

JUNE 1997

METRO RED LINE

Segment-2

CONTRACT UNIT DESCRIPTIONS

REVISION 14

Los Angeles County Metropolitan Transportation Authority



R81-PM421

W.R. BROWN

METRO Construction

NO. 2147

REVISION RECORD

REVISION	CHANGE NOTICE	APPROVAL DATE	CHANGE DESCRIPTION CONTRACTS AFFECTED
1	N/A	12/01/90	ISSUE: Revision 1 Contracts Affected: ALL
2	N/A	12/01/91	ISSUE: Revision 2 Contracts Affected: ALL
3	N/A	10/01/92	ISSUE: Revision 3 Contracts Affected: B201, B215, B216 B231, B241, B251, B252, B253, B258, B261, B271, B281, B610, B611, B612, B614, B616, B620, B630, B631, 641, B642, B643 B644, B645, B646, B647, B648, B648-A, B648-B, B4239, B650, B710. B740, B745, B750, B760, B761, B795, H840, E0070, 03369, K001.
4	N/A	12/17/92	ISSUE: Revision 4 Contracts Affected: B252, B261, B268, B281, B616, B661, B201, B216, B219, B221, B231, B241, B271, B286, B610, B611, B614, B616, B620, B630, B650, B710, B740, B745, B760, B772, H840.
5	N/A	07/15/93	ISSUE: Revision 5 Contracts Affected: B213, B217, B219, B229, F104, B221, B251, B281, B610, B620, B740, B761, B795.
6	PM421 1.00	10/19/93	(PM421.01 - REVISION 6) CONTRACT UNIT DESCRIPTIONS (CUD) - RED LINE SEGMENT-2 <u>Contracts Affected:</u> B610 B641 B642 B643 B644 B645 B646 B647 B648A CM001 MY005
7	PM421 2.00	01/13/94	(PM421.01 - REVISION 7) RED LINE SEGMENT-2 CONTRACT UNIT DESCRIPTIONS (CUD) CONTRACT B647 DELETED INCORPORATED INTO CONTRACT B648A SCOPE OF WORK AND E0090 ADDED. OTHER CONTRACTS AFFECTED BY REVISION 7 OF THE RED LINE SEGMENT-2 CUD LISTED BELOW. <u>Contracts Affected:</u> B213 B215 B218 B219 B229 B241 B251 B252 B268 B281 B288 B620 B631 B641 B642 B643 B644 B646 B647 B648A B648B B795 E0090

REVISION RECORD

REVISION	CHANGE NOTICE	APPROVAL DATE	CHANGE DESCRIPTION CONTRACTS AFFECTED
7	PM421 3.01	02/18/94	ADDITION OF CONTRACT B290, "ANCILLIARY CONSTRUCTION AND MAINTENANCE" IN SEG-2 CUD (R81-PM421) THIS CHANGE AFFECTS SEGMENT-2. B290 will perform additional work required to complete all Seg-2 stations and tunnels as required. <u>Contracts Affected:</u> B290
8	PM421 4.00	04/12/94	(PM421.01 - REVISION 8) CONTRACT UNIT DESCRIPTIONS (CUD) METRO RED LINE SEGMENT-2 <u>Contracts Affected:</u> B211 B216 B221 B231 B241 B251 B261 B271 B281 B290 B641 B710 B760 B761 F102 F103 F208 F808 F814 F815 F854 PM421 PM421
9	PM421 5.00	07/07/94	(PM421.01 - REVISION 9) CONTRACT UNIT DESCRIPTIONS (CUD) RED LINE SEGMENT-2 REVISION 9 OF THE RED LINE SEGMENT-2 CONTRACT UNIT DESCRIPTIONS (CUD) REVISES SCOPE DESCRIPTIONS, QUANTITIES AND THE B648A CONTRACT TITLE. ALL REVISED CONTRACTS LISTED BELOW. <u>Contracts Affected:</u> B231 B620 B641 B645 B648A B648B F102 F104 F208 F802 PM421 PM421
10	PM421 6.00	10/12/94	(PM421.01 - REVISION 10) RED LINE SEGMENT-2 CONTRACT UNIT DESCRIPTIONS (CUD) REVISION 10 OF THE RED LINE SEGMENT-2 CUD REVISES THE ALIGNMENT MAP, QUANTITIES, SCOPE AND COMMENTS, ALL CONTRACTS AFFECTED LISTED BELOW. <u>Contracts Affected:</u> B251 B610 B611 B614 B616 B645 B646 CM001 PM421 PM421
11	PM421 7.00	04/15/95	(PM421.01 - REVISION 11) RED LINE SEGMENT-2 CONTRACT UNIT DESCRIPTIONS (CUD) REVISION 11 REVISES QUANTITIES, SCOPE, REPLACES 03136 WITH E0060, ADDS CONTRACT B263, AND REPLACES "RCC" WITH "MTA". ALL CONTRACTS AFFECTED LISTED BELOW. <u>Contracts Affected:</u> 03136 B263 B645 B648B B650 E0060 E0090 FM014
12	PM421 8.00	12/05/95	(PM421.01 - REVISION 12) RED LINE SEGMENT-2 CONTRACT UNIT DESCRIPTIONS (CUD) REVISION 12 REVISES QUANTITIES, SCOPE, AND RENUMBERS CONTRACT B4239 AS A4239. ALL CONTRACTS AFFECTED LISTED BELOW. <u>Contracts Affected:</u> A4239 B215 B216 B221 B290 B610 B611 B616 B641 B642

REVISION RECORD

REVISION	CHANGE NOTICE	APPROVAL DATE	CHANGE DESCRIPTION CONTRACTS AFFECTED
			B644 B646
13	PM421 9.00	07/18/96	(PM421.01 - REVISION 13) RED LINE SEGMENT-2 CONTRACT UNIT DESCRIPTIONS (CUD) REVISION 13 REVISES THE PROJECT ALIGNMENT MAP, CONTRACT WORK SCOPE FOR CONTRACTS B241 (ADDING B241T SCOPE), B263, B271, B281 (ADDING B281T SCOPE), B650 AND ADDS CONTRACT B264. ALL CONTRACTS AFFECTED LISTED BELOW. Contracts Affected: B241 B263 B264 B271 B281 B650 PM421
14	PM421 11.00	06/16/97	(PM421.01 - REVISION 14) RED LINE SEGMENT-2 CONTRACT UNIT DESCRIPTIONS (CUD) Revision 14 adds contracts B285, B298, and revises contract types and scopes. Impacted contracts listed below. Contracts Affected: B285 B298 B648A B648B

LOS ANGELES COUNTY
METROPOLITAN TRANSPORTATION AUTHORITY
CONSTRUCTION DIVISION
ONE GATEWAY PLAZA
LOS ANGELES, CALIFORNIA 90012

**Metro Red Line - Segment 2
CONTRACT UNIT DESCRIPTIONS**

This document contains the listing of Metro Red Line - Segment 2 3rd Party Agreement, Construction, Demolition, Installation, Procurement, Professional Services, Purchase Order and Specialty contracts. It includes descriptions of the general scope of each contract, and approximate quantities where appropriate. Contractor names are shown for awarded contracts.

Approved:



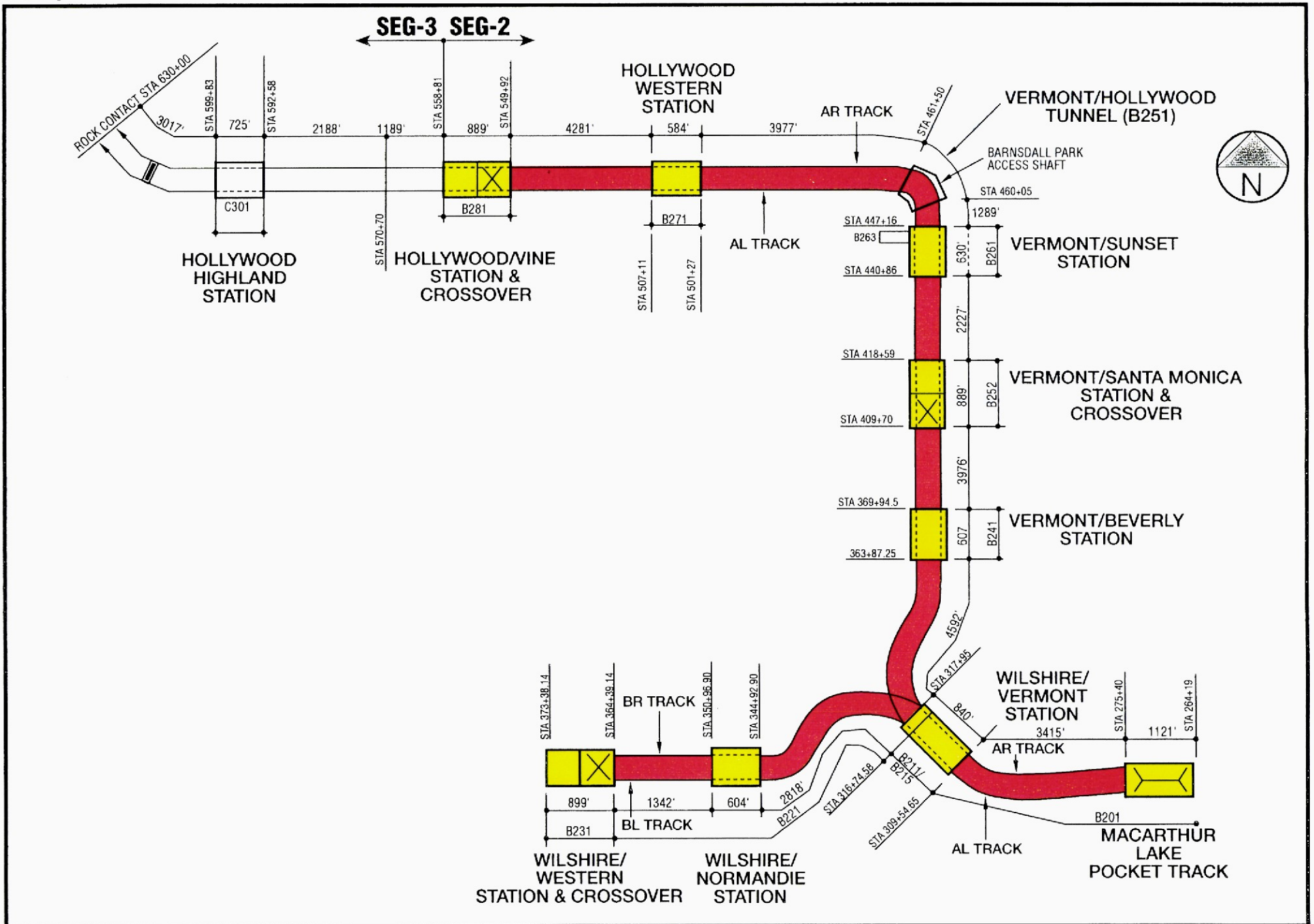
S. Polechronis Deputy Executive Officer
Los Angeles County Metropolitan Transportation Authority
Construction Division

