

FORM APPROVED COUNTY COUNSEL  
BY: *R. Victor* 7/23/10  
DATE: MARSHA L. VICTOR

129



**SUBMITTAL TO THE BOARD OF DIRECTORS OF THE  
REDEVELOPMENT AGENCY  
COUNTY OF RIVERSIDE, STATE OF CALIFORNIA**

**SUBMITTAL DATE:**  
July 29, 2010

**FROM:** Redevelopment Agency

**SUBJECT:** Mecca Fire Station No. 40 – Approve Plans and Specifications

**RECOMMENDED MOTION:** That the Board of Directors:

- 1) Approve the Mecca Fire Station Project;
- 2) Approve the Plans and Specifications for the construction of the Project; and
- 3) Authorize the Clerk of the Board to advertise the Notice Inviting Bids for the construction of the Project.

**BACKGROUND:** (Commences on Page 2)

*Robert Field*

Robert Field  
Executive Director

**FINANCIAL  
DATA**

Current F.Y. Total Cost:	\$ 0	In Current Year Budget:	Yes
Current F.Y. Net County Cost:	\$ 0	Budget Adjustment:	No
Annual Net County Cost:	\$ 0	For Fiscal Year:	2010/11

**COMPANION ITEM ON BOARD OF SUPERVISORS AGENDA:** No

<b>SOURCE OF FUNDS:</b> Redevelopment Funds, Desert Communities Project Area	<b>Positions To Be Deleted Per A-30</b>	<input type="checkbox"/>
	<b>Requires 4/5 Vote</b>	<input type="checkbox"/>

**C.E.O. RECOMMENDATION:**

**APPROVE**

BY: *Serena Chow*  
Serena Chow

**County Executive Office Signature**

Policy  
 Policy  
 Consent  
 Consent  
 Dept's Recomm.:  
 Per Exec. Ofc.:

**MINUTES OF THE BOARD OF DIRECTORS OF THE REDEVELOPMENT AGENCY**

On motion of Supervisor Stone, seconded by Supervisor Ashley and duly carried by unanimous vote, IT WAS ORDERED that the above matter is approved as recommended.

**Ayes:** Buster, Tavaglione, Stone, Benoit and Ashley  
**Nays:** None  
**Absent:** None  
**Date:** August 10, 2010  
**xc:** RDA, CIP, COB

Kecia Harper-Ihem  
 Clerk of the Board  
 By: *Kecia Harper-Ihem*  
 Deputy

**Prev. Agn. Ref.:** 9.1.09 9.15 & 4.7/ 4.29.08  
4.2/11.20.07 4.1 / 2.6.07 4.3 / 1.23.07 4.3 /

**District:** 4

**Agenda Number:**

**ATTACHMENTS FILED  
WITH THE CLERK OF THE BOARD**

**4.5**  
RDA-01a-F11.4  
FRM 11 (REV 06/2003)

**BACKGROUND:**

The Redevelopment Agency for the County of Riverside (RDA) has developed the Mecca Downtown Revitalization Plan (Plan), which included preliminary planning for the Mecca Fire Station. The Plan identified and defined key components needed to improve the community which included increased access to public services and the revitalization of the downtown area. The Plan was developed with the input of the community and subsequently approved by the RDA's Board of Directors (January 10, 2006 Item 4.1).

Also identified in the Plan were several public service facilities which have been constructed; Mecca Family Service Center and Community Health Clinic, Mecca Community Library, and Riverside County Sheriff Sub-Station. Projects in various stages of development include the Mecca Downtown Street Revitalization, Mecca Boys and Girls Club, Mecca Post Office, and Mecca Senior Center. The new facilities will further the County's efforts to create a community services core in Mecca.

For the Mecca Fire Station Project, the Redevelopment Agency authorized the acquisition of the site and the relocation of businesses and residents. Additionally, the Redevelopment Agency has adopted and filed a Mitigated Negative Declaration and a Mitigation Monitoring and Reporting Program in compliance with the California Environmental Quality Act (Board of Supervisors, 9/1/2009 Item 9.15 and Board of Directors, Item 4.7). Also completed and approved for the Project are the Storm Water Pollution Prevention Plan (SWPPP) and the Water Quality Management Plan (WQMP).

The construction of the new Mecca Fire Station No. 40 at 91-350 Avenue 66 (Assessor's Parcel Number's 727-193-010, -011, -012, -013, and 727-193-023, -024) will replace the obsolete station located on 4<sup>th</sup> Street. The new fire station will be immediately adjacent to the Mecca Community Library and Riverside County Sheriff Sub-Station. The intent is to demolish the obsolete structure once the transfer to the new facility has been completed. The vacated site will then be developed as in-fill affordable housing.

The Plans and Specifications have been completed and approved for the Project. The Project will improve the safety and function of the Mecca Community and will ultimately enhance the viability of the Desert Communities Project Area. The Project Scope includes a 12,900 square foot building (three bays and eight bed dormitory), onsite parking, outdoor hose drying rack, trash enclosures, fuel tanks, and emergency generator. Energy efficiency standards are incorporated in the design.

The project budget will be submitted for authorization once the lowest responsible bidder has been identified and a contract is ready to award. The Project, funded by the Redevelopment Agency, will not impact the general fund.

County Counsel has reviewed and approved the bid documents as to form. Therefore, staff recommends approval of all motions.

Attachments: Notice inviting bids  
Floor plan



**PROJECT MANUAL**

FOR

**MECCA FIRE STATION**

**OWNER**

Redevelopment Agency  
4080 Lemon Street, Riverside  
California 92501

**ARCHITECT**

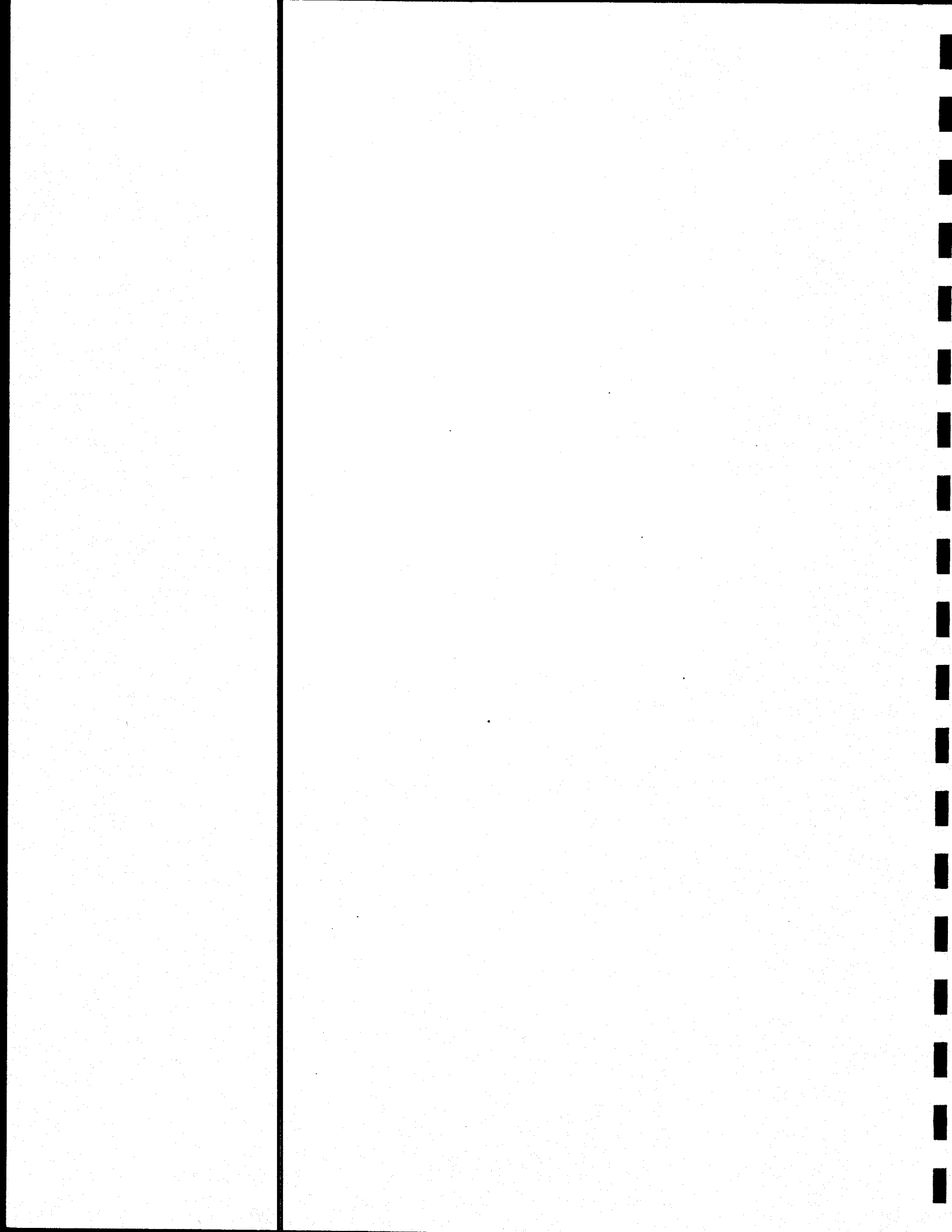
WLC ARCHITECTS, INC.  
8163 ROCHESTER AVENUE, SUITE 100  
RANCHO CUCAMONGA, CA 91730  
(909) 987-0909

PROJECT 0724400  
NOVEMBER 2009

01/10/10  
WLC  
WLC

AUG 10 2010

45



# **PROJECT MANUAL**

FOR

**MECCA FIRE STATION**

## **OWNER**

Redevelopment Agency  
4080 Lemon Street, Riverside  
California 92501

## **ARCHITECT**

WLC ARCHITECTS, INC.  
8163 ROCHESTER AVENUE, SUITE 100  
RANCHO CUCAMONGA, CA 91730  
(909) 987-0909

PROJECT 0724400  
NOVEMBER 2009

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MECCA FIRE STATION**

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DOCUMENT 00101

NOTICE INVITING BIDS

NOTICE IS HEREBY GIVEN that the Redevelopment Agency, California, acting by and through its Governing Board, hereinafter referred to as the Agency, will receive up to, but not later than \_\_\_\_\_ of the \_\_\_\_\_ sealed bids for the award of a contract for the construction of:

**Mecca Fire Station #40  
91-350 66<sup>th</sup> Avenue  
Mecca, CA**

All bids shall be made on a bid form furnished by the Agency.

Bids will be received at the Office of Clerk of the Board, County of Riverside, 4080 Lemon Street, 1st Floor, Riverside, CA 92501 on or before the time and date stated above. Bids will remain sealed until the time and date stated below. Bids will be publicly opened and read aloud at the Office of the Clerk of the Board, County of Riverside, 4080 Lemon Street, 1st Floor, Riverside, CA 92501.

Each bid must conform and be responsive to all pertinent Bidding and Contract Documents. Copies are on file and open for public inspection at the said location.

Prospective general contract bidders may secure up to 6 sets of said documents from the Office of WLC Architects, Inc., 8163 Rochester Avenue, Suite 100, Rancho Cucamonga, CA 91730 (909) 987-0909, upon payment of a deposit of One-Hundred Fifty Dollars (\$150.00) per set. **Deposits will be refunded upon the return of said documents in good condition within seven (7) days after bids on the project have been opened.** A non-refundable mailing charge of Twenty Five Dollars (\$25.00) will be required for each set mailed to California cities.

For information regarding this project, prospective bidders are requested to contact Jeremy Chou, Project Manager at WLC Architects, Inc. at (909) 987-0909.

The Agency has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holiday and overtime work in the locality in which the work is to be performed for each craft, classification or type of work needed to execute the contract. Holiday rates shall be paid as specified in the collective bargaining agreement applicable to each particular craft, classification or type of work employed on the project.

Copies of schedules of rates so determined are on file at the Agency's principal office located at 44-199 Monroe Street, Suite B, Indio, CA 92201 and are available to any interested party upon request. Copies of these determinations are also available on the internet at [http://www.dir.ca.gov/dir/S&R/statistics\\_research.html](http://www.dir.ca.gov/dir/S&R/statistics_research.html). In accordance with Section 1773.2 of the California Labor Code, the Contractor shall post a copy of the determination of prevailing rate of wages at each job site.

The schedule of per diem wages is based upon a working day of eight (8) hours. The rate for holiday and overtime work shall be at time and one-half.

The Contractor and any subcontractor(s) shall pay not less than the specified prevailing rates of wages to all workers employed by them in the execution of the contract.

The successful contractor and all of its subcontractors for the project will be required to attend a mandatory Pre Construction Conference before commencing work. During the Pre Construction Conference, the State labor law requirements applicable to this project will be discussed. The contractor and all subcontractors will be required to certify that they acknowledge and understand the prevailing wage and all of the state labor law requirements for this project. The successful contractor or any of its designated subcontractors shall not perform any work on the project prior to attending the Pre Construction Conference and executing the appropriate certification.

A payment bond and performance bond will be required of the General Contractor prior to the execution of the contract.



In addition, a performance bond will be required of all subcontractors providing goods and services in excess of \$15,000.00. These bonds shall be in the form and amount set forth in the Contract Documents.

In accordance with provisions of Public Contract Code Section 22300, substitution of eligible and equivalent securities for any monies withheld to ensure performance under this contract will be permitted at the request and expense of the contractor.

Each bidder shall possess at the time of bid a Class B Contractor's license, pursuant to Public Contract Code Section 3300 and Business and Professions Code Section 7028.15. The successful bidder must maintain the license throughout the duration of this contract.

No bidder may withdraw his bid for a period of thirty (30) days after the date set for the opening thereof. All bidders must be a resident California company.

The Agency reserves the right to reject any and all bids and to waive irregularities in any bid.

A non-mandatory pre-bid meeting has been scheduled for \_\_\_\_\_ at the Agency's office, located at 44-199 Monroe Street, Indio, CA 92201. All interested bidders are invited. Representatives of the Agency and Architect/Engineer will be in attendance. For further information regarding the pre-bid conference refer to the Instructions to Bidders.

For further information consult the Instructions to Bidders and the Contract Documents.

First publication : \_\_\_\_\_

Second publication : \_\_\_\_\_

Bid Date : \_\_\_\_\_

END OF DOCUMENT

DOCUMENT 00200

INSTRUCTIONS TO BIDDERS

1. **PREPARATION OF BID FORM:** The Agency invites bids on the form attached to be submitted at such time and place as is stated in the Notice Inviting Bids. All blanks in the bid form must be appropriately filled in. All bids shall be submitted in sealed envelopes bearing on the outside the name of the bidder, his address, and the name of the project for which the bid is submitted.

Upon receipt of a bid, the bidder will be assigned an identification number to maintain the confidentiality of the bidder. This identification number will be placed upon the envelope submitted by the bidder. The confidentiality of the bidder will be maintained until such time as the Agency has made a determination of which bidder has submitted the lowest responsible bid. It is the sole responsibility of the bidder to see that his bid is received in proper time. Any bid received after the scheduled closing time for receipt of bids will be returned to the bidder unopened.

2. **BID SECURITY:** Each bid shall be accompanied by a certified or cashier's check payable to the Agency, or a satisfactory bid bond in favor of the Agency executed by the bidder as principal and an admitted surety insurer, pursuant to Code of Civil Procedure, Section 995.120, in an amount not less than 10% of the maximum amount of the bid. The check or bid bond shall be given as a guarantee that the bidder shall execute the contract if it be awarded to him in conformity with the contract documents and shall provide the surety bond or bonds as specified therein within five (5) days after notification of the Agency's intent to award the contract to the bidder. The bond or bonds must be issued by a company or individual possessing a Certificate of Authority to transact surety insurance in California issued by the California State Department of Insurance. Surety must be a California admitted surety who is U.S. Treasury listed and whose U.S. Treasury listing indicates a bonding capacity in excess of the project cost. If a California admitted surety insurer issuing a bond does not meet these requirements, the insurer will be considered sufficient if all of the submittal requirements of Section 995.660 of the California Code of Civil Procedures are satisfied.
3. **NON-COLLUSION AFFIDAVIT:** Pursuant to Public Contract Code Section 7106 and Code of Civil Procedure 2015.50, each bid shall be accompanied by a Non-Collusion Affidavit. The form for this purpose is included in the Contract Documents under provisions of Document 00453.
4. **SIGNATURE:** The bid must be signed in the name of the bidder and must bear the signature in longhand of the person or persons duly authorized to sign the bid on behalf of the bidder.
5. **MODIFICATIONS:** Changes in or additions to the bid form, recapitulations of the work bid upon, alternative proposals, or any other modification of the bid form which is not specifically called for in the contract documents may result in the Agency's rejection of the bid as not being responsive to the invitation to bid. No oral or telephonic modification of any bid submitted will be considered and a telegraphic modification may be considered only if the postmark evidences that a confirmation of the telegram duly signed by the bidder was placed in the mail prior to the opening of bids.
6. **ERASURES:** The bid submitted must not contain any erasures, interlineations, or other corrections unless each such correction is suitably authenticated by affixing in the margin immediately opposite the correction the surname or surnames of the person or persons signing the bid.
7. **EXAMINATION OF SITE AND CONTRACT DOCUMENTS:** Each bidder shall visit the site of the proposed work and fully acquaint himself with the conditions relating to construction and labor so that he may fully understand the facilities, difficulties, and restrictions attending the execution of the work under the contract. Each bidder shall certify compliance with this requirement and shall submit such certification with his bid. The form of such certification is included as part of the Contract Documents under provisions of Document 00458. Bidders shall thoroughly examine and be familiar with the drawings and specifications. The failure or omission of any bidder to receive or examine any contract document, form, instrument, addendum, or other document or to visit the site and acquaint himself with conditions there existing shall in no way relieve any bidder from any obligation with respect to his bid or to the contract. The submission of a bid shall be taken as prima facie evidence of compliance with this section.

8. WITHDRAWAL OF BIDS: Any bidder may withdraw his bid either personally, by written request, or by telegraphic request confirmed in the manner specified above at any time prior to the scheduled closing time for receipt of bids.
9. AGREEMENT AND BONDS: The Agreement Form, which the successful bidder, as Contractor, will be required to execute, and the forms and amounts of surety bonds which he will be required to furnish at the time of execution of the Agreement, are included in the Contract Documents and should be carefully examined by the bidder. The required number of executed copies of the Agreement, the Performance Bond, and the Payment Bond is five. Payment and performance bonds must be executed by an admitted surety insurer as defined in Code of Civil Procedure Section 995.120. Surety must be a California admitted surety who is U.S. Treasury listed and whose U.S. Treasury listing indicates a bonding capacity in excess of the project cost. If a California admitted surety insurer issuing a bond does not meet these requirements, the insurer will be considered sufficient if all of the submittal requirements of Section 995.660 of the California Code of Civil Procedures are satisfied.
10. INTERPRETATION OF PLANS AND DOCUMENTS: If any person contemplating submitting a bid for the proposed contract is in doubt as to the true meaning of any part of the drawings, specifications, or other contract documents, or finds discrepancies in, or omissions from the drawings and specifications, he shall submit to the Architect a written request for an interpretation or correction thereof. Such request for interpretation or correction shall be received by the Architect not less than 10 days prior to the date established for the receipt of bid. The person submitting the request will be responsible for its prompt delivery. Any interpretation or correction of the contract documents will be made only by addendum duly issued and a copy of such addendum will be mailed or delivered to each person receiving a set of the contract documents. Each bidder shall ascertain prior to submitting a Bid that the bidder has received all Addenda issued, and the bidder shall acknowledge their receipt on the Bid Form. Failure to do so may subject bidder to disqualification. No person is authorized to make any oral interpretation of any provision in the contract documents to any bidder, and no bidder is authorized to rely on any such unauthorized oral interpretation. In case of disagreement or conflict between or within standards, specifications, and drawings, the more stringent, higher quality and greater quantity of work shall be included in the bid.
11. BIDDERS INTERESTED IN MORE THAN ONE BID: No person, firm or corporation shall be allowed to make, or file, or be interested in more than one bid for the same work unless alternate bids are specifically called for. A person, firm, or corporation that has submitted a subproposal to a bidder, or that has quoted prices of materials to a bidder, is not thereby disqualified from submitting a subproposal or quoting prices to other bidders or making a prime proposal.
12. AWARD OF CONTRACT: The Agency reserves the right to reject any or all bids, or to waive any irregularities or informalities in any bids or in the bidding.
13. CALIFORNIA COMPANY: The bidder shall certify on the bid form, in the spaces provided, as to whether the bidder is a California company.
14. ALTERNATES: Determination of low bid will be based on the combination of the base bid and all alternates. Alternates may thereafter be selected in any combination for award at the option of the agency after determination of the low bid.
15. SUBSTITUTIONS: The materials, products, and equipment described in the Contract Documents establish a standard of required function, dimension, appearance, and quality. Architect may consider requests for substitutions of specified equipment, materials, or products and then only when requests are submitted in accordance with the provisions of the Contract Documents, Section 01630, and are received by the Architect a minimum of 14 days prior to the date established for the receipt of the bid. No substitutions will be considered after the date of the receipt of the bid or contract award unless there is cause for a substitution which complies in every respect to the provisions of the Contract Documents, Section 01630.
16. EVIDENCE OF RESPONSIBILITY: Upon the request of the Agency, a bidder whose bid is under consideration for the award of the contract shall submit promptly to the Agency satisfactory evidence showing the bidder's financial resources, his construction experience, and his organization and plant facilities available for the performance of the contract.

17. LISTING SUBCONTRACTORS: Each bidder shall submit a list of the proposed subcontractors on this project as required by the Subletting and Subcontracting Fair Practices Act. (Public Contract Code Section 4100 and following). Forms for this purpose are furnished with the contract documents under provisions of Document 00437. In addition to the required listing of subcontractors, each bidder who is under consideration for the award of the contract shall submit to the Agency, upon request, within 24 hours of the receipt of the bid, any additional information as the Agency may determine is necessary for each subcontractor that the bidder has listed under the provisions of Document 00437, to demonstrate satisfactory evidence of the subcontractor's qualifications and experience.
18. WORKER'S COMPENSATION: In accordance with the provisions of Section 3700 of the Labor Code, Contractor shall secure the payment of compensation to his employees. Contractor shall sign and file with Agency the following certificate prior to performing the work under this contract: "I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of the code, and I will comply with such provisions before commencing the performance of the work of this contract." The form of such certificate is included as part of the contract documents under provisions of Document 00623.
19. CONTRACT PROCEDURE: The contract documents contemplate the following procedure following receipt of bid:
  - a. If the Agency determines that it intends to award a contract to one of the bidders, it will give the successful bidder Notice of Intent to Award Contract. The agency is not bound and the Contractor should not commence work to evidence his intent until after approval by the Riverside County Redevelopment Agency Board of Directors.
  - b. Following such notice, the successful bidder shall post the Performance and Payment Bonds, return executed copies of the Agreements, and commence work.
20. BID DEPOSIT RETURN: Deposits of three or more low bidders, the number being at the discretion of the Agency, will be held for thirty (30) days or until posting by the successful bidder of the Bonds and Certificates of Insurance required and return of executed copies of the Agreement, whichever first occurs, at which time the deposits will be returned.
21. FORFEITURE FOR FAILURE TO POST SECURITY AND EXECUTE AGREEMENT: In the event the bidder to whom the Notice of Intent to Award Contract is given fails or refuses to post the required bonds and return executed copies of the Agreement within five (5) calendar days from the date of receiving said Notice of Intent to Award Contract, the Agency may declare the bidder's bid deposit or bond forfeited as damages caused by the failure of the bidder to post such security and execute such copies of the Agreement, and may give Notice of Intent to Award Contract to the next lowest responsible bidder, or may call for new bids.
22. ANTI-DISCRIMINATION: It is the policy of the Agency that in connection with all work performed under contracts, there be no discrimination against any prospective or active employee engaged in the work because of race, color, ancestry, national origin, religious creed, sex, age, or marital status. The Contractor agrees to comply with applicable Federal and California laws including, but not limited to, the California Fair Employment Practice Act, beginning with Government Code Section 12900, Labor Code Section 1735, and Title 5, Division 1, Chapter 1, Subchapter 4 of the California Code of Regulations. In addition, the Contractor agrees to require like compliance by any subcontractors employed on the work by Contractor.
23. PRE-BID CONFERENCE: A pre-bid conference is scheduled for this project. The location and starting time for the conference shall be as stated in the Notice Inviting Bids, Document 00101. Reasonable consideration will be made for late arrivals. A bidder shall not be excluded from bidding because of failure to attend the pre-bid conference. General contract and major subcontract bidders and suppliers are invited to attend. Representatives of the Owner and Architect/Engineer will be in attendance. An attendance list of this pre-bid conference will be circulated to known bidders. Items discussed during the pre-bid conference are not contractual. Information relevant to a modification, change, addition, or deletion of the Contract Documents will be issued by an Addendum.

END OF DOCUMENT

DOCUMENT 00320

GEOTECHNICAL DATA

1. SUMMARY

- A. This document describes geotechnical investigations conducted at the project site and the use of data from that investigation.

2. GEOTECHNICAL INVESTIGATION REPORT

- A. A Geotechnical Report has been prepared for the site of the Work by Earth Systems, a Geotechnical Engineer selected by the Owner.
- B. The Geotechnical Investigation Report may be inspected at the office of the Architect.
- C. Copies of the Geotechnical Investigation Report may be obtained from the Architect for the cost of reproduction and handling upon written request to the Architect.
- D. Full payment shall accompany all requests for the Geotechnical Investigation Report.

3. USE OF DATA

- A. The Geotechnical Report was obtained by the Owner only for the Architect's use in design and is not a part of the Contract Documents.
- B. The report is made available for bidders' information only and is not a warranty of subsurface conditions.
- C. Any information obtained from the report as to subsurface conditions or elevations of underlying materials is approximate only and is not a guarantee of the continuity of such conditions or elevations.

4. EXAMINATION OF SITE

- A. Bidders shall visit the site and acquaint themselves with existing conditions.
- B. Bidders shall decide for themselves the conditions which will affect the Work and the character of the materials to be encountered in the Work.
- C. Bidders may make, at their own expense, their own subsurface investigations to satisfy themselves as to site and subsurface conditions, but such investigations will be performed only under time schedules and arrangements reviewed in advance by the Architect.

5. QUALITY ASSURANCE

- A. A Geotechnical Engineer will be retained by the Owner to observe performance of work in connection with excavation, trenching, filling, backfilling, grading, paving, and to perform compaction tests.
- B. Duties and limitations of the Geotechnical Engineer are as specified in Section 01458.
- C. Readjust work performed that does not meet requirements of the Contract Documents.
- D. Make no deviation from the Contract Documents without specific and written approval of the Architect.

END OF DOCUMENT

DOCUMENT 00410

FIRM NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

PHONE NUMBER \_\_\_\_\_

BID FORM FOR

MECCA FIRE STATION #40

91-350 66<sup>th</sup> Avenue

MECCA, CA

DOCUMENT 00410

BID FORM

TO: Redevelopment Agency, acting by and through its Governing Board, herein called "Agency".

1. Pursuant to and in compliance with your Notice Inviting Bids and other documents relating thereto, the undersigned bidder, having familiarized himself with the terms of the contract, the local conditions affecting the performance of the contract and the cost of the work at the place where the work is to be done, hereby proposes and agrees to perform within the time stipulated, the contract, including all of its component parts, and everything required to be performed, including its acceptance by the Agency, and to provide and furnish any and all of the labor, materials, tools, expendable equipment, and all utility and transportation services necessary to perform the contract and complete in a workmanlike manner all of the work required in connection with the construction of the Mecca Fire Station #40 in Agency described Notice Inviting Bids above, all in strict conformance with the drawings and other contract documents on file at Business Office of said Agency for amounts set forth herein.

2. ADDENDA

The undersigned has thoroughly examined any and all Addenda (if any) issued during the bid period and is thoroughly familiar with all contents thereof and acknowledges receipt of the following Addenda: (Bidder to list all addenda).

ADDENDUM NUMBER _____	DATE RECEIVED _____
ADDENDUM NUMBER _____	DATE RECEIVED _____
ADDENDUM NUMBER _____	DATE RECEIVED _____
ADDENDUM NUMBER _____	DATE RECEIVED _____

3. BASE BID

TOTAL BID AMOUNT IN WORDS \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_ DOLLARS

( \$ \_\_\_\_\_ )

4. ALTERNATE BIDS

The following amounts shall be added to the Base Bid at the Agency's option. Alternates are fully described in Section 01200 - Price and Payment Procedures. Unit pricing for the following items is to remain in effect until the Notice of Completion has been issued.

