

COST AND SCHEDULE

STATUS REPORT

OCTOBER 1984

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

NOVEMBER 1984



METRO RAIL PROJECT PROJECT UNIT INDEX

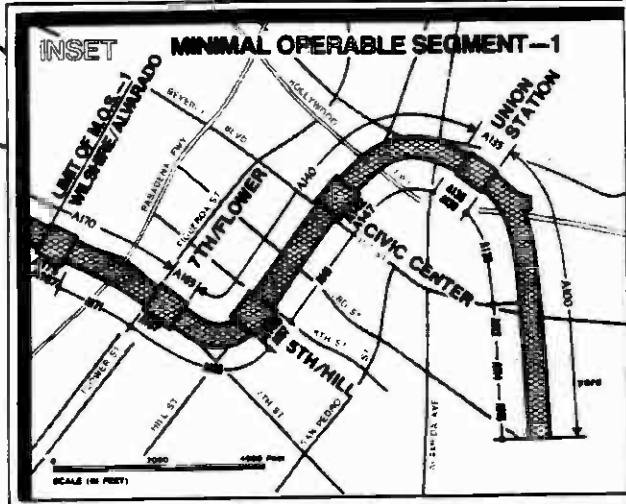
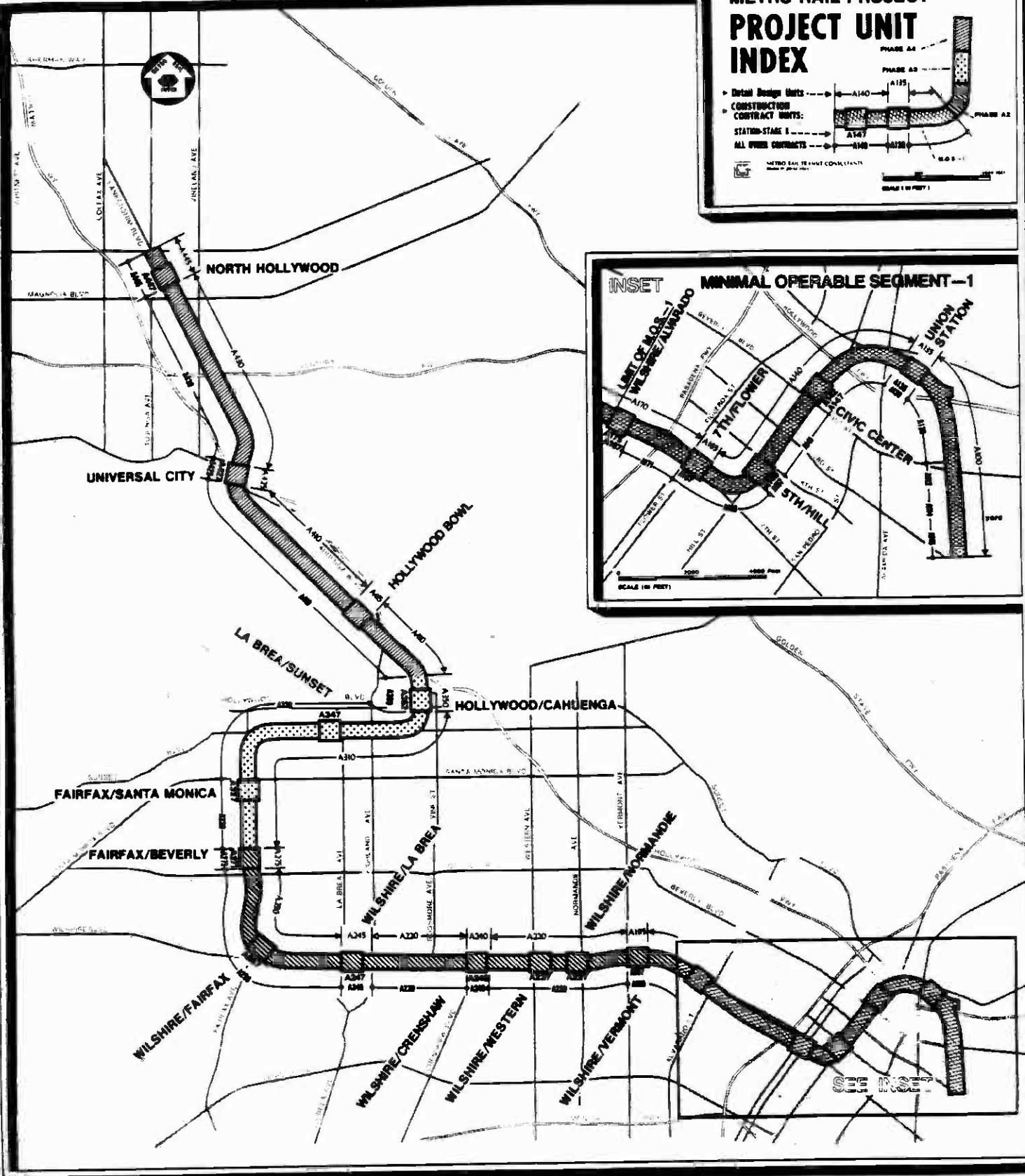


TABLE OF CONTENTS

		<u>Page</u>
I.	BUDGET SUMMARY	
A.	Total Project Status Narrative	3
B.	Total Project Summary by MACS Code	4
C.	Total Project Status Graph	5
D.	Total Project Funding Breakdown	6
E.	Metro Rail Open Professional Services Contracts	7-9
II.	CONTRACT EVALUATION	
A.	Cost	
	(i) Explanation of Terms	12-13
	(ii) Section Designer Evaluation Summary	14
	(iii) Contract Evaluations	
	a) A100	15-18
	b) A135	19-22
	c) A140	23-26
	d) A165	27-30
	e) A170	31-34
	f) Systemwide	35-53
B.	Schedule	
	(i) Project CPM (MOS-1) definition	55
	(ii) Exception Reports	56-57
	(iii) Design Schedule Status	58-63

SECTION I: BUDGET SUMMARY

RTD METRO RAIL PROJECT

STATUS NARRATIVE

OCTOBER 1984

The Total Project Approved Budget is now \$269.473 million; Expenditures to date total \$78.843 million.

The accompanying graph illustrates the planned expenditures of \$186.9 million against the actual expenditures. This variance of \$110 million is primarily due to the late issuance of contract NTP's and the late acquisition of R-O-W properties.

Presently, Preliminary Engineering is complete and Program Control is taking steps to close out Continued Preliminary Engineering.

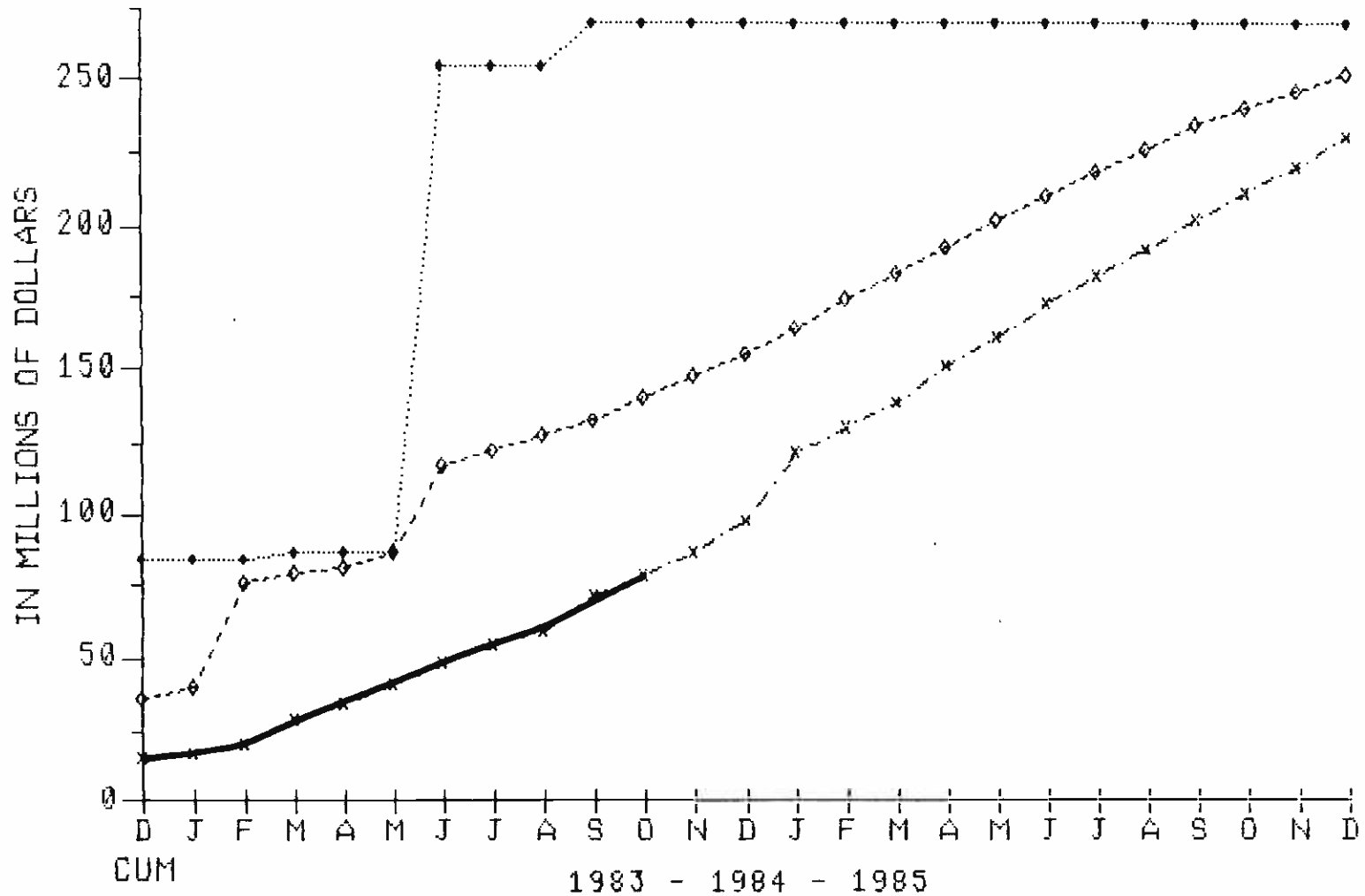
SCRIPD METRO RAIL PROJECT
TOTAL PROJECT BUDGET
SUMMARY BY MACS CODE (5000's)
STATUS AS OF: 10/31/84

AFE	(MACS CODE) DESCRIPTION	UNOBLIGATED			OBLIGATIONS TO DATE			APPROVED BUDGET (7)	DRAW DOWN FROM CONTINGENCY (8)	REVISED BUDGET (9=3+6)
		RESERVED (1)	COMMITTED (2)	TOTAL (3=1+2)	UNEXPENDED (4)	EXPENDED (5)	TOTAL (6=4+5)			
02101	(20.02.01) Purchase of Support Autos	\$ 30	\$ - 0 -	\$ 30	\$ - 0 -	\$ - 0 -	\$ - 0 -	\$ 30	\$ - 0 -	\$ 30
02102	(20.02.02) Purchase/Installation of Support Equipment	1,239	- 0 -	1,239	125	126	251	1,490	- 0 -	1,490
02108	(20.02.07) Purchase/Installation of MIS Equipment	177	- 0 -	177	823	- 0 -	823	1,000	- 0 -	1,000
02109	(20.02.08) Purchase/Installation of Communications Equipment	100	- 0 -	100	- 0 -	- 0 -	- 0 -	100	- 0 -	100
04501	(20.06.10) Yard & Shops Acquisition (CALTRANS)	30,805	- 0 -	30,805	34	161	195	31,000	- 0 -	31,000
04502	(20.06.10) Yards & Shops Acquisition (LACTC)	1,630	- 0 -	1,630	- 0 -	- 0 -	- 0 -	1,630	- 0 -	1,630
02110	(20.06.10) Right-of-Way	77,644	- 0 -	77,644	- 0 -	219	219	77,863	- 0 -	77,863
02103	(20.08.01) Professional Services Contracts for Eng. & Design	792	896	1,688	47,490	65,775	113,265	114,953	- 0 -	114,953
02111	(02.08.02) Professional Services Contracts for Constr. Mgmt.	2,410	- 0 -	2,410	5,566	1,024	6,590	9,000	- 0 -	9,000
02112	(20.11.01) Owner Controlled Insurance	3,106	- 0 -	3,106	894	- 0 -	894	4,000	- 0 -	4,000
02104	(20.15.02) Force Account Work	1,586	- 0 -	1,586	- 0 -	5,560	5,560	7,146	- 0 -	7,146
02106	(20.16.00) General & Administrative	289	- 0 -	289	2	398	400	689	- 0 -	689
02105	(20.16.90) Other Supporting Services	598	- 0 -	598	- 0 -	2,152	2,152	2,750	- 0 -	2,750
02107	(32.00.00) Contingencies	3,062	- 0 -	3,062	- 0 -	- 0 -	- 0 -	3,062	- 0 -	3,062
02114	(41.00.00) Revenue Financing	- 0 -	- 0 -	- 0 -	- 0 -	<3,688>	<3,688>	- 0 -	- 0 -	<3,688>
02115	(41.00.00) Revenue Financing	- 0 -	- 0 -	- 0 -	- 0 -	2,138	2,138	- 0 -	- 0 -	2,138
05401	(10.06.90) Advanced Land Acquisition	9,782	- 0 -	9,782	- 0 -	4,978	4,978	14,760	- 0 -	14,760
GRAND TOTAL		\$ 133,250	\$ 896	\$ 134,146	\$ 54,934	\$ 78,843	\$ 133,777	\$ 269,473*	\$ - 0 -	\$ 267,923**

* Does not include unmatched funds of \$ 31,284. (\$25,484 UMTA; \$1,000 State; \$4,100 LACTC; \$700 City)

** Includes income credit from Revenue Financing

RTD METRO RAIL PROJECT
 TOTAL PROJECT STATUS
 OCTOBER 1984



- * - FORECAST
— ACTUALS
--◇-- PLANNED EXPENDITURES
..... CAPITAL GRANT FUNDS

SCRTD METRO RAIL PROJECT

FUNDING BREAKDOWN

Funding Increment	FUNDING SOURCE					TOTAL
	UMTA Section 3	UMTA Section 9	State Article XIX	LACTC STAF	City of LA STAF	
Continued Preliminary Engineering, Phase I (9/82)	\$ 15,000,000	\$ -0-	\$ 2,812,500	\$ 937,500	\$ -0-	\$ 18,750,000
Continued Preliminary Engineering, Phase II (4/83)	\$ 25,000,000	-0-	\$ 5,503,000	\$ 2,830,000	-0-	\$ 33,333,000 (1)
SUB-TOTAL Continued Preliminary Engineering	\$ 40,000,000	\$ -0-	\$ 8,315,500	\$ 3,767,500	\$ -0-	\$ 52,083,000
Acquisition of Santa Fe Rail Yard (2/83)	\$ -0-	\$ -0-	\$ 31,000,000	\$ 1,630,000	\$ -0-	\$ 32,630,000
Advanced Land Acquisition (9/83)	\$ -0-	\$ 14,760,000	\$ -0-	\$ -0-	\$ -0-	\$ 14,760,000
Pre-Construction (5/84)	\$ 105,400,000	\$ -0-	\$ 24,400,000	\$ 33,900,000	\$ 6,300,000	\$ 170,000,000 (2)
Funds Available For Future Use/Match	\$ -0-	\$ 25,483,720	\$ 3,000,000	\$ 4,100,000	\$ 700,000	\$ 33,283,720 (3)
TOTAL, ALL GRANT ALLOCATIONS	\$ 145,400,000	\$ 40,243,720	\$ 66,715,500	\$ 43,397,500	\$ 7,000,000	\$ 302,756,720

- (1) Share ratio changes from 80% Federal/20% State and Local to 75% Federal/25% State And Local.
- (2) Local shares are tentative and include revenue financing.
- (3) These funds are currently not matched to an UMTA grant.

