# Ventura County Community College District

PURCHASING DEPARTMENT

July 1, 2021

Dear Prospective Bidders,

Attached is the bid packet for **Bid 623 Moorpark College Repair Baseball Dugout**

**A mandatory Job-Walk will begin at 9:00 a.m. Wednesday, July 14, 2021**. Bidders are to meet at the Moorpark College, Maintenance & Operations Dept., 7075 Campus Rd., Moorpark, CA 93021
For directions call 805-378-1454.
Following the job-walk, all further questions are to be emailed to the Purchasing Specialist as listed below.

The **Deadline for Questions** is **3:00 p.m., Wednesday, July 21, 2021**.

The **Deadline for Proposal Submission** is **3:00 p.m., Wednesday, July 28, 2021**. Bid proposals should be enclosed in a sealed envelope, addressed and delivered to the Ventura County Community College District Purchasing Department, 761 E Daily Drive, Suite 200, Camarillo, CA, 93010, prior to this time. Each envelope shall bear the Title of the Project, the Project Number and the Name of the Bidder. No electronic proposals shall be accepted. Proposals that arrive after the time set will be returned to the Bidder unopened. It is the responsibility of the Bidder to verify that their proposal has been received by the VCCCD Purchasing Department prior to the opening date. Verification of receipt can be made through the listed Purchasing Specialist.

Prevailing Wage is required. In accordance with Section §1773 of the California Labor Code, the Contractor shall post a copy of the determination prevailing rates of wages at each job site. A copy of these determinations, entitled "PREVAILING WAGE SCALE" is available to any interested party through the internet at: www.dir.ca.gov. The Contractor and any Subcontractor(s) shall not pay less than the specified prevailing rates of wages to all workers employed by them in execution of the contract.

Each Bidder submitting a proposal to complete the work, labor, materials and/or services ("Work") subject to this procurement must be a Department of Industrial Relations registered contractor pursuant to Labor Code 1725.5("DIR Registered Contractor"). A Bidder who is not a DIR Registered Contractor when submitting a proposal for the work is deemed 'not qualified" and the proposal of such a Bidder will be rejected for non-responsiveness. Pursuant to Labor Code 1725.5; all Subcontractors identified in a Bidder's Subcontractor List shall be DIR Registered Contractors. If awarded the Contract for the Work, at all times during performance of the work, the Bidder and all Subcontractors, of any tier shall be DIR Registered Contractors.

Pursuant to Public Contract Code §3300, Bidder must possess a current **A or B** California Contractors License at the time that the Contract for the Work is awarded.

The award shall be subject to final agreement on terms, conditions, and scope of work between VCCCD and Bidder.

Thank you for your interest in this project. You may contact me with any questions about this project at the email address listed below or by calling 805-652-5560.

Sincerely, Jo Nell Miller
Purchasing Specialist / jonellmiller@vcccd.edu

761 East Daily Drive, Suite 200, Camarillo, California 93010
Voice: 805-652-5500 • Fax: 805-652-7700

# TABLE OF CONTENTS


| Section | Bidding and Contract Requirements |
|---|---|
| 00010 | Notice to Contractors Calling for Bids |
| 00100 | Instructions for Bidders |
| 00210 | Bid Proposal |
| 00215 | Subcontractor List |
| 00220 | Non-Collusion Affidavit |
| 00240 | Statement of Bidder's Qualifications |
| 00260 | Bid Security Bond |
| 00310 | Sample Agreement |
| 00400 | Labor and Material Bond |
| 00410 | Performance Bond |
| 00415 | Certificate of Workers' Compensation Insurance |
| 00417 | Drug-Free Workplace Certification |
| 00420 | Guarantee |
| 00700 | General Conditions |
| 00800 | Special Conditions |
| 01000 | Technical Specifications |

# VENTURA COUNTY COMMUNITY COLLEGE DISTRICT
# NOTICE TO CONTRACTOR CALLING FOR BID

NOTICE IS HEREBY GIVEN that the above-named California Community College District, acting by and through its Board of Trustees, hereinafter referred to as "the District", is calling for bids for **Bid 623, Moorpark College Repair Baseball Dugout**. Bids will be received at Ventura County Community College District, 761 E Daily Drive, Suite 200, Camarillo, CA 93010, Attn: Purchasing Department up to but no later than **3:00 p.m., Wednesday, 07/28/21**, at which time bids will be opened and publicly read. All bid proposals must be sealed and submitted on forms furnished by the District. Each bid proposal must be accompanied by: (a) the required Bid Security; not less than 10% of the maximum amount of Bid Proposal inclusive of add-on or alternates, (b) Subcontractors List, (c) Non-Collusion Affidavit, and (d) Statement of Bidder's Qualifications, all of which must be fully executed. Failure to comply shall render such proposal to be "Non Responsive" and rejected. Bid proposals must conform with and be responsive to the bid and contract documents. Copies may be obtained as PDF from the website at https://purchasing.vcccd.edu/

**A mandatory Job-Walk will begin at 9:00 a.m., Wednesday, 07/14/21**. Bidders are to meet at Moorpark College Maintenance & Operations Dept, 7075 Campus Road, Moorpark CA 93021.

Pursuant to Public Contract Code §3300, Bidder must possess a current **Class A or Class B** Contractors License at the time that the contract for the work is awarded.

Each Bidder submitting a proposal to complete the work, labor, materials and/or services ("Work") subject to this procurement must be a Department of Industrial Relations registered contractor pursuant to Labor Code §1725.5("DIR Registered Contractor"). A Bidder who is not a DIR Registered Contractor when submitting a proposal for the work is deemed 'not qualified" and the proposal of such a Bidder will be rejected for non-responsiveness. Pursuant to Labor Code §1725.5; all Subcontractors identified in a Bidder's Subcontractor List shall be DIR Registered Contractors. If awarded the Contract for the Work, at all times during performance of the work, the Bidder and all Subcontractors, of any tier shall be DIR Registered Contractors.

In accordance with Section §1770 of the CA Labor Code, the Contractor shall post a copy of the determination prevailing rates of wages at each job site. In accordance with the provisions of CA Public Contract Code §22300, substitution of eligible and equivalent securities for any monies to ensure performance under the contract will be permitted at the request and expense of the Contractor.

The Owner reserves the right to reject any or all bid proposals or to waive any irregularities or informalities in any bid proposal or in the bidding.

Jo Nell Miller, Purchasing Specialist  Publication Dates: 07/07/21 and 07/11/21

# INSTRUCTIONS FOR BIDDERS
Section 00100

## 1.01 Preparation and Submittal of Bid Proposal

**A. Bid Proposal Preparation.** All information required by the bid forms must be completely and accurately provided. Numbers shall be stated in both words and figures where so indicated in the bid forms; conflicts between a number stated in words and in figures are governed by the words, except where the figures represent an express, correctly calculated sum. Partially completed Bid Proposals may be deemed non-responsive. Bid Proposals submitted on other than the bid forms included herein shall be deemed non-responsive. Bid Proposals not conforming to these Instructions for Bidders and the Notice to Contractors Calling for Bids ("Call for Bids") may be deemed non-responsive and rejected. Each Bidder is solely responsible for all costs and expenses incurred by the Bidder in preparing and submitting a Bid Proposal to the District.

**B. Bid Proposal Submittal**. Bid Proposals shall be submitted at the place designated in the Call for Bids in sealed envelopes bearing on the outside the Bidder's name and address along with an identification of the Work for which the Bid Proposal is submitted. Bidders are solely responsible for timely submission of Bid Proposals to the District at the place designated in the Call for Bids.

**C. Date and Time of Bid Proposal Submittal.** A Bid Proposal is considered submitted only if the outer envelope containing the Bid Proposal is stamped by the District's date/time stamp machine at the place designated for submittal of the Bid Proposal. The date/time stamp is controlling and determinative as to the date and time of the Bidder's submittal of its Bid Proposal. Bid Proposals received after the date and time specified in the Call for Bids are non-responsive and will be returned to the Bidder unopened.

**D. Alternate Bid Item(s).** If the Bid Proposal forms do not specifically call for the submittal of alternate bid item(s) and a Bidder submits alternate bid item(s), the District may deem the Bid Proposal to be non-responsive and reject the same. In the event that alternate item(s) are specifically called for in the Bid Proposal forms, any Bid Proposal which does not include bid(s) for the alternate item(s) may result in the Bid Proposal being deemed by the District to be non-responsive and rejected. In the event that bids for alternate item(s) are specifically called for in the Bid Proposal forms, the Bidder is referenced to the provisions of the Contract Documents permitting the District, during performance of the Work of the Contract Documents, to add or delete such alternate item(s) with the cost or credit (inclusive of all direct and indirect costs, supervision, overhead and profit) for such alternate item(s) to be in the amount(s) set forth in the Bidder's Bid Proposal for such alternate item(s).

**1.02 Bid Security.** Bid Security shall be in the form of: (a) cash, (b) a certified or cashier's check made payable to the District or (c) a Bid Bond, in the form and content attached hereto, in favor of the District executed by the Bidder as a principal and an Admitted Surety Insurer under Code of Civil Procedure §§995.120 and 995.311 as surety (the "Bid Security") in an amount not less than the percentage of the maximum amount of the Bid Proposal. Any Bid Proposal submitted without the required Bid Security is non-responsive and will be rejected.

**1.03 Signatures.** All bid forms shall be executed by an individual duly authorized to execute the same on behalf of the Bidder.

**1.04 Modifications.** Changes to the Bid Proposal which are not specifically called for or permitted may result in the District's rejection of the Bid Proposal as being non-responsive. No oral or telephonic modification of any submitted Bid Proposal will be considered. A written modification may be considered only if actually received by the District ten (10) days prior to the scheduled closing time for receipt of Bid Proposals.

**1.05 Erasures; Inconsistent or Illegible Bid Proposals.** Bid Proposals must not contain any erasures, interlineations or other corrections unless the same are suitably authenticated by affixing in the margin immediately opposite such erasure, inter-lineation or correction the surname(s) of the person(s) signing the Bid Proposal. Any Bid Proposal not conforming to the foregoing may be deemed by the District to be non-responsive. If any Bid Proposal, or portions thereof, is determined by the District to be illegible, ambiguous or inconsistent, the District may reject such a Bid Proposal as being non-responsive.

**1.06 Examination of Site and Contract Documents.** Each Bidder shall, at its sole cost and expense, inspect the Site to become fully acquainted with the Contract Documents and conditions affecting the Work. The failure of a Bidder to receive or examine any of the Contract Documents or to inspect the Site shall not relieve such Bidder from any obligation with respect to the Bid Proposal, the Contract or the Work required under the Contract Documents. The District assumes no responsibility or liability to any Bidder for, nor shall the District be bound by, any understandings, representations or agreements of the District's agents, employees or officers concerning the Contract Documents or the Work made prior to execution of the Contract. The submission of a Bid Proposal shall be deemed prima facie evidence of the Bidder's full compliance with the requirements of this section.

**1.07 Withdrawal of Bid Proposal**. Any Bidder may withdraw its Bid Proposal without penalty by written request received by the District prior to the scheduled closing time for the receipt of Bid Proposals. Requests for withdrawal of bid proposals after scheduled closing time shall be in accordance with Public Contract Code §§5100 et seq.

**1.08 Documents Required Upon Award of Contract.** The Agreement which the successful Bidder, as Contractor, will be required to execute along with the other documents which will be required to be furnished are included in the Contract Documents and shall be carefully examined by the Bidder.

**1.09 Interpretation of Drawings, Specifications or Contract Documents.** Any Bidder in doubt as to the true meaning of any part of the Contract Documents or who finds discrepancies, errors or omissions therein; or who finds variances in any of the Contract Documents with applicable rules, regulations, ordinances and/or laws, may submit to the District a written request for an interpretation or correction thereof. It is the sole and exclusive responsibility of the Bidder to submit such request not less than seven (7) calendar days prior to the scheduled closing for the receipt of Bid Proposals. Interpretations or corrections of the Contract Documents will be by written addendum issued by the District, a copy of which will be sent to each Bidder who attends the mandatory pre-bid job walk. No person is authorized to render an oral interpretation or correction of any portion of the Contract Documents to any Bidder, and no Bidder is authorized to rely on any such oral interpretation or correction. Failure to request interpretation or clarification of any portion of the Contract Documents pursuant to the foregoing is a waiver of any discrepancy, defect or conflict therein.

**1.10 Request for Substitutions Prior to Bid Opening.** Any Bidder may submit Request(s) for Substitution together with all substantiating data, no later than seven (7) calendar days prior to the scheduled closing time for receipt of the Bid Proposals, in accordance with Public Contract Code §3400. The District shall use its best efforts to consider and act upon such Request for Substitution in a timely fashion. Actions taken, if any, concerning the Request for Substitution will be by written addendum issued by the District, a copy of which will be sent to each Bidder who attends the mandatory pre-bid job walk. In the absence of written addendum, the Request for Substitution shall be deemed denied for purposes of the District's evaluation of the Bid Proposals and award of the Contract.

**1.11 District's Right to Modify Contract Documents.** Before the scheduled closing time for receipt of Bid Proposals, the District may modify the Work, the Contract Documents, or any portion(s) thereof by the issuance of written addenda disseminated to all Bidders who have attended the mandatory pre-bid job walk. If the District issues any addenda, the failure of any Bidder to acknowledge such addenda in its Bid Proposal may render the Bid Proposal non-responsive.

**1.12 Bidders Interested in More Than One Bid Proposal.** No person, firm, corporation or other entity shall submit or be interested in more than one Bid Proposal for the same Work; provided, however, that a person, firm or corporation that has submitted a sub-proposal to a Bidder or who has quoted prices for materials to a Bidder is not thereby disqualified from submitting a sub-proposal, quoting prices to other Bidders or submitting a Bid Proposal for the proposed Work to the District.

**1.13 Award of Contract**

**A. Waiver of Irregularities or Informalities.** The District reserves the right to reject any and all Bid Proposals or to waive any irregularities or informalities in any Bid Proposal or in the bidding.

**B. Award to Lowest Responsive Responsible Bidder.** The award of the Contract, if any, will be to the responsible Bidder submitting the lowest responsive Bid Proposal on the basis of the Base Bid Proposal and accepted bid alternate items, if any.

**C. Selection of Alternate Bid Items; Basis of Award of Contract.** The selection of Bid Alternates for determination of the lowest Bid Proposal will be based upon the Base Bid Proposal alone or a combination of the Base Bid Proposal and one or more Bid Alternates as selected by the District in accordance with the method for additive or deductive items specified in the bid solicitation.

**D. Alternate Bid Items Not Included in Award of Contract.** During performance of the Work, it is the District's option to add or delete from the scope of the Work Alternate Bid Items that were not included in the award of Contract. District may elect to have work done at price(s) set forth in the Alternate Bid Items Proposal.

**E. Responsive Bid Proposal.** A responsive Bid Proposal shall mean a Bid Proposal which conforms, in all material respects, to the Bid and Contract Documents.

**F.** **Responsible Bidder.** A responsible Bidder is a Bidder who has the capability in all respects to perform fully the requirements of the Contract Documents and the moral and business integrity and reliability that will assure good faith performance. In determining responsibility, the following criteria will be considered: (i) the ability, capacity and skill of the Bidder to perform the Work of the Contract Documents; (ii) whether the Bidder can perform the Work promptly and within the time specified, without delay or interference; (iii) the character, integrity, reputation, judgment, experience and efficiency of the Bidder; (iv) the quality of performance of the Bidder on previous contracts, by way of example only, the following information will be considered: (a) the administrative, consultant or other cost overruns incurred by the District on previous contracts with the Bidder; (b) the Bidder's compliance record with contract general conditions on other projects; (c) the submittal by the Bidder of excessive and/or unsubstantiated extra cost proposals and claims on other projects; (d) the Bidder's record for completion of work within the contract time and the Bidder's compliance with the scheduling and coordination requirements on other projects; (e) the Bidder's demonstrated cooperation with the District and other contractors on previous contracts; (f) whether the work performed and materials furnished on previous contracts was in accordance with the Contract Documents; (v) the previous and existing compliance by the Bidder with laws and ordinances relating to contracts; (vi) the sufficiency of the financial resources and ability of the Bidder to perform the work of the Contract Documents; (vii) the quality, availability and adaptability of the goods or services to the particular use required; (viii) the ability of the Bidder to provide future maintenance and service for the warranty period of the Contract; (ix) whether the Bidder is in arrears on debt or contract or is a defaulter on any surety bond; (x) such other information as may be secured by the District having a bearing on the decision to award the Contract, to include without limitation the ability, experience and commitment of the Bidder to properly and reasonably plan, schedule, coordinate and execute the Work of the Contract Documents and whether the Bidder has ever been debarred from bidding or found ineligible for bidding on any other projects. The ability of a Bidder to provide the required bonds will not of itself demonstrate responsibility of the Bidder. Upon request of the District, Bidder must promptly submit satisfactory evidence of any of the items listed above. The District may reject a Bidder or subcontractor that has failed to complete past Contract work for the District. The District reserves the right to reject any or all bid proposals or to waive any irregularities or informalities in any bid proposal or in the bidding.

**G.** **Participation by Other Public Entities:** Other public entities in the State of California may procure items and /or services off this bid under the same terms and conditions stated in this bid.

## 1.14 Subcontractors

**A.** **Designation of Subcontractors; Subcontractors List.** Each Bidder shall submit a list of its proposed Subcontractors for the proposed Work as required by the Subletting and Subcontracting Fair Practices Act (California Public Contract Code §§4100 et seq.) on the form furnished (Section 00215). The District may request that one or more apparent low Bidders provide to the District within twenty four (24) hours of bid opening the license numbers and value of work for each listed subcontractor submitted by Bidder. Any Bidder's failure to comply with the District's request may deem such Bidder's bid non-responsive and subject to rejection by the District.

**B.** **Work of Subcontractors.** The organization or arrangements of the Specifications and Drawings shall not limit the extent of the Work of the Contract Documents. Accordingly, all Bidders are

encouraged to disseminate all of the Specifications, Drawings and other Contract Documents to all persons or entities submitting sub-bids to the Bidder. The omission of any portion or item of Work from the Bid Proposal or from the sub-bidders' sub-bids which is reasonably inferable from the Contract Documents is not a basis for adjustment of the Contract Price or the Contract Time.

**1.15 Workers' Compensation Insurance.** Pursuant to California Labor Code §3700, the successful Bidder shall secure Workers' Compensation Insurance for its employees engaged in the Work of the Contract. The successful bidder shall sign and deliver to the District the Workers Compensation Insurance certificate provided in Section 00415 prior to performing any of the Work under the Contract.

**1.16 Bid Security Return**. The Bid Security of three or more low Bidders, the number being solely at the discretion of the District, will be held by the District for ten (10) days after the period for which Bid Proposals must be held open (which is set forth in the Call for Bids) or until posting by the successful Bidder(s) of the bonds, certificates of insurance required and return of executed copies of the Agreement, whichever first occurs, at which time the Bid Security will be returned to them.

**1.17 Forfeiture of Bid Security.** If the Bidder awarded the Contract fails or refuses to execute the Agreement within seven (7) days from the date of receiving notification that it is the Bidder to whom the Contract has been awarded, the District may declare the Bidder's Bid Security forfeited as damages caused by the failure of the Bidder to enter into the Contract and may thereupon award the Contract for the Work to the responsible Bidder submitting the next lowest responsive Bid Proposal or may call for new bids, in District's sole and exclusive discretion.

**1.18 Contractor's License.** No Bid Proposal will be considered from a Bidder who, at the time Bid Proposals are opened, is not licensed to perform the Work of the Contract Documents, in accordance with the Contractors License Law, California Business & Professions Code §§7000 et seq. This requirement is not a mere formality and cannot be waived by the District or its Board of Trustees. The required California Contractor's License classification(s) for the Work is set forth in the Call for Bids. The Contractor will be required to maintain the license(s) through the duration of the Contract. Any questions concerning a Contractor may be referred to the Registrar, Contractors' State License Board, P.O. Box 2600, Sacramento, CA 95826.

**1.19 Anti-Discrimination.** It is the policy of the District that 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. All Bidders agree to comply with the District's anti-discrimination policy and all applicable Federal and California anti-discrimination laws including but not limited to the California Fair Employment & Housing Act beginning with California Government Code §§12940 et seq. and California Labor Code §1735. In addition, all Bidders agree to require like compliance by any Subcontractor employed by them on the Work of the Contract.

**1.20 Job-Walk**

**A. District Conduct of Job-Walk.** The District will conduct a Job Walk at the time and place designated in the Call for Bids. Regardless of whether the Job Walk is or is not designated as being mandatory, the District may, in its sole and exclusive discretion, elect to conduct one or more Job Walks in addition to that set forth in the Call for Bids, in which event the District shall notify all Bidders who have obtained the Contract Documents pursuant to the Call for Bids of any such additional Job Walk. If the District elects to conduct any Job Walk in addition to that set

forth in the Call for Bids, the District shall, in its notice of any such additional Job Walks, indicate whether Bidders' attendance at such additional Job-Walks is/are mandatory; in the event that any such additional Job-Walks is/are designated as being mandatory, the provisions of this section 1.21 shall be deemed to apply to such additional Job-Walks.

**B.** **Mandatory Job Walk.** If the Job Walk is designated in the Call for Bids as being mandatory, the failure of any Bidder to have its authorized representative present at the Job Walk will be grounds for the District to reject such bid and the Bid Proposal will be returned to the Bidder unopened. Where the Job Walk is mandatory, a Bidder may have more than one authorized representative and/or representatives of its Subcontractors present at the Job Walk; provided, however that attendance by representatives of the Bidder's Subcontractors without attendance by a representative of the Bidder shall not be sufficient to meet the Bidder's obligations hereunder and will be grounds for the District to declare the Bid Proposal of such Bidder to be non-responsive. Notwithstanding any other provisions of the Call for Bids or these Instructions for Bidders, in the event that the Job Walk is designated in the Call for Bids as being mandatory, the District will not consider the Bid Proposal of any Bidder who has obtained the Bid and Contract Documents, pursuant to Call for Bids, after the date and time set forth therein for such mandatory Job Walk; any Bid Proposal submitted by any such Bidder shall be deemed non-responsive, rejected and returned unopened to the Bidder submitting the same.

**C.** **Non-Mandatory Job Walk.** Unless designated in the Call for Bids as being mandatory, the Job Walk shall be deemed non-mandatory. The failure of any Bidder to have its authorized representative(s) present at such non-mandatory Job Walk shall not be a basis for deeming the Bid Proposal of such Bidder to be non-responsive. The foregoing notwithstanding, all Bidders are encouraged to attend the Job Walk. In the event that the Job Walk is not designated as being mandatory, Bid and Contract Documents may be obtained by a Bidder, on or after the time designated for the Job Walk; in such event, if such Bidder desires a Job Walk to be conducted, it shall be the sole and exclusive responsibility of such Bidder to request, in writing, that the District conduct an additional Job Walk. The District may, in its sole and exclusive discretion, elect to conduct or not conduct such requested Job Walk with consideration of factors such as the time remaining before the scheduled closing time for the receipt of Bid Proposals; the District may condition the conducting of such requested Job Walk upon reimbursement, by the Bidder requesting such Job Walk, of the actual or reasonable costs of the District's personnel and/or the District's agents or representatives in arranging for and conducting such Job Walk. The election of the District not to conduct a Job Walk requested by a Bidder obtaining the Contract Documents after the date and time designated in the Call for Bids for the Job Walk shall not operate to waive, limit or restrict any of the provisions of the Contract Documents, the Bidder's submittal of a Bid Proposal in conformity with the Contract Documents, or if awarded the Contract, performance of the Work and other obligations in strict conformity with the Contract Documents. If the District elects to conduct an additional Job Walk requested by a Bidder who has obtained the Contract Documents after the time designated in the Call for Bids for the Job Walk, the District shall notify all other Bidders who have theretofore obtained the Contract Documents of such requested Job Walk and the date, time and place where such requested Job Walk will be conducted and all such other Bidders may attend such requested additional Job Walk.

**1.21** **Drug Free Workplace Certificate.** In accordance with California Government Code §§8350 et seq., the Drug Free Workplace Act of 1990, the successful Bidder will be required to execute a Drug Free Workplace Certificate concurrently with execution of the Agreement. The successful Bidder will be required to implement and take the affirmative measures outlined in such provisions. Failure of the

successful Bidder to comply with the measures outlined in such provisions may result in penalties, including without limitation, the termination of the Agreement, the suspension of any payment of the Contract Price otherwise due under the Contract Documents and/or debarment of the successful Bidder.

**1.22 Compliance with Immigration Reform and Control Act of 1986.** The Bidder is solely and exclusively responsible for employment of individuals for the Work of the Contract in conformity with the Immigration Reform and Control Act of 1986, 8 USC §§1101 et seq. ("IRCA"); the successful Bidder shall also require that any person or entity employing labor in connection with any of the Work of the Contract shall so similarly comply with the IRCA.

**1.23 Notice of Intent to Award Contract.** Following the public opening and reading of Bid Proposals, the District will issue a Notice of Intent to Award the Contract, identifying the Bidder to whom the District intends to award the Contract and the date/time/place of the District's Board of Trustees meeting at which award of the Contract will be considered.

**1.24 Bid Protest.** Any Bidder submitting a Bid Proposal to the District may file a protest of the District's intent to award the Contract provided that each and all of the following are complied with:

**A.** The bid protest is in writing;

**B.** The bid protest is filed and received by the District's Purchasing Department not more than five (5) calendar days following the date of issuance of the District's Notice of Intent to Award the Contract; and

**C.** The written bid protest sets forth, in detail, all grounds for the bid protest, including without limitation all facts, supporting documentation, legal authorities and argument in support of the grounds for the bid protest; any matters not set forth in the written bid protest shall be deemed waived. All factual contentions must be supported by competent, admissible and creditable evidence.

Any bid protest not conforming to the foregoing shall be rejected by the District as invalid. Provided that a bid protest is filed in strict conformity with the foregoing, the District's Purchasing Department or designee, shall review and evaluate the basis of the bid protest. The District's Purchasing Department or designee shall provide the Bidder submitting the bid protest with a written statement concurring with or denying the bid protest. The District's Board of Trustees will render a final determination and disposition of a bid protest by taking action to adopt, modify or reject the disposition of a bid protest as reflected in the written statement of the District's Purchasing Department or designee. Action by the District's Board of Trustees relative to a bid protest shall be final and not subject to appeal or reconsideration by the District, any employee or officer of the District or the District's Board of Trustees. The issuance of a written statement by the Purchasing Department (or designee) and subsequent action by the District's Board of Trustees shall be express conditions precedent to the institution of any legal or equitable proceedings relative to the bidding process, the District's intent to award the Contract, the District's disposition of any bid protest or the District's decision to reject all Bid Proposals. In the event that any such legal or equitable proceedings are instituted and the District is named as a party thereto, the prevailing party(ies) shall recover from the other party(ies), as costs, all attorneys' fees and costs incurred in connection with any such proceeding, including any appeal arising therefrom.

**1.25 Public Records.** All documents included in Bid Proposals become the exclusive property of the District upon submittal to the District. All Bid Proposals and other documents submitted in response to the Call for Bids become a matter of public record, except for information contained in such Bid Proposals deemed to be Trade Secrets (as defined in California Civil Code §3426.1). A Bidder that indiscriminately marks all or most of its Bid Proposal as exempt from disclosure as a public record, whether by the notations of "Trade Secret," "Confidential," "Proprietary," or otherwise, may render the Bid Proposal non-responsive and rejected. The District is not liable or responsible for the disclosure of such records, including those exempt from disclosure if disclosure is deemed required by law, by an order of Court, or which occurs through inadvertence, mistake or negligence on the part of the District or its officers, employees or agents. At such time as Bid Proposals are deemed a matter of public record, pursuant to the above, any Bidder or other party shall be afforded access for inspection and/or copying of such Bid Proposals, by request made to the District in conformity with the California Access to Public Records Act, California Government Code §§6250, et. seq.

**1.26 Bidder and Subcontractors DIR Registered Contractor Status.**

**Bidder Status.** In addition to other requirements established herein relating to Bidder qualifications, in order to be deemed "qualified" to submit a proposal for the Work, the Bidder must be a DIR Registered Contractor when submitting a proposal. The proposal of a Bidder who is not a DIR Registered Contractor when the proposal is submitted will be rejected for non-responsiveness.
**Listed Subcontractor's Status.** **A**ll Subcontractors identified in a Bidder's Subcontractor List shall be DIR Registered Contractors at the time of submittal of the proposal for the Work. The foregoing notwithstanding, a proposal is not subject to rejection for non-responsiveness when the Subcontractors List accompanying the proposal lists any Subcontractor(s) who is/are not DIR Registered Contractors if the listed subcontractors who are not DIR Registered become DIR Registered prior to the opening of proposals or become DIR Registered within twenty-four (24) hours of the opening of the proposals pursuant to Labor Code 1771.1 (c)(1) or (2). If the Subcontractors List accompanying the proposal lists any Subcontractor(s) who is/are not DIR Registered do not become registered prior to the opening of proposals or become DIR Registered within twenty four (24) hours of the opening of proposals pursuant to Labor Code 1771.1©(1) or (2), such proposal is not subject to rejection for non-responsiveness, provided that if the Bidder submitting the Subcontractors List with non-DIR registered Subcontractors is awarded the Contract for the Work, the Bidder shall request consent of the District to substitute another Subcontractor for the non-DIR Registered Subcontractor pursuant to Labor Code 1771.1(c)(3), without adjustment of the Contract Price or the Contract Time.

Additionally, all contractors and subcontractors must furnish electronic certified payroll records directly to the Labor Commissioner (aka Division of Labor Standards Enforcement). The phase-in timetable for this requirement can be found on the following link at http://www.cir.ca.gov/Public-Works/SB854.html (also find all related SB854 related information).

**1.27 Prevailing Wage Rates, Employment of Apprentices and Labor Compliance Program.**

**A. Payment of Prevailing Wage Rates.** The Bidder and all potential Subcontractors shall utilize the relevant prevailing wage rate determinations in the PREVAILING WAGE SCALE established by the Director of the Department of Industrial Relations in effect on the first advertisement date of the Notice to Contractors Calling For Bids in preparing the Bid Proposal and all component price quotations. Pursuant to Labor Code §1773.2, copies of these determinations are maintained at the District's Measure Y offices located at 740 West Woodbury Road, Pasadena, CA 91103, and are available to any interested party upon request. Copies of

rate schedules are also available on the Internet at http://www.dir.ca.gov/DIR/S&R/statistics_research.html.

**B**. **Apprenticeship Committee Contract Award Information.** Pursuant to Labor Code §1777.5 and Title 8 California Code of Regulations §230, the Contractor and Subcontractors of any tier who are not already approved to train by an apprenticeship program sponsor shall, within ten (10) calendar days of signing the Contract or Subcontract, as applicable, but in any event prior to the first day in which the Contractor or Subcontractor has workers employed on the Project, submit the Public Works Contract Award Information form (DAS form 140 included in Section 00900 of the Contract Specifications) to the appropriate local apprenticeship committees whose geographic area of operation include the area of the Project and who can supply apprentices to the Project. Contractors and Subcontractors must also submit a copy of the forms to the District.

**C.** **Statement of Employer Fringe Benefit Payments.** Within five (5) calendar days of signing the Contract or Subcontract, as applicable, the Statement of Employer Payments (DSLE Form PW 26 included in Section 00900 of the Specifications) must be completed and submitted to the District by each Contractor and Subcontractor of any tier who pays benefits to a third party trust, plan or fund for health and welfare benefits, vacation funds or makes pension contributions. The form must contain, for each worker classification, the fund or trust name, address, administrator, and amount per hour contributed and frequency of contributions. Training fund contributions must also be reported on this form. See Article 4.21.9 of the Contract General Conditions.

**D**. **Notice to Subcontractors.** Bidders shall notify all potential Subcontractors submitting price quotations for portions of the Work of the requirements concerning payment of prevailing wage rates, payroll records, hours of work, employment of apprentices and the District's LCP requirements and enforcement procedures set forth in Article 4.21 of Section 00700 (General Conditions) and Section 00900 of the Contract Specifications.

*[End Of Section]*

# BID PROPOSAL
Section 00210

**TO:** **VENTURA COUNTY COMMUNITY COLLEGE DISTRICT**, a California Community College District, acting by and through its Board of Trustees ("District"), at 761 E. Daily Drive, Suite 200, Camarillo, CA 93010.

**FROM:** _____
*(Name of Bidder - as listed on license)*

_____
*(Address)*

_____
*(City, State, Zip Code)*

_____ _____
*(Telephone)* *(Fax)*

_____
*(E-Mail Address)*

_____
*(Name(s) of Bidder's Authorized Representative(s) and Title)*

## 1.01 Bid Proposal

### A. Bid Proposal Amount

Pursuant to and in compliance with the Notice to Contractors Calling for Bids, the Instructions for Bidders and the other documents relating thereto, the undersigned Bidder, having reviewed the Instructions for Bidders and all other Contract Documents and upon compliance with all requirements therein with reference to the submittal of this Bid Proposal, hereby proposes and agrees to perform the Contract including, without limitation, all of its component parts; to perform everything required to be performed; to provide and furnish any and all of the labor, materials, tools, equipment, applicable taxes, and services necessary to perform the work of the Contract in strict compliance with the Contract Documents and complete in a workmanlike manner all of the Work required for the Project described as:

**Bid 623 Moorpark College Repair Baseball Dugouts**

**Base Bid Amount:** **$** _____
*(Total bid amount in figures)*

_____ Dollars
*(Total bid amount in words)*

**B. Acknowledgment of Bid Addenda**

In submitting this Bid Proposal, the undersigned Bidder acknowledges receipt of all Bid Addenda issued by or on behalf of the District, as set forth below. The Bidder confirms that this Bid Proposal incorporates and is inclusive of, all items or other matters contained in Bid Addenda.

_____ **No Addenda Issued**
*(initial)*

_____ **Addenda Nos. _____ received, acknowledged and**
*(initial)* **incorporated into this Bid Proposal.**

**1.02 Rejection of Bid; Holding Open of Bid**

It is understood that the District reserves the right to reject this Bid Proposal and that this Bid Proposal shall remain open and not be withdrawn for the period of time specified in the Call for Bids, except as provided by law.

**1.03 Documents Comprising Bid Proposal**

The undersigned Bidder has submitted as its Bid Proposal the following: Bid Proposal (00210), List of Subcontractors (00215), Non-Collusion Affidavit (00220), Statement of Bidder's Qualifications (00240), Bid Security (Cash, Cashier's Check, Certified Check or Bid Bond (00260) and Verification of DIR Registration.

The Bidder acknowledges that if this Bid Proposal and the foregoing documents are not fully in compliance with applicable requirements set forth in the Call for Bids, the Instructions for Bidders and in each of the foregoing documents, the Bid Proposal may be rejected as non-responsive.

**1.04 Award of Contract**

It is understood and agreed that if written notice of the acceptance of this Bid Proposal and award of the Contract thereon is mailed or delivered by the District to the undersigned after the opening of Bid Proposals and within the time this Bid Proposal is required to remain open or at any time thereafter before this Bid Proposal is withdrawn, the undersigned will execute and deliver to the District the Agreement in the form attached hereto in accordance with the Bid Proposal as accepted within seven (7) calendar days after notification of acceptance and award. Concurrently with delivery of the executed Agreement to the District, the Bidder awarded the Contract shall deliver to the District: (1) the Labor and Material Payment Bond; (2) the Performance Bond; (3) the Drug-Free Workplace Certificate; (4) Certificates of Insurance evidencing all insurance coverages required to be provided under the Contract Documents; and (5) the Certificate of Workers' Compensation Insurance. The Work under the Contract Documents shall be commenced by the undersigned Bidder, if awarded the Contract, on the date stated in the District's Notice to Proceed issued pursuant to the Contract Documents.

Completion of the Work and all Interim Milestones shall be achieved within the Contract Time and Interim Milestones specified in the Contract Documents.

**1.05 Notices**

All notices or other correspondence shall be addressed to the District and the Bidder at their respective addresses set forth herein. Notices shall be effective only if in writing and in conformity with the requirements for service of notices set forth in the Contract Documents.

**1.06 Contractor's License**

The undersigned Bidder is currently and duly licensed in accordance with the California Contractors License Law, California Business & Professions Code §§7000 et seq., under the following:

License Number: _____

Class _____ Expiration Date _____ Class _____ Expiration Date _____

Class _____ Expiration Date _____ Class _____ Expiration Date _____

DIR Registration Number: _____ Expiration Date: _____

By executing this Bid Proposal, the Bidder hereby certifies that: (a) it is duly licensed, in the necessary class(es), for performing the Work of the Contract Documents; (b) that such license shall be in full force and effect throughout the duration of the performance of the Work under the Contract Documents; and (c) that all Subcontractors providing or performing any portion of the Work of the Contract Documents shall be so similarly and appropriately licensed to perform or provide such portion of the Work.

**1.07 Designation of Subcontractors**

In compliance with the Subletting and Subcontracting Fair Practices Act (California Public Contract Code §§4100, et seq.) and amendments thereof, each Bidder shall set forth in the Subcontractors List: (a) the name and location of the place of business of each Subcontractor who will perform work or labor or render services to the Bidder in or about the construction of the Work to be performed under the Contract Documents in an amount in excess of one-half of one percent (0.5%) of the Bidder's Bid Proposal; and (b) the trade and/or portion of the Work which will be performed by each listed Subcontractor. The Bidder shall list only one Subcontractor for each trade and/or portion of the Work as is defined by the Bidder in its Bid Proposal. If a Bidder fails to list a Subcontractor for a portion of the work in excess of one-half of one percent (0.5%) of the Bidder's Bid Proposal or if the Bidder specifies more than one Subcontractor for the same portion of Work to be performed under the Contract Documents valued in excess of one-half of one percent (0.5%) of the Bidder's Bid Proposal amount, the Bidder shall be deemed to have agreed that it is fully qualified to perform that portion of the Work itself and that it shall perform that portion of the Work.

**1.08 Confirmation of Figures**

By submitting this Bid Proposal, the Bidder confirms that it has checked all of the above figures and understands that neither the District nor any of its agents, employees or representatives shall be responsible for any errors or omissions on the part of the undersigned Bidder in preparing and submitting this Bid Proposal. All amounts will be entered on the proposal in the written amount and listed in figures. In the event there is a discrepancy between the bidder's written amounts and figures, the written amount will prevail.

**1.09 Acknowledgment and Confirmation**

The undersigned Bidder acknowledges its receipt, review and understanding of the Drawings, the Specifications and other Contract Documents pertaining to the proposed Work. The undersigned Bidder certifies that the Contract Documents are, in its opinion, adequate, feasible and complete for providing, performing and constructing the Work in a sound and suitable manner for the use specified and intended by the Contract Documents. The undersigned Bidder certifies that it has, or has available, all necessary equipment, personnel, materials, facilities and technical and financial ability to complete the Work for the amount bid herein within the Contract Time and in accordance with the Contract Documents. The undersigned Bidder certifies that its bid amount includes funds sufficient to allow the Bidder to comply with all applicable local, state and federal laws and regulations governing the labor and services to be provided for the performance of the Work of the Contract and shall indemnify, defend and hold District harmless from and against any and all claims, demands, losses, liabilities and damages arising out of or relating to Bidder's failure to comply with applicable law in this regard.

By: _____
(Signature & Date)

*(Corporate Seal)*

_____
(Typed or Printed Name of Bidder's Authorized Representative)

Title: _____

Date: _____

*[End Of Section]*

# LIST OF SUBCONTRACTORS

Section 00215

| 1. Licensed Name of Subcontractor | 2. Address of Office, Mill or Shop | 3. Trade or Portion of Work | 4. Subcontractor's License Number | 4. DIR Registration Number | 5. $ Value of Work |
|---|---|---|---|---|---|
| | | | Requested by District | Requested by District | Fill out ONLY if requested by District |
| | | | Requested by District | Requested by District | Fill out ONLY if requested by District |
| | | | Requested by District | Requested by District | Fill out ONLY if requested by District |
| | | | Requested by District | Requested by District | Fill out ONLY if requested by District |
| | | | Requested by District | Requested by District | Fill out ONLY if requested by District |
| | | | Requested by District | Requested by District | Fill out ONLY if requested by District |
| | | | Requested by District | Requested by District | Fill out ONLY if requested by District |
| | | | Requested by District | Requested by District | Fill out ONLY if requested by District |

**Name of Vendor:** _____ **Authorized Signature:** _____

[Duplicate and attach additional page(s) as required.]

# NON-COLLUSION AFFIDAVIT
Section 00220

STATE OF CALIFORNIA
COUNTY OF _____

I, _____being first duly sworn, depose and say that I am
*(Typed or Printed Name)*
the _____ of _____,
*(Title)* *(Bidder Name)*
the party submitting the foregoing Bid Proposal (the "Bidder"). In connection with the foregoing Bid Proposal, the undersigned declares, states and certifies that:

1.01 The Bid Proposal is not made in the interest of, or on behalf of, any undisclosed person, partnership, company, association, organization or corporation.

1.02 The Bid Proposal is genuine and not collusive or sham.

1.03 The Bidder has not directly or indirectly induced or solicited any other bidder to put in a false or sham bid, and has not directly or indirectly colluded, conspired, connived, or agreed with any other bidder or anyone else to put in sham bid, or to refrain from bidding.

1.04 The Bidder has not in any manner, directly or indirectly, sought by agreement, communication, or conference with anyone to fix the bid price, or that of any other bidder, or to fix any overhead, profit or cost element of the bid price or that of any other bidder, or to secure any advantage against the public body awarding the contract or of anyone interested in the proposed contract.

1.05 All statements contained in the Bid Proposal and related documents are true.

1.06 The Bidder has not, directly or indirectly, submitted the 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 person, corporation, partnership, company, association, organization, bid depository, or to any member or agent thereof to effectuate a collusive or sham bid.

Executed this _____ day of _____, 202__ at _____
*(City, County and State)*

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

_____ _____
*Signature* *Address*

_____ _____
*Name Printed or Typed* *City, County and State*

(_____) _____
*Area Code and Telephone Number*

# STATEMENT OF BIDDER'S QUALIFICATIONS
Section 00240

## 1.01 Bidder's Organization

**A**. Form of entity of Bidder, i.e, corporation, partnership, etc._____

1. If a corporation, state the following:_____
   State of Incorporation:_____
   Date of Incorporation:_____
   President/Chief Executive Officer:_____
   Secretary:_____
   Treasure/Chief Financial Officer:_____

2. If a partnership, state the following:
   Date of Organization:_____
   Type of Partnership (general, limited):_____
   Names of all general partners; if any of the general partners are not natural persons, provide the information for each such general partner requested by Paragraphs 1.01.A.1, 1.01.A.2 and 1.01.A.4 as appropriate: _____
   _____
   _____
   _____
   _____

3 If a proprietorship, state the following:
   Names of all proprietors:_____
   _____
   _____
   _____
   _____

4. If a joint venture, state the following: _____
   Date of organization: _____
   Names of all Joint Venture members. For each Joint Venture member, identify the form of entity and provide the information requested by Paragraphs 1.01.A.1, 1.01.A.2 and 1.01.1.C for each Joint Venture member as appropriate:_____
   _____
   _____
   _____
   _____

5. Bidder's form of entity is other than listed above, describe the type of entity or organization and identify all principals or owners of equity in the entity or organization_____
_____
_____
_____

**B.** Number of years your organization has been in business as a contractor: _____ Organization longevity must also be in compliance with item 1.03 C. Licensing, and have been in business with the advertised classification for a minimum of 5 years. Do you meet this qualification? ____ Yes ____ No

**C.** Number of years your organization has conducted business under its present name: _____

1. If your organization has conducted business under a name or name style different than your organization's present name, identify all prior name(s) or name style(s):_____
_____
_____
_____

2. For each name or name style identified in Paragraph 1.01.C.1, state the dates during which you conducted business under each name or style: ____
_____
_____
_____

## 1.02 Financial

A. Attach a current audited, reviewed or compiled Financial Statement for your organization prepared by a Certified Public Accountant licensed under the laws of the State of California utilizing generally accepted accounting practices applied in a consistent manner. The Financial Statement must include a current balance sheet and income statement showing: (i) current assets (i.e., cash, accounts receivable, accrued income, deposits, material inventory, etc.); (ii) net fixed assets; (iii) other assets; (iv) current liabilities (i.e., accounts payable, accrued salaries, accrued payroll taxes, etc.); and (v) other liabilities (i.e., capital, capital stock, earned surplus, retained earnings, etc.).

