

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

# Metro Rail Project



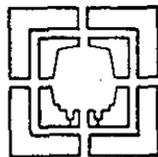
## SIGNING AND EDGELIGHT

CONTRACT A760

SEPTEMBER 1989

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SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
METRO RAIL PROJECT

CONTRACT  
FOR  
SIGNING AND EDGE LIGHT  
CONTRACT A760

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METRO RAIL TRANSIT CONSULTANTS  
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SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

CONTRACT A760

SIGNING AND EDGELIGHT

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SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

BIDDING REQUIREMENTS

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

INVITATION TO BID

METRO RAIL PROJECT CONSTRUCTION

SIGNING AND EDGELIGHT

CONTRACT A760

The Southern California Rapid Transit District, herein called the District, will receive sealed bids on a Contract for constructing that portion of the Metro Rail Project identified as Signing and Edgelight. The District has scheduled a Pre-Bid Conference at which the scope of the Contract and the requirements of the Bid Documents will be discussed. The Pre-Bid Conference will be held at 10:00 A.M. local time on (( )) 1989, in the District's Board Room on the 2nd floor of the SCRTRD offices located at 425 South Main Street, Los Angeles, CA 90013. Interested parties are invited and encouraged to attend the Pre-Bid Conference.

The District will receive Bids at the Metro Rail Bid Desk, Southern California Rapid Transit District Office of Contracts, Procurement and Materiel (OCPM), 5th floor, 425 S. Main Street, Los Angeles, CA 90013, no later than 2:00 P.M. (( )), 1989 following which time bids will be publicly opened in the OCPM Conference Room, located at the same address. Bids will be submitted in accordance with, and subject to, the conditions contained in the Instructions to Bidders to which potential Bidders are referred. The District will finance the Contract in part by means of a grant from the United States Department of Transportation, Urban Mass Transportation Administration, and the bidding procedures, evaluation of Bids, and award of the contract shall be governed by both California law and by federal law and regulations applicable to grants to State and local governments.

Bid Documents may be examined in the Plan Room of the Metro Rail Transit Consultants, herein called the General Consultant (GC), Suite 600, 548 South Spring Street, Los Angeles, CA 90013, and at certain public and private plan rooms. Copies of the Bid Documents may be requested from the GC either in person or by mail addressed to the GC's Plan Room at the above address. One copy of half size drawings and contract specifications will be required to submit a Bid. Documents requested by mail will be packaged and sent postage paid. Requests must be accompanied by either a certified check, cashier's check, or postal money order drawn in favor of the Southern California Rapid Transit District; monies paid for Bid Documents will be non-refundable.

The following is a list of the available Documents and their respective costs:

- Contract Specifications, and
- Half-size Contract Drawings (each set) . . . . . \$ (( ))
- One set full-size Contract Drawings . . . . . \$ (( ))

One set Contract Specifications . . . . . \$ (( ))  
 Insurance Specifications . . . . . No Charge  
 Construction Safety and Security Manual . . . . . No Charge  
 Disadvantaged Business Enterprise (DBE)  
     Womens Business Enterprise (WBE)  
     Transit Bond Guarantee Program . . . . . No Charge  
 Disadvantaged Business Enterprise  
     Certified and Denied Companies. . . . . No Charge

The agreement between the successful Bidder and the District will be subject to the requirements of a financial assistance contract between the District and the U.S. Department of Transportation. Contractor will be required to furnish Performance and Payment Bonds, each in an amount equal to 100 percent of the Contract price, and to furnish Certificates of Insurance in the amounts specified in the Insurance Specifications.

Bidder must certify that it has examined the Bid Documents, the worksite, and the conditions affecting the Work; that it is not listed on the U. S. Comptroller General's Consolidated List of Persons or Firms Currently Debarred for Violations of Various Public Contracts; and, should it become the Contractor, that it will not prosecute the Work using facilities which have been listed on the Environmental Protection Agency's List of Violating Facilities.

Dated at Los Angeles, California, this \_\_\_\_ day of \_\_\_\_\_, 198\_\_\_.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

Paul Como  
 Director, Office of Contracts,  
 Procurement and Materiel

END OF INVITATION TO BID

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

INSTRUCTIONS TO BIDDERS

To be considered, Bids must be made in accordance with these Instructions to Bidders.

1. CONTRACTOR'S LICENSING LAWS - Attention is directed to the provisions of Chapter 9 of Division 3 of the Business and Professions Code concerning the licensing of Contractors. All Contractors shall be licensed in accordance with the laws of the State of California and any Contractor not so licensed is subject to penalties imposed by such laws. Successful bidder shall possess the appropriate State Contractor's License for the scope of Work described herein prior to Contract award. Failure to obtain the appropriate license prior to award will result in forfeiture of Bid Bond.

2. DOCUMENTS - Bid Documents may be obtained from Metro Rail Transit Consultants, (A Joint Venture comprised of Daniel, Mann, Johnson, & Mendenhall; Parsons Brinckerhoff Quade & Douglas, Inc.; Kaiser Engineers [California] Corporation; and Harry Weese and Associates, Ltd.) herein called the General Consultant (GC), and in the manner stipulated in the Invitation to Bid. The Bid Documents are listed in the Invitation to Bid. Additional information not included in the Bid Documents may be available for Bidder's inspection at the GC's Plan Room at the address shown in the Invitation to Bid. Such information is listed following these Instructions to Bidders.

3. EXAMINATION - Bidders must carefully examine the Bid Documents and the worksite to obtain first-hand knowledge of existing conditions. An inspection tour of the worksite including adjacent building substructures is recommended and may be arranged by contacting the Director, Office of Contracts, Procurement and Materiel, at the address listed below. Bidders will be expected to be aware of local labor availability, means of transportation, necessity for security, laws and codes, local permit requirements, wage scales, local tax structure, contractors' licensing requirements, availability of required insurance, and other factors that could affect the Work. Bidders are responsible for consulting standards referenced in the Contract Specifications.

4. EXPLANATIONS - Prospective Bidders who wish explanations or clarifications of the Contract Drawings, Specifications, or other Contract Bid Documents, or of these Instructions to Bidders, or other procurement procedures, must submit their inquiries in writing to ((                    )), Contract Administrator, Office of Contracts, Procurement and Materiel, Southern California Rapid Transit District, 5th floor, 425 S. Main Street, Los Angeles, CA 90013, FAX number (213) ((            )). Bidders having a FAX number should transmit it to the SCRTD FAX number. Any response that the District may choose to make will be by a written addendum to

the Contract or other written response sent to listed holders of the Bid Documents. The District will not be bound by informal explanation, clarification, or interpretation, oral or written, by whomsoever made, that is not incorporated into an addendum to the Contract. No response will be made to inquiries received by the District less than fifteen calendar days before the scheduled Bid Opening.

## 5. PROTESTS

5.A Protests of Bid Documents - A protest or objection directed to the Bid or Contract Documents, or other requirements of the Contract, must likewise be submitted in writing to the Director, Office of Contracts, Procurement and Materiel, Southern California Rapid Transit District, 5th floor, 425 S. Main Street, Los Angeles, CA 90013, and must be received by the District at least fifteen calendar days before the scheduled Bid opening. The protest or objection must be sent by Certified Mail, Return Receipt Requested. Such protest or objection must be supported by sufficient information to enable the District to consider it. A protest or objection will be considered sufficient for review if it contains information specifically detailing the exact nature of the problem, including all relevant factual information necessary for the District to be able to identify the problem. No protest or objection will be considered if it is insufficiently supported, or if it is received less than fifteen calendar days before the scheduled Bid opening, or if requested supporting information is received less than fifteen calendar days before the scheduled Bid opening.

5.B Protests of Award - A protest or objection directed to the recommendation for award of the Contract, must likewise be submitted in writing to the Director, Office of Contracts, Procurement and Materiel, Southern California Rapid Transit District, 5th floor, 425 S. Main Street, Los Angeles, CA 90013, and must be received by the District at least five calendar days before the award date. Such protest must be supported with sufficient documentation to enable the District to consider it. The protestor may appeal the Contracting Officer's determination to the Board of Directors prior to contract award; and then may appeal the Board of Directors' action to the Urban Mass Transportation Administration, Region 9, 211 Main Street, Suite 1160, San Francisco, California 94105.

6. PREPARATION OF BIDS - Bids shall be accompanied by the following documents: Proposal Letter, Bid Form, List of Proposed Subcontractors, List of Proposed DBE's and Good Faith Efforts Certificate, if applicable, and Buy America Certificate, all as included in Forms for Bidding. In addition, the required Bid Security in an amount not less than ten percent of the bid total must also accompany the bid. Submittal of these forms and bid security is a condition of the Bidders responsiveness and failure to do so will be cause for rejection of the bid.

6.A Proposal Letter and Bid Form

6.A.1 The Proposal Letter and Bid Form must be completed as follows:

6.A.1.a Addenda. Receipt of addenda must be acknowledged; spaces are provided on the Proposal Letter for this purpose.

6.A.1.b Prices. Unit, lump sum, and other prices must be entered in the appropriate spaces provided. Unit prices should be multiplied by the amount or estimated quantity, and the product inserted in the "Total Price" column shown on the Bid Form; the "Total Prices" should be added to arrive at the "Total Bid Price".

6.A.1.b(1) "Estimated Quantities" shown on the Bid Form are approximate and are based on the best information available at the time of bidding, and are used solely for the purpose of evaluating the Bids. The District does not represent, expressly or by implication, that the actual amount of Work will correspond to the "Estimated Quantities", and further reserves the right to increase or decrease the amount of any or all Bid items, and to omit portions of the Work.

6.A.1.b(2) In the case of Bid items for which a fixed amount predetermined by the District has already been entered on the Bid Form, the amount so entered shall be conclusive on Bidders as the price for such item, and shall not be revised unless the District directs a change in the scope of the Work affecting the item to which such amount relates.

6.A.1.c The Proposal Letter must be signed by the Bidder or on its behalf by the person or persons having the authority to do so, and the signature shall be properly notarized. If any person or persons sign on behalf of the Bidder (e.g. officer of a corporation, partner, etc.), Bidder shall submit proof of the authority of the person or persons who sign on behalf of Bidder to act on its behalf. The proof shall be in the form of a certified copy of an appropriate corporate resolution, certificate of partnership or joint venture, or other appropriate document. If Bidder is an entity made up of multiple parties and no person or persons are designated to act on its behalf, all parties shall execute the Bid.

6.A.2 Bidders are requested to observe the following instructions in completing the Bid Form; FAILURE TO DO SO MAY RESULT IN REJECTION OF THE BID.

6.A.2.a The Bidder should not delete, modify, or supplement the printed matter on the Bid Form, AND Proposal Letter or make substitutions therefor.

6.A.2.b The Bid Form and the other forms accompanying it should be completed in ink and printed, or by means of typewriting.

6.A.2.c Receipt of addenda must be acknowledged in the spaces provided on the Proposal Letter by entering the number of each and dates received.

6.A.2.d Identifying information, such as the Bidder's name, address, and State of incorporation, should be entered in the spaces provided on the Proposal Letter.

6.A.2.e Bid Security is required and alternative forms are acceptable. Bidders are requested to indicate the form furnished.

6.A.2.f Corrections shall be initialed by the person who signs the Proposal Letter.

6.A.2.g EXCEPTIONS OR QUALIFICATIONS TO THE BID DOCUMENTS ARE STRICTLY FORBIDDEN. ANY COMMENT BY THE BIDDER WHICH CAN BE CONSTRUED AS ALTERING THE REQUIREMENTS OF THE SPECIFICATIONS OR THE TERMS AND CONDITIONS OF THE CONTRACT COULD RENDER THE BID NONRESPONSIVE AND DISQUALIFY THE BIDDER FROM CONSIDERATION FOR AWARD.

## 6.B List of Proposed Subcontractors (Form)

6.B.State law prohibits substitution of subcontractors listed in the original bid except as otherwise provided in Section 4107 and 4107.5 of the California Public Contract Code. Pursuant to PCC 4104, Bidders are required to list Subcontractors whose participation in the Contract will exceed 1/2 of one percent of the total Bid.

6.B.2 The List of Proposed Subcontractors must be completed as follows:

6.B.2.a Name. List the name of Subcontractors who will perform work in excess of one-half of one percent of the prime Contractor's total bid.

6.B.2.b Location. For listed Subcontractors, identify the location of its place of business (City and State).

6.B.2.c Work. For listed Subcontractors, identify the type of work to be performed in this Contract.

## 6.C DBE Forms

6.C.1 The Disadvantaged Business Enterprise (DBE) requirements of the U.S. Department of Transportation, published at 49 CFR Part 23, apply to this Contract. Therefore, Bidders shall identify on the List of Proposed DBEs Form, all of the proposed DBEs proposed to participate in the Contract,

regardless of their percent of participation in the Contract.

6.C.2 The List of Proposed DBEs shall be completed as follows:

6.C.2.a Please identify how DBE firms will participate in the Contract by checking the appropriate space at the top of the form. The DBE goal may be satisfied by a commitment to DBE participation in the Contract as a prime contractor, joint venture partner, subcontractor, trucker, or supplier.

6.C.2.b List in column (a) the name of each DBE prime contractor, joint venture partner, subcontractor, trucker, or supplier which the bidder intends to credit toward the DBE goal. Use the complete legal business name as used for DBE certification.

6.C.2.c Identify location of business for each DBE in column (b).

6.C.2.d List items of work to be performed or materials supplied by each DBE in column (c).

6.C.2.e Enter each DBE's participation in the Contract, expressed as an estimated dollar value, in column (d).

6.C.2.f Enter the estimated percent of the total Bid for each DBE in column (e). The percentage allocated for each DBE must be in accordance with the following instructions.

6.C.2.f(1) A DBE must perform a commercially useful function, that is, must be responsible for the execution of a distinct element of the work and must carry out its responsibility by actually performing, managing and supervising the work. In light of standard industry practices and other relevant considerations, the DBE must have a necessary and useful role in the transaction, of a kind for which there is a market outside the context of the DBE Program.

6.C.2.f(2) Credit for the participation of DBE vendors of materials and supplies is to be counted as follows:

- o Sixty percent of expenditures for materials and supplies required under the Contract and obtained from a "regular dealer" as defined in Article 73.C.4 of the General Conditions.
- o One-hundred percent of expenditures for materials and supplies obtained from a DBE "manufacturer" as

defined in Article 73.C.3 of the General Conditions.

6.C.2.f(3) The following types of fees or commissions paid to DBE consultants, brokers, and packagers may be counted toward the goal, provided that the fee or commission is reasonable and not excessive as compared with fees or commissions customarily allowed for similar services.

- o The fees or commissions charged for providing a bona fide service such as professional and technical, or procurement of essential personnel, facilities, equipment, materials, or supplies required for performance of the Contract.
- o The fees charged for delivery of materials and supplies required on a job site (but not the cost of the materials or supplies themselves) when the hauler, trucker or delivery service is not also the manufacturer of, or a regular dealer, in the materials and supplies.
- o The fees or commissions charged for providing any bonds or insurance specifically required for the performance of the Contract.

6.C.2.g Enter total estimated dollar participation for all DBEs on page 2 of the Form under Column (d).

6.C.2.h Enter total estimated participation for all DBEs expressed as a percentage of the total bid price on page 2 of the Form under Column (e). In calculating the total DBE utilization percentages, the Bidder shall include:

6.C.2.h(1) The value of all DBE sub-bids.

6.C.2.h(2) The dollar value of all materials and supplies to be provided by DBEs (to be credited as noted in Subarticle 6.C.2.f(2)).

6.C.2.h(3) The dollar value of all work performed with the Bidder's own forces, if the Bidder is a DBE. If the Bidder is a DBE joint venture, it shall include only the value of the commercially useful function performed managed and supervised by the DBE partner.

6.D Good Faith Efforts Certificate - Bidders who fail to meet the DBE goal must complete and submit this Certificate with the bid. Any of the following conditions constitute failure to meet the goal:

6.D.1 The total percentage participation by DBE firms reflected on the List of Proposed DBEs is less than the DBE goal set for the Contract.

6.D.2 Firms listed on the List of Proposed DBEs whose participation is being credited toward meeting the DBE goal are not certified by the District as a DBE as of the bid opening date.

6.E Buy America Certificate - Buy America requirements as indicated in the General Conditions and in Title 49, Chapter VI, Part 660 and Part 661 apply to the contract. Failure to submit the Buy America Certificate may be cause for rejection of the Bid.

6.F Bid Security - Bidders are required to furnish Bid Security in an amount not less than ten percent of the Bid Total, and in favor of the Southern California Rapid Transit District. The Bid Security must be in the form of a cashier's check, a certified check, or a bid bond, or a combination thereof. If a bid bond is furnished, it must conform to the form provided with the Bid Documents, and the surety thereon must be a corporation or corporations acceptable to the District and authorized to issue surety bonds in the State of California. The Bid Securities of the Bidders submitting the three lowest Bid Totals will be retained either until the successful Bidder has signed the Construction Agreement and has furnished Performance and Payment Bonds and Certificates of Insurance, or until the ninetieth calendar day after the Bid Opening date, whichever is sooner; other Bid Securities will be returned within ten calendar days after the Bid Opening date. Bid Securities being held pending the signing of the Construction Agreement and the furnishing of other documents will be returned within three calendar days thereafter. Each Bidder agrees that if it is awarded the Contract and fails within the time stipulated to execute the Construction Agreement, and to furnish the other documents required, the District will retain the Bid Security.

## 7. SUBMITTALS

7.A Bidders' Qualifications and Business References - The three lowest Bidders are required to submit within forty-eight hours after request by the District a Bidders' Qualifications and Business References. A copy of the form is included, for reference only, in the Forms for Submittal of Bids. Failure to comply with the District's request will render the Bidders proposal unacceptable. The District will, to the extent permitted by law, treat the information as confidential, except that parts of it may be discussed with persons and firms referenced by the Bidder. If the Bidder is a joint venture, each joint venturer shall prepare and submit a separate form. Extra forms, if needed, can be obtained from the GC.

7.B Forms for Bidding and the Bid Security shall be submitted in accordance with the Invitation to Bid, and in an opaque, sealed envelope which shall include the name and address of the Bidder and be addressed as follows:

METRO RAIL PROJECT BID DESK  
OFFICE OF CONTRACTS, PROCUREMENT AND MATERIEL  
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
5TH FLOOR, 425 S. MAIN STREET,  
LOS ANGELES, CA 90013,  
ATTENTION: ((            ))

7.C The lower left corner of the envelope shall be marked as follows:

BID FOR CONTRACT NUMBER A760 - SIGNING AND EDGE LIGHT

7.D Hand-carried Bids must be delivered to the Director, Office of Contracts, Procurement and Materiel, SCRTRD Bid Desk, 5th floor, 425 S. Main Street, Los Angeles, CA 90013, on or before the closing time specified in the Invitation to Bid for receipt of bids, or such other time as may be specified in the last of any addenda changing the closing time for receipt of bids. No bid, whether mailed or hand-carried, will be considered unless it is received and in the District's hands not later than the time specified for the Bid Opening.

7.E If the DBE Goal has not been met, Good Faith Efforts documentation shall be submitted within 48 hours after request by the District.

8. WITHDRAWAL

8.A Withdrawal - Bids may be withdrawn after they have been submitted, but only before the Bid Opening date and time. Withdrawn Bids may be resubmitted or substitute Bids may be submitted after the original Bid has been withdrawn, but only in accordance with all of the provisions hereof. Withdrawals must be signed by the Bidder. Bids may not be withdrawn between the Bid Opening time and date and the ninetieth calendar day thereafter, except as may be agreed upon by a written agreement between the Bidder and the District.

8.A. Envelopes containing withdrawals shall be addressed as stipulated in the SUBMITTALS article, and shall be identified in the lower left corner as follows:

WITHDRAWAL OF BID  
FOR CONTRACT NUMBER A760 - SIGNING AND EDGE LIGHT

8.B Telegraphic withdrawals will be honored only if the District is satisfied that a written confirmation of the telegraphic withdrawal was mailed prior to the Bid opening, signed by the original Bidder, and received within five calendar days after Bid Opening time and date.

9. BID OPENING - Bids will be opened publicly at the time and place stated in the Invitation to Bid, or in the last of addenda changing such time or place.

10. DISQUALIFICATION - The District reserves the right to disqualify Bids, before and after the Bid Opening, upon evidence of collusion with intent to defraud or other illegal practices on the part of the Bidder.

11. PRE-AWARD SURVEY - After Bids have been opened and before an award is made, the District will evaluate the Bid prices, the Bid Total, Bidder's experience, financial data, and other data relating to Bidders' responsibility and qualifications to perform the Contract satisfactorily. The three lowest responsive and responsible Bidders will be required to submit, in writing, Statements of Bidders' Qualifications and Business References.

12. EVALUATION AND AWARD

12.A Each Bid timely received and in the District's hands at the time set for the Bid Opening shall constitute an offer to perform the Contract on the terms and conditions thereof, in strict accordance with the Contract Documents, all for the Bid Total indicated. Each Bidder promises and agrees that his Bid shall be irrevocable for a period of ninety calendar days after the Bid Opening and will not be withdrawn or modified during that time. The District may accept a Bid by giving the Bidder notice of award during that time. If necessary, the period of time specified may be extended by written agreement between the District, by and through the Director, Office of Contracts, Procurement and Materiel and the Bidder or Bidders concerned. The District reserves the right to reject a Bid with prices that appear to be unbalanced, and to reject any or all Bids, or parts thereof, if it determines, in its sole discretion, that such rejection is in its best interest. Bids will be evaluated on the basis of determining the lowest Bid Total of a Bidder whose Bid is responsive to the solicitation, and who is as determined by the District to be technically, financially and otherwise responsible to perform the Contract satisfactorily, and to meet all other requirements of the Contract. Extensions of the unit prices shown and the subsequent addition of extended amounts will be verified by the District. In the event of a discrepancy between the unit price bid and the extension, the unit price Bid will be deemed intended by the Bidder and the extension shall be adjusted. In the event of a discrepancy between the sum of the extended amounts and the Bid Total, the sum of the extended amounts shall govern. The District reserves the right, nevertheless, to accept a Bid other than the apparent lowest Bid, if it determines that the lowest Bidder is not responsive and responsible and that the public interest will best be served by doing so.

12.B After all information has been evaluated, the District will notify the Bidder of the District's staff recommendation

concerning its responsiveness to the requirements of the bid specification. If it is determined that the Bidder is not responsive, the District will inform the Bidder that its bid will not be recommended for acceptance to the Board of Directors, the reasons therefor, and its right to submit a written protest to the Director, Office of Contracts, Procurement and Materiel. A decision rendered by the Director, Office of Contracts, Procurement and Materiel may be appealed to the District Board of Directors.

12.C Where only a single responsible and responsive Bid is received, the District will make a determination as to whether a price or cost analysis of the Bid is required.

12.D A price analysis includes the examination and evaluation of a Bid price without evaluation of the separate cost elements. A price analysis through comparison to other similar procurements will be based on an established or competitive price of the elements used in the comparison. The comparison will be made for purchase of similar quantity and involving similar specifications. Where a difference exists, a detailed analysis will be made of this difference and costs attached thereto. A cost analysis will be conducted if it is impossible to obtain a valid price analysis. Cost analysis is the review and evaluation of a Bidder's cost or pricing data and of the judgmental factors applied in projecting from the data to the estimated costs, in order to form an opinion on the degree to which the Bidder's proposed costs represent what performance of the Contract should cost, assuming reasonable economy and efficiency. It includes the appropriate verification of cost data, the evaluation of specific elements of costs, and the projection of these data to determine the effect on prices.

12.E The price or cost analysis will be conducted by the District. The analysis will take place at the Bidder's facility with information and back-up data furnished by the Bidder, as required.

### 13. DISADVANTAGED BUSINESS ENTERPRISE (DBE) BIDDING REQUIREMENTS

13.A District Policy - It is the policy of the Southern California Rapid Transit District and the United States Department of Transportation that Disadvantaged Business Enterprises (DBEs) as defined in the federal regulations published at 49 CFR Part 23, shall have the maximum opportunity to compete for and perform contracts financed in whole, or in part, with federal funds. Consequently, the DBE requirements of 49 CFR Part 23 apply to the Contract.

13.B Bidders' Obligations - Bidders agree to afford DBEs as defined herein the maximum opportunity to compete for business opportunities on the Contract. In this regard, the Bidder shall take all necessary and reasonable steps in accordance with 49 CFR Part 23, and these DBE Requirements.

13.C Goals - A DBE goal for the Contract has been established as indicated in the Special Conditions. Bidders are to refer to Section 6.C.2.f of these Instructions for guidance in calculating DBE participation.

#### 13.D Responsive Bidder

13.D.1 To be responsive, a Bidder must have either: (1) met the DBE goal set forth in the Special Conditions of the Contract; or, (2) if the goal was not met, exercised good faith efforts to meet the goal. Documentation of a bidder's good faith efforts must be submitted to the District within 48 hours after request by the District.

13.D.2 A bidder shall be deemed to have exercised good faith efforts only if the bidder literally complied with each of the good faith efforts enumerated below in Article 13.E.

13.D.3 A bidder shall complete and submit with the Bid, the Good Faith Effort Certificate referenced in Section 6.D, above, if the DBE goal is not met.

#### 13.E Good Faith Efforts

13.E.1 The following are the minimum required good faith efforts and the types of documentation necessary to evidence such efforts. To be determined responsive, Bidders who fail to meet the DBE goal must present evidence to satisfy the District that they have met every one of these efforts. Literal compliance in the exercise of the enumerated good faith efforts is mandatory.

13.E.1.a Advertised in at least one newspaper of general circulation, at least one trade association publication and at least two minority focus media. The advertisements shall be placed in the business, classified, or request for sub-bid section. The initial advertisement shall appear in these publications no later than 20 calendar days prior to the actual specified bid opening date. A list of minority focus newspapers is contained in the District's DBE Directory.

13.E.1.a(1) Advertisements shall include at a minimum the following information:

- o Project Name and Location;
- o Indication of SCRTD as Owner;
- o Location where Plans and Specifications may be obtained or viewed;
- o Sub-Bid Due Date;

- o Trades or Scopes of Work for which Sub-Bids are being solicited;
- o Statement that Bid solicitaton is in response to SCRTD DBE Program; and
- o Statement that Bidder intends to seriously negotiate with DBE firms for participation on the project.

13.E.1.a(2) Documentation - Proof of publication or copies of tear sheets showing dates and names of publications.

13.E.1.b Selected portions of the work for which interest from DBEs was solicited in a manner to increase the likelihood of achieving the stated goals. When economically feasible, dividing work into small tasks or quantities to permit maximum participation of DBE businesses. A bidder with total in-house capabilities may have to subcontract out or obtain by joint venture arrangements various functions or components which the bidder could otherwise do or furnish itself. Good faith effort constitutes comparing prices from DBEs to those of other non-DBEs in the same trade or industry, and not to those prices of the bidder.

13.E.1.b(1) Documentation - Submit a list of work items and estimated dollar value of each item. Separate work which the Bidder intends to perform with its own workforce apart from areas of work which the Bidder identified for DBE participation. State whether or not the Bidder gave consideration to dividing the Contract into economically feasible units of work. If this was not done, explain why it could not be done.

13.E.1.c Extended written invitations to bid to at least 65 DBEs no later than 20 calendar days prior to the actual-specified bid due date.

13.E.1.c(1) The invitation/solicitation shall provide at least the following information:

- o Date of Correspondence, invitation/solicitation;
- o Project Name and Location;
- o Indication of SCRTD as owner;
- o A description of work for which bids/proposals are being solicited;
- o Copies of technical specifications or information where plans and specifications may be obtained or viewed;

- o Sub-Bid/Proposal Due Date.
- o Statement that solicitation is in response to SCRTD DBE Program; and
- o Statement that Bidder intends to seriously consider and negotiate with capable, competitive DBE firms for participation in the Contract.

13.E.1.c(2) Documentation - A list of DBE firms which the Bidder identified to solicit interest in the Contract. Identify the source of this list (e.g., RTD, CALTRANS, LACTC, other transit property, supplemental list, etc). Copies of letters, Request for Bids/Proposals, mail receipts, addressed postcards sent to DBEs.

13.E.1.d Followed-Up orally or in writing, with all DBE firms who were initially sent the invitation/solicitation described in good faith effort 13.E.1.c above, by evidence of attempting to contact them to determine with certainty whether they were interested in submitting a sub-bid, quotation, or participating as a joint venture partner, and the response by the DBE firms.

13.E.1.d(1) Documentation - A written record of any oral follow-up is required. Records which can be verified to document contact with these DBE firms (e.g., letters; minutes or notes of meetings held with DBE firms; copies of correspondence, including undeliverable mail, to and from DBEs; solicitation call sheets or telephone logs). This documentation must reflect the following:

- o Name and address of firm contacted.
- o Person contacted, telephone number (if follow up is by phone), and date contacted.
- o Response from these firms as to their interest in bidding on the Contract.

13.E.1.e Outreached to DBEs through the minority and women contractor, trade and professional associations listed in the District's DBE certified directory referenced in good faith effort 13.F.2, below, above, at least 20 calendar days prior to the actual specified bid opening date. Notices to these associations shall include at least the same information listed in good faith effort 13.E.1.c, above.

13.E.1.e(1) Documentation - Records or correspondence which confirm notification to the associations, and any response thereto.

13.E.1.f Assisted DBE who requested assistance in obtaining lines of credit or bonding, if bonding was required by the Bidder.

13.E.1.f(1) Examples of assistance are: (1) Contact bonding companies, lenders, on behalf of the DBE firm; (2) Arrange with sureties incremental or phased bonding for the DBE; (3) Pay for the cost of the bond; (4) Waive bonding requirements; and/or (5) Refer the DBE to Business Development Centers or other resource agencies who may assist DBE in obtaining bonding or lines of credit and referenced in good faith effort 13.E.1.e, above.

13.E.1.f(2) Documentation - If the Bidder required bonding, etc., provide a list of DBEs who requested assistance in these areas and any assistance provided by the Bidder; or a statement of the bidder's decision to waive bonding requirements.

13.E.1.f(3) Bond Guarantee Program - If the Bidder requires DBE subcontractors to provide payment or performance bonds, Bidder shall advise the DBE of the Bond Guarantee Program for DBE subcontractors. The Program Specifications are available to planholders under separate cover.

13.E.1.g Verified the DBE Status of those firms listed on the bid as DBEs who were not listed on the District's List of Certified DBEs referenced in Subarticle 13.F.2, below. Encouraged those firms not certified to seek certification with the District.

13.E.1.g(1) This good faith effort is applicable only to those bidders listing firms on their bids who are not certified on or before the bid due date.

13.E.1.g(2) Documentation - Evidence that the Bidder contacted the District prior to the bid date in order to ascertain certification status of its proposed subcontractors or suppliers. Examples are: copies of letters sent to the District's Contract Compliance Department (or other forms of communication) and replies thereto. Provide other evidence to support the Bidder's claim of encouraging uncertified firms listed on the bid as a DBE to apply to the District for certification prior to the bid date.

13.E.1.h Negotiated in good faith with interested capable, and competitive DBEs, not rejecting DBEs as unqualified without sound reasons.

13.E.1.h(1) Documentation - Examples are: (1) correspondence between the Bidder and DBEs; (2) internal logs, forms, or memoranda used by the Bidder to record

communication between the Bidder and DBEs concerning the DBE's participation in the Contract, terms and conditions of their participation, the scope of work to be bid by DBEs; (3) telephone quotations and follow-up written sub-bids from DBEs; (4) A chart summarizing the outcome of the Bidder's efforts to negotiate in good faith with interested DBE. This chart shall contain the following information for each DBE responding:

- o name of DBE;
- o work items or scope of work bid;
- o dollar amount of bid or proposal;
- o if negotiations were held but no contract resulted, reasons therefor; and
- o if Sub-bid/proposal was rejected by the Bidder, reasons therefor.

### 13.F DBE Certification

13.F.1 DBE firms need not be certified by the District as of the bid date, but must be certified prior to Contract award.

13.F.2 The District's List of DBE CERTIFIED AND DENIED COMPANIES which is in effect on the date of advertisement for bids on the Contract will be provided to all planholders along with the bid documents.

13.F.2.a This list is updated monthly; therefore, planholders interested in bidding on the Contract are responsible for contacting the office listed below to obtain monthly updates to this list and to verify the current status of any firm purporting to be a DBE but not included in this list.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
E.O. DEPT.--CONTRACT COMPLIANCE SECTION  
5TH FLOOR  
425 SOUTH MAIN STREET  
LOS ANGELES, CA 90013

(213) 972-6454

13.F.2.b This list does not represent all DBES available in the trades or specialty areas required by the Contract, but merely those firms that have applied to the District and have been granted or denied certification.

13.F.3 Application for certification by the District may be obtained by submitting Schedule A (for individual business concerns) or Schedule B (for joint ventures). These

forms are attached as Exhibit 1 and 2 to the General Conditions.

13.F.3.a Within five working days of request by the District, a Bidder, who is requested to do so, shall cause each of its DBE firms not currently certified to submit to the District information to confirm DBE status. Each firm applying for certification shall submit Schedule A or Schedule B with the required supporting documentation.

13.F.3.b If the Bidder is a DBE the firm must have current DBE status with the District or submit a Schedule A form with the bid.

13.F.3.c If the DBE is a joint venture partner, a Schedule B form and a copy of the joint venture agreement must be submitted with the bid.

13.G "FRAUDS" AND "FRONTS" - Bidders are hereby cautioned against knowingly and willfully using "fronts" to meet the DBE goal of the Contract. Only legitimate DBEs are eligible to participate in this federally-funded Contract. The use of "fronts" and "pass through" subcontracts to non-disadvantaged firms constitute criminal violations. Any indication of fraud, waste, abuse, or mismanagement of these funds should be immediately reported to the District or to the Office of Inspector General, U.S. Department of Transportation at the toll free hotline (800-424-9071); or to the following field office: UMTA Special Agent-in-Charge; 211 Main Street, Suite 1022; San Francisco, CA 94105; (415) 974-9875.

14. EXECUTION OF CONTRACT - The Bidder to whom an award is made shall execute the Construction Agreement and furnish the required Performance and Payment Bonds in the amount of 100 percent of the Contract price within ten calendar days after being given notice of the award. The District may require appropriate evidence that the persons executing the Construction Agreement and the bonds for both the Bidder and his surety or sureties are duly empowered to do so. Both bonds shall conform to the forms provided with the Bid Documents, and the surety or sureties shall be a corporation or corporations authorized to act as such in the State of California, and acceptable to the District.

END OF INSTRUCTIONS TO BIDDERS

## INFORMATION AVAILABLE TO BIDDERS

The information listed herein is available to Bidders for information only.

A. Unless otherwise noted, the listed data will be on display and available for examination in Plan Room at the Metro Rail Transit Consultants, (GC), 548 South Spring Street, Los Angeles, CA 90013.

### 1. Soils and Exploratory Data:

- a. The factual information and interpretive data contained in the reports listed below are made available in order that Bidders may have the same information as is available to the District. The District makes no representation that this information or data is complete or accurate. Bidders are urged to examine this information and data. The Bidder is responsible for interpretations he makes of the information or data and conclusions he draws from them.
- b. Test boring location and logs, bound with the project Contract Drawings, are for information. The actual location of bore holes shall be obtained from the Soils Report contained in the Geotechnical Report, identified in Paragraph A.2.j below. The profiles showing bore holes are for information only and therefore should not be used for Construction purposes.
- c. Ground water levels plotted on the geological sections represent average typical values observed during the period of boring operations or shortly after completion of base hole.
- d. If a Bidder wishes to conduct independent investigations of subsurface conditions, he must first obtain a permit to do so from the municipality in which the investigations will be conducted. The Bidder must neither trespass, nor conduct investigations of subsurface conditions, on private property without written and signed consent to do so from the owner of the private property. The Bidder must neither interfere with, nor create hazardous conditions during, the use and occupancy of public property and private property, and must restore areas damaged, as a result of his investigations, to essentially the conditions which existed before the investigations were started. Costs of conducting investigations of subsurface conditions must be

borne by the Bidder conducting those investigations, and will not be reimbursed.

2. The following information is available to Bidders for inspection at the Offices of the GC and is available for purchase upon written request to the above address.
  - a. Test Boring Program  
Rapid Transit System Backbone Route  
by Kaiser Engineers  
June 1962
  - b. Volume IV,-Book II  
Test Boring Logs  
Rapid Transit System Backbone Route  
by Kaiser Engineers  
June 1962
  - c. Volume IV, Book III  
Test Boring Logs  
Rapid Transit System Backbone Route  
by Kaiser Engineers  
June 1962
  - d. Report of Preliminary Foundation Investigation  
Proposed Rapid Transit System for the Southern  
California Rapid Transit District  
by LeRoy Crandall and Associates  
April, 1968
  - e. Report of Drilling Services for Rapid Transit  
Starter Line  
by Woodward - Clyde Consultants  
30 December 1977
  - f. Geotechnical Investigation Report, Volumes 1 and 2,  
dated November, 1981 by Converse, Ward, Davis,  
Dixon.
  - g. Report of Supplementary Alignment Rotary Borings,  
Contract No. 2256-2, dated September 19, 1983.
  - h. Report of Man-Size Borings, Contract No. 2256-2,  
dated August 29, 1983.
  - i. Seismological Investigation and Design Criteria,  
Contract No. 2427, dated May 1983 by Converse Con-  
sultants Inc.
  - j. Geotechnical Report, Metro Rail Project, Design  
Unit A100 by Converse Consultants, Inc., Earth  
Sciences Associates, Geo/Resource Consultants,  
February, 1984.

- k. Design Documentation - Structural Requirements for Concrete Tunnel Liners - SCRTRD-Metro Rail Project, prepared by William H. Hansmire, April 30, 1985.
  - l. "Report of Subsurface Gas Investigation - Southern California Rapid Transit District Metro Rail Project - Wilshire Corridor Alignment", Volume 1 - Reference Document, Engineering-Science, Arcadia, California, January, 1984.
  - m. "Report of Subsurface Gas Investigation - Southern California Rapid Transit District Metro Rail Project - Wilshire Corridor Alignment", Volume II - Appendices, Engineering-Science, Arcadia, California January, 1984.
  - n. "Gas Monitoring System Review and Design Recommendations", Metro Rail Transit Consultants, January, 1985.
  - o. "Report of Subsurface Gas Investigation Southern California Rapid Transit District", Engineering-Science, Draft, May, 1985:
  - p. "Task Force Report on the March 24, 1985 Methane Gas Explosion and Fire in Fairfax Area", City of Los Angeles, June, 1985.
  - q. "Final Report Environmental Control System", Southern California Rapid Transit District Metro Rail Project, Parsons Brinckerhoff Quade & Douglas, Inc., August, 1985.
  - r. "Board of Review Report on Construction and Operation in Gaseous Area", Southern California Rapid Transit District Metro Rail Project, October, 1985.
  - s. "Core Study Subsurface Conditions Report (an Evaluation of Methane Gas Potential along candidate alignments of the L.A. Metro Rail Project)" Engineering Science, May 1986.
3. Cores and soil samples taken as a result of subsurface investigation being conducted, will be available for inspection upon appointment only, during normal office hours of Converse Consultants. Call Mr. Mark Schluter at (818) 796-8200. Cores and samples are located in warehouses remote from Converse Consultants' offices. Cautioning advice stipulated in this Paragraph A, above, applies to sample inspection also.

B. The data listed below is available for Bidders' inspection at the Offices of the GC. It is expressly understood that the District will not be responsible for the completeness or accuracy of the following additional

information nor any deductions, interpretations, or conclusions drawn from such following items inasmuch as the information has been provided by others and not subject to verification by the District or was prepared early in the program and may be superseded by data listed in Paragraph A above.

1. Work Area Traffic Control Handbook (WATCH).
2. Manual of Traffic Controls (Caltrans).
3. Standard Specifications for Public Works Construction.
4. LADPW Standard Plans dated February 1, 1986.
5. List of Certified DBE/WBE Contractors and Suppliers.
6. List of DBE/WBE Contractors Associations.
7. All Federal Acquisition Regulations Referenced.
8. Buy America Regulations.
9. Disposal of Tunnel and Station Excavation Materials (Sedway/Cooke, 1983).
10. U.S. Department of Transportation News Release DOT "HOTLINE" to receive information about Disadvantaged Business frauds.

C. Drawings for Related Construction: The following information is made available in order that the Contractor may coordinate his Work with the work of other contractors working on other portions of the project.

1. ( )
2. ( )
3. ( )

D. Data for Adjoining Buildings and surrounding or adjoining property. ((List for Each Contract)).

E. As-built Utilities data and record maps:

1. Power Facilities (( ))
  - a. (( ))
  - b. (( ))
2. Telephone Facilities (Pacific Bell)
  - a. (( ))
  - b. (( ))

- 3. Gas Facilities (Southern California Gas Co.)
  - a. (( ))
  - b. (( ))
- 4. Water Facilities (Department of Water and Power)
  - a. (( ))
  - b. (( ))
- 5. City Facilities (( ))
  - a. Streets and sidewalks
    - (( ))
    - (( ))
  - b. Traffic Facilities
    - (( ))
    - (( ))
  - c. Street Lighting
    - (( ))
    - (( ))
  - d. Storm Drains
    - (( ))
    - (( ))
  - e. Sanitary Sewers
    - (( ))
    - (( ))
  - f. City Communications
    - (( ))
    - (( ))
- 6. Cable Television (( ))
  - a. (( ))
  - b. (( ))

7. Telegraph (Western Union)

a. (( ))

b. (( ))

F. Plans prepared by facility owners showing the rearrangement of utilities in the construction area. These plans are the basis of design for the utility rearrangements indicated on the Contract Plans.

1. Power Facilities

2. Telephone Facilities

3. Gas Facilities

4. Water Facilities

5. Cable Television

6. Telegraph Facilities

G. The following contractors have been approved by Pacific Bell to perform work on telephone facilities that is required for Metro Rail construction:

Bock Company (P.O. Box 885) (Larry Clever)  
132 West Providencia Street  
Burbank, CA 91503 818/849-5733

Dalton Construction Company (Robert Smallman)  
27577 Industrial Boulevard  
Hayward, CA 94545 415/786-9426

Doty Bros.  
11232 East Firestone Boulevard  
Norwalk, CA 90650 213/864-6566

Hood Corporation (P.O. Box 4368) (Tom Berry)  
8201 South Sorensen Avenue  
Whittier, CA 90607 213/685-5640

Irish Construction (P.O. Box 579) (Pat Funare)  
2641 River Avenue  
Rosemead, CA 91770 818/288-8530

Kelbey Construction  
6920 Foster Bridge Boulevard  
Bell Gardens, CA 90201 213/773-5355

Kindred/Masengale Construction  
7920 Orangethorpe Avenue  
Buena Park, CA 90621-0866 714/739-5443

Macco Constructors, Inc. (P.O. Box 257) (Dave King)  
14409 South Paramount Boulevard  
Paramount, CA 90723 213/630-5801

R. S. Miller, Inc.  
42851 Sierra Highway  
Lancaster, CA 93534 805/945-6623

Northwest Excavation  
18201 Napa Street  
Northridge, CA 91324 818/349-5861

Tidwell Excavation  
1895 Lirio Avenue  
Saticoy, CA 93004 805/647-4707

Herman Weissker, Inc. (P.O. Box 7708) (Herman Weissker)  
3366 Cherry Avenue  
Long Beach, CA 90807 213/426-8141

END OF INFORMATION AVAILABLE TO BIDDERS

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

FORMS FOR SUBMITTAL OF BIDS

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

METRO RAIL PROJECT

BIDDER \_\_\_\_\_

PROCUREMENT OF SIGNING AND EDGE LIGHT

CONTRACT NUMBER A760

INVITATION TO BID DATED \_\_\_\_\_

PROPOSAL LETTER

In response to the above referenced Invitation to Bid and in accordance with the accompanying Instructions to Bidders, Bidder hereby proposes to the Southern California Rapid Transit District (District) to furnish all plant, labor, technical and professional services, supervision, materials and equipment, (other than materials and equipment specified as furnished by others) and to perform all operations necessary and required to construct the Contract Work in accordance with provisions of the Contract Documents and any addenda thereto and at the prices stated opposite the respective items set forth in the Bid Form attached hereto, and incorporated by reference herein.

Bidder agrees that this proposal constitutes a firm offer which cannot be withdrawn for ninety (90) calendar days from the bid opening date or until a contract for the Work is fully executed, between District and a third party, whichever is earlier.

Bidder certifies that it has examined and is fully familiar with all of the provisions of the Contract Documents and any addenda thereto; that it has carefully checked all of the words and figures shown in its Bid Form; that it has carefully reviewed the accuracy of all statements in this proposal and attachments hereto; and that it has by careful examination of the Information Available to Bidders, Contract Documents and any addenda thereto, and by examination of the actual site conditions, satisfied itself as to the nature and location of the Work, the general and local conditions to be encountered in the performance of the Work, the requirements of the Contract and all other matters which can in any way affect the Work or the cost thereof.

Bidder further certifies that the only persons or firms interested in this proposal as principals are those listed as such in the Bidders' Business Qualifications and Business References forms to be submitted when requested; this proposal is made without collusion with any other person, firm, corporation, or other party; that neither the undersigned bidder nor any principal is included on the U.S. Comptroller General's Consolidated List of Persons or

Firms Currently Debarred for Violations of Various Public Contracts and that the undersigned bidder will comply with the District's Code of Conduct.

If awarded a Contract, Bidder agrees to execute the Contract and deliver it to the District within ten calendar days after award of the Contract, with the necessary Certificates of Insurance, Performance Bond and Payment Bond and Contractor will proceed with the work upon receipt of a Notice to Proceed in accordance with Article 27 of the General Conditions of this Contract. Bidder provides the following information:

State of Incorporation \_\_\_\_\_

Bidder's California Contractor's License No. \_\_\_\_\_

License Expiration Date \_\_\_\_\_ Type of License \_\_\_\_\_

Attached hereto and by this reference incorporated herein and made a part of this proposal are the Bid Form, List of Proposed Subcontractors, List of Proposed DBEs, Buy America Certificates and Bid Security.

The undersigned acknowledges receipt, understanding and full consideration of the following addenda to the Contract Documents:

Addenda No(s) and dates received: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

BIDDER \_\_\_\_\_

Signed by \_\_\_\_\_

\_\_\_\_\_  
(Type or Print Name)

\_\_\_\_\_  
(Title)

Date \_\_\_\_\_

\_\_\_\_\_  
(Bidder's Business Address)

Phone \_\_\_\_\_

NOTE: Signature must be notarized. Use appropriate attached certificate. Per instructions to Bidders, where person executes proposal letter on behalf of Bidder, include proof of authority to act on behalf of Bidder.

Attachment I, Contract Number A760;

Certificate of acknowledgement; corporation.

State of \_\_\_\_\_,  
SS. County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year \_\_\_\_\_,  
before me the undersigned, a Notary Public in and for said State,  
personally appeared \_\_\_\_\_, per-  
sonally known to me (or proved to me on the basis of satisfactory  
evidence) to be the person who executed the within instrument as  
president (or secretary) or on behalf of the corporation therein  
named and acknowledged to me that the corporation executed it.

\_\_\_\_\_  
Signature of Notary

Attachment II, Contract Number A760;

Certificate of acknowledgement; partnership.

State of \_\_\_\_\_,  
SS. County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year \_\_\_\_\_,  
before me the undersigned, a Notary Public in and for said State,  
personally appeared \_\_\_\_\_, per-  
sonally known to me (or proved to me on the basis of satisfactory  
evidence) to be the person that executed this instrument, on  
behalf of the partnership and acknowledged to me that the part-  
nership executed it.

\_\_\_\_\_  
Signature of Notary

Attachment III, Contract Number A760;

Certificate of acknowledgement; joint venture.

State of \_\_\_\_\_,  
SS. County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year \_\_\_\_\_,  
before me the undersigned, a Notary Public in and for said State,  
personally appeared \_\_\_\_\_, per-  
sonally known to me (or proved to me on the basis of satisfactory  
evidence) to be the person that executed this instrument, on  
behalf of the joint venture and acknowledged to me that the joint  
venture executed it.

\_\_\_\_\_  
Signature of Notary

Attachment IV, Contract Number A760;

Certificate of acknowledgement; individual.

State of \_\_\_\_\_,  
SS. County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, in the year \_\_\_\_\_,  
before me the undersigned, a Notary Public in and for said State,  
personally appeared \_\_\_\_\_, per-  
sonally known to me (or proved to me on the basis of satisfactory  
evidence) to be the person that executed this instrument, and  
acknowledged to me that he (she or they) executed it.

\_\_\_\_\_  
Signature of Notary

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
METRO RAIL PROJECT

BID FORM

for

SIGNING AND EDGELIGHT  
Contract A760

BIDDER \_\_\_\_\_  
SCHEDULE OF LUMP SUM AND PRICES

<u>ITEM NO.</u>	<u>DESCRIPTION</u>	<u>LUMP SUM PRICE</u>
01000.01	General Requirements	\$ _____
10440.01	Signing, Union Station	\$ _____
10440.02	Signing, Civic Center	\$ _____
10440.03	Signing, Pershing Square	\$ _____
10440.04	Signing, 7th St/Metro Center	\$ _____
10440.05	Signing, Westlake/MacArthur Park	\$ _____
10440.06	Signing, Yards/Shops Exterior Signs Only	\$ _____
16505.01	Platform Edge Light, Union Station	\$ _____
16505.02	Platform Edge Light, Civic Center	\$ _____
16505.03	Platform Edge Light, Pershing Square	\$ _____
16505.04	Platform Edge Light, 7th St/Metro Center	\$ _____
16505.05	Platform Edge Light, Westlake/- MacArthur Park	\$ _____

TOTAL BID PRICE, THE SUM OF \_\_\_\_\_

TOTAL LUMP SUM PRICE \$ \_\_\_\_\_

OPTION NUMBER 1

16505.01	Platform Edge Light, Union Station	\$ _____
16505.02	Platform Edge Light, Civic Center	\$ _____
16505.03	Platform Edge Light, Pershing Square	\$ _____
16505.04	Platform Edge Light, 7th St/Metro Center	\$ _____
16505.05	Platform Edge Light, Westlake/- MacArthur Park	\$ _____

TOTAL COST OF OPTION NUMBER ONE \$ \_\_\_\_\_





SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
METRO RAIL PROJECT

BIDDER \_\_\_\_\_

PROCUREMENT OF SIGNING AND EDGE LIGHT  
CONTRACT NUMBER A760

INVITATION TO BID DATED \_\_\_\_\_

LIST OF PROPOSED DBEs

DBE Firms will participate in this contract as follows (check all options applicable to this Bid):

\_\_\_\_\_ The Bidder intends to meet the DBE goal by utilizing the goods and/or services of the DBE subcontractors, truckers, or suppliers listed below.