RTD METRO RAIL PROJECT
OPEN PROFESSIONAL SERVICES CONTRACTS

10/31/84

<u>AUDIT #</u>	<u>CONTRACT</u>	<u>\$</u> <u>BUDGET</u>
I. Transit Facilities		
2284-5	Lindvall Richter (Geotech. II)	480,900
3138	City of Los Angeles (Master Agreement)	693,000
3058	Los Angeles County Museum	24,500
3172	Pacific Bell	156,000
3301	CALTRANS	2,553,000
3237	Western Union Telegraph	49,000
3262	Dr. N.J. Maloney	1,500
3211	Eugene Stann	7,000
3351	John Gordon	20,000
3320	Julia Brown	20,000
3323	Alan Sieorty	20,000
3464-A	Dept. of Water & Power - Water Section	90,000
3173-A	Dept. of Water & Power - Power Section	360,000
2160-6	Barton Aschman	161,700
2611-3	County of Los Angeles (Staff Asst.)	229,300
2274	Carl Englund	14,153
3212	W.H. Patterson	7,000
3520	Southern California Gas Co.	45,000
3480	O'Brien & Kreitzberg	24,900
		\$ 4,956,953
	Sub-Total	

II. Systems Design & Analysis

3394	MIDCOM	10,000
3282	SRI International	19,985
3090-1	Cons. Fire Prot. District	103,286
3136-1	Booz-Allen & Hamilton	1,499,031
3170-1	Mellon Institute	24,900
3371	COMMUNICOM	7,500
2218	Commission de Transport	5,000
2217	Walter Woods	1,020
		\$ 1,670,722
	Sub-Total	

RTD METRO RAIL PROJECT
 OPEN PROFESSIONAL SERVICES CONTRACTS
 (CONT.)

10/31/84

<u>AUDIT #</u>	<u>CONTRACT</u>	<u>\$</u> <u>BUDGET</u>
III. Planning		
3010-1	Community Redevelopment Agency	542,000
3137	City of Los Angeles (Station Dev.)	573,000
3254-2	Schimpeler - Corradino	927,213
2900-2	Schimpeler - Corradino	151,000
3328	CMB Communications	2,500
	Sub-Total	\$ 2,195,713
IV. Real Estate		
A. Yard & Shops Acquisition		
2963	AT & SF Railway	64,000
3033	Lea Associates	50,000
3102-1	Robert Swanson	22,500
	Sub-Total	\$ 136,500
B. Other Real Estate		
3116	Chicago Title Insurance	50,000
3175	TICOR Title Insurance	75,000
3379	Joseph Gary	10,000
3357	Business Valuation Services	8,500
3461	Leon Beliaevsky	6,450
3462	James Himes	6,250
3209	Arthur Anderson	1,550
3463	R.P. Laurain	7,500
2930	Lincoln Inst. of Land Policy	24,500
3407	Olof Olsen	5,250
3408	Edward Reilly	7,000
3522	Carl M. Lau	1,000
2210-4	R. H. Flavell & Assoc.	71,036
3189-2	Joseph Gary	10,026
3479	Marshall & Stevens	1,900
3523	Thomas Scalora	6,000
3485	Appraisal Engineering Co.	4,050
3477	Marshall & Stevens	6,000
3461	Leon Beliaevsky	6,450
3430	Eugene Gutierrez	2,200
3431	Jack Jue	3,000
3484	Robert Swanson	2,750
3483	Norman Eichel	13,250

RTD METRO RAIL PROJECT
 OPEN PROFESSIONAL SERVICES CONTRACTS
 (CONT.)

10/31/84

<u>AUDIT #</u>	<u>CONTRACT</u>	<u>\$</u> <u>BUDGET</u>
3482	Donahue & Co.	15,000
3478	John Wright	7,500
3487	Merrill Lynch Appraisal	5,000
3464-A		<hr/>
	Sub-Total	\$ 357,212

V. Legal

2910-4	NMBW & M	115,000
2943	O'Melveny & Myers	100,000
		<hr/>
	Sub-Total	\$ 215,000

VI. Misc. Contracts

3065	David Ashley	7,000
3030	Dillon Read & Co.	24,900
3054	Haverson International	24,900
2499	Barton-Aschman	4,121
2430	Bureau de Transit Metro	2,187
2940	Steve Mertz (U.S.C.)	5,000
2776	U.S.C.	4,320
3506	California Newspaper Service Bureau	105,000
		<hr/>
	Sub-Total	\$ 177,428

VII. General Consultant

2967	MRTC	106,425,960
		<hr/>
	Sub-Total	\$ 106,425,960

VIII. Construction Management

3369	PDCD	6,589,849
		<hr/>
	Sub-Total	\$ 6,589,849

TOTAL OPEN PROFESSIONAL SERVICES CONTRACTS	\$ 122,725,337
--	----------------

SECTION II: CONTRACT EVALUATIONS



A. COST



EXPLANATION OF TERMS

Cost Performance Index (C.P.I.)	- Used to indicate the actual cost of each planned dollar of work accomplished. = $\frac{\text{Earned Costs}}{\text{Actual Costs Spent}}$
Cost Variance (C.V.)	- The difference between the actual dollars spent and the actual dollars earned. = Actual \$ Spent - Earned \$
Current Contract Cost	- The dollar value on which contractual agreement has been reached.
Expended	- The entry into official RTD accounting ledgers of the use of resources.
Forecast at Completion	- An estimate and prediction of the total cost of the contract.
Independent Estimate at Completion (I.E.A.C.)	- A calculated EAC based on the current rate of cost performance. = $\frac{\text{Forecast at Completion}}{\text{C.P.I.}}$
Negotiated Contract Changes	- The cumulative cost applicable to definitized contract changes which have occurred since the beginning of the contract.
Original Contract Cost	- The dollar value negotiated in the original contract.
Pending Changes	- The estimated cost for contract changes that have yet to be negotiated or approved.
Percent Complete	- A comparison of the completion status to the current projection of total work.
Productivity	- A relative measure of labor efficiency compared to an established base. = $\frac{\% \text{ complete} \times \text{Total MH forecast}}{\text{MH's spent}}$

To Complete Performance Index

(T.C.P.I.) - Basically a comparison of the work remaining to the amount of money remaining. The results of this formula indicate the cost efficiency the contractor must perform to meet the Forecast at Completion.

$$= \frac{\text{Forecast at Completion} - \text{Earned Costs}}{\text{Forecast at Completion} - \text{Actual \$ Spent}}$$

Variance

- Any actual or potential deviation from a budget or plan.

METRO RAIL PROJECT
SECTION DESIGN EVALUATION SUMMARY
OCTOBER 1984

UNIT NO.	DESCRIPTION	TOTAL % COMPLETE		CURRENT INCRE- MENTAL PROGRESS	PRODUCTIVITY BASED ON		ORIGINAL NEGOTIATED CONTRACT AMOUNT	FORECAST AT COMPLETION		TO COMPLETE AVERAGE EFFICIENCY **
		FCAST	ACTUAL		MHRS	\$\$		MRTC	TSD PROJECTED	
MOS-1 CONTRACTS:										
A100	YARD AND SHOPS	85%	80%	3	86%	92%	\$ 4,080,878	\$ 6,617,000	\$ 7,192,391	149%
A135	UNION STATION	85%	88%	8	101%	101%	2,897,000	3,913,000	3,842,574	98%
A140	CIVIC CENTER/5TH & HILL/LINE	61%	58%	4	120%	124%	6,203,707	6,812,439	5,475,806	80%
A165	7TH & FLOWER	88%	83%	1	98%	97%	2,129,587	3,940,000	3,777,320	117%
A170	WILSHIRE/ALVARADO + LINE	89%	88%	3	103%	103%	3,119,430	4,016,000	3,899,029	82%
SUBTOTAL MOS-1 CONTRACTS:							\$ 18,430,602	\$ 25,298,439	\$ 24,187,120	
REMAINING CONTRACTS:										
A195	WILSHIRE/VERMONT	82%	N/A	N/A	N/A	N/A	\$ 1,541,126	\$ 2,403,551	\$ N/A	N/A
A220	WILSHIRE/NORMANDIE & WILSHIRE/WESTERN + LINE	44%	41%	4	98%	107%	4,676,695	5,148,810	4,894,393	96%
A240	WILSHIRE/CRENSHAW	59%	N/A	N/A	N/A	N/A	2,394,790	2,724,360	N/A	N/A
A245	WILSHIRE/LA BREA	76%	78%	4	124%	123%	1,608,579	2,008,529	1,589,431	61%
A250	WILSHIRE/FAIRFAX + LINE	38%	42%	8	114%	124%	3,956,421	4,641,484	3,537,903	88%
A275	FAIRFAX/BEVERLY	65%	68%	8	102%	102%	2,275,000	2,698,000	2,651,961	96%
A310	FAIRFAX/SANTA MONICA & LA BREA/SUNSET + LINE	32%	34%	5	106%	111%	4,409,415	4,549,915	4,102,703	96%
A350	HOLLYWOOD/CAHUENGA	49%	48%	5	102%	110%	2,071,181	2,416,529	2,190,909	92%
A410	LINE FROM HOLLYWOOD/CAHUENGA TO UNIVERSAL CITY	73%	71%	9	93%	91%	2,627,160	2,444,000	2,597,802	133%
A415	HOLLYWOOD BOWL	42%	N/A	N/A	60%	60%	2,013,910	1,017,000	1,695,000	304%
A425	UNIVERSAL CITY	62%	55%	4	114%	95%	2,403,180	2,949,780	2,757,895	108%
A430	LINE FROM UNIVERSAL CITY TO NORTH HOLLYWOOD	70%	60%	5	99%	109%	1,968,766	2,158,666	1,927,771	89%
A445	NORTH HOLLYWOOD	46%	43%	2	105%	109%	2,141,868	2,567,494	2,149,000	94%
SUBTOTAL REMAINING CONTRACTS:							\$ 34,088,091	\$ 37,728,118	\$ 30,094,768*	
SUBTOTAL MOS-1 CONTRACTS:							\$ 18,430,602	\$ 25,298,439	\$ 24,187,120	
GRAND TOTAL:							\$ 52,518,693	\$ 63,026,557	\$ 54,281,888*	

* TOTAL DOES NOT INCLUDE FORECASTS FOR CONTRACT UNIT NOS. A195 & A240
** FOR CONTRACTS TO BE COMPLETED AT MRTC'S FORECAST

COST PERFORMANCE REPORT
SECTION DESIGNER

CONTRACT NO. : A100, Yard and Shops
 CONTRACTOR : DMJM/PBQD
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
\$4,080,878	\$1,538,757	\$5,619,635	\$997,365	\$6,617,000	\$5,666,000	\$951,000

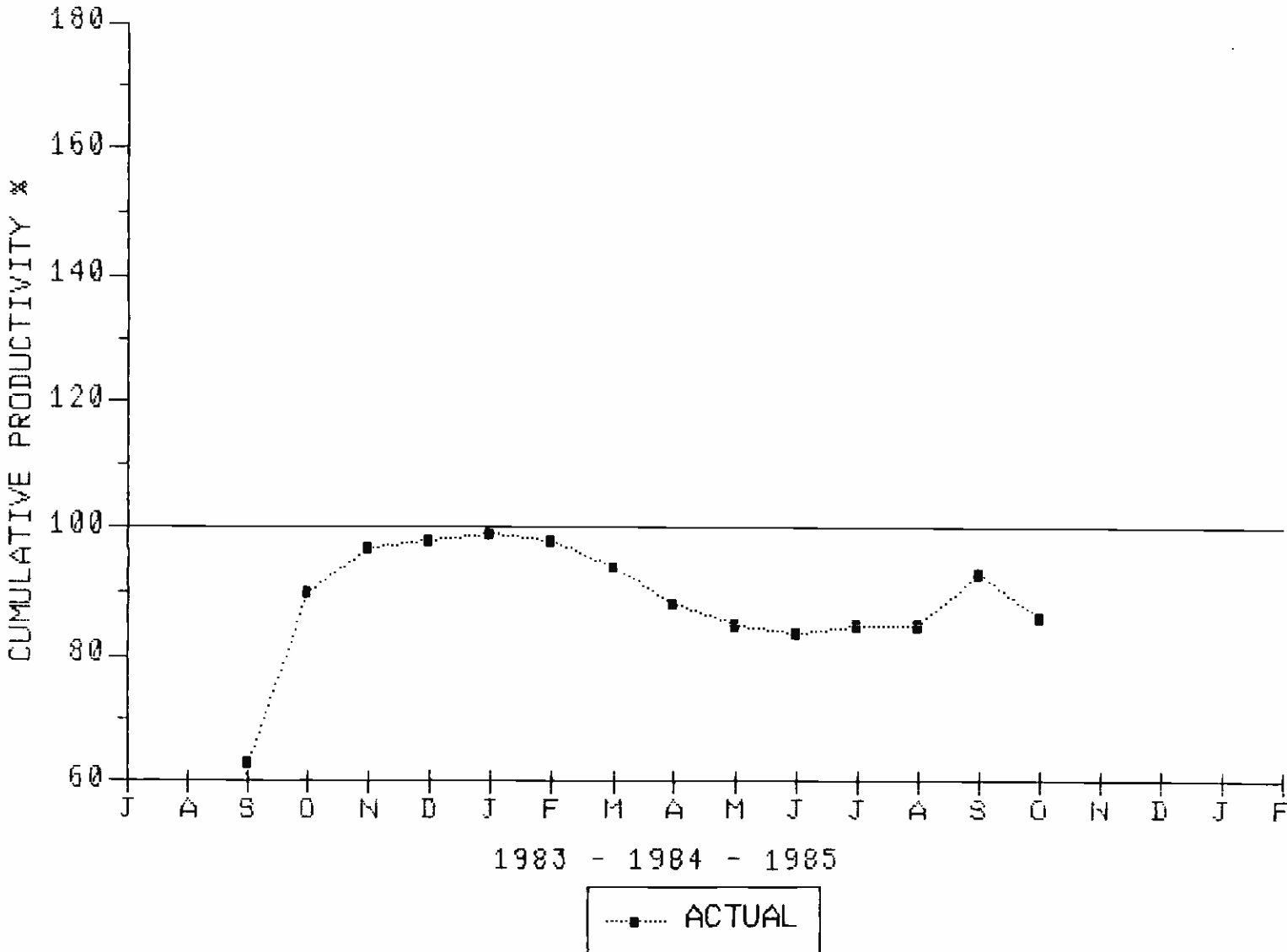
CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
100%	85%	80%	86%	\$.92	\$433,000	149%	\$7,192,391