6/16/97

Date



Metro Red Line - Segment 2



DEFINITIONS OF CONTRACT TYPES

CONSTRUCTION

Station shell (Stage I) and/or line construction generally includes all civil and structural construction plus embedded items for installations of architectural finishes, embedded mechanical items, and electrical conduits, unless specifically included elsewhere. Other items of work include, but are not limited to, the following:

Demolition, site clearing, underpinning, compaction grouting, dewatering, excavation support systems, decking, instrumentation, excavation, access shafts, tunneling, crosspassages, tunnel lining, backfill, pavement, sidewalks, trees, tree wells, curbs and gutters, pavement markings, traffic stripes, signs, traffic signals, maintenance of traffic, fencing, maintenance of utilities, utility relocation, storm drainage, sanitary sewer lines, embedded electric and telephone ductbanks and lines, lighting, installation of HDPE doors, ventilation shaft gratings at street level, interior walls, sleeves through walls for conduit work, and magnetometer surveys.

Station finish (Stage II) construction includes all architectural work, site work, landscaping, and mechanical and electrical work, unless specifically included elsewhere. Other items of work include, but are not limited to, the following:

Irrigation systems, tree wells, landscape benches, topsoil, seedings, trees, shrubs, exterior slab on grade concrete, granite, unit masonry, stainless steel and aluminum assemblies, metal fabrication, steel stairs, ladders, railing, interior gratings and floor plates, custom sheet metal, carpentry, sprayed-on fireproofing, fillers, gaskets, sealants, doors and frames, overhead devices, telephone enclosures, toilet accessories, trash and waste receptacles, plumbing, and mechanical and electrical work, systemwide procurements. Also included are Safety, Fire/Life Safety and Security items involving sprinklers, standpipes, undercar deluge systems, fire suppression systems, fire detection and alarm systems, emergency management and communications systems, ventilation, seismic and gas detection systems, CCTV, intrusion alarms and other security systems, handicapped access systems, warning and safety graphics and lighting systems and electrical safety and trip systems.

In Segment-2 all station contracts except one will consist of shell and finish construction consolidated within a single contract. Only the Wilshire/Vermont Station will have separate contracts for shell (Contract B211) without entrance and stage I and II entrance and station finish construction (Contract B215), and site restoration and landscaping (Contract B216).

AGENCY AGREEMENT:

Services related to the rearrangement of city, county, or state agency facilities so that Metro Red Line construction may be accomplished. Work is to be performed by agency personnel under a master agreement with the Metropolitan Transportation Authority.

DEMOLITION

Demolition and removal of existing structures and material from the Metro Red Line construction sites.

UTILITY AGREEMENT:

Services related to the rearrangement of privately-owned utility facilities or equipment so that Metro Red Line construction may be accomplished. Work is to be performed by each contractor and/or by agency personnel under a master agreement with the Metropolitan Transportation Authority.

PROCUREMENT (Supply Only):

Procurement of equipment that does not require installation, such as passenger vehicles and auxiliary vehicles, or procurement of equipment for installation by another contractor, such as running rail, special trackwork, rail fasteners, traction power equipment, ventilation fans, public address, closed circuit television, cable transmission, fire and emergency management, and gas monitoring.

PROCUREMENT AND INSTALLATION:

Procurement and installation of equipment under a single contract. These contracts include automatic train control, radio, telephone system, SCADA, escalators and elevators and fare collection system, ventilation equipment and *air* handling equipment.

INSTALLATION:

Installation of equipment procured by others under one or more supply only or design and supply contract, including all installation materials, such as trackwork (running rail, contact rail coverboard, insulators, special track and rail fasteners), traction power, and communications installation (public address, closed circuit television, cable transmission, fire and emergency management, gas monitoring and seismic detection including equipment).

PURCHASE ORDER:

Direct procurement under a Purchase Order following evaluation of proposals or prices only from a minimum of three qualified suppliers based upon set specifications or data sheets.

PROFESSIONAL SERVICES:

Services related to the preparation of design packages for the various facilities construction, procurement and installation contracts, the publication and distribution of bid documents, and construction management of those contracts.

Metro Red Line - Segment 2
CONTRACT UNIT DESCRIPTIONS

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The Contract index lists contracts in alpha-numerical order. The actual contract listings are organized by contract type.

CONTRACT UNIT	CONTRACT TITLE	CONTRACTOR	CONTRACT TYPE	PAGE
03369	CONSTRUCTION MANAGEMENT CONSULTANT (CM)	PARSONS-DILLINGHAM	Professional Services	22
A4239	TELEPHONE SYSTEM	PACTEL MERIDIAN SYSTEMS	Procurement and Installation	12
B201	LINE SECTION WILSHIRE/ALVARADO STATION TO WILSHIRE/VERMONT W/POCKET TRACK	TUTOR-SALIBA-PERINI, J.V.	Construction	3
B211	WILSHIRE/VERMONT STATION STAGE I	TUTOR-SALIBA/PERINI J.V.	Construction	3
B213	WILSHIRE/VERMONT STAGE II SITE DEMOLITION	WILLIAM L. OLSON, INC.	Demolition	8
B215	WILSHIRE/VERMONT STATION STAGE II	TUTOR-SALIBA CORPORATION	Construction	3
B216	WILSHIRE/VERMONT SITE RESTORATION AND LANDSCAPING	TUTOR-SALIBA CORPORATION	Construction	4
B218	600 S. VERMONT AND 606 S. VERMONT DEMOLITION	DAE WOO ENGINEERING CO., INC.	Demolition	9
B219	WILSHIRE/VERMONT STATION SITE DEMOLITION	THOMAS LAND CLEARING COMPANY	Demolition	9
B221	WILSHIRE/NORMANDIE STATION & LINE	TUTOR-SALIBA/PERINI J.V.	Construction	4
B229	TEMPORARY VENTILATION DURING CONSTRUCTION - WILSHIRE CORRIDOR	STEINY AND COMPANY, INC.	Construction	4
B231	WILSHIRE/WESTERN STATION	TUTOR-SALIBA/PERINI J.V.	Construction	4
B241	VERMONT/BEVERLY STATION	TUTOR-SALIBA-PERINI, J.V.	Construction	5
B251	VERMONT/HOLLYWOOD TUNNEL		Construction	6
B252	VERMONT/SANTA MONICA STATION	KIEWIT-SHEA, J.V.	Construction	6
B261	VERMONT/SUNSET STATION	TUTOR-SALIBA-PERINI, J.V.	Construction	6
B263	ENTRANCE AT KAISER HOSPITAL		Construction	7
B264	MEMORANDUM OF UNDERSTANDING (MOU) KAISER FACILITY DEMOLITION	KAISER PERMANENTE	Demolition	9
B268	VERMONT/SUNSET SITE DEMOLITION	THOMAS LAND CLEARING COMPANY	Demolition	9

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CONTRACT UNIT	CONTRACT TITLE	CONTRACTOR	CONTRACT TYPE	PAGE
B271	HOLLYWOOD/WESTERN STATION	KIEWIT-SHEA, J.V.	Construction	7
B281	HOLLYWOOD/VINE STATION	KAJIMA/RAY WILSON	Construction	7
* B285	BARNSDALL PARK CONSTRUCTION SITE RESTORATION		Construction	7
B288	HOLLYWOOD/VINE STATION SITE DEMOLITION	WALLACE KENT & SONS LAND CLEARING, INC.	Demolition	9
B290	ANCILLIARY CONSTRUCTION AND MAINTENANCE	TUTOR-SALIBA CORPORATION	Construction	8
* B298	SANITARY SEWER/STORM DRAIN CROSS-CONNECTIONS FOR SEGMENT-2A	TBD	Construction	8
B610	TRACKWORK INSTALLATION	MORRISON KNUDSEN CORPORATION	Procurement and Installation	12
B611	RUNNING RAIL PROCUREMENT	BETHLEHEM STEEL CORP.	Procurement	12
B612	CONTACT RAIL PROCUREMENT	L. B. FOSTER COMPANY	Procurement	13
B614	SPECIAL TRACKWORK PROCUREMENT	L. B. FOSTER COMPANY	Procurement	13
B616	SPECIAL DIRECT FIXATION RAIL FASTENERS	AMERICAN TRACK SYSTEMS INC.	Procurement	13
B620	AUTOMATIC TRAIN CONTROL (ATC)	GENERAL RAILWAY SIGNAL	Procurement and Installation	14
B630	TRACTION POWER SUBSTATION EQUIPMENT	POWELL/TPS, J.V.	Procurement	14
B631	TRACTION POWER INSTALLATION	FISCHBACH AND MOORE INC.	Installation	9
B641	RADIO SYSTEM	AMELCO ELECTRIC	Procurement and Installation	15
B642	PUBLIC ADDRESS (PA)	SESCO INC.	Procurement	16
B643	CLOSED CIRCUIT TELEVISION (CCTV)	ETA TECHNOLOGIES	Procurement	17
B644	FIBER OPTICS AND CABLE TRANSMISSION (FO&CT)	ETA TECHNOLOGIES	Procurement	17
B645	TRANSIT AUTOMATIC CONTROLS and SCADA (TRACS)	SYSECA INCORPORATED	Procurement and Installation	18