B. Is the attached Financial Statement for the identical organization as the Bidder? _____Yes _____ No.

If not, explain the relationship and financial responsibility of the organization whose Financial Statement is provided (i.e., parent/subsidiary, etc.).

## 1.03 Licensing

A. California Contractors License:

License Number: _____

Expiration Date: _____

Responsible Managing Employee/Officer: _____

License Classification(s): _____

B. Has a claim or other demand ever been made against your organization's California Contractors License Bond? _____Yes _____No

If yes, on a separate attachment, state the following: (i) the name, address and telephone number of each person or entity making claim or demand; (ii) the date of each claim or demand; (iii) the circumstances giving rise to each such claim or demand; and (iv) the disposition of each such claim or demand.

C. The District requires a minimum of 5 years of licensed work experience within the Contractor Classification advertised, with no gaps in license coverage or change of company name. State the number of years this company has performed work under the above and advertised classification: _____ years.

D. Has a complaint ever been filed against your organization's California Contractors License with the California Contractors State License Board?
_____Yes _____No

If yes, on a separate attachment, state the following for each complaint: (i) the name, address and telephone number of each person or entity making the complaint; (ii) the date of each complaint; (iii) the circumstances giving rise to each such complaint; and (iv) the disposition of each such complaint, including without limitation, any disciplinary or other action imposed or taken by the California Contractors State License Board as a result of any such complaint.

E. Attach to this Statement true and correct copies of the following:

1. Your organization's California Contractors License (the copy must clearly and legibly show: (i) the licensee name; (ii) the expiration date; (iii) the classification(s) of licensure).

2. The Contractors License Bond posted by your organization in connection with your California Contractors License pursuant to California Business & Professions Code §§7071.5 and 7071.6.

3. If your organization's California Contractors License is issued by virtue of the qualification of a responsible managing employee or responsible managing officer, the Qualifiers Bond if required pursuant to California Business & Professions Code §7071.9).

F. Attach to this statement a copy of the Contractors DIR Registration.

1. Each Bidder submitting a proposal to complete the work, labor, materials and/or services ("Work") subject to this procurement must be a Department of Industrial Relations registered contractor pursuant to Labor Code 1725.5("DIR Registered Contractor").

2. Pursuant to Labor Code 1725.5; all Subcontractors identified in a Bidder's Subcontractor List shall be DIR Registered Contractors.

3. If awarded the Contract for the Work, at all times during performance of the work, the Bidder and all Subcontractors, of any tier shall be DIR Registered Contractors.

**1.04 Experience**

**A.** List the categories of work your organization typically performs with your own forces:_____
_____
_____
_____

**B.** Claims and lawsuits (if you answer yes to any of the following, you must attach details).

1. Have any lawsuits or other administrative, legal, arbitration or other proceedings, ever been brought or commenced against your organization or any of its principals, officers or equity owners in connection with any construction contract or construction project? _____ Yes _____No

   If so, describe the circumstances, the amount demanded or other relief demand and the disposition of each such lawsuit or other proceeding.

2. Has your organization ever filed a lawsuit or commenced other administrative, legal or other proceedings in connection with any construction contract or construction project? _____ Yes _____No

   If so, describe the circumstances, the amount demanded or other relief demand and the disposition of each such lawsuit or other proceeding.

3. Are there any judgments, orders, decrees or arbitration awards pending, outstanding against your organization or any of the officers, directors, employees or principals of your organization? _____ Yes _____No

   If so, describe each such judgment, order, decree or arbitration award and the present status of the satisfaction or discharge thereof.

**C.** On a separate attachment, list all construction projects your organization has in progress and for each project listed, state: (i) a general description of the work performed by your organization on the project; (ii) the dollar value of the work performed or to be performed by your organization; (iii) the owner's name, name of the owner's representative and the address and telephone number of the owner and the owner's representative; (iv) the project architect's name, address, telephone number and contact person; (v) percent presently complete; and (vi) the current scheduled completion date.

**D.** On a separate attachment, list all construction projects completed by your organization in the past five (5) years and for each project identified, state: (i) a general description of the work performed by your organization on the project; (ii) the dollar value of the work performed or to be performed by your organization; (iii) the owner's name, name of the owner's representative and the address and telephone number of the owner and the owner's representative; (iv) the project architect's name, address, telephone number and contact person; (v) percent presently complete; and (vi) the current scheduled completion date.

**E.** Has your organization ever refused to sign a contract awarded to it?
_____Yes _____ No

If so, on a separate attachment, state the following: (i) describe each such contract; (ii) the owner's name, address, telephone number and contact person; and (iii) the circumstances of your refusal to sign such contract.

**F.** Has your organization ever failed to complete a construction contract?
_____Yes _____No

If so, on a separate attachment, state the following: (i) describe each such contract; (ii) the owner's name, address, telephone number and contact person; and (iii) the circumstances of your failure to complete such contract.

**G.** Has your organization ever been declared in default of a construction contract?
_____Yes _____No

If so, on a separate attachment, state the following: (i) describe each such contract; (ii) the owner's name, address, telephone number and contact person; and (iii) the circumstances of each such declaration of default.

**H.** Has any construction contract to which your organization is a party been terminated for the convenience of the project owner? _____Yes _____No

If so, identify the project and project owner along with a description of the circumstances under which the convenience termination occurred.

**I.** Has a claim or other demand ever been asserted against any Bid Bond, Performance Bond, or Payment Bond posted by your organization in connection with any construction contract or your submittal of a bid proposal for a

construction contract? _____Yes _____No

If so, on a separate attachment, state the following: (i) the name, address, telephone number and contact person for each claimant; (ii) the date upon which each such demand or claim was made; and (iii) the disposition of each such demand or claim.

**1.05** **References** (include name, contact person, telephone, email address, fax and address for each reference provided)

**A.** Trade References (three (3) minimum)_____
_____
_____
_____
_____

**B.** Bank References _____
_____
_____
_____
_____

**C.** Public Works Inspectors of Record _____
_____
_____
_____
_____

**D.** Owner references (must have completed at least two (2) Federal. State, K-12 or higher education building projects in the past five (5) years. Please list these two (2) projects and at least one (1) other Owner referenced, preferably another Federal, State, K-12 or higher education project). _____
_____
_____
_____
_____

**E.** Insurance Carriers (General Liability, Auto, and Workers' Compensation)_____
_____
_____
_____
_____

**F.** Surety Firms (issuing your Bid, Performance and Payment Bonds)_____
_____
_____
_____

**1.06 Accuracy and Authority**

The undersigned is duly authorized to execute this Statement of Bidders Qualifications under penalty of perjury on behalf of the Bidder. The undersigned warrants and represents that he/she has personal knowledge of each of the responses to this Statement of Bidder's Qualifications and/or that he/she has conducted all necessary and appropriate inquiries to determine the truth, completeness and accuracy of responses to this Statement of Bidder's Qualifications.

The undersigned declares and certifies that the responses to this Statement of Bidder's Qualifications are complete and accurate; there are no omissions of material fact or information that render any response to be false or misleading and there are no misstatements of fact in any of the responses.

Executed this _____ day of _____, 20___ at _____.
(City and State)

I declare under penalty of perjury under California law that the foregoing is true and correct.

_____
(Signature)

_____
(Typed or written name)

*[End Of Section]*

# BID SECURITY BOND
Section 00260

***KNOW ALL MEN BY THESE PRESENTS:***

That we, _____, as Principal, and _____, as Surety, are held and firmly bound, along with our respective heirs, executors, administrators, successors and assigns, jointly and severally, unto **VENTURA COUNTY COMMUNITY COLLEGE DISTRICT**, hereinafter "Obligee," for payment of the penal sum hereof in lawful money of the United States, as more particularly set forth herein.

**THE CONDITION OF THIS OBLIGATION IS SUCH THAT:**

WHEREAS, the Principal has submitted the accompanying Bid Proposal for the Work commonly described as **Bid 623 Moorpark College Repair Baseball Dugout** and the Bid Proposal must be accompanied by Bid Security.

WHEREAS, subject to the terms of this Bond, the Surety is firmly bound unto the Obligee in the penal sum of **TEN PERCENT (10%)** of the maximum amount of the Bid Proposal submitted by the Principal to the Obligee, as set forth above, inclusive of additive alternate bid items, if any.

NOW, THEREFORE, if the Principal shall not withdraw said Bid Proposal within the period specified therein after the opening of the same, or, if no period be specified, for sixty (60) days after opening of said Bid Proposal; and if the Principal is awarded the Contract, and shall within the period specified therefore, or if no period be specified, within five (5) days after the prescribed forms are presented to him for signature, enter into a written contract with the Obligee, in accordance with the Bid Proposal as accepted, and give such bond(s) 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 Proposal within the period specified for the holding open of the Bid Proposal or the failure of the Principal to enter into such Contract and give such bonds within the time specified, if the Principal shall pay the Obligee the difference between the amount specified in said Bid Proposal and the amount for which the Obligee 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 Obligee in again calling for Bids or otherwise procuring said Work or supplies, then the above obligation shall be void and of no effect, otherwise to remain in full force and effect.

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 Call for Bids, the Work to be performed thereunder, the Drawings or the Specifications accompanying the same, or any other portion of the Contract Documents shall in any way affect its obligations 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, the Call for Bids, the Work, the Drawings or the Specifications, or any other portion of the Contract Documents.

In the event that suit or other proceeding is brought upon this Bond by the Obligee, the Surety shall pay to the Obligee all costs, expenses and fees incurred by the Obligee in connection therewith, including without limitation, attorneys' fees.

IN WITNESS WHEREOF, the Principal and Surety have executed this instrument this _____day of_____, 20___ by their duly authorized agents or representatives.

Bidder:
*(corporate Seal)*

_____
*(Principal's Name)*

By:_____
*(Signature)*

_____
*(Typed or Printed Name & Title)*

_____
*(Address)*

Surety:
*(Corporate Seal)*

`

_____
*(Surety's Name)*

By:_____
*(Signature of Attorney-in-Fact for Surety)*

_____
*(Attach Attorney-in-Fact Certificate)* *(Typed or Printed Name)*

_____
*(Address of Surety's Office where Bond is issued)*

_____
*(Area Code and Telephone Number of Surety)*

# SECTION 00310
# AGREEMENT

THIS AGREEMENT is made this_____ day of _____, 20__, in the City of Camarillo, County of Ventura, State of California, by and between VENTURA COUNTY COMMUNITY COLLEGE DISTRICT, a California Community College District, hereinafter called the "District" and _____ , hereinafter called the "Contractor", with a principal place of business located at _____.

WITNESSETH, that the District and the Contractor in consideration of the mutual covenants contained herein agree as follows:

**1.01 The Work.** Within the Contract Time and for the Contract Price, subject to adjustments thereto pursuant to the Contract Documents, the Contractor shall perform and provide all necessary labor, materials, tools, equipment, utilities, services and transportation to complete in a workmanlike manner all of the Work required in connection with the work of improvement commonly referred to as **Bid 623 Moorpark College Repair Baseball Dugout.**

Contractor shall complete all Work covered by the Contract Documents, including without limitation, the Drawings and Specifications prepared by the Architect, and other Contract Documents enumerated in Article 5 below, along with all modifications and addenda thereto issued in accordance with the Contract Documents.

**1.02 Contract Time.** The Work shall be commenced on the date stated in the District's Notice to Proceed. The Contractor shall achieve Substantial Completion of the Work within **120 consecutive calendar days** after the date stated in the District's Notice to Proceed (see Section 1.01 of the Contract Special Conditions and as otherwise provided in the Contract Documents).
***The Awarded Bidder must meet with the Facilities, Maintenance and Operations Director within one week of award to schedule work and accommodate any special conditions called out by Campus Director.***

**1.03 Contract Price.** The District shall pay the Contractor as full consideration for the Contractor's full, complete and faithful performance of the Contractor's obligations under the Contract Documents, subject to any additions or deduction as provided for in the Contract Documents, the Contract Price of _____ Dollars $_____**)**.

The Contract Price is based upon the Contractor's Base Bid Proposal and the following Alternate Bid Items, if any:

The District's payment of the Contract Price shall be in accordance with the Contract Documents.

SAMPLE

**1.04 Liquidated Damages.** In the event of the failure or refusal of the Contractor to achieve Completion of the Work of the Contract Documents within the Contract Time, as adjusted, the Contractor shall be subject to assessment of Liquidated Damages in accordance with the Contract Documents.

**1.05 The Contract Documents.** The Contract Documents consist of the following:

Notice to Contractors Calling for Bids
Instructions for Bidders
Bid Proposal
Subcontractors List
Non-Collusion Affidavit
Statement of Bidder's Qualifications
Bid Bond
Agreement
Labor Compliance Program
Proof of DIR Registration Per SB 854
Labor and Material Payment Bond
Performance Bond
Certificate of Workers Compensation
Drug Free Workplace Certification
General Conditions
Special Conditions
Specifications
Drawings
Guarantee

**1.06 Award of Contract.** The award shall be subject to final agreement on terms, conditions, and scope of work between VCCCD and Bidder.

**1.07 Authority to Execute.** The individual(s) executing this Agreement on behalf of the Contractor is/are duly and fully authorized to execute this Agreement on behalf of Contractor and to bind the Contractor to each and every term, condition and covenant of the Contract Documents.

IN WITNESS WHEREOF, this Agreement has been duly executed by the District and the Contractor as of the date set forth above.

DISTRICT:

VENTURA COUNTY COMMUNITY COLLEGE DISTRICT,
a California Community College District

By: _____

Name: Terry Cobos

Title: Director of General Services

CONTRACTOR:

_____
(Contractor's License Number)

By: _____

Name: _____

Title: _____

*[Corporate Seal]*

_____

*[End Of Section]*

SAMPLE

# LABOR AND MATERIAL PAYMENT BOND
Section 00400

***KNOW ALL MEN BY THESE PRESENTS:***

That we, _____, as Principal, and _____, as Surety, are held and firmly bound, along with our respective heirs, executors, administrators, successors and assigns, jointly and severally, unto **VENTURA COUNTY COMMUNITY COLLEGE DISTRICT**, hereinafter "Obligee", for payment of the penal sum of _____ Dollars ($ ) in lawful money of the United States, as more particularly set forth herein.

**THE CONDITION OF THIS OBLIGATION IS SUCH THAT:**

WHEREAS, the Obligee, by resolution of its Board of Trustees, has awarded to the Principal a Contract for the Work commonly described as **Bid 623 Moorpark College Repair Baseball Dugouts**.

WHEREAS, the Principal, on or about _____, 20___, entered into a Contract with the Obligee for performance of the Work; the Agreement and all other Contract Documents set forth therein are incorporated herein and made a part hereof by this reference.

WHEREAS, by the terms of the Contract Documents, the Principal is required to furnish a bond for the prompt, full and faithful payment to any Claimant, as hereinafter defined, for all labor, materials or services used, or reasonably required for use, in the performance of the Work.

NOW THEREFORE, if the Principal shall promptly, fully and faithfully make payment to any Claimant for all labor, materials or services used or reasonably required for use in the performance of the Work, then this obligation shall be void; otherwise, it shall be, and remain, in full force and effect.

The term "Claimant" shall refer to any person, corporation, partnership, proprietorship or other entity including without limitation, all persons and entities described in California Civil Code §3181, providing or furnishing labor, materials or services used or reasonably required for use in the performance of the Work under the Contract Documents, without regard for whether such labor, materials or services were sold, leased or rented. This Bond shall inure to the benefit of all Claimants so as to give them, or their assigns and successors, a right of action upon this Bond.

In the event that suit is brought on this Bond by any Claimant for amounts due such Claimant for labor, materials or services provided or furnished by such Claimant, the Surety shall pay for the same and reasonable attorneys' fees pursuant to California Civil Code §3250.

The Surety, for value received, hereby stipulates and agrees that no change, extension of time, alteration, deletion, addition, or any other modification to the terms of the Contract Documents, the Work to be performed thereunder, the Specifications or the Drawings, or any other portion of the Contract Documents, shall in any way limit, restrict or otherwise affect its

obligations under this Bond; the Surety hereby waives notice from the Obligee of any such change, extension of time, alteration, deletion, addition or other modification to the Contract Documents, the Work to be performed under the Contract Documents, the Drawings or the Specifications of any other portion of the Contract Documents.

IN WITNESS WHEREOF, the Principal and Surety have executed this instrument this _____day of _____, 20___ by their duly authorized agents or representatives.

*(Corporate Seal)*

_____
*(Principal Name)*

By:_____
*(Signature)*

_____
*(Typed or Printed Name)*

Title:_____

*(Corporate Seal)*

_____
*(Surety Name)*

By:_____
*(Signature of Attorney-in-Fact for Surety)*

*(Attach Attorney-in-Fact Certificate)*

_____
*(Typed or Printed Name of Attorney-in-Fact)*

_____
*(Address)*

_____
*(Area Code and Telephone Number of Surety)*

*[End of Section]*

# PERFORMANCE BOND
Section 00410

***KNOW ALL MEN BY THESE PRESENTS:***

That we_____ , as Principal, and _____ , as Surety, are held and firmly bound, along with our respective heirs, executors, administrators, successors and assigns, jointly and severally, unto **VENTURA COUNTY COMMUNITY COLLEGE DISTRICT,** hereinafter "Obligee", for payment of the penal sum of_____ Dollars ($ ) in lawful money of the United States, as more particularly set forth herein.

**THE CONDITION OF THIS OBLIGATION IS SUCH THAT:**

WHEREAS, the Obligee, by action of its Board of Trustees, has awarded to the Principal a Contract for the Work commonly described as **Bid 623 Moorpark College Repair Baseball Dugouts**.

WHEREAS, the Principal, on or about_____ 20__, entered into a contract with the Obligee for performance of the Work; the Agreement and all other Contract Documents set forth therein are incorporated herein and made a part hereof by this reference.

WHEREAS, by the terms of the Contract Documents ("Contract"), the Principal is required to furnish a bond ensuring the Principal's prompt, full and faithful performance of the Work of the Contract.

WHEREAS, the Principal and the Surety, jointly and severally, bind themselves, their heirs, executors, administrative, successors and assigns, to the Obligee for the prompt, full and faithful performance of the Contract, which is incorporated herein by this reference.

NOW, THEREFORE, if the Principal shall promptly, fully and faithfully perform each and all of the obligations and things to be done and performed by the Principal in strict accordance with the terms of the Contract as said Contract may be modified or amended from time to time; and if the Principal shall indemnify and save harmless the Obligee and all of its officers, agents and employees from any and all losses, liability and damages, claims, judgments, stop notices, costs, and fees of every description, whether imposed by law or equity, which may be incurred by the Obligee by reason of the failure or default on the part of the Principal in the performance of any or all of the terms or the obligations of the Contract, including all modifications and amendments thereto, and any warranties or guarantees required thereunder; then this obligation shall be void; otherwise, it shall be, and remain, in full force and effect.

In the event the Principal is declared by the Obligee to be in breach or default in the performance of the Contract, then, after written notice from the Obligee to the Surety, as provided for herein, the Surety shall either remedy the default or breach of the Principal or shall take charge of the Work of the Contract and complete the Contract with a Contractor other than the Principal at its own expense; provided, however, that the procedure by which the Surety undertakes to discharge its obligations under this Bond shall be subject to the advance written approval of the Obligee.

If the Surety does not proceed to cure or remedy the Principal's default(s) of its performance of the Contract with reasonable promptness, the Surety shall be deemed to be in default on this Bond fifteen (15) calendar days after receipt of a written notice from Obligee to the Surety demanding that the Surety perform its obligations under this Bond, and the Obligee shall be entitled to enforce any remedy available to Obligee.

Within fifteen (15) calendar days of Obligee's written notice to the Surety of the failure of performance of the Contract by the Principal, it shall be the duty of the Surety to give to the Obligee an unequivocal notice in writing of the Surety's election to remedy the default(s) of the Principal promptly, or to arrange for performance of the Contract promptly by a Contractor other than the Principal, time being of essence to this Bond. In said Notice of Election, the Surety shall state the date of commencement of its cure or remedy of the Principal's default(s) or its performance of the Contract. The Surety's obligations for cure or remedy, include but are not limited to: correction of defective or incomplete work and completion of the Contract, additional legal, design professional and delay costs arising from Surety's actions or failure to act; and liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance by the Principal. The Surety shall give prompt written notice to the Obligee upon completion of the cure or remedy of the Principal's default(s) of its performance of the Contract.

In the event the Surety shall fail to issue its Notice of Election to Obligee within the time provided for herein above, the Obligee may thereafter cause the cure or remedy of the Principal's failure of performance or default or to complete the Work. The Principal and the Surety shall be each jointly and severally liable to the Obligee for all damages and costs sustained by the Obligee as a result of the Principal’s failure of performance under the Contract Documents or default in its performance of obligations thereunder, including without limitation the costs of cure or completion exceeding the then remaining balance of the Contract Price.

The Surety, for value received, hereby stipulates and agrees that no change or adjustment of the Contract Time or Contract Price, alterations, deletions, additions or any other modifications to the Contract Documents, or the Work to be performed thereunder, shall in any way limit, restrict, or otherwise affect the obligations of the Surety under this Bond. Surety waives notice of any change or adjustment of the Contract Time or Contract Price, alterations, deletions, additions or any other modifications to the Contract Documents, or the Work to be performed thereunder and agrees to automatically adjust the penal sum of this Bond to reflect any adjustments of the Contract Time or Contract Price which increase the Contract Price.

Principal and Surety agree that if Obligee is required to engage the services of an attorney in connection with enforcement of this Bond, each shall pay Obligee's costs and reasonable attorney's fees incurred, with or without suit, in addition to the above penal sum.

The guarantees contained in this Bond survive Final Completion of the Work called for in the Contract Documents with respect to the obligations and liabilities of the Principal, which survive Final Completion of the Work.

IN WITNESS WHEREOF, the Principal and Surety have executed this instrument this _____day of _____, 20__ by their duly authorized agents or representatives.

*(Corporate Seal)*

_____
*(Principal Name)*

By:_____
*(Signature)*

_____
*(Typed or Printed Name)*

Title:_____

*(Corporate Seal)*

_____
*(Surety Name)*

By:_____
*(Signature of Attorney-in-Fact for Surety)*

*(Attach Attorney-in-Fact Certificate)*

_____
*(Typed or Printed Name of Attorney-in-Fact)*

_____
*(Address)*

_____
*(Area Code and Telephone Number of Surety)*

# CERTIFICATE OF WORKERS' COMPENSATION INSURANCE

Section 00415

I,_____ the _____,
*(Name)* *(Title)*

of_____ ,declare, state and certify that:
*(Contractor Name)*

1.01 I am aware that California Labor Code §3700(a) and (b) provides:

"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 either as an individual employer, or one employer in a group of employers, 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 or her employees."

1.02 I am aware that the provisions of California Labor Code §3700 require 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 will comply with such provisions before commencing the performance of this Contract.

By:_____
*(Signature)*

_____
*(Date)*

# DRUG-FREE WORKPLACE CERTIFICATION
Section 00417

I,_____ the _____,
(Name) (Title)
of _____ , declare, state and certify that:
(Contractor Name)

1.01 I am aware of the provisions and requirements of California Government Code §§8350 et seq., the Drug Free Workplace Act of 1990.

1.02 I am authorized to certify, and do certify, on behalf of Contractor that a drug free workplace will be provided by Contractor by doing all of the following:

A. Publishing a statement notifying employees that the unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited in Contractor's workplace and specifying actions which will be taken against employees for violation of the prohibition;

B. Establishing a drug-free awareness program to inform employees about all of the following:

1. The dangers of drug abuse in the workplace;
2. Contractor's policy of maintaining a drug-free workplace;
3. The availability of drug counseling, rehabilitation and employee-assistance programs; and
4. The penalties that may be imposed upon employees for drug abuse violations;

C. Requiring that each employee engaged in the performance of the Contract be given a copy of the statement required by subdivision (A), above, and that as a condition of employment by Contractor in connection with the Work of the Contract, the employee agrees to abide by the terms of the statement.

1.03 Contractor agrees to fulfill and discharge all of Contractor's obligations under the terms and requirements of California Government Code §8355 by, inter alia, publishing a statement notifying employees concerning: (a) the prohibition of any controlled substance in the workplace, (b) establishing a drug-free awareness program, and (c) requiring that each employee engaged in the performance of the Work of the Contract be given a copy of the statement required by California Government Code §8355(a) and requiring that the employee agree to abide by the terms of that statement.

1.04 Contractor and I understand that if the District determines that Contractor has either: (a) made a false certification herein, or (b) violated this certification by failing to carry out and to implement the requirements of California Government Code §8355, the Contract awarded herein is subject to termination, suspension of payments, or both. Contractor and I further understand that, should Contractor violate the terms of the Drug-Free Workplace Act of 1990, Contractor may be subject to debarment in accordance with the provisions of California Government Code §§8350, et seq.

1.05 Contractor and I acknowledge that Contractor and I are aware of the provisions of California Government Code §§8350, et seq. and hereby certify that Contractor and I will adhere to, fulfill, satisfy and discharge all provisions of and obligations under the Drug-Free Workplace Act of 1990.

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

Executed at _____ this _____ day of _____, 20__
(City and State)

_____
(Signature)

_____
(Typed or Printed Name)

# GUARANTEE
Section 00420

_____ (*Contractor's Name*) hereby unconditionally guarantees that the work performed under and pursuant to the Ventura County Community College District (District) project known as the **Bid 623 Moorpark College Repair Baseball Dugouts**. ("Project") has been done in strict accordance with the requirements of the Contract and therefore further guarantees the work of the contract to be and remain free of defects in workmanship and materials for a period of one (1) year from the date of completion of the contract, unless a longer guarantee period is called for by the Contract Documents, in which case the terms of the longer guarantee shall govern. The Contractor hereby agrees to repair or replace any and all work, together with any other work which may have been damaged or displaced in so doing, that may prove to be not in accordance with the requirements of the Contract or that may be defective in its workmanship or materials within the guarantee period specified, without any expense whatsoever to the District, ordinary wear and tear and unusual abuse and neglect only excepted. The Contractor has provided contract bonds which will remain in full force and effect during the guarantee period.

The Contractor further agrees that within ten (10) calendar days after being notified in writing by the District of any work not in accordance with the requirements of the contract or any defects in the work, he will commence and prosecute with due diligence all work necessary to fulfill the terms of this guarantee, and to complete the work within a reasonable period of time. In the event he fails to so comply, he does hereby authorize the District to proceed to have such work done at the Contractor's expense and he will pay the cost thereof upon demand. The District shall be entitled to all costs, including reasonable attorneys' fees, necessarily incurred upon the Contractor's refusal to pay the above costs.

Notwithstanding the foregoing paragraph, in the event of an emergency constituting an immediate hazard to the health or safety of the employees of the District, or its property or licensees, the District may undertake at the Contractor's expense without prior notice, all work necessary to correct such hazardous condition when it was caused by the work of the Contractor not being in accordance with the requirements of this contract, or being defective, and to charge the same to the Contractor as specified in the preceding paragraph.

The guarantee set forth herein is not intended by the parties, nor shall it be construed, as in any way limiting or reducing the District's rights to enforce all terms of the contract referenced herein above or the time for enforcement thereof. This guarantee is provided in addition to, and not in lieu of, the District's rights on such contract.

Contractor's Signature: _____ Date: _____

Subcontractor's Signature _____ Date: _____

Representative to be contacted for services:

Name: _____

Address: _____

Phone No.: _____ Fax No.: _____

Email.: _____

# GENERAL CONDITIONS
TABLE OF CONTENTS
Section 00700

**ARTICLE 1: DEFINITIONS; GENERAL**

**ARTICLE 2: DISTRICT**
2.1 Information Required of District
2.2 District's Right to Stop the Work
2.3 Partial Occupancy or Use
2.4 The District's Inspector

**ARTICLE 3: ARCHITECT**
3.1 Architect's Administration of the Contract

**ARTICLE 4: THE CONTRACTOR**
4.1 Communications
4.2 Contractor Review of Contract Documents
4.3 Site Investigation; Subsurface Conditions
4.4 Supervision and Construction Procedures
4.5 Labor and Materials
4.6 Taxes
4.7 Permits, Fees and Notices; Compliance with Laws
4.8 Submittals
4.9 Materials and Equipment
4.10 Safety
4.11 Hazardous Materials
4.12 Maintenance of Documents
4.13 Use of Site
4.14 Noise and Dust Control
4.15 Cutting and Patching
4.16 Clean-Up
4.17 Access to the Work
4.18 Information for the District's Inspector
4.19 Inspector's Field Office
4.20 Patents and Royalties
4.21 Prevailing Wage Rates; Employment of Apprentices and Labor Compliance Program
4.22 Assignment of Antitrust Claims

**ARTICLE 5: SUBCONTRACTORS**
5.1 Subcontracts
5.2 Substitution of Listed Subcontractor

**ARTICLE 6: INSURANCE; INDEMNITY; BONDS**
6.1 Workers' Compensation Insurance; Employer's Liability Insurance
6.2 Commercial General Liability and Property Insurance
6.3 Builder's Risk "All-Risk" Insurance
6.4 Coverage Amounts
6.5 Evidence of Insurance; Subcontractor's Insurance
6.6 Maintenance of Insurance
6.7 Contractor's Insurance Primary
6.8 Indemnity
6.9 Payment Bond; Performance Bond

**ARTICLE 7: CONTRACT TIME**
7.1 Substantial Completion of the Work Within Contract Time
7.2 Progress and Completion of the Work
7.3 Progress Schedule
7.4 Adjustment of Contract Time
7.5 Liquidated Damages

**ARTICLE 8: CONTRACT PRICE**
8.1 Contract Price
8.2 Cost Breakdown (Schedule of Values)
8.3 Progress Payments
8.4 Final Payment
8.5 Withholding of Payments
8.6 Payments to Subcontractors

**ARTICLE 9: CHANGES**
9.1 Changes in the Work
9.2 Oral Order of Change in the Work
9.3 Contractor Submittal of Data
9.4 Adjustment to Contract Price and Contract Time on Accounts of Changes to the Work
9.5 Change Orders
9.6 Contractor Notice of Changes
9.7 Disputed Change
9.8 Emergencies
9.9 Minor Changes in the Work
9.10 Unauthorized Changes

**ARTICLE 10: SEPARATE CONTRACTORS**
10.1 District's Right to Award Separate Contracts
10.2 District's Coordination of Separate Contractors
10.3 Mutual Responsibility
10.4 Discrepancies or Defects

**ARTICLE 11: TESTS AND INSPECTIONS**
11.1 Tests; Inspections; Observations
11.2 Delivery of Certificate
11.3 Timeliness of Tests, Inspections and Approvals

**ARTICLE 12: UNCOVERING AND CORRECTION OF WORK**
12.1 Inspection of the Work
12.2 Uncovering of Work
12.3 Rejection of Work
12.4 Correction of Work
12.5 Removal of Non-Conforming or Defective Work
12.6 Failure of Contractor to Correct Work
12.7 Acceptance of Defective or Non-Conforming Work

**ARTICLE 13: WARRANTIES**
13.1 Workmanship and Materials
13.2 Warranty Work
13.3 Guarantee
13.4 Survival of Warranties

**ARTICLE 14: SUSPENSION OF WORK**
14.1 District's Right to Suspend Work
14.2 Adjustments to Contract Price and Contract Time

**ARTICLE 15: TERMINATION**
15.1 Termination for Cause
15.2 Termination for Convenience of the District

**ARTICLE 16: MISCELLANEOUS**
16.1 Governing Law
16.2 Successors and Assigns
16.3 Cumulative Rights and Remedies; No Waiver
16.4 Severability
16.5 No Assignment by Contractor
16.6 Independent Contractor Status
16.7 Notices
16.8 Disputes; Continuation of Work
16.9 Dispute Resolution
16.10 Attorney's Fees
16.11 Marginal Headings; Interpretations
16.12 Provisions Required by Law Deemed Inserted
16.13 Entire Agreement

# GENERAL CONDITIONS

## ARTICLE 1: DEFINITIONS; GENERAL

### 1.1 Architect.

The Architect is the person or entity identified as such in the Agreement; references to the "Architect" includes the Architect's authorized representative and his, her or its successor(s).

### 1.2 Construction Equipment

"Construction Equipment" is equipment utilized for the performance of any portion of the Work, but which is not incorporated into the Work.

### 1.3 Contract Documents

The Contract Documents consist of the Agreement between the District and the Contractor, Conditions of the Contract (whether General, Special or otherwise), Drawings, Specifications, including addenda thereto issued prior to execution of the Agreement and any other documents listed in the Agreement. The Contract Documents shall include modifications issued after execution of the Agreement. The Contract Documents form the Contract for Construction.

### 1.4 Contract Document Terms

The term "provide" means "provide complete in place" or to "furnish and install" such item. Unless otherwise provided in the Contract Documents, the terms "approved;" "directed;" "satisfactory;" "accepted;" "acceptable;" "proper;" "required;" "necessary" and "equal" shall mean as approved, directed, satisfactory, accepted, acceptable, proper, required, necessary and equal, in the opinion of the District, its agents or representatives. The term "typical" as used in the Drawings shall require the installation or furnishing of such item(s) of the Work designated as "typical" in all other similar areas; Work in such other areas shall conform to that shown as "typical" or as reasonably inferable therefrom.

### 1.5 Contractor

The Contractor is the person or entity identified as such in the Agreement; references to "Contractor" include the Contractor's authorized representative.

### 1.6 Contractor's Superintendent

The Contractor's Superintendent is the individual employed by the Contractor whose principal responsibility shall be the supervision and coordination of the Work; the Contractor's Superintendent shall not perform routine construction labor.

### 1.7 Days

Unless otherwise expressly stated, references to "days" in the Contract Documents shall be deemed to be calendar days.

### 1.8 Deferred Approval Items

Deferred approval items are those items that shall not be started until detailed plans, specifications, and engineering calculations have been accepted and signed by the Architect or Engineer.

## 1.9 District

The "District" refers to **Ventura County Community College District** and its authorized representatives, including the Project Manager, the District's Board of Trustees and the District's officers, employees, agents and representatives.

## 1.10 District's Inspector

The District's Inspector is the individual designated and employed by the District in accordance with the requirements of Title 24 of the California Code of Regulations. The District's Inspector shall be authorized to act on behalf of the District as provided for in the Contract Documents and in Title 24 of the California Code of Regulations, as the same may be amended from time to time.

## 1.11 Division of State Architect ("DSA")

The DSA is the California Division of the State Architect including without limitation the DSA's Office of Construction Services, Office of Design Services and the Office of Regulation Services; references to the DSA in the Contract Documents shall mean the DSA, its offices and its authorized employees and agents. The authority of the DSA over the Work and the performance thereof shall be as set forth in the Contract Documents and Title 24 of the California Code of Regulations.

## 1.12 Drawings and Specifications

The Drawings are the graphic and pictorial portions of the Contract Documents, wherever located and whenever issued, showing generally, the design, location and dimensions of the Work and may include without limitation, plans, elevations, sections, details, schedules, notes or diagrams. The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, construction systems, standards, criteria and workmanship for the Work and related services. The Drawings and Specifications are intended to delineate and describe the Work and its component parts so as to permit skilled and competent contractors to bid upon the Work and prosecute the same to completion.

## 1.13 Intent and Correlation of Contract Documents

### 1.13.1 Work of the Contract Documents

The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary and what is required by one shall be as binding as if required by all. Performance by the Contractor shall be required to the extent consistent with the Contract Documents and reasonably inferable therefrom as being necessary to produce the intended results. Organization of the Specifications into divisions, sections or articles, and the arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade. Where any portion of the Contract Documents is silent and information appears elsewhere in the Contract Documents, such other portions of the Contract Documents shall control. Work not particularly detailed, marked or specified shall be the same as similar parts that are detailed, marked or specified.

### 1.13.2 Technical Terms

Unless otherwise stated in the Contract Documents, words or terms, which have, well-

known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

### 1.13.3 Conflict in Contract Documents

The Contract Documents are intended to be fully cooperative and to agree. If Contractor observes any conflict, inconsistency or ambiguity, Contractor shall promptly notify the District and the Architect in writing of such conflict, inconsistency or ambiguity prior to commencement of affected Work. If a conflict, inconsistency or ambiguity arises, the following order or precedence shall generally apply, provided, however, that the order of precedence shall not be so rigidly interpreted as to create an absurd or costly result: Special Conditions shall take precedence over General Conditions, Specifications shall take precedence over Drawings and shall govern as to materials, workmanship and installation procedures. Plans identify the scope and location of the Work. With regard to Drawings, figures govern over scaled dimensions, larger details govern over general drawings, addenda and change order drawings govern over contract drawings, contract drawings govern over standard drawings.

## 1.14 Material Supplier

A Material Supplier is any person or entity who only furnishes materials, equipment or supplies for the Work without fabricating, installing or consuming them in the Work.

## 1.15 Project

The Project is the total construction of which the Work performed by the Contractor under the Contract Documents may be the whole or a part of the Project and which may include construction by the District or by separate contractors.

## 1.16 Project Manager

The Project Manager, if any, is the individual or entity designated as such in the Special Conditions. The Project Manager is an independent contractor retained by the District and shall be authorized and empowered to act on behalf of the District. The removal or replacement of the designated Project Manager shall not result in adjustment of the Contract Price or the Contract Time or otherwise affect, limit or restrict Contractor's obligations hereunder.

## 1.17 Record Documents

The Record Documents are a set of the Drawings and Specifications marked by the Contractor during the performance of the Work to indicate completely and accurately the actual as-built condition of the Work. The Record Documents shall be sufficient for a capable and qualified draftsman to modify the Drawings to reflect and indicate the Work actually in place at Final Completion of the Work.

## 1.18 Shop Drawings; Samples; Product Data ("Submittals")

Shop Drawings are diagrams, schedules and other data specially prepared for the Work by the Contractor or a Subcontractor of any tier, manufacturer, Material Supplier, or distributor to illustrate some portion of the Work. Samples are physical examples of materials, equipment or workmanship forming a part of, or to be incorporated into the Work. Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work. Shop Drawings, Samples and Product Data prepared or furnished by the Contractor or any of its Subcontractors or Material Suppliers are collectively referred to as "Submittals".

**1.19 Site**

The Site is the physical area designated in the Contract Documents for Contractor's performance, construction and installation of the Work.

**1.20 Subcontractors; Sub-Subcontractors**

A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work. "Subcontractor" does not include a separate contractor to the District or subcontractors of any separate contractor. A Sub-Subcontractor is a person or entity of any tier, who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site.

**1.21 Special Conditions**

If made a part of the Contract Documents, Special Conditions are special or supplemental provisions, not otherwise provided for in the Agreement or the General Conditions.

**1.22 Surety**. The Surety is the person or entity that executes, as surety, the Contractor's Labor and Material Payment Bond and/or Performance Bond or other bonds provided by the Contractor.

**1.23 Work**

The "Work" is the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment or services provided or to be provided by the Contractor to fulfill the Contractor's obligations under the Contract Documents. The Work may constitute the whole or a part of the Project.

## ARTICLE 2: DISTRICT

**2.1 Information Required of District**

**2.1.1 Surveys; Site Information**

District may provide information concerning physical characteristics of the Site. Information not provided by the District concerning physical characteristics of the Site, which is required, shall be obtained by Contractor without adjustment to the Contract Price or the Contract Time.

**2.1.2 Drawings and Specifications**

All of the Drawings and the Specifications shall remain the property of the District; the Contractor shall not use the Drawings or the Specifications in connection with any other work of improvement other than the Work of the Project.

**2.1.3 Furnishing of Information**

Information or services to be provided by the District under the Contract Documents shall be furnished by the District with reasonable promptness to avoid delay in the orderly progress of the Work. Information about existing conditions furnished by the District under the Contract Documents is obtained from sources believed to be reliable, but the District neither guarantees nor warrants that such information is complete and accurate. The Contractor shall verify all information provided by the District. To the extent that the Contract Documents depict existing conditions on or about the Site, or the Work involves the renovation, removal or remodeling of existing improvements, or the Work involves

any tie-in or other connection with any existing improvements, the conditions and/or existing improvements depicted in the Contract Documents are as they are believed to exist.

## 2.2 District's Right to Stop the Work

In addition to the District's right to suspend the Work or terminate the Contract pursuant to the Contract Documents, the District may, by written order, direct the Contractor to stop the Work, or any portion thereof, until the cause for such stop work order has been eliminated, if the Contractor: (i) fails to correct Work which is not in conformity and in accordance with the requirements of the Contract Documents, or (ii) otherwise fails to carry out the Work in conformity and accordance with the Contract Documents. The right of the District to stop the Work hereunder shall not be deemed a duty on the part of the District to exercise such right for the benefit of the Contractor or any other person or entity, nor shall the District's exercise of such right waive or limit the exercise of any other right or remedy of the District under the Contract Documents or at law.

## 2.3 Partial Occupancy or Use

### 2.3.1 District's Right to Partial Occupancy

The District may occupy or use any completed or partially completed portion of the Work, provided that the District and the Contractor have accepted, in writing, the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, utilities, damage to the Work, insurance and the period for correction of the Work and commencement of warranties required by the Contract Documents for such portion of the Work partially used or occupied by the District. If the Contractor and the District are unable to agree upon the matters set forth above, the District may nevertheless use or occupy any portion of the Work, with the responsibility for such matters subject to resolution in accordance with the Contract Documents. Immediately prior to such partial occupancy or use of the Work, or portions thereof, the District, the District's Inspector, the Contractor and the Architect shall jointly inspect the portions of the Work to be occupied or to be used to determine and record the condition of the Work. The District's use or occupancy of the Work or portions thereof pursuant to the preceding shall not be deemed "completion" of the Work as that term is used in Public Contract Code §7107.

### 2.3.2 No Acceptance of Defective or Nonconforming Work

Unless otherwise expressly agreed upon by the District and the Contractor, the District's partial occupancy or use of the Work or any portion thereof, shall not constitute the District's acceptance of the Work not complying with the requirements of the Contract Documents or which is otherwise defective.

## 2.4 The District's Inspector

In addition to the authority and rights of the District's Inspector as provided for elsewhere in the Contract Documents, all of the Work shall be performed under the observation of the District's Inspector in accordance with the provisions of Title 24 of the California Code of Regulations. The District's Inspector shall have access to all parts of the Work at any time, wherever located, including shop inspections, and whether partially or completely fabricated, manufactured, furnished or installed. The performance of the duties of the District's Inspector under the Contract Documents shall not relieve or limit the Contractor's performance of its obligations under the

Contract Documents.

