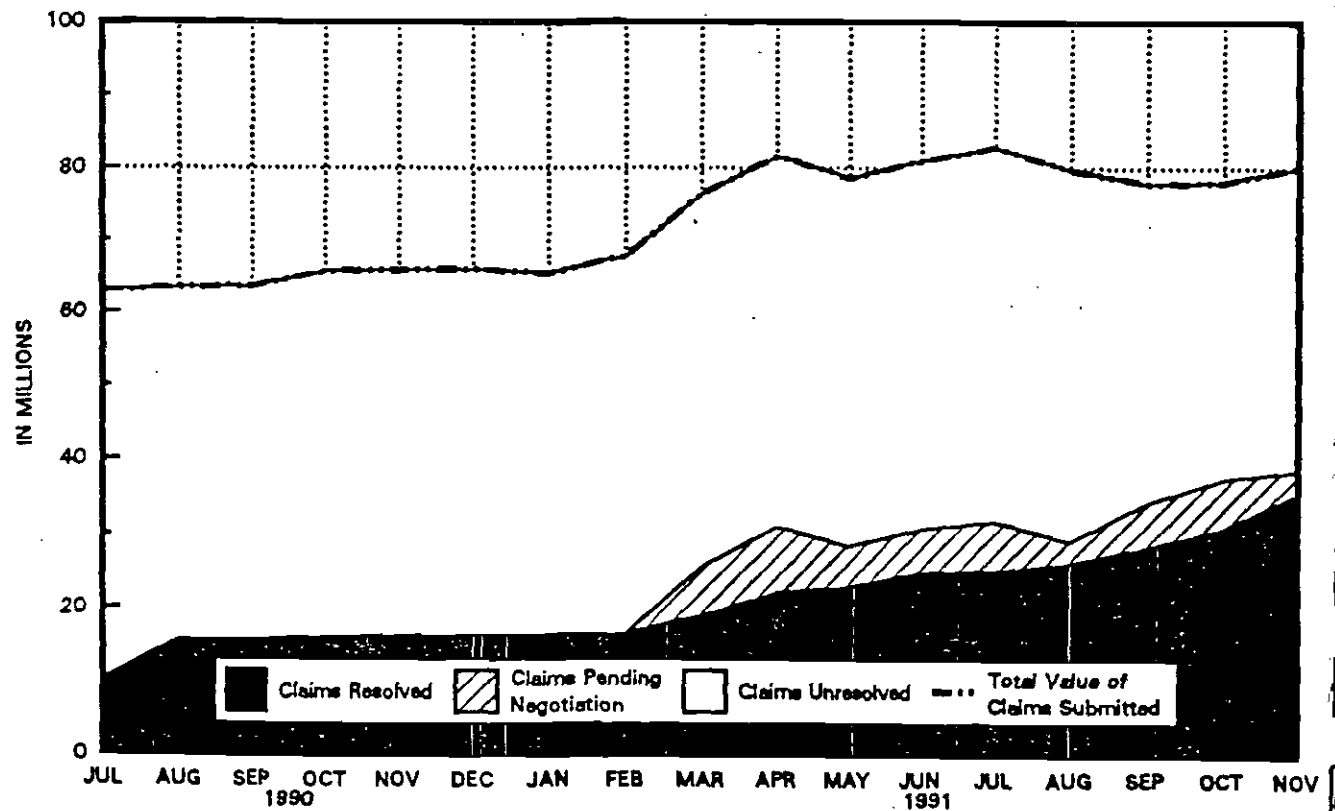
ABSOLUTE VALUES		
1098	57.8%	 < \$10,000
349	18.4%	 < \$25,000
195	10.2%	 < \$50,000
188	9.9%	 < \$200,000
46	2.4%	 > \$200,000
25	1.3%	 > \$1,000,000

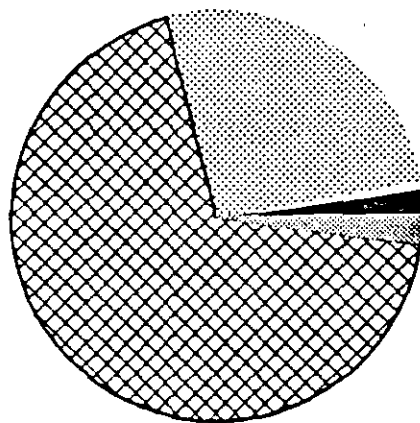







\$2,709,358	3.2%	 < \$10,000
\$5,232,309	6.1%	 < \$25,000
\$6,817,695	8.0%	 < \$50,000
\$13,317,525	15.6%	 < \$200,000
\$18,753,040	22.0%	 > \$200,000
\$38,404,576	45.1%	 > \$1,000,000

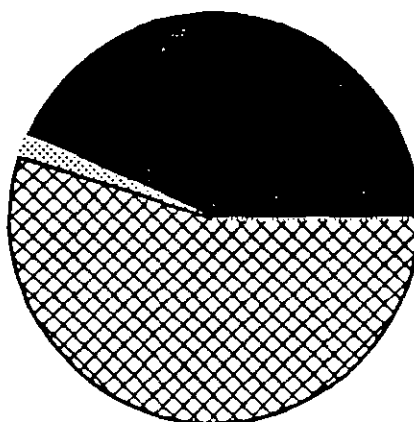
**CONSTRUCTION/PROCUREMENT CONTRACT CHANGES  
CHANGE VOLUME AND COST BY CHANGE BASIS TYPE  
BASED ON EXECUTED CHANGES AS OF 11/27/91**








CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS  
Total All Filed Claims - COUNTCONSTRUCTION/PROCUREMENT CONTRACT CLAIMS  
Total All Filed Claims - COST

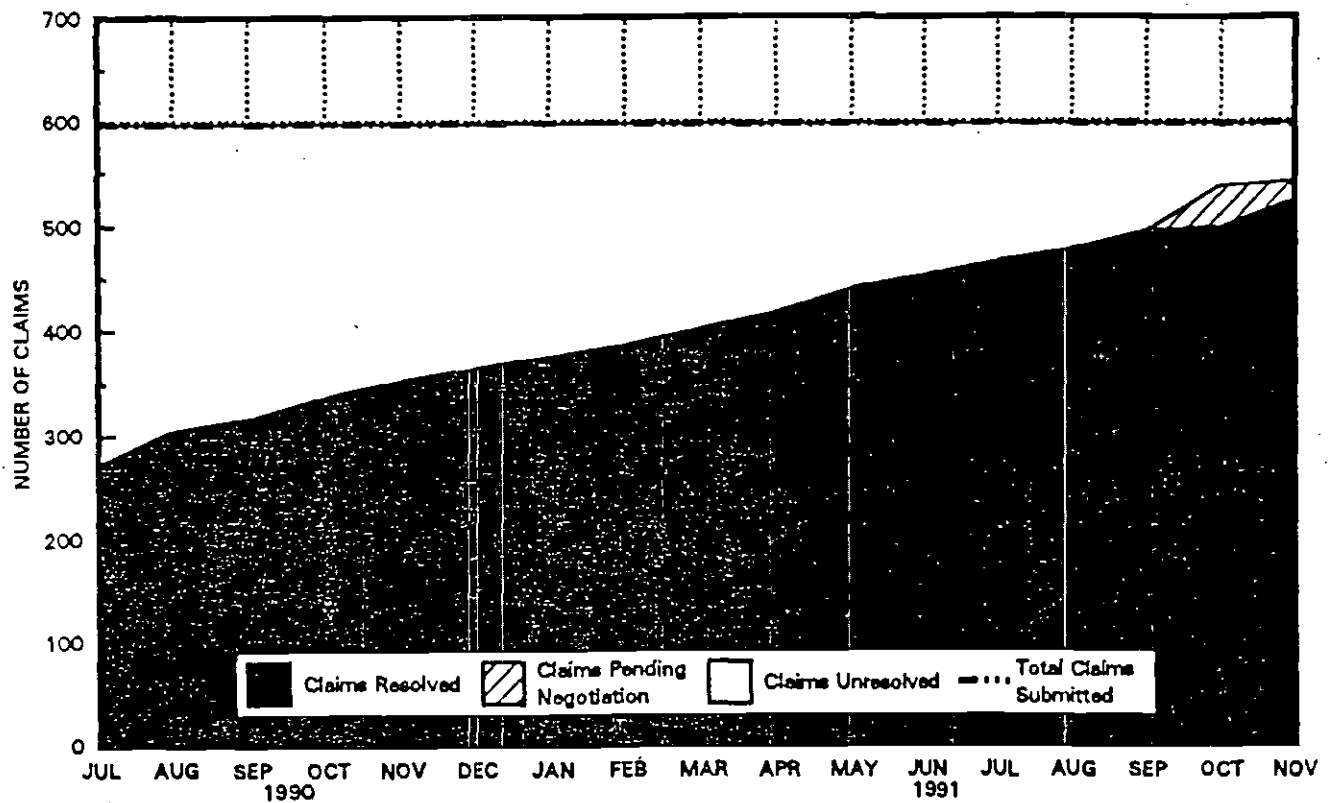
**CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS****Unresolved Claims Distribution Chart****Total all Filed Claims as of 11/29/91****COUNT****138**

3	2.2%		Litigation
1	0.7%		Closed
36	26.1%		Rejected
95	68.8%		Pending Merit
3	2.2%		In Dispute

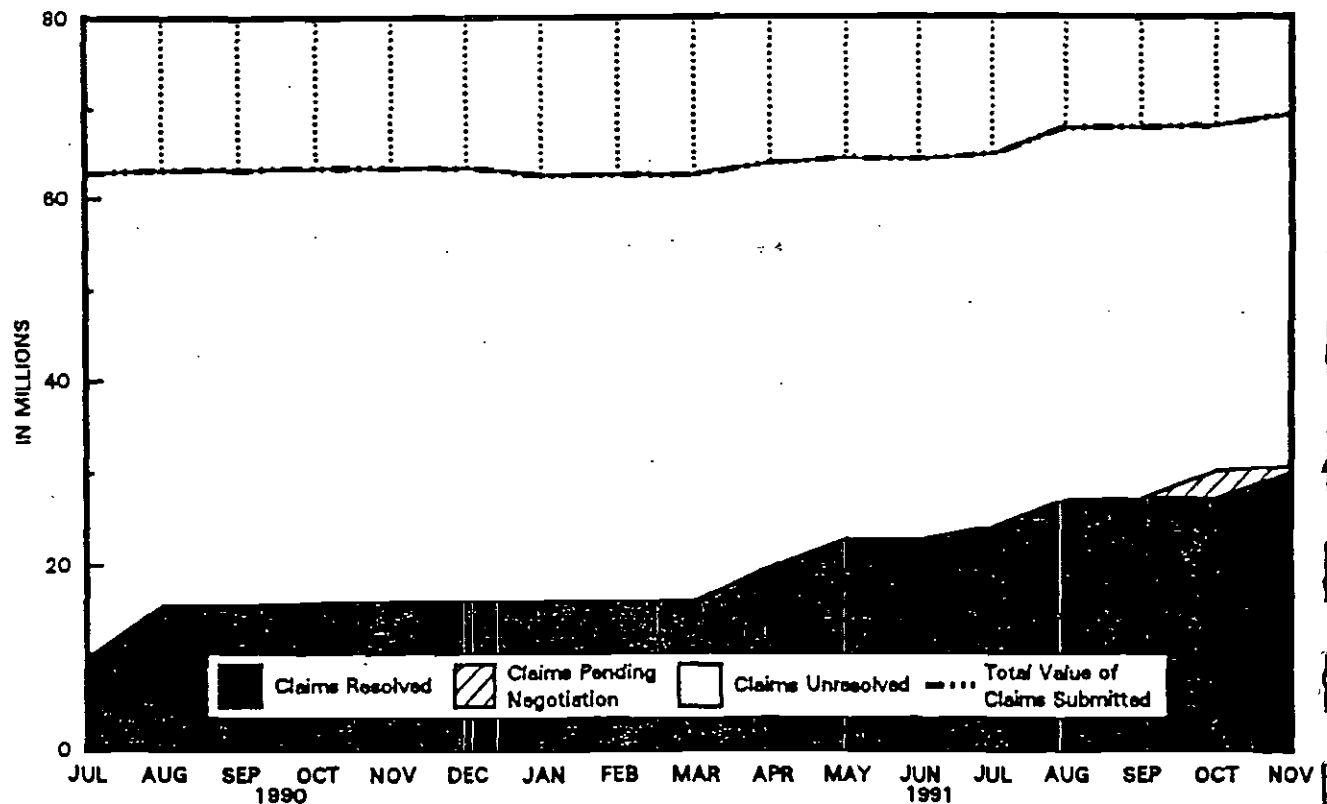
**COST****\$41,297,212**

\$17,885,522	43.3%		Litigation
\$52,387	0.1%		Closed
\$679,832	1.6%		Rejected
\$22,656,980	54.9%		Pending Merit
\$22,491	0.1%		In Dispute

CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS  
Claims Filed Prior to 07/01/90 - COUNT



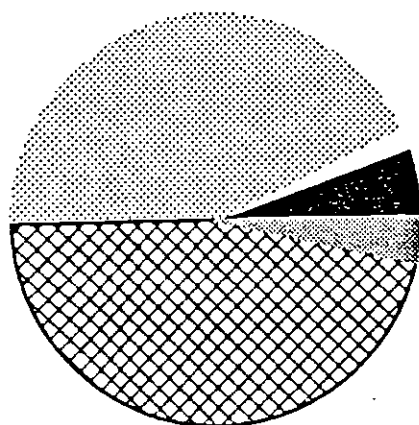
CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS  
Claims Filed Prior to 07/01/90 - COST



# CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS

## Unresolved Claims Distribution Chart

### Claims Filed Prior to 07/01/90 as of 11/29/91



COUNT

56

3 5.3%

1 1.8%

24 42.9%

26 46.4%

2 3.6%

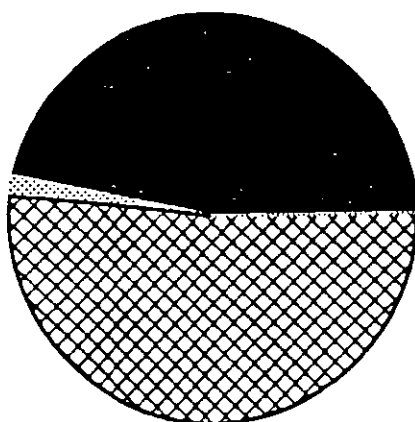
Litigation

Closed

Rejected

Pending Merit

In Dispute



COST

\$38,513,403

\$17,885,522 46.4%

\$52,387 0.1%

\$575,789 1.5%

\$19,977,214 51.9%

\$22,491 0.1%

Litigation

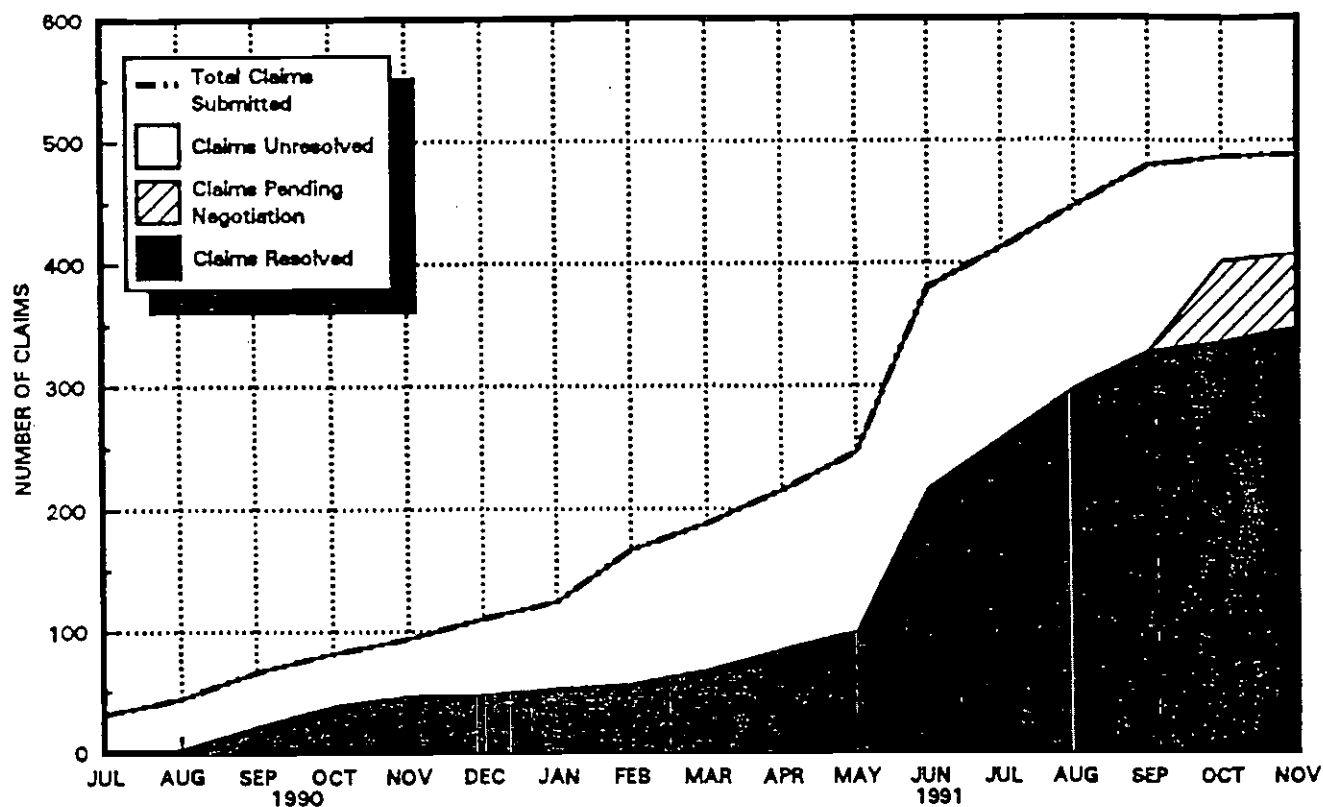
Closed

Rejected

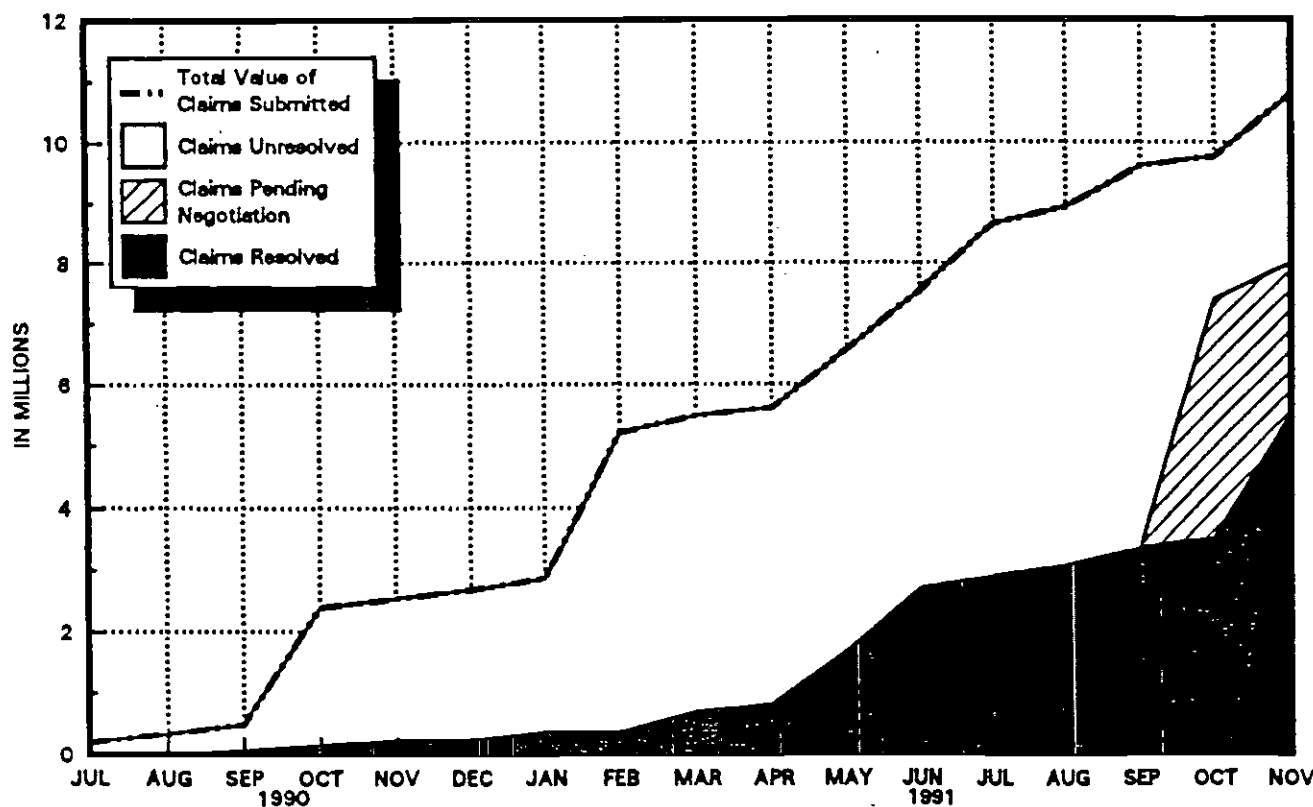
Pending Merit

In Dispute

CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS  
Claims Filed After 07/01/90 - COUNT



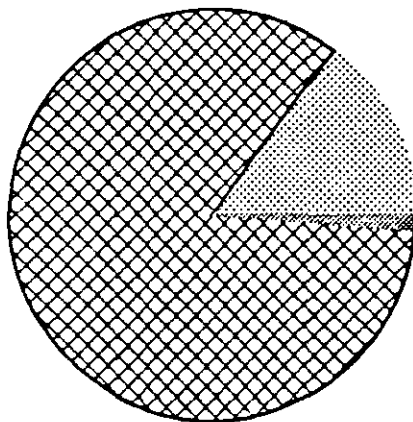
CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS  
Claims Filed After 07/01/90 - COST








# CONSTRUCTION/PROCUREMENT CONTRACT CLAIMS

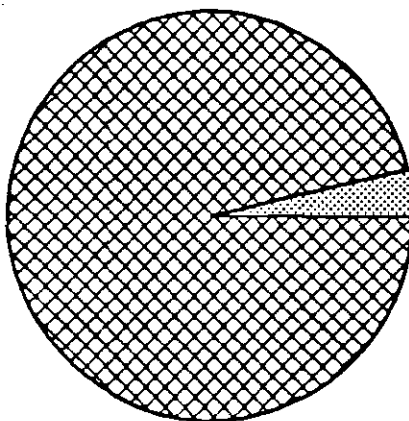
## Unresolved Claims Distribution Chart

### Claims Filed After 07/01/90 as of 11/29/91








**COUNT**  
82

0	0.0%		Litigation
0	0.0%		Closed
12	14.7%		Rejected
69	84.1%		Pending Merit
1	1.2%		In Dispute

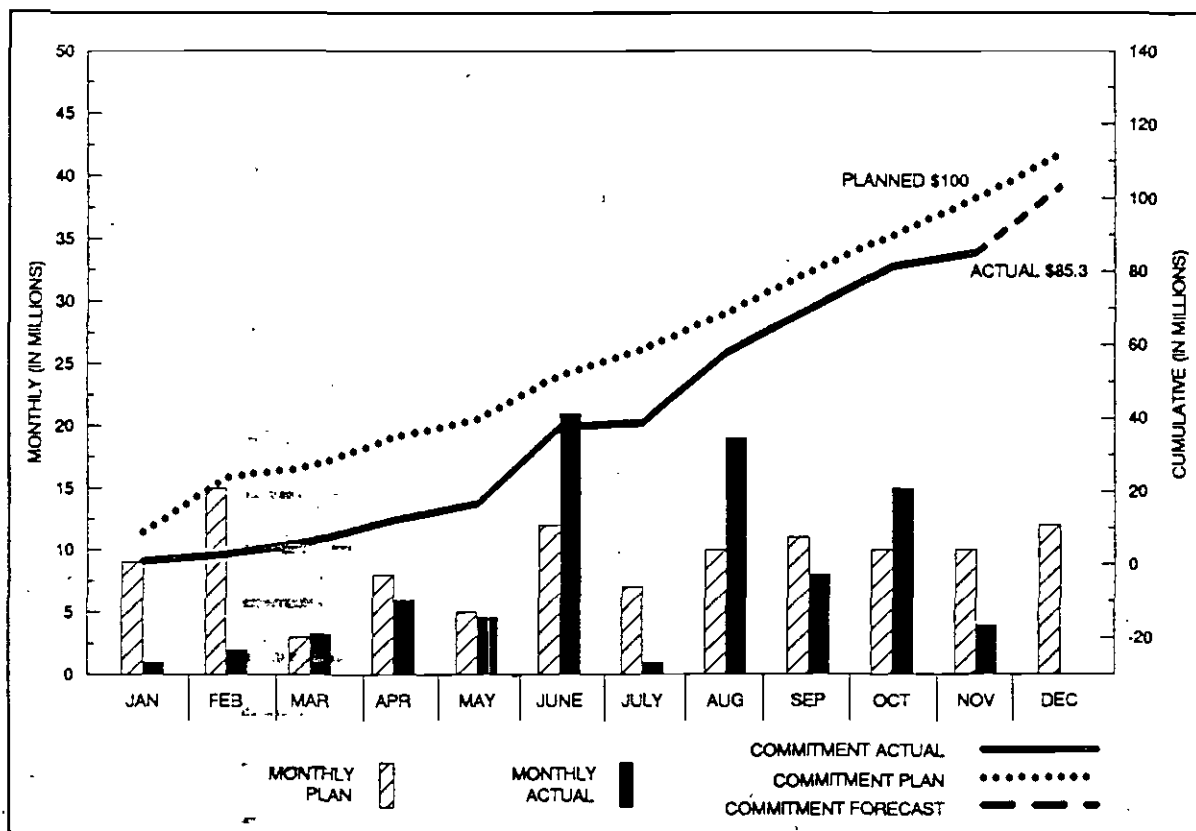


**COST**  
\$2,783,809

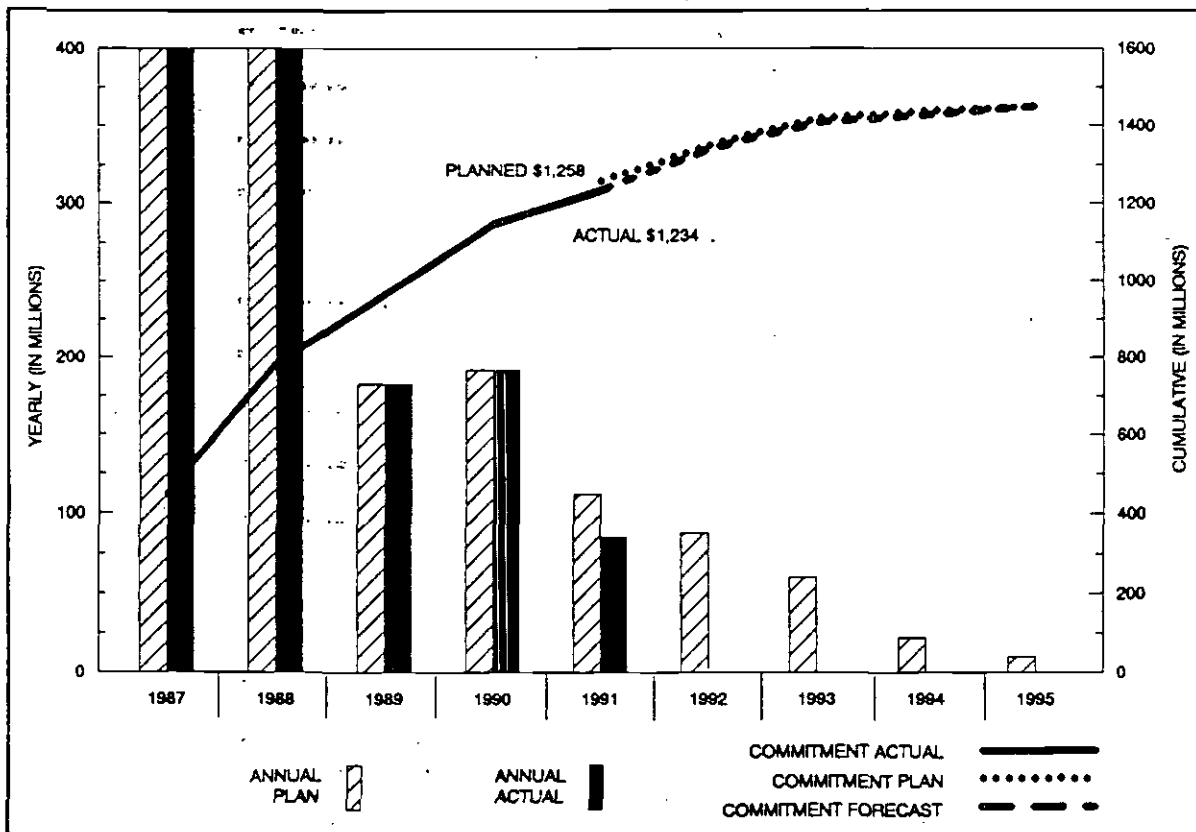
\$0	0.0%		Litigation
\$0	0.0%		Closed
\$104,043	3.7%		Rejected
\$2,679,766	96.3%		Pending Merit
\$0	0.0%		In Dispute