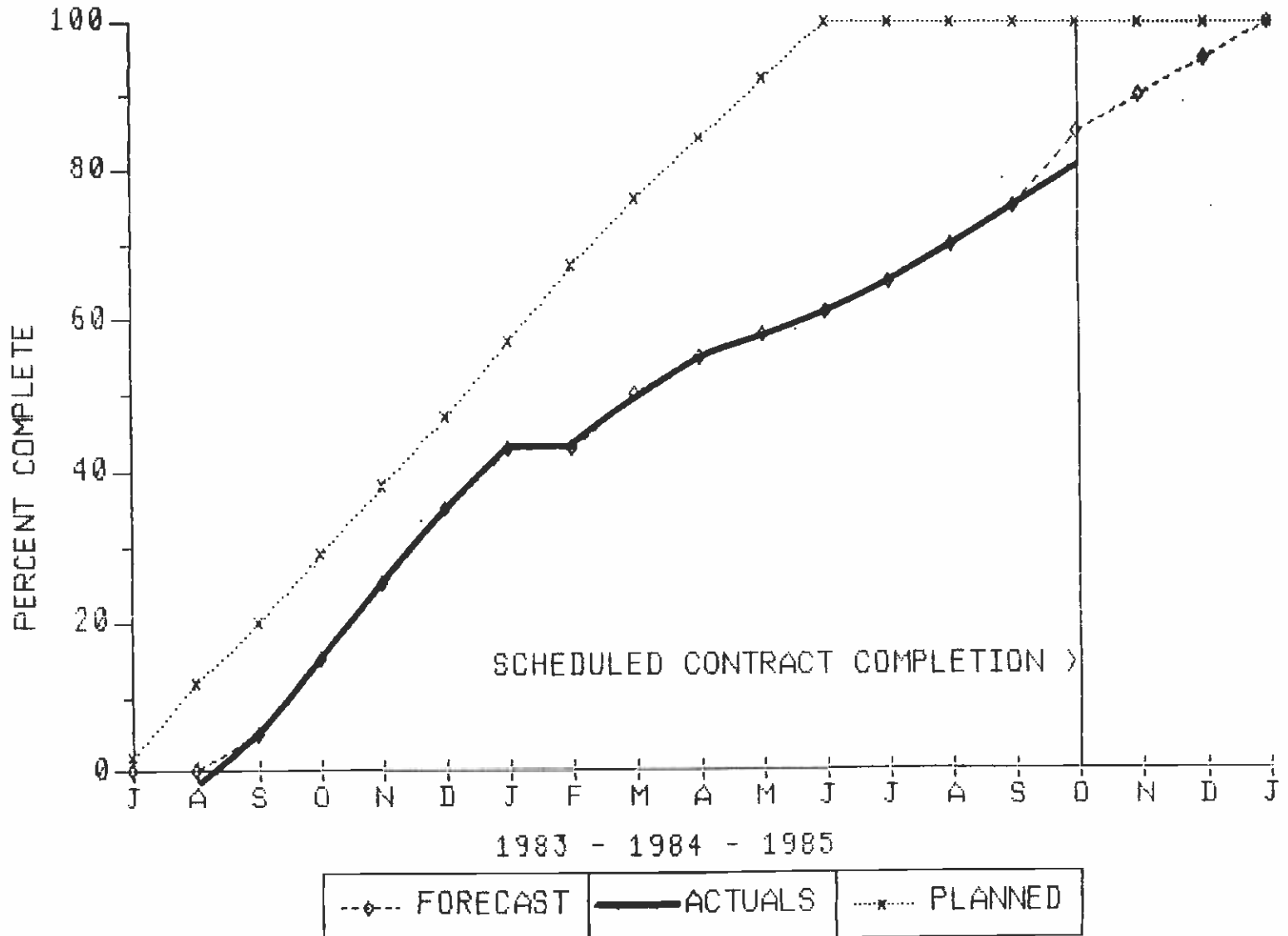
CONCLUSIONS AND OBSERVATIONS:

Contract construction unit descriptions are constantly under revision. According to the MRTC Progress Report, 20% of the A100 contract is projected to be completed in 3 months. This is highly unlikely based on prior performance.

RTD METRO RAIL PROJECT
 CONTRACT A100 - MAIN YARD AND SHOPS
 SECTION DESIGNER: DMJM/PBQD
 OCTOBER 1984

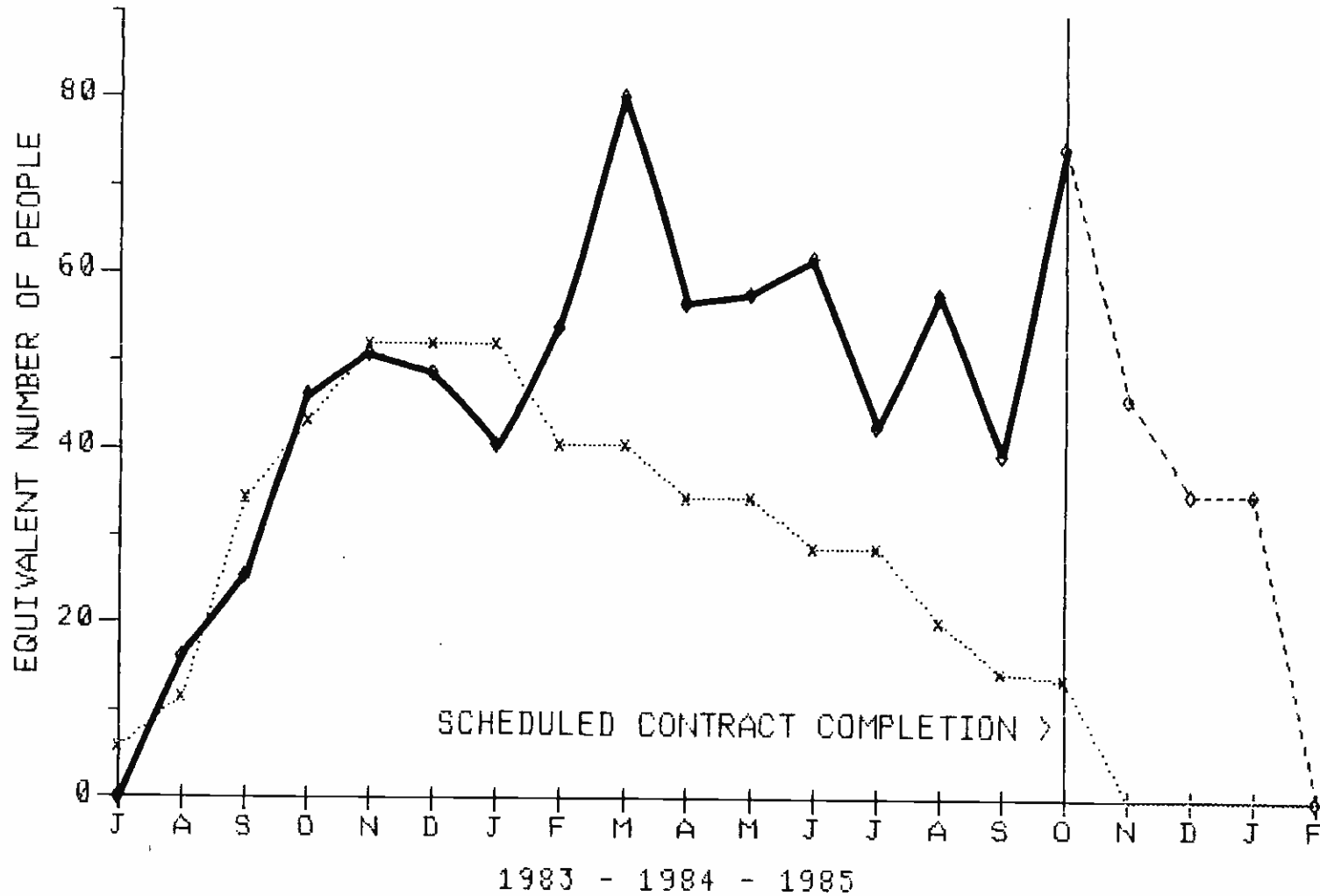


RTD METRO RAIL PROJECT
 CONTRACT A100 - MAIN YARD & SHOPS
 SECTION DESIGNER: DMJM/PBQD
 OCTOBER 1984



RTD METRO RAIL PROJECT
 CONTRACT A100 - MAIN YARD AND SHOPS
 SECTION DESIGNER: DMJM/PBQD
 OCTOBER 1984

18



1983 - 1984 - 1985

--◇-- FORECAST	— ACTUALx..... PLANNED
----------------	----------	---------------------

COST PERFORMANCE REPORT
SECTION DESIGNER

CONTRACT NO. : A135, Union Station
 CONTRACTOR : Harry Weese & Associates
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
\$2,897,000	0	\$2,897,000	\$1,016,000	\$3,913,000	\$3,404,000	\$509,000

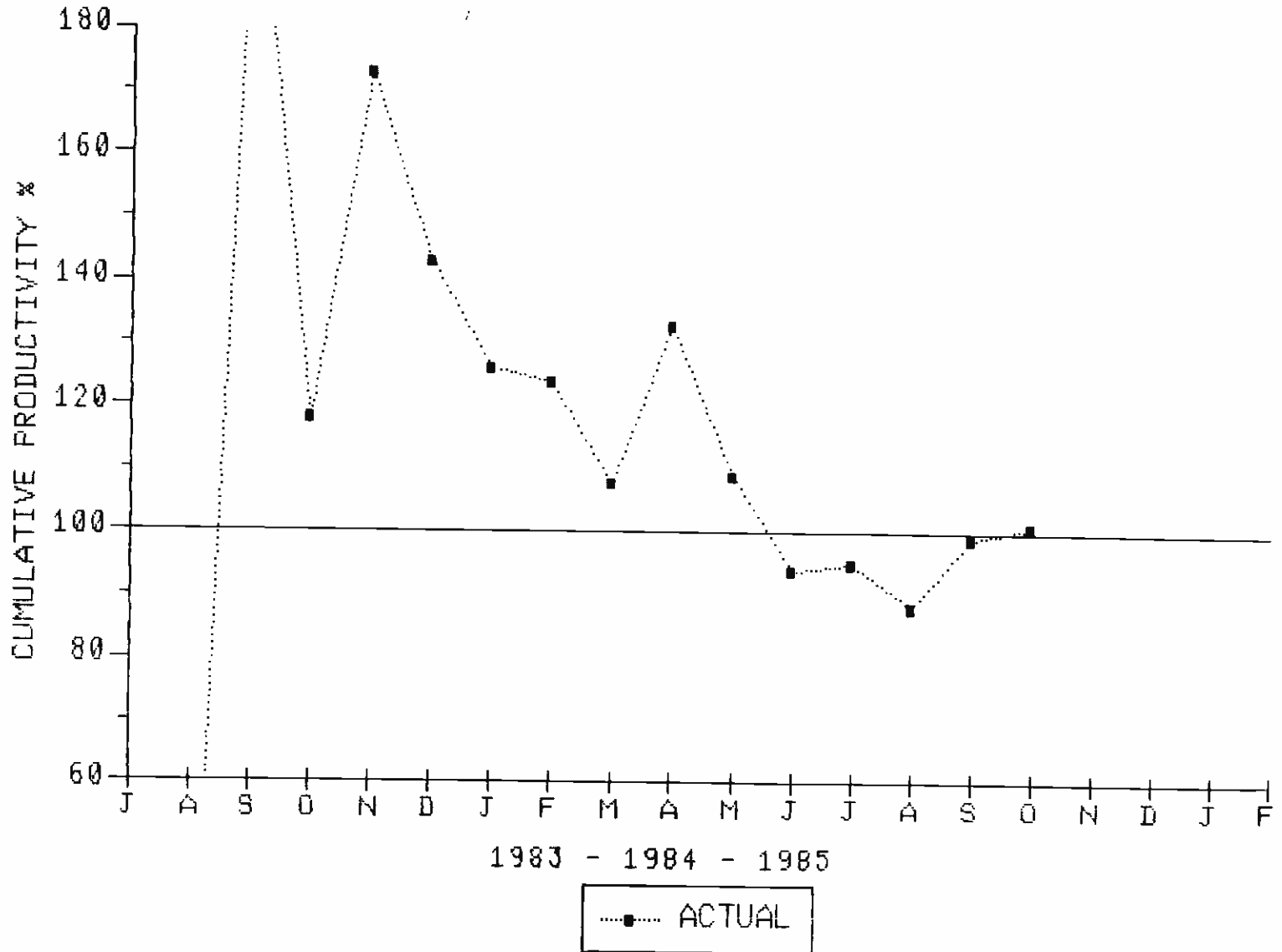
CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
100%	85%	88%	101%	\$1.01	\$(11,280)	98%	\$3,842,574

