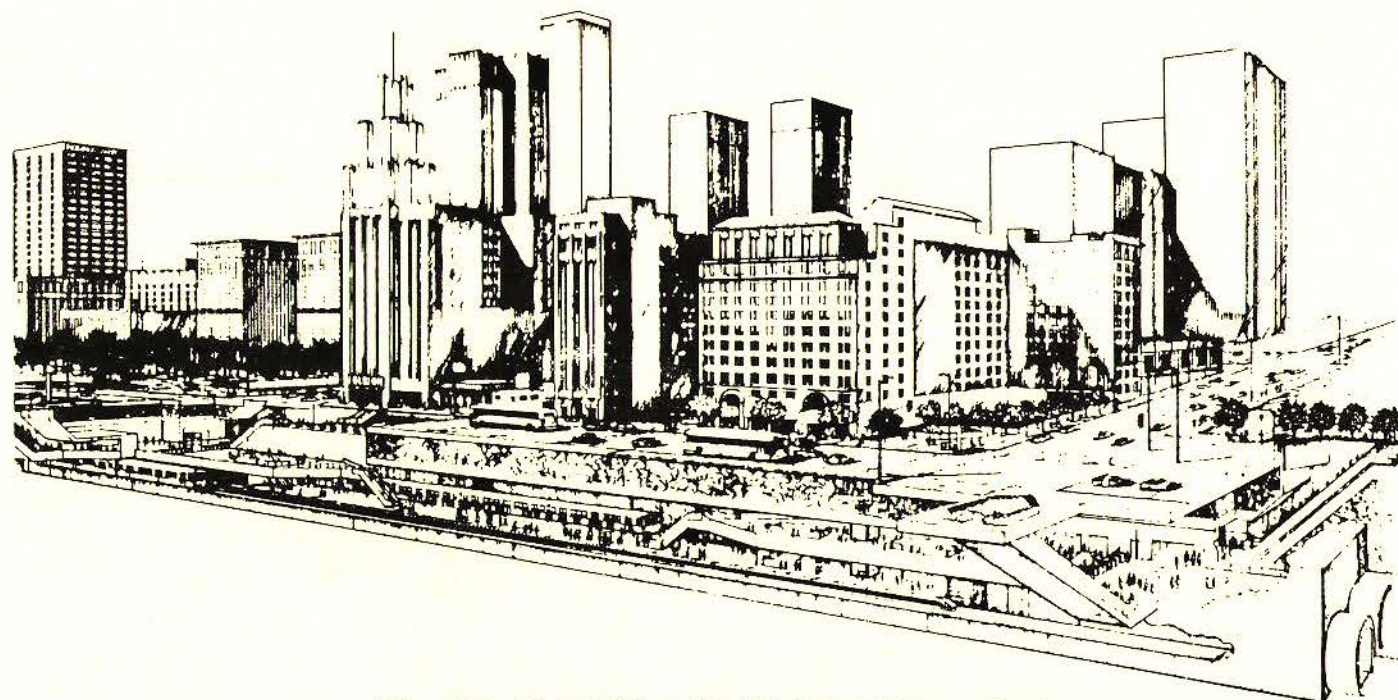


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LOS ANGELES **METRO RED LINE** PROJECT

MONTHLY CONTRACT PERFORMANCE REPORT



REPORT NUMBER 66
DECEMBER 1989

PDCCD

A Joint Venture of The Ralph M. Parsons Co., Dillingham Construction N. A. Inc., and De Leuw, Cather & Co.,

*SCD
Dept
1-25-90*

**MONTHLY CONTRACT
PERFORMANCE REPORT**

for the

LOS ANGELES METRO RED LINE PROJECT

DECEMBER 1989

presented to

Southern California Rapid Transit District

CONTRACT NO. 3369

"The preparation of this Document has been financed in part through grants from the State of California, the City of Los Angeles, the Los Angeles County Transportation Commission and the U. S. Department of Transportation, Urban Mass Transportation Administration, under the Urban Mass Transportation Act of 1964, as amended."

Month DECEMBER Year 1989

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no. 66



LOS ANGELES METRO RED LINE

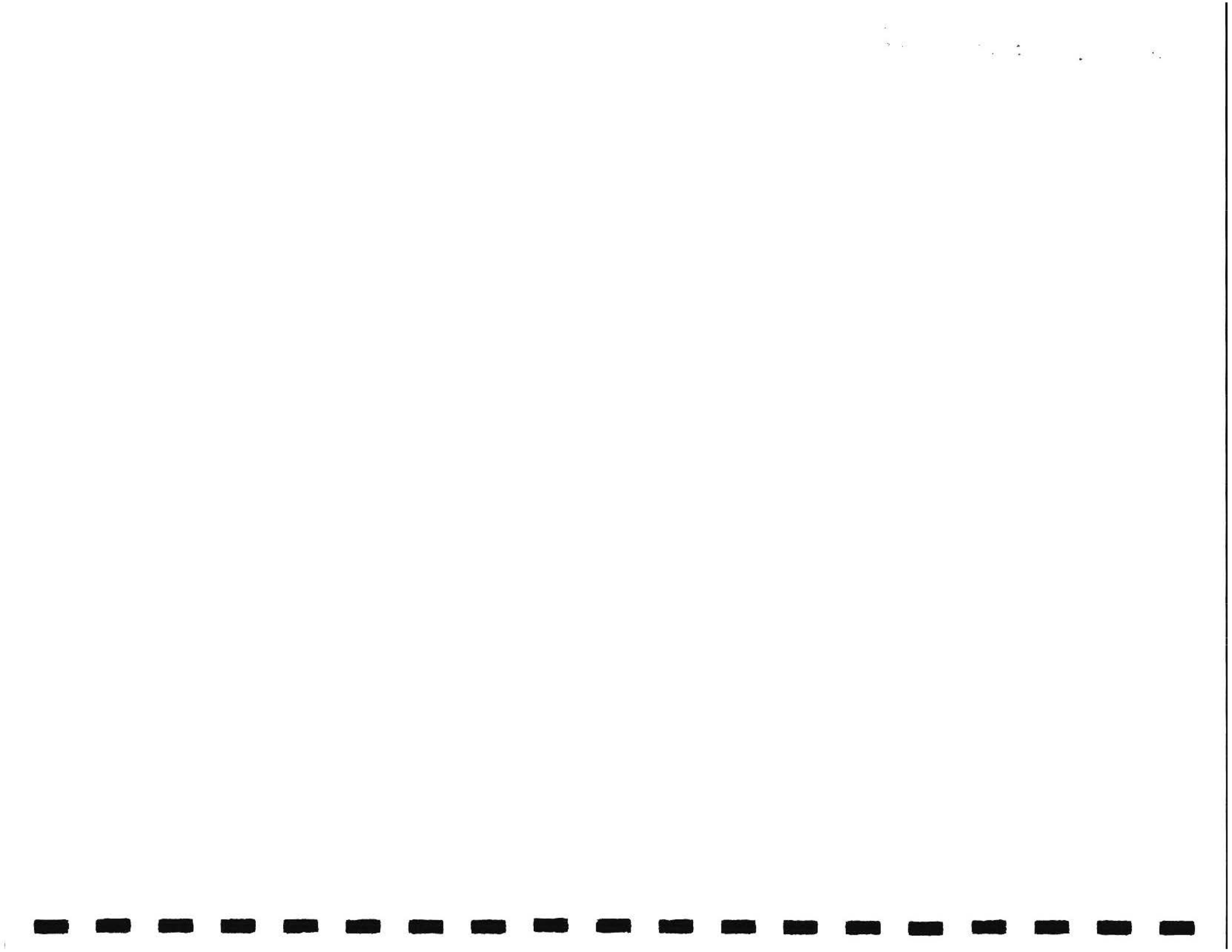
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CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

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SECTION I

CONSTRUCTION MANAGER'S

SUMMARY STATEMENT

MTA LIBRARY



LOS ANGELES METRO RED LINE

CONTRACT PERFORMANCE REPORT

PD CD

PERIOD DECEMBER 1989

I. CONSTRUCTION MANAGER'S SUMMARY STATEMENT

MAJOR CM ACTIVITIES

This Contract Performance Report (CPR) for the month of December 1989 is the sixth cpr in the sixth annual work plan (6th AWP) and covers the period November 25 to December 29, 1989. The following is a summary, by functional organization, of major CM activities during this period:

CONSTRUCTION OPERATIONS: Continued Construction Management (CM) services for 16 Facility Contracts and 11 Systems Contracts, monitoring of utilities relocations, and performance of submittal reviews. Continued conducting QC inspections of work for compliance to plans and specifications. Monitored contractor progress to approved project schedules. Assisted contractors in coordination with local public agencies in areas of community impact, permits and traffic access. Continued to conduct safety inspections of all contractor activities. Responded to contractor document clarification requests as appropriate.

Environmental Activities: Continued monitoring for groundwater and construction water discharges at 9 construction sites. Continued monitoring of Discharge Monitoring Stations at Ballona Creek and Los Angeles River. Prepared and submitted November Discharge Monitoring Report (DMR) to the California regional water Quality Control Board (CRWQCB). Prepared and submitted November LA River Dissolved Solids Report to Central and West Basin Water Replenishment District (CWBWRD).

Utilities and Traffic Activities: Continued coordination of traffic control plans and street closures with city agencies for 6 contracts. Continued coordination of MOS-1 Traffic Control/Traffic Safety inspections with LADOT. Processed a total of 18 Traffic and Utilities related submittals and one Master Agreement invoice. Provided MRTC with water line lateral as-builts for A165 and light poles as-built locations for Yards and Shops.

Surveying Activities: Continued checking contractor's control points and layout at various construction sites. Continued location surveys at yards and shops contracts. Completed walkway as-built survey for AR and AL tunnels (A171). Completed primary horizontal and vertical control as-built for A171 tunnels.

PROJECTS CONTROLS: Processed 8 Change Requests as follows: 1 for A130; 1 for A135; 2 for A145; 2 for A165; and



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2 for A171. Processed 5 Change Notices as follows: 1 for A165; 1 for A175; 1 for A612; and 2 for A732. Processed 29 Change Orders as follows: 5 for A135; 4 for A145; 7 for A146; 6 for A165; 2 for A175; 1 for A610/A115; 2 for A640; 1 for A650; and 1 for A755. Processed 25 Executed Change Orders through TRACS as follows: 1 for A112, 2 for A130; 3 for A135; 3 for A141; 3 for A145; 1 for A146; 4 for A165; 7 for A175; and 1 for A640. Processed 5 Potential Claims as follows: 2 for A112; 1 for A130; 1 for A141; and 1 for A165. Processed 1 Change - Technical Evaluation as follows: 1 for A146. Processed 20 Force Account Change Packages as follows: 3 for A141; 12 for A146; and 5 for A610. Completed Close-out Reconciliations on 13 Force Account Change Orders as follows: 4 for A141 and 9 for A146. Processed Monthly Payment Estimates for 21 contracts. Reviewed Contractor Monthly Progress Reports for contracts. Prepared Scheduling inputs to RTD Monthly Status Report. Approved-as-noted A631 Part II Schedule Submittal. Rejected A175 Part II Schedule Revision. Started quarterly update (designated Revision 7C) for the Level III Schedule.

Cost Estimates for Changes/Proposals: A130-CR-026B: Prepared estimate for 3rd alignment change, communication ductbank to Metro Rail for LA Fire Department and Pac Bell. A130-CR-038: Miscellaneous review of data for extended 48" diameter piers at Busway Bent No. 4. A135-CR-004, CR-032, CR-044: Continued to prepare estimates, reviewed proposals and negotiated numerous changes for LAUPT Baggage Handling Facilities, police service room, and stair No. 4. A135-CR-041: Began a review of contractor claimed changes related to temporary railroad bridge, VE-002. A136 Stage II: Reviewed proposed construction schedule, modified as required. Used the A136 schedule as a guide for review of other Stage II Contracts. A141-CR-011: Access delay to Union Station, reviewed subcontractors proposals, prepared estimates and analysis, and attended negotiations. Settlement reached on all items except Home Office overhead. A145-CR-132: Clarified scope of work and quantities for preparation of estimate, increased elevator hoistway and related work. A-146-CR-038: Clarified scope of work and quantities for estimate, walkway concrete and wet standpipe. A165-CR-104: Prepared estimate for temporary bulkheads, lighting and ventilation in tunnels A171. A167-CR-009: Prepared estimate for revised north and south partitions of Fan Room 96. A175-CR-035: Reviewed Contractor's revised proposals, incoming electric service room, and attended negotiations.

CONTRACT/PROCUREMENTS: Submitted Subcontract Amendment for District approval to add Senior Planner/Scheduler position to Kal Krishnan's subcontract. Issued 42 purchase orders for miscellaneous supplies and equipment. Continued to administer 23 active subcontracts issued by PDCD in support of project.

ENGINEERING SERVICES: Coordinated responses on the A141 Contractor's request to eliminate an extensometer over crosspassage No. 1. Reviewed results of first magnetometer survey in Contract A130. Instructed the A130



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construction inspectors in sketching of geology exposed in tunnel face. Coordinated site visit by H. J. Handewith, an independent consultant reviewing the A141 hard rock claim. Completed review and distributed comments on Gould and Sparacin's final draft on the A141 Civic Center Station strut overload claim. Transmitted to consultant J. P. Gould final data and cross correlations for Contract A145 and the hard rock claim areas of Contract A141. Coordinated with MRTC and A130 RE to inspect A130 Contractor's horizontal coring operation at Commercial and Center Streets. Processed 7 field inquiries with MRTC to obtain clarification of design requirements. Responded to 171 requests for information or documentation clarification from various Contractors.

During this period 380 Contractor submittals were processed as follows:

For Contract A112	- Approved - 2;	Approved-as-Noted - 3.	
For Contract A130	- Approved - 12;	Approved-as-Noted - 5;	Rejected - 6.
For Contract A135	- Approved - 21;	Approved-as-Noted - 19;	Rejected - 7.
For Contract A135BH	- Approved - 2;	Approved-as-Noted - 2;	Rejected - 2.
For Contract A141	- Approved - 10;	Approved-as-Noted - 13;	Rejected - 1.
For Contract A145	- Approved - 29;	Approved-as-Noted - 44;	Rejected - 4; For Record Only - 2.
For Contract A146	- Approved - 6;	Approved-as-Noted - 7;	Rejected - 2.
For Contract A165	- Approved - 29;	Approved-as-Noted - 32;	Rejected - 1.
For Contract A167	- Approved - 5;	Approved-as-Noted - 12;	Rejected - 4; For Record Only - 1.
For Contract A171	- Approved - 1;	Approved-as-Noted - 1.	
For Contract A175	- Approved - 4;	Approved-as-Noted - 8;	Rejected - 2; For Record Only - 1.
For Contract A610/A115	- Approved - 5;	Approved-as-Noted - 1;	Rejected - 1; For Record Only - 4.
For Contract A612	- Approved - 1;	Approved-as-Noted - 4.	
For Contract A616	- Approved - 9.		
For Contract A620	- Approved - 15;	Approved-as-Noted - 4;	Rejected - 1.
For Contract A630			Rejected - 3.
For Contract A631	- Approved - 3;	Approved-as-Noted - 6;	Rejected - 5.
For Contract A640	- Approved - 6;	Approved-as-Noted - 2;	Rejected - 3 For Record Only - 1.
For Contract A710	- Approved - 1.		
For Contract A740	- Approved - 1;	Approved-as-Noted - 1.	
For Contract A745	- Approved - 1.		
For Contract A795		Approved-as-Noted - 1;	Rejected - 1.

TOTAL

163

165

43

9 = 380



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SAFETY/SECURITY: Performed daily site safety, health and security surveillances and prepared written reports for 11 construction contracts. Coordinated activities of the Systemwide Security Guard Service and the Systemwide Clean-up Service Subcontractors. Performed site safety surveillances with DIA Director of Safety. Prepared written reports. Reviewed video stills of safety infractions with contractors' management staff (except for A141 contractor) and PDCD Resident Engineers' staff.

COMMUNITY RELATIONS: Coordinated community notifications for A141, A145, A146, A165 and A175 tenants affected by lane restrictions and/or street closures. Coordinated and resolved traffic mitigation concerns for tenants along Hill St. affected by A141, and A145 traffic access plans, and for tenants in the 7th/Flower area affected by A165 and A146 (under 7th St.) traffic plans. Provided assistance to A141, A145, A146 and A165 for problems caused by blocked access, rodents, accidents, security, and general construction activities. Provided assistance to RTD in responding to media requests and coordinating 3 site visits. Processed 23 inquiries/complaints. Provided assistance to RTD/LGCA in implementation of the December 14 Community Awareness Meeting for 5th/Hill Street area tenants and the general public. Coordinated traffic access plans and Community Awareness activities for the holiday shopping season.

QUALITY ASSURANCE/QUALITY CONTROL - Continued to review welding activities and conducted fabrication inspections as required to support facilities and system procurement contracts as follows: Site Inspection at: A130, A145 - Inspection of welds on starpacks, kneebrace supports, walers and struts during excavation; - A135 - Inspection of welds on wet standpipe and elevator systems; - A145 - Inspection of bulkhead strut welds for tunnel supports and rebar welds on wall dowel modification and rebar splices on columns #28 thru #30; A141 - Evaluation and inspection of welds on wet standpipe and sprinkler systems; A145, A165, A175 - Inspection of welds during installation of permanent structures. Shop Inspection at: Paramount Metals - Inspection of embedded supports for slurry walls, rails, escalator beam supports, tunnel rings, and heavy frames for permanent structures (A130, A141, A145, A165, A175); Angeles Steel - Inspection and monitoring of stud welding subcontracted from Paramount Metals; Scott Company - Inspection of Wet Standpipe and Hydraulic piping system spool pieces (A135, A145, A165). Nuevo Camino Fabricators - Witness shop hydrostatic tests for pipe spool pieces for Wet Standpipe System (A146). Continued to monitor on-site testing and Smith-Emery test laboratory activities. Witnessed system pressure tests for: A141 Wet Standpipe pipe spool; A145 Hydraulic Oil lines; A171 Fire Lines; and A610/A115 Fire Lines, and Domestic Water and Natural Gas Lines. Inspected welded joints on A145 Deluge Lines. Inspected installation and monitored testing of HDPE for A135. Participated in A112 contract close-out activities. Participated in Safety Certification Review Team Audit of Contract A171. Conducted QA review of approximately 142 contractor submittals for various contracts. Monitored Smith-Emery concrete test reports.



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EQUAL OPPORTUNITY - Monitored Equal Opportunity reporting requirements (i.e. SSA&P Report, Monthly Employment Utilization Reports, Certified Payroll) for 27 Contracts. Conducted project site interviews for 12 contracts. Processed penalty assessments for the late submittal of the Monthly Employment Utilization Reports for 9 Contracts.

MANPOWER PERFORMANCE

The manpower performance for December is measured against the approved planned staffing for this period from the 6th AWP. During December the actual staff level was 191 vs. the planned staff level of 171. Therefore, the actual staff count for December was 20 over the planned staffing level. The staff breakdown by company was 128 for the Joint Venture firms and 63 for the Associate Subcontractors. The increased staff was required for the processing of excessive quantity of field submittals, correspondence, and requests for information, and for multishift inspection of construction work at various job sites.

The December period had 192 available workhours/person. The plan provided for expenditure of 32,832 hours, including "as-required" manhours which would have generated a projected equivalent head count of 171.0 personnel at 192 hours/person. Actual hours expended were 33,884 which translates into a 176.48 equivalent head count at 192 hours/person including temporary personnel, resulting in the equivalent of 5.48 personnel over the plan.

Cumulative total hours incurred through December were 178,531 against a plan of 175,472 resulting in an over plan variance of 3,059 hours.