## ARTICLE 3: ARCHITECT

### 3.1 Architect's Administration of the Contract

#### 3.1.1 Administration of Contract

The Architect will provide administration of the Contract as described in the Contract Documents, and will be one of the District's representatives during construction until the time that Final Payment is due the Contractor. The Architect will advise and consult with the District, the Project Manager and the District's Inspector with respect to the administration of the Contract and the Work. The Architect shall have the responsibilities and powers established by law, including Title 24 of the California Code of Regulations.

#### 3.1.2 Periodic Site Inspections

The Architect will visit the Site at intervals appropriate to the stage of construction to become generally familiar with the progress and quality of the completed Work and to determine, in general, if the Work is being performed in a manner indicating that the Work, when completed, will be in accordance with the Contract Documents. The Architect will not be required to make exhaustive or continuous Site inspections to check quality or quantity of the Work. On the basis of Site observations as an architect, the Architect will keep the District informed of the progress of the Work, and will endeavor to guard the District against defects and deficiencies in the Work.

#### 3.1.3 Contractor Responsibility for Construction Means, Methods and Sequences

The Architect will not have control over or charge of and will not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, these being solely the Contractor's responsibility. The Architect will not have control over or charge of and will not be responsible for acts or omissions of the Contractor, Subcontractors, or their agents or employees, or of any other persons performing portions of the Work.

#### 3.1.4 Verification of Applications for Payment

In accordance with Article 8 hereof, the Architect will review the Contractor's Applications for Progress Payments and for Final Payment, verify the extent of Work performed and the amount properly due the Contractor on such Application for Payment.

#### 3.1.5 Rejection of Work

The Architect is authorized to reject Work which is defective or does not conform to the requirements of the Contract Documents. Whenever the Architect considers it necessary or advisable, additional inspections or testing of the Work may be conducted, whether or not such Work is fabricated, installed or completed. Neither this authority of the Architect nor a decision made in good faith by the Architect to exercise or not to exercise such authority shall give rise to a duty or responsibility to the Contractor, Subcontractors, Material Suppliers, their agents or employees, or other persons performing portions of the Work.

#### 3.1.6 Architect’s Review of Submittals

The Architect will review and approve or take other appropriate action upon the Contractor's Submittals, but only for the limited purpose of checking for conformance with the design concept expressed in the Contract Documents. Review of Submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's Submittals shall not relieve the Contractor of its obligations under the Contract Documents. The Architect's review of Submittals shall not constitute approval of safety measures, programs or precautions or, unless otherwise specifically stated by the Architect, of any construction means, methods, techniques, sequences or procedures. The Architect's approval of a specific item in a Submittal shall not indicate approval of an assembly of which the item is a component. The Architect's review and return of Submittals will normally require a minimum of twenty one (21) days from date of receipt of complete submittal. Deferred approval submittals indicated in the Contract Documents require additional time for processing and review of all submittals.

**3.1.7 Changes to the Work; Change Orders**

The Architect will prepare Change Orders and may authorize minor changes in the Work in accordance with Article 9.9 hereof.

**3.1.8 Completion**

The Architect will conduct observations to determine the date(s) of interim milestones, if any, and the dates of Substantial and Final Completion. The Architect will verify that the Contractor has complied with all requirements of the Contract Documents and is entitled to receipt of Final Payment.

**3.1.9 Interpretation of Contract Documents**

The Architect will interpret and decide matters concerning the requirements of the Contract Documents on written request of either the District or the Contractor, or as deemed necessary. The Architect's response to such requests will be made in writing with reasonable promptness and within the time limits specified in the Contract Documents. Interpretations and decisions of the Architect will be consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in the form of drawings with transmittal letter. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both the District and the Contractor, will not show partiality to either and will not be liable for results of interpretations or decisions so rendered in good faith. The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

## ARTICLE 4: THE CONTRACTOR

### 4.1 Communications

All communications regarding the Work, the performance thereof or the Contract Documents shall be in writing; oral communications, unless reduced to writing, are not binding on the parties. Communications between the Contractor and the District shall be through the Project Manager. Communications between separate contractors, if any, shall be through the Project Manager. Contractor shall make all written communications concerning the Project available to the District

upon request.

## 4.2 Contractor Review of Contract Documents

### 4.2.1 Examination of Contract Documents

The Contractor shall carefully study and compare the Contract Documents with each other and with information furnished by the District pursuant to the Contract Documents and shall at once report to the District any errors, inconsistencies or omissions discovered. If the Contractor performs any Work knowing, or with reasonable diligence should have known that, it involves an error, inconsistency or omission in the Contract Documents without prior written notice to the District of the same, the Contractor shall assume full responsibility for such performance and shall bear all attributable costs for correction of the same.

### 4.2.2 Field Measurements

Prior to commencement of the Work, or portions thereof, the Contractor shall take field measurements and verify field conditions at the Site and shall carefully compare such field measurements and conditions and other information known to the Contractor with information provided in the Contract Documents. Errors, inconsistencies or omissions discovered shall be reported to the District at once.

### 4.2.3 Dimensions; Layouts and Field Engineering

Dimensions indicated in the Drawings are intended for reference only. The Contractor shall be solely responsible for dimensioning and coordinating the Work of the Contract Documents. All field engineering required for laying out the Work and/or establishing grades for earthwork operations shall be by the Contractor at its expense. Any field engineering or other engineering to be provided or performed by the Contractor under the Contract Documents and required or necessary for the proper execution or installation of the Work shall be provided and performed by an engineer duly registered under the laws of the State of California in the engineering discipline for such portion of the Work.

### 4.2.4 Request for Information

If the Contractor encounters any condition which the Contractor believes, in good faith and with reasonable basis, is the result of an ambiguity, conflict, error or omission in the Contract Documents (collectively "the Conditions"), it shall be the affirmative obligation of the Contractor to timely notify the District, in writing, of the Conditions encountered and to request information from the District necessary to address and resolve any such Conditions before proceeding with any portion of the Work affected or which may be affected by such Conditions. If the Contractor fails to timely notify the District in writing of any Conditions encountered and the Contractor proceeds to perform any portion of the Work containing or affected by such Conditions, the Contractor shall bear all costs associated with or required to correct, remove, or otherwise remedy any portion of the Work affected thereby without adjustment of the Contract Time or the Contract Price. The Contract Time shall not be subject to adjustment in the event that the Contractor fails to timely request information from the Architect. The Architect's responses to any such Contractor request for information shall be provided within five (5) days. The foregoing provisions notwithstanding, in the event that the Architect reasonably determines that any of Contractor's request(s) for information: (i) does not reflect adequate or competent

supervision or coordination by the Contractor or any Subcontractor; or (ii) does not reflect the Contractor's adequate or competent knowledge of the requirements of the Work or the Contract Documents; or (iii) is not justified for any other reason, Contractor shall be liable to the District for all costs incurred by the District associated with the processing, reviewing, evaluating and responding to any such request for information, including without limitation, fees of the Architect and any other design consultant to the Architect or the District.

#### 4.2.5 Work in Accordance With Contract Documents

The Contractor shall perform all of the Work in strict conformity with the Contract Documents and approved Submittals.

### 4.3 Site Investigation; Subsurface Conditions

#### 4.3.1 Contractor Investigation

The Contractor shall be responsible for, and by executing the Agreement acknowledges, that it has carefully examined the Site and has taken all steps it deems reasonably necessary to ascertain all conditions which may affect the Work, or the cost thereof, including, without limitation, conditions bearing upon transportation, disposal, handling or storage of materials; availability of labor or utilities; access to the Site; and the physical conditions and the character of equipment, materials, labor and services necessary to perform the Work. Any failure of the Contractor to do so will not relieve it from the responsibility for fully and completely performing all Work without adjustment to the Contract Price or the Contract Time. The District assumes no responsibility to the Contractor for any understandings or representations concerning conditions or characteristics of the Site, or the Work, made by any of its officers, employees or agents prior to the execution of the Agreement, unless such understandings or representations are expressly set forth in the Agreement.

#### 4.3.2 Subsurface Data

By executing the Agreement, the Contractor acknowledges that it has examined the subsurface data available and satisfied itself as to the character, quality and quantity of surface and subsurface materials, including without limitation, obstacles which may be encountered in performance of the Work, insofar as this information is reasonably ascertainable from an inspection of the Site, review of available subsurface data and analysis of information furnished by the District under the Contract Documents. Subsurface data or other soils investigation report provided by the District hereunder are not a part of the Contract Documents. Information contained in such data or report regarding subsurface conditions, elevations of existing grades, or below grade elevations are approximate only and is neither guaranteed nor warranted by the District to be complete and accurate. The Contractor shall examine all subsurface data to make its own independent interpretation of the subsurface conditions and acknowledges that its bid is based upon its own opinion of the conditions which may be encountered. The District assumes no responsibility for any conclusions or interpretations made by Contractor on the basis of available subsurface data or other information furnished by District under the Contract Documents.

### 4.3.3 Subsurface Conditions

#### 4.3.3.1 Procedures

If the Work under the Contract Documents involves digging trenches or other excavations that extend deeper than four feet below the surface, the Contractor shall promptly and before the following conditions are disturbed, notify the District's Inspector, in writing, of any: (i) material that the Contractor believes may be material that is hazardous waste, as defined in California Health and Safety Code §25117, that is required to be removed to a Class I or Class II or Class III disposal site in accordance with provisions of existing law; (ii) subsurface or latent physical conditions at the site differing from those indicated; or (iii) unknown physical conditions at the site of any unusual nature, different materially from those ordinarily encountered and generally recognized as inherent in the Work or the character provided for in the Contract Documents. If upon notice to the District of the conditions described above and upon the District's investigation thereof, the District determines that the conditions so materially differ or involve such hazardous materials which require an adjustment to the Contract Price or the Contract Time, the District shall issue a Change Order in accordance with Article 9 hereof. In accordance with California Public Contract Code §7104, any dispute arising between the Contractor and the District as to any of the conditions listed in (i), (ii) or (iii) above, shall not excuse the Contractor from the completion of the Work within the Contract Time and the Contractor shall proceed with all Work to be performed under the Contract Documents. The District reserves the right to terminate the Contract pursuant to Article 15.2 hereof should the District determine not to proceed because of any condition described in (i), (ii) or (iii) above.

#### 4.3.3.2 Trenching

For all excavations in excess of five (5) feet involving an estimated expenditure in excess of $25,000, Contractor shall submit to the District for acceptance a detailed Drawing showing the design of shoring, bracing, sloping or other provisions to be made for the protection of workmen from the hazard of caving ground. If such design varies from the standards established by the Construction Safety Orders of the California Division of Industrial Safety, the Drawing shall be prepared by a registered civil or structural engineer. None of the aforementioned trenching shall be started before Contractor receives notification of acceptance from the District. Contractor shall comply with all other applicable requirements of California Labor Code §6705, and as therein provided, no provisions of that Section or this Section shall be construed to impose tort liability upon the District. In any event, Contractor shall not commence any excavation work until it has secured all necessary permits including the required CAL OSHA excavation/shoring permit. Any permits shall be prominently displayed on the Project premises prior to commencement of any excavation.

## 4.4 Supervision and Construction Procedures

### 4.4.1 Supervision of the Work

The Contractor shall supervise and direct performance of the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences and procedures and for coordinating all portions of the Work under the Contract Documents, unless Contract Documents give other specific instructions concerning these matters. The Contractor shall be responsible for inspection of completed or partially completed portions of Work to determine that such portions are in proper condition to receive subsequent Work.

### 4.4.2 Responsibility for the Work; Coordination of the Work

The Contractor shall be responsible to the District for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and all other persons performing any portion of the Work under a contract with the Contractor. The Contractor shall not be relieved of the obligation to perform the Work in accordance with the Contract Documents either by activities or duties of the Project Manager, District's Inspector or the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons other than the Contractor. The Contractor shall be responsible for all necessary or appropriate coordination of the Work and component parts thereof so that Substantial Completion of the Work will be achieved within the Contract Time and the Work will be completed for the Contract Price. The coordination of the Work is a material obligation of the Contractor hereunder and shall include without limitation, conducting regular coordination meetings with its Subcontractors and Material Suppliers, sequencing the operations of Subcontractors and Material Suppliers, and adapting its planned means, methods and sequences of construction operations as necessary to accommodate field or changed conditions at the Site.

### 4.4.3 Surveys

The Contractor shall prepare or cause to be prepared all detailed surveys necessary for performance of the Work. The Contractor shall be responsible for the establishment, location, maintenance and preservation of benchmarks, reference points and stakes for the Work, the cost of which shall be included within the Contract Price. The Contractor shall be solely responsible for all loss or costs resulting from the loss, destruction, disturbance or damage of benchmarks, reference points or stakes.

### 4.4.4 Construction Utilities

The Contractor shall arrange for the furnishing of and shall pay the costs of all utility services, including, without limitation, electricity, water, gas and telephone necessary for performance of the Work and the Contractor's obligations under the Contract Documents. The Contractor shall furnish and install necessary or appropriate temporary distributions of utilities, including meters, to the Site. Any such temporary distributions shall be removed by the Contractor upon completion of the Work. The costs of all such utility services, including the installation and removal of temporary distributions thereof, shall be borne by the Contractor and included in the Contract Price.

### 4.4.5 Existing Utilities; Removal, Relocation and Protection

In accordance with California Government Code §4215, the District shall assume the responsibility for the timely removal, relocation, or protection of existing main or trunkline utility facilities located on the Site which are not identified in the Drawings, Specifications or other Contract Documents. Contractor shall be compensated for the costs of locating, repairing damage not due to the Contractor's failure to exercise reasonable care, and removing or relocating such utility facilities not indicated in the Drawings, Specifications and other Contract Documents with reasonable accuracy, and for equipment on the Site necessarily idled during such work. Contractor shall not be assessed Liquidated Damages for delay in completion of the Work when such delay is caused by the failure of the District or the utility district to provide for removal or relocation of such utility facilities. Nothing in this Article 4.4.5 shall be deemed to require the District to indicate the presence of existing service laterals or appurtenances whenever the presence of such utilities on the Site can be inferred from the presence of other visible facilities, such as buildings, meters and junction boxes, on or adjacent to the Site. If the Contractor encounters utility facilities not identified by the District in the Drawings, Specifications, or other Contract Documents, the Contractor shall immediately notify, in writing, the District and the utility owner. In the event that such utility facilities are owned by a public utility, the public utility shall have the sole discretion to perform repairs or relocation work or permit the Contractor to do such repairs or relocation work at a price determined in accordance with Article 9 of these General Conditions.

## 4.5 Labor and Materials

### 4.5.1 Payment for Labor, Materials and Services

Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, applicable taxes, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated in the Work.

### 4.5.2 Employee Discipline and Skills

The Contractor shall enforce strict discipline and good order among the Contractor's employees, the employees of any Subcontractor of any tier, and all other persons performing any part of the Work at the Site. The Contractor shall not permit employment of unfit persons or persons not skilled in tasks assigned to them. The Contractor shall dismiss from its project employees and direct any Subcontractor of any tier to dismiss from their employment on the project any person deemed by the District to be unfit or incompetent to perform Work and thereafter, the Contractor shall not employ nor permit the employment of such person for performance of any part of the Work without the prior written consent of the District, which consent may be withheld in the reasonable discretion of the District.

### 4.5.3 Contractor's Superintendent and Project Manager

The Contractor shall employ a competent superintendent, project manager and all necessary assistants who shall be in attendance at the Site at all times during performance of the Work. The Contractor's communications relating to the Work or the Contract Documents shall be through the Contractor's superintendent and/or project manager. The superintendent shall represent the Contractor at the Site and communications given to the superintendent shall be binding as if given to the Contractor. The Contractor shall dismiss

from the project the superintendent , project manager or any of his/her assistants if they are deemed, in the sole reasonable judgment of the District, to be unfit, incompetent or incapable of performing the functions assigned to them. In such event, the District shall have the right to approve of the replacement superintendent, project manager or assistant.

### 4.5.4 Prohibition on Harassment

#### 4.5.4.1 District's Policy Prohibiting Harassment

The District is committed to providing a campus and workplace free of sexual harassment and harassment based on factors such as race, color religion, national origin, ancestry, age, medical condition, marital status, disability or veteran status. Harassment includes without limitation, verbal, physical or visual conduct which creates an intimidating, offensive or hostile environment such as racial slurs; ethnic jokes; posting of offensive statements, posters or cartoons or similar conduct. Sexual harassment includes without limitation the solicitation of sexual favors, unwelcome sexual advances, or other verbal, visual or physical conduct of a sexual nature.

#### 4.5.4.2 Contractor's Adoption of Anti-Harassment Policy

Contractor shall adopt and implement all appropriate and necessary policies prohibiting any form of discrimination in the workplace, including without limitation harassment on the basis of any classification protected under local, state or federal law, regulation or policy. Contractor shall take all reasonable steps to prevent harassment from occurring, including without limitation affirmatively raising the subject of harassment among its employees, expressing strong disapproval of any form of harassment, developing appropriate sanctions, informing employees of their right to raise and how to raise the issue of harassment and informing complainants of the outcome of an investigation into a harassment claim. Contractor shall require that any Subcontractor or Sub-subcontractor performing any portion of the Work to adopt and implement policies in conformity with this Article 4.5.4.

#### 4.5.4.3 Prohibition on Harassment at the Site

Contractor shall not permit any person, whether employed by Contractor, a Subcontractor, Sub-subcontractor, or any other person or entity, performing any Work at or about the Site to engage in any prohibited form of harassment. Any such person engaging in a prohibited form of harassment directed to any individual performing or providing any portion of the Work at or about the Site shall be subject to appropriate sanctions in accordance with the anti-harassment policy adopted and implemented pursuant to Article 4.5.4.2 above. Any person performing or providing Work on or about the Site who engages in a prohibited form of harassment directed to any student, faculty member or staff of the District or directed to any other person on or about the Site shall be subject to immediate removal and shall be prohibited thereafter from providing or performing any portion of the Work. Upon the District's receipt of any notice or complaint that any person employed directly or indirectly by Contractor in performing or providing the Work has engaged in a prohibited form of harassment, the District will promptly undertake an investigation of such notice or complaint. In the event

that the District, after such investigation, reasonably determines that a prohibited form of harassment has occurred, the District shall promptly notify the Contractor of the same and direct that the person engaging in such conduct be immediately removed from the Site. Unless the District's determination that a prohibited form of harassment has occurred is grossly negligent or without reasonable cause, the District shall have no liability for directing the removal of any person determined to have engaged in a prohibited form of harassment nor shall the Contract Price or the Contract Time be adjusted on account thereof. Contractor and the Surety shall defend, indemnify and hold harmless the District and its employees, officers, Board of Trustees, agents, and representatives from any and all claims, liabilities, judgments, awards, actions or causes of actions, including without limitation, attorneys' fees, which arise out of, or pertain in any manner to: (i) the assertion by any person dismissed from performing or providing work at the direction of the District pursuant to this Article 4.5.4.3; or (ii) the assertion by any person that any person directly or indirectly under the employment or direction of the Contractor has engaged in a prohibited form of harassment directed to or affecting such person. The obligations of the Contractor and the Surety under the preceding sentence are in addition to, and not in lieu of, any other obligation of defense, indemnity and hold harmless whether arising under the Contract Documents, at law or otherwise; these obligations survive completion of the Work or the termination of the Contract.

## 4.6 Taxes

The Contractor shall pay, without adjustment of the Contract Price, all sales, consumer, use and other taxes for the Work or portions thereof provided by the Contractor under the Contract Documents.

## 4.7 Permits, Fees and Notices; Compliance with Laws

### 4.7.1 Payment of Permits, Fees

Unless otherwise provided in the Contract Documents, the Contractor shall secure, pay for, and include in the Contract Price the building permits, other permits, governmental fees, licenses and inspections necessary or required for the proper execution and completion of the Work.

### 4.7.2 Compliance with Laws

The Contractor shall comply with and give notices required by laws, ordinances, rules, regulations and other orders of public authorities bearing on performance of the Work.

### 4.7.3 Notice of Variation from Laws

If the Contractor knows, or has reason to believe, that any portion of the Contract Documents are at variance with applicable laws, statutes, ordinances, building codes, regulations or rules, the Contractor shall promptly notify the District, in writing, of the same. If the Contractor performs Work knowing, or with reasonable diligence should have known, it to be contrary to laws, statutes, ordinances, building codes, rules or regulations applicable to the Work without such notice to the District, the Contractor shall assume full responsibility for such Work and shall bear the attributable costs arising or associated therefrom, including without limitation, the removal, replacement or correction

of the same.

## 4.8 Submittals

### 4.8.1 Purpose of Submittals

Shop Drawings, Product Data, Samples and similar submittals (collectively "Submittals") are not Contract Documents. The purpose for submission of Submittals is to demonstrate, for those portions of the Work for which Submittals are required, the manner in which the Contractor proposes to provide or incorporate such item of the Work in conformity with the information given and the design concept expressed in the Contract Documents.

### 4.8.2 Contractor's Submittals

#### 4.8.2.1 Prompt Submittals

The Contractor shall review, confirm and submit to the Architect with the number of copies of Submittals within the timeframes required by the Contract Documents. Contractor's submission of Submittals in conformity with the Submittal Schedule is a material consideration of the Contract. In the event that the District reasonably determines that all or any portion of any Submittal fails to comply with the requirements of the Contract Documents and/or such Submittals are not otherwise complete and accurate so as to require re-submission more than one (1) time, Contractor shall bear all costs associated with the review and approval of such resubmitted Submittals; provided that such costs are in addition to, and not in lieu of, any liquidated damages imposed under the Contract Documents for Contractor's delayed submission of Submittals. Submittals not required by the Contract Documents may be returned without action. No adjustment to the Contract Time or the Contract Price shall be granted to the Contractor on account of its failure to make timely submission of any Submittals.

#### 4.8.2.2 Approval of Contractor's Confirmation of Submittals

All Submittals prepared by Subcontractors, of any tier, Material Suppliers, manufacturers or distributors shall bear the written approval of the Contractor thereto prior to submission to the Architect for review. Any Submittal not bearing the Contractor's written approval shall be subject to return to the Contractor for re-submittal in conformity herewith, with the same being deemed to not have been submitted. Any delay, impact or cost associated therewith shall be the sole and exclusive responsibility of the Contractor without adjustment of the Contract Time or the Contract Price.

#### 4.8.2.3 Verification of Submittal Information

By approving and submitting Submittals, the Contractor represents to the District and Architect that the Contractor has determined and verified materials, field measurements, field construction criteria, catalog numbers and similar data related thereto and has checked and coordinated the information contained within such Submittals with the requirements of the Work and of the Contract Documents.

#### 4.8.2.4 Information Included in Submittals

All Submittals shall be accompanied by a written transmittal or other writing by

the Contractor providing an identification of the portion of the Drawings or the Specifications pertaining to the Submittal, with each Submittal numbered consecutively for ease of reference along with the following information: (i) date of submission; (ii) project name; (iii) name of submitting Subcontractor; and (iv) if applicable, the revision number. The foregoing information is in addition to, and not in lieu of, any other information required for the Architect's review, evaluation and approval of the Contractor's Submittals.

**4.8.2.5 Contractor Responsibility for Deviations**

The Contractor shall not be relieved of responsibility for correcting deviations from the requirements of the Contract Documents by the Architect's approval of Submittals unless the Contractor has specifically informed the Architect in writing of such deviation at the time of submission of the Submittal and the District has given written approval to the specific deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Submittals by the Architect's approval thereof.

**4.8.2.6 No Performance of Work without Approval**

The Contractor shall perform no portion of the Work requiring the Architect's review and approval of Submittals until the Architect has completed its review and granted its approval of such Submittal. The Contractor shall not perform any portion of the Work forming a part of a Submittal or which is affected by a related Submittal until the entirety of the Submittal or other related Submittal has been fully approved.

**4.8.3 Architect Review of Submittals**

The purpose of the Architect's review of Submittals and the time for the Architect's return of Submittals to the Contractor shall be as set forth elsewhere in the Contract Documents, including without limitation, Article 3.1.6 of the General Conditions. If the Architect returns a Submittal as rejected or requiring correction(s) and re-submission, the Contractor, so as not to delay the progress of the Work, shall promptly thereafter resubmit a Submittal conforming to the requirements of the Contract Documents; the resubmitted Submittal shall indicate the portions thereof modified in order to obtain the Architect's approval. When professional certification of performance criteria of materials, systems or equipment is required by the Contract Documents, the Architect shall be entitled to rely upon the accuracy and completeness of such calculations and certifications accompanying Submittals. The Architect's review of the Submittals is for the limited purposes described in the Contract Documents.

**4.8.4 Deferred Approval Items**

In the event that any portion of the Work is designated in the Contract Documents as a "Deferred Approval" item, Contractor shall be solely and exclusively responsible for the preparation of Submittals for such item(s) in a timely manner so as not to delay or hinder the completion of the Work within the Contract Time.

## 4.9 Materials and Equipment

### 4.9.1 Specified Materials, Equipment

Except as otherwise provided, references in the Contract Documents to any specific article, device, equipment, product, material, fixture, patented process, form, method or type of construction, by name, make, trade name, or catalog number, with or without the words "or equal" shall be deemed to establish a minimum standard of quality or performance, and shall not be construed as limiting competition.

**4.9.2 Approval of or Equal, Substitutions or Alternatives**

The Contractor may propose to furnish alternatives or substitutes for a particular item specified in the Contract Documents, provided that the Contractor provides advance written notice to the District of such proposed or equal, substitution or alternative and certifies to the District that the quality, performance capability, functionality and appearance of the proposed alternative or substitute will meet or exceed the quality, performance capability, functionality, and appearance of the item or process specified, and must demonstrate to the District that the use of the substitution or alternative is appropriate and will not delay completion of the Work or result in an increase to the Contract Price. The Contractor shall submit all data to the District to permit the Architect's proper evaluation of the proposed substitution or alternative. The Contractor shall not provide, furnish or install any substitution or alternative without the District's prior approval of the same; any alternative or substitution installed or incorporated into the Work without first obtaining the District's approval of the same shall be subject to removal pursuant to Article 12 hereof. The District's decision shall be final regarding the approval or disapproval of the Contractor's proposed substitutions or alternatives. The District's approval of any Contractor-proposed substitution shall be in accordance with Change Order procedures set forth in Article 9 and as otherwise specified in the Contract Documents.

**4.9.3 Placement of Material and Equipment Orders**

Contractor shall, after award of the Contract, promptly and timely place all orders for materials and/or equipment necessary for completion of the Work so that delivery of the same shall be made without delay or interruption to the timely completion of the Work. Contractor shall require that any Subcontractor of any tier performing any portion of the Work similarly place orders for all materials and/or equipment to be furnished by any such Subcontractor. Upon request of the District, the Contractor shall furnish reasonably satisfactory written evidence of the placement of orders for materials and/or equipment necessary for completion of the Work, including without limitation, orders for materials and/or equipment to be provided, furnished or installed by any Subcontractor of any tier.

**4.9.4 District's Right to Place Orders for Materials and/or Equipment**

If the Contractor fails or refuses to provide reasonably satisfactory written evidence of the placement of orders for materials and/or equipment necessary for completion of the Work, or should the District determine, in its sole and reasonable discretion, that such orders have not been placed in a manner that assures timely delivery of such materials and/or equipment to the Site so the Work can be completed without delay or interruption, the District shall have the right, but not the obligation, to place such orders on behalf of the Contractor. If the District exercises such right, the District's conduct in that regard does not assume control of the work. Rather, Contractor remains responsible for the means, methods, techniques, sequences or procedures for completion of the Work and is not relieved from any of Contractor's obligations under the Contract Documents, including

without limitation, completion of the Work within the Contract Time and for the Contract Price. If the District exercises the right hereunder to place orders for materials and/or equipment on behalf of Contractor pursuant to the foregoing, Contractor shall reimburse the District for all costs and fees incurred by the District in placing such orders; such costs and fees may be deducted by the District from the Contract Price then or thereafter due the Contractor.

## 4.10 Safety

### 4.10.1 Safety Programs

The Contractor shall be solely responsible for initiating, maintaining and supervising all safety programs required by applicable law, ordinance, regulation or governmental orders in connection with the performance of the Contract, or otherwise required by the type or nature of the Work. The Contractor shall require that its Subcontractors similarly initiate and maintain all appropriate or required safety programs.

### 4.10.2 Safety Precautions

The Contractor shall be solely responsible for initiating and maintaining reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to: (i) employees on the Work and other persons who may be affected thereby; (ii) the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the Contractor or the Contractor's Subcontractors of any tier; and (iii) other property or items at the site of the Work, or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities whether or not designated for removal, relocation or replacement in the course of construction. The Contractor shall erect and maintain, as required by existing conditions and conditions resulting from performance of the Contract, reasonable safeguards for safety and protection of property and persons, including, without limitation, posting danger signs and other warnings against hazards, promulgating safety regulations and notifying Districts and users of adjacent sites and utilities. The Contractor shall give or post all notices required by applicable law and comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

### 4.10.3 Safety Coordinator

The Contractor shall designate a responsible member of the Contractor's organization at the Site whose duty shall be the prevention of accidents and the implementation and maintenance safety precautions and programs. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the District.

### 4.10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, to prevent threatened damage, injury or loss.

## 4.11 Hazardous Materials

### 4.11.1 Use of Hazardous Materials

In the event that the Contractor, any Subcontractor or anyone employed directly or indirectly by them shall use, at the Site, or incorporate into the Work, any material or substance deemed to be hazardous or toxic under any law, rule, ordinance, regulation or interpretation thereof (collectively "Hazardous Materials"), the Contractor shall comply with all laws, rules, ordinances or regulations applicable thereto and shall exercise all necessary safety precautions relating to the use, storage or disposal thereof. Unless otherwise provided, Contractor shall be solely responsible for the transportation and disposal of any Hazardous Materials on or about the Site.

**4.11.2 Prohibition on Use of Asbestos Containing Building Materials ("ACBMs")**
Notwithstanding any provision of the Drawings or the Specifications to the contrary, it is the intent of the District that ACBMs not be used or incorporated into any portion of the Work. If any portion of the Work depicted in the Drawings or the Specifications shall require materials or products which the Contractor knows, or should have known with reasonably diligent investigation, to contain ACBMs, Contractor shall promptly notify the District of the same so that an appropriate alternative can be made in a timely manner so as not to delay the progress of the Work. Contractor warrants to the District that there are no materials or products used or incorporated into the Work which contain ACBMs. Whether before or after completion of the Work, if it is discovered that any product or material forming a part of the Work or incorporated into the Work contains ACBMs, the Contractor shall at its sole cost and expense remove such product or material in accordance with any laws, rules, procedures and regulations applicable to the handling, removal and disposal of ACBMs and to replace such product or material with non-ACBM products or materials and to return the affected portion(s) of the Work to the finish condition depicted in the Drawings and Specifications relating to such portion(s) of the Work. Contractor's obligations under the preceding sentence shall survive the termination of the Contract, the warranty period provided under the Contract Documents, the Contractor's completion of the Work or the District's acceptance of the Work. In the event that the Contractor shall fail or refuse, for any reason, to commence the removal and replacement of any material or product containing ACBMs forming a part of, or incorporated into the Work, within ten (10) days of the date of the District's written notice to the Contractor of the existence of ACBM materials or products in the Work, the District may thereafter proceed to cause the removal and replacement of such materials or products in any manner which the District determines to be reasonably necessary and appropriate; all costs, expenses and fees, incurred by the District in connection with such removal and replacement shall be the responsibility of the Contractor and the Contractor's Performance Bond Surety.

**4.11.3 Encountering of Hazardous Materials**
If the Contractor encounters Hazardous Materials at the Site which have not been rendered harmless or for which there is no provision in the Contract Documents for their containment, removal, abatement or handling, the Contractor shall immediately stop the Work in the affected area and shall immediately notify the District, in writing, of such condition. The Contractor shall diligently proceed with the Work in all other unaffected areas. The Contractor shall proceed with the Work in the affected area only after the Hazardous Materials have been rendered harmless, contained, removed or abated. Adjustments, if any, to the Contract Time or Price shall be made in accordance with Articles 7 and 9.

#### 4.11.4 Material Safety Data Sheets

Contractor is required to insure that Material Safety Data Sheets (MSDS) for any material requiring a MSDS pursuant to the federal "hazard communication" standard or employee's right-to-know law are available in a readily accessible place on the Work premises. The Contractor is also required to insure (i) the proper labeling of any substance brought onto the Work premises, and (ii) that the persons working with the material, or within the general area of the material, are informed about the hazards of the substance and follow proper handling and protection procedures.

#### 4.11.5 Compliance with Proposition 65

Contractor is required to comply with the provisions of California Health and Safety Code § 25249.5, et seq., which requires the posting and giving of notice to persons who may be exposed to any chemical known to the State of California to cause cancer. The Contractor agrees to familiarize itself with such statutory provisions and to fully comply with the requirements set forth therein.

### 4.12 Maintenance of Documents

#### 4.12.1 Documents at Site

The Contractor shall maintain at the Site: (i) one record copy of the Drawings, Specifications and all addenda thereto; (ii) Change Orders approved by the District and all other modifications to the Contract Documents; (iii) Submittals reviewed by the Architect; (iv) Requests for Information and responses thereto; (v) Record Drawings; (vi) Material Safety Data Sheets ("MSDS") accompanying any materials, equipment or products delivered or stored at the Site or incorporated into the Work; and (vii) all building and other codes or regulations applicable to the Work, including without limitation, Title 24, Part 2 of the California Code of Regulations. During performance of the Work, all documents maintained by Contractor at the Site shall be available to the District, the Project Manager, the Architect, the District's Inspector and DSA for review, inspection or reproduction. Upon completion of the Work, all documents maintained at the Site by the Contractor pursuant to the foregoing, except for (vii), shall be assembled and transmitted to the District.

#### 4.12.2 Maintenance of Record Documents

During its performance of the Work, the Contractor shall continuously maintain Record Documents which are marked to indicate all field changes made to adapt the Work depicted in the Documents to field conditions, changes resulting from Change Orders and all concealed or buried installations, including without limitation, piping, conduit and utility services. The Record Documents shall be clean and all changes, corrections and dimensions shall be marked in a neat and legible manner in a contrasting color. The District's inspection or review shall not be deemed to be the District's approval or verification of the completeness or accuracy of the Record Documents. The failure or refusal of the Contractor to continuously maintain complete and accurate Record Documents or to make available the Record Documents for inspection and review by the District may be deemed by the District to be Contractor's default of a material obligation hereunder. Payments to the Contractor are conditioned upon continuous maintenance and completion of the Record Documents pursuant to Articles 8.3.2 and 8.3.3. If the Contractor fails or refuses to continuously maintain the Record Documents in a complete

and accurate manner, the District may take appropriate action to cause such maintenance, and all costs incurred in connection therewith shall be charged to the Contractor; the District may deduct such costs from any portion of the Contract Price then or thereafter due the Contractor.

**4.13 Use of Site**

The Contractor shall confine operations at the Site to areas permitted by law, ordinances or permits, subject to any restrictions or limitations set forth in the Contract Documents. The Contractor shall not unreasonably encumber the Site or adjoining areas with materials or equipment. The Contractor shall be solely responsible for providing security at the Site with all such costs included in the Contract Price. The District shall at all times have access to the Site.

**4.14 Noise and Dust Control**

The Contractor shall be responsible for complying with the requirements of the city and county having jurisdiction with regard to noise ordinances governing construction sites and activities. Construction equipment noise is subject to the control of the Environmental Protection Agency's Noise Control Program (Code of Federal Regulations, Title 40, Part 204). The Contractor shall be solely responsible for maintaining all areas of the Work free from all materials and products that by becoming airborne may cause respiratory inconveniences to District students and personnel. Damages and/or any liability derived from the Contractor's failure to comply with these requirements shall be the sole cost of the Contractor, including all penalties incurred for violations of local, state and/or federal regulations.

**4.15 Cutting and Patching**

The Contractor shall be responsible for cutting, fitting or patching required to complete the Work or to make the component parts thereof fit together properly in accordance with the Contract Documents. Only tradespersons skilled and experienced in cutting and patching shall perform such work. The Contractor shall not damage or endanger any portion of the Work, or the fully or partially completed construction of the District or separate contractors by cutting, patching, excavation or other alteration. The Contractor shall not cut, patch or otherwise alter the construction by the District or separate contractor without the prior written consent of the District or separate contractor thereto, which consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold consent to the request of the District or separate contractor to cut, patch or otherwise alter the Work.

**4.16 Clean-Up**

The Contractor shall at all times keep the Site and all adjoining areas free from the accumulation of any waste material, rubbish or excess materials and equipment, placed, caused by performance of the Work. The Contractor shall maintain the Site in a "rake-clean" standard on a daily basis. Prior to completion of the Work, Contractor shall remove from the Site all rubbish, waste and excess material, tools, Construction Equipment, machinery, temporary facilities and barricades, and any other items which are not the property of the District under the Contract Documents. Upon completion of the Work, the Site and all adjoining areas shall be left in a neat and broom clean condition satisfactory to District. The Project Manager is authorized to direct the Contractor's clean-up obligations hereunder. If the Contractor fails to clean up as provided for in the Contract Documents, the District may do so, and all costs incurred in connection therewith shall be charged to the Contractor; the District may deduct such costs from any portion of the Contract Price then or thereafter due the Contractor.

**4.17 Access to the Work**

The Contractor shall provide the DSA, the District, the Project Manager, the District's Inspector, Labor Compliance Officer and Labor Compliance administrator and consultant(s), the Architect and the Architect's consultant(s) with access to the Work, whether in place, preparation and progress and wherever located.

**4.18 Information for the District's Inspector**

The Contractor shall furnish the District's Inspector access to the Work for obtaining such information as may be necessary to keep the District's Inspector fully informed respecting the progress, quality and character of the Work and materials, equipment or other items incorporated therein.

**4.19 Inspector's Field Office**

The Contractor shall provide and include in the Contract Price a temporary furnished office at the Site, if specified in the Contract Documents, for use by the District, the Project Manager and the District's Inspector, until removal of the same is authorized by the District.

**4.20 Patents and Royalties**

The Contractor and the Surety shall defend, indemnify and hold harmless the District and its agents, employees and officers from any claim, demand or legal proceeding arising out of or pertaining, in any manner, to any actual or claimed infringement of patent rights in connection with performance of the Work under the Contract Documents.

**4.21 Prevailing Wage Rates; Employment of Apprentices and Labor Compliance Program**

**4.21.1. Determination of Prevailing Wage Rates**

Pursuant to Labor Code §§1770 et seq., the District has obtained from the Director of the Department of Industrial Relations determinations of the generally prevailing rates of per diem wages and the prevailing rate for holiday and overtime work in the locality in which the Work is to be performed. Copies of these determinations, entitled "PREVAILING WAGE SCALE", are maintained at the District office identified in the Notice to Contractors Calling For Bids and on the Internet. Holidays shall be as defined in the collective bargaining agreement applicable to each particular craft, classification or type of worker employed under the Contract. Per diem wages include employer payments for health and welfare, pensions, vacation, travel time and subsistence pay, apprenticeship or other training programs authorized by California Labor Code §3093, and similar purposes when the term "per diem wages" is used herein. Holiday and overtime work, when permitted by law, shall be paid for at the rate of at least one and one-half (1½) times the above specified rate of per diem wages, unless otherwise specified. The Contractor shall post, at appropriate and conspicuous locations on the Site, a schedule showing all determined general prevailing wage rates.

**4.21.2. Labor Compliance Program**

The Project is in part funded by the Kindergarten-University Public Education Facilities Bond Act of 2002 or the Kindergarten-University Public Education Facilities Bond Act of 2004. The District has initiated a Labor Compliance Program ("LCP") pursuant to the

provisions of Labor Code §1771.5 and other applicable law. The District's LCP Manual is included in Section 00900 of the Contract Specifications. The Contractor and all Subcontractors of any tier shall comply with the LCP initiated and enforced by the District.

**4.21.3. Payment of Prevailing Wage Rates**

**4.21.3.1 Statutory Requirements**

The Project is subject to the provisions of Labor Code §§1720 et seq. and the requirements of Title 8 of the California Code of Regulations §§16000 et seq., which govern the payment of prevailing wage rates on public works projects. The Contractor and Subcontractors of any tier shall be governed by and required to comply with these statutes and regulations in connection with the Project. Pursuant to Labor Code §1771, the Contractor and all Subcontractors of any tier shall pay not less than the prevailing wage rates to all workers employed in execution of the Contract. Contractor and Subcontractors shall comply with applicable statutes and regulations, including but not limited to Labor Code §§ 1771, 1775, 1777.5, 1813 and 1815, and the District's LCP. Copies of these statutes and the District's LCP are contained in Section 00900 of the Contract Specifications.

**4.21.3.2. Weekly Payments to Employees**

Contractor and all Subcontractors of any tier shall pay each worker on the Project, unconditionally and not less often than once each week, the full amounts that are due and payable for the period covered by the particular payday. Thus, an employer must establish a fixed workweek and an established payday. On each payday, each worker must receive all sums due at the end of the preceding workweek and must be provided with an itemized wage statement.

**4.21.4. Penalty for Prevailing Wage Rate Underpayment**

Pursuant to Labor Code §1775, the Contractor shall, as a penalty, forfeit up to Fifty Dollars ($50.00) to the District for each calendar day or portion thereof, for each worker paid less than the prevailing wage rates as determined by the Director of the Department of Industrial Relations for such work or craft in which such worker is employed for the Work by the Contractor or by any Subcontractor, of any tier, in connection with the Work. The difference between prevailing wage rates and the amount paid to each worker each calendar day, or portion thereof, for which each worker paid less than the prevailing wage rate, shall be paid to each worker by the Contractor.

**4.21.5. Payroll Records**

**4.21.5.1. Certified Payroll Reports and Basic Payroll Records**

The Contractor and Subcontractors of any tier shall maintain Certified Payroll Reports and "Basic Payroll Records", as that term is defined in Appendix A to the District's LCP, during the course of the Work and shall preserve them for a period of three (3) years after completion of the Project

for all tradesworkers executing the Work of the Contract. Certified Payroll Reports must be submitted weekly at the time designated in Article 4.21.5.2 or upon request as described in Article 4.21.5.4. Basic Payroll Records may be requested by the District at any time and shall be provided within ten (10) calendar days following the receipt of the request.

**4.21.5.2. Weekly Submittal of Certified Payroll Reports**

**4.21.5.2.1.** Pursuant to Labor Code §1776, the Contractor and each Subcontractor of any tier shall maintain an accurate, weekly payroll record showing the employee full name, address, social security number, work classification, amount paid per hour, straight time, overtime and holiday hours worked each day and weekly totals, the actual per diem wages paid to each person employed for the Work, and the gross/net wages paid for this Project/all projects, as well as the Contractor name and address, Project name and location, and dates of payroll. If payments are made to any third party trust, funds or plans for health and welfare, pension or vacation trusts, those payments must be stated on the payroll report. The basic wage rate paid per hour plus the employer contributions for benefits, including training fund contributions, must at least equal the prevailing wage rate for that classification.

**4.21.5.2.2.** The Contractor shall maintain and submit its Certified Payroll Reports and those of the Subcontractors of any tier to the District each week, no later than seven (7) calendar days after the payday for the week covered by the payroll reports. If there is no work on a given week or on a given day, the Certified Payroll Report must indicate "no work" for that week or day(s). The Certified Payroll Reports must account for each day of the week including Saturdays, Sundays and holidays. Contractor and Subcontractors of every tier must write "final" on the last submitted payroll report for the Project.