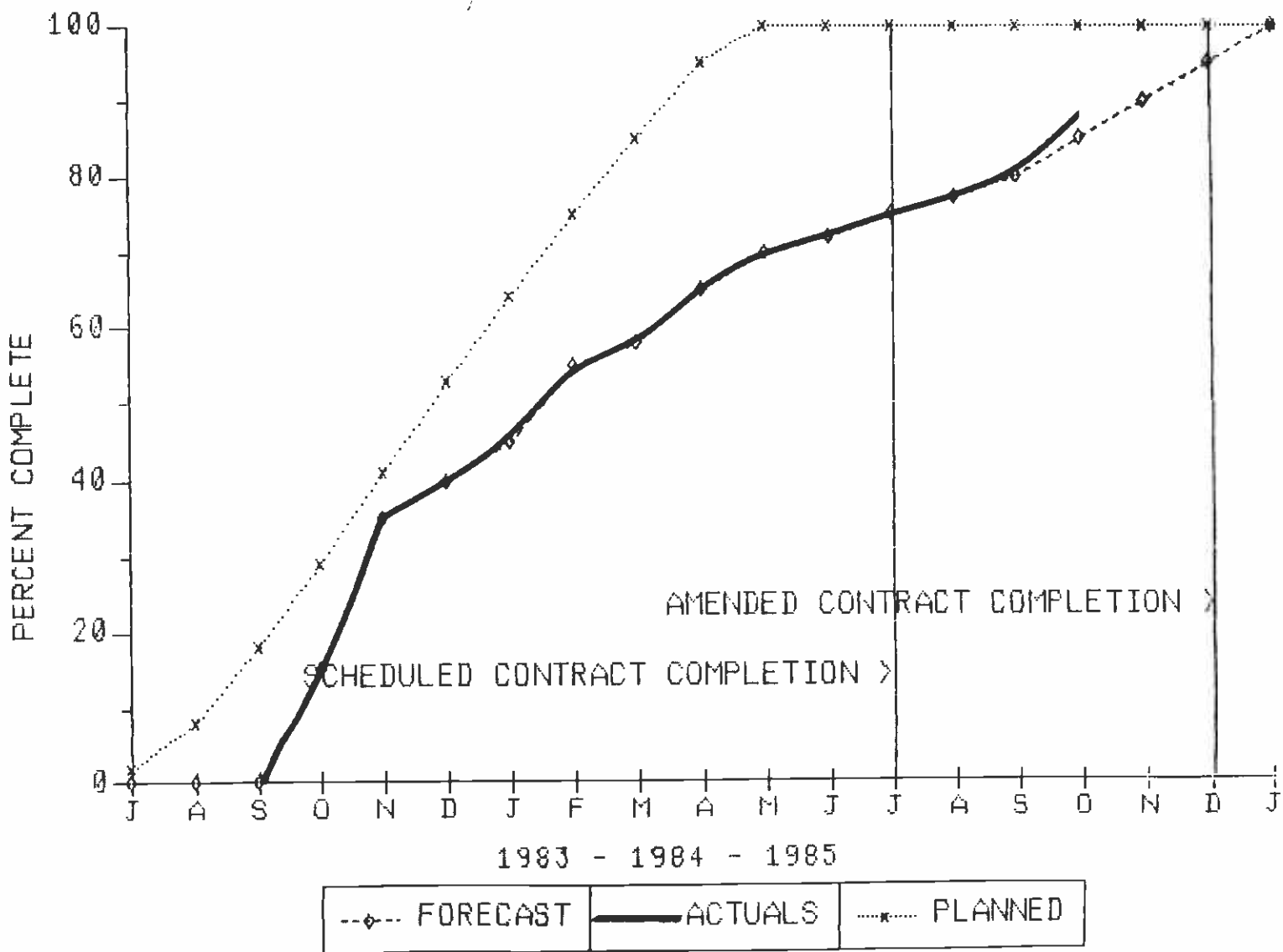
CONCLUSIONS AND OBSERVATIONS:

Amendments #7 & 8 are pending District approval; if approved, the total contract cost will be \$3,951,495. This total will allow for completion costs to be borne by the subcontractor without need of a separate ECR to cover the 11,000 manhours estimated to complete the work.

RTD METRO RAIL PROJECT
 CONTRACT A135 - UNION STATION
 SECTION DESIGNER: HARRY WEESE AND ASSOC.
 OCTOBER 1984

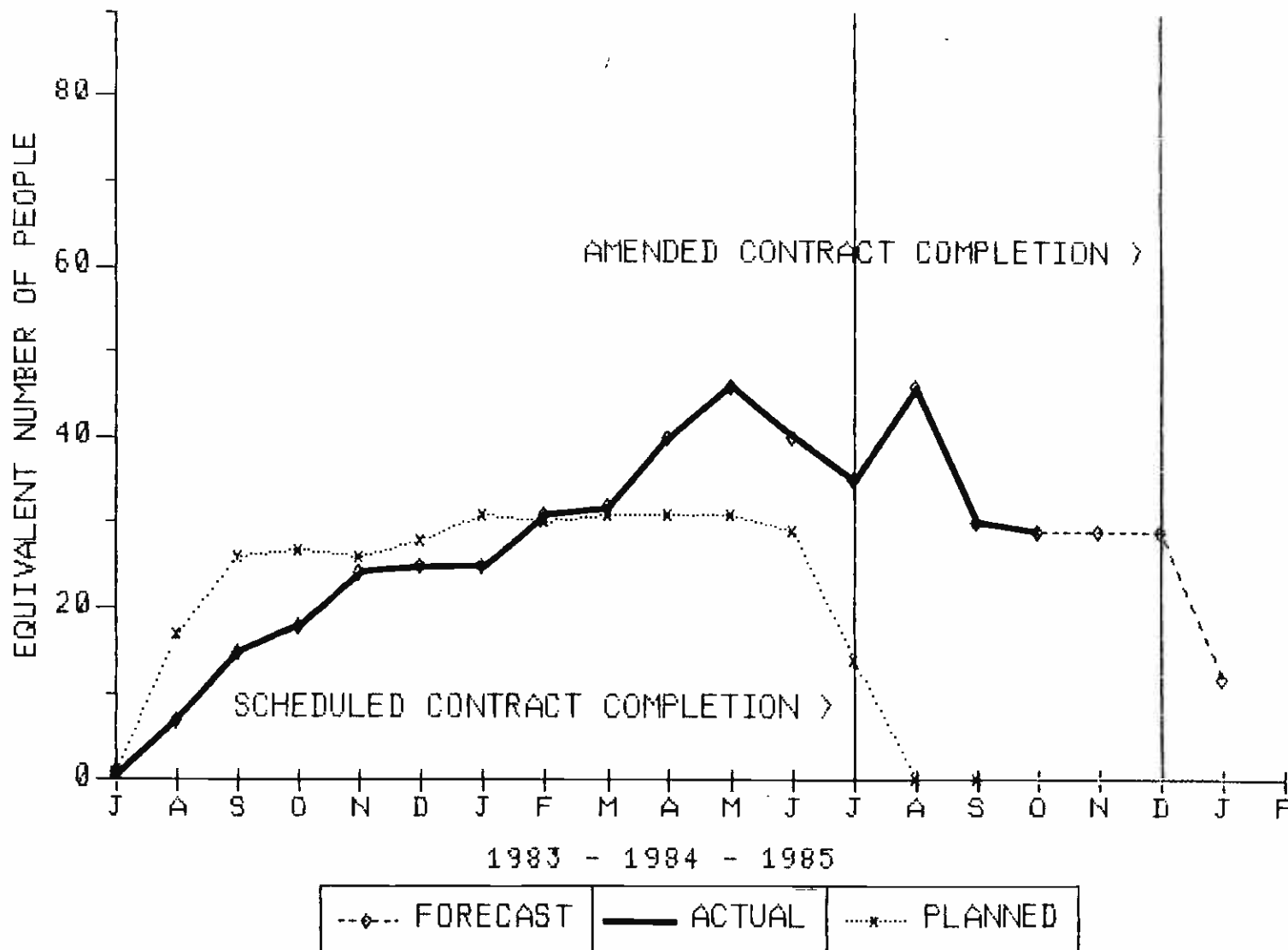


RTD METRO RAIL PROJECT
 CONTRACT A135 - UNION STATION
 SECTION DESIGNER: HARRY WEESE & ASSOC.
 OCTOBER 1984



RTD METRO RAIL PROJECT
 CONTRACT A135 - UNION STATION
 SECTION DESIGNER: HARRY WEESE & ASSOC.
 OCTOBER 1984

22



COST PERFORMANCE REPORT
SECTION DESIGNER

CONTRACT NO. : A140, Civic Center & 5th/Hill Stations and Line
 CONTRACTOR : Delon Hampton & Associates
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
\$6,203,707	\$6,732	\$6,210,439	\$602,000	\$6,812,439	\$3,198,000	\$3,614,439

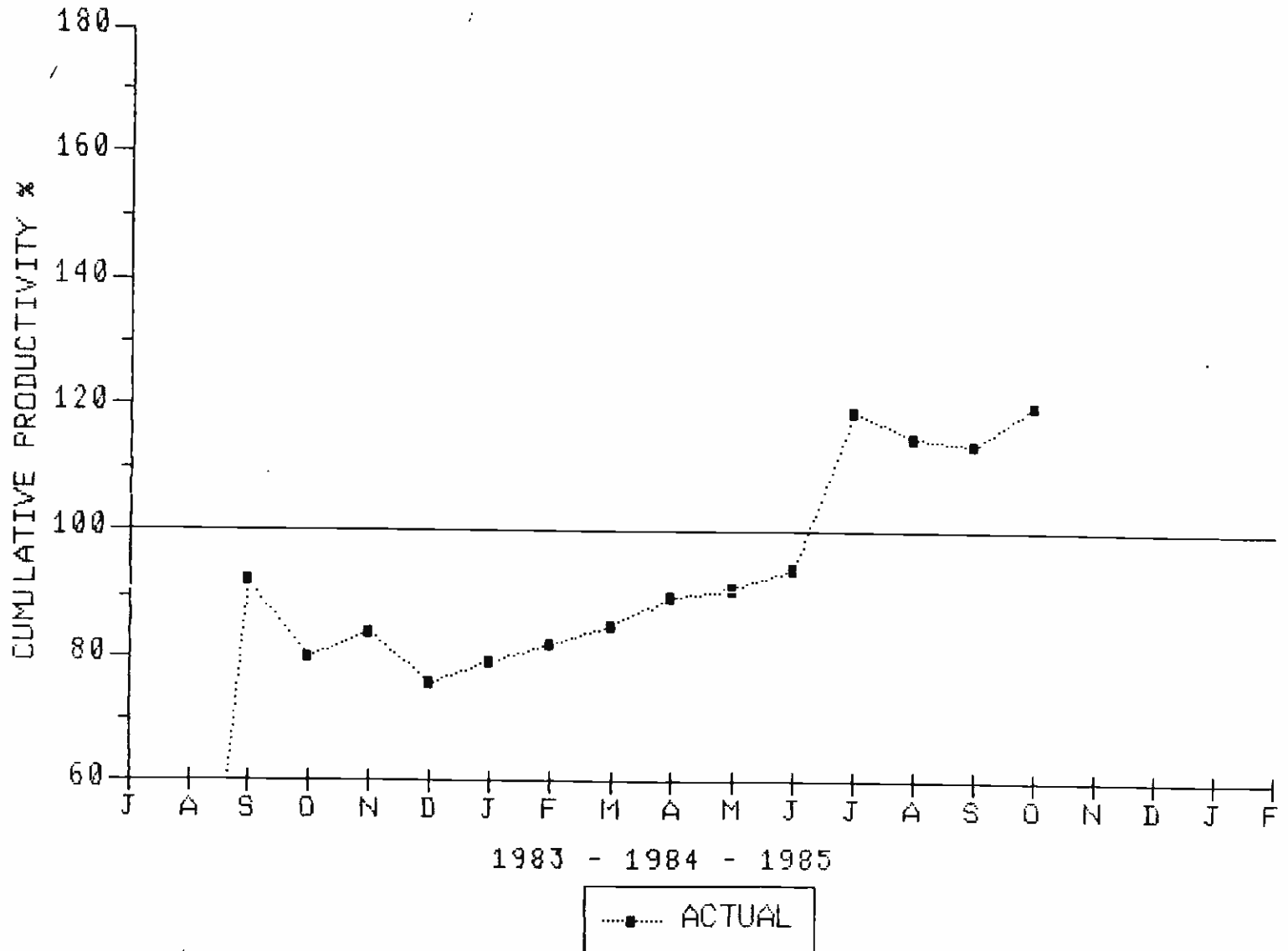
CUMULATIVE TO DATE
(FROM PROGRESS REPORT)

PERCENT COMPLETE			MANHOURLY PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
66%	61%	58%	120%	\$1.24	(\$740,200)	80%	\$5,475,806