EQUAL OPPORTUNITY (EO) PERFORMANCE

EO performance for PDCD in December measured on a cost accrual basis for the category of DBE, and on a percentage basis for the category of Minority and Women Affirmative Action were as follows:

- o Cumulative DBE participation for the Sixth Annual Work Plan through the month, measured against a total cost basis was 23.6%, 3.6% over the goal of 20%. Cumulative DBE participation since contract inception is 22.7%, 2.7% above the 20% goal.
- o Minority and Women Affirmative Action performance for the month exceeded the established goal of 17% for minorities by 23% and was below the goal of 8% for women by 2%.



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CONTRACT PERFORMANCE REPORT

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SCHEDULE PERFORMANCE

- o Contractor Submittals - During this period, 354 submittals were received per contract number as follows: A112 (3), A130 (19), A135 (41), A135BH (6), A141 (33), A145 (61), A146 (13), A165 (77), A167 (21), A171 (1), A175 (12), A610/A115 (14), A612 (4), A615 (0), A616 (3), A620 (11), A630 (0), A631 (21), A640 (11), A710 (1), A732 (0), A740 (1); A745 (1); and A795 (0); of the 354 received this period plus the 234 carryover from November, 380 packages were processed and returned to the contractors; the balance of 208 remain in review.
- o Construction Package Reviews - No Constructibility or Claims Avoidance Reviews were conducted during December.

COST PERFORMANCE - Sixth Annual Work Plan

- o Total incurred costs of \$1,536,915 for CM Direct Services (excluding General Condition Items) for the period were under the plan of \$1,585,323 by \$48,408. This variance results from the net effect of Other Direct Costs (ODCs) being under the plan by \$41,971 and labor expenditures (total PDCD and subcontractors) being under the plan by \$6,437.
- o The cumulative costs for total CM Services (including General Condition Items) incurred through December were \$8,444,434 against a plan of \$8,897,653 resulting in an under plan of \$453,219.
- o The December CPR indicates an Estimate at Completion as of the 6th AWP (including General Condition Items) of \$17,164,230 versus a plan of \$16,872,968 for an overexpenditure of \$291,262. The overage in the Estimate at Completion is based on the need to provide extra inspectors to cover added shifts and longer work periods by the contractors to mitigate past schedule delays and achieve schedule recovery as-required.

GENERAL CONDITION ITEMS

General Condition Items (GCI's) expenditure of \$12,168 for the period were under the plan of \$64,691 for the period by \$52,523. This report forecasts an Estimate At Completion (EAC) as of the 6th AWP period for GCI's of \$805,632 which is over the plan of \$791,300 by \$14,332.



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CONTRACT PERFORMANCE REPORT

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GENERAL

- o This "Monthly Contract Performance Report" covers progress relative to PDCD's CM Services contract with the RTD. For information on the status of construction/procurement contracts, see the "Monthly Status Report" produced by the District. A copy of the RTD report is distributed to previous recipients of the no longer produced PDCD "Monthly Construction Performance Report", as required.

A handwritten signature in cursive script, reading 'Melvin L. Polacek'.

Melvin L. Polacek
Construction Manager



SECTION II

MANPOWER PERFORMANCE



LOS ANGELES METRO RED LINE

PDCD

CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

II. MANPOWER PERFORMANCE

This CPR for the month of December compares actual manpower to the planned manpower in the approved 6th AWP. Table II-1, Page 10 illustrates planned staff vs. actual staff and variances for December.

During December, personnel assignments/deletions included the addition of 2 Inspectors (Systemwide); and the deletion of 1 Inspector (Facilities) and 1 Secretary.

For the December period, under the approved 6th AWP, the total planned staffing level (including regular and as-required classifications) is 171. The actual staff (including regular, as-required and temporary classifications) was 191 resulting in 20 over the plan. The current actual staff by company for the December period is as follows:

<u>Company</u>	<u>Staff Level</u>	<u>Company</u>	<u>Staff Level</u>
The Ralph M. Parsons Company	56	Jenkins, Gales & Martinez, Inc.	9
Dillingham Construction, Inc.	52	Kal Krishnan Consulting	3
De Leuw, Cather & Company	20	Martin & Huang International	4
Better Personnel Employment Services	9	North Pacific Construction Management	6
Construction Control Services Corporation	16	Ochoa & Sillas	-
Dames & Moore	1	Randolph & Tate Associates	-
D'Leon Consulting	1	Transmetrics	1
Engineering-Science, Inc.	2	Manpower	4
Jacobs Associates	7		

The PDCD Manpower Chart on Page 11 illustrates planned manpower for Construction Services for the Sixth Annual Work Plan period. Actual equivalent manpower is shown for the months of July through December.

The December period had 192 available workhours/person. The plan provided for an expenditure of 32,832 hours, including "as-required" manhours, which would have generated a projected equivalent head count of 171.0. personnel @ 192 hrs./person. Actual hours expended were 33,884 which translates into an equivalent head count of



LOS ANGELES METRO RED LINE

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CONTRACT PERFORMANCE REPORT

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176.48 @ 192 hrs./person including temporary personnel, resulting in the equivalent of 5.48 personnel over the plan.

The hours expended for the period were 33,884 versus a plan of 32,832. The 1,052 manhours variance for the period is calculated as follows:

5.48 equivalent staff over plan @ 192	
hours/period in plan =	<u>1,052 hours</u>
DECEMBER VARIANCE TO PLAN	<u>1,052 hours</u>

Cumulative total hours for the 6th AWP incurred through December were 178,531 against a plan of 175,472 resulting in an over plan variance of 3,059 hours (Page 22).



LOS ANGELES METRO RED LINE

POCD

CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

**TABLE II-1 CONSTRUCTION MANAGEMENT STAFF COUNT - DECEMBER
SIXTH ANNUAL WORK PLAN**

Phase II Construction Services

Regular/As-required/Temporary

Position	Planned	Actual	Variance
Construction Manager	1	1	0
Manager, Safety and Security	1	1	0
Safety Inspectors	1	1	0
Manager, Quality Assurance(3)	1	0	(1)
Lead Quality Assurance Engineer(3)	0	1	1
QA/QC Engineers/Inspectors	1	1	0
Manager, Project Administration/Accounting(5)	1	0	(1)
Lead Accountant(5)	0	1	1
Senior Accountant	1	0	(1)
Senior Accounting Clerks	2	2	0
Manager, Community Relations	1	1	0
Community Relations Coordinator	1	1	0
Manager, EO Administration	1	1	0
EO Administrator	1	0	(1)
Labor Relations Advisor	0	0	0
Legal Counsel	0	0	0
Subtotal	<u>13</u>	<u>11</u>	<u>(2)</u>

DCM, Eng'r Serv./Proj. Controls(4)	0	0	0
Manager, Eng'r Serv./Proj. Contr.(4)	0	1	1
Manager, Administration and Staff Support(4)	1	0	(1)
Manager, Project Controls	1	1	0
Technical Data Coordinator	1	1	0
Lead Cost Engineer	1	1	0
Cost Engineers	4	4	0
Lead Change Control	1	1	0
Change Control Specialist	1	0	(1)
Claims Proc. Spec.	2	1	(1)
Data Technicians	1	1	0
Lead Planner/Scheduler	1	1	0
Planner/Schedulers	9	9	0
Lead Estimator	1	1	0
Estimators	4	3	1
Sr. Data Technician	1	1	0
Computer Support	0	0	0
Lead Document Control Specialist	1	1	0
Document Control Specialist	1	1	0
Shop Drawing Coordinator	1	2	1
Data Technician	1	1	0
File Clerk	1	1	0
Manager, Contracts/Procurement(5)	1	1	0
Sr. Contract Administrator	1	1	0
Office Services Manager	1	1	0
Secretarial/Word Processing/Clerical/ Drafting/ Courier	14	14	0
Interim Program Controls Manager	0	1	1
Subtotal	<u>51</u>	<u>50</u>	<u>(1)</u>

Phase II Construction Services

Regular/As-required/Temporary

Position	Planned ⁽¹⁾	Actual ⁽²⁾	Variance
Manager, Engineering Services/ Systems Integration	1	1	0
Drafting Technicians	2	1	(1)
Lead Architect	1	1	0
Architect	0	0	0
Lead Electrical Engineer	1	1	0
Electrical Engineer	1	8	7
Lead Engineer, Geotech. Section	1	1	0
Engineers, Geotech. Section	2	3	1
Lead Mechanical Engineer	1	1	0
Mechanical Engineer	0	3	3
Lead Structural Engineer	1	1	0
Sr. Struct./Struct. Engineers	2	4	2
Lead Systems Engineer	1	1	0
Systems Engineer	2	1	(1)
Office Engineer	0	1	1
Subtotal	<u>16</u>	<u>28</u>	<u>12</u>

DCM, Operations	1	1	0
Manager, General Services	1	1	0
Lead Utilities Engineer	1	0	(1)
Party Chief	1	1	0
Instrument Person	1	2	1
Rod Person	2	1	(1)
Lead Environmental Engineer	1	1	0
Environmental Specialists	3	2	(1)
Engineering Technician/Coordinator	0	1	1
Resident Engineers	9	8	(1)
Chief Inspectors	7	9	2
Sr. Inspectors/Inspectors	31	37	6
Office Engineers	9	11	2
Field Secretaries/Clerical	10	12	2
Manager, Systemwide Construction	1	1	0
Office Engineer	3	3	0
Resident Engineers	4	4	0
Secretaries/Clerical	4	4	0
Inspector	1	2	1
Data Technicians	1	1	0
Subtotal	<u>91</u>	<u>102</u>	<u>11</u>
Totals	<u>171</u>	<u>191</u>	<u>20</u>

NOTES:

- (1) The "Planned" staff count is taken directly from the RTD approved POCD 6th AMP. It is the planned staff count for the reported month and includes both "Regular" and "As-required" classifications.
- (2) The "Actual" staff count is the total actual staff count by Job Position. Included are regular, as-required and temporary staff.
- (3) Effective July 1, 1989, the duties of the Manager, Quality Assurance have been reassigned to the Lead QA/QC Engineer.
- (4) Effective July 1, 1989, the Manager of Administration and Staff Support assumed the position of DCM, Project Engineering/Controls Services and the position title was changed to Manager, Engineering Services/Project Controls.
- (5) Effective July 1, 1989, the Manager, Contracts/Procurement assumed the administrative duties previously handled by the Manager, Project Administration/Accounting. Effective August 1, 1989, the Lead Accountant assumed the accounting duties previously handled by the Manager, Project Administration/Accounting and the title "Manager, Project Administration/Accounting" was eliminated.



LOS ANGELES METRO RED LINE

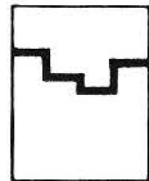
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CONTRACT PERFORMANCE REPORT

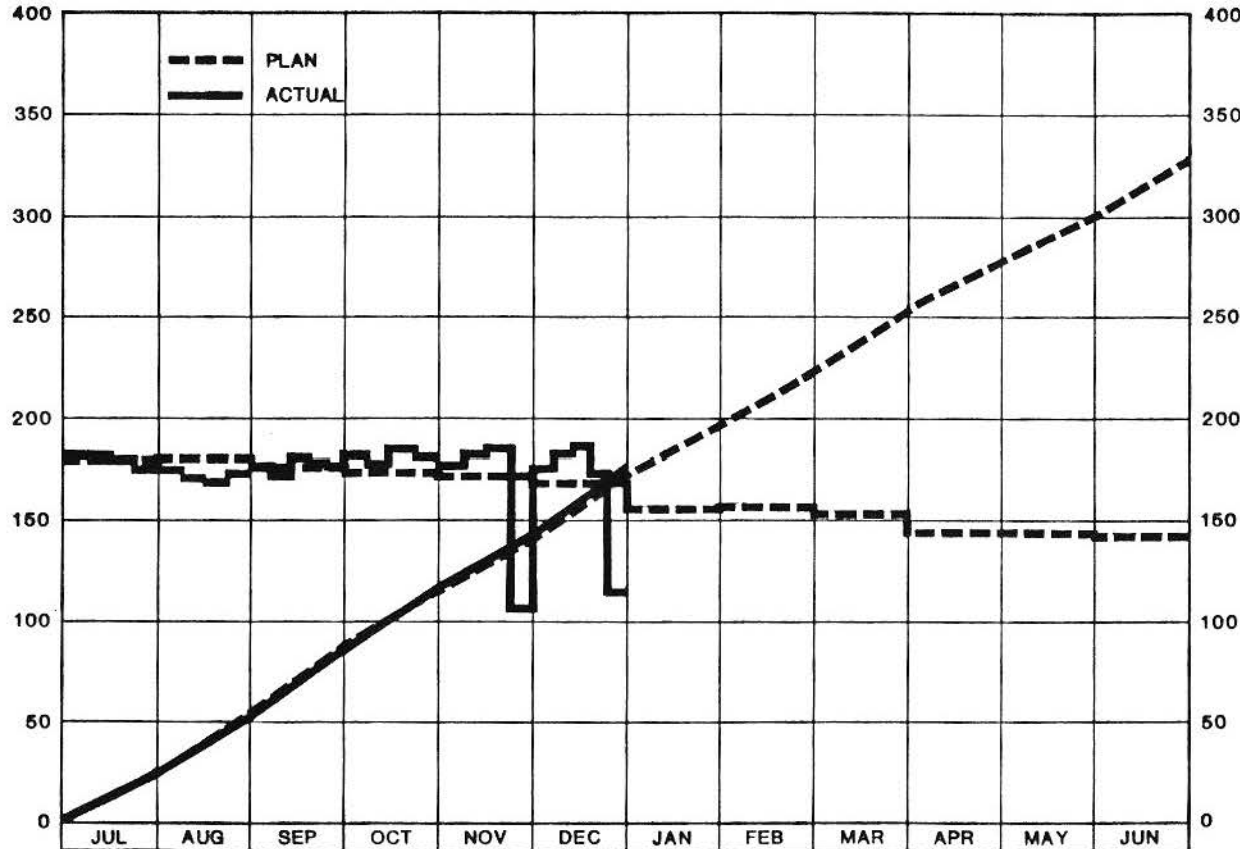
SIXTH ANNUAL WORK PLAN

PERIOD DECEMBER 1989

EQUIVALENT
MANPOWER



AVERAGE MANPOWER



MANHOUR
(000)



CUM HOURS

		1989						1990					
HOURS/MO	PLAN	26,208	29,200	34,176	28,000	26,056	32,832	23,864	25,280	31,000	23,568	23,568	28,090
	ACTUAL	26,260	27,947	34,433	29,514	26,493	33,884						
HOURS/CUM	PLAN	26,208	55,408	89,584	117,584	142,640	175,472	199,336	224,616	255,616	279,184	302,752	330,842
	ACTUAL	26,268	54,207	88,640	118,154	144,647	178,531						
EQ MANPOWER	PLAN	182	183	178	175	174	171	157	158	155	147	147	146
	ACTUAL	182	175	179	184	184	176						
AVAILABLE WORK HOURS		144	160	192	160	144	192	152	160	200	160	160	192

PDCD MANPOWER

Parsons-Dillingham-De Leuw, Cather



LOS ANGELES METRO RED LINE

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CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

SIXTH ANNUAL WORK PLAN PDCD MANHOURS BY FUNCTIONAL DEPARTMENT

PAGE 1 OF 3

			1989						1990						
DESCRIPTION (MHRS)			JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTALS
MANHOURS BY FUNCTIONAL DEPARTMENT															
A PROJECT MANAGEMENT	PLAN	current	2,592	2,880	3,264	2,720	2,448	3,264	2,417	2,544	2,980	2,384	2,224	2,669	32,386
		cumulative	2,592	5,472	8,736	11,456	13,904	17,168	19,585	22,129	25,109	27,493	29,717	32,386	
	ACTUAL	current	2,729	2,602	3,280	3,066	2,839	4,147	0	0	0	0	0	0	18,663
		cumulative	2,729	5,331	8,611	11,677	14,516	18,663	18,663	18,663	18,663	18,663	18,663	18,663	
C FAC. CONSTRUCTION	PLAN	current	10,656	11,760	13,440	11,200	9,792	12,672	8,968	9,440	11,800	8,960	9,120	10,944	128,752
		cumulative	10,656	22,416	35,856	47,056	56,848	69,520	78,488	87,928	99,728	108,688	117,808	128,752	
	ACTUAL	current	11,255	11,876	14,473	11,745	11,121	13,930	0	0	0	0	0	0	74,400
		cumulative	11,255	23,131	37,604	49,349	60,470	74,400	74,400	74,400	74,400	74,400	74,400	74,400	
E SYSTEMWIDE CONST	PLAN	current	1,872	2,080	2,496	2,080	2,016	2,688	2,417	2,544	3,180	2,704	2,704	3,245	30,026
		cumulative	1,872	3,952	6,448	8,528	10,544	13,232	15,649	18,193	21,373	24,077	26,781	30,026	
	ACTUAL	current	1,559	1,659	2,210	1,981	1,741	1,911	0	0	0	0	0	0	11,061
		cumulative	1,559	3,218	5,428	7,409	9,150	11,061	11,061	11,061	11,061	11,061	11,061	11,061	
F GENERAL SERVICES	PLAN	current	1,440	1,600	1,920	1,600	1,440	1,920	1,094	1,152	1,440	1,024	1,024	1,229	16,883
		cumulative	1,440	3,040	4,960	6,560	8,000	9,920	11,014	12,166	13,606	14,630	15,654	16,883	
	ACTUAL	current	1,486	1,549	1,600	1,406	1,283	1,631	0	0	0	0	0	0	8,955
		cumulative	1,486	3,035	4,635	6,041	7,324	8,955	8,955	8,955	8,955	8,955	8,955	8,955	
K PROJECT CONTROLS	PLAN	current	3,960	4,400	5,280	4,400	4,104	5,472	3,739	3,936	4,720	3,392	3,392	4,070	50,865
		cumulative	3,960	8,360	13,640	18,040	22,144	27,616	31,355	35,291	40,011	43,403	46,795	50,865	
	ACTUAL	current	3,457	3,887	4,067	3,687	3,519	4,389	0	0	0	0	0	0	23,006
		cumulative	3,457	7,344	11,411	15,098	18,617	23,006	23,006	23,006	23,006	23,006	23,006	23,006	



LOS ANGELES METRO RED LINE

CONTRACT PERFORMANCE REPORT

PDCD

PERIOD DECEMBER 1989

SIXTH ANNUAL WORK PLAN PDCD MANHOURS BY FUNCTIONAL DEPARTMENT

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			1989						1990						
DESCRIPTION (MHRS)			JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTALS
MANHOURS BY FUNCTIONAL DEPARTMENT															
L PROCUREMENT	PLAN	current	432	480	576	320	288	384	274	288	360	256	256	307	4,221
		cumulative	432	912	1,488	1,808	2,096	2,480	2,754	3,042	3,402	3,658	3,914	4,221	
	ACTUAL	current	249	309	352	295	267	340	0	0	0	0	0	0	1,812
		cumulative	249	558	910	1,205	1,472	1,812	1,812	1,812	1,812	1,812	1,812	1,812	1,812
M ENG. SVCS./SYST. INTEGR.	PLAN	current	2,520	2,960	3,360	2,800	2,232	2,976	2,842	2,832	3,540	2,608	2,448	3,130	34,248
		cumulative	2,520	5,480	8,840	11,640	13,872	16,848	19,690	22,522	26,062	28,670	31,118	34,248	
	ACTUAL	current	2,913	2,950	5,135	4,762	3,594	4,764	0	0	0	0	0	0	24,118
		cumulative	2,913	5,863	10,998	15,760	19,354	24,118	24,118	24,118	24,118	24,118	24,118	24,118	24,118
N COMMUNITY RELATIONS	PLAN	current	288	320	384	320	288	384	152	160	200	160	160	192	3,008
		cumulative	288	608	992	1,312	1,600	1,984	2,136	2,296	2,496	2,656	2,816	3,008	
	ACTUAL	current	248	265	272	156	155	278	0	0	0	0	0	0	1,374
		cumulative	248	513	785	941	1,096	1,374	1,374	1,374	1,374	1,374	1,374	1,374	1,374
P SAFETY	PLAN	current	288	320	384	320	288	384	304	320	400	256	256	307	3,827
		cumulative	288	608	992	1,312	1,600	1,984	2,288	2,608	3,008	3,264	3,520	3,827	
	ACTUAL	current	200	320	340	280	280	320	0	0	0	0	0	0	1,740
		cumulative	200	520	860	1,140	1,420	1,740	1,740	1,740	1,740	1,740	1,740	1,740	1,740
Q QUALITY ASSURANCE	PLAN	current	432	480	576	320	288	384	274	288	360	288	288	346	4,324
		cumulative	432	912	1,488	1,808	2,096	2,480	2,754	3,042	3,402	3,690	3,978	4,324	
	ACTUAL	current	338	402	520	438	304	336	0	0	0	0	0	0	2,138
		cumulative	338	740	1,260	1,698	2,002	2,338	2,338	2,338	2,338	2,338	2,338	2,338	2,338