\_\_\_\_\_ The Bidder is a joint venture, and intends to meet the DBE goal by utilizing the goods and/or services of DBE joint venture partner(s) listed below. A Schedule B Certification form and Joint Venture Agreement is submitted with this bid for approval. (List below the name of the DBE partner, and the proportionate dollar value and percent of total bid price of the work to be performed managed and supervised with the DBE partner's own workforce.)

\_\_\_\_\_ The Bidder is a DBE. (List below the name of the DBE Bidder, and the work items, dollar value, and percent of total bid price which the Bidder intends to perform with its own workforce).

(a) <u>NAME OF BUSINESS:</u>	(b) <u>LOCATION OF BUSINESS:</u>	(c) <u>ITEMS(S) OF WORK:</u>	(d) <u>ESTD. DOLLAR AMOUNT:</u>	(e) <u>% OF TOTAL BID FOR DBE:</u>
_____	_____	_____	\$ _____	_____ %
_____	_____	_____	\$ _____	_____ %
_____	_____	_____	\$ _____	_____ %
_____	_____	_____	\$ _____	_____ %
_____	_____	_____	\$ _____	_____ %
_____	_____	_____	\$ _____	_____ %
_____	_____	_____	\$ _____	_____ %

(Total Dollar Amounts and Percentages for DBEs on Page 2)

LIST OF PROPOSED DBEs

Contract Number A760

(a) <u>NAME OF BUSINESS:</u>	(b) <u>LOCATION OF BUSINESS:</u>	(c) <u>ITEMS(S) OF WORK:</u>	(d) <u>ESTD. DOLLAR AMOUNT:</u>	(e) <u>% OF TOTAL BID FOR: DBE</u>
_____	_____	_____	\$ _____	_____ %
_____	_____	_____	\$ _____	_____ %
_____	_____	_____	\$ _____	_____ %
_____	_____	_____	\$ _____	_____ %
_____	_____	_____	\$ _____	_____ %
_____	_____	_____	\$ _____	_____ %
_____	_____	_____	\$ _____	_____ %
_____	_____	_____	\$ _____	_____ %
<b>TOTAL <u>DBE</u> PARTICIPATION:</b>			\$ _____	_____ %

1. Refer to Section 6.C of the Instructions to Bidders for guidance in calculating DBE goal participation.
2. Refer to Section 6.C of the Instructions to Bidders for full instructions in completing this form.
3. List all DBE subcontractors, truckers, and suppliers regardless of percentage of participation, whom the Bidder intends to credit toward the DBE goal. (Complete columns (a), (b), (c), (d), and (e) for each of these DBE.

S.C.R.T.D. LIBRARY

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

METRO RAIL PROJECT

BIDDER \_\_\_\_\_

PROCUREMENT OF SIGNING AND EDGE LIGHT

CONTRACT NUMBER A760

INVITATION TO BID DATED \_\_\_\_\_

GOOD FAITH EFFORTS CERTIFICATE

The bidder or offeror hereby certifies that while the DBE and/or WBE goal was not met as reflected on the List of Proposed Subcontractors bid form, the good faith efforts listed in 13.E of the Instruction to Bidders were made.

The bidder or offeror further certifies that the documentation to support the undertaking of these good faith efforts will be submitted to the District within forty-eight (48) hours after request by the District.

\_\_\_\_\_  
BIDDER'S FIRM NAME

By:

\_\_\_\_\_  
SIGNATURE OF BIDDER'S AUTHORIZED REPRESENTATIVE

\_\_\_\_\_  
TYPE NAME AND TITLE

\_\_\_\_\_  
DATE OF SIGNATURE

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
METRO RAIL PROJECT

BIDDER \_\_\_\_\_

PROCUREMENT OF SIGNING AND EDGE LIGHT

CONTRACT NUMBER A760

INVITATION TO BID DATED \_\_\_\_\_

BUY AMERICA CERTIFICATE

FOR COMPLIANCE

The Bidder hereby certifies that it will comply with the requirements of Section 165(a) of the Surface Transportation Assistance Act of 1982 and the applicable regulations in 49 CFR Part 660-661.

Bidder \_\_\_\_\_

Signature \_\_\_\_\_

\_\_\_\_\_  
Printed Name and Title

Date \_\_\_\_\_

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
METRO RAIL PROJECT

BIDDER \_\_\_\_\_

PROCUREMENT OF SIGNING AND EDGE LIGHT

CONTRACT NUMBER A760

INVITATION TO BID DATED \_\_\_\_\_

BUY AMERICA CERTIFICATE

FOR NON-COMPLIANCE

The Bidder hereby certifies that it cannot comply with the requirements of Section 165(a) of the Surface Transportation Act of 1982, but may qualify for an exception to the requirement pursuant to Section 165(b)(2) or (b)(4) of the Surface Transportation Assistance Act and regulations in 49 CFR 661.7.

Bidder \_\_\_\_\_

Signature \_\_\_\_\_

\_\_\_\_\_  
Printed Name and Title

Date \_\_\_\_\_

This form must be completed and attached to Bid unless a certified check is attached. (See Article 6.F of "Instructions to Bidders.")

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
METRO RAIL PROJECT

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we \_\_\_\_\_ as Principal, hereinafter called the Principal, and \_\_\_\_\_, a corporation duly organized under the laws of the State of \_\_\_\_\_ as Surety, hereinafter called the Surety, are held and firmly bound unto the Southern California Rapid Transit District, a public corporation of the State of California, as Obligee, hereinafter called the Obligee, in the sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_), for the payment of which sum well and truly to be made, the said Principal and the said Surety, bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

WHEREAS, the Principal has submitted a bid for \_\_\_\_\_, Contract Number A760.

NOW, THEREFORE, if the Obligee shall accept the bid of the Principal and the Principal shall enter into a Contract with the Obligee in accordance with the terms of such bid, and give such bond or bonds as may be specified in the bidding or Contract Documents with good and sufficient surety for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof, or in the event of the failure of the Principal to enter such Contract and give such bond or bonds, if the Principal shall pay to the Obligee the difference not to exceed the penalty hereof between the amount specified in said bid and such larger amount for which the Obligee may in good faith contract with another party to perform the Work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect.

SIGNED AND SEALED THIS \_\_\_\_\_ DAY OF \_\_\_\_\_ 19\_\_

\_\_\_\_\_  
PRINCIPAL

By: \_\_\_\_\_

\_\_\_\_\_  
TYPE NAME AND TITLE

And: \_\_\_\_\_  
SURETY

By: \_\_\_\_\_  
\_\_\_\_\_  
TYPE NAME AND TITLE

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
METRO RAIL PROJECT

BIDDER \_\_\_\_\_

PROCUREMENT OF SIGNING AND EDGE LIGHT

CONTRACT NUMBER A760

INVITATION TO BID DATED \_\_\_\_\_

NOTE: This form is included for reference only and will be required to be submitted by the three lowest responsive and responsible bidders only.

BIDDERS' QUALIFICATIONS AND  
BUSINESS REFERENCES

This questionnaire is intended as a basis for establishing the qualifications of Contractors for undertaking Construction, Maintenance and Repair Work under the jurisdiction of the Southern California Rapid Transit District.

If a Contractor has submitted such a questionnaire to the District within six months prior to the opening date for this proposal, the Contractor may refer to that submittal, by date and proposal subject, in lieu of submitting a new questionnaire. The District requires that a current questionnaire be on file and Contractors shall submit a new questionnaire whenever major changes have occurred in their organization, financial position and experience.

This questionnaire forms an integral part of the Contractor's Bid and failure to submit it or lack of evidence of qualification may be a basis for rejection of a bid.

1. General

A. Legal Title and Address of Organization,

\_\_\_\_\_  
\_\_\_\_\_

B. Contractor's Local Representative's Name, Title and Address,

\_\_\_\_\_  
\_\_\_\_\_

C. \_\_\_\_\_ Corporation \_\_\_\_\_ Partnership \_\_\_\_\_ Individual  
(See Para. C.1) (See Para. C.2) (See Para. C.3)

1. If a Corporation:

Capital Paid in Cash, \$ \_\_\_\_\_

Date of Incorporation, \_\_\_\_\_

State in which Incorporated, \_\_\_\_\_

Name and Title	Date of	Position
Principal Officers	Assuming	

_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

2. If Partnership:

Date of Organization, \_\_\_\_\_ Nature of Partner-  
ship (General, Limited or Association), \_\_\_\_\_

Names and Addresses of all Partners	Ages
-------------------------------------	------

_____	_____
_____	_____
_____	_____

3. If individual:

Full Name and Address of Owner, \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

D. List major items of equipment fully owned by organiza-  
tion, giving approximate market value and age. (If now  
fully owned, so state)

\_\_\_\_\_  
\_\_\_\_\_

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E. Is any member of your organization employed by the SCRTD or in any way officially connected with the SCRTD? \_\_\_\_\_ If yes, explain:

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F. Give name and data about any construction projects you have failed to complete, including any terminations for default, (use separate sheet if necessary).

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G. Has your organization or any of its Directors, Officers, Partners or Supervisory Personnel ever been party to any criminal action relating directly or indirectly to the general conduct of your business? If yes, explain:

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H. Has your organization ever been denied an award on which you were low bidder? \_\_\_\_\_ If yes, explain: \_\_\_\_\_

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I. Have you ever been assessed actual or liquidated damages for late completion? \_\_\_\_\_ If so, give full particulars

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

II. Financial

A. Give the total market value of all construction equipment fully owned by your organization. \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

B. Give value of total assets of organization (including equipment market value in (IIA) above). \_\_\_\_\_

\_\_\_\_\_

C. Give value of total liabilities of organization. \_\_\_\_\_

\_\_\_\_\_

D. Give total contract value of work accomplished by your organization in each of the last three (3) years.

19 \_\_\_\_\_

19 \_\_\_\_\_

19 \_\_\_\_\_

E. Give contract value of work presently being accomplished by, or pending award to your organization. \_\_\_\_\_

\_\_\_\_\_  
(Date)

F. Give value of any judgments or liens outstanding against your organization. \_\_\_\_\_

G. Has any Bonding Company refused to write you a bond on any construction work? \_\_\_\_\_ If yes, explain: \_\_\_\_\_

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H. Give maximum value of contract work for which you could obtain Bond.

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I. Name, Address and Phone Number of Bonding Company to be used if successful bidder.

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III. Experience

A. Indicate type of contracting undertaken by your organization and year's experience:

General \_\_\_\_\_ Sub \_\_\_\_\_ Type \_\_\_\_\_  
Years Years Years

Type \_\_\_\_\_ Type \_\_\_\_\_  
Years Years

B. State construction experience of principal members of your organization including the designated project manager:

Construction Experience

Name and Title (Such as President, Manager)	Construction Experience Years	Type of Work (Such as Hospital, Apartment)	In What Capacity (Such as Foreman, Superintendent)
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

C. Give any special qualifications of firm members (Such as Registered Engineer, Surveyor) \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

(Use Additional Sheet if Necessary)

D. List some principal projects completed by your organization.

Name of Work	_____	_____	_____	_____
General or Sub (If sub, what type of work)	_____	_____	_____	_____
Contract Price	_____	_____	_____	_____
Year	_____	_____	_____	_____
Designing Architect or Engineer	_____	_____	_____	_____
Owners' Name and Address	_____	_____	_____	_____

E. Quality

1) Organization has complied with the following quality assurance requirements on past contracts.

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2) Submit evidence that your firm has an inspection quality assurance program and personnel to assure compliance with the quality assurance requirements for this Contract.

F. If General Contractor, list some subcontractors in various fields who have worked under you: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

G. If Subcontractor, list some general contractors for whom you have worked:

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H. Previous Project Values

- 1) What is the construction value of the largest project accomplished by your organization? \_\_\_\_\_
- 2) Maximum value in last three years. \_\_\_\_\_
- 3) Maximum value you prefer to undertake. \_\_\_\_\_
- 4) Price range of work your organization is deemed best adapted to undertake. \_\_\_\_\_

I. Give date, type and number of State of California license:

---

The undersigned certifies that he/she is legally authorized by the Bidder to make the statements and representations contained in this document, and represents and warrants that the foregoing information is true and accurate to the best of his/her knowledge, and intends that the Southern California Rapid Transit District rely thereon in awarding the Contract. The undersigned further understands that any misrepresentation made in this form shall be a basis for rejection of the bid.

Bidder's Firm Name: \_\_\_\_\_

Date of Signing: \_\_\_\_\_

Signature: \_\_\_\_\_

Printed Name: \_\_\_\_\_

Title: \_\_\_\_\_

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

CONTRACT DOCUMENTS

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

METRO RAIL PROJECT

NOTE: This form is included for reference only and will be required to be submitted by the Bidder to whom the Contract is awarded.

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS:

THAT \_\_\_\_\_  
\_\_\_\_\_, as Principal, and  
\_\_\_\_\_, a corporation duly organized under  
the laws of the State of \_\_\_\_\_ as Surety, are held  
and firmly bound unto the Southern California Rapid Transit Dis-  
trict, a public corporation of the State of California, in the  
sum of \_\_\_\_\_ Dollars  
(\$\_\_\_\_\_.\_\_) for the payment of which we hereby bind  
ourselves, our heirs, executors, administrators and assigns,  
jointly and severally, firmly by these presents.

WHEREAS, Contractor has by written agreement dated \_\_\_\_\_  
entered into a Contract with District, which Contract is by ref-  
erence made a part hereof, and is hereinafter referred to as the  
Contract.

The condition of the foregoing obligation is such that if the  
said Principal shall perform all things agreed to in said Con-  
tract to be done and performed, then this obligation is to be  
void; otherwise to remain in full force and effect;

PROVIDED,

- A. Any alteration in the Work to be done, or the material to be furnished, which may be made shall not in any way release the Principal or the Surety hereunder, nor shall any extensions of time granted release either the Principal or the Surety, and notice of such alterations or extensions of the Contract is hereby waived by the Surety.
- B. Whenever Principal shall be, and is declared by District to be in default under the Contract, the District having performed District's obligations thereunder, the Surety may promptly remedy the default or shall promptly:
  - 1. Complete the Contract in accordance with its terms and conditions, or

2. Obtain a bid or bids for submission to the District for completing the Contract in accordance with its terms and conditions, and upon determination by District and Surety of the lowest responsible bidder, arrange for a contract between such bidder and District, and make available as work progresses (even though there should be a default or a succession of defaults under the contract or contracts of completion arranged under this paragraph) sufficient funds to pay the cost of completion less the balance of the Contract price; but not exceeding, including other costs and damages for which the Surety may be liable hereunder, the amount set forth in the first paragraph hereof. The term "balance of the Contract price," as used in this paragraph, shall mean the total amount payable by District to Principal under the Contract and any amendments thereto, less the amount properly paid by District to Principal.

Signed and sealed this \_\_\_\_\_ DAY OF \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
PRINCIPAL

By: \_\_\_\_\_

\_\_\_\_\_  
TYPE NAME AND TITLE

And: \_\_\_\_\_

\_\_\_\_\_  
SURETY

By: \_\_\_\_\_

\_\_\_\_\_  
TYPE NAME AND TITLE

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

METRO RAIL PROJECT

NOTE: This form is included for reference only and will be required to be submitted by the Bidder to whom the Contract is awarded.

PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS that \_\_\_\_\_  
\_\_\_\_\_, as Principal, and  
\_\_\_\_\_, a corporation duly  
organized under the laws of \_\_\_\_\_ as Surety, are held  
and firmly bound unto the Southern California Rapid Transit Dis-  
trict, a public corporation of the State of California, in the  
sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_)  
for the payment of which we hereby bind ourselves, our heirs,  
executors, administrators, successors and assigns, jointly and  
severally, firmly by these presents.

WHEREAS, Principal has by written agreement dated \_\_\_\_\_  
entered into a contract with District, which contract is by ref-  
erence made a part hereof, and is hereinafter referred to as the  
Contract.

NOW, THEREFORE, the condition of the foregoing obligation is such  
that, if the said Principal or his subcontractors fails to pay  
any of the persons named in Sections 3181 et seq. of the Califor-  
nia Civil Code with respect to work or labor performed by any  
such claimant, or for any amounts required to be deducted, with-  
held, and paid over to the California Franchise Tax Board from  
the wages of employees of the Principal and his subcontractors  
pursuant to Section 18806 of the California Revenue and Taxation  
Code, with respect to such work and labor that Surety will pay  
for the same, in an amount not exceeding the sum specified herein  
and also, in case suit is brought upon the bond, a reasonable  
attorney's fee, to be fixed by the Court, otherwise this Bond  
shall be void and of no effect;

PROVIDED, that any alteration of the Work to be done, or the  
material to be furnished, which may be made shall not in any way  
release the Principal or the Surety hereunder, nor shall any  
extension of time granted release either the Principal or the  
Surety, and notice of such alterations or extensions of the Con-  
tract is hereby waived by the Surety.

This Bond shall inure to the benefit of any and all persons named under Section 3181 et. seq. of the California Civil Code so as to give a right of action to such persons or their assigns in any suit brought upon this Bond.

Signed and sealed this \_\_\_\_\_ DAY OF \_\_\_\_\_, 19\_\_\_\_.

\_\_\_\_\_  
PRINCIPAL

By: \_\_\_\_\_

\_\_\_\_\_  
TYPE NAME AND TITLE

And: \_\_\_\_\_

\_\_\_\_\_  
SURETY

By: \_\_\_\_\_

\_\_\_\_\_  
TYPE NAME AND TITLE

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

SPECIAL CONDITIONS

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

CONSTRUCTION CONTRACT NO. A760, SIGNING AND EDGELIGHT

SPECIAL CONDITIONS

SC1 TIME OF COMPLETION - The Work to be performed under this Contract shall be commenced within 10 days after the effective date of the Notice to Proceed and shall be completed and released to the District as indicated hereinafter.

SC1.A Signing for Union Station shall be available for installation within (( )) calendar days of the Notice to Proceed date.

SC1.B Signing for Civic Center shall be available for installation within (( )) calendar days of the Notice to Proceed date.

SC1.C Signing for Pershing Square will be available for installation within (( )) calendar days of the Notice to Proceed date.

SC1.D Signing for 7th St/Metro Center will be available for installation within (( )) calendar days of the Notice to Proceed date.

SC1.E Signing for Westlake/MacArthur Park will be available for installation within (( )) calendar days of the Notice to Proceed date.

SC1.F Signing for Yards/Shops Exterior Signs Only will be available for installation within (( )) calendar days of the Notice to Proceed date.

SC1.G Platform Edge Light for Union Station will be available for installation within (( )) calendar days of the Notice to Proceed date.

SC1.H Platform Edge Light for Civic Center will be available for installation within (( )) calendar days of the Notice to Proceed date.

SC1.I Platform Edge Light for Pershing Square will be available for installation within (( )) calendar days of the Notice to Proceed date.

- SC1.J Platform Edge Light for 7th St/Metro Center will be available for installation within (( )) calendar days of the Notice to Proceed date.
- SC1.K Platform Edge Light for Westlake/MacArthur Park will be available for installation within (( )) calendar days of the Notice to Proceed date.
- SC1.L All remaining Work shall be fully completed and released to the District within (( )) calendar days of the Notice to Proceed date.

SC2 LIQUIDATED DAMAGES - The elements of Liquidated Damages are set forth in General Conditions, Article 29, Liquidated Damages. The Liquidated Damages provision will be strictly enforced. However, the Contractor shall employ all efforts necessary to complete the Work within the Time of Completion specified in Article SC1, and the District reserves all other remedies provided for in this Contract to ensure timely completion. Liquidated Damages, for failure to complete the Work within the number of calendar days specified in Article SC1, shall be as indicated hereinafter.

- SC2.A For failure to complete the Work indicated in paragraph SC1A, within the number of days indicated, the Contractor will be assessed the sum of \$(( )) per day as liquidated damages, for each day of delay, until completion.
- SC2.B For failure to complete the Work indicated in paragraph SC1B, within the number of days indicated, the Contractor will be assessed the sum of \$(( )) per day as liquidated damages, for each day of delay, until completion.
- SC2.C For failure to complete the Work indicated in paragraph SC1C, within the number of days indicated, the Contractor will be assessed the sum of \$(( )) per day as liquidated damages, for each day of delay, until completion.
- SC2.D For failure to complete the Work indicated in paragraph SC1D, within the number of days indicated, the Contractor will be assessed the sum of \$(( )) per day as liquidated damages, for each day of delay, until completion.
- SC2.E For failure to complete the Work indicated in paragraph SC1E, within the number of days indicated, the Contractor will be assessed the sum of \$(( )) per day as liquidated damages, for each day of delay, until completion.
- SC2.F For failure to complete the Work indicated in paragraph SC1F, within the number of days indicated, the Contractor will be assessed the sum of \$(( )) per day as liquidated damages, for each day of delay, until completion.
- SC2.G For failure to complete the Work indicated in paragraph SC1G, within the number of days indicated, the Contractor

will be assessed the sum of \$(( )) per day as liquidated damages, for each day of delay, until completion.

SC2.H For failure to complete the Work indicated in paragraph SC1H, within the number of days indicated, the Contractor will be assessed the sum of \$(( )) per day as liquidated damages, for each day of delay, until completion.

SC2.I For failure to complete the Work indicated in paragraph SC1I, within the number of days indicated, the Contractor will be assessed the sum of \$(( )) per day as liquidated damages, for each day of delay, until completion.

SC2.J For failure to complete the Work indicated in paragraph SC1J, within the number of days indicated, the Contractor will be assessed the sum of \$(( )) per day as liquidated damages, for each day of delay, until completion.

SC2.K For failure to complete the Work indicated in paragraph SC1K, within the number of days indicated, the Contractor will be assessed the sum of \$(( )) per day as liquidated damages, for each day of delay, until completion.

SC2.M Maximum Liquidated Damages - The maximum liquidated damages for which the Contractor will be liable will be \$(( )) per day.

SC3 DBE Goal - The District has established a combined goal for Disadvantaged Business Enterprises (DBE). This goal is the sum of the previously established DBE goal. Each reference to separate DBE throughout the specifications, including the Invitation to Bid, the Instructions to Bidders, Forms for Submittal of Bids, General Conditions Article 73, Schedule A and Schedule B, shall be amended to provide a single combined DBE Goal OR Good Faith Efforts requirement calculated by adding the prior DBE Goal and/or Good Faith Efforts requirements. The DBE goal for this Contract is (( )) percent.

SC4 SPECIALTY ITEMS - There is no Work considered a specialty item in this Contract.

SC5 FURNISHED DOCUMENTS - The District will furnish one full-size reproducible copy of the conformed Contract Drawings, 5 copies of the conformed Contract Specifications Books, and 5 conformed half-size Contract Drawings. Additional copies of the Contract Drawings and Contract Specifications Books will be furnished upon reimbursement of the cost of printing and delivery.

SC6 INCLUDED DOCUMENTS

SC6.A Insurance Specifications included in this Contract is the second edition, March 1987.

SC6.B Construction Safety and Security Manual included in this Contract is Rev. 3, April 1989.

END SPECIAL CONDITIONS

Special Conditions

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

GENERAL CONDITIONS

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

PROCUREMENT CONTRACT

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## GENERAL CONDITIONS

### 1. ABBREVIATIONS, ACRONYMS, AND DEFINITIONS

#### 1.A Abbreviations:

AA	Aluminum Association
AABC	Associated Air Balance Council
AAMA	Architectural Aluminum Manufacturers' Association
AAN	American Association of Nurserymen
AAR	Association of American Railroads
AASHTO	American Association of State Highway and Transportation Officials (successor to AASHO)
AC	Air Conditioning, Alternating Current, or Asphalt Concrete
ACI	American Concrete Institute
AFBMA	Anti-Friction Bearing Manufacturer's Association
AIA	American Insurance Association (successor to NBFU)
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AMCA	Air Movement and Control Association
ANSI	American National Standards Institute (successor to USASI and ASA)
APA	American Plywood Association
APTA	American Public Transit Association
AREA	American Railway Engineering Association
ARI	Air-Conditioning and Refrigeration Institute
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating, and Air Conditioning Engineers
ASME	American Society of Mechanical Engineers
ASPE	American Society of Plumbing Engineering
ASTM	American Society for Testing and Materials
ATSF	Santa Fe Railway
AWG	American Wire Gauge
AWPA	American Wood Preservers' Association
AWPB	American Wood Preservers' Bureau
AWPI	American Wood Preservers' Institute
AWS	American Welding Society
AWWA	American Water Works Association
Btu	British Thermal Unit
C	Celsius, Channel, or Conduit
Cal/OSHA	California Occupational Safety and Health Administration
CALTRANS	California Department of Transportation
CDRL	Contract Data Requirements List
cfm	cubic feet per minute
CFR	Code of Federal Regulations
cfs	Cubic Feet per Second
CISPI	Cast Iron Soil Pipe Institute
CLF	Current-Limiting Fuse
CM	Construction Manager
CPSC	Consumer Products Safety Council

CRSI	Concrete Reinforcing Steel Institute
CS	Commercial Standards, United States Department of Commerce
CWA	Continuation of Work Agreement
CY	Cubic Yard
dB(n)	decibel (n=weighting infrequency response)
DB	Dry Bulb
dBA	Decibel on A-Scale (Noise Levels)
DBE	Disadvantaged Business Enterprise
DC	Direct Current
DFE	District Furnished Materials and Equipment
dft	Dry Film Thickness
DOC	United States Department of Commerce
DOD	United States Department of defense
DOT or USDOT	United States Department of Transportation
DWPPS	Department of Water and Power, Power System
DWPWS	Department of Water and Power, Water System
EEl	Edison Electric Institute
EEO	Equal Employment Opportunity
EIA	Electronic Industries Association
EPA	United States Environmental Protection Agency
Est.	Estimated
F	Fahrenheit
FAR	Federal Acquisition Regulation (successor to FPR)
ft	foot, feet
FGMA	Flat Glass Marketing Association
FHWA	United States Department of Transportation Federal Highway Administration
FM	Factory Mutual
fpm	feet per minute
FRA	Federal Railroad Administration
FS	Federal Specifications
GC	General Consultant
gpm	gallons per minute
GRS	Galvanized Rigid Steel
HDBK	Handbook
HP	Horsepower
HR	Hour
HVAC	Heating, Ventilation and Air Conditioning
IACS	International Annealed Copper Standard
ICC	Interstate Commerce Commission
ICEA	Insulated Cable Engineers Association
IEEE	Institute of Electrical and Electronics Eng- ineers
IES	Illuminating Engineering Society
IMC	Intermediate Metallic Conduit
IMSA	International Municipal Signal Association
ISA	Instrument Society of America
ITB	Invitation to Bid
ITE	Institute of Transportation Engineers
JIC	Joint Industrial Council
kV	Kilovolt
kVA	Kilovoltampere
kW	Kilowatt
LACFCD	Los Angeles County Flood Control District

LACOED	Los Angeles County Fire Department
LACTC	Los Angeles County Transportation Commission
LADOT	Los Angeles Department of Transportation
LADPW	Los Angeles Department of Public Works
LAFD	Los Angeles Fire Department
MIL	Military Standardization Documents
MRB	Material Review Board
MRTC	Metro Rail Transit Consultants
MSS	Manufacturers' Standardization Society of the Valve and Fittings Industry
MUTCD	Manual on Uniform Traffic Control Devices
mVA	Millivoltampere
NAAMM	National Association of Architectural Metal Manufacturers
NACE	National Association of Corrosion Engineers
NBC	National Building Code
NBS	National Bureau of Standards
NEC	National Electrical Code
NEMA	National Electrical Manufacturer's Association
NESC	National Electrical Safety Code
NFPA	National Fire Protection Association
NLMA	National Lumber Manufacturers' Association
No.	Number
NTP	Notice to Proceed
NTSB	National Transportation Safety Board
OSHA	United States Department of Labor, Occupa- tional Safety and Health Administration; Occupational Safety and Health Act
PCA	Portland Cement Association
PCI	Prestressed Concrete Institute
PDCD	Parsons, Dillingham Construction, DeLeuw Cather
psi	pounds per square inch
psig	pounds per square inch, gauge
PUC	State of California Public Utilities Commission
QA	Quality Assurance
QC	Quality Control
RMS	Root Mean Square
rpm	revolution per minute
RTD	Rapid Transit District
SAE	Society of Automotive Engineers
SCG	Southern California Gas Company
SCRTD	Southern California Rapid Transit District
SDI	Steel Deck Institute (Division 5) or Steel Door Institute (Division 8)
SJI	Steel Joist Institute
SMACNA	Sheet Metal and Air Conditioning Contractors National Association
SMAW	Shielded Metal Arc Welding
SS	Stainless Steel
SSPC	Steel Structures Painting Council
SSPWC	Standard Specifications for Public Works Con- struction
STA	Station
TCA	Tile Council of America

TIMA	Thermal Insulation Manufacturer's Association
TTC	Transportation Test Center (AAR Test Facility at Pueblo, Colorado)
UBC	Uniform Building Code of the International Conference of Building Officials
UL	Underwriters' Laboratories, Inc.
UMTA	United States Department of Transportation, Urban Mass Transportation Administration
US	United States of America
USC	United States Code
USCE	United States Corps of Engineers
USG	United States Gypsum
USSG	United States Standard Gauge
WATCH	Work Area Traffic Control Hand Book
WB	Wet Bulb
WCLIB	West Coast Lumber Inspection Bureau

Additional abbreviations may be found on the Contract Drawings and in the Contract Specifications.

#### 1.B DEFINITIONS

Acceptance - Written documentation attesting to the act of an authorized representative of the District, by which all Work or a specific portion thereof, under the Contract has been identified as complete to the satisfaction of the District.

Addenda - Written errata, interpretations, revisions and additions to the Bid or Proposal Documents issued by the District prior to receipt of the Bids or Proposals.

Alignment - Horizontal and vertical location of a track, street or highway as described by curves, tangents and elevations.

Award - Written notification to a Contractor of acceptance by the District of its offer for the Work, subject to the execution and approval of a satisfactory Contract therefor and bond to secure the performance therefor and to such other conditions as may be specified or otherwise required by law.

Ballast - Material placed on the track bed to provide the required track stability.

Bid Documents - Invitation to Bid, Instructions to Bidders, Information Available to Bidders, unexecuted contract documents and forms for the submittal of bids.

Bid Form - A document specific to the bidding of an individual contract containing copies of the Offer Letter, Pricing Forms, List of Proposed Subcontractors, Good Faith Efforts Certificate, Buy America Certificate for Compliance, Buy America Certificate for Noncompliance, South Africa

Certificate, and Bid Bond, required to be completed and submitted by the Bidder.

Bid Security - The cashier's check, certified check or Bid Bond, accompanying the Bid submitted by the Bidder, as a guarantee that the Bidder will enter into a contract with the District for the performance of the Work and furnish acceptable bonds and insurance if the Contract is awarded to it.

Bidder - An individual, firm, partnership, corporation or combination thereof, submitting a Bid for the Work.

Change - Any alteration in the Contract Documents (plans, Specifications, Technical Provisions, and all documents made part of the Contract), method or manner of performance of the Work, equipment, materials, facilities, services, site, performance schedule, or other condition of an existing contract.

Change Notice - A document issued by the District to the Contractor specifying a proposed change to the Contract. Unless otherwise expressly stated in the Change Notice, a Change Notice is a request for proposal which may result in a Change Order.

Change Order - A document issued to the Contractor by the District modifying the Contract.

Claim - Contractor's statement of its right under the Contract to adjustment; i.e., its entitlement for which it must establish not only its right to adjustment, but also the amount of adjustment to the Contract Amount.

Construction Manager (CM) - The Joint Venture of the Ralph M. Parsons Company, Dillingham Construction, Inc., and DeLeuw, Cather and Company, doing business as PDCD, engaged by the District as the Construction Manager, and its successors, if any, acting directly or through properly authorized agents within the scope of the particular duties delegated to them by the District. Delegation of authority to the CM shall be as provided in Article 4, Authorized Representatives of the District.

Contract - The completed and executed integrated agreement entered into between the Contractor and the District, which sets forth the rights and obligations of the parties relative to the performance of the Work.

Contract Agreement - The Contract form, executed by the Contractor and the District, wherein the Contractor agrees to perform the Work delineated within the Contract Documents, for a stipulated sum (the Contract Amount) and the District agrees to pay the Contractor said stipulated sum for such performance.

Contract Documents - The completed and executed Contract Agreement, Performance Bond, General Conditions, Special Conditions, Specifications or Technical Provisions, Contract Drawings, certifications, forms, and additional documents incorporated by reference into the Contract Agreement or any other Contract Document.

Contract Drawings - The plans, profiles, typical cross sections, general cross sections, elevations, schedules and details which show configuration, general arrangement, locations, character, dimensions, and details of the Work.

Contract Milestone - An established event or occurrence that is associated with the Contract Schedule, as documented in the Procurement Specifications Book.

Contracting Officer (CO) - The person with the authority to execute the Contract and make related determinations and findings thereto on behalf of the District.

Contractor - The individual, partnership, firm, corporation, or combination thereof, private, or public, including joint ventures, which, as an independent contractor, has entered into a contract with the District, which is referred to throughout the Contract Documents by singular number.

Data - As defined in Article 63, Rights in Data.

Days - Unless otherwise designated, days mean calendar days.

District - The Southern California Rapid Transit District, or anyone designated to act on its behalf with respect to a particular subject matter, including its successors and assigns.

Equipment - A general term including material, fittings, devices, appliances, fixtures, apparatus, and the like, used in the performance of a specific function or functions.

Event - The precedent condition, such as Differing Site or Concealed Conditions, Formal Change Notice, Extra Work, Delay, Suspension, Acceleration, which must occur prior to submittal to the District by the Contractor of a notice of claim.

Execution of Contract - The validation by both the District and the Contractor of the Contract Agreement, obligating the Contractor to furnish the supplies and services and the District to pay for them.

Final Acceptance - The formal written acceptance by the District of the completed Work.

Forms for the Submittal of Bids - Documents, specific to the bidding of an individual Contract, containing copies of the

Offer Letter, Bid Form, List of Proposed Subcontractors, Good Faith Efforts Certificate, Buy America Certificates, South Africa Certificate and Bid Bond required to be completed and submitted by the Bidder.

General Conditions - The general contractual provisions which describe the contractual relationship of the parties and their rights and responsibilities to each other.

General Consultant (GC) - A joint venture comprised of the firms of Daniel, Mann, Johnson, & Mendenhall (DMJM); Parsons Brinckerhoff Quade & Douglas, Inc. (PBQD); Kaiser Engineers (California) Corporation (KE); and Harry Weese & Associates (HWA), doing business as Metro Rail Transit Consultants, engaged by the District as the General Consultant, and its successors, if any, acting directly or through properly authorized agents within the scope of the particular duties delegated to them.

Government - The Government of the United States of America.

Indicated - As shown on the Contract Drawings; as specified in the Specifications or Technical Provisions; or as required in the Contract Documents.

Installation, Install or Installing - Completely assembling, erecting and connecting material, parts, components, appliances, supplies and related equipment specified or required for the completion of the Work.

Insurance Specifications - The document specifying the insurance coverage to be provided by the District and the insurance coverage to be provided by the Contractor.

Metro Rail Project - The design, construction, manufacture, test, and initial in-service support of the Metro Rail System.

Metro Rail System - The District Heavy Rail Rapid Transit System, including right-of-way, pavement, tracks, structures, equipment, appurtenances, and other property and fixtures associated therewith.

Notice of Acceptance - Formal written acceptance by the District of the Contractor's Notice of Completion.

Notice of Award - Notice to a bidder of the acceptance of its offer and the intent to execute a contract.

Notice of Completion - Written notice from the Contractor, specifying that the Work is fully completed as specified in the Specifications.

Notice of Termination - Written notice from the District to the Contractor to stop Work under and to terminate the Contract, on the date and to the extent specified.

Notice to Proceed (NTP) - Written notice from the District to the Contractor to proceed with the Work.

Pricing Form - The form indicating the quantities to be completed by the Bidder and submitted to the District with unit bid prices and extensions, indicating the Bidder's total Bid for the Work indicated.

Procurement Specifications Book - A set of documents issued by the District for the Work, which includes the Invitation to Bid, Special Conditions, General Conditions, Technical Provisions, Contract Drawings (as applicable), Bid Forms, Contract Forms, Appendices, and other forms and exhibits identified therein.

Product Data - Manufacturer's standard drawings, shop drawings, and standard printed data which have been modified to reflect the project requirements, and supplemented with test reports, performance charts, and similar data.

Products - Materials, equipment, and fixtures to be incorporated into the Work.

Project Site - The right-of way, tracks, maintenance facilities, and all other property of the District where Work will be performed under the Contract.

Provided by Others - Work including labor, materials, equipment, tools, and supervision furnished by other than the Contractor.

Reference Drawings - Those drawings, other than the Contract Drawings, that are provided for information to the Contractor as part of the Contract Documents, which depict the major areas of system interface peculiar to the procurement.

Right-of-Way - Real property, and interests therein, acquired by the District.

Samples - Physical examples that illustrate materials, equipment, fixtures, workmanship and quality to establish standards by which the Work will be judged.

Shop Drawings - Documents furnished by the Contractor to illustrate specific portions of the Work. Shop Drawings include drawings, diagrams, illustrations, schedules, charts, brochures, tables and other data describing fabrication and installation of specific portions of the Work.

Special Conditions - Special requirements peculiar and applicable to an individual contract which supplement or modify the General Conditions.

Specifications - The directions, provisions, and requirements contained or referred to in the Procurement Specifications Book pertaining to the manner of performing to Work, or to the quantities of Work.

Standard Drawings - Drawings part of or referenced in the Contract Documents, developed for use during construction of the Metro Rail System to attain uniformity in materials, geometrics, arrangements, equipment, details, and procedures and in some instances, to express prior approval thereof by affected governmental agencies, utilities and railroads.

State - The State of California.

Subcontractor - Any individual, partnership, firm, or corporation, other than the employees of the Contractor, which contracts with the Contractor to furnish labor, material, or labor and materials, under the Contract.

Surety - The corporate body bound with and for the Contractor for the full and complete performance of the Contract and for the payment of all debts pertaining to the Work. When applying to the Performance Bond, it refers to the corporate body which acts as guarantor that the Proposer will enter into a contract with the District.

System Engineering and Analyses Consultant - The Consulting firm of Booz Allen and Hamilton, Inc., under contract to the District for special engineering services.

Technical Provisions - Requirements that set forth the details of the Work including design, performance, material, testing, methods of manufacture, and other requirements peculiar to the procurement.

Ton - Two thousand pounds avoirdupois.

Transit System - Same as Metro Rail System.

United States Department of Transportation (DOT or USDOT) - The Secretary of the United States Department of Transportation and other persons who may, at the time, be acting in the capacity of the Secretary or authorized representative or any other person authorized to perform the functions to be performed hereunder by DOT or USDOT, including representatives of the Urban Mass Transportation Administration (UMTA).

Work - The furnishing of all the labor, materials, equipment, data, services, and contractual requirements including all administrative requirements, as indicated in the

Contract Documents, including alterations, amendments, and extensions thereto made by authorized changes.

2. ENTIRE AGREEMENT - The Contract, as defined herein, constitutes the entire agreement between the District and Contractor. The parties shall not be bound by or liable for any statement, representation, promise, inducement or understanding of any kind or nature not set forth herein. No changes, amendments or modifications of any of the terms or conditions of the Contract shall be valid unless reduced to writing in accordance with the conditions of the Contract.

### 3. INTERPRETATION

3.A The documents comprising the Contract are complementary, and describe the Work. Anything mentioned in the Specifications (including General Conditions and Technical Provisions) and not shown on the Contract Drawings, or shown on the Contract Drawings and not mentioned in the Specifications, shall be of like effect as if shown in both.

3.B Wherever in the Contract the words "directed," "required," "ordered," "designated," "prescribed," or words of like import are used, it shall be understood that the "direction," "requirement," "order," "designation," or "prescription," of the District is intended and similarly words "approved," "acceptable," "satisfactory," or words of like import shall mean "approved by," or "acceptable to," or "satisfactory to" the District, unless otherwise expressly stated.

3.C Where "as shown," "as indicated," "as detailed," or words of similar import are used, it shall be understood that the reference is made to the Specifications, Technical Provisions or Contract Drawings, unless stated otherwise.

3.D References to Articles include the Subarticles under the Article referenced. For example: a reference to Article 3 is also a reference to Subarticles 3.A through 3.L.

3.E Precedence of Contract Documents - Except as provided in Subarticle 3.A, in cases of express conflict between parts of the Contract, specifications or drawings, the order of precedence shall be as follows:

Executed Contract Agreement  
Completed Forms for Submittal of Bids  
Special Conditions  
General Conditions  
Specifications/Technical Provisions  
Contract Drawings  
Reference Drawings  
Cited Codes and Standards

All Contract Documents shall take precedence over approved Contractor drawings.

- 3.F This Contract will be governed by and interpreted in accordance with the laws of the State of California.

The District will finance the Work, in part, by means of a grant under the Urban Mass Transportation Act of 1964, as amended, administered by USDOT under a capital grant between the District and the Government of the United States. The Contract shall be administered in all respects in conformity to the said grant and to the laws and regulations governing the same.

- 3.G Referenced Standards - Materials and workmanship specified by the number, symbol, or title of a referenced standard shall comply with the latest edition or revision thereof and amendments and supplements thereto in effect on the date of the Invitation to Bid except where a particular issue is indicated. Municipality, utility and railroad standards shall govern except in case of conflict with the Specifications. In case of a conflict between the Specifications and the referenced standards, the most stringent requirements shall govern.

- 3.H Explanations - Should it appear that the Work to be performed or any of the matters relative thereto are not sufficiently detailed or explained in the Contract Documents, the Contractor shall apply to the District for such further written explanations as may be necessary and shall conform to the explanation provided as part of the Contract. If doubts or questions arise regarding the true meaning of the Contract Documents, reference shall be made to the District whose decision thereon shall be final, subject to remedies under Article 40, Disputes.

- 3.I In case of differences between small- and large-scale drawings, the large-scale drawings shall govern. In the event of discrepancy between any drawing scaled dimension and the figure written thereon, the figures shall govern over scaled dimensions.

- 3.J Omissions and Misdescriptions - The Contractor shall carefully study and compare all drawings, Specifications and other instructions; shall verify all figures on the Contract Drawings before laying out the Work; shall notify the District of all errors, inconsistencies, or omissions which it may discover; and shall obtain specific instructions in writing before proceeding with the Work. The Contractor shall not take advantage of any apparent error or omission which may be found in the Contract Drawings, Specifications, or Technical Provisions, but the District shall be entitled to make such corrections therein and interpretations thereof as it may deem necessary for the fulfillment of their intent. The Contractor shall be responsible for all errors

which could have been reasonably avoided by such examination and notification, and shall correct, at its own expense, Work improperly performed through failure to notify the District and to request specific instructions. Omission from the Contract Drawings, Specifications, or Technical Provisions, or the misdescription of details of Work which are manifestly necessary to carry out the intent of the Contract Drawings or Specifications or which are customarily performed shall not relieve the Contractor from performing such omitted Work (no matter how extensive) or misdescribed details of the Work and they shall be performed as if fully and correctly set forth and described in the Contract Drawings Specifications or Technical Provisions.

3.K Severability - If any article, section, subarticle, sentence, clause or phrase contained in the Contract Documents is determined, declared, or adjudged invalid, illegal, unconstitutional or otherwise unenforceable, such determination, declaration or adjudication shall in no manner affect the other articles, sections, subarticles, sentences, clauses or phrases of the Contract Documents, which shall remain in full force and effect as if the article, section, subarticle, sentence, clause or phrase declared, determined or adjudged invalid, illegal, unconstitutional or otherwise unenforceable was not originally a part thereof.

3.L Effect of Headings - The headings and titles to provisions in these Contract Documents are for convenience only and shall not affect the rights and duties of parties to this Contract.

4. AUTHORIZED REPRESENTATIVES OF THE DISTRICT - The District will authorize representatives to perform, on behalf of the District, certain functions in the administration of the Contract. A copy of the authorization will be furnished to the Contractor upon issuance of the Notice to Proceed and revised as necessary. A list of District representatives authorized to act on behalf of the District will be furnished to the Contractor. The District shall be bound by the acts of the District employees and authorized representatives only with respect to matters delegated to them in writing.

5. NOT USED

6. JOINT AND SEVERAL LIABILITY - If the Contractor is comprised of more than one legal entity, each entity shall be jointly and severally liable under this Contract.

7. SUBCONTRACTS AND ASSIGNMENTS

7.A The Contractor shall select major subcontractors and suppliers from the list of such organizations submitted by the Contractor with its Bid or Proposal as reviewed and accepted by the District. Later additions to the list shall be specifically approved by the District.

- 7.B The Contractor shall be solely responsible for the performance of subcontractors and the fulfillment of all requirements of the Contract Documents. The District will recognize only the Contractor.
- 7.C The performance of the Work under the Contract may not be assigned except upon written consent of the District. Any unauthorized attempt to do shall be void and unenforceable. Consent will not be given to a proposed assignment which could relieve the Contractor or its surety of their responsibilities under the Contract.
- 7.D The Contractor may assign monies due or to become due to it under the Contract to the extent permitted by law and the assignment will be recognized by the District if it has received written notice of the assignment. Assignment of monies shall be subordinate to the District's rights under the Contract, subject to proper set-offs in favor of the District, and to deductions provided for in the Contract. Money withheld, whether assigned or not, shall be subject to being used by the District for the completion of the Work in the event that the Contractor is in default.
- 7.E Contractor shall insert into each and every subcontract, and ensure that there are inserted into each subcontract of any tier, each and every provision required to be in contracts or subcontracts by law, regulation, rule, or by the Contract. Not more than 15 working days after award of Contract, the Contractor shall submit to the District certification, in an acceptable form, that this requirement has been met.
8. AGENT TO ACCEPT SERVICE - The Contractor shall maintain, within the County of Los Angeles, California, an agent to accept service of legal process on its behalf, and shall keep the District advised of the agent's name and address, during the period commencing with the execution of the Contract and ending three years after final payment to the Contractor or when Contractor's warranty obligations under Article 19, Warranty, cease, whichever period terminates later.
9. INDEPENDENT CONTRACTOR - Contractor represents that it is fully experienced and properly qualified to perform the class of Work provided for in this Contract and that it is properly licensed, equipped, organized, and financed to perform the Work. Contractor is an independent contractor, is not an agent of the District in the performance of the Contract, and maintains complete control over its employees and its subcontractors. Nothing contained in this Contract or any subcontract awarded by Contractor shall create any contractual relationship between any subcontractor and the District. Contractor shall perform the Work in accordance with its own methods in compliance with the terms of the Contract.

10. MANAGEMENT BY CONTRACTOR

- 10.A The Contractor shall have a competent manager, or superintendent designated as its authorized representative, satisfactory to the District, during progress of the Work with authority to act for the Contractor.
- 10.B Before starting Work, the Contractor shall designate, in writing, the name, title, qualifications, and experience of its proposed representative and scope of its authority for approval by the District. A facsimile of the authorized representative's signature and initials shall be furnished to the District. The authorized representative or its designated substitute, acceptable to the District, shall be present at the site of the Work when Work is actually in progress on the Contract.
- 10.C The Contractor shall notify the District, in writing, when the Contractor desires to change its representative, and shall provide information, specified in the previous sub-articles of this article regarding the new proposed representative.

11. USE OF DISTRICT NAME IN CONTRACTOR ADVERTISING OR PUBLIC RELATIONS - The District reserves the right to review and approve District-related copy prior to publication. Contractor agrees not to allow District-related copy to be published in Contractor's advertisement or public relations programs until submitting the District-related copy and receiving prior written approval from the District's Department of Communications and Marketing. Contractor agrees that published information on the District or the District programs shall be factual and in no way imply that the District endorses Contractor's firm, service, or product. The Contractor shall insert the substance of this Article, including this sentence, in each subcontract and supply contract or purchase order.

12. NO DISTRICT CONTRACTS WITH SUBCONTRACTORS - No contractual relationship shall exist between the District or anyone acting on behalf of the District and the subcontractors or suppliers of the Contractor or any of their lower-tier subcontractors or suppliers with respect to the Work described in the Contract Documents.

13. GRATUITIES AND CONFLICTS OF INTEREST

- 13.A The District may, by written notice to the Contractor, terminate the right of the Contractor to proceed under the Contract if it is found that gratuities (in the form of entertainment, gifts, or otherwise) were offered or given by the Contractor, or any agent or representative of the Contractor to any director, officer or employee of the District or of any District consultants or contractors, with a view toward securing a contract or securing favorable treatment with respect to the awarding or amending or the making of any determinations with respect to the performance of such

contract. The District's determination shall be final, subject only to judicial review.

- 13.B If the Contract is terminated as provided in Subarticle 13.A the District shall be entitled to pursue the same remedies against the Contractor as it could pursue in the event of a breach of the Contract by the Contractor.
- 13.C No member, officer or employee of the District or of a local public body during the tenure of that person or for one year thereafter shall have any interest, direct or indirect, in the Contract or the proceeds thereof, but this provision shall not be construed to extend to the Contract if made with a corporation for its general benefit. A full and complete disclosure of any such interest shall be made in writing, to the other parties, even if such interest would not be considered a conflict under Section 1090 et seq. or Section 87100 et seq. of the Government Code of the State of California. "Local public body" means the State, any political subdivision of the State, or any agency of the State or any political subdivision thereof.
- 13.D No member of or delegate to the Congress of the United States of America shall be admitted to any share or part of the Contract or to any benefit arising therefrom, but this provision shall not be construed to extend to the Contract if made with a corporation for its general benefit.
- 13.E The Contractor or its employees shall not enter into any contract involving services or property with a person or business prohibited from transacting such business with the District, pursuant to Sections 1090 et seq. and 87100 et seq. of the Government Code of the State of California. To the knowledge of the District or the Contractor, no Board member, officer nor employee of the District has any interest, whether contractual, noncontractual, financial or otherwise, in this transaction, or in the business of the Contractor; and if any such transaction comes to the knowledge of either party at any time, a full and complete disclosure of such information shall be made in writing to the other party, even if such interest would not be considered a conflict under Sections 1090 et seq. or Sections 87100 et seq. of the Government Code of the State of California.
- 13.F If the Contractor, or any of its officers, partners, principals or employees are convicted of a crime arising out of or in connection with the Work to be done or payment to be made under the Contract, the Contract, in whole or any part thereof, may, at the discretion of the District, be terminated.
- 13.G The rights and remedies of the District provided in this Article are not exclusive and are in addition to any other rights and remedies provided by law or under the Contract.