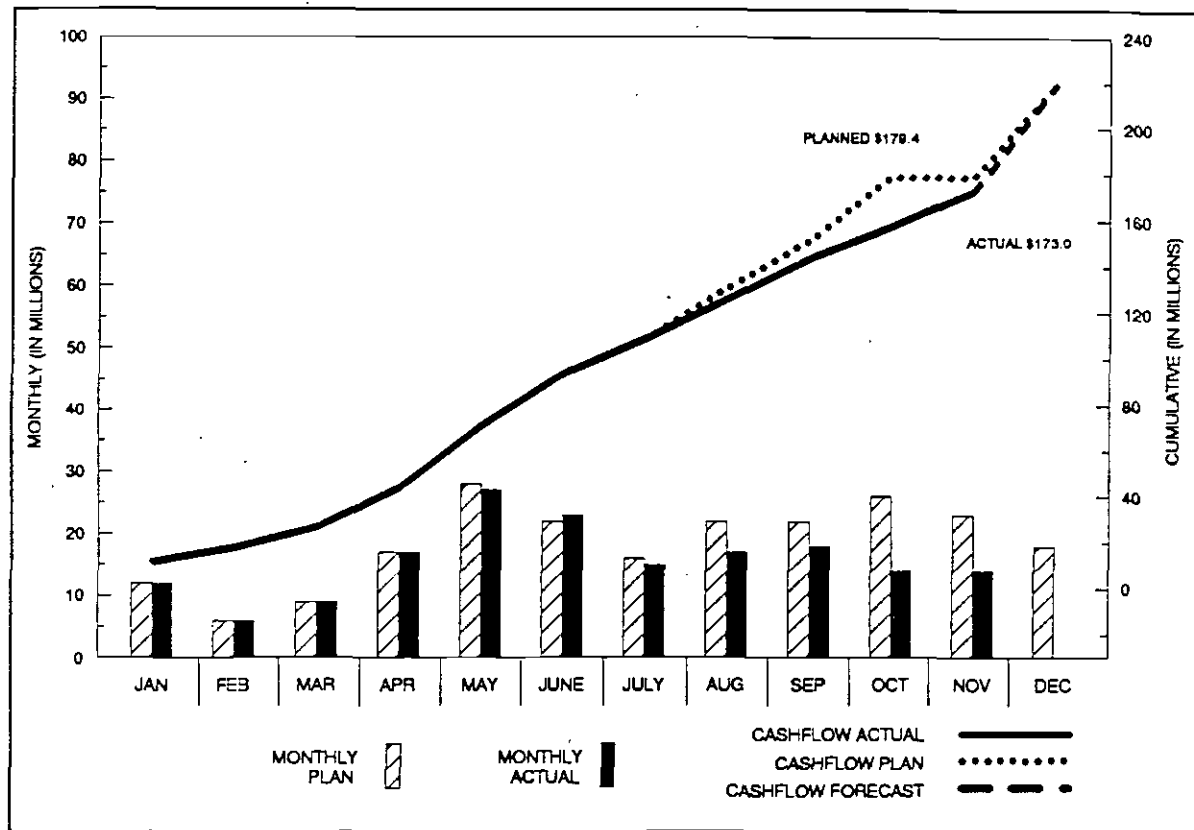
PROJECT COMMITMENTS -- ANNUAL



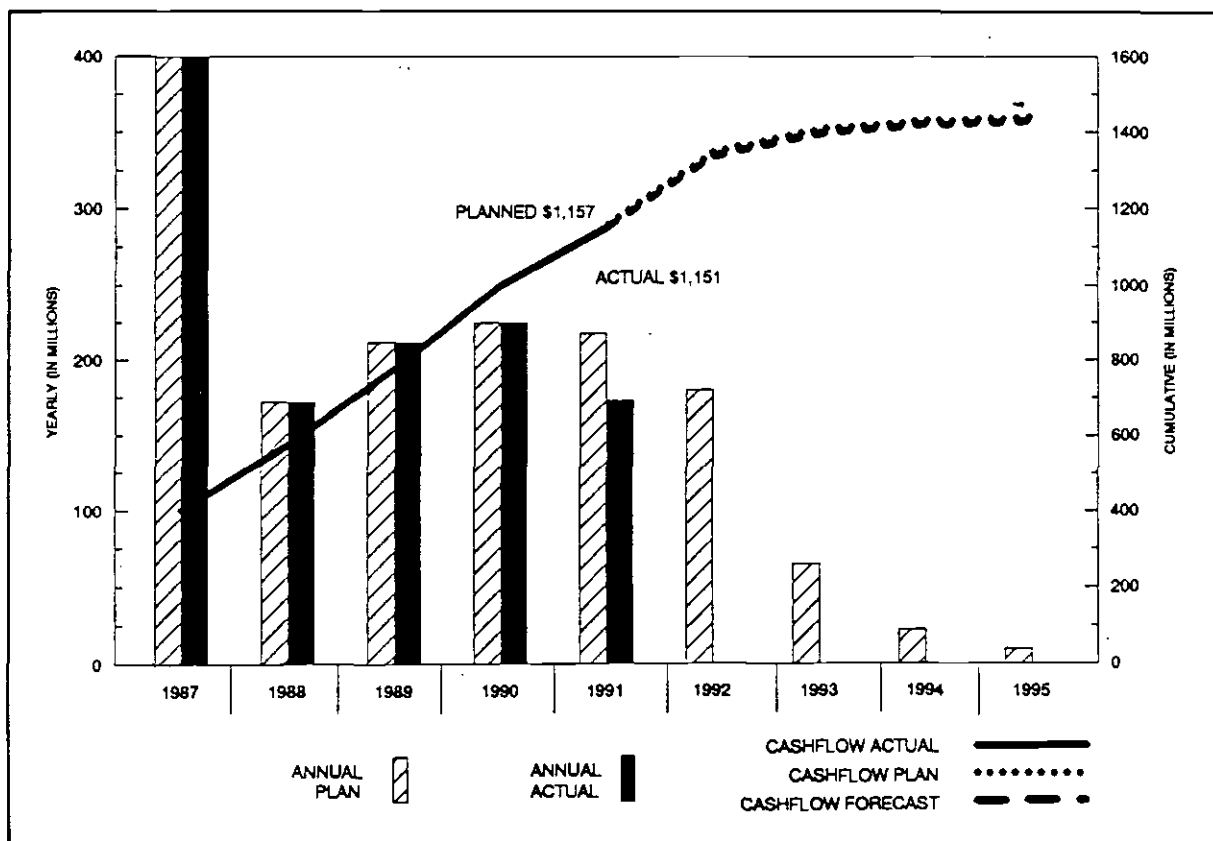
PROJECT COMMITMENTS -- PROJECT



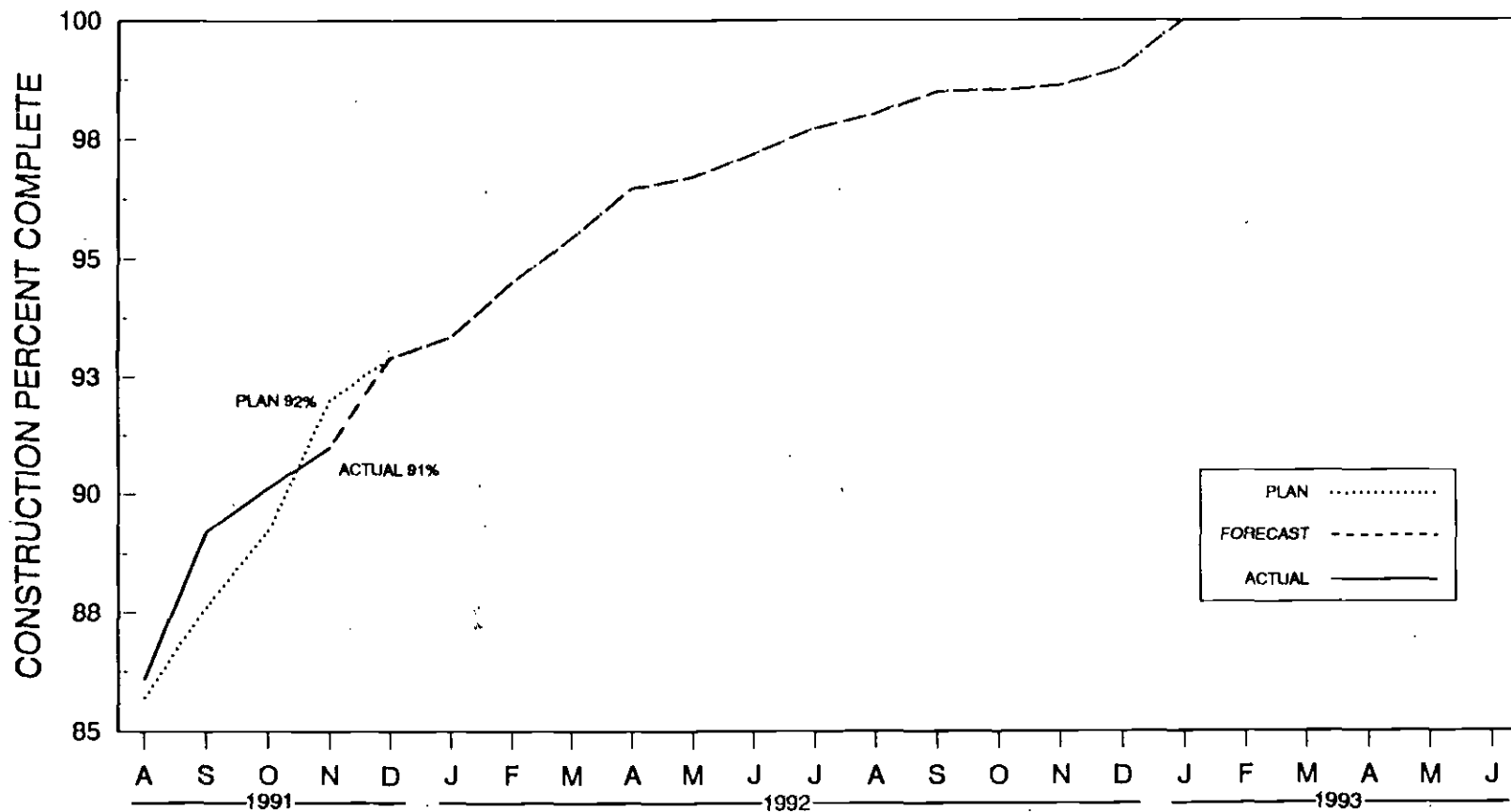
PROJECT CASH FLOW – ANNUAL

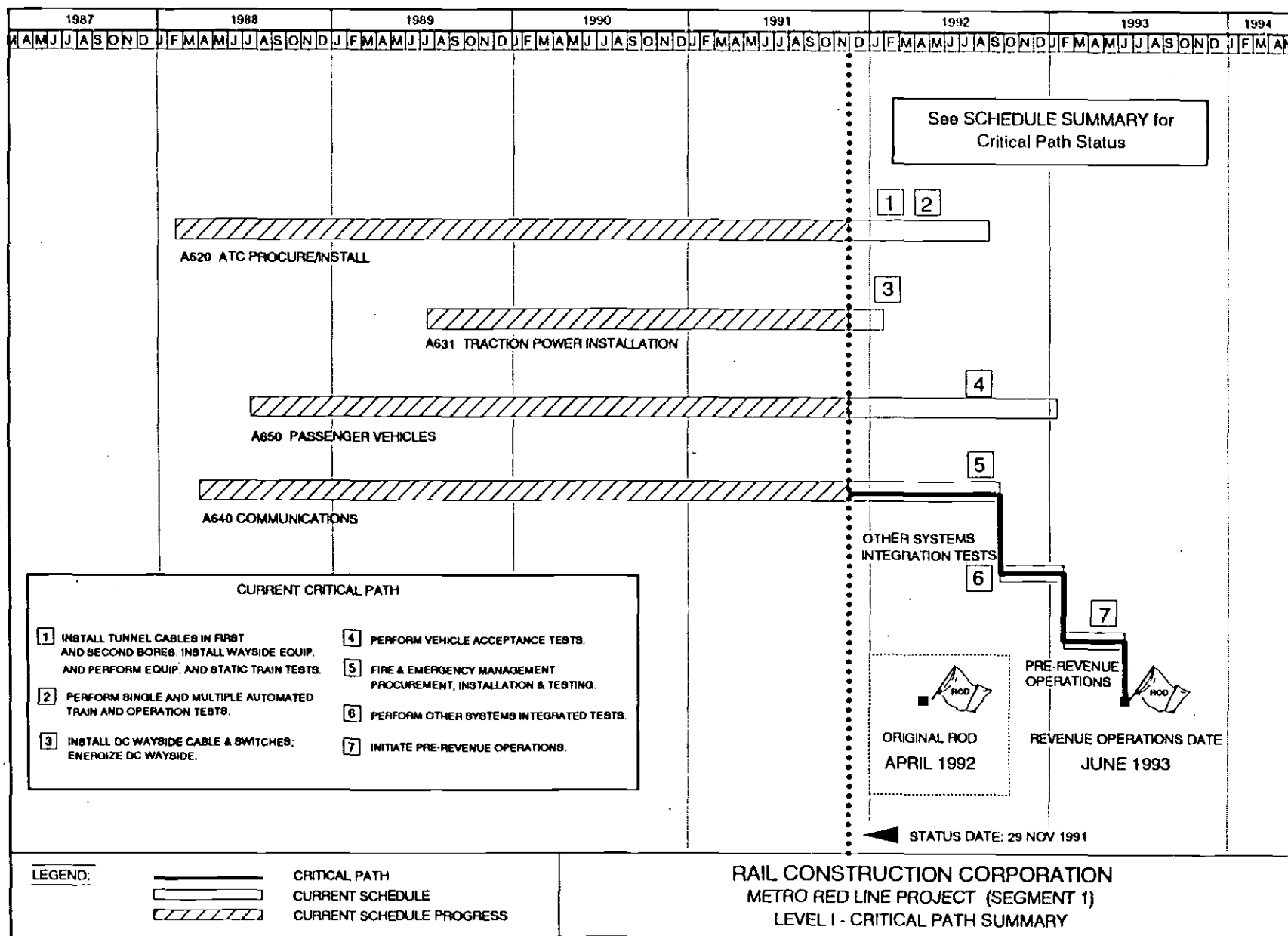


PROJECT CASH FLOW – PROJECT

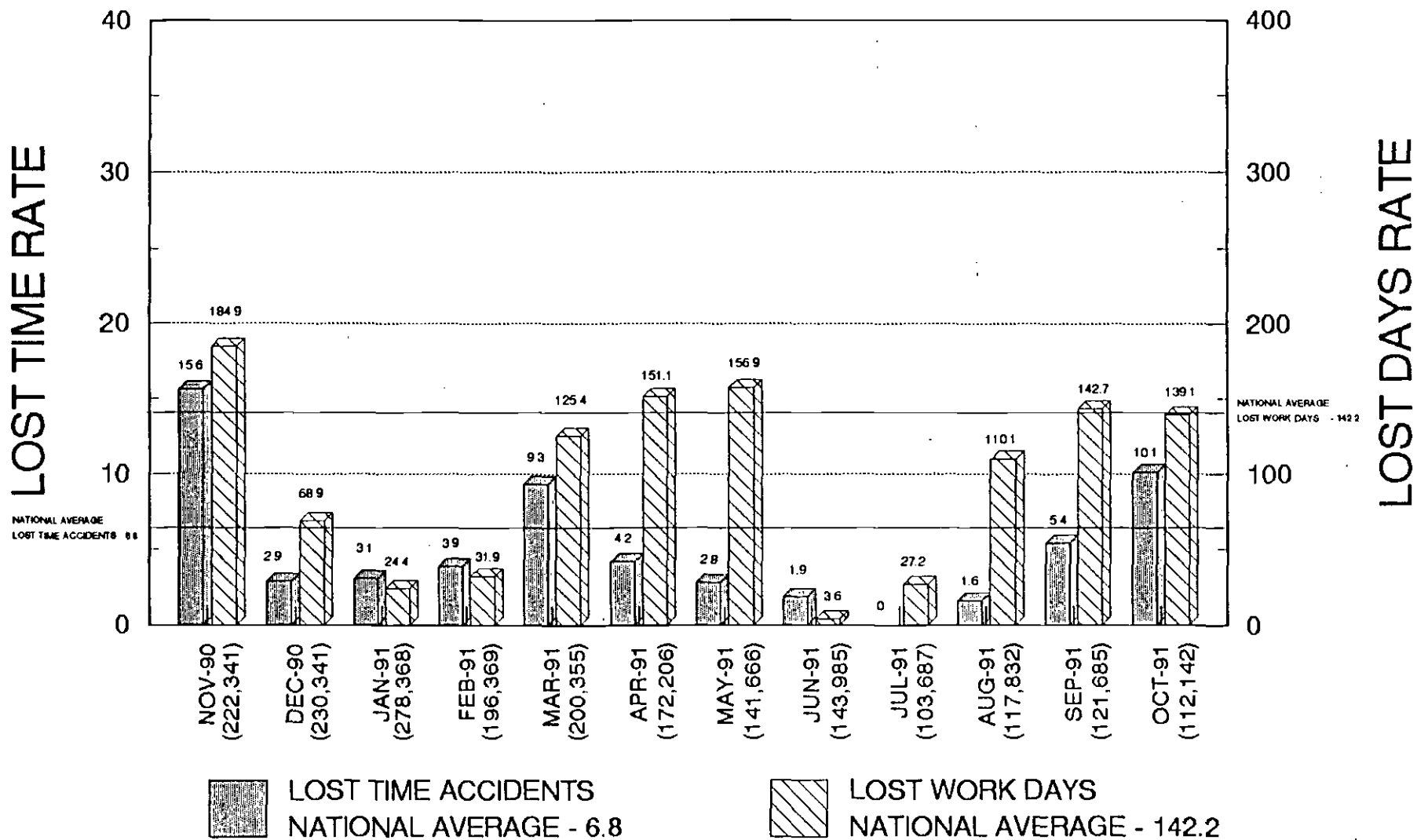


RAIL CONSTRUCTION CORPORATION  
METRO RED LINE SEGMENT 1  
PROGRESS SUMMARY





# METRO RED LINE - SEGMENT 1 SUMMARY OF LOST TIME ACCIDENTS/LOST WORK DAYS MONTHLY INCIDENT RATES



PREPARED BY MTIA - OCTOBER 1991

## INVOICE PROCESSING

- The average time taken to pay invoices for Construction and Procurement contracts (including Insurance) was 19.2 days.

- 23 invoices were paid for a total value of \$ 14,775,750.

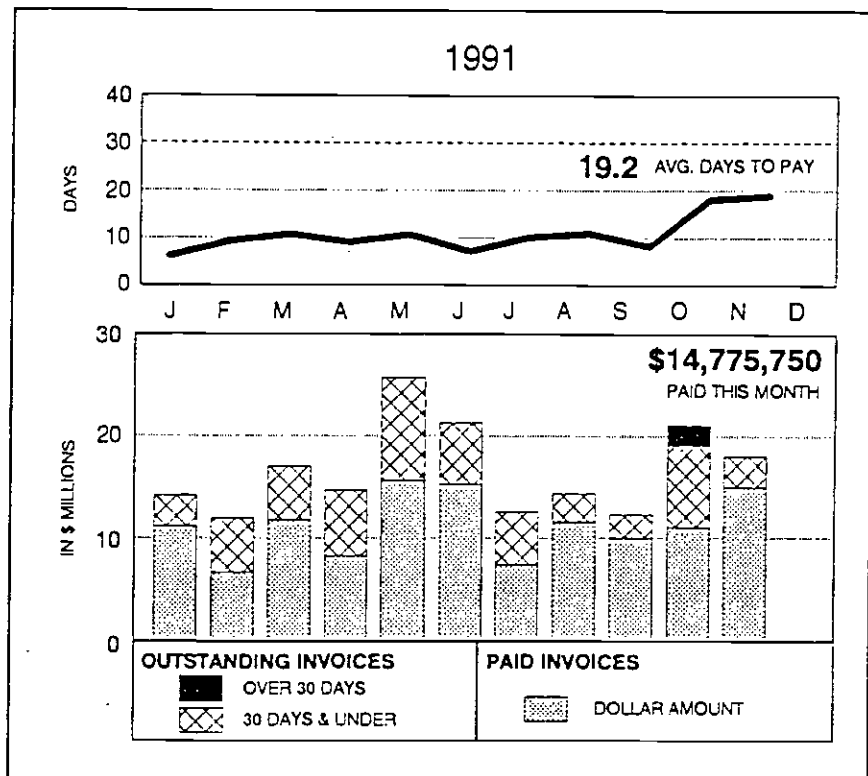
- There were 6 outstanding Construction/ or Procurement invoices under 30 days old for \$ 2,956,345.

- There were 2 outstanding Construction/ or Procurement invoices over 30 days old for \$ 27,063.

- Note Insurance invoices were adjusted to include only those actually due during the current period.

Note: The average days to pay is the time from when the Resident Engineer approves a progress payment (invoice) to when Accounting issues a check for this invoice.

Construction/Procurement Invoice Status



## OUTSTANDING INVOICES

Month	Construction/Procurement Invoices				Other Invoices			
	30 Days and Under		Over 30 Days		30 Days and Under		Over 30 Days	
	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value
JUL 1991	7	5,160,961	0	0	8	145,799	5	808,989
AUG 1991	15	2,780,335	0	0	7	2,083,900	6	1,193,922
SEPT 1991	18	2,302,417	0	0	13	1,769,480	7	1,600,881
OCT 1991	13	7,927,716	10	1,895,120	19	3,487,114	3	798,966
NOV 1991	6	2,956,345	2	27,063	18	2,800,800	4	1,040,811

## EXECUTIVE SUMMARY

### COST STATUS

	in \$ million
• Current Budget	\$1,446.4
• Current Forecast	\$1,446.4
• The Contingency forecast decreased primarily due to the Contract B241, Vermont/Beverly Station, 85% Estimate; General Engineering Line Item Accounting Corrections; Hazardous Material Removal; and Contracts B201, B211, B221, and B231, November Forecast Changes. The decrease is partially offset by the Repackaging of Contract B610, Trackwork, and November, 1991 Schedule Changes Impact on the Cost Forecast.	

### SCHEDULE STATUS

• Current Revenue Operation Date		
Wilshire Corridor	July	1996
Vermont/Hollywood Corridor	September	1998
• Facility Design Progress	- Plan	87%
	- Actual	83%
• Construction Progress	- Plan	6.1%
	- Actual	4.1%

The Construction Progress calculation has been adjusted to remove Contractors' costs for General Requirements, Field Office Setup, Field Office Maintenance, Disputes Review Board, Safety Awareness, and Mobilization. This is a one time adjustment, and has caused this month's "Actual" progress to be less than last month's "Actual" progress.

- The 15 day negative float for the Wilshire Corridor critical path has been mitigated. This is the result of a change in the logic for Integrated Testing. It had been assumed that the RCC Integrated Testing could not start until all the Automatic Train Control dynamic testing at the Wilshire/Alvarado Station was finished. It has been determined that a start-finish logic tie with lag rather than a finish-start logic tie is correct; subsequently, the negative float has been removed.

**REAL ESTATE**

	NUMBER OF PARCELS	NUMBER OF PARCELS AVAILABLE	PARCELS NOT AVAILABLE (ON SCHEDULE)	PARCELS NOT AVAILABLE (BEHIND SCHEDULE)	
				NUMBER	AVG. DAYS BEHIND
THIS MONTH	71	28	34	9	26.1
LAST MONTH	68	26	32	10	40.6

- There are 71 parcels of land required for the Segment 2 Project. The acquisition breakdown follows: 20 full takes, two partial takes, 41 subsurface easements, two surface easements, one temporary construction easement, two leases, and three parcels for the Vermont/Hollywood Tunnel.
- To date, there have been 28 parcels acquired. 13 of these parcels were acquired through condemnation and the remaining 15 were negotiated acquisitions.

**AREAS OF CONCERN****ONGOING****Delay in Real Estate Acquisitions**

**Concern:** Considering the worst case scenario, there are nine parcels which may not be available by their scheduled need dates. This number has decreased by one since last month. Of the nine parcels, two are approved for condemnation and are expected to be available before needed for construction. We intend to seek a shortened period for the Order of Immediate Possession on the other seven parcels and bring them in by the need dates.

**Action:** Maintain schedule to recover negative float.

**Status:** There remains a high probability that almost all parcels will be acquired by the need dates.



**Delay in Design Progress**

- Concern:** While there was some schedule recovery in facility design progress during the reporting period, actual progress continues to be less than planned.
- Action:** MRTC will continue the implementation of the design schedule recovery plans.
- Status:** Section Designers for Contracts B252, B271, and B281 reported marked progress improvements from previous reporting periods. Contract B261 is still on hold; a directive has been received from the RCC, and the Section Designer will be reactivated the first of December, 1991. Contract B241 still does not have final resolution of UPE and BRS termination locations. The overall facility design progress is 83% vs a planned progress of 87%. The variance this period has been reduced to 4%, compared to a 6% variance last period. All facility design packages will be completed so that none of the bid advertise dates will be impacted.