LOS ANGELES METRO RED LINE

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CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

SIXTH ANNUAL WORK PLAN PDCD MANHOURS BY FUNCTIONAL DEPARTMENT

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1989

1990

DESCRIPTION (MHS)			JUL	AUG	SEP	OCT	NOV	DEC	JAN	FEB	MAR	APR	MAY	JUN	TOTALS
MANHOURS BY FUNCTIONAL DEPARTMENT															
R PROJECT ADMIN.	PLAN	current	1,440	1,600	1,920	1,600	1,440	1,920	1,383	1,616	1,820	1,536	1,376	1,651	19,302
		cumulative	1,440	3,040	4,960	6,560	8,000	9,920	11,303	12,919	14,739	16,275	17,651	19,302	
	ACTUAL	current	1,581	1,856	1,914	1,554	1,254	1,660	0	0	0	0	0	0	9,819
		cumulative	1,581	3,437	5,351	6,905	8,159	9,819	9,819	9,819	9,819	9,819	9,819	9,819	
S EQUAL OPPORTUNITY	PLAN	current	288	320	384	320	288	384	0	0	0	0	0	0	1,984
		cumulative	288	608	992	1,312	1,600	1,984	1,984	1,984	1,984	1,984	1,984	1,984	
	ACTUAL	current	245	272	270	144	136	178	0	0	0	0	0	0	1,245
		cumulative	245	517	787	931	1,067	1,245	1,245	1,245	1,245	1,245	1,245	1,245	
T LABOR RELATIONS	PLAN	current	0	0	0	0	144	0	0	0	200	0	160	0	504
		cumulative	0	0	0	0	144	144	144	144	344	344	504	504	
	ACTUAL	current	0	0	0	0	0	0	0	0	0	0	0	0	0
		cumulative	0	0	0	0	0	0	0	0	0	0	0	0	
U LEGAL	PLAN	current	0	0	192	0	0	0	0	160	0	0	160	0	512
		cumulative	0	0	192	192	192	192	192	352	352	352	512	512	
	ACTUAL	current	0	0	0	0	0	0	0	0	0	0	0	0	0
		cumulative	0	0	0	0	0	0	0	0	0	0	0	0	
TOTAL (HOURS)	PLAN	current	26,208	29,200	34,176	28,000	25,056	32,832	23,864	25,280	31,000	23,568	23,568	28,090	330,842
		cumulative	26,208	55,408	89,584	117,584	142,640	175,472	199,336	224,616	255,616	279,184	302,752	330,842	
	ACTUAL	current	26,260	27,947	34,433	29,514	26,493	33,884	0	0	0	0	0	0	178,531
		cumulative	26,260	54,207	88,640	118,154	144,647	178,531	178,531	178,531	178,531	178,531	178,531	178,531	



SECTION III

EQUAL OPPORTUNITY

PERFORMANCE

MTA LIBRARY





LOS ANGELES METRO RED LINE

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CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

III. EQUAL OPPORTUNITY PERFORMANCE

DBE Participation

The monthly DBE participation for the Sixth Annual Work Plan for December measured on the basis of accrued total cost was 23.6% 3.6% above the 20% goal. The cumulative percentage for the Sixth Annual Work Plan was 23.3%, 3.3% above the 20% goal (Figure 1 on Page 16). The cumulative percentage for the total contract from its inception in July 1984 is 22.7%, 2.7% above the 20% goal.

Affirmative Action Analysis

The Affirmative Action Analysis, as indicated in Figure 2 on Page 16, shows the established goal of 17% for minorities was exceeded by 23%. The Affirmative Action Analysis for women, as indicated in Figure 3 on Page 16, shows 6%, which is below the goal of 8% by 2.0%.



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CONTRACT PERFORMANCE REPORT

SIXTH ANNUAL WORK PLAN

PERIOD DECEMBER 1989

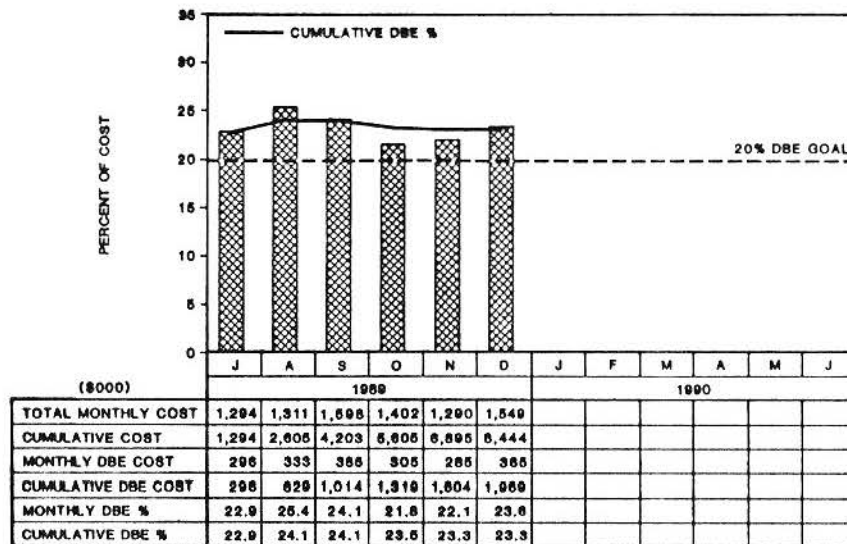


FIGURE 1 - DBE ANALYSIS

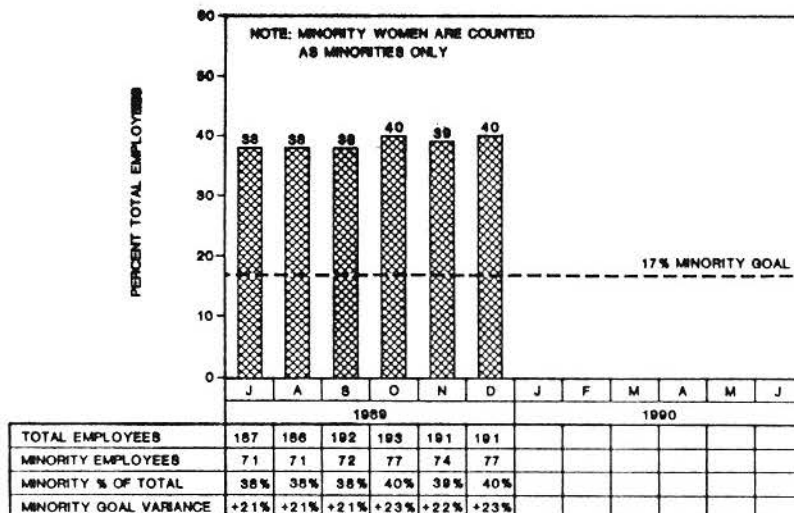


FIGURE 2 - MINORITY AFFIRMATIVE ACTION ANALYSIS

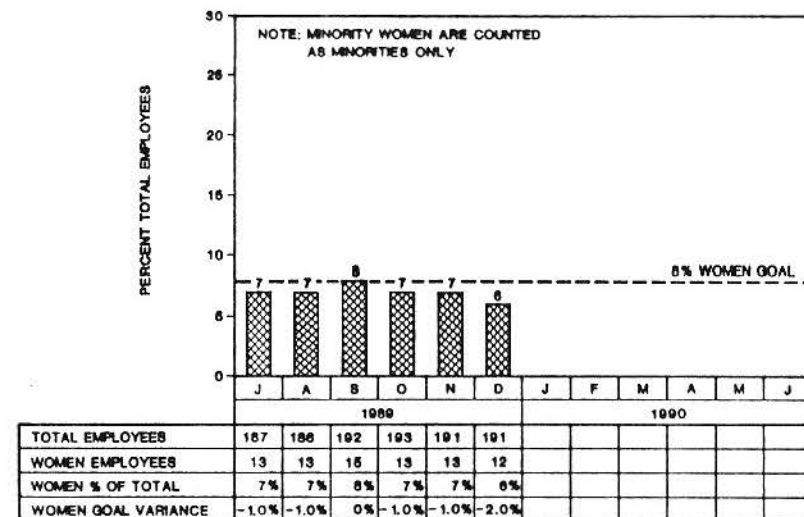


FIGURE 3 - WOMEN AFFIRMATIVE ACTION ANALYSIS



SECTION IV

SCHEDULE PERFORMANCE



LOS ANGELES METRO RED LINE

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CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

IV. SCHEDULE PERFORMANCE

CONTRACTOR SUBMITTALS - During this period, 354 submittals were received from the Construction Contractors and 234 were carried over from November. 380 packages were processed (approved, approved-as-noted, rejected and reviewed for record only) and returned to the Contractors as shown in the following tabulation. The balance of 208 are still under review.

<u>Contracts</u>	<u>Carryover From Nov.</u>	<u>No. Of Submittals Received in Dec.</u>	<u>Submittals Processed Within 30 Days</u>	<u>Submittal Processed In Over 30 Days</u>	<u>Carryover To January</u>
A112	5	3	4	1	3
A130	15	19	17	6	11
A135	26	41	42	5	20
A135BH	4	6	6	0	4
A141	14	33	19	5	23
A145/A145A	47	61	62	17	29
A146	9	13	11	4	7
A165	42	77	49	13	57
A167	15	21	16	6	14
A171	2	1	2	0	1
A175	15	12	13	2	12
A610/A115	5	14	10	1	8
A612	1	4	5	0	0
A615	0	0	0	0	0
A616	6	3	9	0	0
A620	13	11	18	2	4
A630	3	0	0	3	0
A631	7	21	9	5	14
A640	1	11	11	1	0
A710	0	1	1	0	0
A732	0	0	0	0	0
A740	2	1	2	0	1
A745	0	1	1	0	0
A795	2	0	1	1	0
TOTAL	234	354	308	72	208



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Construction Package Reviews - No Constructibility or Claims Avoidance Reviews were conducted during December.

Training Programs - The following training programs were underway during the December period:

- o Provided specialized underground safety training/indoctrination for PDCD staff, MRTC and visitors.
- o Provided tunnel mapping techniques for future tunnel driving for six inspectors.



SECTION V

COST PERFORMANCE





LOS ANGELES METRO RED LINE

PDCD

CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

V. COST PERFORMANCE

SIXTH ANNUAL WORK PLAN

Total incurred costs of \$1,536,915 for CM Direct Services (without General Condition Items) for the period were under the plan of \$1,585,323 by \$48,408. This variance results from the net effect of Other Direct Costs (ODCs) being under the plan by \$41,971 and Labor expenditures (total PDCD and subcontractors) being under the plan by \$6,437.

The cumulative costs for total CM Services (including General Condition Items) incurred through December were \$8,444,434 against a plan of \$8,897,653 resulting in an under plan expenditure of \$453,219 (Page 25).

The December CPR forecasts (Page 25) a total CM Services Estimate At Completion (including General Condition Items) of \$17,164,230 versus a plan of \$16,872,968 for an overexpenditure of \$291,262. The overage in the Estimate at Completion is based on the need to provide extra inspectors to cover added shifts and longer work periods by the contractors to mitigate past schedule delays and achieve schedule recovery as-required. Extracting the General Condition Items for separate reporting, the December CPR forecasts a CM Direct Services Estimate At Completion of \$16,358,598 versus a plan of \$16,081,668 for an over plan expenditure of \$276,930.

GENERAL CONDITION ITEMS

General Condition Items (GCI's) expenditure of \$12,168 was under the plan of \$64,691 for the period by \$52,523. This report forecasts an Estimate At Completion (EAC) as of the 6th AWP period for GCI's of \$805,632 versus a plan of \$791,300, for a projected overplan expenditure of \$14,332. (Page 24)

LABOR COSTS

The average hourly labor rate, including burdens and fees, experienced for the period was \$42.70/hr. compared to a plan rate of \$44.26 (-)/hr., resulted in a difference of \$1.56 per hour.

The variances can be summarized into two categories:



LOS ANGELES METRO RED LINE

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CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

STAFFING VARIANCE

5.479166 equivalent staff over plan @ 192
hours at \$44.2604/hour =

IMPACT ON DECEMBER COSTS

\$ 46,562

RATE VARIANCE

176.4791666 actual staff equivalent @ 192 hours
@ \$1.56412933/hour =

(52,999)

DECEMBER COST VARIANCE TO PLAN

\$ 6,437

OTHER DIRECT COSTS

Other Direct Costs (ODCs) were under the plan for the period by a net of \$41,971 as follows:

DESCRIPTION	CURRENT PERIOD DOLLARS			CUMULATIVE DOLLARS		
	BUDGET	ACTUAL	VARIANCE	BUDGET	ACTUAL	VARIANCE
(1)Field Office Expenses	55,300	46,453	- 8,847	331,800	269,080	-62,720
(2)Office Equipment	3,725	3,729	4	22,350	11,123	-11,227
(3)Travel & Relocation	18,141	14,930	-3,211	108,850	62,431	-46,419
(4)Vehicles & Maintenance	28,900	4,225	-24,675	53,400	24,066	-29,334
(5)Reproduction	6,050	4,870	-1,180	36,300	28,013	-8,287
(6)Telephone & Telex	5,950	3,310	-2,640	35,700	29,957	-5,743
(7)Computer Operation Support	2,291	2,807	516	13,750	15,361	1,611
(8)Gross Receipt Tax	7,833	7,800	-33	47,000	45,000	-2,000
(9)Field Equipment	3,975	2,070	-1,905	23,850	17,247	-6,603
S/T ODC's	132,165	90,194	<u>-41,971</u>	673,000	502,278	-170,722

NOTES

- (1) Field Office Expenses - underexpenditure due to less than planned purchase of supplies.
- (2) Office Equipment - expended as budgeted.
- (3) Travel and Relocation - underexpenditure due to planned travel not materializing.
- (4) Vehicles & Maintenance - underexpenditure due to lower than planned vehicle maintenance costs.



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- (5) Reproduction - underexpenditure due to lower than planned reproduction.
- (6) Telephone and Telex - underexpenditure due to lower communications cost.
- (7) Computer Operation Support - overexpenditure due to higher than normal DMCS costs.
- (8) Gross Receipt Tax - varies directly with the actual cumulative rate of expenditure per period.
- (9) Field Equipment - underexpenditure due to lower than planned expenditures in field office expenses.



LOS ANGELES METRO RED LINE

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CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

CM COST PERFORMANCE - DECEMBER 1989 SIXTH ANNUAL WORK PLAN CONSTRUCTION

(\$000)

			PLANNED	ACTUAL	VARIANCE	%

PDCD						
LABOR, BURDENS, FEE						
CUMULATIVE THROUGH	NOVEMBER		\$ 4171	\$ 4181	\$ 10	0.24%
CURRENT MONTH			953	978	25	2.62%

CUMULATIVE THROUGH	DECEMBER		\$ 5124	\$ 5159	\$ 35	0.68%

TRAVEL AND ODC'S						
CUMULATIVE THROUGH	NOVEMBER		\$ 541	\$ 412	\$ (129)	-23.84%
CURRENT MONTH			132	90	(42)	-31.82%

CUMULATIVE THROUGH	DECEMBER		\$ 673	\$ 502	\$ (171)	-25.41%

SUBCONTRACTORS						
CUMULATIVE THROUGH	NOVEMBER		\$ 2,212	\$ 2,075	\$ (137)	-6.19%
CURRENT MONTH			500	469	(31)	-6.20%

CUMULATIVE THROUGH	DECEMBER		\$ 2,712	\$ 2,544	\$ (168)	-6.19%

SUBTOTAL CM DIRECT SERVICES						
CUMULATIVE THROUGH	NOVEMBER		\$ 6,924	\$ 6,668	\$ (256)	-3.70%
CURRENT MONTH			1,585	1,537	(48)	-3.03%

CUMULATIVE THROUGH	DECEMBER		\$ 8,509	\$ 8,205	\$ (304)	-3.57%

GENERAL CONDITION ITEMS						
CUMULATIVE THROUGH	NOVEMBER		\$ 324	\$ 227	\$ (97)	-29.94%
CURRENT MONTH			65	12	(53)	-81.54%

CUMULATIVE THROUGH	DECEMBER		\$ 389	\$ 239	\$ (150)	-38.56%
=====						
TOTAL CM SERVICES						
CUMULATIVE THROUGH	NOVEMBER		\$ 7,248	\$ 6,895	\$ (353)	-4.87%
CURRENT MONTH			1,650	1,549	(101)	-6.12%

CUMULATIVE THROUGH	DECEMBER		\$ 8,898	\$ 8,444	\$ (454)	-5.10%
=====						
HOURS						
CUMULATIVE THROUGH	NOVEMBER		142,640 hrs	144,647 hrs	2,007 hrs	1.41%
CURRENT MONTH			32,832	33,884	1,052	3.20%

CUMULATIVE THROUGH	DECEMBER		175,472 hrs	178,531 hrs	3,059 hrs	1.74%
			=====			

* OFF BY ONE DUE TO ROUNDING

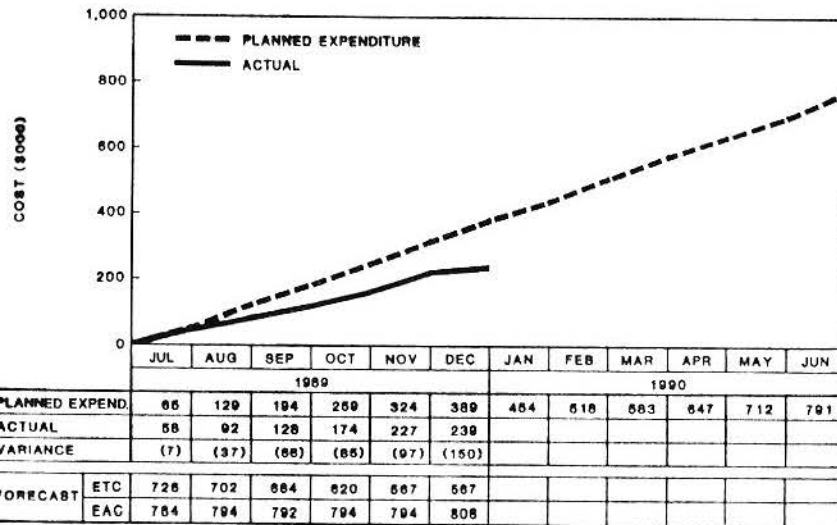


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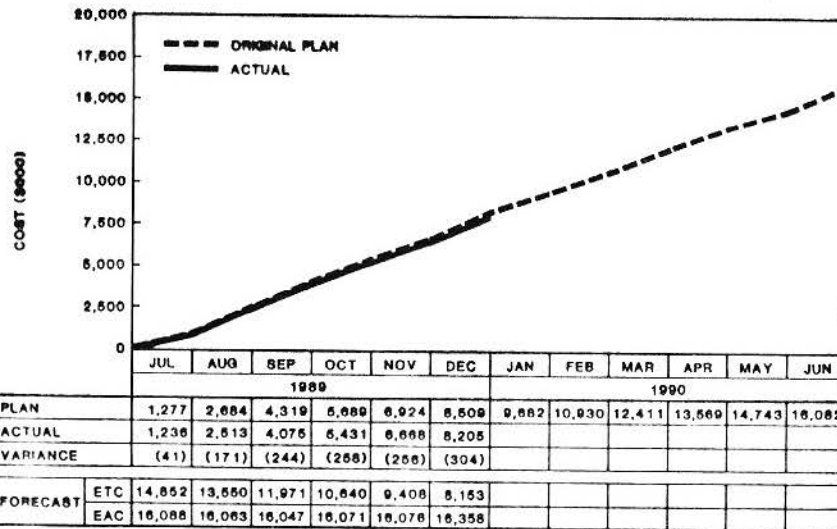
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CONTRACT PERFORMANCE REPORT SIXTH ANNUAL WORK PLAN