**4.21.5.2.3** The Certified Payroll Reports shall be verified by a written declaration made by a person with authority to represent the reporting entity, under penalty of perjury, that the information contained in the payroll record is true and correct and that the reporting entity has complied with the requirements of California Labor Code §§1771, 1811, and 1815 for any Work performed by his, her or its employees on the Project. Copies of the District's certified payroll form and the required declaration are provided in Section 00900 of the Contract Specifications. The Contractor and Subcontractors must use the District-provided forms.

**4.21.5.3. Penalty for Delinquent or Inadequate Payroll Records**

In the event Contractor submits "Inadequate Payroll Records" or Contractor has "Delinquent Payroll Records", as those terms are defined in Appendix A to the District's LCP, the Contractor shall have ten (10) days in which to comply, subsequent to receipt of written notice specifying in what respects the Contractor must comply herewith. Should Contractor fail to strictly comply after such 10-day period, the Contractor shall, as a penalty to the District, forfeit Twenty-Five Dollars ($25.00) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated.

**4.21.5.4. Making Certified Payroll Reports Available Upon Request**

Pursuant to Labor Code §1776, in addition to its obligation to deliver certified payroll records to the District on a weekly basis as set forth above, the Contractor shall also make payroll records available for inspection at all reasonable hours at the principal office of the Contractor on the following basis: (i) a certified copy of an employee's payroll record shall be made available for inspection or furnished to such employee or his/her authorized representative on request; (ii) a certified copy of all payroll records shall be made available for inspection or furnished upon request to the District, the Division of Labor Standards Enforcement and the Division of Apprenticeship Standards of the Department of Industrial Relations; (iii) a certified copy of payroll records shall be made available upon request to the public for inspection or copies thereof made; provided, however, that a request by the public shall be made through either the District, the Division of Apprenticeship Standards, or the Division of Labor Standards Enforcement. If the requested payroll records have not been previously provided to the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, the requesting party shall, prior to being provided the records, reimburse the cost of preparation by the Contractor, Subcontractors and the entity through which the request was made; the public shall not be given access to such records at the principal office of the Contractor; (iv) the Contractor shall file a certified copy of the payroll records with the entity that requested such records within ten (10) days after receipt of a written request; (v) any copy of records made available for inspection as copies and furnished upon request to the public or any public agency by the District, the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement shall be marked or obliterated in such a manner as to prevent disclosure of an individual's name, address and social security number. The name and address of the Contractor or any Subcontractor, of any tier, performing a part of the Work shall not be marked or obliterated. The Contractor shall inform the District of the location of payroll records, including the street address, city and county and shall, within five (5) working days, provide a notice of a change or location and address. In the event of noncompliance with the requirements of this subparagraph, the Contractor shall have ten (10) days in which to comply, subsequent to receipt of written notice specifying in what respects the Contractor must comply herewith. Should Contractor fail to strictly comply after such 10-day period, the Contractor shall, as a

penalty to the District, forfeit Twenty-Five Dollars ($25.00) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Division of Apprenticeship Standards or the Division of Labor Standards Enforcement, such penalties shall be withheld from any portion of the Contract Price then or thereafter due the Contractor. The responsibility for compliance with the foregoing provisions shall rest upon the Contractor.

### 4.21.6. Hours of Work

#### 4.21.6.1. Limits on Hours of Work

Pursuant to Labor Code §1810, eight (8) hours of labor shall constitute a legal day's work. Pursuant to Labor Code §1811, the time of service of any worker employed at any time by the Contractor or by a Subcontractor, of any tier, upon the Work or upon any part of the Work, is limited and restricted to eight (8) hours during any one calendar day and forty (40) hours during any one calendar week, except as hereafter provided. Notwithstanding the foregoing provisions, Work performed by employees of Contractor or any Subcontractor, of any tier, in excess of eight (8) hours per day and forty (40) hours during any one week, shall be permitted upon compensation for all hours worked in excess of eight (8) hours per day at not less than one and one-half (1½) times the basic rate of pay.

#### 4.21.6.2. Penalty for Excess Hours

Pursuant to Labor Code §§1813 and 1815, the Contractor shall pay to the District a penalty of Twenty-five Dollars ($25.00) for each worker employed in the execution of the Contract by the Contractor or any Subcontractor, of any tier, for each calendar day during which such worker is required or permitted to work more than eight (8) hours in any calendar day and forty (40) hours in any one calendar week, or as otherwise provided by law, in violation of the provisions of the California Labor Code, unless compensation to the worker so employed by the Contractor is not less than one and one-half (1½) times the basic rate of pay for all hours worked in excess of eight (8) hours per day.

#### 4.21.6.3. Contractor Responsibility For Cost of Excess Hours.

Any Work performed by workers necessary to be performed after regular working hours or on Sundays or other holidays shall be performed without adjustment to the Contract Price or any other additional expense to the District.

### 4.21.7. Audit/Investigation of Compliance with Prevailing Wage Laws

The District shall conduct audits and investigations of the Contractor's and Subcontractors' Certified Payroll Records in fulfillment of the District's obligation as an authorized LCP to enforce compliance with prevailing wage laws. The District shall conduct audits/investigations on a random and as-needed basis. An audit shall include the comparison of submitted Certified Payroll Records to Basic Payroll Records or documents

maintained independent of the Certified Payroll Records, or to records used to gather the information in the Certified Payroll Records. The comparison may also involve other documents which authenticate or corroborate representations made in the Certified Payroll Records. The purpose of any audit or investigation shall be to verify the payment of prevailing wage rates. To ensure that the audit/investigation is fair, the Contractor or Subcontractor shall be provided an opportunity to submit evidence supporting its position. Should the District find that a Contractor or a Subcontractor has violated prevailing wage laws, the District shall refer the matter to the Labor Commissioner for approval of the District recommended forfeiture. The District shall forward its audit/investigation report to the affected Contractor or Subcontractor concurrently with the District's submission of the report to the Labor Commissioner, excepting documents which the District originally received from the Contractor or Subcontractor and which are also expressly referenced in the report. The District recommended forfeiture amount shall be in conformity with the provisions of Labor Code §§1720 et seq. Depending on the ruling of the Labor Commissioner, the audit/investigation may result in a withholding from the Contractor's Contract Payments.

**4.21.8. Responsibility for Subcontractors' Payment of Prevailing Wages**

Pursuant to Labor Code §1775, the Contractor is responsible for ensuring that all Subcontractors of any tier comply with requirements for payment of prevailing wages. Contractor is responsible for Labor Code violations by Subcontractors of any tier. The agreement executed between the Contractor and each Subcontractor must contain a copy of the provisions of Labor Code §§ 1771, 1775, 1777.5, 1813 and 1815, at a minimum. Contractor shall monitor each Subcontractors' payment of prevailing wage rates. Upon becoming aware of the failure of any Subcontractor of any tier to pay its workers the specified prevailing wage, the Contractor shall diligently take action to halt and rectify the failure, including, without limitation, retaining sufficient funds due to the Subcontractor to cover the underpayment. Before making final payment to any Subcontractor, the Contractor must obtain an affidavit from the Subcontractor, signed under penalty of perjury, which states that the Subcontractor has paid the specified, determined prevailing wage rate to its employees for the Project, as well as any amounts due pursuant to Labor Code §1813. Contractor shall provide copies of such affidavits to the District and provide Contractor's affidavit that it has paid the specified, determined prevailing wage rate to its employees for the Project, as well as any amounts due under Labor Code §1813.

**4.21.9. Statement of Employer Payments**

Within five (5) calendar days of signing the Contract or Subcontract, as applicable, the Statement of Employer Payments (DSLE Form PW 26 included in Section 00900 of the Specifications) must be completed and submitted to the District by each Contractor and Subcontractor who pays benefits to a third party trust, plan or fund for health and welfare benefits, vacation funds or makes pension contributions. The form must contain, for each worker classification, the fund or trust name, address, administrator, and amount per hour contributed and frequency of contributions. Training fund contributions must also be reported on this form. In February and August of each year during the Project, the Contractor and Subcontractors of any tier must verify changes in wage rates for any trade classifications used on the Project. Thereafter, Contractor and its Subcontractors must submit a new Statement of Employer Payments to the District which reflects any changes

in wages and benefits.

### 4.21.10. Apprentices

#### 4.21.10.1. Apprenticeship Committee Contract Award Information

Pursuant to Labor Code §1777.5 and Title 8 California Code of Regulations §230, Contractor and Subcontractors of any tier who are not already approved to train by an apprenticeship program sponsor shall, within ten (10) calendar days of signing the Contract or Subcontract, as applicable, but in any event prior to the first day in which the Contractor or Subcontractor has workers employed on the Project, submit the Public Works Contract Award Information form (DAS form 140 included in Section 00900 of the Contract Specifications) to the appropriate local apprenticeship committees whose geographic area of operation include the area of the Project and can supply apprentices to the Project. Contractor and Subcontractors must also submit a copy of the form to the District which shall include, in addition to other information, an estimate of journeymen hours to be performed under the Contract or Subcontract, the number of apprentices to be employed, and the approximate dates the apprentices will be employed.

#### 4.21.10.2. Employment of Apprentices

**4.21.10.2.1.** Labor Code §1777.5 and Title 8 California Code of Regulations §§2000 et seq. provide detailed requirements for employing apprentices on public works. The responsibility of complying with Section 1777.5 and the regulations lies exclusively with the Contractor.

**4.21.10.2.2.** Any apprentices employed to perform any of the Work shall be paid the standard wage paid to apprentices under the regulations of the craft or trade for which such apprentice is employed, and such individual shall be employed only for the work of the craft or trade to which such individual is registered.

**4.21.10.2.3.** Only apprentices, as defined in California Labor Code §3077, who are in training under apprenticeship standards and written apprenticeship agreements under California Labor Code §§3070 et seq. are eligible to be employed for the Work. The employment and training of each apprentice shall be in accordance with the provisions of the apprenticeship standards and apprentice agreements under which such apprentice is training.

#### 4.21.10.3. Apprenticeship Certificate and Dispatch of Apprentices

When the Contractor or any Subcontractor of any tier in performing any of the Work employs workers in any Apprenticeable Craft or Trade, the Contractor and such Subcontractor shall apply to the Joint Apprenticeship Committee administering the apprenticeship standards of the craft or trade in the area of the site of the Work for a certificate approving the Contractor

or such Subcontractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected, provided, however, that the approval as established by the Joint Apprenticeship Committee or Committees shall be subject to the approval of the Administrator of Apprenticeship. The Joint Apprenticeship Committee or Committees, subsequent to approving the Contractor or Subcontractor, shall arrange for the dispatch of apprentices to the Contractor or such Subcontractor in order to comply with California Labor Code §1777.5. There shall be an affirmative duty upon the Joint Apprenticeship Committee or Committees, administering the apprenticeship standards of the crafts or trades in the area of the site of the Work, to ensure equal employment and affirmative action and apprenticeship for women and minorities. Contractors or Subcontractors shall not be required to submit individual applications for approval to local Joint Apprenticeship Committees provided they are already covered by the local apprenticeship standards. Contractors who are not already approved to train apprentices must request dispatch of required apprentices from one of the applicable Apprentices Committees by giving the program actual notice of at least 48 hours (excluding Saturdays, Sundays and holidays) before the date on which apprentices are required. Contractors who do not receive a sufficient number of apprentices from their initial request must request dispatch of apprentices from at least one other apprenticeship committee if more than one exists in the area of the Project.

**4.21.10.4. Ratio of Apprentices to Journeymen**

The ratio of Work performed by apprentices to journeymen, who shall be employed in the Work, may be the ratio stipulated in the apprenticeship standards under which the Joint Apprenticeship Committee operates, but in no case shall the ratio be less than one hour of apprentice work for each five hours of labor performed by a journeyman, except as otherwise provided in California Labor Code §1777.5. The minimum ratio for the land surveyor classification shall not be less than one apprentice for each five journeymen. Any ratio shall apply during any day or portion of a day when any journeyman, or the higher standard stipulated by the Joint Apprenticeship Committee, is employed at the site of the Work and shall be computed on the basis of the hours worked during the day by journeymen so employed, except for the land surveyor classification. The Contractor shall employ apprentices for the number of hours computed as above before the completion of the Work. The Contractor shall, however, endeavor, to the greatest extent possible, to employ apprentices during the same time period that the journeymen in the same craft or trade are employed at the site of the Work. Where an hourly apprenticeship ratio is not feasible for a particular craft or trade, the Division of Apprenticeship Standards, upon application of a Joint Apprenticeship Committee, may order a minimum ratio of not less than one apprentice for each five journeymen in a craft or trade classification. The Contractor or any Subcontractor covered by this Article and California Labor Code §1777.5, upon the issuance of the approval certificate, or if it has been previously

approved in such craft or trade, shall employ the number of apprentices or the ratio of apprentices to journeymen stipulated in the apprenticeship standards. Upon proper showing by the Contractor that it employs apprentices in such craft or trade in the State of California on all of its contracts on an annual average of not less than one apprentice to each five journeymen, the Division of Apprenticeship Standards may grant a certificate exempting the Contractor from the 1-to-5 ratio as set forth in this Article and California Labor Code §1777.5. This Article shall not apply to contracts of general contractors, or to contracts of specialty contractors not bidding for work through a general or prime contractor, involving less than Thirty Thousand Dollars ($30,000.00) or twenty (20) working days. The term "Apprenticeable Craft or Trade," as used herein shall mean a craft or trade determined as an Apprenticeable occupation in accordance with rules and regulations prescribed by the Apprenticeship Council.

**4.21.10.5. Exemption from Ratios**

The Joint Apprenticeship Committee shall have the discretion to grant a certificate, which shall be subject to the approval of the Administrator of Apprenticeship, exempting the Contractor from the 1-to-5 ratio set forth in this Article when it finds that any one of the following conditions are met: (i) unemployment for the previous three-month period in such area exceeds an average of fifteen percent (15%) or; (ii) the number of apprentices in training in such area exceeds a ratio of 1-to-5 in relation to journeymen, or; (iii) the Apprenticeable Craft or Trade is replacing at least one-thirtieth (1/30) of its journeymen annually through apprenticeship training, either on a statewide basis or on a local basis, or; (iv) if assignment of an apprentice to any Work performed under the Contract Documents would create a condition which would jeopardize such apprentice's life or the life, safety or property of fellow employees or the public at large, or if the specific task to which the apprentice is to be assigned is of such a nature that training cannot be provided by a journeyman. When such exemptions from the 1-to-5 ratio between apprentices and journeymen are granted to an organization which represents contractors in a specific trade on a local or statewide basis, the member contractors will not be required to submit individual applications for approval to local Joint Apprenticeship Committees, provided they are already covered by the local apprenticeship standards.

**4.21.10.6. Contributions to Trust Funds**

The Contractor or any Subcontractor of any tier who performs any of the Work by employment of journeymen or apprentices in any apprenticeable craft or trade shall contribute to the California Apprenticeship Council in the same amount that the Director determines is the prevailing amount of apprenticeship training contributions in the area of the Project. Contractor or any Subcontractor, of any tier, may take as a credit for payments to the Council any amounts paid by the Contractor or Subcontractor to an approved apprenticeship program that can supply apprentices to the

Project. Contractors who do not contribute to an apprenticeship program must submit their contributions to the California Apprenticeship Council. Training Fund contributions are due and payable on the 15th day of the month for work performed during the preceding month. Training contributions to the California Apprenticeship Council shall be paid by check and shall be accompanied by a Completed Training Fund Contribution form (CAC-2), a copy of which is included in Section 00900 of the Contract Specifications. Contractors who contribute to an apprenticeship program are entitled to a full credit in the amount of those contributions. The Division of Labor Standards Enforcement is authorized to enforce the payment of such contributions to such fund(s) as set forth in California Labor Code §227. Such contributions shall not result in an increase in the Contract Price.

**4.21.10.7. Contractor's Compliance**

The responsibility of compliance with this Article for all Apprenticeable Trades or Crafts is solely and exclusively that of the Contractor. All decisions of the Joint Apprenticeship Committee(s) under this Article are subject to the provisions of California Labor Code §3081. In the event the Contractor willfully fails to comply with the provisions of this Article and California Labor Code §1777.5, pursuant to California Labor Code §1777.7, the Contractor shall: (i) be denied the right to bid on any public works contract for a period of one (1) year from the date the determination of non-compliance is made by the Administrator of Apprenticeship; and (ii) forfeit, as a civil penalty, Fifty Dollars ($50.00) for each calendar day of noncompliance. Notwithstanding the provisions of California Labor Code §1727, upon receipt of such determination, the District shall withhold such amount from the Contract Price then due or to become due. Any such determination shall be issued after a full investigation, a fair and impartial hearing, and reasonable notice thereof in accordance with reasonable rules and procedures prescribed by the California Apprenticeship Council. Any funds withheld by the District pursuant to this Article shall be deposited in the General Fund or other similar fund of the District. The interpretation and enforcement of California Labor Code §§1777.5 and 1777.7 shall be in accordance with the rules and procedures of the California Apprenticeship Council.

**4.21.11. Employment of Independent Contractors**

Pursuant to California Labor Code §1021.5, Contractor shall not willingly and knowingly enter into any agreement with any person, as an independent contractor, to provide any services in connection with the Work where the services provided or to be provided requires that such person hold a valid contractors license issued pursuant to California Business and Professions Code §§7000 et seq. and such person does not meet the burden of proof of his/her independent contractor status pursuant to California Labor Code §2750.5. In the event that the Contractor shall employ any person in violation of the foregoing, Contractor shall be subject to the civil penalties under California Labor Code §1021.5 and any other penalty provided by law. In addition to the penalties provided under California Labor

Code §1021.5, Contractor's violation of this Article 4.18.7 or the provisions of California Labor Code §1021.5 shall be deemed an event of Contractor's default under Article 15.1 of these General Conditions. The Contractor shall require any Subcontractor of any tier performing or providing any portion of the Work to adhere to and comply with the foregoing provisions.

**4.21.12. District's Enforcement of Violations**

The District shall withhold Contract payments when: 1) Contractor submits Inadequate Payroll Records or Contractor has Delinquent Payroll Records; 2) after an investigation, it is established Prevailing Wages have not been paid to all workers on the Project; or 3) Contractor's or Subcontractors' failure to comply with Labor Code requirements concerning employment of apprentices. As set forth in the District's LCP, the District will first obtain approval from the Labor Commissioner of the amounts of forfeitures for violations of Labor Code requirements.

**4.22 Assignment of Antitrust Claims**

Pursuant to California Public Contract Code §7103.5, the Contractor and its Subcontractor(s), of any tier, hereby offers and agrees to assign to the District all rights, title and interest in and to all causes of action they may have under Section 4 of the Clayton Act, (15 U.S.C. §15) or under the Cartwright Act (California Business and Professions Code §§16700 et seq.), arising from purchases of goods, services or materials hereunder or any Subcontract. This assignment shall be made and become effective at the time the District tenders Final Payment to the Contractor, without further acknowledgment by the parties. If the District receives, either through judgment or settlement, a monetary recovery in connection with a cause of action assigned under California Public Contract Code §7103.5, the assignor thereof shall be entitled to receive reimbursement for actual legal costs incurred and may, upon demand, recover from the District any portion of the recovery, including treble damages, attributable to overcharges that were paid by the assignor but were not paid by the District as part of the Contract Price, less the expenses incurred by the District in obtaining that portion of the recovery. Upon demand in writing by the assignor, the District shall, within one year from such demand, reassign the cause of action assigned pursuant to this Article if the assignor has been or may have been injured by the violation of law for which the cause of action arose: and (i) the District has not been injured thereby; or (ii) the District declines to file a court action for the cause of action.

## ARTICLE 5: SUBCONTRACTORS

**5.1 Subcontracts**

Any Work performed for the Contractor by a Subcontractor shall be pursuant to a written agreement between the Contractor and such Subcontractor which specifically incorporates by reference the Contract Documents and which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents. The foregoing notwithstanding, no contractual relationship shall exist, or be deemed to exist, between any Subcontractor and the District, unless the Contract is terminated and District, in writing, elects to assume the Subcontract. Each Subcontract for a portion of the Work shall provide that such Subcontract may be assigned to the District if the Contract is terminated by the District pursuant to Article 15.1 hereof, subject to the prior rights of the Surety obligated under a bond relating to the Contract.

Upon request, the Contractor shall provide to the District copies of executed Subcontracts and Purchase Orders, including amendment thereto, to which Contractor is a party within seven (7) days of District's request for same. The Contractor's failure or refusal, for any reason, to provide copies of such Subcontracts or Purchase Orders shall be deemed the Contractor's default of a material term of the Contract Documents.

## 5.2 Substitution of Listed Subcontractor

### 5.2.1 Substitution Process

Any request of the Contractor to substitute a listed Subcontractor will be considered only if such request is in strict conformity with this Article 5.2 and California Public Contract Code §4107. All costs and fees incurred by the District in the review and evaluation of a request to substitute a listed Subcontractor shall be borne by the Contractor; such costs and fees may be deducted by the District from the Contract Price then or thereafter due the Contractor.

### 5.2.2 Responsibilities of Contractor Upon Substitution of Subcontractor

Neither the substitution nor the District's consent to Contractor's substitution of a listed Subcontractor shall relieve Contractor from its obligation to complete the Work within the Contract Time and for the Contract Price. In the event that the District determines that revised or additional Submittals are required of the newly substituted Subcontractor, the District shall promptly notify the Contractor, in writing, of such requirement and the time for submittal. In the event that the revised or additional Submittals are not submitted by Contractor within the time specified, Contractor shall be subject to the per diem assessments for late Submittals as set forth in Article 4.8 of these General Conditions. Any revised or additional Submittals required pursuant to this Article 5.2.2 shall conform with the requirements of Article 4.8 of these General Conditions. Contractor shall reimburse the District for all fees and costs incurred or associated with the processing, review and evaluation of any revised or additional Submittals required pursuant to this Article 5.2.2; the District may deduct such fees and costs from any portion of the Contract Price then or thereafter due the Contractor. In the event that additional or revised Submittals are required pursuant to this Article 5.2.2, such requirement shall not result in an increase to the Contract Time or the Contract Price.

# ARTICLE 6: INSURANCE; INDEMNITY; BONDS

## 6.1 Workers' Compensation Insurance; Employer's Liability Insurance

The Contractor shall purchase and maintain Workers' Compensation Insurance as will protect the Contractor from claims under workers' or workmen's compensation, disability benefit and other similar employee benefit acts which are applicable to the Work to be performed, whether such operations be by the Contractor or by a Subcontractor or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable. Contractor shall purchase and maintain Employer's Liability Insurance covering bodily injury (including death) by accident or disease to any employee which arises out of the employee's employment by Contractor. The Employer's Liability Insurance required of Contractor hereunder may be obtained by Contractor as a separate policy of insurance or as an additional coverage under the Workers' Compensation Insurance required to be obtained and maintained by Contractor hereunder. The limits of liability for the Employer's Liability Insurance required hereunder shall be as set forth in the Special Conditions.

## 6.2 Commercial General Liability and Property Insurance

The Contractor shall purchase and maintain Commercial General Liability and Property Insurance covering the types of claims set forth below which may arise out of or result from Contractor's operations under the Contract Documents and for which the Contractor may be legally responsible: (i) claims for damages because of bodily injury, occupational sickness or disease or death of the Contractor's employees; (ii) claims for damages because of bodily injury, sickness or disease or death of any person other than the Contractor's employees; (iii) claims for damages insured by usual personal injury liability coverage which are sustained (a) by a person as a result of an offense directly or indirectly related to employment of such person by the Contractor, or (b) by another person; (iv) claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; (v) claims for damages because of bodily injury, death of a person or property damages arising out of ownership, maintenance or use of a motor vehicle; and (vi) contractual liability insurance applicable to the Contractor's obligations under the Contract Documents. Contractor shall also provide excess or umbrella liability limits for Products and Completed Operations Aggregate for this Project as a Designated Project as set forth in the Special Conditions.

## 6.3 Builder's Risk "All-Risk" Insurance

The Contractor, during the progress of the Work and until Final Acceptance of the Work by the District upon completion of the entire Contract, shall maintain Builder's Risk "All-Risk" Completed Value Insurance Coverage on all insurable Work included under the Contract Documents which coverage is to provide extended coverage and insurance against vandalism and malicious mischief, perils of fire, sprinkler leakage, civil authority, sonic boom, collapse and flood upon the entire Work which is the subject of the Contract Documents, and including completed Work and Work in progress to the full insurable value thereof. Contractor’s Builders Risk Insurance shall include coverage and insurance against the perils of earthquake if so indicated in the Special Conditions. Such insurance shall include the District as an additional named insured, and any other person with an insurable interest designated by the District as an additional named insured. The risk of damage to the Work due to the perils covered by the Builder's Risk "All Risk" Insurance, as well as any other hazard which might result in damage to the Work, is that of the Contractor and the Surety, and no claims for such loss or damage shall be recognized by the District, nor will such loss or damage excuse the complete and satisfactory performance of the Contract by the Contractor.

## 6.4 Coverage Amounts

The insurance required of the Contractor hereunder shall be written for not less than any limits of liability specified in the Contract Documents, or required by law, whichever is greater. In the event of any loss or damage covered by a policy of insurance required to be obtained and maintained by the Contractor hereunder, the Contractor shall be solely and exclusively responsible for the payment of the deductible, if any, under such policy of insurance, without adjustment to the Contract Price on account thereof.

## 6.5 Evidence of Insurance; Subcontractor's Insurance

### 6.5.1 Certificates of Insurance

With the execution of the Contract, Contractor shall deliver to the District Certificates of Insurance evidencing the insurance coverages required by the Contract Documents.

Failure or refusal of the Contractor to so deliver Certificates of Insurance may be deemed by the District to be a default of a material obligation of the Contractor under the Contract Documents. The Certificates of Insurance and the insurance policies required by the Contract Documents shall contain a provision that coverages afforded under such policies will not be canceled or allowed to expire until at least thirty (30) days prior written notice has been given to the District. The insurance policies required of Contractor hereunder shall also name the District as an additional insured as its interests may appear. Should any policy of insurance be canceled before Final Acceptance of the Work by the District and the Contractor fails to immediately procure replacement insurance as required, the District reserves the right to procure such insurance and to deduct the premium cost thereof and other costs incurred by the District in connection therewith from any sum then or thereafter due the Contractor under the Contract Documents. The Contractor shall, from time to time, furnish the District, when requested, with satisfactory proof of coverage of each type of insurance required by the Contract Documents; failure of the Contractor to comply with the District's request may be deemed by the District to be a default of a material obligation of the Contractor under the Contract Documents.

**6.5.2 Subcontractors' Insurance**

Contractor shall require that every Subcontractor, of any tier, performing or providing any portion of the Work obtain and maintain the policies of insurance set forth in Articles 6.1 and 6.2 of these General Conditions; the coverages and limits of liability of such policies of insurance to be obtained and maintained by Subcontractors shall be as set forth in the Special Conditions. The policies of insurance to be obtained and maintained by Subcontractors hereunder are in addition to, and not in lieu of, Contractor obtaining and maintaining such policies of insurance. Each of the policies of insurance obtained and maintained by a Subcontractor hereunder shall conform with the requirements of this Article 6. Upon request of the District, Contractor shall promptly deliver to the District Certificates of Insurance evidencing that the Subcontractors have obtained and maintained policies of insurance in conformity with the requirements of this Article 6. Failure or refusal of the Contractor to provide the District with Subcontractors' Certificates of Insurance evidencing the insurance coverages required hereunder is a material default of Contractor hereunder.

**6.6 Maintenance of Insurance**

Any insurance bearing on the adequacy of performance of Work shall be maintained after the District's Final Acceptance of all of the Work for the full one year correction of Work period and any longer specific guarantee or warranty periods set forth in the Contract Documents. Should such insurance be canceled before the end of any such periods and the Contractor fails to immediately procure replacement insurance as specified, the District reserves the right to procure such insurance and to charge the cost thereof to the Contractor. Nothing contained in these insurance requirements is to be construed as limiting the extent of the Contractor's responsibility for payment of damages resulting from its operations or performance of the Work under the Contract Documents, including without limitation the Contractor's obligation to pay Liquidated Damages. In no instance will the District's exercise of its option to occupy and use completed portions of the Work relieve the Contractor of its obligation to maintain insurance required under this Article until the date of Final Acceptance of the Work by the District, or such time thereafter as required by the Contract Documents. The insurer providing any insurance coverage required hereunder shall be to the reasonable satisfaction of the District.

**6.7 Contractor's Insurance Primary**

All insurance and the coverages thereunder required to be obtained and maintained by Contractor hereunder, if overlapping with any policy of insurance maintained by the District, shall be deemed to be primary and non-contributing with any policy maintained by the District and any policy or coverage thereunder maintained by District shall be deemed excess insurance. To the extent that the District maintains a policy of insurance covering property damage arising out of the perils of fire or other casualty covered by the Contractor's Builder's Risk Insurance or the Commercial General Liability Insurance of the Contractor or any Subcontractor, the District, Contractor and all Subcontractors waive rights of subrogation against the others. The costs for obtaining and maintaining the insurance coverages required herein shall be included in the Contract Price. The District shall be endorsed on all policies provided by Contractor, as appropriate, as additional insureds as respects liability arising out of Contractor's or Subcontractors' performance of the terms and conditions of these Contract Documents.

**6.8 Indemnity**

Unless arising solely out of the active negligence, gross negligence or willful misconduct of the District, the Architect or the Project Manager, the Contractor shall indemnify, defend and hold harmless: (i) the District and its Board of Trustees, officers, employees, agents and representatives (including the District's Inspector); (ii) the Architect and its consultants for the Work and their respective agents and employees; and (iii) the Project Manager and its agents and employees from and against any and all damages, losses, claims, demands or liabilities whether for damages, losses or other relief, including, without limitation attorneys fees and costs which arise, in whole or in part, from the Work, the Contract Documents or the acts, omissions or other conduct of the Contractor or any Subcontractor or any person or entity engaged by them for the Work. The Contractor's obligations under the foregoing include without limitation: (i) injuries to or death of persons; (ii) damage to property; or (iii) theft or loss of property; and (iv) other losses, liabilities, damages or costs resulting from, in whole or part, any acts, omissions or other conduct of Contractor, any of Contractor's Subcontractors, of any tier, or any other person or entity employed directly or indirectly by Contractor in connection with the Work and their respective agents, officers or employees. If any action or proceeding, whether judicial, administrative, arbitration or otherwise, shall be commenced on account of any claim, demand or liability subject to Contractor's obligations hereunder, and such action or proceeding names the District as a party thereto, the Contractor shall, at its sole cost and expense, defend the District in such action or proceeding with counsel reasonably satisfactory to District. In the event that there shall be any judgment, award, ruling, settlement, or other relief arising out of any such action or proceeding to which the District is bound by, Contractor shall pay, satisfy or otherwise discharge any such judgment, award, ruling, settlement or relief; Contractor shall indemnify and hold harmless the District from any and all liability or responsibility arising out of any such judgment, award, ruling, settlement or relief. The Contractor's obligations hereunder are binding upon Contractor's Performance Bond Surety and these obligations shall survive notwithstanding Contractor's completion of the Work or the termination of the Contract.

**6.9 Payment Bond; Performance Bond**

Prior to commencement of the Work, the Contractor shall furnish a Performance Bond as security for Contractor's faithful performance of the Contract and a Labor and Material Payment Bond as security for payment of persons or entities performing work, labor or furnishing materials in connection with Contractor's performance of the Work under the Contract Documents. The

amounts of the Performance Bond and the Payment Bond required hereunder shall be one hundred percent (100%) of the Contract Price. Said Labor and Material Payment Bond and Performance Bond shall be in the form and content set forth in the Contract Documents. The failure or refusal of the Contractor to furnish either the Performance Bond or the Labor and Material Payment Bond in strict conformity with this Article 6.9 may be deemed by the District as a default by the Contractor of a material obligation hereunder. Upon request of the Contractor, the District may consider and accept, but is not obligated to do so, multiple sureties on such bonds. The Surety on any bond required under the Contract Documents shall be an Admitted Surety Insurer as that term is defined in California Code of Civil Procedure §995.120.

## ARTICLE 7: CONTRACT TIME

### 7.1 Substantial Completion of the Work Within Contract Time

Unless otherwise expressly provided in the Contract Documents, the Contract Time is the period of time, including authorized adjustments thereto, allotted in the Contract Documents for achieving Substantial Completion of the Work. The date for commencement of the Work is the date established by the Notice to Proceed issued by the District, which shall not be postponed by the failure to act of the Contractor or of persons or entities for whom the Contractor is responsible. The date of Substantial Completion is the date certified by the Architect, the Project Manager and the District's Inspector as such in accordance with the Contract Documents. The Contract Time is as indicated in the Special Conditions.

### 7.2 Progress and Completion of the Work

#### 7.2.1 Time of Essence

Time limits stated in the Contract Documents are of the essence. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing and achieving Substantial Completion of the Work. The Contractor shall employ and supply a sufficient force of workers, material and equipment, and prosecute the Work with diligence so as to maintain progress, to prevent Work stoppage and to achieve Substantial Completion of the Work within the Contract Time.

#### 7.2.2 Substantial Completion

Substantial Completion is that stage in the progress of the Work when the Work is complete in accordance with the Contract Documents, including but not limited to start-up and testing, so the District can occupy or use the Work for its intended purpose. Substantial Completion shall be determined by the Architect and the District's Inspector upon request by the Contractor in accordance with the Contract Documents. The good faith and reasonable determination of Substantial Completion by the District's Inspector and the Architect shall be controlling and final.

#### 7.2.3 Correction or Completion of the Work After Substantial Completion

Upon achieving Substantial Completion of the Work, the District, the District's Inspector, the Project Manager, the Architect and the Contractor shall jointly inspect the Work and prepare a comprehensive list of items of the Work (punch list) to be corrected or completed by the Contractor. The exclusion of, or failure to include, any item on such list shall not alter or limit the obligation of the Contractor to complete or correct any portion

of the Work in accordance with the Contract Documents. In the event that the Contractor shall fail or refuse, for any reason, to complete all punch list items within the Contract Time, Contractor shall be subject to assessment of Liquidated Damages in accordance with Article 7.4 hereof. If the Contractor fails or refuses to complete all items of the Work within the Contract Time, the District may, in its sole and exclusive discretion and without further notice to Contractor, elect to cause the completion of such items of the Work, provided, however, that such election by the District is in addition to, and not in lieu of, any other right or remedy of the District under the Contract Documents or at law. If the District elects to complete items of the Work, Contractor shall be responsible for all costs incurred by the District in connection therewith and the District may deduct such costs from the Contract Price then or thereafter due the Contractor; if these costs exceed the remaining Contract Price due to the Contractor, the Contractor and the Performance Bond Surety are liable to District for any such excess costs.

#### 7.2.4 Final Completion

Final Completion is that stage of the Work when all Work has been completed in accordance with the Contract Documents, including without limitation, the performance of all punch list items noted upon Substantial Completion, and the Contract has been otherwise fully performed by the Contractor. Final Completion shall be determined by the Architect and the District's Inspector upon request of the Contractor. The good faith and reasonable determination of Final Completion by the District's Inspector and the Architect shall be controlling and final.

#### 7.2.5 Contractor Responsibility for Multiple Inspections

In the event the Contractor shall request determination of Substantial or Final Completion and it is determined by the District that the Work does not then justify certification of Substantial or Final Completion, as applicable, and re-inspection is required at a subsequent time to make such determination, the Contractor shall be responsible for all costs of such re-inspection, including without limitation, the fees of the Architect and the salary of the District's Inspector. The District may deduct such costs from the Contract Price then due or thereafter due to the Contractor.

#### 7.2.6 Final Acceptance

Final Acceptance of the Work shall occur upon approval of the Work by the District's Board of Trustees. Such approval shall be submitted for adoption at the next regularly scheduled meeting of the District's Board of Trustees after the determination of Final Completion. The commencement of any warranty or guarantee period under the Contract Documents shall be deemed to be the date upon the District’s Board of Trustees approves of the Final Acceptance of the Work.

### 7.3 Progress Schedule

#### 7.3.1 Submittal of Preliminary Construction Schedule

Within ten (10) days following execution of the Agreement, the Contractor shall prepare and submit to the District, the Project Manager and the Architect a Preliminary Construction Schedule indicating, in graphic and tabular form, the estimated rate of progress and sequence of all Work required under the Contract Documents. The purpose

of the Preliminary Construction Schedule is to assure adequate planning and execution of the Work so that it is completed within the Contract Time and to permit evaluation of the progress of the Work. The Preliminary Construction Schedule shall indicate the dates for commencement and completion of various portions of the Work, including, without limitation, the procurement and fabrication of major items, material and equipment forming a part of, or to be incorporated into, the Work as well as Site construction activities. The Preliminary Construction Schedule shall identify all major (critical) Submittals required, the portion(s) of the Work for which the identified Submittals relate to and the date upon which each Submittal required will be transmitted to the Architect for review (the "Submittal Schedule"). The Contractor shall prepare the Preliminary Construction Schedule using Primavera, Sure Track, or comparable software in Critical Path Method format. If Contractor elects to use software other than Primavera or Sure Track, Contractor shall provide such software to the District at Contractor's expense. These requirements shall not be deemed control over or assumption of construction means, methods or sequences, all of which remain the Contractor's responsibility. Further, these requirements shall not give rise to an increase in the Contract Time or the Contract Price. The Contractor may submit a Preliminary Construction Schedule depicting completion of the Work in a duration shorter than the Contract Time; provided that such Preliminary Construction Schedule shall not be a basis for adjustment to the Contract Price in the event that completion of the Work shall occur after the time depicted therein, nor shall such Preliminary Construction Schedule be the basis for any extension of the Contract Time, the Contractor's entitlement to any extension of the Contract Time shall be based upon the Contract Time and not on any shorter duration which may be depicted in the Contractor's Preliminary Construction Schedule. In the event any of the Construction Schedules required under this Article 7.3 incorporate therein "float" time, such float shall be deemed to belong to and owned by the District. As used herein, "float time" shall be deemed to refer to the time between the earliest start date and the latest start date, or between the earliest finish date and the latest finish date of each activity shown on the Construction Schedule.

### 7.3.2 Review of Preliminary Construction Schedule

The District, the Project Manager and the Architect shall review the Preliminary Construction Schedule submitted by the Contractor pursuant to Article 7.3.1 above for conformity with the requirements of the Contract Documents. Within fifteen (15) days of the date of receipt of the Preliminary Construction Schedule, such Schedule will be returned to the Contractor with comments to the form or content thereof. Review of the Preliminary Progress Schedule and any comments thereto by the District, the Project Manager and/or the Architect shall not be deemed to be the assumption of construction means, methods or sequences by the District, the Project Manager or the Architect, all of which remain the Contractor's obligations under the Contract Documents.

### 7.3.3 Preparation and Submittal of Contract Construction Schedule

Within ten (10) days of the District's return of the Preliminary Construction Schedule to the Contractor pursuant to Article 7.3.2 above, the Contractor shall prepare and submit the Cost Loaded Construction Schedule which incorporates therein the comments to the Preliminary Construction Schedule. Upon the Contractor's submittal of such Construction Schedule, the District shall review the same for purposes of determining conformity with

the requirements of the Contract Documents. Within fifteen (15) days of the receipt of the Construction Schedule, the District will approve such Construction Schedule or will return the same to the Contractor with comments to the form or content. In the event there are comments to the form or content thereof, the Contractor, shall within seven (7) days of receipt of such comments, revise and resubmit the Construction Schedule incorporating therein such comments. Upon the District's approval of the form and content of a Construction Schedule, the same shall be deemed the "Approved Construction Schedule." The District's approval of a Construction Schedule shall be for the sole and limited purpose of determining conformity with the requirements of the Contract Documents. By the Approved Construction Schedule, the District shall not be deemed to have exercised control over, or approval of, construction means, methods or sequences, all of which remain the responsibility and obligation of the Contractor in accordance with the terms of the Contract Documents. Further, the Approved Construction Schedule shall not operate to limit or restrict any of Contractor's obligations under the Contract Documents nor relieve the Contractor from the full, faithful and timely performance of such obligations in accordance with the terms of the Contract Documents. The activities, commencement and completion dates of activities, and the sequencing of activities depicted on the Approved Construction Schedule shall not be modified or revised by the Contractor without the prior consent, or direction, of the District. Updates to the Approved Construction Schedule pursuant to Article 7.3.5 below shall not be deemed revisions to the Approved Construction Schedule. In the event that the Approved Construction Schedule shall depict completion of the Work in a duration shorter than the Contract Time, the same shall not be a basis for an adjustment of the Contract Time or the Contract Price in the event that actual completion of the Work shall occur after such the time depicted in such Approved Construction Schedule. In such event, the Contract Price shall not be subject to adjustment on account of any additional costs incurred by the Contractor to complete the Work prior to the Contract Time, as adjusted in accordance with the terms of the Contract Documents. Any adjustment of the Contract Time or the Contract Price shall be based upon the Contract Time set forth in the Contract Documents and not any shorter duration which may depicted in the Approved Construction Schedule.

**7.3.4 Revisions to Approved Construction Schedule**

In the event that the progress of the Work or the sequencing of the activities of the Work shall materially differ from that indicated in the Approved Construction Schedule, as determined by the District in its reasonable discretion and judgment, the District may direct the Contractor to revise the Approved Construction Schedule; within fifteen (15) days of the District's direction, the Contractor shall prepare and submit a revised Approved Construction Schedule, for review and approval by the District. The Contractor may request consent of the District to revise the Approved Construction Schedule. Any such request shall be considered by the District only if in writing setting forth the Contractor's proposed revision(s) to the Approved Construction Schedule and the reason(s) therefor. The District may consent to, or deny, any such request of the Contractor to revise the Approved Construction Schedule in its reasonable discretion.

**7.3.5 Updates to Approved Construction Schedule**

The Contractor shall monitor and update the Approved Construction Schedule on a monthly basis, or more frequently as required by the conditions or progress of the Work, or as may be requested by the District. Proper and complete updating of the Approved

Construction Schedule shall be a condition precedent to the issuance of progress payments described in Article 8 of these General Conditions. The Contractor shall provide the District with updated Approved Construction Schedules indicating progress achieved and activities commenced or completed within the prior updated Approved Construction Schedule. Updates to the Approved Construction Schedule shall not include any revisions to the activities, commencement and completion dates of activities or the sequencing of activities depicted on the Approved Construction Schedule. Any such revisions to the Approved Construction Schedule shall result in the District's rejection of such update and Contractor shall, within seven (7) days of the District's rejection of such update, submit to the Architect and the Project Manager an Updated Approved Construction Schedule which does not incorporate any such revisions. If requested by the District, the Contractor shall also submit, with its updates to the Approved Construction Schedule, a narrative statement including a description of current and anticipated problem areas of the Work, delaying factors and their impact, and an explanation of corrective action taken or proposed by the Contractor. If the progress of the Work is behind the Approved Construction Schedule, the Contractor shall indicate what measures will be taken to place the Work back on schedule. The District may, from time to time, and in the District's sole and exclusive discretion, transmit to the Contractor's Performance Bond Surety the Approved Construction Schedule, any updates thereof and the narrative statement described hereinabove. The District's election to transmit, or not to transmit such information, to the Contractor's Performance Bond Surety shall not limit the Contractor's obligations under the Contract Documents.