**Wilshire Corridor Revenue Operation Date**

- Concern:** The four major Facility Contracts for the Wilshire Corridor have been awarded to the same contractor. The contractor has indicated intent to use one tunnel shield machine to excavate both tunnel sections. The resultant schedule anticipates tunnel drive rates that were never attained during the Segment 1 construction experience.
- Action:** A contingency plan must be developed and agreed upon with the contractor to help assure that the milestone dates will be met if the anticipated drive rates are not attained.
- Status:** Discussions are ongoing, Parsons-Dillingham has submitted several contingency plans to the RCC for consideration and eventual discussion with the contractor.

One such Contingency plan has been adopted. A Change Notice has been issued to the contractor providing for the purchase of a roadheader attachment for the tunnel shield machine in the event of the contractor tunneling through harder ground than he may have anticipated.

**Blast Relief Shafts Relocation**

- Concern:** In August, the City of Los Angeles required that the Under Platform Exhaust (UPE) and Blast Relief Shafts (BRS) penetrate the surface at locations away from the traveled (vehicle and pedestrian) way.

**Action:** Continue to work with the City Bureau of Engineers and Department of Transportation to find the most cost effective solution to the City's concerns.

**Status:** Contract B252 UPE and BRS terminations have been finalized in the sidewalks adjacent to Vermont. Contracts B241 and B261 shaft termination locations are still under discussion with the DOT and BOE. Along Hollywood Boulevard, Contracts B271, B281 and C301 will probably have terminations located in roadway medians.

### **Noise Mitigation**

**Concern:** The noise level of construction work at Contract B221 has raised complaints from the Hyatt Wilshire Hotel. Without the implementation of noise mitigation measures, construction work could be held up, resulting in possible delays to the contract.

**Action:** Resolution of noise complaints and implementation of noise mitigation measures throughout the Segment 2 construction.

**Status:** Parsons-Dillingham/RCC have implemented noise mitigation measures at Contracts B221 and B231. Steps undertaken include enforcement of noise regulations, site monitoring, review and upgrading of equipment as required, and installation of sound barriers/acoustical enclosures for night work. LADOT now requires noise mitigation plans to be submitted by utility subcontractors. Site specific noise mitigation measures are being identified and will be implemented at each Segment 2 contract work area.

Site specific noise mitigation measures continue to be identified for Contracts B221 and B231 since construction work has shifted to the south side of Wilshire Boulevard. Measures will be implemented in accordance with LADOT and RCC standards and will reflect tenant concerns.

### **GC Contract Negotiations**

**Concern:** The negotiations with the General Consultant for the balance of final design work scope has shown a potential to significantly reduce the Contingency.

**Action:** To reduce cost and operate more efficiently.

**Status:** Negotiations are continuing to refine scope and required staffing.

## UMTA PROJECT MANAGEMENT OVERSIGHT CONSULTANT ITEMS FOR RCC ACTION

The following items reflect action requirements identified in the October Monthly Project Report submitted to UMTA by their Project Management Oversight Consultant, Hill International.

### ONGOING

#### April 1991            Project Procedures

Concern:      Certain project procedures have not been issued.

Action:        Complete and publish remaining policies and procedures.

Status:        Approximately four of the 21 procedures called out in the PMP remain to be completed. The RCC will provide Hill with a list of responsibility and scheduled completion dates.

### NEW

### NONE

### RESOLVED

#### March 1991            Depth of Design Drawing Detail

Concern:      Need to perform an independent evaluation of the optimum level of detail to be incorporated into design to maximize construction cost and time savings.

Action:        Fluor-Daniels has reviewed the B231 drawings to determine the adequacy of design detail. A draft copy of the report has been provided to the PMOC.

Status:        Resolved.

**KEY ACTIVITIES - NOVEMBER**

- Completed excavation of MacArthur Park lake bottom material at Contract B201, Wilshire/Alvarado to Wilshire/Vermont Line. Fifty-one percent of the pocket track structural excavation at MacArthur Park is complete.
- Completed asbestos abatement in three buildings and demolition of the ACLU building at Contract B211, Wilshire/Vermont Station, Stage I construction.
- Identified site specific noise mitigation measures.
- Submitted prefinal packages for review as scheduled for Contract B251, Vermont/Hollywood Tunnel; this Contract has been reconfigured to combine former Contracts B251, B253, B271, and the tunnel portion of C301.
- Continued assembly of the tunnel shield machine at MacArthur Park portal, and lowered the tunnel shield machine into the open cut on November 18, 1991.
- Installed 564 soldier piles to date in the portal and pocket track areas at MacArthur Park (Contract B201), and along the Wilshire Corridor Stations (Contracts B221 and B231).
- Completed transition from Phase I to Phase II traffic control and started installation of soldier piles on the south side of Contract B231, Wilshire/Western Station structure.