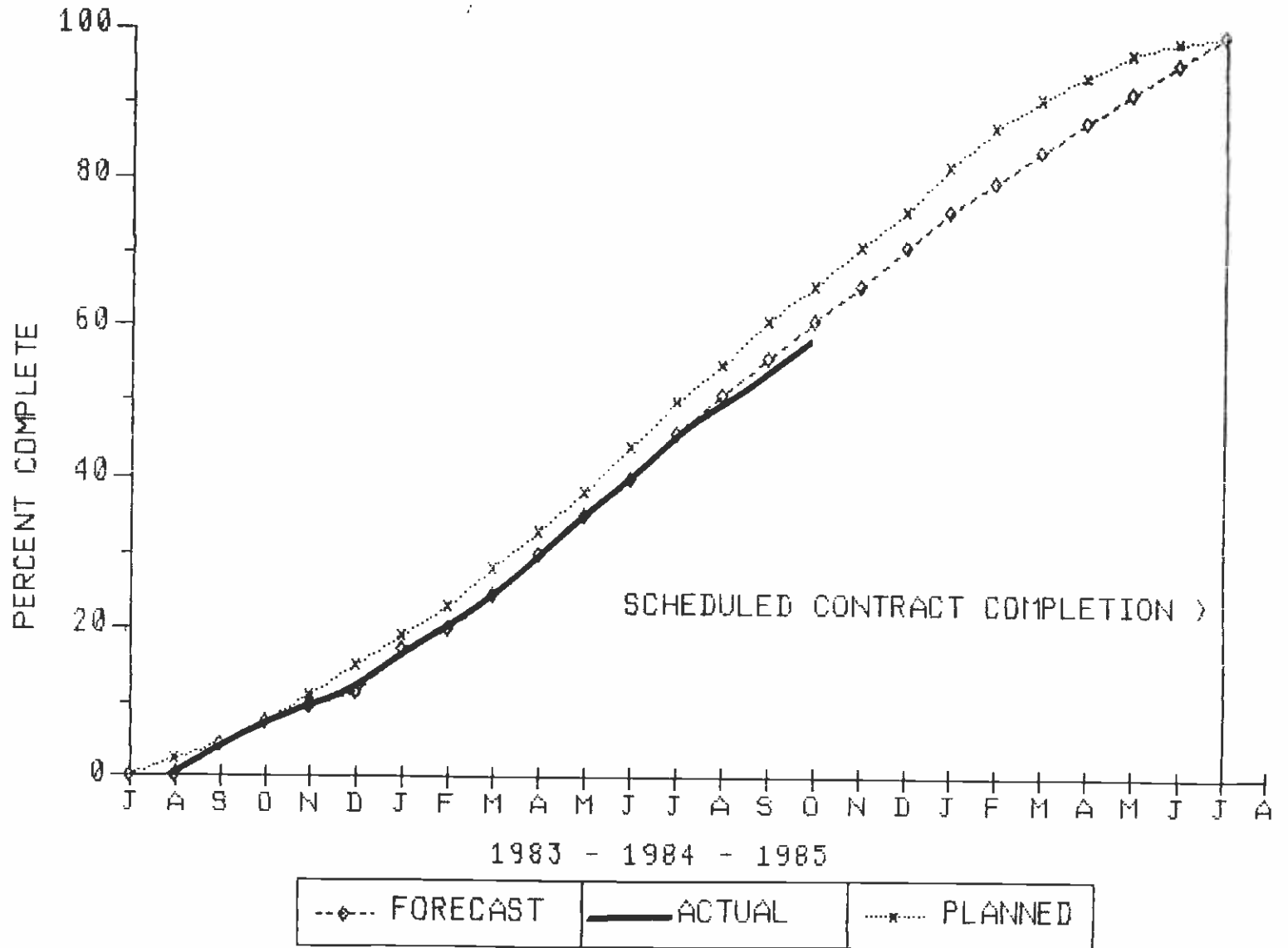
CONCLUSIONS AND OBSERVATIONS:

This contract is proceeding satisfactorily and is forecast to complete within the Milestone II budget.

RTD METRO RAIL PROJECT
CONTRACT A140 - CIVIC CENTER/FIFTH & HILL
SECTION DESIGNER: DELON HAMPTON & ASSOC.
OCTOBER 1984

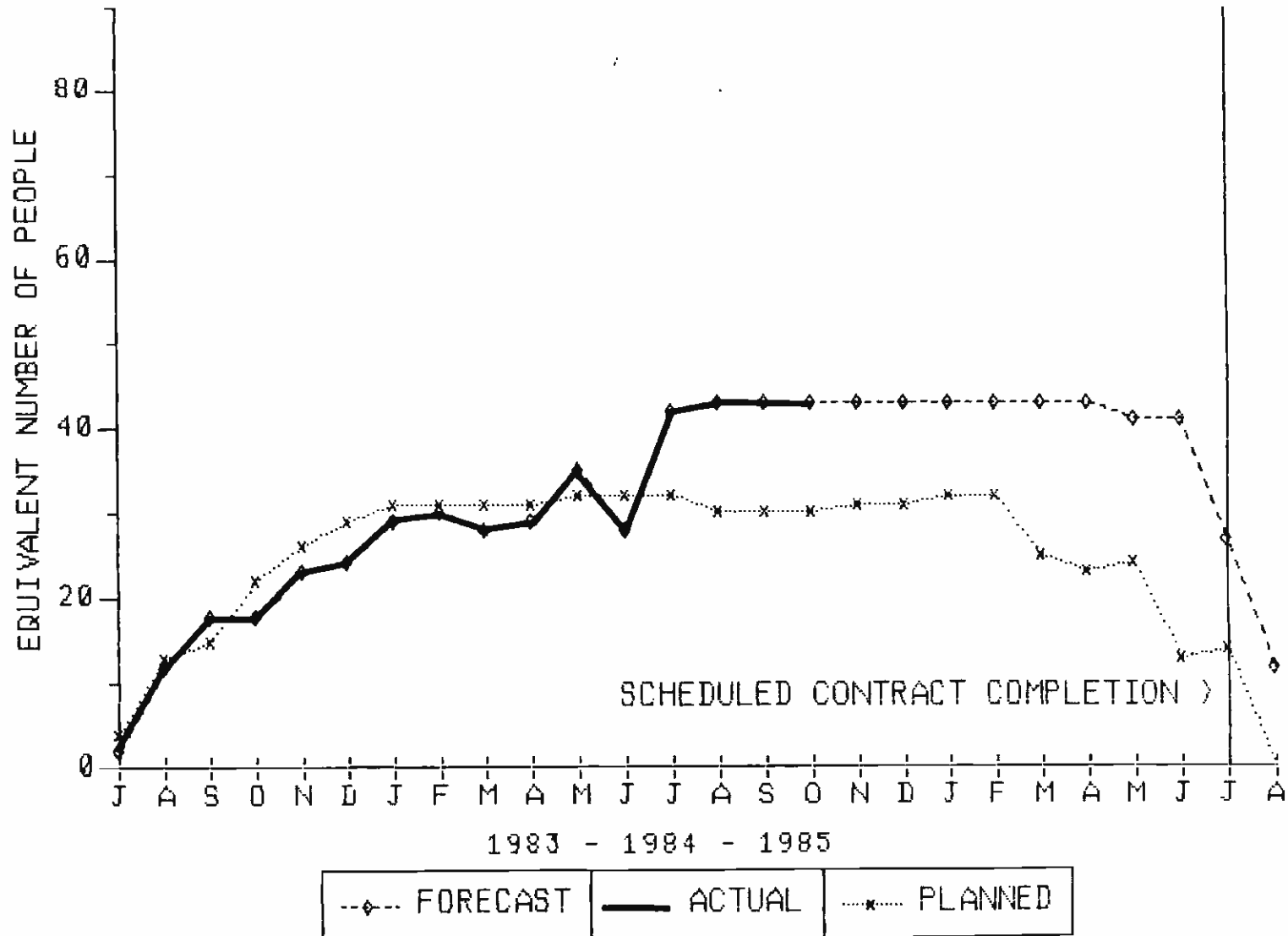


RTD METRO RAIL PROJECT
 CONTRACT A140 - CIVIC CENTER/FIFTH & HILL
 DESIGNER: DELON HAMPTON & ASSOC.
 OCTOBER 1984



RTD METRO RAIL PROJECT
 CONTRACT A140 - CIVIC CENTER/FIFTH & HILL
 SECTION DESIGNER: DELON HAMPTON & ASSOC.
 OCTOBER 1984

26



COST PERFORMANCE REPORT
SECTION DESIGNER

CONTRACT NO. : A165, 7th/Flower Station
 CONTRACTOR : Gannett Fleming/Dworsky
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
\$2,129,587	\$645,369	\$2,774,956	\$1,165,044	\$3,940,000	\$3,133,000	\$807,000

CUMULATIVE TO DATE
(FROM MRTC MONTHLY PROGRESS REPORT)

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
100%	88%	83%	.98%	\$.97	\$91,880	1.17%	\$3,777,320

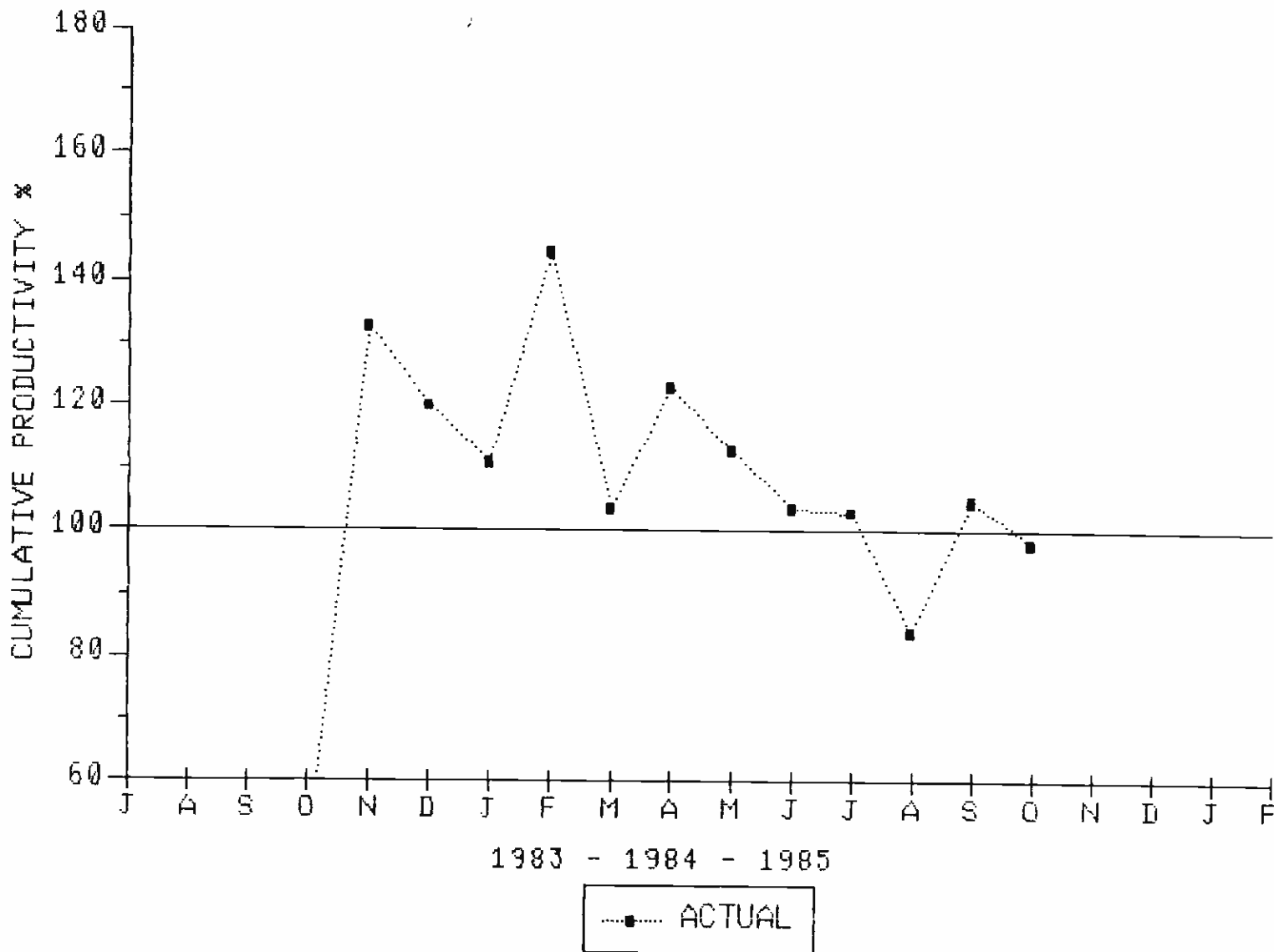
CONCLUSIONS AND OBSERVATIONS:

During November, this contract was negotiated for a total cost of approximately \$3,600,000. This is \$340,000 less than forecasted by MRTC and \$177,320 less than forecasted by Program Control.

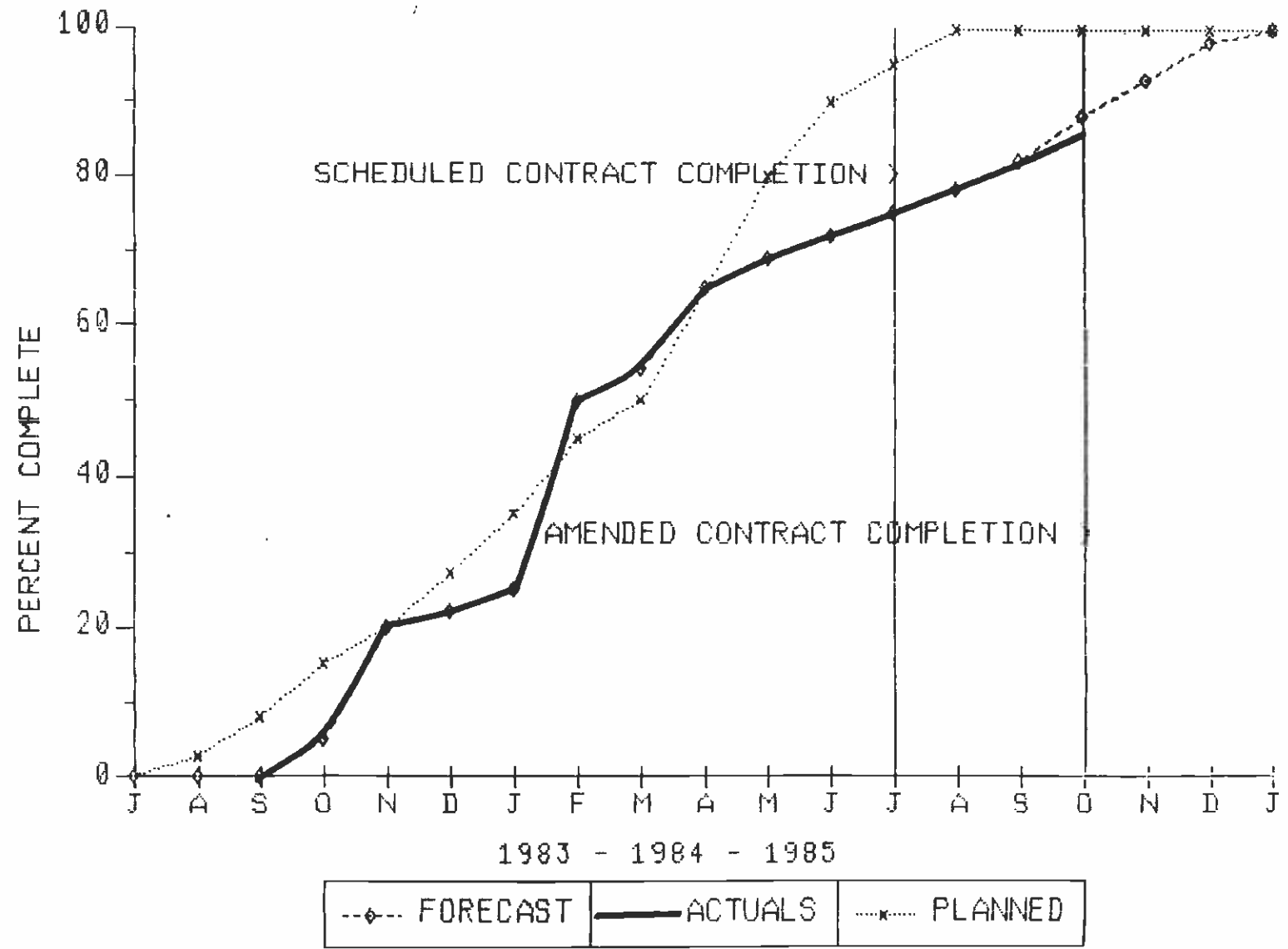
During the month of October the reported progress rate declined from previous months. This is primarily due to progress being overstated prior to October.