#### 7.3.6 Contractor Responsibility for Construction Schedule

The Contractor shall be responsible for the preparation, submittal and maintenance of the Construction Schedules required by the Contract Documents, and any failure of the Contractor to do so may be deemed by the District as the Contractor's default in the performance of a material obligation under Contract Documents. Any and all costs or expenses required or incurred to prepare, submit, maintain, and update the Construction Schedules shall be solely that of the Contractor and no such cost or expense shall be charged to the District. The Contract Price shall not be subject to adjustment on account of costs, fees or expenses incurred or associated with the Contractor's preparation, submittal, maintenance or updating of the Construction Schedules. All schedule submittals shall include electronic diskettes for use by the District in its analysis and approval of the schedule submittal.

### 7.4 Adjustment of Contract Time

If Substantial Completion or completion of an Interim Milestone is delayed, adjustment, if any, to the Contract Time on account of such delay shall be in accordance with this Article 7.4.

#### 7.4.1 Excusable Delays

If Substantial Completion of the Work or completion of an Interim Milestone is delayed by Excusable Delays, the Contract Time shall be subject to adjustment for such reasonable period of time as determined by the District. Excusable Delays shall not result in any increase in the Contract Price. Excusable Delays refer to unforeseeable and unavoidable casualties or other unforeseen causes beyond the control, and without fault or neglect, of the Contractor, any Subcontractor, Material Supplier or other person directly or indirectly engaged by the Contractor in performance of any portion of the Work. Excusable Delays

include unanticipated and unavoidable labor disputes, unusual and unanticipated delays in transportation of equipment, materials or Construction Equipment reasonably necessary for completion and proper execution of the Work, and unanticipated unusually severe weather conditions. Neither the financial resources of the Contractor or any person or entity directly or indirectly engaged by the Contractor in performance of any portion of the Work shall be deemed conditions beyond the control of the Contractor. If an event of Excusable Delay occurs, the Contract Time shall be subject to adjustment hereunder only if the Contractor establishes: (i) full compliance with all applicable provisions of the Contract Documents relative to the method, manner and time for Contractor's notice and request for adjustment of the Contract Time; (ii) that the event(s) forming the basis for Contractor's request to adjust the Contract Time are outside the reasonable control and without any fault or neglect of the Contractor or any person or entity directly or indirectly engaged by Contractor in performance of any portion of the Work; and (iii) that the event(s) forming the basis for Contractor's request to adjust the Contract Time directly and adversely impacted the progress of the Work as indicated in the Approved Construction Schedule or the most recent updated Approved Construction Schedule relative to the date(s) of the claimed event(s) of Excusable Delay. The foregoing provisions notwithstanding, if the Special Conditions set forth a number of "Rain Days" to be anticipated during performance of the Work, the Contract Time shall not be adjusted for rain related unusually severe weather conditions until and unless the actual number of Rain Days during performance of the Work shall exceed those noted in the Special Conditions and such additional Rain Days shall have directly and adversely impacted the progress of the Work as depicted in the Approved Construction Schedule or the most recent updated Approved Construction Schedule relative to the date(s) of such additional Rain Days.

### 7.4.2 Compensable Delays

If Substantial Completion of the Work or completion of an Interim Milestone is delayed and such delay is caused by the acts or omissions of the District, the Architect, the Project Manager or separate contractor employed by the District (collectively "Compensable Delays"), upon Contractor's request and notice, in strict conformity with Articles 7 and 9 of these General Conditions, the Contract Time will be adjusted by Change Order for such reasonable period of time as determined by the Architect, Project Manager and the District. In accordance with California Public Contract Code § 7102, if the Contractor's progress is delayed by any of the events described in the preceding sentence, Contractor shall not be precluded from the recovery of damages directly and proximately resulting therefrom, provided that the District is liable for the delay, the delay is unreasonable under the circumstances involved and the delay was not within the reasonable contemplation of the District and the Contractor at the time of execution of the Agreement. In such event, Contractor's damages, if any, shall be limited to direct, actual and unavoidable additional costs of labor, materials or Construction Equipment directly resulting from such delay, and shall exclude indirect or other consequential damages. Except as expressly provided for herein, Contractor shall not have any other claim, demand or right to adjustment of the Contract Price arising out of delay, interruption, hindrance or disruption to the progress of the Work. Adjustments to the Contract Price and the Contract Time, if any, on account of Changes to the Work or Suspension of the Work shall be governed by the applicable provisions of the Contract Documents, including without limitation, Articles 9 and 14 of these General Conditions.

### 7.4.3 Unexcusable Delays

Unexcusable Delays refer to any delay to the progress of the Work caused by events or factors other than those specifically identified in Articles 7.4.1 and 7.4.2 above. Neither the Contract Price nor the Contract Time shall be adjusted on account of Unexcusable Delays.

### 7.4.4 Adjustment of Contract Time

#### 7.4.4.1 Procedure for Adjustment of Contract Time

The Contract Time shall be subject to adjustment only in strict conformity with applicable provisions of the Contract Documents. Failure of Contractor to request adjustment(s) of the Contract Time in strict conformity with applicable provisions of the Contract Documents shall be deemed Contractor's waiver of the same.

#### 7.4.4.2 Limitations Upon Adjustment of Contract Time on Account of Delays

Any adjustment of the Contract Time on account of an Excusable Delay or a Compensable Delay shall be limited as set forth herein. If an Excusable Delay and a Compensable Delay occur concurrently, the maximum extension of the Contract Time shall be the number of days from the commencement of the first delay to the cessation of the delay which ends last. If an Unexcusable Delay occurs concurrently with either an Excusable Delay or a Compensable Delay, the maximum extension of the Contract Time shall be the number of days, if any, which the Excusable Delay or the Compensable Delay exceeds the period of time of the Unexcusable Delay. No adjustment of the Contract Time shall be made on account of any Excusable Delays or Compensable Delays unless such delay(s) actually and directly impact Work or Work activities on the critical path of the then current and updated Approved Construction Schedule as of the date on which such delay first occurs. The District shall not be deemed in breach of, or otherwise in default of any obligation hereunder, if the District shall deny any request by the Contractor for an adjustment of the Contract Time for any delay which does not actually and directly impact Work on the then current and updated Approved Construction Schedule.

## 7.5 Liquidated Damages

### 7.5.1 Contractor Delays

Should the Contractor neglect, fail or refuse to achieve Substantial Completion of the Work within the Contract Time, as adjusted, or to complete an Interim Milestone or Final Completion in accordance with the times specified or provided for in the Contract Documents, the Contractor agrees to pay to the District the amount of per diem Liquidated Damages set forth in the Special Conditions, not as a penalty but as Liquidated Damages, for every day beyond the Contract Time, as adjusted, Interim Milestone or Final Completion, the Work is achieved. The Liquidated Damages amounts set forth in the Special Conditions are agreed upon by and between the Contractor and the District because of the difficulty of fixing the District's actual damages in the event of delayed completion of the Work. The Contractor and the District specifically agree that said amounts are reasonable estimates of the District's damages in such event, and that such amounts do not constitute a penalty. Liquidated Damages may be deducted from the Contract Price then or thereafter due the Contractor. The Contractor and the Surety shall

be liable to the District for any Liquidated Damages exceeding any amount of the Contract Price then held or retained by the District. In the event that the Contractor shall fail or refuse to correct or complete items of the Work noted upon Substantial Completion and the District elects to exercise its right to cause completion or correction of such items pursuant to Article 7.2.3.2 hereof, the District's assessment of Liquidated Damages pursuant to the foregoing shall be in addition, and not in lieu of, the District's right to charge Contractor with the cost of completing or correcting such items of the Work, as provided for under Article 7.2.3.2.

**7.5.2 District Delays**

If the Contractor is delayed by the District or anyone employed by it and granted an extension of time, or if the Contractor is delayed and the District is held responsible for such delay, the Contractor and the District agree that it is impractical and infeasible to determine the amount of actual damage suffered by the Contractor as a result of such delay. Such damages include, but are not limited to, extended home and field office overhead, impairment of bonding capacity, lost opportunity, and all other damages or claims, regardless of tier, attributable, or claimed to be attributable to any such delay. Accordingly, in such an instance, it is agreed that the District will pay to the Contractor as fixed and liquidated damages, and not as a penalty, the sum of set forth in the Special Conditions for each calendar day of delay beyond the Contract Time.

**7.5.3 Liquidated Damages Reasonable**

The Contractor and the District acknowledge and agree that the provisions of this Article 7.5 are reasonable under the circumstances existing at the time of the Contractor's execution of the Agreement.

## ARTICLE 8: CONTRACT PRICE

### 8.1 Contract Price

The Contract Price is the amount stated in the Agreement as such, and subject to any authorized adjustments thereto in accordance with the Contract Documents, is the total amount payable by the District to the Contractor for performance of the Work under the Contract Documents. The District's payment of the Contract Price to the Contractor shall be in accordance with the Contract Documents.

### 8.2 Cost Breakdown (Schedule of Values)

Within fifteen (15) days of the Cost Loaded Contract Construction Schedule (Article 7.3.3), the Contractor shall furnish a detailed tabular Cost Breakdown of the Contract price consistent with the cost-loaded work activities included in the Approved Construction Schedule. The Cost Breakdown shall be subject to the District's review and approval of the form and content thereof. In the event that the District shall reasonably object to any portion of the Cost Breakdown, within ten (10) days of the District's receipt of the Cost Breakdown, the District shall notify the Contractor, in writing of the District's objection(s) to the Cost Breakdown. Within five (5) days of the date of the District's written objection(s), Contractor shall submit a revised Cost Breakdown to the District for review and approval. The foregoing procedure for the preparation, review and approval of the Cost Breakdown shall continue until the District has approved of the entirety of the Cost Breakdown. Once the Cost Breakdown is approved by the District, the Cost Breakdown

shall not be thereafter modified or amended by the Contractor without the prior consent and approval of the District, which may be granted or withheld in the sole reasonable discretion of the District. Notwithstanding any provision of the Contract Documents to the contrary, payment of the Contractor's overhead, supervision and general conditions costs and profit, as such items are reflected in the Cost Breakdown, shall be made incrementally as included in the activities included in the Approved Construction Schedule.

## 8.3 Progress Payments

### 8.3.1 Applications for Progress Payments

During the Contractor's performance of the Work, the Contractor shall submit monthly, on the first working day of each month, to the Project Manager, Applications for Progress Payments, on forms approved by the District, setting forth an itemized estimate of Work completed in the preceding month. Values utilized in the Applications for Progress Payments shall be based upon the proper updating of the Approved Construction Schedule. The Cost Breakdown and/or Approved Cost Loaded Construction Schedule, pursuant to Article 8.2 above, and such values shall be only for determining the basis of Progress payments to the Contractor, and shall not be considered as fixing a basis for adjustments, whether additive or deductive, to the Contract Price.

### 8.3.2 District's Review of Applications for Progress Payments

In accordance with Public Contract Code §20104.50, upon receipt of an Application for Progress Payment, the Project Manager, the District's Inspector, and the Architect shall review the Application. Such review shall be for the purpose of determining that the Application for Progress Payment is a proper Progress Payment request. For purposes of this Article 8.3.2, an Application for Progress Payment shall be deemed "proper" only if it is submitted on the properly completed form approved by the District, and accompanied by:

(i) the Application submitted by the Contractor shall be consistent with and accompanied by the updated Approved Construction Schedule;

(ii) weekly Certified Payrolls of the Contractor and all Subcontractors, of any tier, for laborers performing any portion of the Work for which a Progress Payment is included (if requested);

(iii) duly completed and executed forms of Conditional Waiver and Release of Rights Upon Progress Payment in accordance with California Civil Code § 3262 of the Contractor, all Subcontractors of any tier, and Material Suppliers covering the Progress Payment requested;

(iv) duly completed and executed forms of Unconditional Waiver and Release of Rights upon Progress Payment in accordance with California Civil Code § 3262 of the Contractor, all Subcontractors of any tier, and Material Suppliers covering the Progress Payment received by the Contractor under the prior Application for Progress Payment;

(v) a current union statement reflecting that the Contractor and any Subcontractor of any tier, are current in the payment of any supplemental fringe benefits required pursuant to any collective bargaining agreement to which the Contractor or any such Subcontractor is a party to or is otherwise bound by (if requested); and

(vi) a certification by the Contractor that it has maintained the Record Documents reflecting the actual as-built conditions of the Work performed (such certification is subject to verification by the District‘s Inspector prior to approval of the Progress Payment).

In accordance with Public Contract Code § 20104.50, an Application for Progress Payment determined by the District not to be a proper Application for Progress Payment shall be returned by the District to the Contractor as soon as is practicable after receipt of the same from the Contractor, but in no event not more than seven (7) days after the District's receipt thereof. The District's return of any Application for Progress Payment pursuant to the preceding sentence shall be accompanied by a written document setting forth the reason(s) why the Application for Progress Payment is not proper. Pursuant to the District’s Labor Compliance Program, Labor Code §1771.5 and other applicable law, the District shall withhold payments when payroll records are delinquent or inadequate.

### 8.3.3 Architect and District's Inspector Review of Applications for Progress Payments

Upon receipt of an Application for Progress Payment, the Architect and the District's Inspector shall meet with the Contractor to inspect the completed work and verify the portion of the work completed during the month using the approved Construction Schedule update and the Cost Breakdown. The Application for Progress Payment shall reflect the agreed percentages of work complete that is properly due to the Contractor under the terms of the Contract Documents. The Application submitted by the Contractor shall be consistent with and accompanied by the updated Approved Construction Schedule.

### 8.3.4 District's Disbursement of Progress Payments

#### 8.3.4.1 Timely Disbursement of Progress Payments

In accordance with Public Contract Code § 20104.50, within thirty (30) days after the District's receipt of a proper Application for Progress Payment, there shall be paid, by District, to Contractor a sum equal to ninety percent (95%) of the value of the Work indicated in the Application for Progress Payment as verified and approved by the District's Inspector and the Architect. If an Application for Progress payment is determined not to be proper due to the failure or refusal of the contractor to submit the required documents with the Application for progress payment, or if it is reasonably determined that the Record Documents have not been continuously maintained to reflect the actual as-built conditions of the Work completed in the period for which the Progress Payment is requested, the thirty (30) day period hereunder for the District’s timely disbursement of a Progress payment shall be deemed to commence on the date that the District is actually in receipt of a complete and proper Application for Progress payment or verifies the proper updating of the as-built conditions.

#### 8.3.4.2 Untimely Disbursement of Progress Payments

In accordance with Public Contract Code §20104.50, in the event that the District shall fail to make any Progress Payment within thirty (30) days after receipt of an undisputed and properly submitted Application for Progress Payment, the District shall pay the Contractor interest on the undisputed amount of such Application for

Progress Payment equal to the legal rate of interest set forth in California Code of Civil Procedure § 685.010(a). The foregoing notwithstanding, pursuant to the District's Labor Compliance Program, Labor Code §1771.5 and other applicable law, the District shall withhold payments when payroll records are delinquent or inadequate without penalty or payment of interest under Public Contract Code §20104.50.

#### 8.3.4.3 District's Right to Disburse Progress or Final Payments by Joint Checks

The District may, in its sole discretion, issue joint checks to the Contractor and any Subcontractor or Material Supplier providing work, labor, materials, equipment or services for the Project in satisfaction of its obligation to make Progress Payments or the Final Payment due hereunder. District may require Contractor to provide copies of applicable Subcontracts, purchase orders, rental invoices or materials invoices.

#### 8.3.4.4 No Waiver of Defective or Non-Conforming Work

The approval of any Application for Progress Payment or the disbursement of any Progress Payment to the Contractor shall not be deemed nor constitute acceptance of defective Work or Work not in conformity with the Contract Documents.

### 8.3.5 Progress Payments for Changed Work

The Contractor's Applications for Progress Payment may include requests for payment on account of Changes in the Work which have been properly authorized and approved by the District's Inspector, the Architect and the Board. Except as provided for herein, no other payment shall be made by the District for Changes in the Work.

### 8.3.6 Materials or Equipment Not Incorporated Into the Work

#### 8.3.6.1 Limitations Upon Payment

Except as expressly provided for herein, no payments shall be made by the District on account of any item of the Work, including without limitation, materials or equipment which has/have not been incorporated into and made a part of the Work.

#### 8.3.6.2 Materials or Equipment Delivered and Stored at the Site

The District may, in its sole and exclusive discretion, make payment for materials or equipment not yet incorporated into the Work if, a request for payment of such materials or equipment is made and if all of the following are complied with: (a) the materials or equipment have been delivered to the Site; (b) adequate arrangements, reasonably satisfactory to the District, have been made by the Contractor to store and protect such materials or equipment at the Site including without limitation, insurance reasonably satisfactory to the District, covering and protecting against the risk of loss, destruction, theft or other damage to such materials or equipment while in storage; and (c) the establishment of procedures reasonably satisfactory to the District by which title to such materials or equipment will be vested in the District upon the District's payment therefor. The Contractor acknowledges that the discretion to make, or not to make, payment for materials or equipment delivered or stored at the site of the Work pursuant to the preceding sentence shall be exercised exclusively by the District; the District's exercise of discretion not to make payment for materials or equipment delivered or stored at

the Site, but not yet incorporated into the Work shall not be deemed the District's default hereunder. In the event that the District shall elect to make payment for materials or equipment delivered and stored at the Site, the costs and expenses incurred to comply with the requirements of (b) and (c) of this Article 8.3.6.2 shall be borne solely and exclusively by the Contractor and no payment shall be made by the District on account of such costs and expenses.

### 8.3.7 Exclusions From Progress Payments

No payments shall be made by the District for materials or equipment to be incorporated into the Work where such materials or equipment have not been delivered or stored at the Site. The District shall not make any payment on account of any materials or equipment which are in the process of being fabricated or which are in transit to the Site or other storage location. In addition to the District's right to withhold disbursement of any Progress Payment provided for in the Contract Documents, neither the Contractor's Application for Progress Payment shall include, nor shall the District be obligated to disburse any portion of the Contract Price for amounts which the Contractor does not intend to pay any Subcontractor, of any tier, or Material Supplier because of a dispute or any other reason.

### 8.3.8 Title to Work

The Contractor warrants that title to all Work covered by an Application for Progress Payment will pass to the District no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Progress Payment, all Work for which a Progress Payment has been previously issued and the Contractor has received payment from the District therefor shall, to the best of the Contractor's knowledge, information and belief, be free and clear of liens, claims, stop notices, security interests or encumbrances in favor of the Contractor, Subcontractors, Material Suppliers or other persons or entities making a claim by reason of having provided labor, materials and equipment relating to the Work.

## 8.4 Final Payment

### 8.4.1 Application for Final Payment

When the Contractor has achieved Final Completion of the Work and has otherwise fully performed its obligations under the Contract Documents, the Contractor shall submit an Application for Final Payment on such form as approved by the District. Thereupon, the Architect and the District's Inspector will promptly make a final inspection of the Work and when the Architect and the District's Inspector find the Work acceptable under the Contract Documents and that the Contract has been fully performed by the Contractor, the Architect and the District's Inspector will thereupon promptly approve the Application for Final Payment, stating that to the best their knowledge, information and belief, the Work has been completed in accordance with the terms of the Contract Documents. The Final Payment shall include the remaining balance of the Contract Price and any retention from Progress Payments previously withheld by the District.

### 8.4.2 Conditions Precedent to Disbursement of Final Payment

Neither Final Payment nor any remaining Contract Price shall become due until the Contractor submits to the District each and all of the following, the submittal of which are conditions precedent to the District's obligation to disburse the Final Payment: (i) an

affidavit or certification by the Contractor that payrolls, bills for materials and other indebtedness incurred in connection with the Work for which the District or the District's property may or might be responsible or encumbered have been paid or otherwise satisfied; (ii) a certificate evidencing that insurance required by the Contract Documents to remain in force after the Contractor's receipt of Final Payment is currently in effect; (iii) a written statement that the Contractor knows of no substantial reason that the insurance will not be renewable to cover any period following Final Payment as required by the Contract Documents; if required (iv) consent of the Surety on the Labor and Material Payment Bond and Performance Bond, to Final Payments if required; (v) duly completed and executed forms of Conditional or Unconditional Waivers and Releases of rights upon Final Payment of the Contractor, Subcontractors of any tier and Material Suppliers in accordance with California Civil Code §3262, with each of the same stating that there are, or will be, no claims for additional compensation after disbursement of the Final Payment; (vi) Operations and Maintenance manuals and separate warranties provided by any manufacturer or distributor of any materials or equipment incorporated into the Work; (vii) the Record Drawings; (viii) the form of Guarantee included in the Contract Documents duly executed by an authorized representative of the Contractor; (ix) any and all other items or documents required by the Contract Documents to be delivered to the District upon completion of the Work; and (x) if required by the District, such other data establishing payment or satisfaction of obligations such as receipts, releases and waivers of liens, stop notices, claims, security interest or encumbrances arising out of the Contract to the extent and in such form as may be required by the District.

**8.4.3 Disbursement of Final Payment**

Provided that the District is then in receipt of all documents and other items in Article 8.4.2 above as conditions precedent to the District's obligation to disburse Final Payment, not later than sixty (60) days following Final Acceptance the District shall disburse the Final Payment to the Contractor. Pursuant to California Public Contract Code §7107, if there is any dispute between the District and the Contractor at the time that disbursement of the Final Payment is due, the District may withhold from disbursement of the Final Payment an amount not to exceed one hundred fifty percent (150%) of the amount in dispute.

**8.4.4 Waiver of Claims**

The Contractor's acceptance of the Final Payment is a waiver and release by the Contractor of any and all claims against the District for compensation or otherwise in connection with the Contractor's performance of the Contract.

**8.4.5 Claims Asserted After Final Payment**

Any lien, stop notice or other claim filed or asserted after the Contractor's acceptance of the Final Payment by any Subcontractor, of any tier, laborer, Material Supplier or others in connection with or for Work performed under the Contract Documents shall be the sole and exclusive responsibility of the Contractor who further agrees to indemnify, defend and hold harmless the District and its officers, agents, representatives and employees from and against any claims, demands or judgments arising or associated therewith, including without limitation attorneys fees incurred by the District in connection therewith. In the event any lien, stop notice or other claim of any Subcontractor, Laborer, Material Supplier or others performing Work under the Contract Documents remain unsatisfied after Final

Payment is made, Contractor shall refund to District all monies that the District may pay or be compelled to pay in discharging any lien, stop notice or other claim, including, without limitation all costs and reasonable attorneys fees incurred by District in connection therewith.

**8.5 Withholding of Payments.** The District may decline to pay the Contractor, or reduce or withhold any portion of a payment otherwise due the Contractor for any progress payment or final payment on account of:

**8.5.1** In the District's opinion, the Work cannot be completed for the unpaid balance of the Contract Price;

**8.5.2** In the District's opinion, the Work will not be completed within the Contract Time and the unpaid balance of the Contract Price would not be adequate to cover liquidated damages resulting from the anticipated delay;

**8.5.3** Any damage has occurred to the District or any Subcontractor, Material Supplier or another contractor, and the Contractor may be liable for such damage;

**8.5.4** The Contractor fails to perform any portion of the Work in accordance with the Contract Documents or otherwise violates any provision of the Contract Documents or fails to discharge any Contractor obligation thereunder;

**8.5.5** Any claims, liens, labor compliance withholds, or stop payment notices are filed in connection with the Work or asserted against the District, the Project or the Site;

**8.5.6** The Contractor fails to reimburse the District for any costs or expenses incurred by the District, or amounts advanced by the District, on behalf of the Contractor as may be provided or permitted in this Contract;

**8.5.7** Notification has been given that a penalty will be assessed by any State, local or municipal agency or by the District for violations of any applicable laws, including, without limitation, tax laws, labor laws and/or fair employment laws;

**8.5.8** Any current and non-resolved non-compliance notices issued by any public agency;

**8.5.9** Defective Work or Work not in conformity with the Contract Documents which is not remedied as required in Article 12 herein;

**8.5.10** Stop Payment Notices or other liens or third party claims served upon the District as a result of the Contract;

**8.5.11** Liquidated damages incurred by the District for delays to the Project;

**8.5.12** Unsatisfactory prosecution of the Work by the Contractor;

**8.5.13** Failure to store and properly secure materials;

**8.5.14** Failure of the Contractor to submit, on a timely basis, proper, sufficient, and acceptable documentation required by the Contract Documents, including, without limitation, a Construction Schedule, updated Schedule, Schedule of Submittals, Schedule of Values, monthly progress schedules, Shop Drawings, Product Data and samples, proposed product lists, and/or executed Change Orders;

**8.5.15** Failure of the Contractor to maintain As-Built Drawings;

**8.5.16** Erroneous estimates by the Contractor of the value of the Work performed, or other false statements in an Application for Payment;

**8.5.17** Unauthorized deviations from the Contract Documents;

**8.5.18** Failure of the Contractor to prosecute the Work in a timely manner in compliance with the Construction Schedule, established progress schedules, milestones, and/or other completion dates;

**8.5.19** Failure to properly pay prevailing wages as defined in Labor Code §§1720 et seq. or failure to comply with any other Labor Code requirements;

**8.5.20** Failure to properly maintain or clean up the Site;

**8.5.21** Failure to indemnify, defend, or hold harmless the District;

**8.5.22** Failure to make payments due to the District, including but not limited to payments for failed tests, utilities changes, or permits;

**8.5.23** Failure of the Contractor to make payments when due Subcontractors or Material Suppliers for materials or labor; or

**8.5.24** Contractor is otherwise in breach, default, or in substantial violation of any provision of this Contract.

### 8.6 Payments to Subcontractors

The Contractor shall pay all Subcontractors for and on account of Work of the Contract performed by such Subcontractors in accordance with the terms of their respective subcontracts and as provided for pursuant to California Public Contract Code §10262, the provisions of which are deemed incorporated herein by this reference. In the event of the Contractor's failure to make payment to Subcontractors in conformity with California Public Contract Code §10262, the provisions of California Public Contract Code §10253 shall apply; by this reference, the provisions of California Public Contract Code §10253 are incorporated herein in its entirety, except that the references in said Section 10253 to "the director" shall be deemed to refer to the District.

## ARTICLE 9: CHANGES

### 9.1 Changes in the Work

The District, at any time, by written order, may make Changes within the general scope of the Work under the Contract Documents or issue additional instructions, require additional Work or direct deletion of Work. The Contractor shall not proceed with any Change involving an increase or decrease in the Contract Price or the Contract Time without prior written authorization from the District. The foregoing notwithstanding, the Contractor shall promptly commence and diligently complete any Change to the Work subject to the District's written authorized issued pursuant to the preceding sentence; the Contractor shall not be relieved or excused from its prompt commencement and diligent completion of any Change subject to the District's written authorization by virtue of the absence or inability of the Contractor and the District to agree upon the extent of any adjustment to the Contract Time or the Contract Price on account of such Change. The issuance of a Change Order pursuant to this Article 9 in connection with any Change authorized by the District under this Article 9.1 shall not be deemed a condition precedent to Contractor's obligation to promptly commence and diligently complete any such Change authorized by the District hereunder. The District's right to make Changes shall not invalidate

the Contract nor relieve the Contractor of any liability or other obligations under the Contract Documents. Any requirement of notice of Changes in the scope of Work to the Surety shall be the responsibility of the Contractor. Changes to the Work depicted or described in the Drawings or the Specifications shall be subject to approval by the DSA. The District may make Changes to bring the Work or the Project into compliance with environmental requirements or standards established by state or federal statutes and regulations enacted after award of the Contract.

## 9.2 Oral Order of Change in the Work

Any oral order, direction, instruction, interpretation, or determination from the District, the District's Inspector or the Architect which in the opinion of the Contractor causes any change to the scope of the Work, or otherwise requires an adjustment to the Contract Price or the Contract Time, shall be treated as a Change only if the Contractor gives the Architect and the District's Inspector written notice within ten (10) days of the order, directions, instructions, interpretation or determination and prior to acting in accordance therewith. Time is of the essence in Contractor's written notice pursuant to the preceding sentence so that the District can promptly investigate and consider alternative measures to address the order, direction, instruction, interpretation or determination giving rise to Contractor's notice. Accordingly, Contractor acknowledges that its failure, for any reason, to give written notice within ten (10) days of such order, direction, instruction, interpretation or determination shall be deemed Contractor's waiver of any right to assert or claim any entitlement to an adjustment of the Contract Time or the Contract Price on account of such order, direction, instruction, interpretation or determination. The written notice shall state the date, circumstances, extent of adjustment to the Contract Price or the Contract Time, if any, requested, and the source of the order, directions, instructions, interpretation or determination that the Contractor regards as a Change. Unless the Contractor acts in strict accordance with this procedure, any such order, direction, instruction, interpretation or determination shall not be treated as a Change and the Contractor hereby waives any claim for any adjustment to the Contract Price or the Contract Time on account thereof.

## 9.3 Contractor Submittal of Data

Within fifteen (15) days after receipt of a written order directing a Change in the Work or furnishing the written notice regarding any oral order directing a Change in the Work, the Contractor shall submit to the District a detailed written statement setting forth the amount of any adjustment to the Contract Price on account thereof, properly itemized and supported by sufficient substantiating data to permit evaluation of the same, and the extent of adjustment of the Contract Time, if any, required by such Change. No claim or adjustment to the Contract Price or the Contract Time shall be allowed if not asserted by the Contractor in strict conformity herewith or if asserted after Final Payment is made under the Contract Documents.

## 9.4 Adjustment to Contract Price and Contract Time on Account of Changes to the Work

### 9.4.1 Adjustment to Contract Price

Adjustments to the Contract Price due to Changes in the Work shall be determined by application of one of the following methods, in the following order of priority:

#### 9.4.1.1 Mutual Agreement

By negotiation and mutual agreement, on a lump sum basis, between the District and the Contractor on the basis of the estimate of the actual and direct increase or decrease in costs on account of the Change. Upon request of the District, the Contractor shall provide a detailed estimate of increase or decrease in costs

directly associated with performance of the Change along with cost breakdowns of the components of the Change and supporting data and documentation. The Contractor shall be solely responsible for any additional costs or additional time arising out of, or related in any manner to, its failure to provide the estimate of costs within fifteen (15) days after the receipt of the written request of the District for such estimate.

**9.4.1.2 Determination by the District**

By the District, whether or not negotiations are initiated pursuant to Article 9.4.1.1 above, based upon actual and necessary costs incurred by the Contractor as determined by the District on the basis of the Contractor's records. In the event that the procedure set forth in this Article 9.4.1.2 is utilized to determine the extent of adjustment to the Contract Price on account of Changes to the Work, promptly upon determining the extent of adjustment to the Contract Price, the District shall notify the Contractor in writing of the same; the Contractor shall be deemed to have accepted the District's determination of the amount of adjustment to the Contract Price on account of a Change to the Work unless Contractor shall notify the District, the Architect and the District's Inspector, in writing, not more than fifteen (15) days from the date of the District's written notice, of any objection to the District's determination. Failure of the Contractor to timely notify the District, the Architect and the District's Inspector of Contractor's objections to the District's determination of the extent of adjustment to the Contract Price shall be deemed Contractor's acceptance of the District's determination and a waiver of any right or basis of the Contractor to thereafter protest or otherwise object to the District's determination. Notwithstanding any objection of the Contractor to the District's determination of the extent of any adjustment to the Contract Price pursuant to this Article 9.4.1.2,

Contractor shall, pursuant to Article 9.7 below, diligently proceed to perform and complete any such Change.

**9.4.1.3 Basis for Adjustment of Contract Price**

If Changes in the Work require an adjustment of the Contract Price pursuant to Articles 9.4.1.1 or 9.4.1.2 above, the basis for adjustment of the Contract Price shall be as follows:

**9.4.1.3.1 Labor**

Contractor shall be compensated for the costs of labor actually and directly utilized in the performance of the Change. Such labor costs shall be limited to field labor for which there is a prevailing wage rate classification. Wage rates for labor shall not exceed the prevailing wage rates in the locality of the Site and shall be the labor classification(s) necessary for the performance of the Change. Use of a labor classification which would increase labor costs associated with any Changes shall not be permitted. Labor costs shall exclude costs incurred by the Contractor in preparing estimate(s) of the costs of the Change,

in the maintenance of records relating to the costs of the change coordination and assembly of materials and information relating to the Change or performance thereof, or the supervision and other overhead and general conditions costs associated with the Change or performance thereof.

**9.4.1.3.2 Materials and Equipment**

Contractor shall be compensated for the costs of materials and equipment necessarily and actually used or consumed in connection with the performance of Changes. Costs of materials and equipment may include reasonable costs of transportation from a source closest to the site of the Work and delivery to the Site. If discounts by Material Suppliers are available for materials necessary used in the performance of Changes, they shall be credited to the District. If materials and/or equipment necessarily used in the performance of Changes are obtained from a supplier or source owned in whole or in part by the Contractor, compensation therefore shall not exceed the current wholesale price for such materials or equipment. If, in the reasonable opinion of the District, the costs asserted by the Contractor for materials and/or equipment in connection with any Change is excessive, or if the Contractor fails to provide satisfactory evidence of the actual costs of such materials and/or equipment from its supplier or vendor of the same, the costs of such materials and/or equipment and the District's obligation for payment of the same shall be limited to the then lowest wholesale price at which similar materials and/or equipment are available in the quantities required to perform the Change. The District may elect to furnish materials and/or equipment for changes to the Work, in which event the Contractor shall not be compensated for the costs of furnishing such materials and/or equipment or any mark-up thereon.

**9.4.1.3.3 Construction Equipment**

Contractor shall be compensated for the actual cost of the necessary and direct use of Construction Equipment in the performance of Changes to the Work. Use of such Construction Equipment in the performance of Changes to Work shall be compensated in increments of hourly, weekly or monthly rates, whichever shall be the most economical to the District when applied to the scope of the specific change. Rental time for Construction Equipment moved by its own power shall include time required to move such Construction Equipment to the site of the Work from the nearest available rental source of the same. If Construction Equipment is not moved to the Site by its own power, Contractor will be compensated for the loading and transportation costs in lieu of rental time the foregoing not with-standing, neither moving time or loading and transportation time shall be allowed if the Construction Equipment is used for performance of any portion of

the Work other than Changes to the Work. Unless prior approval in writing is obtained by the Contractor from the Architect, the District's Inspector and the District, no costs or compensation shall be allowed for time while Construction Equipment is inoperative, idle or on standby, for any reason. The Contractor shall not be entitled to an allowance or any other compensation for Construction Equipment or tools used in the performance of Changes to the Work where such Construction Equipment or tools have a replacement value of $1,000.00 or less. Construction Equipment costs claimed by the Contractor in connection with the performance of any Change to the Work shall not exceed rental rates (Blue Book) established by distributors or construction equipment rental agencies in the locality of the Site; any costs asserted which exceed such rental rates shall not be allowed or paid. Unless otherwise specifically approved in writing by the Architect, the District's inspector and the District, the allowable rate for the use of Construction Equipment in connection with the Changes to the Work shall constitute full compensation to the Contractor for the cost of rental, fuel, power, oil, lubrication, supplies, necessary attachments, repairs or maintenance of any kind, depreciation, storage, insurance, labor (exclusive of labor costs of the Construction Equipment operator), and any / all other costs incurred by the Contractor incidental to the use of such Construction Equipment.

**9.4.1.3.4 Mark-up on Costs of Changes to the Work**

In determining the cost to the District and the extent of increase to the Contract Price resulting from a Change adding to the Work, the allowance for mark-ups on the costs of the Change for all overhead (including home office and field overhead), general conditions costs and profit associated with the Change shall not exceed the percentage set forth in the Special Conditions, regardless of the number of Subcontractors, of any tier, performing any portion of any Change to the Work. If a Change to the Work reduces the Contract Price, the maximum adjustment to the Contract Price shall be the actual cost reduction realized by the reduced or deleted Work multiplied by the percentage set forth in the Special Conditions.

**9.4.1.4 Contractor Maintenance of Records**

In the event that Contractor shall be directed to perform any Changes to the Work pursuant to Article 9.1 or 9.2, or should the Contractor encounter conditions which the Contractor, pursuant to Article 9.6, believes would obligate the District to adjust the Contract Price and/or the Contract Time, Contractor shall maintain detailed records on a daily basis. Such records shall include without limitation hourly records for labor and Construction Equipment and itemized records of materials and equipment used that day in connection with the performance of any Change to the Work. In the event that more than one Change to the Work is performed by the Contractor in a calendar day, Contractor shall maintain separate

records of labor, Construction Equipment, materials and equipment for each such Change. In the event that any Subcontractor, of any tier, shall provide or perform any portion of any Change to the Work, Contractor shall require that each such Subcontractor maintain records in accordance with this Article. Each daily record maintained hereunder shall be signed by Contractor's Superintendent or Contractor's authorized representative; such signature shall be deemed Contractor's representation and warranty that all information contained therein is true, accurate, complete and relate only to the Change referenced therein. All records maintained by a Subcontractor, of any tier, relating to the costs of a Change to the Work shall be signed by such Subcontractor's authorized representative or Superintendent. All records maintained hereunder shall be subject to inspection, review and/or reproduction by the District, the Architect or the District's Inspector upon request. In the event that Contractor shall fail or refuse, for any reason, to maintain or make available for inspection, review and/or reproduction such records and the adjustment to the Contract Price on account of any Change to the Work is determined pursuant to this Article, the District's reasonable good faith determination of the extent of adjustment to the Contract Price on account of such Change shall be final, conclusive, dispositive and binding upon Contractor. Contractor's obligation to maintain records hereunder is in addition to, and not in lieu of, any other Contractor obligation under the Contract Documents with respect to Changes to the Work.

**9.4.2 Adjustment to Contract Time.**

In the event of any Change(s) to the Work pursuant to this Article 9, the Contract Time shall be extended or reduced by Change Order for a period of time commensurate with the time reasonably necessary to perform such Change. Such time shall be requested in writing by the Contractor with the Contract price Adjustment Proposal. The time extension request shall be justified by the Contractor by submittal of a CPM analysis accurately portraying the impact of the change on the critical path of the project schedule. Changes performed within available float as indicated in the updated Approved Construction Schedule shall not justify a time extension to the Contract. When agreement is reached between the District and Contractor that a Change shall require an extension of the contract time, the Contractor shall not be subject to Liquidated Damages for such period of time. If completion of the Work is delayed by causes for which the District is responsible and the delay is unreasonable under the circumstances involved, and not within the contemplation of the Contractor and the District at the time of execution of the Agreement, the Contractor shall not be precluded from the recovery of damages arising therefrom.

**9.4.3 Addition or Deletion of Alternate Bid Item(s)**

If the Bid for the Work includes proposal(s) for Alternate Bid Item(s), during Contractor's performance of the Work, the District may elect, pursuant to this Article to add any such Alternate Bid Item(s) if the same did not form a basis for award of the Contract or delete any such Alternate Bid Item(s) if the same formed a basis for award of the Contract. If the District elects to add or delete any such Alternate Bid Item(s) pursuant to the foregoing, the cost or credit for such Alternate Bid Item(s) shall be as set forth in the Contractor's Bid.

## 9.5 Change Orders

If the District approves of a Change, a written Change Order prepared on behalf of the District shall be forwarded to the Contractor describing the Change and setting forth the adjustment to the Contract Time and the Contract Price, if any, on account of such Change. All Change Orders shall be in full payment and final settlement of all claims for direct, indirect and consequential costs, including without limitation, costs of delays or impacts related to, or arising out of, items covered and affected by the Change Order, as well as any adjustments to the Contract Time. Any claim or item relating to any Change incorporated into a Change Order not presented by the Contractor for inclusion in the Change Order shall be deemed waived. The Contractor shall execute the Change Order prepared pursuant to the foregoing; once the Change Order has been prepared and forwarded to the Contractor for execution, without the prior approval of the District which may be granted or withheld in the sole and exclusive discretion of the District, the Contractor shall not modify or amend the form or content of such Change Order, or any portion thereof. The Contractor's attempted or purported modification or amendment of any such Change Order, without the prior approval of the District, shall not be binding upon the District; any such unapproved modification or amendment to such Change Order shall be null, void and unenforceable. Unless otherwise expressly provided for in the Contract Documents or in the Change Order, any Change Order issued hereunder shall be binding upon the District only upon action of the District's Board of Trustees approving and ratifying such Change Order. In the event of any amendment or modification made by the Contractor to a Change Order for which there is no prior approval by the District, in accordance with the provisions of this Article 9.5, unless otherwise expressly stated in its approval and ratification of such Change Order, any action of the Board of Trustees to approve and ratify such Change Order shall be deemed to be limited to the Change Order as prepared by the Architect; such approval and ratification of such Change Order shall not be deemed the District's approval and ratification of any unapproved amendment or modification by the Contractor to such Change Order.

### 9.6 Contractor Notice of Changes

If the Contractor should claim that any instruction, request, the Drawings, the Specifications, action, condition, omission, default, or other situation obligates the District to increase the Contract Price or to extend the Contract Time, the Contractor shall notify the District's Project Manager and the Architect, in writing, of such claim within ten (10) days from the date of its actual or constructive notice of the factual basis supporting the same. The District shall consider any such claim of the Contractor only if sufficient supporting documentation is submitted with the Contractor's notice to the District's Project Manager and the Architect. Time is of the essence in Contractor's written notice pursuant to the preceding sentence so that the District can promptly investigate and consider alternative measures to the address such instruction, request, Drawings, Specifications, action, condition, omission, default or other situation. Accordingly, Contractor acknowledges that its failure, for any reason, to give written notice (with sufficient supporting documentation to permit the District's review and evaluation) within ten (10) days of its actual or constructive knowledge of any instruction, request, Drawings, Specifications, action, condition, omission, default or other situation for which the Contractor believes there should an adjustment of the Contract Time or the Contract Price shall be deemed Contractor's waiver, release, discharge and relinquishment of any right to assert or claim any entitlement to an adjustment of the Contract Time or the Contract Price on account of any such instruction, request, Drawings, Specifications, action, condition, omission, default or other situation. In the event that the District determines that the Contract Price or the Contract Time are subject to adjustment based upon the events, circumstances and supporting documentation submitted with the Contractor's written notice under this Article 9.6, any such adjustment shall be determined in accordance with the provisions of

Articles 9.4.1 and 9.4.2.

### 9.7 Disputed Changes

In the event of any dispute or disagreement between the Contractor and the District or the Architect regarding the characterization of any item as a Change to the Work or as to the appropriate adjustment of the Contract Price or the Contract Time on account thereof, the Contractor shall promptly proceed with the performance of such item of the Work, subject to a subsequent resolution of such dispute or disagreement in accordance with the terms of the Contract Documents. The Contractor's failure or refusal to so proceed with such Work may be deemed to be Contractor's default of a material obligation of the Contractor under the Contract Documents.

### 9.8 Emergencies

In an emergency affecting the safety of life, or of the Work, or of property, the Contractor, without special instruction or prior authorization from the District or the Architect, is permitted to act at its discretion to prevent such threatened loss or injury. Any compensation claimed by the Contractor on account of such emergency work shall be submitted and determined in accordance with this Article 9.

### 9.9 Minor Changes in the Work

The Architect may order minor Changes in the Work not involving an adjustment in the Contract Price or the Contract Time and not inconsistent with the intent of the Contract Documents. Such Changes shall be effected by written order and shall be binding on the District and the Contractor. The Project Manager or the District's Inspector may direct the Contractor to perform Changes provided that each such Change does not result in an increase of more than $500.00 to the Contract Price and no adjustment of the Contract Time. The Contractor shall carry out such orders promptly.