Alternate No. 1 ADD \$ \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Alternate No. 2 ADD \$ \_\_\_\_\_  
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\_\_\_\_\_  
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\_\_\_\_\_

Alternate No. 3 ADD \$ \_\_\_\_\_  
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Alternate No. 4 ADD \$ \_\_\_\_\_  
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Alternate No. 5 ADD \$ \_\_\_\_\_  
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\_\_\_\_\_

Alternate No. 6 ADD \$ \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



5. TIME FOR COMPLETION: All work under this Contract shall be completed within a period of Three-Hundred Sixty Five (365) consecutive calendar days commencing on or before the date stated in the Agency's Notice to Proceed. Bidder acknowledges liability for liquidated damages if the work is not completed within the time period stated. Liquidated damages shall be in an amount stipulated in the Agreement.
6. It is understood that the Agency reserves the right to reject this bid and that the Bid shall remain open to acceptance and is irrevocable for a period of ninety (90) days.
7. The required bid security is attached hereto.
8. The required list of designated subcontractors is attached hereto. Bidder understands and acknowledges that all subcontractors providing goods and services in excess of \$15,000 must be bonded.
9. The required Non-collusion Affidavit is attached hereto.
10. The required Site Visit Certification is attached hereto.
11. The required Employment Certification is attached hereto.
12. It is understood and agreed that if written notice of the acceptance of this bid is mailed, telegraphed, or delivered to the undersigned after the opening of the bid, and within the time this bid is required to remain open, or at any time thereafter before this bid is withdrawn, the undersigned will execute and deliver to the Agency a contract in the form attached hereto in accordance with the bid as accepted, and that he will also furnish and deliver to the Agency the Performance Bond and Payment Bond as specified, all within five (5) days after receipt of notification of award, and that the work under the contract shall be commenced by the undersigned bidder, if awarded the contract, on the date to be stated in the Agency's notice to the Contractor to proceed, and shall be completed by the Contractor in the time specified in the contract documents.
13. Notice of Intent to Award Contract or other correspondence should be addressed to the undersigned at the address stated below.
14. The names of all persons interested in the foregoing proposal as principals are as follows:

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(IMPORTANT NOTICE: If bidder or other interested person is a corporation, state legal name of corporation, also names of the president, secretary treasurer, and manager thereof; if a co-partnership, state true name of firm, also names of all individual co-partners composing firm; if bidder or other interested person is an individual, state first and last names in full.)

15. The undersigned bidder declares to be licensed in accordance with the act providing for registration of contractors and the documentation of this licensure is as follows:

Bidder's license number is: \_\_\_\_\_ Classification \_\_\_\_\_

License expiration date is: \_\_\_\_\_ 20\_\_\_\_

If the bidder is a joint venture, each member of the joint venture must include the above information.

The undersigned certifies (or declares) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

16. The undersigned bidder declares to be:

a resident California company

17. In the event the bidder to whom Notice of Intent to Award Contract is given fails or refuses to post the required bonds and return executed copies of the agreement form within five (5) calendar days from the date of receiving the Notice of Intent to Award Contract, the Agency may declare the Bidder's bid deposit or bond forfeited as damages.
18. Pursuant to Section 4552 of the Government code, in submitting a bid to the Agency, the bidder offers and agrees that if the bid is accepted, it will assign to the Agency all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, materials, or services by the bidder for sale to the purchasing body pursuant to the bid. Such assignment shall be made and become effective at the time the purchasing body tenders final payment to the bidder.

\_\_\_\_\_ NAME

\_\_\_\_\_ ADDRESS

Date: \_\_\_\_\_ PROPER NAME OF BIDDER

By: \_\_\_\_\_ SIGNATURE OF BIDDER

NOTE: If bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of authorized officers or agents and the document shall bear the corporate seal; if bidder is partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign contracts on behalf of the partnership; and if bidder is an individual, the individual's signature shall be placed above.

Street Address : \_\_\_\_\_

City & State : \_\_\_\_\_

Telephone : \_\_\_\_\_

END OF DOCUMENT

DOCUMENT 00433

BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we \_\_\_\_\_, as Principal, and \_\_\_\_\_, as Surety, an admitted Surety insurer pursuant to Code of Civil Procedure, Section 995.120, legally doing business in California at \_\_\_\_\_, are held and firmly bound unto the Redevelopment Agency, hereinafter called the Agency, in the penal sum of TEN PERCENT (10) OF THE TOTAL AMOUNT OF THE BID of the Principal submitted to the said Agency for the work described below for the payment of which sum is lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that whereas the Principal has submitted the accompanying bid dated \_\_\_\_\_, for construction of:

**Mecca Fire Station**

NOW THEREFORE, the Principal shall not withdraw said bid within thirty (30) days after said opening; and the Principal, when given Notice of Intent to Award Contract, shall within five (5) days after the prescribed forms are presented to him for signature, return executed copies of the Agreement to the Agency, in accordance with the bid as accepted and give bond with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract and for the payment for labor and materials used for the performance of the contract, or in the event of the withdrawal of said bid within the period specified or the failure to enter into such contract and give such bonds within the time specified, the Principal shall pay the Agency the difference between the amount specified in said bid and the amount for which the Agency may procure the required work and/or supplies if the latter amount be in excess of the former, together with all costs incurred by the Agency in again calling for bids, then the above obligation shall be void and of no effect, otherwise to remain in full force and virtue.

Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract on the call for bids, or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation under this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of said contract or the call for bids, or to the work, or the specifications.

In the event suit is brought upon this bond by the Agency and judgement is recovered, the Surety shall pay all costs incurred by the Agency in such suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF the above-bound parties have executed this instrument under their several seals this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, the name and corporate seal of each corporate party being hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of its governing body.

(Corporate Seal)

\_\_\_\_\_  
Principal  
BY \_\_\_\_\_  
TITLE \_\_\_\_\_

(Corporate Seal)

\_\_\_\_\_  
Surety  
BY \_\_\_\_\_  
TITLE \_\_\_\_\_

(Attach Attorney-in-Fact Certificate)

DOCUMENT 00437

DESIGNATION OF SUBCONTRACTORS

In compliance with the Subletting and Subcontracting Fair Practices Act (Public Contract Code commencing at Section 4100) and any amendments thereof, each bidder shall set forth below:

- (a) The name and the location of the place of business of each subcontractor who will perform work or labor or render service to the prime contractor in or about the construction of the work or improvement, or a subcontractor licensed by the state of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of one percent of the prime contractor's total bid or, in the case of bids or offers for the construction of streets or highways, including bridges, in excess of one-half of one percent of the prime contractor's total bid or ten thousand dollars (\$10,000), whichever is greater.
- (b) The portion of the work which will be done by each subcontractor under this act.

The prime contractor shall list only one subcontractor for each such portion as is defined by the prime contractor in this bid.

If a prime contractor fails to specify a subcontractor or if a prime contractor specifies more than one subcontractor for the same portion of work to be performed under the contract in excess of one-half of one percent of the prime contractor's total bid, he shall be deemed to have agreed that he is fully qualified to perform that portion himself, and that he shall perform that portion himself.

No prime contractor whose bid is accepted shall:

- (a) Substitute any subcontractor,
- (b) Permit any subcontract to be voluntarily assigned or transferred or allow it to be performed by anyone other than the original subcontractor listed in the original bid or;
- (c) Sublet or subcontract any portion of the work in excess of one-half of one percent of the prime contractor's total bid as to which his original bid did not designate a subcontractor, except as authorized in the Subletting and Subcontracting Fair Practices Act.

Subletting or subcontracting of any portion of the work in excess of one-half of one percent of the prime contractor's total bid as to which no subcontractor was designated in the original bid shall only be permitted in cases of public emergency or necessity, and then only after a finding reduced to writing as a public record of the authority awarding this contract setting forth the facts constituting the emergency or necessity.

A prime contractor violating any of the provisions of Section 04100 shall be deemed to be in violation of this contract and the Agency may exercise the option, in its own discretion, of (1) canceling the contract or (2) assessing the prime contractor a penalty in an amount of not more than 10 percent of the amount of the subcontract involved.

In addition to the required listing of subcontractors, each bidder who is under consideration for the award of the contract shall submit to the Agency, upon request, within 24 hours of the receipt of the bid, any additional information as the Agency may determine is necessary for each subcontractor that the bidder has listed under the provisions of this Document to demonstrate satisfactory evidence of the subcontractor's qualifications and experience.



DOCUMENT 00453

NON-COLLUSION AFFIDAVIT

STATE OF CALIFORNIA

COUNTY OF \_\_\_\_\_

\_\_\_\_\_ being first duly sworn,

deposes and says that he/she is \_\_\_\_\_ of \_\_\_\_\_  
(Title) (Name of Bidder)

the party making the foregoing bid; that the bid is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization, or corporation; that the bid is genuine and not collusive or sham; that the bidder has not directly or indirectly colluded, conspired, connived, or agreed with any bidder or anyone else to put in a sham bid, or that anyone shall refrain from bidding; that the bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price of the bidder or any other bidder, or to fix any overhead, profit, or cost element of the bid price, or of that of any other bidder, or to secure any advantage against the public body awarding the contract of anyone interested in the proposed contract; that all statements contained in the bid are true; and, further, that the bidder has not, directly or indirectly, submitted his or her bid price or any breakdown thereof, or the contents thereof, or divulged information or data relative thereto, or paid, and will not pay, any fee to any corporation, partnership, company association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Typed Name)

SUBSCRIBED BEFORE ME on this \_\_\_\_ day of \_\_\_\_\_, 20\_\_

My Commission Expires:

\_\_\_\_\_  
Notary Public \_\_\_\_\_

DOCUMENT 00458

SITE VISIT CERTIFICATION

I certify that I have visited the site of the proposed work and have fully acquainted myself with the conditions relating to construction and labor, and I fully understand the facilities, difficulties, and restrictions attending the execution of the work under the contract.

I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

I fully indemnify the Redevelopment Agency, its officers, agents, employees, the Architect and any of its consultants from any damage, or omissions, related to conditions that could have been identified during my visit to the site.

\_\_\_\_\_  
(Signature of Bidder)

\_\_\_\_\_  
(Typed Name of Bidder)

SUBSCRIBED BEFORE ME on this \_\_\_\_ day of \_\_\_\_\_, 20\_\_

My Commission Expires:

\_\_\_\_\_

Notary Public \_\_\_\_\_

DOCUMENT 00459

EMPLOYMENT CERTIFICATION

I certify that I, the undersigned bidder, have not been convicted in the preceding five (5) years of the date established for receipt of bids, of violating a state or federal law respecting the employment of undocumented aliens.

I certify under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

\_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Typed Name)

SUBSCRIBED BEFORE ME on this \_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

My Commission Expires:

\_\_\_\_\_

Notary Public \_\_\_\_\_



DOCUMENT 00524

AGREEMENT

THIS AGREEMENT, made the \_\_\_\_\_, in the County of Riverside, State of California, by and between the Redevelopment Agency, hereinafter called the "Agency" and \_\_\_\_\_, hereinafter called CONTRACTOR.

WITNESSETH that the Agency and the Contractor for the considerations stated herein agree as follows:

ARTICLE 1 - SCOPE OF WORK: The Contractor shall furnish all labor, materials, equipment, tools, utility services and transportation and perform and complete all work required in connection with the construction of:

**Mecca Fire Station #40**

in strict accordance with the Contract Documents enumerated in Article 8 below. The Contractor shall be liable to the Agency for any damages arising as a result of a failure to comply with that obligation, and the Contractor shall not be excused with respect to any failure to so comply by act or omission of the Architect, Engineer, Inspector, or representative of any of them, unless such act or omission actually prevents the Contractor from fully complying with the Contract Documents and unless the Contractor protests at the time of such alleged prevention that the act or omission is preventing the Contractor from fully complying with the Contract Documents. Such protest shall not be effective unless reduced to writing and filed with the Agency office within three working days of the date of occurrence of the act or omission preventing the Contractor from fully complying with the Contract Documents.

ARTICLE 2 - TIME OF COMPLETION: All work under this Contract shall be completed within a period of Three-Hundred Sixty Five (365) consecutive calendar days commencing on or before the date stated in the Agency's written Notice to Proceed.

ARTICLE 3 - LIQUIDATED DAMAGES: It is agreed that the Contractor will pay the Agency the sum of One-Thousand Dollars (\$1,000.00) per calendar day for each and every day of delay beyond the time prescribed in the Bid Form and Agreement for finishing said work, as Liquidated Damages and not as a penalty or forfeiture. In the event the same is not paid, the Contractor further agrees that the Agency may deduct that amount thereof from any money due or that may become due the Contractor under the Contract. This Article does not exclude recovery of damages under other provisions of the Contract Documents.

ARTICLE 4 - CONTRACT PRICE: The Agency shall pay to the Contractor as full consideration for the faithful performance of the Contract, subject to any additions or deductions as provided in the Contract Documents, the sum of \_\_\_\_\_ DOLLARS (\$) said sum being the total amount stipulated in the Proposal. Payment shall be made as set forth in the General Conditions.

ARTICLE 5 - HOLD HARMLESS AGREEMENT: The Contractor agrees to and does hereby indemnify and hold harmless the Agency, its officers, agents, and employees and the Architect and Architect's consultants during the term of this agreement and one (1) year after the filing of the Notice of Completion from every claim or demand made, and every liability, loss, damage, or expense, of any nature whatsoever, which may be incurred by reasons of:

- (A) Liability for damages for (1) death or bodily injury to persons, (2) injury to, loss or theft of property (3) any other loss, damage or expense arising under either (1) or (2) above, sustained by the Contractor or any person, firm or corporation employed by the Contractor upon or in connection with the work called for in this Agreement, except for liability resulting from the sole or active negligence or willful misconduct of the Agency, its officers, employees, agents or independent contractors who are directly employed by the Agency; and
- (B) Any injury to or death of persons or damage to property caused by any act, neglect, default or omission of the Contractor, or any person, firm, or corporation employed by the Contractor, either directly or by independent contract, including all damages due to loss or theft, sustained by any person, firm or corporation, including the Agency, arising out of, or in any way connected with the work covered by this Agreement, whether said injury or damage occurs either on or off Agency property, if the liability arose from the negligence or willful misconduct of anyone employed by the Contractor, either directly or by independent contract.

(C) The Contractor, at Contractor's own expense, cost and risk, shall defend any and all actions, suits, or other proceedings that may be brought or instituted against the Agency, its officers, agents or employees, on any such claim, demand or liability, and shall pay or satisfy any judgement that may be rendered against the Agency, its officers, agents or employees in any action, suit or other proceedings as a result thereof.

ARTICLE 6 - EARNINGS ASSIGNMENT ORDERS: Pursuant to the requirements of Public Contract Code Section 7110, the Contractor acknowledges that he is aware of the provisions of Chapter 8 (commencing with Section 5200) of Part 5 of Division 9 of the Family Code, and that to the best of his knowledge is in full compliance with earnings orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the Employment Development Department.

ARTICLE 7 - PROVISIONS REQUIRED BY LAW: Each and every provision of law and clause required to be inserted in this Contract shall be deemed to be inserted herein and this Contract shall be read and enforced as though it were included herein, and if through mistake or otherwise any such provision is not inserted or is not inserted correctly, then upon application of either party the Contract shall forthwith be physically amended to make such insertion or correction.

ARTICLE 8 - COMPONENT PARTS OF THE CONTRACT: The Contract entered into by this Agreement consist of the following Contract Documents, all of which are component parts of the Contract as if herein set out in full or attached hereto:

- Notice Inviting Bids
- Instructions to Bidders
- Bid Form
- Bid Bond
- Designation of Subcontractors
- Non-Collusion Affidavit
- Site Visit Certification
- Employment Certification
- Addenda
- Agreement
- Performance Bond
- Labor and Materials Payment Bond
- Certification of Workers' Compensation
- Certification of Drug-Free Workplace
- Certificate of Asbestos-Free Materials
- General Conditions and Supplementary General Conditions
- Specifications
- Drawings

All of the above named Contract Documents are complementary. Work required by one of the above named contract documents shall be done as if required by all.

Contractors are required by law to be licensed and regulated by the Contractors' State License Board. Any questions concerning a contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 2600, Sacramento, California 95826.

IN WITNESS WHEREOF, this Agreement has been duly executed by the above named parties, on the day and year first above written.

REDEVELOPMENT AGENCY:

BY \_\_\_\_\_

\_\_\_\_\_  
Typed or Printed Name

TITLE \_\_\_\_\_

CONTRACTOR:

BY \_\_\_\_\_

\_\_\_\_\_  
Typed or Printed Individual and Company Name

TITLE \_\_\_\_\_

BY \_\_\_\_\_

\_\_\_\_\_  
Typed or Printed Name

TITLE \_\_\_\_\_  
Authorized Officers or Agents

DATE \_\_\_\_\_

(CORPORATE SEAL)

DOCUMENT 00614

PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS: That WHEREAS, the Redevelopment Agency, by resolution passed \_\_\_\_\_, 2010, has given to hereinafter designated as the "Principal", a Notice of Intent to Award Contract for the work described as follows:

**Mecca Fire Station**

WHEREAS, said Principal is required under the terms of said Notice to furnish a Bond for the faithful performance of such Notice.

NOW THEREFORE, we, the Principal and as Surety, an admitted Surety insurer pursuant to Code of Civil Procedure, Section 995.120, legally doing business in California at \_\_\_\_\_, are held and firmly bound unto the Redevelopment Agency, hereinafter called the "Agency", in the sum of \_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_), lawful money of the United States of America, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if the above bound Principal, his or its heirs, executors, administrators, successors or assigns, shall in all things stand to and abide by and will and truly keep and perform, the covenants, conditions and agreements as defined in the said contract and any alteration thereof made as therein provided, on his or their part, to be kept and performed at the times and in the manner therein specified, and in all respects according to their true intent and meaning, and shall indemnify and save harmless the Agency, its officers and agents, as therein stipulated, then this obligation shall become null and void, otherwise, it shall be and remain in full force and virtue.

As a condition precedent to the satisfactory completion of the Contract, the above obligation shall hold good for a period of one (1) year after the acceptance of the Work by Agency, during which time if Principal shall fail to make full, complete, and satisfactory repair and replacements and totally protect the Agency from loss or damage made evident during the period of one (1) year from the date of acceptance of the Work, and resulting from or caused by defective materials or faulty workmanship, the above obligation in penal sum thereof shall remain in full force and effect. However, nothing in this paragraph shall limit the obligation of the surety and the obligation of the Surety shall continue so long as any obligation of Principal remains.

And the said surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the Contract or to the work to be performed thereunder, or the specifications accompanying the same, shall in any way affect its obligation on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the Contract, or to the work, or to the Specifications.

In the event suit is brought upon this bond by the Agency and judgement is recovered, the Surety shall pay all costs incurred by the Agency in such suit, including a reasonable attorney's fee to be fixed by the court.

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named, on the \_\_\_\_\_ day of \_\_\_\_\_, 2010.

(Corporate Seal)

\_\_\_\_\_ Principal

By \_\_\_\_\_  
Typed or Printed Name

Title \_\_\_\_\_

(Corporate Seal)

\_\_\_\_\_ Surety

By \_\_\_\_\_  
Typed or Printed Name

(Attach Attorney-in-Fact Certificate)

Title \_\_\_\_\_

DOCUMENT 00615

LABOR AND MATERIALS PAYMENT BOND

KNOW ALL MEN BY THESE PRESENTS: That WHEREAS, the Redevelopment Agency, by resolution passed \_\_\_\_\_, 20\_\_\_\_, has given to \_\_\_\_\_ hereinafter designated as the "Principal", a Notice of Intent to Award Contract for the work described as follows:

**Mecca Fire Station**

WHEREAS, said principal is required by Division 3, Part IV Title XV, Chapter 7 (commencing at Section 3247) of the California Civil Code to furnish a bond in connection with said contract;

NOW, THEREFORE, we, the Principal and \_\_\_\_\_ as Surety, an admitted Surety insurer pursuant to Code of Civil Procedure Section 995.120 legally doing business in California at \_\_\_\_\_, are held and firmly bound unto the Redevelopment Agency hereinafter called the "Agency", in the penal sum of \_\_\_\_\_ DOLLARS (\$ \_\_\_\_\_), lawful money of the United States of America for the payment of which sum well and truly to be made, we bind ourselves our heirs, executors, administrators, successors and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION IS SUCH that if said Principal, his or its subcontractor, heirs, executors, administrators; successors or assigns, shall fail to pay for any materials, provisions, provender or other supplies, used in, upon, for or about the performance of the work contracted to be done, or for any work or labor thereon of any kind, or for amounts due under the Unemployment Insurance Code with respect to work or labor, or for any amounts required to be deducted, withheld, and paid over to the Employment Development Department from the wages of employees of the Contractor pursuant to Section 13020 of the Unemployment Insurance Code with respect to the work and labor, or for amounts due as withholding tax pursuant to Section 18806 of the Revenue and Taxation Code, then said Surety will pay for the same, in or to an amount not exceeding the amount hereinabove set forth, and also will pay in case suit is brought upon this bond, such reasonable attorney's fees, as shall be fixed by the court, awarded and taxed as provided in Division III, Part 4, Title XV, Chapter 7, (commencing at Section 3247) of the California Civil Code.

This bond shall inure to the benefit of any and all persons, companies, and corporations entitled to file claims under Section 3181 of the Civil code of the State of California, so as to give a right of action to them or their assigns in any suit brought upon this bond.

And the said Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or the work to be performed thereunder or the specifications accompanying the same shall in any way affect its obligations on this bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract, or to the work, or to the specifications.

IN WITNESS WHEREOF, this instrument has been duly executed by the Principal and Surety above named, on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_.

(Corporate Seal)

\_\_\_\_\_  
Principal  
By \_\_\_\_\_  
\_\_\_\_\_  
Typed or Printed Name  
Title \_\_\_\_\_

(Corporate Seal)

\_\_\_\_\_  
Surety  
By \_\_\_\_\_  
\_\_\_\_\_  
Typed or Printed Name  
Title \_\_\_\_\_

(Attach Attorney-in-Fact Certificate)

DOCUMENT 00618

GUARANTEE

We hereby guarantee that the \_\_\_\_\_, which we have installed for the Mecca Fire Station, has been performed in accordance with the requirements of the Contract Documents and that the work as installed will fulfill the requirements of the Contract Documents.

The undersigned agrees to repair or replace any or all of such work that may prove to be defective in workmanship or material together with any other adjacent work which may be displaced in connection with such replacement within a period of one year from the date of acceptance of the above-mentioned project by the Redevelopment Agency, ordinary wear and tear and unusual abuse or neglect excepted.

In the event of the undersigned's failure to comply with the above mentioned conditions within a reasonable period of time, as determined by the Agency, but not later than 14 calendar days after being notified in writing by the Agency, the undersigned authorizes the Agency to proceed to have said defects repaired and made good at the expense of the undersigned, which will pay the costs and charges therefore upon demand. The undersigned also agrees to all requirements set forth in the General Conditions, Article 14.

\_\_\_\_\_  
SUBCONTRACTOR OR GENERAL CONTRACTOR

Countersigned

\_\_\_\_\_  
GENERAL CONTRACTOR IF FOR SUBCONTRACTOR

SUBSCRIBED BEFORE ME on this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_\_

My Commission Expires:

\_\_\_\_\_

Notary Public \_\_\_\_\_

Representatives to be contacted for service subject to terms of contract.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

\_\_\_\_\_

PHONE # \_\_\_\_\_



DOCUMENT 00623

CONTRACTOR'S CERTIFICATE  
REGARDING WORKER'S COMPENSATION

Labor Code Section 3700.

"Every employer except the State shall secure the payment of compensation in one or more of the following ways:

- "(a) By being insured against liability to pay compensation in one or more insurers duly authorized to write compensation insurance in this State.
- "(b) By securing from the Director of Industrial Relations a certificate of consent to self-insure, which may be given upon furnishing proof satisfactory to the Director of Industrial Relations of ability to self-insure and to pay any compensation that may become due to his employees.

I am aware of the provisions of Section 3700 of the Labor Code which require every employer to be insured against liability for worker's compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.

DATE: \_\_\_\_\_ Contractor

By \_\_\_\_\_ Signature

(In accordance with Article 5 (commencing at Section 1860), Chapter 1, Part 7, Division 2 of the Labor code, the above certificate must be signed and filed with the awarding body prior to performing any work under this contract.

DOCUMENT 00627

CLAIM CERTIFICATION

I \_\_\_\_\_  
(name) please print or type (title)

of \_\_\_\_\_, do hereby personally certify  
(firm name)

and attest that:

I have thoroughly reviewed the attached claim for additional compensation and/or extension of time, and know its contents, and said claim is made in good faith; the supporting data is truthful and accurate; that the amount requested accurately reflects the contract adjustment for which I believe the Agency is liable; and, further, that I am familiar with California Penal Code Section 72 and California Government Code Section 12650, et. seq., pertaining to false claims, and further know and understand that submission or certification of a false claim may lead to fines, imprisonment and/or other severe legal consequences.

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

\_\_\_\_\_  
Name

\_\_\_\_\_  
Title

\_\_\_\_\_  
Date

State of \_\_\_\_\_ County of \_\_\_\_\_. On this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, \_\_\_\_\_, the undersigned Notary Public, personally appeared \_\_\_\_\_ personally known to me, \_\_\_\_\_ proved to me on the basis of satisfactory evidence to be the person(s) who executed the within instrument, and acknowledged that \_\_\_\_\_ executed it.

WITNESS my hand and official seal.

My commission expires \_\_\_\_\_  
Notary Public

DOCUMENT 00625

CERTIFICATION OF ASBESTOS-FREE MATERIALS

I \_\_\_\_\_  
(name) please print or type (title)  
of \_\_\_\_\_, do hereby declare that to  
(firm name)

the best of my knowledge, information, and belief that in completing the work of said project, for the Redevelopment Agency, no manufactured material assembly/device or item of construction will contain, or in itself be composed of, any materials listed (by the federal or state EPA or federal or state health agencies) as a hazardous material.

I certify (or declare) under penalty of perjury under the laws of the State of California that the foregoing is true and correct.

\_\_\_\_\_  
Name  
\_\_\_\_\_  
Title  
\_\_\_\_\_  
Date

State of \_\_\_\_\_ County of \_\_\_\_\_. On this the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_, before me, \_\_\_\_\_, the undersigned Notary Public, personally appeared \_\_\_\_\_ personally known to me, \_\_\_\_\_ proved to me on the basis of satisfactory evidence to be the person(s) who executed the within instrument, and acknowledged that \_\_\_\_\_ executed it.

WITNESS my hand and official seal.

My commission expires \_\_\_\_\_  
Notary Public

## GENERAL CONDITIONS OF THE CONTRACT

### ARTICLE 1 GENERAL PROVISIONS

#### 1.1 DEFINITIONS

**THE CONTRACT DOCUMENTS** - The Contract Documents consist of the Contract, the Performance Bond and Payment Bond and any other bond required by the Contract, the drawings, the specifications, addenda issued prior to execution of the Contract, and all modifications thereto.

**THE CONTRACT** - The Contract Documents form the Contract. The Contract represents the entire and integrated agreement between the parties hereto, and supersedes all prior negotiation, representations, or agreements, either written or oral, including the bidding documents.

**ACT OF GOD** - An Act of God is an earthquake of magnitude 4.5 or greater on the Richter scale, flood, tornado, or other cataclysmic phenomenon of nature, or rain, snowstorm, windstorm, high water, or other natural phenomenon in excess of the normal as established by National Oceanic and Atmospheric Administration weather data.

**ACCEPTANCE** - Acceptance is when the Agency determines all of the Contract requirements have been completed. Execution of the Notice of Completion will signify acceptance. A copy of the Notice of Completion will be sent to the Contractor after execution by the Agency. Upon receipt of the Notice of Completion, the Contractor will be relieved of the duty of protecting the work, and the Agency will initiate final settlement and payment.

**ARCHITECT** - The use of the term Architect shall mean the individual, partnership, corporation, association or joint venture contracted by the Agency for the design of this Work, as designated on the title sheet of these specifications and Contract Documents.

**BENEFICIAL OCCUPANCY** - This term refers to the right of the Agency to occupy all or any portion of the project prior to final Acceptance of the Work. Such occupancy does not constitute acceptance or completion by the Contractor of the Work or any portion thereof, nor will it relieve the Contractor of the responsibility for correcting defective work or materials found at any time before Acceptance of the Work.

**AGENCY** - The term Agency when used herein shall mean the Riverside County Redevelopment Agency.

**CHANGE ORDER** - A Change Order is the document issued by the Agency authorizing any change or adjustment to the Contract Documents in accordance with Article 19 of this Contract.

**CONTRACT DRAWINGS** - "Contract drawings" or "drawings" means and includes (a) all drawings which have been prepared on behalf of the Agency and are included in the Contract Documents and all clarification drawings issued by notice to the bidders thereto; (b) all drawings submitted pursuant to the terms of the Contract by the Contractor to the Agency during the progress of the Work, which are accepted by the Agency.

**CONTRACTOR'S AGENT** - The representative of the Contractor, approved by the Agency, who shall be present at the Work and be authorized to receive and act upon instructions from the Agency and to execute and direct the Work on behalf of the Contractor.

**CONTRACTOR** - When used herein, Contractor means the prime or principal Contractor licensed to perform work in the State of California, including all joint ventures. References to subcontractor or others are only for convenience and all such references shall be considered to refer to the Contractor. The prime or principal Contractor shall be responsible for all subcontractors, and all subcontractors shall require their subcontractors to comply with the relevant provisions of the prime or principal contract.

**CRITICAL PATH METHOD (CPM)** - "Critical Path Method" is a schedule technique.

**DAY** - The use of "day" herein means calendar day and shall include every day including Saturdays, Sundays, and legal holidays.