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CONTRACT UNIT	CONTRACT TITLE	CONTRACTOR	CONTRACT TYPE	PAGE
B646	FIRE AND EMERGENCY MANAGEMENT (F&EM)	SYSECA INCORPORATED	Procurement	18
* B648A	COMMUNICATIONS INSTALLATION WILSHIRE CORRIDOR & GAS/SEISMIC	L.K. COMSTOCK, INC.	Installation	10
* B648B	COMMUNICATIONS INSTALLATION (VERMONT/HOLLYWOOD CORRIDOR)		Installation	11
B650	PASSENGER VEHICLE PROCUREMENT	(WORK UNDER A650)	Procurement	19
B670	AUXILIARY VEHICLES		Procurement	19
B680	OPERATIONAL GRAPHICS		Purchase Order	24
B710	ESCALATORS AND ELEVATORS	FUJITEC AMERICA, INC.	Procurement and Installation	20
B715	ART IN TRANSIT/DESIGN DEVELOPMENT		Specialty	26
B730	FIXED SHOP EQUIPMENT		Purchase Order	24
B731	MAJOR SHOP EQUIPMENT		Procurement and Installation	20
B735	PORTABLE SHOP EQUIPMENT		Purchase Order	25
B740	VENTILATION EQUIPMENT	JOY ENVIRONMENTAL TECHNOLOGY	Procurement and Installation	20
B745	AIR HANDLING EQUIPMENT	TUTOR-SALIBA/OVERLAND MECHANICAL JV	Procurement and Installation	20
B752	SOIL REMEDIATION CONTRACT - I	METCALF AND EDDY	Specialty	26
B754	SOIL REMEDIATION CONTRACT - II	DAMES AND MOORE	Specialty	26
B756	ASBESTOS ABATEMENT CONTRACT	BARSOTTI	Specialty	26
B760	SIGNS AND GRAPHICS	CALIFORNIA NEON PRODUCTS	Procurement	21
B761	ILLUMINATED SIGNS AND EDGE LIGHTS	STEINY AND COMPANY, INC.	Procurement	21
B771	AUTOMOBILE AND LIGHT TRUCKS		Purchase Order	25
B772	FORK LIFT TRUCKS		Purchase Order	25
B773	SHOP CLEANING, MAINTENANCE, MATERIALS HANDLING EQUIPMENT		Purchase Order	25

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CONTRACT UNIT	CONTRACT TITLE	CONTRACTOR	CONTRACT TYPE	PAGE
B774	YARD AND SHOP CLEANING AND MAINTENANCE VEHICLES		Purchase Order	25
B775	MOBILE MAINTENANCE EQUIPMENT		Purchase Order	26
B780	FURNITURE		Procurement	21
B785	FIRE SUPPRESSION AND EMERGENCY EQUIPMENT		Purchase Order	26
B790	STORES AND CONSUMABLES		Procurement	21
B795	UNINTERRUPTIBLE POWER SUPPLY (UPS)	CUSTOM POWER, INC.	Procurement	21
CM001	CONFIGURATION MANAGEMENT CONSULTANTS (CMC)	LKG-CMC, INC.	Professional Services	22
E0060	SYSTEMS ENGINEERING AND ANALYSIS	BOOZ-ALLEN & HAMILTON	Professional Services	23
E0070	ENGINEERING MANAGEMENT CONSULTANT (EMC)	PARSONS-BRINCKERHOFF/DMJM	Professional Services	23
E0090	TRANSIT VEHICLE PROCUREMENT CONSULTANT	LTK ENGINEERING SERVICES, INC.	Professional Services	23
F102	COOPERATIVE AGREEMENT: LADWP POWER RELOCATION		3rd-Party Agreement	1
F103	COOPERATIVE AGREEMENT: LADWP WATER RELOCATION		3rd-Party Agreement	1
F104	COOPERATIVE AGREEMENT: CITY OF LOS ANGELES		3rd-Party Agreement	1
F208	COOPERATIVE AGREEMENT: COUNTY OF LOS ANGELES		3rd-Party Agreement	1
F406	COOPERATIVE AGREEMENT: CABLE TELEVISION RELOCATION		3rd-Party Agreement	1
F802	COOPERATIVE AGREEMENT: SOUTHERN CALIFORNIA EDISON RELOCATION		3rd-Party Agreement	2
F808	COOPERATIVE AGREEMENT: PACBELL TELEPHONE RELOCATION		3rd-Party Agreement	2
F812	COOPERATIVE AGREEMENT: A T & T RELOCATION		3rd-Party Agreement	2
F814	COOPERATIVE AGREEMENT: WESTERN UNION ATS RELOCATION		3rd-Party Agreement	2
F815	COOPERATIVE AGREEMENT: MTA OPERATIONS		3rd-Party Agreement	2
F816	COOPERATIVE AGREEMENT: CALTRANS		3rd-Party Agreement	2

CONTRACT INDEX

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F854	COOPERATIVE AGREEMENT: GAS COMPANY RELOCATION		3rd-Party Agreement	2
FM014	PROJECT MANAGEMENT ASSISTANCE	FLUOR DANIEL	Professional Services	24
H840	FARE COLLECTION		Procurement and Installation	22

* = Changed in this revision

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Metro Red Line - Segment 2

PROJECT DESCRIPTION

The Metro Red Line Project Segment-2 alignment extends from the Westlake/MacArthur Park Station northwest to Wilshire/Vermont, and west along Wilshire Boulevard to Western Avenue with a western terminus at the Wilshire/Western Station. The line continues north from Wilshire/Vermont along Vermont Avenue, turning west along Hollywood Boulevard to the Hollywood/Vine Station, terminating at station 558 + 81.

* = Changed in this revision

PROJECT: R81 Metro Red Line - Segment 2

CONTRACT UNIT DESCRIPTIONS

CONTRACT UNIT	CONTRACT TITLE	APPROXIMATE QUANTITIES	CONTRACT TYPE	GENERAL CONTRACT SCOPE
3rd-Party				
F102	COOPERATIVE AGREEMENT: LADWP POWER RELOCATION Contractor:	Ductbanks and manholes, cables, service connections, vaults	3rd-Party Agreement	Provide inspection services/cable ductbank installation and design the DWP dedicated feeder/service connections to accommodate the following Red Line Segment-2 contracts: B201, B211, B221, B231, B241, B251, B252, B261, B271 and B281.
F103	COOPERATIVE AGREEMENT: LADWP WATER RELOCATION Contractor:	Mains, hydrants, vaults, and service connections	3rd-Party Agreement	Provide materials/construction/inspection services to accommodate the following Red Line Segment-2 contracts: B201, B211, B221, B231, B241, B251, B252, B261, B271, and B281.
F104	COOPERATIVE AGREEMENT: CITY OF LOS ANGELES Contractor:	Storm drains, sanitary sewers, street lights and signals, street, curbs, sidewalks and Fire/Life Safety. Worksite Traffic Control Plan	3rd-Party Agreement	Provide design/construction/fire life and safety/inspection services for impacted City facilities to accommodate the following Red Line Segment-2 contracts: B201, B211, B221, B231, B241, B251, B252, B261, B271, and B281. Provide design of street lights, traffic signals, worksite traffic plans and traffic detours.
F208	COOPERATIVE AGREEMENT: COUNTY OF LOS ANGELES Contractor:	Storm drains, highways, Fire/Life Safety, and appraisals.	3rd-Party Agreement	Provide design/construction/inspection/fire life and safety services to accommodate the following Red Line Segment-2 contracts: B201, B215, B221, B231, B241, B251, B252, B261, B271, and B281.
F406	COOPERATIVE AGREEMENT: CABLE TELEVISION RELOCATION Contractor:	Conduits and Cables	3rd-Party Agreement	Provide design, cable installation and inspection services to accommodate the Red Line Segment-2 contracts B221 and B271.
Metro Red Line - Segment 2 3rd-Party			1	R81PM421 Rev 14 Printed: 06/11/97

* = Changed in this revision

PROJECT: R81 Metro Red Line - Segment 2

CONTRACT UNIT DESCRIPTIONS

CONTRACT UNIT	CONTRACT TITLE	APPROXIMATE QUANTITIES	CONTRACT TYPE	GENERAL CONTRACT SCOPE
F802	COOPERATIVE AGREEMENT: SOUTHERN CALIFORNIA EDISON RELOCATION Contractor:	Overhead Power Line	3rd-Party Agreement	Provide design, construction and inspection services to accommodate the Red Line Segment-2 contract B252.
F808	COOPERATIVE AGREEMENT: PACBELL TELEPHONE RELOCATION Contractor:	Ductbanks and manholes, cables, vaults, and service connections	3rd-Party Agreement	Provide design/cable installation/service connections/inspection services to accommodate the following Red Line Segment-2 contracts: B201, B211, B221, B231, B241, B251, B252, B261, B271, and B281.
F812	COOPERATIVE AGREEMENT: A T & T RELOCATION Contractor:	Ductbanks and cables	3rd-Party Agreement	Provide design, construction and inspection services to accommodate Red Line Segment-2 contract B261.
F814	COOPERATIVE AGREEMENT: WESTERN UNION ATS RELOCATION Contractor:	Ductbanks and manholes, cables, vaults, and service connections	3rd-Party Agreement	Provide design and inspection services to accommodate the following Red Line Segment-2 contracts: B221, B231, and B281.
F815	COOPERATIVE AGREEMENT: MTA OPERATIONS Contractor:	TBD	3rd-Party Agreement	Emergency repair, inspection, and training.
F816	COOPERATIVE AGREEMENT: CALTRANS Contractor:	Highways, storm drains, street lights, and bridges	3rd-Party Agreement	Provide design, construction and/or inspection services to accommodate the following Red Line Segment-2 contracts: B241 and B251.
F854	COOPERATIVE AGREEMENT: GAS COMPANY RELOCATION			

* = Changed in this revision

PROJECT: R81 Metro Red Line - Segment 2

CONTRACT UNIT DESCRIPTIONS

CONTRACT UNIT	CONTRACT TITLE	APPROXIMATE QUANTITIES	CONTRACT TYPE	GENERAL CONTRACT SCOPE
	Contractor:	Mains, valves, and service connections	3rd-Party Agreement	Provide design/construction/inspection services to accommodate the following Red Line Segment-2 contracts: B201, B211, B221, B231, B241, B251, B252, B261, B271, and B281. Provide design of street lights on B261.