13.H The Contractor shall comply with the Code of Conduct that is included as Exhibit 4 following the General Conditions. In the event of conflicts between Articles 13A through 13G and the Code of Conduct, the Code shall govern.

14. DEBARRED BIDDERS - Neither Contractor nor any officer or controlling interest holder of Contractor is currently on any debarred bidders list maintained by the United States Government or the District.

15. COVENANT AGAINST CONTINGENT FEES

15.A The Contractor warrants that no person or agency has been employed or retained to solicit or obtain the Contract upon an agreement or understanding for a contingent fee, except a bonafide employee or agency. For breach or violation of this warranty, the District may annul the Contract without liability or, in its discretion, deduct from the Contract Amount or consideration, or otherwise recover, the full amount of the contingent fee.

15.B "Bona fide agency," as used in this Article, means an established commercial or selling agency, maintained by a contractor for the purpose of securing business, that neither exerts nor proposes to exert improper influence to solicit or obtain District contracts nor holds itself out as being able to obtain any District contract or contracts through improper influence.

15.C "Bona fide employee", as used in this Article, means a person, employed by a contractor and subject to the contractor's supervision and control as to time, place, and manner of performance, who neither exerts nor proposes to exert improper influence to solicit or obtain District contracts nor holds out as being able to obtain any District contract or contracts through improper influence.

15.D "Contingent fee," as used in this Article, means any commission, percentage, brokerage, or other fee that is contingent upon the success that a person or concern has in securing a District contract.

15.E "Improper influence," as used in this Article, means any influence that induces or tends to induce a District employee or officer to give consideration or to act regarding a District contract on any basis other than the merits of the matter.

16. DOCUMENTATION

16.A All official correspondence and documentation transmitted to the District shall be in the English language.

16.B Unless stated otherwise in the Contract Documents, the District will respond to all correspondence submitted for

District action within 30 calendar days of the date the correspondence is received by the District. The District will only be bound to this period of time for review and response if the Contractor submits its documentation in accordance with the dates for submittals shown in the approved project schedule.

16.C Should the Contractor make submittals at a rate that differs from the schedule, which rate results in placing higher peak loading on the District's resources than submittals to the approved schedule would cause, the District will make its best efforts to respond within 30 days. If, however, the District is unable to respond within that period, the Contractor shall not be entitled to any extra time.

17. NOT USED

18. WORKMANSHIP AND UNAUTHORIZED WORK

18.A Workmanship - Work under the Contract shall be performed in a skillful and workmanlike manner. The District may in writing require the Contractor to remove from the work any employee the District determines incompetent, careless, or otherwise objectionable.

18.B Unauthorized Work - Work performed beyond that shown on the Contract Drawings or established by the District and extra work done without written authorization will be considered as unauthorized work and the Contractor will receive no compensation therefor. If required by the District, unauthorized work shall be remedied, removed, or replaced by the Contractor at the Contractor's expense. Upon failure of the Contractor to remedy, remove, or replace unauthorized work, the District may proceed in accordance with Article 20, Inspection.

19. WARRANTY

19.A Except where longer periods of warranty are specified in the Special Conditions, the Contractor warrants that all equipment, materials, and labor furnished or performed under the Contract shall be satisfactory for their intended purposes and shall be free of all defects in the design, materials, and workmanship for a period of one year after issuance of Notice of Acceptance, regardless of whether the same were furnished or performed by the Contractor or by any of its subcontractors of any tier. Upon receipt of written notice from the District of any defect in any such equipment, materials, or labor during the applicable warranty period, due to defective design, equipment, materials, or workmanship, the affected item or parts thereof shall be redesigned, repaired, or replaced within a time period and in a manner acceptable to the District.

19.B The Contractor shall perform such tests as the District may require to verify that such redesign, repairs, and replacements comply with the requirements of the Contract Documents. All costs associated with such redesign, repair, replacement, and testing, including the removal, replacement, and reinstallation of equipment and materials necessary to gain access shall be borne by Contractor. The Contractor warrants such redesigned, repaired, or replaced work against defective design, materials, and workmanship for the remainder of the warranty period or a period of one year from and after the date of acceptance thereof, whichever occurs later. Should the Contractor fail to promptly make the necessary redesign, repair, replacement, and test, the District may perform or cause to be performed the same at the Contractor's expense.

19.C District-owned spare parts will not be used for warranty purposes. The Contractor shall maintain a sufficient quantity of replacement parts on hand at or near the District repair facility to repair warrantable failures and defects. The security, control, shipping, and disposition of Contractor-owned parts shall be the responsibility of the Contractor.

Contractor personnel will be entitled to use District facilities and special equipment to perform warranty Work, provided that such Work is conducted during normal hours, does not interfere with other District activities, and is performed in accordance with District policies and directions. Damages to District property caused by Contractor representatives shall be the sole responsibility of the Contractor and shall be corrected at the Contractor's expense.

19.D The Contractor and its surety or sureties, shall be liable for the satisfaction and full performance of the warranties as set forth herein.

## 20. INSPECTION

20.A In addition to the inspection and test required to be performed by the Contractor, all equipment (which term throughout this Article includes without limitation raw materials, components, intermediate assemblies, and end products) shall be subject to inspection and test by the District, to the extent practicable, at all reasonable times and places, including the period of manufacture, and, in any event, prior to acceptance.

20.B If equipment is defective in material or workmanship or otherwise not in conformity with the requirements of the Contract Documents, the District shall have the right either to reject it (with or without instructions as to its disposition) or to require its correction. Equipment which has been rejected or required to be corrected shall be removed or, if permitted or required by the District, corrected

in-place by and at the expense of the Contractor, promptly after notice, and shall not thereafter be tendered for acceptance unless the former rejection or requirement of correction is disclosed. If the Contractor fails to promptly remove such supplies or lots of supplies which are required to be removed, or promptly to replace or correct such supplies or lots of supplies, the District may, either by contract or otherwise, replace or correct such supplies and charge to the Contractor the cost occasioned the District; or terminate this Contract for default, as provided in Article 44, Termination for Default. Unless the Contractor corrects or replaces such equipment within the Contract schedule, the District may require the delivery of such equipment at a reduction in price which is equitable under the circumstances. Failure to agree to such reduction of price shall be a dispute under the Article 40, Disputes.

20.C If any inspection or test is made by the District on the premises of the Contractor or a subcontractor, the Contractor shall provide all reasonable facilities and assistance for the safety and convenience of the District in the performance of its duties. All inspections and tests by the District will be performed in a manner not to unduly delay the Work. The District reserves the right to charge to the Contractor any additional cost of District inspection and test when equipment is not ready at the time such inspection and test is requested by the Contractor, or when reinspection or retest is necessitated by prior rejection. Acceptance or rejection of the equipment shall be made as promptly as practicable after delivery, except as otherwise provided in the Contract. Failure of the District to inspect and accept or reject equipment shall neither relieve the Contractor from responsibility for equipment not in accordance with the requirements of the Contract Documents, nor impose liability on the District thereto.

20.D The inspection and test by the District does not relieve the Contractor from any responsibility regarding defects or other failures to meet the requirements of the Contract Documents.

20.E The operations of the Contractor, its subcontractors and suppliers shall be subject at any time to District audit and verification of compliance to all requirements of the Contract Documents relative to practices, methods, procedures, and documentation.

21. PROGRESS PAYMENT SCHEDULE - The Contractor shall submit to the District for approval not more than 45 days after award of Contract, a detailed schedule of values to be used as a basis for determining progress payments on the Contract for any designated lump sum bid item. This schedule shall provide for payments equal in total for each lump sum bid item and be in such form and in sufficient detail to satisfy the District that it reasonably apportions payment of the lump sum amount.

22. PAYMENT

22.A The Contractor shall submit its progress payment request to the District for payment, no later than the 25th of each month. Invoices shall be of a format acceptable to the District. The District will make partial payment to the Contractor within 30 days after receipt of and based on the progress payment request as approved by the District. Approval of requests for payment is subject to District verification of the accuracy of the data presented. Said verification will be accomplished by whatever reasonable means the District deems necessary. The District will retain ten percent of the amount of each request as partial security for the fulfillment of the Contract by the Contractor unless otherwise specified by applicable law. However, the total amount retained will not exceed five percent of the total Contract Price. Monies shall be retained until the District has given final acceptance to the Contractor's Notice of Completion.

22.B Funds retained by the District as security for the Contractor's full and faithful performance of the Contract may be released to the Contractor upon District acceptance of a substitute security offered by the Contractor pursuant to and in accordance with the provisions of California Government Code Section 4590.

22.C Whenever the Work is substantially complete, the District, at its sole discretion, if it considers the amount retained to be in excess of the amount adequate for the protection of the District, may release to the Contractor all or a portion of such excess amount.

22.D With each invoice submitted (except the initial invoice), the Contractor shall provide a certification that it has paid to its subcontractors that portion of funds received from the District to which they are entitled by the terms of their contracts. The Contractor shall promptly provide documentary evidence to substantiate the certification, if the District requests same.

23. NOT USED

24. CONTRACT PRICES - BID FORMS

24.A Payment for the various Bid Items listed in the Bid Forms shall constitute full compensation for the Work described in the Contract Documents. Costs of Work shown or indicated in the Contract Documents not separately stated as a Bid Item in the Bid Forms, shall be included in the most appropriate Bid Item price. The Contractor will not be entitled to additional compensation for providing an activity or material necessary for the completion of the Work in accordance with the Contract, even though the activity or material is not included in a specific Bid Item or indicated in Contract

Documents, unless the activity or material is covered by a Change Order.

24.B Payments for the various Bid Items listed in the Bid Forms will constitute full compensation for expenses incurred in consequence of discontinuance of all or any portion of the Work, except as otherwise provided in the Contract Documents. In no event will compensation be made for anticipatory profits or consequential damages as a result of a discontinuance of all or any portion of the Work.

## 25. AUDIT AND INSPECTION

25.A Cost or Pricing Data - If the Contractor has submitted cost or pricing data in connection with the pricing of any modification to the Contract, unless the pricing was based on adequate price competition, established catalog or market prices of commercial items sold in substantial quantities to the general public, or prices set by law or regulation, each agency listed in Subarticle 25.B shall have the right to examine and audit all books, records, documents, and other data of the Contractor (including computations and projections) related to negotiating, pricing or performing the modification, in order to evaluate the accuracy, completeness, and currency of the cost or pricing data.

25.B Availability - The Contractor shall make available to authorized representatives of the City of Los Angeles, the County of Los Angeles, Southern California Rapid Transit District, the California Department of Transportation, the U.S. Department of Transportation and the Comptroller General of the United States at its office at all reasonable times, to inspect, audit or reproduce, the materials described in Subarticle 25.A, until three years after the final payment or, if the Contract is terminated in whole or in part, until three years after final termination settlement. Records pertaining to appeals under Article 40, Disputes, or to litigation or the settlement of claims arising under or relating to the performance of this Contract shall be made available until disposition of the appeals, litigation, or claims. Contractor shall insert a clause substantially similar to this clause in all subcontracts of any tier.

## 26. FINAL PAYMENT

26.A After the Work has been accepted by District, subject to the provisions of Article 19, Warranty and Article 31, Notice of Completion and Final Acceptance, a final payment will be made as follows:

26.A.1 The Contractor shall prepare and submit a final invoice which shall contain a complete itemized listing of progress payment invoices by number, date, gross amount, retention amount, and the total amount of sums retained and

due. It shall also contain, or be supported by, a written Notice of Acceptance of the Work signed by the District for purposes of final payment and a final payment certification.

26.A.2 The District shall not be obligated to make final payment to the Contractor until the Contractor has delivered to the District a certificate and release satisfactory to the District stating that the Contractor has fully performed under the Contract, that all Contractor claims for the Work are satisfied upon the making of such final payment, and that no property used in connection with the Work is subject to any unsatisfied lien or claim as a result of the performance of the Work.

26.A.3 Unless otherwise specified by law, final payment will be made when the District concurs with the final invoice and documents, but not less than 35 calendar days after acceptance of the Contractor's Notice of Completion. In the event of disagreement on the amount of final payment, payment will be made within 10 calendar days after written concurrence with any amendments to the final invoice and documents, but not earlier than the 35 calendar days.

27. NOTICE TO PROCEED - The District will issue a Notice to Proceed (NTP) to the Contractor within 30 days after the Contractor has executed the Contract and has delivered the specified bond and Certificates of Insurance. Except as specifically authorized in writing by District, the Contractor is not authorized to perform Work under the Contract until the effective date of the NTP. Within ten days after the effective date of such NTP, the Contractor shall commence Work and shall diligently prosecute the Work to completion within the time limits specified.

#### 28. PROGRESS SCHEDULE

28.A The Contractor shall submit a progress schedule, as indicated, to the District for approval.

28.B If the Contractor fails to submit either the schedule within the time prescribed or the updated schedule at the required monthly intervals, the District may withhold approval of progress payments until such time as the Contractor submits the required schedules.

28.C If the Contractor falls behind the approved progress schedule, the Contractor shall take appropriate and necessary steps to improve its progress. The District, in this instance, may withhold progress payments until scheduled progress is regained or may require the Contractor to increase the number of shifts, initiate or increase overtime operations, or increase days of work in the work week. The District may also require the Contractor to submit for approval supplemental progress schedules detailing the specific changes to be instituted to meet the approved schedule. Steps taken by the District to require Contractor to meet

its schedule shall not constitute a change and shall be at no additional cost to the District, except as otherwise provided in the Contract.

28.D Early Completion Schedules - This Subarticle applies to all schedules submitted by the Contractor, including but not limited to the original schedule or any updated schedules as described elsewhere in this Article.

28.D.1 The Contractor may submit for approval a schedule or updated schedule which reasonably plans completion of one or more contractual milestones earlier than required by the Contract. The District reserves the right to reject the early planned completion for any reason, including but not limited to District's convenience, and the Contractor shall have no claim for additional compensation based on any such rejection.

28.D.2 District approval of a Contractor's early completion schedule shall be subject to the terms and conditions as specified by the District. Such terms and conditions and the changes to the contractual milestones shall be implemented by execution of Change Order(s) as provided for in the Contract.

28.E Failure of the Contractor to comply with these requirements shall be grounds for determination by the District that the Contractor is not prosecuting the Work with the diligence necessary to complete the Work within the time specified. Upon such determination, the District may terminate the Contractor's right to proceed with the Work, or any separate part thereof, in accordance with Article 44, Termination for Default.

## 29. LIQUIDATED DAMAGES

29.A Time is of the essence in the Contract. If the Work, and specified portions of the Work, are not completed within the number of calendar days set forth in the Special Conditions as may be revised by Change Order, damage will be sustained by the District, and it is and will be impracticable or extremely difficult to ascertain the actual damage which the District will sustain. Damage to the District in the case of failure by the Contractor to complete specified portions of Work within the time as required therefor by the terms of the Contract will include, but not be limited to, the following:

29.A.1 Increased costs of Contract administration;

29.A.2 Delays and cost increases to other Contractors, resulting in damages to the District; and

29.A.3 Loss of revenue.

29.B If there is a delay, the Contractor shall pay to the District the amount set forth in the Special Conditions as liquidated damages, in lieu of actual damages, and not as a penalty, for each day's delay or fraction thereof in completion of the Work and specified portions of the Work, in excess of the number of days specified. The District may deduct the sum of liquidated damages from monies due or which become due the Contractor, or, if such monies are insufficient, the Contractor shall pay to the District the deficiency. The remedies provided herein are not exclusive and are in addition to other rights and remedies provided by law or under the Contract.

30. NOT USED

31. NOTICE OF COMPLETION AND FINAL ACCEPTANCE

31.A When Contractor determines that the Work is fully completed, including satisfactory completion of inspections, tests and documentation specified in the Contract Documents, Contractor shall, within ten working days thereafter, give a written Notice of Completion specifying the Work completed and the date it was completed. Within 30 calendar days after receipt of the Notice of Completion, District shall inspect the Work and shall either reject the Notice of Completion and specify defective or uncompleted portions of the Work, or shall issue the Contractor a written Notice of Acceptance for the purposes of final payment and final acceptance.

31.B If the District rejects the Notice of Completion and specifies defective or uncompleted portions of the Work, Contractor shall promptly remedy the defective and uncompleted portions of the Work. Thereafter, Contractor shall again give District a written Notice of Completion of the Work, specifying a new date for the completion of the Work, based upon the date the defective or uncompleted portions of the Work were corrected. The foregoing procedure shall apply again, and successively thereafter, until District has given Contractor written Notice of Acceptance for purposes of final payment, final acceptance, and the commencing of the warranty period.

31.C Any failure by District to inspect or to reject the Work or to reject Contractor's Notice of Completion as set forth above, shall not be deemed to be acceptance of the Work for any purpose by District nor imply acceptance of, or agreement with, Contractor's Notice of Completion.

32. EXTENSION OF TIME

32.A The Contractor will be granted an extension of time by Change Order and will not be assessed liquidated damages for any portion of a delay in completion of the Work beyond the time specified in the Contract arising from failure of the District to furnish access to the work site as specified,

acts of God, acts of the public enemy, fires, floods, earthquakes, epidemics, quarantine restrictions, strikes and labor disputes, freight embargoes, or weather substantially more severe than the norm, provided that the aforesaid causes were not foreseeable and did not result from the fault or negligence of the Contractor, and provided further that the Contractor has taken reasonable precautions to prevent further delays arising from such causes, and has notified the District in writing of the cause or causes of delay within five days from the beginning of any such delay. Within 30 days after the end of the delay, the Contractor shall furnish the District with detailed information concerning the causes and circumstances of the delay, the number of days actually delayed, the appropriate Contract references, and the measures taken to prevent or minimize the delay. Failure to submit all such information within the 30-day period will be sufficient cause for denying the delay claims. The District will ascertain the facts and the extent of the delay, and its findings thereon will be final and conclusive, subject to provisions of Article 40, Disputes. Neither a delay nor an extension of time granted pursuant to this Subarticle 32.A shall be the basis of a claim for additional compensation or damages, and no damages or costs of any kind or nature will be paid for any delay or extension of time. Time extensions must be approved by the District prior to the interim or final completion date being extended.

32.A.1 An extension of time shall not be granted for a delay caused by a shortage of materials, except DFE, unless the Contractor furnishes to the District documentary proof that it has diligently made every effort to obtain such materials from every known source within reasonable reach of the Work. The Contractor shall also submit proof that the inability to obtain such materials when originally planned did in fact cause a delay in final completion of the Work, which could not be avoided by revising its schedule. Only the physical shortage of material shall be considered under these provisions as a cause for extension of time. No consideration shall be given to any claim that material could not be obtained at a reasonable, practical, or economical cost, unless it is shown to the satisfaction of the District that the material could have been obtained only at exorbitant prices, entirely inconsistent with current rates, taking into account the quantities involved and the usual practices in obtaining such quantities.

### 33. STOP WORK ORDER

#### 33.A Notice

33.A.1 The District may, at any time, by written order to the Contractor, require the Contractor to stop all or any part of the Work called for by the Contract, for a period of up to 90 days and for any further period to which the

parties may agree. Any such order will be specifically identified as a Stop Work Order, issued pursuant to this Article. As a minimum, any such Stop Work Order shall include the following written information:

33.A.1.a A clear description of the Work to be suspended;

33.A.1.b Instructions regarding Contractor's purchased materials and services;

33.A.1.c Guidance as to action to be taken on subcontracts;

33.A.1.d Other suggestions to the Contractor for minimizing cost.

33.A.2 Upon receipt of such order, the Contractor shall immediately comply with its terms and take all reasonable steps to minimize the incurrence of costs allocable to the Work covered by the order during the period of Work stoppage. Within the period of the Stop Work Order, or within any extension of that period to which the parties shall have agreed, the District shall either:

33.A.2.a Cancel the Stop Work Order, or

33.A.2.b Terminate the Work covered by such order.

33.B Cancellation of Stop Work - If a Stop Work Order issued under this Article is canceled or the period of the order or any extension thereof expires, the Contractor shall resume the Work. An equitable adjustment to the Contract shall be made if:

33.B.1 The Stop Work Order results in an increase in the time required for or in the Contractor's cost properly allocable to the performance of any part of the Contract, and

33.B.2 The Contractor submits a claim for such adjustment within 30 days after the Stop Work Order is canceled.

33.C Termination - If a Stop Work Order is not canceled and the Work covered by such order is terminated, the reasonable costs resulting from the Stop Work Order shall be allowed in arriving at the termination settlement.

#### 34. CHANGES

34.A Directed Changes - The District may at any time, without notice to the sureties, if any, by written order designated or indicated to be a Change Order, make any change in the Work within the general scope of the Contract, including but not limited to changes:

- 34.A.1 In the Specifications (including Technical Provisions, drawings, and designs);
- 34.A.2 In the method or manner of performance of the Work;
- 34.A.3 In the District-furnished facilities, equipment, materials, services, or site;
- 34.A.4 Directing acceleration in the performance of the Work; or
- 34.A.5 Resulting from approved cost reduction incentive proposals submitted by the Contractor.
- 34.B Any other written or oral order (which shall include direction, instruction, interpretation, or determination) from the District, which causes a change, shall be treated as a Directed Change under this Article, provided that the Contractor gives the District written notice stating the date, circumstances, and source of the order and stating that the Contractor regards the order as a Directed Change, subject to District concurrence.
- 34.C Except as herein provided, no order, statement, or conduct of the District shall be treated as a Directed Change under this Article or entitle the Contractor to an equitable adjustment hereunder.
- 34.D If any Directed Change under this Article causes an increase or decrease in the Contractor's cost of or the time required for the performance of any part of the Work under the Contract, whether or not changed by any such order, an equitable adjustment shall be made and the Contract modified in writing accordingly. Upon receipt of any Directed Change under this Article, the Contractor shall proceed with the Work as directed.
- 34.D.1 Except for claims based on defective Specifications, no claim for any change under Subarticle 34.B shall be allowed for any costs or delays incurred more than 20 days before the Contractor gives written notice as therein required, provided that, in the case of defective Specifications for which the District is responsible, the equitable adjustment shall include any increased cost reasonably incurred by the Contractor in attempting to comply with such defective Specifications.
- 34.D.2 If the Contractor intends to assert a claim for an equitable adjustment under this Article, it shall, within 30 days after receipt of a written Change Order under Subarticle 34.A or the furnishing of a written notice under Subarticle 34.B, submit to the District a written statement setting forth detailed cost and schedule adjustments, unless this period is extended by the District. The statement of

claim hereunder may be included in the notice under Subarticle 34.B.

34.E Proposed Changes - In addition to Directed Changes as specified under Subarticles 34.A through 34.D, changes within the general scope of the Contract may be proposed by the District, by the issuance of a Change Notice. The Contractor may also propose changes. In either case, the Contractor shall prepare and submit a detailed proposal of cost and schedule adjustments to the District, within 30 days.

If the Contractor's proposal is accepted in whole or in part, such acceptance shall be implemented by the issuance of a Change Order.

34.F If the Contractor claims cost and schedule adjustment for a Directed Change or a Proposed Change, the District and the Contractor shall negotiate an equitable adjustment.

34.G Any claim for an equitable adjustment in compensation under this Article shall be in sufficient detail to permit a cost or price analysis of all material, labor, equipment, and subcontract costs and shall cover all Work involved, whether such Work was deleted, added, or changed. The District shall be the sole judge of the adequacy of the pricing data. Any amounts requested for subcontractors shall be supported by a similar price breakdown.

For any change to the Contract involving aggregate increases or decreases in costs, including applicable profits, of more than \$100,000, except any change for which the price is based on adequate price competition, based on established catalog or market prices of commercial items sold in substantial quantities to the general public, or set by law or regulation, the Contractor shall submit a Certificate of Current Cost or Pricing Data. In this certificate, the Contractor shall certify that, to the best of its knowledge, the cost or pricing data furnished or identified in the Contractor's request for adjustment are accurate, current, and complete, as of the date the Contract is amended for said adjustment.

In addition, any claim for equitable adjustment in time of performance shall be accompanied by a revised progress schedule, with justification therefor.

34.H No claim by the Contractor for an equitable adjustment hereunder shall be allowed, if asserted after final payment under the Contract.

#### 35. COST REDUCTION INCENTIVE

35.A The Contractor may submit to the District, in writing, proposals for modifying the plans, specifications or other requirements of the Contract for the sole purpose of

reducing the total cost of construction. The cost reduction proposal shall not impair, in any manner, the essential functions or characteristics of the project, including but not limited to service life, quality, economy of operation, ease of maintenance, desired appearance, or design and safety standards.

35.B Cost reduction proposals shall contain the following information:

35.B.1 A description of both the existing Contract requirements for performing the Work and the proposed changes.

35.B.2 An itemization of the Contract requirements that must be changed if the proposal is adopted.

35.B.3 A detailed estimate of the cost of performing the Work under the existing Contract and under the proposed change. These estimates of cost shall be determined in the same manner as if the Work were to be paid for as a Change pursuant to the provisions of this Article.

35.B.4 A statement of the time within which the District must make a decision thereon.

35.B.5 The Contract items of Work affected by the proposed changes, including any quantity variation attributable thereto.

35.C The provisions of this Subarticle shall not be construed to require the District to consider any cost reduction proposal which may be submitted hereunder; proposed changes in basic design of an element will not be considered as an acceptable cost reduction proposal; the District will not be liable to the Contractor for failure to accept or act upon any cost reduction proposal submitted pursuant to this Subarticle nor for any delays to the Work attributable to any such proposal. If a cost reduction proposal is similar to a change in the plans or specifications under consideration by the District for the project at the time said proposal is submitted or if such a proposal is based upon or similar to the Contract Documents or a Change Order adopted by the District after the advertisement for the Contract, the District will not accept such proposal and the District reserves the right to make such changes without compensation to the Contractor under the conditions of this Article.

35.D The Contractor shall continue to perform the Work in accordance with the requirements of the Contract until an executed Change Order, incorporating the cost reduction proposal, has been issued. If an executed Change Order has not been issued by the date upon which the Contractor's cost reduction proposal specifies that a decision thereon should be made or such other date as the Contractor may subsequently

have specified in writing, such cost reduction proposal shall be deemed rejected.

- 35.E The District shall be the sole judge of the acceptability of a cost reduction proposal and of the estimated net savings in costs from the adoption of all or any part of such proposal. In determining the estimated net savings, the right is reserved to disregard the Contract bid prices if, in the judgment of the District, such prices do not represent a fair measure of the value of Work to be performed or to be deleted.
- 35.F The District reserves the right, where it deems such action appropriate, to require the Contractor to share in the District's costs of investigating a cost reduction proposal submitted by the Contractor, as a condition of considering such proposal. Where such a condition is imposed, the Contractor shall indicate its acceptance thereof in writing, and such acceptance shall constitute full authority for the District to deduct amount payable to the District from any monies due or that may become due to the Contractor under the Contract.
- 35.G If the Contractor's cost reduction proposal is accepted in whole or in part, such acceptance shall be by a Change Order, which shall specifically state that it is executed pursuant to this Subarticle. Such Change Order shall incorporate the changes in the Contract Documents which are necessary to permit the cost reduction proposal, or such part of it as has been accepted, to be put into effect and shall include any conditions upon which the District's approval thereof is based, if the approval of the District is conditional. The Change Order shall also set forth the estimated net savings in costs attributable to the cost reduction proposal effectuated by the Change Order and shall further provide that the Contractor be paid 50 percent of said estimated net savings amount. The Contractor's cost of preparing the cost reduction incentive proposal and the District's costs of investigating a cost reduction incentive proposal, including any portion thereof paid by the Contractor, shall be excluded from consideration in determining the estimated net savings in costs.
- 35.H Acceptance of the cost reduction proposal and performance of the Work thereunder shall not extend the time of completion of the Contract, unless specifically provided for in the Change Order authorizing the use of the cost reduction proposal.
- 35.I The amount specified to be paid to the Contractor in the Change Order which effectuates a cost reduction proposal shall constitute full compensation to the Contractor for the cost reduction proposal and the performance of the Work thereof pursuant to the said Change Order.

35.J The District expressly reserves the right to adopt a cost reduction proposal for general use on the contracts administered by the District when it determines that said proposal is suitable for application to other contracts. When an accepted cost reduction proposal is adopted for general use, only the Contractor which first submitted such proposal will be eligible for compensation pursuant to this Article, and, in that case, only as to those contracts awarded to it prior to submission of the accepted cost reduction proposal and as to which such cost reduction proposal is also submitted and accepted. Cost reduction proposals identical or similar to previously submitted proposals will be eligible for consideration and compensation under the provisions of this Subarticle, if the identical or similar previously submitted proposals were not adopted for general application to other contracts administered by the District. Subject to the conditions contained herein, the District or any other public agency shall have the right to use all or any part of any submitted cost reduction proposal without obligation or compensation of any kind to the Contractor.

36. NOT USED

37. PRICE REDUCTION FOR DEFECTIVE COST OR PRICING DATA

37.A Contractor

37.A.1 This Subarticle applies to any modification to the Contract involving aggregate increases and/or decreases in costs, plus applicable profits of more than \$100,000 except any modification for which the price is:

37.A.1.a Based on adequate price competition;

37.A.1.b Based on established catalog or market prices of commercial items sold in substantial quantities to the general public; or

37.A.1.c Set by law or regulation.

37.A.2 If any price, including profit, negotiated in connection with any modification under this Article, was increased by any significant amount because:

37.A.2.a The Contractor or a subcontractor furnished cost or pricing data that were not complete, accurate, and current as certified in its Certificate of Current Cost or Pricing Data,

37.A.2.b A subcontractor or prospective subcontractor furnished the Contractor cost or pricing data that were not complete, accurate, and current as certified in the Contractor's Certificate of Current Cost or Pricing Data, or

37.A.2.c Any of these parties furnished data of any description that were not accurate,

the price shall be reduced accordingly, and the Contract shall be modified to reflect the reduction. This right to a price reduction shall be limited to that resulting from defects in data relating to modifications for which this clause becomes operative under Subarticle 37.A.1.

37.A.3 Any reduction in the Contract Amount under Subarticle 37.A.2 due to defective data from a prospective subcontractor that was not subsequently awarded the subcontract shall be limited to the amount, plus applicable overhead and profit markup, by which the actual subcontract cost estimate submitted to the Contractor was in error, provided that the actual subcontract price was not itself affected by defective cost or pricing data.

### 37.B Subcontractor

37.B.1 The requirements of Subarticles 37.B.2 and 37.B.3 shall become operative only for any modification to the Contract involving aggregate increases or decreases in costs, including applicable profits, expected to exceed \$100,000 and shall be limited to such modifications.

37.B.2 Before awarding any subcontract expected to exceed \$100,000 when entered into or pricing any subcontract modification involving aggregate increases or decreases in costs, including applicable profits, expected to exceed \$100,000, the Contractor shall require the subcontractor to submit cost or pricing data (actually or by specific identification in writing), unless the price is:

37.B.2.a Based on adequate competition;

37.B.2.b Based on established catalog or market prices of commercial items sold in substantial quantities to the general public; or

37.B.2.c Set by law or regulation.

37.B.3 The Contractor shall require the subcontractor to certify in substantially the form prescribed in Subsection 15.804-4 of the Federal Acquisition Regulation that, to the best of its knowledge and belief, the data submitted under Subarticle 37.B.2 above were accurate, complete and current as of the date of agreement on the negotiated price of the subcontract or subcontract modification.

37.B.4 The Contractor shall insert the substance of this Subarticle 37.B into each subcontract that exceeds \$100,000 when entered into.

37.C Contract cost shall be reviewed in accordance with UMTA guidelines and Federal Acquisition Regulation, Part 31. Final authority for determination of allowableness shall rest with the District.

38. NOT USED

39. CLAIMS

39.A Notice of Claim

39.A.1 The Contractor shall not be entitled to additional compensation otherwise payable for any act or failure to act by District, the occurrence of any event or any other cause, unless it shall have given the District a written notice of claim within five working days after the occurrence of the act or event.

39.A.2 The notice of claim shall set forth the reasons the Contractor believes additional compensation is or will be due, the nature of the costs involved, and, insofar as possible, the amount of the claim. If based on an act or failure to act by the District, the written notice shall be given to the District prior to the time that the Contractor has started performance of Work giving rise to the claim for additional compensation.

39.B Submittal of Claims

39.B.1 Claims shall be filed by the Contractor within 30 days after the occurrence of the event and shall be in sufficient detail to enable the Contracting Officer (CO) to ascertain the basis and amount of the claims. The Contractor shall furnish, when requested by the CO, further information and details required to determine the facts or contentions involved in the claims. Failure to submit the information and details will be sufficient cause for denying the Contractor's claims.

39.B.2 Each claim the Contractor makes for equitable adjustment on account of delay for any cause shall be accompanied by a revised progress schedule, in such detail as is required by the CO, reflecting the effects of the delay and proposals to minimize the effects. If no analysis of the progress schedule has been previously submitted to the CO reflecting conditions prior to and after the delay for which relief is sought, then such an analysis reflecting those conditions shall be prepared and submitted with the claim. Failure to submit the analysis will be sufficient cause for denying the Contractor's claim.

39.B.3 Contractor shall comply with all applicable additional submittal requirements and conditions which are required elsewhere in the Contract.

39.B.4 In no event shall claims be made after final payment under the Contract.

39.B.5 Contractor shall continue to perform the Work during the pendency of the claim.

39.B.6 No claim for which a notice of claim is required shall be considered, unless the Contractor has complied with the notice requirement or the Contractor submits with its claim a showing that the CO has not been prejudiced by the Contractor's failure to so comply. In the event the CO has been prejudiced by the Contractor's failure to submit a timely notice of claim, the CO may reduce any equitable adjustment claimed by the Contractor to the extent of the damage. A claim not filed within the 30-day time limit will not be considered, unless the Contractor obtained an extension of time in writing from the CO to file a late claim.

39.B.7 Adjustment in the Contract Amount or Schedule arising out of a claim shall be effective only if expressly agreed to by the CO by the issuance of a Change Order.

#### 40. DISPUTES

40.A If a dispute arises, every effort shall be made to resolve the dispute through negotiation. However, in the absence of settlement, the District may, upon its own initiative or promptly upon the written request of the Contractor, make a determination thereof, and such determination shall immediately be complied with by the Contractor, pending resolution pursuant to the provisions of Subarticle 40.B.

40.B Each determination made by the District pursuant to Subarticle 40.A shall be set forth in a written notice thereof to the Contractor and, within 30 days after the receipt of such notice, the Contractor shall respond to the District, in writing, either accepting the determination or stating in general terms the Contractor's factual or legal objections to the determination. If the response is an objection to the determination, the District shall respond, in writing, to the response within 30 days after District receipt thereof. Contractor's failure to respond to the District's determination within the 30-day period shall be deemed an acceptance thereof. No further responses by either party shall be required. Thereafter, either party may seek a judicial determination of a dispute, except when the Contractor accepts the District's determination or fails to respond to the District's determination within the 30-day time limit. Neither the District's determination, nor either party's response, nor the continued performance of the Contract shall constitute an admission as to any factual or legal position in connection with the dispute or a waiver of rights under the Contract or at law.

40.C Disputes subject to this Article shall be governed by California law. However, to ensure that the Contract is performed in all respects in compliance with the provisions of all capital grants between the District and the United States Government relating to this Contract, and with the laws and regulations governing such grants and the relationship between the District and the United States Government in all other respects, questions arising in connection therewith shall be governed by the applicable Federal law.

41. NOT USED

42. NOT USED

43. TERMINATION FOR CONVENIENCE

43.A The performance of Work under the Contract may be terminated by the District in accordance with this Article, in whole or, from time to time, in part, whenever such termination is in the best interest of the District. Such termination shall be effected by delivery to the Contractor of a Notice of Termination specifying the extent to which performance of Work under the Contract is terminated and the date upon which such termination is effective.

43.B After receipt of a Notice of Termination, except as otherwise directed by the District, the Contractor shall:

43.B.1. Stop Work under the Contract on the date and to the extent specified in the Notice of Termination;

43.B.2 Place no further orders or subcontracts for materials, equipment, services, or facilities, except that which are necessary to complete the portion of the Work under the Contract which is not terminated;

43.B.3 Terminate all orders and subcontracts to the extent that they relate to the performance of Work terminated by the Notice of Termination;

43.B.4 Assign to the District, in the manner, at the times, and to the extent directed by it, all of the right, title, and interest of the Contractor in the orders and subcontracts affected by the termination. The District may, in its discretion, settle or pay any or all claims arising out of the termination of such orders and subcontracts;

43.B.5 Settle outstanding liabilities and claims arising out of the termination of orders and subcontracts with the approval or ratification of the District, to the extent it requires, which approval or ratification shall be final for the purposes of this Article;

43.B.6 Transfer title and deliver to the District, in the manner, at the times, and to the extent, if any, directed by it,

43.B.6.a The fabricated or unfabricated parts, Work in process, completed Work, supplies and other material procured as a part of or acquired in connection with the performance of the Work terminated by the Notice of Termination, and

43.B.6.b The completed or partially completed plans, drawings, information, and other property which, if the Contract had been completed, would have been required to be furnished to the District.

43.B.7 Use best efforts to sell, in the manner, at the times, to the extent, and at the price or prices directed or authorized by the District, property of the types referred to in Subarticle 43.B.6; provided, however, that the Contractor

43.B.7.a Shall not be required to extend credit to any purchaser, and

43.B.7.b May acquire any such property under the conditions prescribed by and at a price or prices approved by the District.

43.B.8 The proceeds of any transfer or disposition of property of the types referred to in Subarticle 43.B.6 shall be applied in reduction of any payments to be made by the District to the Contractor under the Contract or shall otherwise be credited to the price or cost of the Work covered by the Contract or paid in such other manner as the District may direct;

43.B.9 Complete performance of each part of the Work which is not terminated by the Notice of Termination; and

43.B.10 Take action necessary or as the District directs to protect and preserve the property related to the Contract which is in the possession of the Contractor and in which it has or may acquire an interest.

43.C After receipt of a Notice of Termination, the Contractor shall submit to the District its termination claim, in the form and with certification prescribed by the District. Such claim shall be submitted promptly, but, in no event, later than one year after the effective date of termination, unless one or more extensions in writing are granted by the District upon request of the Contractor made in writing within such one-year period or authorized extension thereof. However, if the District determines that the facts justify such action, it may receive and act upon any such termination claim at any time after the one-year period or any

extension thereof. Upon failure of the Contractor to submit its termination claim within the time allowed, the District may determine, on the basis of information available, the amount, if any, due the Contractor by reason of the termination and may thereupon pay the Contractor the amount so determined.

43.D Subject to the provisions of Subarticle 43.C, the Contractor and the District may agree upon the whole or any part of the amount or amounts to be paid to the Contractor by reason of the total or partial termination of Work pursuant to this Article, which amount or amounts may include an allowance for profit on Work done; provided that such agreed amount or amounts, exclusive of settlement costs, shall not exceed the total Contract Amount, as reduced by the amount of payments otherwise made and as further reduced by the Contract Amount of Work not terminated. The Contract will be amended accordingly, and the Contractor will be paid the agreed amount. Nothing in Subarticle 43.E, prescribing the amount to be paid to the Contractor in the event of failure of the Contractor and the District to agree upon the whole amount to be paid to the Contractor by reason of the termination of Work pursuant to this Article, shall be deemed to limit, restrict, or otherwise determine or affect the amount or amounts which may be agreed upon to be paid to the Contractor pursuant to this Subarticle.

43.E If the Contractor and the District fail to agree, as provided in Subarticle 43.D, upon the whole amount to be paid the Contractor by reason of the termination of Work pursuant to this Article, the District shall pay the Contractor the amounts determined by the District as follows, but without duplication of any amounts agreed upon in accordance with Subarticle 43.D:

43.E.1 With respect to Contract Work performed prior to the effective date of the Notice of Termination, the total (without duplication of any items) of:

43.E.1.a The cost of such Work;

43.E.1.b The cost of settling and paying claims arising out of the termination of Work under subcontracts or orders as provided in Subarticle 43.B.5, exclusive of the amounts paid or payable on account of supplies or materials delivered or services furnished by the subcontractor prior to the effective date of the Notice of Termination of Work under the Contract, which amounts shall be included in the cost on account of which payment is made under Subarticle 43.E.1.a;

43.E.1.c A sum, as profit on the cost of such Work, determined by the District to be fair and reasonable; provided, however, that, if it appears that the Contractor would have sustained a loss on the entire Contract

had it been completed, no profit shall be included or allowed under this Subarticle, and an appropriate adjustment shall be made by reducing the amount of the settlement to reflect the loss.

43.E.2 The reasonable cost incurred to preserve and protect property pursuant to Subarticle 43.B.10 and any other reasonable cost incidental to termination of Work under the Contract, including expense incurred to determine the amount due to the Contractor as the result of the termination of Work under the Contract.

43.E.3 The total sum to be paid to the Contractor under Subarticle 43.E.1 will not exceed the Contract Amount, as reduced by the amount of payments otherwise made and as further reduced by the Contract Amount of Work terminated. Except for normal spoilage and except to the extent that the District has expressly assumed the risk of loss, there will be excluded from the amounts payable to the Contractor under Subarticle 43.E.1, the fair value, as determined by the District, of property which is destroyed, lost, stolen, or damaged so as to become undeliverable to the District or to a buyer pursuant to Subarticle 43.B.7.

43.F In arriving at the amount due the Contractor under this Article, there will be deducted:

43.F.1 The amount of any claim which the District has against the Contractor in connection with the Contract; and

43.F.2 The agreed price for or the proceeds of sale of materials, supplies, or other things acquired by the Contractor or sold, pursuant to the conditions of this Article, and not otherwise recovered by or credited to the District.

43.G If the termination hereunder is partial, prior to the settlement of the terminated portion of the Contract, the Contractor may file with the District a request in writing for an equitable adjustment of the price or prices specified in the Contract relating to the continued portion of the Contract (the portion not terminated by the Notice of Termination), and an equitable adjustment may be made in the price or prices.

43.H The District may, from time to time, under terms and conditions it prescribes, make partial payments and payments on account against costs incurred by the Contractor in connection with the terminated portion of the Contract, whenever, in the opinion of the District, the aggregate of payments does not exceed the amount to which the Contractor is entitled. If the total of the payments is in excess of the amount finally agreed or determined to be due under this Article, the excess shall be paid by the Contractor to the District upon demand, together with interest at the rate of ten percent per annum for the period from the date the

excess payment is received by the Contractor to the date on which the excess payment is repaid to the District.

43.I The Contractor shall, from the effective date of termination and for a period of three years after final settlement under the Contract, preserve and make available to the District at all reasonable times, at the office of the Contractor, without direct charge to the District, all its books, records, documents, and other evidence related to the costs and expenses of the Contractor under the Contract and to the Work terminated hereunder. To the extent approved by the District, the Contractor may preserve the record in the form of photographs, micro-photographs, or other authentic reproductions thereof.

43.J Claims for elimination of items of Work by the District shall be considered pursuant to the terms of this Article. The elimination of items of Work shall not invalidate the Contract or any part of it.

43.K The Contractor shall insert in all subcontracts that the subcontractor shall stop Work on the date of and to the extent specified in a Notice of Termination from the District and shall require subcontractors of any tier to insert the same condition in any lower tier subcontracts.

43.L The Contractor shall communicate any Notice of Termination issued by the District to the affected subcontractors of any tier immediately upon its receipt.

43.M For the purposes of Subarticles 43.D and 43.E, when subcontracted Work or purchases which would have entitled the subcontractor (hereinafter designated "large subcontractor") to gross proceeds of \$100,000 or more or would have entitled the supplier (hereinafter designated "large supplier") to sales proceeds of \$100,000 or more are terminated pursuant to Subarticle 43.B.3, the Contractor shall not be entitled to reimbursement for that part of the termination settlement with a large subcontractor or large supplier which is an anticipatory or unearned profit on Work or orders terminated or partly terminated or which are consequential damages on account of the termination or partial termination. The terms "Subcontractor" and "Supplier" refer to subcontractors and suppliers at all tiers.

43.N Under no circumstances shall the Contractor be entitled to anticipatory or unearned profits or consequential damages as a result of a termination or partial termination under this Article.

#### 44. TERMINATION FOR DEFAULT

44.A The District may, by written Notice of Termination to the Contractor, terminate for default the Contractor's right to

proceed with the Work or any part of the Work which is in default if:

44.A.1 The Contractor fails to make delivery of the supplies or to perform the services, including installation and test, within the time specified herein or any extension thereof, or

44.A.2 The Contractor fails to perform any of the other provisions of the Contract, or so fails to make progress as to endanger performance of the Contract in accordance with its terms, and

44.A.3 The Contractor does not remedy such failure, or commence, within a period of 5 days after receipt of notice, to remedy such failure and proceed with diligence to complete the remedy on a schedule set by the District.

If the District terminates the Contract in whole or in part as provided in this Article, the District may procure supplies or services similar to those so terminated. The Contractor shall be liable to the District for any excess costs for such similar supplies or services.

The Contractor shall continue the Work not terminated.

44.B On receipt of a Notice of Termination from the District, the Contractor shall:

44.B.1 Stop all Work under the Contract on the date of and to the extent specified in the Notice of Termination;

44.B.2 Place no further orders or subcontracts for materials, equipment, services, or facilities, except that which is necessary to complete the portion of the Work which is not terminated;

44.B.3 Terminate all orders or subcontracts to the extent that they relate to the performance of Work terminated by the Notice of Termination;

44.B.4 Comply with all other requirements of the District specified in the Notice of Termination.

Upon the District's termination of the Contractor's right to proceed with the Work because of the Contractor's default under the Contract, the District may complete the Work by whatever means and method it deems advisable.

The expense of completing the Work shall be charged to the Contractor and the expense so charged shall be deducted by the District out of monies due or at any time thereafter becoming due to the Contractor. In case the expense is in excess of the sum which otherwise would have been payable to the Contractor under the Contract, then the Contractor or

its surety shall promptly pay the amount of the excess to the District upon notice from the District of the excess so due.

44.C Rights of Surety - The Surety on the Performance Bond provided for in the Contract shall not be entitled to take over the Contractor's performance of Work in case of termination under this Article, except with the written consent of the District.

44.D If the Contract is terminated as provided in this Article, the District may require the Contractor to transfer title and deliver to the District, as directed by the District, the following:

44.D.1 Any completed supplies.

44.D.2 Such partially completed supplies and materials, installations, parts, tools, dies, jigs, fixtures, plans, drawings, information, and contract rights (hereinafter called "manufacturing materials") that the Contractor has specifically produced or acquired for the terminated portion of the Contract. The Contractor shall also protect and preserve property in its possession in which the District has an interest.

44.E Payment - Payment for completed supplies delivered to and accepted by the District shall be at the Contract price.

Payment for manufacturing materials, Work in process, and partially completed installations delivered to and accepted by the District shall be in an amount agreed upon by the Contractor and the District. Failure to agree on an amount shall be considered a dispute covered under Article 40, Disputes.

The District may withhold from amounts otherwise due the Contractor for such completed supplies or manufacturing materials such sum as the District determines to be necessary to protect the District against loss because of outstanding liens or claims of former lienholders.

44.F Exception in Default - The Contractor's rights to proceed may not be terminated for default arising out of delay, and the Contractor may not be charged with resulting damages, if a delay qualifies for an extension of time in accordance with Article 32, Extension of Time.

If, after Notice of Termination of the Contractor's right to proceed under the provisions of this Article, it is determined that the Contractor was not in default or that the Contractor was entitled to an extension of time under Article 32, Extension of Time, the rights and obligations of the parties shall be the same as if the Notice of Termination

had been issued pursuant to Article 43, Termination for Convenience.

44.G Nonexclusive Remedy - The rights and remedies of the District provided in this Article shall not be exclusive and shall be in addition to any other rights and remedies provided by law or under the Contract.

45. NOT USED

46. NOT USED

47. MATERIALS

47.A Unless otherwise specifically provided in the Contract, material shall be new and of the grade specified for the purpose intended. Reference to material or patented process by trade name, make, or catalog number shall be regarded as establishing a standard of quality and shall not be construed as limiting competition, and the Contractor may, at its option, use any equipment, material, article, or process which is equal to that named in the Specifications, subject to the requirements of Subarticle 47.B.

47.B Approval of Alternative Material: Within the scope of its authority, the District shall be the sole judge of the quality and suitability of any proposed alternative material. The burden of proving the quality and suitability of an alternative shall be upon the Contractor. Information required by the District in judging an alternative shall be supplied by the Contractor, at the Contractor's expense.

47.B.1 Where use of an alternative involves redesign of or changes to other parts of the Work, the cost and the time required to accomplish the redesign or change shall be considered in evaluating the suitability of the alternative. Redesign and changes to other parts of the Work shall be at the Contractor's expense, unless they are approved pursuant to Article 35, Cost Reduction Incentive.

47.B.2 No action relating to the approval of an alternative will be taken by the District until the request for substitution is made in writing by the Contractor, accompanied by complete data as to the quality and suitability of the alternative proposed. The request shall be made in ample time to permit approval without delaying the Work.

47.B.3 Where classification, rating, or other certification by a body such as, but not limited to, UL, NEMA, or AREA is a part of the requirements for any material, proposals for use of an alternative shall be accompanied by reports from the listed body or equivalent independent testing laboratory, indicating compliance with the Specifications. Testing required to prove equality of the alternative proposed shall be at the Contractor's expense.

47.B.4 Approval of an alternative shall be only for the characteristics and use specifically stated in the approval and shall not change or modify any Contract requirement or establish approval for the alternative to be used on any other Work.

47.B.5 Contractor shall also comply with all additional conditions for approval of any alternative which appear in any other section of the Contract Documents.