**DIRECTOR** - The use of "Director" shall mean the Agency Director or Executive Director or designated representative.

**INSTALL** - When used herein, "install" shall mean the complete installation, in place, of any item, equipment or material.

**MATERIAL** - Material shall be construed to include machinery, equipment, manufactured articles, or construction such as form work, fasteners, etc., and any other classes of material to be furnished in connection with the Contract. All materials shall be new.

**NOTICE OF COMPLETION** - The Notice of Completion ("NOC") shall be issued at that point in the Contract when the Contractor has completed all Work required in the Contract Documents. The time for issuance shall be determined by the Agency through a final inspection. The NOC shall be issued by the Board of Supervisors.

**NOTICE TO PROCEED** - The Notice to Proceed is the written notification from the Agency giving the Contractor notice to commence with the Work. The Notice to Proceed will specify the start date for the Work and the completion date.

**REQUEST FOR INFORMATION** - (RFI) The form and procedure established for communication between the Contractor and the Agency to clarify or interpret the Contract Documents.

**REQUEST FOR QUOTATION** - (RFQ) A document consisting of supplemental details, instruction, or information issued by the Architect, through the Agency, for the purpose of obtaining price quotations for possible changes in the Work.

**SHALL** - When used herein, "shall" means anything, which is mandatory to be performed by the Contractor.

**SPECIFICATIONS** - The term "Specifications" means that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards and workmanship for the Work.

**SUBCONTRACTOR** - The term "Subcontractor" means a person or firm that has a contract with Contractor or with another subcontractor to perform a portion of the Work. Unless otherwise specifically provided, the term Subcontractor includes Subcontractors of any tier, suppliers, manufacturers, and distributors. The term Subcontractor is referred to throughout the Contract Documents as if singular in number.

**WORK** - The term "Work" comprises the services and materials required by the Contract Documents, as may be amended, and includes all labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in such construction.

## 1.2 AUTHORITIES AND LIMITATIONS

1.2.1 The Board of Directors alone have the power to bind the Agency and to exercise the rights, responsibilities, authorities, and functions vested therein by the Contract Documents, except that they shall have the right to designate authorized representatives to act for them.

1.2.2 Neither the Contract, nor any part thereof, nor moneys due or to become due there under may be assigned by the Contractor without the prior written approval of the Agency, with the exception of the assignments to Agency which may be required under the terms of this Contract.

## 1.3 LEGAL REQUIREMENTS

1.3.1 Contractor shall keep informed of, and comply with, all federal, state and Agency laws, ordinances, rules, and regulations applicable to the Work or to those engaged or employed in the Work of this Contract, especially (but not limited to) those laws relating to hours of employment, prevailing wages, payment of wages, sanitary and safety conditions for workers, workers' compensation insurance, type and kind of materials that can be used, non-discrimination in employment and affirmative action programs. Failure to identify a specific provision in these Contract Documents shall not excuse the Contractor from complying with such applicable statutory requirements.

1.3.2 If conflict arises between provisions of the Contract Documents and any such laws, rules, or regulations, the Contractor shall notify the Agency at once in writing. If, before receiving clarification, Contractor performs any portion of the Work affected by such apparent conflict, such performance shall be at Contractor's own risk. Contractor shall not be entitled to any additional compensation or time by reason of the conflict or its later correction.

1.3.3 All work and materials shall be in full accordance with the latest applicable (or otherwise noted) codes, rules, and regulations including, but not limited to, the following:

Uniform Building Code  
Uniform Plumbing Code  
Uniform Mechanical Code  
Uniform Fire Code  
State Fire Marshal  
State Industrial Accident Commission's Safety Orders  
Rules of Local Utilities  
Imperial Irrigation District Standards and Special Provisions  
Coachella Valley Water District – Standard Specification for the Construction of Domestic Water Systems  
Coachella Valley Water District – Standard Specification for the Construction of Domestic Sanitary Systems  
Rules of Local Utilities

1.3.4 Nothing in the specifications is to be construed to permit work not conforming to the above, and expense incurred complying with the above shall be borne by the Contractor. Whenever the specifications and working details require higher standards than those required by the ordinances, codes and statutes, the specifications and working details shall take priority over the ordinances, codes and statutes.

1.3.5 In submitting a bid on this public works projects, or any subcontractor agreeing to supply goods, services, or materials, and entering a contract pursuant thereto, the contractor and/or subcontractor do offer and agree to assign the Agency all rights, title, and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C. Section 15) or under the Cartwright Act (Chapter 2 (commencing with Section 16700) of Part 2 of Division 7 of the Business and Professions Code), arising from purchases of goods, services, or materials pursuant to the public works contract or the subcontract. This assignment shall be made and become effective at the time the awarding body tenders final acknowledgement by the parties.

#### 1.4 STANDARD REFERENCES

1.4.1 All documents and publications (such as, but not limited to, manuals, handbooks, codes, standards, and specifications) which are cited in this Contract for the purpose of establishing technical (non-administrative) requirements applicable to equipment, materials, or workmanship under this Contract, shall be deemed to be incorporated herein as though fully set forth.

1.4.2 Whenever reference is made to any particular document or publication, the Contractor shall comply with the requirements set out in the edition specified in this Contract, or if not specified, the latest edition or revision thereof, in effect on the date of the solicitation of bid on this project, except as modified by, as otherwise provided in, or as limited to type, class, or grade, in the specifications of this Contract.

#### 1.5 PERMITS, LICENSES, FEES & TAXES

##### 1.5.1 AGENCY'S RESPONSIBILITIES

- a. The Agency will apply for all plan checks and will apply for and obtain the Building Permit(s), the Grading Permit and Construction Permits required by the Agency, paying all fees in connection therewith.
- b. The Agency will furnish, at no expense to the Contractor, all on-site inspection of the Work and will arrange and pay for off-site inspection only as noted in the Contract Documents.

##### 1.5.2 CONTRACTOR'S RESPONSIBILITIES

- a. The Contractor shall obtain and pay for all other permits and licenses required for the Work, including excavation permit and for plumbing, mechanical and electrical work and for operations in or over public streets or right of way under jurisdiction of public agencies other than the Agency.
- b. Exclusive of off-site inspection specified herein to be the Agency's responsibility, the Contractor shall arrange and pay for all off-site inspection of the Work, including certification, required by the specifications, drawings, or by governing authorities.

- c. Before Acceptance of the project by the Agency, the Contractor shall submit all licenses, permits, and certificates of inspection to the Agency.

## 1.6 SEPARATE CONTRACTS

1.6.1 The Agency reserves the right to perform work related to this project with its own forces, and to award separate contracts in connection with other portions of the project or other work on the site. The Contractor shall cooperate with others in the prosecution of all work and shall not interfere with material, appliances or workers of the Agency or any other contractor engaged by the Agency at the site of the Work. In case of disagreement regarding such use, the matter shall be referred to the Agency whose decision relative to said use shall govern.

1.6.2 The Contractor shall afford the Agency and separate contractors reasonable opportunity for the introduction and storage of their materials and equipment and the execution of their work, and shall properly connect and coordinate Contractor's Work with theirs.

1.6.3 If any part of the Contractor's Work depends for proper execution or results upon the work of the Agency or any separate contractor, the Contractor shall inspect and promptly report to the Agency any discrepancies or defects in such other work that render it unsuitable for such proper execution and results. Failure of the Contractor to so inspect and report shall constitute an acceptance of the Agency's or the separate contractor's work as fit and proper to receive the Work, except as to defects which may develop in the other separate contractor's work after the execution of the Contractor's Work.

1.6.4 Should the Contractor cause damage to the work or property of any separate contractor on the Project, the Contractor shall, upon due notice, settle with such other contractor by agreement, if both will so settle. If such separate contractor sues the Agency because of any damage alleged to have been so sustained, the Contractor agrees to indemnify and defend the Agency in such proceedings with the Agency retaining the right to select and hire independent counsel for the Agency paid by the Contractor.

1.6.5 Any cost caused by defective or ill-timed work shall be borne by the party responsible therefore.

## 1.7 AGENCY'S AUTHORIZED REPRESENTATIVE, INSPECTOR(S), & ARCHITECT

### 1.7.1 AUTHORIZED REPRESENTATIVE

The Agency shall designate a representative during the Work, who shall have the right to be present at the job site during construction and shall supervise any additional representatives appointed by the Agency.

### 1.7.2 INSPECTOR(S)

The Inspector(s) shall have the right to observe the installation of all materials and equipment to be incorporated into the Work and the placing of such material and equipment to determine in general if the Work is proceeding in accordance with the Contract Documents. The Inspector(s) is not authorized to make changes in the Contract Documents. On the basis of his observations, he shall keep the Agency informed as to the progress of the Work. The Inspector shall not be responsible for means, methods, techniques, sequences, or procedures of construction nor for safety precautions and programs in connection with the Work. Nor will the inspector be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.

### 1.7.3 ARCHITECT

- a. The Agency has retained an Architect for this project. The Architect will advise and consult with the Agency, and the Agency will issue instructions to the Contractor. The Architect will be requested to interpret the requirements of the Contract. When requested by the Agency, the Architect will, within a reasonable time, render such interpretations as he may deem necessary for the proper execution of the Work.
- b. The Architect will make periodic visits to the job site to become generally familiar with the progress and quality of the Work and to determine in general whether the work is proceeding in accordance with the Contract Documents. Based on such observations, Architect will recommend approval of applications for progress payments made by Contractor. The Architect

shall not be responsible for means, methods, techniques, sequences, or procedures of construction nor for safety precautions and programs in connection with the Work. Nor will the Architect be responsible for the Contractor's failure to carry out the Work in accordance with the Contract Documents.

## **ARTICLE 2      BONDS AND INSURANCE**

### **2.1      BIDS OF \$25,000 OR LESS**

2.1.1    If the total amount bid on the Work is \$25,000 or less, the payment bond and performance bond are not required, provided that one payment of all compensation shall be made following Acceptance of all work.

### **2.2      BONDS**

#### **2.2.1    GENERAL REQUIREMENTS**

a.    Before commencing any Work under this Contract, the Contractor shall file four of each bond with the Agency. These bonds shall be in the amounts and for the purposes specified below. They shall be surety bonds issued by:

(1)    Either a California Admitted Surety OR a current Treasury Listed Surety (Federal Register).

And

(2)    Either a current A.M. Best A VIII rated Surety OR an admitted surety insurer which complies with the provisions of the Code of Civil Procedure, § 995.660.

b.    Should any surety or sureties upon said bonds or any of them become insufficient, Contractor shall renew said bond or bonds with good and sufficient sureties within ten (10) calendar days after receiving notice from the Agency that the surety or sureties are insufficient. Cost of bonds shall be included in the bid price.

#### **2.2.2    PERFORMANCE BOND**

The successful bidder shall deliver to the Agency an executed Performance Bond on the attached form in an amount equal to 100% of the accepted bid as security for the faithful performance of the Contract.

#### **2.2.3    PAYMENT BOND**

The successful bidder shall deliver to the Agency an executed Payment Bond on the attached form in an amount equal to 100% of the accepted bid as security for the payment of all persons performing labor and furnishing materials in connection with the Work.

### **2.3      INSURANCE**

#### **2.3.1    GENERAL REQUIREMENTS**

#### **2.3.2    WORKERS' COMPENSATION INSURANCE**

Contractor shall secure Workers' Compensation Insurance (Coverage A) as prescribed by the laws of the State of California. Policy shall include Employers' Liability (Coverage B) including Occupational Disease with limits not less than \$1,000,000 per person per accident. Policy shall be endorsed, if applicable, to provide a Borrowed Servant/Alternate Employer Endorsement, and contain a Waiver of Subrogation in favor of the Agency Pursuant to Section 3700 of the Labor Code of the State of California, Contractor shall file with the Agency before commencing the Work the following signed certification:

"I am aware of the provisions of Section 3700 of the Labor Code, which requires every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that Code, and I shall comply with such provisions before commencing the performance of the Work of this Contract."



### 2.3.3 COMMERCIAL GENERAL LIABILITY:

Commercial General Liability insurance coverage, including but not limited to, premises liability, contractual liability, products/completed operations if applicable, personal and advertising injury – which may arise from or out of CONTRACTOR'S operations, use, and management of the premises, or the performance of its obligations hereunder. Policy shall name the Agency—its Directors, Officers, special Districts, Board of Directors, Board of Supervisors, employees, agents or representatives as Additional Insured, and contain a Waiver of Subrogation in favor of the Agency. Policy limits shall not be less than \$1,000,000 per occurrence combined single limits. If such insurance contains a general aggregate limit, it shall apply separately to this agreement or be no less than two (2) times the occurrence limit. Policy shall also contain coverage for \$5,000 Medical Payments coverage per accident, per person, and Fire Legal Liability in an amount not less than \$50,000.

### 2.3.4 VEHICLE LIABILITY:

If CONTRACTOR'S vehicles or licensed mobile equipment are used on Agency property, or used in any manner on behalf of the Agency, CONTRACTOR shall maintain auto liability insurance for all owned, non-owned and hired automobiles in an amount not less than \$1,000,000 per occurrence combined single limit, \$2,000,000 in the aggregate. Policy shall name the Agency, its Director's Officers, Special Districts, Board of Directors, Board of Supervisors, employees, agents, or representatives as Additional Insured, and provide a Waiver of Subrogation in favor of the Agency.

### 2.3.5 PROPERTY (PHYSICAL DAMAGE):

All-Risk property insurance coverage for the full replacement value of all CONTRACTOR'S equipment, improvements/alterations, temporary structures, and systems (Care, Custody, and Control of CONTRACTOR) used on AGENCY property, or used in any way connected with the accomplishment of the Work performed in this contract.

### 2.3.6 COURSE OF CONSTRUCTION INSURANCE

CONTRACTOR shall provide All Risk Builder's Risk (Course of Construction) insurance, including earthquake and flood if in an earthquake or flood zone (required on financed or bond financing arrangements), covering the AGENCY, the CONTRACTOR and every subcontractor of every tier for the entire project including property to be used in the construction of the project while such property is at off site storage locations or while in transit. Policy shall include coverage for collapse, faulty workmanship, debris removal, expediting expense, Fire Department Service charges, valuable papers and records, trees, grass, shrubbery and plants. If scaffolding, falsework and temporary buildings are insured separately by the CONTRACTOR or others, evidence of such separate coverage shall be provided to AGENCY prior to the start of the work. Policy shall be written on a completed value form. Policy shall also provide coverage for temporary structures (onsite offices, etc.), fixtures, machinery and equipment being installed as part of the construction project. (The Base Bid including course of construction insurance shall be used for determination of lowest bid, unless otherwise stated in the bid form.)

CONTRACTOR shall provide a bid price with Course of Construction insurance as outlined herein, and shall also separately provide the cost of the Course of Construction insurance and deductible; and shall declare all terms, conditions, coverages and limits upon request of AGENCY. AGENCY RETAINS THE RIGHT TO CHOOSE TO USE ITS OWN COURSE OF CONSTRUCTION PROGRAM. If the AGENCY program is chosen, CONTRACTOR shall assume the cost of any and all applicable policy deductibles (currently \$50,000 per occurrence), and shall insure its own machinery, equipment, tools, etc., from any loss of any nature whatever. If AGENCY elects the CONTRACTOR'S All Risk Builder's Risk Program, CONTRACTOR shall be responsible for any and all policy deductibles.

### 2.3.7 GENERAL INSURANCE PROVISION – ALL LINES:

a. Any insurance carrier providing insurance coverage hereunder shall be admitted to the State of California unless waived, in writing, by the Agency Risk Manager. Carrier(s) shall have an A.M. BEST rating of not less than an A:VIII. Insurance deductibles or self-insured retentions must be declared by the carrier(s), and such deductibles and retentions shall have the prior written consent from the Agency Risk Manager. At the election of the Risk Manager, carriers shall provide written notification, and shall either 1) reduce or eliminate such deductibles or self-insured retentions, or 2) procure a bond which guarantees payment of losses and related investigations, claims administration, and defense costs and expenses. If no written notice is received from the Agency Risk Manager within ten (10) days of the acceptance of agreement, then such deductibles or self-insured retentions shall be deemed acceptable.

b. Cause its insurance carrier(s) to furnish the Agency with either 1) a properly executed original Certificate(s) of Insurance and certified original copies of Endorsements effecting coverage as required herein, or 2) if requested to do so in writing by the Agency Risk Manager, provide original Certified copies of policies including all Endorsements and all attachments thereto, showing such insurance is in full force and effect. The Agency, its Director's and Officers, Special Districts, Board of Supervisors, elected officials, employees, agents or representatives are named as Additional Insureds. Further, said Certificate(s) and policies of insurance shall contain the covenant of the insurance carrier(s) that shall provide no less than thirty (30) days written notice be given to the Agency prior to any material modification or cancellation of such insurance. In the event of a material modification or cancellation of coverage, this Agreement shall terminate forthwith, unless the Agency receives, prior to such effective date, another properly executed original Certificate of Insurance and original copies of endorsements or certified original policies, including all endorsements and attachments thereto evidencing coverages set forth herein and the insurance required herein is in fullforce and effect. **CONTRACTOR shall not take possession, or use the Premises, or commence operations under this Agreement until the Agency has been furnished original Certificate(s) of Insurance and certified original copies of Endorsements or policies of insurance including all Endorsements and any and all other attachments as required in this Section. The original Endorsements for each policy and the Certificate of Insurance shall be signed by an individual authorized by the insurance carrier to do so on its behalf.**

c. It is understood and agreed to by the parties hereto and the insurance company(s), that the Certificate(s) of Insurance and policies shall so covenant and shall be construed as primary, and the AGENCY'S insurance and/or deductibles and/or self-insured retentions or self-insured programs shall not be construed as contributory. The Agency's Reserved Rights-Insurance. The Agency reserves the right to adjust the monetary limits of insurance coverage's during the term of this agreement or any extension thereof-if in the Agency Risk Manager's reasonable judgment, the amount or type of insurance carried by the CONTRACTOR becomes inadequate.

d. CONTRACTOR shall pass down the insurance obligations contained herein to all tiers of subconsultants working under this Agreement.

## 2.4 INDEMNITY AND HOLD HARMLESS

2.4.1 CONTRACTOR agrees to and shall indemnify and hold the AGENCY-its officers, employees and agents free and harmless from any and all claims, actions, damages and liabilities of whatsoever kind and nature arising from death, personal injury, property damage or other cause asserted or, based upon any negligent act or omission of CONTRACTOR, its employees, agents, invitees, or any subcontractor of CONTRACTOR relating to or in any way connected with the accomplishment of the work or performance of services under this Agreement, regardless of the existence or degree of fault or negligence on the part of the AGENCY or any officer or employee of said AGENCY, other than the sole active negligence or willful misconduct of AGENCY-its Directors and Officers, Special Districts, Board of Supervisors, elected officials, employees, agents or representatives. As part hereto of the foregoing indemnity CONTRACTOR agrees to protect and defend at its own expense, including attorneys' fees the AGENCY-its Directors and Officers, Specials Districts, Board of Directors, Board of Supervisors, elected officials, employees, agents or representatives from any and all legal action based upon any acts or omissions, as stated hereinabove, by any person or persons.

2.4.2 If any such claim, action, or proceeding is brought against Agency or Agency's officers, agents, employees, or independent contractors, Contractor, upon notice from Agency, shall defend the same at Contractor's expense by counsel satisfactory to Agency.

2.4.3 Agency shall promptly notify Contractor of any claim, action, or proceeding against Agency or Agency's officers, agents employees, independent contractors, and consultants relating to the performance, or omission to perform, any term or condition of this Contract. Agency shall cooperate fully in the defense of such claim, action, or proceeding.

2.4.4 Agency shall not be liable or responsible for any accident, loss or damage occurring to the Work prior to the completion and Acceptance of same, unless otherwise specifically agreed to at the time of occupancy by the Agency.

## ARTICLE 3 SITE CONDITIONS

### 3.1 DIFFERING SITE CONDITIONS

3.1.1 The Contractor shall have reviewed and ascertained pertinent local conditions such as location, accessibility, and general character of the site and become satisfied as to the conditions under which the Work is to be performed. No claim for allowances shall be made because of Contractor's error or negligence in becoming sufficiently acquainted with the conditions at the site.

3.1.2 The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by Agency. The Contractor shall promptly report in writing to Agency any errors, inconsistencies, or omissions in the Contract Documents or inconsistencies with applicable code requirements observed by Contractor.

3.1.3 If Contractor performs any construction activity which it knows or should know involves an error, inconsistency, or omission without notifying and obtaining the written consent of Agency, Contractor shall be responsible for the resultant losses, including, without limitation, the costs of correcting defective work.

3.1.4 The Agency will furnish surveys necessary to properly locate the property and establish the boundaries thereof with general reference points as well as to enable the Contractor to proceed with the Work.

3.1.5 The Contractor shall provide competent engineering services to lay out the Work and all parts thereof and to establish all grades and elevations in accordance with the Contract requirements. Contractor shall verify the figures shown on the survey and approach drawings before undertaking any construction work and shall be responsible for the accuracy of the finished work.

3.1.6 The Contractor shall protect and preserve established bench marks and monuments and shall make no changes in locations without the written approval of the Agency. Any bench marks or monuments that are lost or destroyed shall be replaced by the Contractor subsequent to notification and approval from Agency.

### 3.2 SITE INVESTIGATION AND CONDITIONS AFFECTING THE WORK

3.2.1 The Contractor acknowledges by submission of project bid that Contractor is satisfied as to the character, quality, and quantity of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, including any exploratory work deemed necessary by the Contractor. Any failure of the Contractor to take the actions described and acknowledged in this paragraph will not relieve the Contractor from responsibility for estimating the difficulty and cost of successfully performing the Work, or for proceeding to successfully perform the Work without additional expense to the Agency.

### 3.3 DIMENSIONS AND MEASUREMENTS

3.3.1 All dimensions shown for existing conditions and all dimensions required for work that is to connect with work now in place, shall be verified and calculated by the Contractor by actual measurement of the existing work. Any discrepancies between the Contract Documents and the existing conditions shall be referred to the authorized representative of the Agency before any work affected thereby has been performed. Failure to notify the Agency before starting work will be considered acceptance by the Contractor. Where doubts as to dimensions exist, Agency shall determine the correct dimensions.

## ARTICLE 4 SPECIFICATIONS AND DRAWINGS

### 4.1 GENERAL

#### 4.1.1 SUBDIVISIONS

For convenience, the specifications are arranged into several sections, but such separation shall not be considered as the limits of the work required of any separate trade. The terms and conditions of such limitations are wholly between the Contractor and subcontractors. Requirements contained in any section are required as if contained in all sections and are the responsibility of the Contractor. The Contractor, prior to awarding subcontracts, will assure the Work required as a whole has been coordinated among the subcontracts.

#### 4.1.2 RECORD DOCUMENTS

- a. The Contractor shall keep on the Work site a copy of the awarded construction documents (drawings and specifications) and shall at all times give the Agency and Architect access thereto.
- b. The Contractor will be given one set of drawings and specifications which shall be kept at the site of the Work at all times and updated weekly. Payment may be withheld if drawings are not kept current. Exact locations of all pipes and conduits and all changes in construction and details shall be indicated and dimensions provided upon these drawings, and all changes in materials and equipment installed shall be indicated in these specifications. Upon completion and prior to Acceptance of the Work, a final reproducible (transparencies) set of project record documents and specifications shall be submitted to the Agency by the Contractor. Agency will furnish a set of reproducibles.
- c. The working details will indicate dimensions, position, and kind of construction, and the specifications, qualities, and methods. Any Work indicated on the working details and not mentioned in the specifications, or vice versa, shall be furnished as though fully set forth in both. Work not particularly detailed, marked, or specified shall be the same as similar work that is detailed, marked, or specified.
- d. In case of discrepancy in the documents, the matter shall be promptly submitted to the Agency, who shall make a determination in writing. Any adjustment by the Contractor without such a determination shall be at its own risk and expense. The Agency shall furnish from time to time such detailed information as considered necessary to clarify the Work.
- e. Where the word "similar" occurs on the drawings, it shall have a general meaning and not be interpreted as meaning identical, and all details shall be worked out in relation to their location and their connection with other parts of the work.
- f. Standard details or specification drawings are applicable when listed, bound with specifications, noted on the drawings or referenced elsewhere in the specifications. Where the notes on the drawings indicate modifications, such modifications shall govern.
- g. All drawings, specifications and copies thereof furnished to the Contractor are the property of the Agency and shall not be used on other work without its consent. Upon completion of this project, all copies of the drawings and specifications shall be returned to the Agency.

#### 4.2 SUMMARY OF THE ORDER OF THE PROCEDURE

4.2.1 In case of conflicts between the Contract Documents, the order of precedence shall be as follows:

- 1) Modifications or changes last in time are first in precedence.
- 2) Addenda.
- 3) Agency-Contractor agreement.
- 4) General Conditions except for specific modifications thereto stated in the Supplementary Conditions.
- 5) Supplementary Conditions.
- 6) Division One Specifications.
- 7) Division Two through Sixteen Specifications.
- 8) Drawings - as between figured dimensions given on drawings and the scaled measurements, the figured dimension shall govern; as between large-scale drawings and small-scale drawings, the larger scale shall govern.
- 9) Structural drawings
- 10) Architectural drawings.
- 11) As between detailed drawings and typical details bound within the specifications, the detailed drawings govern.
- 12) In the event provisions of codes, safety orders, contract documents, referenced manufacturer's specifications or industry standards are in conflict, the more restrictive and higher quality shall govern.
- 13) Schedules shown on the drawings take precedence over conflicting information given on other drawings.
- 14) Mechanical drawings.
- 15) Electrical drawings.

#### 4.3 CLARIFICATIONS/REQUEST FOR INFORMATION AND ADDITIONAL INSTRUCTIONS

#### 4.3.1 NOTIFICATION BY CONTRACTOR

- a. Should Contractor discover what he perceives to be conflicts, omissions, or errors in the Contract Documents, or have any question concerning interpretation or clarification of the Contract Documents, or if it appears that the work to be done or any matters relative thereto are not sufficiently detailed or explained in the Contract Documents, then, before proceeding with the work affected, Contractor shall notify Agency's authorized representative in writing, and request interpretation, clarification, or additional detailed information concerning the work. The Contractor shall ask for the clarification (Request for Information) immediately upon discovery but no less than 14 calendar days prior to the start date of the activities related to the clarification, based on the latest updated version of the accepted Progress Schedule. Agency, whose decision shall be final and conclusive, shall resolve such questions and issue instructions to Contractor. Should Contractor proceed with work affected before receipt of instructions from Agency, Contractor shall remove and replace or adjust work which is not in accordance with the instructions from Agency and shall be responsible for resultant damage, defect or added cost. In event of failure to agree as to scope of Contract requirements, Contractor shall follow the procedure set forth in the DISPUTES article.
- b. The Contractor shall not be entitled to any compensation for delays, disruptions, inefficiencies or additional administrative effort caused by the Contractor's untimely review of the Contract Documents for potential conflicts, omissions, discrepancies or ambiguities.
- c. Agency may charge back to the Contractor, time and expense associated with RFI's, as may be reasonably determined by the Agency to be unnecessary.

#### 4.3.2 ADDITIONAL DETAILED INSTRUCTIONS

- a. The Agency may furnish additional detailed written instructions on any Request for Information to further explain the Work. If in the opinion of Contractor, the additional detailed instructions constitute work in excess of the scope of the Contract, he must submit written notice thereof immediately to the Agency, but no later than seven (7) calendar days following receipt of such instruction(s), and in any event prior to commencement of work thereon. The Contractor shall not be entitled to additional compensation due to any additional instructions unless the Contractor shall have given the appropriate written notice. Agency will then consider such notice and, if in its judgment it is justified, the Agency instructions will be revised or extra work shall be authorized by Change Order. In the event of a dispute hereunder, attention is directed to the DISPUTES article.

### ARTICLE 5 SHOP DRAWINGS AND SUBMITTALS

#### 5.1 SHOP DRAWINGS, PRODUCT DATA, COORDINATION DRAWINGS AND SCHEDULES

5.1.1 Shop drawings are drawings submitted to the Agency by the Contractor showing detail of the proposed fabrication and assembly of structural elements and the installation (i.e., form, fit, and attachment details) of materials or equipment. It includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, fabrication, erection and setting drawings, manufacturers' scale drawings, wiring and control diagrams, cuts or entire catalogs, pamphlets, and performance and test data, and similar materials furnished by the Contractor to explain in detail specific portions of the Work required by the Contract. The Agency may duplicate, use, and disclose in any manner and for any purpose shop drawings delivered under this Contract.

5.1.2 The Contractor shall coordinate all shop drawings and review them for accuracy, completeness, and compliance with Contract requirements, and shall indicate its approval thereon as evidence of such coordination and review. Shop drawings submitted to the Agency without evidence of the Contractor's approval shall be returned for resubmission. The Architect will indicate review for compliance of the shop drawings, and if not in compliance as submitted, shall indicate the reasons therefore. Any work done before such review shall be at the Contractor's risk. Review by the Architect shall not relieve the Contractor from responsibility for any errors or omissions in such drawings, nor from responsibility for complying with the requirements of this Contract, except with respect to variations described and approved in accordance with paragraph 5.1.3.