### 9.10 Unauthorized Changes

Any Work beyond the lines and grades shown on the Contract Documents, or any extra Work performed or provided by the Contractor without notice to the Architect and the District's Inspector in the manner and within the time set forth in Articles 9.2 or 9.6 shall be considered unauthorized and at the sole expense of the Contractor. Work so done will not be measured or paid for, no extension to the Contract Time will be granted on account thereof and any such Work may be ordered removed at the Contractor's sole cost and expense. The failure of the District to direct or order removal of such Work shall not constitute acceptance or approval of such Work nor relieve the Contractor from any liability on account thereof.

## ARTICLE 10: SEPARATE CONTRACTORS

### 10.1 District's Right to Award Separate Contracts

The District reserves the right to perform construction or operations related to the Project with the District's own forces or to award separate contracts in connection with other portions of the Project or other construction or operations at or about the Site. If the Contractor claims that delay or additional cost is involved because of such action by the District, the Contractor shall seek an adjustment to the Contract Price or the Contract Time as provided for in the Contract Documents. Failure of the Contractor to request such an adjustment of the Contract Time or the Contract Price in strict conformity with the provisions of the Contract Documents applicable thereto shall be deemed a waiver of the same.

### 10.2 District's Coordination of Separate Contractors

The District shall provide for coordination of the activities of the District's own forces and of each separate contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with other separate contractors and the District in reviewing their respective Construction Schedules when directed to do so. The Contractor shall make any revisions to the Approved Construction Schedule for the Work hereunder deemed necessary after a joint review and mutual agreement. The Construction Schedules shall then constitute the Construction Schedules to be used by the Contractor, separate contractors and the District until subsequently revised.

### 10.3 Mutual Responsibility

The Contractor shall afford the District and separate contractors reasonable opportunity for storage of their materials and equipment and performance of their activities at the Site and shall connect and coordinate the Contractor's Work, construction and operations with theirs as required by the Contract Documents.

### 10.4 Discrepancies or Defects

If part of the Contractor's Work depends for proper execution or results upon construction or operations by the District or a separate contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly report to the Project Manager any apparent discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results. Failure of the Contractor to so report shall constitute an acknowledgment that the District's or separate contractors' completed or partially completed construction is fit and proper to receive the Contractor's Work, except as to defects not then discoverable by the Contractor's reasonable diligence.

## ARTICLE 11: TESTS AND INSPECTIONS

### 11.1 Tests; Inspections; Observations

#### 11.1.1 Contractor's Notice

If the Contract Documents, laws, ordinances or any public authority with jurisdiction over the Work requires the Work, or any portion thereof, to be specially tested, inspected or approved, the Contractor shall give the Project Manger written notice of the readiness of such Work for observation, testing or inspection at least two (2) working days prior to the time for the conducting of such test, inspection or observation. If inspection, testing or observation is by authority other than the District, the Contractor shall inform the District's Inspector and the Project Manager not less than two (2) working days prior to the date fixed for such inspection, test or observation. The Contractor shall not cover up any portion of the Work subject to tests, inspections or observations prior to the completion and satisfaction of the requirements of such test, inspection or observation. In the event that any portion of the Work subject to tests, inspection or approval shall be covered up by Contractor prior to completion and satisfaction of the requirements of such tests, inspection or approval, Contractor shall be responsible for the uncovering of such portion of the Work as is necessary for performing such tests, inspection or approval without

adjustment of the Contract Price or the Contract Time on account thereof.

### 11.1.2 Cost of Tests and Inspections

Costs for tests and inspection of materials shall be paid by the District as provided for herein. Within twenty (20) days after the establishment of the Approved Construction Schedule pursuant to Article 7.3 hereof, the District shall submit to the Contractor a written list of the portions of the Work subject to special tests or inspections to be paid for by the District along with the number of hours or costs of testing or inspection allocated for each such portion of the Work. Should any act, omission or other conduct of the Contractor, any of its Subcontractors, of any tier, or Material Suppliers cause the number of hours or the costs of such tests or inspections to exceed that set forth in the District's list submitted pursuant to the foregoing, the Contractor shall be solely responsible for all such excess costs and the District may deduct such amount from any portion of the Contract Price then or thereafter due the Contractor. The District will pay for all tests and inspections provided that, in addition to the cost to be paid by the Contractor previously set forth in this Article, the Contractor shall pay for all tests and inspections under any of the following conditions: (i) when such costs are stipulated in the provisions of the Contract Documents to be borne by the Contractor; (ii) when a material is tested or inspected and fails to meet the requirements of the Specifications and/or Drawings; or (iii) when the source of the material is changed after the original test or inspection has been made or approved.

### 11.1.3 Testing/Inspection Laboratory

The District shall select duly qualified person(s) or testing laboratory(ies) to conduct the tests and inspections to be paid for by the District and required by the Contract Documents. All such tests and inspections shall be in conformity with the latest adopted Title 24 of the California Code of Regulations. Where inspection or testing is to be conducted by an independent laboratory or testing agency, materials or samples thereof shall be selected by the laboratory, testing agency, the District's Inspector, the Project Manager or the Architect and not by the Contractor.

### 11.1.4 Additional Tests, Inspections and Approvals

If the Architect, the Project Manager, the District's Inspector or public authorities having jurisdiction over the Work determine that portions of the Work require additional testing, inspection or approval, the Project Manager shall instruct the Contractor to make arrangements for such additional testing, inspection or approval by an entity acceptable to the District, and the Contractor shall give timely notice to the Project Manager of when and where tests and inspections are to be made so the District's Inspector and the Architect may observe such procedures. The District shall bear the costs of such additional tests, inspections or approvals, except to the extent that such additional tests, inspections or approvals reveal any failure of the Work to comply with the requirements of the Contract Documents, in which case the Contractor shall bear all costs made necessary by such failures, including without limitation, the costs of corrections, repeat tests, inspections or approvals and the costs of the Architect's services or its consultants in connection therewith. Where required DSA testing of the work identifies a failure rate of ten percent (10%) or greater for any system, scope of work, installation or subtrade that has been specifically targeted, District may, at its sole discretion, order that all such similar systems,

installations, scopes of work or subtrade work used in connection with the Project be tested, and the cost to test all such work shall be paid by the Contractor.

### 11.2 Delivery of Certificates

Required certificates of testing, inspection or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect. If a material is not required to be tested, the Architect, Inspector or the District may require Contractor to furnish a certificate bearing the official and legal signature of the supplier with each delivery of such material, which certificate shall state that the material complies with the Specifications.

### 11.3 Timeliness of Tests, Inspections and Approvals

Tests or inspections required and conducted pursuant to the Contract Documents shall be made or arranged by Contractor to avoid delay in the progress of the Work.

## ARTICLE 12: UNCOVERING AND CORRECTION OF WORK

### 12.1 Inspection of the Work

#### 12.1.1 Access to the Work

All Work and all materials and equipment forming a part of the Work or incorporated into the Work are subject to inspection by the District, the Project Manager, the Architect and the District's Inspector for conformity with the Contract Documents. The Contractor shall, at its cost and without adjustment to the Contract Price or the Contract Time, furnish any facilities necessary for sufficient and safe access to the Work for purposes of inspection by the District, the Project Manager, the Architect, the District's Inspector, DSA or any other public or quasi-public authority with jurisdiction over the Work or any portion thereof.

#### 12.1.2 Limitations Upon Inspections

Inspections, tests, measurements, or other acts of the Architect and the District's Inspector hereunder are for the sole purpose of assisting them in determining that the Work, materials, equipment, progress of the Work, and quantities generally comply and conform with the requirements of the Contract Documents. These acts or functions shall not relieve the Contractor from performing the Work in full compliance with the Contract Documents. No inspection by the Architect or the District's Inspector shall constitute or imply acceptance of Work inspected. Inspection of the Work hereunder is in addition to, and not in lieu of, any other testing, inspections or approvals of the Work required under the Contract Documents.

### 12.2 Uncovering of Work

If any portion of the Work is covered contrary to the request of the Architect, the District's Inspector, the Project Manager or the requirements of the Contract Documents, it must be uncovered by the Contractor for observation by such District representative and be replaced by the Contractor without adjustment of the Contract Time or the Contract Price.

### 12.3 Rejection of Work

Prior to the District's Final Acceptance of the Work, any Work or materials or equipment forming a part of the Work or incorporated into the Work which is defective or not in conformity with the

Contract Documents may be rejected by the District, the Project Manager, the Architect or the District's Inspector and the Contractor shall correct such rejected Work without any adjustment to the Contract Price or the Contract Time, even if the Work, materials or equipment have been previously inspected by the Architect or the District's Inspector or even if they failed to observe the defective or non-conforming Work, materials or equipment.

### 12.4 Correction of Work

The Contractor shall promptly correct any portion of the Work rejected by the District, the Project Manager, the Architect or the District's Inspector for failing to conform to the requirements of the Contract Documents, or which is determined by them to be defective, whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting such rejected Work, including additional testing and inspections and compensation for the Architect's or Inspector's services and expenses made necessary thereby. The Contractor shall bear all costs of correcting destroyed or damaged construction, whether completed or partially completed, of the District or separate contractors, caused by the Contractor's correction or removal of Work which is not in accordance with the requirements of the Contract Documents, or which is defective.

### 12.5 Removal of Non-Conforming or Defective Work

The Contractor shall, at its sole cost and expense, remove from the Site all portions of the Work which are defective or are not in accordance with the requirements of the Contract Documents which are neither corrected by the Contractor nor accepted by the District.

### 12.6 Failure of Contractor to Correct Work

If the Contractor fails to commence to correct defective or non-conforming Work within three (3) days of notice of such condition and promptly thereafter complete the same within a reasonable time, the District may correct it in accordance with the Contract Documents. If the Contractor does not so proceed, the District may remove it and store the salvable materials or equipment at the Contractor's expense. If the Contractor does not pay costs of such removal and storage after written notice, the District may sell such materials or equipment at auction or at private sale and shall account for the proceeds thereof, after deducting costs and damages that should have been borne by the Contractor, including without limitation compensation for the Architect's and Inspector's services, attorneys fees and other expenses made necessary thereby. If such proceeds of sale do not cover costs which the Contractor should have borne, the Contract Price shall be reduced by the deficiency. If payments of the Contract Price then or thereafter due the Contractor are not sufficient to cover such amount, the Contractor and the Surety shall promptly pay the difference to the District.

### 12.7 Acceptance of Defective or Non-Conforming Work

The District may, in its sole and exclusive discretion, elect to accept Work which is defective or which is not in accordance with the requirements of the Contract Documents, instead of requiring its removal and correction, in which case the Contract Price shall be reduced as appropriate and equitable.

## ARTICLE 13: WARRANTIES

### 13.1 Workmanship and Materials

The Contractor warrants to the District that all materials and equipment furnished under the Contract Documents shall be new, of good quality and of the most suitable grade and quality for

the purpose intended, unless otherwise specified in the Contract Documents. All Work shall be of good quality, free from faults and defects and in conformity with the requirements of the Contract Documents. If required by the District, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment incorporated into the Work. Any Work, or portion thereof not conforming to these requirements, including substitutions or alternatives not properly approved in accordance with the Contract Documents may be deemed defective. Where there is an approved substitution of, or alternative to, material or equipment specified in the Contract Documents, the Contractor warrants to the District that such installation, construction, material, or equipment will equally perform the function and have the quality of the originally specified material or equipment. The Contractor expressly warrants the merchantability, the fitness for use, and quality of all substitute or alternative items in addition to any warranty given by the manufacturer or supplier of such item.

### 13.2 Warranty Work

If, within one year after the date of Final Acceptance, or such other time frame set forth elsewhere in the Contract Documents, any of the Work is found to be defective or not in accordance with the requirements of the Contract Documents, or otherwise contrary to the warranties contained in the Contract Documents, the Contractor shall commence all necessary corrective action not more than seven (7) days after receipt of a written notice from the District to do so, and to thereafter diligently complete the same. In the event that Contractor shall fail or refuse to commence correction of any such item within said seven (7) day period or to diligently prosecute such corrective actions to completion, the District may, without further notice to Contractor, cause such corrective Work to be performed and completed. In such event, Contractor and Contractor's Performance Bond Surety shall be responsible for all costs in connection with such corrective Work, including without limitation, general administrative overhead costs of the District in securing and overseeing such corrective Work. Nothing contained herein shall be construed to establish a period of limitation with respect to any obligation of the Contractor under the Contract Documents. The obligations of the Contractor hereunder shall be in addition to, and not in lieu of, any other obligations imposed by any special guarantee or warranty required by the Contract Documents, guarantees or warranties provided by any manufacturer of any item or equipment forming a part of, or incorporated into the Work, or otherwise recognized, prescribed or imposed by law. Neither the District's Final Acceptance, the making of Final Payment, any provision in Contract Documents, nor the use or occupancy of the Work, in whole or in part, by District shall constitute acceptance of Work not in accordance with the Contract Documents nor relieve the Contractor or the Contractor's Performance Bond Surety from liability with respect to any warranties or responsibility for faulty or defective Work or materials, equipment and workmanship incorporated therein.

### 13.3 Guarantee

Upon completion of the Work, Contractor shall execute and deliver to the District the form of Guarantee included within the Contract Documents. The Contractor's execution and delivery of the form of Guarantee is an express condition precedent to any obligation of the District to disburse the Final Payment to the Contractor.

### 13.4 Survival of Warranties

The provisions of this Article 13 shall survive the Contractor's completion of Work under the Contract Documents, the District's Final Acceptance or the termination of the Contract.

## ARTICLE 14 : SUSPENSION OF WORK

## 14.1 District's Right to Suspend Work

The District may, without cause and without invalidating or terminating the Contract, order the Contractor, in writing, to suspend, delay or interrupt the Work in whole or in part for such period of time as the District may determine. The Contractor shall resume and complete the Work suspended by the District in accordance with the District's directive, whether issued at the time of the directive suspending the Work or subsequent thereto.

## 14.2 Adjustments to Contract Price and Contract Time

If the District orders a suspension of the Work, an adjustment shall be made to the Contract Price for increases in the direct cost of performance of the Work of the Contract Documents actually caused by suspension, delay or interruption ordered by the District; provided however that no adjustment of the Contract Price shall be made to the extent: (i) that performance is, was or would have been so suspended, delayed or interrupted by another cause for which the Contractor is responsible under the Contract Documents; or (ii) that an equitable adjustment is made or denied under another provision of the Contract Documents. Any such adjustment of the Contract Price shall not include any adjustment to increase the Contractor's overhead, general administrative costs or profit, all of which will remain as reflected in the Cost Breakdown submitted by the Contractor pursuant to the Contract Documents. In the event of the District's suspension of the Work, the Contract Time shall be equitably adjusted.

# ARTICLE 15: TERMINATION

## 15.1 Termination for Cause

### 15.1.1 District's Right to Terminate

The District may terminate the Contract upon the occurrence of any one or more of the following events of the Contractor's default: (i) if the Contractor refuses or fails to prosecute the Work with diligence as will ensure Substantial Completion of the Work within the Contract Time, or if the Contractor fails to substantially Complete the Work within the Contract Time; (ii) if the Contractor becomes bankrupt or insolvent, or makes a general assignment for the benefit of creditors, or if the Contractor or a third party files a petition to reorganize or for protection under any bankruptcy or similar laws, or if a trustee or receiver is appointed for the Contractor or for any of the Contractor's property on account of the Contractor's insolvency, and the Contractor or its successor in interest does not provide adequate assurance of future performance in accordance with the Contract Documents within 10 days of receipt of a request for such assurance from the District; (iii) if the Contractor repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment; (iv) if the Contractor repeatedly fails to make prompt payments to any Subcontractor, of any tier, or Material Suppliers or others for labor, materials or equipment; (v) if the Contractor disregards laws, ordinances, rules, codes, regulations, orders applicable to the Work or similar requirements of any public entity having jurisdiction over the Work; (iv) if the Contractor disregards proper directives of the Architect, the District's Inspector or District under the Contract Documents; (vii) if the Contractor performs Work which deviates from the Contract Documents and neglects or refuses to correct such Work; or (viii) if the Contractor otherwise violates in any material way any provisions or requirements of the Contract Documents. Once the District determines that sufficient cause exists to justify the action, the District may terminate the Contract without prejudice to any other right or remedy the District may have, after giving the Contractor and the Surety at least seven (7) days advance written notice of the effective

date of termination. The District shall have the sole discretion to permit the Contractor to remedy the cause for the termination without waiving the District's right to terminate the Contract, or otherwise waiving, restricting or limiting any other right or remedy of the District under the Contract Documents or at law.

**15.1.2 District's Rights Upon Termination**

In the event that the Contract is terminated pursuant to this Article 15.1, the District may take over the Work and prosecute it to completion, by contract or otherwise, and may exclude the Contractor from the site. The District may take possession of the Work and of all of the Contractor's tools, appliances, construction equipment, machinery, materials, and plant which may be on the site of the Work, and use the same to the full extent they could be used by the Contractor without liability to the Contractor. In exercising the District's right to prosecute the completion of the Work, the District may also take possession of all materials and equipment stored at the site of the Work or for which the District has paid the Contractor but which are stored elsewhere, and finish the Work as the District deems expedient. In exercising the District's right to prosecute the completion of the Work, the District shall have the right to exercise its sole discretion as to the manner, methods, and reasonableness of the costs of completing the Work and the District shall not be required to obtain the lowest figure for completion of the Work. In the event that the District takes bids for remedial Work or completion of the Work, the Contractor shall not be eligible for the award of such contract(s).

**15.1.3 Completion by the Surety**

In the event that the Contract is terminated pursuant to this Article 15.1, the District may demand that the Surety take over and complete the Work. The District may require that in so doing, the Surety not utilize the Contractor in performing and completing the Work. Upon the failure or refusal of the Surety to take over and begin completion of the Work within fifteen (15) days after demand therefor, the District may take over the Work and prosecute it to completion as provided for above. Such remedy is in addition to, and not lieu of, other remedies available to District as provided by law or in equity.

**15.1.4 Assignment and Assumption of Subcontracts**

The District shall, in its sole and exclusive discretion, have the option of requiring any Subcontractor or Material Supplier to perform in accordance with its Subcontract or Purchase Order with the Contractor and assign the Subcontract or Purchase Order to the District or such other person or entity selected by the District to complete the Work.

**15.1.5 Costs of Completion**

In the event of termination under this Article 15.1, the Contractor shall not be entitled to receive any further payment of the Contract Price until the Work is completed. If the unpaid balance of the Contract Price as of the date of termination exceeds the District's direct and indirect costs and expenses for completing the Work, including without limitation, attorneys' fees and compensation for additional professional and consultant services, such excess shall be used to pay the Contractor for the cost of the Work performed prior to the effective date of termination with a reasonable allowance for overhead and profit. If the District's costs and expenses to complete the Work exceed the unpaid Contract Price, the Contractor and/or the Surety shall pay the difference to the District.

#### 15.1.6 Contractor Responsibility for Damages

The Contractor and the Surety shall be liable for all damage sustained by the District resulting from, in any manner, the termination of Contract under this Article 15.1, including without limitation, attorneys' fees, and for all costs necessary for repair and completion of the Work over and beyond the Contract Price.

#### 15.1.7 Conversion to Termination for Convenience

In the event the Contract is terminated under this Article 15.1, and it is determined, for any reason, that the Contractor was not in default under the provisions hereof, the termination shall be deemed a Termination for Convenience of the District and thereupon, the rights and obligations of the District and the Contractor shall be determined in accordance with Article 15.2 hereof.

#### 15.1.8 District's Rights Cumulative

In the event the Contract is terminated pursuant to this Article 15.1, the termination shall not affect or limit any rights or remedies of the District against the Contractor or the Surety. The rights and remedies of the District under this Article 15.1 are in addition to, and not in lieu of, any other rights and remedies provided by law or otherwise under the Contract Documents. Any retention or payment of monies to the Contractor by the District shall not be deemed to release the Contractor or the Surety from any liability hereunder.

### 15.2 Termination for Convenience of the District

The District may at any time, in its sole and exclusive discretion, by written notice to the Contractor, terminate the Contract in whole or in part when it is in the interest of, or for the convenience of, the District. In such case, the Contractor shall be entitled to payment for: (i) Work actually performed and in place as of the effective date of such termination for convenience of the District, with a reasonable allowance for profit and overhead on such Work, and (ii) reasonable termination expenses for reasonable protection of Work in place and suitable storage and protection of materials and equipment delivered to the site of the Work but not yet incorporated into the Work, provided that such payments exclusive of termination expenses shall not exceed the total Contract Price as reduced by payments previously made to the Contractor and as further reduced by the value of the Work as not yet completed. The Contractor shall not be entitled to profit and overhead on Work which was not performed as of the effective date of the termination for convenience of the District. The District may, in its sole discretion, elect to have subcontracts assigned pursuant to Article 15.1.4 above after exercising the right hereunder to terminate for the District's convenience.

## ARTICLE 16: MISCELLANEOUS

### 16.1 Governing Law

This Contract shall be governed by and interpreted in accordance with the laws of the State of California.

### 16.2 Successors and Assigns

Except as otherwise expressly provided in the Contract Documents, all terms, conditions and covenants of the Contract Documents shall be binding upon, and shall inure to the benefit of the District and the Contractor and their respective heirs, representatives, successors-in-interest and

assigns.

### 16.3 Cumulative Rights and Remedies; No Waiver

Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not in lieu of or otherwise a limitation or restriction of duties, obligations, rights and remedies otherwise imposed or available by law. No action or failure to act by the District shall constitute a waiver of a right or remedy afforded it under the Contract Documents or at law nor shall such an action or failure to act constitute approval of or acquiescence in a breach hereunder, except as may be specifically agreed in writing.

### 16.4 Severability

In the event any provision of the Contract Documents shall be deemed illegal, invalid, unenforceable and/or void, by a court or any other governmental agency of competent jurisdiction, such provision shall be deemed to be severed and deleted from the Contract Documents, but all remaining provisions hereof, shall in all other respects, continue in full force and effect.

### 16.5 No Assignment by Contractor

The Contractor shall not sublet or assign the Contract, or any portion thereof, or any monies due thereunder, without the express prior written consent and approval of the District, which approval may be withheld in the sole and exclusive discretion of the District. The District's approval to such assignment shall be upon such terms and conditions as determined by the District in its sole and exclusive discretion.

### 16.6 Independent Contractor Status

In performing its obligations under the Contract Documents, the Contractor is an independent contractor to the District and not an agent or employee of the District.

### 16.7 Notices

Except as otherwise expressly provided for in the Contract Documents, all notices which the District or the Contractor may be required, or may desire, to serve on the other, shall be effective only if delivered by personal delivery or by postage prepaid, First Class Certified Return Receipt Requested United States Mail, addressed to the District or the Contractor at their respective address set forth in the Contract Documents, or such other address(es) as either the District or the Contractor may designate from time to time by written notice to the other in conformity with the provisions hereof. In the event of personal delivery, such notices shall be deemed effective upon delivery, provided that such personal delivery requires a signed receipt by the recipient acknowledging delivery of the same. In the event of mailed notices, such notice shall be deemed effective on the third working day after deposit in the mail.

### 16.8 Disputes; Continuation of Work

Notwithstanding any claim, dispute or other disagreement between the District and the Contractor regarding performance under the Contract Documents, the scope of Work thereunder, or any other matter arising out of or related to, in any manner, the Contract Documents, the Contractor shall proceed diligently with performance of the Work in accordance with the District's written direction, pending any final determination or decision regarding any such claim, dispute or disagreement.

## 16.9 Dispute Resolution; Claims Under $375,000.00

Claims between the District and the Contractor of $375,000.00 or less shall be resolved in accordance with the procedures established in Part 3, Chapter 1, Article 1.5 of the California Public Contract Code, §§20104 et seq.; provided however that California Public Contract Code §20104.2(a) shall not supersede the requirements of the Contract Documents with respect to the Contractor's notification to the District of such claim or extend the time for the giving of such notice as provided in the Contract Documents. The term "claims" as used herein shall be as defined in California Public Contract Code §20104(b)(2).

## 16.10 Attorneys Fees

Except as expressly provided for in the Contract Documents, or authorized by law, neither the District nor the Contractor shall recover from the other any attorneys fees or other costs associated with or arising out of any legal, administrative or other proceedings filed or instituted in connection with or arising out of the Contract Documents or the performance of either the District or the Contractor thereunder.

## 16.11 Marginal Headings; Interpretation

The titles of the various Articles of these General Conditions and elsewhere in the Contract Documents are used for convenience of reference only and are not intended to, and shall in no way, enlarge or diminish the rights or obligations of the District or the Contractor and shall have no effect upon the construction or interpretation of the Contract Documents. The Contract Documents shall be construed as a whole in accordance with their fair meaning and not strictly for or against the District or the Contractor.

## 16.12 Provisions Required by Law Deemed Inserted

Each and every provision of law and clause required by law to be inserted in the Contract Documents is deemed to be inserted herein and the Contract Documents shall be read and enforced as though such provision or clause are included herein, and if through mistake, or otherwise, any such provision or clause is not inserted or if not correctly inserted, then upon application of either party, the Contract Documents shall forthwith be physically amended to make such insertion or correction.

## 16.13 Entire Agreement

The Contract Documents contain the entire agreement and understanding between the District and the Contractor concerning the subject matter hereof, and supersedes and replaces all prior negotiations, proposed agreements or amendments, whether written or oral. No amendment or modification to any provision of the Contract Documents shall be effective or enforceable except by an agreement in writing executed by the District and the Contractor.

[End of Section]

# SPECIAL CONDITIONS
Section 00800

**1.01 Contract Time**

**A. Substantial Completion of the Work.** The Work shall commence on the Start Date listed on the Notice to Proceed issued by the District to the Contractor and shall be completed (Substantial Completion) within **One Hundred Twenty (120)** consecutive calendar days from and after the date stated in the Notice to Proceed (Reference Article 7 of the General Conditions).

**B. Interim Milestone Completion Dates.** Notwithstanding any provision of the Contract Documents to the contrary, Contractor shall sequence and coordinate the work so that portions of the work are completed as required by the Work Segment Plan in accordance with the following interim start and completion dates:
***No interim milestones on this project.***

**1.02 Liquidated Damages**

**A. Delayed Substantial Completion of the Work.** Pursuant to Article 7 of the General Conditions, the Contractor shall be subject to the assessment and withholding of Liquidated Damages for failure to achieve Substantial Completion of the Work within the Contract Time as indicated in item 1.01.A, above. Liquidated Damages shall be at the rate of Five Hundred Dollars ($500) per calendar day until Substantial Completion of the Work is achieved.

**B. Delayed Completion of Interim Milestones.** - N/A

**C. Delayed Final Completion of the Work.** Pursuant to Article 7 of the General Conditions, the Contractor shall be subject to the assessment and withholding of Liquidated Damages for failure to achieve Final Completion of the Work in accordance with the Contract Documents. Liquidated Damages shall be at the rate of Five Hundred Dollars ($500) per Calendar day until Final Completion of the Work is achieved

**D. Delayed Submittals.** The per day assessment of Liquidated Damages for Contractor's delayed submission of Submittals pursuant to Article 4.8.2.1 of the General Conditions is One Hundred Dollars ($100) per calendar day per Submittal until the required Submittal is submitted.

**E. Cumulative Assessment of Liquidated Damages.** If the Contractor fails to timely delivery the Submittals, fails to achieve Final Completion of the Work Segments as set forth herein, or fails to achieve Substantial or Final Completion of the Work, the Contractor shall be subject to assessment and withholding of Liquidated Damages in the amounts set forth above for each such portion of the Work which is not timely delivered or completed within the time allocated for each portion of the Work.

**F. Contractor Liquidated Damages.** – N/A

**1.03 Insurance**

**A. Insurance Provided By Contractor.** Pursuant to Article 6 of the General Conditions, the Contractor shall provide and maintain the following insurance coverage amounts as set forth below:

**1. Workers Compensation Insurance**
In accordance with limits established by law.

**2. Employers Liability Insurance** $1,000,000

**3. Commercial General Liability Insurance**

| | |
|---|---|
| Per Occurrence | $2,000,000 |
| Aggregate | $5,000,000 |

**4. Automobile Liability Insurance** $1,000,000

**5. Builders Risk Insurance**
In an amount equal to 110% of the original Contract Price.

**6. Excess Products and Completed Operations** $2,000,000

**B. Insurance Provided by Subcontractors.**
Pursuant to Article 6 of the General Conditions, all Subcontractors and Sub-Subcontractors shall provide and maintain the following insurance coverages, with minimum coverage amounts as set forth below:

**1. Workers Compensation Insurance**
In accordance with limits established by law.

**2. Employers Liability Insurance** $1,000,000

**3. Commercial General Liability Insurance**

| | |
|---|---|
| Per Occurrence | $1,000,000 |
| Aggregate | $2,000,000 |

**4. Automobile Liability**

| | |
|---|---|
| Bodily Injury/Property Damage Per Occurrence | $1,000,000 |

**1.04 Drawings and Specifications.**
The number of sets of the Drawings and Specifications, which the District will provide to the awarded Contractor, pursuant to Article 2.1.2 of the General Conditions, is **n**one (0) set of reproducible specifications with plans. Reproducible electronic plans and specs are available for download from the District website.

**1.05 Number of Contract Documents.**
The number of executed copies of the Agreement is two (2); the number of Performance Bonds and Payment Bonds required is one (1).

**1.06 Security.**

In addition to the security requirements set forth elsewhere in the Contract Documents, the Contractor must adhere to the following:

**A.** **Locked Door Policy.** No building, room or site gate shall be left unsecured for any period of time when not occupied by the Contractor and/or after the Contractor's daily work hours.

**1.07 Working Hours.**

The working hours for this Contract shall be 7:00 a.m. to 7:00 p.m. Monday through Friday. Saturday/Sunday work requires written notification to the District.

Work hours are subject to standard construction hours per the Ordinance set by the **City of Moorpark, CA**. Contractor is expected to work weekends and holidays, as necessary, to complete the work within the specified time of completion without any additional cost to the District. At the District's request, Contractor shall modify the working hours for the Contract without adjustment of the Contract Time or Contract Price. (Reference General Conditions Article 7.2.1)

**1.08 Temporary Electric Power.**

Provide temporary electric power as necessary for execution of work. The Contractor will arrange distribution service point for electric power with the Director of Facilities, Maintenance and Operations (DFMO). Contractor shall provide meters, necessary wiring, switches, receptacles, etc., and make connections to distribution points. Contractor is to pay all costs for temporary electric power. There is only a minor amount of available 120 volt power on this site. Contractor ma y need to provide a generator.

**1.09 Temporary Lighting.**

Provide lighting and outlets in temporary structures and wherever necessary for proper performance and inspection of work. If operations are performed during hours of darkness and whenever District deems natural lighting insufficient, provide adequate floodlights, clusters, and spot illumination, as required to facilitate reading of drawings and specifications. Make arrangements with subcontractors for electric services and lighting as necessary in performance of their work. Contractor is to pay for all temporary lighting.

**1.10 Temporary Heat and Ventilation.**

**1.10.1** Provide heat, fuel and services to protect the work against injury from dampness and cold until final acceptance of all work of the contract.

**1.10.2** When the new HVAC system is used for temporary heat and ventilation, comply with air quality requirements of ASHRAE 62, and the following:

1) Temporary Filters for Air Systems: Provide temporary filters in air conditioning and ventilating systems to prevent dust and fumes from contaminating the new ductwork and equipment. Use commercial viscous-coated throw away filters, or equal, having efficiency of not less than 60 percent.

2) At completion, inspect the entire system for dirt and debris. Clean

equipment, ducts and plenums that are soiled, at no cost to the District.

**1.10.3** Before casework is delivered to the building, for not less than 5 days prior to installing wood finishes, and throughout placing of this finish and other finish operations such as painting and laying of resilient floor covering, sufficient heat to maintain building temperature at 65 degrees F.

**1.10.4** Operate HVAC system over a weekend as directed, for not less than 48 hours to purge VOC and other contaminates from the building.

**1.11 Temporary Telephone and Fax Service.**

Provide maintain and pay for duration of work, for temporary cellular telephone, text and email service including installation, maintenance and removal for construction needs.

**1.12 Temporary Water Services.**

**1.12.1** The District will provide and pay for water at existing hose bibs and quick couplers as shown on the drawings. The Contractor shall provide meter and service lines to site. Temporary service lines shall be installed and removed by the Contractor, who shall pay all charges for making the connections, running temporary lines, installing meter, removing same at the completion of the work, and disconnecting the services.

**1.12.2** An approved double check valve shall be furnished and installed by the Contractor at the connection to the main.

**1.12.3** All relocations required to clear work of others shall be performed when requested by the District. The District reserves the right to make connections to the temporary lines by themselves or by other contractors. In the event the contractor uses the water in a wasteful manner, the Contractor will be billed District's cost for the wasted water.

**1.12.4** Drinking water, provided by the Contractor, shall be available in the Construction trailer, or on site.

**1.13 Temporary Gas.**

Provide temporary gas service as necessary for execution of work. Contractor shall connect gas service to new meter in an approved manner. Gas used and all other costs including installation, maintenance and removal of temporary meter shall be paid by the Contractor.

**1.14 Temporary Sanitary Facilities.**

Provide and maintain temporary toilet facilities for duration of operations. Properly proportion number of fixtures for the number of workers employed all in accordance with CAL OSHA requirements. Provide water tight and floored structures. Maintain in a clean and sanitary condition acceptable to District.

**1.15 Utility Costs for Subcontractors.**

Distribution of temporary utility services to subcontractors shall be Contractor's

responsibility.

**1.16 Temporary Fire Protection and Safety Requirements.**

The Contractor shall take necessary precautions to guard against and eliminate fire hazards and to prevent damage to construction work, building materials, equipment, temporary field offices, storage sheds, and public and private property. The Contractor shall be responsible for providing, maintaining, and enforcing the following conditions and requirements during the entire construction period.

1) Fire Inspection: The Contractor's Superintendent shall inspect the entire project at least once each week to make certain that the conditions and requirements are being adhered to.

2) Hose: The number of outlets, supply of hose, and proper hose size to protect the construction area shall be determined by the local Fire Marshal and provided by the Contractor.

3) Fires: Employees shall not be allowed to start fires with gasoline or kerosene or other highly flammable materials. No open fires shall be allowed.

4) Flammable Building Materials: Only a reasonable working supply of flammable building material shall be located inside of, or on the roof of, any storage facility.

5) Combustible Waste Materials: Oil-soaked rags, papers, and other highly combustible materials must be stored in closed metal containers at all times, and shall be removed from the site at the close of each day's work and more often where necessary, and placed in metal containers with tight hinged lids.

6) Gasoline and other flammable or polluting liquids/materials shall not be poured into sewers, manholes, or traps, but shall be disposed of, together with flammable or waste material subject to spontaneous combustion, in a safe manner meeting all applicable laws and ordinances. Make appropriate arrangements for storing these materials outside of the building.

7) Provide and maintain fire extinguishers during construction, conveniently located for proper protection, one fire extinguisher for each 5,000 square feet of floor area or less, but not less than four extinguishers. Fire extinguishers shall be ten-pound ABC type. Extinguishers shall meet approval of Underwriter's Laboratory, and shall be inspected at regular intervals and recharged as necessary.

**1.17 Self -Propelled Construction Equipment**

All self-propelled construction equipment, except light service trucks, panels, pickups, station wagons, crawler type cranes, power shovels and draglines, whether moving alone or in combination, shall be equipped with a reverse signal alarm (hub-cap type).

**1.18. Temporary Offices (Construction Trailers). N/A**

**1.18.1** Prior to starting work, provide and maintain for duration of operations, separate temporary office facilities as required for Contractor's administration; likewise, all necessary sheds and facilities for proper storage of tools, materials, and equipment employed in performance of work.

**1.18.2** The office shall be conveniently located in area as directed by the District, substantially and neatly constructed, weather-tight, well lighted, and neatly painted inside and out. The office shall be heated and cooled. It shall have doors, which are separately keyed, and two or more windows on opposite sides.

**1.19 Temporary Office (Contractor's Trailer). N/A**

**1.19.1** Prior to starting work, provide and maintain for duration of operations, temporary office facilities as required for Contractor's administration; likewise, all necessary sheds and facilities for proper storage of tools, materials, and equipment employed in performance of work.

**1.19.2** The office shall be a separate structure. The location of the office trailer will be determined at the time of mobilization to be acceptable to the District. The office structure shall be substantially and neatly constructed, weather-tight, well lighted, and neatly painted inside and out. The office shall be heated and cooled. It shall have doors that are separately keyed and two or more windows on opposite sides.

**1.19.3** The facilities for Contractor's use shall be not less than described herein. The facilities shall be of suitable size to accommodate the office, and shall be furnished with whatever facilities the Contractor needs.

**1.19.4** Costs of the field office and utilities, including cleaning service not less than once per week, shall be borne by the Contractor.

**1.20 Temporary Scaffolding, Stairs, and Hoists.**

Provide and maintain for duration of work, in accordance with CAL-OSHA and applicable laws and ordinances, all required temporary standing scaffolding, and temporary stairs, ladders, ramps, runways and hoists for use of all trades, unless otherwise specified in Contract Documents.

**1.21 Temporary Guards, Barricades, and Lights.**

**1.21.1** Provide construction canopies, barricades, fences, guards, railings, lights, and warning signs necessary and required by law, and take necessary precautions required to avoid injury or damage to any and all persons and property.

**1.21.2** Provide and maintain protective fences and barricades as shown on drawings and as Contractor may deem necessary to protect construction yard, storage areas and work in place, subject to approval as to type and appearance. Hog wire fencing is not acceptable Remove all temporary fences and barricades upon project completion.

**1.22 Protection of Work and Facilities.**

**1.22.1** Protect all adjacent property, roads, streets, curbs, shrubbery, lawns, erosion control

materials and planting during construction operations. All damaged material shall be replaced and/or repaired at the expense of the Contractor. Special care must be exercised by the Contractor to keep the entire playing field from damage due to the Contractor's operations. Special permission must be requested in writing from the DFMO to allow vehicular access on the play field. Field shall be returned to a game ready condition, as determined solely by the DFMO, at the conclusion of the work.

**1.22.2** Upon completion deliver the entire work to the District in proper, whole and unblemished condition. Work outside of the immediate construction site shall be restored to a whole and unblemished condition immediately upon completion of that portion of the work.

1) Parts of work in place that are subject to injury, because of operations being carried on adjacent thereto, shall be covered, boarded up, or substantially enclosed with adequate protection.

2) The Contractor shall be responsible for preventing the overloading of any part of the facilities beyond their safe calculated carrying capacity by the placing of materials and/or equipment, tools, machinery, or any other items thereon.

3) The District may provide such watchman services deemed necessary to protect the District's interest, but any protection so provided by the District shall not relieve the Contractor of the responsibility for the safety and condition of the work and material until the completion and acceptance thereof. The Contractor shall employ such watchman services as he may deem necessary to properly protect and safeguard the work and material.

**1.23 Special Controls.**

**1.23.1** Use of Powder-Driven Fasteners: The use of powder set (cartridge type) anchors or lugs for attaching of any work is strictly prohibited on this project unless approved in writing by the District.

**1.23.2** Use of Explosives: Blasting will not be permitted unless approved in writing by the District.

**1.23.3** Dust Control: Throughout the entire Contract period, effectively dust-palliate the working area, roads, and storage areas constructed under this Contract and involved portions of the site, except during such periods that other contractors may be performing work of separate contracts in these areas. Such application shall consist of intermittent watering and sprinkling of such frequency as will satisfactorily allay the dust during all hours that work is being performed. At no time shall water be allowed to pond or puddle. Ponds and puddles shall be removed immediately and steps taken to remove or dry the mud resulting from the ponds or puddles.

**1.24 Water Control.**

Surface or subsurface water or other fluid shall not be permitted to accumulate in excavations or under the structures. Should such conditions develop or be encountered, the water or other fluid shall be controlled and suitably disposed of by means of temporary

pumps, piping, drainage lines and ditches, dams or other methods approved by the District.

**1.25. Project Identification.**
Provide and maintain one sign only on the property at location as directed by the Director of Facilities, Maintenance and Operations (DFMO). Signboard shall contain information and be of size as detailed on the drawings. Small direction signs may be installed if specifically approved by the DFMO. Signs by subcontractors and material suppliers will not be permitted.

**1.26 Contractor Vehicles on Campus.**
Contractor's vehicles shall be restricted to access routes established by the District. Parking of Contractor's employees' vehicles will be limited to areas as established by the District, not necessarily adjacent to the site.

**1.27 Removal of Temporary Construction.**
Remove temporary office facilities, toilets, storage sheds, fences, and other construction of temporary nature from site as soon as progress of work permits. Recondition and restore portions of site occupied by same to a condition acceptable to District.

**1.28 Use of Facilities.**
The Contractor and subcontractor shall not, during hours of construction or at times when they are on site to perform work under the contract, use any of the campus facilities, including but not limited to, the restrooms, phones and roadways and the like without prior permission of the campus DFMO.

**1.29 Damages.**
The Contractor shall be responsible to report and repair, at no additional cost to the District, any damage to College property caused by Contractor, Contractor's employees, Subcontractors, material suppliers, or any other persons or entities, which are onsite as a result of the Contract and work there under. Contractor shall notify the District Project Manager/DFMO in writing within four (4) hours of the occurrence, and provide a description of the damage and the exact location. The Contractor shall immediately contact the DFMO, and immediately repair the damage using materials of equal or superior grade to that which was damaged. No backfilling or covering up of damage or repairs shall be performed by the Contractor until such time as the DFMO has inspected the work and provided the Contractor with written approval to cover the work.

**1.30 Waste Management.**
Contractor shall not use the campus dumpsters, or dispose of waste or any other items, on Campus.

**1.31 State and College Regulations**
The Contractor and his Subcontractors shall comply with all District, City, County and State regulations regarding noise, dust, smoke, fire and safety rules, and shall keep the site and surrounding areas clean and free of debris.

**1.32 Drawings and Plans.**
The terms "drawings" and "plans" are used interchangeable in the Contract Documents and have the same meaning.

**1.33 Approval for Commencement of Work.**

The Contractor shall obtain approval from the Director of Facilities, Maintenance & Operations, before commencing work in any existing occupied area, or before working on existing piping, wiring, or equipment. The Contractor shall indicate the particular area where work will be in progress and the length of time any existing system will be out of service. This work is to be scheduled in such a manner so as not to disrupt present operations, where possible. If new construction requires interruption of present operations, the Contractor shall obtain approval from the parties named above, after providing them with specific information regarding areas, dates, hours of the day, and number of hours any interruption is expected to take place. All interruption of services shall be approved by the District, in writing, prior to such interruptions and at the sole discretion of the District. The Contractor shall perform such work on weekends, after regular working hours, or in incremental blocks of time as directed by the District, at no additional cost to the contract price. Work performed as herein described shall not be a basis for an extension to the contract time for completion of all work.

**1.34 Verify Existing Conditions.**

The Contractor shall verify, identify and locate all utilities (above and below grade, visible and concealed), and all conditions and dimensions of the Work as described in the Contract Documents, prior to starting construction. All Subcontractors shall verify at the Site all conditions and measurements related to their work.

**1.35 Scaling Dimensions from Drawings.**

In no case shall working dimensions be scaled from plans, sections, or details from the Working Drawings. If no dimension is shown, the Contractor shall request in writing that the District provide clarification and dimensions.

**1.36 Similar Conditions.**

The intent is to provide a fully functional finished product, complete in every respect. Where a specific detail is not shown, the construction shall be similar to that indicated or noted for similar conditions and as necessary for a complete installation. References of notes and details to specific conditions and locations shall not limit their applicability. Materials for similar use shall be of the same type and manufacturer, unless otherwise indicated or specified as different. Any deviation must be approved in writing, by the District, prior to incorporation into the work.