**KEY ACTIVITIES - PLANNED FOR DECEMBER**

- Start tunnel excavation at MacArthur Park portal.
- Issue final drawings and specifications on Contract B251 design.
- Complete north pile line installation at Contract B221, Wilshire/Normandie Station, transition traffic, and start south pile line installation.
- Install piles and relocate utilities in Alvarado Street at Contract B201 and Segment 1 Contract A187 interface.
- Resume Section Designer work on Contract B261, Vermont/Sunset Station, after 3 month Stop Work Notice.
- Continue pocket track structural excavation in MacArthur Park area at Contract B201. Make first concrete pour of box structure.
- Complete transition from Phase I to Phase II traffic control and start installation of soldier piles on the south side of Contract B221, Wilshire/Normandie Station and Line.

RAIL CONSTRUCTION CORPORATION  
PROJECT COST REPORT  
COST BY ELEMENT

Project: R81 METRO RED LINE MOS-2

Period: 02-Nov-91 to 29-Nov-91  
Run Date: 13-Dec-91  
Units: Dollars in Thousands

ELEMENT / DESCRIPTION	ORIGINAL BUDGET	CURRENT BUDGET		COMMITMENTS		INCURRED COSTS		EXPENDITURES		CURRENT FORECAST		FORECAST VARIANCE
		PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	PERIOD	TO DATE	
T Construction	893,000	0	905,830	1,705	299,092	8,371	48,987	8,665	41,076	5,711	947,729	41,899
S Professional Services	289,150	0	297,844	(723)	210,909	1,912	75,167	3,149	61,954	1,611	289,156	(8,686)
R Real Estate	79,827	0	76,567	33	43,827	44	37,512	44	37,512	0	89,914	13,347
F Utility/Agency Force Account	36,668	0	18,404	299	5,131	30	1,024	30	1,024	0	24,243	5,839
D Special Programs	2,044	0	2,044	8	339	6	136	6	136	0	13,044	11,000
C Contingency	145,743	0	145,743	0	0	0	0	0	0	(7,322)	82,648	(63,097)
A Project Revenue	0	0	0	0	0	0	(132)	0	(132)	0	(300)	(300)
Project Grand Total:	1,446,432	0	1,446,432	1,322	559,298	10,363	162,694	11,894	141,570	0	1,446,432	0

NOTE: REFER TO APPENDIX FOR REPORT DEFINITIONS.

## STATUS OF FUNDS BY SOURCE

SOURCE	TOTAL FUNDS ANTICIPATED	TOTAL FUNDS AVAILABLE	COMMITMENTS		EXPENDITURES		BILLED TO SOURCE	
			\$	%	\$	%	\$	%
UMTA-SECTION 3	\$887,000	\$329,668 (1)	\$235,877	35%	\$34,242	5%	\$27,644	4%
STATE	\$185,985	\$27,000 (2)	\$77,201	42%	\$25,889	14%	\$0	0%
LACTC	\$439,447	\$70,776	\$195,281	44%	\$36,102	8%	\$37,271	8%
CITY OF L.A.	\$96,000	\$40,000	\$42,867	45%	\$37,265	39%	\$37,265	39%
BENEFIT ASSESSMENT	\$58,000	\$0	\$8,072	14%	\$8,072	14%	\$0	0%
COST OVERRUN ACCOUNT (3)	\$0	\$5,208	\$0	0%	\$0	0%	\$0	0%
BENEFIT ASSESSMENT SHORTFALL (4)	\$0	\$0	\$0	0%	\$0	0%	\$8,072	
TOTAL	\$1,446,432	\$472,652	\$559,298	39%	\$141,570	10%	\$110,252	8%

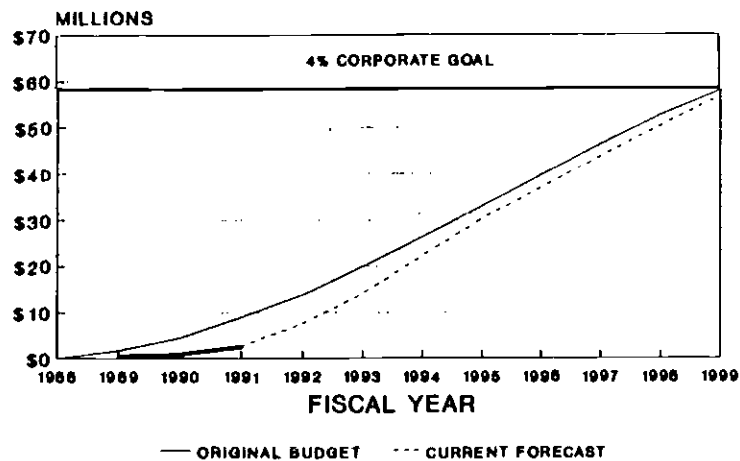
(1) ON JUNE 26, 1991, AN AMENDMENT REQUEST WAS SUBMITTED TO UMTA FOR \$150M FOR FEDERAL SHARE.

(2) STATE FUND TRANSFER AGREEMENT HAS BEEN EXECUTED. BILLINGS TO COMMENCE IN NOVEMBER 1991.

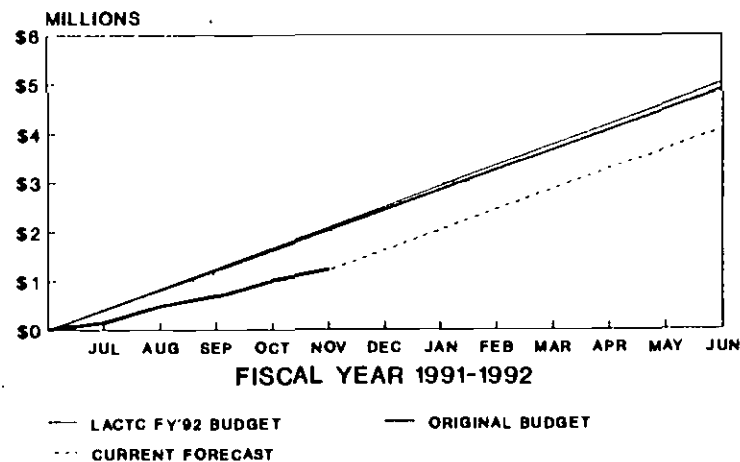
(3) THE COST OVERRUN ACCOUNT INCLUDES CAPRA FUNDS ONLY.

(4) THE CURRENT BENEFIT ASSESSMENT DISTRICT REVENUE SHORTFALL IS BEING FUNDED BY LACTC.

## AGENCY COSTS RED LINE SEGMENT 2



## FISCAL YEAR 1992 AGENCY COSTS RED LINE SEGMENT 2



## PROJECT AGENCY COSTS RED LINE SEGMENT 2 (\$000)

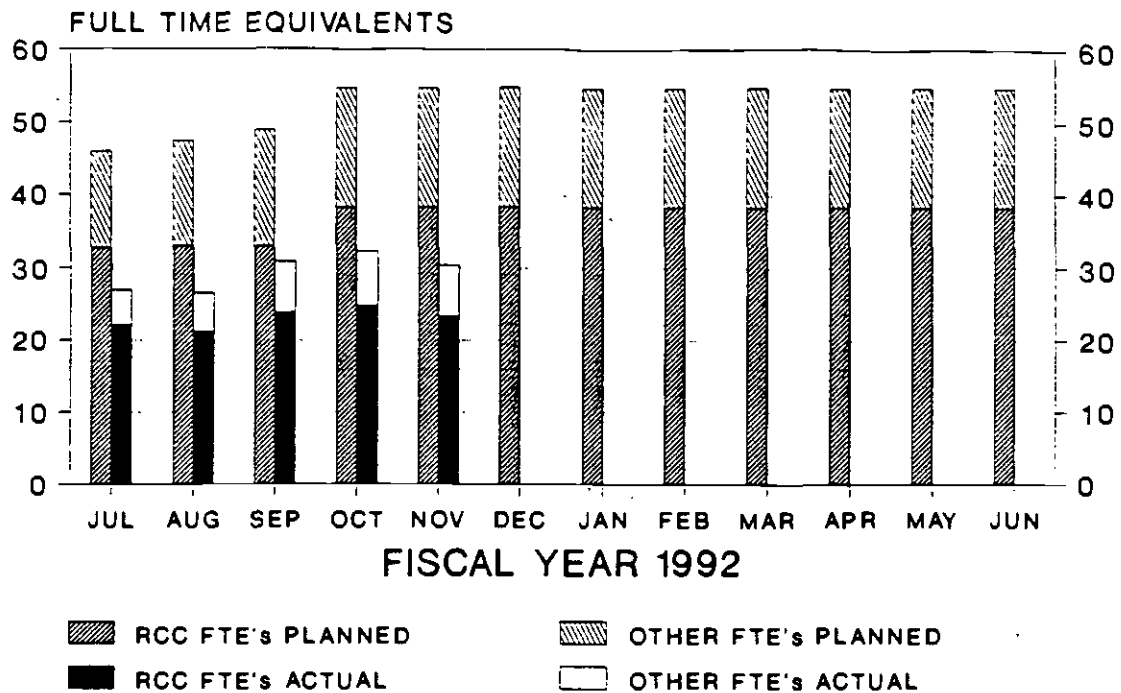
TOTAL PROJECT BUDGET	\$1,446,432
ORIGINAL BUDGET	\$57,840
BUDGET % OF TOTAL PROJECT	4.0%
CURRENT FORECAST	\$56,551
FORECAST % OF TOTAL PROJECT	3.9%

## FISCAL YEAR 1992 AGENCY COSTS RED LINE SEGMENT 2 (\$000)

LACTC FY'92 BUDGET	\$5,021
ORIGINAL BUDGET	\$4,894
CURRENT FORECAST	\$4,086
ACTUAL \$ TO DATE	\$1,223

Current forecast as of September 1991.

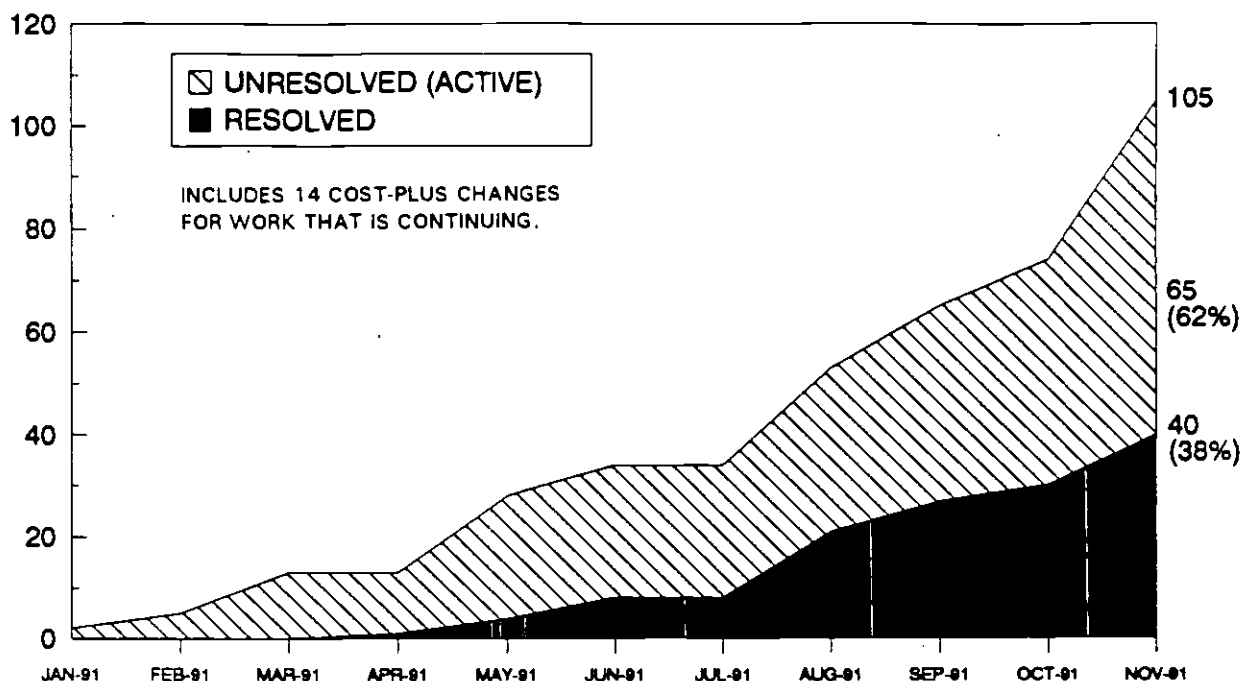
## STAFFING PLAN VS. ACTUAL RED LINE SEGMENT 2



## RED LINE (SEGMENT 2) STAFFING PLAN FISCAL YEAR 1992

BUDGET WAGE RATE (\$/HOUR)	\$40
ACTUAL WAGE RATE (\$/HOUR)	\$47
RCC FTE's PLANNED	38
RCC FTE's ACTUAL	23
OTHER FTE's PLANNED	17
OTHER FTE's ACTUAL	7
TOTAL FTE's PLANNED	55
TOTAL FTE's ACTUAL	30