PC-13.13

RTD METRO RAIL PROJECT
 CONTRACT A165 - SEVENTH & FLOWER
 SECTION DESIGNER: GANNETT FLEMING/DWORSKY
 OCTOBER 1984

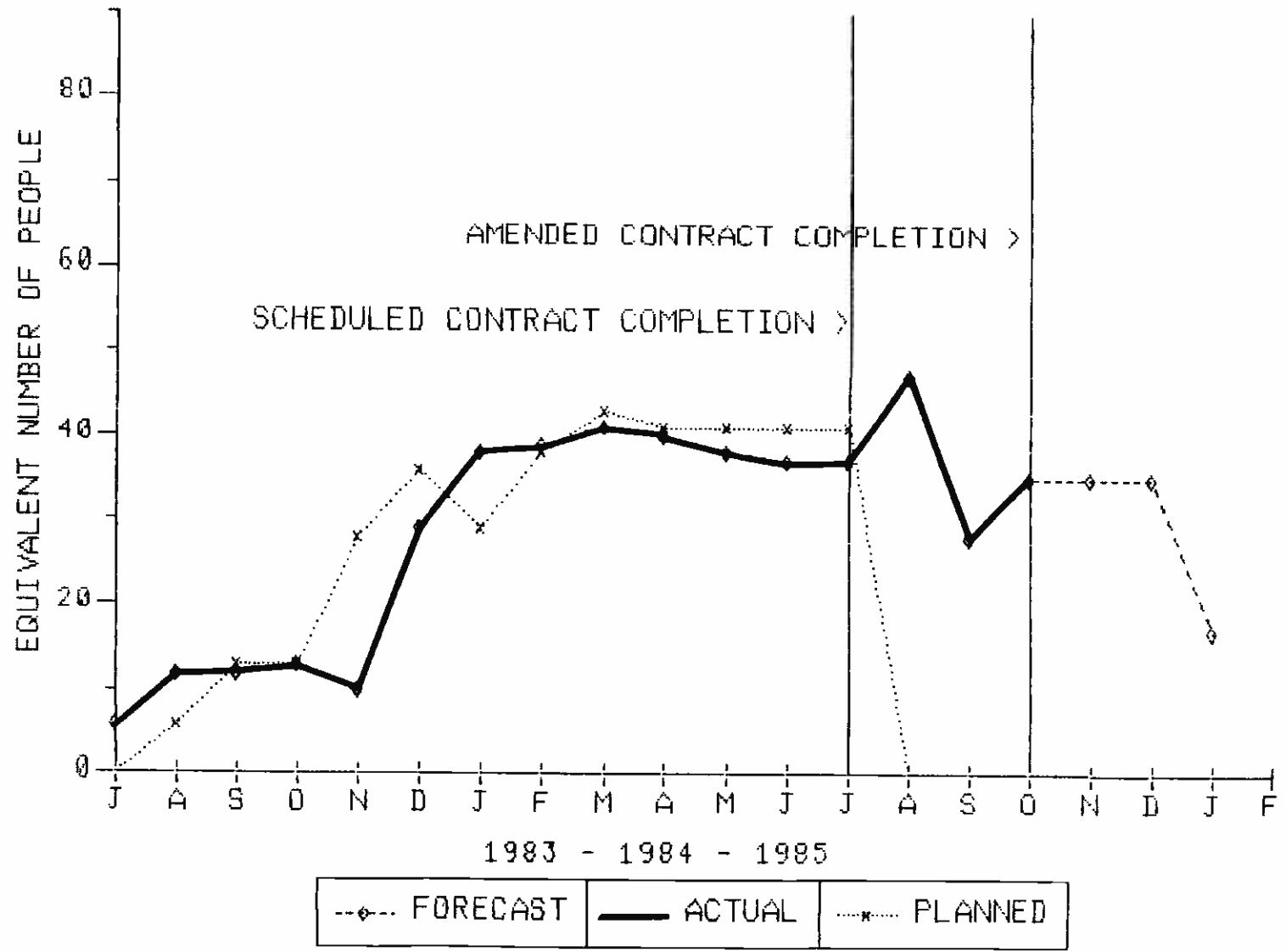


RTD METRO RAIL PROJECT
 CONTRACT A165 - SEVENTH & FLOWER
 SECTION DESIGNER: GANNETT FLEMING/DWORSKY
 OCTOBER 1984



RTD METRO RAIL PROJECT
 CONTRACT A165 - SEVENTH & FLOWER
 SECTION DESIGNER: GANNETT FLEMING/DWORSKY
 OCTOBER 1984

30



COST PERFORMANCE REPORT
SECTION DESIGNER

CONTRACT NO. : A170, Wilshire/Alvarado Station
 CONTRACTOR : Sverdrup Corporation
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
\$3,119,430	\$230,781	\$3,350,211	\$665,789	\$4,016,000	\$3,428,000	\$588,000

CUMULATIVE TO DATE

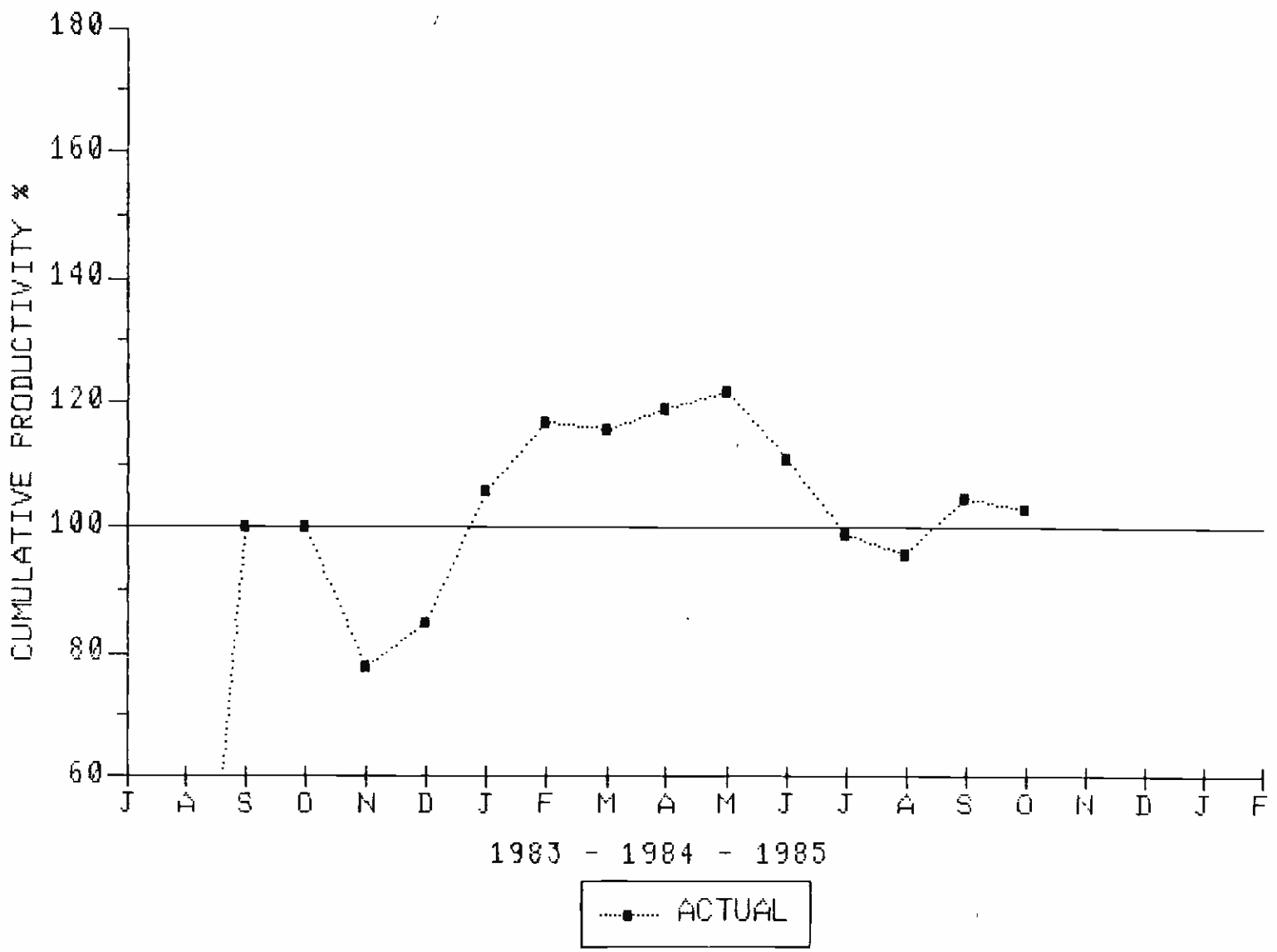
PERCENT COMPLETE			MANHOURLY PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
97%	89%	88%	1.03%	\$1.03	\$(106,080)	82%	\$3,899,029

CONCLUSIONS AND OBSERVATIONS:

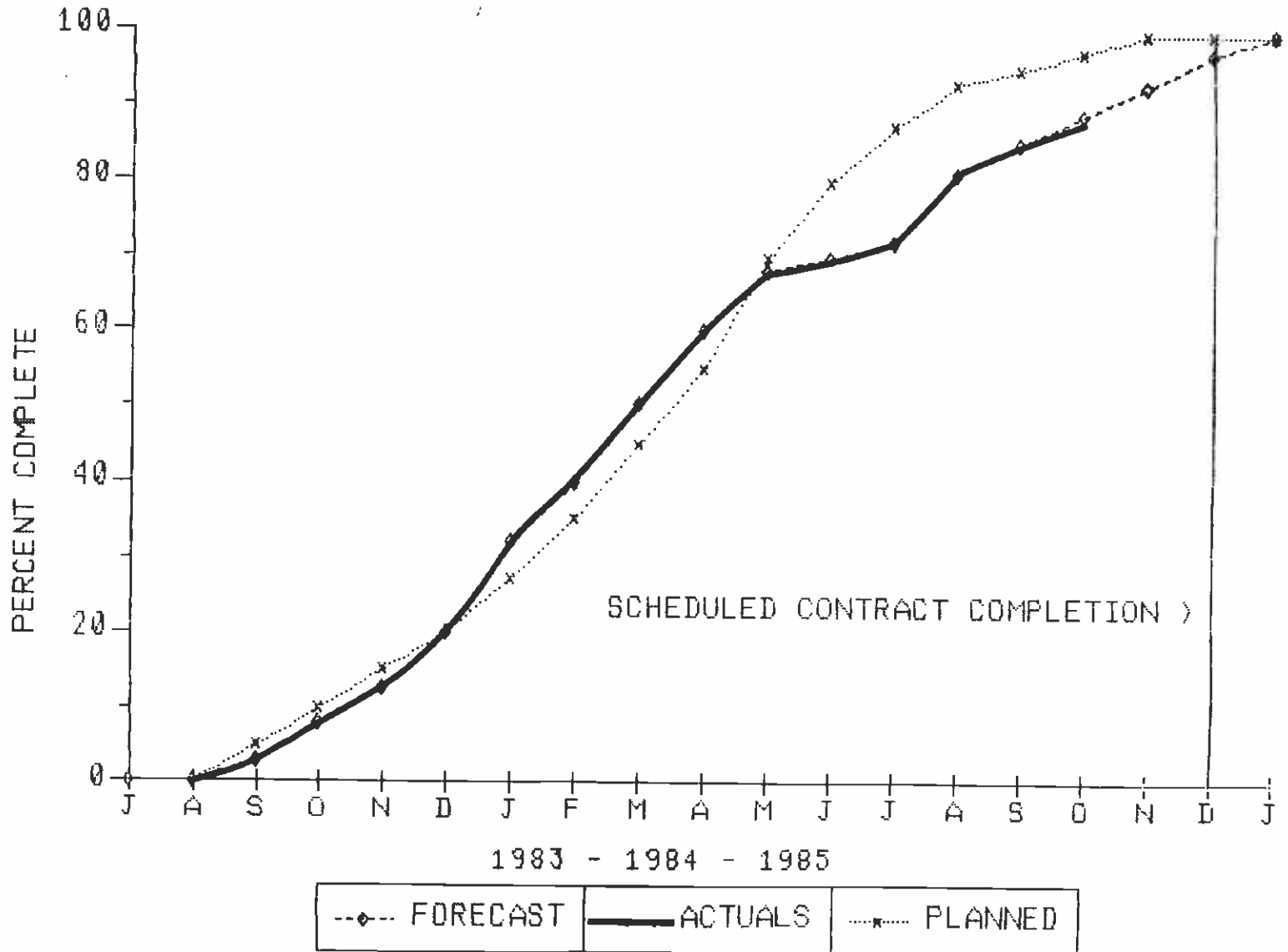
The consultant continues to progress at a satisfactory level; however, expenditures are presently exceeding the approved contract amount. Discussions are underway between Sverdrup and MRTC to reach a mutually acceptable cost to complete. An agreement will be reached in December.