Construction

B201	LINE SECTION WILSHIRE/ALVARADO STATION TO WILSHIRE/VERMONT W/POCKET TRACK	1121 LF (Cut/Cover Pocket Track and Transitions), 3415 RF (Twin Tunnel)	Construction	Construct that portion of the Line beginning at the easterly end of the Westlake/MacArthur Park proceeding under MacArthur Lake in cut/cover and continuing in tunnel in Wilshire Boulevard and private property, terminating at the Wilshire/Vermont Station. Work includes construction of pocket track under Macarthur Lake, emergency exit stairways, line tunnels, vertical crosspassages, restoration of the park and Alvarado Street, and all mechanical, electrical, and finish work in the tunnels and pocket track. (Axial flow fans supplied in B740 contract) Construct all utility work not performed by City Agencies.
	Contractor: TUTOR-SALIBA-PERINI, J.V.			
B211	WILSHIRE/VERMONT STATION STAGE I	720 LF (cut/cover station plus line transition)	Construction	Demolish and remove structures and clear site for construction. Construct Stage I of the Wilshire/Vermont Station, not including the Entrance, with turnouts to the north and west, including all civil and structural construction (temporary and permanent). This contract includes the embedment of all required architectural, mechanical, and electrical items.
	Contractor: TUTOR-SALIBA/PERINI J.V.			
B215	WILSHIRE/VERMONT STATION STAGE II	602 LF Station Finish	Construction	Construct entrance Stage I and II, and Stage II finish of the Wilshire/Vermont Station, including all architectural, mechanical, and electrical work except for those items embedded in Stage I construction. Furnish and install auxiliary power transformers. Install owner furnished equipment such as Signs and Graphics, illuminated signs, UPS equipment, and wiring to this equipment. Install Authority furnished art work.
	Contractor: TUTOR-SALIBA CORPORATION			

* = Changed in this revision

PROJECT: R81 Metro Red Line - Segment 2

CONTRACT UNIT DESCRIPTIONS

CONTRACT UNIT	CONTRACT TITLE	APPROXIMATE QUANTITIES	CONTRACT TYPE	GENERAL CONTRACT SCOPE
B216	WILSHIRE/VERMONT SITE RESTORATION AND LANDSCAPING Contractor: TUTOR-SALIBA CORPORATION	Station Site	Construction	Restore all surface features, including sitework, landscaping, and replacement of curbs, gutters, sidewalks, and streets, including kiss and ride parking lot, bus loading/unloading drive thru signs and utility work not performed by City Agencies. Install station marker. Reconstruct southeast corner of Vermont and 6th Street. Widen Vermont Avenue. Restore Shatto Street as fully paved street. Install B760 signs provided by the Authority.
B221	WILSHIRE/NORMANDIE STATION & LINE Contractor: TUTOR-SALIBA/PERINI J.V.	120 RF (cut/cover line transition) 2,827 RF (twin tunnel) 604 RF (twin tunnels primary support station only) 1,342 RF (twin tunnel)	Construction	Construct that portion of the line beginning at the northwesterly end of the Wilshire/Vermont turnout, proceeding in tunnel southwesterly to Wilshire Boulevard, continuing westerly through the Wilshire/Normandie Station, and to the east bulkhead of the crossover at Wilshire/Western Station. This contract includes the cut and cover construction of the the Wilshire/Normandie Station, complete, including dewatering. Work includes surface restoration, entrance site improvements and all mechanical, electrical, architectural, and finish work in both the tunnels and station. Construct all utility work not performed by city agencies. Floating slab in the AL tunnel. Furnish and install the Auxiliary Power transformers. Furnish, install and test the Public Address speakers. Install (B740 and B745) MTA furnished ventilation and air handling equipment. Install UPS equipment provided by MTA under B795. Install B760 and B761 Signs and Graphics and illuminated signs provided by the MTA.
B229	TEMPORARY VENTILATION DURING CONSTRUCTION - WILSHIRE CORRIDOR Contractor: STEINY AND COMPANY, INC.	Exhaust fans/electrical power, lights, sump pumps, maintenance/operations personnel.	Construction	Procure, install, operate and maintain a temporary ventilation system in the Wilshire Corridor, from the West end of the B201 contract to the East end of the B231 contract. Period of performance is to be from departure of the station/tunnel facilities contractor through the acceptance of the B631 Contract for the Wilshire Corridor portion of Red Line Segment-2.
B231	WILSHIRE/WESTERN STATION	914 LF	Construction	Demolish and remove structures, clear site for
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B231	WILSHIRE/WESTERN STATION Contractor: TUTOR-SALIBA/PERINI J.V.	(cut/cover)		<p>construction. Construct the Wilshire/Western Station with crossover, including all architectural, mechanical, electrical, and finish work in both the station and crossover, including floating slabs. Work includes surface restoration, entrance landscaping, bus layover and turnaround parking lot, complete with paving, fencing and sidewalk restoration. Construct all utility work not performed by City Agencies, and furnish and install Auxiliary Power transformers. Furnish, install and test the Public Address speakers. Install MTA furnished (B740 and B745) ventilation and air handling equipment.</p> <p>Signs and Graphics installation, Artwork installation and certain Architectural finishes at escalators will be performed by other contracts.</p>
B241	VERMONT/BEVERLY STATION Contractor: TUTOR-SALIBA-PERINI, J.V.	608 LF (cut/cover station). Demolition of site for station entrance	Construction	<p>Demolish and remove structures, clear site for construction. Construct the Vermont/Beverly Station, complete. Includes all mechanical, electrical, architectural, and finish work in the station. Work includes surface restoration, all utility work and landscaping. (Tunnel through station by others prior to completion of lower station excavation). Furnish and install Auxiliary Power transformers.</p> <p><u>B241T - Remaining B251 Work From Wilshire/Vermont Station to Vermont/Beverly Station - Contract Scope Description</u></p> <p>Completion of remaining work from the B251 Contract, necessary to provide fully constructed tunnels between the limits identified including, but not limited to, the following elements:</p> <p>Cleanup of spoil and debris, in the tunnels and other locations, seal leaks and cracks, finish final liner concrete, placement of floating slabs, hair pins and safety handrails, touch up painting as required. Furnish and complete all unfinished mechanical and electrical work. Complete installation of cable trays. Furnish and install doors and hardware. Provide temporary track and utilities as needed to support completion of the work, remove temporary track and utilities at completion of work, and leave in place post</p>

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CONTRACT UNIT DESCRIPTIONS

CONTRACT UNIT	CONTRACT TITLE	APPROXIMATE QUANTITIES	CONTRACT TYPE	GENERAL CONTRACT SCOPE
B241	VERMONT/BEVERLY STATION			construction the protection and ventilation. Correction of open nonconforming conditions.
B251	VERMONT/HOLLYWOOD TUNNEL			
	Contractor:	20,487 RF (twin tunnel)	Construction	Construct that portion of the line, for Segment-2, southward from the Barnsdall Park access shaft to the Wilshire/Vermont Station, including tunneling through Vermont/Sunset Station, Vermont/Santa Monica Station and Vermont/Beverly Station. Construct that portion of the line westward from Barnsdall Park access shaft to assumed rock interface in the Santa Monica mountains, at Station 630 + 00, including tunneling through Hollywood/Western and Hollywood/Vine Stations in Segment-2 and Hollywood/Highland Station in Segment-3. Work includes the construction of the Barnsdall Park shaft and tunnel concrete lining complete in Segment-2 only to Station 549 + 92. Work includes all mechanical, electrical and finish work in Segment-2 tunnels (but not Segment-3) and surface restoration and utility work at the vertical shaft. Work includes underpinning of a parking structure prior to tunnel drive down Vermont.
	Comments: Work transferred to contracts B241T and B281T - scope descriptions located in B241 and B281 CUD - Includes Segment-3 work - see R82-B251 Contractor terminated prior to contract completion.	10,718 RF (twin tunnel, primary support only)		
B252	VERMONT/SANTA MONICA STATION			
	Contractor: KIEWIT-SHEA, J.V.	889 LF (cut/cover station and crossover) Demolition of site for station entrance	Construction	Demolish and remove structures, clear site for construction. Construct the Vermont/Santa Monica Station and crossover, complete. Includes all mechanical, architectural, electrical, and finish work in the station, and crossover. Work includes surface restoration, landscaping, all utility work, and furnish and install Auxiliary Power transformers. (Tunnel through station by others prior to completion of lower excavation).
B261	VERMONT/SUNSET STATION			
	Contractor: TUTOR-SALIBA-PERINI, J.V.	608 LF (cut/cover station)	Construction	Demolish CHLA building and remove, clear site for construction. Construct the Vermont/Sunset Station, complete. Includes all electrical, architectural, mechanical, and finish work in the station, as well as surface restoration, landscaping, and all utility work. (Tunnel through station by others prior to completion of lower station excavation). Furnish and install Auxiliary Power transformers.
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CONTRACT UNIT DESCRIPTIONS