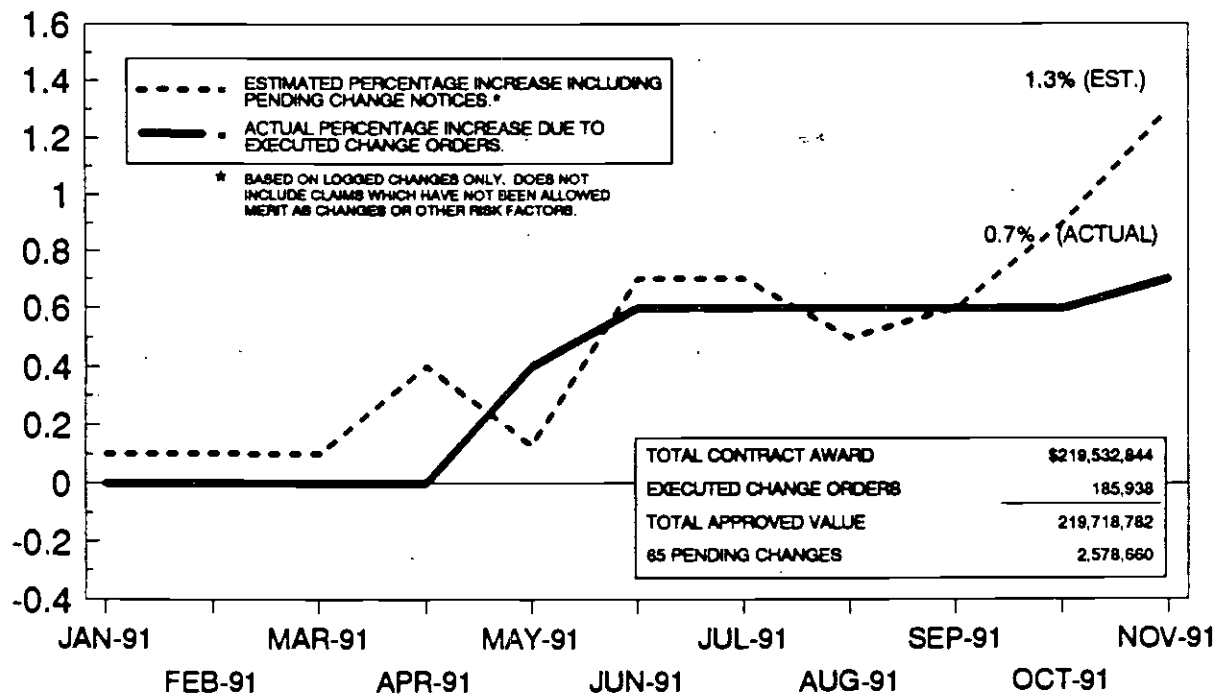
### CONSTRUCTION/PROCUREMENT CONTRACT CHANGES CHANGE NOTICE RESOLUTION



### AGE OF UNRESOLVED CHANGES

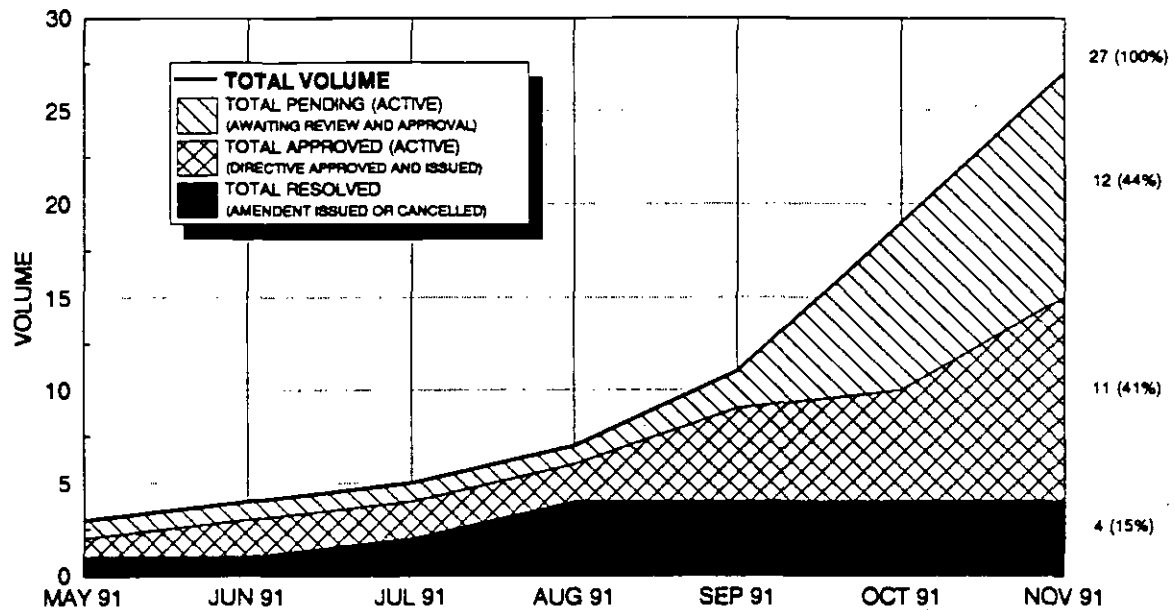
TIME	0-30 DAYS	31-60	61-90	OVER 90	TOTAL ACTIVE
VOLUME	42	4	6	13	65
PERCENT	65%	6%	9%	20%	100%

### CONSTRUCTION/PROCUREMENT CONTRACT CHANGES CHANGE DOLLARS AS A PERCENTAGE OF ORIGINAL CONTRACT AWARD





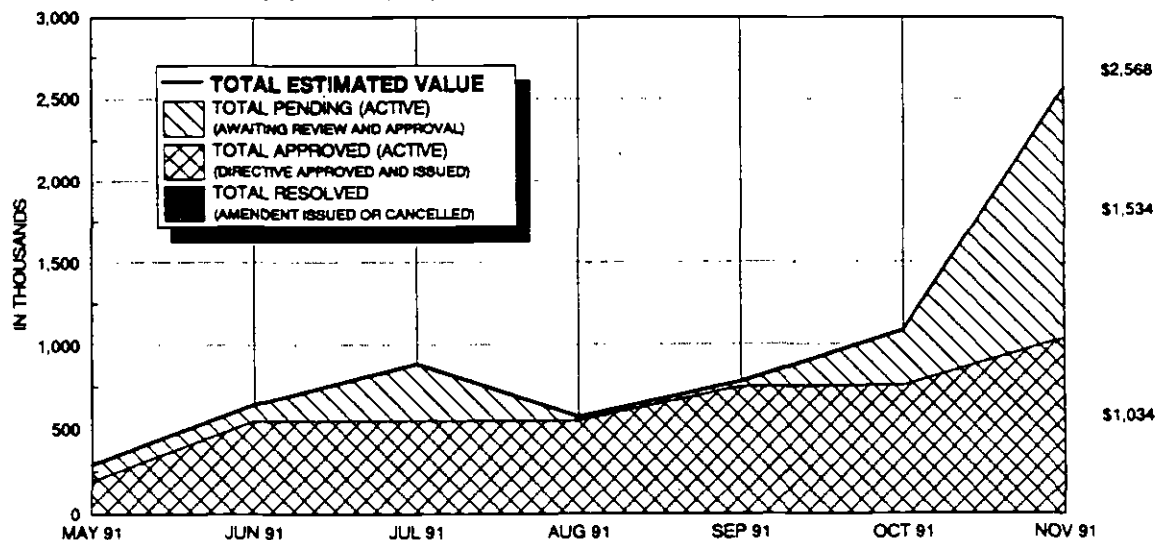
**CONSULTANT CONTRACT CHANGE SUMMARY  
R81 CONSULTANT CHANGE REQUEST RESOLUTION**



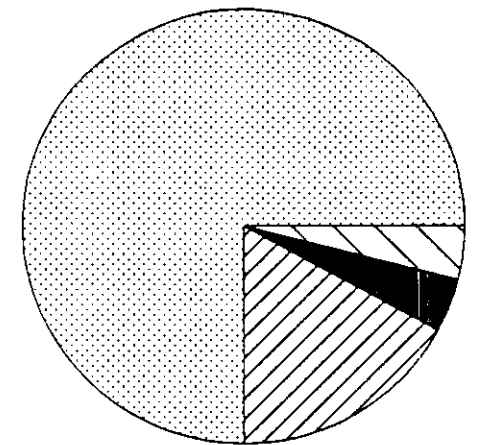
**AGE OF UNRESOLVED CONSULTANT CHANGES**

TIME	0-30 DAYS	30-60 DAYS	61-90 DAYS	OVER 90	TOTAL ACTIVE
VOLUME	8	8	4	3	23
PERCENT	35%	35%	17%	13%	100%

**CONSULTANT CONTRACT CHANGE SUMMARY  
R81 CONSULTANT CHANGE REQUEST VALUES**









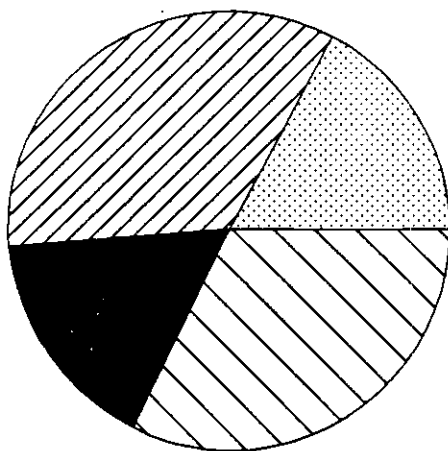
**CONSTRUCTION/PROCUREMENT  
CHANGE VOLUME AND COST BY COST LEVEL  
BASED ON EXECUTED CHANGES AS OF 11/27/91**









CHANGE VOLUME  
TOTAL VOLUME: 24 CO'S (25 CN'S)

**ABSOLUTE VALUES**

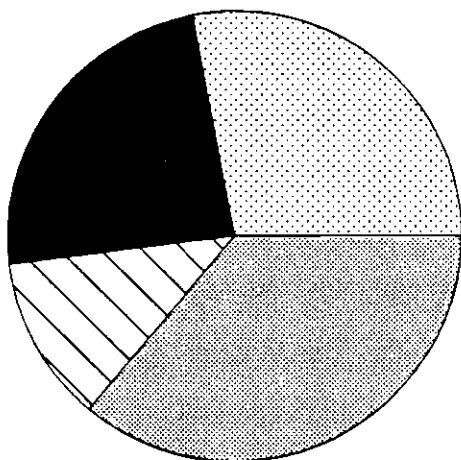
18	75.0%		< \$10,000
4	17.0%		< \$25,000
1	4.0%		< \$50,000
1	4.0%		< \$200,000
0	0.0%		> \$200,000
0	0.0%		> \$1,000,000



CHANGE COST  
TOTAL COST: \$185,938

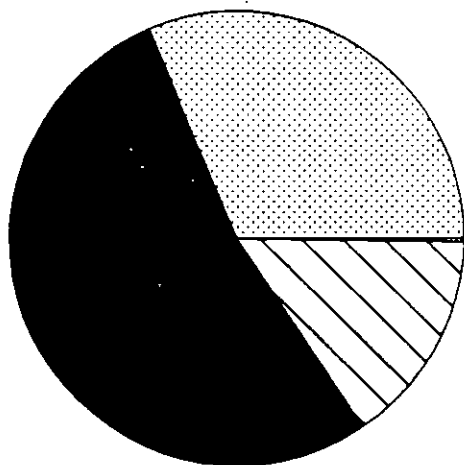
\$32,062	17.2%		< \$10,000
\$63,386	34.1%		< \$25,000
\$30,590	16.5%		< \$50,000
\$59,900	32.2%		< \$200,000
\$0	0.0%		> \$200,000
\$0	0.0%		> \$1,000,000

**CONSTRUCTION/PROCUREMENT  
CHANGE VOLUME AND COST BY CHANGE BASIS TYPE  
BASED ON EXECUTED CHANGES AS OF 11/27/91**



CHANGE BASIS VOLUME  
TOTAL VOL: 25 CN'S (24 CO'S)

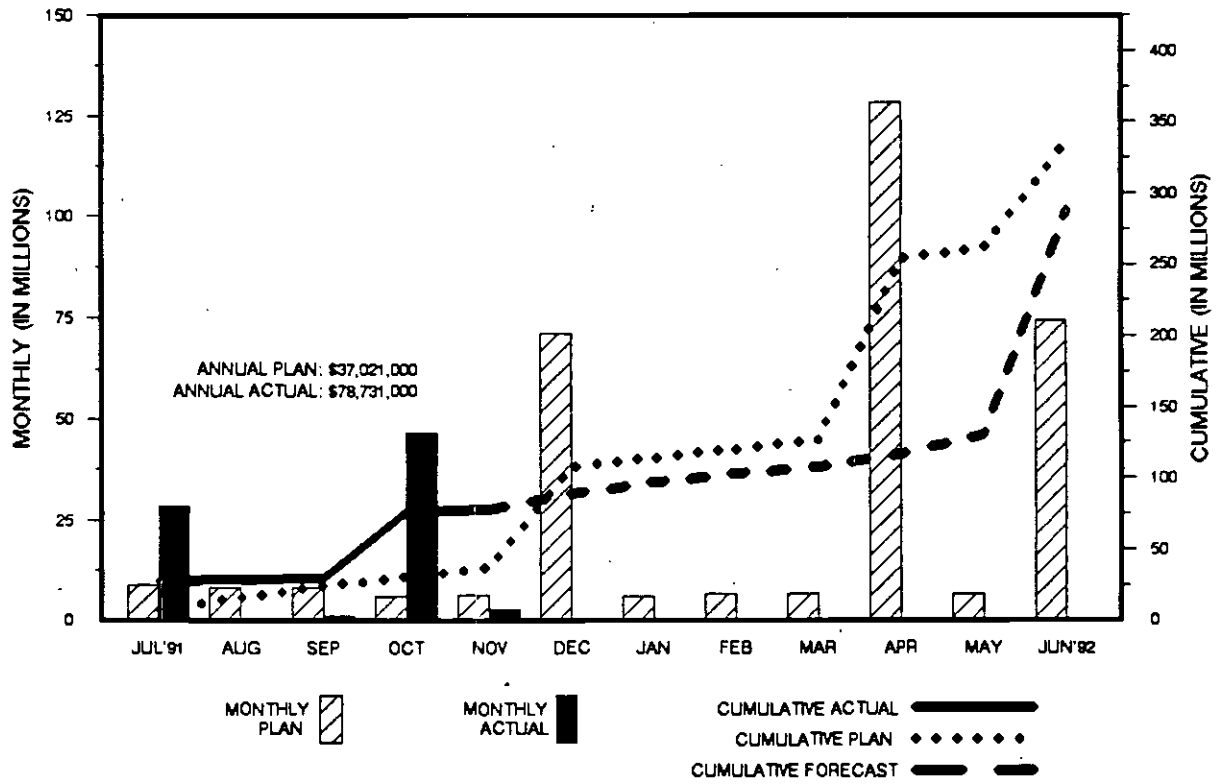
7	28.0%		WORK SCOPE CHANGES
0	0%		SCHEDULE CHANGES
6	24.0%		DIFFERING CONDITIONS
3	12.0%		ADMINISTRATIVE
9	36.0%		DESIGN CHANGES
0	0%		MANAGEMENT ISSUES/CLAIMS
0	0%		UNASSIGNED