47.C Source of Supply and Quality of Materials - The Contractor shall furnish all materials required to complete the Work, except those designated to be furnished by the District.

47.C.1 Notwithstanding prior inspection and approval by the District, only materials conforming to the requirements of the Contract Documents shall be incorporated in the Work.

47.C.2 The materials shall be manufactured, handled, and incorporated so as to ensure completed Work in accordance with the Contract Documents.

47.D Defective Materials - Contractor-furnished materials not conforming to the requirements of the Contract Documents shall be rejected, whether in place or not. Rejected material shall be removed immediately from the site of the Work, unless otherwise permitted in writing by the District. No rejected material the defects of which have been subsequently corrected shall be used in the Work, unless approved in writing by the District.

47.E Handling of Material - Materials shall be transported, handled, and stored by the Contractor in a manner which shall ensure the preservation of their quality, appearance, and fitness for the Work. Materials shall be stored in a manner to facilitate inspection.

47.F District-Furnished Materials and Equipment - The District may provide materials and equipment for installation or other use by the Contractor in carrying out the Work under the Contract. When such District-furnished materials and equipment (DFE) is provided for any purpose, the Contractor shall have responsibility as follows:

47.F.1 The schedule for delivery of the DFE to the Contractor shall be mutually determined by the District and the Contractor. The Contractor shall provide required delivery dates in the Bar Chart Schedule. Once the District has accepted and approved the Schedule, the delivery dates for DFE shall become Contract Milestones. When appropriate, schedules for the return of any DFE from the Contractor shall be established in a like manner.

47.F.2 DFE shall be shipped FOB destination by common carrier, to the location specified by the Contractor. The

Contractor shall bear responsibility for unloading, handling, demurrage, storage, and for all expense of same. Risk of loss shall lie with the Contractor, from receipt until return to the District.

47.F.3 The Contractor shall also bear responsibility and all expense of same for pick-up (from District storage facilities located within the Los Angeles area) of any DFE to be installed by the Contractor at the Project Site.

47.F.4 Should DFE be lost or damaged from any cause after receipt by the Contractor, the District shall be notified immediately. The Contractor shall replace or repair it in a manner acceptable to the District. If the District is subjected to extra expense because of such loss or damage, those costs shall be recovered from monies due or becoming due to the Contractor.

47.F.5 DFE shall be received by the Contractor in the presence of the District's representative, and quantities thereof shall be verified jointly by the Contractor and the District. The delivery and acceptance of all DFE shall be recorded in writing, and the Contractor shall evidence receipt and acceptance of DFE by signing forms satisfactory to the District. The Contractor shall carefully note any visible damage to DFE prior to Contractor's acceptance of delivery.

47.F.6 Contractor shall notify the District of any lack of or requirement for DFE, in sufficient time for the District to furnish said DFE in advance of Contractor's need. In the event of misfit of DFE, the Contractor shall promptly notify the District of such misfit. The Contractor shall take all reasonable steps to avoid standby time due to such misfit or lack of DFE and to continue progress of other portions of the Work, pending correction of such misfit and the furnishing of DFE.

#### 48. PACKING AND SHIPPING

48.A Authorization - Certain items require District inspection prior to shipment, in accordance with the requirements of the Contract Documents. For such items, the Contractor shall, at least 10 days prior to the estimated shipping date, request authorization to ship. The request shall state the date equipment will be ready for inspection by the District and list exceptions or waivers for any Work not completed. The District may elect to conduct or waive inspection at the source prior to authorization of the shipment. The District shall either authorize the shipment in writing or advise the Contractor that it will conduct further inspection and do so to meet the estimated shipping date.

Shipment authorizations by the District prior to acceptance, as specified in this Article, with or without District inspection, shall in no way constitute acceptance or relieve the Contractor from fulfilling the requirements of the Contract Documents.

48.B Shipping Costs - All shipments shall be at the Contractor's expense, FOB destination within the consignee's facility.

48.C Packing - All shipments shall be packaged and packed in accordance with the best commercial standards, to ensure the integrity of equipment during transportation, handling, and storage. Due regard shall be given to protection from loss and pilferage, physical damage, and the effect of the elements and environmental conditions. There shall be no on-deck shipments by cargo vessel, without specific approval from the District. These requirements are in addition to any packaging requirements contained in the Special Conditions or Specifications for specific items of equipment.

#### 49. TITLE AND RISK OF LOSS OR DAMAGE

49.A Title - As a security for partial, progress, or other payments, title to items for which such payments are made shall pass to the District at the time of payment. To the extent that title has not previously been vested in the District by reason of payments, title shall pass to the District when items are delivered to a carrier for transportation to the installation site (or other specified consignee) or at final acceptance, whichever occurs first. Items to which the District has received title by reason of progress or partial payments shall be segregated from other Contractor or sub-contractor materials and equipment, clearly identified as District property.

The Contractor agrees to the following relative to the Title:

49.A.1 The title transferred as above shall, in each case, be good, free and clear from any and all security interests, liens, and other encumbrances. The Contractor promises and agrees that it shall not pledge, hypothecate, or otherwise encumber the items in any manner that would result in any lien, security interest, charge, or claim upon or against said items.

49.A.2 The transfer of title, as provided above, shall not imply acceptance by the District nor relieve the Contractor from the responsibility strictly to comply with the Contract and shall not relieve the Contractor of responsibility for any loss of or damage to items.

49.A.3 The Contractor shall insert conditions in its sub-contracts sufficient to ensure compliance with the content of this Article.

49.B Risk of Loss or Damage - Notwithstanding passage of title in whole or in part to the District, the risk of loss or damage shall remain with the Contractor until installation in the District facilities (when installation is in the Contractor's Scope of Work) or delivery to other specified points. At that event, the risk of loss shall pass to the District.

50. ANTI-DUMPING - The Contractor represents and warrants that its prices do not violate the United States Anti-Dumping Act, 19 USC 160 et seq., as amended, and agrees to pay any duties assessed under said Act. The Contractor agrees to indemnify and hold harmless the District from any loss or expense, including, but not limited to, reasonable attorney's fees that the District may incur from any claim, demand, or investigation of alleged violation of said Act.

51. NOT USED

52. USE AND POSSESSION PRIOR TO COMPLETION

52.A The District may take possession of or use any completed or partially completed part of the Work. Before taking possession of or using any Work, the District shall furnish the Contractor a list of items of Work remaining to be performed or corrected, on those portions of the Work that the District intends to take possession of or use. However, failure of the District to list any item of Work shall not relieve the Contractor of responsibility for complying with the terms of the Contract. The possession or use shall not be deemed an acceptance of any Work under the Contract.

52.B While the District has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to the Work resulting from the District's possession or use. If prior possession or use by the District delays the progress of the Work or causes additional expense to the Contractor, an equitable adjustment shall be made by Change Order to the Contract Amount or the time of completion of the Work.

53. NOT USED

54. NOT USED

55. PATENT INDEMNITY

55.A The Contractor shall warrant that the materials, equipment, or devices used on or incorporated in the Work shall be delivered free of any rightful claim of any third party for infringement of any United States patent or copyright. If notified promptly in writing and given authority, information and assistance, the Contractor shall defend or may settle, at its expense, any suit or proceeding against the District, the GC, or the District's representatives so far as based on a claimed patent or copyright infringement which

would result in a breach of this warranty, and the Contractor shall pay damages and costs awarded therein against the District, the GC, or the District's representatives due to such breach. The Contractor shall report to the District, promptly and in reasonable written detail, each notice or claim of patent or copyright infringement based on the performance of the Contract of which the Contractor has knowledge. In the event of any claim or suit against the District on account of any alleged patent or copyright infringement arising out of the performance of the Contract or out of the use of supplies furnished or Work or services performed hereunder, the Contractor shall furnish to the District, when requested by the District, all evidence and information in possession of the Contractor pertaining to such suit or claim. Such evidence and information shall be furnished at the expense of the Contractor.

55.B The Contractor shall bear all costs arising from the use of patented materials, equipment, devices, or processes used on or incorporated in the Work. In such case as materials, equipment, devices, or processes are held to constitute an infringement and their use enjoined, the Contractor, at its expense, shall:

55.B.1 Secure for the District the right to continue using said materials, equipment, devices, or processes, by suspension of the injunction or by procuring a license or licenses; or

55.B.2 Replace such materials, equipment, devices, or processes with noninfringing materials, equipment, devices, or processes; or

55.B.3 Modify such materials, equipment, devices, or processes, so that they become noninfringing, or remove the enjoined materials, equipment, devices, or processes and refund the sum paid therefor, without prejudice to any other rights of the District.

55.C The preceding Subarticle shall not apply to any materials, equipment, or devices specified by the District or manufactured to the design of the District or in accordance with the details contained in the Contract Documents; and, as to any such materials, equipment, or devices, the Contractor shall assume no liability whatsoever for patent or copyright infringement, and the District shall hold the Contractor harmless against any infringement claims arising therefrom.

55.D Patent rights to patentable results arising out of the Work, as well as information, designs, specifications, knowhow, data, and findings shall be made available to other public agencies for public use, unless the District shall, in specific cases where it is legally permissible, determine that it is in the public interest that it not be so made available.

55.E The conditions of this Article shall be included in all subcontracts of any tier. The foregoing states the entire liability of the Contractor for patent or copy infringement by use of said materials, equipment, or devices.

56. NOT USED

57. NOT USED

58. ENVIRONMENTAL PROVISIONS

58.A The Contractor shall submit evidence to the District that governing air and water pollution criteria will be met, in accordance with criteria issued by the EPA. However, in locations where state or local air and water pollution regulations are in force, the more restrictive criteria shall govern.

This evidence and related documents shall be retained on-site by the District, for examination by appropriate governmental agencies.

58.B Environmental Violations - For all subcontracts in excess of \$100,000, the Contractor agrees to comply with all applicable standards, orders, and requirements issued under Section 306 of the Clean Water Act (42 USC 1857[h]), under Section 508 of the Clean Water Act (33 USC 1368), Executive Order 11738, and EPA regulations (40 CFR 15) and specifically shall not use any facilities included on the EPA List of Violating Facilities. The Contractor shall report all violations to the District.

The Contractor shall promptly notify the District of receipt of any communications from the Director, EPA Office of Federal Activities or any successor agency indicating that a facility to be utilized for the Contract is under consideration to be listed on the EPA List of Violating Facilities.

58.C Subcontract Requirements - The Contractor shall include or cause to be included the requirements of this Article in every subcontract of any tier valued at more than \$100,000 and further agrees to take such action as the District may direct as a means of enforcing those requirements.

59. ENERGY CONSERVATION - The Contractor shall comply with mandatory standards and policies relating to energy efficiency which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (42 USC 6321 et seq.).

60. NOT USED

61. BUY AMERICA

61.A Contractor shall comply with Section 165 of the Surface Transportation Assistance Act of 1982 (Public Law 97-424), and implementing regulations (49 CFR 660-661).

61.B The District may investigate the Contractor's, any subcontractor's, and any supplier's compliance with this Article. If an investigation is initiated, the Contractor, subcontractor, or supplier shall document its compliance, in accordance with 49 CFR 661.15, and cooperate with the investigation. The Contractor shall incorporate the Buy America conditions set forth in this Article in every subcontract or purchase order and shall enforce such conditions.

62. NOT USED

63. RIGHTS IN DATA

63.A The term "subject data", as used herein, means recorded information, whether or not copyrighted, that is delivered or specified to be delivered under the Contract. The term includes graphic or pictorial delineations in media, such as drawings or photographs; text in specifications or related performance or design-type documents; machine forms, such as punched cards, magnetic tape, or computer memory printouts; computer and microprocessor software documentation, including program design language or pseudo-code listings, fully annotated source code, and machine level listings; and information retained in computer memory. Examples include but are not limited to engineering drawings and associated lists, specifications, standards, process sheets, manuals, technical reports, catalog item identifications, and related information. The term does not include financial reports, cost analyses, and similar information incidental to contract administration.

63.B All "subject data" first produced in the performance of the Contract shall be the sole property of the District. The Contractor agrees not to assert any rights at common law or equity and not to establish any claim to statutory copyright in such data. Except for its own internal use, the Contractor shall not publish or reproduce such data in whole or in part, in any manner or form, nor authorize others to do so, without the written consent of the District, until such time as the District may have released such data to the public; this restriction, however, does not apply to Contracts with academic institutions.

63.C The Contractor agrees to grant and does hereby grant to the District and to its officers, agents, and employees acting within the scope of their official duties, a royalty-free, nonexclusive, and irrevocable license throughout the world to publish, translate, reproduce, deliver, perform, use, and

dispose of, in any manner, any and all data not first produced or composed in the performance of the Contract but which is incorporated in the Work furnished under the Contract; and to authorize others to do so.

63.D The Contractor shall indemnify, hold harmless, and defend the District, the District's authorized representatives and their officers, agents, and employees acting within the scope of their official duties against any liability, including costs and expenses, resulting from any willful or intentional violation by the Contractor of proprietary rights, copyrights, or rights of privacy, arising out of the publication, translation, reproduction, delivery, performance, use, or disposition of any data furnished under the Contract.

63.E Nothing contained in this Article shall imply a license to the District under any patent or be construed as affecting the scope of any license or other right otherwise granted to the District under any patent.

63.F Subarticles 63.C and 63.D shall not be applicable to material furnished to the Contractor by the District and incorporated in the Work furnished under the Contract, provided that such incorporated material is identified by the Contractor at the time of delivery of such Work.

63.G In the event that the Project, which is the subject of the Contract, is not completed, for any reason whatsoever, all data generated under the Contract shall become data as defined in Subarticle 63.A and shall be delivered as the District may direct.

64. NOT USED

65. CARGO PREFERENCE - USE OF UNITED STATES FLAG VESSELS

65.A The Contractor shall utilize privately owned United States flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping equipment, materials, or commodities pursuant to the Contract and to the Cargo Preference Act [46 USC 1241 (b)], to the extent that such vessels are available at fair and reasonable rates for United States flag commercial vessels.

65.B The Contractor shall furnish, within 30 calendar days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated "on-board" commercial ocean bill-of-lading, in English, for each shipment of cargo described above, to the District (through the Contractor in the case of subcontractor bills-of-lading) and to:

Division of National Cargo  
Office of Market Development  
MARITIME ADMINISTRATION  
400 Seventh Street, S.W.  
Washington, D.C. 20590

marked with appropriate identification of the Project.

- 65.C The Contractor shall insert the substance of this Article in all subcontracts issued pursuant to the Contract.
66. NOT USED
67. NOT USED
68. NOT USED
69. PAYMENT OF TAXES
- 69.A The price or prices for the Work include full compensation for taxes that the Contractor is or may be required to pay. The Contractor shall bear the risk of any added or increased taxes occurring during the prosecution of the Work. A change in taxes under any circumstance shall not entitle the Contractor to an adjustment under the Contract.
- 69.B The Contractor acknowledges that materials and supplies necessary for the completion of the Contract are subject to the California Sales and Use Tax.
70. NOT USED
71. EQUAL EMPLOYMENT OPPORTUNITY
- 71.A The Contractor shall not discriminate against any employee or applicant for employment because of race, religion, color, sex, age, or national origin. The Contractor shall take affirmative action to ensure that applicants are employed and that employees are treated during their employment without regard to race, religion, color, age, sex, or national origin. Such actions shall include but not be limited to the following: employment, upgrading, demotion, and transfer; recruitment and recruitment advertising; layoff and termination; rates of pay and other forms of compensation; and selection for training, including apprenticeship. The Contractor shall post notices to be provided, setting forth the conditions of this Article, in conspicuous places available to employees and applicants for employment. The Contractor shall insert a similar condition in all subcontracts, except subcontracts for standard commercial supplies or raw materials.
- 71.B The Contractor shall abide by the provision of California Labor Code Section 1777.5, with respect to the employment of indentured apprentices.

- 71.C The Contractor shall, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, religion, color, age, sex, or national origin.
- 71.D The Contractor shall send to each labor union or representative of workers with which it has a collective bargaining agreement or other contract or understanding a notice to be provided, advising the said labor union or workers' representatives of the Contractor's commitments under this Article, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- 71.E The Contractor shall comply with all provisions of Executive Order 11246, as amended, and of the rules, regulations, and relevant orders of the Secretary of Labor.
- 71.F The Contractor shall furnish information and reports required by Executive Order 11246, as amended, and by rules, regulations, and orders of the Secretary of Labor or pursuant thereto and shall permit access to its books, records and accounts by the District and the Secretary of Labor, for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
- 71.G In the event of the Contractor's noncompliance with the nondiscrimination conditions of the Contract or with any of the said rules, regulations, or orders, the Contract may be cancelled, terminated, or suspended, in whole or in part, and the Contractor may be declared ineligible for further Government contracts, in accordance with procedures authorized in Executive Order 11246, as amended; and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246, as amended, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
- 71.H The Contractor shall include the conditions of Subarticles 71.A through 71.G in every subcontract of any tier or purchase order, unless exempted by rules, regulations, or orders of the Secretary of Labor, issued pursuant to Section 204 of Executive Order 11246, as amended, so that such conditions shall be binding upon each subcontractor or vendor. The Contractor shall take such action with respect to any subcontract or purchase order as the District may direct, as a means of enforcing such conditions, including sanctions for noncompliance, provided, however, that, if a Contractor becomes involved in or is threatened with litigation with a subcontractor or vendor as a result of such direction by the District, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

72. NOT USED

## 73. DISADVANTAGED BUSINESS ENTERPRISE (DBE)

### 73.A Policy and Obligation

73.A.1 Policy - It is the policy of the District and the United States Department of Transportation that Disadvantaged Business Enterprises (DBEs), as defined in 49 CFR 23 and in Article 73.C of these General Conditions, shall have the maximum opportunity to participate in the performance of contracts financed in whole or in part with Federal funds. Consequently, the DBE requirements of 49 CFR 23 apply to the Contract.

73.A.2 DBE Obligation - Contractor shall ensure that DBEs, as defined herein, have the maximum opportunity to participate in the performance of the District's contracts and subcontracts. In this regard, the Contractor shall take all necessary and reasonable steps, in accordance with 49 CFR 23, to ensure that DBEs have the maximum opportunity to compete for and perform contracts. The Contractor shall not discriminate on the basis of race, religion, color, sex, age, or national origin in the award or performance of DOT-assisted Contracts.

### 73.B Goal

73.B.1 The Goal for DBE participation for the Contract has been established as indicated in the Special Conditions.

73.B.2 The Contractor shall meet the DBE participation goal committed to in its Bid or demonstrate good faith efforts to meet the goal, in accordance with Article 73.D. The Contractor shall submit to the District monthly reports reflecting the DBE participation on the Contract, in accordance with Article 73.F.

73.B.3 The Contractor shall, upon request by the District, submit justification if its DBE participation falls below the commitment made on its Bid.

### 73.C Definitions

73.C.1 The following definitions apply to the terms as used in the Contract.

73.C.2 "Disadvantaged Business Enterprise" means a small business concern: (a) which is at least 51-percent owned by one or more socially and economically disadvantaged individuals, or, in the case of any publicly owned business, at least 51 percent of the stock of which is owned by one or more socially and economically disadvantaged individuals; and (b) whose management and daily business operations are controlled by one or more of the socially and economically disadvantaged individuals who own it.

73.C.3 "Manufacturer" means a firm that operates or maintains a factory or establishment that produces on the premises the materials or supplies obtained by the Contractor.

73.C.4 "Regular Dealer" means a firm that owns, operates, or maintains a store, warehouse, or other establishment, in which the materials or supplies required for the performance of the Contract are brought, kept in stock, and regularly sold to the public in the usual course of business. The firm must engage in, as its principal business, and in its own name, the purchase and sale of the product in question. A regular dealer in such bulk items as steel, cement, gravel, stone, and petroleum products need not keep such products in stock, if it owns or operates distribution equipment.

73.C.5 "Owned and controlled" means a business: (a) which is at least 51-percent owned by one or more Socially and Economically Disadvantaged Individuals or, in the case of a publicly owned business, at least 51 percent of the stock of which is owned by one or more Socially and Economically Disadvantaged Individuals and (b) whose management and daily business operations are controlled by one or more such individuals.

73.C.6 "Small business concern" means a small business as defined pursuant to Section 3 of the Small Business Act and relevant regulations promulgated pursuant thereto. As defined herein, a small business concern shall not include any concern or group of concerns controlled by the same socially and economically disadvantaged individual or individuals which has annual average gross receipts in excess of \$14 million over the previous three fiscal years.

73.C.7 "Socially and Economically Disadvantaged Individuals" means those individuals who are citizens of the United States (or lawfully admitted permanent residents) and who are Black Americans, Hispanic Americans, Native Americans, Asian-Pacific Americans, or Asian-Indian Americans, and any other minorities or individuals found to be disadvantaged by the Small Business Administration, pursuant to Section 8(a) of the Small Business Act, or by the District, pursuant to 49 CFR 23.62. Members of the following groups are presumed to be socially and economically disadvantaged:

73.C.7.a "Black Americans," which includes persons having origins in any of the Black racial groups of Africa;

73.C.7.b "Hispanic Americans," which includes persons of Mexican, Puerto Rican, Cuban, Central or South American, or other Spanish or Portuguese culture or origin, regardless of race;

73.C.7.c "Native Americans," which includes persons who are American Indians, Eskimos, Aleuts, or Native Hawaiians;

73.C.7.d "Asian-Pacific Americans," which includes persons whose origins are from Japan, China, Taiwan, Korea, Vietnam, Laos, Cambodia, the Philippines, Samoa, Guam, the US Trust Territories of the Pacific, and the Northern Marianas;

73.C.7.e "Asian-Indian Americans," which includes persons whose origins are from India, Pakistan, and Bangladesh; and

73.C.7.f Women.

73.C.8 "Other Socially and Economically Disadvantaged Individuals" means those individuals who are citizens of the United States (or lawfully admitted permanent residents) and who, on a case-by-case basis, are determined by the Small Business Administration or the District to meet the social and economic disadvantage criteria described below.

73.C.8.a Social Disadvantage:

73.C.8.a.1) The individual's social disadvantage stems from his/her color, national origin, gender, physical handicap, long term residence in an environment isolated from the mainstream of American society, or other similar cause beyond the individual's control.

73.C.8.a.2) The individual must demonstrate that he/she has personally suffered social disadvantage.

73.C.8.a.3) The individual's social disadvantage must be rooted in treatment which he/she has experienced in American society, not in other countries.

73.C.8.a.4) The individual's social disadvantage must be chronic, longstanding, and substantial, not fleeting or insignificant.

73.C.8.a.5) The individual's social disadvantage must have negatively affected his/her entry into and advancement in the business world.

73.C.8.a.6) A determination of social disadvantage must be made before proceeding to make a determination of economic disadvantage.

73.C.8.b Economic Disadvantage:

73.C.8.b.1) The individual's ability to compete in the free enterprise system has been impaired, due to

diminished capital and credit opportunities, as compared to others in the same line of business and competitive market area who are not socially disadvantaged.

73.C.8.b.2) The following criteria will be considered when determining the degree of diminished credit and capital opportunities of a person claiming social and economic disadvantage:

73.C.8.b.2)a) With respect to the individual:

- o availability of financing;
- o bonding capability;
- o availability of outside equity capital;
- o available markets.

73.C.8.b.2)b) With respect to the individual and the business concern:

- o personal and business assets;
- o personal and business net worth;
- o personal and business income and profits.

#### 73.D Good Faith Efforts During the Term of the Contract

73.D.1 The Contractor shall make good faith efforts to ensure that DBEs committed to in the Bid have maximum opportunity to successfully perform in the Contract and that the Contractor meets its DBE goal.

73.D.2 These efforts, when applied in conjunction with the currently-approved construction schedule, shall include but not be limited to the following:

73.D.2.a Negotiating in good faith to attempt to finalize a subcontract agreement with the DBEs committed to in the Bid.

73.D.2.b For Contractors who fell short of meeting the DBE goal set for the Contract but who were determined by the District to have made good faith efforts to meet the goal, exerting efforts, that can be documented, to seek out and utilize additional DBE suppliers and DBE subcontractors to make up for the shortfall.

73.D.2.c Continuing to provide assistance to DBE subcontractors or suppliers in obtaining bonding, lines of credit, etc., if required by the Contractor.

73.D.2.d Notifying a DBE in writing of any potential problem and attempting to resolve the problem prior to formally requesting District approval to substitute the DBE.

73.D.2.e As with all subcontractors, timely payment of all monies due and owing to DBE subcontractors and suppliers.

73.D.2.f Timely submittal of complete and accurate DBE monthly reports, in accordance with Article 73.F.

73.D.2.g Alerting the District's Contract Compliance Department, in a timely manner, of any problems anticipated in attaining the DBE participation goals committed to in the Bid.

73.E Substitution of Subcontractors - If a Contractor requests a substitution of a DBE subcontractor or supplier, the Contractor shall exert good faith efforts to replace a DBE subcontractor with another DBE subcontractor, subject to the approval of the District.

73.F Contract Compliance Reporting Requirements - The Contractor shall submit monthly progress reports to the District, in conformance with the currently approved construction schedule, reflecting its DBE participation. The Summary Subcontracts Award and Paid Report (attached hereto as Exhibit 3) shall be submitted, to comply with this reporting requirement. Failure to submit this report in a timely manner shall result in the imposition of a penalty of \$10.00 per day per report if not received by the 7th day of the month following the reporting period.

73.G Change in Contract Amount - The dollar amount of Change Orders or any other Contract modifications that increase or decrease the Work area in which DBE participation has been committed to in the Bid shall be commensurately added to or subtracted from the total Contract Amount used to compute actual dollars paid to DBEs. Revised total Contract Amount shall be reflected in the monthly progress report submitted to the District and referenced in Article 73.F.

73.H Noncompliance - Failure to carry out the requirements of this Article shall constitute a breach of Contract and, after notification to the US Department of Transportation, may result in termination of the Contract by the District or imposition of other appropriate sanctions. This notice is given pursuant to 49 CFR 23.43(c).

#### 74. LABOR STANDARDS PROVISIONS

74.A Overtime Requirements - The Contractor which may require or involve the employment of laborers or mechanics shall not require or permit any such laborer or mechanic, in any work week in which such laborer or mechanic is employed on the Work, to work in excess of 8 hours in any calendar day or in excess of 40 hours in any work week, unless such laborer or mechanic receives compensation at a rate not less than 1-1/2 times the basic rate of pay for all hours worked in excess

of 8 hours in any calendar day or in excess of 40 hours in any work week, whichever is greater.

74.B Violation; Liability for Unpaid Wages; Liquidated Damages - In the event of any violation of the clause set forth in Subparagraph (b)(1) of 29 CFR 5.5, the Contractor shall be liable for the unpaid wages. In addition, the Contractor shall be liable to the US for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in Subparagraph (b)(1) of 29 CFR 5.5, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of 8 hours or the standard work week of 40 hours without payment of the overtime wages required by the clause set forth in Subparagraph (b)(1) of 29 CFR 5.5.

74.C Withholding for Unpaid Wages and Liquidated Damages - The District shall, upon its action or upon written request of the Department of Labor, withhold or cause to be withheld from any monies payable on account of Work performed by the Contractor under any such contract or any other federal contract with the same Contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the Contractor, such sums as may be determined to be necessary to satisfy any liabilities of the Contractor for unpaid wages and liquidated damages as provided in the clause set forth in Subparagraph (b)(2) of 29 CFR 5.5.

74.D Requirements for Records - The Contractor and its subcontractors shall maintain payrolls and basic payroll records during the course of the Work and for three years after final payment under the Contract for all laborers and mechanics, including guards and watchmen, working on the Contract. Such records shall contain, for each employee, the name and address, social security number, correct classification, hourly rates of wages paid, daily and weekly number of hours worked, deductions made, and actual wages paid. Further, the records to be maintained under this Subarticle shall be made available by the Contractor for inspection, copying, or transcription by authorized representatives of DOT and the Department of Labor, and the Contractor shall permit such representatives to interview employees during working hours on the job.

74.E Subcontracts - The Contractor shall include, or have included, the requirements set forth in Subarticles 74.A through 74.D in all subcontracts of any tier. The Contractor shall be responsible for compliance by any subcontractor or any lower-tier subcontractor with the clauses set forth in Subarticles 74.A through 74.D.

75. NOT USED

76. NOT USED

77. INDEMNIFICATION

77.A The Contractor shall indemnify, hold harmless, and defend the District, Los Angeles County Transportation Commission (LACTC), the General Consultant (GC), GC members, the System Engineering and Analyses Consultant, the Construction Manager (CM), their officers, employees, agents, contractors, and subcontractors, individually, to the maximum extent allowed by law, from and against all liability, claims, losses, actions and expenses (including attorney's fees), on account of bodily injury to or death of any person (including employees of the parties to be indemnified) or for damage to or loss of use of property (including property of the District) arising out of or resulting from the acts or omissions to act of the Contractor, its subcontractors, anyone directly or indirectly employed by any of them or anyone for whose acts any of them are liable in the performance of the Work, unless caused solely by the negligence or willful misconduct of or defects in design furnished by the parties to be indemnified.

77.B Claims against the parties to be indemnified, by any employee of Contractor, its subcontractors, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, shall not limit the Contractor's indemnification obligation, set forth above, in any way, by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or its subcontractors under workers' compensation acts, disability benefit acts or other employee benefit acts or insurances.

78. INSURANCE

78.A Within 10 days after execution of the Contract and before any part of the Work is commenced, the Contractor shall, at the Contractor's sole cost, cause to be issued and maintained during the entire progress of the Work not less than the insurance coverages set forth below:

78.A.1 Worker's Compensation, including Employer's Liability, in the minimum amount of \$1,000,000, in states where employees are working under the Contract.

78.A.2 Comprehensive General Liability, including Contractual Liability and Products Liability, covering bodily injury, including death, and property damage in the single limit per occurrence amount of \$5,000,000.

78.A.3 Comprehensive Automobile Liability, including owned, nonowned, and hired vehicles, covering bodily injury, including death, and property damage in the single limit per occurrence amount of \$5,000,000.

78.B The policy of insurance which affords Comprehensive General Liability shall contain a provision or endorsement, stating that such insurance:

78.B.1 Applies to the liability assumed by the Contractor under the Contract, subject to all of the terms and provisions of such insurance;

78.B.2 Does not contain any exclusion as to loss or damage to property caused by explosion or resulting from collapse of buildings or structures or damage to property underground, commonly referred to by insurers as the "XCU" hazards;

78.C If any part of the \$5,000,000 Comprehensive General Liability limit is in the form of a "claims-made" rather than an "occurrence" policy, then "tail" coverage shall be purchased, with limits equal to the claims-made policy, and shall extend the claims-made policy for two additional years.

If any part of the \$5,000,000 Comprehensive General Liability limit is self-insured or insured with a deductible, the District reserves the right to assess and to approve or disapprove the Contractor's financial ability to establish and fund dollar reserves and to pay claims which are within the deductible or self-insured retention.

78.D Certificates of Insurance satisfactory in form to the District shall be supplied by the Contractor to the District evidencing that the above insurance is in full force and that the District, the General Consultant (GC), the System Engineering and Analyses Consultant, and the Construction Manager (CM) have been made additional insureds and are indemnified under said policies, in respect of liabilities to third parties, and that not less than 30 days prior written notice will be given the District before any cancellation or restrictive modification of the policies.

The Certificates of Insurance shall include a statement that said insurance is primary over any insurance which may be obtained by the District.

78.E None of the requirements contained herein as to types, limits, and the District's approval of insurance coverage to be maintained by the Contractor shall, in any manner, limit or qualify the liabilities and obligations assumed by the Contractor under the Contract.

#### 79. PUBLIC RECORDS ACT

79.A All records, documents, drawings, plans, specifications, and other material relating to the Contract are subject to the provisions of the California Public Records Act (Government

Code Section 06250 et. seq.). The District's use and disclosure of its records are governed by this Act.

- 79.B The Contractor shall identify any specific information or design details that it considers proprietary. The Contractor shall clearly and prominently mark each and every page or sheet of such materials with "PROPRIETARY," as it determines to be appropriate.

END GENERAL CONDITIONS

Exhibit 1

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

DBE SCHEDULE A



## SCHEDULE A

### Disadvantaged Business Enterprise (DBE)

### Certification Application Form

**Introduction:** Please type or print legibly and return completed application form, along with supporting documentation to:

**SCR TD**  
Attn: Contract Compliance Dept.  
425 S. Main St.  
L.A., CA 90013  
(213) 972-6454

Are you Bidding/Proposing on an RTD solicitation?

YES  NO

If yes, please complete the following:

RTD Project Name: \_\_\_\_\_

Proposal/Bid No.: \_\_\_\_\_

Proposal/Bid Due Date: \_\_\_\_\_

## INSTRUCTIONS

All firms seeking DBE certification are required to submit copies of the following items in addition to a signed and notarized Southern California Rapid Transit District Schedule A (no copies of Schedule A will be accepted):

- A. All disadvantaged businesses must submit the following items:
  1. License to do business and/or fictitious name statement for sole proprietorship.
  2. Federal tax returns for the last 3 years.
  3. Resumes of principals and key personnel.
  4. Third party agreements such as rentals, lease agreements and professional services agreements.
  5. Proof of ethnicity/gender (birth certificate, passport, etc.).
  6. Company profile including a description of the firm's product or services.
- B. Partnerships: Must submit the following items in addition to those items required in A (1-6) above:
  1. Partnership agreements and any amendments thereto.
  2. Profit sharing agreements.
  3. Buy-out rights.
- C. Corporations: Must submit the following items in addition to those required in A (1-6) above:
  1. Articles of Incorporation.
  2. Bylaws.
  3. Stockholders options.
  4. Stockholder agreements.
  5. Stock certificates of each holder.
  6. Stock transfer ledger.
  7. Stock voting rights.
  8. Record of first organization meeting..
  9. Statement of Foreign Corporation Designation, if incorporated outside the state of California.

Your company must support any claims of prior certification with documentary evidence. Where banks or business references are required to be identified, you must provide the full address and name of contact person. No action will be taken on your application until all items have been submitted. Applicant firms are evaluated on the basis of documentation submitted to SCRTD for review. Any changes anticipated in the ownership and/or control of the firm or in the documentation submitted in the application for certification must be fully disclosed AT THE TIME OF APPLICATION. Such disclosure shall provide the facts surrounding and the effective dates of any changes to be made subsequent to filing for certification. Any such changes not so disclosed will not be considered as the basis for granting certification nor will they be accepted as the basis for arguments on appeal if the firm is denied certification. The above information should be forwarded to the address given below.

Certification status is valid for a period of one year and must be renewed annually by submitting a signed and notarized re-certification affidavit provided by SCRTD. It is the responsibility of the firm to maintain its certification status with SCRTD.

Firms denied certification may re-apply one year from the date of the denial.

Southern California Rapid Transit District  
Equal Opportunity - Contract Compliance Department  
425 South Main Street  
Los Angeles, CA 90013

## Introduction

### 1.0 Policy and Purpose

1.1 It is the policy of the Southern California Rapid Transit District (SCRTD) that Disadvantaged Business Enterprises (DBE) shall have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or in part with Federal funds. This is in compliance with the requirements of section 106 (c) of the Surface Transportation and Uniform Relocation Assistance Act of 1987 and U.S. Department of Transportation regulations published at 49 CFR Part 23.

1.2 SCRTD conducts a review of all business concerns who wish to participate in SCRTD's DBE Program to ensure that these business concerns meet the DBE eligibility criteria set forth in the US DOT regulations. Attached is the form to apply to SCRTD for DBE status.

### 2.0 Definitions

For the purpose of SCRTD's DBE Program and certification process, the following definitions apply to the terms which are used throughout the application form:

#### 2.1 Disadvantaged Business Enterprise (DBE)

A small business concern that is (a) at least 51 percent owned by one or more socially and economically disadvantaged individuals, or, in the case of any publicly-owned business, at least 51 percent of the stock of which is owned by one or more socially and economically disadvantaged individuals, and (b) the management and daily business operations of which are controlled by one or more socially and economically disadvantaged individuals who own it.

#### 2.2 Economic Disadvantage

a. The individual's ability to compete in the free enterprise system has been impaired due to diminished capital and credit opportunities, as compared to others in the same line of business and competitive market area who are not socially disadvantaged.

b. SCRTD will consider the following when determining the degree of diminished credit and capital opportunities of a person claiming social and economic disadvantage:

(1) With respect to the individual:

- (a) availability of financing
- (b) bonding capability
- (c) availability of outside equity capital
- (d) available markets

(2) With respect to the individual and the business concern:

- (a) personal and business assets
- (b) personal and business net worth
- (c) personal and business income and profits

#### 2.3 Socially and Economically Disadvantaged Individuals

Those individuals who are citizens of the United States (or lawfully admitted permanent residents) and who are Black Americans, Hispanic Americans, Native Americans, Asian Pacific Americans, Asian-Indian Americans, women and any other minorities or individuals found to be disadvantaged by the Small Business Administration pursuant to section 8 (a) of the Small Business Act or by SCRTD pursuant to 49 CFR Section 23.62. The racial and ethnic groups named herein are further defined below:

a. Black Americans, which includes persons having origins in any of the Black racial groups of Africa;

2.3 Socially and Economically Disadvantaged Individuals (cont'd)

- b. Hispanic Americans, which include persons of Mexican, Puerto Rican, Cuban, Portuguese, Central or South American, or other Spanish culture or origin, regardless of race;
- c. Native Americans, which include persons who are American Indians, Eskimo, Aleuts, or Native Hawaiians;
- d. Asian-Pacific Americans, which includes persons whose origins are from Japan, China, Taiwan, Korea, Vietnam, Laos, Cambodia, the Philippines, Samoa, Guam, the U.S. Trust Territories of the Pacific, and the Northern Marianas;
- e. Asian-Indian Americans, which includes persons whose origins are from India, Pakistan, and Bangladesh.
- f. Women, regardless of ethnicity or race.

Membership in any of the above listed groups shall be established on the basis of the individual's claim and proof that he/she is a member of that group and is so regarded by that group and the non-minority community. However, SCRTD is not required to accept this claim if it determines the claim to be invalid.

Even after an applicant has established membership in any of the above groups, on a case-by-case basis, SCRTD may inquire further into the individual's social and economic status if it has reason to believe that the individual may not in fact be socially and/or economically disadvantaged.

2.4 Social Disadvantage

- a. The individual's social disadvantage stems from his/her color, national origin, gender, physical handicap, *long-term residence in an environment isolated from the mainstream of American society*, or other similar cause beyond the individual's control.
- b. The individual must demonstrate that he/she has personally suffered social disadvantage, not merely claim membership in a group which could be considered socially disadvantaged.
- c. The individual's social disadvantage must be rooted in treatment which he/she has experienced in American society, not in other countries.
- d. The individual's social disadvantage must be chronic, long-standing, and substantial, not fleeting or insignificant.
- e. The individual's social disadvantage must have negatively affected his/her entry into, and/or advancement in the business world.
- f. A determination of social disadvantage must be made before proceeding to make a determination of economic disadvantage.

**WARNING:**

Public Law 99-272, the "Consolidated Omnibus Budget Reconciliation Act of 1985", which amends Section 16 of the Small Business Act, establishes penalties of up to a \$50,000 fine or imprisonment of up to five years, or both, for misrepresenting, in writing, the status of any concern or person as a small business concern or small business owned and controlled by socially and economically disadvantaged individuals (a "DBE") in order to obtain for oneself or another any prime or subcontract to be awarded as a result or in furtherance of any other provision of federal law that specifically references Section 8 (d) of the Small Business Act for a definition of eligibility.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
DEPARTMENT OF EQUAL OPPORTUNITY  
DISADVANTAGED BUSINESS ENTERPRISE DISCLOSURE AFFIDAVIT



1.  DBE
2. Business Name \_\_\_\_\_  
Address \_\_\_\_\_  
Telephone Number (     ) \_\_\_\_\_  
Contact Person \_\_\_\_\_  
Title \_\_\_\_\_  
Nature of Business \_\_\_\_\_  
Type of work preferred with RTD \_\_\_\_\_

3. The business is organized as a:
- Proprietorship      Partnership  
 Joint Venture      Corporation
- Date Established \_\_\_\_\_

4. Person(s) qualifying firm as a DBE:

<u>Name</u>	<u>Length of Time with Firm</u>	<u>Date Controlling or Qualifying Interest Acquired</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

5. The business is 51 percent owned and controlled by one or more socially and economically disadvantaged individuals who are:

\_\_\_\_\_ White \_\_\_\_\_ Hispanic \_\_\_\_\_ Black \_\_\_\_\_ Native American  
 \_\_\_\_\_ Asian-Pacific American \_\_\_\_\_ Asian-Indian American  
 \_\_\_\_\_ Women Other (specify) \_\_\_\_\_

6. The business is a small business concern as defined by the Small Business Administration in 13 CFR Part 121.

\_\_\_\_\_ Yes \_\_\_\_\_ No

If Firm is SBA Section 8 (a) certified, attach copy.

6a. Total Number of employees for the business and its affiliates

\_\_\_\_\_

6b. Average annual gross receipts for the past three years. Please provide copies of U.S tax returns for the last three years.

7. Ownership:

Identify below those who possess ownership of 5% or more of the firm

<u>Name</u>	<u>U.S. Citizen Yes / No</u>	<u>Ethnicity</u>	<u>Sex</u>	<u>% Owned</u>
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____
_____	_____	_____	_____	_____

IF OWNED LISTED ABOVE IS NOT A U.S. CITIZEN, PROOF OF LEGAL RESIDENCE MUST BE SUBMITTED.

8. Identify below all corporate officers or key personnel of the firm.

<u>Name</u>	<u>Ethnicity</u>	<u>Sex</u>	<u>Title</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

9. Are there any: -

a. Outstanding stock purchase options, warrants or agreements for the issuance of such options or warrants? If yes, explain fully.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b. Shares pledged, subject to lien or agreement or beneficially owned by anyone other than the person in whose name it stands? If yes, explain fully.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

10. State Contractor License or Professional Registration Number: \_\_\_\_\_

a. Construction firms must list classification of all licenses held (e.g.B-1,C-4, etc.):

\_\_\_\_\_

11. Local business License Number:

\_\_\_\_\_

ATTACH COPIES OF ALL APPLICABLE LICENSES

12. Federal Employer Tax Identification Number:

\_\_\_\_\_

13. Does the firm own its offices?

\_\_\_\_\_ Yes \_\_\_\_\_ No

a. If the firm rents its offices, identify by name and address the owner of the premises and provide a copy of the rental agreement.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

b. Identify any firm with whom you share office space.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

14. State the total number of employees and the number of minority persons now employed by the firm in each of the following categories:

	<u>Total Employees</u>	<u>Minority Employees</u>
Management	_____	_____
Professional & Technical	_____	_____
Administrative	_____	_____
Supervisory	_____	_____
Clerical	_____	_____
Craftsmen & Laborer	_____	_____

15. Identify by name, address and employer, all persons who provided management or financial consulting services to the firm during the past 12 months.

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16. Identify the individuals responsible for day to day management and policy decision making:

a. Financial Decisions

<u>Name</u>	<u>Title</u>	<u>Ethnicity</u>	<u>Sex</u>
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>

b. Management Decisions

<u>Name</u>	<u>Title</u>	<u>Ethnicity</u>	<u>Sex</u>
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>

c. Hiring and Firing of Management Personnel

<u>Name</u>	<u>Title</u>	<u>Ethnicity</u>	<u>Sex</u>
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>
<hr/>	<hr/>	<hr/>	<hr/>

d. Marketing and Sales

<u>Name</u>	<u>Title</u>	<u>Ethnicity</u>	<u>Sex</u>

e. Purchase of Major Items or Supplies

<u>Name</u>	<u>Title</u>	<u>Ethnicity</u>	<u>Sex</u>

f. Supervisor of Field Operations

<u>Name</u>	<u>Title</u>	<u>Ethnicity</u>	<u>Sex</u>

17. Identify any outstanding loans greater than \$10,000:

<u>Amount</u>	<u>Lender</u>	<u>Guarantor(s)</u>

18. List Major equipment owned or leased by the firm:


a. If any equipment is leased identify owner.

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19. Identify the firm's bonding or Business Insurance Carrier.

Name: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Bonding Limit \_\_\_\_\_

Type and Amount of Coverage \_\_\_\_\_

\_\_\_\_\_

Contact Person: \_\_\_\_\_

20. Identify the firm's bank

Name: \_\_\_\_\_

Branch: \_\_\_\_\_

Address: \_\_\_\_\_

Phone: \_\_\_\_\_

Contact Person: \_\_\_\_\_

21. Have any of the officers or owners of the firm conducted business under another business name?

\_\_\_\_\_ Yes \_\_\_\_\_ No

a. If so, please provide the following:

<u>Business Name</u>	<u>Officer/Owner</u>	<u>Dates of Operarion</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

22. If any owner of the firm is a business entity please provide the following:

<u>Business Name</u>	<u>Address</u>	<u>Owner(s)</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

23. Has the firm been previously certified as a DBE/MBE or SBA Section 8(a)?

Certifying Authority \_\_\_\_\_

Date Certified \_\_\_\_\_

**ATTACH EVIDENCE OF PREVIOUS CERTIFICATION.**

a. Has the firm ever been denied certification?

\_\_\_\_\_ Yes \_\_\_\_\_ No

**ATTACH EVIDENCE OF DENIAL OF CERTIFICATION.**

24. Describe or attach a copy of any stock options or other ownership options that are outstanding, and any agreements between owners, or between owners and third parties which restrict ownership or control of disadvantaged owners.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

25. Identify any owner, or management official, of firm who is or has been an employee of another firm that has an ownership interest in, or a present business relationship with the named firm:

a. Owner/Management Official.

\_\_\_\_\_

b. Describe the nature of the ownership interest or present business relationship with the named firm.

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c. Name of the firm which has an ownership interest or present business relationship with named firm.

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26. Please provide a comprehensive list of past and current projects completed within the last 2 years. Include prime contractors' names, subcontract dollar amounts and scope of work. If work was performed as a prime contractor, please provide owner's name, scope of work and dollar amount.

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**AFFIDAVIT**

I/We, the undersigned swear that the foregoing statements are true and correct and include all material information necessary to identify and explain the operations of \_\_\_\_\_

\_\_\_\_\_  
(Name of Firm)

Further, I/We the undersigned agree to provide through the prime contractor or, if no prime directly to the Southern California Rapid Transit District current, complete and accurate information regarding actual work performance on the project, the payment therefor and any proposed changes, if any, of the foregoing arrangement and to permit the audit and examination of books, records and files of the named firm. Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under Federal or State Laws concerning false statements.

Signature \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Corporate Seal (where appropriate)

Date \_\_\_\_\_

State of \_\_\_\_\_

County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_, before me appeared \_\_\_\_\_

\_\_\_\_\_, proved to me on the basis of satisfactory evidence

who being duly sworn, did execute the foregoing affidavit, and did state that he/she was properly authorized by

\_\_\_\_\_ (Name of Firm) to execute the affidavit and

did so as his or her free act and deed.

Notary Public \_\_\_\_\_

Commission Expires \_\_\_\_\_

Exhibit 2

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

DBE SCHEDULE B



## **SCHEDULE B**

### **Disadvantaged Business Enterprise (DBE)**

#### **Joint Venture Disclosure Affidavit**

**Introduction:** Please type or print legibly and return completed application form, along with supporting documentation to:

**SCRTD**  
**Attn: Contract Compliance Dept.**  
**425 South Main Street**  
**Los Angeles, CA 90013**  
**(213) 972-6465**

**Are you Bidding/Proposing on an RTD solicitation?**

**YES**     **NO**

**If yes, please complete the following:**

**RTD Project Name:**  
**Proposal/Bid No:**  
**Proposal/Bid Due Date:**

# Introduction

## 1.0 Policy and Purpose

1.1 It is the policy of the Southern California Rapid Transit District (SCRTD) that Disadvantaged Business Enterprises (DBE) shall have the maximum opportunity to participate in the performance of contracts and subcontracts financed in whole or part with Federal funds. This is in compliance with the requirements of section 105 (f) of the Surface Transportation Assistance Act of 1982 and U.S. Department of Transportation regulations published at 49 CFR Part 23.

a. Joint Venture (JV) is eligible under 49 CFR Part 23 if:

- (1) The DBE partner of the JV meets the standards for an eligible DBE per Department of Transportation rules and regulations.
- (2) The DBE partner is responsible for a clearly defined portion of the work to be performed.
- (3) The DBE shares in the ownership, control, management responsibilities, risks and profits of the joint venture.

In addition, a business wishing to be certified as a DBE JV by the SCRTD shall cooperate with this office in supplying additional information which may be requested in order to make a determination.

- (4) A copy of the Joint Venture Agreement must accompany Schedule B.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
DEPARTMENT OF EQUAL OPPORTUNITY

OFFICE OF DISADVANTAGED BUSINESS ENTERPRISE  
DISADVANTAGED BUSINESS ENTERPRISE  
DISCLOSURE AFFIDAVIT



SCHEDULE B

1. Name of Joint Venture Business \_\_\_\_\_

Business Address \_\_\_\_\_

City State & Zip Code \_\_\_\_\_

2. Nature of Joint Venture Business \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. List Products and/or Service Rendered: \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_

4. Identify firms which comprise joint venture and provide a copy of joint venture agreement. The JV agreement must be approved by the Office of Contract Compliance.

Name of Firm	DBE	NON DBE
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

A. Describe the role of the DBE firm in the joint venture:

\_\_\_\_\_  
\_\_\_\_\_

B. Briefly describe the experience and business qualifications of each Non-DBE Joint Venture Partner:

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

5. What is the percentage of DBE Ownership:

\_\_\_\_\_ %  
 DBE

6. Please fill in this part if ownership is not described in joint venture agreement:

Name of Joint Venture Partners	Profit & Loss Sharing	Capital Contributions Including Equip.	Other Ownership Interest
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

7. Control of Joint Venture:

	Name	Title	Business Name	Race	Sex
A. Financial Decisions:	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
B. Management Decisions:					
1. Estimating	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
2. Marketing & Sales	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

	<u>Name</u>	<u>Title</u>	<u>Business Name</u>	<u>Race</u>	<u>Sex</u>
3. Hiring & Firing	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____
C. Supervision of Field Operations	_____	_____	_____	_____	_____
	_____	_____	_____	_____	_____

Note: The DBE Joint Venture Partner must complete Schedule A.