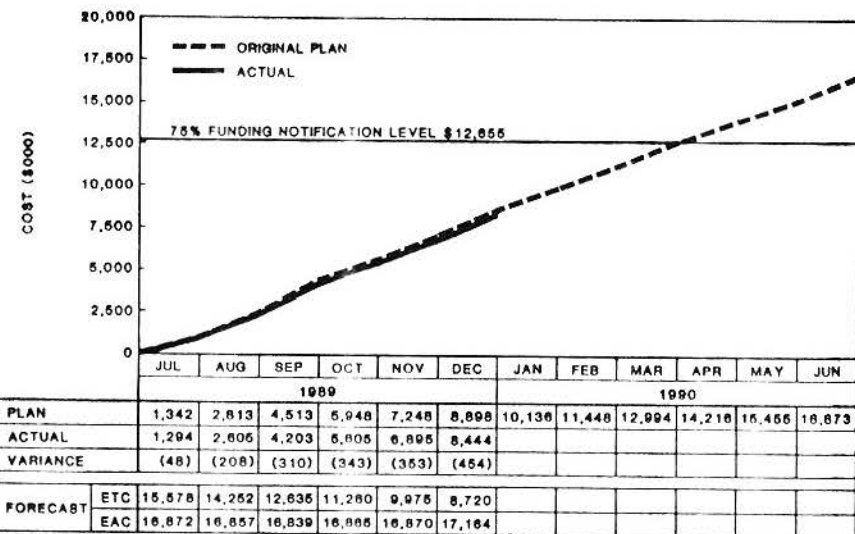
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GENERAL CONDITION ITEMS CUMULATIVE COST PERFORMANCE



CM DIRECT SERVICES CUMULATIVE COST PERFORMANCE



TOTAL CM SERVICES (INCLUDING G.C.I.'s) CUMULATIVE COST PERFORMANCE



LOS ANGELES METRO RED LINE

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CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

**PDCD CM SERVICES - 6TH ANNUAL WORK PLAN
COST REPORT FOR MONTH ENDING DEC 29, 1989
REPORT SUMMARIZED BY RESPONSIBILITY
CONSTRUCTION
GENERAL CONDITION ITEMS**

RESPONSIBILITY CD-DESCRIPTION	CURRENT PERIOD DOLLARS			CUMULATIVE DOLLARS			ESTIMATE TO COMPL	AT COMPLETION DOLLARS		
	BUDGET	ACTUAL	VAR.	BUDGET	ACTUAL	VARIANCE		BUDGET	ESTIMATE	VARIANCE
A RODENT & PEST CONTROL	0	1,610	1,610	0	1,610	1,610	3,390	5,000	5,000	0
B GUARD SERVICES	6,000	6,176	176	36,000	41,101	5,101	30,899	72,000	72,000	0
E CLEAN-UP OF FIELD SITES	2,000	2,280	280	12,000	9,180	-2,820	12,000	24,000	21,180	-2,820
G SIGNS AND BARRICADES	0	0	0	0	0	0	10,000	10,000	10,000	0
X CONSTRUCTION PHOTO	4,000	16,806	12,806	24,000	41,152	17,152	24,000	48,000	65,152	17,152
Y TESTING PROGRAM	52,691	-14,704	-67,395	316,150	146,065	-170,085	486,235	632,300	632,300	0
S/T GEN. COND. ITEMS	64,691	12,168	-52,523	388,150	239,108	-149,042	566,524	791,300	805,632	14,332



LOS ANGELES METRO RED LINE

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CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

PDCD CM SERVICES - 6TH ANNUAL WORK PLAN COST REPORT FOR MONTH ENDING DEC 29, 1989 REPORT SUMMARIZED BY RESPONSIBILITY CONSTRUCTION

RESPONSIBILITY CD-DESCRIPTION	CURRENT PERIOD DOLLARS			CUMULATIVE DOLLARS			ESTIMATE TO COMPL	AT COMPLETION DOLLARS		
	BUDGET	ACTUAL	VAR.	BUDGET	ACTUAL	VARIANCE		BUDGET	ESTIMATE	VARIANCE
A PROJECT MANAGEMENT	96,453	105,558	9,105	502,846	510,951	8,105	514,356	972,997	1,025,307	52,310
C FAC. CONSTRUCTION	501,477	524,141	22,664	2,783,006	2,828,734	45,728	2,851,454	5,108,754	5,680,188	571,434
E SYSTEMWIDE CONST	101,741	79,853	-21,888	501,290	437,960	-63,330	632,411	1,147,194	1,070,371	-76,823
F GENERAL SERVICES	84,616	73,780	-10,836	437,184	402,387	-34,797	302,068	772,363	704,455	-67,908
K PROJECT CONTROLS	264,405	214,229	-50,176	1,336,580	1,095,916	-240,664	1,260,507	2,471,628	2,356,423	-115,205
L PROCUREMENT	19,342	16,885	-2,457	120,801	89,117	-31,684	88,572	208,485	177,689	-30,796
M ENG. SVCS./SYST. INTEGR.	161,717	255,117	93,400	893,924	1,280,338	386,414	891,755	1,823,139	2,172,093	348,954
N COMMUNITY RELATIONS	16,524	10,989	-5,535	85,372	57,065	-28,307	55,245	140,616	112,310	-28,306
P SAFETY	19,380	15,922	-3,458	100,132	86,238	-13,894	93,026	193,159	179,264	-13,895
Q QUALITY ASSURANCE	24,265	16,311	-7,954	143,691	106,838	-36,853	95,113	260,163	201,951	-58,212
R PROJECT ADMIN.	53,457	43,951	-9,506	276,193	254,077	-22,116	276,835	549,161	530,912	-18,249
S EQUAL OPPORTUNITY	16,122	7,982	-8,140	83,298	52,737	-30,561	5,542	83,298	58,279	-25,019
T LABOR RELATIONS	0	0	0	9,632	0	-9,632	24,080	33,713	24,080	-9,633
U LEGAL	0	0	0	24,000	0	-24,000	40,000	64,000	40,000	-24,000
S/T LABOR-BRDN & OH	1,359,499	1,364,718	5,219	7,297,949	7,202,358	-95,591	7,130,964	13,828,670	14,333,322	504,652
1 FIELD OFFICE EXPENSES	55,300	46,453	-8,847	331,800	269,080	-62,720	297,000	663,600	566,080	-97,520
2 OFFICE EQUIPMENT	3,725	3,729	4	22,350	11,123	-11,227	22,350	44,700	33,473	-11,227
3 TRAVEL & RELOCATION	18,141	14,930	-3,211	108,850	62,431	-46,419	94,450	217,700	156,881	-60,819
4 VEHICLES & MAINT.	28,900	4,225	-24,675	53,400	24,066	-29,334	29,400	82,800	53,466	-29,334
5 REPRODUCTION	6,050	4,870	-1,180	36,300	28,013	-8,287	30,000	72,600	58,013	-14,587
7 TELEPHONE & TELEX	5,950	3,310	-2,640	35,700	29,957	-5,743	34,200	71,400	64,157	-7,243
8 COMPUTER OPERATION SUPPT.	2,291	2,807	516	13,750	15,361	1,611	13,750	27,500	29,111	1,611
9 GROSS RECEIPT TAX	7,833	7,800	-33	47,000	45,000	-2,000	47,000	94,000	92,000	-2,000
A FIELD EQUIPMENT	3,975	2,070	-1,905	23,850	17,247	-6,603	23,850	47,700	41,097	-6,603
B/T ODC'S	132,165	90,194	-41,971	673,000	502,278	-170,722	592,000	1,322,000	1,094,278	-227,722
W PDCD FEE	57,500	57,500	0	345,000	345,000	0	230,000	575,000	575,000	0
X S/C FEE	36,159	24,503	-11,656	193,554	155,690	-37,864	200,308	355,998	355,998	0
S/T FEES	93,659	82,003	-11,656	538,554	500,690	-37,864	430,308	930,998	930,998	0
S/T CM DIRECT SVCS	1,585,323	1,536,915	-48,408	8,509,503	8,205,326	-304,177	8,153,272	16,081,668	16,358,598	276,930
S/T GEN. COND. ITEMS	64,691	12,168	-52,523	388,150	239,108	-149,042	566,524	791,300	805,632	14,332
TOTAL CM SERVICES	1,650,014	1,549,083	-100,931	8,897,653	8,444,434	-453,219	8,719,796	16,872,968	17,164,230	291,262

PERCENT OF BUDGET EXPENDED = 50%

NEGATIVE VARIANCE INDICATES UNDERRUN



SECTION VI

ADDITIONAL ACTIVITIES

PERFORMED IN DECEMBER





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VI. ADDITIONAL ACTIVITIES PERFORMED IN DECEMBER

The following activities performed by the CM functional organization are in addition to the activities presented in other sections of this report.

A. Administration And Accounting

- (1) Continued to assist the Resident Engineers in the supply of administrative material and the assignment/orientation of new field personnel at the field offices.
- (2) Continued processing of personnel (acquisition and termination).
- (3) Coordinated audit responses from Associate Subcontractors to RTD Audit Department.

B. Quality Assurance

- (1) Continued to review welding activities and conduct fabrication inspections as required to support facilities and system procurement contracts A130, A135, A141, A145, A165, and A175.

Site Inspection:

- o A130, A145 - Inspection of welds on starpacks, kneebrace supports, walers and struts during excavation.
- o A135 - Inspection of welds on wet standpipe and elevator systems.
- o A145 - Inspection of bulkhead strut welds for tunnel supports and rebar welds on wall dowel modification, and rebar splices on columns #28 thru 30.
- o A141 - Evaluation and inspection of welds on wet standpipe and sprinkler system.
- o A145, A165, A175 - Inspection of welds during installation of permanent structures.

Shop Inspection:

- o Paramount Metals - Inspection of embedded supports for slurry walls, rails, escalator beam supports, tunnel rings, and heavy frames for permanent structures (A130, A141, A145, A165, A175).
- o Angeles Steel - Inspection and monitoring of stud welding subcontracted from Paramount Metals.
- o Scott Company - Inspection of wet standpipe and hydraulic piping system spool pieces (A135, A145, A165).
- o Nuevo Camino Fabricators - Witness shop hydrostatic tests for pipe spool pieces for wet standpipe system (A146).



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- (2) Continued to monitor on-site testing and Smith-Emery test laboratory activities.
- (3) Witnessed system pressure tests for A145 hydraulic oil lines.
- (4) Witnessed pressure test for A141 wet standpipe pipe spool.
- (5) Witnessed system pressure test for A171 fire lines.
- (6) Witnessed pressure test for A610/A115 fire lines, domestic water and natural gas lines.
- (7) Inspected welded joints on A146 deluge lines.
- (8) Participated in A112 contract close-out activities.
- (9) Participated in Safety Certification Review Team Audit of contract A171;
- (10) Conducted QA review of approximately 142 contractor submittals for various contracts.
- (11) Monitored Smith-Emery concrete test reports.
- (12) Inspected installation and monitored testing of HDPE on contract A135.

C. Equal Opportunity Administration

- (1) Monitored Equal Opportunity reporting requirements (i.e. SSA&P Report, Monthly Employment Utilization Reports, Certified Payroll for Contract Nos. A112, A130, A135, A141, A145, A146, A165, A167, A171, A175, A610/A115, A612, A615, A616, A620, A630, A632, A640, A710, A732, A740 and A745.
- (2) Conducted project site visits/employee interviews at A112, A130, A135, A141, A145, A146, A165, A167, A171, A175, A610/A115, and A631.
- (3) Processed penalty assessments for the late submittal of the Monthly Employment Utilization Reports for Contracts A112, A130, A135, A141, A145, A165, A167, A175, and A631.

D. Contracts and Procurement

- (1) Submitted Subcontract Amendment for District approval to add Senior Planner/Scheduler position to Kal Krishnan's subcontract.
- (2) Issued 42 purchase orders for miscellaneous supplies and equipment.
- (3) Continued to administer 23 active subcontracts issued by PDCD in support of project.

E. Community Relations

- (1) Coordinated community notifications for A141, A145, A146, A165 and A175 affected by lane restrictions and/or street closures.
- (2) Coordinated and resolved traffic mitigation concerns for tenants along Hill Street affected by A141, and A145 traffic access plans, and for tenants in the 7th/Flower area affected by A165 and A146 (under 7th Street).



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- (3) Provided assistance to A141, A145, A146 and A165 for problems caused by blocked access, rodents, accidents, security and general construction activities.
- (4) Provided assistance to PDCD/RTD in responding to media requests and coordinating 3 site visits.
- (5) Processed 23 inquiries/complaints.
- (6) Provided assistance to RTD/LGCA for the implementation of the December 14 Community Awareness Meeting for 5th/Hill Street area tenants.
- (7) Coordinated traffic access plans for the Holiday Season with LADOT and the L.A. Traffic Management Department.
- (8) Coordinated community outreach activities for the Holiday Season with LGCA and RTD/Marketing.

F. Safety and Security

- (1) Performed site safety, health and security surveillances and prepared written reports for the A112, A130, A135, A141, A145, A146, A165, A167, A175, A610/115 and A631 Construction contracts.
- (2) Coordinated activities of the Systemwide Security Guard Service and the Systemwide Clean-up Service subcontractors.
- (3) Performed site safety surveillances with DIA Director of Safety. Prepared written reports. Reviewed video stills of safety infractions with contractors' management staff and PDCD Resident Engineer's staff.

G. Construction Operations

- (1) Continued construction management (CM) services for Contracts A112, A130, A135, A141, A143, A144, A145/A145A, A165, A167, A171, A175, A610/115, A612, A615, A616, A620, A630, A640, A710, A732, A740, A745, A750, (4985) and A795; monitoring of Master Agreement Work and submittal reviews.
- (2) Continued coordination of traffic control plans and street closures with city agencies for A130, A141, A145, A146, A165 and A171.
- (3) Continued Coordination of MOS-1 Inspections with LADOT.
- (4) Processed a total of 18 Traffic and Utilities related submittals and one Master Agreement invoice.
- (5) Provided MRTC with water line lateral as-builts for A165.
- (6) Provided MRTC with Light Pole as-built locations for Yard and Shops.
- (7) Continued monitoring of groundwater and construction water discharges at A130, A135, A141, A144, A145, A146, A165, A171, and A175.



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- (8) Continued monitoring of Discharge Monitoring Stations at Ballona Creek and Los Angeles River.
- (9) Prepared and submitted November Discharge Monitoring Report (DMR) to the California Regional Water Quality Control Board (CRWQCB).
- (10) Prepared and submitted November LA River Dissolved Solids Report to Central and West Basin Water Replenishment District (CWBWRD).
- (11) Continued checking Contractor's control points and layout at various construction sites.
- (12) Continued location survey at shop and yards contracts.
- (13) Completed walkway as-built survey for AR and AL tunnels (A171).
- (14) Completed primary horizontal and vertical control as-built for A171 tunnels.

H. Engineering Services

- (1) Coordinated responses on the A141 Contractor's request to eliminate an extensometer over crosspassage No. 1.
- (2) Reviewed results of first magnetometer survey in Contract A130.
- (3) Instructed the A130 construction inspectors in sketching of geology exposed in tunnel face.
- (4) Coordinated site visit by H. J. Handewith, an independent consultant reviewing the A141 hard rock claim.
- (5) Completed review and distributed comments on Gould and Sparacin's final draft report on the A141 Civic Center Station strut overload claim.
- (6) Transmitted to consultant J. P. Gould final data and cross correlations for Contract A145 and the hard rock claim areas of Contract A141.
- (7) Coordinated with MRTC and A130 Resident Engineer and inspected A130 Contractor's horizontal coring operation at Commercial and Center Streets.
- (8) Processed 7 field inquiries with MRTC to obtain clarification of design requirements.
- (9) Responded to 171 requests for information or documentation clarification from various Contractors.
- (10) Completed comprehensive review of electrical embedments on Contract A145.
- (11) Commenced comprehensive review of electrical embedments on Contract A135.
- (12) For Contract A112 - Approved 2 Contractor submittals for O and M manuals and conduit penetration.
Approved-as-Noted 3 Contractor submittals for Test Procedures and Monthly Progress Reports.
- (13) For Contract A130 - Approved 12 Contractor submittals for rebar details, rebar mill tests, tunnel dewatering system, strain gauge installation, tunnel grouting, tunnel ventilation, tieback anchor proof tests, HDPE welder certification, and tunnel ring welding procedure.
Approved-as-Noted 5 Contractor submittals for Monthly Progress Status update, carwash facility



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equipment, traffic control, miscellaneous metal embeds, and tunnel ventilation.

Rejected 6 submittals for Monthly Progress Status report, car wash facility, tunnel conduit arrangement, HDPE quality control certificates, ground rod test report, and U-wall section piping layout.

- (14) For Contract A135 - Approved 21 Contractor submittals for flowmeter, rebar details, welder certification for HDPE, rebar mill tests, tieback anchor proof test results and Monthly Progress Status Report.

Approved-as-Noted 19 Contractor submittals for lift drawings, duct bank plans, rebar details, embedments, grounding plan, monthly status report, column forms, support design at contract interface, and concrete sealer.

Rejected 7 Contractor submittals for electrical lift drawings, QC certification HDPE, ground rod test reports, pipe and fittings for WSP, column forms, and concret sealer.

- (15) For Contract A135 BH - (Baggage Handling) - Approved 2 Contractor submittals for ground fault test report and sonoplastic sealant.

Approved-as-Noted 2 Contractor submittals for historic lighting diffusers and canopy lights.

Rejected 2 Contractor submittals for historic lighting diffusers and Miller DMR lights.

- (16) For Contract A141 - Approved 10 Contractor submittals for formwork, lift drawings, excavation support material treatment, welder certification, rebar mill certificates, wet standpipe and fire protection systems, and concrete mix design.

Approved-as-Noted 13 Contractor submittals for concrete lift drawings for walls and slabs.

Rejected 1 Contractor submittal for piped utilities.

- (17) For Contract A145 - Approved 29 Contractor submittals for anchors for stair nosing, embedded plates, lift drawings for columns, walls, and slabs, welder certifications, rebar drawings, mezzanine electrical layouts, and pipe hanger support insert.

Approved-as-Noted 44 Contractor submittals for product data stair nosings, lift drawings for walls, columns, invert and mezzanine slabs, watermain support, rebar drawings, monthly progress status report, deck beams and framing plan, electrical conduit layouts, north blast relief shaft decking, and junction box.

Rejected 4 Contractor Submittals for special details HDPE installation, sanitary sewer line C, falsework layout, and rebar drawings.