5.1.3 If shop drawings show any variations from the Contract requirements, the Contractor shall describe such variations in writing, separate from the drawings, at the time of submission. If the Architect approves any such variation, no change in time or price will be allowed for Contractor changes. Should the Architect make changes on

the shop drawings which affect time and/or cost, the Contractor will immediately notify the Agency with a Request for Information. If the Contractor fails to issue the Request for Information within seven (7) calendar days from receipt of the returned shop drawing, the Contractor shall have waived his right to any potential Change Order.

5.1.4 The Contractor shall submit shop drawings, coordination drawings, and schedules for review as required by the Contract Documents. The Contractor will provide a submittal schedule listing all shop drawings and submittals, the submission dates by the Contractor, and return dates from the Architect. This schedule will be provided fourteen (14) calendar days after the Notice to Proceed.

5.1.5 Shop drawings and schedules, other than catalogs, pamphlets, and similar printed material, shall be submitted with one reproducible plus one copy.

5.1.6 Each shop drawing or coordination drawing shall have a blank area 4 by 4 inches located adjacent to the title block. The title block shall display the following:

- 1) Number and title of drawing
- 2) Date of drawing or revision
- 3) Name of project building or facility
- 4) Name of Contractor and (if appropriate) name of subcontractor submitting drawings
- 5) Clear identity of contents and location on the work
- 6) Project title and project number
- 7) Submittal number

5.1.7 Unless otherwise provided in this Contract or otherwise directed by Agency, shop drawings, coordination drawings, and schedules shall be submitted to the Architect with a letter, sufficiently in advance of construction requirements to permit no less than twenty (21) calendar days for checking and appropriate action.

## 5.2 SAMPLES

5.2.1 After the award of the Contract, the Contractor shall deliver samples required by the specifications to the Agency for approval. The Contractor shall prepay any shipping charges. Any materials or equipment for which samples are required shall not be used in the Work until reviewed by Agency.

5.2.2 Each sample shall have a label indicating:

- 1) Name of project building or facility, project title, and project number.
- 2) Name of Contractor and, if appropriate, name of subcontractor.
- 3) Identification of material or equipment with specification requirement.
- 4) Place of origin.
- 5) Name of manufacturer and brand (if any).
- 6) Identify by specification section.

5.2.3 Samples of finished materials shall have additional markings that will identify them in reference to the finish schedules.

5.2.4 The Contractor shall mail a letter in triplicate under separate cover submitting each shipment of samples and containing the information required in paragraph 5.2.2. He shall enclose a copy of this letter with the shipment and send a copy to the Agency representative on the project. Approval of a sample shall be only for the characteristics or use named in such review and shall not be construed to change or modify any Contract requirement. Substitutions will not be permitted unless they are approved under paragraph 5.3.

5.2.5 Approved samples not destroyed in testing will be sent to the Agency. Approved samples of hardware in good condition will be marked for identification and may be used in the Work. Materials and equipment incorporated in the Work shall match the approved samples. Other samples not destroyed in testing or not approved will be returned to the Contractor at his expense if so requested at time of submission.

5.2.6 Failure of any material to pass the specified tests will be sufficient cause for refusal to consider any further samples of the same brand or make of that material or equipment under this Contract.

5.2.7 Samples of various materials or equipment delivered on the site or in place, may be taken by the Agency for testing. Samples failing to meet Contract requirements will automatically void previous approvals of the items tested.

The Contractor shall replace such materials or equipment found not to have met Contract requirements, or there shall be a proper adjustment of the Contract price as determined by the Agency.

5.2.8 Unless otherwise specified, when tests are required, only one test of each sample proposed for use will be made at the expense of the Agency. Samples which do not meet specification requirements will be rejected. Requests for testing of additional samples by Contractor may be made by the Agency at the expense of the Contractor.

### 5.3 SUBSTITUTIONS

5.3.1 Wherever the name, or brand, or manufacturer of an article is specified in the Contract Documents, it is used as a measure of quality and utility or a standard. Except in those instances where the product is designated to match others presently in use, specifications calling for a designated material, product, thing or service by specific brand or trade name shall be deemed to be followed by the words "or equal" so that bidders may propose any equal material, product, thing or service in their bid. If the Contractor desires to use any other brand or manufacturer of equal quality and utility to that specified, he shall list definite particulars of that which he considers equivalent to the specified item in his bid. The Contractor shall have thirty-five (35) days after the award of the Contract for submission of data substantiating substitution of "equal" items. The Agency will then determine whether or not the proposed name brand or article is equal in quality and utility to that specified in the Contract Documents, and its written decision shall be final.

5.3.2 No proposal will be considered unless accompanied by complete information and descriptive data necessary to determine the equality of the offered materials, articles, or equipment. Samples shall be provided when requested by the Agency.

5.3.3 The burden of proof as to the comparative quality or suitability of the offered materials, articles, or equipment shall be upon the Contractor. The Agency shall be the sole judge as to such matters. In the event that the Agency rejects the use of such alternative materials, articles, or equipment, then one of the particular products designated by brand name in the specifications shall be furnished.

5.3.4 The Agency will examine Contractor's submittals with reasonable promptness. Return of the submittals to the Contractor shall not relieve the Contractor from responsibility for deviations and alternatives from the Contract Documents nor shall it relieve him from responsibility for errors in the submittals. A failure by the Contractor to identify, in his letter of transmittal, material deviations from the Contract Documents shall void the submittal and any action taken thereon by the Agency. When specifically requested by the Agency, the Contractor shall resubmit such shop drawing(s), descriptive data, and samples as may be required.

5.3.5 If any mechanical, electrical, structural, or design revisions are required for the proper installation and fit of alternative materials, articles, or equipment, or because of deviations from the Contract Documents, such changes shall not be made without the consent of the Agency's authorized representative, and shall be made without additional cost to the Agency, such costs, including the fees of the Architect, to be borne by the Contractor.

## ARTICLE 6 SCHEDULES

### 6.1 CONSTRUCTION SCHEDULE

6.1.1 The Contractor shall prepare and submit to the Agency a practicable schedule showing the order in which the Contractor proposes to perform the work, and the dates on which the Contractor contemplates starting and completing the salient features of the work (including acquiring materials and equipment). The schedule shall be in the form of a CPM (critical path method) schedule, of suitable scale to indicate appropriately the percentage of work scheduled for completion by any given date during the period. The scheduled completion date shall be the same as the contractual completion date, for the initial schedule and subsequent updates. Any proposed early completion date shall show the difference between that date and the contract completion date as Float, which shall belong to both the Agency and Contractor.

6.1.2 If, in the opinion of the Agency, the Contractor falls behind the approved schedule, the Contractor shall take steps necessary to improve its progress, without additional cost to the Agency. The Contractor shall submit any supplementary schedule or schedules in CPM form as the Agency deems necessary to demonstrate how the approved rate of progress will be regained.

6.1.3 All schedule updates must accurately reflect the as-built schedule. There shall be no change to the Critical Path without the Agency's written consent.

## ARTICLE 7 TIME, LIQUIDATED DAMAGES AND EXTENSIONS

### 7.1 TIME OF WORK

The Contractor shall commence work on this project immediately upon receipt of the written Notice to Proceed and shall perform the work diligently to completion within the number of calendar days specified in the Contract. Neither site access nor physical work shall be commenced before the Contract is fully executed, and bonds, insurance and the schedule are submitted as required by the Contract Documents. No work shall be done on Saturday, Sunday and holidays and no work shall be performed outside of normal working hours without the prior written consent of the Agency, unless required by these Specifications. See: Working Hours.

### 7.2 LIQUIDATED DAMAGES

If the Work is not completed within the time required, damage will be sustained by the Agency. It is and will be impracticable and extremely difficult to ascertain and determine actual damage which Agency will sustain by reason of such delay; and it is therefore agreed that Contractor will pay to Agency the sum of \$1,000.00 per day for each and every day's delay in finishing the Work beyond the time prescribed. If the Contractor fails to pay such liquidated damages, the Agency may deduct the amount thereof from any money due or that may become due the Contractor under the Contract.

### 7.3 UNAVOIDABLE DELAYS

#### 7.3.1 TIME EXTENSION

- a. The Contractor will be granted an extension of time for completion of the Work beyond that named in the Contract Documents, for delays which may result through causes beyond the control of the Contractor and which could not have been avoided by the exercise of care, prudence, foresight and diligence. The appropriate extension of time shall constitute full compensation. Costs associated with extended overhead will not be considered.
- b. If the Contractor is allowed extensions of time in which to complete the Work equal to the sum of all unavoidable delays, plus any adjustments of contract time due to contract change orders, during such extension of time liquidated damages shall not be charged to the Contractor.
- c. Unavoidable delays within the meaning of this section shall be those caused by Acts of God or of the public enemy, fire, epidemics, or strike. There will be no liquidated damages for delays as described within this paragraph.
- d. Delays in the performance of parts of the work which may in themselves be unavoidable, but do not necessarily prevent or delay the performance of critical activity(s) while the activity(s) is on the Critical Path, will not be considered as unavoidable delays within the meaning of the contract and shall not be the basis of a claim for delay.

#### 7.3.2 WEATHER

Inclement weather shall not be a prima facie reason for granting a time extension. The Contractor shall make every effort to continue work under prevailing conditions. However, if the inclement weather prevents the Contractor from beginning at the usual starting time, or prevents the Contractor from proceeding with seventy-five percent (75%) of the normal labor and equipment force towards completion of the day's current Critical Path activities (shown on the most current, and accepted schedule update) for a period of at least five (5) hours, and the crew is dismissed as a result thereof, the Agency will designate such time as unavoidable delay and grant a one (1) calendar day, non-compensable, time extension.

#### 7.3.3 NOTICE OF DELAYS

- a. Whenever the Contractor foresees any delay in the performance of a Critical Path work activity, and in any event immediately upon the occurrence of any delay which he regards as an unavoidable delay, the



Contractor shall notify the Agency in writing of such delay and its cause, in order that the Agency may take immediate steps to prevent, if possible, the occurrence or continuance of the delay, and may determine whether the delay is to be considered avoidable or unavoidable, how long it continues, and to what extent the prosecution and completion of the work are to be delayed thereby.

- b. After the completion of any part or the whole of the Work, the Agency, in calculating the amount due the Contractor, will assume that any and all delays which have occurred have been avoidable delays, except such delays as shall have been called to the attention of the Agency at the time of their occurrence and found by the Agency to have been unavoidable as substantiated by a change order. The Contractor shall make no claims that any delay not called to the attention of the Agency at the time of its occurrence has been an unavoidable delay.

#### 7.4 REQUEST FOR TIME EXTENSION

7.4.1 In the event the Contractor requests an extension of contract time for unavoidable delay, justification shall be submitted no later than seven (7) calendar days after the initial occurrence of any such delay. When requesting time for proposed change orders, the request(s) must be submitted with the proposed change order with full justification. If the Contractor fails to submit justification he shall waive his right to a time extension at a later date. Justification must be based on the currently accepted contract schedule as updated at the time of occurrence of delay or execution of work related to any change(s) in the scope of work. The justification must include a schedule, including, but not limited to, the following information:

- a. The duration to perform the activity relating to the change(s) in the work and the resources (workers, equipment, material, etc.) required to perform these activities within the stated duration.
- b. Logical activity ties to the contract schedule for the proposed changes and/or delay showing the activity/activities in the schedule whose start or completion dates are affected by the change and/or delay.

7.4.2 The Agency, after receipt of such justification and supporting evidence, shall make its finding of fact. The Agency's decision shall be final and conclusive and the Agency will advise the Contractor in writing of such decision. If the Agency finds that the Contractor is entitled to any extension of Contract time, the Agency's determination as to the total number of days of extension shall be based upon the latest updated version of the approved contract schedule.

7.4.3 In the event the Contractor disagrees with the Agency's decision, the Contractor shall be required to submit a claim pursuant to the DISPUTE article.

### ARTICLE 8 PERFORMANCE

#### 8.1 SUPERVISION & CONSTRUCTION PROCEDURES

8.1.1 The Contractor shall supervise and direct the work. The Contractor shall be solely responsible for all construction means, methods, techniques, sequences, procedures, project safety, and shall coordinate all portions of the Work under the Contract, including the relations of the various trades to the progress of the Work, in accordance with the provisions of the Contract Documents.

8.1.2 The Contractor shall be responsible to the Agency for the acts and omissions of the Contractor's employees, subcontractors, and their agents and employees, and any other persons performing any of the work under a contract with the Contractor.

8.1.3 The Contractor is an independent contractor and nothing in the Contract Documents shall be interpreted to make the Contractor an agent of the Agency.

#### 8.2 SUPERVISION

8.2.1 Within seven (7) days after the Notice to Proceed, the Contractor shall provide to the Agency an organization chart outlining key job personnel. The Contractor will also provide a Letter of Authority or Corporate

Resolution for the individual(s) authorized to sign documents on its behalf, i.e., payment requests, change orders, inspection reports, etc.

8.2.2 The Contractor shall employ, during the progress of the Work, a competent Project Superintendent and any necessary assistants, as approved by the Agency. The Project Superintendent shall not be changed except with the consent of the Authorized Representative of Agency, unless the Superintendent proves to be unsatisfactory to the Contractor or ceases to be in Contractor's employ. The Agency shall be notified immediately of any new Superintendent appointed to the Work and the Contractor shall submit qualifications for approval. The Superintendent shall represent the Contractor and all directions given to Superintendent shall be as binding as if given to the Contractor.

8.2.3 The Agency shall be supplied at all times with the name and telephone number of a person in charge of or responsible for the Work, who can be reached for emergency work twenty-four (24) hours a day, seven (7) days a week.

### 8.3 CONDUCT OF WORK

8.3.1 In connecting one kind of work with another, marring or damaging same will not be permitted and, in the event such occurs, shall be corrected by the Contractor at its cost prior to acceptance by the Agency. Should improper work of any trade be covered by another which results in damage or defects, the whole work affected shall be made good by the Contractor without expense to Agency.

### 8.4 PROTECTION OF WORK & PROPERTY

8.4.1 The Contractor shall continuously maintain adequate protection of the Work from damage and shall protect the Agency's property from injury or loss in connection with this Contract. He shall make good any such damage, injury, or loss, except what may be directly due to errors in the Contract Documents or caused by agents or employees of the Agency. He shall adequately protect adjacent property as provided by law and the Contract Documents.

8.4.2 The Contractor shall preserve and protect all structures, equipment, and vegetation (such as trees, shrubs, and grass) on or adjacent to the Work site, which are not to be removed and which do not unreasonably interfere with the work required under this Contract.

8.4.3 The Contractor shall protect from damage all existing improvements and utilities at or near the Work site and on adjacent property of a third party, the locations of which are made known to or should be known by the Contractor. The Contractor shall repair any damage to those facilities, including those that are the property of a third party, resulting from failure to comply with the requirements of this Contract or failure to exercise reasonable care in performing the Work. If the Contractor fails to repair the damage promptly, the Agency may have the necessary work performed and charge the cost to the Contractor.

### 8.5 CONTRACTOR'S RESPONSIBILITY FOR WORK

8.5.1 Until Acceptance of the Work by the Agency, Contractor shall have the charge and care thereof and shall bear risk of injury or damage to any part of the Work by action of the elements. If a separate Contractor sues the Owner, on account of any loss so sustained, the Agency shall notify the Contractor, who shall indemnify and hold harmless the Agency against any expenses, or judgment arising therefrom.

8.5.2 Contractor, at its cost, shall rebuild, repair, restore and make good all damages from the elements to any portion of the Work occasioned by such causes before its Acceptance.

8.5.3 No advertising of any description will be permitted in or about the Work, except by order of the Agency.

8.5.4 Contractor shall not create or permit the continued existence of any nuisance in or about the Work.

### 8.6 UTILITIES

8.6.1 Unless otherwise provided for under separate sections herein, Contractor will arrange all water, gas, and electricity required for construction purposes until acceptance of the Work. Contractor shall pay for such services unless otherwise specifically noted.

8.6.2 Utilities shall not be interrupted except with the approval of the Agency. A two (2) work day written notice is required prior to any and all interruptions. Interruptions shall be scheduled so as to minimize duration and disruption to existing operations.

8.6.3 a. The Contractor shall send notices, make all necessary arrangements, and perform all other services required in the care and maintenance of all public utilities

b. Enclosing or boxing in, for protection of any public utility equipment, shall be done by the Contractor. Upon completion of the Work, the Contractor shall remove all enclosures, and leave in a finished condition.

c. All connections to public utilities shall be made and maintained in a manner so as not to interfere with the continuing use of same by the Agency during the entire progress of the Work.

## 8.7 WORKING HOURS

8.7.1 All work shall be performed on a calendar day basis during the customary working hours of the trades involved unless otherwise specified in this Contract. Work performed by the Contractor by Contractor's own volition outside such established working hours shall be at no additional expense to the Agency and without Agency approval.

8.7.2 It is expressly stipulated that no laborer, worker, or mechanic employed at any time by the Contractor or by any subcontractor(s) under this Contract upon the Work or any part thereof, shall be required or permitted to work thereon more than eight (8) hours during any one calendar day and forty (40) hours during any one calendar week, except, as provided by Section 1815 of the California Labor Code. It is further expressly stipulated that for each and every violation of Sections 1811-1815, inclusive, of the California Labor Code, all the provisions of which are deemed to be incorporated herein, said contractor shall forfeit, as a penalty to Agency, twenty-five dollars (\$25.00) for each laborer, worker, or mechanic employed in the execution of this Contract by contractor for each calendar day during which said laborer, worker, or mechanic is required or permitted to work more than eight hours in any one calendar day and forty hours in any one calendar week in violation of the provisions of said Sections of the Labor Code.

8.7.3 The Contractor, and each subcontractor, shall keep an accurate record showing the names of and actual hours worked each calendar day and each calendar week by all laborers, workers, and mechanics employed by them in connection with the Work contemplated by this Contract, which record shall be open at all reasonable hours to the inspection of the Agency or its officers or agents and to the Division of Labor Standards Enforcement of the Department of Industrial Relations.

8.7.4 No construction work shall be done on Saturdays, Sundays or Agency holidays and no work shall be performed outside of normal working hours without the prior written consent of the Agency. In any event, all work shall be subject to approval of the Agency. Prior to start of such work, the Contractor shall arrange with the Agency for the continuous or periodic inspection of the Work and testing of materials, when necessary. If requests are made by the Contractor for permission to work overtime, nights, Saturdays, Sundays or Agency holidays, and such requests are granted, the Contractor shall bear all extra expense to the Agency for inspection and other incidental expenses caused by such overtime work. If contractors are requested, in the interest of the Agency, to work overtime by the Agency, or if overtime work is specifically required by these specifications, all extra expense of inspection will be paid by the Agency.

## 8.8 MATERIAL & EQUIPMENT

8.8.1 Materials, equipment, and articles incorporated into the Work shall be new and of equal quality to the types and grades specified. When not particularly specified, the Contractor shall submit for approval satisfactory evidence as to the kind and quality of material. See SUBSTITUTION provision 5.3 concerning "or equal" requirements and procedure for submitting alternative material, articles, or equipment.

8.8.2 All materials shall be delivered so as to insure a speedy and uninterrupted progress of the Work. All materials shall be stored so as to cause no obstruction and so as to prevent overloading of any portion of the structure on the Work site, and the Contractor shall be entirely responsible for damage or loss by weather, theft, vandalism, or other cause.

8.8.3 Materials shall be stored to assure the preservation of their quality and fitness for the Work. Stored materials shall be reasonably accessible for inspection. When considered necessary by the Agency, stored materials shall be placed on wooden platforms or on other hard, clean surfaces and not directly on the ground, and shall be placed under cover when so directed.

#### 8.9 LAYOUT OF WORK

8.9.1 The Contractor shall lay out its work from established base lines and bench marks indicated on the drawings, and shall be responsible for all measurements in connection with the layout. The Contractor shall furnish, at its own expense, all stakes, templates, platforms, equipment, tools, material, and labor required to lay out any part of the Work. The Contractor shall be responsible for executing the Work to the lines and grades that may be established or indicated in the Contract Documents. The Contractor shall also be responsible for maintaining and preserving all stakes and other marks established by the Agency until authorized to remove them. If such marks are destroyed by the Contractor before their removal is authorized, the Agency may replace them and deduct the expense of the replacement from any amounts due or to become due to the Contractor.

#### 8.10 USE OF PREMISES

8.10.1 The Contractor shall maintain the entire premises under his control in an orderly condition. He shall store his apparatus, materials, supplies and equipment in such a manner as will not interfere with the progress of his work or the work of other contractors.

#### 8.11 OPERATIONS & STORAGE

8.11.1 The Contractor shall confine all operations (including storage of materials) on Agency premises to areas authorized or approved by the Agency.

8.11.2 Temporary buildings (e.g., storage sheds, shops, offices) and utilities may be erected by the Contractor only with the approval of the Agency and shall be built with labor and materials furnished by the Contractor without expense to the Agency. The temporary buildings and utilities shall remain the property of the Contractor and shall be removed by the Contractor at his expense upon completion of the work.

8.11.3 The Contractor shall, under regulations prescribed by the authority having jurisdiction, use only established roadways, or use temporary roadways constructed by the Contractor when and as authorized by the authority having jurisdiction. When materials are transported in performance of the Work, vehicles shall not be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, State, or Agency regulation. When it is necessary to cross curbs or sidewalks, the Contractor shall protect them from damage. The Contractor shall repair, or pay for the repair, of any damaged curbs, sidewalks, or roads.

#### 8.12 HEAT/POWER/LIGHT

8.12.1 Unless otherwise specified or already provided by the Agency, the Contractor shall:

- a. Provide heat, as necessary to protect all work, materials, and equipment against injury from dampness and cold;
- b. Provide heat as necessary in the area where work is to be done to provide the minimum temperature recommended by the supplier or manufacturer of the material;
- c. Provide electric power and light as required for performance of the Work.

#### 8.13 CLEANING UP

8.13.1 The Contractor shall at all times keep the work area, including storage areas, free from accumulations of waste materials. Before completing the Work, the Contractor shall remove from the work and premises any weeds, rubbish, tools, scaffolding, equipment, and materials that are not the property of the Agency. Upon completing the Work, the Contractor shall leave the work area in a clean, neat, and orderly condition satisfactory to the Agency.

### ARTICLE 9 SAFETY & HEALTH

## 9.1 ACCIDENT PREVENTION

9.1.1 In performing this Contract, the Contractor shall provide for protecting the lives and health of employees and other persons; preventing damage to property, materials, supplies, and equipment; and avoiding work interruptions. For these purposes, the Contractor shall:

- a. Provide a copy of its safety program;
- b. Provide appropriate safety barricades, signs, and signal lights;
- c. Comply with standards issued by the U.S. Government, State, Agency and City, and other governing agencies having jurisdiction;
- d. Ensure that any additional measures the Agency determines to be reasonably necessary for this purpose are taken.

9.1.2 The Contractor shall maintain an accurate record of exposure data on all accidents incident to work performed under this Contract resulting in death, traumatic injury, occupational disease, or damage to property, materials, supplies, or equipment. The Contractor shall report this data in the manner prescribed by the Agency.

9.1.3 Before beginning excavation for a trench 5 feet or more in depth, Contractor shall provide evidence of having obtained a permit from the authority having jurisdiction.

9.1.4 Nothing herein shall be deemed to allow use of shoring, sloping, or protective systems less effective than those required by the Construction Safety Orders of the California Division of Industrial Safety.

## 9.2 SANITARY FACILITIES

9.2.1 Contractor shall supply and maintain at its expense such toilets and other sanitary facilities including those which are accessible by the disabled as per ADA and Title 24 requirements necessary for use by visitors and workers employed at the job site. Such facilities shall be approved by the Agency.

## 9.3 RESPONSIBILITY FOR COMPLIANCE WITH CAL-OSHA

9.3.1 All work, materials, work safety procedures and equipment shall be in full accordance with the latest Cal-OSHA rules and regulations.

9.3.2 Contractor warrants that Contractor and each of the subcontractors shall, in performance of this Contract, comply with each and every compliance order issued pursuant to Cal-OSHA. The Contractor assumes full and total responsibility for compliance with Cal-OSHA standards by subcontractors as well as Contractor. The cost of complying with any order and/or payment of any penalty assessed pursuant to Cal-OSHA shall be borne by the Contractor. Nothing contained therein shall be deemed to prevent the Contractor and subcontractors from otherwise allocating between themselves responsibility for compliance with Cal-OSHA requirements; provided, however, that the Contractor shall not thereby, in any manner whatsoever, be relieved of responsibility to the Agency as herein set forth.

## 9.4 TOXIC AND HAZARDOUS MATERIALS AND WASTE

### 9.4.1 ASBESTOS

Operations which may cause release of asbestos fibers into the atmosphere shall meet the requirements of Title 8 CCR General Industrial Safety Orders, Section 5208 and California law. Some operations which may cause such concentrations include sanding, grinding, abrasive blasting, sawing, drilling, shoveling, or otherwise handling materials containing asbestos so that dust will be raised.

### 9.4.2 TOXIC MATERIALS

Operations which release toxic materials into the atmosphere shall meet the requirements of Title 8 CCR General Industrial Safety Orders. Some operations which may release such materials include use of adhesives, sealants, paint, and other coatings.

#### 9.4.3 LEAD-BASED PAINT

Lead-based paint is prohibited. Lead-based paint is defined as:

- a. Any paint containing more than five-tenths of one percentum lead by weight (calculated as lead metal in the total non-volatile content of the paint) or the equivalent measure of lead in the dried film of paint applied or both; or
- b. For paint manufactured after June 22, 1977, any paint containing more than six one-hundredths of one percentum lead by weight (calculated as lead metal) in the total content of the paint or the equivalent measure of lead in the dried film or paint already applied.

#### 9.4.4 HAULING AND DISPOSAL

All hauling and disposal shall meet requirements of Title 22 CCR, Division 4, Chapter 30, "Minimum Standards for Management of Hazardous and Extremely Hazardous Wastes."

#### 9.4.5 ASBESTOS PROHIBITED

No products or materials containing asbestos shall be incorporated into the Work without the prior written approval of the Agency.

### ARTICLE 10 AGENCY-FURNISHED PROPERTY

#### 10.1 AGENCY-FURNISHED PROPERTY

10.1.1 The Agency may furnish to the Contractor property as identified in the specification(s) to be incorporated or installed into the Work or used in performing the Contract. The listed property will be furnished f.o.b. railroad cars at the place specified in the Contract or f.o.b. truck at the project site. The Contractor is required to accept delivery. When the property is delivered, the Contractor shall verify its quantity and condition and acknowledge receipt in writing to the Agency within twenty-four (24) hours of delivery, also specifying any damage to or shortage of the property as received. All such property shall be installed or incorporated into the Work at the expense of the Contractor, unless otherwise indicated in this Contract.

10.1.2 Each item of property to be furnished under this clause shall be identified by the Contractor in a schedule by quantity, item, and description. Schedule form will be provided by the Agency.

10.1.3 The Contractor shall be held responsible for all material delivered to him and deductions will be made from any moneys due him to make good any shortages and deficiencies, from any cause whatsoever, which may occur after such delivery.

10.1.4 The Contractor shall set up accounting records and establish an inspection procedure as approved by the Agency.

### ARTICLE 11 BENEFICIAL OCCUPANCY

#### 11.1 BENEFICIAL OCCUPANCY

11.1.1 The Agency shall have the right to take possession of or use any completed or partially completed portion of the Work. The Agency's possession or use shall not be deemed an acceptance of any Work under the Contract. The Contractor will continue to pay for any portion of the utilities which he is using.

11.1.2 While the Agency has such possession or use, the Contractor shall be relieved of the responsibility for the loss of or damage to that portion of the Work resulting from the Agency's possession or use. If Contractor believes the partial possession or use by the Agency will delay the progress of the Work or will cause additional expense to the Contractor, Contractor shall immediately submit a written request for an equitable adjustment in the Contract price or the time of completion. Agency will then consider such request and, if in its judgment it is justified, the Agency will

modify the contract in writing accordingly. In the event the Contractor disagrees with the Agency's decision, the Contractor shall be required to submit a claim pursuant to the DISPUTE article.

## ARTICLE 12 INSPECTION AND TESTING

### 12.1 INSPECTION AND TESTING

12.1.1 The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work called for by this Contract conforms to contract requirements. The Contractor shall maintain complete inspection records and make them available to the Agency. The Agency shall at all times have access to the Work, and the Contractor shall provide proper facilities for such access and for inspection.

12.1.2 Agency inspections and tests are for the sole benefit of the Agency and do not:

- a. Relieve the Contractor of responsibility for providing adequate quality control measures;
- b. Relieve the Contractor of responsibility for damage to or loss of the material before Acceptance;
- c. Constitute or imply Acceptance; or
- d. Affect the continuing rights of the Agency after Acceptance regarding latent defects, gross mistakes, fraud or the Agency's rights under any warranty or guarantee.

12.1.3 The presence or absence of a Agency inspector does not relieve the Contractor from any Contract requirement, nor is the inspector authorized to change any term or condition of the specifications without the Agency's written authorization.

12.1.4 The Contractor shall promptly furnish, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Agency. The Agency may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes re-inspection or retest necessary. Special, full-size, and performance tests shall be performed as described in the Contract.