8. Provide the following information of the Escrow agent of the Joint Venture

Name \_\_\_\_\_ Contact person \_\_\_\_\_

Address \_\_\_\_\_

Telephone # \_\_\_\_\_

9. Disclose the following information on all persons authorized to withdraw funds from the Escrow account:

Name \_\_\_\_\_ Name \_\_\_\_\_

Address \_\_\_\_\_ Address \_\_\_\_\_

Telephone # \_\_\_\_\_ Telephone # \_\_\_\_\_

AFFIDAVIT

I/We, the undersigned swear that the foregoing statements are true and correct and include all material information necessary to identify and explain the operations of \_\_\_\_\_

\_\_\_\_\_  
(Name of Firm)

as the ownership thereof.

Further, I/We, the undersigned agree to provide through the prime contractor or, if no prime directly to the Southern California Rapid Transit District current, complete and accurate information regarding actual work performance on the project, the payment therefor and any proposed changes, if any, of the foregoing arrangement and to permit the audit and examination of books, records and files of the named firm. Any material misrepresentation will be grounds for terminating any contract which may be awarded and for initiating action under Federal or State Laws concerning false statements.

DBE Signature \_\_\_\_\_

Signature \_\_\_\_\_

Name \_\_\_\_\_

Name \_\_\_\_\_

Title \_\_\_\_\_

Title \_\_\_\_\_

Date \_\_\_\_\_

Date \_\_\_\_\_

Corporate Seal. (where appropriate)

Corporate Seal (where appropriate)

Date \_\_\_\_\_

Date \_\_\_\_\_

State of \_\_\_\_\_

State of \_\_\_\_\_

County of \_\_\_\_\_

County of \_\_\_\_\_

On this \_\_\_\_\_ day of \_\_\_\_\_, 19 \_\_\_\_\_, before me appeared \_\_\_\_\_

\_\_\_\_\_ proved to me on the basis of satisfactory evidence who being duly sworn, did execute the foregoing affidavit, and did state that he/she was properly authorized by

\_\_\_\_\_ (Name of Firm) to execute

the affidavit and did so as his or her free act and deed.

Notary Public \_\_\_\_\_

Commission Expires \_\_\_\_\_

Exhibit 3

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

SUMMARY SUBCONTRACTS AWARD AND PAID REPORT

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
EQUAL OPPORTUNITY DEPARTMENT  
CONTRACT COMPLIANCE SECTION  
428 SOUTH MAIN STREET  
LOS ANGELES, CALIFORNIA 90013

**SUMMARY SUBCONTRACTS AWARD & PAID REPORT**

(1) REPORTING PERIOD \_\_\_\_\_ .19 \_\_\_\_\_

(2) PROJECT NAME _____ (3) PROJECT LOCATION _____ (4) PRIME CONTRACTOR _____ ADDRESS _____ CITY/STATE/ZIP CODE _____	(5) REPORT NUMBER _____ (6) CONTRACT NUMBER _____ (7) CONTRACT AWARD AMOUNT \$ _____ (8) CONTRACT AWARD DATE _____ (9) PROJECT GRANT NUMBER _____ (10) PURCHASE ORDER NUMBER _____ (11) AUDIT NUMBER _____	(12) REPORT PREPARED BY _____ TITLE _____ (13) TELEPHONE NUMBER ( ) _____ (14) DATE REPORT PREPARED _____ (15) SIGNATURE _____
--	--	--

A SUBCONTRACTOR	B IS FIRM DBE OR WBE	C AMOUNT (\$) COMMITTED		D WORK ASSIGNMENT	E PERIOD(S) OF WORK ASSIGNMENT		F ESTIMATED AMOUNT (\$) PER PERIOD	G % OF TOTAL SUB CONTRACT AMOUNT (F : C)	H AMOUNT (\$) EARNED THRU REPORT PERIOD	I % OF WORK COMPLETED (H : C)	J % OF WORK PLANNED	K VARIANCE (J - I)	L AMOUNT (\$) INVOICED THRU PERIOD	M AMOUNT (\$) PAID THRU PERIOD	N % OF AMOUNT COMMITTED (M : C)	O NOTES
		DBE	WBE		FROM	TO										
SUBCONTRACTOR NAME _____ ADDRESS _____ CITY/STATE/ZIP CODE ( ) _____ PHONE NUMBER _____ SUBCONTRACTOR SUBTOTAL																
SUBCONTRACTOR NAME _____ ADDRESS _____ CITY/STATE/ZIP CODE ( ) _____ PHONE NUMBER _____ SUBCONTRACTOR SUBTOTAL																
SUBCONTRACTOR NAME _____ ADDRESS _____ CITY/STATE/ZIP CODE ( ) _____ PHONE NUMBER _____ SUBCONTRACTOR SUBTOTAL																
SUBCONTRACTOR NAME _____ ADDRESS _____ CITY/STATE/ZIP CODE ( ) _____ PHONE NUMBER _____ SUBCONTRACTOR SUBTOTAL																

REV. 9/88

SUMMARY SUBCONTRACTS AWARD AND PAID REPORT  
Instruction for Completion

This Summary Subcontracts Award and Paid Report (SSA&P), RTD form Revised September, 1988, is submitted by the Prime Contractor on a quarterly basis (March 30, June 30, September 30, December 31, 1988) and is due within seven (7) calendar days after the quarter ending.

The following instructions for completion of this form are provided to secure similar information from all contractors for reporting and analysis purposes:

- Item No. 1 - Insert the current calendar quarterly reporting period end date.
- Item No. 2 - Insert the name and/or description of the project.
- Item No. 3 - Insert the address and/or location of the project.
- Item No. 4 - Insert the name and full address of the prime contractor.
- Item No. 5 - Insert the number of current SSA&P Report; these reports submitted by the Prime Contractor are numbered consecutively from the NTP date.
- Item No. 6 - Insert the contract number.
- Item No. 7 - Insert the original contract award amount.
- Item No. 8 - Insert the contract award date.
- Item No. 9 - N/A-for SCRTD internal use only.
- Item No. 10 - Insert the purchase order number (if applicable).
- Item No. 11 - N/A-for SCRTD internal use only.
- Item No. 12 - Insert the name and title of the person who prepared the report.
- Item No. 13 - Insert the telephone number of the person who prepared the report.
- Item No. 14 - Insert the date the report was prepared.
- Item No. 15 - Insert the signature of the person who prepared the report.

- Column A - Insert the subcontractor's name, full address, and telephone number.
- Column B - Indicate whether the firm is a DBE or WBE.
- Column C - Insert the subcontract dollar amount committed by the prime contractor.
- Column D - Indicate the trade/work assignment being performed by the subcontractor.
- Column E - Write in the time periods (continuous periods of time) in which the subcontractor is scheduled to work.
- Column F - Write in the estimated dollar amount the subcontractor is to be paid per each time period in which they are scheduled to work.
- Column G - Insert the percentage (%) of the total subcontract amount that the estimated dollar amounts per period in column F represents ( $F \div C$ ).

SUMMARY SUBCONTRACTS AWARD AND PAID REPORT  
Instruction for Completion  
Continued

- Column H - Insert the dollar amount earned by the subcontractor from the date work started through the current reporting period.
- Column I - Insert the percentage (%) of work completed of the total amount to be performed. This percentage (%) of work completed is measured in terms of dollars earned (H÷C).
- Column J - Insert the percentage (%) of work which was planned to be performed by the subcontractor from the date they started work through the current reporting period.
- Column K - Insert the variance between the percentage (%) of work which was planned to be performed by the subcontractor from the date work started through the current reporting period and the percentage (%) of work which was actually performed and completed from the date work started through to the current reporting period (J-I).
- Column L - Insert the cumulative dollar amount invoiced by each subcontractor from the date work started through the current reporting period.
- Column M - Insert the cumulative dollar amount actually paid to each subcontractor from the date work started through the current reporting period.
- Column N - Insert the percentage (%) of the dollar amount committed in column C which has actually been paid to the subcontractor cumulatively from the date the subcontractor started work through the current reporting period (M÷C).
- Column O - Insert any notes or comments regarding all other information reported, as applicable.

Exhibit 6

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

CODE OF CONDUCT

CODE OF CONDUCT

ADOPTED BY  
SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
BOARD OF DIRECTORS

February 20, 1986

## XVI. CODE OF CONDUCT

- 16.1 This Code of Conduct shall govern the conduct of all employees, consultants, and members of the Board of Directors of the Southern California Rapid Transit District.
- 16.2 There are numerous laws and regulations which govern the conduct of public officers and employees and which are applicable to the SCRTD. Because they are contained in various California Code sections and District policy statements, it is desirable to set them forth in one document for ready reference so that all persons affected can more easily become familiar with them.
- 16.3 The complete texts of the foregoing laws and regulations are attached hereto as Appendix A. When in doubt as to the applicability of any law or regulation to any particular situation, the potentially affected officer or employee should request an advisory opinion from the District's Legal Department.

Comment: The comments and examples which follow do not have the force and effect of the sections of the Code to which they pertain, but are intended as an aid in interpreting the Code.

- 16.4 The following sections, which summarize laws and regulations pertaining to conduct of public officers and employees, govern the conduct of District Board members, officers, employees, and

consultants. All Board members, District officers and employees and consultants shall be familiar with the provisions of this Code of Conduct.

A. Board members, and District officers and employees shall not be financially interested in any contract made by them in their official capacity. Board members, District officers, or employees shall not be purchasers at any sale or vendors at any purchase made by them in their official capacity.

A contract made in violation of these sections may be voided by the Board of Directors. (Government Code §1090 et seq.).

Comment: Board members, officers, and employees (hereinafter called officers) are prohibited from having any interest in a contract "made by them in their official capacity". Cases applying this language have not confined it to the narrow and technical interpretation of the word "made". Rather if an officer was in any way involved with the contract through planning, preliminary discussions, compromises, drawing of plans and specifications, solicitation of bids or award of the contract, that officer has "made"

the contract under Section 1090. In such circumstances the District cannot enter into the contract. Should the contract be executed it would be void and the officer would be subject to a fine of up to \$1,000 or imprisonment and would be forever disqualified from holding any office in this state. (Section 1097). If a Director is involved, the mere fact that he/she is a member of the Board constitutes participation in the award of a contract, irrespective of whether the Director abstains from discussion or voting. An officer is not deemed to be "interested" in a District contract if his/her interest is remote. These remote interests are set forth in Section 1091 in the appendix.

Similarly, an officer is viewed as having no interest whatsoever if he/she falls within one of the categories set forth in Section 1091.5 in the appendix.

Examples:

1. An officer of the District is a

member of a staff committee which will recommend 5 medical clinics to give physical examinations for District employees. The officer's wife, a physician, is part owner of one of the clinics. The District is prohibited from contracting with that clinic.

2. A member of the Board of Directors is a partner in a real estate venture which buys and sells commercial property. The District is accepting bids for the sale of an abandoned division site. Bids from the firm in which the Board member has an interest cannot be accepted.

B. District Board members or employees shall not engage in any employment or activity for compensation which is inconsistent or incompatible or in conflict with his or her duties as a District Board member or employee or with the duties of his appointing power or agency by which he is employed.

Comment: The purpose of this section is to insure that District personnel do not accept other employment that will impair their ability to exercise an independent,

objective judgment in their official roles and is based on the fundamental theory that a person cannot serve equally two masters. Incompatible employment may exist by virtue of a physical inability to execute diligently the functions of both jobs or because the duties and functions of each are inherently inconsistent or repugnant. The inherent inconsistency which makes employment incompatible lies in a potential conflict of interests or duties, as where one job is subject in some degree to the supervisory control of the other or where one activity will require a person to disclose confidential information which he has gained by reason of his other position or employment with the District.

Examples:

1. An Assistant Counsel of the District is retained by a homeowners' group to advise it in how to proceed in opposing a proposed Metro Rail station. The

attorney must terminate one of the relationships because he/she could not possibly give undivided loyalty to both employers.

2. A senior planner is asked to provide consultant services in his spare time to cities forming a transportation zone. The planner must abandon one of his occupations because they are incompatible.

For District employees, the General Manager may determine through written regulations or delegate to Department Heads the authority to determine outside activities which are incompatible with their duties as District employees. Employees may appeal the determination of incompatible activities through the Non-Contract Grievance Procedure or through the particular grievance procedure applicable to them. (Government Code §§1126 and 1128)

C. Board members, and all employees and consultants required to file Disclosure statements pursuant to the District's Conflict of Interest Code, shall disqualify themselves from making, or participating in the making of, or in any way attempting to use their official position to influence, a governmental decision in which they know or have reason to know they have a financial interest. (Government Code §87100).

All persons holding designated positions shall comply

with the District's Conflict of Interest Code.

Comment: This section of the Code of Conduct as well as the District's Conflict of Interest Code, is derived from Government Code Section 87100 et seq., which is the Initiative Measure approved in the primary election of June 1974. An officer is deemed to have a financial interest if the decision to be made will have a material financial effect on:

- (a) Any business entity in which the public official has a direct or indirect investment worth \$1,000 or more.
- (b) Any real property in which the public official has a direct or indirect interest worth \$1,000 or more.
- (c) Any source of income, other than gifts and other than loans by a commercial lending institution in the regular course of business on terms available to the public without regard to official status, aggregating \$250 or more in value

provided to, received by or promised to the public official within 12 months prior to the time when the decision is made.

(d) Any business entity in which the public official is a director, officer, partner, trustee, employee, or holds any position of management.

(e) Any donor of, or any intermediary or agent for a donor of, a gift or gifts aggregating \$250 or more in value provided to, received by, or promised to the public official within 12 months prior to the time when the decision is made.

As provided in Section 87103, "indirect investment or interest means any investment or interest owned by the spouse or dependent child of a public official, by an agent on behalf of a public official, or by a business entity or trust in which the official, the official's agents, spouse, and dependent children own directly, indirectly, or beneficially a

10-percent interest or greater".

It should be noted that, by virtue of Section 87101, an officer is not prohibited from making a decision if his participation is legally required in order for the decision to be made. In such case, the officer must disclose the nature of the financial interest before he/she participates in the making of the decision. However, the fact that the officer's vote is needed to break a tie does not make his participation "legally required". This section applies primarily to the need of a body to have a quorum present. The regulations defining the terms used in these sections are attached.

Examples: The above disclosure and non-participation requirements would apply to the following individuals:

1. A Board member owns shares valued at \$2,500 in General Motors who has submitted a low bid of \$1,700,000 in a District bus

procurement. The Board member must disclose the interest and disqualify him/herself from voting because the effect of the award would increase General Motors' gross revenue by over \$100,000. (See Appendix B, Page 3).

2. A member of a staff committee selecting possible sites for a new division owns land valued at \$10,000 adjacent to one of the sites. To have the division next door would increase the fair market value of the staff member's property by over 1/2 of one percent. (See Appendix B, Page 3).

- D. No Board member or employee shall participate in the award or selection of a contract supported by federal funds if a real, or apparent, conflict of interest would be involved, as conflict is defined in §10, UMTA C4220.1A. (UMTA Circular 4220.1A)
- E. No Board member, employee or agent of the District shall solicit or accept gratuities, favors or anything of monetary value from contractors/consultants, potential contractors/consultants or subcontractors/consultants. (§10 UMTA Circular 4220.1A). An unsolicited gift of a value less than twenty-five dollars shall be considered to be of

nominal intrinsic value and not in violation of this section, provided, however, that each District department shall set more restrictive requirements regarding unsolicited gifts as directed by the General Manager.

Examples:

1. A Board member or officer is invited by a District consultant to attend a \$100 a plate dinner for an elected official. Assuming the value of the dinner is less than twenty-five dollars, the District representative may attend since the balance constitutes the consultant's contribution to the elected official's campaign fund.
  2. A Board member running for office may not solicit or knowingly accept campaign donations from a person doing business with the District. There is, obviously, no violation if the Board member neither solicits nor is aware of the contribution; however, once it is discovered, it should be returned.
- F. All inquiries from any proposer, bidder, or prospective bidder or proposer to any Board member or employee to discuss any RFP, specification, bid or proposal shall be

referred to the Office of Contracts, Procurement and Materiel. No actions shall be taken, or information provided, for or on behalf of any prospective contractor or vendor which interferes with free and open competition for District contracts. No Board member or employee shall disclose or otherwise use confidential information acquired by virtue of his/her position or employment with the District for his/her or another person's private gain.

16.5 In addition to the above requirements of Section 16.4c, Board members, employees and consultants shall conduct themselves as follows whenever the member, employee or consultant has, or may have, a financial interest in making or participating in the making of any governmental decision.

- A. Directors: Unless his/her participation is legally required, when the matter comes up on the agenda, the Director shall:
  - 1. Disclose his/her interest
  - 2. refrain from participating in any way in the decision making process
  - 3. withdraw from the room if the subject is being discussed in closed session.
- B. Employees: The employee shall immediately report the nature of the matter and the existence of a conflict to his/her superior so that the work may be assigned to another.
- C. Consultants: The consultant shall immediately report the nature of the matter and the existence of the conflict to

the General Manager.

- 16.6 No Board member, officer, or employee shall by his conduct give reasonable basis for the impression that any person improperly can influence him or unduly enjoy his favor in the performance of his official acts or actions, or that he is affected unduly by the kinship, rank, position of, or association with, any person.
- 16.7 A. An employee who violates any of the standards of conduct set forth herein is subject to discipline, up to and including discharge, in addition to any penalties provided by law.
- B. If a Board member or consultant violates any of the standards of conduct set forth herein, the matter shall be referred to the Administration, Efficiency and Economy Committee of the Board which shall, following investigation and review, make a recommendation to the full Board for action to be taken, in addition to any penalties provided by law.

APPENDIX A

GOVERNMENT CODE

§1090 Conflicts of Interest; Contracts, Sales and Purchases

Members of the Legislature, state, county, district, judicial district, and city officers or employees shall not be financially interested in any contract made by them in their official capacity, or by any body or board of which they are members. Nor shall state, county, district, judicial district, and city officers or employees be purchasers at any sale or vendors at any purchase made by them in their official capacity.

As used in this article, "district" means any agency of the state formed pursuant to general law or special act, for the local performance of governmental or proprietary functions within limited boundaries.

§1090.1 Acceptance of Commissions for Placement of Insurance

No officer or employee of the State nor any Member of the Legislature shall accept any commission for the placement of insurance on behalf of the State.

§1091 Remote Interest of Officer or Member

(a) An officer shall not be deemed to be interested in a contract entered into by a body or board of which the officer is a member within the meaning of this article if the officer has only a remote interest in the contract and if the fact of such interest is disclosed to the body of the board of which the officer is a member and noted in its official records, and thereafter the body or board authorizes, approves, or ratifies the contract in good faith by a vote of its membership sufficient for the purpose without counting the vote or votes of the officer or member with the remote interest.

(b) As used in this article, "remote interest" means any of the following:

(1) That of a nonsalaried officer of a nonprofit corporation, except as provided in paragraph (8) of subdivision (a) of Section 1091.5.

(2) That of an employee or agent of the contracting party, if such contracting party has 10 or more other employees and if the officer was an employee or agent of such contracting party for at least three years prior to the officer initially accepting his or her office.

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For the purpose of this paragraph, time of employment with the contracting party by the officer shall be counted in computing the three-year period specified in this paragraph even though such contracting party has been converted from one form of business organization to a different form of business organization within three years of the initial taking of office by such officer. Time of employment in such case shall be counted only if, after the transfer or change in organization, the real or ultimate ownership of the contracting party is the same or substantially similar to that which existed before such transfer or change in organization. For the purposes of this paragraph, stockholders, bondholders, partners or other persons holding an interest in the contracting party are regarded as having the "real or ultimate ownership" of such contracting party.

- (3) That of a parent in the earnings of his or her minor child for personal services.
- (4) That of a landlord or tenant of the contracting party.
- (5) That of an attorney of the contracting party.
- (6) That of a member of a nonprofit corporation formed under the Food and Agricultural Code or a nonprofit corporation formed under the Corporations Code for the sole purpose of engaging in the merchandising of agricultural products or the supplying of water.
- (7) That of a supplier of goods or services when such goods or services had been supplied to the contracting party by the officer for at least five years prior to his or her election or appointment to office.
- (8) That of a person subject to the provisions of Section 1090 in any contract or agreement entered into pursuant to the provisions of the California Land Conservation Act of 1965.
- (9) That of an officer, director or employee of a bank, bank holding company, or savings and loan association with which a party to the contract has the relationship of borrower or depositor, debtor or creditor.
- (10) That of an engineer, geologist, or architect employed by a consulting engineering or architectural firm. This paragraph applies only to an employee of a consulting firm who does not serve in a primary management capacity, and does not apply to an officer or director of a consulting firm.

(c) The provisions of this section shall not be applicable

to any officer interested in a contract who influences or attempts to influence another member of the body or board of which he or she is a member to enter into the contract.

(d) The willful failure of an officer to disclose the fact of his or her interest in a contract pursuant to this section shall be punishable as provided in Section 1097. Such violation shall not void the contract, however, unless the contracting party had knowledge of the fact of the remote interest of the officer at the time the contract was executed.

#### §1091.1 Interest in Contracts; Subdivided Lands

The prohibition against an interest in contracts provided by this article or any other provision of law shall not be deemed to prohibit any public officer or member of any public board or commission from subdividing lands owned by him or in which he has an interest and which subdivision of lands is effected under the provisions of Division 2 (commencing with Section 66410) of Title 7 of the Government Code or any local ordinance concerning subdivisions; provided, that (a) said officer or member of such board or commission shall first fully disclose the nature of his interest in any such lands to the legislative body having jurisdiction over the subdivision thereof, and (b) said officer or member of such board or commission shall not cast his vote upon any matter or contract concerning said subdivision in any manner whatever.

#### §1091.5 Ownership of Corporate Shares; Reimbursement for Expenses; Recipient of Public Services; Landlord or Tenant Contracting with Federal or State Agencies; Employment of Spouse; Officer, Director, or Employee of Bank or Savings and Loan Association

(a) An officer or employee shall not be deemed to be interested in a contract if his or her interest is any of the following:

(1) The ownership of less than 3 percent of the shares of a corporation for profit, provided the total annual income to him or her from dividends, including the value of stock dividends, from the corporation does not exceed 5 percent of his or her total annual income, and any other payments made to him or her by the corporation do not exceed 5 percent of his or her total annual income.

(2) That of an officer in being reimbursed for his or her actual and necessary expenses incurred in the performance of official duty.

(3) That of a recipient of public services generally provided by the public body or board of which he or she

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is a member, on the same terms and conditions as if he or she were not a member of the board.

(4) That of a landlord or tenant of the contracting party if such contracting party is the federal government or any federal department or agency, this state or an adjoining state, any department or agency of this state or an adjoining state, any county or city of this state or an adjoining state, or any public corporation or special, judicial, or other public district of this state or an adjoining state unless the subject matter of such contract is the property in which such officer or employee has such interest as landlord or tenant in which event his or her interest shall be deemed a remote interest within the meaning of, and subject to, the provisions of Section 1091.

(5) That of a tenant in a public housing authority created pursuant to Part 2 (commencing with Section 34200) of Division 24 of the Health and Safety Code in which he or she serves as a member of the board of commissioners of the authority or of a community development commission created pursuant to Part 1.7 (commencing with Section 34100) of Division 24 of the Health and Safety Code.

(6) That of a spouse of an officer or employee of a public agency in his or her spouse's employment or officeholding if his or her spouse's employment or officeholding has existed for at least one year prior to his or her election or appointment.

(7) That of a nonsalaried member of a nonprofit corporation, provided that such interest is disclosed to the body or board at the time of the first consideration of the contract, and provided further that such interest is noted in its official records.

(8) That of a noncompensated officer of a nonprofit, tax-exempt corporation, which, as one of its primary purposes, supports the functions of the body or board or to which the body or board has a legal obligation to give particular consideration, and provided further that such interest is noted in its official records.

For purposes of this paragraph an officer is "noncompensated" even though he or she receives reimbursement from the nonprofit, tax-exempt corporation for necessary travel and other actual expenses incurred in performing duties of his or her office.

(b) An officer or employee shall not be deemed to be interested in a contract made pursuant to competitive bidding under a procedure established by law if his or her sole

interest is that of an officer, director, or employee of a bank or savings and loan association with which a party to the contract has the relationship of borrower or depositor, debtor or creditor.

§1092 Avoidance of Contracts

Every contract made in violation of any of the provisions of Section 1090 may be avoided at the instance of any party except the officer interested therein. No such contract may be avoided because of the interest of an officer therein unless such contract is made in the official capacity of such officer, or by a board or body of which he is a member.

§1092.5 Lease, Purchase or Encumbrance of Real Property; Avoidance

Notwithstanding Section 1092, no lease or purchase of, or encumbrance on, real property may be avoided, under the terms of Section 1092, in derogation of the interest of a good faith lessee, purchaser, or encumbrancer where the lessee, purchaser, or encumbrancer paid value and acquired the interest without actual knowledge of a violation of any of the provisions of Section 1090.

§1093 Warrants and Other Evidences of Indebtedness, Private Use or Benefit

The State Treasurer and Controller, county and city officers, and their deputies and clerks shall not purchase or sell, or in any manner receive for their own or any other person's use or benefit any State, county or city warrants, scrip, orders, demands, claims, or other evidences of indebtedness against the State, or any county or city thereof. This section does not apply to evidences of indebtedness issued to or held by such an officer, deputy or clerk for services rendered by them, nor to evidences of the funded indebtedness of the State, county, or city.

§1094 Accounts; Certificate as Prerequisite to Allowance

Every officer whose duty it is to audit and allow the accounts of other state, county, or city officers shall, before allowing such accounts, require each of such offices to make and file with him an affidavit or certificate under penalty of perjury that he has not violated any of the provisions of this article, and any individual who willfully makes and subscribes such certificate to an account which he knows to be false as to any material matter shall be guilty of a felony and upon conviction thereof shall be subject to the penalties prescribed for perjury by the Penal Code of this State.

§1095 Warrants and Other Evidences of Indebtedness; Restrictions on Payment

Officers charged with the disbursement of public moneys shall not pay any warrant or other evidence of indebtedness against the State, county, or city when it has been purchased, sold, received, or transferred contrary to any of the provisions of this article.

**§1096 Accounts; Suspension of Settlement or Payment; Prosecutions**

Upon the officer charged with the disbursement of public moneys being informed by affidavit that any officer, whose account is about to be settled, audited, or paid by him, has violated any of the provisions of this article, the disbursing officer shall suspend such settlement or payment, and cause the district attorney to prosecute the officer for such violation. If judgment is rendered for the defendant upon such prosecution, the disbursing officer may proceed to settle, audit, or pay the account as if no affidavit had been filed.

**§1097 Penalty for Violations**

Every officer or person prohibited by the laws of this state from making or being interested in contracts, or from becoming a vendor or purchaser at sales, or from purchasing scrip, or other evidences of indebtedness, including any member of the governing board of a school district, who willfully violates any of the provisions of such laws, is punishable by a fine of not more than one thousand dollars (\$1,000), or by imprisonment in the state prison, and is forever disqualified from holding any office in this state.

**Activity or Enterprise by Local Agency Officer or Employee**

(a) Except as provided in Section 1128, a local agency officer or employee shall not engage in any employment activity, or enterprise for compensation which is inconsistent, incompatible, in conflict with, or inimical to his or her duties as a local agency officer or employee or with the duties, functions, or responsibilities of his or her appointing power or the agency by which he or she is employed. Such officer or employee shall not perform any work, service, or counsel for compensation outside of his or her local agency employment where any part of his or her efforts will be subject to approval by any other officer, employee, board, or commission of his or her employing body, unless otherwise approved in the manner described by subdivision (b).

(b) Each appointing power may determine, subject to approval of the local agency, and consistent with the provisions of Section 1128 where applicable, those outside activities which, for employees under its jurisdiction, are inconsistent with, incompatible to, or in conflict with their duties as local agency officers or employees. An employee's outside

employment, activity, or enterprise may be prohibited if it: (1) involves the use for private gain or advantage of his or her local agency time, facilities, equipment and supplies; or the badge, uniform, prestige, or influence of his or her local agency office or employment or, (2) involved receipt or acceptance by the officer or employee of any money or other consideration from anyone other than his or her local agency for the performance of an act which the officer or employee, of not performing such act, would be required or expected to render in the regular course or hours of his or her local agency employment or as a part of his or her duties as a local agency officer or employee or, (3) involves the performance of an act in other than his or her capacity as a local agency officer or employee which act may later be subject directly or indirectly to the control, inspection, review, audit, or enforcement of any other officer or employee or the agency by which he or she is employed, or (4) involves such time demands as would render performance of his or her duties as a local agency officer or employee less efficient.

The local agency may adopt rules governing the application of this section. Such rules shall include provision for notice to employees of the determination of prohibited activities, of disciplinary action to be taken against employees for engaging in prohibited activities, and for appeal by employees from such a determination and from its application to an employee.

§1128 Agency Employed Attorneys; Service on Boards, etc.

Service on an appointed or elected governmental board, commission, committee, or other body by an attorney employed by a local agency in a non-elective position shall not, by itself, be deemed to be inconsistent, incompatible, in conflict with, or inimical to the duties of the attorney as an officer or employee of the local agency and shall not result in the automatic vacation of either such office.

§87100 Public Officials; State and Local; Financial Interest

No public official at any level of state or local government shall make, participate in making or in any way attempt to use his official position to influence a governmental decision in which he knows or has reason to know he has a financial interest.

UMTA REGULATIONS

UMTA CIRCULAR C4220-1A

SECTION 10

CODE OF CONDUCT. Grantees shall maintain a written code or standards of conduct which shall govern the performance of their officers, employees or agents engaged in the award and administration of contracts supported by Federal funds. No employee, officer or agent of the grantee shall participate in selection, or in the award or administration of a contract supported by Federal funds if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when:

- a. The employee, officer or agent;
- b. Any member of his immediate family;
- c. His or her partner; or
- d. An organization which employs, or is about to employ, any of the above, has a financial or other interest in the firm selected for award.

The grantee's officers, employees or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from contractors, potential contractors, or parties to subagreements.

Grantees may set minimum rules where the financial interest is not substantial or the gift is an unsolicited item of nominal intrinsic value.

To the extent permitted by State or local law or regulations, such standards of conduct shall provide for penalties, sanctions, or other disciplinary actions for violations of such standards by the grantee's officers, employees, or agents, or by contractors or their agents.

APPENDIX B

TITLE 2 FAIR POLITICAL PRACTICES COMMISSION  
(Register 77, No. 14-2377)

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CHAPTER 7. CONFLICTS OF INTEREST

Article 1. Conflicts of Interest; General Prohibition

18700. Public Official Making, Participating in Making, or Using His Official Position to Influence a Governmental Decision (87100).

The provisions herein define terms as used in Chapter 7 of the Political Reform Act of 1974, as amended, Government Code Sections 87100-87312.

(a) "Public official at any level of state or local government" means every natural person who is a member, officer, employee or consultant of a state or local government agency.

(1) "Member" shall include, but not be limited to, salaried or unsalaried members of boards or commissions with decision-making authority. A board or commission possesses decision-making authority whenever:

(A) It may make a final governmental decision;

(B) It may compel a governmental decision; or it may prevent a governmental decision either by reason of an exclusive power to initiate the decision or by reason of a veto which may not be overridden; or

(C) It makes substantive recommendations which are, and over an extended period of time have been, regularly approved without significant amendment or modification by another public official or governmental agency.

(2) "Consultant" shall include any natural person who provides, under contract, information, advice, recommendation or counsel to a state or local government agency, provided, however, that "consultant" shall not include a person who:

(A) Conducts research and arrives at conclusions with respect to his or her rendition of information, advice, recommendation or counsel independent of the control and direction of the agency or of any agency official, other than normal contract monitoring; and

(B) Possesses no authority with respect to any agency decision beyond the rendition of information, advice, recommendation or counsel.

(b) A public official "makes a governmental decision," except as provided in subsection (d) of this section, when he or she, acting within the authority of his or her office:

(1) Votes on a matter;

(2) Appoints a person;

(3) Obligates or commits his or her agency to any course of action;

(4) Enters into any contractual agreement on behalf of his or her agency;

(5) Determines not to act, within the meaning of sub-paragraphs (1), (2), (3) or (4), unless such determination is made because of his or her financial interest. When the determination not to act occurs because of his or her financial interest, the official's determination must be accompanied by disclosure of the financial interest, made part of the agency's official record or made in writing to the official's supervisor, appointing power or any other person specified in a conflict of interest code adopted pursuant to Government Code Section 87300.

(c) A public official or designated employee "participates in the making of a governmental decision" when, acting within the authority of his or her position, he or she:

(1) Negotiates, without significant substantive review, with a governmental entity or private person regarding the decision; or

(2) Advises or makes recommendations to the decision-maker, either directly or without significant intervening substantive review, by:

(A) Conducting research or making any investigation which requires the exercise of judgment on the part of the official or designated employee and the purpose of which is to influence the decision; or

(B) Preparing or presenting any report, analysis or opinion, orally or in writing, which requires the exercise of judgment on the part of the official or designated employee and the purpose of which is to influence the decision.

(d) Making or participating in the making of a governmental decision shall not include:

(1) Actions of public officials which are solely ministerial, secretarial, manual or clerical;

(2) Appearances by a public official as a member of the general public before an agency in the course of its prescribed governmental function to represent himself or herself on matters related solely to his or her personal interests; or

(3) Actions by public officials, employees, or employee representatives relating to their compensation or the terms or conditions of their employment or contract.

(e) "In any way attempting to use his or her official position to influence a governmental decision" shall include furthering or attempting to affect in any manner any decision:

(1) Within or before his or her agency; or

(2) Before any agency which is appointed by or subject to the budgetary control of his or her agency.

(f) "In any way attempting to use his or her official position to influence a governmental decision" shall not include:

(1) Appearances by a public official as a member of the general public before an agency in the course of its prescribed governmental function to represent himself or herself on matters related solely to his or her personal interest;

(2) Actions by public officials, employees or employee representatives relating to their compensation or the terms or conditions of their employment or contract.

NOTE: Authority cited: Section 83112, Government Code. Reference: Section 87100, Government Code.

History: 1. Repealer and new section filed 12-17-76, as an emergency, effective upon filing (Register 76, No. 51). For prior history, see Register 76, No. 40.

2. Certificate of Compliance filed 3-31-77 (Register 77, No. 14).

**15702. Material Financial Effect.**

(a) The financial effect of a governmental decision on a financial interest of a public official is material if the decision will have a significant effect on the business entity, real property or source of income in question.

(b) In determining whether it is reasonably foreseeable that the effects of a governmental decision will be significant within the meaning of the general standard set forth in paragraph (a), consideration should be given to the following factors:

(1) Whether, in the case of a business entity in which the public official holds a direct or indirect investment of one thousand dollars (\$1,000) or more or in the case of a business entity in which the public official is a director, officer, partner, employee, trustee or holds any position of management, the effect of the decision will be to increase or decrease:

(A) The annualized gross revenues by the lesser of:

1. One hundred thousand dollars (\$100,000); or
2. One percent if the effect is one thousand dollars (\$1,000) or more; or

(B) Annual net income by the lesser of:

1. Fifty thousand dollars (\$50,000); or
2. One half of one percent if the effect is one thousand dollars (\$1,000) or more; or

(C) Current assets or liabilities by the lesser of:

1. One hundred thousand dollars (\$100,000); or
2. One half of one percent if the effect is one thousand dollars (\$1,000) or more.

Current assets are deemed to be decreased by the amount of any expenses incurred as a result of a governmental decision.

(2) Whether, in the case of a direct or indirect interest in real property of one thousand dollars (\$1,000) or more held by a public official, the effect of the decision will be to increase or decrease:

(A) The income producing potential of the property by the lesser of:

1. One thousand dollars (\$1,000) per month; or
2. Five percent per month if the effect is fifty dollars (\$50) or more per month; or

(B) The fair market value of the property by the lesser of:

1. Ten thousand dollars (\$10,000); or
2. One half of one percent if the effect is one thousand dollars (\$1,000) or more.

(3) Whether, in the case of a source of income, as defined in Government Code Section 57103(c), of two hundred fifty dollars (\$250) or more received by or promised to a public official within 12 months prior to the time the decision is made:

(A) The effect of the decision will be to directly increase or decrease the amount of income (other than rents) to be received by the official, or to confer a financial benefit or detriment upon the official or a member of the official's immediate family, in an amount of one hundred dollars (\$100) or more; or

(B) There is a nexus between the governmental decision and the purpose for which the official receives income; or

(C) In the case of a source of income which is a business entity, the business entity will be affected in a manner described in subsection (b)(1) above; or

(D) If the source of income is not a business entity, the decision will have a significant effect on the source.

(c) Subsections (a) and (b) of this section notwithstanding, the making or participation in the making of a governmental decision by a contract consultant or by a person retained to provide information, advice, recommendation or counsel has no material financial effect on a business entity or source of income in which such consultant or person retained is an officer, employee, sole proprietor or partner, if the only financial effects of the decision are the modification, perpetuation or renewal of the contractual or retainer agreement and/or the opportunity to bid competitively on a project or contract.

Exhibit 7

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

MONTHLY EMPLOYMENT UTILIZATION REPORT

**SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
LOS ANGELES METRO RAIL PROJECT  
Monthly Employment Utilization Report**



1. Contract Number		2. Contract Description		3. Name and Location of <input type="checkbox"/> Contractor <input type="checkbox"/> Subcontractor				4. Current Goals Minority _____ Female _____		5. Reporting Period From _____ To _____							
6. Construction Trade	Classifications	7. Work Hours of Employment on This Contract										8. Minority Percentage	9. Female Percentage	10. Total Number of Employees		11. Total Number of Minority Employees	
		7a. Total All Employees by Trade		7b. Black (Not of Hispanic Origin)		7c. Hispanic		7d. Asian or Pacific Islander		7e. American Indian or Alaskan Native				M	F	M	F
	Journey Worker																
	Apprentice																
	Trainee																
	Sub-Total																
	Journey Worker																
	Apprentice																
	Trainee																
	Sub-Total																
	Journey Worker																
	Apprentice																
	Trainee																
	Sub-Total																
	Journey Worker																
	Apprentice																
	Trainee																
	Sub-Total																
	Journey Worker																
	Apprentice																
	Trainee																
	Sub-Total																
	Total Journey Workers																
	Total Apprentices																
	Total Trainees																
	Grand Total																
12. Company Official's Signature and Title										13. Telephone Number (include Area Code)		14. Date Signed		Page _____ of _____			

SCRFD A760

Monthly Employment Utilization Report

1 OF 3

09/18/89

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT  
LOS ANGELES METRO RAIL PROJECT

INSTRUCTIONS FOR FILING MONTHLY EMPLOYMENT UTILIZATION REPORT

The Monthly Employment Utilization Report is to be completed by each subject contractor (both prime and subcontractor) and signed by a responsible official of the company. The reports are to be filed by the 5th day of each month during the term of the contract, and they shall include the total work-hours for each employee classification in each trade for the specific contract for the monthly reporting period. The prime contractor shall submit a report for its contract work force and collect and submit reports for each subcontractor's work force on the contract to the Southern California Rapid Transit District via the Construction Manager's Resident Engineers's Office.

- Compliance Agency      Southern California Rapid Transit District
- Contractor                Any contractor who has a construction contract with the SCRTD.
- Minority                  Includes Blacks, Hispanics, American Indians, Alaskan Natives, and Asian and Pacific Islanders--both men and women.
1. Contract Number      The Contract number assigned to the specific construction project.
2. Contract Description      The location/identification of the construction project. (e.g., Wilshire/Alvarado Station - Stage I.)
3. Name and Location of Contractor/Subcontractor      Name, address, post office box, city, state, state, and zip code of office.
4. Current Goals (Minority and Female)                      See contract notification.
5. Reporting Period        Monthly, beginning with effective date of contract.
6. Construction Trade      List only those construction crafts which the contractor employs on this specific contract.
- Classification            The level of accomplishment/status of the worker in the construction trade (e.g., Journey Worker, Apprentice, Trainee).

INSTRUCTIONS FOR FILING MONTHLY EMPLOYMENT UTILIZATION REPORT  
Continued

7. Work Hours of Employment
- a. The total number of hours for both males and females worked by employees in each job classification.
  - b. The total number of hours for both males and females worked by each specified group of minority employees in each job classification.
8. Minority Percentage
- The percentage of total minority work-hours of all work-hours (calculate the sum of columns 7b, 7c, 6d and 7e divided by column 7a; just one figure for each construction trade.).
9. Female Percentage
- For each trade, the number reported in 7a Female divided by the sum of the numbers reported in 7a Male and Female.
10. Total Number of Employees
- Total number of male and female employees working in each job classification of each trade in the contractor's work force on the specific contract during the reporting period.
11. Total Number of Minority Employees
- Total number of male and female minority employees working in each job classification in each construction trade in the contractors work force on the specific contract during the reporting period.

SOUTHERN CALIFORNIA RAPID TRANSIT DISTRICT

SPECIFICATIONS

SECTION 01010

SUMMARY OF THE WORK

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Work specified in this Contract consists of detailing and fabrication of Signing and Edge Light at the following passenger stations for the SCR TD Metro Project:

Union Station  
Civic Center  
Pershing Square  
7th St/Metro Center  
Westlake/MacArthur Park  
Yards/Shops Exterior Signs Only.

- B. The Work under this contract shall consist of detailed design, engineering, development, manufacture, test, shipping and delivery of signs, map cases, edge light, transverse element and associated graphics as indicated.

- C. Description of the Work By Others - The following items of work will be performed by others:

1. Edge Light supports
2. Free standing map case base
3. Electric power to Edge Light at platform ends, map cases, portal sign band.
4. Public address system wiring and speakers.
5. System map, heighborhood map and 'How to use Metro System' inserts.
6. Installation of all items listed in Section 1.1B above.

- D. Coordinate the Work of this Contract with installation Contracts. Furnish written installation instructions and oversee installation.

- 1.2 MEASUREMENT - The Work of this Contract will be measured for payment as indicated in the included Sections of these Specifications.

- 1.3 PAYMENT - The Work will be paid for under the payment clauses of the included various Specification Sections.

PART 2 - PRODUCTS

2.1 PRODUCTS furnished by the Contractor shall be as described in the various Specification Sections, and shall be new except as indicated.

PART 3 - EXECUTION

3.1 CONTRACTOR'S DUTIES

- A. Except as otherwise specified, furnish the labor, superintendence, products and transportation and pay the cost thereof.
- B. Pay costs of legally required sales, consumer, and use taxes, and governmental fees and permits.
- C. Perform Work in accordance with codes, ordinances, rules, regulations, orders, and other legal requirements of governmental bodies and public agencies, including the District, which bear on performance of the Work.
- D. Promptly submit written notice of variances in the Contract Drawings and Specifications from the legal requirements stipulated in Paragraph 3.1C above. Necessary changes will be made by appropriate modifications to Contract Drawings and Specifications.

END OF SECTION

SECTION 01200

CONTRACT MEETINGS

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Work specified in this Section requires the Contractor, along with his Project Manager and Design Supervising Engineer, to attend meetings scheduled by the District for the collection and dissemination of information related to the subject Contract.
- B. The District or its designee will prepare the minutes of each meeting and distribute them to each of the participants.

1.2 DISTRICT MEETINGS - The Contractor will be advised of times, dates, and places of District Contract meetings.

1.3 MEASUREMENT - The Work of this Section will be measured as a unit, acceptably performed.

1.4 PAYMENT will be made under:

Item No. 01000.01 - General Requirements - per lump sum.

PART 2 - PRODUCTS

Products are not required for this Section.

PART 3 - EXECUTION

- 3.1 AN INITIAL KICKOFF MEETING will be scheduled by the District after receipt of the required signed Contract Documents, prior to issuing the Notice To Proceed. The purpose of this meeting is to introduce the District's Representatives for Safety and Quality Assurance and Contract Management to their counterparts in the Contractor's organization and to establish lines of communication between these representatives.
- 3.2 SPECIAL MEETINGS between the District and the Contractor will be scheduled by the District throughout the course of manufacture as it deems necessary.
- 3.3 INITIAL PROCUREMENT MEETING not more than seven working days after the effective date of the Notice To Proceed.

- A. The District will distribute a notice of this meeting, along with an agenda of the subjects to be addressed, not less than four working days prior to such meeting.
- B. The District will explain and discuss the responsibilities and authorities of the District, the General Consultant, and the Contract Manager's Organization.
- C. The Contractor, the Contractor's Project Manager Design Supervising Engineer, EEO Officer, and subcontractor representations shall attend this meeting.
- D. The District or the Contractor will provide the following information for this meeting:
  - 1. The District will discuss Equal Employment Opportunity (EEO) and affirmative action requirements along with the Community Relations functions.
  - 2. The District will explain the requirements of labor provisions stipulated by U.S. Department of Transportation (DOT).
  - 3. The District will explain and discuss insurance, laws, codes, traffic regulations, permit requirements of public agencies and their regulations.
  - 4. The District will discuss procedures for processing change orders, Shop Drawings, product data, and samples.
  - 5. The District will discuss monthly estimate cut-off dates.
  - 6. The District will discuss partial and final payments.
  - 7. Introduce Contractor's representatives, and briefly describe each person's responsibilities.
  - 8. The Contractor will distribute and discuss a list of major subcontractors, sequence of critical Work, and tentative schedule of manufacture.
  - 9. The Contractor will discuss manufacturing methods, quality control, and inspection procedures.
  - 10. The Contractor will discuss deliveries and priorities.
  - 11. The Contractor will discuss breakdown of lump sum items.
  - 12. The Contractor will discuss Bar Chart Schedule.

- 3.4 MANUFACTURING PROGRESS MEETINGS will be scheduled on the first working day of each month or as necessary for the competent and timely execution of the Contract.
- A. The Contractor will distribute notices of these meetings prior to such meeting, to subcontractors, all those expected to be engaged in the Work prior to the next scheduled meeting, and to the District or its designee.
  - B. The Contractors personnel as listed in Article 3.3C, shall attend.
  - C. The following is agenda for manufacturing progress meetings:
    - 1. Introduce attendees and area of responsibility.
    - 2. Review minutes of previous meetings, amend minutes if necessary, and accept minutes.
    - 3. Analyze Work accomplished since previous meeting, offsite fabrication problems, product delivery problems, submitted schedule slippages, problems arising from proposed changes, and other circumstances which might affect progress of Work.
    - 4. Discuss sequence of critical Work, and schedule using the Bar Chart Schedule.
    - 5. Discuss observations, problems, work quality control program, and employee work standards.
    - 6. Discuss changed conditions and time extensions.
    - 7. Discuss corrective measures to maintain construction schedule when necessary.
    - 8. Discuss upcoming month's Work.
  - D. Each of the inquiries, requests for information or request for solution of problems presented during such meetings shall be answered, when possible, during the meeting; those not answered during the meeting shall be resolved, the resolution documented and delivered in person or mailed to the person requesting the information within 72 hours of the close of the meeting.

END OF SECTION

SECTION 01300

SUBMITTALS

PART 1 - GENERAL

- 1.1 DESCRIPTION - The Work specified in this Section summarizes the requirements for submitting documents, defined herein, to the District or its designee, and describes the procedures followed for supplemental submittals.
- 1.2 MEASUREMENT - The Work of this Section will be measured as a unit acceptably performed.
- 1.3 PAYMENT will be made under:  
  
Item No. 01000.01 - General Requirements - per lump sum.

PART 2 - PRODUCTS

2.1 INITIAL SUBMITTALS

- A. Identify the submittals which will be required and determine the date on which each submittal will be required in conformance with the schedules specified in Section 01311, Bar Chart Schedule. Furnish a master list of submittals required by the Specifications and Contract Drawings with corresponding submittal dates that will allow for not less than 30-day cycles for review by the District or its designee. Do not start Work items until the required submittals are approved.
- B. Action Block - Include a blank space, three inches by four inches, in the lower right corner, just above the title block, in which the District or its designee may indicate the action taken. Show the following information:
  1. Date and revision dates.
  2. Contract title and number.
  3. The names Contractor, subcontractor, supplier, manufacturer, and, when applicable, the seal and signature of an Engineer currently registered in the State of California, for the involved discipline.
  4. Identification of product by either description, model number, style number, serial number, or lot number.
  5. Subject identification by Contract Drawing or Specified reference.

- C. Make submissions sufficiently in advance so that the District or its designee can review and accept them not less than 30 days before Work represented by those submittals is scheduled to be performed. Unless otherwise specified submit four copies of each certificate and report.
- D. Allow a maximum of 30 days for review by the District or its designee.
- E. Ship submittals prepaid.
- F. Accompany submittals with a Contractor Transmittal Form containing the following information:
  - 1. Contractor's name, address, and telephone number
  - 2. Submittal number and date
  - 3. Contract title and number
  - 4. Supplier's, manufacturer's or subcontractor's name, address, and telephone number
  - 5. Subject identification including Contract Drawing and Specification referenced and applicable station
  - 6. Identification of deviations from Contract Documents.
  - 7. Contractor's stamp and signature certifying his review for compliance with the intent of Contract Documents and all related Contracts.
- G. Changes in accepted submittals will not be permitted unless those changes have been accepted, in writing, by the District or its designee.

2.2 SUPPLEMENTAL SUBMITTALS - Supplemental submittals initiated by the Contractor for consideration of corrective procedures shall contain sufficient data for review. Make supplemental submittals in the same manner as initial submittals.

### PART 3 - EXECUTION

3.1 CONTRACTOR REVIEW - The Contractor shall review submittals, stamp and sign as reviewed and approved, prior to submission to the District.

#### 3.2 DISTRICT REVIEW

- A. Submittals will be reviewed for conformance to requirements of the Contract Drawings and Specifications. Review of a separate item will not constitute review of an assembly in which item functions. Review will not

relieve Contractor from his responsibility for accuracy of submittals, for conformity of submittals to requirements of Contract Drawings and Specifications, for compatibility of described product with contiguous products and the rest of the system, or for prosecution and completion of the Contract in accordance with the Contract Drawings and Specifications.