Reviewed-for-Record Only 2 Contractor submittals for electrical layout and wall lift drawing.

- (18) For Contract A146 - Approved 6 Contractor submittals for shaft area dewatering, compaction grouting, AR tunnel survey, crosspassage inverts forms, and crosspassage wall forms.

Approved-as-Noted 7 Contractor submittals for dewatering and site utilities plan, compaction grouting, monthly status reports, HDPE QA program, welding procedure for invert rebar, and wet standpipe test procedure.



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- Rejected 2 Contractor submittals for walkway cover inserts and welders certifications.
- (19) For Contract A165 - Approved 29 Contractor submittals, revised monthly Part II Schedule, HVAC as-built drawings, rebar drawings and lift drawings for walls and slabs.
Approved-as-Noted 32 Contractor submittals for miscellaneous steel embeds, monthly progress reports, structural embeds, vitrified clay pipe, precast concrete manholes, junction boxes, shoring traveler system, lift drawings for stairs, walls, slabs, bridge, and rebar drawings.
Rejected 1 Contractor submittal for concrete mix design.
- (20) For Contract A167 - Approved 5 Contractor submittals for key plans, accoustical panels, color samples, toilet room partition plan, and deluge valve.
Approved-as-Noted 12 Contractor submittals for monthly progress status reports, Home Savings plans, Central Bank plans, miscellaneous metal details, registers and grills, HVAC layout plan, Home Savings plumbing as-builts, victaulic couplings, supervisory control interface cabinets, and electrical fixture K211.
Rejected 4 Contractor submittals for plumbing drawing, duct construction details, auxiliary control panels, and local control stations diagrams and plans.
Reviewed-for-Record Only 1 Contractor submittal for revised master submittal list.
- (21) For Contract A171 - Approved 1 Contractor submittal for concrete mix design.
Approved-as-Noted 1 Contractor submittal for Monthly Progress Status Report.
- (22) For Contract A175 - Approved 4 Contractor submittals for reinforcing steel drawings, double crossover floating slab forms, and grounding.
Approved-as-Noted 8 Contractor submittals for revised Westlake detour, reinforcing steel drawings, shoring system, and No. passageway drawings and calculations.
Rejected 2 Contractor submittals for Monthly Status Progress Report and test report for support pads.
Reviewed-for-Record Only 1 Contractor submittal for tested samples of floating slab support pads.
- (23) For Contract A610/A115 - Approved 5 Contractor submittals for valve box, curing compound, qualification test results for CWR welds, Monthly Progress Status Report, and trackwork geometry and formwork, gantry arrangement and floating slab form.
Approved-as-Noted 1 Contractor submittal for traffic valve box.
Rejected 1 Contractor submittal for ground test reports.
Reviewed-for-Record Only 4 Contractor submittals for rebar mill tests, magnetic particle report, and ultrasonic test reports.
- (24) For Contract A612 - Approved 1 Contractor submittal for expansion joint assembly.
Approved-as-Noted 4 Contractor submittals for expansion joint assembly, support insulator test reports, expansion joint qualification test report, and composite rail test results.



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- (25) For Contract A616 - Approved 9 Contractor submittals for production fastener test results, production elastomer test results, and flammability & smoke generation elastomer test results.
- (26) For Contract A620 - Approved 15 Contractor submittals for track and cable plans, ATC vehicle carried substation, track circuit qualification, exterior cable test results, ATC vehicle equipment factory test, 72 hour burn-in procedure, test reports for terminating receivers and impedance bond, qualification tests, configuration data sheet, and 72 hour burn-in test results.
Approved-as-Noted 4 Contractor submittals for barchart schedule and narratives, yard track and cable plans, and field test procedures.
Rejected 1 Contractor submittal for AF cable.
- (27) For Contract A630 - Rejected 3 Contractor submittals for O & M Manuals for HVAC, LVAC, and DC switchgear.
- (28) For Contract A631 - Approved 3 Contractor submittals for asphalt materials, installation of DFE, and main shop substation.
Approved-as-Noted 6 Contractor submittals for Monthly Status Progress Report, concrete unit masonry, fuel oil system, yard rail & mainline conductor connection, 2500A busway, and panel boards.
Rejected 5 Contractor submittals for electrical insulated flooring, splices & terminations - DC power cables, communication interface cabinet, 2 KV & 35 KV cable, and main shop working drawing.
- (29) For Contract A640 - Approved 6 Contractor submittals for documentation & software standards, software overview, FDR: radio subsystem, software requirements specifications, CTS/telephone subsystem equipment, and CTS/Telephone substation tools.
Approved-as-Noted 2 Contractor submittals for radio frequency power documentation and communication gas/seismic subsystem.
Rejected 3 Contractor submittals for CTS block diagram, radio subsystem test equipment, and communications/radio subsystem test equipment, and communications/radio subsystem special tools.
Reviewed-for-Record Only 1 Contractor submittal for RTU temperature and heat limitations.
- (30) For Contract A710 - Approved 1 Contractor submittal for Monthly Progress Status Report.
- (31) For Contract A740 - Approved 1 Contractor submittal for Monthly Progress Status Report and schedule update.
Approved-as-Noted 1 Contractor submittal for fan shop drawings for A167.
- (32) For Contract A745 - Approved 1 Contractor submittal for Monthly Progress Report and schedule update.
- (33) For Contract A795 - Approved-as-Noted 1 Contractor submittal for uninterrupted power supply drawings.
Rejected 1 Contractor submittal for batteries for UPS.



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I. PROJECT CONTROLS

- (1) Processed Change Requests: A130-CR-042, A135-CR-065, A145-CR-046C, A145-CR-132, A165-CR-111, A165-CR-112, A171-CR-033, and A171-CR-034.
- (2) Processed Change Notices: A165-CN-036, A175-CN-041, A612-CN-001, A732-CN-001 and A732-CN-002.
- (3) Processed Change Orders: A135-CO-004A, A135-CO-033, A135-CO-034, A135-CO-035, A135-CO-037, A145-CO-025C, A145-CO-103, A145-CO-105, A145-CO-106, A145-CO-021I PT. 1, A146-CO-021M PT. 1, A146-CO-021N PT. 1, A146-CO-021Q PT. 1, A146-CO-021R PT. 1, A146-CO-021S PT. 1, A146-CO-021V PT. 1, A165-CO-013, A165-CO-057, A165-CO-061, A165-CO-068, A165-CO-070, A165-CO-071, A175-CO-053, A175-CO-059, A610-CO-065, A640-CO-011, A640-CO-012, A650-CO-006, and A755-CO-003.
- (4) Processed through TRACS, 25 executed Change Orders: A112-CO-065, A130-CO-032, A130-CO-033, A135-CO-002Z0, A135-CO-002ZP, A135-CO-033, A141-CO-063B, A141-CO-069, A141-CO-070, A145-CO-067A, A145-CO-102, A145-CO-103, A146-CO-026, A165-CO-056, A175-CO-042, A175-CO-053, A175-CO-054A, A175-CO-055, A175-CO-056, A175-CO-059, A175-CO-060, A640-CO-011, A165-CO-068, A165-CO-069, and A165-CO-071.
- (5) Processed Potential Claims: A112-PC-070, A112-PC-072, A130-PC-014, A141-PC-002 and A165-PC-154.
- (6) Processed Change - Technical Evaluation: A146-CR-046C.
- (7) Processed Force Account Change Packages: A141-CO-031, A141-CO-031A, A141-CO-040, A146-CO-021I, A146-CO-021L, A146-CO-021M, A146-CO-021N, A146-CO-021O, A146-CO-021R, A146-CO-021S, A146-CO-021T, A146-CO-021U, A146-CO-021V, A146-CO-021W, A146-CO-021X, A610-CO-004, A610-CO-007, A610-CO-008, A610-CO-009, and A610-CO-012.
- (8) Processed Claim Merit Evaluation: A135-PC-051.
- (9) Processed Monthly Payment Estimates For 21 Contracts: A112, A130, A135, A141, A144, A145, A146, A165, A167, A171 and A175, A610/A115, A612, A616, A620, A631, A640, A710, A740, A745, and A755.
- (10) Completed a close-out reconciliation on 13 Force Account Change Orders: A146-CO-021G, A146-CO-021I, A146-CO-021M, A146-CO-021Q, A146-CO-021R, A146-CO-021T, A146-CO-021U, A146-CO-021V, A146-CO-021W, A141-CO-010K, A141-CO-031, A141-CO-031A, and A141-CO-040.
- (11) Reviewed Contractor Monthly Progress Reports.
- (12) Prepared Scheduling inputs to RTD Monthly Status Reports.
- (13) Started preparation of Quarterly update (designated Revision 7C) for the Level III Schedule.
- (14) Rejected A175 Part II Schedule Revision.
- (15) Approved-as-Noted the A631 Part II Resubmittal.
- (16) Prepared weekly action plans.
- (17) A-130-CR-026B Prepared estimate for 3rd alignment change, communication ductbank to Metro Rail for LA Fire Department and Pac Bell.



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- (18) A-130-CR-038 Miscellaneous review of data for extended 48" diameter piers at busway bent No. 4.
- (19) A-135-CR-004, CR-032, CR-044 Continued to prepare estimates, reviewed proposals, and negotiated numerous changes for LAUPT Baggage Handling Facilities, police room, and stair No. 4.
- (20) A-135-CR-041 Began a review of contractor claimed changes related to temporary railroad bridge, VE-002.
- (21) A-136 Stage II Review proposed construction schedule, modified as required. Used the A-136 schedule as a guide for review of other Stage II contracts.
- (22) A-141-CR-011 Access delay to Union Station, reviewed subcontractors proposals, prepared estimates, schedules and analysis, and attended negotiations. Settlement reached on all items except Home Office overhead.
- (23) A-145-CR-132 Clarified scope of work and quantities for preparation of estimate, increased elevator hoistway and related work.
- (24) A-146-CR-038 Clarified scope of work and quantities for estimate, walkway concrete and wet standpipe.
- (25) A-165-CR-104 Prepared estimate for temporary bulkheads, lighting and ventilation in tunnels A-171.
- (26) A-167-CR-009 Prepared estimate for revised north and south partitions of Fan Room 96.
- (27) A-175-CR-035 Reviewed contractors revised proposals, incoming electric service room and attended negotiations.

J. CM Meetings in December 1989

<u>Date</u>	<u>Agency/Company</u>	<u>General Subject</u>
November 30	MRTC/Gould/Sparacin	A141 Strut Overload Claim
December 1	MRTC/RTD/Gould/Sparacin	A141 Strut Overload Claim
December 1	Montgomery Elevator	Audit Of Facilities
December 4	RTD	A141-CR-011: Union Station access delay, reviewed proposed settlement for instrumentation, electrical, and excavation support subcontractors.
December 4, 11	RTD	A175-CR-035: Reviewed estimated costs for incoming electrical service room prior to negotiations.
December 5, 13	RTD/TSP & Subcontractor	A175-CR-035: Negotiations, revised contractor proposal for incoming electrical service room.



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December 5, 6	RTD/Contractor	A146-CR-038A: Clarify scope of work, walkway concrete and wet standpipe.
December 5	RTD/Project Engineer	A175 Closeout
December 6	MRTC/Sparacin	A145 Task B Report
December 6	MRTC	Phase II Assessment Environmental Report
December 6	RTD, LAPD, LASD, BAH, RTD Police, MRTC, Coroner	Site/Project Security
December 6	RTD, LAFD, LACOFD, BAH, MRTC	Public/General Safety
December 6, 13	RTD/GFA	A145-CR-132: Clarify scope of work and review quantities prior to negotiations.
December 7	TSP/GKN-HB	A130 Test Probing of Chemical Grouting
December 7	MRTC/RTD	A147, A157 Final Design Reviews
December 7	RTD/TSP & Subcontractor	A130-CR-038: Review required Force Account data for extended 48" diameter piers.
December 11	RTD/Contractors, Argonaut, DIA	1989 Workers Compensation Reform
December 11	RTD	A610-CR-077: Reviewed CEC proposal and comparison with PDCD estimate for adjustment of Facilities access dates.
December 11	RTD/A171 Project Engineer	Closeout Walkthrough
December 12	LAUPT	A141: Contractor's work area adjustment
December 12	RTD/CEC	A610-CR-077: Review scope of work, schedule, etc. relating to negotiations for delayed tunnel access.
December 12	RTD/CEC	A610-CR-077: Review of scope of work, schedule, etc. relating to negotiations for delayed tunnel access.
December 12, 15, 27	RTD/TSP	A135-CR-004, CR-032: Continuing negotiations to settle numerous proposals for Baggage Handling, Police Room and Stair No. 4 changes.
December 12	LGCA	Tour of A165 by Assemblywoman L. Royal-Allard



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December 13	RTD/TSP	A130-CR-026B: Met to negotiate 3rd alignment change for revised communication ductbank for LAFD and Pac Bell. Closeout Meeting
December 13	A171/Resident Engineer, Project Engineer	
December 13	A640 Resident Engineer, Contractor	Audit Planning Meeting
December 14	MRTC	A130 Test probing under freeway
December 14	RTD/TSG	A141-CR-011: Union Station access delay, negotiated settlement for instrumentation, electrical and excavation support subcontractors, and reached agreement on General Contractor's markup. Community Meeting for general public.
December 14	LGCA	A130 Chemical Grouting
December 18	MRTC/GKN-HB	A130 Coring of Grouted Ground
December 19	MRTC - Continental	A141 Hard Rock Claim
December 19	MRTC/RTD/Handewith	A141-CR-011: Access Delay, reviewed settlement and discussed General Contractor's Home Office costs.
December 19	RTD	A141 Hard Rock Claim
December 20	MRTC/RTD/Handewith	Safety Certification
December 20	MRTC	Renewal of the DOHS variance for Macy/Vignes hazardous material storage yard.
December 21	LA County DOHS	Relocation of conduit through station roof (A141).
December 21	DWP-P	Water Mains As-Builts (A165).
December 21	MRTC	Cal-OSHA tunnel prejob safety meeting
December 21	Cal OSHA, TS/P (A130), RTD, DIA	Lockout procedures
December 21	RTD, Hill International	A610-CR-077: Met for negotiations on access delay.
December 21	RTD/CEC	Instrumentation bench marks and settlement reference points adjacent to tunnels.
December 27	MRTC	



SECTION VII

SUMMARY OF ACTIVITIES

PLANNED FOR JANUARY



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VII. SUMMARY OF ACTIVITIES PLANNED FOR JANUARY 1990

A. Administration and Accounting

- (1) Continue to provide priority administrative and accounting assistance to construction field operations.
- (2) Continue the recruitment and termination of personnel as required.
- (3) Continue to coordinate RTD's auditing process with Associate Subcontractors.

B. Quality Assurance

- (1) Continue to review welding activities and conduct fabrication inspections as required to support facilities and systems contracts.
- (2) Continue to monitor on-site testing activities and Smith-Emery laboratory activities.
- (3) Continue to support Factory Acceptance Testing activities in support of systems contracts.
- (4) Continue review of contractor submittals.
- (5) Continue audits of systems contracts.
- (6) Continue participation in contract closeout and safety certification activities for A112 and A171.
- (7) Continue to witness off-site pressure tests for wet standpipe system components for Contract A146.

C. Equal Opportunity Administration

- (1) Conduct contract compliance site visits, employee interviews and monitor reporting requirements for Contract Nos. A112, A130, A135, A141, A145, A146, A165, A167, A171, A175, and A610/115.
- (2) Evaluate Contractor/Subcontractor EO performance with respect to approved specifications/goals/requirements and apply penalty assessments as required.

D. Contracts and Procurements

- (1) Upon receipt of District approval, issue Amendment to Consulting Agreement with F. E. Endacott & Associates for an increase in AWP-6 funding.
- (2) Issue Request for Quotations, evaluate quotes and submit results to District for approval to purchase two pickup trucks for Systemwide and A610 Resident Engineers. Upon receipt of District approval, issue necessary Purchase Order(s).



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- (3) Issue Request for Proposal for laboratory testing of elastomeric materials, receive and evaluate proposals, and submit recommendation to District for approval to award subcontract.
- (4) Issue Request for Proposal for blanket arrangement for "as-required" consulting estimating services.
- (5) Submit Subcontract Amendment to District for approval to add Lead Senior Planner/Scheduler classification to Kal Krishnan's Subcontract and provide increased funding to cover AWP-6 requirements.
- (6) Issue Consulting Agreement to Construction Technology Laboratories to obtain concrete consultations for A145 Contract.
- (7) Submit Subcontract Amendment to District to extend coverage of assignment of Equal Opportunity Administrator and to provide additional funding to cover all AWP-6 requirements.

E. Community Relations

- (1) Continue tenant notifications on traffic access issues for A141, A145, A146, A165 A167 and A175.
- (2) Continue expanded communication activities with A130, A145, A146, A165 and A175 tenants regarding ongoing and pending construction activities.
- (3) Assist RTD/Local Government and Community Affairs in planning and executing community outreach to Building Managers in the downtown area, including extending promotional activities for the Project Streetwise Hotline and the Information Centers.
- (4) Continue implementing CR Work Plan, conduct community presentations, the dissemination of construction information; and responding to complaints and inquiries.
- (5) Assist RTD/LGCA in planning the next Community Awareness Meeting for the Wilshire/Alvarado Street area tenants.
- (6) Update CR tenant mailing list, emergency contact information and CR merchant files.
- (7) Continue to assist PDCD/RTD with site visits and media requests.

F. Safety and Security

- (1) Continue to monitor safety, health and security activities on all active construction sites.
- (2) Provide specialized underground safety training/indoctrination for PDCD staff, SCRTD, MRTD, and visitors.
- (3) Continue to monitor activities of the Security Guard Service and the Site Clean-Up Service subcontractors.
- (4) Upon receipt, review A620 Safety and Security Plan and the candidate for Safety Representative.



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- (5) Revise the Emergency Response Plan.
- (6) Continue site safety visits with DIA Director of Safety and using video stills as an aid.

G. Construction Operations

- (1) Continue construction management (CM) services for Contracts A112, A130, A135, A141, A143, A144, A145/A145A, A146, A165, A167, A171, A175, A610/A115, A612, A615, A616, A620, A630, A640, A710, A732, A740, A745, A750 (4985) and A795; monitoring of Master Agreement Work and submittal reviews.
- (2) Continue coordination of governmental agencies and MOS-1 inspections with LADOT.
- (3) Continue to process submittals and Master Agreement invoices on as-needed basis.
- (4) Continue monitoring of groundwater and construction water discharges at A130, A135, A141, A144, A145, A146, A165 and A175.
- (5) Continue monitoring Discharge Monitoring Stations at Ballona Creek and Los Angeles River.
- (6) Prepare and submit December Discharge Monitoring Report (DMR) to the California Regional Water Quality Control Board (CRWQCB).
- (7) Prepare and submit December LA River Dissolved Solids Report to Central and West Basin Water Replenishment District (CWBWRD).
- (8) Continue to monitor instrumentation, building and ground settlement marks, at various contracts as needed.
- (9) Continue to check Contractor's control points layout.
- (10) Continue to perform survey tasks as requested by R.E.'s.
- (11) Continue to perform as-built survey of tunnels for Contract A141.
- (12) Continue location surveys in shop and yard contracts.
- (13) Continue to check concrete pours for various contracts.
- (14) Continue MOS-1 Primary Horizontal and Vertical control As-Built for A610 Contractor.

H. Engineering Services

- (1) Continue inspecting instrumentation and analyzing data in Contracts A130, A135, A141, A145, A146, A165 and A175.
- (2) Continue to process Contractor's submittals for Contracts A112, A130, A135, A135BH, A141, A145, A146, A165, A167, A171, A175, A610/A115, A612, A615, A616, A620, A630, A631, A640, A710, A732, A740, A745, A750, and A795.
- (3) Continue comprehensive review of electrical embedments on Contract A135.