12.1.5 The Contractor shall, without charge, replace or correct work found by the Agency not to conform to contract requirements, unless in the public interest the Agency consents to accept the work with an appropriate adjustment in Contract price. The Contractor shall promptly segregate and remove rejected material from the premises.

12.1.6 If, before Acceptance of the Work, the Agency decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet Contract requirements, the Agency shall issue a Change Order for such removal and reinstallation.

12.1.7 The Contractor shall at all times maintain proper facilities and provide safe access for inspection by the Agency to all parts of the work, and to the shops wherein the work is in preparation. Where the specifications require work to be specially tested or approved, it shall not be tested or covered up without timely notice to the Agency of its readiness for inspection and without the approval or consent of Agency. Should any such work be covered up without such notice, approval, or consent, it must, if required by Agency, be uncovered for examination at the Contractor's expense.

12.1.8 The Contractor shall notify the Agency at least one (1) work day in advance of the time scheduled for the inspection. Should the Contractor fail to notify the Agency and proceed with work requiring inspection, all such work is rejected, and no further work shall be done on that portion of the project until the rejected work is accepted by the Agency. Should the Contractor request acceptance of such rejected work the Agency shall, at the Contractor's expense, secure the services of private material testing laboratories, consulting engineers or licensed land surveyors, who shall certify that said work does in fact conform to the requirements of the Contract Documents. The work

previously rejected shall be accepted by the Agency after receipt of such certification if the Agency approves of such certification.

12.1.9 If the Contractor does not promptly replace or correct rejected work, the Agency may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor or (2) terminate for default the Contractor's right to proceed.

12.1.10 Construction review of the Contractor's performance by the Agency is not intended to include the review of the adequacy of the Contractor's safety measures, in, on, or near the construction site.

12.1.11 The Agency will pay for initial testing services specified to be performed by the Agency. When initial tests indicate non-compliance with the Contract Documents, subsequent retesting occasioned by the non-compliance shall be performed by the same testing agency, and costs thereof will be deducted by the Agency from the Contract sum.

## 12.2 INSPECTION BY OTHER JURISDICTIONS

Whenever any part of the Work to be performed is under the jurisdiction or control of another public entity, including but not limited to: The United States Government, State of California, or City, such work shall be subject to inspection by the officials of such entities and it must pass inspection, in addition to Agency inspection, and such other inspections as may otherwise be provided for in the Contract Documents.

## 12.3 FINAL INSPECTION AND TESTS

The Contractor shall give the Agency at least ten (10) calendar days advance written notice of the date the work will be fully completed and ready for final inspection and tests. Final inspection and tests will be started within ten (10) calendar days from the date specified in the aforementioned notice unless the Agency determines that the Work is not ready for final inspection and so informs the Contractor.

## ARTICLE 13 ACCEPTANCE

### 13.1 ACCEPTANCE OF THE WORK

13.1.1 After the final inspection by Agency and all the contract documentation has been received, it will be recommended to the Agency Board of Supervisors to accept the Work and file a Notice of Completion. Upon approval of the Notice of Completion, a copy will be sent to the Contractor. (See final payment clause.) Upon Acceptance of the Work, Contractor will be relieved of the duty of maintaining and protecting the Work. Neither determination by the Agency that the Work is complete, nor Acceptance thereof, shall operate as a bar to Agency's claim against Contractor pursuant to Contractor's warranty and guarantees.

13.1.2 Partial payments shall not be construed as acceptance of any part of the Work.

13.1.3 In judging the Work, no allowance for deviations from the drawings and specifications will be made, unless already approved in writing at the time and in the manner as called for herein.

13.1.4 Agency shall be given adequate opportunity to make any necessary arrangements for fire insurance and extended coverage.

13.1.5 The Acceptance of the Work will not be recommended until all requirements of the Contract Documents are complete and approved by the Agency. This shall include, but is not limited to, all construction, guarantee forms, parts lists, schedules, tests, operating instructions, as-built drawings, and all other documentation identified by the Contract Documents.

## ARTICLE 14 WARRANTY AND GUARANTEES

### 14.1 CONTRACTOR'S WARRANTY AND GUARANTEE



14.1.1 Contractor warrants that all materials and equipment furnished under this Contract shall be new unless otherwise specified, and that all Work performed under this Contract conforms to the Contract requirements and is free of any defect whether performed by the Contractor or any subcontractor or supplier.

14.1.2 This warranty shall continue for a period of one (1) year from the date of filing of Notice of Completion on the Work. The Performance Bond shall remain in force during the warranty period.

14.1.3 The Contractor shall remedy at the Contractor's expense any damage to Agency-owned or controlled real or personal property, when that damage is the result of:

- a. The Contractor's failure to conform to Contract requirements or
- b. Any defect of equipment, material, workmanship, or design furnished by the Contractor.

14.1.4 The Contractor shall restore any work damaged in fulfilling the terms and conditions of this Article. The Contractor's warranty with respect to work repaired or replaced will run for one (1) year from the date of repair or replacement.

14.1.5 The Agency shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage. The Contractor shall within ten (10) calendar days after being notified in writing by the Agency of any work not in accordance with the requirements of the Contract or any defects in the Work, commence, and perform with due diligence, all work necessary to fulfill the terms of this Article. If the Contractor fails to remedy any defect, or damage within fourteen (14) calendar days after receipt of notice, the Agency shall have the right to replace, repair, or otherwise remedy the defect, or damage at the Contractor's expense. Payment due to the Architect from the Agency for extra architectural services required in the enforcement of Contractor's guarantee after Acceptance of the Work shall be paid to the Agency by the Contractor.

14.1.6 In the event of any emergency constituting an immediate hazard to health or safety of Agency employees, property, or licensees, when caused by work of the Contractor that is not in accordance with the Contract requirements, the Agency may undertake at Contractor's expense and without prior notice, all work necessary to correct such hazardous condition(s).

14.1.7. With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this Contract, the Contractor shall:

- a. Obtain all warranties that would be given in normal commercial practice;
- b. Require all warranties to be executed, in writing, for the benefit of the Agency, unless directed otherwise by the Agency; and
- c. Enforce all warranties for the benefit of the Agency, unless otherwise directed by the Agency.

14.1.8 This warranty shall not limit the Agency's rights under the Inspection and Acceptance section(s) of this Contract with respect to latent defects, gross mistakes, or fraud.

## ARTICLE 15 ENVIRONMENTAL PROTECTION

### 15.1 DUST CONTROL

15.1.1 The Contractor shall provide any and all dust control required.

15.1.2 Whenever the Contractor is negligent in providing dust control, the Agency shall order the Contractor to provide such dust control. If the Contractor does not comply promptly with such order, the Agency shall have the authority to provide such dust control and charge the Contractor therefore by deducting the cost from progress payments to the Contractor as such costs are incurred by the Agency. The Agency shall not be held responsible for schedule delays due to actions taken by Agency to mitigate the failure of the Contractor in providing dust control.

### 15.2 EXCESSIVE NOISE

15.2.1 The Contractor shall use only such equipment on the Work and in such state of repair, that the emission of sound therefrom is within the noise tolerance level of that equipment as established by CAL-OSHA.

15.2.2 Should the Agency determine that the muffling device on any equipment used on the Work is ineffective or defective so that the noise tolerance of such equipment is exceeded, such equipment shall not, after such determination by the Agency, be used on the Work until its muffling device is repaired or replaced so as to bring the noise tolerance level of such equipment within such standards.

### 15.3 POLLUTION CONTROL, CLEANING

15.3.1 The Contractor shall not, in connection with the Work, discharge any smoke, dust, or other contaminants into the atmosphere which are in violation of South Coast Air Quality Management District standards or discharge any fluids or materials into any lake, river, stream, or channel as will violate regulations of State of California Water Resources Board. The Contractor shall control accumulation of waste materials and rubbish and dispose of waste materials and rubbish offsite at a minimum of weekly intervals. Burning of materials is not permitted.

## ARTICLE 16 EMPLOYMENT PRACTICES

### 16.1 QUALIFICATIONS FOR EMPLOYMENT AND APPRENTICESHIP STANDARDS

16.1.1 In accordance with Section 1735 of the California Labor Code, no person under the age of 16 years and no person currently serving sentence in a penal or correctional institution shall be employed to perform any Work under this Contract. No person whose age or physical condition is such as to make employment dangerous to their health or safety or to the health or safety of others shall be employed to perform Work under this Contract; provided that this requirement shall not operate against any physically handicapped persons otherwise employable where such persons may be safely assigned to Work which they ably perform.

16.1.2 This contract is subject to the provisions of Sections 1777.5 and 1777.6 of the California Labor Code concerning the employment of apprentices by the Contractor or any subcontractor under Contractor. Section 1777.5 as amended, requires the Contractor or subcontractor employing tradesmen in any apprenticeable occupation to apply to the Joint Apprenticeship Committee nearest the site of this project and which administers the apprenticeship program in that trade for a certificate of approval. The certificate will also fix the ratio of apprentices to journeymen that will be used in the performance of the Contract.

16.1.3 The Contractor is required to make contributions to funds established for the administration of apprenticeship programs if Contractor employs registered apprentices or journeymen in any apprenticeable trade on such contracts and if other contractors on the public works site are making contributions.

16.1.4 All employees engaged in work on the project under this Contract shall have the right to organize and bargain collectively through representatives of their own choosing, and such employees shall be free from interference, restraint, and coercion of employers in the designation of such employees for the purpose of collective bargaining or other mutual aid or protection, and no person seeking employment under this Contract shall be required as a condition of initial or continued employment to join any company, union, or to refrain from joining, organizing, or assisting a labor organization of such person's own choosing. No person in the employment of the Agency shall be employed by this contractor.

### 16.2 WAGES & RECORDS

#### 16.2.1 WAGE RATES

- a. Pursuant to Section 1770 and 1773 et seq. of the Labor Code of the State of California, the Director of Industrial Relations has ascertained the general prevailing rate of per diem wages and the rates for overtime and holiday work in the locality in which the work is to be performed for each craft, classification, or type of worker needed to execute the contract which will be awarded to the successful bidder, copies of which are on file and available upon request at the Clerk of the Board, Board of Supervisors, 4080 Lemon St., 14th Floor, Riverside, CA 92501-3655, and shall be posted at the job site.
- b. It shall be mandatory upon the Contractor and upon any subcontractor under Contractor, to pay not less than the said specified rates to all laborers, workers, and mechanics employed in the execution of the Contract. It is further expressly stipulated that the Contractor shall, as a penalty to Agency, forfeit twenty-five dollars (\$25.00) for each calendar day, or portion thereof, for each laborer, worker, or mechanic paid less than the stipulated prevailing rates for any work done under this Contract or by any

subcontractor under Contractor; and Contractor agrees to comply with all provisions of Section 1770 et. seq. of the Labor Code.

- c. In case it becomes necessary for the Contractor or any sub-contractor to employ on the project under this Contract any person in a trade or occupation (except executives, supervisory, administrative, clerical, or other non-manual workers as such) for which no minimum wage rate is herein specified, the Contractor shall immediately notify the Agency who will promptly thereafter determine the prevailing rate for such additional trade or occupation and shall furnish the Contractor with the minimum rate based thereon. The minimum rate thus furnished shall be applicable as a minimum for such trade or occupation from the time of the initial employment of the person affected and during the continuance of such employment.
- d. The Agency will not recognize any claim for additional compensation because of the payment by the Contractor of any wage rate in excess of the prevailing wage rate set forth as provided herein. The possibility of wage increases is one of the elements to be considered by the Contractor in determining project bid, and will not under any circumstances be considered as the basis of a claim against the Agency on the Contract.

#### 16.2.2 WAGE RECORDS

- a. The Contractor and each subcontractor shall keep or cause to be kept an accurate record (certified payroll) showing the names and occupations of all laborers, workers, and mechanics employed in connection with the execution of this Contract or any subcontract thereunder. The record shall show the actual per diem wages paid to each of said workers, which records shall be provided to the Agency, and to the Division of Labor Standards Enforcement upon its request. Copies provided will include one which has the name and social security numbers marked out.

#### 16.3 NOTICE OF LABOR DISPUTES

16.3.1 If the Contractor has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of this Contract, the Contractor shall immediately give notice, including all relevant information, to the Agency.

16.3.2 The Contractor agrees to insert the substance of this clause, including this paragraph into any subcontract in which a labor dispute may delay the timely performance of this Contract; except that each subcontract shall provide that in the event its timely performance is delayed or threatened by delay by any actual or potential labor dispute, the subcontractor shall immediately notify the next higher tier subcontractor or the prime Contractor, as the case may be, of all relevant information concerning the dispute.

#### 16.4 NONDISCRIMINATION

##### 16.4.1 EQUAL EMPLOYMENT OPPORTUNITY

- a. Contractor agrees for the duration of this Contract that it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin, age, political affiliation, marital status, or handicap. The Contractor will take affirmative action to insure that employees are treated during employment or training without regard to their race, color, religion, sex, national origin, age, political affiliation, marital status, or handicap. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
- b. The Contractor will 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, color, religion, sex, national origin, age, political affiliation, marital status, or handicap.
- c. The Contractor will send to each labor union or other representative of workers with which it has a collective bargaining agreement or other contract or understanding, a notice advising the workers' representative of the Contractor commitments under this agreement.

- d. The Contractor agrees that it will comply with the provisions of Titles VI and VII of the Civil Rights Act, Revenue Sharing Act Title 31, U.S. Code Section 2716, and California Government Code Section 12990.
- e. The Contractor agrees that it will assist and cooperate with the Agency, the State of California and the United States Government in obtaining compliance with the equal opportunity clause, rules, regulations, and relevant orders of the State of California and United States Government issued pursuant to the Acts.
- f. In the event of the Contractor's non-compliance with the discrimination clause, the affirmative action plan of this contract, or with any of the said rules, regulations or orders, this Contract may be canceled, terminated, or suspended in whole or in part by the Agency.

#### 16.4.2 HANDICAPPED NON-DISCRIMINATION

This project is subject to Section 504 of the Rehabilitation Act of 1973 as amended, (29 U.S.C. 794), and the Americans with Disabilities Act of 1990, as amended, and all requirements imposed by the guidelines and interpretations issued thereto. In this regard, the Agency and all of its contractors and subcontractors will take all reasonable steps to ensure that handicapped individuals have the maximum opportunity for the same level of aid, benefit or service as any other individual.

#### 16.4.3 FAIR EMPLOYMENT AND HOUSING ACT ADDENDUM

In the performance of this Contract, the Contractor will not discriminate against any employee or Applicant for employment because of race, sex, color, religion, ancestry, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment, without regard to their race, sex, color, religion, ancestry, or national origin. Such action shall include, but not limited to, the following: employment, upgrading, promotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by the State or local agency setting forth the provisions of this Fair Employment and Housing Section.

#### 16.4.4 ACCESS TO RECORDS

The Contractor will permit access to his records of employment, employment advertisements, application forms, and other pertinent data and records by the State Fair Employment and Housing Commission, or any other agency of the State of California designated by the awarding authority, for the purposes of investigation to ascertain compliance with the Fair Employment and Housing section of this Contract.

#### 16.4.5 REMEDIES FOR WILLFUL VIOLATION

The State or local agency may determine a willful violation of the Fair Employment and Housing provision to have occurred upon receipt of a final judgment having that effect from a court in an action to which Contractor was a party, or upon receipt of a written notice from the Fair Employment and Housing Commission that it has investigated and determined that the Contractor has violated the Fair Employment and Housing Act and has issued an order or obtained an injunction under Government Code Sections 12900, et seq.

### ARTICLE 17 SUBCONTRACTING

#### 17.1 SUBCONTRACTORS

17.1.1 A subcontractor is an individual, firm or corporation having a direct contract with the Contractor or with any other subcontractor for the performance of a part of the Work. In accordance with Section 4104 of the Public Contract Code, each Contractor, in project bid, shall include the name and location of each subcontractor who will perform

work or labor, or render services to the Contractor in or about the Work in an amount in excess of one half of 1% of the Contractor's total bid.

17.1.2 The Agency reserves the right to approve all subcontractors. Such approval shall be a consideration to the awarding of the Contract and unless notification to the contrary is given to the Contractor prior to the signing of the Contract, the list of subcontractors which is submitted with project proposal will be deemed to be acceptable.

17.1.3 The Contractor shall be as fully responsible to the Agency for the acts and omissions of subcontractors and of persons either directly or indirectly employed by them, as Contractor is for the acts and omissions of persons directly employed by Contractor.

17.1.4 Nothing contained in the Contract Documents shall create any contractual relationship between any subcontractor and the Agency.

17.1.5 The divisions or sections of the specifications are not intended to control the Contractor in dividing the Work among subcontractors or to limit the work performed by any trade.

## 17.2 RELATIONS OF CONTRACTOR AND SUBCONTRACTOR

17.2.1 The Contractor agrees to bind every subcontractor by the terms of the Contract with the Agency, the General Conditions, Supplementary Conditions, and the drawings and specifications as far as applicable to contract work, unless specifically noted to the contrary in a subcontract approved in writing as adequate by the Agency.

## 17.3 SUBCONTRACTS

17.3.1 Pursuant to the provisions of Sections 4100 to 4114 of the California Public Contract Code, inclusive, the Contractor shall not, without the consent of the Agency, either:

- a. Substitute any persons as subcontractors in place of the subcontractors designated in project original bid without the consent of Agency. (The Agency's consent can only be given in cases permitted by Public Contract Code Section 4107.)
- b. Permit any subcontract to be assigned or transferred or allow any work to be performed by anyone other than the original subcontractor listed in project bid.
- c. Sublet or subcontract any portion of the work in excess of one-half of one percent of project bid to which the original bid did not designate a subcontractor.
- d. Should the Contractor violate any of the provisions of Sections 4100 to 4114, inclusive, of the Public Contract Code, so doing shall be deemed a violation of this Contract, and the Agency may either cancel the contract, or assess the Contractor a penalty in the amount of not more than ten (10) percent of the amount of the subcontract involved, or both.

## ARTICLE 18 TAXES

### 18.1 SALES AND PAYROLL TAXES

18.1.1 Each Contractor, subcontractor, and material dealer shall include in their bid all applicable taxes including but not limited to sales tax and payroll taxes required by law.

## ARTICLE 19 CHANGES

### 19.1 CHANGE ORDER WORK

19.1.1 The Agency reserves the right to make changes in the work without impairing the validity of the Contract. The Agency may make changes to the work, or suspend the work, and all such changes or suspension are within the

contemplation of the parties and will not be a basis for compensable delay. Such changes may be made in accordance with any of the following methods:

- a. By written change order to the Contract ordered by the Board of Supervisors.
- b. By written change order, signed by the Director of Facilities Management in the manner and amounts specified by Board Policy B-11.
- c. By written authorization, issued by the Director of Facilities Management, for items of work done under unit prices. The cost or credit for such added or omitted work shall be determined by multiplying the number of units added to or omitted from the work by the applicable unit price.

19.1.2 Upon receipt of a proposed Change Order from Agency, the Contractor shall submit a proposal in accordance with the requirements and limitations set forth in this "Change Orders" article, for work involved in the contemplated change.

19.1.3 The Contractor must submit a cost proposal within fifteen (15) calendar days after receipt of the proposed change order. The Contractor must submit cost proposals in less than fifteen (15) calendar days if requested by the Agency or if required by schedule limitations.

19.1.4 If the Contractor fails to submit the cost proposal within the 15-day period (or as requested), the Agency has the right to order the Contractor in writing to commence the work immediately on a force account basis and/or issue a lump sum change to the contract price in accordance with the Agency's estimate of cost. If the change is issued based on the Agency estimate, the Contractor will waive his right to dispute the action unless within fifteen (15) calendar days following completion of the added/deleted work, the Contractor presents proof that the Agency's estimate was in error.

19.1.5 If the Agency disagrees with the proposal submitted by Contractor, it will notify the Contractor in writing and the Contractor may elect to proceed under the DISPUTE article of this Contract, or, in the event either party contests the price or time extension of Change work, or time is of the essence, the Agency may issue a Construction Change Directive and the contractor shall proceed with the work. The Agency will provide its opinion of the appropriate price and/or time extension in a "Response to Change Order Request." If the contractor agrees with the Agency's estimate, a change order will be issued by the Agency. If no agreement can be reached, the Agency shall have the right to issue the Change Order Directive setting forth its unilateral determination of the reasonable additions or savings in costs and time attributable to the extra or deleted work. Such determination shall become final and binding if the Contractor fails to submit a Claim in writing to the Agency, within twenty-one (21) days of the Change Order Directive, disputing the terms of such Directive. No dispute, disagreement or failure of the parties to reach agreement regarding the amount, if any, of any adjustment to the contract sum or contract time shall relieve the Contractor from the obligation to proceed with performance of the work, including extra work, promptly and expeditiously.

19.1.6 The Contractor will give notice of a requested change on his letterhead within seven (7) calendar days of discovery and, if the Agency agrees, a proposed change order will be issued on the Agency's standard change order form.

19.1.7 If any change involves an increase or decrease in the cost of the Contractor's work, a change order shall state the amount to be added or deducted from the Contract amount, and the additional time, if any, needed for the performance of such work.

19.1.8 Any changes to the Contract amount shall be in a lump sum mutually agreed to by the Contractor and the Agency, except that when, in the opinion of the Agency, such basis is not feasible the change to the Contract amount shall be determined upon a cost-plus-percentage basis with a guaranteed maximum lump sum cost within the limitations provided by law.

19.1.9 Each lump sum quotation from the Contractor shall be accompanied by sufficiently detailed estimates to permit verification of totals in accordance with (a) through (d) in 19.1.11 below.

19.1.10 When the work is to be done on a cost-plus-percentage basis, the Contractor shall submit statements as required by the Agency showing all labor, material, and equipment costs incurred, and upon completion of the work, a summary of costs, including overhead and profit, and in accordance with Item (a) through (d) in 19.1.11 below.

19.1.11 Estimates for lump sum quotations and accounting for cost-plus-percentage work shall be limited to direct expenditures necessitated specifically by the subject extra work, and shall be segregated as follows:

- a. Labor. The costs of labor will be the actual cost for wages prevailing locally for each craft or type of worker at the time the extra work is done, plus employer payments of payroll taxes and insurance, health and welfare, pension, vacation, apprenticeship funds, and other direct costs resulting from Federal, State or local laws, as well as assessment or benefits required by lawful collective bargaining agreements. The use of a labor classification which would increase the extra work cost will not be permitted unless the contractor establishes the necessity for such additional costs. Labor costs for equipment operators and helpers shall be reported only when such costs are not included in the invoice for equipment rental.
- b. Materials. The cost of materials reported shall be at invoice or lowest current price at which such materials are locally available in the quantities involved, plus sales tax, freight and delivery.
- c. Tool and Equipment Use. No payment will be made for the use of tools which have a replacement value of \$100 or less. Regardless of ownership, the rates to be used in determining equipment use costs shall not exceed listed rates prevailing locally at equipment rental agencies, or distributors, at the time the work is performed.
- d. Overhead, Profit and Other Charges. The mark-up for overhead and profit on work added to the Contract shall be according to the following Schedule.
  - (1) For work performed by the Contractor's forces the added cost for overhead and profit shall not exceed fifteen (15%) percent of the net cost of the work, equipment, labor and materials.
  - (2) For work performed by a subcontractor, the added cost for overhead and profit shall not exceed fifteen (15%) percent of the net cost of the work, equipment, labor and materials, to which the Contractor may add five (5) percent of the subcontractor's price of the work.
  - (3) For work performed by a sub-subcontractor the added cost for overhead and profit shall not exceed fifteen (15 %) percent of the net cost for work, equipment, labor and materials to which sub-contractor and general contractor may each add an additional five (5 %) percent of the total price from the lower tier subcontractor.
  - (4) "Net Cost" is defined as consisting of costs of labor, materials and equipment use and/or rental only. The costs of applicable insurance and bond premium will be reimbursed to the Contractor and subcontractors at cost only, without mark-up.
  - (5) The cost of direct supervision, except when provided by working foreman whose time is included above, of change order work when done exclusively, and not in conjunction or at the same time as, other work performed on the job and when approved in advance by the Agency's authorized representative, including only payroll taxes, insurance, pension and direct costs for the labor of supervision may be charged to the change order. The cost of transportation, use of vehicle and other costs incurred by supervision will not be allowed.

19.1.12 For added or deducted work by subcontractors, the Contractor shall furnish to the Agency the subcontractor's signed detailed estimate of the cost of labor, material and equipment, including the markup by such subcontractor for overhead and profit. The same requirement shall apply to sub-subcontractors.

19.1.13 For added or deducted work furnished by a vendor or supplier, the Contractor shall furnish to the Agency a detailed estimate or quotation of the cost to the Contractor for such work, signed by such vendor or supplier.

19.1.14 Any change in the work involving both extras and credits shall show a new total cost, including subcontracts. Allowance for overhead and profit, as specified therein, shall be applied if the net total cost is an extra; overhead and profit allowances shall not be applied if the net total cost is a credit. The estimated cost of deductions shall be based on labor and material prices on the date the Contract was executed.

19.1.15 The Contractor shall identify any adjustment in time of the final completion of the Work as a whole which is directly attributable to the changed work within fifteen (15) calendar days of receipt of the proposed change order.

The Contractor's request for a change in time will be supported by a detailed schedule analysis including a schedule indicating the activities which have been affected and the additional time being requested.

- a. For a change in time for the Work, the Contractor shall be entitled only to such adjustments where completion of the entire Work (critical path) is delayed due to the performance of the changed work. Failure to request extra time when submitting such estimate shall constitute waiver of the right to subsequently claim adjustment in time for final completion based upon such changed work.
- b. If the Agency and the Contractor fail to arrive at an agreement on the amount of extra cost, credit or time extension for a proposed change, a change order will be processed in the amount believed by the Agency to be reasonable, and the Contractor shall proceed with the work. If the Contractor believes that the amount or time stipulated in the change order is not reasonable for the work required, Contractor may elect to issue a notification in accordance with the DISPUTES article for review by the Agency, stating therein the basis for the dispute with such change order.

19.1.16 Any change in the Work shall conform to the original Contract Documents insofar as they may apply without conflict to the conditions involved in the change.

19.1.17 Payment for additional work or extras, if any, shall become due and payable in accordance with the provisions for payment in the Contract.

19.1.18 Contractor shall not reserve a right to assess impact cost, extended job site costs, extended overhead, and/or constructive acceleration at a later date as related to any and all changes. All costs or estimated costs must be supported with full schedule and cost documentation with each proposed change within the prescribed submission times. If a request for a change is denied and the Contractor disputes the denial, the Contractor must supply the aforementioned documentation to support the claim under the DISPUTES article of this Contract. No claims shall be allowed for impact, extended overhead costs, and/or construction acceleration due to the multiplicity of changes and/or clarifications. Any attempt by Contractor to change or modify the change order form (sample included herein) shall void the form, including any letters the Contractor may issue in conjunction therewith.

19.1.19 All alterations, extensions of time, extra and additional work and other changes authorized by these specifications or any part of the Contract may be made without securing consent of the surety or sureties on the contract bonds.

## 19.2 CHANGE ORDERS AND LABOR RATES GUIDELINES

19.2.1 The following are guidelines for preparing change orders:

a. Labor Rates:

- (1) To establish the labor rate for each classification and trade, a breakdown shall be submitted to the Agency.
- (2) Labor rates are based on current prevailing state and federal wages. Only those benefits mandated by law or a valid labor contract are paid by the Agency.
- (3) Payroll taxes shall be paid as mandated by law. Labor related insurances shall be paid according to industry standard average.
- (4) No other costs related to labor shall be paid by Agency.

b. Change Orders:

- (1) Change orders shall be prepared in accordance with the project contract.
- (2) No insurance costs are paid by Agency, except for labor insurances specified in this guideline under section 1 titled "LABOR RATES".



- (3) Material cost shall be broken down on a separate sheet, and for those jobs designated as time and material shall be supported by valid invoices from suppliers.
- (4) Hours for non-productive labor, such as non-working foremen or general foremen, shall be paid only when justified in the opinion of the Agency, and approved by the Agency. The total number of nonproductive labor hours shall be limited to a maximum of 15% of the total number of productive labor hours.
- (5) Cost of use of special equipment shall be paid when justified in the opinion of the Agency, and approved by the Agency. Equipment refers to special equipment that is needed to perform that specific job, and does not include the usual tools customarily required for that trade. Small tools costs are not paid by Agency.
- (6) Material transportation costs are paid by Agency when justified in the opinion of the Agency, and approved by the Agency's authorized representative.
- (7) Overhead, profit and fees on subcontracts, are paid according to the contract.
- (8) No costs other than those designated above shall be paid by Agency. The percentages of overhead and fee allowed with change orders have been established to account for any other direct or indirect costs that might be incurred due to the change order.

### 19.3 AUDIT

19.3.1 The Agency shall have the right to examine and audit all books, estimates, records, contracts, documents, bid documents, subcontracts, and other data of the Contractor (including computations and projections) related to negotiating, pricing, or performing the modification in order to evaluate the accuracy and completeness of the cost or pricing data at no additional cost to the Agency.