CONTRACT UNIT	CONTRACT TITLE	APPROXIMATE QUANTITIES	CONTRACT TYPE	GENERAL CONTRACT SCOPE
B263	ENTRANCE AT KAISER HOSPITAL Contractor:	95 LF (cut/cover entrance)	Construction	New Kaiser entrance including excavation support, backfill, surface restoration, and elevators.
B271	HOLLYWOOD/WESTERN STATION Contractor: KIEWIT-SHEA, J.V.	584 LF (cut/cover station)	Construction	Construct the Hollywood/Western Station, including all mechanical, electrical, architectural, finish work, surface restoration, landscaping and all utility work. (Tunnel through station by others prior to completion of lower station excavation). Furnish and install Auxiliary Power transformers. Install Authority furnished signs and graphics. Install Authority furnished Uninterruptible Power Supply (UPS) equipment. Install artwork in the station.
B281	HOLLYWOOD/VINE STATION Contractor: KAJIMA/RAY WILSON	889 LF (cut/cover station and crossover)	Construction	Construct the Hollywood/Vine Station and crossover, including all mechanical, architectural, electrical, and finish work in the station and crossover including floating slabs. Work includes all surface restoration, landscaping, all utility work, bus turnaround, layover, and Kiss/Ride parking (Tunnel through station by others prior to completion of lower station excavation). Furnish and install Auxiliary Power transformers. <u>B281T - Remaining B251 Work for sections of tunnel between Vermont/Sunset Station and Hollywood/Western Station and between the Hollywood/Western Station and Hollywood/Vine Station -</u> Contract Scope Description - Provide cast-in-place concrete lining, mechanical, electrical, repair sinkhole and perform other work required to complete the Vermont/Hollywood Tunnel contract from Vermont/Sunset Station to Hollywood/Vine Station.
* B285	BARNSDALL PARK CONSTRUCTION SITE RESTORATION Contractor:	TBD	Construction	<i>Backfill tunnel access shaft and restore surface features including landscaping, sidewalk, stairs,</i>

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CONTRACT UNIT DESCRIPTIONS

CONTRACT UNIT	CONTRACT TITLE	APPROXIMATE QUANTITIES	CONTRACT TYPE	GENERAL CONTRACT SCOPE
* B285	BARNSDALL PARK CONSTRUCTION SITE RESTORATION			<i>curbs, gutters, roadway, parking lot, and pedestrian lighting. Remove fencing, masonry wall, gates, and tunnel access ladders and elevator.</i>
B290	ANCILLIARY CONSTRUCTION AND MAINTENANCE		Construction	Perform ancillary structural, architectural, electrical, mechanical, utilities, and other construction, repair, and maintenance necessary to complete any unanticipated or incomplete Segment-2 stations (8), and tunnel work on an "as-needed" basis. Maintain equipment in accordance to manufacturers' recommendations or requirements. Maintain all facilities and tunnels in a clean and ready to open condition. Perform various tests and repairs as directed. Includes the furnishing of all labor, materials (except the materials furnished by the Authority), tools, equipment, services, and incidentals for ancillary structural and architectural construction, repair, and maintenance necessary to meet the Revenue Operations Date for the Segment-2 project Wilshire Corridor and Vermont/Hollywood Corridor.
	Contractor: TUTOR-SALIBA CORPORATION	As needed to support completion of the 8 Seg-2 Stations, tunnel line, and other systems.		
	Comments: Contract work will be managed on a Task Order basis.			
* B298	SANITARY SEWER/STORM DRAIN CROSS-CONNECTIONS FOR SEGMENT-2A		Construction	<i>Construct a storm water bypass system including manholes and necessary piping and connections at six sites for the Metro Red Line Segment-2A Wilshire Corridor. The storm drains discharging from each site must remain operational during all phases of construction.</i>
	Contractor: TBD	6 Sites 4 Stations 2 Tunnels		
	Comments: <i>To meet requirements of NPDES Permit issued by the RWQCB</i>			

Demolition

B213	WILSHIRE/VERMONT STAGE II SITE DEMOLITION		Demolition	Demolish and remove Bank of America building in parcel B2-117 for construction of station entrance in B215.
	Contractor: WILLIAM L. OLSON, INC.	Station Site		

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B218	600 S. VERMONT AND 606 S. VERMONT DEMOLITION Contractor: DAE WOO ENGINEERING CO., INC.	Station Site	Demolition	Demolish and remove structures and clear site for construction of B221.
B219	WILSHIRE/VERMONT STATION SITE DEMOLITION Contractor: THOMAS LAND CLEARING COMPANY	Station Site	Demolition	Demolish and remove structure in parcel B2-119 for construction of site restoration in B216.
B264	MEMORANDUM OF UNDERSTANDING (MOU) KAISER FACILITY DEMOLITION Contractor: KAISER PERMANENTE	Kaiser entrance site	Demolition	Design, permitting, and construction/demolition services on the Kaiser facility to prepare easement area for the B263 contractor.
B268	VERMONT/SUNSET SITE DEMOLITION Contractor: THOMAS LAND CLEARING COMPANY	Station Entrance Site	Demolition	Demolish and remove structures, clear site for construction, other than the CHLA building demolished in Contract B261.
B288	HOLLYWOOD/VINE STATION SITE DEMOLITION Contractor: WALLACE KENT & SONS LAND CLEARING, INC.	Demolition of site for station entrance and bus intercept	Demolition	Demolish and remove structures, clear sites for construction.

Installation

B631	TRACTION POWER INSTALLATION Contractor: FISCHBACH AND MOORE INC.	Installation of equipment and material at 8 power substations (1 at each Segment-2)	Installation	Install MTA-furnished traction power equipment. Furnish and install associated miscellaneous substation and power distribution equipment and material. This material includes, but is not limited to, distribution panelboards, wire and cable to contact rail
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CONTRACT UNIT DESCRIPTIONS

CONTRACT UNIT	CONTRACT TITLE	APPROXIMATE QUANTITIES	CONTRACT TYPE	GENERAL CONTRACT SCOPE
B631	TRACTION POWER INSTALLATION	station)		<p>locations, raceway systems, supports and accessories, and substation negative return cables to wayside locations.</p> <p>Procure 34.5 kV feeder cable for installation by others in tunnel sections. Complete installation of the 34.5 kV feeder in station areas and make connections of the feeder to the traction power equipment. The installation work includes furnishing labor for handling, storing, installing, and field testing material furnished under this contract and contract B630.</p> <p>This contract includes the furnishing and installing of diesel generator sets and appurtenances to supply emergency power to the tunnel ventilation fans.</p>
* B648A	COMMUNICATIONS INSTALLATION WILSHIRE CORRIDOR & GAS/SEISMIC	<p>Stage 1a: 3 passenger stations, central control, and Yard.</p> <p>Stage 1b: 5 passenger stations (gas and seismic procurement only).</p> <p>Stage 2a: 2 passenger stations (gas and seismic procurement only).</p> <p>Stage 2b: 3 passenger stations (seismic procurement only).</p> <p>Stage 3: 4 to 6</p>	Installation	<p>Furnish gas monitoring and seismic detection equipment for Red Line Segments 2 and 3. Install Segment-1 FOCT Retrofit Equipment. Design, furnish and install the Train Control and Communications (TC&C) Room power distribution system for the Segment-2A Communications Systems and Main Distribution Frame (MDF) expansion at the Operations Control Center (OCC) and Yard. Install (for Segment-2a only) Public Address (PA), Closed Circuit Television (CCTV), Fiber Optics and Cable Transmission (FOCT), Fire and Emergency Management (F&EM), <i>Variable Message Signs VMS</i>, seismic detection and gas monitoring equipment; furnish all required installation materials.</p> <p>Furnish and install Communication Systems station cabling: between field devices and Communications Interface Cabinets (CIC), between field devices and TC&C rooms and between Traction Power Substations (TPSS) and TC&C rooms. Work includes crossconnect wiring at CIC's and MDF's.</p> <p>Field test the Power Distribution, PA, <i>VMS</i>, Gas Monitoring, Seismic Detection and CCTV Systems for Segment-2 Wilshire Corridor.</p> <p>Prepare and implement Management, Quality Assurance and Test Programs.</p>
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* B648A	COMMUNICATIONS INSTALLATION WILSHIRE CORRIDOR & GAS/SEISMIC	passenger stations (gas and seismic procurement only).		<p>Gas Monitoring and Seismic Detection equipment delivery and tests will be staged on the basis of site availability as follows:</p> <p>Stage 1a: Segment-2 Wilshire Corridor Stage 1b: Segment-2 Vermont/Hollywood Corridor. Stage 2a: Segment-3 Mid City Extension. Stage 2b: Segment-3 North Hollywood Extension. Stage 3: East Extension.</p> <p>An option for Stage 3 equipment will be included.</p>
* B648B	COMMUNICATIONS INSTALLATION (VERMONT/HOLLYWOOD CORRIDOR) Contractor:	5 passenger stations and central control.	Installation	<p>Design, furnish and install the Train Control and Communications (TC&C) Room power distribution system for the Segment-2b Communications Systems and MDF expansion at OCC.</p> <p>Install PA, CCTV, FOCT, F&EM, Variable Message Signs (VMS), seismic detection and gas monitoring equipment; furnish all required installation materials.</p> <p>Furnish and install surface conduit and radio antenna wall sleeves as required.</p> <p>Furnish and install Communication Systems station cabling: between field devices and Communications Interface Cabinets (CIC's), between field devices and TC&C rooms and between Traction Power Substations (TPSS) and TC&C rooms. Work includes crossconnect wiring at CIC's and Main Distribution Frames (MDFs).</p> <p>Field test the Power Distribution, PA, CCTV, VMS, seismic detection and gas monitoring, Systems.</p> <p>Prepare and implement Management, Quality Assurance and Test Programs.</p>
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CONTRACT UNIT	CONTRACT TITLE	APPROXIMATE QUANTITIES	CONTRACT TYPE	GENERAL CONTRACT SCOPE
Procurement				
A4239	TELEPHONE SYSTEM			
Contractor:	PACTEL MERIDIAN SYSTEMS	13 passenger stations, central control and Yard	Procurement and Installation	Furnish, and install EPABX systems, telephone equipment and instruments for passenger stations, tunnels, Yard expansion and expansion of the EPABX located at the Operations Control Center (OCC). Provide alarm interface to TRACS system.
Comments:	Determine requirements and provide the information to MTA Operations for Procurement and installation of additional telephone equipment for Segment-2 and Segment-3. This is an Extension of an existing MTA contract. Contract number B4239 corrected to A4239 (as this is an option to the Segment-1 A4239 contract).			
B610	TRACKWORK INSTALLATION			
Contractor:	MORRISON KNUDSEN CORPORATION	<u>Segment-2</u> 70,800 Track Ft. (Mainline) 18,360 Track Ft. (Storage Yard)	Procurement and Installation	Furnish and install ties, ballast, grade crossing materials, reinforced concrete, and other trackwork materials that are not provided by the MTA, for storage yard expansion, and mainline segments for Segment-2 and a portion of Segment-3.
Comments:	Includes portions of Segment-3.	<u>Segment-3</u> 9,400 Track ft. (Mainline)		Install MTA-furnished standard and special direct fixation rail fasteners, running rail and special trackwork.
				Install MTA-furnished contact rail, support insulators, and associated hardware, including side and end approach sections, anchor assemblies, expansion joint assemblies, and splice joint assemblies for storage yard expansion and mainline segments for Segment-2 and a portion of Segment-3.
				Install contact rail protective coverboard, support brackets, and associated hardware, including fastener assemblies and expansion joint assemblies for storage yard expansion and mainline segments for Segment-2 and a portion of Segment-3.
B611	RUNNING RAIL PROCUREMENT			
Contractor:	BETHLEHEM STEEL CORP.	Segment-2 2,900 tons	Procurement	Furnish 115 RE running rail required for Segment-2, Segment-3, Pasadena Blue Line Project, Orange Line