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I. Project Controls

- (1) Process Monthly Payment Estimates for all active contracts.
- (2) Process through TRACS all the executed Change Orders.
- (3) Continue close-out reconciliations for Force Account Change Orders.
- (4) Review Contractor Monthly Progress Status Reports.
- (5) Prepare Scheduling inputs to RTD Monthly Progress Report.
- (6) Continue preparation of weekly action plan.
- (7) Complete quarterly update (Revision 7C) for the Level III Schedule.

SECTION VIII

SUBCONTRACTOR/CONSULTANT

STATUS





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VIII. SUBCONTRACTOR/CONSULTANT STATUS

The following 6th AWP Subcontract Status Report provides a current status of subcontracts awarded to the thirteen associate subcontractors, five consultant subcontractors, and five service-type contractors. The Report shows major milestones for each subcontractor action from receipt of the requisition, execution of the document and includes an abbreviated description of the subcontract amendment issued.

SIXTH ANNUAL WORK PLAN SUBCONTRACT STATUS REPORT

DECEMBER 29, 1989

SUBCONTRACT NUMBER	SUBCONTRACTOR	REQUI- SITION	REQ FOR PROPOSAL	NEGOTIATION COMPLETE	JV APPROVAL	DATE TO SC	RETURNED FROM SC	CONSENT REQUESTED	CONSENT RECEIVED	NTE AMOUNT	DATE EXECUTED	REMARKS
1-SC-3369-1	BETTER PERSONNEL EMPLOYMENT SERVICES											
	AMEND. NO. 12	08/07/89	04/12/89	06/13/89	07/20/89	06/16/89	06/16/89	06/21/89	07/27/89	\$415,724	07/27/89	SIXTH AWP
2-SC-3369-1	CONSTRUCTION CONTROL SERVICES CORP.											
	AMEND. NO. 13	08/07/89	04/12/89	06/14/89	07/20/89	06/22/89	06/27/89	06/28/89	07/27/89	\$1,569,347	07/27/89	SIXTH AWP
3-SC-3369-1	DAMES & MOORE											
	AMEND. NO. 11	08/07/89	04/12/89	06/12/89	07/20/89	06/22/89	06/26/89	06/26/89	07/27/89	\$138,215	07/27/89	SIXTH AWP
4-SC-3369-1	ENGINEERING-SCIENCE											
	AMEND. NO. 12	08/07/89	04/12/89	06/12/89	07/20/89	06/22/89	06/27/89	06/28/89	07/27/89	\$214,364	07/27/89	SIXTH AWP
6-SC-3369-1	JACOBS ASSOCIATES											
	AMEND. NO. 14	08/07/89	04/12/89	06/09/89	07/20/89	06/23/89	06/27/89	06/28/89	07/27/89	\$856,565	07/27/89	SIXTH AWP
7-SC-3369-1	JENKINS, GALES & MARTINEZ, INC.											
	AMEND. NO. 14	08/07/89	04/12/89	06/12/89	07/20/89	06/26/89	06/26/89	06/26/89	07/27/89	\$656,763	07/27/89	SIXTH AWP
8-SC-3369-1	MARTIN & HUANG INTERNATIONAL											
	AMEND. NO. 13	08/07/89	04/12/89	06/30/89	07/20/89	06/30/89	07/06/89	07/10/89	07/27/89	\$388,110	07/27/89	SIXTH AWP

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SIXTH ANNUAL WORK PLAN SUBCONTRACT STATUS REPORT (Contd)

DECEMBER 29, 1989

SUBCONTRACT NUMBER	SUBCONTRACTOR	REQUI- SITION	REQ FOR PROPOSAL	NEGOTIATION COMPLETE	JV APPROVAL	DATE TO SC	RETURNED FROM SC	CONSENT REQUESTED	CONSENT RECEIVED	NTE AMOUNT	DATE EXECUTED	REMARKS
9-SC-3369-1	NORTH PACIFIC CONSTRUCTION MANAGEMENT											
	AMEND. NO. 14	08/07/89	04/12/89	06/13/89	07/20/89	06/23/89	06/27/89	06/28/89	07/27/89	\$248,172	07/27/89	SIXTH AWP
10-SC-3369-1	OCHOA & SILLAS											
	AMEND. NO. 8	08/07/89	N/A	N/A	N/A	06/23/89	06/23/89	06/27/89	09/06/89	\$64,000	09/06/89	SIXTH AWP
11-SC-3369-1	RANDOLPH & TATE ASSOCIATES											
	AMEND. NO. 8	08/07/89	04/12/89	06/15/89	N/A	06/30/89	07/24/89	07/24/89	08/04/89	\$20,000	08/08/89	SIXTH AWP
15-SC-3369-1	MUESER RUTLEDGE CONSULTING ENGINEERS (JAMES GOULD, Ph.D)											
	AMEND. NO. 7	08/07/89	N/A	07/14/89	N/A	07/17/89	07/28/89	07/28/89	09/18/89	\$10,000	09/20/89	SIXTH AWP
18-SC-3369-1	GEO GRAY/ PHOTOGRAPHY											
	AMEND. NO. 5	09/08/89	N/A	06/21/89	N/A	08/31/89	09/06/89	07/20/89	09/06/89	\$48,000	09/06/89	SIXTH AWP
21-SC-3369-1	SMITH EMERY CO.											
	AMEND NO. 6	09/08/89	N/A	N/A	07/20/89	08/31/89	09/22/89	07/19/89	09/22/89	\$632,300	09/22/89	SIXTH AWP
22-SC-3369-1	COLEMAN SECURITY SERVICES INC.											
	AMEND. NO. 4	07/12/89	N/A	07/14/89	N/A	08/08/89	08/31/89	07/14/89	08/04/89	\$72,000	08/31/89	SIXTH AWP
	AMEND. NO. 5	08/25/89	N/A	09/13/89	N/A	09/22/89	09/27/89	N/A	N/A	\$76,000	09/27/89	ADDED SERVICES
29-SC-3369-1	SUBWAY TERMINAL BLDG (A145/146 SITE OFFICE LEASE)											
	AMEND. NO. 2	N/A	N/A	N/A	N/A	06/30/89	06/30/89	05/25/89	05/30/89	\$58,000	06/30/89	1 YR EXTENSION

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LOS ANGELES METRO RED LINE

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SIXTH ANNUAL WORK PLAN SUBCONTRACT STATUS REPORT (Contd)

DECEMBER 29, 1989

SUBCONTRACT NUMBER	SUBCONTRACTOR	REQUI- SITION	REQ FOR PROPOSAL	NEGOTIATION COMPLETE	JV APPROVAL	DATE TO SC	RETURNED FROM SC	CONSENT REQUESTED	CONSENT RECEIVED	NTE AMOUNT	DATE EXECUTED	REMARKS
35-SC-3369-1	MARY & SON MAINTENANCE (SITE CLEAN-UP)											
	AMEND. NO. 1	09/08/89	N/A	N/A	N/A	08/08/89	08/18/89	07/14/89	08/04/89	\$24,000	08/18/89	SIXTH AWP
37-SC-3369-1	KAL KRISHNAN											
	AMEND. NO. 2	08/07/89	N/A	N/A	N/A	07/14/89	07/19/89	07/19/89	08/04/89	\$93,279	08/08/89	SIXTH AWP
	AMEND. NO. 3	**	N/A	11/10/89	N/A	11/21/89	11/28/89	12/13/89		\$170,670		SCOPE/FUNDS INCR
39-SC-3369-1	D'LEON CONSULTING ENGINEERS CO.											
	AMEND. NO. 1	08/07/89	N/A	N/A	07/20/89	07/20/89	07/20/89	07/21/89	09/06/89	\$170,554	06/09/89	SIXTH AWP
40-SC-3369-1	TRANSMETRICS											
	AMEND. NO. 1	08/07/89	N/A	N/A	N/A	07/25/89	07/25/89	07/27/89	09/06/89	\$74,591	06/09/89	SIXTH AWP
41-SC-3369-1	W. B. EVANS & ASSOCIATES (CONSULTING AGREEMENT)	06/27/89	N/A	N/A	N/A	09/07/89	09/14/89	06/27/89	09/06/89	\$13,500	08/22/89	
	AMEND. NO. 1	08/21/89	N/A	08/24/89	N/A	09/07/89	09/14/89	08/24/89		\$40,750		FUNDS INCREASE
42-SC-8869-1	MANPOWER	07/11/89	06/09/89	06/30/89	N/A	08/08/89	08/17/89	07/07/89	08/04/89	\$92,000	08/17/89	SIXTH AWP
43-SC-3369-1	F.E. ENDACOTT & ASSOCIATES (CONSULTING AGREEMENT)	07/07/89	N/A	N/A	N/A	07/18/89	08/07/89	08/07/89	09/18/89	\$7,500	09/20/89	SIXTH AWP
	AMEND. NO. 1		N/A	N/A	N/A			10/26/89		\$18,500		FUNDS INCREASE
44-SC-3369-1	E. D. GREENAWALT (CONSULTING AGREEMENT)	09/19/89	N/A	N/A	N/A	10/03/89	10/03/89	10/03/89	10/24/89	\$18,000	10/26/89	

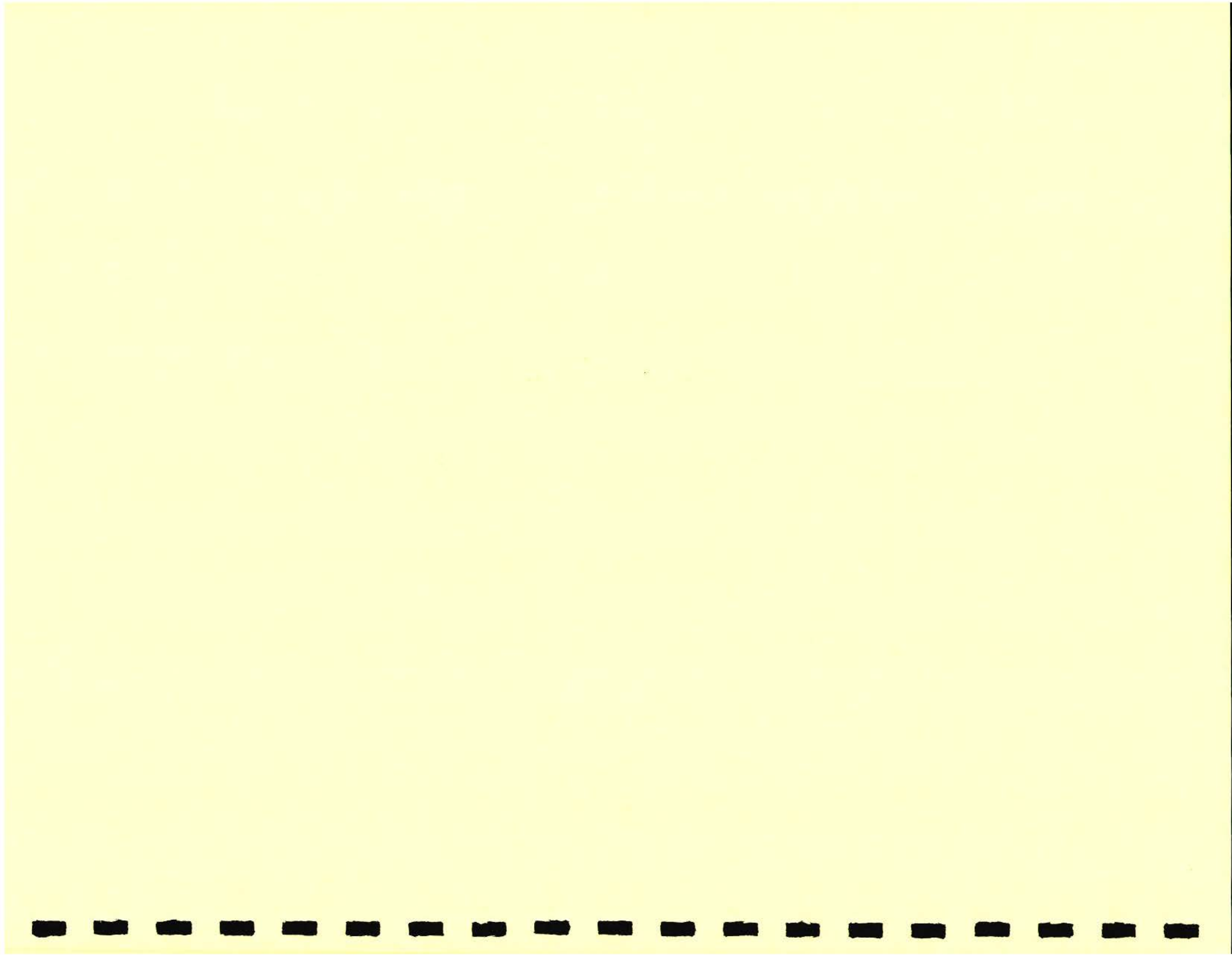
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SECTION IX

CONSTRUCTION PROGRESS

PHOTOS





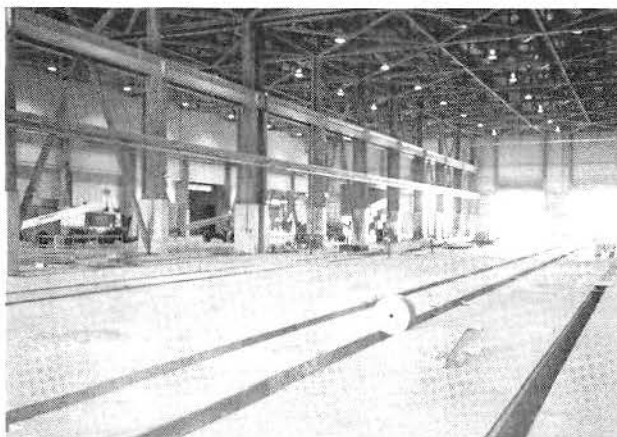
LOS ANGELES METRO RED LINE

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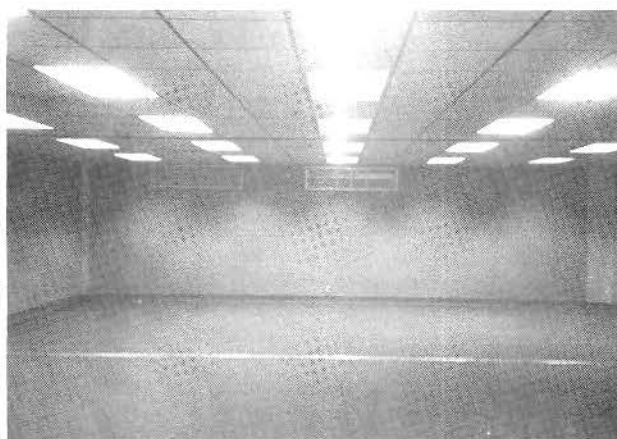
MAIN SHOP BUILDING CONTRACT A112



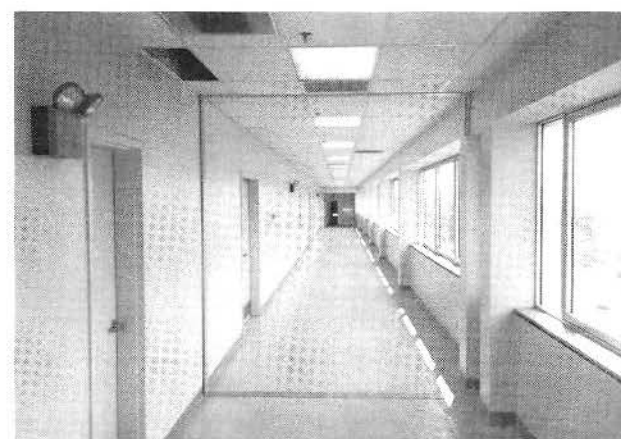
HEAVY REPAIR AREA



COMPLETED MAIN ENTRANCE LOBBY



COMPLETED CCTV ROOM



COMPLETED CORRIDOR IN THE RCC AREA



LOS ANGELES METRO RED LINE

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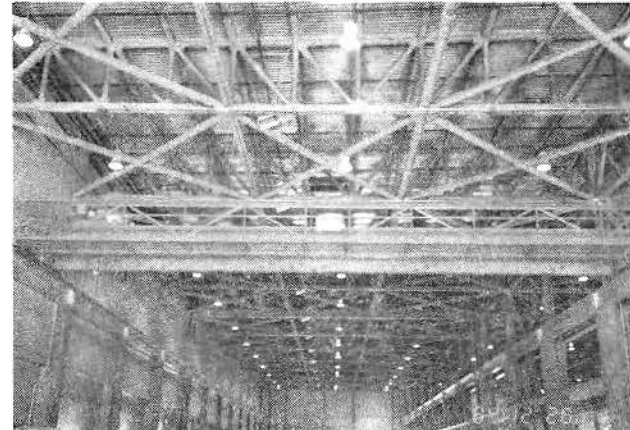
CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

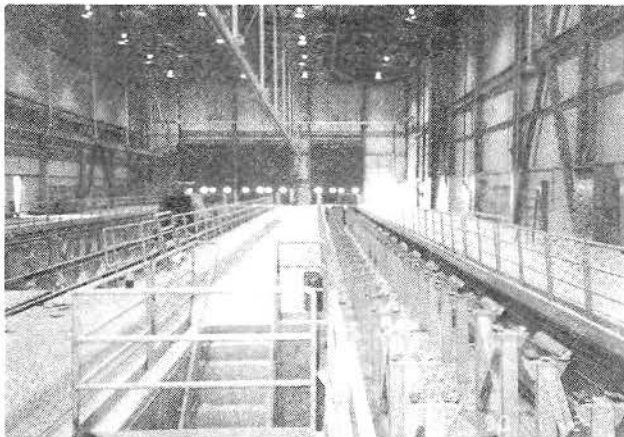
MAIN SHOP BUILDING CONTRACT A112 (Contd)



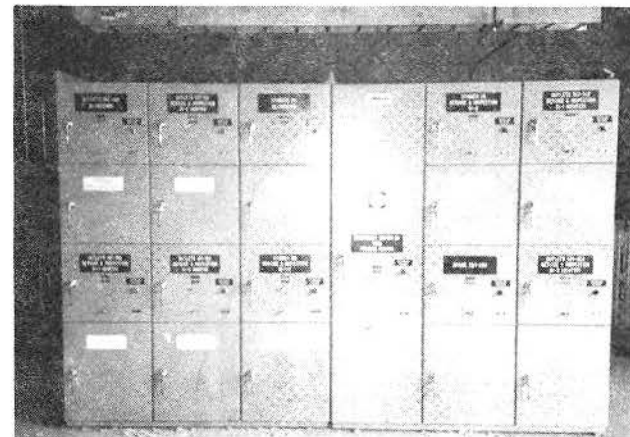
JIB CRANE INSTALLED IN THE METALS SHOP



10 TON BRIDGE CRANE INSTALLED
IN THE HEAVY REPAIR AREA



COMPLETED SERVICE & INSPECTION AREA,
WITH TELESCOPING DOORS AT THE NORTH END



750 VOLT DC TRACTION POWER SWITCHBOARD

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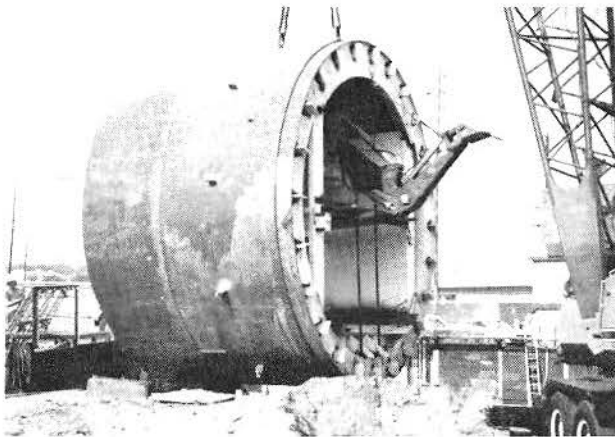
LOS ANGELES METRO RED LINE