RTD METRO RAIL PROJECT
 CONTRACT A170 - WILSHIRE/ALVARADO
 SECTION DESIGNER: SVERDRUP CORP.
 OCTOBER 1984

32

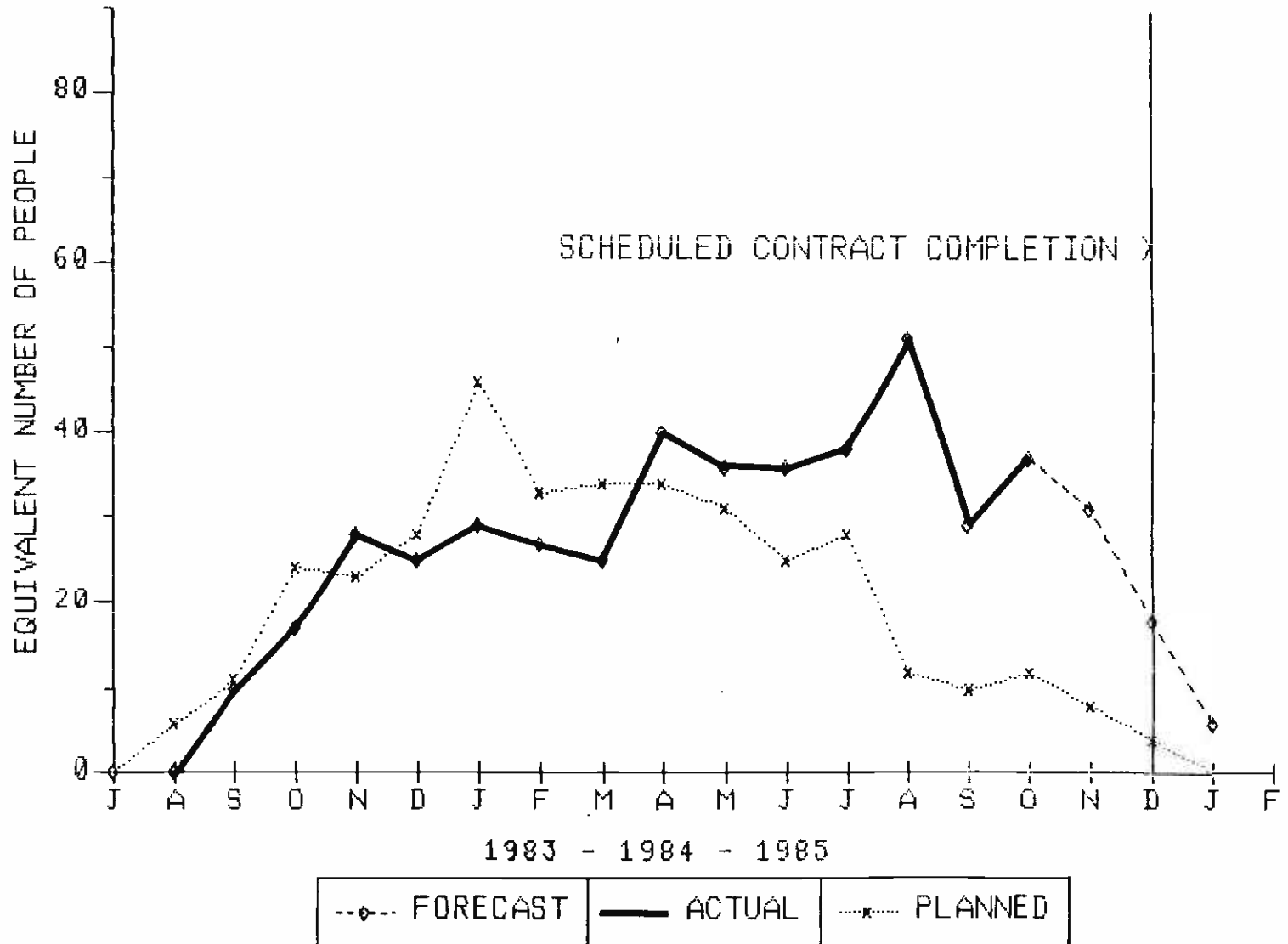


RTD METRO RAIL PROJECT
 CONTRACT A170 - WILSHIRE/ALVARADO
 SECTION DESIGNER: SVERDRUP CORP.
 OCTOBER 1984



RTD METRO RAIL PROJECT
 CONTRACT A170 - WILSHIRE/ALVARADO
 SECTION DESIGNER: SVERDRUP CORP.
 OCTOBER 1984

34



COST PERFORMANCE REPORT
FACILITIES DESIGNER

CONTRACT NO. : A610, Mainline Trackwork Installation
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
\$656,600	0	\$656,600	0	\$656,600	\$138,000	\$518,600

35

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURLY PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
42%	36%	36%	147%	\$1.71	\$(98,376)	81%	\$313,977

CONCLUSIONS AND OBSERVATIONS:

COST PERFORMANCE REPORT
FACILITIES DESIGNER

CONTRACT NO. : A611, Running Rail Procurement
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
\$15,680	0	\$15,680	0	\$15,680	\$13,300	\$2,380

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURLY PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
N/A	N/A	90%	103%	\$1.06	\$(812)	66%	\$14,792

CONCLUSIONS AND OBSERVATIONS:

COST PERFORMANCE REPORT
FACILITIES DESIGNER

CONTRACT NO. : A614, Special Trackwork
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
\$258,720	0	\$258,720	0	\$258,720	\$112,000	\$146,720

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURL PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
85%	66%	66%	123%	\$1.53	\$(58,755)	60%	\$169,098

CONCLUSIONS AND OBSERVATIONS:

COST PERFORMANCE REPORT
FACILITIES DESIGNER

CONTRACT NO. : A616, Direct Fixation Rail Fastener Specifications
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
\$31,360	0	\$31,360	0	\$31,360	\$2,085	\$29,275

38

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURLY PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
N/A	N/A	5%	84%	\$.75	\$517	102%	\$41,813

CONCLUSIONS AND OBSERVATIONS:

COST PERFORMANCE REPORT
FACILITIES DESIGNER

CONTRACT NO. : A617, Rail Welding
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
\$15,680	0	\$15,680	0	\$15,680	\$1,829	\$13,851

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
*	*	27%	* %	*	*	* %	*

CONCLUSIONS AND OBSERVATIONS:

* Data not available.

COST PERFORMANCE REPORT
FACILITIES DESIGNER

CONTRACT NO. : A618, Yard Installation
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
\$360,640	0	\$360,640	0	\$360,640	\$91,000	\$269,640

40

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
40%	33%	33%	111%	\$1.31	\$(28,011)	90%	\$275,298

CONCLUSIONS AND OBSERVATIONS:

COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A612, A615, A630 - Traction Power Procurement
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
				\$1,027,040	\$745,000	\$282,040

17

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
81%	78%	78%	105%	\$1.08	\$(56,091)	81%	\$950,963

CONCLUSIONS AND OBSERVATIONS:

COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A631, Traction Power Installation
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
				\$580,895	\$69,000	\$511,895

42

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURL PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
15%	14%	14%	113%	\$1.18	\$(12,325)	98%	\$492,284

CONCLUSIONS AND OBSERVATIONS:

COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A620, Automatic Train Control
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
				\$961,135	\$472,000	\$489,135

43

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
68%	N/A	55%	1.11%	\$1.12	\$(56,624)	88%	\$858,156

CONCLUSIONS AND OBSERVATIONS:

COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A640, Communications
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
\$1,238,000	Ø	\$1,238,000	Ø	\$1,238,000	\$627,000	\$611,000

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURL PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
50%	52%	52%	77%	\$.79	<\$134,040>	142%	\$1,567,089

CONCLUSIONS AND OBSERVATIONS:

COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A650, Passenger Vehicles
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
				\$915,565	\$504,000	\$411,565

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURLY PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
97%	N/A	70%	133%	\$1.27	\$ (136,896)	67%	\$720,917

CONCLUSIONS AND OBSERVATIONS:

COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A660, Fare Collection
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
				\$509,600	\$190,000	\$319,600

46

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
50%	N/A	43%	112%	\$1.15	\$(29,128)	91%	\$443,130

CONCLUSIONS AND OBSERVATIONS:

COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A671-649, Auxiliary Vehicles
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
				983,875		

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURL PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
			%			%	

CONCLUSIONS AND OBSERVATIONS:

Insufficient Information

COST PERFORMANCE REPORT
FACILITIES DESIGNER

CONTRACT NO. : A710, Escalators
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
				\$94,080	\$86,915	\$7,165

84

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURLY PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
N/A	N/A	100%	102%	\$1.09	\$(7,165)	N/A %	\$86,311

CONCLUSIONS AND OBSERVATIONS:

Design of escalators is complete, but Final Submittal documents are being held pending resolution of MOS-1 vs. systemwide procurement.

COST PERFORMANCE REPORT
FACILITIES DESIGNER

CONTRACT NO. : A720, Elevators
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
				\$62,720	\$55,515	\$7,205

67

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
N/A	N/A	100%	107%	\$1.13	\$(7,205)	N/A %	\$55,504

CONCLUSIONS AND OBSERVATIONS:

Design of elevators is 100% complete but Final Submittal documents are being held pending resolution of MOS-1 vs systemwide procurement.

COST PERFORMANCE REPORT
SYSTEMS DESIGNER

CONTRACT NO. : A740, Fans & Blowers
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
				\$43,120	\$63,263	\$(20,143)

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURLY PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
N/A	N/A	60%	47%	\$0.41	\$37,391	N/A %	\$105,171

CONCLUSIONS AND OBSERVATIONS:

Productivity and C.P.I. are extremely low and a cost overrun has already occurred. At the present rate of performance, this design contract will overrun its budget by 144%. There is some concern by the Project Manager that the budget figures for this contract are incorrect.

COST PERFORMANCE REPORT
FACILITIES DESIGNER

CONTRACT NO. : A745, Station Air-Handling Units, TPSS Fans, Auto Filters Procurement
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
				\$19,600	\$8,500	\$11,100

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
N/A	N/A	50%	106%	\$1.16	\$(1,300)	89%	\$16,897

CONCLUSIONS AND OBSERVATIONS:

COST PERFORMANCE REPORT
FACILITIES DESIGNER

CONTRACT NO. : A750, Tunnel Liners*
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)

52

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOURL PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
			%			%	

CONCLUSIONS AND OBSERVATIONS:

*Data not available.

COST PERFORMANCE REPORT
FACILITIES DESIGNER

CONTRACT NO. : A760, Graphics & Signage
 CONTRACTOR : MRTC
 REPORT PERIOD : October 1984

(1) ORIGINAL CONTRACT COST	(2) APPROVED CONTRACT CHANGES	(3) CURRENT CONTRACT COST (1) + (2)	(4) PENDING CHANGES	(5) MRTC ESTIMATE AT COMPLETION (3) + (4)	(6) EXPENDED	(7) VARIANCE (5) - (6)
				\$62,720	\$63,100	\$ (380)

53

CUMULATIVE TO DATE

PERCENT COMPLETE			MANHOUR PRODUCTIVITY	\$ C.P.I.	\$ COST VARIANCE	T.C.P.I.	\$ RTD I.E.A.C.
PLANNED	FORECAST	ACTUAL					
N/A	N/A	45%	45%	\$0.45	\$34,876	N/A %	\$139,378

CONCLUSIONS AND OBSERVATIONS:

The productivity and C.P.I. on this contract are extremely low and a cost overrun has already occurred. At the present performance rate, this contract will overrun its budget by 123%.

B. SCHEDULE

MOS-1 CRITICAL PATH

The Critical Path (MOS-1) defined in the Level II Schedule originates at Design Contract A140 (Civic Center Station, 5th & Hill and Line Section) and continues to Design Completion and the Construction Bid Process. This path follows construction through Utility Relocation, Support and Excavation, Tunnel Excavation and Invert Placement. The path then shifts to Trackwork Installation and on to Automatic Train Control and Communications Cabling and Installation to Energization of the system. The path then continues through Vehicle Acceptance Testing, Dynamic Testing and finally to Simulated Revenue Service.

METRO RAIL PROJECT
SCHEDULE EXCEPTION REPORT

Minimum Operable Segment-1 Design Contracts

CONTRACT: A112 Main Shop Building and Service Area

AREA OF CONCERN: Contract completion is forecast eight (8) weeks beyond the Contract Time of Performance (10/15/84). Delay is due to the following:

- o reclassifying the Main Shop Building as a B-4 occupancy and of Type II-FR construction per 1979 Uniform Building Code (UBC),
- o repackaging of all contracts within A100 due to ROW acquisition - Santa Fe.

RECOMMENDATION: An amendment has been prepared to extend the Contract Time of Performance and is awaiting final approval. Additional design cost Engineering Change Requests (ECR's) will be negotiated.

CONTRACT: A115 Yard Storage Area

AREA OF CONCERN: Contract completion is forecast twelve (12) weeks beyond the Contract Time of Performance (10/15/84). Delay is due to the repackaging of all contracts within A100 due to ROW acquisition - Santa Fe.

RECOMMENDATION: An amendment has been prepared to extend the Contract Time of Performance and is awaiting final approval. Additional design cost ECR's will be negotiated.

CONTRACT: A130 Yard Leads and Transfer Zone

AREA OF CONCERN: Contract completion is forecast fifteen (15) weeks beyond the Contract Time of Performance (10/15/84). Delay is due to the following:

- o incorporation of seismic design criteria,
- o repackaging of all contracts within A100 due to ROW acquisition - Santa Fe.

RECOMMENDATION: An amendment has been prepared to extend the Contract Time of Performance and is awaiting final approval. Additional design cost ECR's will be negotiated.

CONTRACT: A135 Union Station

AREA OF CONCERN: Contract completion is forecast 22 weeks beyond the Contract Time of Performance (10/09/84). Delay is due to the late submittal of seismic design criteria to Section Designer.

RECOMMENDATION: It is recommended the schedule be revised to show remaining work items and strictly monitored to avoid further delays.

CONTRACT: A165 7th/Flower Station

AREA OF CONCERN: Contract completion is forecast 19 weeks beyond the Contract Time of Performance (10/15/84). Delay is due to the following:

- o lack of design criteria,
- o continuous design changes.

Incorporation of the seismic design criteria may cause additional delay.

RECOMMENDATION: The schedule should be revised to reflect remaining work items.