19.3.2 The Contractor shall make available at its office at all reasonable times the materials described in paragraph 19.3.1 above, for examination, audit, or reproduction, until 4 years after final payment under this Contract.

19.3.3 The Contractor shall insert a clause containing all the provisions of this 19.3, including this paragraph, in all subcontracts over \$10,000 under this contract.

## ARTICLE 20 PAYMENT

### 20.1 PROGRESS PAYMENTS

20.1.1 The Agency shall pay the Contractor the price as provided in this Contract.

20.1.2 The Agency shall make progress payments monthly as the Work proceeds, on estimates approved by the Agency. The Contractor shall furnish a breakdown of the total contract price, in a format provided by the Agency, showing the amount included therein for each principal category of the work, in such detail as requested, to provide a basis for determining progress payments.

20.1.3 Contractor shall submit to the Agency vouchers, schedule activities, or other satisfactory proof of the value of any work to be paid on such account, and receipts showing that progress payments have been duly made on such contracts, and for materials furnished.

20.1.4 In the preparation of estimates, the Agency may authorize 75% of the value of material delivered and satisfactorily stored on the site, and preparatory work done to be taken into consideration for major equipment if:

- a. Consideration is specifically authorized by this Contract; and
- b. The Contractor furnishes certified receipt that it has acquired title and paid invoices for such material and that the material will be used to perform this Contract.

20.1.5 On the 25th of each month the Contractor will submit a request for payment. Prior to that submittal the Agency will review the requested percentage of completion for each activity. The payment request will be in the format as provided by the Agency and will refer to the schedule.

20.1.6 Upon receipt of a payment request, the Agency shall:

- a. Review that request as soon as practicable after receipt for the purpose of determining that the payment request is a proper payment request; and
- b. Any payment request determined not to be a proper request suitable for payment shall be returned to the Contractor as soon as practicable, but not later than seven (7) calendar days after receipt. The returned request for payment shall be accompanied by a document setting forth in writing the reasons why the payment request is not proper.

20.1.7 Any progress payment which is undisputed and properly submitted and remains unpaid for thirty (30) calendar days after receipt by Agency shall accrue interest to the Contractor equivalent to the legal rate set forth in subdivision (a) of Section 685.010 of the California Code of Civil Procedure. The number of days available to the Agency to make a payment without incurring interest pursuant to this section shall be reduced by the number of days by which the Agency exceeds the seven-day return requirement set forth in 20.1.6 above.

20.1.8 In making these progress payments, there shall be retained ten percent (10%) from the amount of each progress payment until the work is 50% complete. After the 50% completion point, if satisfactory progress is being made and at the sole discretion of the Agency, the retention may be reduced to a minimum of 5% of the contract.

20.1.9 Except as otherwise prohibited by law, the Contractor may elect to receive all payments due under the contract pursuant to this section without any retention, by posting securities in accordance with Public Contract Code Section 22300.

20.1.10 Contractor and each subcontractor shall pay each of its employees engaged in work under this Contract in full (less deductions made mandatory by law) in accordance with California law.

20.1.11 The Agency may withhold (in excess of retentions) or, on account of subsequently discovered evidence, nullify the whole or a part of any certificate to such extent as may be necessary to protect the Agency from loss on account of:

- a. Defective work not remedied.
- b. Claims filed or reasonable evidence indicating probable filing of claims.
- c. Failure of the Contractor to make payments properly to subcontractors or for material or labor.
- d. Damage to another Contractor.
- e. Delays in progress toward completion of the work, with the stipulated amount of liquidated damages being withheld for each day of delay for which no extension is granted.
- f. Default of the Contractor in the performance of the terms of the Contract.

20.1.12 Should stop notices be filed with the Agency, Agency shall withhold the amount required plus 25% from certificates until such claims shall have been resolved pursuant to applicable law. California Civil Code Section 3179 et seq.

20.1.13 At the election of the Agency, Contractor shall provide, within ten (10) calendar days of receipt of each progress payment, unconditional waivers and release of lien rights, signed by Contractor and each of its subcontractors and materials suppliers, in the form established therefore by Section 3262 of the Civil Code.

20.1.14 All material and work covered by progress payments made shall, at the time of payment, become the sole property of the Agency, but this shall not be construed as:

- a. An acceptance of any work not in accordance with the Contract Documents; or

- b. Waiving the right of the Agency to require the fulfillment of all of the terms of the contract.

## 20.2 FINAL PAYMENT

### 20.2.1 GENERAL

- a. The Agency shall pay the amount due the Contractor under this Contract after:
  - (1) The Acceptance of all work and Notice of Completion per the terms of this Contract;
  - (2) Presentation of a properly executed voucher;
  - (3) Release of all liens and Stop Notices; and
  - (4) Presentation of release of all claims against the Agency arising by virtue of this Contract, other than claims and disputes in stated amounts, that the Contractor has specifically excepted from the operation of the release.
- b. The Contractor may, if any subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Agency, to indemnify him against any lien.

### 20.2.2 FINAL CERTIFICATE FOR PAYMENT

- a. When the work is ready for acceptance by the Agency, a Notice of Completion will be submitted to the Board of Directors. Upon approval of the Notice of Completion, a copy will be sent to the Contractor.
- b. Notice of Completion will be recorded by the Agency upon completion and Acceptance of the Work. Providing no stop notices have been filed, thirty-five (35) calendar days after filing of such Notice of Completion, payment due under the contract will become due to the Contractor and the Agency shall so certify authorizing the final payment.

### 20.2.3 FINAL PAYMENT

- a. After Acceptance of Work, the Agency will submit to Contractor a statement of the sum due Contractor under this contract, together with Agency payment in the amount thereof. Said statement shall take into account the contract price, as adjusted by any change orders; amounts already paid; sums to be withheld for incomplete work; liquidated damages; and for any other cause under the Contract.
- b. The Contractor shall, from the effective date of Acceptance until the expiration of four years after final settlement under this Contract, preserve and make available to the Agency, all its books, records, documents, and other evidence bearing on the costs and expenses of the Contractor under this Contract.

## ARTICLE 21 SUSPENSION OF WORK/TERMINATION

### 21.1 NON-COMPLIANCE WITH CONTRACT REQUIREMENTS

21.1.1 In the event the Contractor, after receiving written notice from the Agency of non-compliance with any requirement of this Contract, fails to promptly initiate appropriate action to comply with the specified requirement, the Agency shall have the right to withhold payment for work completed under the Contract until the Contractor has complied with the notice or has initiated such action as may be appropriate to comply, within a reasonable period of time. The Contractor shall not be entitled to any extension of contract time or payment for any costs incurred for work under this article.

21.1.2 Should the Contractor abandon the Work called for under the Contract, or assign his Contract, or unnecessarily and unreasonably delay the work, or willfully violate or perform the work in bad faith, the Agency shall have the power to notify the Contractor to discontinue all work or any part thereof under this Contract, and thereupon the Contractor shall cease to continue said work or such part thereof as the Agency may designate, and the Agency shall have the power to employ such persons as it may consider desirable, and to obtain by contract, purchase, hire or otherwise, such implements, tools, material or materials as the Agency may deem advisable to work at and be

used to complete the work herein described, or such part thereof as shall have not been completed, and to use such material as it may find upon the site of the work, and to charge the expense of such labor and material, implements and tools to the Contractor, and the expense so charged shall be deducted and paid by the Agency out of such monies as may either be due, or may at any time thereafter become due to the Contractor under the Contract.

## 21.2 TERMINATION

### 21.2.1 TERMINATION FOR BREACH

If the Contractor should be adjudged bankrupt or if he should make a general assignment for the benefit of creditors, or if a receiver should be appointed on account of Contractor insolvency, or if Contractor or any of the project subcontractors should violate any of the provisions of the Contract, the Agency may serve written notice upon Contractor and Contractor's surety of its intention to terminate Contractor's performance hereunder, said notice shall contain the reasons for such intention to terminate Contractor's performance, and, unless within ten (10) calendar days after serving of said notice, such violation shall cease and satisfactory arrangements for correction thereof be made, Contractor's performance shall, upon the expiration of said ten (10) calendar days, cease and terminate. In the event of any such termination, the Agency shall immediately serve written notice thereof upon the surety and the Contractor, and the Agency may take over the Contractor's work and prosecute the same to completion by contract or by any other method it may deem advisable, for the account and at the expense of the Contractor, and the Contractor and his surety shall be liable to the Agency for any excess cost occasioned the Agency thereby, and in such event the Agency may without liability for so doing take possession of and utilize in completing the work, such materials, appliances, plants, and other property belonging to the Contractor as may be on the site of the work and necessary therefore.

### 21.2.2 TERMINATION FOR CONVENIENCE

- a. If the construction of the project herein is damaged, which damage is determined to have been proximately caused by an Act of God, in excess of 5% of the contract amount, provided that the work damaged is built in accordance with applicable building standards and the plans and specifications, then the Agency may, without prejudice to any other right or remedy, terminate the Contract.
- b. The Agency may terminate performance of work under this Contract in whole or in part, if the Agency determines that a termination is in the Agency's interest. The Agency shall terminate by delivering to the Contractor a Notice to Terminate specifying the extent of termination and the effective date.
- c. After receipt of such Notice, and except as directed by the Agency, the Contractor shall immediately proceed with the following obligations, regardless of any delay in determining or adjusting any amounts due under this clause:
  - (1) Stop work as specified in the notice.
  - (2) Place no further subcontracts or orders (referred to as subcontracts in this clause) for materials, services, or facilities, except as necessary to complete any continued portion of the Contract.
  - (3) To terminate all subcontracts to the extent they relate to the work terminated.
  - (4) With approval or ratification to the extent required by the Agency, settle all outstanding liabilities and termination settlement proposals arising from termination of subcontracts; the approval or ratification will be final for purposes of this clause.
  - (5) As directed by the Agency, transfer title and deliver to the Agency 1. the fabricated or unfabricated parts; work in progress, completed work, supplies, and other material produced or acquired for the work terminated; and 2. the completed or partially completed plans, drawings, information, and other property that, if the contract had been completed, would be required to be furnished to the Agency.
  - (6) Complete performance of work not terminated.

- (7) Take any action that may be necessary, or that the Agency may direct, for the protection and preservation of the property related to this contract that is in the possession of the Contractor and in which the Agency has or may acquire an interest.
  - (8) Use its best efforts to sell, as directed or authorized by the Agency, any property of the types referred to in subparagraphs above; provided, however, that the Contractor (1) is not required to extend credit to any purchaser and (2) may acquire the property under the conditions prescribed by, and at prices approved by the Agency. The proceeds of any transfer or disposition will be applied to reduce any payments to be made by the Agency under this contract, credited to the price or cost of the work, or paid in any other manner directed by the Agency.
- d. After termination, the Contractor shall submit a final termination settlement proposal to the Agency in the form and with the certification prescribed by the Agency. The Contractor shall submit the proposal promptly, but no later than thirty (30) days from the effective date of termination. If the Contractor fails to submit the proposal within the time allowed, the Agency may determine, on the basis of information available, the amount, if any, due the Contractor because of the termination and shall pay the amount determined.
  - e. Subject to subparagraph (2) above, the Contractor and the Agency may agree upon the whole or any part of the amount to be paid because of the termination. The amount may include a reasonable allowance for profit on work done. However, the agreed amount, may not exceed the total contract price as reduced by:
    - (1) the amount of payments previously made and;
    - (2) the contract price of work not terminated. The contract shall be amended with a Change Order, and the Contractor paid the agreed amount.
  - f. If the Contractor and Agency fail to agree on the whole amount to be paid the Contractor because of the termination of work, the Agency shall pay the Contractor the amounts determined as follows:
    - (1) For contract work performed before the effective date of termination, the total (without duplication of any terms) of:
      - (i) The cost of this work;
      - (ii) The cost of settling and paying termination settlement proposals under terminated subcontracts that are properly chargeable to the terminated portion of the contract if not included in subdivision (i) above; and
      - (iii) A sum, as profit on (i) above, determined by the Agency to be fair and reasonable; however, if it appears that the Contractor would have sustained a loss on the entire contract had it been completed, the Agency shall allow no profit under this subdivision (iii).
    - (2) The reasonable costs of settlement of the work terminated including:
      - (i) Accounting, clerical, and other expenses reasonably necessary for the preparation of termination settlement proposals and supporting data; and
      - (ii) Storage, transportation, and other costs incurred, reasonably necessary for the preservation, protection, or disposition of the termination inventory.
  - g. Except for normal spoilage, the Agency shall exclude from the amounts payable to the Contractor the fair value, as determined by the Agency, of defective work, and of property that is destroyed, lost, stolen, or damaged so as to become undeliverable.
  - h. The Contractor shall have the right to make a claim under the DISPUTES article, from any determination made by the Agency.
  - i. In arriving at the amount due the Contractor, there shall be deducted:

- (1) All unliquidated advance or other payments to the Contractor under the terminated portion of this Contract;
  - (2) Any claim which the Agency has against the Contractor under this Contract; and
  - (3) The agreed price for, or the proceeds of sale of, materials, supplies, or other things acquired by the Contractor or sold under the provisions of this clause and not recovered by or credited to the Agency.
- j. If the termination is partial, the Contractor may file a proposal with the Agency for a Change Order of the price(s) of the continued portion of the Contract. The Agency shall process any Change Order agreed upon. Any proposal by the Contractor for an equitable adjustment under this clause shall be requested within thirty (30) days from the effective date of termination unless extended in writing by the Agency.
- k. The Agency may, under the terms and conditions it prescribes, make partial payments and payments against costs incurred by the Contractor for the terminated portion of the Contract, if the Agency believes the total of these payments will not exceed the amount to which the Contractor will be entitled. If the total payments exceed the amount finally determined to be due, the Contractor shall repay the excess to the Agency upon demand, together with interest.
- l. Unless otherwise provided in this Contract or by statute, the Contractor will maintain all records and documents relating to the terminated portion of this Contract for 4 years after final settlement. This includes all books and other evidence bearing on the Contractor's costs and expenses under this Contract. The Contractor shall make these records and documents available to the Agency, State and/or the U.S. Government or their representatives at all reasonable times, without any direct charge.

## ARTICLE 22 DISPUTES/CLAIMS

### 22.1 CLAIMS RESOLUTION

In accordance with Public Contract Code Sections 20104 20104.6 and other applicable law, public works claims of \$375,000 or less which arise between the Contractor and the Owner shall be resolved under the following the statutory procedure unless the Owner has elected to resolve the dispute pursuant to Public Contract Code Section 10240 et seq.

- a. All claims shall be submitted in writing and accompanied by substantiating documentation. Claims must be filed on or before the date of final payment unless other notice requirements are provided in the contract. "Claim" means a separate demand by the claimant for (1) a time extension, (2) payment of money or damages arising from work done by or on behalf of the claimant and payment of which is not otherwise expressly provided for or the claimant is not otherwise entitled, or (3) an amount the payment of which is disputed by the Owner.
- b. Claims Under \$50,000. The Owner shall respond in writing to the claim within 45 days of receipt of the claim, or, the Owner may request, in writing, within 30 days of receipt of the claim, any additional documentation supporting the claim or relating to defenses or claims the Owner may have. Of additional information is needed thereafter, it shall be provided upon mutual agreement of the Owner and the claimant. The Owner's written response shall be submitted 15 days after receiving the additional documentation, or within the same period of time taken by the claimant to produce the additional information, whichever is greater.
- c. Claims over \$50,000 but less than or equal to \$375,000. The Owner shall respond in writing within 60 days of receipt, or, may request in writing within 30 days of receipt of the claim, any additional documents supporting the claim or relating to defenses or claims the Owner may have against the claimant. If additional information is needed thereafter, it shall be provided pursuant to mutual agreement between the Owner and the claimant. The Owner's response shall be submitted within 30 days after receipt of the further documents, or within the same period of time taken by the claimant to produce the additional information or documents, whichever is greater. The Contractor shall make these records and documents available to the Agency, State and/or the U.S. Government or their representatives at all reasonable times, without any direct charge.

- d. If the claimant disputes the Owner's response, or if the Owner fails to respond within the statutory time period(s), the claimant may so notify the Owner within 15 days of the receipt of the response or the failure to respond, and demand an informal conference to meet and confer for settlement. Upon such demand, the Owner shall schedule a meet and confer conference within 30 days.
- e. If following the meet and confer conference, the claim or any portion thereof remains in dispute, the claimant may file a claim pursuant to Government Code 900 et seq. and Government Code 910 et seq. For purposes of those provisions, the time within which a claim must be filed shall be tolled from the time the claimant submits the written claim until the time the claim is denied, including any time utilized for the meet and confer conference.
- f. If a civil action is filed to resolve any claim, the provisions of Public Contract Code 20104.4 shall be followed, providing for nonbinding mediation and judicial arbitration.

## 22.2 CLAIM FORMAT/REQUIREMENTS

22.2.1 The Contractor will submit the claim justification in the following format:

- a. Summary of claim merit and price plus clause under which the claim is made.
- b. List of documents relating to claim
  - (1) Specifications
  - (2) Drawings
  - (3) Clarifications (RFIS)
  - (4) Schedules
  - (5) Other
- c. Chronology of events and correspondence
- d. Analysis of claim merit
- e. Analysis of claim cost
- f. Analysis of Time in CPM format
- g. Cover letter and certification (form included herein)

22.2.2 If any claim submitted includes a request for overhead, the Agency may request a Profit & Loss statement and supporting documentation from Contractor. If requested, such documentation must be submitted for the Agency to consider the claim.

22.2.3 Submission of a claim, properly certified, with all required supporting documentation, and written rejection or denial of all or part of the claim by Agency, is a condition precedent to any action, proceeding, litigation, suit, general conditions claim, or demand for arbitration by Contractor.

## 22.3 NOTICE OF THIRD PARTY CLAIMS

The Agency shall provide notification to the Contractor within a reasonable time after receipt of any third-party claim relating to the Construction Contract.

**SPECIFICATIONS - TRADE SECTIONS**  
**Mecca Fire Station**

**DIVISION 1      GENERAL REQUIREMENTS**

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Not Used

**DIVISION 2      SITEWORK**

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Section 02230	Site Clearing	2
Section 02300	Earthwork	11
Section 02441	Irrigation Systems	16
Section 02510	Water Distribution	5
Section 02530	Sanitary Sewerage	1
Section 02554	Natural Gas Distribution	4
Section 02630	Storm Drainage	4
Section 02800	Planting	8
Section 02826	Automatic Gates	4

**DIVISION 3      CONCRETE**

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Section 03100	Concrete Formwork	3
Section 03200	Concrete Reinforcement	2
Section 03300	Cast-In-Place Concrete	8

**DIVISION 4      MASONRY**

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Section 04051	Mortar and Grout	3
Section 04270	Glass Masonry Units	3
Section 04820	Reinforced Unit Masonry Assemblies	7

**DIVISION 5      METAL WORK**

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Section 05120	Structural Steel	3
Section 05515	Ladders	2

**DIVISION 6      WOOD AND PLASTIC**

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Section 06100	Rough Carpentry	4
Section 06175	Wood Trusses	3
Section 06180	Glue Laminated Structural Units	3
Section 06200	Finish Carpentry	4
Section 06412	Laminate-Clad Wood Casework	6

**DIVISION 7      THERMAL AND MOISTURE PROTECTION**

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Section 07190	Water Repellents	3
Section 07213	Batt Insulation	3
Section 07320	Roof Tiles	4
Section 07510	Built-Up Bituminous Roofing	6
Section 07620	Sheet Metal Flashing and Trim	4
Section 07631	Gutters and Downspouts	3
Section 07724	Roof Hatches	2
Section 07900	Joint Sealers	6

**DIVISION 8      DOORS AND WINDOWS**

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Section 08110	Steel Doors and Frames	6
Section 08214	Plastic Faced Wood Doors	3
Section 08333	Overhead Coiling Doors	2
Section 08360	Sectional Overhead Doors	6
Section 08710	Door Hardware	13
Section 08800	Glazing	5



<b>DIVISION 9</b>		<b>FINISHES</b>	
Section 09220	Portland Cement Plaster		7
Section 09260	Gypsum Board Systems		4
Section 09311	Ceramic Tile Floor Finish		5
Section 09312	Ceramic Tile Wall Finish		4
Section 09441	Thin-Set Epoxy Terrazzo		4
Section 09511	Suspended Acoustical Ceilings		4
Section 09650	Resilient Flooring		2
Section 09688	Carpet Glue-Down		4
Section 09720	Wall Coverings		3
Section 09900	Painting		10

<b>DIVISION 10</b>		<b>SPECIALTIES</b>	
Section 10100	Markerboards and Tackboards		5
Section 10165	Plastic Laminate Toilet Compartments		4
Section 10350	Flagpoles		3
Section 10400	Identifying Devices		4
Section 10503	Metal Wardrobe Lockers		3
Section 10520	Fire Protection Specialties		2
Section 10810	Toilet Accessories		3

<b>DIVISION 11</b>		<b>EQUIPMENT</b>	
Section 11005	Miscellaneous Equipment		4
Section 11146	Vehicle Exhaust Removal System		2

<b>DIVISION 12</b>		<b>FURNISHINGS</b>	
Section 12492	Vertical Louver Blinds		2

<b>DIVISION 13</b>		<b>SPECIAL CONSTRUCTION</b>	
Not Used			

<b>DIVISION 14</b>		<b>CONVEYING SYSTEMS</b>	
Section 14210	Electric Traction Elevators		8

<b>DIVISION 15</b>		<b>MECHANICAL</b>	
Section 15300	Automatic Fire Sprinklers		10
Section 15400	Plumbing		20
Section 15800	Heating Ventilation and Air Conditioning		19
Section 15883	Straight Rail Vehicle Exhaust Removal System		16

<b>DIVISION 16</b>		<b>ELECTRICAL</b>	
Section 16010	General Electrical Requirements		14
Section 16050	Packaged Electric System		1
Section 16231	Generator Set		6
Section 16415	Automatic Transfer Switch		7
Section 16721	Fire Alarm System		17
Section 16730	Television Signal Distribution System		4
Section 16750	Network Wire and Cabling System		2
Section 16770	Sound System		2

SECTION 02230

SITE CLEARING

1. PART 1 GENERAL

1.1 SECTION INCLUDES

- A. Remove surface debris.
- B. Remove indicated paving, curbs, concrete, existing structures (if any), and other site improvements indicated on the drawings.
- C. Clear site of plant life and grass.
- D. Remove trees and shrubs.
- E. Remove root system of trees and shrubs.
- F. Erosion and sedimentation control measures.

1.2 REGULATORY REQUIREMENTS

- A. Conform to applicable code for dust control and disposal of debris.
- B. Coordinate clearing Work with utility companies.
- C. Obtain required permits from authorities.
- D. Do not close or obstruct roadways and sidewalks without permits.

1.3 DEFINITIONS

- A. Remove: Removal of existing construction and legally dispose of items off-site.
- B. Disposal: Removal off-site of demolition waste and subsequently deposit in landfill acceptable to authorities having jurisdiction.
- C. Existing to Remain: Items of construction that are not to be removed and that are not indicated to be removed.

1.4 SUBMITTALS

- A. Preclearing Photographs: Show conditions of exiting adjacent construction and site improvements that might be misconstrued as damaged by clearing operations. Submit before work begins.
- B. Record Documents: Submit under provisions of the general conditions. Accurately record locations of capped utilities and other subsurface conditions.

1.5 QUALITY ASSURANCE

- A. Perform best management practice techniques for given site conditions as defined in Section 3 of the Stormwater Best Management Practice Handbook (BMP Handbook), Construction Edition, as published by the California Storm Water Quality Association.
- B. Coordinate work of this section with permit provisions of the State Water Resources Control Board Order No. 92-08-DWQ and the Storm Water Pollution Prevention Plan (SWPPP).
- C. Comply with County of Riverside Grading and Dust Control Ordinance.

2. PART 2 PRODUCTS

2.1 NOT USED.

3. PART 3 EXECUTION

3.1 EXAMINATION

- A. Correlate existing conditions with requirements indicated.
- B. Inventory and record condition of items to be removed and salvaged.
- C. Execute pre-demolition photographs.

3.2 PREPARATION

- A. Verify that existing plant life and features designated to remain are tagged or identified.

3.3 EROSION AND SEDIMENTATION CONTROL

- A. Provide erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to requirements of Storm Water Pollution Prevention Plan.
- B. Inspect, repair, and maintain erosion and sedimentation control measures during clearing operations.

3.4 PROTECTION

- A. Protect utilities that remain, from damage.
- B. Protect trees, plant growth, and features designated to remain as final landscaping.
- C. Protect bench marks, survey control points, and existing site improvements that are designated to remain in place from damage or displacement.

3.5 CLEARING

- A. Clear areas required for access to site and execution of Work.
- B. Remove trees and shrubs indicated. Remove stumps, main root ball, and root system.
- C. Clear undergrowth and deadwood without disturbing subsoil.
- D. Remove debris, rock, and extracted plant life.
- E. Remove paving, curbs, and other items as indicated. Neatly saw cut edges at right angle to surface.

3.6 DISPOSAL OF DEMOLISHED MATERIALS

- A. Except for items indicated to remain, remove demolished materials from Project site and legally dispose of them in a recycling facility. All other materials that can not be recycled shall be legally disposed of in an EPA – approved landfill.
- B. Do not burn or bury materials on site.

3.7 CLEANING

- A. Clean adjacent structures and improvements of dust, dirt and debris caused by clearing.
- B. Return adjacent areas to condition existing before clearing operations began.
- C. Leave site in a clean condition.

END OF SECTION

## SECTION 02300

### EARTHWORK

#### 1. PART 1 GENERAL

##### 1.1 SECTION INCLUDES

- A. Top soil excavation.
- B. Site rough grading.
- C. Building excavation, backfill and compaction.
- D. Excavation for pavements and site structures.
- E. Consolidation and compaction.
- F. Fill for overexcavation.
- G. Utility trenches, backfill and compaction.
- H. Subgrade preparation of pavement areas.
- I. Finish grading.
- J. Erosion and sedimentation control measures.

##### 1.2 REFERENCES

- A. CBC – California Building Code, Title 24, Part 2, Chapter 18 and Chapter 33.
- B. Riverside County Code.
- C. County of Riverside Dust Control and Grading Ordinance.
- D. Storm Water Quality Association - Stormwater Best Management Practice Handbook (BMP Handbook) Construction Edition.
- E. State Water Resources Control Board Order No. 92-08-DWQ.
- F. ASTM C136 - Method for Sieve Analysis of Fine and Coarse Aggregates.
- G. ASTM D448 - Sizes of Aggregate for Roadway and Bridge Construction.
- H. ASTM D1556 - Test Method for Density of Soil in Place by the Sand-Cone Method.
- I. ASTM D1557 - Test Methods for Moisture-Density Relations of Soils and Soil-Aggregate Mixtures Using 10 lb. Rammer and 18 inch Drop.
- J. ASTM D2922 – Test Methods for Density of Soil and Soil-Aggregate in Place by Nuclear Methods. (Shallow Depth).
- K. ASTM D2937 – Test Method for Density of Soil in Place by the Drive-Cylinder Method.
- L. ASTM D3017 – Standard Test Method for Water Content of Soil and Rock in Place by Nuclear Methods (Shallow Depth).

1.3 SUBMITTALS

- A. Submit samples under provisions of the General Conditions.
- B. Submit 10 lb. sample of each type of fill to testing laboratory in air-tight containers.
- C. Submit name of imported materials source. Provide materials from same source throughout the work. Change of source requires Architect's approval.
- D. Submit test reports under provisions of the General Conditions.

1.4 PROJECT RECORD DOCUMENTS

- A. Submit documents under provisions of the General Conditions.
- B. Accurately record location of utilities remaining, rerouted utilities, new utilities by horizontal dimensions, elevations or inverts, and slope gradients.

1.5 QUALITY ASSURANCE

- A. Comply with California Building Code (CBC), Title 24, Part 2, Chapter 18 and Chapter 33.
- B. Comply with the Riverside County Code.
- C. Comply with County of Riverside Dust Control and Grading Ordinance.
- D. Perform best management practice dust control techniques for given site conditions as defined in the Storm Water Best Management Practice Handbook, ( BMP Handbook ) Construction Edition.
- E. Coordinate work of this section with Permit provisions of the State Water Resources Control Board Order No. 92-08-DWQ and the Storm Water Pollution Prevention Plan (SWPPP).

1.6 FIELD CONDITIONS

- A. Verify that survey benchmark and intended elevations for the work areas are as indicated.
- B. Notify Architect of unexpected subsurface conditions and discontinue work in area affected until notified to resume work.
- C. Perform site assessment to identify any contaminated soils which may occur on site.

1.7 PROTECTION

- A. Protect trees, shrubs, lawns, and other features remaining as portion of final landscaping.
- B. Protect bench marks, survey control points, fences, roads, sidewalks, paving, curbs, and other features as indicated.
- C. Underpin adjacent structures and site walls, including utilities and pipe chases, which may be damaged by excavation work.
- D. Protect above or below grade utilities which are to remain.
- E. Barricade open excavations and post warning lights. Operate lights from dusk to dawn.
- F. Protect facilities from damage caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.
- G. Repair or replace all damage.