- B. Review stamp will be affixed, action block will be marked, and stamp will be signed and dated.
- C. The District or its designee will review the submittals for general conformance with the Contract Documents and mark, sign, and date the review stamp.
- D. The marks have the following meanings:
  - 1. The mark NO EXCEPTIONS TAKEN is an acceptance, and means that every illustration and description appears to conform to the respective requirements of the Contract Documents; that fabrication, assembly, manufacture, installation, application, and erection of the illustrated and described product may proceed; and that the submittal need not be resubmitted.
  - 2. The mark EXCEPTION AS NOTED is an acceptance, and means that every illustration and description appears to conform to the respective requirements of the Contract Documents upon incorporation of the reviewer's corrections, and that fabrication, assembly, manufacture, installation, application, and erection of the illustrated and described product may proceed. Submittals so marked need not be resubmitted immediately unless the Contractor challenges the reviewer's exception, but correct and resubmit the submittal for record before Final Acceptance of the Contract.
  - 3. The mark SUBMIT SPECIFIED ITEMS is an acceptance conditioned upon submission and acceptance of noted products, and means that the submittal is correct except for products noted as incomplete, and that the reviewer listed submittals, taken from the respective Specifications sections, are yet to be submitted and accepted.
  - 4. The mark REVISE AND RESUBMIT is a rejection, and means that the submittal is deficient to the degree that the reviewer cannot correct the submittal with a reasonable degree of effort, that the submittal needs revision and is to be resubmitted.
  - 5. The mark REJECTED is a rejection, and means that the submittal is deficient to the degree that the reviewer has not made a thorough review of the submittal, that

the submittal needs revision and is to be corrected and resubmitted.

### 3.3 CONTRACTOR RESPONSIBILITIES

- A. Coordinate each submittal with the requirements of the Work; place particular emphasis upon ensuring that each submittal of one trade is compatible with other submittals of that trade and submittals of other trades.
- B. Contractor's responsibility for errors and omissions in submittals and associated calculations is not relieved by the District or its designee's review and acceptance of submittals.
- C. Contractor's liability to the District in case of deviations in the submittals from the requirements of the Contract Documents is not relieved by the District or its designee's review and acceptance of submittals containing deviation unless the District expressly approves the deviation through the issuance of a change notice.
- D. Distribution of Submittals After Review - Distribute accepted submittals, bearing District or its designee's stamp and signature, to Contractor's field office and the District or its designee's field office; to concerned subcontractors, suppliers, and fabricators; and to concerned members of Contractor's workforce.

END OF SECTION

SECTION 01311

BAR CHART SCHEDULE

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section includes submitting a bar graph in sufficient detail to show the sequence in which the Contractor proposes to carry out the work required under this Contract. The planning, scheduling, management, and execution of construction in accordance with the Contract Drawings and Specifications are the responsibility of the Contractor.

1.2 SUBMITTALS

A. Refer to Section 01300, Submittals for submittal procedures

B. Initial Bar Chart Submittal - The initial Bar Chart Schedule and a narrative describing the Contractor's approach for meeting the required interim milestone and final completion dates shall be submitted within ten days after the date of receipt of NTP and shall use the NTP date as the data date. The Contractor shall submit six copies to the District or its designee. Upon receipt of these comments, the Contractor shall confer with the District or its designee in the appraisal and evaluation of the proposed schedule. Necessary revisions resulting from this review shall be made by the Contractor, and the schedule shall be resubmitted within ten days after the conference. The approved schedule, unless subsequently changed with the approval by, or at the direction of, the District or its designee, is the schedule to be used by the Contractor for planning, scheduling, managing, and executing the work to be accomplished. No progress payments will be made until the initial Bar Chart Schedule submittal is approved.

1.2 MEASUREMENT - The Work of this Section will be measured as a unit, acceptably performed.

1.3 PAYMENT will be made under:

Item No. 01000.01 - General Requirements - per lump sum.

PART 2 - PRODUCTS

Products are not used in this Section.

PART 3 - EXECUTION

3.1. BAR CHART SCHEDULE - Submit in the following format:

- A. Identify salient work items required to complete the Work. Work items descriptions shall be brief but shall convey the scope of Work indicated. Work items shall be discrete items of work that inherently must be accomplished under the Contract and that, when complete, produce definable, recognizable entities or stages within the project. Work items including work associated with Contract deliverables shall be shown.
- B. Work items shall include the submittal and approval of samples or materials and shop drawings, the procurement of critical material and equipment, fabrication of special materials and equipment and their installation and testing, and delivery of District-furnished items. Work items of the District that may affect progress shall be reflected, as well as those of affected utilities and other similarly involved third parties.
- C. Identify the NTP date, interim milestones (as specified in the Special Conditions) and the Project Completion Date.
- D. Include a time-scaled schedule (by week, ending Friday).
- E. Include a data dateline.
- F. Include title block, revision block, Contract number and legend.
- G. Identify the order and interdependence of work items and the sequence in which the work is to be accomplished.
  1. Identify how the start of a given work item depends on the completion of preceding work items, and how its completion is necessary for the start of following work items.
  2. Scheduled start or completion dates imposed on the schedule by the Contractor shall be consistent with Contract milestone dates. Milestone events shall be defined as the scheduled dates specified in the Special Conditions and shall be prominently identified (flagged) and connected to the appropriate activity, denoting its start or completion, as applicable. Each start milestone event shall constrain the start of dependent work items. Furthermore, work items included in the scope of work associated with a completion milestone event must be finished before that milestone event can occur. Failure to include any element of work required for performance of this Contract shall not excuse the Contractor from completing Work

required to achieve applicable completion milestone event, notwithstanding the approval of the Bar Chart Schedule submittal.

- H. The Bar Chart Schedule shall be clear, neat, and legible, and shall be submitted on sheets not to exceed 24 inches by 36 inches on a medium suitable for reproduction.

### 3.2 WRITTEN NARRATIVE

- A. The initial Bar Chart Schedule submittal shall include a written narrative sufficient to explain the basis of the Contractor's determination of durations and shall describe the Contractor's approach for meeting the required interim milestone and final completion dates, as specified by the Contract. Such explanation shall include estimated quantities and production rates.
- B. Work items that may be expedited by use of overtime or additional shifts shall be identified. Sequencing and other constraints such as manpower, material, and equipment shall be identified and explained. The Contractor shall include a listing of the holidays and special non-work days.

### 3.3 MONTHLY PROGRESS STATUS REPORT - At the end of each month following NTP, the Contractor shall submit to the District or its designee six copies of the updated Bar Chart with data as of the last day of the pay period. The Contractor shall participate with the District or its designee in monthly meetings on dates and at locations as directed by the District or its designee. The purpose of the meetings is the joint review and agreement on job progress. Job progress shall specifically include:

- A. Actual completion dates for work items completed during the report period.
- B. Actual start dates for work items started during the report period.
- C. Estimated remaining durations for work items in progress.
- D. Estimated start dates for work items scheduled to start during the month following the report period.
- E. Changes in the duration(s) of work items and/or minor logic changes.
- F. Work items not included in the Bar Chart submittal.

3.4 BAR CHART UPDATING - The Contractor shall update the Bar Chart in the following manner:

- A. Initial schedule, solid bar, shall remain the same for each update.
- B. Actual progress shall be shown in a different pattern directly under the work item with the percentage complete indicated as of the data date.
- C. Date of data shall be shown for each update.
- D. Actual start/finish dates shall be shown for work items in progress.
- E. Identify the current sequence to the interim milestones or project completion.

3.5 STATUS REPORT DELAYS - If the Monthly Progress Status Report indicates an actual or potential delay to the Contract completion date or interim milestone completion dates as specified under the Special Conditions, delay(s) shall be treated in a narrative in one of the following ways:

- A. If the delay is within the Contractor's scheduling control, the Contractor shall identify the problem, the cause, and the work item(s) affected and shall provide an explanation of the proposed corrective action to meet the milestone dates involved or to mitigate further delays.
- B. If the delay is not within the Contractor's scheduling control, the Contractor shall identify the problem, cause, duration, specific work item(s) affected, and logic constraints of each work item.

3.6 REVISIONS - Revised Bar Chart submittals shall be made in the same format and detail as the original submittal and shall be accomplished by an explanation of the reasons for such revisions. Revisions shall be subject to approval. Minor changes to the approved Bar Chart submittal may be approved at monthly meetings; a minor change is not considered a revision in the context of this paragraph. A revision shall incorporate previously made changes, both major and minor, to reflect current as-built and as-planned conditions. A revised Bar Chart shall be submitted for approval, when required by the District or its designee, for one of the following reasons:

- A. The District or its designee directs a change that affects the milestone date(s) specified under the Special Conditions.
- B. When a change order significantly affects the Contract completion date or the sequence of work items.

- C. The Contractor elects to change any sequence of work items which may affect the planned sequence of work in the currently approved Bar Chart Schedule, or which may affect his interface with other Contractors.
- D. The Contractor's progress on critical work item falls significantly behind the approved progress schedule.

The Contractor shall submit six copies of the revised schedule using the revision date as the data date and reflecting as-built data through that date.

- 3.7 CONTRACT EXTENSIONS - Extensions of time for Contract performance as specified in the Contract will be granted only to the extent required for equitable time adjustments to the affected work item(s). Slippage of work items shall not be the basis for a time extension to this Contract unless, and until, such slipped work items are resolved as set forth in Article 17, (Extension of Time) of the Contract General Conditions.
- 3.8 DOCUMENTATION - After Contract activities are complete, the Contractor shall submit six copies of an as-built Bar Chart Schedule. The documents shall reflect project as-built work. The Bar Chart shall be prepared in accordance with the requirements for Contract record drawings (Refer to Section 01720), and in Paragraph 1.2A, except the following:
  - A. Contract work items, including added work items, shall be shown.
  - B. Work item durations shall be the actual number of separate work days during which work was performed on the work item.
  - C. Work item start/finish dates shall reflect the actual dates the work started and finished as agreed to between the Contractor and the District or its designee.
- 3.9 LEGAL STATUS - The currently approved Bar Chart Schedule shall be used by the Contractor for planning, organizing, and directing his work, for reporting progress, and for determining delay(s) in achieving milestone dates specified under the Special Conditions.
- 3.10 SUSPENSION OF PAYMENTS - Should the Contractor's revised Bar Chart schedule submittal not be approved, the District may, on determination by the District or its designee, suspend progress payment. When the revised Bar Chart schedule submittal satisfies the Contract Specifications and presents a realistic approach to the Work required to meet the Contract completion date/interim milestone dates and forms the basis for a reasonable cost distribution, the District or its designee will approve the Contractor's revised progress schedule submittal and the District will resume making

progress payments. The Determination as to whether the foregoing conditions have been met will be based on information furnished by the Contractor as to the Contractor's equipment, resources, overall manpower allocation, planned unit rates, reasonableness of procurement times, costs, and other pertinent factors. However, the final determination is solely that of the District or its designees.

END OF SECTION

SECTION 01340

SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section consists of preparing and submitting Shop Drawings, product data, and samples required by individual specification Sections. Contractor shall coordinate items of work to be included in the package and prepare comprehensive Shop Drawings.

1.2 SUBMITTALS

A. Refer to Section 01300, Submittals for submittal procedures.

B. Quantities

1. One reproducible sepia and five prints of each Shop Drawing.
2. Six copies of manufacturers' standard schematic drawings.
3. Four copies of manufacturers' calculations, and six copies of manufacturer's standard data.
4. Six copies of manufacturers' installation, erection, application, and placing instructions.
5. Three samples of each item specified in the various Specification Sections, unless otherwise specified.
6. Six copies of inspection, test reports, and certificates of compliance.

1.3 MEASUREMENT - The Work of this Section will be measured as a unit, acceptably performed.

1.4 PAYMENT will be made under:

Item No. 01000.01 - General Requirements - per lump sum.

PART 2 - PRODUCTS

2.1 SHOP DRAWINGS

A. Prepare Shop Drawings on a maximum mylar sheet size of 22 inch by 34 inch to a scale large enough to easily depict and annotate each of the various items.

B. Include the following as they apply to the subject.

1. Contract title and number.
2. Respective Contract Drawing numbers.
3. Applicable Contract Specification Section numbers.
4. Applicable standards, such as ASTM or Federal Specification number.
5. Identification of deviations from the Contract Drawings and Specifications.
6. Contractor's stamp, initialed or signed, certifying:
  - a. Verification of field measurements.
  - b. Review of submittals for compliance with the intent of the Contract requirements.
  - c. Compatibility of the Work shown thereon with that of affected trades.

## 2.2 PRODUCT DATA

- A. Modify manufacturers' standard schematic drawings to delete information which is not applicable to the Contract. Supplement standard information with additional information applicable to this Contract.
- B. Modify Manufacturers' standard catalog cuts, brochures, diagrams, schedules, performance charts, illustrations, calculations, and other descriptive data to delete information which is not applicable to the Contract. Indicate dimensions, clearances, performance characteristics, capacities, wiring diagrams, and controls.
- C. Modify manufacturer's printed installation, erection, application, and placing instructions to delete information which is not applicable to the Contract.
- D. Include the following:
  1. Contract title and number.
  2. Respective Contract Drawing numbers.
  3. Applicable Contract Specification Section numbers.
  4. Applicable standards, such as ASTM or Federal Specification number.
  5. Identification of deviations from the Contract Drawings and Specifications.

6. Contractor's stamp, initialed or signed, certifying:
  - a. Dimensional compatibility of the product with the space in which it is intended to be used.
  - b. Review of submittals for compliance with Contract requirements.
  - c. Compatibility of the product with other products with which it is to perform or with which it is to be placed in juxtaposition.

### 2.3 SAMPLES

- A. Use office samples of sizes and quantities to clearly illustrate full color range and functional characteristics of products and materials, including attachment devices.
- B. Erect mock-ups as specified in the several Specifications Sections and as may be necessitated by Contractor submitting value engineering proposals, and at locations acceptable to the District or its designee.
- C. Show the following information:
  1. Contract title and number.
  2. Respective Contract Drawing numbers.
  3. Applicable Contract Specifications Section numbers.
  4. Applicable standards, such as ASTM or Federal Specification number.
  5. Identification of deviations from the Contract Drawings and Specifications.
  6. Contractor's stamp, initialed or signed, certifying:
    - a. Dimensional compatibility of the product with the space in which it is intended to be used,
    - b. Review of submittals for compliance with Contract requirements.
    - c. Compatibility of the product with other products with which it is to perform or which will be adjacent to it.

### 2.4 RECORD DOCUMENTS:

- A. Maintain one record copy of Contract Documents, Shop Drawings, Change Orders and one set of full-size repro-

ducible Contract Drawings at the site. Annotate the reproducible Contract Drawings to indicate the following:

1. Not used.
  2. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of the structure.
  3. Field changes of dimension and detail, as changes occur.
  4. Details not on original Contract Drawings.
- B. Stamp all such documents "RECORD DOCUMENTS" and keep available for examination by the District or its designee. Maintain record documents in a clean, dry and legible condition.

### PART 3 - EXECUTION

#### 3.1 CONTRACTOR RESPONSIBILITIES

- A. Verify field measurements, catalog numbers, and similar data.
- B. Do not start Work for which submittals are required until submittals bearing the stamp of the District or its designee and signature indicating review and acceptance have been received.
- C. Before making submittals, ensure that products will be available in the quantities required by the Contract.
- D. Submit a final, corrected, reproducible sepia of each Shop Drawing and show the Work as actually manufactured and fabricated.

- 3.2 REVIEW BY THE DISTRICT OR ITS DESIGNEE - Reproducible Shop Drawings, one copy of marked-up Shop Drawings, one copy of product data, and one sample will be returned to Contractor within 30 days after submittals have been received.

END OF SECTION

SECTION 01370

SCHEDULE OF VALUES

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section consists of preparing and submitting a Schedule of Values and, if the schedules are affected by Change Orders, of preparing and submitting updated copies of the schedules.

1.2 SUBMITTAL

A. Refer to Section 01300, Submittals for submittal procedure.

B. Submit a Schedule of Values as indicated in the Special Conditions.

C. Identify items in the Schedule of Value with the Specification Section numbers, Specification Section title, and Bid Item number.

D. Upon request by the District or its designee, support values given with data which will substantiate the correctness of the values.

E. Schedules will be used only as a basis for Contractor's Application for Progress Payment.

1.3. REVIEW AND RESUBMITTAL - If review by the District or its designee indicates that changes to the schedules are required, revise and resubmit schedules in the same manner as the original schedules were prepared and submitted.

1.4 MEASUREMENT - The Work of this Section will be measured as a unit, acceptably performed.

1.5 PAYMENT will be made under:

Item No. 01000.01 - General Requirements - per lump sum.

PART 2 - PRODUCTS

Products are not required for this Section.

PART 3 - EXECUTION

3.1 PREPARING SCHEDULE OF VALUES

- A. Upon approval by District or its designee, break down Bid Item costs as follows:
  - 1. Delivered cost of product, with taxes paid.
  - 2. Total fabrication cost, with overhead and profit.
- B. Break down costs of each lump sum and, in accepted circumstances, unit price Bid Item to list major products and major operations for which Contractor seeks to receive progress payments to Recover his costs for that Bid Item.
- C. Upon application from the Contractor, the District, or its designee may waive requirements of Paragraphs 3.1A, and B.

END OF SECTION

SECTION 01412

TESTING LABORATORY

PART 1 - GENERAL

- 1.1 DESCRIPTION - The District will retain the services of a qualified Testing Laboratory to inspect, secure samples, and perform various tests as required. This Section requires the Contractor to notify the District or its designee of the date and time when the materials or systems will be ready for inspection, sampling or testing; the location where inspection, sampling or testing is to be performed; and to render the cooperation and assistance required for the most expeditious accomplishment of these operations.
- 1.2 MEASUREMENT - The Work of this Section will be considered a part of the Work requiring testing and will not be measured for payment.
- 1.3 PAYMENT will be made under the various Sections requiring testing.

PART 2 - PRODUCTS

Products are not required for this Section.

PART 3 - EXECUTION

- 3.1 THE TESTING LABORATORY will provide the devices required for the inspection, sampling and testing, along with the transportation for items which require shipment to the laboratory for testing.
- 3.2 NOTIFICATION
  - A. Notify the District or its designee of readiness for inspection, sampling or testing seven days before operation, and reconfirm 48 hours before the time set for such operation.
  - B. Include in the notice the nature of the inspection, sampling or testing; the date and time frame required for the operation; and Contractor assistance that will be provided.
- 3.3 THE LABORATORY will prepare a detailed report of each inspection, sampling and testing operation, and will forward a copy of the report to the Contractor through the District or its designee.

3.4 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate with laboratory personnel and provide them with access to the Work.
- B. Furnish the District or its designee with copies of suppliers' or manufacturers' test reports.
- C. Furnish casual labor and facilities for providing access to the Work to be sampled or tested.
- D. Furnish labor to assist Testing Laboratory personnel in obtaining, handling, storing and curing samples as required.

3.5 RETESTING - The cost of inspection and testing will be borne by the District, provided satisfactory results are obtained. The cost of retesting which results from unsatisfactory test results shall be borne by the Contractor.

END OF SECTION

SECTION 01450

QUALITY ASSURANCE

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Contractor shall provide and maintain a Quality Assurance (QA) Program to regulate methods, procedures, and processes to ensure compliance with the Contract requirements. The QA Program, including QA written procedures, shall be submitted for approval. (CDRL)
- B. The requirements of this QA Program shall apply to all activities related to quality of items, including designing, purchasing, inspecting, handling, assembling, fabricating, testing, storing, and shipping.
- C. Organization - The QA organization shall be clearly defined. Management responsibility for the QA shall be set forth on the Contractor's policy and organization chart.

1.2 QUALITY ASSURANCE

- A. Evidence of Compliance - The Contractor may use certificates of compliance for certain equipment or materials and products in lieu of the sampling and testing procedures. Certificates of compliance shall be accompanied by certified documentation of test results or shall state that such test results are on file and will be furnished to the District on request.
- B. Calibration/Certification of Measuring Equipment and Tools - An effective time-or usage-cycled calibration/certification program shall be demonstrated. Validity of measurements and tests shall be ensured through the use of suitable inspection, measurement, and test equipment of the range and type necessary to determine conformance of items. Calibration certifications shall be recorded and be part of the QA records.
- C. Quality Assurance Records - Adequate records shall be maintained in a readily retrievable manner to provide documented evidence of quality and accountability. These records shall be maintained, completed, and available to the District at all times during the term of the Contract and for a three year retention period thereafter.
- D. Verification - The QA operations shall be subject to District verification at any time, including: surveillance of the operations to determine that practices, methods, and procedures of the program are being properly

applied; inspection to measure quality of items to be offered for acceptance; inspection of items awaiting release for shipment; and audits to ensure compliance with requirements of the Contract documents.

E. Qualification and Certification of Personnel

1. The QA personnel performing inspections and tests shall be qualified for such work by virtue of those skills which are obtained by experience or training. Manufacturing personnel performing special processes, such as welding and brazing, shall be certified for such work.
2. Records of personnel certifications shall be maintained and monitored by the QA personnel. These records shall be made available to the District for review, upon request.

F. Special Processes - Processes that control or verify quality, such as heat treating, welding, plating, and nondestructive testing, shall be performed by certified personnel and in accordance with approved documented procedures.

G. Procurement Quality Assurance - The methods to be used for the selection and control of suppliers shall be defined.

H. Inspection and Test

1. Inspect and physically or functionally test all items to be delivered. Inspection and testing instructions shall provide for reporting nonconformances or questionable conditions to the District.
2. Inspection shall occur at appropriate points in the manufacturing and installation sequence to ensure compliance with drawings, test specifications, process specifications, and quality standards. The District may designate inspection hold points into the manufacturing, installation, or inspection planning, upon review of Contractor's efforts.
3. In-process tests, including tests of raw materials, shall be performed and documented.

1.3 SUBMITTALS

A. Refer to Section 01300, Submittals, and Section 01340, Shop Drawings, Product Data, and Samples; for submittal procedures.

B. Inspection and Test Checklist (ITC) - The Contractor's Quality Program Manager shall plan, document and submit

to the District Inspection and Test Checklist to describe how, where and when in the manufacturing cycle inspections and tests are conducted. Update Quality Program Manager of the ITC during the life of the Contract to reflect inspection, test procedures and special instructions and revisions, and resubmit.

C. Submissions - The completed ITC to the District for acceptance following the award of the Contract and before the work starts, with revisions as necessary prior to production.

D. Referenced inspection, test procedures and special instructions with the Inspection and Test Checklist and shall be tied into the Bar Chart Schedule.

1.4 HANDLING, STORAGE, AND DELIVERY - Provide for adequate work, surveillance, and inspection instructions for handling, storing, preserving, packaging, packing, marking, and shipping.

1.5 MEASUREMENT - The Work of this Section will be measured as a unit, acceptably performed.

1.6 PAYMENT - will be made under:

Item No. 01000.01 - General Requirements - per lump sum.

## Part 2 - PRODUCTS

2.1 PRODUCTION OPERATIONS - Machining, wiring, batching, shaping, and other basic production operations of any type, together with all processing, fabricating and installation of any type, shall be accomplished under controlled conditions. Documented work instructions shall be the criteria for all production, processing, and fabrication work. The QA program shall effectively monitor the issuance of and compliance with work instructions. Quality inspection procedures shall be used where applicable. Criteria for approval and rejection shall be established and shall be subject to approval.

2.2 STATISTICAL SAMPLING PLANS - Statistical sampling used in inspection shall be fully documented and based on generally recognized and accepted statistical practices and shall be approved.

2.3 IDENTIFICATION AND INSPECTION STATUS - A system for identifying the progressive inspection status of equipment, materials, components, subassemblies, and assemblies as to their acceptance, rejection, or noninspection shall be maintained.

2.4 IDENTIFICATION AND CONTROL OF ITEMS - Item identification and traceability control shall be provided. Where

specified, items having limited calendar or operating life or cycles shall be identified and controlled to preclude use of items whose shelf life or operating life has expired.

2.5 SHIPPING INSPECTION - The QA program shall provide and enforce procedures for the proper inspection of all products deliverable to the District, to assure completion and conformance prior to shipment.

2.6 RECEIVING INSPECTION - The receiving inspection activity shall provide for the inspection of incoming materials. These inspection measures shall be used to preclude the use of nonconforming materials and to ensure that only correct and accepted items are used and installed.

2.7 INSPECTION AND TEST CHECKLIST (ITC)

A. ITC Format

1. The ITC shall indicate each inspection and test point and its relative location in the manufacturing cycle including incoming, preservation of items, packaging and site inspection and testing. Also, in process inspection points shall be identified for controlling manufacturing.
2. Subcontracted inspection and test services will be performed where agreed upon between Contractor and the supplier/customer/jurisdiction, as applicable; i.e.: independent evaluation testing, location, test facilities, equipment and personnel availability.
3. Detailed descriptions and procedures defining the method of inspection and test, equipment to be used, criteria to be met, shall be provided.
4. The identification of inspection and test points where there is a history of usage of measuring and test equipment shall be maintained.
5. Mandatory hold-points shall be clearly identified.
6. The method of inspection such as sampling and the specific plan chosen shall be specified and point of use shown.
7. The Quality Program Standard to be applied to subcontracted items or services shall be specified on documentation.
8. Verification of quality at subcontractor's plant will be carried out by:
  - a. Inspection by the subcontractor as defined in his ITC.

- b. Source inspection by Contractor.
- c. Surveillance by Contractor.
- d. Incoming inspection by Contractor.

9. Document special processes through detailed procedures, and where applicable, lots and batches, if used, will be specified.

2.8 CORRECTIVE ACTION - Ensure that conditions adverse to quality, such as failures, malfunctions, deficiencies, deviations, and defects in equipment and material shall be promptly identified and corrected.

2.9 NONCONFORMANCES - Establish, document, and maintain an effective and positive system for controlling nonconforming material including procedures for its identification, segregation, and disposition. Dispositions for the use or repair of nonconforming material shall require approval.

PART 3 - EXECUTION - Not used.

END OF SECTION

SECTION 01620

STORAGE AND PROTECTION

PART 1 - GENERAL

- 1.1 DESCRIPTION - The Work specified in this Section consists of providing protection of the materials, products and supplies which are to be delivered to the District storage facilities for incorporation into the construction and the locations and dates when the materials will be available for storage or installation.
- 1.2 SUBMITTALS
- A. Refer to Section 01300, Submittals, and Section 01342, Working Drawings, for submittal procedures.
  - B. Not used.
  - C. Submit descriptions of proposed methods for storing and protecting products.
- 1.3 MEASUREMENT - The Work of this Section will be measured as a unit, acceptably performed.
- 1.4 PAYMENT will be made under:
- Item No. 01000.01 - General Requirements - per lump sum.

PART 2 - PRODUCTS

- 2.1 MATERIALS required for the storage and protection of the items specified shall be durable, weatherproof, and either factory finished or painted to present an appearance acceptable to the District or its designee.

PART 3 - EXECUTION

3.1 STORAGE

- A. Palletize materials, products and supplies which are to be incorporated into the construction, and store off the ground, only in those areas which are indicated as storage areas designated by the District or its designee.
- B. Store these items in a manner which will prevent damage and which will facilitate and allow inspection. Leave seals, tags and labels intact and legible. Protect products which would be affected by adverse environmental conditions.

- C. Store items in a manner which will prevent damage to the Owner's property.
  - D. Replace materials damaged or lost during delivery to storage with acceptable materials. Damaged materials may be repaired for use in this Contract only when specifically allowed by the District or its designee.
  - E. Conform to CAL/OSHA requirements.
  - F. Not used.
- 3.2 LABEL storage cabinets and sheds which will contain flammable substances and explosive substances FLAMMABLE---KEEP FIRE AWAY and NO SMOKING with conspicuous lettering and conforming to CAL/OSHA requirements.
- 3.3 STORE - Not used.

END OF SECTION

SECTION 01630

SUBSTITUTIONS

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section consists of preparing, submitting, amending and updating lists of products or methods of manufacture which the Contractor proposes to furnish and install instead of those indicated.

1.2 SUBMITTALS

A. Refer to Section 01300, Submittals, Section 01340, Shop Drawings, Product Data, and Samples, and Section 01342, Working Drawings, for submittal procedures.

B. Documentation on materials, products and supplies which are proposed for substitution instead of the items shown on the Contract Drawings or in the Contract Specifications.

C. Documentation on the methods of manufacture/installation which are proposed for substitution instead of the methods indicated or implied on the Contract Drawings or in the Contract Specifications.

D. Redesign, when required, for acceptance of substitutions.

1.3 MEASUREMENT - The Work of this Section will be measured as a unit, acceptably performed.

1.4 PAYMENT will be made under:

Item No. 01000.01 - General Requirements - per lump sum.

PART 2 - PRODUCTS

2.1 Proposals for substitutions.

PART 3 - EXECUTION

3.1 REQUEST FOR SUBSTITUTION - The list of materials, products and supplies; and the list of methods of manufacture for substitution of those indicated will be considered only if those requests have been submitted as set forth in Section 01300, Submittals. Acceptance of substitute items or methods will be only for characteristics and the use named in the acceptance. This acceptance will not be interpreted as a modification of Contract Specifications or Contract Drawings, nor to establish acceptance of products and methods

for other portions of the District's System. Acceptance of a substitution does not relieve the Contractor of the responsibility of fulfilling the requirements of the Contract Documents. The District or its designee will be the sole judge of quality and suitability of substitute items or methods and its decision is final. If the use of substitute products or methods involves redesign of other parts of the Work, the cost required to effect that redesign will be charged to the Contractor. Perform the redesign and submit for acceptance by the District or its designee. The direct cost of evaluating substitutions by the District or its designee shall also be borne by the Contractor.

A. Include the following information with the documentation for materials, products and supplies:

1. Complete data substantiating compliance of proposed substitution with requirements of the Contract Drawings and Specifications.
2. Identification of materials, products or supplies, including manufacturer's name, catalog name and number, and the manufacturer's address.
3. Installation characteristics, installation drawings and manufacturer's literature, including product description, performance and test data, and reference standards if pertinent.
4. Name and address of projects on which the product was used under similar circumstances, and date of installation.
5. Itemized comparison of proposed substitution with the item specified. Include in a tabular form differences in materials, size, finish, estimated life, estimated maintenance, availability of spare parts and repair services, energy consumption, performance capacity, salvageability and manufacturer's warranties.
6. Effect of change on Construction Schedule.
7. Accurate cost data for the proposed substitution in comparison with the product specified.
8. Equitable adjustment and credit which the Contractor proposes to offer the District.
9. When applicable or requested by the District or its designee, provide off-the-shelf samples of the specified item and the proposed substitution.

B. Certify the following when making a request for substitution:

1. The Contractor has personally investigated the proposed item and believes it to be equivalent, or superior, to that shown or specified; and that he will update the information as new or different data becomes known to him.
  2. The Contractor will furnish the same guarantee for the substitution as he would for the product specified.
  3. The Contractor will coordinate the installation of the accepted substitution into the Work, and will make those changes, subject to approval by the District or its designee, required for the Work to be complete in all respects.
  4. The Contractor waives all claims for additional costs related to the substitution.
  5. Cost data are complete, including related costs, except the costs of the District or its designee's redesign or review of the Contractor's design.
- C. Substitutions indicated, or implied, on Shop Drawings or product data submittal will not be considered unless a request for substitution has been submitted in conformance with this Section.
- D. Include the following information in the documentation for construction methods:
1. Detailed description of the proposed methods.
  2. Working Drawings illustrating the methods.
  3. Itemized comparison of the proposed substitute methods with the methods shown, with product implied or specified. Include differences in estimated time for execution, labor, materials, revisions to the manufacturing process, and cost.

END OF SECTION

SECTION 01720

CONTRACT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section consists of annotating and delivering one record copy of full-size Contract Drawings and one Procurement Specifications Book.

1.2 SUBMITTAL

A. Refer to Section 01300, Submittals for submittal procedures.

B. Submit one copy of full-size Contract Drawings and one copy of the Procurement Specifications Book which have been marked to indicate the "as-built" conditions of the Contract. Deliver same with a Contractor Transmittal Form indicating the date of transmittal, the Contract title and number, Contractor's name and address, title of each Contract Record Document, and the signature of Contractor (or his authorized representative) attesting that said Documents are a true and complete record of the ramifications of the Contract.

1.3 MEASUREMENT - The Work of this Section will be measured as a unit, acceptably performed.

1.4 PAYMENT will be made under:

Item No. 01000.01 - General Requirements - per lump sum.

PART 2 - PRODUCTS

2.1 DOCUMENTS

A. One full-size set of Contract Drawings.

B. One Procurement Specifications Book.

PART 3 - EXECUTION

3.1 MARKINGS

A. Mark each page or sheet of the Contract Drawings and Procurement Specifications Book with "CONTRACT RECORD DOCUMENT."

B. Mark the Contract Drawings and Procurement Specifications Book to show the "as-built" conditions which deviate from the Contract issue of those documents.

1. Mark the Procurement Specifications Book to show names of manufacturers, trade names, model number, and style numbers of the installed products.
2. Legibly record the information concurrent with the Contract progress. Do not conceal the Work until this information has been recorded.
3. Use felt-tip pens for record marking devices. Mark changes accepted by the District or its designee in green. Mark deviations necessitated by field adjustments in red.
4. Store the Contract Record Documents, during construction, in a fire-resistant lockable cabinet in the Contractor's facility office, apart from other documents.

### 3.2 RECORD DOCUMENTS

A. Maintain one record copy of all Contract Documents, Shop Drawings, Change Orders and one set of full-size reproducible Contract Drawings. Annotate the reproducible Contract Drawings to indicate the following:

1. Changes of dimension and detail, as changes occur.
2. Details not on original Contract Drawings.

B. Stamp all such documents "RECORD DOCUMENTS" and keep available for examination by the District or its designee. Maintain record documents in a clean, dry and legible condition.

C. Submit a final, corrected, reproducible transparency of each Shop Drawing and show the Work as actually furnished.

END OF SECTION

SECTION 01730

OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section consists of preparing and submitting operation and maintenance data for all mechanical, electrical, and other supplied equipment.

1.2 SUBMITTALS

A. Refer to Section 01300, Submittals for submittal procedures.

B. Proposed Operation and Maintenance Data format including a table of contents not less than 90 days prior to acceptance tests and final inspection.

C. Completed Operation and Maintenance Data Manual in final form 30 days prior to acceptance tests and final inspection.

D. Six copies of Operation and Maintenance manual within ten days after acceptance tests and final inspection.

1.3 CONTINUOUS UPDATING PROGRAM - Furnish one copy of letter indicating that suppliers have been notified to provide updated operation and maintenance data, service bulletins, and other information pertinent to the equipment, as it becomes available. Updating after the completion shall be directed to the District's Office of Operations and Maintenance.

1.4 MEASUREMENT - The Work of this Section will be measured as a unit, acceptably performed.

1.5 PAYMENT will be made under:

Item No. 01000.01 - General Requirements - per lump sum.

PART 2 - PRODUCTS

2.1 20 sets of operations and maintenance data.

PART 3 - EXECUTION

3.1 GENERAL - Assemble operation and maintenance manual using manufacturer's latest standard commercial data.

### 3.2 FORMAT

- A. Size: 8 1/2 inches by 11 inches, bound vertically.
- B. Paper - White bond, at least 20 pound weight
- C. Text - Printed or typewritten
- D. Printed Data - Manufacturer's catalog cuts, brochures, operation and maintenance data. Clear reproductions thereof will be acceptable.
- E. Drawings: 8 1/2 inches by 11 inches, preferably bound in with text. Larger drawings are acceptable, provided they are folded to fit into a pocket inside the rear cover of the manual. Reinforce edges of large drawings.
- F. Prints of drawings - black on white, sharp in detail and suitable for making reproductions.
- G. Flysheets - Separate each portion of the manual with colored, neatly prepared flysheets briefly describing contents of the ensuing portion.
- H. Covers - Provide 40 to 50 mil, clear plastic, front and back covers for each manual.
- I. Bindings - Conceal the binding mechanism inside the manual; 3-ring binders will be acceptable. Binding is subject to the District or its designee's approval.

### 3.2 CLEARLY IDENTIFY the manual, on or through the front cover, with at least the following information:

OPERATION AND MAINTENANCE INSTRUCTIONS

(TITLE OF STRUCTURE OR FACILITY)

(TITLE AND NUMBER OF CONTRACT)

(ADDRESS)

(City, State)

(General subjects of this Manual)

(Space for signature of the District or its Designee  
acceptance date)

### 3.3 CONTENTS OF THE MANUAL

- A. An index of all volumes, in each volume of multiple volume systems.

- B. An index, in and for each volume. List and combine the literature, for each system, in the sequence of operation.
- C. Not used.
- D. Name, address, and telephone numbers of manufacturers' nearest service representatives.
- E. Name, address and telephone number of nearest parts vendor and service agency.
- F. Copy of guarantees and warranties issued to, and executed in the name of, the District.
- G. Not used.
- H. Description of system and component parts.
- I. Procedures for starting, operating, and stopping equipment.
- J. Accepted test data.
- K. Maintenance schedules and procedures.
- L. Cleaning methods and procedures.
- M. One copy of each wiring diagram.
- N. One copy of each accepted Shop Drawing.
- O. Manufacturer's parts list with catalog names, numbers and illustrations.
- P. An exploded view of each piece of the equipment with part designations.
- Q. List of manufacturer's recommended spare parts, price and quantities for two years of operation.
- R. List of special tools and test equipment required for the operation, maintenance, adjustment, testings, and repair of the equipment, instruments, and components.
- S. Scale and corrosion control procedures.
- T. Dismantling and reassembly instructions.
- U. Trouble shooting, repair instructions.
- V. Not used.
- W. Ordering information.

END OF SECTION

SECTION 01740

WARRANTIES AND BONDS

PART 1 - GENERAL

- 1.1 DESCRIPTION - The Work specified in this Section consists of preparing and submitting warranties and bonds required by these Specifications.
- 1.2 SUBMITTALS - Refer to Section 01300, Submittals, for submittal-procedures.
  - A. Blank warranties and bonds for acceptance of form.
  - B. Executed warranties and bonds.
- 1.3 MEASUREMENT - The Work of this Section will be measured as a unit, acceptably performed.
- 1.4 PAYMENT will be made under:
  - Item No. 01000.01 - General Requirements - per lump sum.

PART 2 - PRODUCTS

Products are not required for this Section.

PART 3 - EXECUTION

- 3.1 EXECUTE THE WARRANTIES AND BONDS required by these Specifications in the form accepted by the District or its designee.
- 3.2 PROVIDE WARRANTIES OR BONDS for the materials, labor and time period set forth in the Sections of these Specifications requiring such documents.

END OF SECTION

SECTION 01750

SPARE PARTS AND REPLACEMENT MATERIALS

PART 1 - GENERAL

- 1.1 DESCRIPTION - The Work specified in this Section consists of packaging, shipping, delivering, and unloading spare parts and replacement materials.
- 1.2 MEASUREMENT - The Work of this Section will be measured as a unit, acceptably performed.
- 1.3 PAYMENT will be made under the lump sum item that the spare parts pertain to.

PART 2 - PRODUCTS

- 2.1 Products are as defined in Section 01730, Operation and Maintenance Data, and the replacement materials as indicated.

PART 3 - EXECUTION

- 3.1 PACKAGE and label spare parts and replacement materials in moisture proof containers suitable for shipment and storage. Attach copies of shipping list in the package and to the exterior of the package.
- 3.2 SHIP spare parts as directed by the District or its designee.
- 3.3 DELIVER spare parts not later than the date of Final Acceptance.
- 3.4 UNLOAD the spare parts in a manner which will prevent damage to the packages and the contents. The District or its designee will open the packages and inspect spare parts for damage. Damaged parts will be returned to the Contractor to be replaced with undamaged parts at no additional expense to the District.

END OF SECTION

SECTION 05500

METAL FABRICATIONS

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section consists of furnishing and installing metal fabrications and related items for the signing and edgelight Work.

1.2 QUALITY ASSURANCE

A. Qualifications - Provide items of Work fabricated by a firm specializing in metal fabrication. Employ only tradesmen with at least three years' experience in fabrication and installation Work herein specified.

B. Reference Standards

1. Not used.

2. American Society for Testing and Materials (ASTM)  
ASTM D2000 Rubber Products in Automotive Applications

3. American Welding Society (AWS)

AWS B2.1 Welding Procedures and Performance Qualification

AWS D1.1 Structural Welding Code - Steel

C. Conform to AISC S326, AISI SG-671 through SG-675, ANSI A12.1, ANSI A14.3, ANSI A58.1 and ASTM A6.

1.3 SUBMITTALS

A. Refer to Section 01300, Submittals, and Section 01340, Shop Drawings, Product Data, and Samples, for submittal procedures.

B. Shop Drawings for the fabrication and installation of metal Work which are not completely shown by manufacturer's data sheets. Indicate anchorage and accessory items.

C. Manufacturer's product data, load tables, dimension diagrams, anchor details, and certificates of compliance or material test reports indicating compliance with the Contract Documents, and installation instructions for products to be used in the fabrication of metal Work, including paint products.

D. Welding procedures, welder qualifications and welder certifications as required by AWS D1.1 for carbon steel and AWS B2.1 for stainless steel.

E. Name and product data for coatings.

F. Not used.

1.4 MEASUREMENT - The Work of this Section will not be separately measured for payment.

1.5 PAYMENT will be made under the lump sum item to which this Work pertains.

## PART 2 - PRODUCTS

### 2.1 GENERAL

A. Fabrications shall be complete with anchors, inserts and hardware.

B. Materials shall be free from mill pitting, mill scale and flake rust.

C. Fabrications shall be formed and finished to shape and size with sharp angles and lines.

D. Countersink metalwork to receive the required hardware and to provide bevels and clearances.

E. Weld plates on for mounting of hardware. Drill or punch holes for bolts and screws. Conceal fastenings wherever possible.

F. Grind exposed edges smooth. Construct joints exposed to weather to exclude water and provide weep holes indicated.

G. Brackets, lugs and similar accessories required for installation shall be included as a part of the fabrication.

H. Welds shall be performed in accordance with AWS D1.1, ground smooth and finished flush where exposed.

2.2 MANHOLE AND INLET FRAMES AND COVERS - Not used.

2.3 EMERGENCY EXIT STAIRS AND DOORS - Not used.

2.4 MISCELLANEOUS STEEL FABRICATIONS - Not used.

2.5 FINISHES - Not used.

2.6 SETTING COMPOUND - Not used.

- 2.7 GALVANIZING - Not used.
- 2.8 STEEL GRATINGS - Not used.
- 2.9 GALVANIZED STEEL PIPE - Not used.
- 2.10 FASTENERS AND ANCHORAGE MATERIALS
  - A. Welding Electrodes and Filler Metal - Provide the alloy and type required for strength, workability, compatibility and color match after grinding smooth and finishing the fabricated product.
  - B. Fasteners - Same basic metal or alloy as the metal fastened, and finished to match in color and texture. Comply with FS FF-S-92 for machine screws. When concealed fasteners are impractical or impossible, provide Phillips flat-head screws for exposed fasteners, unless otherwise indicated.
  - C. Anchors and Inserts - Either furnish inserts to be set in concrete and masonry Work, or provide other anchoring devices as required for the installation of stainless steel Work. Furnish stainless steel or epoxy coated inserts as indicated. Provide toothed stainless steel expansion bolt devices for drilled-in-place anchors.
- 2.11 STAINLESS STEEL PLATES, BARS AND GRATINGS - Not used.
- 2.12 NONFERROUS GROUT - Not used.
- 2.13 CHECKERED PLATE - Not used.
- 2.14 TREE GRATES - Not used.
- 2.15 CAST IRON STAIR NOSINGS - Not used.
- 2.16 LADDERS - Not used.
- 2.17 CONTINUOUS CHANNEL INSERT - Not used.
- 2.18 INORGANIC ZINC COATING - Not used.
- 2.19 NITRILE RUBBER GASKET -
  - A. Conform to ASTM D2000. The product shall have the following properties:
    - 1. Tensile strength: 710.
    - 2. Aging resistance: A14.
    - 3. Compression set: B14.
    - 4. Hydrocarbon-Resistance: E034.

- B. Acceptable manufacturer - West American Rubber Co., Orange, CA; Kirkhill Rubber Co., Brea, CA; or approved equal.

2.20 EPOXY ADHESIVE FOR INSERT ANCHORS - Not used.

PART 3 - EXECUTION

3.1 FABRICATION

- A. For the fabrication of metal Work which will be exposed to view, use only materials which are smooth and free of surface blemishes including pitting, seam marks, and roller and grinding marks, before cleaning, treating and application of finishes.
- B. Use materials of the size and thicknesses indicated or, if not indicated, of the required size and thickness to produce adequate strength and durability in the finished product for the intended use. Work to the dimensions shown on the approved Shop Drawings, using proven details of fabrication and support. Use the types of materials indicated or specified for the various components of Work.
- C. Form exposed Work true to line and level, with accurate angles and surfaces and straight, sharp edges. Ease exposed edges to a radius of approximately 1/32 inch unless otherwise indicated. Form bent-metal corners to the smallest radius possible without causing grain separation or otherwise impairing the Work.
- D. Verify dimensions by accurate field measurement before fabrication wherever Work adjoins other Work that precedes it in construction. Do not delay job progress; allow for trimming and fitting of metalwork wherever the taking of field measurements before fabrication might delay the Work. Note on Shop Drawings which dimensions have been verified by field measurement.
- E. Weld corners and seams continuous and in accordance with the recommendations of AWS. Grind exposed welds smooth and flush to match and blend with adjoining surfaces.
- F. Form exposed connections with hairline joints which are flush and smooth, using concealed fasteners wherever possible. Use exposed fasteners of the type indicated or, if not indicated, use socket cap flat-head (counter-sunk) screws or bolts.
- G. Predrill bolt and screw holes as indicated and as required for attachment of metalwork and adjacent materials.

- H. Furnish inserts and anchoring devices which must be set in concrete or built into masonry for the installation of metalwork. Coordinate delivery of such devices with other Work to avoid delay.
- I. Provide for anchorage of the type indicated. Fabricate and space anchoring devices as indicated and as required to provide adequate support for the intended use of the Work.
- J. Cut, reinforce, drill and tap metalwork as required to receive finish hardware and similar items of Work.
- K. Use hot-rolled steel bar for Work fabricated from bar stock, unless Work is indicated or specified to be fabricated from cold-finished or cold-rolled stock.
- L. Preassemble Work in the shop to the greatest extent possible, to minimize field splicing and assembly of units at the site. Disassemble units to the extent necessary to comply with shipping and handling limitations. Clearly mark units for reassembly and proper installation.
- M. Where indicated as galvanized, complete the shop fabrication before application of the coating. Remove millscale and rust, clean and pickle the units as required for coating. Apply hot-dip zinc coating of two ounces per square foot in accordance with ASTM A123.

3.2 Through 3.7 - Not used.

END OF SECTION

SECTION 05513

ALUMINUM ASSEMBLIES

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section consists of furnishing aluminum assemblies as indicated.

1.2 QUALITY ASSURANCE

A. Qualifications - Provide major items of Work fabricated by a firm specializing in "custom" type aluminum fabrication. Employ tradesmen having a minimum of three years' experience in fabrication.

B. Reference Standards

1. American Society for Testing and Materials (ASTM)

ASTM B209 Aluminum and Aluminum-Alloy Sheet and Plate

ASTM B211 Aluminum-Alloy Bar, Rod, and Wire

ASTM B308 Aluminum-Alloy 6061-T6 Standard Structural Shapes, Rolled or Extruded

2. American Welding Society (AWS)

AWS D1.2 Structural Welding Code - Aluminum

3. Federal Specifications (FS)

FS FF-S-92 Screw, Machine: Slotted, Cross-Recessed or Hexagon Head

C. The requirements, terminology, and standards of performance, fabrication and workmanship are those specified and recommended by AA, ANSI, and AAMA.

D. In addition to the requirements indicated and specified in this Section, comply with the applicable provisions and recommendations of the NAAMM Metal Finishes Manual.

1.3 SUBMITTALS

A. Refer to Section 01300, Submittals, and Section 01340, Shop Drawings, Product Data, and Samples, for submittal procedures.

B. Shop Drawings for the fabrication and erection of assemblies. Show anchorage and accessory items and finishes.

C. Certifications that indicate compliance with the requirements of this Section.

D. Welding procedures and performance qualifications per AWS D1.2.

1.4 MEASUREMENT - The Work of this Section will not be separately measured for payment.

1.5 PAYMENT will be made under the lump sum item to which this Work pertains.

## PART 2 - PRODUCTS

### 2.1 MATERIALS

A. Aluminum - Provide the forms and types indicated and specified for each item of Work (Aluminum Association nomenclature), and comply with the following general standards. Except for specific requirements of workability, strength and hardness, provide Alloy 6063-T5 or 6061-T6. Where no other finish is indicated or specified, provide standard mill finish, or as acceptable to the District or its designee. Furnish aluminum exposed to weather or dampness with an Architectural Class 1 Anodic coating (AA-M1ZC22A42).

1. Plate and Sheet - ASTM B209.

2. Bars, Rods and Wire - ASTM B211.

3. Extruded Shapes and Tubes - ASTM B221 or B308.

B. Welding Electrodes and Filler Metal - Provide the alloy and type required for strength, workability, compatibility and color match after grinding smooth and finishing the fabricated product.

C. Fasteners - Same metal or alloy as the metal fastened, and finish shall match in color and texture.

D. Anchors and Inserts - Either furnish inserts to be set in concrete and masonry Work, or provide other anchoring devices as required for the installation of Work. Furnish stainless steel or epoxy-coated anchors.

### 2.2 FABRICATION

A. Fabricate from the thicknesses, sizes and shapes indicated or, if not indicated as required, to produce Work of adequate strength and durability, without unacceptable deflections. Use proven details of fabrication to achieve proper assembly and alignment of the various components of the Work.

- B. Form exposed Work true to line and level with flush surfaces and accurate angles. Miter exposed corner joints and machine-fit to a hairline joint.
- C. Continuously weld corners and seams in accordance with the recommendations of AWS or AA. Grind exposed welds smooth and flush to match and blend with adjoining surfaces.
- D. Provide brackets, plates and straps with each assembly as required for support and anchorage to other Work.
- E. Cut, reinforce, drill and tap aluminum Work as required to receive finish hardware and similar items of Work.
- F. Complete the fabrication and assembly of units before chemical treatment or the application of coatings so that untreated or uncoated edges will not be exposed.
- G. Isolate aluminum attached to dissimilar metal from the dissimilar metal using neoprene tape or spacers.