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B611	RUNNING RAIL PROCUREMENT			
	Comments: Includes Segment-3, Pasadena Blue Line Project, Orange Line and with option for Green Line North Coast Extension.	Segment-3 3,500 tons Pasadena Blue Line 6,700 tons Orange Line 4,400 tons Green Line North Coast Extension 1,100 tons		and with option for Green Line North Coast Extension. Includes manufacturing, inspecting, testing, shipping, delivering, unloading and stockpiling.
B612	CONTACT RAIL PROCUREMENT			
	Contractor: L. B. FOSTER COMPANY	Segment-2 68,100 ft Segment-3 88,900 ft Yard 18,500 ft Option 64,000 ft	Procurement	Design, manufacture, test and furnish contact rail, support insulators and associated hardware, including side and end approach sections, anchors, and expansion joints and splice joints, for mainline and storage yard expansion.
	Comments: Multi-year contract to design and furnish contact rails, insulators and coverboards for the remainder of the Red Line.			Design, manufacture, test and furnish contact rail protective coverboard, support brackets and associated hardware for mainline and storage yard expansion.
B614	SPECIAL TRACKWORK PROCUREMENT			
	Contractor: L. B. FOSTER COMPANY	17 ea. no. 8 lat. turnouts 2 ea. no. 8 dbl. crossovers 2 ea. no. 8 equil. turnouts 4 ea. no. 10 lat. turnouts 2 ea. no. 12 equil. turnouts 3 ea. 645' R dbl. crossovers	Procurement	Furnish special trackwork required for Segment-2 and a portion of Segment-3. Includes manufacturing, inspecting, testing, shipping, delivery, unloading and stockpiling.
	Comments: Includes portions of Segment-3.			
B616	SPECIAL DIRECT FIXATION RAIL FASTENERS			
	Contractor: AMERICAN TRACK SYSTEMS INC.	Segment-2 13,000 ea. Segment-3 5,200 ea. Orange 25,000 ea. Pasadena 7,300 ea.	Procurement	Furnish special (soft) direct fixation rail fasteners for Red Line Segment-2, Segment-3 and Orange Line with option for Pasadena Blue Line. Includes manufacturing, testing, shipping, delivering, unloading and stockpiling.
	Comments: Includes Segment-3, Orange Line with an option for Pasadena Blue Line.			

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CONTRACT UNIT DESCRIPTIONS

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B620	AUTOMATIC TRAIN CONTROL (ATC)			
	Contractor: GENERAL RAILWAY SIGNAL	Segment-2: Stage 1: 9 sets Train Control and Communications room equipment (TC&C), additional yard equipment, and 16 sets of carborne Automatic Train Protection (ATP) equipment.	Procurement and Installation	Design, furnish, and install mainline and storage yard expansion of Automatic Train Control (ATC) System for Segment-2 and Segment-3. Provide proper interfacing with the Segment-1 ATC system already in place.
	Comments: Includes Segment-3 (Mid-City and North Hollywood Extension, and East Extension).	Segment-3: Stage 2a: (Mid-City): Option for 2 sets of TC&C equipment.		For Stage 1 and 2, Contractor will submit his baseline track and cable plan (including the block layout) prior to Stage 1 Notice-To-Proceed (NTP). For Stage 3, Contractor bid documents will be based on the block layout provided in the Contract documents. B620 includes design, furnish, and installation of wayside Automatic Train Operations (ATO) equipment.
		Segment-3: Stage 2b: (North Hollywood Extension): 4 sets TC&C equipment and 15 sets of Carborne ATP equipment.		The work also includes startup, testing, and complete integration of the Segment-2 and Segment-3 system with the operating Segment-1 system.
		Segment-3: Stage 3 (East Extension): 4 to 6 sets TC&C equipment and 1 to 20 sets of Carborne ATP equipment.		The B620 contractor will perform the following for the B631 contract: Procure and install station-to-station transfer trip cable, and conduit for the 34.5 kV-tunnel feeder cable; install the 34.5 kV-tunnel feeder cable. The B620 contractor will perform the following for the communication contracts: procurement, installation, termination and testing, of the communications tunnel cable plant, including station-to-station copper-conductor, and fiber optics cables, station-to-crosspassage cables, fire telephone cables in the tunnels, crosspassage Communications Interface Cabinets (CIC), fiber optics terminus patch panels and station Main Distribution Frames (MDF); fire telephone jacks in the tunnels. B648 to furnish station communication cables.
B630	TRACTION POWER SUBSTATION EQUIPMENT			
	Contractor: POWELL/TPS, J.V.	Segment-2: Full complement of equipment at 8 power substations (1 at each station; 2	Procurement	Design and furnish traction power equipment and auxiliary power electrical equipment for Segment-2, Segment-3, expansion of Segment-1 and future East Extension.
	Comments: Includes Segment-3, expansion of Segment-1, and future East			Traction power equipment includes high voltage AC

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CONTRACT UNIT DESCRIPTIONS

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B630	TRACTION POWER SUBSTATION EQUIPMENT Extension. NOTE: Multi-year contract to design, furnish and test traction power equipment.	stations will not have traction power equipment but will require auxiliary power equipment.) Segment-3: Full complement of equipment at 6 power substations. Segment-1: Additional rectifiers at 4 mainline substations and in the Yard. East Expansion: Full complement of equipment at 4 to 6 power substations.		switchgear assemblies, AC-to-DC conversion equipment assemblies, metal-enclosed DC switchgear assemblies, DC disconnect switches, negative bus boxes, control power rectifiers and annunciator panels. Auxiliary power electrical equipment provided by this contract includes the high voltage switchgear units for the auxiliary power rooms at each station. The Auxiliary Power transformers are furnished and installed by the station contractors. The contract includes technical assistance for installation, start-up, and testing. The contract does not include installation of the procured equipment, the structures in which the equipment is to be installed, or the central supervisory control equipment.
B641	RADIO SYSTEM Contractor: AMELCO ELECTRIC Comments: Includes Segment-3 and East Extension. NOTE: Multi-year Procurement to design, furnish and install the Segment-2 System only, and to design and furnish the Segment-3 System (One-step sealed-bid process; low bid award)	Stage 1: 8 passenger stations, central control equipment, 120 portable radios, and equipment for 23 married-pair vehicles. Stage 2a: 2 passenger stations, 30 portable radios, and central control equipment. Stage 2b: Three	Procurement and Installation	Design, furnish, and install the Segment-2; and design and furnish the Segment-3 Radio System including Passenger station local equipment, station and tunnels antenna, systems, amplifiers, and control center equipment. Procure mobile portable radios, battery chargers, train radios and train identification and control units (TICUs). Prepare and implement Test and Training Programs. Equipment delivery and field work will be staged on the basis of site availability, as follows: Stage 1: Segment-2 Wilshire and Vermont/Hollywood Corridors. Stage 2a: Segment-3 Mid-City Extension. Stage 2b: Segment-3 North Hollywood Extension.

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B641	RADIO SYSTEM	<p>passenger stations, two midline ventilation shaft structures and Central Control.</p> <p>Stage 3: 4 to 6 passenger stations and central control equipment</p>		<p>Stage 3: East Extension</p> <p>An option for Stage 3 equipment only will be included.</p> <p>An option of Radio Equipment for up to 11 married-pair vehicles will be included.</p> <p>Segment-3 installation will be by H0648.</p>
B642	PUBLIC ADDRESS (PA)	<p>Stage 1: 8 passenger stations, and central control equipment for Segments 1,2, & 3.</p> <p>Stage 2a: 2 passenger stations and additional central control equipment.</p> <p>Stage 2b: Three passenger stations, two midline ventilation shaft structures and additional central control equipment.</p> <p>Stage 3: 4 to 6 passenger stations and central control equipment.</p>	Procurement	<p>Furnish Segment-2 and Segment-3 public address equipment, including amplifiers, speakers, microphones, emergency panels, announcement devices, and control equipment for Central Control.</p> <p>Prepare Installation Program for implementation by others.</p> <p>Delivery of equipment will be staged on the basis of site availability as follows:</p> <p>Stage 1: Segment-2 Wilshire and Vermont/Hollywood Corridors.</p> <p>Stage 2a: Segment-3 Mid-City Extension.</p> <p>Stage 2b: Segment-3 North Hollywood Extension.</p> <p>Stage 3: East Extension.</p> <p>An option for Stage 3 equipment will be included.</p>
	<p>Contractor: SESCO INC.</p> <p>Comments: Includes Segment-3 and East Extension and option for Stage 3 (East Extension) will be included.</p> <p>Multi-year Procurement (One-step, sealed-bid process; low bid award)</p>			