## 2. PART 2 PRODUCTS

### 2.1 SOIL MATERIALS

- A. Existing Subsoil: Excavated and re-used material, graded free of lumps and rocks larger than 3 inches in any dimension.
- B. Imported Subsoil: Plasticity Index less than 15 and sulfates less than 2,000 ppm or non-expansive soil meeting the USCS classifications of SM, SC or ML with 5% to 45% passing the No. 200 sieve, and it shall be free of lumps and rocks larger than 3 inches in any dimension, organic content, deleterious material, and debris. The geotechnical engineer shall approve imported fill soil sources before hauling material to the site.
- C. Existing Topsoil: Excavated and re-used material, graded free of roots, rocks larger than one inch, subsoil, debris and large weeds.
- D. Imported Topsoil: Friable loam, free of subsoil, roots, grass, excessive amounts of weeds, stones and foreign matter; acidity range (ph) of 5.5 to 7.5; containing an amount of organic matter normal to the region.
- E. Sand: Natural river or bank sand: Free of silt, clay, loam, friable or soluble materials or organic matter, graded in accordance with ASTM C136, all passing the No. 4 sieve and only 5 percent passing the No. 200 sieve.
- F. Gravel: Coarse aggregate; free of clay, shale and organic matter; ASTM D448, grading size 6 with 100 percent passing a 1 inch sieve and not more than 5 percent passing a No. 4 sieve.
- G. Pea Gravel: Natural Stone; washed, free of clay, slate, organic matter, graded in accordance with ASTM C136, 1/4 inch to 5/8 inch.
- H. Drainage Fill: Washed, evenly graded mixture of crushed stone, or crushed or uncrushed gravel, graded in accordance with ASTM C136, with 100 percent passing a 1-1/2 inch sieve and not more than 5 percent passing a No. 4 sieve.
- I. Concrete: Structural concrete conforming to Section 03300 with a compressive strength of 2,000 psi for fill to correct over-excavation.
- J. Materials (existing and import) shall be free of any toxic materials listed (by the federal or state EPA or federal or state health agencies) as hazardous material.
- K. Materials (existing and import) are subject to the approval of the Soils Engineer for use in the project.
- L. Provide imported materials when sufficient satisfactory soil materials are not available from on site sources.

### 2.2 ACCESSORIES

- A. Geotextile Fabric: Non-woven filter fabric, 60 mil thick, weighing 4.5 oz/sq yd; 14ON fabric manufactured by Mirafi Inc., [www.tcmirafi.com](http://www.tcmirafi.com).
- B. Substitutions: Under provisions of the General Conditions.

### 2.3 EQUIPMENT

- A. Equipment: Capable of excavating subsoil, mixing and placing materials, wetting, consolidation, grading, and compaction of material.

### 3. PART 3 EXECUTION

#### 3.1 INSPECTION

- A. Verify agreement of existing site conditions with indicated conditions.
- B. Notify Architect of discrepancies found.
- C. Beginning work of this Section constitutes acceptance of existing conditions.

#### 3.2 PREPARATION

- A. Identify required lines, levels, contours, and datum.
- B. Identify known below grade utilities. Stake and flag locations.
- C. Identify and flag above grade utilities.
- D. Maintain and protect existing utilities remaining which pass through work area.
- E. Notify utility company and pay all costs to remove and relocate utilities.
- F. Upon discovery of unknown utility or concealed conditions, discontinue affected work; notify Architect.

#### 3.3 EROSION AND SEDIMENTATION CONTROL

- A. Provide erosion and sedimentation control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways according to requirements of the Storm Water Pollution Prevention Plan and/or the erosion control plan.
- B. Inspect, repair, and maintain erosion and sedimentation control measures during earthwork operations.

#### 3.4 TOPSOIL EXCAVATION

- A. Excavate topsoil from areas to be further excavated, relandscaped, or regraded.
- B. Stockpile in area designated on site.
- C. Stockpile topsoil to depth not exceeding 8 feet. Place, grade, and shape stockpile for proper drainage.

#### 3.5 GRADING

- A. Uniformly grade areas within limits of grading including adjacent transition areas.
- B. Make such cuts or fills as may be required to bring subgrade to elevations shown and to tolerances specified.
- C. Plow or otherwise break up sloped surfaces steeper than 1 vertical to 5 horizontal so that fill material will bond to existing surface.
- D. Where grades are not indicated, grade uniformly level or slope between points for which elevations are given.
- E. In absence of more specific grading information, slope ground away from building for a distance of 20 feet at 2 percent.
- F. Make grade changes gradual. Blend slope into level areas.
- G. Compact each layer of fill to required density.

### 3.6 EXCAVATION FOR STRUCTURES

- A. Excavate subsoil required to accommodate building foundation, site structures such as site freestanding and retaining walls, and construction operations.
- B. Conform to elevations and dimensions shown within a tolerance of plus or minus 0.10 foot.
- C. Extend a sufficient distance from footings and foundations to permit placing and removal of formwork, installation of services, other construction, and for inspection.
- D. Overexcavate a minimum depth of 2 feet beneath all footings, or 3 ½ feet below existing grade, or to a depth determined during grading operations by the geotechnical consultant, whichever is lower.
- E. Extend overexcavation a minimum distance of 5 feet horizontally beyond exterior face of footings, or to a distance determined during grading operations by the geotechnical consultant, whichever is greater.
- F. Hand trim excavation. Remove loose matter.
- G. Remove lumped subsoil, boulders and rock over 3 inches in size. Replace with approved fill material and compact as specified.
- H. Do not disturb bottom of excavations intended for bearing surface.
- I. Scarify bottom of excavation to a depth of 8 inches, moisture-condition to at least  $\pm 2$  percent over optimum moisture content and compact as specified.
- J. Due to the high groundwater level, it is possible that wet native soils will pump under equipment loads. Light track type compaction equipment should be planned for compacting soil at the bottom of overexcavation. If pumping soil is encountered at the bottom of excavation, an 8-inch thick crushed aggregate base compacted to a minimum of 90% relative compaction should be placed prior to fill placement. Aggregate base should be underlain by a geofabric or equivalent materials. The geotechnical engineer should approve these materials before delivering materials to the site.

### 3.7 EXCAVATION FOR PAVEMENTS, SITE FREESTANDING AND RETAINING WALLS

- A. Cut surface under pavements to comply with cross-sections, elevations, and grades as shown, to subgrade elevations required and to grade tolerances specified.
- B. Overexcavate a minimum depth of 1 ½ feet beneath and 1 ½ feet beyond all proposed wall footing subgrade, or to a depth below and distance beyond the wall footing determined during grading operations by the geotechnical consultant, whichever is lower and greater.
- C. Overexcavate a minimum depth of 0 feet beneath all proposed paving subgrade, or 0 feet below existing grade, or to a depth determined during grading operations by the geotechnical consultant, whichever is lower.
- D. Scarify subgrade beneath slabs-on-grade, wall footings, and rigid concrete pavement, to a depth of 8 inches, moisture-condition to at least 4 percent over optimum moisture content and compact as specified.
- E. Scarify subgrade beneath sidewalk flatwork to a depth of 8 inches, moisture-condition to at least 4 percent over optimum moisture content and compact as specified.

### 3.8 TRENCH EXCAVATION

- A. Excavate subsoil required to accommodate storm drain, sanitary sewer, water, gas, electric and telephone conduits, fire lines, and piping to municipal or private utilities.
- B. Excavate trenches to uniform width, sufficiently wide to provide ample working room and a minimum of 6 inch clearance on both sides of the pipe.



- C. Excavate trenches to depth indicated or required to establish indicated slope and invert elevations.
- D. For all pipe or conduit, carry excavation 4 inches below required elevation and backfill with sand bedding to support pipe or conduit.
- E. Hand trim excavation. Remove loose material.
- F. Excavation cut not to interfere with bearing splay of foundations.
- G. At each pipe joint dig bell hole to relieve pipe bell of loads and to ensure continuous bearing of pipe on bearing surface.
- H. Remove lumped subsoil, boulders and rock up to 3 inches in size. Replace with sand bedding material and compact as specified.
- I. Granular trench backfill used in building pad areas shall be plugged at each end of the building foundation to prevent landscape water migration into the trench below the building.
- J. Pipe envelope/bedding shall either be clean sand (Sand Equivalent SE>30) or crushed rock when encountering groundwater. A geotextile filter fabric (Mirafi 140N or equivalent) shall be used to encapsulate the crushed rock to reduce the potential for in-washing of fines into the gravel void space.

### 3.9 STORAGE OF EXCAVATED MATERIALS

- A. Stockpile excavated materials in designated on-site area.
- B. Segregate excavated materials based upon intended use.
- C. Place, grade, and shape stockpile for proper drainage.
- D. Locate stockpile away from edge of excavations.
- E. Do not stockpile materials within drip line of trees.

### 3.10 UNAUTHORIZED EXCAVATION

- A. Correct unauthorized excavation at no cost to Owner.
- B. Backfill excavation to correct elevation with concrete or approved fill material compacted as specified.

### 3.11 STABILITY OF EXCAVATIONS

- A. Comply with local codes, ordinances, and requirements of agencies having jurisdiction.
- B. Machine slope banks to angle of repose or less.
- C. Maintain sides and slopes of excavations in safe condition until completion of backfilling.
- D. Shore and brace where sloping is not possible because of space restrictions or stability of material excavated.
- E. Provide shoring and bracing in good serviceable condition.
- F. Extend shoring and bracing as excavation progresses.
- G. Maintain shoring and bracing in excavations regardless of time period excavation will be open.
- H. Provide permanent steel sheet piling wherever subsequent removal of piling would permit lateral movement of soil under adjacent structures. Cut off top of piling 2'-6" below finish grade and leave permanently in place.

### 3.12 DEWATERING

- A. Prevent surface water and subsurface or ground water from flowing into excavations and from flooding project site and surrounding area.
- B. Grade top perimeter of excavations to prevent surface water from draining into excavations.
- C. Do not allow water to accumulate in excavations.
- D. Remove water to prevent softening of foundation bottoms and soil changes detrimental to stability of subgrades.
- E. Provide and maintain pumps, well points, sumps, suction and discharge lines and other components necessary to convey water away from excavations.
- F. Establish and maintain temporary drainage ditches and other diversions to convey rain water and water removed from excavations to runoff areas.
- G. Do not use trench excavations as temporary ditches.

### 3.13 BEDDING OF TRENCHES

- A. Support pipe and conduit during placement and compaction of bedding fill.
- B. Place a minimum of 4 inches of sand bedding beneath all piping.
- C. Place a minimum of 12 inches of sand bedding above all piping.
- D. Compact sand bedding to density required.

### 3.14 BACKFILLING

- A. Backfill excavations as promptly as work permits, but not until the following has been completed:
  - 1. Acceptance of subgrade.
  - 2. Construction below grade, where applicable, for damproofing, waterproofing, perimeter insulation, and protection board.
  - 3. Inspection, testing, approval and record documentation of location of underground utilities.
  - 4. Removal of concrete formwork.
  - 5. Removal of shoring and bracing if not to be left in place.
  - 6. Backfill of voids in subgrade with satisfactory materials.
  - 7. Removal of trash and debris.
  - 8. Installation of bedding material.
  - 9. Permanent or temporary bracing of horizontally supported walls.
- B. Compact subgrade to density requirements for subsequent backfill.
- C. Backfill to contours and elevations required.
- D. Place geotextile fabric over drainage fill prior to placing backfill.
- E. Systematically backfill to allow maximum time for natural settlement. Do not backfill over porous, wet, frozen or spongy subgrade surfaces.
- F. Place and compact fill material in continuous layers not exceeding specified compacted depth for each layer.
- G. Employ a placement method that does not disturb or damage foundation perimeter drainage, foundation damproofing, foundation waterproofing, protective cover and utilities in trenches.

- H. Before placing successive layers, all ruts, and other hollows more than 6 inches in depth shall be regraded and compacted.
- I. Maintain at least  $\pm 2$  percent over optimum moisture content of backfill materials.
- J. Backfill against supported foundation walls.
- K. Backfill simultaneously on each side of unsupported foundation walls.
- L. Backfill trenches with concrete where excavation is less than 3 feet below bottom of footing. Place concrete to level of bottom of adjacent footing. Width of concrete backfill to match width of footing and be full width of trench. Maintain minimum 6 inch encasement on sides, top, and bottom.
- M. Place 4 inch thick concrete base slab then backfill trenches with concrete for piping or conduit where top of piping or conduit is less than 30 inches below finished elevation of paving or 18 inches below finished grade. Minimum 6 inches of encasement on sides and top.
- N. Remove and replace or scarify and air dry subgrade or fill material that is too wet to permit compaction to required density.

### 3.15 PLACING TOPSOIL

- A. Eliminate uneven areas and low spots. Remove debris, roots, branches, stones, in excess of one inch in size.
- B. Remove subsoil contaminated with petroleum products.
- C. Scarify subgrade to depth of 3 inches where topsoil is scheduled. Scarify in areas where equipment used for hauling and spreading topsoil has compacted subsoil.
- D. Place topsoil in areas where seeding, sodding, and planting is scheduled.
- E. Use topsoil in relatively dry state. Place during dry weather.
- F. Fine grade topsoil eliminating rough or low areas. Maintain levels, profiles, and contours of subgrade.
- G. Remove stones, roots, grass, weeds, debris, and foreign material while spreading.
- H. Manually spread topsoil around trees, plants, and building to prevent damage.
- I. Lightly compact placed topsoil.
- J. Place compacted topsoil thicknesses for the following various locations:
  1. Grass, Seeded: 6 inches.
  2. Grass, Sod: 4 inches.
  3. Shrub Beds: 18 inches.
  4. Flower Beds: 12 inches.
  5. Planter Boxes: To within 3 inches of box rim.

### 3.16 COMPACTION

- A. Control soil compaction during construction providing density specified for each area classification.
- B. Place and compact fill materials in continuous layers of not more than 8 inch thick loose compacted depth.
- C. Provide not less than the specified percentages of density of soil material compacted to be at

least  $\pm 2$  percent over optimum moisture content, for each layer of soil material in place.

- D. When existing ground surfaces have a density less than that specified for a particular area classification, scarify existing surface to a depth of 8 inches, moisture-condition to at least  $\pm 2$  percent over optimum moisture content and compact to required percentage of maximum density.
- E. Maintain at least  $\pm 2$  percent over optimum moisture content of fill materials to attain required compaction density.
- F. Moisture content shall be uniform throughout all layers. Add necessary moisture or aerate soil material at borrow source if it is not possible to obtain uniform moisture content at soil surface at time of placement.
- G. When moisture content and condition of each soil layer is satisfactory compact soils to specified density.
- H. Compaction of free draining material such as gravel shall be by treads of crawler type tractor, surface vibrator, smooth or pneumatic roller, hand or power tampers.
- I. Compaction of soils by use of water jetting or puddling is not an acceptable procedure.
- J. Correct improperly compacted areas or layers as directed by Architect if soil density tests indicate inadequate compaction.

### 3.17 DISPOSAL OF EXCESS AND WASTE MATERIAL

- A. Remove waste materials, including unacceptable excavated material, trash, and debris, and dispose of legally off site.
- B. Remove surplus backfill materials from site and dispose of legally off site.
- C. Remove surplus topsoil materials from site and dispose of legally off site.
- D. Leave material stockpile areas completely free of excess materials.

### 3.18 PROTECTION OF WORK

- A. Protect finished work under provisions of the General Conditions.
- B. Protect excavations by methods required to prevent cave-in or loose soil from falling into excavation.
- C. Protect bottom of excavations from freezing, water saturation, and disturbance.

### 3.19 FIELD QUALITY CONTROL

- A. Field inspection and testing will be performed under provisions of the General Conditions.
- B. Allow testing service to inspect, test, and approve each subgrade and fill layer before further backfill or construction work is performed
- C. Laboratory tests and analysis of fill material will be performed in accordance with ASTM D1557 and with the General Conditions.
- D. In place site tests and analysis of fill material will be performed in accordance with ASTM D1556, ASTM D2937 or ASTM D2922, and with the General Conditions.
- E. In place site moisture tests will be performed in accordance with ASTM D3017.

- F. If tests indicate Work does not meet specified requirements, remove Work, replace and retest at no cost to Owner.

### 3.20 GRADING TOLERANCES

- A. Lawn or Unpaved Areas: Finish areas to receive topsoil to within not more than 1/2 inch above or below required subgrade elevation.
- B. Walks: Shape surface of areas under walks to line, grade, and cross-section, with finish surface not more than 1/2 inch above or below required subgrade elevation.
- C. Pavements: Shape surface of areas under pavement to line, grade, and cross-section, with finish surface not more than 1/2 inch above or below required subgrade elevation.
- D. Building Slab: Grade smooth and even, free of voids, to required subgrade elevation. Final grade tolerance to be within 1/2 inch when tested with a 10 foot straightedge.

### 3.21 MAINTENANCE

- A. Protect newly graded areas. Keep free of trash and debris.
- B. Provide erosion control methods to prevent erosion.
- C. Repair and reestablish grades in settled, eroded, and rutted areas to specified tolerances and density.
- D. Where completed areas are disturbed by subsequent construction operations or adverse weather, scarify surface, reshape, and compact to required density prior to further construction.
- E. Where settling occurs, remove surface (pavement, lawn, or other finish), add backfill material, compact, and replace surface treatment. Restore appearance, quality, and condition of surface finish to match adjacent work and eliminate evidence of restoration.

### 3.22 PLACEMENT SCHEDULE

- A. Interior Slab-On-Grade:
  - 1. Subsoil fill, existing or import, to required subgrade, compacted to 90 percent.
  - 2. Cover with sand and/or aggregate base as indicated, to thickness indicated, compact to 90 percent.
- B. Exterior Side of Foundation Walls:
  - 1. Existing or imported subsoil fill, to subgrade elevation, compacted to 90 percent.
- C. Fill under Footings:
  - 1. Existing or imported subsoil fill, to subgrade elevation, compacted to 90 percent.
- D. Retaining Walls:
  - 1. Existing or imported subsoil fill, to subgrade elevation, compacted to 90 percent.
- E. Grass Areas:
  - 1. Subsoil fill, existing or import, to subgrade elevation, compact to between 83 and 87 percent.
  - 2. Cover with topsoil, existing or import, to finish grade elevation, compact to between 83 and 87 percent.

F. Planted Areas:

1. Subsoil fill, existing or import, to subgrade elevation, compact to between 83 and 87 percent.
2. Cover with topsoil, existing or import, to finished grade elevation, lightly tamped.

G. Concrete Paving:

1. Subsoil fill, existing or import, to subgrade elevation, compact to 90 percent.
2. Cover with aggregate base compacted to 95 percent specified under Section 02751.

H. Concrete Walks, Curbs, and Gutters:

1. Subsoil fill, existing or import, to subgrade elevation, compact to 90 percent.
2. Cover with aggregate base under the curb and gutter and concrete drainage swale only to subgrade required, compact to 95 percent, specified under Section 02751.

I. Fill to Correct Overexcavation:

1. Lean concrete of minimum compressive strength as specified.
2. Approved fill, to required elevation, compact to 90 percent.

J. Drainage Pipe:

1. Drainage fill, to 12 inches below finished grade, compact to 90 percent.
2. Wrap drainage fill with geotextile fabric.
3. Remaining fill of subsoil fill, existing or import, to subgrade elevation, compact to 90 percent.

K. Utility Trenches on Interior of Building:

1. Sand bedding to 12 inches above pipe, compact to 90 percent.
2. Existing or imported subsoil backfill, compact to 90 percent.

L. Utility Trenches on Exterior of Building:

1. Sand bedding to 12 inches above pipe, compact to 90 percent.
2. Existing or imported subsoil backfill, compact to 90 percent.

M. Underground Tanks:

1. Sand or peagravel fill to centerline of tank radius, compact to 90 percent.
2. Remaining fill of subsoil, existing or import, to required subgrade, compact to 90 percent.

END OF SECTION

SECTION 02441

IRRIGATION SYSTEMS

PART 1 - GENERAL

1.01 Related Documents:

The work of this Section shall conform to the "GREENBOOK Standard Specifications for Public Works Construction," latest edition, Section 212, except as modified herein.

1.02 Scope of Work:

Work of this Section includes the furnishing, adjusting, installing and testing of mains, laterals, risers and fittings, quick couplers, gate valves, excavation and backfill, and all other work in accordance with the plans and specifications for a complete operating system. All work shall be in accordance with applicable City and County codes, and these plans/specifications.

1.03 Related Work Described Elsewhere:

A. Planting: Section 02800

1.04 Standards:

Materials and workmanship shall conform to the requirements of all applicable regulations and codes, except that requirements specified herein shall govern where they are greater. Refer and comply with the provisions of the following codes, specifications and standards, except as otherwise shown or specified:

A. National Electrical Code.

B. Electrical Safety Orders of the State of California, Division of Industrial Safety.

1.05 Quality Assurance:

A. The Contractor shall maintain, continuously, a competent superintendent or foreman, who shall be present at all times during execution of this portion of the work and who shall be thoroughly familiar with the type of materials being installed and the materials manufacturer's recommended methods of installation, and who shall direct all work performed under this Section. The superintendent shall be authorized to represent the Contractor.

B. Prior to commencement of work, contractor shall verify drawing dimensions with actual field conditions, and exact location of irrigation water meter - point of connection provided by others. Verify existing pressure at point of connection; coordinate location and installation of new main line. Immediately report to the Landscape Architect and/or Owner all conditions, which prevent proper execution of this work.

C. All assemblies specified herein shall be installed in accordance with the respective details. In the absence of detail Drawings or specifications pertaining to the specific items required to complete the work, the Contractor shall perform such work in accordance with the best standard practice and to the satisfaction of the Landscape Architect.

D. Irrigation Contractor is responsible for replacing or repairing any acts of theft or vandalism during construction and the maintenance period.

E. The Contractor shall obtain and pay for all permits and inspections required by outside agencies.

F. Due to the scale of Drawings, it is not possible to indicate all offsets, fittings, sleeves, etc., which may be required. Carefully investigate the structural and finished conditions affecting all of this work and plan this work accordingly, furnishing such fittings, etc., as may be required to meet such conditions. Drawings are generally diagrammatic and indicative of the work to be installed. The work shall be installed in such a manner as to avoid conflicts between irrigation systems, planting and architectural features.

G. Work noted as "NIC." (Not In Contract) is not part of this section.

- H. Permission to shut off any irrigation lines must be obtained from the Owner. Disruption of existing systems and services shall be kept to a minimum.

1.06 Submittals:

- A. Product Data: Within five (5) days after award of the Contract, and before any materials of this Section have been delivered to the job site, submit to the Landscape Architect:
- (1) A complete materials list of all items proposed to be furnished and installed under this Section.
  - (2) The manufacturer's recommended methods of installation which, when recommended for approval by the Landscape Architect, shall become the basis for review and accepting or rejecting actual installation methods used on the work when not otherwise specified or detailed.
- B. Materials and Samples: The Contractor shall, prior to the installation of any irrigation work, submit for recommended approval by the Landscape Architect, a list of materials and equipment he proposes to use. The material and equipment list shall include, but not be limited to, polyvinyl chloride pipe, control valves, irrigation heads, quick coupler valves, backflow preventers, and controllers.
- (1) Should the Contractor propose to use materials or equipment other than those listed on the plans, he shall submit samples of the make and type proposed. Samples shall be submitted a sufficient time in advance of the start of construction to allow a period of not less than seven (7) days for testing and recommended approval. Substitution of any product, material, or equipment without prior, written, recommended approval will not be permitted.
- C. Manufacturer's warranties: Shall not relieve the Contractor of his liability under the guarantee. Such warranties shall only supplement the guarantee.
- D. Project Record Drawings: Provide separate and complete Project Record Drawings prepared in accordance with the provisions of Sub-section 3.16, following

1.07 Product Handling:

- A. Protection: Use all means necessary to protect the materials of this Section before, during, and after installation and to protect the work and materials of all other trades.
- B. Delivery: Polyvinyl chloride pipe shall be delivered to the work site in unbroken bundles or rolls packaged in such a manner as to provide adequate protection for the pipe ends, threaded or plain.
- C. Replacements: In the event of damage, immediately make all repairs and replacements necessary to the recommended approval of the Landscape Architect and at no additional cost to the Owner.

1.08 Equipment to be furnished:

- A. Supply as a part of this contract the following:
- (1) Two sets of wrenches for disassembling and adjusting of each type of head installed.
  - (2) Two keys for opening valve box covers.
  - (3) One operating key shall be furnished for each five (or less) gate valves installed.
  - (4) Two quick coupler keys with matching swivels with globe valves.
  - (5) Manufacturer cut sheet and operation manual for controllers.



- (6) Two individually bound "Operating and Maintenance Manuals" detailing operation and maintenance requirements for irrigation systems. Include descriptions of all installed materials and systems in sufficient detail to permit maintenance personnel to understand, operate and maintain the equipment.

Provide the following in each manual:

- a. Index sheet, stating Irrigation Contractor's name, address, telephone number and name of person to contact.
- b. Duration of guarantee period, including all manufacturer's guarantees or warranties.
- c. Equipment list providing the following for each item:

Manufacturer's name.  
Make and model number.  
Name and address of local manufacturer's representative  
Spare parts list in detail.  
Detailed operating and maintenance instructions for major equipment.

- B. The above-mentioned items shall be turned over to the Owner at the conclusion of the project, prior to final payment.
- C. In addition to the above-mentioned maintenance manuals, provide the Owner's maintenance personnel with instructions for major equipment and show evidence in writing to the Landscape Architect at the conclusion of the project that this service has been provided.

1.09 Irrigation Controller:

- A. The irrigation controller shall have a programmable watering calendar for up to 16 days and shall have water budgeting feature that changes all stations within a program from 0% to 255% (with 100% as normal).
- B. The irrigation controller shall have programmable delay between stations ranging from 1 second to 4 minutes and shall have a programmable "valve test" for system test purposes.
- C. Irrigation controller shall have a non-volatile memory that will hold program throughout power failure of any duration and shall have a real time battery backup to keep accurate time during power failures up to 30 days.
- D. Irrigation controller shall have automatic, semi-automatic, single station timed manual and true manual operation.
- E. Irrigation controller shall have a remote ready port and shall have a two stage primary and secondary surge protection standard.
- F. Irrigation controller shall be UL listed and shall have a maximum operating output to valves: 43 vac, 1.80 amps (all programs including master valve).
- G. Transformers within controller shall have an input: 120 vac 60 Hz, 1.0 amp and an output: 24 vac, 2.08 amp.
- H. Irrigation controller shall have quick disconnect cables to terminal strip board and two separate sensor hook-ups for shut down and cycle initiation.

1.10 Guarantee:

The irrigation system shall be guaranteed for a period of one (1) year following site acceptance, in accordance with Sub-section 3.20, following.

PART 2 - MATERIALS

2.01 General:

All materials shall conform with Section 212 of the "Standard Specifications,"

2.02 Flow Sensing:

- A. The flow sensor wire shall be a two conductor of ICEA class B, 16 AWG 7 strand, conforming to ASTM B-3 and B-8, aluminum shield with drain wire, and shall have a jacket of 0.50 sunlight and moisture resistant PVC as manufactured by Paige Electric, Inc. (product #P7162D).
- B. Flow sensor wire may be extended to a maximum distance of 2,000 feet from the location of the assembly to which it is connected. Wire shall be installed in a 1 1/4" PVC Schedule 40 pipe.
- C. All conductors shall be the same type and shall be of the sizes shown on the drawings as required for proper operation of the systems.

2.03 Conductors :

A. Communication Path

1. Two-Conductors

- a. The two conductor communication wire for the irrigation interconnect as required from the Cluster Control Unit(s) (CCU) to the satellite unit(s) shall be a double-jacketed, two conductor cable with conductors tin coated, soft annealed, solid copper with 3/32" thick PVC insulation. The two insulated conductors shall be laid in parallel and encased in polyethylene having minimum wall thickness of 0.45". The two conductors shall be color-coded with one conductor red and the other black. Wire shall be manufactured by Paige Electric, Inc. (product # 7072 - Maxi-cable).
- b. The flow sensor wire shall be a two conductor of ICEA class B, 16 AWG 7 strand, conforming to ASTM B-3 and B-8, aluminum shield with drain wire, and shall have a jacket of 0.50 sunlight and moisture resistant PVC as manufactured by Paige Electric, Inc. (product #P7162D).
- c. Flow sensor wire may be extended to a maximum distance of 2,000 feet from the location of the assembly to which it is connected. Wire shall be installed in a 1" PVC Schedule 40 pipe.
- d. All conductors shall be the same type and shall be of the sizes shown on the drawings as required for proper operation of the systems

2.04 Pipe:

Manufacture from virgin polyvinyl chloride compound in accord with ASTM 1785, 2241, 2672 or 3139.; hydrostatic design stress rating not less than 2,000 psi.

A. PVC in accordance with ASTM 1785, 2241, 2672, 3139 Type 1, Grade 1

- 1. Mainline shall be determined as follows:  
2" and smaller shall be Sch. 40, 1120/1220 Streamline solvent weld  
3 " to 4" shall be CL 315 solvent weld
- 2. All 3" and larger shall have thrust blocks. All ends, corners, etc. on mainline which is 3" and smaller which would receive thrust from the mainline shall have a thrust block.
- 3. Lateral Lines shall be 1120/1220 PVC Class 200 Streamline solvent weld.
- 4. All pipe shall be continuously marked with: Manufacturers name, nominal size, PVC type, pressure rating, SDR, NSF seal, and date of extrusion.