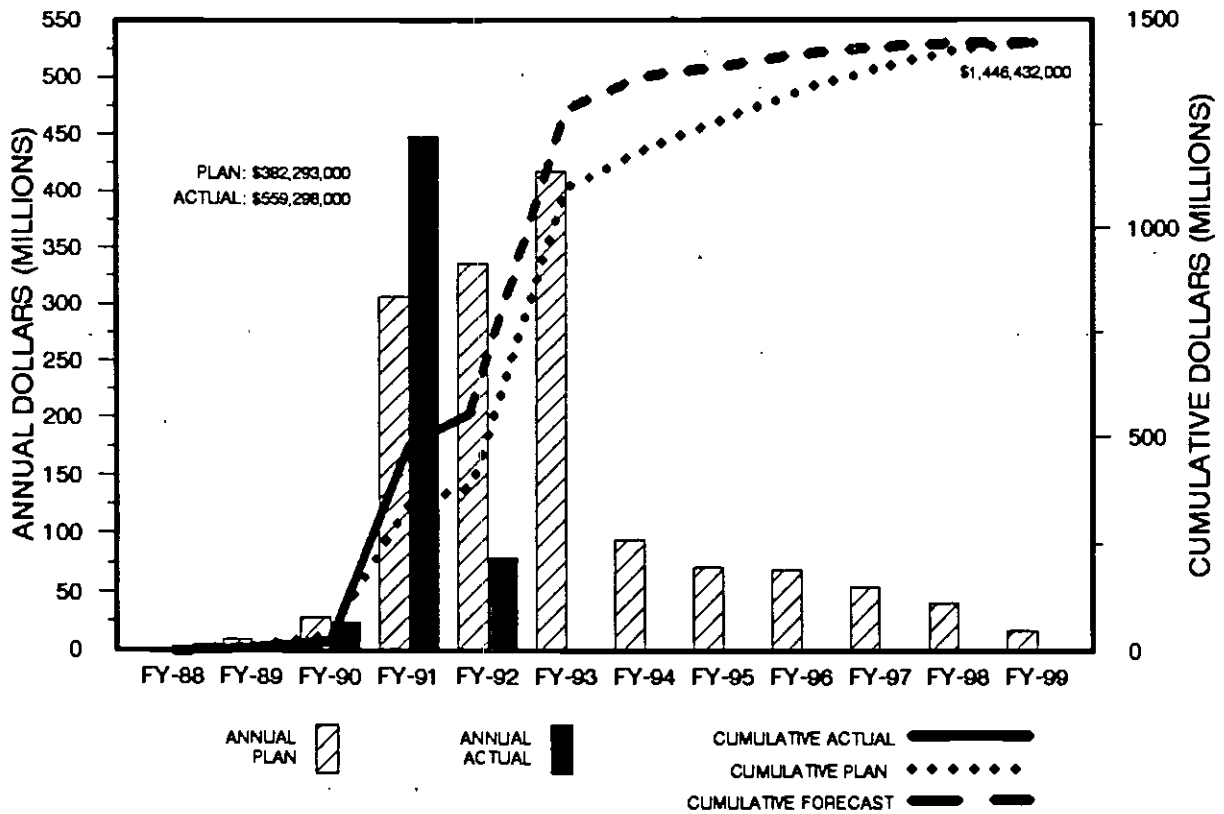
CHANGE BASIS COST  
TOTAL COST: \$185,938

\$58,278	31.3%		WORK SCOPE CHANGES
\$0	0%		SCHEDULE CHANGES
\$98,515	53.0%		DIFFERING CONDITIONS
\$28,590	15.4%		ADMINISTRATIVE
\$555	0.3%		DESIGN CHANGES
\$0	0%		MANAGEMENT ISSUES/CLAIMS
\$0	0%		UNASSIGNED

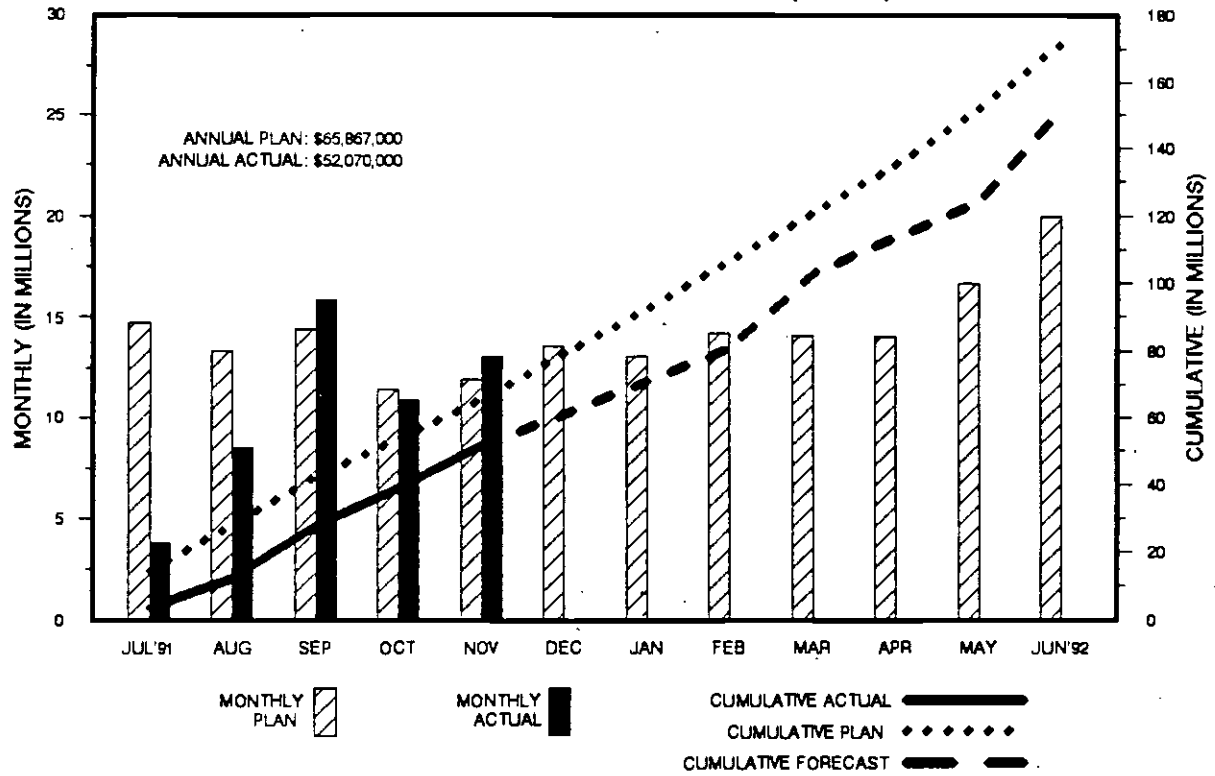
ANNUAL PROJECT COMMITMENTS (FY '92)



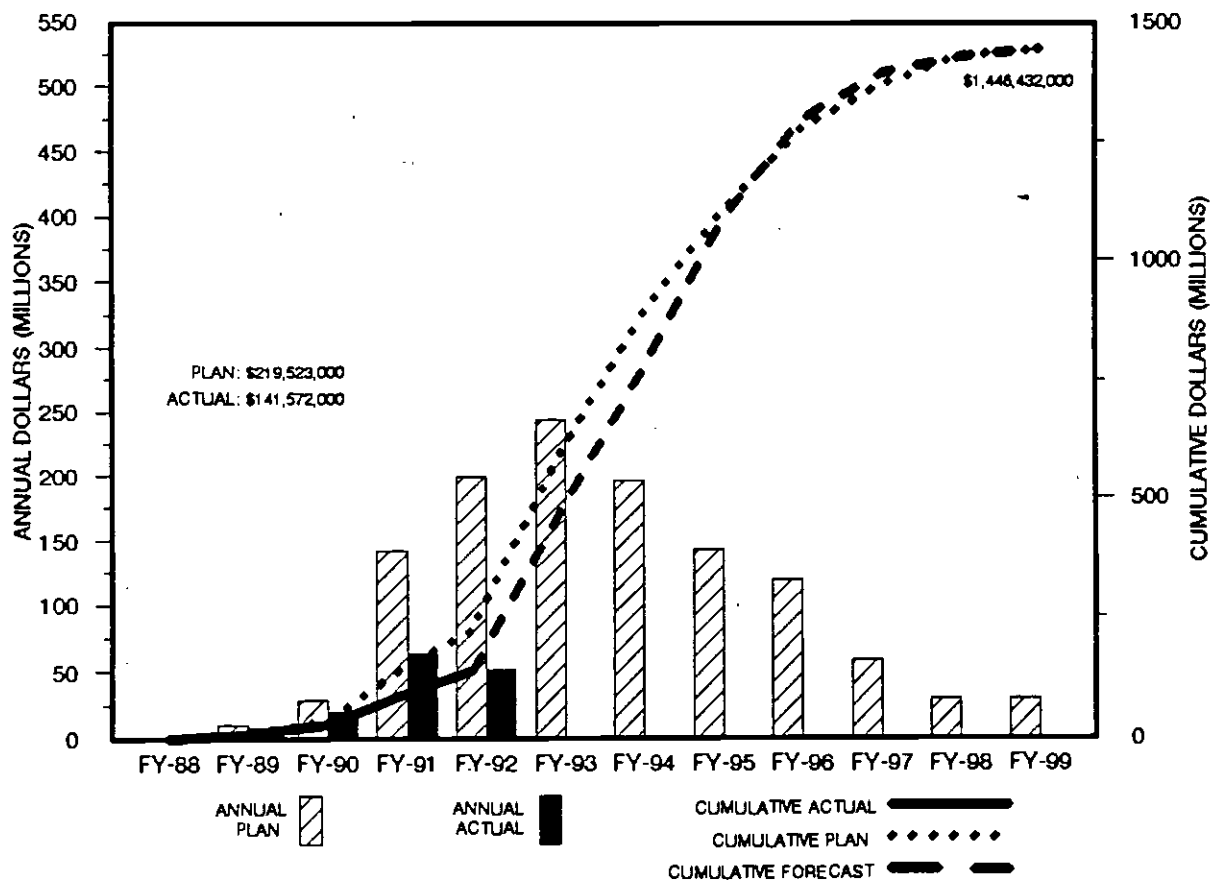
TOTAL PROJECT COMMITMENTS



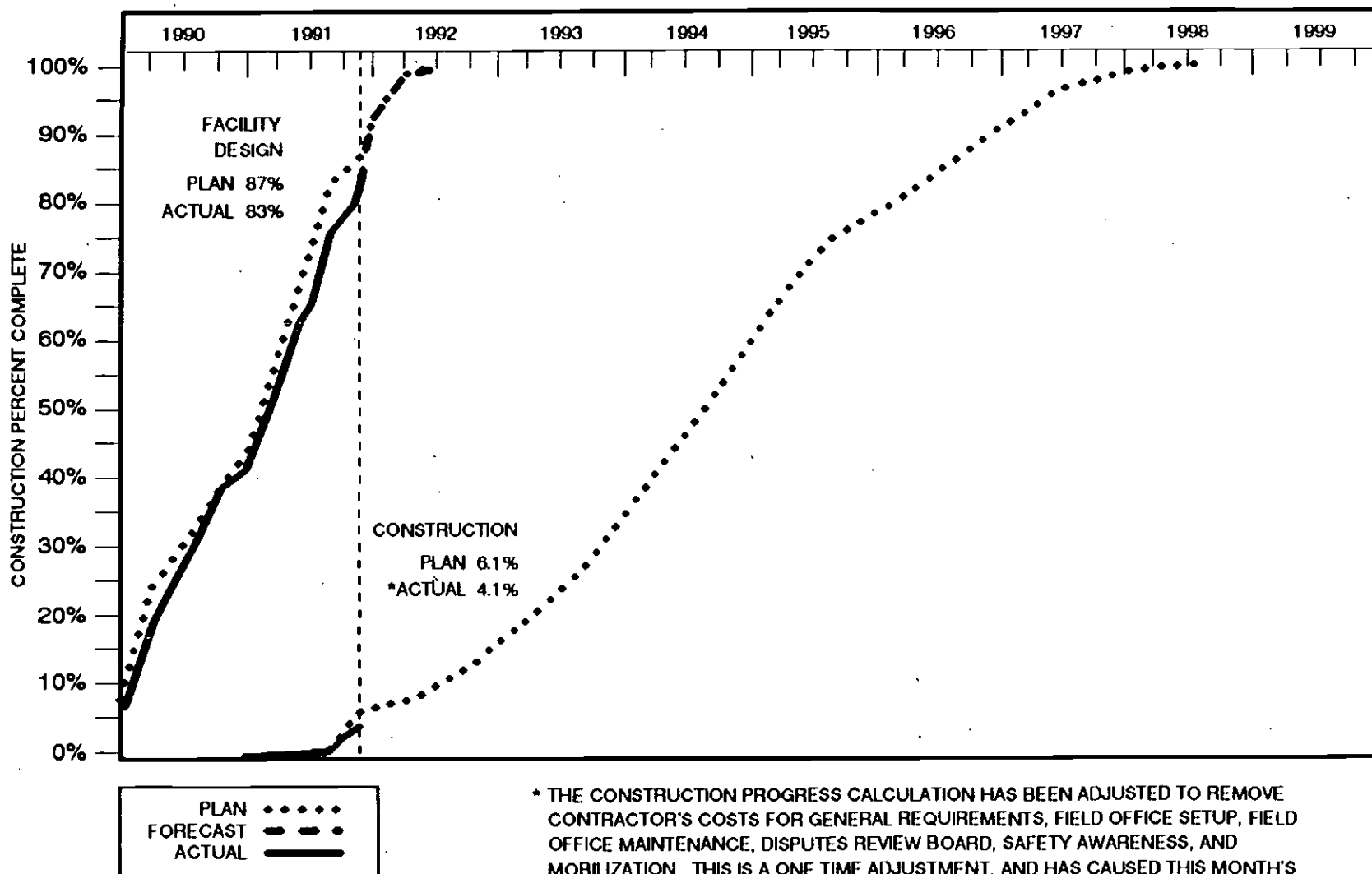
ANNUAL PROJECT CASHFLOW (FY '92)