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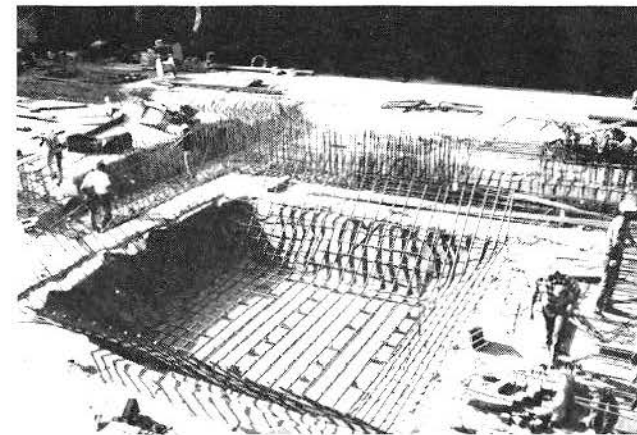
CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

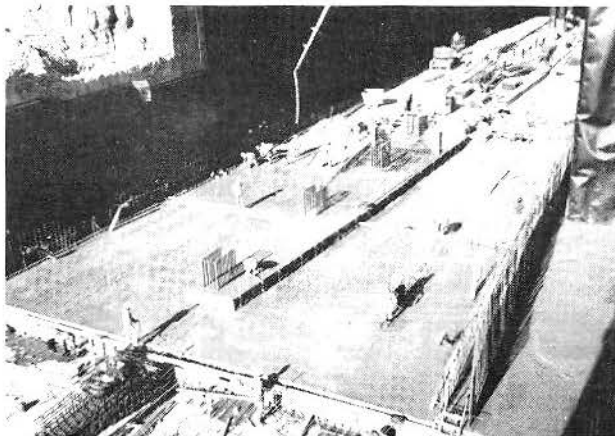
YARD LEADS & TRANSFER ZONE CONTRACT A130



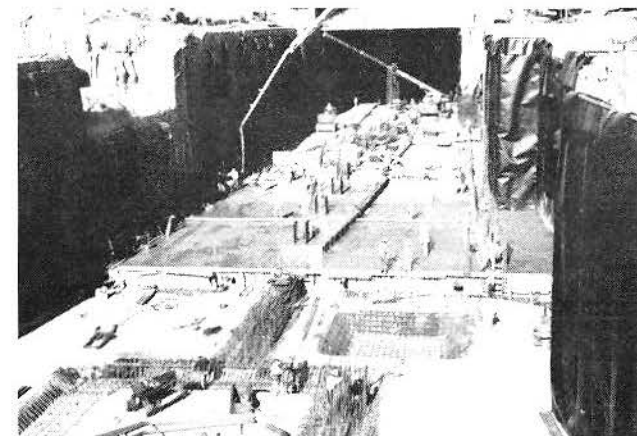
TUNNEL SHIELD BEING LOWERED INTO CUT,
TO MATE WITH HOOD SECTION



RESTEEL PLACEMENT INTO GRADE BEAM AREAS
AND ELECTRICAL VAULT



FIRST INVERT POUR FOR TRACTION POWER
SUBSTATION; PLACEMENT OF CONCRETE
AND HAIRPIN DOWELS



FIRST INVERT POUR TIEING A135 TO A130,
FINISHING CONCRETE AND CONTINUING
WITH RESTEEL

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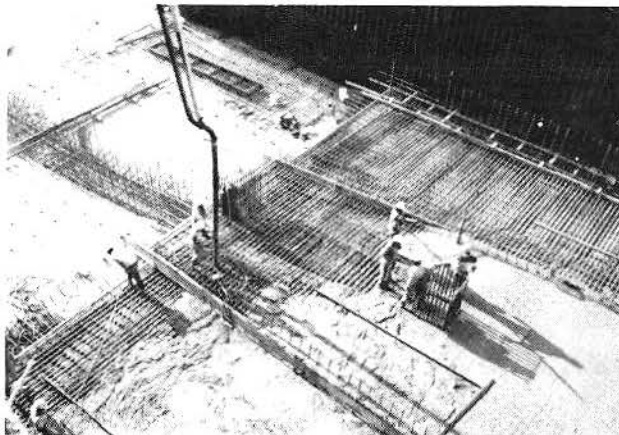
LOS ANGELES METRO RED LINE

CONTRACT PERFORMANCE REPORT

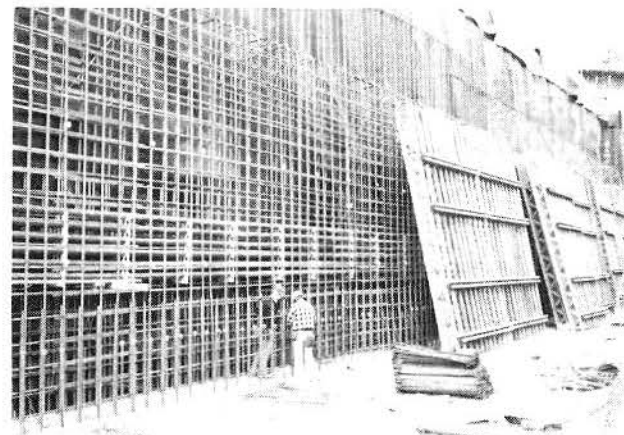
PDCD

PERIOD DECEMBER 1989

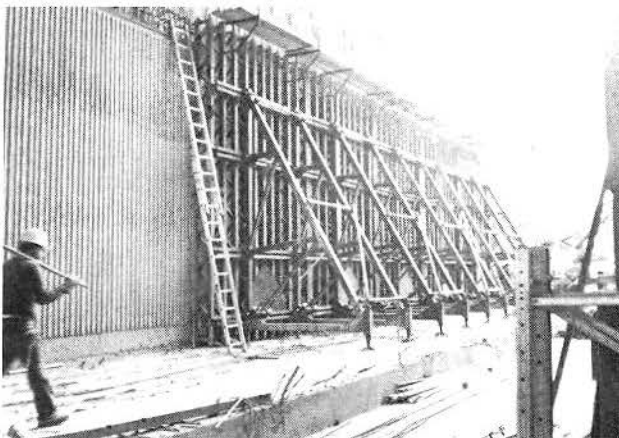
UNION STATION CONTRACT A135



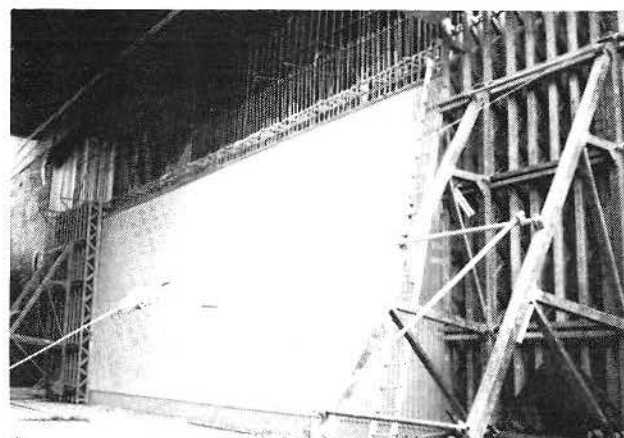
INVERT PLACEMENT AT CONTRACT A130/A135
INTERFACE



REBAR AND ELECTRICAL DUCTBANK INSTALLATION
FOR STATION WALL PANEL



CONCRETE FORMWORK FOR STATION WALL PANEL



RUSTIFICATION STRIP WALL FINISH FOR
STATION WALLS BELOW RAILROAD BRIDGE

Parsons-Dillingham-De Leuw, Cather



LOS ANGELES METRO RED LINE

CONTRACT PERFORMANCE REPORT

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PERIOD DECEMBER 1989

CIVIC CENTER STATION AND TUNNEL CONTRACT A141



BEGINNING OF TUNNEL INVERT POURS
IN SOUTH END OF AL TUNNEL



FINISHING OF AL TUNNEL CONCRETE INVERT POUR
AT SOUTH END OF TUNNEL



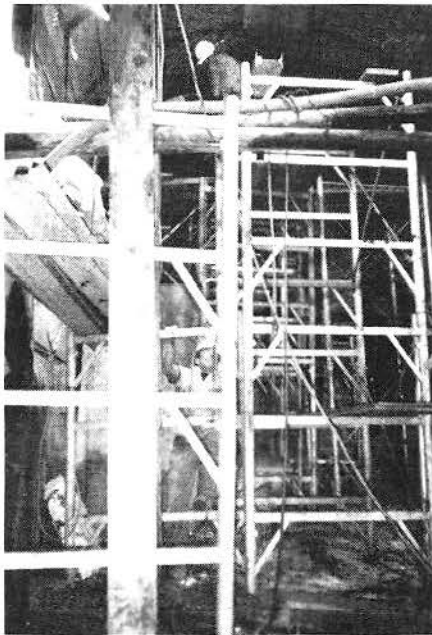
LOS ANGELES METRO RED LINE

CONTRACT PERFORMANCE REPORT

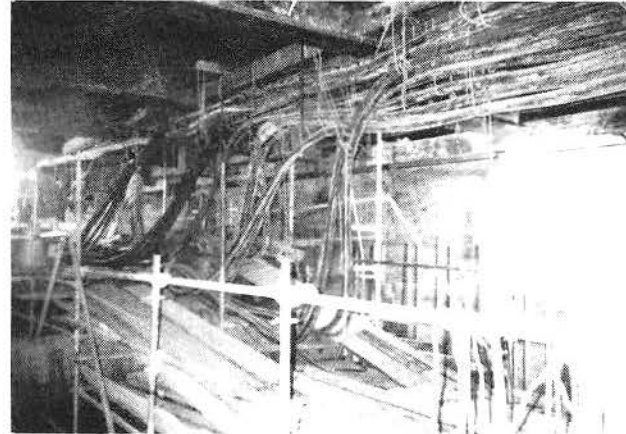
PD CD

PERIOD DECEMBER 1989

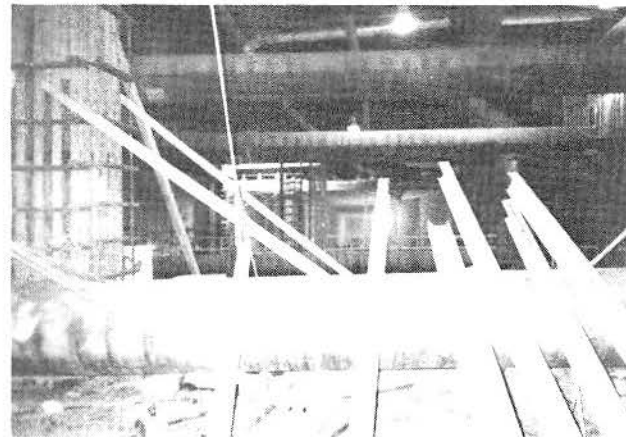
CIVIC CENTER STATION AND TUNNEL CONTRACT A141 (Contd)



CROSS PASSAGE #6 AT STA 166+64



COMPLETION OF RAISING PAC BELL DUCTBANK
IN CIVIC CENTER STATION



REMOVAL OF FINAL STRUTS IN CIVIC CENTER STATION

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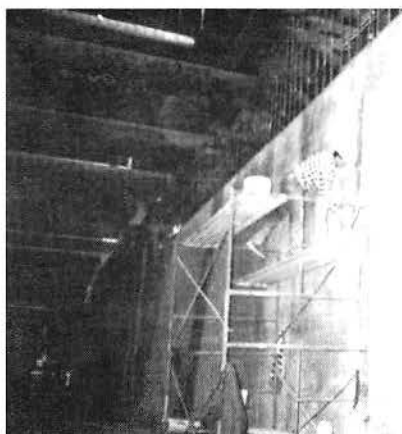
LOS ANGELES METRO RED LINE

PDCD

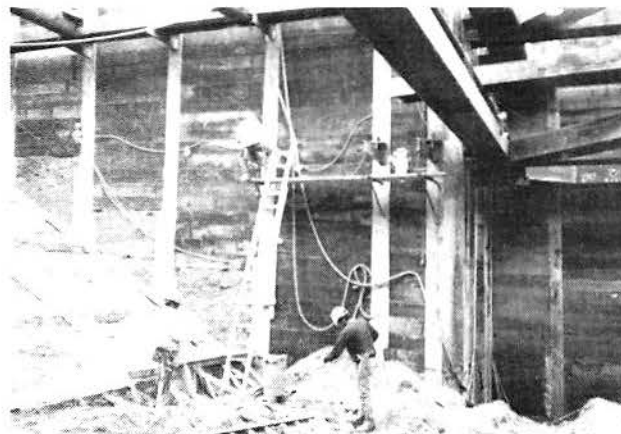
CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

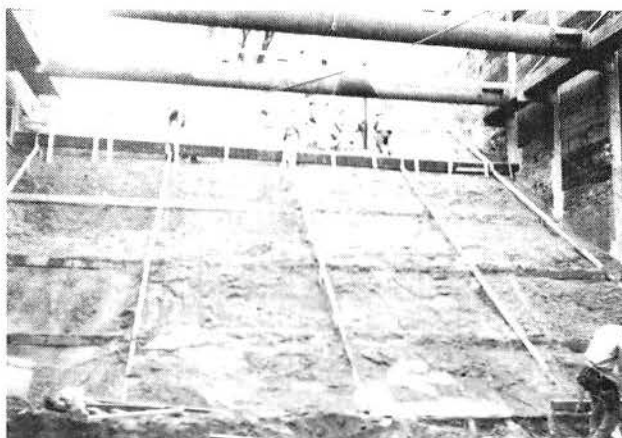
5TH/HILL UTILITY RELOCATION AND 5TH/HILL STATION STAGE I CONTRACT A145/A145A



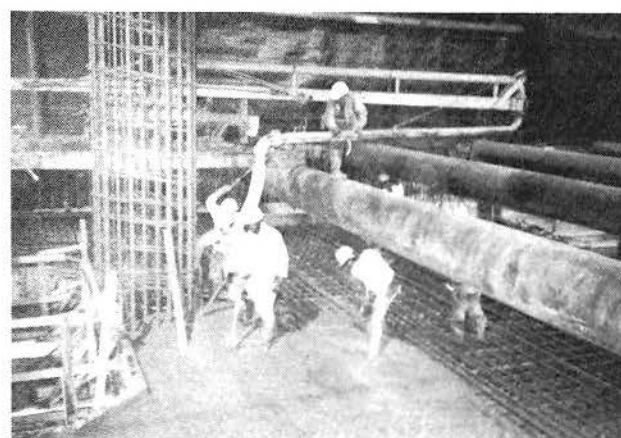
FINISHING CONCRETE FOR WALL AREA 10



WELDING STAR-PACKS AND KNEE STRUTS
FOR THE EXCAVATION SUPPORT SYSTEM
IN THE SOUTHEAST ENTRANCE EXCAVATION



GRADING AND POURING MUD-MAT FOR
THE SOUTHEAST ENTRANCE STAIRWAY



POURING MEZZANINE SLAB AREA 13
IN THE STATION'S SOUTH END



LOS ANGELES METRO RED LINE

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CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

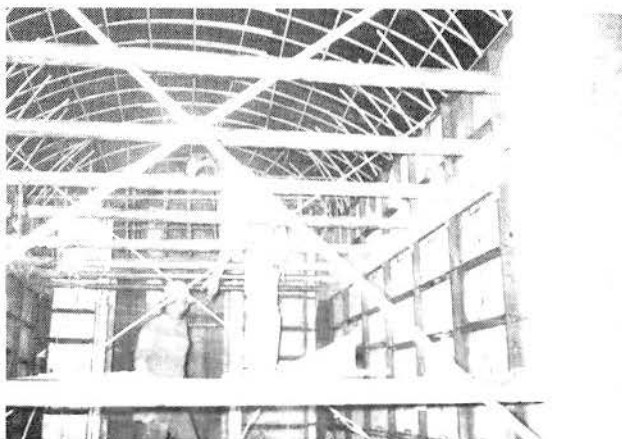
TUNNELS FROM 5TH/HILL TO 7TH/FLOWER CONTRACT A146



CONCRETE BATCH PLANT AT SITE



PREPARING AIR TAIL TUNNEL FOR HDPE INSTALLATION



WORKMEN INSTALLING WALL FORMS
IN CROSS PASSAGE #7



WORKMAN INSTALLING HDPE IN CROSS PASSAGE #9

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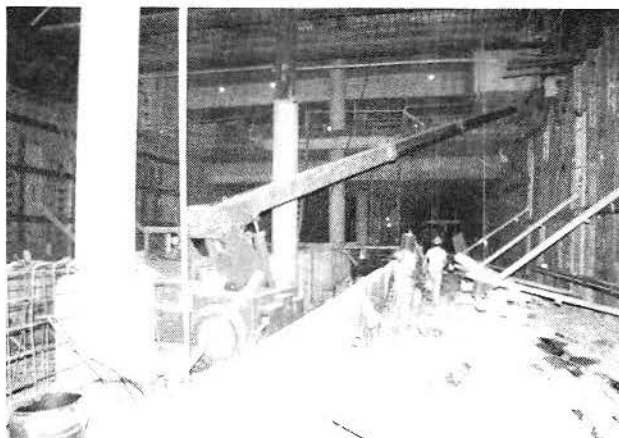
LOS ANGELES METRO RED LINE

PDCD

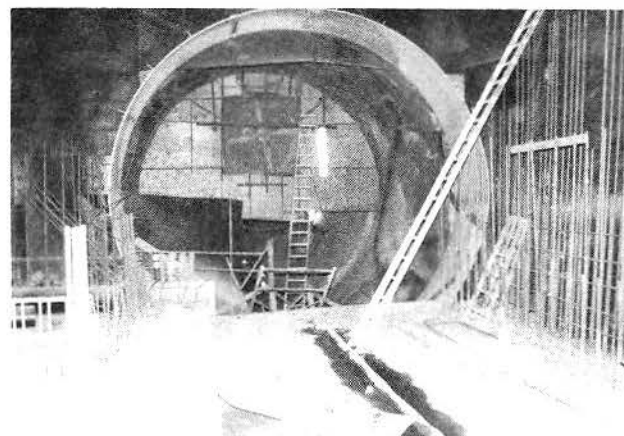
CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

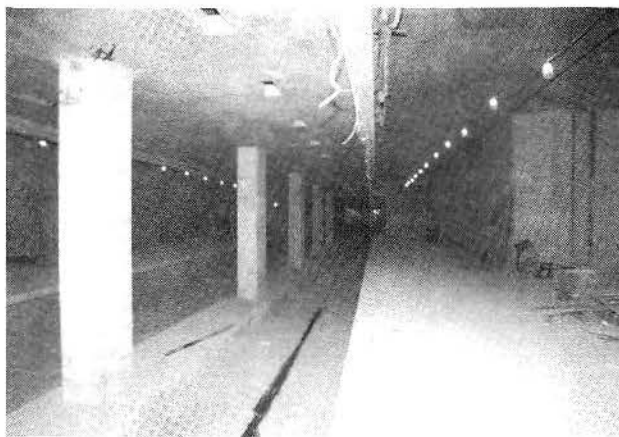
7TH/FLOWER STATION STAGE I CONTRACT A165