PART 3 - EXECUTION

3.1 INSTALLATION - Not used.

END OF SECTION

SECTION 07915

SEALANTS AND GASKETS

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section includes furnishing and installing sealants, gaskets and primers as indicated.

1.2 QUALITY ASSURANCE

A. Provide products from a manufacturer regularly engaged in the production of joint fillers and gaskets.

B. Not used.

C. Reference Standards

American Society for Testing and Materials (ASTM)

ASTM D1056 Flexible Cellular Materials - Sponge or Expanded Rubber

ASTM D2000 Standard Classification System for Rubber Products in Automotive Applications

Federal Specifications (FS)

FS TT-S-227 Sealing Compound: Elastomeric Type, Multi-component (for Calking, Sealing, and Glazing in Buildings and Other Structures)

FS TT-S-230 Sealing Compound: Elastomeric Type, Single Component (for Calking, Sealing and Glazing in Buildings and Other Structures)

1.3 SUBMITTALS

A. Refer to Section 01300, Submittals and Section 01340, Shop Drawings, Product Data and Samples for submittal procedures.

B. Samples

1. Sealants - Three inches long, each color and each type of sealant exposed to view. Submit samples between two strips of material representative of joint, or in 3/8 inch wide performed channel.

2. Gaskets - Three inches long of each type.

- C. Product Data - Manufacturer's printed data for each product, including recommended procedures for installation and precautions to be observed. Show by transmittal that one copy of each item has been distributed to Installer.
  - 1. Data, clearly indicating that each product to be furnished complies with these Specifications, is recommended for the application indicated, and is compatible with other materials in joint system.
  - 2. Complete instructions for handling, storage, installation and protection of each product.

#### 1.4 DELIVERY, STORAGE AND HANDLING

- A. Deliver materials in manufacturer's original, unopened containers, clearly labeled with the manufacturer's name and complete material identification.
- B. Store materials in original, unopened containers, with labels intact. Stored materials shall be protected from ground contact and from the elements.
- C. Handle materials in a manner to prevent contamination to the sealants and damage to the products.

#### 1.5 JOB CONDITIONS

- A. Examine joint surfaces and correct conditions detrimental to proper and timely completion of Work. Do not proceed with Work until unsatisfactory conditions have been corrected.
- B. Install sealants and gaskets only when weather conditions are within the manufacturer's recommended limitations for installation.

1.6 MEASUREMENT - The Work of this Section will not be separately measured for payment.

1.7 PAYMENT will be made under the lump sum item to which this Work requiring sealants and gaskets pertains.

### PART 2 - PRODUCTS

#### 2.1 GENERAL

- A. Size and Shape - Provide joint fillers and gaskets as indicated or, consult manufacturer and determine proper size and shape considering joint movement and conditions at time of installation.

- B. Hardness and Compressibility - As recommended by manufacturer for proper performance in each specific condition of use.
  - C. Compatibility - Provide type of joint filler which is compatible with joint surfaces and each condition as certified by manufacturer for each application.
  - D. Pressure-Sensitive Adhesive - Apply to joint fillers and gaskets, wherever applicable and at installer's option to facilitate installation.
  - E. Color - For exposed gaskets or joint fillers, provide color indicated or, if not indicated, provide exposed materials in colors to match the color of adjacent materials from manufacturer's standard colors. For concealed joints, provide manufacturer's standard color which has best overall performance characteristics.
- 2.2 SEALANTS - Polysulfide-based, one-part elastomeric sealant, complying with FS TT-S-230, Class A, Type II or two-part elastomeric sealant, complying with FS TT-S-227, Class A, Type II, as recommended by manufacturer for application indicated.
- 2.3 EXPANDED POLYETHYLENE JOINT FILLER - Closed Cell - Not less than 5.0 psi for 25 percent compression deflection, resistant to petroleum oils and solvents, surface water absorption of not more than five percent:
- A. Expanded Polyethylene; Construction Gaskets, Inc.
  - B. Ethafoam SB; Dow Chemical Co.
  - C. Sealtight Backer Rod; W.R. Meadows, Inc.
  - D. Ethafoam 90; Pecora Chemical Corp.
  - E. Sonofoam; Sonneborn-Contech, Inc.
  - F. Expand-O-Foam; Williams Products, Inc.
- 2.4 GASKETS
- A. Neoprene Gaskets - Extruded or rolled and cut neoprene gaskets, complying with ASTM D2000, designation 2BC, 415, to 3BC 620, black, of 40 to 60 Shore A durometer hardness; of the profile shown or, if not shown, as required by the joint shape, size, and movement characteristics to maintain a watertight seal and prevent vibration noises.
  - B. Adhesives - Of the type recommended by the manufacturer of the gasket.

- 2.5 CONCEALED, EXPANDED NEOPRENE GASKET - Closed Cell - ASTM D1056, Grade SCE-41;
- A. Elastomeric Panel Seals; Construction Gaskets, Inc.
  - B. Neoprene Type SCE041; Construction Gaskets, Inc.
  - C. Closed Cell Neoprene; Durable Rubber Products Co.
  - D. Everlastic Panel Seals; Williams Products, Inc.
  - E. Everlastic, Neoprene Type NN1; Williams Products, Inc.
- 2.6 JOINT PRIMER, SOLVENTS, CLEANING AGENTS - As recommended by the sealant manufacturer for the joint surfaces to be primed or sealed.

### PART 3 - EXECUTION

- 3.1 INSPECTION - Examine joint surfaces and backing for conditions that will adversely affect the seal. Do not proceed until adverse conditions have been corrected.

### 3.2 PREPARATION

- A. Clean joint surfaces of dirt, insecure coatings, moisture and other substances which would interfere with bond of sealant or adhesive.
- B. Prime or seal joint surfaces as recommended by the sealant manufacturer. Prevent primer and sealer from migrating onto adjoining surfaces.

### 3.3 INSTALLATION

- A. Install sealant and gasket materials in accordance with the manufacturer's recommended procedures for installation and as specified herein.
- B. Backer Rods and Joint Filler
  - 1. Install to a depth to allow sealants to be installed so that sealants shall have a depth equal to 50 percent of the joint width but not more than 3/4 inch deep nor less than 1/2 inch deep.
  - 2. Depress face edge of joint fillers accurately, wherever used as backup for sealant, as indicated or as specified by sealant manufacturer for proper application of sealant.
  - 3. Apply in continuous runs without voids or interruptions, except as may be otherwise indicated.

4. Install without gaps or voids between ends of units and without ends of units protruding from joints. Trim for tight fit around obstructions or elements penetrating joint.
  - C. Install full bed of adhesive on gaskets and secure to surfaces so as to prevent movement or dislodgement during installation.
  - D. Recess exposed edges of joint fillers and gaskets slightly behind face of adjoining surfaces, unless indicated otherwise.
  - E. Comply with manufacturer's instruction for installation of each type of joint filler or gasket, unless otherwise indicated and/or specified. Do not puncture surface or self-skin on molded or extruded types of cellular joint fillers.
  - F. Isolation - Provide isolation between dissimilar metals.
- 3.4 CURING SEALANTS - Cure sealants in accordance with the manufacturer's recommended procedures for curing to obtain high early bond strength, internal cohesive strength and surface durability.

END OF SECTION

SECTION 08800  
GLASS AND GLAZING

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section consists of furnishing and installing glass and glazing materials as indicated.

1.2 QUALITY ASSURANCE

A. Label each light to indicate the gauge and quality of glass and the manufacturer's name or brand.

B. Label laminated and tempered glass to indicate that these materials have been tested and that they conform to part 1201 of Title 16, Code of Federal Regulations and ANSI Z97.1.

C. Reference Standards

1. American National Standards Institute (ANSI)

ANSI Z97.1 Safety Glazing Materials Used in Buildings

2. American Society for Testing and Materials (ASTM)

ASTM C509 Cellular Elastomeric Preformed Gasket and Sealing Material

ASTM C864 Dense Elastomeric Compression Seal Gaskets, Setting Blocks, and Spacers

ASTM C1036 Flat Glass

ASTM C1048 Heat Treated Flat Glass - Kind HS, Kind FT Coated and Uncoated Glass

ASTM E773 Seal Durability of Sealed Insulating Glass Units

ASTM E774 Sealed Insulating Glass Units

3. National Fire Protection Association (NFPA)

NFPA 80 Fire Doors and Windows

### 1.3 SUBMITTALS

- A. Refer to Section 01300, Submittals, and Section 01340, Shop Drawings, Product Data, and Samples, for submittal procedures.
- B. Manufacturer's product data indicating compliance with requirements of the Contract Documents.
- C. 12 inch by 12 inch sample of each type, grade, thickness and color of glass to be installed. Identify each sample with the manufacturer's name, product name, thickness, color designation, figure designation, light transmittance, surface treatment and installation location. Protect sample edges for handler's safety.
- D. Manufacturer's literature addressing the light transmittance, solar transmittance, Winter Night U value, Summer Day U value and shading coefficient of each color and shade of sheet glass and each laminated, figured and multiple layer glazing unit.
- E. 12 inch samples of each type of glazing gasket and tape identified with the manufacturer's name, the product name and splicing instructions.
- F. Certification that the insulating glass units furnished are faithful replicas of insulating glass units which have passed the program of testing set forth in ASTM E773.
- G. Warranty of the materials and workmanship, for glass in conformance with Section 01740, Warranties and Bonds, attesting that the manufacturer warrants the laminated glass, the Contractor warrants the installation of such glass and that they, jointly or separately will replace without cost to, or other obligation of the District, glass which is determined to be defective. Defects which constitute a breach of the warranty are delamination, imperfections in glass, deterioration of plastic sheets or laminating films, loss of transparency or color change within a period of five years of the date of the District's acceptance of the assembly.

1. Approval of form.

2. Executed Warranty.

1.4 MEASUREMENT - The Work of this Section will not be separately measured for payment.

1.5 PAYMENT will be made under the lump sum item to which this Work pertains.

PART 2 - PRODUCTS

2.1 GLASS - The types of glass required are as follows.

A. Through C. - Not used.

D. Laminated Tempered 7/32 Graylite Glass - Conform to ASTM C1036, Type I, Class 1, Quality q<sup>3</sup>; ANSI Z97.1; Part 1201 of Title 16 CFR and the following:

Color - Grey

Glass Combination - Two lights of thermal glass laminated with an interlayer of 0.060 inch polyvinyl butyral resin sheeting.

Visible Light Transmittance: 85 to 89 percent

Solar Transmittance: 70 to 79 percent

Winter Night U Value: 1.09 to 1.13

Summer Day U Value: 1.01 to 1.04

Shading Coefficient: 0.87 to 0.95

E. Through S. - Not used.

2.2 GLAZING MATERIALS

A. Setting blocks shall be 80 Shore A durometer neoprene equal to the thickness of the glass and long enough to limit the load on each block to 15 pounds per square inch. Minimum length of setting blocks shall be three inches.

B. Glazing Compound - An elastomeric material possessing the following properties when cured:

Extensibility	150 percent
Recovery	75 percent
Resistance to peel	10 pounds per square inch
Resistance to indentation	25 (Shore A durometer)
Service temperature	-30°F to +200°F

C. Glazing Tape - A sheet material possessing the properties specified for the glazing compound, reinforced and stabilized with a fabric mesh in the center and treated with a bonding agent on both major surfaces.

D. Color of the glazing tape and glazing compound shall match the color of the sash.

E. Dry-set glazing gaskets composed of 40 pound density closed-cell neoprene sponge gasket conforming to ASTM C509 and a 70 shore A durometer neoprene wedge gasket conforming to ASTM C864.

## PART 3 - EXECUTION

### 3.1 PREPARATION

- A. Obtain field dimensions of each opening which is to receive glass and cut each light to provide the optimal bite on, and clearance from, the frame.
- B. Clean the surfaces which are to receive the glass and glazing materials. Surfaces are to be free of dirt, corrosion and residue which would reduce the adhesion of the glazing materials.
- C. Select glass in conformance with the Contract Drawings, approved submittals, and Table No. 54-A as modified by UBC Table No. 54-B, Chapter 54, Glass and Glazing.
- D. Not used.

### 3.2 INSTALLATION

- A. Perform glazing when temperature is above 40°F and the weather for 24 hours before and forecast is without precipitation.
- B. Install glass in conformance with the Contract Drawings, approved submittals, and Part 1201, Chapter II, Title 16, Code of Federal Regulations.
- C. Install tempered glass with the tong marks at the bottom of the light. Use only Category II when the area of the tempered glass exceeds nine square feet.
- D. Install glass in fire-rated assemblies in conformance with NFPA 80.
- E. Install colored insulating and reflective units with the colored or reflective treated light on the exterior surface.
- F. Cut the glazing tape to the exact lengths required for each light and install on the sash with joints formed watertight. Do not stretch or deform the tape.
- G. Provide and place neoprene setting blocks at the quarter points of the bottom of each light. Blocks shall support the glass light not less than 1/16 inch above the metal and shall hold the glass in the opening.
- H. Press the glass light against the glazing tape to form a permanent bond.
- I. Install stainless steel wire clips at not more than 12 inches on center to hold the glass against the tape.

J. Install and secure the glass stops. Fill the space between the glass and stops, to its entire width and depth, with glazing compound.

K. Install dry set glazing gaskets in conformance with the manufacturer's recommendations.

### 3.3 CLEANING

A. Upon completion of glazing remove blemishes from the glass.

B. Assure that each light is identified as to the type and grade of glass.

C. Remove and replace sheets of glass where distortion is evident and distracting, as determined by the District or its designee.

D. Wash and polish glass before acceptance by the District.

END OF SECTION

SECTION 09853

FIXTURE COATING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Work specified in this Section consists of providing coating for map cases, edgelight and signing elements as indicated and specified.
- B. The coating shall be one of the following and meet the requirements specified herein.
  - 1. Aliphatic urethane coating
  - 2. Polyester powder coating
  - 3. Fluoropolymer coating

1.2 QUALITY ASSURANCE

- A. Coating shall be shop applied under environment and conditions as follows:
  - 1. Apply and cure coating in dust-free surrounding, in a humidity range of 30 to 85 percent, and in a surrounding air temperature of not less than 50°F.
  - 2. Do not apply coatings to dirty, dusty, rusty, damp or oily surfaces.
  - 3. Where repetitive items must be coated under production-line conditions, the curing time may be accelerated using heat lamps and warmboxes as recommended by the coating manufacturer. Do not cure in temperatures greater than 150°F. Do not alter the formulation on the cured properties of the coating to achieve quicker cure.
- B. Coating shall match the color, gloss, thickness, light resistance, chemical resistance, texture, application quality, hardness and durability of standard coating samples on file with the District or its designee.
- C. The coating manufacturer shall:
  - 1. Have produced coatings for not less than three years, and shall be capable of furnishing both products and instructions for their use.

2. Provide each applicator or fabricator of items which receive the coating with three by five inch stepped samples of each color to be used, as standards of uniform quality during the shop finishing operation.
- D. The fixture coating for exterior fixture housing and hardware shall meet the following criteria:
1. Mechanical
    - a. Gloss: 75 percent minimum initial as measured by Gardner 60° reflectometer.
    - b. Impact Resistance - No cohesive failure at less than 160 inch-pounds direct.
    - c. Abrasion - Less than loss of coating after 1000 revolutions with wheel at 1000 grams force on a Taber Abraser.
    - d. Pencil Hardness - No visible damage to finish from applications of a 2H hardness lead pencil.
    - e. Flexibility - No evidence of cracking or flaking when examined under ten power magnification after a 180 degree bend over mandrel.
    - f. Adhesion - A square lattice formed of squares shall be made through the film to base metal with a scribe or sharp razor blade. A strip of cellophane tape applied to the lattice and then pulled away shall remove none of the squares.
  2. Weathering
    - a. Salt Spray Resistance - No creeping or blistering; less than five percent loss of gloss after 1000 hours continuous exposure to salt spray at 100°F.
    - b. Water Immersion - No creeping or blistering; less than five percent loss of gloss after 1000 hours continuous water soaking at 160°F.
    - c. Humidity Resistance - No creeping or blistering; less than five percent loss of gloss after 1000 hours continuous exposure to 100°F, 100 percent relative humidity.
    - d. Ultraviolet Exposure - No visual perceptible change in color when viewed under daylight, fluorescent or 100 watt tungsten filament light sources after 1000 hours exposure to an Atlas Twin Accelerator, or equivalent sun simulator.

- e. Service Temperature - No yellowing, chalking, softening or crazing when exposed to temperatures of 0°F continuous or 100°F continuous.
- 3. Color Matching - Not used.
  - 4. Chemical Resistance
    - a. Solvents - No transfer of finish after 100 continuous, uninterrupted wipes with a cotton swab saturated with gasoline, motor oil, ethanol, toluene, acetone, chloroethene or trichloroethene. A slight transfer of finish will be acceptable when the solvent used is methylene chloride or ethyl acetate.
    - b. Acids and Bases - There shall be no softening of the finish after 45 days continuous immersion at 70°F in a 20 percent solution of acetic acid, sulphuric acid, phosphoric acid, potassium hydroxide or sodium chloride.
  - 5. It shall be possible to use common cleaning fluids to remove the following materials that have been applied to the fixture finish without damaging the finish or substrate: masking tape, cellophane tape, adhesive tape, rubber cement, Magic Marker ink (aged 72 hours), lead pencil marking (2H hardness) or Krylon Sunset Orange 2401 spray paint (aged 72 hours).
- 1.3 SUBMITTALS - Refer to Section 01300, Submittals, for submittal procedures.
  - 1.4 DELIVERY, STORAGE AND HANDLING
    - A. Deliver materials to shop facility for painting in manufacturer's original, unopened containers, clearly labeled with the manufacturer's name and the material brand, type, finish and color.
    - B. Store coating materials in an area protected from the elements and with labels intact. Handle materials in a manner that prevents contamination.
  - 1.5 MEASUREMENT - The Work of this Section will be measured as a unit acceptably performed.
  - 1.6 PAYMENT will be made under the unit price item to which the fixture coating pertains.

## PART 2 - PRODUCTS

### 2.1 MATERIAL QUALITY

- A. Prime Coat, color coat and top coat shall be furnished by a single manufacturer as a compatible system.
- B. Color Coat - To match grey... FS...???

### 2.2 ACCESSORY MATERIALS - Sandblast materials, cleaning, etching and thinning materials needed to prepare surfaces, to thin coatings and to clean up shall be as recommended by the coating manufacturer.

## PART 3 - EXECUTION

### 3.1 SHOP OR FACTORY SURFACE PREPARATION - Remove fasteners and other finish items from surface before preparing for coating.

### 3.2 COLOR MATCHING

- A. Coatings shall be formulated and applied so as to maintain uniform color, texture and gloss.
- B. All applications of coatings shall maintain uniform color, texture gloss and quality of application. Standard samples of each color will be made available by the District or its designee.

### 3.3 MIXING, GENERAL APPLICATION REQUIREMENTS

- A. Mix and apply each element of the coating system according to manufacturer's published recommendations.
- B. Apply all coats of coating system at shop or factory, under dust-free, temperature and humidity-controlled conditions, except where field touch-up of damaged coats is approved by the District or its designee.
- C. The specified prime coat shall be followed by the specified color coat within 48 hours of priming, unless the surface of the primer is lightly abraded or otherwise prepared as recommended by the manufacturer of the coating.

### 3.4 SHOP OR FACTORY APPLICATION

- A. Apply intermediate color coat and clear top coat as flow coats to build specified dry film thickness.
- B. Apply each coat according to coating manufacturer's published recommendations.

- C. Finished surfaces shall be fully and uniformly coated without pinholes, bubbles, sag, runs, lumps, brush marks or discoloration, and shall be of uniform color and gloss.
- 3.5 TOUCH-UP - Provide touch-up coating to installation Contractor with complete instructions for surface preparation and use. Provide sufficient quantity of touch-up paint as is reasonable and necessary to complete the installation of the signing and edge light components.
- 3.6 COATING SCHEDULE - Conform to the manufacturer's coating schedule and dry film thickness to meet the criteria specified.

END OF SECTION

SECTION 09900

PAINING

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Work specified in this Section consists of furnishing and applying the extent of painting Work indicated and specified.
- B. The Work includes the painting and finishing of interior and exterior exposed items and surfaces throughout the Contract, except as otherwise indicated. Surface preparation, priming and coats of paint specified are in addition to shop priming and surface treatment specified under other Sections of the Work.
- C. The Work includes the painting of bare and covered pipes (including color coding in accordance with ANSI A13.1 and ANSI Z53.1), and of hangers, exposed steel and iron Work, and primed metal surfaces of equipment except as otherwise indicated.
- D. The term "paint" as used herein means coating systems materials, which includes primers, emulsions, enamels, stain, sealers and fillers, and other applied materials whether used as prime, intermediate or finish coats.
- E. Paint exposed surfaces whether or not colors are designated in any "schedule", except where the natural finish of the material is specifically noted as a surface not to be painted. Where items or surfaces are not specifically mentioned, paint these the same as adjacent similar materials or areas. The paint systems specified in other Sections list the basic painting systems. Deviations within the system, such as use of two finish coats in lieu of undercoat and finish, shall be only where such procedure is recommended by the paint manufacturer.

1.2 PAINTING NOT INCLUDED

- A. Through E. - Not used.
- F. Operating Parts and Labels
  - 1. Moving parts of operating units, mechanical and electrical parts, such as valve and damper operators, linkages, sensing devices, motor and fan shafts will not require finish painting unless otherwise indicated.

2. Do not paint over code-required labels, such as UL and FM, or equipment identification, performance rating, name, or nomenclature plates.

3. Not used.

### 1.3 QUALITY ASSURANCE

#### A. Paint Coordination

1. Provide finish coats which are fully compatible with and supplied by the same manufacturer as the prime paints used. Review other sections of these Specifications in which prime paints are to be provided to ensure compatibility of the total coatings system for the various substrates. Upon request furnish information on the characteristics of the finish materials proposed for use, to ensure that compatible prime coats are used. Provide barrier coats over incompatible primers or remove and reprime as required.

2. Before beginning painting work, review applicable painting systems with qualified representatives of the selected paint system manufacturer.

#### B. Reference Standards

1. American National Standards Institute (ANSI)

ANSI A13.1 Scheme for the Identification of Piping Systems

ANSI Z53.1 Safety Color Code for Marking Physical Hazards

2. Federal Specifications (FS)

FS TT-P-641 Primer Coating, Zinc Dust-Zinc Oxide (for Galvanized Surfaces)

3. Steel Structures Painting Council (SSPC)

SSPC Manual, Volume 1

SSPC SP 1 Solvent Cleaning

SSPC SP 3 Power Tool Cleaning

### 1.4 SUBMITTALS

A. Refer to Section 01300, Submittals, and Section 01340, Shop Drawings, Product Data, and Samples, for submittal procedures.

- B. Manufacturers' Review - Before purchasing painting materials, review the proposed systems, materials and substrates with qualified representatives of the selected manufacturer. Obtain manufacturers' concurrence of the proposed systems or any recommended changes thereto before submission of data as hereinafter specified. Record review, in writing, with copy to the District or its designee.
- C. Samples of color, sheen and texture. Provide a listing of the material and application for each coat of each finish sample.
  - 1. On 12 inch by 12 inch hardboard, provide samples of each color and material, with texture to simulate actual conditions.
  - 2. and 3. - Not used.
- D. Manufacturer's Data
  - 1. Manufacturer's technical information, including paint label analysis and application instructions for each material proposed for use.
  - 2. List each material and cross-reference to the specific paint and finish system and application. Identify by manufacturer's catalog number and general classification.

#### 1.5 DELIVERY AND STORAGE

- A. Deliver materials to the job site in original, new and unopened packages and containers bearing manufacturer's name and label, and the following information:
  - 1. Name or title of material, color and number.
  - 2. Fed. Spec. number, if applicable.
  - 3. Manufacturer's name, stock number and date of manufacture.
  - 4. Thinning instructions.
  - 5. Application instructions.
- B. Store materials and equipment in a properly ventilated, designated storage space on the site. Keep storage space neat, clean and accessible at all times. Protect floors from paint spillage.

#### 1.6 PROTECTION

- A. And B. - Not used.

- C. Refinish Work damaged by defective workmanship or materials, as directed by the District or its designee.

#### 1.7 JOB CONDITIONS.

- A. Apply solvent-thinned paints only when the temperature of surfaces to be painted and the surrounding air temperatures are between 45°F and 95°F, unless otherwise permitted by the paint manufacturer's printed instructions.
- B. Do not apply paint in rain, fog or mist; when the relative humidity exceeds 85 percent; to damp or wet surfaces; or when the surface to be painted is less than 5°F above the dew point of the surrounding air; unless otherwise permitted by the paint manufacturer's printed instructions.
- C. Painting may be continued during inclement weather only if the areas and surfaces to be painted are enclosed and heated during application and drying periods, within the temperature limits specified by the paint manufacturer.

1.8 MEASUREMENT - The Work of this Section will not be separately measured for payment.

1.9 PAYMENT will be made under the lump sum item to which this Work pertains.

### PART 2 - PRODUCTS

#### 2.1 MATERIAL QUALITY

- A. Materials used in the Work shall be as specified. No claims as to the suitability of any material specified, or the Contractor's or installer's inability to produce first class Work with these materials, will be considered unless such claims are made in writing and submitted in sufficient time, before the execution of the Work, so as not to cause delays.
- B. Provide undercoat paint produced by the same manufacturer as the finish coats. Use thinners approved by the paint manufacturer, and use only to recommended limits.
- C. Use primers and undercoaters that are suitable for each surface to be covered and that are compatible with the finish coat required.
- D. Use products of the same manufacturer for succeeding coats where shop primed materials are to be finish painted and prime coat materials are by a different manufacturer than the finish coat materials. Confirm compatibility of the primers with the manufacturer of the finish coat paints.

E. Materials necessary to complete the painting are herein specified and listed. Numbers and names are standards for kinds, quality and function, and are taken from the stock list of Architectural finishes of the Sinclair Paint Company, Los Angeles, CA.

1. Equivalent materials from the Architectural product line of Fuller-O'Brien, Sherwin-Williams, Devoe, Pratt & Lambert, Frozee, Dunar Edwards and Glidden, will be acceptable, subject to approval by the District or its designee.

2. Except for speciality items or as otherwise specified, materials for any one system shall be by one manufacturer.

F. Materials for undercoats and finish coats of paint shall be ready-mixed and shall not be changed, except thinning of undercoats (when required), reinforcing or coloring, any of which shall be in accordance with the recommendations of the manufacturer.

G. Dry film thicknesses, in mils, and the number of coats required to obtain that thickness shall be in conformance with the recommendations of the paint manufacturer of each system.

## 2.2 COLORS AND FINISHES

A. Not used.

B. Use representative colors when preparing samples for review by the District or its designee. Final acceptance of colors will be from samples applied on the job.

C. Proprietary names used to designate colors or materials are not intended to imply that products of the named manufacturers are required to the exclusion of equivalent products of other manufacturers.

D. Color Pigments - Pure, nonfading, applicable types to suit the substrates and service indicated.

## 2.3 PAINT FINISH SCHEDULE

A. Finish surfaces in accordance with the following systems for the surface and finish desired. Catalog names and numbers refer to products as manufactured by the Sinclair Paint Co., except as otherwise specified. Numbers used to identify paint indicate the paint in white. Same material shall be color selected as required.

B. Exterior

1. Metal - Ferrous

1st coat -	15	Chrome Oxide Primer
2nd coat -	248	Sash & Trim Primer
3rd coat -	250	Sash & Trim Enamel

2. Metal - galvanized

1st coat -	25	Zinc Dust Primer
2nd coat -	248	Sash & Trim Primer
3rd coat -	250	Sash & Trim Enamel

C. Interior - Enamel Finish (select sheen)

Gloss Enamel (GE)	800	Sinco Gloss Enamel
Semi-gloss Enamel (SGE) OR	1800	Sinco Satin Enamel
4000		Aqua Satin Enamel
Eggshell Enamel (EE)	2200	Porcelain Eggshell Enamel

1. Metal

1st coat -	15	Chrome Oxide Primer - ferrous metal
	28	White Prime - galvanized metal
2nd coat -	975	Sinco Prime Undercoater
3rd coat -		Enamel - Sheen as selected

2. Exceptions - Not used.

D. Battery Rooms - Not used.

PART 3 - EXECUTION

3.1 CONDITION OF SUBSTRATE

- A. Examine the areas and conditions under which painting Work is to be performed. Do not proceed with the Work until unsatisfactory conditions have been corrected.
- B. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to the formation of a durable paint film.

3.2 SURFACE PREPARATION

- A. Perform preparation and cleaning procedures in accordance with the paint manufacturer's instructions and as herein specified, for each particular substrate condition.

## B. Preparation

1. Remove hardware, hardware accessories, machined surfaces, plates, lighting fixtures and similar items in place and not to be finish painted, or provide surface applied protection before surface preparation and painting operations. Remove, if necessary, for the complete painting of the items and adjacent surfaces. Following completion of painting of each space or area, reinstall the removed items by workmen skilled in the trades involved.
2. Clean surfaces to be painted before applying paint or surface treatments. Remove oil and grease with clean cloths and cleaning solvents before mechanical cleaning. Vacuum clean interior surfaces to be painted.
3. Before applying succeeding coats, primers and undercoats shall be completely integral and shall perform the function for which they are specified. Properly prepare and touch up scratches, abrasions or other disfigurements and remove foreign matter before proceeding with the following coat. Featheredge spot-priming or spot-coating into adjacent coatings to produce a smooth and level surface.

## C. Ferrous Metals

1. Clean and prime bare ferrous metal surfaces, which have not been shop primed, before the surface is damaged by weather or other exposure. After erection is completed, touch up heads of bolts, welded surfaces which are unpainted, and surfaces or areas where the primer has been abraded or otherwise damaged.
2. Before application of field coats on shop primed ferrous metal surfaces, remove oil, grease, welding flux residues and other contaminants harmful to painting in accordance with SSPC SP 1. After solvent cleaning, prepare bare metal surfaces by removing stratified rust (rust scale), loose mill scale, loose or non-adherent rust and detrimental welding deposits by methods specified in SSPC SP 3. Prepare abraded surfaces of shop coated metal by sanding to bare metal.

## D. Galvanized Metals

1. Clean unpainted galvanized metal surfaces of oil, grease and other contaminants in accordance with SSPC SP 1, and pretreat in accordance with SSPC Manual, Volume 1, Chapter 3.1. Prime with a zinc dust-zinc oxide alkyd paint conforming to FS TT-P-641 Type II.
2. Before application of subsequent coats, thoroughly clean surfaces to ensure the removal of grease, soil,

dust and foreign matter. Take particular care to prevent the contamination of cleaned surfaces with salt, acids, alkali or other corrosive chemicals before prime coating and between subsequent coats of paint.

E. Touch-up paint primed metal surfaces using the same prime paint as originally applied or a prime paint determined to be compatible.

F. Cementitious Materials - Not used.

### 3.3 MATERIALS PREPARATION

A. Mix and prepare painting materials in accordance with the manufacturer's directions.

B. Store materials not in actual use in tightly covered containers. Maintain containers used in storage, mixing and application of paint in a clean condition, free of foreign materials and residue.

C. Stir materials before application to produce a mixture of uniform density, and as required during the application of the materials. Do not stir film which may form on the surface into the material. Remove the film and, if necessary, strain the material before using.

D. Tinting - Tint each undercoat a different shade to facilitate identification of each coat where multiple coats of the same material are to be applied. Provide a code number to identify material tinted by the manufacturer.

### 3.4 APPLICATION

#### A. General

1. Apply paint in accordance with the manufacturer's directions. Use applicators and techniques best suited for the substrate and type of material being applied for the brush, roller or spray. Use brushes best suited for the type of material being applied. Use rollers of carpet, velvet back, or high pile sheep's wool as recommended by the paint manufacturer for material and texture required.

2. Spread materials evenly and smoothly without runs, sags or other defects. Make edges of paint adjoining other materials or colors sharp and clean, without overlapping. Allow sufficient time between coats to ensure proper drying.

3. The number of coats and paint film thickness required is the same regardless of the application method. Do not apply succeeding coats until the previous coat has

completely dried. Sand between each enamel or varnish coat application with fine sandpaper, or rub surfaces with pumice stone where required to produce an even, smooth surface in accordance with the coating manufacturer's directions.

4. Apply additional coats when undercoats, stains or other conditions show through the final coat of paint, until the paint film is of uniform finish, color and appearance. Ensure that surfaces, including edges, corners, crevices, welds and exposed fasteners, receive a film thickness equivalent to that of flat surfaces.
  5. Paint surfaces behind movable equipment and furniture the same as similar exposed surfaces. Paint surfaces behind permanently-fixed equipment or furniture with prime coat only.
  6. Not used.
  7. Paint the back sides of access panels, removable or hinged covers to match the exposed surfaces.
  8. Finish doors on tops, bottoms and side edges the same as the faces, unless otherwise indicated.
- B. Mechanical and Electrical Work - Not used.

C. Dry Film Thickness

1. Apply as many coats of paint as necessary to obtain the required Minimum Dry Film Thickness (MDFT) in conjunction with each paint system but not fewer than the number of coats recommended by the paint manufacturer to obtain that thickness.
2. In no case shall the MDFT be less than five mils for a two coat system.
3. Use the more stringent requirements where the paint manufacturer's instructions differ from this Specification.
4. The specified film thickness shall be a minimum of the profile depth of the surface to be coated plus the specified dry film thickness.
5. Measure film thickness as follows:
  - a. Magnetic surfaces by use of Elcometer thickness gauge
  - b. Nonmagnetic surfaces by a pit gauge or micrometer.

#### D. Scheduling Painting

1. Apply the first-coat material to surfaces that have been cleaned, pretreated or otherwise prepared for painting as soon as practicable after preparation and before subsequent surface deterioration.
2. Allow sufficient time between successive coatings to permit proper drying. Do not recoat until paint has dried to where it feels firm, does not deform or feel sticky under moderate thumb pressure, and the application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.

E. Prime Coats - Recoat primed and sealed walls and ceilings where there is evidence of suction spots or unsealed areas in first coat, to ensure a finish coat with no burn-through or other defects due to insufficient sealing.

#### F. Transparent (Clear) Finishes

1. On exposed portions, use multiple coats to produce glass-smooth surface film continuity of even luster. Provide a finish free from laps, cloudiness, color irregularity, runs, brush marks, orange peel, nail holes and other surface imperfections.
2. Provide satin finish for final coats, unless otherwise indicated.

#### G. Brush Application

1. Brush-out and work brush coats onto the surfaces in an even film. Cloudiness, spotting, holidays, laps, brush marks, runs, sags, ropiness or other surface imperfections will not be acceptable. Neatly draw gloss and color break lines.
2. Brush apply primer or first coats, unless otherwise permitted to use mechanical applicators.

H. Mechanical Applicators - Use mechanical methods for paint application when permitted by governing ordinances and trade union regulations. If permitted, limit to those surfaces impracticable for brush applications. Apply each roller coat to provide the equivalent hiding as brush-applied coats.

I. Completed Work - Match accepted samples for color, texture and coverage. Remove, refinish or repaint Work not in compliance with specified requirements.

3.5 FIELD QUALITY CONTROL - The District or its designee reserves the right to invoke the following material testing

procedure at any time, and any number of times during the period of painting.

A. The services of an independent Testing Laboratory will be engaged by the District to sample the paint being used. Samples of materials delivered to the Contract site will be taken, identified and sealed, and certified in the presence of the Contractor.

B. The Testing Laboratory will perform appropriate tests for the following characteristics in accordance with the specified manufacturer's standards: Abrasion resistance, apparent reflectivity, flexibility, washability, absorption, accelerated weathering, dry opacity, accelerated yellowness, recoating, skinning, color retention, alkali resistance and quantitative materials analysis.

3.6 PAINT SCHEDULE - The color and type of paint shall be as selected from the color and material palette schedule developed by the District or its designee.

3.7 ADJUST AND CLEAN

A. Touch up and restore finish where damaged. Touch up abraded, stained or otherwise disfigured portion or re-finish as necessary to produce an acceptable job.

B. Through D. - Not used.

END OF SECTION

SECTION 10440

SIGNING AND EDGE LIGHT

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section consists of Signing and Edge Light Work as indicated.

1.2 QUALITY ASSURANCE

A. Applicable Codes

1. UBC 1985
2. State of California Administrative Code, Title 19, Chapter 1, Subchapter 1, General Fire and Panic Safety Standards; Subchapter 4, Fire Alarm Systems and Devices; Subchapter 8, Flame Retardants, Chemicals, Fabrics and Application Concerns.
3. Electric Code, NFPA 70.
4. Code for Welding in Building Construction, AWS D1.1 or D1.3 as appropriate published by the American Welding Society, Inc., New York.

B. Applicable standards, Rules and Regulations:

1. American National Standards Institute (ANSI)
2. American Society of Civil Engineers (ASCE)
3. American Society of Mechanical Engineers (ASME)
4. American Society for Testing and Materials (ASTM)
5. Not used.
6. Electronic Industries Association (EIA)
7. Insulated Cable Engineers Association (ICEA)
8. Institute of Electrical and Electronics Engineers (IEEE)
9. National Electrical Manufacturers Association (NEMA)
10. National Fire Protection Association (NFPA)
11. Cal-OSHA

12. Underwriters' Laboratories, Inc. (UL)
13. U.S. Department of Transportation (DOT/UMTA)

C. Requirements of Regulatory Agencies

1. Compliance with local Code Enforcing Agencies, as required, including Permits.
2. Underwriters' Laboratories, Inc., materials and test report descriptions as required.
3. Fire and Life Safety Criteria of System Design Criteria and Standards for the Metro Rail Project.

D. Signing and Edge Light Component Manufacturer's Qualifications - Provide equipment and other components produced by manufacturers or firms at least one successful instruction of custom fabricated linear fixtures and specialized in the types of components required with these Specifications.

E. Design Criteria

1. Wiring and electrical interconnections shall comply with the governing codes. Insulated wiring shall have flame retardant and moisture proof outer covering.
2. Environmental Operational Requirements
  - a. Exterior Installations - Not used.
  - b. Interior Installations - Signing and Edge Lighting shall be designed to operate in underground temperature range of 0°F to 105°F dry bulb and all conditions of relative humidities while exposed to airborne dust.
3. Structural Requirements
  - a. Edge light and transverse element - Max deflection 1/4 inch, maximum air pressure +/-30 psf.
  - b. Interior signing and map cases - Maximum air pressure +/-30 psf
  - c. Exterior signs - wind speed 120 mph.

F. Design Responsibility

1. The requirements as shown are intended to establish basic dimensions of units or modules, profiles and sight lines of members. Within these limitations the Contractor shall be responsible for the design of the signing and edge light system, and to make whatever

modifications of, and additions to the details as may be required. Maintain the visual design concept as shown, including member sizes, profiles and accurate alignment of components. Exposed fasteners are to be minimized. Vandal-resistant fasteners, snap-on connections and components are encouraged. All finished surfaces and fasteners shall be flush with adjacent surfaces unless shown otherwise.

2. Maintenance - Design of fixtures shall permit each of the following operations to be performed by one person in one ladder position:

- a. Remove and reinstall louver assembly
- b. Remove and replace lamps
- c. Remove and reinstall reflector
- d. Remove and reinstall ballast
- e. Remove and reinstall sign element.

2. The design drawing shall include all aspects of the system proposed, such as sections, support flanges and wiring channels, shapes, and connections of components, how temperature movement is handled, joint connections, and anchorage to structure. Alloys if different from those specified.

1.3 SUBMITTALS - Refer to Section 01300, Submittals, for submittal procedure.

- A. Product Data - Submit the manufacturer's specifications installations instructions for the complete system, and for each component part of product used in the system. Include a complete listing and description of performance and operating characteristics. Show maximum dynamic and static loads imposed on the building structure at all points of support for the Work. Show maximum and minimum power demands.
- B. Manufacturers' literature shall include configuration drawings to be used to cross reference, locate, and identify all hardware, components, and systems submitted. The drawing shall indicate the manufacturer's unit assembly number of component part number as it appears in the submitted literature. If a component or subsystem is furnished by a subcontractor, the name of the subcontractor and the subcontractor's part number, component, or subsystem identification number shall be indicated.
- C. Certificates of Compliance shall be submitted for those products for which no samples and test results are specified. Certificates shall state that the product complies

with the requirements of respective specification section, and shall be signed by a representative of the product manufacturer.

D. Shop Drawings - Fabrication and assembly details of end and joiner plates, mounting details of ballast assembly, reflector and louver assembly, wiring schematics. Submit fabrication and erection drawings showing shop welds and connections, weld location and symbols, fasteners, component assembly sizes, alloys, coatings, adhesives, and relationship to adjacent work. Submit shop drawing showing actual constructed dimensions and in-field adjustments to dimensions, within specified tolerances, needed to make an exact fit of the graphic element components. If adjustments beyond specified measures are needed, state the implication for additional adjustment and proceed only if approved in writing by the District. The drawings shall include but not be limited to:

1. One reproducible sepia and five prints of shop drawings at each submittal until approved by the District. If shop drawing are not approved, the marked up sepia and one marked up copy will be returned to the Contractor.
2. Unless otherwise indicated, after approval by the District, submit one reproducible SEPIA and five opaque diazo prints of shop drawings.
3. Six copies of manufacturers' standard schematic drawings.
4. Four copies of manufacturers' calculations and six copies of manufacturers' standard data.
5. Three copies of each test result.
6. Three copies of each Certificate of Compliance.

E. Samples of materials shall be submitted for the following items:

1. Map cases; (1) Wall mounted  
(1) Free Standing
2. Sign bands; (1) A minimum five foot section of each type with graphics.
3. Site signs
4. Not used.
5. Sign/symbol plates

F. Mock-Up - Submit for approval a mock-up of the following items:

1. Platform Edge Light - Full size operable section 14 feet in length with typical one foot couplings at each end. Mock-up shall be fabricated of 1/8 inch minimum extruded aluminum sections with specified finish and shall be complete with removable illuminated sign panel, lens, lensframe with hardware, access cover, lamps, ballasts, reflectors and wireways.
2. Transverse Element - Full size operable section minimum 18 feet in length with typical one foot coupling at end adjoining edge light. Mock-up shall be fabricated of 1/8 inch minimum extruded aluminum sections with specified finish and shall be complete with removable illuminated destination and exiting information sign panel, lens, lens frame with hardware, access cover, lamps, ballasts, reflectors and wireways.
3. Illuminated Entrance Portal Sign Band - Full size operable section minimum one foot in length with typical end condition. Mock-up shall be fabricated of 1/8 inch minimum extruded aluminum sections with specified finish and shall be complete with removable illuminated exiting information sign panel, lens, lensframe with hardware, lamps, ballasts, reflectors and wireways.

1.4 MEASUREMENT - The Work of this Section will be measured as a unit acceptably performed.

1.5 PAYMENT will be made under:

Item No. 10440.01 - Signing, Union Station - per lump sum.

Item No. 10440.02 - Signing, Civic Center - per lump sum.

Item No. 10440.03 - Signing, Pershing Square - per lump sum.

Item No. 10440.04 - Signing, 7th St/Metro Center Station - per lump sum.

Item No. 10440.05 - Signing, Westlake/MacArthur Park - per lump sum.

Item No. 10440.06 - Signing, Yards/Shops Exterior Signs Only - per lump sum.

## PART 2 - PRODUCTS

2.1 PRODUCTS - Provide under this specification the following:

- A. Edge light and transverse element - see also Section 16505, Platform Edge Light, Transverse Element.
- B. Illuminated portal sign band
- C. Map cases.
- D. Sign bands
- E. Not used.
- F. Sign/symbol plates
- G. Site signs
- H. Other signs and graphic elements as shown on the Contract Drawings.

## 2.2 MATERIALS

### A. Aluminum

1. Extrusions - Shapes and thicknesses as shown and as required to fulfill requirements, but not less than 1/8 in. (3.2 mm) thick, unless otherwise shown. Suitable alloy and temper for extruding with adequate structural characteristics and suitable for finishing as specified.
2. Sheets and Plates - Sizes and minimum gauges as shown and as required to fulfill performance requirements. Suitable alloy and temper for forming and fabrication requirements with adequate structural characteristics and suitable for finishing as specified.
3. Castings - ASTM B 26 or B 108, alloy 43 for aliphatic urethane.
4. Aluminum alloy structural shapes - ASTM B308.

### B. Steel Fabrications

1. Plates, shapes and bars - ASTM A36, galvanized.
2. Tubing - ASTM A500, Grade A, galvanized.
3. Sheet - ASTM A366, galvanized.

### C. Galvanizing - ASTM A123

1. Items shall be fabricated complete or in the largest practical sections before galvanizing.
2. Metal shall be thoroughly cleaned before application of zinc coating.

D. Glass Tempered: 1/4 inch #14 Graylite tempered laminated glass with 14 percent visible light transmittance for map cases as manufactured by PPG Industries, Pittsburgh, PA. or approved equal.

E. Plastics

1. Acrylics - Not used.

2. Polycarbonate - (( )).

3. Molded Fiberglass sign panels

a. A 70/30 mixture of resin/fiberglass, molded to sizes and shapes shown. Resin composition shown. Resin composition shall be a mixture of polyester and methyl-methacrylate resins with ultra-violet inhibitors for exterior applications and flame retardant inhibitors for interior applications (maximum 25 flame spread and max-smoke development of 450 per ASTM E 84). Fiberglass shall be chopped glass fiber strands.

b. Provide gel coat in colors as selected by the District or its designee, minimum 50 mil (1.27 mm) thickness, manufactured by Ferro Corporation or Cook Paint and Varnish Co.

c. Characteristics of fiberglass shall be as follows:

1) Flexural Strength - 20,000 psi 14.06 kg/sq. mm)

2) Tensile Strength - 18,000 psi (12.66 kg/sq. mm)

3) Weathering - No crazing, chalking, blistering or appreciable color change after 1000 hours in a weatherometer. ASTM D 1499 and G23.

4) Abrasion - No signs of failure or Resistance serious degradation Fed. Std. 141a, Method 6191 (3000 liters sand).

5) Ultraviolet Discoloration - No discoloration after (Exterior 1000 hours with RS Applications) sunlamp. ASTM D 1148.

4. Lossy Line Carrier - Not used.

F. Finishes

1. Not used.
2. Aliphatic Urethane Coating - Refer to Section 09800, Aliphatic Urethane Coating.

G. Adhesives

1. Foam Tape - 1/16 in. (1.6 mm) thick, doublefaced, white pressure sensitive urethane foam adhesive tape, one of the following:
    - a. No. 4016; 3M Co., St. Paul, Minnesota.
    - b. No. ST1132 Spectape; Spectape of Texas, Addison, Texas
  2. Film Tape Adhesive - 4 mil (0.1 mm) thick, double-faced pressure sensitive film tape, one of the following:
    - a. No. 415; 3M Co., St. Paul, Minnesota.
    - b. Macbond No. SB 1786; Morgan Adhesives Co., Stow, Ohio.
  3. Silicone - FS TT-S-001543, Class A.
    - a. Silicone Sealant 1200; General Electric Co.
    - b. 781 Building Sealant; Dow Corning Corporation.
  4. Epoxy - Two component thermosetting epoxy adhesive with 100% solids content, one of the following:
    - a. NP-428; Miracle Adhesives Corporation.
    - b. Chemlok 304; Hughson Chemical Division of Lord Corporation.
- H. Silk Screen Inks - Provide silk screen inks in colors and sheen as shown, manufactured by one of the following:
1. Naz-Dar Company, Chicago, Illinois.
  2. Wornow Products Department, Dexter Corp., Industry, California.
  3. Colonial Printing Ink Co., East Rutherford, New Jersey.

I. Vinyl Die-Cut Graphics - Not used.

J. Miscellaneous Materials

1. Welding Electrodes and Filler Metal - Type and alloy of filler metal and electrodes as recommended by producer of the metal to be welded, and as required for color match, strength and compatibility in the fabricated items.
2. Fasteners - Shall be of basic metal and alloy, matching finished color and texture as the metal being fastened, unless otherwise indicated. Unless shown, provide Phillips flat-head screws for exposed fasteners. Color and finish of fastener heads to match adjacent materials.

## 2.3 FABRICATION

### A. General

1. Each graphic element shall be assembled in the manufacturer's shop facility and adjusted prior to delivery to the station sites for installation. Illuminated graphic elements shall also be tested for operation prior to site delivery. Each graphic element shall be shop assembled on its respective frame or support. Adjustments shall be made to the mounting to ensure that the profile of each sign face meets the specified tolerances. The surfaces of the sign faces where they join each other shall be true and level. The width of joints between sign faces shall be uniform to within a tolerance of plus or minus 1/32 inch over a five foot span.
2. Metal fabrications shall be formed and finished to shape and size with sharp angles and lines. Exposed edges shall be ground smooth. Joints exposed to weather shall be constructed to exclude water penetration.
3. Metal fabrications shall conform to the dimensions shown on the contract drawings to a tolerance of plus or minus 1/16 inch. Deviation from flatness and squareness shall not exceed plus or minus 1-1/2 degree. Each completed and installed graphic element shall not exceed a deflection of 1/32 inch per four feet of span over the entire length.
4. Extrusions shall conform to the dimensions indicated on the Contract Drawings to a tolerance of plus or minus 1/64 inch. Tolerances of the extrusion for flatness or squareness shall be plus or minus 1-1/2 degree.
5. Sheet aluminum components such as ballast boxes, wire ways, brackets for lamp sockets and blinders for lamps shall be fabricated in a manner to ensure that the aluminum is not cracked or broken during fabrication.

6. Aluminum parts which will come into contact with a dissimilar metal after assembly shall be protected from galvanic action by the isolation of the aluminum from the dissimilar metal with gasket material. The gasket shall cover the entire surface of the aluminum which would come into contact with the dissimilar metal.

B. Welding

1. Welds shall be performed in accordance with AWS D1.1 or D1.3 as appropriate, ground smooth and finished flush where exposed, polished to match exterior finishes for stainless steel members. Illuminated signs shall be free of light leaks.

2. Joints to be welded shall be bolted or tacked in contact and adjusted to the dimensions shown on the Contract Drawings, with allowance for any weld shrinkage, prior to finish welding. Heavy sections having a high degree of restraint shall be welded with low hydrogen type electrodes. Members shall not be spliced without specific approval of the District or its designee.

3. Welding shall be performed by operators who have been qualified within the preceding one-year period under AWS standard qualification procedure for the type of work required.