CONTRACT: A170 Wilshire/Alvarado Station & Line

AREA OF CONCERN: The delay in the contract completion continues to be the area of concern. Based on the MOS-1 Pre-Construction Readiness Schedule, the new forecast date for Contract Completion is 2/26/85, 11 weeks beyond the Contract Time of Performance (12/07/84). Delay is due to the following:

- o seismic design changes,
- o changes in the baseline final specifications.

RECOMMENDATION: The same recommendation from previous report applies: all submittals have to be in no later than December 31; MRTC & TSD will do a comprehensive review in order to meet the contract completion date.

11/15/84
PC-14.8

METRO RAIL PROJECT
DESIGN SCHEDULE STATUS

STATUS AS OF: October 31, 1984

Page 1 of 6

DESIGN CONTRACTS	NOTICE TO PROCEED	CONTRACT TIME OF PERFORM.	60% SUBMITTAL		85% SUBMITTAL		100% SUBMITTAL		BID DOCUMENTS		CURR MONTH SLIPPAGE (C.D.)	TOTAL DELAY (WEEKS)
			SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)		
MCS-1:												
YARD & SHOPS	07/13/83	10/15/84										
A112			02/01/84	06/14/84A	03/28/84	10/11/84A	05/23/84	11/12/84F	-	12/10/84F	-	8
A114			-	01/27/84A	04/25/84	05/30/84A	06/13/84	08/27/84A	-	09/10/84A	-	-
A115			09/10/84	09/24/84A	10/08/84	11/01/84F	12/10/84	12/10/84F	-	01/07/85F	-	12
A130			03/07/84	09/10/84A	05/02/84	12/10/84F	06/27/84	01/14/85F	-	01/29/85F	-	15
UNION STATION	07/13/83	10/09/84										
A135 STAGE I			02/01/84	03/09/84A	04/01/84	11/30/84F	06/01/84	02/01/85F	07/18/84	03/15/85F	-	22
A136 STAGE II			02/01/84	03/09/84A	04/01/84	11/30/84F	06/01/84	02/01/85F	07/18/84	03/15/85F	-	22
CIVIC CENTER/ 5TH & HILL, LINE	07/27/83	07/27/85										
A140 STAGE I			08/01/84	08/01/84A	03/01/85	03/01/85F	06/10/85	06/10/85F	07/15/85	07/15/85F	-	-
A142 EXC./SUP.			08/01/84	07/16/84A	09/07/84	09/21/84A	10/15/84	11/15/84F	11/15/84	11/15/84F	-	-
A147 STAGE II			08/01/84	08/01/84A	03/01/85	03/01/85F	06/10/85	06/10/85F	07/15/85	07/15/85F	-	-
A157 STAGE II			08/01/84	08/01/84A	03/01/85	03/01/85F	06/10/85	06/10/85F	07/15/85	07/15/85F	-	-
7TH & FLOWER	08/09/83	10/15/84										
A165 STAGE I			02/07/84	03/12/84A	05/22/84	11/19/84F	08/07/84	01/14/85F	10/14/84	03/01/85F	-	19
A167 STAGE II			02/07/84	03/12/84A	05/22/84	11/19/84F	08/07/84	01/14/85F	10/14/84	03/01/85F	-	19
WILSH./ALVARADO	08/09/83	12/07/84										
A170 STAGE I			02/14/84	02/16/84A	05/30/84	11/13/84F	08/14/84	01/16/85F	09/26/84	02/26/85F	67	11
A187 STAGE II			04/02/84	05/07/84A	07/25/84	11/19/84F	11/02/84	01/25/85F	12/28/84	01/25/85F	-	7

58

11/15/84
PC-14.8

METRO RAIL PROJECT
DESIGN SCHEDULE STATUS

STATUS AS OF: October 31, 1984

Page 2 of 6

DESIGN CONTRACTS	NOTICE TO PROCEED	CONTRACT TIME OF PERFORM.	60% SUBMITTAL		85% SUBMITTAL		100% SUBMITTAL		BID DOCUMENT		CURR MONTH SLIPPAGE (C.D.)	TOTAL DELAY (WEEKS)
			SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)		
<u>BEYOND MOS-1</u>												
WILSH./VERMONT A195 STAGE I A197 STAGE II	08/12/83	08/11/84	02/07/84	02/10/84A	05/22/84	12/14/84F	08/07/84	-	-	-	14	-
			02/07/84	02/10/84A	05/22/84	12/14/84F	09/21/84	-	-	-	14	-
WILSH./WESTERN A220 STAGE I A237 STAGE II	10/10/83	10/07/85	08/06/84	08/23/84A	11/05/84	12/13/84F	02/04/85	-	-	-	-	-
			08/23/84	08/23/84A	11/05/84	02/14/85F	-	-	-	-	-	-
WILSH./NORMANDIE A220 STAGE I A227 STAGE II A222 TUNNEL			12/03/84	01/17/85F	03/04/85	04/11/85F	06/03/85	-	-	-	-	-
			12/03/84	01/17/85F	03/04/85	05/30/85F	-	-	-	-	-	-
			10/08/84	06/26/84A	04/08/85	11/30/84F	10/07/85	-	-	-	-	-
WILSH./CRENSHAW A240 STAGE I A242 STAGE II	01/27/84	01/26/85	07/26/84	09/13/84A	11/01/84	11/15/84F	01/14/85	-	-	-	-	-
			07/26/84	09/13/85A	11/01/84	11/15/84F	01/14/85	-	-	-	-	-
WILSH./LA BREA A245 STAGE I A247 STAGE II	10/10/83	10/15/84	04/16/84	05/07/84A	07/07/84	11/05/84F	10/16/84	-	-	-	-	-
			04/16/84	05/07/84A	07/07/84	11/05/84F	10/16/84	-	-	-	-	-
WILSH./FAIRFAX & LINE A250 STAGE I A267 STAGE II	03/02/84	06/17/85	11/12/84	11/12/84F	03/04/85	03/04/85F	05/06/85	-	-	-	-	-
			11/12/84	11/12/84F	03/04/85	03/04/85F	05/06/85	-	-	-	-	-

11/15/84
PC-14.8

METRO RAIL PROJECT
DESIGN SCHEDULE STATUS

STATUS AS OF: October 31, 1984

DESIGN CONTRACTS	NOTICE TO PROCEED	CONTRACT TIME OF PERFORM.	60% SUBMITTAL		85% SUBMITTAL		100% SUBMITTAL		BID DOCUMENTS		CURR MONTH SLIPPAGE (C.D.)	TOTAL DELAY (WEEKS)
			SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)		
FAIRFAX/BEVERLY A275 STAGE I A277 STAGE II	12/30/83	12/27/84	06/28/84	06/28/84A	09/27/84	10/01/84F	12/27/84	-	-	-	-	-
			06/28/84	06/28/84A	09/27/84	10/01/84F	12/27/84	-	-	-	-	-
FAIRFAX/SANTA MONICA & TUNNEL A320 STAGE I A327 STAGE II	12/05/83	12/05/85	11/10/84	11/08/84F	03/10/85	03/10/85F	06/10/85	-	-	-	-	-
			11/10/84	11/10/84F	03/10/85	03/10/85F	06/10/85	-	-	-	-	-
LA BREA/SUNSET A330 STAGE I A347 STAGE II			02/10/85	02/10/85F	06/25/85	06/25/85F	10/10/85	-	-	-	-	-
			02/10/85	02/10/85F	06/25/85	06/25/85F	10/10/85	-	-	-	-	-
HOLLYWOOD/ CAHUENGA A350 STAGE I A352 STAGE II	12/29/83	05/02/85	08/27/84	09/10/84A	02/11/85	02/11/85F	-	-	-	-	-	-
			08/27/84	09/10/84A	-	-	-	-	-	-	-	-
LINE BETWEEN HOLLYWOOD/ CAHUENGA AND UNIVERSAL CITY A410	12/29/83	12/29/84	06/28/84	07/31/84A	09/28/84	11/26/84F	12/28/84	-	-	-	27	-
HOLLYWOOD BOWL A415	02/13/84	02/11/85	08/13/84	11/16/84F	-	-	-	-	-	-	14	-
UNIVERSAL CITY A425 STAGE I A427 STAGE II	02/13/84	02/11/85	08/13/84	08/15/84A	11/19/84	11/19/84F	02/11/85	-	-	-	-	-
			08/13/84	08/15/84A	11/19/84	11/19/84F	-	-	-	-	-	-

11/15/84
PC-14.8

METRO RAIL PROJECT
DESIGN SCHEDULE STATUS

STATUS AS OF: October 31, 1984

Page 4 of 6

DESIGN CONTRACTS	NOTICE TO PROCEED	CONTRACT TIME OF PERFORM.	60% SUBMITTAL		85% SUBMITTAL		100% SUBMITTAL		BID DOCUMENTS		CURR MONTH SLIPPAGE (C.D.)	TOTAL DELAY (WEEKS)
			SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)		
LINE BETWEEN UNIVERSAL CITY & NO. HOLLYWOOD A430	12/29/83	12/29/84	07/06/84	08/06/84A	10/08/84	11/30/84F	12/28/84	-	-	-	53	-
NORTH HOLLYWOOD A445 STAGE I A447 STAGE II SYSTEMWIDE	12/29/83	06/28/85	09/20/84	10/01/84A	01/31/85	01/31/85F	05/27/85	-	-	-	-	-
			09/20/84	10/01/84A	01/31/85	-	05/27/85	-	-	-	-	-
A610 MAINLINE TRACKWORK	03/01/84	-	01/15/85	01/15/85F	05/15/85	05/15/85F	07/05/85	09/01/85F	11/01/85	11/01/85F	-	-
A611 RUNNING RAIL SPEC.	05/01/84	-	07/13/84	07/13/84A	10/15/84	10/15/84F	12/05/84	12/05/84F	02/01/85	02/01/85F	-	-
A613 TIMBER TIE SPEC.	08/01/84	-	09/15/84	09/18/84A	12/15/84	12/15/84F	02/05/85	02/05/85F	03/20/85	03/20/85F	-	-
A614 SPECIAL TRACKWORK	02/15/84	-	09/07/84	09/07/84A	11/01/84	11/01/84F	02/01/85	02/01/85F	04/15/85	04/15/85F	-	-
A616 DIR. FLX. FASTENER SPEC.	10/01/84	-	02/15/85	02/15/85F	05/01/85	05/01/85F	06/20/85	06/20/85F	08/01/85	08/01/85F	-	-
A617 RAIL WELDING SPEC.	08/31/84	-	11/30/84	12/01/84F	03/01/85	03/01/85F	04/19/85	04/19/85F	06/04/85	06/04/85F	-	-

11/15/84
PC-14.8

METRO RAIL PROJECT
DESIGN SCHEDULE STATUS

STATUS AS OF: October 31, 1984

DESIGN CONTRACTS	NOTICE TO PROCEED	CONTRACT TIME OF PERFORM.	60% SUBMITTAL		85% SUBMITTAL		100% SUBMITTAL		BID DOCUMENTS		CURR MONTH SLIPPAGE (C.D.)	TOTAL DELAY (WEEKS)
			SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)		
A618 YARD TRACKWORK	06/01/84	-	01/01/85	01/01/85F	04/01/85	04/01/85	05/20/85	05/20/85F	07/23/85	07/23/85F	-	-
A620 ATC	05/02/83	-	09/28/84	02/14/85F	12/09/84	07/09/85F	04/19/85	09/26/85F	-	-	-	-
A630 TRACTION POWER EQUIP.	02/01/84	-	04/30/84	05/29/84A	11/30/84	11/30/84F	02/25/85	02/25/85F	-	-	-	-
A631 TRACTION POWER INSTAL.	02/01/84	-	07/01/85	07/01/85F	01/01/86	01/31/86F	04/30/86	04/30/86F	-	-	-	-
A640 COMM.	05/02/83	-	03/30/85	08/02/85F	05/30/85	12/10/85F	07/30/85	03/24/86F	-	-	-	-
A650 PASS. VEHICLES	05/02/83	-	07/23/84	07/23/84A	11/01/84	01/04/85F	02/15/85	-	-	-	-	-
A660 FARE COLLECTION	05/02/83	-	11/01/84	03/02/85F	06/01/85	06/01/85F	01/02/86	01/02/86F	-	-	-	-
A670 - 671 LOCOMOTIVE	05/02/83	-	05/01/84	05/11/84A	10/01/84	11/07/84F	02/15/85	02/15/85F	-	-	-	-
A710 ESCALATORS	05/02/83	-	01/30/84	02/08/84A	05/01/84	06/21/84A	06/01/84	10/22/84F	12/03/84	12/03/84F	-	-
A720 ELEVATORS	05/02/83	-	05/01/84	07/02/84	N/A	N/A	10/16/84	10/24/84A	11/26/84	11/26/84F	-	-
A740 FANS	01/15/84	-	04/02/84	04/16/84A	09/24/84	09/24/84F	05/02/85	05/02/85F	05/13/85	03/15/85F	-	-
A745 TPSS AIR HANDLING EQUIP.	05/15/84	-	11/15/84	11/15/84F	02/15/85	02/15/85F	-	-	04/15/85	04/15/85F	-	-

N/A = Not Applicable

11/15/84
PC-14.8

METRO RAIL PROJECT
DESIGN SCHEDULE STATUS

STATUS AS OF: October 31, 1984

Page 6 of 6

DESIGN CONTRACTS	NOTICE TO PROCEED	CONTRACT TIME OF PERFORM.	60% SUBMITTAL		85% SUBMITTAL		100% SUBMITTAL		BID DOCUMENTS		CURR MONTH SLIPPAGE (C.D.)	TOTAL DELAY (WEEKS)
			SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)	SCHEDULE	F'CAST(F) ACTUAL(A)		
A750 TUNNEL LINERS	10/01/83	-	05/16/84	05/16/84A	08/15/84	08/23/84A	12/15/84	11/16/84F	N/A	N/A	-	-
A760 SIGNING	02/22/84	-										
Interior		-	09/14/84	09/25/84A	11/09/84	11/09/84F	12/24/84	12/24/84F	12/24/84	12/24/84F	-	-
Exterior		-	10/26/84	10/26/84F	12/21/84	12/21/84F	01/25/85	01/25/85F	01/25/85	01/25/85F	-	-
Map Graphics		-	12/07/84	12/07/84F	02/01/85	02/01/85F	03/08/85	03/08/85F	03/08/85	03/08/85F	-	-