B. Seamless copper water tube, ACT B88, Type "K", drawn temper.

C. Brass screwed pipe shall be red brass conforming to Federal Specification #WW-P-351.

- D. Poly Swing Pipe; linear low density polyethylene, black in color, O.D. 0.69, I.D. 0.49, wall thickness 0.20, pressure rating 80 psi at 110 degrees F.
- E. All pressure supply lines under vehicular paving to be installed with a PVC Schedule 40 sleeve, the sleeve shall be a minimum of twice the irrigation line diameter and shall extend a minimum of twelve inches (12") beyond such pavement. All other Irrigation Lines Sleeve or Low Voltage Control Wire Sleeves shall be PVC Schedule 40 polyvinyl chloride.

2.05 Fittings:

- A. Mainline Schedule 80 PVC Solvent Weld ASTM D 2464.
- 2. Laterals Schedule 40 PVC ASTM D 2466, solvent weld, injected molded, IPS deep socket. NSF Seal of approval. Tee's and ell's are to be side gated.
- C. Reducer tees will be used in cases of pipe size reduction. Bushing will only be allow in cases of reduction where such a reducer tee is not manufactured.
- 4. Rigid PVC Nipples: ASTM D1785, Schedule 80, Type 1, molded threads.
- E. Schedule 40 PVC street ells.
- F. Brass: Red brass conforming to Federal Specification #WW-P-351. Schedule 40 threaded nipple stock, tees, ells, and unions.
- G. Copper - Wrought solder-joints.

2.06 Fitting Connection:

- 1. Solvent Cement: ASTM D2564 for PVC Pipe and fittings.
- B. Use heavy body cement for Sch 80 fittings. Follow ASTM procedures for all pipe welding and installation. Use Teflon Tape at all fittings.
- C. PVC Primer: Use in all cases as recommended by pipe and fittings manufacturer.
  - 1. IPS Weld -On P - 70 primer
  - 2. IPS Weld -On 2711 (gray) cement
- D. PVC to metal joints shall be made with PVC Schedule 80 threaded fittings into galvanize with female adapter to PVC pipe. The PVC fitting shall be hand tightened, plus one turn with strap wrench. Joint compound shall be IPS weld on Teflon pipe joint compound or equal.
- 5. Metal-to-Metal joints: graphite and oil lubricant or Teflon paste on male threads only.

2.07 Sleeves and Conduit: For use under paving and hardscape as sleeves for irrigation pipe and conduit for control wire shall be PVC;

- 1 ½" and Smaller shall be Sch. 40
- 2" and 2 ½" shall be Class 315
- 3" and Larger shall be Class 200.

- A. Only standard lengths of pipe shall be used. Couple and weld only when length required is longer than a standard manufactured length.
- 2. See details for specifications of installation.

2.08 Pipe manufactured more than two years before installation not permitted. All pipes shall have been protected for sun exposure during storage and installation.

Pipe which shows any sign that it has not been protected from exposure to sun at any time shall is not permitted.

- 2.09 Galvanized Pipe and Fittings:
- A. All galvanized steel pipe shall be Schedule 40, threaded, coupled and hot-dip galvanized, and shall comply with ASTM A120 and A53.
  - B. All fittings for galvanized steel pipe shall be 150 psi rated galvanized malleable iron, banded pattern.
  - C. Pipe sizes indicated on the Drawings are nominal inside diameter unless otherwise noted.
- 2.10 Copper Pipe and Fittings:
- A. Pipe: Type K, hard tempered.
  - B. Fittings: Wrought copper, solder joint type.
  - C. Joints shall be soldered with silver solder, 45% silver, 15% copper, 16% zinc, 24% cadmium, solidus at 1125 Degrees F. and liquidus at 1145 Degrees F.
- 2.12 Brass Pipe and Fittings:
- A. Brass pipe shall be 85% red brass, American National Standard Institute (ANSI), Schedule 40 screwed pipe.
  - B. Fitting shall be medium brass, screwed 125-pound class.
- 2.13 Shut-Off Valves (Gate Valves & Ball Valves):
- A. 2 inches and smaller.): ASTM B62 brass body, 150 lb. saturated steam rated; with screwed joints; non-rising stem; screwed bonnet, solid disc. Provide with cross type wheel. All butterfly valves shall have a Christy's Maxi Tag, stamped brass tag marked with "CLOSE VALVE SLOWLY" in English and Spanish mounted on bottom side of valve box lid.
- 2.14 Control Wire:
- A. All control wire shall be of the Underwriter's Laboratory type UF (underground feeder), single conductor, solid copper, plastic insulated, 600 volt rated, for direct burial applications; maximum conductor operating temperature, 60 degrees C. for both wet and dry locations. Wire composition is as follows:
    1. Conductor - The conductors shall be solid annealed uncoated copper meeting the applicable requirements of the latest revisions of ASTM B-3.
    2. Insulation - The insulation shall be colored plastic which meets the test requirements of I.P.C.E.A. (The Insulated Power Cable Engineer's Association) Pub. No. S-61-402, dated July 1961, Section 3.7 for 60 degrees C. polyvinyl chloride insulation. The insulation shall be flame retardant, resistant to fungus, resistant to corrosive fumes, suitable for wet locations and furnish some degree of inherent protections against mechanical abuse. Insulation thickness shall be 47 mils for AWG #14, #12 & #10, and 62 mils for AWG #8.
    3. Color Coding - The conductor insulation shall be color coded as follows:
      - a. All pilot (valve control) wires shall be uniquely colored for each controller on the site.
      - b. All common ground wire shall be white with a colored stripe to match the control wire color associated with that controller (i.e. if controller 'A' has red control wires, the common wire for controller 'A' shall be white with a red stripe).
    4. Wire Connections for direct burial shall be "one step" waterproof wire connectors.
    5. All wire for control for valves and pump start relays shall be insulated solid copper conductor of type approved for direct burial. Use color-coded wire for pilot wires, a different color for all valves of each controller, and install per valve manufacturer's specifications and wire chart. Common wire for each controller shall be white with stripe of same color as pilot wires. Spare wires shall be black. A color different from all pilot and extra wires shall be used for master valve and flow sensor wires.
  - B. Sizing of wire shall be in accordance to manufacturer's recommendations, in no case less than #14 in size.

- C. Connections on 24 volt wire shall be made by Scotchloc. Connector Seating Pack #3577 as manufactured by the 3M Company, Dri-Splice DS-400 as manufactured by Spears, or approved equal.
- D. Higher voltage line connections or 110 volt shall be made by clamp and waterproofed with 3M Company Scotchcast splicing kits or approved equal.

2.15 Wire Splices:

- A. Conductors shall be installed with no underground splices, unless absolutely necessary and unavoidable. Any and all underground splices that are required to be made, must be approved by the Architect, and shall be placed in a suitable type valve box for easy access.
- B. Wire splices on the two conductor cable communication wires shall be made with 3M DBY splice kit or approved equal.
- C. Wire splices on the multi-conductor cable communication wires shall be made with Preformed Super Serviseal with Polybee sealant (product #8006039).

2.16 Automatic Control Valves (Electric):

- A. All automatic control valves (electric) shall be globe or angle pattern, electrically controlled, hydraulically operated, single seat, normally closed.
- B. The valves shall be actuated by a normally closed solenoid valve operator using 24 volts, 60 cycle alternating current. The wires in the coil of the solenoid shall be embedded in an epoxy resin. The entire solenoid shall be enclosed in a watertight housing. Valves shall automatically close in event of electrical power failure.
- C. All automatic control valves shall have a flow control device for manually adjusting the amount of flow of water through the valve. The flow control device shall be adjusted so that the pressure at the nozzle of the sprinkler head farthest from the automatic control valve shall be that as specified in the irrigation legend per plan. The pressure at the sprinkler head shall be measured by means of a pilot pressure gauge while the sprinkler head is operating.
- D. Automatic control valves shall be as specified on the plans. Reference irrigation plan, detail and legend for size and appropriate model number.
- E. Tags: Christy's Standard Irrigation ID Tags.

2.17 Valve Boxes:

- A. Required for each remote control valve and stubbed ends of control wires. The valve box shall be durable plastic: Carson or an approved equal and identified with letters "RCV" stenciled two inches (2") high on the outside of the cover.
  - 1. Carson 1419 - 12 Series - Standard rectangular. Use 1419 T-cover with captive pentahead "L" Bolt.
- B. Quick coupling valve boxes shall be round durable plastic: Carson or an approved equal with purple lid cover. The cover shall be branded with the letters "QCV," two inches (2") high.
  - 1. Carson 910 Series - 10" round. Use 910 bolt down T-Cover.
- C. Gate valve and ball valve boxes shall be durable plastic: Carson or an approved equal with purple lid cover. The cover shall be identified with the letters "GV" or "BV", two inches (2") high stenciled on the outside of the cover.
  - 1. Carson 910 Series - 10" round. Use 910 bolt down T-Cover.

- 2.18 Automatic Controller :( SEE IRRIGATION CONTROLLER SECTION 1.09)
- A. Refer to Irrigation Plan
- 2.19 Irrigation Controller Enclosure:
- A. The enclosure cabinet shall be Lemur Enclosure Assembly.
- B. The enclosure shall be durable powder-coated urethane.
- C. The enclosure shall have louvers for ventilation and a splashguard to protect the controller
- D. The enclosure shall have 3-point padlock door bolts as provided by manufacturer.
- E. The enclosure shall have a 110 v. AC outlet, switched and conduit connected to the controller
- 2.20 Sprinkler Heads:
- A. As per drawings.
- 2.21 Swing Joints:
- A. Swing joints shall consist of schedule 40 PVC street ells and schedule 80 nipples of proper length per sprinkler head for rotor heads and marlex for street ells and swing pipe for spray heads
- 2.22 Pull Box:
- A. All pull boxes shall be Carson (concrete), or equal, for connection of conduit and route of communication and sensor cable. The pull box will have a cast iron lockable traffic lid.
- 2.23 Backflow Device: Refer to the Civil Engineers Utility Plans for size, location and model number.
- 2.24 Drip Irrigation: Refer to irrigation plan.

### PART 3 - EXECUTION

#### 3.01 General:

All work shall conform to Section 308 of the "GREEN BOOK Standard Specifications FOR Public Works Construction" and except as modified herein. No work of this Section other than sleeving under pavement shall commence prior to the completion and acceptance of all grading work specified in Section 02910, Landscape Grading.

- A. Prior to all work of this Section, carefully inspect existing site conditions and equipment. Verify available pressure at point of connection and location of water meter provided by the Water Department.
- B. Verify that irrigation system may be installed in strict accordance with all pertinent codes and regulations, the original design, the reference standards and the manufacturer's recommendations.
- C. In the event of discrepancy, immediately notify the Landscape Architect. Do not proceed with installation in areas of discrepancy until all such discrepancies have been fully resolved.
- D. Trenches and other excavations for irrigation pipe and appurtenances shall be excavated true to alignment and grade, and shall be of ample size for the proper performance of installation work, review, testing and backfill.
- E. Protect all existing utilities and repair any damage to existing utilities with matching new materials, at no increase in contract price.

- F. Generally, piping under concrete shall be installed by jacking, boring or hydraulic driving. Where any cutting or breaking of pavement, track sections and/or concrete work is necessary, it shall be removed and replaced by the Contractor. Permission to cut or break pavement, track sections and/or concrete shall be obtained from the Owner. No hydraulic driving will be permitted under asphalt concrete paving or track sections.
- G. Coordinate with planting operations, as twelve-inch (12") deep cross-ripping is required prior to irrigation systems installation. (Cross-ripping is part of the planting work).

3.02 Utility Services:

- A. Contractor shall provide for connections existing electrical services at locations indicated on the drawing.
- B. Contractor shall connect new mainline to water services at locations indicated on the irrigation plans drawings. The Contractor shall coordinate with District exact location of irrigation point of connection.
- C. Contractor shall verify power sources shall be as indicated on the drawings.
- D. The Contractor shall be responsible for making 110 volt electrical connections to the automatic controller and wire circuits from remote control valves to controllers. All electrical work shall be in accordance with all local and /or county ordinances. Wire sizes to be as per manufacturer's specifications.

3.03 Layout:

- A. All piping or equipment show diagrammatically on drawing outside of planting areas shall be installed inside planting areas whenever possible.
- B. Layout each sprinkler head and make any minor adjustments required due to differences between actual site conditions and the Drawings. Minor adjustments shall be maintained within the original design intent. Protect in place all existing trees and shrubs.
- C. Layout each system using staking method as approved by Owner's Representative. Maintain and protect approved staking layout.

3.04 Trenching and Backfill:

- A. Trenching:
  - (1) Minimum trench width shall be six inches (6").
  - (2) Minimum trench depth below bottom of pipe shall be two inches (2").
  - (3) Minimum cover shall be based on finished grades, unless otherwise noted on Drawings.
    - a. Lateral Line cover shall be no more than twelve inches (12") and not less than eight inches (8").
    - b. Main Line minimum cover shall be eighteen inches (18") for lines two and one-half inches (2-1/2") and less; twenty-four inches (24") for lines two and one-half inches (2-1/2") and larger.
    - c. Pipe and Wire Sleeves minimum cover shall be twenty-four inches (24").

B. Backfill:

- (1) All plastic pipe shall be bedded and encased with approved backfill material free of rocks and clods as indicated in the following table and/or shown on the plans.
- | Thickness Under Pipe Minimum | Thickness Above Pipe Minimum | Thickness at Side of Pipe Minimum |
|------------------------------|------------------------------|-----------------------------------|
| Two inches (2")              | Four inches (4")             | Two inches (2")                   |
- (2) Provide not less than four inches (4") clearance between each line and not less than six inches (6") clearance between lines of other trades, unless otherwise noted.
- (3) Do not install parallel lines directly over any other line.
- (4) The balance of backfill material shall be approved soil. Unsuitable material, including clods and rocks over three fourths inch (3/4") in size, shall be removed from the premises and disposed of legally at no cost to the Owner.
- (5) Backfill material shall be sufficiently compacted under and on each side of the pipe to provide support free of voids. Pipe joints shall remain exposed until the completion of pressure and leakage test, unless authorized by the Architect. The top six inches (6") of backfill shall be free of rocks over one inch (1"), subsoil, rubbish and debris.
- (6) The remainder of the backfill material shall contain no lumps or rocks larger than two and three fourths inches (2-3/4"), nor contain rubbish and debris.
- (7) Backfill shall be tamped or puddled to the dry density of adjacent soil. Backfill within areas of structurally compacted soils shall be returned to the original relative density as before trenching.

3.05 Installation of Pipe:

- A. Unless otherwise specified, the construction of lateral lines and main lines shall include excavation and backfill, the furnishing, installing and testing of pipe, tube and fittings, the furnishing and installing of anchors, thrust blocks and location wire, the improvements, line flushing and testing, and all other work in accordance with the plans and specifications.
- B. Polyvinyl chloride pipe shall be installed in such a manner so as to provide for expansion and contraction as recommended by the manufacturer.
- C. All polyvinyl chloride pipe shall lay free in the trench with no induced strain. Where there is evidence of induced pipe strain, the Contractor shall be required to make pipe cuts and install angle fittings as necessary to eliminate the strain.
- D. When a connection is plastic to metal, a female adapter shall be used. The metal nipple shall be hand-tightened, plus one turn with a strap wrench. Joint compound shall be IPS weld-on Teflon pipe joint compound or equal. (Plastic to galvanize coupling to galvanize nipple. Do not connect galvanize into plastic).
- E. The Contractor will be required to remove and replace any fitting, which induces a torque strain to the pipe.
- F. Polyvinyl chloride pipe shall be cut with a PVC pipe cutter, hand saw or hack saw with the assistance of a square and sawing vise or in a manner so as to ensure square ends. Burrs at cut ends shall be removed prior to installation so that a smooth unobstructed flow will be obtained.
- G. All plastic-to-plastic joints shall be solvent-weld joints. Only the solvent recommended by the pipe manufacturer shall be used.



H. The solvent-weld joints shall be made in the following manner:

1. Thoroughly clean the mating pipe and fitting with a clean dry cloth.
2. Try the parts for fit. The parts should "dry-mate" between one-third (1/3) and two-thirds (2/3) the depth of the socket. If adequate insertion is not obtained, or bottoming occurs, try another part until a satisfactory "dry-fit" is obtained.
3. Apply a uniform coat of solvent to the outside of the pipe with a non-synthetic bristle brush.
4. Apply a uniform coat of solvent-weld to the fitting socket.
5. Reapply a light coat of solvent-weld to the pipe and quickly insert it into the fitting.
6. Give the pipe or fitting a quarter turn to ensure even distribution of the solvents and make sure that the pipe is inserted to the full depth of the fitting socket.
7. Hold in position for at least fifteen (15) seconds.
8. Wipe off excess solvent that appears at the outer shoulder of the fitting.

NOTE: *For PVC Type I, 1120-1220, pipe mating surface shall first be cleaned with the application of Methyl Isobutyl Ketone (MIBK) solvent. This cleaning shall be accomplished by applying MIBK solvent to the full mating surface area and wiping off with a clean cloth, repeating the process, if necessary, until no trace of shine remains (neither streaks nor spots). The use of commercial PVC solvent-cement thinners as a substitute of MIBK is not allowed.*

- I. Pressure supply steel pipe and fittings: Assemble using red lead and boiled linseed oil paste or an approved equivalent. Brass and Galvanized threaded fittings shall be assembled with both Teflon tape and oil base compound to male threads only.
- J. Provide concrete thrust blocks at each change of direction and at all terminal points of all rubber gasket piping. Block in accord with pipe manufacturer's instructions.

3.06 Installation of Pipe under Existing Paving:

- A. Piping under existing pavements may be installed by jacking, boring or by hydraulic driving, except as otherwise specified or directed.
- B. All pipes under pavement surface to be installed a minimum of 24 inches below A.C. paving with a 6-inch bedding and a 6-inch cover of sand backfill.
- C. Secure Owner's permission prior to cutting or breaking existing pavements.
- D. Make completely clean cuts using power saws at approved locations only.
- E. Replace and restore all surfaces to original condition, including grade, landscaping and paving
  1. Restoration work shall match the original work in every respect, including type, strength, texture and finish.
  2. Consult with Owner for approved methods of patching and/or replacing any damaged paving sections as a result form boring, saw cutting or removal.

3.07 Installation of Pipe Under New Paved Areas:

- A. Coordinate installation of piping and wires under paved areas with other trades.
- B. All pipes under pavement surface to be installed a minimum of 24 inches below A.C. paving with a 6-inch bedding and a 6-inch cover of sand backfill.
- C. If the only piping installed is over 20 feet long, pressure testing is required for that section at the time of installation. Upon completion of piping installation, the entire system must be tested.
- D. If wire under paved areas cannot be continuous, all splices shall be enclosed in an approved pull box.

3.08 Installation of Control Wire:

- A. Unless otherwise specified, the installation of control wire shall include excavation and backfill, the furnishing, installing and testing of the wires, the removal and/or restoration of existing improvements and all other work in accordance with the plans and specifications.
- B. Unless otherwise specified all neutral (common ground) wire shall be AWG #12 and all pilot (valve control) wire shall be AWG #14.
- C. At least one spare wire shall be installed from the controller clock to the most distant valve. When wire runs go in different directions from the controller clock, a separate spare wire shall be installed from the controller clock to the most distant valve in each different wire run direction.
- D. Tape and bundle all control wires at ten feet (10') o.c. maximum; place wiring with eighteen inch (18") minimum cover. When wiring is placed in common trenches with piping, set wiring two inches (2") from any piping. Place control wire along side of pipe. Do not place over the pipe.
- F. All wire splicing shall take place in the valve boxes and/or pull boxes. All splices shall be made with a mechanical connector encased in a self-curing epoxy resin that provides a permanent watertight connection. No underground splices will be allowed.
- G. All direct burial control wires shall be identified as to their respective valve number and controller clock letter in all pull boxes and at all wire termination. Spare wires and "future valve" wires, if any, shall also be identified. Labels and tags shall be used for identification which are not affected by moisture or temperatures between minus 30 degrees F. and plus 200 degrees F. The labels and tags shall be resistant to abrasion, dirt, grease, and chemicals used in lawn fertilizers and conditioners. The labels and tags shall be firmly attached to the wire in every case. The Contractor shall submit samples of the labels or tags to be used, to the Architect for recommended approval, prior to the installation of the control wire. Examples of nomenclature of tags or labels are as follows:

Neutral (common ground) wire	= "Neutral" Clock "A"
Pilot (valve control) wire	= "A.V. #1." Clock "A"
Spare Wire	= "Spare" Clock "A"
- H. The final operating sequence of the remote control valves, within each individual controller clock, shall be as called out on drawings.
- I. Testing:
  - (1) All direct burial control wire installed shall be tested in the following manner.
    - a. Before any backfill material is placed over the control wires in the trench, the wires shall be tested with a meter for insulation resistance. Minimum insulation resistance to ground shall be fifty- (50) megohms. Any conductor not meeting this requirement shall be replaced.
    - b. After backfill encasement, the wires shall again be tested with a meter. The minimum acceptable insulation resistance to ground on this test shall be one (1) megohm. Any conductor not meeting this requirement shall be replaced.

3.09 Installation of Automatic Controllers:

- A. Unless otherwise specified, the installation of automatic controllers shall include the test of controllers and connection, and all other work as specified by the manufacture.

3.10 Installation of Valves:

- A. General: Unless otherwise specified, the installation of the valves shall include excavation and backfill, the furnishing, installing and testing of fittings and valves, the furnishing and installing of valve boxes and appurtenances, accessories, the removal and/or restoration of existing improvements and all other work in accordance with the plans and specifications.
  - (1) Fill area under valve box with a minimum of three (3) cubic feet of pea gravel before box is installed.
- B. Shut-off Valves: Shut-off valves installed underground shall be housed in a suitable valve box. The gate valve hand wheel shall be removed from the stem of all valves installed underground. The wheel shall be replaced with an operating nut.
- C. Quick Coupling Valves: Unless otherwise indicated, locate valves within twelve inches (12") of hardscape. Install in designated valve box.
- D. Automatic Control Valves: Automatic control valves shall be set upright and housed in designated valve box, with a hinged, lockable, top. The Contractor shall place Christy's Standard Valve Identification tags on each valve corresponding to its appropriate valve station number.

3.11 Swing Joints:

- A. Swing-joints will consist of three street elbows plus one Schedule 80 riser of proper length per sprinkler head.
- B. Marlex may be used with Teflon Tape at all turf / shrub body assemblies.

3.12 Thrust Blocks:

- A. Thrust blocks shall be concrete 2000 psi at 28 days. They shall be placed so that sides subject to thrust or load are against undisturbed earth, and valves and fittings are serviceable after concrete has set.

3.13 Installation of Drip System:

- A. Install drip system strict accordance to the details and manufacturer recommendations and specifications. Refer to Irrigation details shown on detail sheet.

3.14 Record Drawings:

- A. The Contractor shall provide and keep up to date, a complete record set of bond prints which shall be corrected daily and show every change from the original Drawings and Specifications and the exact locations, sizes and kinds of equipment. Prints for this purpose may be obtained from the Owner. This set of Drawings shall be kept on the site and shall be used only as a record set. Architect shall review drawings prior to any planting.
- B. In order to complete the record Drawings in a neat, legible manner, the contractor shall indicate the necessary changes on bond tracings procured from the Owner/Landscape Architect.
- C. The contractor shall dimension from two (2) permanent points of reference, building corners, sidewalks, etc., the location of the following items:
  - 1. Point of connection (referenced from known existing elements to remain).
  - 2. Connection to electrical power.
  - 3. The routing of the sprinkler main lines. (Dimension every one hundred feet [100'] maximum and at change in direction).
  - 4. Routing of control wiring by valve number and location of existing controller.
  - 5. Shut-off valves.
  - 6. Control valves.
  - 7. Quick coupling valves.
  - 8. Show where sleeves are installed under paving and concrete.
  - 9. Pull boxes / wire splice boxes.

10. Spare wire locations.
11. Any other pertinent underground item, if so deemed by the Landscape Architect.

D. On or before the date of the final inspection, deliver the completed Mylar record drawings to the Architect. Delivery of the record drawings will not relieve the Contractor of the responsibility of furnishing additional information that may have been omitted from the original record drawings.

3.15 Controller Charts:

- A. Do not prepare charts until record Drawings have been approved by the Owner's representative.
- B. Provide on controller chart for each automatic controller installed.
  - (1) Chart may be a reproduction of the record drawing if the scale permits fitting the controller door. If photo reduction prints are required, keep reduction to maximum size possible to retain full legibility.
  - (2) Chart shall be black-line print of the actual system, showing the area covered by that controller.
- C. Identify the area of coverage of each remote control valve, using a distinctly different pastel color, drawn over the entire area of coverage.
- D. Following approval of charts by Owner's representative, they shall be hermetically sealed between two layers of 20-mil thick plastic sheet.
- E. Charts must be completed and approved prior to final review of irrigation system.

3.16 Tests:

A. Pressure Tests:

- (1) All pressure lines shall be tested under hydrostatic pressure of 125 pounds per square inch, and all non-pressure lines shall be tested under the existing static pressure and both be proved watertight. Contractor shall provide all equipment for hydrostatic tests at no cost to the Owner.
- (2) Pressure shall be sustained in the lines for not less than two (2) hours. If leaks develop, the joints shall be replaced and the test repeated until the entire system is proved watertight.
- (3) Tests shall be observed and recommended for approval by the Landscape Architect/and or owners field superintendent prior to backfill.

B. Coverage Test:

- (1) When the irrigation system is completed, the Contractor, in the presence of the Landscape Architect, shall perform test coverage of water afforded the planting areas, complete and adequate. The Contractor shall furnish all materials and perform all work required to correct any inadequacies of coverage disclosed arising from his work.
- (2) Contractor shall inform the Owner's representative of any deviation from the plan required due to wind, planting, soil or site conditions that bear on proper coverage; and upon approval, perform changes to provide for proper coverage at no additional cost to Owner.

3.17 Reviews:

- A. Normal Progress Reviews: Normal progress reviews shall be requested from the Architect at least forty-eight (48) hours in advance of any anticipated review. The Landscape Architect on each of the steps listed below will make a review. The Contractor will not be permitted to initiate the succeeding steps of work until he has received written approval to proceed by the inspector.
- (1) Immediately prior to the commencement of the work of the Section.
  - (2) Pressure supply line installation, trenching and testing.
  - (3) System layout.
  - (4) After placement of all heads, valves and controllers for coverage test.
  - (5) Final review and receipt of "Record Drawings" and "Controller Charts."
  - (6) Final acceptance of project by Owner.
- B. In no event shall the Contractor cover up or otherwise remove from view any work under this contract without prior approval. The Contractor, at his expense, shall open any work covered prior to review to view.
- C. Unprepared Review Requests: In the event the Contractor requests review of work and said work is incomplete, the Contractor shall be responsible for review cost.
- D. Completion: The work will be accepted, in writing, when the whole shall have been completed satisfactorily to the Owner. In judging the work, no allowance for deviation from the original plans and specifications will be made unless already approved by the Owner, in writing, at the proper times.
- (1) Leave the entire installation in complete operating order, free from any and all defects in material, workmanship or finish, regardless of any discrepancies and/or omissions in plans or specifications.
  - (2) Remove from the site all debris and rubbish resulting from the work, and leave the installation in clean condition.

3.18 Guarantee:

- A. The installed irrigation system shall be guaranteed by the Contractor as to material and workmanship, including settling of backfilled areas below grade for a period of one (1) year following the date of final acceptance of the work.
- B. The Contractor, as part of the work under his contract, shall make all adjustments without extra cost to the Owner, including the complete restoration of all damaged planting, paving, or other improvements of any kind.
- C. Should any operational difficulties in connection with the sprinkler system develop within the specified guarantee period which in the opinion of the Owner may be due to inferior material and/or workmanship, said difficulties shall be immediately corrected by the Contractor to the satisfaction of the Owner at no additional cost to the Owner, including any and all other damage caused by such defects.
- D. The Owner reserves the right to make temporary repairs during the guarantee period as necessary to keep systems in operating condition without voiding the Contractor's guarantee, nor relieving the Contractor of his responsibilities.

3.19 Maintenance:

A. Maintenance of irrigation system prior to job completion, and during the Landscape Maintenance period, shall be the responsibility of the Contractor including, but not limited to, the following:

- (1) Cleaning of plugged irrigation heads.
- (2) Irrigation heads adjustments.
- (3) Volume of water being applied. (Coordinate with landscape maintenance).
- (4) Programming of the controller. (Coordinate with landscape maintenance).
- (5) Repairing leaking valves, etc.
- (6) Any other problem areas, which occur after installation, attributed to the irrigation system.
- (7) Repair or replace equipment due to acts of vandalism, theft or pest damage.
- (8) Lower all turf heads to final grades prior to final acceptance by Owner.

END OF SECTION

**ATTACHMENTS FILED**  
**WITH**  
**THE CLERK OF THE BOARD**