**1.37 Handicap Access Regulations.**

The Contractor and all Subcontractors shall comply with Title 24, Disabled Access Regulations and ADA, Americans with Disabilities Act Regulations, whether or not specifically indicated on the Contract Documents. Where existing paths of travel are interrupted due to construction, barrier-free paths of travel shall be maintained by the Contractor, without adjustment to Contract Price or Contract Time.

**1.38 Items marked "N.I.C." (Not in Contract).**

Items marked N.I.C. in the Drawings are not part of the Work. In most instances, they are included for coordination under this Contract of the Work with concurrent or future work outside this contract. However, the Contractor shall review all items marked N.I.C. and provide the District notice and deadline dates of when the items are needed onsite for

coordination and incorporation into the project. Failure by the Contractor to give notice to the District and to provide such notice in sufficient time so as to allow District to select, order and receive the items shall not be the basis for delay claims, time extensions, or increased cost to the contract price.

**1.39 Coordination for all Trades.**

The Contractor shall be responsible for the proper location and size of openings for all trades, and shall coordinate all construction as indicated by the Contract Documents, including Shop Drawings reviewed by the District.

**1.40 Items Not Identified in Construction Documents.**

Any conditions or installations not identified in the Contract Documents and affecting the Work to be performed shall be brought to the attention of the District in order that cost and responsibility for any added work may be determined before work is undertaken. The Contractor's notice to the District of such installations or conditions shall be in writing. Pending receipt of written direction from the District, the Contractor shall not disturb or perform construction operations in any area affected by such installations or conditions.

**1.41 Vehicular Access and Parking.**

Construction, which might affect existing College vehicular access and parking, shall be scheduled during non-school hours. The Contractor shall immediately vacate any area if Contractor's operations or activities curtail vehicular access to the campus or to parking. Fire Department vehicular access to and around the construction area shall be maintained at all times by the Contractor clear of obstruction. Contractor shall provide keys to all gates to local Fire Department and DFMO for gate access.

**1.42 Right of Access.**

The District, or its representative(s), shall be able at all times to enter the construction site and observe the work. They shall have the right to reject defective materials and workmanship and to require appropriate corrections at the Contractor's expense. The Contractor shall not be relieved of any responsibility under this contract to provide materials and equipment in accordance with the Contract Documents for failure by the District representatives to discover, or otherwise bring to the attention of the Contractor, any deficiencies with the work.

**1.43 Restoration of Existing Conditions.**

The Contractor shall restore all landscaping, paving, and grading to the original condition at all areas adjoining the construction sites. Prior to performing any work on the project, the Contractor shall, at his sole expense, locate and mark the locations of all components of the irrigation systems which will, or may be, affected by or interfere with work under the contract. The Contractor shall meet with the Director of Facilities, Maintenance & Operations to develop a plan and schedule to expose and rework the irrigation system as necessary to maintain continuous uninterrupted functioning of the irrigation system. In the event that irrigation lines, sprinklers, control wiring or the like are damaged, the Contractor shall notify the Director of Facilities, Maintenance & Operations within one (1) hour, and within four (4) hours of the occurrence provide a written description of the damage and its exact location. The Contractor shall immediately repair the damage using materials of equal or superior grade to that which was damaged. No backfilling or covering up of damage or repair shall be performed by the Contractor until such time as the Director of

Facilities, Maintenance & Operations has inspected the work and provided the Contractor with written approval to cover the work.

**1.44 Municipal Laws and Regulations.**

The Contractor shall have full knowledge of, and at no additional cost to the contract comply with, all laws and regulations including, but not limited to, limitations on noise, hours of operation, hauling routes or limits on weight of equipment traveling on adjacent streets, and any other limitations which might affect the Contractor's work and operations.

**1.45. Weekend Hours.**

The contract time is expressed in calendar days. The Contractor may perform work, with prior notification as per Article 1.07 of the Special Conditions, on weekends or holidays, at his discretion. Should it be necessary for inspectors, District personnel, consultants, or DFMO to visit the work site on weekends or holidays, additional cost, if any, shall be reimbursed to the District by the Contractor. The District, at its sole discretion, may direct certain portions of the work to be performed after hours, or on weekends or holidays, in order to minimize interruption to the academic operations of the College. The Contractor shall reflect in his Progress Schedule all work, which may impact academic operations, and at Contractor's sole expense, and as directed by the District, perform all work at times convenient to the District.

**1.46 Testing and Inspection Costs.**

**1.46.1** All costs for testing and inspection shall be paid by the District. However, the Contractor shall be responsible for all costs incurred for re-testing that may be required due to failed tests Upon receipt from the Contractor of a Progress Schedule in accordance with the Contract Documents, the District shall provide a copy of the Progress Schedule to the Testing Laboratory and obtain from them a cost to perform all necessary inspections for the project based on the timeframes set forth in the Progress Schedule. The Contractor shall reimburse the District for quantities, which exceed the scheduled amounts of time.

**1.46.2** If the Contractor uses a fabricator or supplier subject to DSA inspection or documentation from beyond a 100 mile radius of the Project Site, costs above and beyond those for the same inspections and documentation were it to occur within a 100 mile radius of the Project Site, including, but not limited to, out of state tests and inspections, per diem, travel, or the like, will be paid by the District and the District shall be reimbursed by the Contractor upon submittal by the District to the Contractor of the costs incurred.

**1.47 Needless Requests for Information.**

Any needless Request for Information (RFI) will be billed to the Contractor by the A/E team at the additional service rate contained in their respective contracts. A needless RFI is any request for which an answer is in the plans or specifications, or Contract related correspondence, prior to the date of the RFI. Needless punch list visits will be billed in the same way.

**1.48 E-mail Address.**

All parties shall have an Email address and be responsible for all correspondence distributed via E-Mail. *No Exceptions*!

**1.49 Service Charges.**
Electrical, water, telephone, and other utility charges will be billed to the contract at the same rate paid by the Ventura County Community College District (VCCCD).

**1.50 Material Substitutions.**
Any and all material specification substitutions must be submitted to the District for approval no later than seven (7) days prior to the bid due date. Any substitutions submittal after that date will not be accepted or reviewed.

**1.51 Electronic Schedule Files.**
Pursuant to the requirements of the General Conditions under Article 7, the Contractor shall provide copies of project schedules submitted to the District on paper, including but not limited to, weekly, semi-monthly & monthly schedule updates, on compact discs, in the proper file format to function in the scheduling program provided by the Contractor to the District as required under Article 7 of the General Conditions.

**1.52 Changes to the Work for Contractor Convenience.**
Any changes to the Work resulting from a request by the Contractor to deviate from the approved Contract Documents or as a result of the Contractor not following the Contract Documents that requires additional architectural or engineering services, including but not limited to document submittal to the Division of State Architects (DSA), will be billed to the Contractor by the A/E team at the additional service rate contained in their respective contracts.

**1.53 Mark-ups on Changes to the Work.**
In the event of Changes to the Work, the mark-up for all general conditions, costs, overhead (including home and field office overhead), profit and bond, shall not exceed **Twenty Percent (20%)** of the direct actual costs of the performance of an additive Change, as determined in accordance with the provisions of Article 9.4 of the General Conditions. However, in the event that Contractor self-performs the entirety of the Change, the mark-up for all general conditions, costs, overhead (including home and field office overhead), profit and bond, shall not exceed **Fifteen Percent (15%)** of the direct actual costs of the performance of an additive Change, as determined in accordance with the provisions of Article 9.4 of the General Conditions. In addition, the mark-up shall include the actual, direct cost of the bond for such Change, not to exceed **Two Percent (2%)** of the direct, actual costs of the performance of the Change.

The foregoing limitation or mark-up shall apply regardless of the number of subcontractors, of any tier, performing any portion of such additive Change to the Work. In the event that the Work of such additive Change is performed in part by a subcontractor, Contractor agrees to allocate at least Ten Percent (10%) to such subcontractor, with no more than Five Percent (5%) to be allocated to the Contractor. In the event the Change is deductive, the District shall receive a credit equal to the value of the direct actual costs of the Work of the deductive Change plus Zero **(0%)** of such direct actual costs for all general conditions, overhead (including home and field office overhead), profit and bond.

**1.54 Allowances.**
The following allowances are in addition to the scope of the Work as defined in the Contract Documents and the Contractor shall add all Allowances to complete the work and

shall include the total Allowances amount in the Bid Proposal Lump Sum Amount (Refer to Bid Proposal, Section 00210).

**List of Allowances**

| Item | Description | Amount ($) |
|---|---|---|
| 1 | No Allowance included in this project | ***[ENTER*** |
| | | ***AMOUNTS]*** |
| | **Total Allowances** | |

The District may utilize the above allowances up to the total amount during the course of construction by issuing a Work Order(s) to the Contractor. A deductive Change Order will be issued at the completion of the Work to return the entire balance of the unused allowances to the District, without application of any mark-up.

Upon incorporation of the Work described in each Work Order, the Contractor will be paid out of the Allowance fund as a line Item included in the Contractors payment application.

**1.55 Inclement Weather Days.**

Pursuant to Article 7.4.1 of the General Conditions, the number of Working Rain Days (including inclement weather) for this Contract is Thirty Five (35) days.

**1.56 District's Project Manager.**

The District's Project Manager is **John Sinutko**
Moorpark College Director of Facilities, Maintenance & Operation,
7075 Campus Rd., Moorpark, CA 93021, Phone: 805-378-1454.

*[End Of Section]*

# TECHNICAL SPECIFICATIONS
Section 01000

## 1.01 GENERAL INFORMATION

**A. Job Walk**

All bidders are required to attend the job walk to be eligible to bid on this project.

**B. Discrepancies**

Where there are discrepancies between the General Conditions of the Ventura County Community College District and the Technical Specifications and Drawings, the General Conditions of the District shall take precedence.

**C. Alternative Materials**

The use of a manufacturer, product brand name or make in the specifications is not intended to restrict bidders. The specifications establish the character or quality of the article desired. Alternative materials or goods on which other proposals are submitted must, in all cases, be equal or exceed in every detail to the item specified. Bid must clearly state the brand, make or model number. Alternative goods and materials are subject to review and must be approved prior to the date listed on the bid specifications. The District, for inspection and specification testing, may require samples of bid items. Samples furnished must be free of expense to the District. Samples furnished must also be identical in all respects to the products specified in the bid. Samples, if not destroyed by tests and if requested, will be returned at the bidder's expense. All goods furnished under this contract shall be newly manufactured goods. Used or reconditioned goods are prohibited, unless otherwise specified.

**D. Questions Concerning Technical Specifications**

Technical specifications continue on the following pages. All questions regarding this bid and or specifications should be directed to the Purchasing Department of the District. Questions should be addressed by e-mail to the Purchasing Specialist handling this bid. Questions must be submitted by e-mail no later than **3:00 p.m. on Wednesday, July 21, 2021.**

**E. Technical Specifications & Plan Drawings**

The technical specifications and the plan drawings continue on the following pages and are considered a part of this bid package:

| | |
|---|---|
| G000 Title Sheet | A101 Site Plan |
| A201 1st Base Dugout Plans | A202 3rd Base Dugout Plans |
| A301 1st Base Dugout Elevations | A302 3rd Base Dugout Elevations |
| A401 1st Base Dugout Sections | A402 3rd Base dugout Sections |
| A501 Details | A502 Details S000 General Notes |
| S001 General Notes | S010 Typical Details |

S011 Typical Details
S100 Structural Plans
S201 Structural Details
S020 Typical Wood Details
S200 Structural Details

**TECHNICAL SPECIFICATIONS**
**BID SET**

**JUNE 28, 2021**

**FOR**

# MOORPARK COLLEGE
# BASEBALL FIELD
# REPAIR BASEBALL DUGOUTS
## VENTURA COUNTY COMMUNITY COLLEGE DISTRICT

**BID No. 623**

**FOR**

**MOORPARK COLLEGE**
**7075 CAMPUS ROAD**
**MOORPARK, CA 93021**

**William J Amador AIA**, ARCHITECT
AMADOR WHITTLE ARCHITECTS, INC

**TECHNICAL SPECIFICATIONS**
**FOR**
**MOORPARK COLLEGE REPAIR BASEBALL DUGOUTS**

DIVISION 00 – PROCUREMENT AND CONTRACTING REQUIREMENTS


00000 Title Page ..... 01
00100 Table of Contents ..... 02


DIVISION 1 – GENERAL REQUIREMENTS


01 1100 Summary of Work……..... 02
01 2513 Product Substitution Procedures……02
01 2613 Request for Clarification……..... 02
01 3113 Project Coordination…… ..... 02
01 3300 Submittal Procedures…… 08
01 4523 Testing and Inspections……11
01 5000 Construction Facilities and Temporary Controls……09
01 7329 Cutting and Patching ..... 06


DIVISION 2 - DEMOLITION


02 4116 Demolition ..... 04


DIVISION 3 - CONCRETE


03 1000 Concrete Forming and Accessories ..... 05
03 2000 Concrete Reinforcing ..... 05
03 3000 Cast-In-Place Concrete..... 18


DIVISION 4 - MASONRY


04 2200 Concrete Unit Masonry ..... 09


DIVISION 5 - METALS


05 0513 Hot-Dip Galvanizing ..... 05
05 3000 Metal Decking ..... 06
05 5100 Metal Railings and Frames..... 09


DIVISION 6 – WOODS AND PLASTICS


04 2200 Rough Carpentry ..... 09


DIVISION 7 - THERMAL AND MOISTURE PROTECTION

07 9200 Joint Sealants……. 06

DIVISION 9 - FINISHES

09 9000 Painting and Coating……. 07

DIVISION 11 – SPECIAL CONSTRUCTION

11 4800 Backstop Systems……. 04

DIVISION 31 – EARTHWORK

31 2333 Trenching and Backfilling.....04

DIVISION 32 – EXTERIOR IMPROVEMENTS

32 1123 Aggregate Base Course.....02
32 1600 Curbs, Gutters and Sidewalks .....04
32 8000 Irrigation .....08

DIVISION 33 – UTILITIES

33 1000 Water Utilities .....07
33 4000 Storm Drainage Utilities.....04

**END OF TABLE OF CONTENTS**

# SECTION 01 1100

# SUMMARY OF WORK

## PART 1 - GENERAL

### 1.01 SECTION INCLUDES

A. The furnishing of all labor, materials, equipment, services, and incidentals necessary for Work of the Repair Baseball Dugouts Project at Moorpark College located at 7075 Campus Road, Moorpark, California 93021, as set forth in the Construction Documents which include, but are not limited to, the Drawings, Addenda and Specifications.

### 1.02 RELATED REQUIREMENTS:

1. Section 01 3113: Project Coordination.

## PART 2 - PRODUCTS (Not used)

## PART 3 - EXECUTION

### 3.01 USE OF PREMISES

A. CONTRACTOR shall coordinate Work of all trades, Subcontractors, utility service providers, with OWNER and/or Separate Work Contract. CONTRACTOR shall sequence, coordinate, and perform the Work to impose minimum hardship on the operation and use of the existing facilities and/or Project site. CONTRACTOR shall install all necessary protection for existing improvements, Project site, property, and new Work against dust, dirt, weather, damage, vandalism, and maintain and relocate all protection to accommodate progression of the Work.

B. CONTRACTOR shall confine entrance and exiting to the Project site and/or facilities to routes designated by the OWNER.

C. Within existing facilities, OWNER will remove portable equipment, furniture, and supplies from Work areas prior to the start of Work. CONTRACTOR shall cover and protect remaining items in areas of the Work.

D. CONTRACTOR is advised school may be in session during performance of the Work. CONTRACTOR shall utilize all available means to prevent generation of unnecessary noise and maintain noise levels to a minimum. When required by the OWNER, CONTRACTOR shall immediately discontinue noise-generating activities and/or provide alternative methods to minimize noise generation. CONTRACTOR shall install and maintain air compressors, tractors, cranes, hoists, vehicles, and other internal combustion engine equipment with mufflers, including unloading cycle of

compressors. CONTRACTOR shall discontinue operation of equipment producing objectionable noise as required by the OWNER.

E. CONTRACTOR shall furnish, install, and maintain adequate supports, shoring, and bracing to preserve structural integrity and prevent collapse of existing improvements and/or Work modified and/or altered as part of the Work.

F. CONTRACTOR shall secure building entrances, exits, and Work areas with locking devices as required by the OWNER.

G. CONTRACTOR assumes custody and control of OWNER property, both fixed and portable, remaining in existing facilities vacated during the Work.

H CONTRACTOR shall cover and protect surfaces of rooms and spaces in existing facilities turned over for the Work, including OWNER property remaining within as required to prevent soiling or damage from dust, dirt, water, and/or fumes. CONTRACTOR shall protect areas adjacent to the Work in a similar manner. Prior to OWNER occupancy, CONTRACTOR shall clean all surfaces including OWNER property.

I. CONTRACTOR shall not use or allow anyone other than OWNER employees to use facility telephones and/or other equipment, except in an emergency. CONTRACTOR shall reimburse OWNER for telephone toll charges originating from the facility except those arising from emergencies or use by OWNER employees.

J. CONTRACTOR shall protect all surfaces, coverings, materials, and finished Work from damage. Mobile equipment shall be provided with pneumatic tires.

K. CONTRACTOR is advised OWNER may award Separate Work Contracts at this Project site.

L. CONTRACTOR shall not permit the use of portable and/or fixed radio's or other types of sound producing devices including walkmans and similar devices.

END OF SECTION

SECTION 01 2513

PRODUCT SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. This Section includes administrative and procedural requirements for handling requests for substitutions submitted 60 days after the date established in the Notice of Award.

1.02 RELATED REQUIREMENTS

A. Section 01 3229: Project Forms.

B. Section 01 3300: Submittal Procedures.

C. Section 01 6000: Product Requirements.

D. Section 01 7700: Contract Closeout.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION

3.01 APPLICATION

A. CONTRACTOR proposed changes in products or materials required by the Contract Documents 60 days or more after the Notice of Award are considered to be requests for substitutions. OWNER will consider requests for substitution if a product is no longer manufactured or the OWNER and ARCHITECT, after a diligent search have verified that product or material is not available to CONTRACTOR. The following are not considered to be valid requests for substitutions:

1. Revisions to the Contract Documents requested by OWNER or ARCHITECT.

2. Specified options of products included in the Contract Documents.

3. Substitutions requested on a “or equal” basis.

3.02 SUBMITTALS

A. Transmit submittals as described in related Sections for each request for substitution.

1. Identify the product to be replaced in each request. Include related Specification Section and Drawing number.

2. Provide complete documentation denoting compliance with the requirements for substitutions, and the following information, as appropriate.

   a. A detailed comparison of significant qualities of the proposed substitution with those specified in the Contract Documents. Significant qualities may include elements, such as performance, weight, size, durability, and visual effect.

   b. Product Data, including Drawings, descriptions of products, fabrication, and installation procedures.

   c. Samples, where applicable or requested.

   d. CONTRACTOR certification the proposed substitution conforms to requirements of the Contract Documents in every respect and is appropriate for the applications indicated.

   e. CONTRACTOR waiver of rights to an increase in the Contract Amount, Milestones and/or Contract Time that may subsequently become necessary because of the failure of the substitution to adequately perform.

3. If required, ARCHITECT will request additional information or documentation for evaluation. OWNER will notify CONTRACTOR of acceptance or rejection of the substitution.

4. ARCHITECT will review and consider request for substitution and provide a recommendation to OWNER

5. Where a proposed substitution involves and/or affects more than one Subcontractor, CONTRACTOR shall ensure each Subcontractor cooperates with the other Subcontractor involved to coordinate the Work, provide uniformity and consistency, and assure compatibility of all products.

6. CONTRACTOR submittal and ARCHITECT review of Shop Drawings, Product Data, material lists or Samples do not constitute an acceptable or valid request for substitution.

END OF SECTION

# SECTION 01 2613

# REQUEST FOR CLARIFICATION

## PART 1 - GENERAL

### 1.01 SECTION INCLUDES

A. Procedure for requesting clarification of the intent of the Contract Documents.

### 1.02 RELATED REQUIREMENTS

A. Section 01 1100: Summary of Work.

B. Section 01 3113: Project Coordination.

### 1.03 GENERAL CONDITIONS

A. Submit Request for Clarification to design team in case of inconsistencies between approved drawings and approved specifications in the descriptions work to be done, equipment to be provided or material to be used. It shall be that the more stringent, the more restrictive, the higher quality, and the greater quantity of Work shall apply.

## PART 2 - PRODUCTS (Not used)

## PART 3 - EXECUTION

### 3.01 PROCEDURE

A. CONTRACTOR shall prepare a Request for Clarification on the form provided at the end of this section. CONTRACTOR shall transmit the Request for Clarification to ARCHITECT with a concurrent copy to the OWNER.

B. ARCHITECT response is a clarification of the intent of the Contract Documents and does not authorize changes in the Contract Amount, Milestones and/or Contract Time.

C. A Request for Clarification may be returned with a stamp or notation "Not Reviewed," if:

1. The requested clarification is ambiguous or unclear.

2. CONTRACTOR has not reviewed the Request for Clarification prior to submittal.

D. Allow a minimum of five days for review and response time, after receipt by ARCHITECT and OWNER. CONTRACTOR shall verify and is responsible in verifying ARCHITECT and OWNER receipt of a Request for Clarification.

E. Changes or alterations to the approved drawings or specifications shall be made by means of addenda or change orders as per section 4-338 of the California Building Standards Commission's, California Administrative Code.

END OF SECTION

SECTION 01 3113

PROJECT COORDINATION

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. This Section specifies administrative and procedural requirements necessary for coordinating Work operations including, but not limited to, the following:

1. General coordination procedures.

2. Coordination drawings.

1.02. RELATED REQUIREMENTS

A. Section 01 4523: Testing and Inspection.

PART 2 - PRODUCTS (Not used)

PART 3 - EXECUTION

3.01 COORDINATION

A. CONTRACTOR shall coordinate operations included in various sections of Contract Documents to assure efficient and orderly installation of each part of Work. Coordinate Work operations included under related sections of Contract Documents that depend on each other for proper installation, connection, and operation of Work, including but not limited to:

1. Schedule construction operations in sequence required where installation of one part of Work depends on installation of other components, before or after its own installation.

2. Coordinate installation of different components to assure maximum accessibility for required maintenance, service, and repair.

3. Provide provisions to accommodate items scheduled for later installation.

4. Prepare and administer provisions for coordination drawings.

B. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as required in notices, reports, attendance at meetings, and:

1. Prepare similar memoranda for OWNER and Separate Work Contract where coordination of their Work is required.

C. Administrative Procedures: Coordinate scheduling and timing of required administrative procedures with other construction activities to avoid conflicts and assure orderly progress of Work. Such administrative activities include, but are not limited to, following:

1. Preparation of schedules.

2. Installation, relocation, and removal of temporary facilities.

3. Delivery and processing of submittals.

4. Progress meetings.

5. Project closeout activities.

D. Conservation: Coordinate Work operations to assure operations are carried out with consideration given to conservation of energy, water, materials, and:

1. Salvage materials and equipment involved in performance of, but not actually incorporated into Work.

END OF SECTION

SECTION 01 3300

SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Administrative and procedural requirements for submittals required for the Work, including but not limited to; Shop Drawings, Product Data, Samples, material lists, and quality control items.

B. Throughout the Contract Documents, the minimum acceptable quality of materials, fabrication, and execution have been defined by the name and catalog number of a manufacturer and by reference of recognized industry standards.

C. To ensure that specified products are furnished and installed in accordance with the design intent, procedures have been established for submittal of design data and for its review by ARCHITECT, OWNER and others.

1.02 RELATED REQUIREMENTS

A. Section 01 3113: Project Coordination

B. Section 01 4523: Testing and Inspection.

C. Section 01 7329: Cutting and Patching.

PART 2 – PRODUCTS (Not used)

PART 3 - EXECUTION

3.01 PROCEDURES

A. CONTRACTOR is required to review and approve every submittal and shop drawing prior to transmittal and delivery to ARCHITECT. Should CONTRACTOR determine a submittal contains errors, or does not meet the requirements of the contract, CONTRACTOR shall immediately return the submittals and shop drawings to the producer and expedite the corrections prior to transmitting the submittal to ARCHITECT. Submittals shall not be used by CONTRACTOR to request clarifications or submit questions. CONTRACTOR will affix stamp to each submittal certifying CONTRACTOR has performed, at minimum, the following:

1. Verified the submittal is complete in all respects and follows the requirements of the Contract Documents without variance.

2. Confirmed that no substitutions have been included. If substitutions are included, CONTRACTOR shall eliminate them from the submittal and process them in accordance with the Contract Documents.

3. Identified any variances from the requirements of the Contract Documents and confirmed that the identified variance meets, but does not exceed the allowable limitations or tolerances as defined in these specifications.

4. Verified that all submitted materials, dimensions and tolerances are compatible with existing or planned conditions of the Work in order to erect, fabricate, or install the submitted assembly in conformance with the requirements of the Contract Documents.

5. Coordinated and verified that the dimensions match CONTRACTOR measured field or installation conditions.

6. Coordinated and verified that the products of separate manufacturers required within any field produced assembly are compatible in all respects for such assembly.

7. Packaged together all related submittals or shop drawings where such is necessary for a comprehensive ARCHITECT review.

B. CONTRACTOR shall package each submittal appropriately for transmittal and handling. Transmittal format shall be as required by OWNER. CONTRACTOR shall transmit and deliver six sets of each submittal or re-submittal to ARCHITECT, two of which shall be returned to CONTRACTOR. Some specifications may require additional copies be provided. CONTRACTOR shall provide the OWNER additional copies as specified or as requested by OWNER. ARCHITECT will not accept submittals received from sources other than from CONTRACTOR.

C. After ARCHITECT'S review, ARCHITECT will transmit submittals to OWNER and OWNER shall further distribute to CONTRACTOR, INSPECTOR and others as required. Work shall not commence, unless otherwise approved by OWNER, until approved submittals are transmitted to CONTRACTOR.

D. CONTRACTOR shall clearly identify any deviations from the Contract Documents on each submittal. Any deviation not so noted even though stamped reviewed is not acceptable.

E. CONTRACTOR shall coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals, and related activities requiring sequential activity.

F. Timing of Submittals:

1. In accordance with General Conditions, CONTRACTOR shall submit to ARCHITECT, with copy of transmittal to the OWNER, those Shop Drawings, Product Data, diagrams, materials lists, Samples and other submittals required by the Contract Documents.

2. The scheduling of submittals shall be sequenced to support the progress of the Work, and shall be:

   a. Submitted sufficiently in advance of construction, fabrication or installation in order to allow time for transmittal, review, modification, correction, (and resubmission and re-review when required.)

   b. Phased with adequate time between submittals in order to allow for proper review by the ARCHITECT without negative impact to the Milestones Schedule.

3. CONTRACTOR shall coordinate submittal of related items and ARCHITECT reserves the right to withhold action on a submittal requiring coordination with other submittals until all related submittals are received by ARCHITECT.

4. CONTRACTOR shall revise, update and submit submittal schedule to ARCHITECT and OWNER on the first of each month, or as required by OAR.

5. CONTRACTOR shall allow in the Construction Schedule, at least sixteen days for ARCHITECT review following ARCHITECT receipt of submittal. For mechanical, plumbing, electrical, low voltage, fire sprinklers, door and hardware, and other submittals requiring joint review with OWNER, CONTRACTOR shall allow a minimum of eighteen days following ARCHITECT receipt of submittal.

6. No adjustments to the Contract Time or Milestones will be authorized because of a failure to transmit submittals to ARCHITECT sufficiently in advance of the Work to permit review and processing or where

CONTRACTOR fails to provide ARCHITECT submittals on related items.

7. In case of product substitution, Shop Drawing preparation shall not commence until such time as OWNER accepts or rejects the proposed substitution in accordance with the procedures described in the General Conditions.

G. If required, resubmit submittals in a timely manner. Resubmit as specified for initial submittal but identify as such. Review times for re-submitted items shall be as per the time frames for initial submittal review.

H. Shop Drawing preparation shall not commence until such time as CONTRACTOR receives Product Data acceptance.

I. ARCHITECT will stamp each submittal with a uniform, action stamp. ARCHITECT will mark the stamp appropriately to indicate the action taken, as follows:

1. Final Unrestricted Release: When ARCHITECT marks a submittal "Reviewed" or "Approved" the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents. Final payment depends on that compliance.

2. Final-But-Restricted Release: When ARCHITECT, or authorized agent, marks a submittal "Reviewed as Noted" or "Furnish as Corrected", the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents. Final payment depends on that compliance.

3. Returned for Re-submittal: When ARCHITECT, or authorized agent, marks a submittal "Rejected" or "Revise and Resubmit," do not proceed with Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal according to the notations; resubmit without delay. Repeat as necessary to obtain different action mark. In case of multiple submittals covering same items of Work, CONTRACTOR is responsible for any time delays, schedule disruptions, out of sequence Work, or additional costs due to multiple submissions of the same submittal item. Do not use, or allow others to use, submittals marked "Rejected" or "Revise and Resubmit" at the Project site or elsewhere where Work is in progress.

4. Other Action: Where a submittal is for information or record purposes or special processing or other activity, ARCHITECT, or authorized agent, will return the submittal marked "Action Not Required ".

## 3.02 SHOP DRAWINGS

A. Shop Drawings are original drawings prepared by CONTRACTOR, Sub-contractor, supplier, or distributor illustrating some portion of Work by showing fabrication, layout, setting, or erection and shall not be based on reproduced Contract Documents or copied standard information.

B. Produce Shop Drawings to an accurate scale that is large enough to indicate all pertinent features and methods. Except for templates, patterns, and similar full-size drawings, submit Shop Drawings on sheets at least 8-1/2 by 11 inches but no larger than 24 by 36 inches.

C. Shop Drawings shall include fabrication and installation drawings, setting diagrams, schedules, patterns, templates, and similar drawings. Include the following information:

1. Dimensions.

2. Identification of products and materials included by sheet and detail number.

3. Compliance with specified standards.

4. Notation of coordination requirements.

5. Notation of dimensions established by field measurement.

D. Provide a space of approximately 4 by 5 inches on the label or beside the title block on Shop Drawings to record CONTRACTOR and ARCHITECT review, and the action taken. Include the following information on the label for processing and recording action taken:

1. Project name.

2. Date.

3. Name and address of ARCHITECT.

4. Name and address of CONTRACTOR.

5. Name and address of Subcontractor.

6. Name and address of supplier.

7. Name and address of manufacturer.

8. Name and title of appropriate Specification section.

9. Drawing number and detail references, as appropriate.

E. Unless otherwise agreed to or indicated in individual Specification sections, submit a sufficient number of sets to allow for adequate distribution to CONTRACTOR, Sub-Contractor, supplier, manufacturer and fabricators plus four (4) sets (two sets to be retained by ARCHITECT, one set to the INSPECTOR and one set to OWNER). Electronic submittals are preferred except for material samples.

3.03 PRODUCT DATA

A. Collect Product Data into a single submittal for each element of Work or system. Product Data includes printed information, such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, wiring diagrams, schedules, illustrations, or performance curves.

1. Mark each copy to show or delineate pertinent materials, products, models, applicable choices, or options. Where Product Data includes information on several products that are not required, clearly mark copies to indicate the applicable information. Include the following information:

a. Manufacturer's printed recommendations.

b. Compliance with trade association standards.

c. Compliance with recognized testing agency standards.

d. Application of testing agency labels and seals.

e. Notation of dimensions verified by field measurement.

f. Notation of coordination requirements.

g. Notation of dimensions and required clearances.

h. Indicate performance characteristics and capacities.

i. Indicate wiring diagrams and controls.

2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed by CONTRACTOR.

C. Required Copies and Distribution: Same as denoted in Article 3.02.E.

3.04 SAMPLES

A. Procedure:

1. Submit Samples of sufficient size, quantity, cured and finished and physically identical to the proposed product or material. Samples include partial or full sections or range of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches denoting color, texture, and/or pattern.

   a. Mount or display Samples in the manner to facilitate review of qualities indicated. Include the following:

      1) Specification section number and reference.

      2) Generic description of the Sample.

      3) Sampling source.

      4) Product name or name of manufacturer.

      5) Compliance with recognized standards.

      6) Availability and delivery time.

2. Submit Samples for review of size, kind, color, pattern, and texture. Submit Samples for a final check of these characteristics with other elements and a comparison of these characteristics between the final submittal and the actual component as delivered and installed.

   a. Where variations in color, pattern, texture, or other characteristic is inherent in the material or product represented, submit at least three (3) multiple units that show the approximate limits of the variations.

   b. Refer to other Specification sections for requirements for Samples that illustrate materials, fabrication techniques, assembly details, connections, operation, and similar construction characteristics.

   c. Refer to other sections for Samples to be returned to CONTRACTOR for incorporation into the Work. Such Samples must be undamaged at time of installation. On the transmittal indicate special requests regarding disposition of Sample submittals.

d. Samples not incorporated into the Work, or otherwise not designated as Owner property, remain the property of CONTRACTOR and shall be removed from the Project site prior to Substantial Completion.

3. Color and Pattern: Whenever a choice of color or pattern is available in a specified product, submit accurate color chips and pattern charts to OWNER for review and selection.

4. Number Required: Submit six, minimum, of each. Two will be returned to CONTRACTOR.

B. When specified, erect field Samples and mock-ups at the Project site to illustrate products, materials, fabrications, or execution and to establish standards by which completed Work shall be judged.

C. Maintain sets of Samples, as returned, at the Project site, for quality comparisons throughout the course of the Work. Sample sets may be used to obtain final acceptance of the Work associated with each set.

3.05 QUALITY CONTROL SUBMITTALS

A. Submit quality control submittals, including design data, certifications, manufacturer's field reports, and other quality control submittals as required under other sections of the Contract Documents.

B. When other sections of the Contract Documents require manufacturer's certification of a product, material, or installation complies with specified requirements, submit a notarized certification from the manufacturer certifying compliance with specified requirements.

C. Certification shall be signed by an officer of the manufacturer or other individual authorized to sign documents on behalf of the represented company.

D. Requirements for submittal of inspection and test reports are specified in other sections of the Contract Documents.

END OF SECTION

SECTION 01 4523

TESTING AND INSPECTION

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. Testing and inspection services to meet requirements of the California Building Code (CBC).

B. Related Requirements:

1. Section 03 2000 – Concrete Reinforcing.

2. Section 03 3000 – Cast-in-Place Concrete.

3. Section 05 1200 – Structural Steel Framing.

1.02 REFERENCES

A. American Concrete Institute (ACI):

1. ACI 318 – Building Code Requirements for Structural Concrete and Commentary.

B. American Institute of Steel Construction (AISC):

1. AISC 360 – Specification for Structural Steel Buildings.

2. AISC 341 – Seismic Provisions for Structural Steel Buildings.

C. ASTM International (ASTM):

1. ASTM A108 – Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished.

2. ASTM A370 – Standard Test Methods and Definitions for Mechanical Testing of Steel Products.

3. ASTM A706 – Standard Specification for Deformed and Plain Low-Alloy Steel Bars for Concrete Reinforcement.

4. ASTM C31 - Standard Practice for Making and Curing Concrete Test Specimens in the Field.

5. ASTM C172 - Standard Practice for Sampling Freshly Mixed Concrete.

6. ASTM C780 - Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry.

7. ASTM C1140 - Standard Practice for Preparing and Testing Specimens from Shotcrete Test Panels.

8. ASTM C1314 - Standard Test Method for Compressive Strength of Masonry Prisms.

9. ASTM C1604 - Standard Test Method for Obtaining and Testing Drilled Cores of Shotcrete.

10. ASTM E164 - Standard Practice for Contact Ultrasonic Testing of Weldments.

11. ASTM E488 - Standard Test Methods for Strength of Anchors in Concrete Elements.

12. ASTM E543 - Standard Specification for Agencies Performing Nondestructive Testing.

13. ASTM E605 - Standard Test Methods for Thickness and Density of Sprayed Fire-Resistive Material (SFRM) Applied to Structural Members.

14. ASTM E1444 - Standard Practice for Magnetic Particle Testing.

15. ASTM F606 - Standard Test Methods for Determining the Mechanical Properties of Externally and Internally Threaded Fasteners, Washers, Direct Tension Indicators, and Rivets.

D. Association of the Wall and Ceiling Industry (AWCI):

1. AWCI Technical Manual 12-B - Standard Practice for the Testing and Inspection of Field Applied Thin Film Intumescent Fire-Resistive Materials; an Annotated Guide.

E. American Welding Society (AWS):

1. AWS D1.1 – Structural Welding Code.

2. AWS D1.4 – Structural Welding Code – Reinforcing Steel.

3. AWS D1.8 – Structural Welding Code – Seismic Supplement.

F. Division of the State Architect (DSA) Interpretation Regulations (IR):

1. DSA IR 17-2 – Nondestructive Testing (N.D.T.) of Welds.

2. DSA IR 17-3 – Structural Welding Inspection.

3. DSA IR 17-8 – Sampling and Testing of High Strength Bolts, Nuts and Washers.

4. DSA IR 17-9 – High Strength Bolting Inspection.

5. DSA IR 17-10 – Sampling, Testing and Tagging of Reinforcing Bars.

6. DSA IR 17-11 – Identification, Sampling and Testing of Threaded Steel Anchor Bolts and Anchor Rods.

7. DSA IR 22-3 – Open Web Steel Joists and Joist Girders.

8. DSA IR 23-4 – Metal-Plate-Connected Wood Trusses.

9. DSA IR-23-8 – Manufactured Wood-Chord-Metal-Web Trusses.

1.03 REGULATORY REQUIREMENTS

A. Laboratories performing testing shall have DSA's Laboratory Evaluation and Acceptance Program approval prior to providing material testing or special inspection services.

B. Tests of materials and inspections shall be in accordance to Section 4-213 through 4-219 of the California Building Standards Commission's, California Administrative Code.

C. Required material testing, inspections and special inspections are indicated on the DSA approved DSA-103, Listing of Structural Tests & Special Inspections (T&I List). OAR will provide CONTRACTOR copy of DSA-103.

1.04 TESTS

A. OWNER will contract with a DSA approved testing laboratory to perform the testing indicated on the Contract Documents, including the Tests and Special Inspections (T&I) list.

B. Selection of material to be tested shall be by the Testing Laboratory and not by CONTRACTOR.

C. Any material shipped from the source of supply prior to having satisfactorily passed such testing and inspection, or prior to the receipt of notice from Project

Inspector such testing and inspection is not required, shall not be incorporated into the Work.

D. OWNER will select, and directly reimburse, the Testing Laboratory for costs of all DSA required tests and inspections; however, the Testing Laboratory may be reimbursed by CONTRACTOR for such costs as specified or noted in related sections of the Contract Documents.

E. The Testing Laboratory is not authorized to release, revoke, alter, or enlarge requirements of the Contract Documents or approve or accept any portion of the Work.

F. The Testing Laboratory shall not perform any duties of CONTRACTOR.

G. CONTRACTOR shall provide an insulated curing box with the capacity for twenty concrete cylinders and will relocate said box and cylinders as rapidly as required in order to provide for progress of the Work.

1.05 TEST REPORTS

A. Test reports shall include all tests performed, regardless of whether such tests indicate the material is satisfactory or unsatisfactory. Samples taken but not tested shall also be reported. Records of special sampling operations, when and as required, shall also be reported. Reports shall indicate the material (or materials) was sampled and tested in accordance with requirements of CBC, Title 24, Parts 1 and 2, as indicated on the Contract Documents. Test reports shall indicate specified design strength and specifically state whether or not the material (or materials) tested comply with the specified requirements.

1.06 VERIFICATION OF TEST REPORTS

A. Each Testing Laboratory shall submit to the Division of the State Architect, in duplicate, a verified report covering all tests required to be performed by that agency during the progress of the Work. Such report, covering all required tests, shall be furnished prior to Substantial Completion and/or, when construction on the Work is suspended, covering all tests up to the time of Work suspension.

1.07 INSPECTION BY OWNER

A. OWNER, and its representatives, shall have access, for purposes of inspection, at all times to all parts of the Work and to all shops wherein the Work is in preparation. CONTRACTOR shall, at all times, maintain proper facilities and provide safe access for such inspection.

B. OWNER shall have the right to reject materials and/or workmanship deemed defective Work and to require correction. Defective workmanship shall be corrected in a satisfactory manner and defective materials shall be removed from the premises and legally disposed of without charge to OWNER. If CONTRACTOR does not correct such defective Work within a reasonable time, fixed by written notice and in accordance with the terms and conditions of the Contract Documents, OWNER may correct such defective Work and proceed in accordance with related Articles of the Contract Documents.

C. CONTRACTOR is responsible for compliance to all applicable local, state, and federal regulations regarding codes, regulations, ordinances, restrictions, and requirements.

1.08 PROJECT INSPECTOR

A. A Project Inspector will be employed by OWNER in accordance with requirements of Title 24 of the California Code of Regulations with their duties specifically defined therein. Additional DSA Special Inspectors may be employed and assigned to the Work by OWNER in accordance with the requirements of the CBC and DSA.

B. Inspection of Work shall not relieve CONTRACTOR from any obligation to fulfill all terms and conditions of the Contract Documents.

C. CONTRACTOR shall be responsible for scheduling times of inspection, tests, sample taking, and similar activities of the Work.

1.09 STRUCTURAL TESTS AND SPECIAL INSPECTIONS

A. Soils:

1. General: Periodic inspection by Geotechnical Engineer for verification of the following construction activities in conformance to CBC Table 1705A.6:

a. Site has been prepared properly prior to placement of controlled fill and/or excavations for foundations.

b. Foundation excavations are extended to proper depth and have reached proper material.

c. Materials below footings are adequate to achieve the design bearing capacity.

2. Compacted Fills: Testing and inspections shall be in conformance to Table 1705A.6:

a. Geotechnical Engineer will continuously verify the use of proper materials and inspect lift thicknesses, placement, and compaction during placement of fill.

b. Testing Laboratory under the supervision of the Geotechnical Engineer will:

1) Perform qualification testing of fill materials.

2) Test the compaction of fill.

3. Cast-in-place Deep Foundations (Piers): Continuous inspections by Geotechnical Engineer in conformance to Table 1705A.8:

a. Inspect drilling operations and maintain complete and accurate records for each pier.

b. Verify placement locations and plumbness, confirm element diameters, bell diameters (if applicable), lengths, and embedment into bedrock (if applicable). Record concrete or grout volumes.

c. Confirm adequate end strata bearing capacity.

d. Concrete Piers: Tests and inspections will be as indicated on paragraphs below for concrete.

4. Retaining Walls:

a. Continuous inspections by Geotechnical Engineer:

1) Placement, compaction and inspection of soil per CBC Section 1705A.6.1 for fills supporting foundations.

2) Segmental retaining walls; inspect placement of units, dowels, connectors, etc.

b. Concrete Retaining Walls: Provide tests and inspections as indicated on paragraphs below for concrete.

c. Masonry Retaining Walls: Provide tests and inspections as indicated on paragraphs below for masonry.

B. Concrete:

1. Cast in Place Concrete: Inspection and testing in conformance to CBC Table 1705A.3:

a. Inspection of reinforcement, including prestressing tendons and verification of placement, per ACI 318, sections 25.2, 25.2, 25.5.1 through 26.5.3.

b. Reinforcing bar welding: Inspect per AWS D1.4, ACI 318 26.5.4.