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B643	CLOSED CIRCUIT TELEVISION (CCTV)			
Contractor:	ETA TECHNOLOGIES	Stage 1: 8 passenger stations and central control equipment.	Procurement	Furnish Segment-2 and Segment-3 Closed Circuit Television (CCTV) equipment, including cameras, mounts, lenses, modulators and demodulation recorders, video transmission equipment, and CCTV workstations and consoles.
Comments:	Includes Segment-3 and East Extension with an option for Stage 3 (East Extension) equipment will be included. Multi-year procurement (One-step, sealed-bid, process; low bid award)	Stage 2a: 2 passenger stations and central control equipment. Stage 2b: Three passenger stations and central control equipment. Stage 3: 4 to 6 passenger stations and central control equipment.		Prepare Installation Program for implementation by others. Delivery of equipment will be staged on the basis of site availability as follows: Stage 1: Segment-2 Wilshire and Vermont/Hollywood Corridors. Stage 2a: Segment-3 Mid City Extension. Stage 2b: Segment-3 North Hollywood Extension. Stage 3: East Extension. An option for Stage 3 equipment will be included.
B644	FIBER OPTICS AND CABLE TRANSMISSION (FO&CT)			
Contractor:	ETA TECHNOLOGIES	Stage 1: 13 passenger stations and central control equipment.	Procurement	Design and Furnish Segment-2 FOCT Equipment Retrofit Segment-1 for compatibility with the ultimate system Design and furnish Segment-2 and Segment-3 Fiber Optics and Cable Transmission (FOTC) equipment, including audio and digital patch panels, digital and optical transmission equipment, and multiplex equipment. Provide orderwire and network management subsystems.
Comments:	Includes Segment-3 and East Extension with an option for Stage 3 (East Extension) equipment will be included. Multi-year Procurement to design and furnish (One-step, sealed-bid process; low bid award)	Stage 2a: 2 passenger stations and central control equipment. Stage 2b: Three passenger stations, two midline ventilation shaft structures and central control.		Prepare and implement Management, Test and Quality Assurance Programs. Prepare Installation Program for implementation by others. Equipment delivery and tests will be staged on the basis of site availability as follows: Stage 1: Segment-1 Retrofit and Segment-2 Wilshire and Vermont/Hollywood Corridors.
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B644	FIBER OPTICS AND CABLE TRANSMISSION (FO&CT)			
		Stage 3: 4 to 6 passenger stations and central control equipment.		<p>Stage 2a: Segment-3 Mid City Extension.</p> <p>Stage 2b: Segment-3 North Hollywood Extension.</p> <p>Stage 3: East Extension.</p> <p>An option for Stage 3 equipment will be included.</p> <p>NOTE: Multi-year Procurement to design and furnish (One-step, sealed-bid process; low bid award).</p>
B645	TRANSIT AUTOMATIC CONTROLS and SCADA (TRACS)			
	Contractor: SYSECA INCORPORATED	Stage 1: 8 passenger stations and central control equipment, & Yard.	Procurement and Installation	Design, furnish and install Segment-2 and Segment-3 to performance requirements and Segment-1 compatibility requirements. The System will provide consoles, displays, computer equipment, software modifications and Remote Terminal Unit (RTU) equipment for the line Extensions. Provision the system for expansion via menu-driven software for up to 30 additional stations.
	Comments: Includes Segment-3 and East Extension with an option for Stage 3 (East Extension)	Stage 2A: Two passenger stations and central control work.		Prepare and implement Management, Test, Systems Assurance and Training Programs.
	Multi-year Procurement to design, furnish and install the Segment-2 and Segment-3 System.	Stage 2B: Three passenger stations, two midline ventilation shaft structures and Central Control Work.		Equipment delivery, installation, and field work will be staged on the basis of site availability as follows:
	(Two-Step procurement process)	Stage 3: 4 to 6 passenger stations and central control work.		<p>Stage 1: Segment-2 Wilshire and Vermont/Hollywood Corridors.</p> <p>Stage 2A: Segment-3 Mid-City Extension.</p> <p>Stage 2B: Segment-3 North Hollywood Extension</p> <p>Stage 3: East Extension.</p> <p>An option for Stage 3 will be included.</p>
B646	FIRE AND EMERGENCY MANAGEMENT (F&EM)			
	Contractor: SYSECA INCORPORATED	Stage 1: 8 passenger	Procurement	Design and furnish the Segment-2 and Segment-3 Fire and Emergency Management (F&EM) System,

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B646	FIRE AND EMERGENCY MANAGEMENT (F&EM)	stations, central control and Yard. Stage 2A: Two passenger stations and central control. Stage 2B: Three passenger stations, two midline ventilation shaft structures and Central Control. Stage 3: 4 to 6 passenger stations and central control.		including station fire alarm subsystem, ventilation and facilities equipment controls, intrusion detection subsystem, and traction power emergency trip function. Equipment includes fire detection devices, Emergency Management Panels (EMP), Station Command Posts (SCP), Fire Control Panels (FCP), Blue Light Stations (BLS), Programmable Logic Controllers (PLC), card-key reader terminals and wire and cabling within the Train Control and Communications (TC&C) room. Prepare and implement Management, Systems Assurance, Test and Training Programs. Prepare Installation Program for implementation by others. Equipment delivery and tests will be staged on the basis of site availability as follows: Stage 1: Segment-2 Wilshire and Vermont/Hollywood Corridors. Stage 2A: Segment-3 Mid-City Extension. Stage 2B: Segment-3 North Hollywood Extension. Stage 3: East Extension. An option for Stage 3 equipment will be included.
B650	PASSENGER VEHICLE PROCUREMENT	30 Vehicles, 15 Automatic Train Operations (ATO) carborne packages plus option for 16 ATO carborne packages	Procurement	Design, manufacture, test, and deliver 30 vehicles (15 dependent pairs) along with spare parts, maintenance manuals, special tools, and vehicle testing services. Provide and install carborne speed-maintaining and carborne station-stopping control equipment. The contract will require the installation of MTA-furnished carborne train control equipment (i.e., automatic train protection, mobile radio, and antennae). Participation and technical assistance is required during testing. Contract should have an option for 44 additional vehicles for Segment-3.
B670	AUXILIARY VEHICLES	2 self-propelled rail-borne maintenance vehicles	Procurement	Design, manufacture, and deliver additional auxiliary vehicles for Segment-2.
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B710	ESCALATORS AND ELEVATORS			
	Contractor: FUJITEC AMERICA, INC.	13 passenger stations. Option for 4 passenger stations	Procurement and Installation	Design, furnish, install, test, and place into operation escalators and elevators for 8 stations on Segment-2, 5 stations on Segment-3, and an option to procure elevators and escalators for 4 stations of the Eastern Extension Corridor. Except for B221, the contractor will also include escalator claddings.
	Comments: Includes 5 stations on Segment-3 and an option to procure elevators and escalators for the Eastern Extension Corridor.			
B731	MAJOR SHOP EQUIPMENT			
	Contractor:	1 two-ton bridge crane 2 turntables 1 10-ton bridge crane 12 vehicle hoists 24 carbody supports	Procurement and Installation	Furnish, deliver, install, and test the following items: two-ton bridge crane, turntables, 10-ton bridge crane, vehicle hoists, and carbody supports and other major equipment. Equipment will be used to complete the main shop building based upon Contract A112 deferred items requirements.
B740	VENTILATION EQUIPMENT			
	Contractor: JOY ENVIRONMENTAL TECHNOLOGY	Equipment for 13 passenger stations, and pocket track booster fans at MacArthur Park, Hollywood corridor (Segment-2 & 3) and Wilshire corridor (Segment-2) and option for 4 passenger stations	Procurement and Installation	Manufacture and install subway emergency mid-tunnel, underplatform, and smoke exhaust fans, dampers, and sound attenuators for six stations (B221 & B231 not included) in Segment-2 and five stations in Segment-3. Equipment for two stations in the Wilshire corridor of Segment-2, Wilshire/Normandie and Wilshire/Western, will be furnish only and installed by the station contractor. Quantities and sizes of fans will be based on the System Design Criteria and Standards, primarily the Fire/Life Safety emergency ventilation requirements. The option is for procurement and installation for four stations in the eastern extension corridor.
	Comments: Includes five stations in Segment-3.			
B745	AIR HANDLING EQUIPMENT			
	Contractor: TUTOR-SALIBA/OVERLAND MECHANICAL JV	Equipment for 13 passenger stations. Option for 4 passenger stations	Procurement and Installation	Manufacture and install additional station air supply, traction power substation ventilation equipment, consisting of supply fans, filters, and dampers, for six stations (B221 and B231 not included) in Segment-2 and five stations in Segment-3. Equipment for two stations in Segment-2, Wishire/Normandie and Wilshire/Western, will be furnish only and installed by the station contractor. Quantities and size of fans
	Comments: Includes 5 stations in Segment-3.			