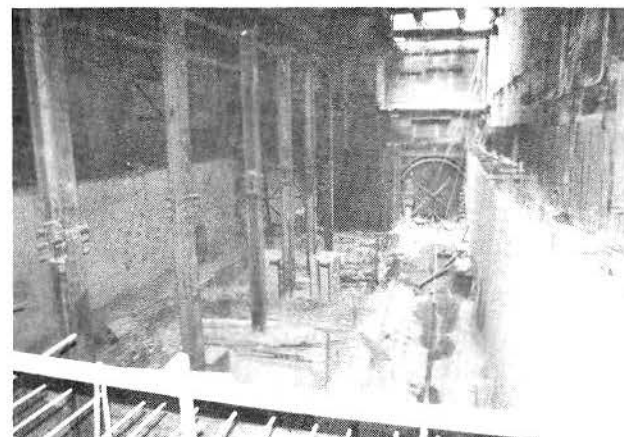
INSTALLING WALL FORMS AT MRT TRACK LEVEL
(EAST OF FLOWER)



SOUTHEAST AR TUNNEL; TUNNEL RING IN PLACE



LIGHT RAIL PLATFORM AT INTERSECTION
OF 7TH AND FLOWER STREET



MRT MEZZANINE LEVEL
(FACING WEST ON 7TH STREET)



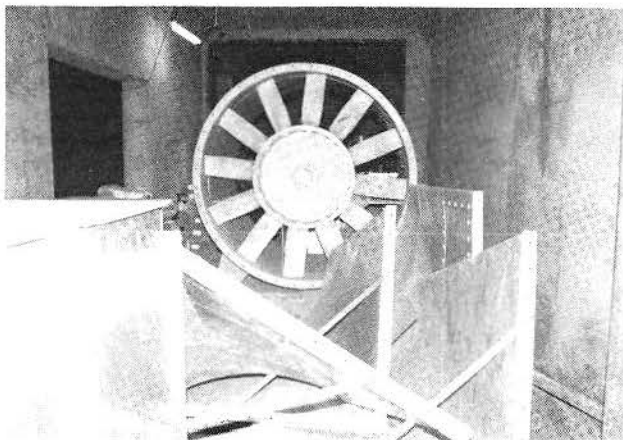
LOS ANGELES METRO RED LINE

CONTRACT PERFORMANCE REPORT

PDCD

PERIOD DECEMBER 1989

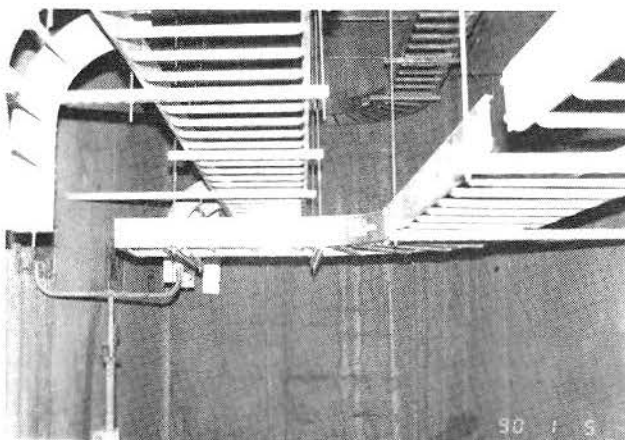
7TH/FLOWER STATION STAGE II CONTRACT A167



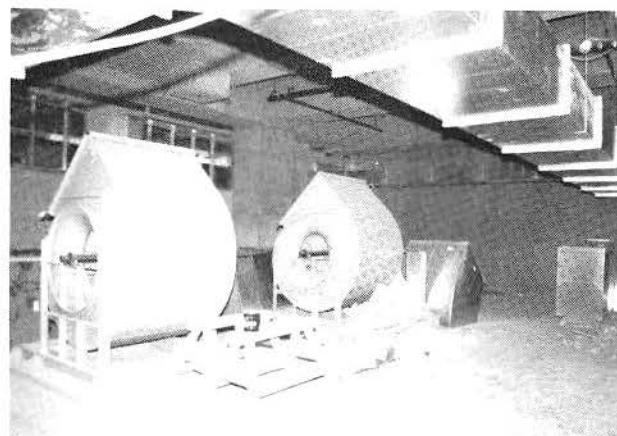
FANS STORED AT SOUTH LIGHT RAIL



HOME SAVINGS ENTRANCE
TO THE METRO RAIL STATION



BATTERY ROOM CABLE TRAYS
IN THE HOME SAVINGS BLDG.



BATTERY ROOM IN THE HOME SAVINGS BLDG.

Parsons-Dillingham-De Leuw, Cather



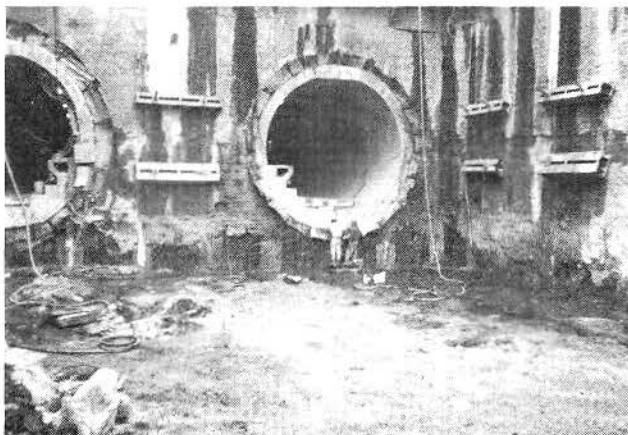
LOS ANGELES METRO RED LINE

CONTRACT PERFORMANCE REPORT

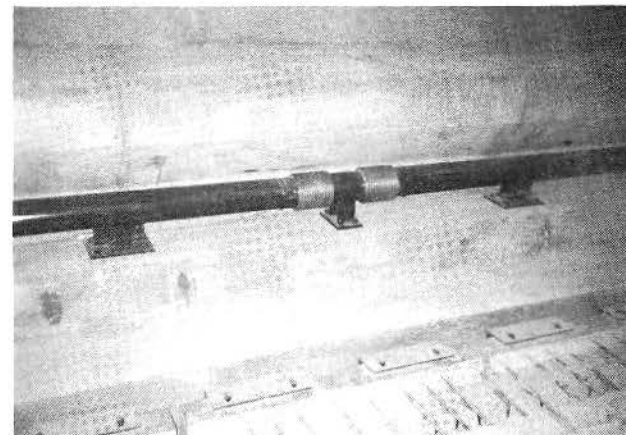
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PERIOD DECEMBER 1989

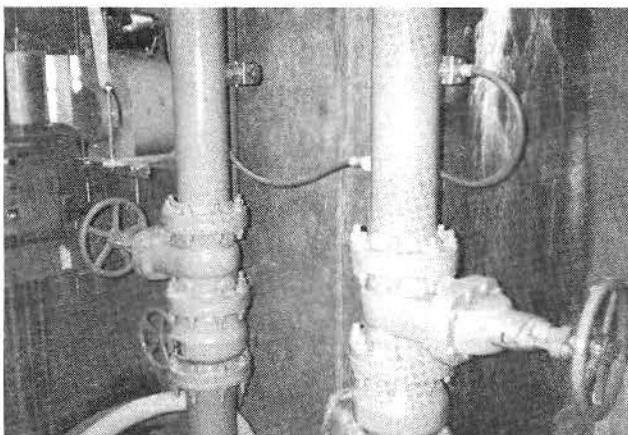
LINE SECTION - 7TH/FLOWER TO WILSHIRE/ALVARADO CONTRACT A171



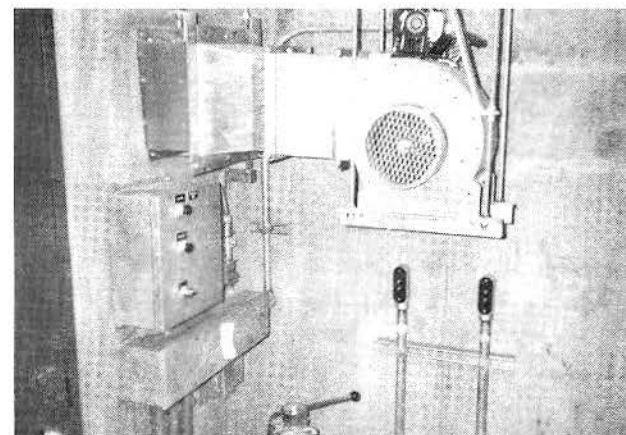
BOTTOM OF A171 ACCESS SHAFT AFTER
EXCAVATION AND CLEAN-UP



EXPANSION BELLOWS ON WET STANDPIPE SYSTEM
UNDER WALKWAY



SUMP PUMP DISCHARGE LINES



EXHAUST FAN INSTALLED AT CROSS PASSAGES



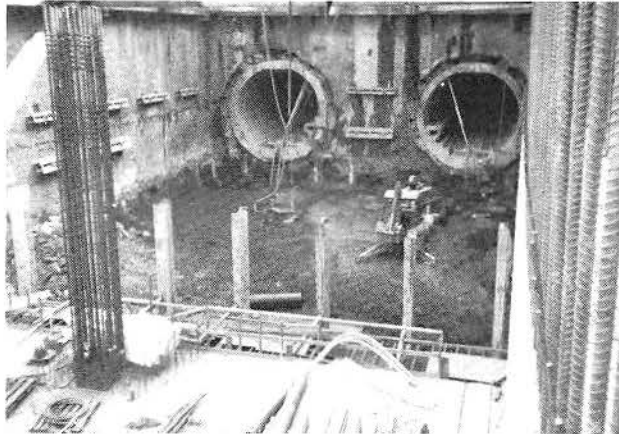
LOS ANGELES METRO RED LINE

PDCD

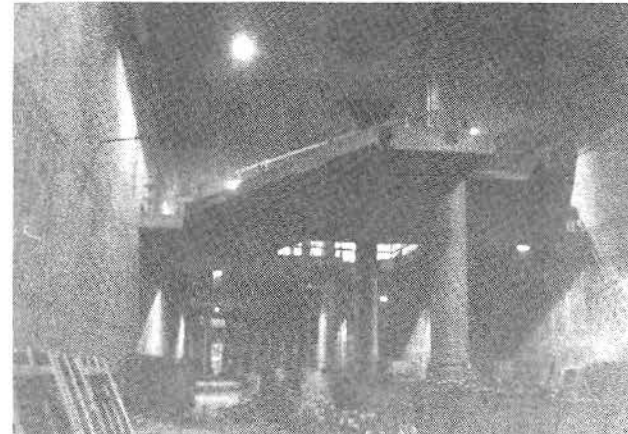
CONTRACT PERFORMANCE REPORT

PERIOD DECEMBER 1989

WILSHIRE/ALVARADO STATION - STAGE I CONTRACT A175



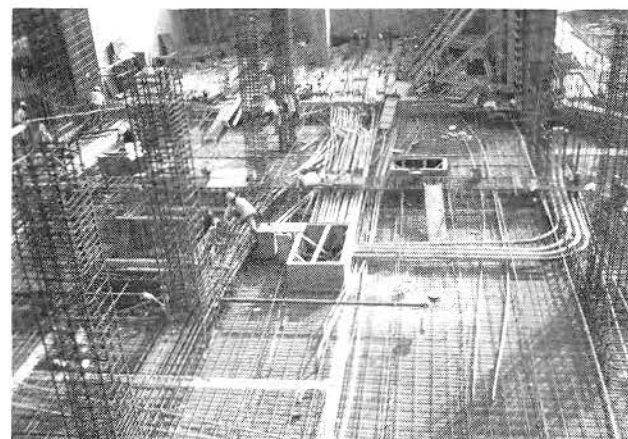
INTERFACE AREA BETWEEN A171 TUNNEL AND
A175 STATION; FORMERLY TUNNEL ACCESS SHAFT



CANTILEVERED MEZZANINE SLAB AREA FOR
ESCALATOR AND STAIRWAY INSTALLATION



INSTALLATION OF EMBEDDED ITEMS PRIOR TO PLACEMENT OF
MEZZANINE CONCRETE AT THE STATION'S WEST END
(LOOKING EAST)



Parsons-Dillingham-De Leuw, Cather



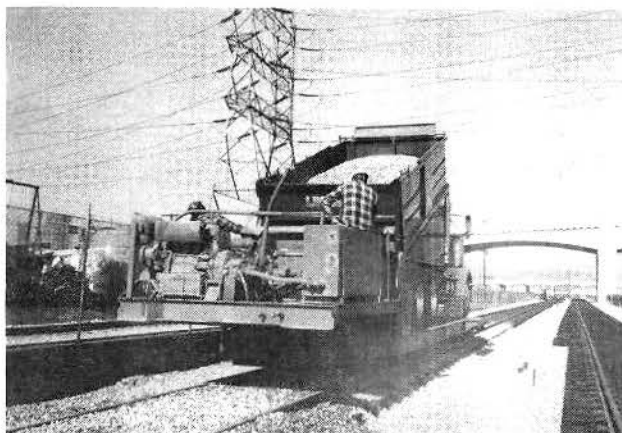
LOS ANGELES METRO RED LINE

CONTRACT PERFORMANCE REPORT

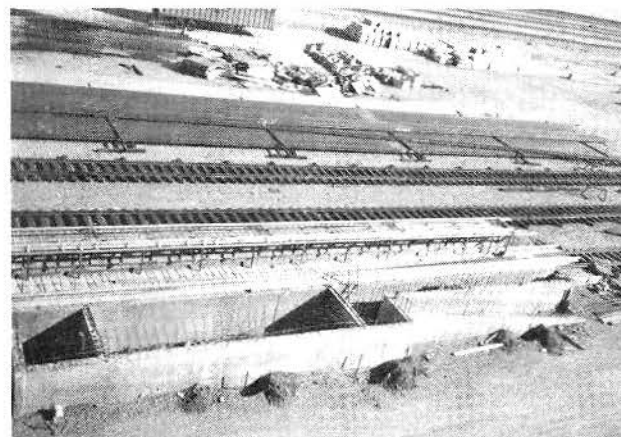
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PERIOD DECEMBER 1989

TRACKWORK INSTALLATION/YARD STORAGE AREA CONTRACT A610/A115



START OF TOP BALLASTING AT TAIL TRACKS,
SOUTH END OF PROJECT
(LOOKING NORTH TOWARDS 6TH STREET BRIDGE)



FORMWORK FOR EAST DECK OF HEAVY CAR
CLEANING PLATFORM



SERVICE AND INSPECTION TRACKS TIE-IN
TO A112 MAIN SHOP BUILDING
(NORTH SIDE OF MAIN SHOP BUILDING)



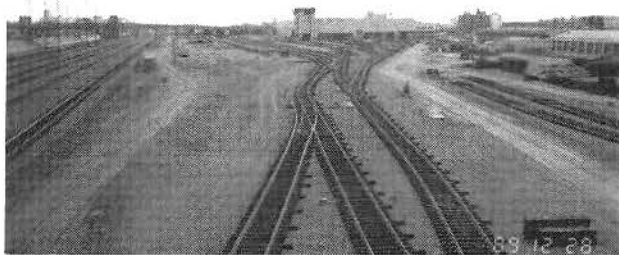
LOS ANGELES METRO RED LINE

CONTRACT PERFORMANCE REPORT

PDCD

PERIOD DECEMBER 1989

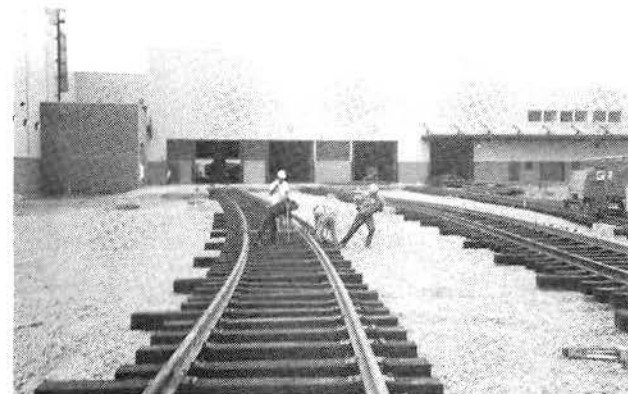
TRACKWORK INSTALLATION/YARD STORAGE AREA CONTRACT A610/A115 (Contd)



OVERVIEW OF NORTH END OF YARD,
LOOKING SOUTH TOWARDS MAIN SHOP BUILDING



SPREADING BALLAST SOUTH OF
MAIN SHOP BUILDING



GAUGING AND SPIKING MAINTENANCE AND REPAIR
SHOP TRACKS (NORTH SIDE OF MAIN SHOP BUILDING)

Parsons-Dillingham-De Leuw, Cather



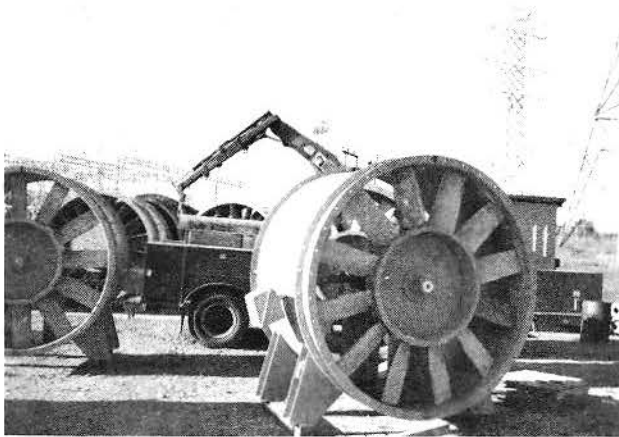
LOS ANGELES METRO RED LINE

CONTRACT PERFORMANCE REPORT

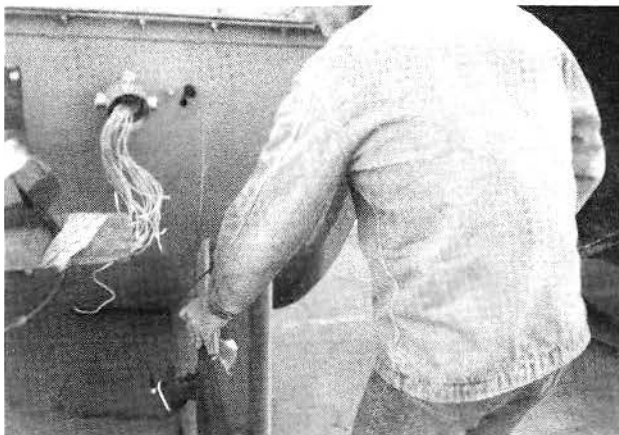
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PERIOD DECEMBER 1989

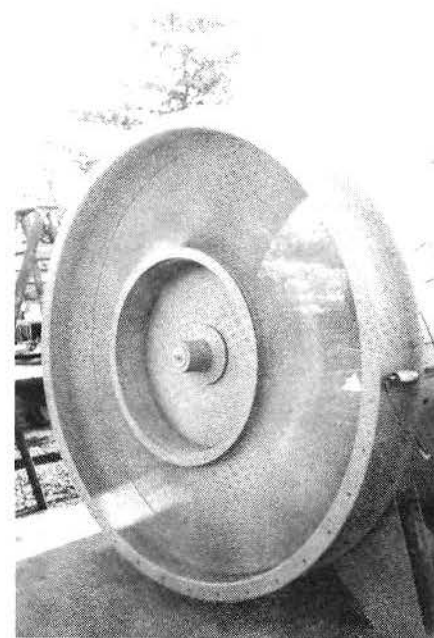
VENTILATION EQUIPMENT CONTRACT A740



FINAL CLEAN UP OF FANS PRIOR TO SHIPPING
TO 7TH/FLOWER STATION



FINAL TEST OF BEARING PARAMETERS PRIOR
TO SHIPPING TO 7TH/FLOWER STATION, WIRES
WILL TIE INTO CENTRAL COMMUNICATION SYSTEM



FINAL TEST OF FANS FOR
7TH/FLOWER STATION,
IN WINSTON SALEM, N.C.,
PRIOR TO SHIPPING.
(RUNS MORE THAN 200,000 CFM)

100

101

102

103

104

105

106
107
108
109
110