C. Design components to allow for expansion and contraction for a minimum material temperature range of 100°F, without causing buckling, excessive opening of joints or overstressing of welds and fasteners.

D. Form work to the required shapes and sizes, with true curves, lines and angles. Provide necessary rebates, lugs and brackets for assembly of units. Use concealed fasteners wherever possible.

E. Items shall be shop fabricated so far as practicable. Joints shall be fastened flush to conceal reinforcement, or welded where thickness of section permits.

F. Contact surfaces of connected members shall be ground true. Parts shall be so assembled that joints will be tight and practically unnoticeable, without use of filling compound.

G. Castings shall have fine, even texture and shall be unwarped and sound. Lines and miters shall be sharp, arrises unbroken, profiles accurate and ornament true to pattern. Plane surfaces shall be smooth. Ornament shall have excess metal or imperfections that obscure design, undercut to restore detail. Filed or cut areas shall have texture restored.

- H. Wrought work shall be leveled or straightened. Members shall have sharp lines and angles and smooth surfaces. Extruded members shall be free from extrusion marks. Square turns and corners shall be sharp. Curves shall be true.
- I. Holes for bolts and screws shall be drilled. Fastenings shall be concealed where possible. Exposed ends and edges shall be milled smooth, with corners slightly rounded. Joints exposed to weather shall be formed to exclude water.
- J. Parts to receive hardware shall be countersunk. Plates for mounting hardware shall be riveted or welded in place.

#### 2.4 SIGNING

- A. Internally Illuminated Signs - Incised and Infilled Aluminum.
  - 1. Furnish sign panels which are changeable by removing an access panel in the unit and removing fasteners inside the unit. All fasteners shall be concealed inside the unit, and all sign panels flush with the outside face of the unit.
  - 2. Letters shall be laser-cut through .090 inch thick aluminum extrusion and infilled with 1/8 inch translucent white acrylic. A 1/8 inch translucent white acrylic diffuser shall be provided to back up letters.
    - a. All laser-cutting shall be by computer numerically controlled (CNC) cutting equipment. All letters are to be digitized in the typestyle and spacing indicated. Optical tracing of letterstyles will not be accepted.
    - b. Fabrication shall provide full-scale approval patterns for all messages before production of sign panels.
  - 3. Finish of Incised and Infilled Aluminum sign panels shall be Aliphatic Urethane as specified in Section 09800, Aliphatic Urethane Coating. Background color shall be semi-gloss gray with semi-gloss white letters.
  - 4. Illumination - Shall be by cool white fluorescent lamps with electrical rating of 277 volts.
    - a. The appearance and light transmittance of each part of the sign faces on which typography, arrows, or pictographs will appear, shall be uniform from one portion to another.

- b. The appearance and light transmittance of each sign face shall be uniform from sign face to sign face as they are compared to one another.
- c. There shall be no light leaks in any area not intended to be illuminated.

B. Non-Illuminated Signs - Sub-Surface Molded Fiberglass.

1. Sign panels shall be mounted to aluminum posts which shall have a clear aliphatic urethane coating. Reveals between support posts or concrete pedestal bases are black aliphatic urethane aluminum. Support posts shall be minimum 1/8 inch aluminum alloy #6063.
2. Graphics are sub-surface printed and integral with the sign panel face. An opaque background color with opaque white copy is standard except where the RTD logo appears it shall be RTD red with red, orange and yellow stripes.
  - a. All graphics are applied by photo-silkscreen or die-cut frisket methods in the typestyle and spacing indicated. Hand-cut screens or friskets will not be accepted.
  - b. Fabricator shall provide full-scale approval patterns for all messages before production of sign panels.
3. Finish of sub-surface molded fiberglass sign panels shall be Aliphatic Urethane Coating as specified in Section 09800, Aliphatic Urethane Coating. Color shall be semi-gloss grey #26270, Federal Standard 5959 (January 1984).
4. Structural core of fiberglass sign panels shall be rigid closed cell polyurethane foam or honeycomb core bonded between the molded fiberglass panels to provide a strong, rigid; flat and lightweight sandwich panel.
5. Standard mounting consists of a freestanding post and panel assembly with aluminum support posts embedded directly into concrete footings or as shown on the Contract Drawings.

C. Internally Illuminated Map Cases - Wall Mounted, Phone Booth Frame Mounted and Free Standing.

1. Map cases shall be fabricated using a single aluminum extrusion which forms the outer perimeter frame and provides a housing for all components. Aluminum frame shall have a aliphatic urethane finish.

2. Illumination is by cool white florescent tubes. Electrical rating is 277 volts.
  - a. The appearance and light transmittance of each part of the sign faces on which typography, arrows, or pictographs will appear, shall be uniform from one portion to another.
  - b. The appearance and light transmittance of each sign face shall be uniform from sign face to sign face as they are compared to one another.
3. Door panel shall be tempered laminated glass #14 Graylite with 14 percent visible light transmittance, see 2.2.D, page 6. Glass is surrounded by an aluminum frame extrusion finished to match the case and includes a concealed continuous hinge and keyed lock.
4. Map cartridge shall have an aluminum frame with black anodized finish and a continuous hinge with magnetic latching mechanism. Cartridge shall contain a 1/8 inch Acrylic Duratrans Map (N.I.C.) with a 1/8 inch translucent acrylic diffuser. Map cartridge shall hinge open for access to remove lamps. Cartridge shall be removable to facilitate replacement of Duratrans Maps.

## 2.5 GRAPHICS

### A. Typography

1. The alphabet used for sign legends shall be Helvetica Medium. Sign face layouts and the type-styles to be used thereon shall be as indicated on the Contract Drawings.
2. Type shall be of the sizes indicated on the Contract Drawings. All capital heights shall be measured on the Letter "E".
3. Capitalization shall be as indicated on the Contract Drawings.
4. Letter spacing for signs shall be with no letters touching adjacent letters. Dimensioned line spaces and flushing guidelines are indicated on the Contract Drawings. All flushing shall be visual so that an even margin is created between the edge of the sign and the arrow on the legend.
5. Typography, either photo silkscreened or frisketed, shall be phototypeset prior to application. Enlargements or reductions of typography, arrows, or pictographs shall be performed photographically.

6. Legends, arrows and symbols shall be either photo silkscreened or frisketed. Hand-cut silkscreens or hand-painted legends will not be accepted.
  7. Arrows and symbols shall be exact reproductions of those indicated on the Contract Drawings.
- B. Color - All copy shall be white on grey background. Use ultraviolet-fast pigments as follows:
1. The standard for matching colors shall be:  
Gray - Semi-Gloss Gray #26270 Federal Standard 5952 (January 1984)  
White - Semi-Gloss  
Symbol colors as shown on the Contract Drawings.

### PART 3 - EXECUTION

- 3.1 TESTING - Illuminated graphic elements shall be operated by the Installation Contractor for a continuous period of 30 days upon complete installation. During this operation test period, the illuminated graphic elements shall be inspected in the presence of the District or its designee for Contract document compliance.

END OF SECTION

### 3. Porcelain Enamel

- a. Fabrication of shapes which are to receive porcelain enamel shall be completed before porcelain enameling. All welds shall be ground smooth. Necessary holes shall be drilled or cut before application of porcelain enamel. Panel edges shall be formed in accordance with detailed shop drawings.
- b. Porcelain enamel coating shall be applied on all surfaces of exterior sheet including back and flanges. At least one additional separately fired coating shall be applied to all exterior surfaces to produce the desired color and finish. The maximum porcelain enamel thickness shall not exceed 0.028 inches. The minimum thickness shall be 0.008 inches.
- c. Lettering and other graphics shall be applied by silk screen method and fired separately. "Ghosting" of one color through another when graphics are applied over surface coating shall not be permitted.
- d. Letters and designs shall be clearly cut and sharply defined.
- e. Graphics shall be as shown on the Contract Drawings and of a vitreous enamel coating, permanently fused to the background porcelain enameled surface.
- f. The following tests shall be performed on 12 inches by 12 inches porcelain enamel samples by the Contractor and witnessed by the District or its designee. All test results shall be made available to the District or its designee.
  - 1) Acid Resistance - The porcelain enamel shall have a weight loss of less than 20 mg. psi in the boiling six percent citric acid test. Reference test is described in ASTM C283, "Resistance of Porcelain Enameled Materials to Boiling Acid".
  - 2) Adherence - Porcelain enamel coating, when tested for adherence in accordance with the following, shall show not more than 50 percent exposed metal. A specimen shall be placed on a steel anvil having on its surface a cylindrical depression, 1 1/8 inches in diameter, and 5/32 inches in depth. The specimen shall be struck at a point centered directly above the depression with a steel ball, one inch in diameter, by allowing a plunger to fall upon the steel ball

from such a height that the steel ball will deform the metal and force the specimen under test to touch the bottom of the depression.

#### D. Porcelain Enamel Sign Bands

1. Sign bands shall be minimum 1/8 inch thick aluminum extrusions, Alloy 6061. Finish shall be porcelain enamel to conform to current Porcelain Enamel Institute specifications.
2. All graphics shall be white on gray background. See Sub-Article 2.5-B.
3. Copy shall be applied by silkscreen method and fired separately. "Ghosting" of one color through another when graphics are applied over surface coating shall not be permitted.

#### E. Porcelain Enamel Symbols and Sign Plates

1. Symbols and sign plates shall be 12 gauge low carbon vitreous enameling steel, tension leveled and completely fabricated before enameling. At least one additional coating shall be applied to both faces to achieve the design and colors specified.
2. Porcelain Enamel Symbols and Sign Plates are to be furnished with studs for mounting to surfaces as indicated on the Contract Drawings.
3. All copy shall be white on grey background. Symbol colors shall be as shown on Contract Drawings. See Sub-Article 2.5-B.
4. Copy shall be applied by silkscreen method and fired separately. "Ghosting" of one color through another when graphics are applied over surface coating shall not be permitted.

SECTION 10441

PORCELAIN ENAMEL SIGNS

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section consists of furnishing porcelain enamel signs as indicated. Refer to Section 10440, Signing and Edge Light for additional requirements.

1.2 QUALITY ASSURANCE

A. Reference Standards

1. Porcelain Enamel Institute (PEI)

PEI:S-100 Architectural Porcelain Enamel on Steel  
for Exterior Use

B. Manufacturer - Provide units produced by a firm with experience in the fabrication of porcelain enamel signs of the type required for this Contract. The manufacture of material under these Specifications shall be in accordance with the current edition of the Recommended Standards and General Specifications issued by the Architectural Division of the Porcelain Enamel Institute.

C. Porcelain Enamel Finish Tests - Perform the following tests on 12 inch by 12 inch porcelain enamel samples processed in the production run. These tests, performed by the Contractor, will be witnessed by the Engineer. Make all test results available to the Engineer.

1. Acid resistance - The porcelain enamel is to have a weight loss of less than 20 milligrams per square inch in the boiling six percent citric acid test as described in ASTM C283, Resistance of Porcelain Enameled Materials to Boiling Acid.

2. Adherence to steel - Porcelain enamel is to show not more than 50 percent exposed metal when tested for adherence as follows: Place specimen on a steel anvil having on its surface a cylindrical depression, 1 1/8 inches in diameter, and 5/32 inches in depth. Strike the specimen at a point centered directly above the depression with a steel ball, one inch in diameter, by allowing a plunger to fall upon the steel ball from such a height that the steel ball will deform the metal and force the specimen under test to touch the bottom of the depression.

D. Guarantee - Provide a guarantee that the porcelain enamel panel assembly will not craze, crack, color fade or delaminate for a period of 20 years.

### 1.3 SUBMITTALS

A. Refer to Section 01300, Submittals, and Section 01340, Shop Drawings, Product Data, and Samples, for submittal procedures.

B. Manufacturer's Data - Copies of manufacturer's data, recommendations and standard details for porcelain enamel signs, including fabrication, finishing, accessories and other components of the Work.

C. Shop Drawings

1. Show materials for the Work of this trade; indicate sections, dimensions of units, jointing, bending where required, anchoring attachments and other details; identify units by setting numbers and supply required information for related trades to follow.

2. Show forming details, tolerances allowed (both dimensional and flatness), location in completed structure and on-the-job cutting or drilling requirements, as applicable. Show the maximum allowable extent of damage due to drilling and cutting.

3. Not used.

D. Samples

1. Not used.

2. Samples of typical fabricated sections, showing joints, exposed fastenings (if any), quality of workmanship, hardware and accessory items, before fabrication of the Work proceeds.

E. Mock-up - Furnish a mock-up of a sign approximately 12 inches by 24 inches showing at least six letters and an end section. The District or its designee reserves the right to change the color of the sign with no additional cost to the District after submittal of the mock-up. The mock-up shall remain with the District or its designee to establish the quality of Work.

F. Compliance Certificate - Provide manufacturer's certificate at time of submission that the porcelain enameling will be performed in accordance with PEI:S-100.

G. Guarantee - Fully executed guarantee.

1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Store metal signs on end in a dry, well ventilated area to prevent condensation.
- B. Do not allow panels or other components to come in contact with mud, uncured concrete, cement, lime or other materials which in the presence of moisture may cause staining of signs.
- C. Deliver and store components suitably wrapped or otherwise protected to prevent damage to finish.

1.5 MEASUREMENT - The Work of this Section will not be measured separately for payment.

1.6 PAYMENT will be made under the lump sum item to which this Work pertains.

PART 2 - PRODUCTS

2.1 PORCELAIN ENAMEL PANELS

A. Form porcelain enamel panels from 16 gauge vitreous enameling iron. Drill necessary holes, form corners, weld corners and attachments, and perform cuts before application of finishes.

1. Core Material - Flat panels shall be laminated with a solid core, which will provide impact resistance, fire resistance, and water resistance. Core thickness should be a minimum of 3/8 inch. Laminated plywoods are not an acceptable core material.

2. Back Sheet - Back sheet shall be formed 24 gauge, galvanized steel. Back sheet, core material, and panel face shall be laminated to form a single composite panel, where required, with a Class I fire rating.

B. Porcelain Enamel Coating - Apply a porcelain enamel coating to surfaces of unit, including back and flanges. Apply at least one additional separately-fired coating to the face side of each unit. Protect the back side of panels with an additional separately-fired porcelain enamel coating. Furnish the porcelain enamel in a matte or gloss finish, as indicated.

C. Porcelain Enamel Finish - Conform to PEI S-100-65 as follows:

1. Cover all surfaces of metal with ground coat.

2. Coat all surfaces to be exposed with number of enamel coats required to produce the approved finish. Use grade AA or A acid resistant enamel.
  3. Between each coating of enamel, fuse coat to metal at approximately 1500°F.
  4. Texture - Panel should be flat with no embossed or textured design.
  5. Luster - Provide gloss or luster no greater than 70 percent.
  6. Color - In accordance with Section 10440, Signing and Edgelight.
- D. Seals, Closures and Other Accessories - As recommended by the manufacturer.
- E. Fasteners
1. Manufacturer's standard type for concealed fastening.
  2. Fasteners holding together various elements or panels and holding panels to structural sign members shall be designed to withstand the design load requirements specified herein above, with a safety factor of at least 2.
- F. Joint Sealant (where applicable) - Elastomeric silicone rubber sealant, conforming to Federal Specification TT-T-1543, as manufactured by Dow Corning, Tremco, or General Electric. 20 year material warranty required.
- G. Sound Deadner - Not used.

## 2.2 FABRICATION

- A. Form joints by channel flanges integral with the panels. Lay joints out with 1/4 inch spacing between the panels, except as otherwise detailed, to achieve reveals.
- B. Weld the corners of panels before the application of the porcelain enamel finish.
- C. Provide porcelain enamel panels with channel stiffeners, fabricated from 16 gauge galvanized steel, laminated to the back as required to maintain the required flatness. Check this tolerance using a 24 inch long straight edge. No point on a single unit shall be more than 1/16 inch away from the straight edge between the two points of contact. This flatness tolerance involving the use of stiffeners will not apply to panels if they are detailed as trim units, soffits, or other applications installed horizontally or semi-horizontally on the structure.

D. Thickness of Porcelain Enamel - A minimum of 0.0025 inch of cover coat shall be provided. The total thickness may range from 0.004 to 0.020 inch. Do not exceed 0.020 inch total thickness.

E. Clips and Attachments - Not used.

F. Not used.

PART 3 - EXECUTION

3.1 INSPECTION - Not used.

3.2 ERECTION - Not used.

3.3 SEALANT - Not used.

END OF SECTION

SECTION 16050

BASIC ELECTRICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section shall be for the internal wiring of the pre-fabricated edgelight modules and for illuminated panels. All external connections to the power supply are not included in this Contract. All internal installation methods shall conform to the applicable codes and standards under Paragraph 1.3. In general, all wiring inside the edgelight modules shall be by the wireways (raceways) extending the entire length of each module. Provide junction boxes for each end of the module. All fixture wiring shall be spliced/connected to the main feeder conductors inside junction boxes only. Provide one junction box only for illuminated panels.

1.2 INTERFACES - Not used.

1.3 QUALITY ASSURANCE

A. Reference Standards

1. Through 4. - Not used.

5. National Fire Protection Association (NFPA)

NFPA 70            National Electrical Code

6. Underwriters Laboratories Inc. (UL)

UL 5                Surface Metal Raceways and Fittings

UL 486             Wire Connectors and Soldering Lugs for  
Use with Copper Conductors

UL 514A            Metallic Outlet Boxes

UL 514B            Fittings for Conduit and Outlet Boxes

B. Conform to the following:

1. Electrical codes of the City and of the County of Los Angeles.

2. Regulations of the California Public Utilities Commission, Rapid Transit District Safety Branch.

3. California Electrical Safety Orders, Title 8.

4. California Administrative Code, Title 24.

5. Fire Department Ordinances of the City and County of Los Angeles.
  6. Through 8. - Not used.
  9. CAL/OSHA Standards.
  10. International Conference of Building Officials, Uniform Building Code (UBC).
- 1.4 SUBMITTALS - All submittals shall be part of Section 16504, Lighting Fixture for Illuminated Panels, and Section 16505, Platform Edge Light and Transverse Element.
    - A. Through F. - Not used.
  - 1.5 MEASUREMENT - The Work specified in this Section will be measured as a unit, acceptably performed.
  - 1.6 PAYMENT will be made under the unit price item this work pertains to under Section 16504, Lighting Fixture for Illuminated Panels, Section 16505, Platform Edge Light and Transverse Element.

## PART 2 - PRODUCTS

### 2.1 GENERAL REQUIREMENTS

- A. Furnish items of the materials, design, sizes and ratings as indicated.
  - B. Furnish materials and equipment bearing UL label and evidence of UL listing where UL standards exist and such product listing is available. Where not available, use the "Field Test" procedure for labeling. Electrical materials shall comply with NFPA 70.
  - C. Methods of fabrication, assembly and installation are optional unless otherwise indicated.
  - D. Provide products that are free from defects impairing performance, durability or appearance, and of the commercial quality best suited for the purpose indicated or specified herein.
  - E. Through G. - Not used.
- 2.2 Through 2.7 - Not used.
  - 2.8 SURFACE METAL RACEWAYS AND FITTINGS - Conform to UL 5 and NFPA 70.

2.9 JUNCTION AND PULL BOXES - Conform to NFPA 70 Article 370.

- A. Electrical boxes shall conform to UL 50, Cabinets and Boxes, and UL 514B, Fittings for Conduit and Outlet Boxes. Boxes for connections between sections of platform lighting and signage units shall conform to NEMA standards for internal wiring and wire ways of electrical signs.
- B. Provide electrical boxes of the material, finish, type and size indicated and required for the location, kind of service, number of wires, and function. Boxes shall be mounted inside the panels or edgelight modules.
- C. Through E. - Not used.
- F. Junction boxes shall be coated with corrosion resistant materials. Where outlet boxes are used as junction boxes, they shall conform to NFPA 70.
- G. Through L. - Not used.
- M. Grounding - Provide each box with a grounding terminal.
  - 1. Grounding terminal - A green-colored washer-in-head machine screw not smaller than No. 10-32 in a drilled and tapped hole in the back of the module.
  - 2. Not used.
  - 3. Install grounding jumpers as specified in Section 16455, Grounding and Bonding.

2.10 Through 2.18 - Not used.

PART 3 - EXECUTION

3.1 Through 3.7 - Not used.

3.8 WIRING

A. General

- 1. Furnish wires and cables as indicated in Section 16120, Wires and Cables.
- 2. Provide wiring complete as indicated. Provide ample slack wire at loose ends of each module. Where appropriate in outlet or junction boxes, provided for installation of equipment by others, tape ends of wires, or provide disconnects per manufacturer's standards, and install blank covers.
- 3. Measure insulation resistance of the wiring systems.

4. Do not bend cables during installation, either permanently or temporarily, to radii less than 12 times the outer diameters, except where conditions make the specified radius impracticable and shorter radii are permitted by NFPA 70 and NEMA WC 7, Appendix N.

5. Neatly and securely bundle conductors located inside each wireway. Use nylon bundling straps.

B. Cable Supports - Install cable supports where needed.

C. Splices and Terminations

1. Make wire and cable splices only in junction boxes. Splices inside wireway will not be permitted. Make splices by means of insulated screw-type connectors.

2. Through 5. - Not used.

6. Before installation, apply anticorrosion electrical joint compound to conductors and terminal bolting pads.

3.9 WIRING DEVICES - Not used.

END OF SECTION

SECTION 16120

WIRES AND CABLES

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section consists of furnishing and installing wires and cables as specified and as indicated.

1.2 QUALITY ASSURANCE

A. Reference Standards

1. Through 3. - Not used.

4. National Electrical Manufacturers Association (NEMA)

NEMA WC5      Thermoplastic-Insulated Wire and Cable  
for the Transmission and Distribution of  
Electrical Energy

NEMA WC7      Cross-Linked-Thermosetting-Polyethylene-  
Insulated Wire and Cable for the Trans-  
mission and Distribution of Electrical  
Energy

NEMA WC8      Ethylene-Propylene-Rubber-Insulated Wire  
and Cable for the Transmission and Dis-  
tribution of Electrical Energy

5. National Fire Protection Association (NFPA)

NFPA 70      National Electrical Code

6. Underwriters Laboratories Inc. (UL)

UL 62      Flexible Cord and Fixture Wire

B. Conform to codes and regulations of jurisdictional  
authorities.

1.3 SUBMITTALS

A. Refer to Section 01300, Submittals, and Section 01340,  
Shop Drawings, Product Data, and Samples, for submittal  
procedures.

B. Before installation of the wire and cable, submit the  
following information for each type and size of wire and  
cable for review:

1. Note that lighting conductors may carry up to 15 amperes in the Type 302 wireways (raceways). Where practical, wiring within and between units shall be of the Fixture Wire type.
2. Manufacturer of the wire and cable, and certificate of compliance.
3. Number and size of strands composing each conductor.
4. Conductor insulation composition and thickness in mils.
5. Average overall diameter of finished wire and cable.
6. Minimum insulation resistance in megohms per 1000 feet at 20°C ambient.
7. Jacket composition and thickness in mils.
8. Not used.
9. Shield material (if any) and thickness.
10. Conductor resistance in ohms per 1000 feet at 20°C ambient.
11. Conductor ampacity at 20°C ambient.

#### 1.4 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Provide marking on wire and cable in accordance with the referenced standard. Each item shall be labeled with UL approval.
- B. Ship each unit securely wrapped, packaged and labeled for safe handling in shipment and to avoid damage.
- C. Store wire and cable in secure and dry storage facility.

1.5 MEASUREMENT - The Work of this Section will not be separately measured for payment.

1.6 PAYMENT will be made under the lump sum item to which this Work pertains.

## PART 2 - PRODUCTS

### 2.1 CABLE

- A. Type - ICEA stranded or solid, copper, soft drawn.
- B. Insulation Rating - 600 volts.

C. Conductor

1. Size 10 AWG and smaller - Solid conductor or Class B stranded.
  2. Not used.
- 2.2 SINGLE CONDUCTOR CABLE - Not used.
- 2.3 MULTIPLE CONDUCTOR CABLE - Not used.
- 2.4 FIXTURE WIRE - UL 62 with the following additional requirements:
- A. Type - SF-2 silicone rubber insulated.
  - B. Conductor - Stranded copper conductor 16 AWG or larger as indicated.
- 2.5 BARE CONDUCTOR - ASTM B3, Class B stranded annealed soft-drawn copper conductor unless otherwise indicated, size as indicated. Bare conductors shall be used for ground only.
- 2.6 THERMOCOUPLE CABLE - Not used.
- 2.7 COLOR CODING OF CONDUCTORS - Per manufacturer's standards.
- A. Through F. - Not used.
- 2.8 CABLE SUPPORTS AND FASTENERS - Design for use with the type of conductor as specified, Conform to NEPA 70. Conductors installed inside fixtures shall be properly strapped and supported.
- 2.9 CONDUCTOR BUNDLING STRAPS
- A. Formed from self-extinguishing nylon having a temperature range of minus 65°F to plus 250°F.
  - B. Equip each strap with a locking hub or head with a stainless steel locking barb on one end and a taper on the other end.
  - C. Not used.

PART 3 - EXECUTION

- 3.1 PROVIDE WIRING COMPLETE as indicated. Provide ample slack wire for service connections and extensions. In outlet or junction boxes provided for future installation of equipment tape ends of wires and install blank covers.
- 3.2 DO NOT BEND CABLES during installation, either permanently or temporarily, to radii less than 12 times the outer

diameters, except where conditions make the specified radius impracticable and shorter radii are permitted by NEPA 70 and NEMA WC 7, Appendix N.

3.3 BUNDLE CABLE AND CONDUCTORS neatly and securely with nylon straps. Use nylon bundling straps.

3.4 Through 3.7 - Not used.

### 3.8 IDENTIFICATION

- A. Provide nonmetallic fiberboard or plastic identification tags or pressure-sensitive labels designed for fastening to cables at connection points.
- B. Stamp or print tags or labels so that feeder or cable may be readily identified.
- C. If suspended type identification tags are provided, attach the tags to slip-free plastic cable lacing units or to nylon bundling straps.

END OF SECTION

SECTION 16455

GROUNDING AND BONDING

PART 1 - GENERAL

- 1.1 DESCRIPTION - The Work specified in this Section consists of furnishing, installing, connecting and testing a complete grounding and bonding at each module and each illuminated sign.
- 1.2 QUALITY ASSURANCE
- A. Reference Standards
1. American Society for Testing and Materials (ASTM)  
ASTM B3          Soft or Annealed Copper Wire
  2. National Fire Protection Association (NEPA)  
NEPA 70          National Electrical Code
  3. Underwriters Laboratories Inc. (UL)  
UL 467          Grounding and Bonding Equipment
- B. Conform to codes and regulations of jurisdictional authorities.
- 1.3 SUBMITTALS - Shall be part of Section 16504, Lighting Fixture for Illuminated Panels, and Section 16505, Platform Edge Light, Transverse Element.
- A. Through C. - Not used.
- 1.4 PRODUCT DELIVERY, STORAGE AND HANDLING - Not used.
- 1.5 MEASUREMENT - The Work of this Section will not be separately measured for payment.
- 1.6 PAYMENT will be made under the lump sum price to which the Grounding and Bonding pertains.

PART 2 - PRODUCTS

- 2.1 GROUNDING AND BONDING EQUIPMENT - Conform to UL 467, with additional requirements as specified herein.
- 2.2 GROUND RODS - Not used.

- 2.3 BARE CONDUCTORS - ASTM B3, Class B stranded annealed copper conductor unless otherwise indicated, size per manufacturer's standards.
- 2.4 BUS BAR - Not used.
- 2.5 SINGLE CONDUCTOR INSULATED WIRE - Not used.
- 2.6 TERMINAL LUGS - Section 16050, Basic Electrical Materials and Methods.
- 2.7 JUMPERS - Not used.

### PART 3 - EXECUTION

#### 3.1 GROUNDING

##### A. Ground Connections

- 1. Not used.
- 2. For internal ground connections, install compression type in-line splice connector or mechanical screwed type connectors at the end of each module in accordance with Section 16050, Basic Electrical Materials and Methods. Bond mettalic part of each module to the main ground wire.
- 3. Use continuous ground conductor without splices inside each module.
- 4. Not used.

##### B. Through H. - Not used.

#### 3.2 FIELD QUALITY CONTROL - Not used.

END OF SECTION

SECTION 16504

LIGHTING FIXTURE FOR ILLUMINATED PANELS

PART 1 - GENERAL

1.1 DESCRIPTION - The Work specified in this Section consists of furnishing lighting fixtures, fixture mounting hardware and lamps as indicated.

1.2 QUALITY ASSURANCE

A. Reference Standards

1. American National Standards Institute (ANSI)

ANSI C81 Series      Electric Lamp Bases and Holders

ANSI C82 Series      Fluorescent Lamp Ballasts

2. Not used.

3. Not used.

4. National Fire Protection Association (NFPA)

NFPA 70                      National Electrical Code

5. Porcelain Enamel Institute (PEI) - Not used.

6. Underwriters Laboratories, Inc. (UL)

UL 57                      Electric Lighting Fixtures

UL 542                      Lampholders, Starters and Starter  
                                 Holders for Fluorescent Lamps

UL 935                      Fluorescent-Lamp Ballasts

B. Conform to ANSI C78 Series, ANSI C81 Series, and ANSI C82 Series.

1.3 SUBMITTALS

A. Refer to Section 01300, Submittals, and Section 01340, Shop Drawings, Product Data, and Samples, for submittal procedures.

B. Shop Drawings

1. Not used.

2. Provide drawings of sufficient detail to show the following:
    - a. Fixture housing, hardware and finishes.
    - b. Light controlling elements, including passive.
    - c. Electrical components including lampholders, ballast, and provision for conduit entry.
    - d. Support details including foundation. Indicate weight of fixture, complete with lamps.
  3. Indicate procedures for the installation of the complete lighting unit in its final service location.
  4. Provide maintenance procedures in accordance with Section 01730, Operation and Maintenance Data, including:
    - a. Materials and components clearly indicated in the parts list.
    - b. Relamping methods.
    - c. Special tools required.
    - d. Frequency of inspection, tightening or other service recommended for preventative maintenance.
  5. Not used.
- C. Sample of each type of lighting fixture, complete with lamps and typical of the manufacturer's products. Except for those types operating at 277 or 480 volts, each sample shall be supplied for testing at 120 volts ac, complete with six foot cord and plug.
1. Each sample shall have its materials identified, such as its alloy, thickness, gauge, temper.
  2. Processing of production materials shall not begin until written approval of samples has been obtained.
  3. Maintain variation in color of materials within the color range established by the approved samples.
- D. Four copies of reports of factory and field tests performed, in accordance with referenced codes and standards and Specification requirements.

#### 1.4 TESTS AND ACCEPTANCE

- A. The lighting fixture to be tested shall be typical of the unit it represents, clean and free from mechanical

defects, equipped with the proper fittings, and with the lamp of the size and type in the position recommended for service operation.

B. Quality Assurance - Units furnished under this Contract shall be inspected and shall bear a "Field Tested" label. The "Field Test" shall consist of testing and inspection by a nationally recognized laboratory against appropriate industry standards, U.L. etc. Such testing and inspection shall be primarily for safety and shall result in an affixed "Field Tested" label on each unit.

C. And D. - Not used.

#### 1.5 PRODUCT DELIVERY, HANDLING AND STORAGE

A. Handle and transport products in a manner that prevents damage.

B. Wrap and package products to avoid damage. A packaging plan shall be submitted for review and approval.

C. Indelibly mark each carton with minimum 1/2 inch high letters with the following information:

1. Fixture, lamp or component type.

2. Quantity.

3. Manufacturer's name and product number.

D. Store products in a clean, dry and secure storage area pending installation.

1.6 JOBSITE CONDITIONS - Not used.

1.7 MEASUREMENT - The Work of this Section will not be separately measured for payment.

1.8 PAYMENT will be made under the lump sum item to which this Work pertains.

### PART 2 - PRODUCTS

#### 2.1 LIGHTING FIXTURES

A. Provide illuminated signs and lighting fixtures, complete and ready for service, in compliance with UL 57, of the number, type, material, finish, electrical components and characteristics, and with the necessary hardware and auxiliary equipment, as indicated.

1. Mark fixtures clearly with manufacturer's name, voltage, acceptable lamp type, maximum wattage, and labeled for intended use.
2. Fixtures, other than those for interior use, shall be UL listed for the intended application.
3. Note that units to be mounted less than eight feet above finished floor shall be supplied with 120 Vac power.

#### B. Materials

1. Thicknesses, gauges and tempers of products shall be as indicated, and as recommended by the manufacturer, for the specific finish, proper forming operations and structural requirements.
2. Reflector material - Prefinished aluminum, minimum thickness 0.032 inch, Architectural Type 1 with Class M1 anodic coating providing 83 percent reflectivity.
3. Not used.
4. Polycarbonate for windows shall be manufactured from resin designed for use with HID lamps.
6. Stainless steel - Not used.

#### C. Finishes

1. Provide lighting fixtures completely factory-finished in colors to match approved samples and in accordance with the manufacturer's recommendations for the specific application.
2. Through 10. - Not used.

#### D. Electrical Components

##### 1. Lampholders

- a. Provide lampholders and sockets of the class and style recommended by the lamp manufacturer for the specific lamp required for each fixture design and rated for 660 watts, 600 volts, or as indicated.
- b. Fasten lampholders and sockets rigidly and securely to the mounting surface with the necessary provisions to prevent lampholder from turning and to be front removable without dismantling any part of the fixture.
- c. Locate lampholders and sockets correctly in the lighting fixtures to place each specified lamp in

proper position with relation to the fixture design. Clearly mark lampholders and sockets to indicate manufacturer, lamp type, voltage and appropriate listings.

d. Provide incandescent and high intensity discharge lampholders of glazed porcelain body with nonferrous metal components of heavy duty design, vibration resistant. Edison-based lampholders to be in accordance with UL 496.

1) Use phenolic body dc bayonet sockets rated 75 watts, 125 volts for special low wattage incandescent lamps such as the 20-watt T6-1/2.

2) Through 4) - Not used.

e. Provide fluorescent lampholders of white urea, spring loaded with silver-plated contacts of the pedestal or button type, in accordance with UL 542.

1) Rapid start 430 mA lamps shall use medium bipin spring-loaded lampholders of the tombstone or butt configuration.

2) Not used.

## 2. Ballasts

a. Supply ballast with operating characteristics in accordance with the recommendations of the lamp manufacturer, high power factor and high efficiency illumination. Provide ballasts suitable for the line voltage with a maximum current crest factor of 1.8. The ballast shall provide reliable lamp starting at the minimum temperature indicated below. Provide insulation used in starters and capacitors suitable for operation in the temperature attained. Mount each ballast securely inside the fixture so as to obtain the necessary heat dissipation. High intensity discharge ballast to comply with UL 1029. Fluorescent ballast shall be performance tested and shall comply with UL 935 and shall preferably be of the electronic type.

b. Through d. - Not used.

e. Rapid start, 430 mA, fluorescent lamps - Operated by a Class P, 430 mA, 60 hertz ballast. The ballast shall provide reliable lamp starting at 20°F and shall be provided with a sound level rating of "A." Lamp voltage variation shall not exceed plus five percent and minus ten percent.

f. Not used.

- g. Ballasts installed inside communication rooms and at the platform area shall be equipped with radio interference filters and third harmonic suppressors.

### 3. Fixture Wiring

- a. Provide fixture wires of stranded tinned-copper construction, not smaller than No. 16 AWG. Provide insulation of silicone rubber type SF-2, 200°C rated. Mark conductor size, temperature rating, voltage and manufacturer clearly on the insulation of each conductor.
- b. Provide wires between lampholders and associated operating and starting equipment with the same ampacity rating as leads from the ballast. Wiring within the fixtures shall comply with NFPA 70.
- c. Tape wires at points of abrasion. Do not permit splice within fixtures other than as required to connect lampholders and ballast. Provide wireways and wiring channels with rounded edges or bushed holes wherever conductors pass through. Install insulated bushings at points of entrance and exit of wiring.
- d. Fixture Grounding - Unless otherwise specified, provide the housing of each ballasted lighting fixture with a separate, factory-installed grounding device. The grounding device shall be used for connecting a separate grounding conductor to the fixture housing.

### E. Fixture Hardware

1. Latch and release mechanism, hinges, pins and other retaining parts of fixtures; screws, bolts or other assembly and mounting parts shall be manufactured of Type 316 stainless steel. Provide springs of heavy duty stainless steel. Provide self-retaining type retaining hardware.
2. Light transmitting panels shall be held in the frames in a neat, rattle-free manner that will provide proper tolerance for normal expansion and contraction.
3. Fabricate internal brackets from ASTM A366 sheet steel, zinc coated after fabrication or finished extruded aluminum.
4. Gaskets, sealants and adhesives shall be formed from silicone rubber, or as indicated.

5. Provide bolts, nuts, washers, screws, nails, rivets and other fastenings necessary for proper installation or assembly of Work per Section 10440, Signing and Edge Light.
6. Junction boxes suitable for the intended location and wiring requirements shall be provided with four 3/4 inch threaded and plugged conduit entries.

## 2.2 FIXTURE MOUNTING HARDWARE

- A. Provide fixtures with hardware suitable for the mounting method specified.
- B. Secure mounting brackets to housing; quantity and spacing as indicated. When exposed to public view, fabricate and finish hardware in material matching the fixture body.
- C. Through E. - Not used.

## 2.3 LAMPS

- A. Provide each lighting fixture with the number, type and wattage of lamps required as indicated. Lamps used in the illumination system shall be of standard manufacture, readily available, and of the highest efficiency and life consistent with other requirements of the illumination system.
- B. Incandescent Lamps - Not used.
- C. Fluorescent Lamps - Output as indicated with cool white color and of the high-efficiency classification.
- D. Through F. - Not used.

## 2.4 LIGHTING CONTROL EQUIPMENT - Not used.

PART 3 - EXECUTION - Not used.

END OF SECTION

SECTION 16505

PLATFORM EDGE LIGHT AND TRANSVERSE ELEMENT

PART 1 - GENERAL

1.1 DESCRIPTION

- A. The Work specified in this Section consists of furnishing a completely integrated operable platform lighting system complete with illuminated and non-illuminated graphics and provisions for a communications system to be installed by others.
- B. This Section describes the general requirements for the furnishing of the lighting fixtures and couplings. The Work under this contract shall consist of detailed design, engineering, development, manufacture, test, storage as required, shipping and delivery to a location as designated by the District.
- C. Work By Others - The following is not included in this Contract and shall be performed, furnished or installed by others.
  - 1. Installation of the platform edge and transverse elements.
  - 2. Installation of lamps.
  - 3. Power feed and branch circuit connections.
  - 4. Public address system wiring and speakers.
  - 5. Communications speakers and associated wiring.

1.2 QUALITY ASSURANCE

- A. Edgelights and transverse lights furnished under this Contract shall be inspected and shall bear a "Field Test" label. The "Field Test" shall consist of testing and inspection by a nationally recognized laboratory against appropriate industry standards, U.L. etc. Such testing and inspection shall be primarily for safety and shall result in an affixed "Field Tested" label on each unit.
- B. Reference Standards
  - 1. American National Standards Institute

Standard	C78	Incandescent Lamps/Electric Discharge Lamps (Fluorescent) Lamps (Mercury)	Electric Discharge High-Intensity
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Discharge Lamps/Fluorescent Lamp  
Auxiliaries

Standard C81 Electric Lamp Bases and Holders

Standard C82 Lamp Ballast

2. American Society for Testing Materials

Standard A167 Specification for Stainless and Heat-Resisting Chromium-Nickel Steel Plate, Sheet and Strip.

c. Underwriters' Laboratories, Inc.

Standard 57 Electric Lighting Fixtures

Standard 542 Lampholders, Starters and Starter Holders for Fluorescent Lamp

Standard 935 Fluorescent-Lamp Ballast

1.3 SUBMITTALS

A. Refer to Section 01300 for submittal procedures.

B. A Luminaire Manual which provides documentation indicating fixture construction, photometric performance, installation and maintenance procedures.

1. The Manual shall be complete with cover, title page, and table of contents. The cover and title page shall identify the document, project, client, contract name, number and date of issuance.

2. Submittals for record or approval shall be full size reproducibles. Documents and drawings submitted will be required to be of a quality which will facilitate fully legible reproduction. Updated and/or revised drawings shall be equal in quality to original submittals and processed in the same manner. Contractor shall not change drawing numbers when redrawing for clarity or updating. A superseding drawing shall be relabeled as redrawn with revision and date appropriate to the superseded drawing.

3. Provide drawings of sufficient detail to show the following:

a. Fixture hardware.

b. Finishes.

c. Light controlling elements.

- d. Electrical components including lampholders, ballast, provision for conduit entry, etc.
  - e. Support details including the mechanical couplings. Indicate weight of fixture complete with lamps.
4. Clearly indicate procedures for the installation of the complete lighting unit in its final service location. Templates shall be provided as needed. Locations of all parts and openings interfacing with remote system; i.e., cantilever and pendant support, auxiliary electrical equipment, lighting control equipment, and lamps shall be dimensioned.
5. Maintenance procedures shall be described including:
- a. Materials and components clearly identified in a parts list
  - b. Relamping methods
  - c. Special tools required
  - d. Frequency of inspection, tightening or other service recommended for preventative maintenance.
- C. Shop Drawings - Submit for approval before start of manufacture, showing provisions for installation by others of public address speakers and associated communications wiring as indicated. Show provisions for inserting, and mounting speakers on Contractor-furnished brackets, for pulling communications wires through coupling end supports, through Contractor-furnished Electromagnetic Tubing (EMT) and for connecting the communications wires in Contractor-furnished junction boxes.
- D. A sample of each module of edgelight representative of the manufacturer's typical product and of material and finish indicated shall be submitted. All samples shall bear a UL label or listing. Electrical components shall be indicated. All fixture hardware and lamp(s) shall accompany the sample.
- 1. Each sample shall have its materials identified; i.e., alloy, thickness, gauge, temper.
  - 2. Processing of production items shall not begin until written approval of sample has been received.
  - 3. Maintain variation in color of materials within the color range established by the accepted samples.

#### 1.4 TESTS AND ACCEPTANCE

- A. Each module of edgelight to be tested shall be typical of the unit it represents, clean and free of mechanical defects, equipped with the proper fittings, and with the lamp of the size and type and in the position recommended for service operation.
- B. Test UL listed material, equipment and components in accordance with UL standards. Test material, equipment and components not covered by UL standards in accordance with other nationally recognized standards approved by the District or its designee, or indicate those items and materials whose production is periodically inspected by a nationally recognized testing laboratory approved by the District or its designee. Provide material, equipment and components bearing a label, tag or certification of such inspection.
- C. Perform and report tests for photometric performance in accordance with the approved methods outlined by the IES for photometric testing, and include data on candlepower distribution, zonal lumens, maximum luminance values.
- D. Perform and report test of all assembled modules for proper functioning before packing.
- E. Test data shall be reported on 8 1/2 inches by 11 inch sheets and shall be certified by a nationally recognized independent testing laboratory. Performance test shall be certified by the factory engineer.

#### 1.5 PRODUCT DELIVERY, HANDLING, AND STORAGE

- A. Handle and transport products in a manner that prevents damage to the same.
- B. Wrap and package products to avoid damage to the same. A packaging plan shall be submitted for review and approval.
- C. Each carton shall be indelibly marked with minimum 1/2 inch high letters with the following information:
  - 1. Fixture, Lamp or Component Type.
  - 2. Quantity.
  - 3. Manufacturer's Name and Product Number.
  - 4. Station name (or Yards and Shops) as appropriate for delivery.

- 1.6 MEASUREMENT - The Work of this Section will be measured as units acceptably performed.

1.7 PAYMENT will be made under:

Item No. 16505.01 - Platform Edge Light, Union Station - per lump sum

Item No. 16505.02 - Platform Edge Light, Civic Center - per lump sum

Item No. 16505.03 - Platform Edge Light, Pershing Square - per lump sum

Item No. 16505.04 - Platform Edge Light, 7th St/Metro Center - per lump sum

Item No. 16505.05 - Platform Edge Light, Westlake/MacArthur Park - per lump sum

All costs shall be included in the lump sum prices for the items to which Platform Edge Light with Transverse Element pertains.

PART 2 - PRODUCTS

2.1 LIGHTING FIXTURES

A. Provide lighting fixtures, complete and ready for service, in compliance with UL 57, of the number, type, material, finish, electrical components and characteristics, and with necessary hardware and auxiliary equipment as indicated.

B. Mark fixtures clearly with manufacturer's name, voltage, acceptable lamp types, maximum wattage, and labeled for intended use.

C. Fixtures shall be gasketed.

D. Materials

1. Thicknesses, gauges and tempers of products shall be as indicated, and as recommended by the manufacturer for the specific finish, proper forming operations and structural requirements.

2. Lighting sheet for reflector material - Pre-finished aluminum, minimum thickness 0.032 inch, Architectural Type 1 with Class M1, anodic coating providing 83 percent reflectivity.

3. Low Brightness Lens

a. One piece 240 inches thick injection-molded of clear acrylic plastic meeting the ASTM specifications for methacrylate molding compound D-788-69A.

- c. ?The optical performance shall be controlled by a hexagonal array of hemispherical refractive elements, having a precisely designed optical pattern on both upper and lower surfaces.
  - d. The lower surface profile shall consist essentially of a multitude of largely constant radius convex surfaces, while the upper surface shall consist of a similar array of largely constant radius concave surfaces.
  - e. At the extremity of each constant radius portion of each concave element on the upper surface, there shall be a prism designed primarily for the purpose of reflecting incident light. The upper surface shall have an array of essentially arcuate triangles regularly interspersed within the hexagonal prism array.
4. Stainless steel shall be type 304 conforming to ASTM A167.
5. All lighting components shall be designed for 277V circuits.
- C. Finishes - In accordance with Section 09853, Fixture Coating.
- D. Electrical Components
- 1. Lampholders
    - a. General Requirements
      - 1) Provide lampholders and sockets of the class and style recommended by the lamp manufacturer.
      - 2) Fasten lampholders and sockets rigidly and securely to the mounting surface with the necessary provisions to prevent lampholder from turning and to be front removable without dismantling any part of the fixture.
      - 3) Locate lampholders and sockets correctly in the lighting fixtures to place each specified lamp in proper position with relation to the fixture design. Clearly mark lampholders and sockets to indicate manufacturer, lamp type, voltage and appropriate listings.
    - b. Provide fluorescent lampholders of white urea, spring loaded with silver-plated contacts of the pedestal or butt-on type, in accordance with the applicable requirements of UL 542. Rapid Start,

430 Ma, lamps use medium bipin spring loaded lampholders of the tombstone configuration.

## 2. Ballasts

- a. Rapid Start, 430 Ma, Fluorescent lamps - Operated by a Class P. 540 Ma, 60 Hertz ballast. Provide ballasts suitable for the line voltage with a minimum 0.9 power factor, and maximum current crest factor of 1.8. The ballast shall provide reliable lamp starting at zero degrees and shall be provided with a sound level rating of "A". Lamp voltage variation shall not exceed plus five percent and minus ten percent. Provide insulation used in starters and capacitors suitable for operation at zero degrees. Mount each ballast securely inside the fixture, in such a manner as to obtain the necessary heat dissipation. Comply fluorescent ballast to the applicable requirements of UL 935.

## 3. Fixture Wiring

- a. Provide fixture wires of stranded tinned-copper construction, not smaller than No. 16 AWG. Provide insulation of silicone rubber type SF-2, 200°C rated. Mark conductor size, temperature rating, voltage and manufacturer clearly on the insulation of each conductor.
- b. Provide wires between lampholders and associated operating and starting equipment with the same ampacity rating as leads from the ballast. Comply wiring within the fixtures to the requirements of the NEC.
- c. Tape wires at points of abrasion. Do not permit splice within fixtures other than as required to connect lampholders and ballast. Provide wireways and wiring channels with rounded edges or bushed holes wherever conductors pass through. Install insulated bushings at points of entrance and exit of wiring.
- d. Fixture Groundings - Unless otherwise specified, provide the housing of each ballasted lighting fixture with a separate, factory-installed grounding device. The grounding device is to be used for connecting a separate grounding conductor to the fixture housing.
- e. At the ends of edgelight units and transverse light units, provide sufficient coiled (and taped) conductors for convenient splicing to adjacent units. Color code or otherwise mark conductors for ready identification.

f. Because power source cannot be identified in advance, male-female connectors shall not be used between units. Manufacturer's are encouraged to propose other types of connectors for acceptance by the District or its designee.

4. Radio Interference suppression filter - Provide broad band filters in conjunction with ballasts to suppress radio interference noise that may be conducted through the power line.

#### E. Fixture Hardware

1. Latch and release mechanism, hinges, pins and other retaining parts of fixtures; screws, bolts or other assembly and mounting parts shall be manufactured of Type 304 stainless steel. Provide springs of heavy duty stainless steel. All retaining hardware shall be self-retaining. All exposed fasteners to be flush type finished to match adjacent color and finish.
2. Light transmitting panels shall be held in the frames in a neat rattle-free manner that will provide proper tolerance for normal expansion and contraction.
3. Internal brackets shall be fabricated from sheet steel zinc coated after fabrication or finished extruded aluminum.
4. Gaskets, sealants and adhesives shall be formed from silicone rubber, or as indicated.
5. Provide bolts, nuts, washers, screws nails, rivets and other fastenings necessary for proper erection or assembly of work. Nuts shall have captive externally footed lockwashers.

#### 2.2 FIXTURE MOUNTING HARDWARE

- A. General Requirements - Furnish fixtures with coupling supports and miscellaneous hardware suitable for mounting to pendant or cantilever supports.
- B. Secure coupling to housing, quantity as indicated. Match finish of couplings to the finish of the fixture body.

### PART 3 - EXECUTION

#### 3.1 QUALITY CONTROL AND INSPECTION

- A. Inspect luminaires, lamps and associated hardware prior to shipment to assure that they are of the quality and type as specified herein and as shown on the Contract Drawings and are free of defects and damage.

- B. Furnish complete assembly drawings at each station, clearly indicate the physical and electrical connection between modules and at the main power connection. Drawings shall be so detailed that the installation by electrical Contractor can be correctly executed.
  
- C. Deliver luminaires and lighting equipment to the project site complete, with related items, completely wired and assembled.

END OF SECTION