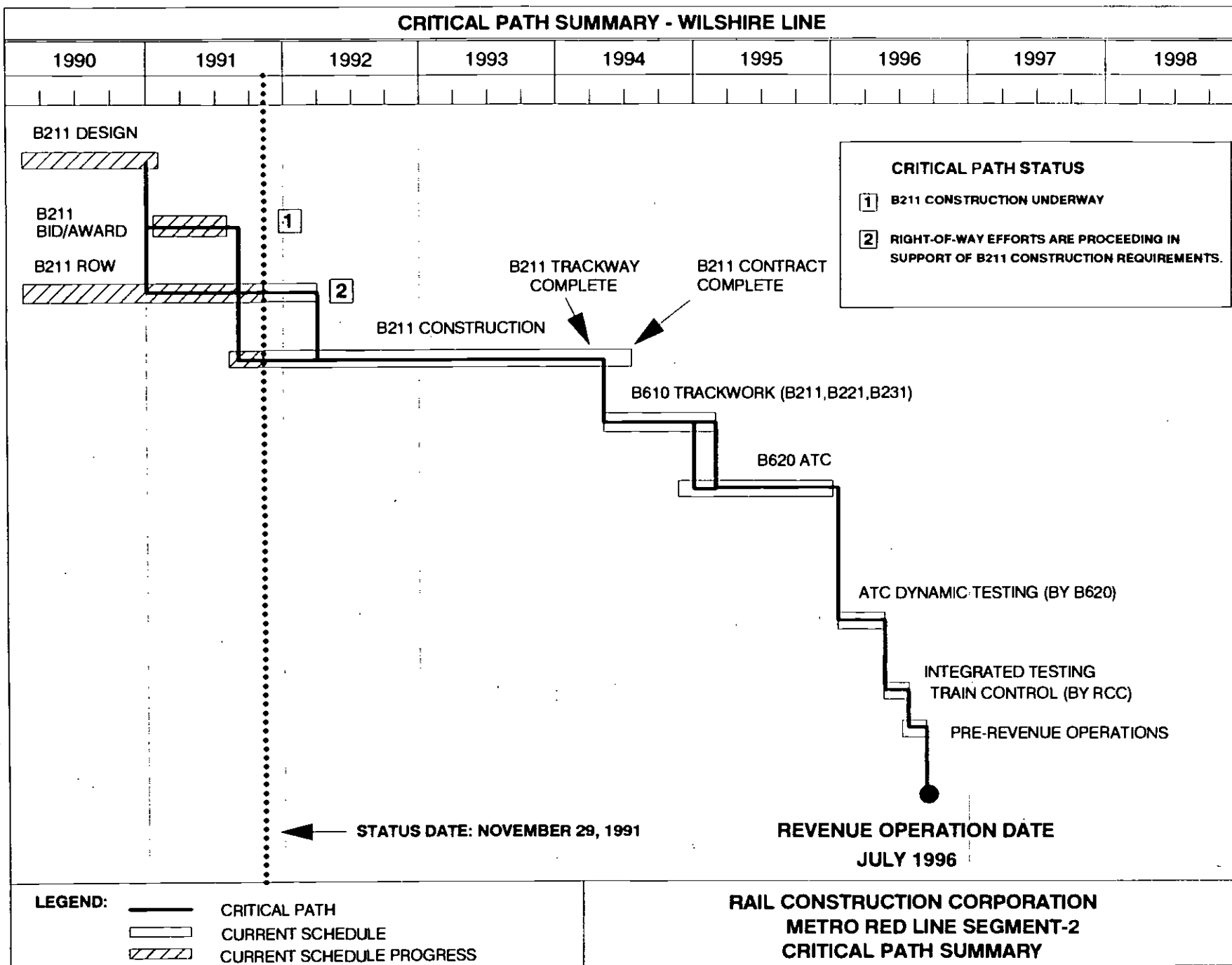
TOTAL PROJECT CASHFLOW



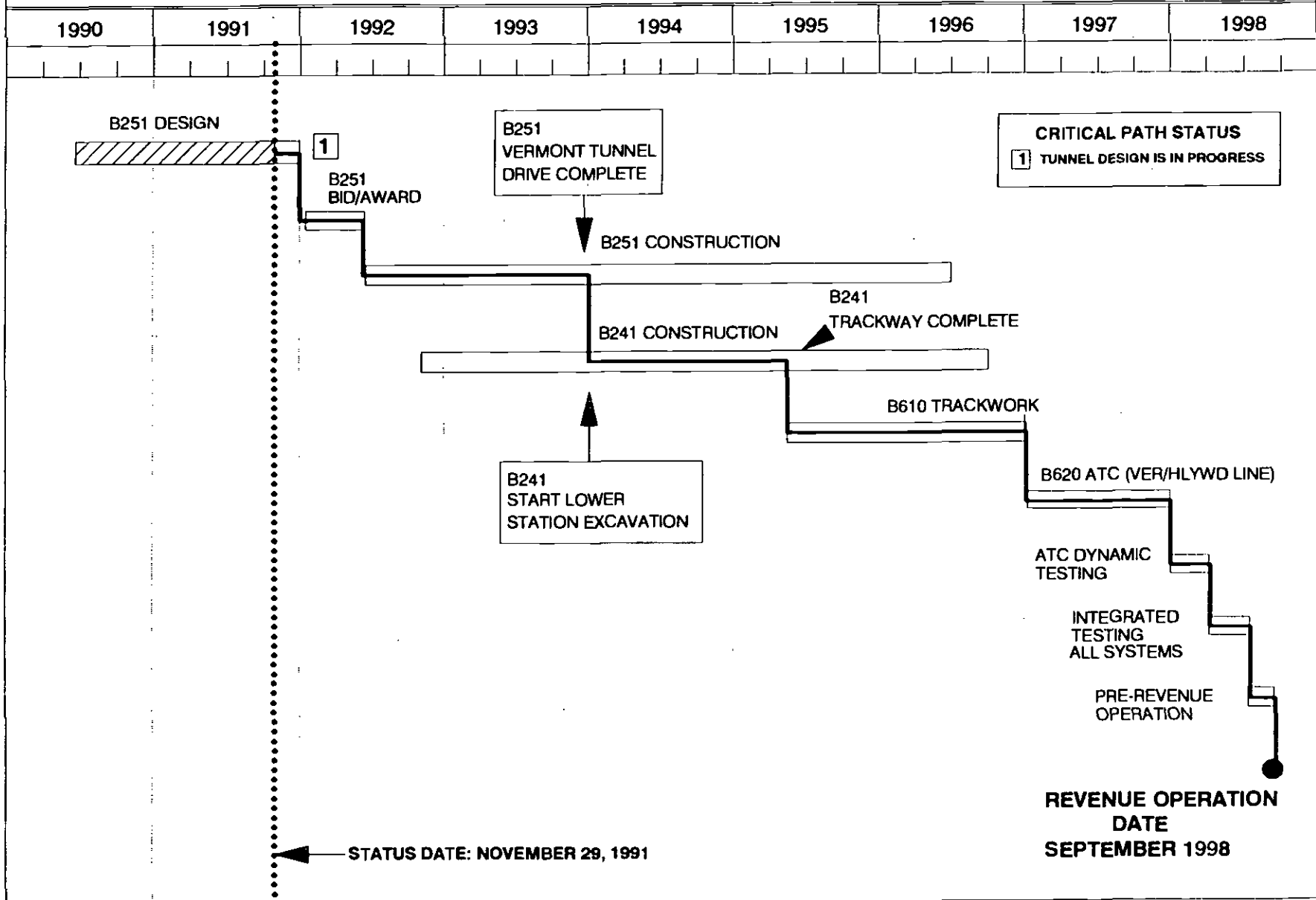
RAIL CONSTRUCTION CORPORATION  
METRO RED LINE SEGMENT 2  
PROGRESS SUMMARY



\* THE CONSTRUCTION PROGRESS CALCULATION HAS BEEN ADJUSTED TO REMOVE CONTRACTOR'S COSTS FOR GENERAL REQUIREMENTS, FIELD OFFICE SETUP, FIELD OFFICE MAINTENANCE, DISPUTES REVIEW BOARD, SAFETY AWARENESS, AND MOBILIZATION. THIS IS A ONE TIME ADJUSTMENT, AND HAS CAUSED THIS MONTH'S 'ACTUAL' PROGRESS TO BE LESS THAN LAST MONTH'S PROGRESS.



# CRITICAL PATH SUMMARY - VERMONT/HOLLYWOOD LINE



**CRITICAL PATH STATUS**  
**1** TUNNEL DESIGN IS IN PROGRESS

**LEGEND:**

- CRITICAL PATH
- CURRENT SCHEDULE
- CURRENT SCHEDULE PROGRESS

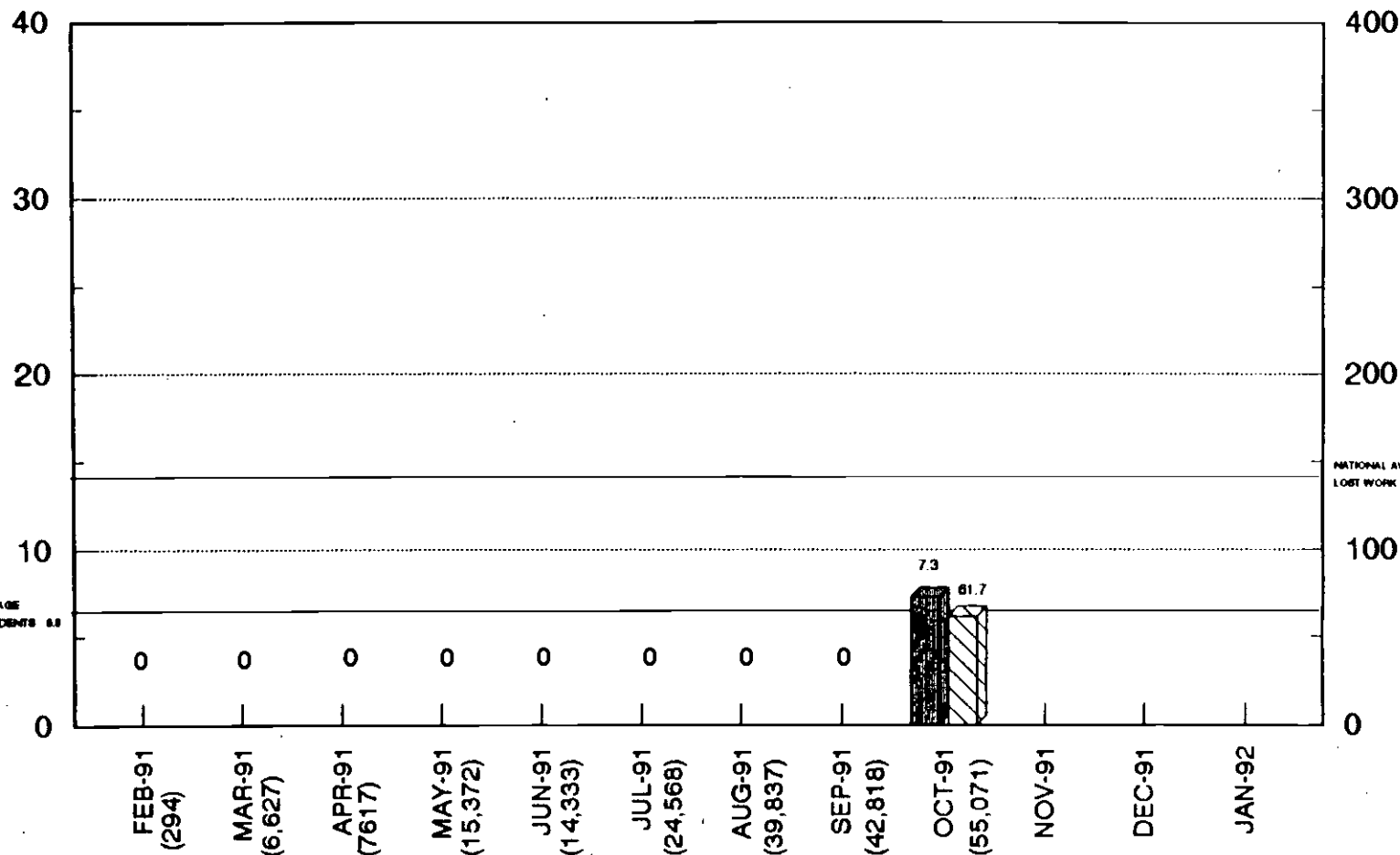
**RAIL CONSTRUCTION CORPORATION**  
**METRO RED LINE SEGMENT-2**  
**CRITICAL PATH SUMMARY**



# LOST TIME RATE

NATIONAL AVERAGE  
LOST TIME ACCIDENTS - 6.8

## METRO RED LINE - SEGMENT 2 SUMMARY OF LOST TIME ACCIDENTS/LOST WORK DAYS MONTHLY INCIDENT RATES



 LOST TIME ACCIDENTS  
NATIONAL AVERAGE - 6.8

 LOST WORK DAYS  
NATIONAL AVERAGE - 142.2

( ) = MONTHLY MANHOURS

PREPARED BY MTIA - OCTOBER 1991

# LOST DAYS RATE

NATIONAL AVERAGE  
LOST WORK DAYS - 142.2

**INVOICE PROCESSING**

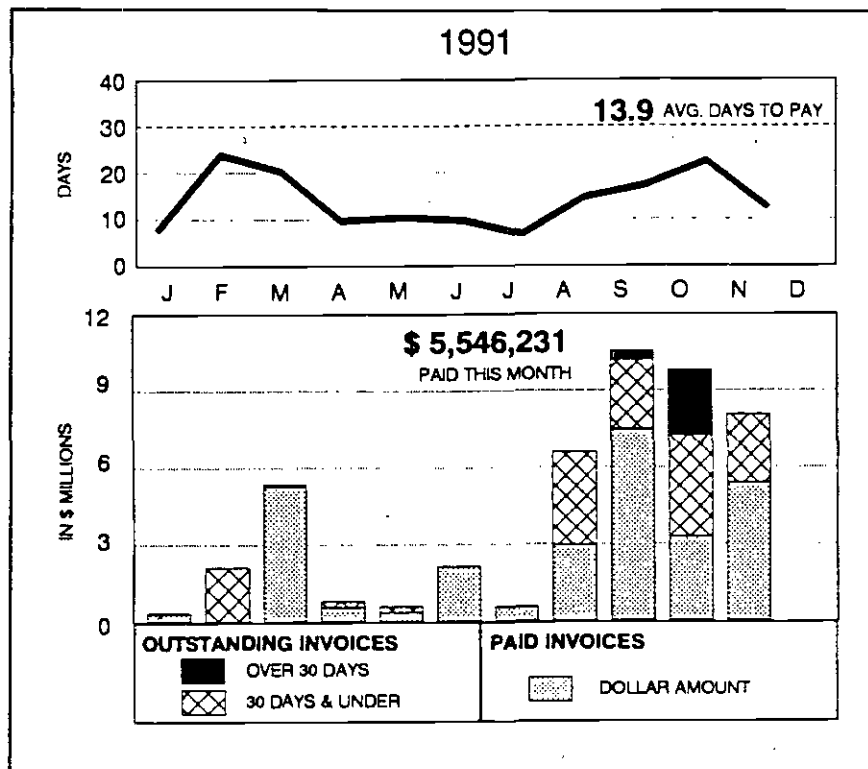
- The average time taken to pay invoices for Construction and Procurement contracts (including Insurance) was 13.9 days.

- 8 invoices were paid for a total value of \$ 5,546,231.

- There were 5 outstanding Construction or Procurement invoices under 30 days old for \$ 2,730,824.

- There were no outstanding Construction or Procurement invoices over 30 days old.

- Note Insurance invoices were adjusted to include only those actually due during the current period.

**Construction/Procurement Invoice Status**

Note: The average days to pay is the time from when the Resident Engineer approves a progress payment (invoice) to when Accounting issues a check for this invoice.

**OUTSTANDING INVOICES**

Month	Construction/Procurement Invoices				Other Invoices			
	30 Days and Under		Over 30 Days		30 Days and Under		Over 30 Days	
	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value	Number of Invoices	Dollar Value
JUL 1991	0	0	0	0	8	102,195	4	51,786
AUG 1991	15	3,713,339	0	0	9	47,266	9	75,300
SEPT 1991	10	2,802,113	6	381,942	11	74,631	11	69,242
OCT 1991	2	4,066,169	10	2,652,385	13	460,418	11	68,236
NOV 1991	5	2,730,824	0	0	17	96,407	12	72,615