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B745	AIR HANDLING EQUIPMENT			will be based on the System Design Criteria and Standards. Option for four stations in Eastern extension corridor includes procurement and installation of air handling equipment.
B760	SIGNS AND GRAPHICS			
	Contractor: CALIFORNIA NEON PRODUCTS	13 passenger stations. Option for 4 passenger stations	Procurement	Furnish station non-luminated signs, graphics, fixtures, and other appurtenances for 8 stations on Segment-2, 5 stations on Segment-3, and have an option to procure signs and graphics for 4 stations on the eastern extension corridor stations. Quantities and locations of signs and graphics will be based on the System Design Criteria and Standards. (Installation by station contractors.)
	Comments: Includes 5 stations in Segment-3, and an option for 4 stations on the Eastern Extension Corridor.			
B761	ILLUMINATED SIGNS AND EDGE LIGHTS			
	Contractor: STEINY AND COMPANY, INC.	13 passenger stations. Option for 4 passenger stations	Procurement	Furnish station platform edge light assemblies complete with signs, overhead illuminated signs and station pylons for 8 stations on Segment-2, 5 stations on Segment-3, and option for 4 stations on the eastern extension corridor stations. Quantities and locations of edge lights illuminated signs and station pylons will be based on the System Design Criteria and Standards. (Installation by station contractors.)
	Comments: Includes 5 stations in Segment-3 and an option for 4 stations on the Eastern Extension Corridor.			
B780	FURNITURE			
	Contractor:	8 passenger stations. See System Operating Plan and the System Design Criteria and Standards	Procurement	Furnish station furniture for Segment-2, under multiple contracts. Quantities will be based on the System Operating Plan and the System Design Criteria and Standards.
B790	STORES AND CONSUMABLES			
	Contractor:	Undefined	Procurement	Furnish stores and consumables under multiple contracts to augment Segment-1 and support Segment-2. Include cleaning supplies, lubricants, solvents, carwash detergents, etc.
B795	UNINTERRUPTIBLE POWER SUPPLY (UPS)			
	Contractor: CUSTOM POWER, INC.	Stage 1: 16 units (2 at each Segment-2 station)	Procurement	Manufacture, deliver, and support installation of uninterruptible power electrical equipment for all Segment-2 and Segment-3 stations. Each UPS shall include the electronic and batteries needed to provide
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B795	UNINTERRUPTIBLE POWER SUPPLY (UPS) Comments: Includes an option for 5 stations in Segment-3 and 3 to 5 stations at the Eastern Extension Corridor.	Stage 2: 5 stations, and 2 ventilation structures under Segment-3 and an option for 3 to 5 stations at eastern extension corridor		emergency power to stations and tunnel emergency lighting, and control power supply for the electrical substation switchgear and communications equipment as required by the System Design Criteria and Standards. (Installation by station contractors.)
H840	FARE COLLECTION Contractor:	65 TVM's for Segment-2 63 TVM's available for Segment-3	Procurement and Installation	Furnish and install equipment supplied under Option No. 3 of contract H840 as modified in accordance with final Segment-2 design.

Professional

03369	CONSTRUCTION MANAGEMENT CONSULTANT (CM) Contractor: PARSONS-DILLINGHAM Comments: Award value entered as the total Amended value as of 05/01/91 (increases subsequent are recorded as CCR's).	1 Lot	Professional Services	The Construction Management Consultant (CM) provides Construction Management services with responsibility for preconstruction and construction management services for the construction, testing and startup of the Metro Red Line Project. Services include constructibility and claims avoidance reviews; reviews of cost estimates; assistance in procurement of long lead materials and equipment; assistance in evaluating bids from construction contractors; implementation of a safety program; supervision, administration, and inspection surveillance of facilities construction and systems contracts; the scheduling and cost control of construction; configuration management; and field contract administration. The CM is also responsible for certain systems aspects of the project and CM support services.
CM001	CONFIGURATION MANAGEMENT CONSULTANTS (CMC)		Professional	Consultant has the responsibility to meet all contract
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CM001	CONFIGURATION MANAGEMENT CONSULTANTS (CMC) Contractor: LKG-CMC, INC.		Services	services requirements to facilitate the sale and distribution of bid documents. Consultant provides document control and physical protection and storage (both paper and electronic).
	Comments: Scope of work was previously performed under contract MY005 until August 1993 and is now being performed under contract CM001 as of September 1993.			
E0060	SYSTEMS ENGINEERING AND ANALYSIS Contractor: BOOZ-ALLEN & HAMILTON	1 Lot	Professional Services	The System Engineering & Analysis Consultant's scope of services includes systemwide responsibilities in: Operations & Maintenance Planning and Analyses; Activation Support; Safety, Security and System Assurance; Fare System Equipment Procurement Management; and Special Studies. Responsibilities specific to Red Line Segment-2 and identified in the scope of services include: Prepare O&M Plan and Cost Estimate; Provide operations analyses support using simulation models; Provide activation support; Prepare Digest of Equipment Operations; Review Contractor Design Submittals for RMSH considerations; Develop Emergency Response Procedures.
E0070	ENGINEERING MANAGEMENT CONSULTANT (EMC) Contractor: PARSONS-BRINCKERHOFF/DMJM	1 Lot	Professional Services	The Engineering Management Consultant (EMC) contract provides professional and other services for design and construction of the Metro Red Line, including: Preliminary design and management of the final design efforts, systems/facilities integration, project capital cost estimating, project cost and schedule reporting and control, technical coordination, preparation of all camera-ready construction and design/furnish/install bid documents, design services during construction, preparation of project record drawings, and implementation of a design phase QA/QC program.
E0090	TRANSIT VEHICLE PROCUREMENT CONSULTANT Contractor: LTK ENGINEERING SERVICES, INC.	42 vehicles	Professional Services	Consultant to work with the Project Manager of the MTA to provide various administrative and technical support services for the next rail vehicle procurement
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E0090	TRANSIT VEHICLE PROCUREMENT CONSULTANT			for the Metro Red Line for a period of approximately 60 months. The services to be provided by the Consultant shall be required in two distinct, separately priced and time duration phases: Phase I: Specification Preparation: Assist the Authority in the preparation of a procurement specification - technical and commercial - to obtain heavy rail transit vehicles for the next procurement of cars for the Metro Red Line subway system as well as in the procurement process. Phase II: Assist the Authority in managing and administering the Transit Vehicle Procurement Contract during the period of performance after contract award.
	Comments: Option for 30 additional vehicles; each vehicle shall be one-half of a semi-permanent, married pair configuration similar, if not identical to the Contract A650, 30 vehicles (15 married pairs) presently in revenue service on Segment-1 of the Metro Red Line Subway system. Copies of A650 contract documents and specifications will be provided to the Consultant by the Authority.			
FM014	PROJECT MANAGEMENT ASSISTANCE		Professional Services	Consultant provides project management support services for Metro Red Line Segment-2 in the areas of: Design Quality Program Review; PERC Support; Value Engineering; and other Special Studies directed by the MTA Project Manager.
	Contractor: FLUOR DANIEL			
Purchase				
B680	OPERATIONAL GRAPHICS	Segment-2 requirements	Purchase Order	Fabricate and install signs.
	Contractor:			
B730	FIXED SHOP EQUIPMENT	16 pcs., deferred from Segment-1, plus additional equipment	Purchase Order	Furnish and deliver additional fixed shop equipment. Included are such items as welders, hydraulic presses, drill presses, band saws, power hacksaws, and equipment for parts cleaning. Equipment will be used to outfit air brake shop, welding shop, metals shop, battery shop, and for maintenance-of-way. Quantities will be based upon the System Operating and Maintenance Plans, the Yard and Shop Functional Plan, and the System Design Criteria and Standards.
	Contractor:			
	Comments: Include equipment deferred from Segment-1. Identify available standard equipment, where possible, and prepare procurement specifications when required.			
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B735	PORTABLE SHOP EQUIPMENT			
	Contractor:		Purchase Order	Manufacture and deliver additional freestanding and portable shop equipment. Included are such items as hand tools and boxes, work benches, carbody stairs, carbody stands, pneumatic and electric tools, equipment racks, and other related equipment. This equipment will be used in all areas of the Main Shop and for maintenance-of-way. Quantities will be based on the System Operating and Maintenance Plans, the Yard and Shops Functional Plan, and the System Design Criteria and Standards.
	Comments: Include equipment deferred from Segment-1. Identify available standard equipment, where possible, and prepare procurement specifications when required.	300 pcs., including sets of tools deferred from Segment-1, plus additional equipment.		
B771	AUTOMOBILE AND LIGHT TRUCKS			
	Contractor:	10	Purchase Order	Furnish maintenance vans, pick-up trucks, and supervisory sedans.
	Comments: *Standard Vehicles: Use existing procurement documents.			
B772	FORK LIFT TRUCKS			
	Contractor:	3	Purchase Order	Furnish electric fork lift trucks with 4,000-lb capacity.
	Comments: *Standard Vehicles: Use existing procurement documents.			
B773	SHOP CLEANING, MAINTENANCE, MATERIALS HANDLING EQUIPMENT			
	Contractor:	2	Purchase Order	Furnish wet dry shop vacuum cleaners, hand trucks, and materials cart.
B774	YARD AND SHOP CLEANING AND MAINTENANCE VEHICLES			
	Contractor:	4	Purchase Order	Furnish electric ride-on floor scrubber and electric personnel carts.
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B775	MOBILE MAINTENANCE EQUIPMENT Contractor:	TBD/See System Operating and Maintenance Plans	Purchase Order	Furnish mobile maintenance equipment for Segment-2. Quantities will be based on the System Operating and Maintenance Plans.
B785	FIRE SUPPRESSION AND EMERGENCY EQUIPMENT Contractor:	180 Fire Extinguishers 80 Nozzles and Hoses 16 Stretchers 16 First-Aid Kits 16 Track Carts 16 100-ft. Sections of Rope	Purchase Order	Manufacture, test, and deliver fire extinguishers, hose, and nozzles and emergency equipment. Includes unloading after shipment but does not include handling and storage after delivery. Quantities will be based on System Design Criteria and Standards, primarily the Fire/Life Safety requirements.

Specialty

B715	ART IN TRANSIT/DESIGN DEVELOPMENT Contractor:	8 passenger stations	Specialty	Multiple contracts to manufacture, procure, and install architectural enhancements as needed, by either the prime contractor for the station, the artist or other independent contractors.
B752	SOIL REMEDIATION CONTRACT - I Contractor: METCALF AND EDDY	As required by site conditions	Specialty	Remove and remediate contaminated soils when encountered in tunnel or station construction; if necessary, haul, dispose of, and treat in certified facilities.
B754	SOIL REMEDIATION CONTRACT - II Contractor: DAMES AND MOORE	As required by site conditions	Specialty	Remove and remediate contaminated soils when encountered in tunnel or station construction; if necessary, haul dispose of, and treat in certified facilities.
B756	ASBESTOS ABATEMENT CONTRACT Contractor: BARSOTTI	As required by site conditions	Specialty	Abate and remove asbestos in any building demolition contracts, taking into consideration applicable health, safety and engineering measures. If necessary, haul, dispose of, and treat in certified facilities.

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