1) Verification of weldability of reinforcing bars other than ASTM A706.

2) Inspect single-pass fillet welds, maximum 5/16".

3) Inspect all other welds.

c. Inspect anchors cast in concrete per ACI 318, section 17.8.2.

d. Inspect anchors post-installed in hardened concrete members:

1) Continuous inspection of adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads, per ACI 318, section 17.8.2.4.

2) Mechanical anchors and adhesive anchors, not defined in previous paragraph, per ACI 318, section 17.8.2.

e. Design Mix:

1) Verify use of required mix, per ACI 318, chapter 19 and sections 26.4.3 and 26.4.4.

2) Batch Plant Inspection: The quality and quantity of materials used in transit-mixed concrete and in batched aggregates shall be continuously inspected as required by CBC section 1705A.3.2. If approved by DSA, batch plant inspection may be reduced to periodic if plant complies with CBC section 1705A3.3.1, item 1, and requires first batch inspection, weightmaster, and batch tickets.

f. Prior to concrete placement, fabricate specimens for strength tests, perform slump and air content tests, and determine the temperature of the concrete, per ASTM C172, ASTM C31, ACI 318, sections 26.4.5 and 26.12.

g. Inspect concrete and shotcrete placement for proper application techniques, per ACI 318, section 26.4.5.

h. Verify maintenance of specified curing temperature and techniques per ACI 318 sections 26.4.7 through 26.4.9 and CBC section 1908.9.

i. Inspect prestressed concrete for:

1) Application of prestressing forces, per ACI 318 section 26.9.2.1

2) Grouting of bonded prestressing tendons per ACI 318 section 26.9.2.3.

j. Inspection of erection of precast concrete members per ACI 318 chapter 26.8.

k. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs per ACI 318 section 26.10.1.b.

l. Sampling and testing of reinforcing steel per ASTM A370, DSA IR 17-10 and CBC section 1910A.2. CONTRACTOR shall submit mill certificate indicating compliance with requirements for reinforcement, anchors, ties, and metal accessories.

2. Post-installed Anchors:

a. Special Inspector will inspect installation of post-installed anchors in hardened concrete members as required by CBC table 1705A.3, item 4.

1) Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads, per ACI 318, section 17.8.2.4.

2) Mechanical anchors and adhesive anchors not defined above, per ACI 318, section 17.8.2.

b. Testing Laboratory will test post-installed anchors in conformance to CBC section 1905A and ASTM E488.

C. Structural Steel:

1. Special inspector will verify that all materials are properly marked in conformance with AISC 360, Section 3.3 and applicable ASTM standards.

a. Mill certificates indicating material properties that comply with requirements.

b. Materials, sizes, types and grades complying with requirements.

2. Testing Laboratory will test unidentified materials in conformance with ASTM A370.

3. Special inspector will examine seam welds of HSS shapes in conformance with DSA IR-17-3.

4. Special inspections and non-destructive testing of structural steel elements shall be in conformance to CBC section 1705A.2.1.

D. High Strength Bolts:

1. Special inspector will verify identification markings and manufacturer's certificates of compliance conform to ASTM standards specified in the Contract Documents, per DSA IR 17-9.

2. Testing Laboratory will test high-strength bolts, nuts and washers in conformance with ASTM F606, ASTM A370 and DSA IR 17-8.

3. Special inspector will inspect bearing-type ("snug tight") bolt connections in conformance with AISC 360, section M2.5 and DSA IR 17-9.

4. Special inspector will inspect slip-critical bolt connections in conformance with AISC 360, section M2.5.

E. Welding:

1. Verification of Materials, Equipment and Welders:

a. Special inspector will verify weld filler material identification markings per AWS designation listed on the Contract Documents and the WPS.

b. Special inspector will verify material manufacturer's certificate of compliance.

c. Special inspector will verify WPS, welder qualifications and equipment in conformance to DSA IR 17-3.

2. Shop Welding: Special inspector will inspect the following, per CBC 1705A.2.1, AISC 360 (and AISC 341, as applicable) and DSA IR 17-3:

a. Groove, multi-pass fillet welds larger than 5/16", plug and slot welds.

b. Single-pass fillet welds equal or less than 5/16".

c. Inspect welding of stairs and railing systems.

d. Verification of reinforcing steel weldability.

e. Welding of reinforcing steel, per AWS D1.4.

3. Field Welding: Special inspector will inspect the following, per CBC 1705A.2.1, AISC 360 (and AISC 341, as applicable) and DSA IR 17-3:

a. Groove, multi-pass fillet welds larger than 5/16", plug and slot welds.

b. Single-pass fillet welds equal or less than 5/16".

c. End welded studs (ASTM A108) installation, including bend test.

d. Floor and roof deck welds.

e. Welding of structural cold-formed steel.

f. Welding of stairs and railing systems.

g. Verification of reinforcing steel weldability.

h. Inspect welding of reinforcing steel.

4. Non-Destructive Testing: Testing Laboratory will test perform ultrasonic and magnetic particle testing in conformance to AISC 360 section N5.5, AISC 341 appendix Q5.2, AWS D1.1, AWS D1.8, ASTM E543, ASTM E1444, ASTM E164 and DSA IR 17-2.

F. Steel Joists and Trusses: Continuous inspection, special inspector will verify size, type and grade for all chord and web members as well as connectors and weld filler material, verify joist profile, dimensions and chamber (if applicable); verify all weld locations, lengths and profiles; mark or tag each joist, in conformance with CBC section 2207.1 and DSA IR 22-3.

G. Anchor Bolts, Anchor Rods and Other Steel:

1. Testing Laboratory will sample and test not readily identifiable anchor bolts and anchor rods in accordance with DSA IR 17-11.

2. Testing Laboratory will sample and test not readily identifiable threaded rod not used for foundation anchorage per procedures noted in DSA IR 17-11.

PART 2 – PRODUCTS (Not used).

PART 3 – EXECUTION (Not used).

END OF SECTION

# SECTION 01 5000

# CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

## PART 1 - GENERAL

### 1.01 SECTION INCLUDES

A. Temporary utilities, construction facilities and temporary controls to be provided, maintained, relocated, and removed by CONTRACTOR.

B. Temporary office furnishings and office equipment.

C. Project signage.

### 1.02 QUALITY ASSURANCE

A. CONTRACTOR shall comply with applicable laws and regulations of authorities having jurisdiction including, but not limited to, the following:

1. Building Code requirements.

2. Health and safety regulations.

3. Utility company regulations.

4. Police, fire department and rescue squad requirements.

5. Environmental protection regulations.

B. CONTRACTOR shall arrange for the inspection and testing of each temporary utility prior to use. Obtain required certifications and permits and transmit to OWNER.

### 1.03 SUBMITTALS

A. Temporary Utilities: Submit to OWNER reports of tests, inspections, meter readings, certifications, permits and similar procedures performed on temporary utilities.

B. Project Signage / Banner: Submit to OWNER for review and approval.

1. Shop Drawings: Elevation showing the text, OWNER sign and color of project signage, jointing, fittings and location of grommets.

2. Certification: Submit certification attesting fabric is certified as flame retardant, in accordance to NFPA 701, Standard Methods of Fire Tests for Flame Propagation of Textiles and Films.

1.04 PROJECT IDENTIFICATION SIGNAGE / BANNER

A. CONTRACTOR shall furnish and install two Project Signs / Banners on the Project site at a location established by OWNER. OWNER will provide the information to be posted on the sign. A draft of the proposed sign shall be submitted to OWNER for review before fabrication.

1. Sign Size: eight feet wide by four feet high, tie wire grommets to fence / barricade.

2. The following shall be listed on the sign:

a. OWNER: Ventura County Community College District.

b. Name of School and project

c. Name of District Chancellor.

d. Alphabetical listing of other Board Members.

e. Name of the Architect/Engineer.

f. Name of CONTRACTOR.

B. Products of the following manufacturers form the basis for design and quality intended: 3M, MACtac North America, or equal, and shall meet the following requirements:

1. Flame retardant, heavy duty durable vinyl material, super smooth, minimum 16 ounces per layer.

2. Banners shall be cut with accurate angles and straight edges. Edges of banner shall be heat welded on four sides without causing fabric separation or otherwise damaging the work.

3. Banners shall have on both sides a clear, permanent, anti-graffiti coating that shall be durable and last a minimum of two years. Cleaning or removal of graffiti shall not cause damage to the anti-graffiti coating or image, or cause it to flake, yellow, bubble, peel or fade.

4. Ink used in the printing process shall be of the highest quality OEM inks, and have integral UV protective components.

5. Banners shall be provided with ½ inch diameter grommets along the top and the bottom edges, spaced not more than 30 inches on center. Grommets shall be 4 inches, minimum, from the edges of the banner.

C. No other signs shall be displayed without approval of OWNER. At CONTRACTOR'S expense and without limitation remove and/or relocate Project signage and related facilities as rapidly as required in order to provide for progress of the Work.

D. CONTRACTOR shall remove Project Signage / Banner at Substantial Completion of the Work.

1.05 TEMPORARY UTILITIES

A. CONTRACTOR shall coordinate with college to install temporary services. CONTRACTOR shall provide and install required materials and equipment.

B. Upon Substantial Completion of the Work, remove temporary systems, devices and appurtenances.

1.06 TEMPORARY OFFICES – NOT USED

1.07 TEMPORARY SANITARY FACILITIES

A. CONTRACTOR shall provide portable chemical toilet facilities. Quantity of portable chemical toilet facilities shall be based on total number of workers and shall be in accordance with CAL/OSHA standards.

B. CONTRACTOR employees shall not use school toilet facilities.

C. At CONTRACTOR'S expense and without limitation remove and/or relocate portable chemical toilet facilities as rapidly as required in order to provide for progress of the Work.

D. CONTRACTOR will contain their breaks and lunch periods to the areas designated by OWNER or any public area outside the Project site. CONTRACTOR shall provide a suitable container within the break/lunch area for the placement of trash. Areas used for break/lunch must be maintained clean and orderly. Once finish flooring has been installed in a particular area, no food or beverages will be permitted in that area.

1.08 TEMPORARY SECURITY FENCE / BARRICADE

A. CONTRACTOR shall install temporary Project site security barricade(s) indicated on Drawings or as required for safety and as specified herein. New or used material may be furnished. Security of Project site and contents is a continuous obligation of CONTRACTOR.

B. Unless otherwise indicated or specified, security fence shall be constructed of 8-foot high chain link fencing with an 8-foot high windscreen. Space posts not to exceed ten feet on centers. Posts shall be of following nominal pipe dimensions: terminal, corner, and gatepost 2 ½-inch, line posts 2-inch. Chain link fence shall be not less than #13 gauge, 2-inch mesh, and in one width. Posts, fence and accessories shall be galvanized and as follows:

1. Shall have galvanized steel pipe bases with rounded corners and anchored with snadbags or other weights to keep them securely in place, unless required otherwise in writing by OWNER.

2. Fence fabric shall be attached to posts with #14 gauge tie wire at 16 inches on center. A #6 gauge steel tension wire with turnbuckles shall be installed at top and bottom of barricade fencing. Wire tie fabric to tension wires at 18" centers.

3. Windscreen shall be attached to fence fabric and steel tension wires at 18-inch centers with a minimum of #14 gauge tie wire. Windscreen shall be maintained and all rips, tears, missing sections shall be corrected upon notification by OWNER.

4. Chain link fencing shall be free from barbs, icicles or other projections resulting from galvanizing process. Fence having such defects will be replaced even if it has been installed.

5. Gates shall be fabricated of steel pipe with welded corners, and bracing as required. Fence and fabric to be attached to frame at 12-inch centers. Provide all gate hardware of a strength and quality to perform satisfactorily until barricade is removed upon Substantial Completion of the Work. Each gate shall have a chain and padlock. Provide two gate keys to OWNER. At Substantial Completion of the Work, remove barricade from Project site, backfill and compact fence footing holes. Existing surface paving that is cut into or removed shall be patched and sealed to match surrounding areas.

6. At CONTRACTOR'S expense and without limitation remove or relocate fencing, fabric and barricades or other security and protection facilities as rapidly as required in order to provide for progress of the Work.

## 1.09 OTHER TEMPORARY ENCLOSURES AND BARRICADES

A. Provide lockable, temporary weather-tight enclosures at openings in exterior walls to create acceptable working conditions, to allow for temporary heating and for security.

B. Provide protective barriers around trees, plants and other improvements designated to remain.

C. Temporary partitions shall be installed at all openings where additions connect to existing buildings, and where to protect areas, spaces, property, personnel, students and faculty and to separate and control dust, debris, noise, access, sight, fire areas, safety and security. Temporary partitions shall be as designated on the Drawings or as specified by ARCHITECT. At CONTRACTOR'S expense and without limitation remove and/or relocate enclosures, barriers and temporary partitions as rapidly as required in order to provide for progress of the Work.

D. Since the Work of this Project may be immediately adjacent to existing occupied structures and vehicular and pedestrian right of ways, CONTRACTOR shall, in his sole judgment and in accordance with applicable safety standards, provide temporary facilities, additional barricades, protection and care to protect existing structures, occupants, property, pedestrians and vehicular traffic. CONTRACTOR is responsible for any damage, which may occur to the property and occupants of the property of OWNER or adjacent private or public properties which in any way results from the acts or neglect of CONTRACTOR.

E. CONTRACTOR shall be responsible for cleaning up all areas adjacent to the construction site which have been affected by the construction; and for restoring them to at least their original condition- including landscaping; planting of trees, sod, and shrubs damaged by construction; and raking and disposal of debris such as roofing shingles, paper, nails, glass sheet metal, bricks, and waste concrete. Construction debris shall be removed and properly disposed of. Culverts and drainage ditches with sediment from the construction area shall be cleared routinely to maintain proper drainage and re-cleaned prior to completion of the contract.

F. CONTRACTOR shall ensure sediment does not block storm drains. CONTRACTOR shall be responsible for cleaning storm drains blocked due to erosion or sediment from the work area.

1.10 TEMPORARY STORAGE YARDS

A. CONTRACTOR shall fence and maintain storage yards in an orderly manner.

B. Provide storage units for materials that cannot be stored outside.

C. At CONTRACTOR'S expense and without limitation remove and/or relocate storage yards and units as rapidly as required in order to provide for progress of the Work.

1.11 TEMPORARY DE-WATERING FACILITIES AND DRAINAGE

A. For temporary drainage and de-watering facilities and operations not directly associated with construction activities included under individual sections, comply with de-watering requirements of applicable Division 01 sections.

CONTRACTOR shall maintain the Work, Project site and related areas free of water.

B. For temporary drainage and de-watering facilities and operations directly associated with new buildings, additions or other construction activities, comply with Divisions 01 and 33 Sections. CONTRACTOR shall be responsible for, but not limited to, de-watering of excavations, trenches and below grade areas of buildings, structures, the Project site and related areas.

## 1.12 TEMPORARY PROTECTION FACILITIES INSTALLATION

A. CONTRACTOR shall not change over from using temporary facilities and controls to permanent facilities until Substantial Completion, except as permitted by OWNER.

B. Until permanent fire protection needs are supplied and approved by authorities having jurisdiction, CONTRACTOR shall provide, install and maintain temporary fire protection facilities of the types needed in order to adequately protect against fire loss. CONTRACTOR shall adequately supervise welding operations, combustion type temporary heating and similar sources of fire ignition.

C. CONTRACTOR shall provide, install and maintain substantial temporary enclosures of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft and similar violations of security. Where materials, tools and equipment are stored within the Work area, CONTRACTOR shall provide secure lock up to protect against vandalism, theft and similar violations of security. OWNER accepts no financial responsibility for loss, damage, vandalism or theft.

D. CONTRACTOR operations shall not block, hinder, impede or otherwise inhibit the use of required exits and/or emergency exits to the public way, except as approved by OWNER. CONTACTOR shall maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways and other access routes for firefighting equipment and/or personnel.

E. With approval of OWNER and at the earliest feasible date in each area of the Work, complete installation of the permanent fire protection facilities including connected services and place into operation and use. Instruct OWNER personnel in use of permanent fire protection facilities.

F. In the event of an emergency drill or an actual emergency, designated by the sounding of the fire alarm and/or other sounding device, all construction activities must cease. CONTRACTOR shall evacuate the Work area and remain outside the Work area until permitted to return. No Work shall be conducted during the evacuation of a building or during an emergency.

## 1.13 TEMPORARY SECURITY AND SAFETY MEASURES

A. During performance of the Work in existing facilities and/or on a Project Site occupied by students, CONTRACTOR shall provide, install and maintain substantial temporary barriers and/or partitions separating all Work areas from areas occupied by students, faculty and/or administrative staff.

B. CONTRACTOR shall employ and maintain sufficient security and safety measures to effectively prevent vandalism, vagrancy, theft, arson, and all other such negative impacts to the Work. Any impacts to the progress of the Work of CONTRACTOR, OWNER, or OWNER'S forces, due to loss from inadequate security, will be the responsibility of CONTRACTOR.

C. Until Substantial Completion of the Work, CONTRACTOR shall employ appropriate means to remove all graffiti from buildings, equipment, fences and all other temporary and/or permanent improvements on the Project site within twenty-four (24) hours from the date of report or forty-eight (48) hours of each occurrence.

1.14 TEMPORARY ACCESS ROADS AND STAGING AREAS

A. Due to the limited amount of on and off Project site space for the parking of staff and school visitor's vehicles there will be no parking of CONTRACTOR vehicles in areas designated for school use only. CONTRACTOR shall provide legal access to and maintain CONTRACTOR designated areas for the legal parking, loading, off-loading and delivery of all vehicles associated with the Work. CONTRACTOR shall be solely responsible for providing and maintaining these requirements whether on or off the Project site. CONTRACTOR shall provide and maintain ample on-site parking spaces designated for the exclusive use of OWNER. CONTRACTOR shall erect signs as required by OWNER each of these spaces and prevent all unauthorized vehicles from parking in the OWNER-reserved spaces.

B. Temporary access roads are to be installed and maintained by CONTRACTOR to all areas of the Project site.

C. CONTRACTOR will be permitted to utilize existing facility campus roads as designated by OWNER. CONTRACTOR shall only utilize those entrances and exits as designated by OWNER and CONTRACTOR shall observe all traffic regulations of OWNER.

D. CONTRACTOR shall maintain roads and walkways in a clean condition including removal of debris and/or other deleterious material on a daily basis.

1.15 TRENCHES

A. Open trenches for installation of utility lines (water, gas, electrical and similar utilities) and open pits outside barricaded working areas shall be barricaded at all times in a legal manner determined by CONTRACTOR. Trenches shall be

backfilled and patch-paved within twenty-four (24) hours after approval of installation by authorities having jurisdiction or shall have "trench plates" installed. Required access to buildings shall be provided and maintained. CONTRACTOR shall comply with all applicable statutes, codes and regulations regarding trenching and trenching operations. Open trenches deeper than 3'-6", and not located within a public street access, shall be enclosed within an 8'-0" high chain-link fence.

1.16 DUST CONTROL

A. CONTRACTOR is responsible for dust control on and off the Project site. When Work operations produce dust the Project site and/or streets shall be sprinkled with water to minimize the generation of dust. CONTRACTOR shall clean all soils and debris from construction vehicles and cover both earth and debris loads prior to leaving the Project site. CONTRACTOR shall, on a daily basis, clean all streets and/or public improvements within the right of way of any and all debris, dirt, mud and/or other materials attributable to operations of CONTRACTOR.

1.17 WASH OUT

A. CONTRACTOR shall provide and maintain a minimum of four (4) wash out boxes of sufficient size and strength to provide for concrete mixer wash out. CONTRACTOR shall locate and relocate both the wash out boxes and wash out areas in order to accommodate the progression of the Work. The wash out area shall be located as to minimize the amount of potential run off onto adjacent private and/or public property. CONTRACTOR shall legally dispose of the contents of the wash out boxes and area on an as needed basis or as required by OAR.

1.18 WASTE DISPOSAL

A. CONTRACTOR shall provide and maintain trash bins on the Project site. Trash bins shall be serviced on an as needed basis and CONTRACTOR is responsible for the transportation of and the legal disposal of all contents.

1.19 ADVERSE WEATHER CONDITIONS

A. Should warnings of adverse weather conditions such as heavy rain and/or high winds be forecasted, CONTRACTOR shall provide every practical precaution to prevent damage to the Work, Project site and adjacent property. CONTRACTOR precautions shall include, but not be limited to, enclosing all openings, removing and/or securing loose materials, tools, equipment and scaffolding.

B. CONTRACTOR shall provide and maintain drainage away from buildings and structures.

C. CONTRACTOR shall implement all required storm water mitigation measures as required under related Division 01 Sections.

1.20 DAILY AND MONTHLY REPORTS

A. CONTRACTOR shall provide and maintain in the Project site office of CONTRACTOR, a daily sign in sheet for use by all employees of CONTRACTOR and all Subcontractors at whatever tier. At the beginning of each work day, the foreman, project manager, superintendent of CONTRACTOR and/or Subcontractors shall visit the site office of CONTRACTOR and shall enter onto the daily sign in sheet: all employee names; trade classification; and represented company. The completed sign in sheet shall serve as the basis of and shall be submitted with the daily construction report as set forth in Paragraph B below.

B. By the end of each workday, CONTRACTOR shall submit to OWNER a daily construction report denoting the daily manpower counts and a brief description/location of the workday activities. Manpower shall be broken down by trade classification such as foreman, journeyman or apprentice. The report shall also note the date, day of the week, weather conditions, deliveries, equipment on the Project site whether active and/or idle, visitors, inspections, accidents and unusual events, meetings, stoppages, losses, delays, shortages, strikes, orders and requests of governing agencies, Construction Directive and/or Change Orders received and implemented, services disconnected and/or connected, equipment start up or tests and partial use and/or occupancies. CONTRACTOR shall also include on the daily construction report the above information for all Subcontractors at whatever tier.

PART 2 – PRODUCTS – Not Used

PART 3 – EXUTION – Not Used

END OF SECTION

SECTION 01 7329

CUTTING AND PATCHING

PART 1 - GENERAL

1.01 SECTION INCLUDES

A. This Section specifies procedural requirements for cutting and patching.

1.02 RELATED REQUIREMENTS

A. Section 02 4116 - Demolition.

1.03 SUBMITTALS

A. The word "cutting" as used in the Contract Documents includes, but is not limited to, cutting, drilling, chopping, and other similar operations and the word "patching" includes, but is not limited to, patching, rebuilding, reinforcing, repairing, refurbishing, restoring, replacing, or other similar operations.

B. Cutting and Patching Proposal: CONTRACTOR shall submit a proposal describing procedures well in advance of the time cutting and patching will be performed if the Contract Documents requires approval of these procedures before proceeding. Include the following information, as applicable, in the proposal:

1. Describe the extent of cutting and patching required. Denote how it will be performed and indicate why it cannot be avoided.

2. Describe anticipated results in terms of changes to existing construction. Include changes to structural elements and operating components as well as changes in the building's appearance or other significant visual elements.

3. List products to be used and firms or entities that will perform this Work.

4. Indicate dates when cutting and patching will be performed.

5. Utilities: List utilities that cutting and patching operations will disturb or affect. List utilities to be relocated and those that will be temporarily out-of-service. Indicate how long service will be disrupted.

6. Where cutting and patching involves adding reinforcement to structural elements, submit details and engineering calculations showing integration of reinforcement with the original structure.

7. Review by ARCHITECT prior to proceeding with cutting and patching does not waive ARCHITECT right to later require complete removal and replacement of defective Work.

1.04 QUALITY ASSURANCE

A. Requirements for structural Work: Do not cut and patch structural elements in a manner that would change their load-carrying capacity or load-deflection ratio.

1. Obtain approval from ARCHITECT of the cutting and patching proposal before cutting and patching the following structural elements:

a. Foundation construction.

b. Bearing and retaining walls.

c. Structural concrete.

d. Structural steel.

e. Lintels.

f. Timber and primary wood framing.

i. Miscellaneous structural metals.

k. Equipment supports.

l. Piping, ductwork, vessels, and equipment.

B. Operational Limitations: Do not cut and patch operating elements or related components in a manner that would result in reducing their capacity to perform as intended. Do not cut and patch operating elements or related components in a manner that would result in increased maintenance or decreased operational life or safely.

1. Obtain review of the cutting and patching proposal before cutting and patching the following operating elements or safety related systems:

a. Primary operational systems and equipment.

b. Air or smoke barriers.

c. Water, moisture, or vapor barriers.

d. Membranes and flashings.

e. Fire protection systems.

f. Noise and vibration control elements and systems.

g. Control systems.

h. Communication and/or data systems.

i. Conveying systems.

j. Electrical wiring systems.

k. Operating systems of special construction in Division 13 Sections.

C. Visual Requirements: Do not cut and patch construction exposed on the exterior or in occupied spaces in a manner that would, in the opinion of ARCHITECT, reduce the building's aesthetic qualities. Do not cut and patch construction in a manner that would result in visual evidence of cutting and patching. Remove and replace Work cut and patched in a visually unsatisfactory manner.

1. If possible, retain the original installer or fabricator to cut and patch the exposed Work listed below. If it is impossible to engage the original installer or fabricator, engage another recognized experienced and specialized firm.

a. Firestopping.

b. Acoustical ceilings.

c. Acoustical panels.

d. Finished wood flooring.

e. Synthetic sports flooring.

f. Carpeting.

g. HVAC enclosures, cabinets, or covers.

h. Ceramic and quarry tile.

i. Gypsum board.

j. Masonry (exterior and interior where exposed).

k. Tack boards.

l. Casework.

m. Finish carpentry.

1.05 WARRANTY

A. Existing Warranties: Replace, patch, and repair material and surfaces cut or damaged by methods and with materials in such a manner as not to void any warranties required or existing.

PART 2 - PRODUCTS (Not applicable)

PART 3 - EXECUTION

3.01 INSPECTION

A. Examine surfaces to be cut and patched and conditions under which cutting and patching is to be performed before cutting. If unsafe or unsatisfactory conditions are encountered, take corrective action before proceeding.

1. Before proceeding, meet at the Project site with parties involved in cutting and patching, including mechanical and electrical trades. Review areas of potential interference and conflict. Coordinate procedures and resolve potential conflicts before proceeding.

3.02 PREPARATION

A. Temporary support: Provide adequate temporary support of existing improvements or Work to be cut.

B. Protection: Protect existing improvements and Work during cutting and patching to prevent damage. Provide protection from adverse weather conditions for portions of existing improvements or Work that might be exposed during cutting and patching operations.

C. Avoid interference with use of adjoining areas or interruption of free passage to adjoining areas.

D. Where the Work requires sandblasting of existing surfaces in order to receive new materials secured by cementitious, adhesive or chemical bond, completely remove existing finishes, stains, oil, grease, bitumen, mastic and adhesives or other substances deleterious to the new bonding or fastening of new Work. Utilize wet

sand blasting for interior surfaces and for exterior surfaces where necessary to prevent objectionable production of dust.

3.03 PERFORMANCE

A. General: Employ skilled workmen to perform cutting and patching. Proceed with cutting and patching at the earliest feasible time and complete without delay. Carefully remove existing Work to be salvaged and/or reinstalled. Protect and store for reuse into the Work. Verify compatibility and suitability of existing substrates before starting the Work.

B. Cutting: Cut existing construction using methods least likely to damage elements retained or adjoining Work. Where possible, review proposed procedures with the original installer; comply with the original installer's recommendations.

1. In general, where cutting, use hand or small power tools designed for sawing or grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use.

2. To avoid marring existing finished surfaces, cut or drill from the exposed or finished side into concealed surfaces.

3. Cut through concrete and masonry using a cutting machine, such as a carborundum saw or a diamond-core drill. Saw cut reinforcing bars and paint ends with bituminous paint except where bonded into new concrete or masonry.

4. Woodwork: Cut and or remove to a panel or joint line.

5. Sheet Metal: Remove back to joint, lap, or connection. Secure loose or unfastened ends or edges and seal watertight.

6. Gypsum Wallboard: Cut back on straight lines to undamaged surfaces with at least two opposite cut edges centered on supports.

C. Patching: Patch with durable seams that are as invisible as possible. Comply with required tolerances.

1. Where feasible, inspect and test patched areas to demonstrate integrity of the installation. Verify conditions of existing substrates prior to executing Work.

2. Restore exposed finishes of patched areas and extend finish restoration into retaining adjoining construction in a manner that will eliminate all evidence of patching and refinishing.

3. Concrete: Maintain cut edges in a moist condition for twenty four hours prior to the placement of new concrete. In lieu of this an epoxy adhesive may be provided. Finish placed concrete to match existing unless noted otherwise. Concrete shall have a compressive strength of 3,000 psi where installed to repair and match existing improvements, unless noted otherwise.

4. Metal Fabrications: Items to remain exposed shall have their edges cut and ground smooth and rounded.

5. Sheet Metal: Replace removed or damaged sheet metal items for new Work.

6. Painting: Prepare areas to be patched, patch and paint as specified under related sections of the Contract Documents.

3.04 CLEANING

A. Clean areas and spaces where cutting and patching are performed. Completely remove paint, mortar, oils, putty, and similar items. Thoroughly clean piping, conduit, and similar features before applying paint or other finishing materials. Restore damaged coverings to their original condition.

END OF SECTION

SECTION 02 4116

DEMOLITION

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes: Furnishing labor, materials and equipment necessary for demolition, dismantling, cutting and alterations as indicated, specified, or required for completion of the Work. Includes items such as the following:

1. Protection of existing improvements to remain.

2. Cleaning existing improvements to remain.

3. Disconnecting and capping utilities.

4. Removing debris, waste materials, and equipment.

5. Removal of items for performance of the Work.

6. Salvageable items to be retained by the Owner.

B. Related Requirements:

1. Division 01 - General Requirements.

2. Section 01 1100 - Summary of Work.

3. Section 01 5000 – Construction Facilities and Temporary Controls.

1.02 SUBMITTALS

A. Shop Drawings: Submit Shop Drawings indicating the extent of items and systems to be removed. Indicate items to be salvaged or items to be protected during demolition. Indicate locations of utility terminations and the extent of abandoned lines to be removed. Include details indicating methods and location of utility terminations.

1.03 QUALITY ASSURANCE

A. Perform the Work of this section by workers skilled in the demolition of buildings and structures. Perform the Work of this section under direct superintendence at all times.

B. Prior to commencement of Work, schedule a walkthrough with the OWNER, to confirm Owner property items have been removed from scheduled Work areas. Identify and mark remaining property items and schedule their removal.

C. Coordinate demolition for the correct sequence, limits, and methods. Schedule demolition Work to create least possible inconvenience to the public and facility operations.

D. Related Standards:

1. ANSI/ASSE A10.6.

2. CBC Chapter 33.

3. CFC Chapters 11 and 33.

4. NFPA 241

1.04 PROJECT CONDITIONS

A. Drawings may not indicate in detail all demolition Work to be performed. Examine existing conditions to determine the full extent of required demolition.

B. Repair damage to existing improvements or damage due to excessive demolition.

C. Provide all measures to avoid excessive damage from inadequate or improper means and methods, improper shoring, bracing or support.

D. If conditions are encountered that varies from those indicated, promptly notify the Architect for clarification before proceeding.

PART 2 - PRODUCTS

2.01 HANDLING OF MATERIALS

A. Items scheduled for salvage by the Owner shall be delivered to a location designated by the OWNER. Items shall be cleaned, packaged and labeled for storage.

B. Items scheduled for reuse shall be stored on the Project site and protected from damage, theft and other deleterious conditions.

PART 3 - EXECUTION

3.01 GENERAL

A. Protection:

1. Do not commence demolition until safety partitions, barricades, warning signs and other forms of protection are installed. Refer to Section 01 5000 - Construction Facilities and Temporary Controls.

2. Provide safeguards, including warning signs, lights and barricades, for protection of workers, occupants, and the public.

B. If safety of existing construction appears to be endangered, take immediate measures to correct such conditions; cease operations and immediately notify the OWNER.

3.02 DEMOLITION

A. Do not throw or drop materials. Furnish ramps or chutes as required by the Work.

B. Remove existing construction only to extent necessary for proper installation of Work and interfacing with existing construction. Cut back finished surfaces to straight, plumb or level lines as required for a smooth transition.

C. Where openings are cut oversize or in improper locations, replace or repair to required condition.

3.03 CUTTING EXISTING CONCRETE

A. Cutting of existing concrete shall be performed by skilled workers familiar with the requirements and space necessary for placing concrete. Perform concrete cutting with concrete cutting wheels and hand chisels. Do not damage concrete intended to remain.

B. Extent of cutting of structural concrete shall be as indicated on Drawings. Cutting of non-structural concrete shall be as indicated on Drawings or as reviewed by the Architect or structural engineer. Replace concrete demolished in excess of amounts indicated.

C. Prior to cutting or coring concrete, determine locations of hidden utilities or other existing improvements and provide necessary measures to protect them from damage.

3.04 REMOVAL OF EXISTING PLUMBING AND ELECTRICAL EQUIPMENT AND SERVICES

A. Remove existing plumbing and electrical equipment fixtures and services not indicated for reuse and not necessary for completion of the Work. Remove abandoned lines and cap unused portions of existing lines.

3.05 REMOVAL OF OTHER MATERIALS

A. Masonry: Cut back to joint lines and remove mortar without damaging units to remain. Allow space for repairs to backing where applicable.

B. Woodwork: Cut or remove to a joint or panel line.

C. Roofing: Remove as required, including accessory components such as insulation and flashings. At penetrations through existing roofing, trim cut edges back to sound roofing with openings restricted to the minimum size necessary to receive Work.

D. Sheet Metal: Remove back to joint, lap, or connection. Secure loose and unfastened ends or edges and provide a watertight condition. Re-seal as required.

E. Glass: Remove broken or damaged glass and clean rebates and stops of glazing channels.

F. Modular materials such as acoustical ceiling panels, resilient tile, or ceramic tile: Remove to a natural joint without leaving damaged or defective Work where joining

new Work. After flooring removal, clean substrates to remove setting materials and adhesives.

G. Gypsum Board: Remove to a panel joint line on a stud or support line.

H. Plaster: Saw cut plaster on straight lines, leaving a minimum 2-inch width of firmly attached metal lath for installing new lath and plaster.

I. Remove existing improvements not specifically indicated or required but necessary to perform Work. Cut to clean lines, allowing for installation of Work.

3.06 PATCHING

A. Patch or repair materials to remain when damaged by the performance of the Work of this section. Finish material and appearance of patch and/or repair Work shall match existing.

3.07 CLEANING

A. Clean existing materials to remain with appropriate tools and equipment.

B. Protect existing improvements during cleaning operations.

C. Debris shall be dampened by fog water spray prior to transporting by truck.

D. Debris pick-up area shall be kept broom-clean and shall be washed daily with clean water.

E. Remove waste and debris, other than items to be salvaged. Turn over salvaged items to Owner, or store and protect for reuse where required. Continuously clean up and remove items as demolition Work progresses.

F. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

END OF SECTION

SECTION 03 1000

CONCRETE FORMING AND ACCESSORIES

## PART 1 - GENERAL

### 1.01 SUMMARY

A. Section Includes:

1. Formwork for cast-in-place concrete as indicated.

2. Installation of items to be embedded in concrete, such as anchor bolts, inserts, embeds, and sleeves.

B. Related Requirements:

1. Division 01 - General Requirements.

2. Section 03 2000: Concrete Reinforcing.

3. Section 03 3000: Cast-In-Place Concrete.

### 1.02 REFERENCES

A. American Concrete Institute (ACI) Publication:

1. ACI 318 – Building Code Requirements for Structural Concrete, Chapter 6, Formwork, Embedded Pipes, and Construction Joints.

2. ACI 347 – Guide to Formwork for Concrete.

B. American Plywood Association (APA):

1. Form No. V345 - Concrete Forming Design/Construction Guide.

C. National Institute of Standards and Technology (NIST):

1. NIST Voluntary Product Standard PS 1.

### 1.03 SUBMITTALS

A. Submit detailed structural calculations and drawings approved and signed by a California registered Civil Engineer where the height of the falsework or vertical shoring, as measured from the top of the sills to the soffit of the superstructure exceeds 14 feet, or where individual horizontal span lengths exceed 16 feet, or where provision for vehicular traffic through falsework or shoring occurs. For all other falsework and shoring submit layout signed by California registered Civil Engineer, manufacturer's authorized representative or a licensed contractor experienced in the usage and

erection of falsework and vertical shoring. A copy of the plans and calculation shall be available at the jobsite at all times.

B. Shop Drawings: Submit Shop Drawings indicating locations of forms, construction and expansion joints, embedded items, and accessories.

C. Product Data: Submit manufacturer's Product Data for form materials and accessories.

1.04 REGULATORY REQUIREMENTS

A. California Building Code (CBC), Chapter 19A.

B. California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 4, Construction Safety Orders, Article 6, Excavations, Sections 1713 and 1717.

1.05 DELIVERY, STORAGE AND HANDLING

A. Storage shall prevent damage and permit access to materials for inspection and identification.

PART 2 - PRODUCTS

2.01 GENERAL

A. Form materials may be reused during progress of the Work provided they are completely cleaned and reconditioned, recoated for each use, capable of producing formwork of required quality, and are structurally sound.

B. Form Lumber: WCLIB Construction Grade or Better, WWPA No. 1 or Better.

C. Plywood: NIST Voluntary Product Standard PS 1, Group 1, Exterior Grade B-B Plyform or better, minimum 5-ply and 3/4 inch thick for exposed locations and at least 5/8 inch thick for unexposed locations, grade marked, not mill oiled. Furnished plywood with medium or high density overlay is permitted.

D. Coated Form Plywood: For exposed painted concrete, plastic overlaid plywood of grade specified above, factory coated with a form coating and release agent Nox-crete", or equal.

E. Tube Forms: Sonoco "Seamless Sonotubes," Ceme-Tube, Quik-Tube, or equal, of the type leaving no marks in concrete, one-piece lengths for required heights.

F. Joist Forms: Code recognized steel or molded plastic types as required.

G. Special Forms: For exposed integrally-colored concrete, plywood as above with high density overlay, plywood with integral structural hardboard facing or fibrous glass reinforced plastic facing, providing specified finish.

H. For Exposed Concrete Finish:

1. Plywood: New, waterproof, synthetic resin bonded, exterior type Douglas fir or Southern pine plywood manufactured especially for concrete formwork and conforming to NIST Voluntary Product Standard PS 1, Grade B-B grade, Class I.

2. Glass-Fiber-Fabric Reinforced Plastic Forms: Matched, tight fitting, stiffened to support weight of concrete without deflection detrimental to structural tolerances and appearance of finished concrete surfaces.

3. Steel: Minimum 16 gage sheet, well matched, tight fitting, stiffened to support weight of concrete, without deflection detrimental to tolerances and appearances of finished concrete surfaces.

4. Plywood: "Finland Form,," "Combi Form" by North American Plywood Corporation, “Plyform” by Roy O. Martin, “ProForm” by Pacific Wood Laminates, or equal. The material shall be furnished with hard smooth birch face veneers with phenolic resin thermally fused onto panel sides. Edges shall be factory sealed.

I. Form Ties: Prefabricated rod, flat band, wire, internally threaded disconnecting type, not leaving metal within 1 1/2-inch of concrete surface.

J. Form Coating: Non-staining clear coating free from oil, silicone, wax, not grain-raising, "Formshield" by A.C. Horn, Inc., "Release" by Edoco/Dayton Superior, "Cast-Off" by Sonneborn/BASF Building Systems or equal. Where form liners are furnished, provide form coatings recommended by form liner manufacturer.

K. Form Liner: Rigid or resilient type by L.M. Scofield, Symons, Greenstreak, or equal.

L. Void Forms: Manufactured by SureVoid Products, Inc., Sonotube, Void Form International, or equal. Forms shall be "WallVoid" for temporary support of concrete walls and grade beams spanning between supports, and "SlabVoid" for creating gaps between concrete slabs or steps and underlying soils. Void forms shall be fabricated of corrugated paper with moisture resistant exterior, and shall be capable of withstanding working load of 1,500 psf. Provide accessories as required.

## PART 3 - EXECUTION

### 3.01 GENERAL

A. Forms shall be constructed so as to shape final concrete structure conforming to shape, lines and dimensions of members required by Drawings and Specifications, and shall be sufficiently tight to prevent leakage of mortar. They shall be properly braced or tied together to maintain position and shape. Forms and their supports shall be designed so that previously placed structures will not be damaged.

B. Use form coating at all surfaces in contact with concrete.

### 3.02 TOLERANCES

A. Permitted abrupt or gradual irregularities in formed surfaces as measured within a 5 feet length with a straightedge shall per ACI 347, Table 3.1:

| Class of Surface | | | |
|---|---|---|---|
| A | B | C | D |
| 1/8 inch | 1/4 inch | 1/2 inch | 1 inch |

1. Class A: Use for concrete surfaces prominently exposed to public view.

2. Class B: Use for coarse-textured concrete-formed surfaces intended to receive plaster, stucco or wainscoting.

3. Class C: Use as a general standard for permanently exposed surfaces where other finishes are not specified.

4. Class D: Use for surfaces where roughness is not objectionable and will be permanently concealed.

3.03 ERECTION

A. Plywood shall be installed with horizontal joints level, vertical joints plumb and with joints tight. Back joints by studs or solid blocking, and fill where necessary for smoothness. Reused plywood shall be thoroughly cleaned, damaged edges or surfaces repaired and both sides and edges oiled with colorless form oil. Nail plywood along edges, and to intermediate supports, with common wire nails spaced as necessary to maintain alignment and prevent warping.

B. Openings for Cleaning: Provide temporary openings at points in formwork to facilitate cleaning and inspection. At base of walls and wide piers, bottom form board on one face for entire length shall be omitted until form has been cleaned and inspected.

C. Chamfers: Provide 3/4 inch by 3/4 inch chamfer strips for all exposed concrete corners and edges unless otherwise indicated.

D. Reglets and Rebates: As specified in Section 03 3000: Cast-In-Place Concrete.

3.04 REMOVAL OF FORMS

A. Forms shall not be removed until concrete has sufficiently hydrated to maintain its integrity and not be damaged by form removal operations. Unless noted otherwise and/or permitted by the Architect, columns and wall forms shall not be removed in less than five days, floor slabs in less than seven days, beams and girders in less than 15 days, pan forms for joists may be removed after three days, but joist centering shall not be removed until after 15 days, and ramp, landing, steps and floor slabs shall not

be removed in less than seven days. Shoring shall not be removed until member has acquired sufficient strength to support its weight, load upon it, and added load of construction.

B. Compressive strength of in-place concrete shall be determined by testing field-cured specimens representative of concrete location or members, as specified in Section 03 3000: Cast-In-Place Concrete.

3.05 PROTECTION

A. Protect the Work of this section until Substantial Completion.

3.06 CLEAN UP

A. Remove rubbish, debris and waste materials and legally dispose of off the Project site.

END OF SECTION

SECTION 03 2000

CONCRETE REINFORCING

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Concrete steel reinforcement.

B. Related Requirements:

1. Division 01 - General Requirements.

2. Section 01 4523: Testing and Inspection.

3. Section 03 1000: Concrete Forming.

4. Section 03 3000: Cast-In-Place Concrete.

5. Section 04 2200: Concrete Unit Masonry.

1.02 REGULATORY REQUIREMENTS

A. Fabrication and placement of reinforcing shall be in accordance with requirements of CBC, Chapter 19A.

1.03 REFERENCES

A. American Society for Testing and Materials (ASTM):

1. ASTM A82 - Standard Specification for Steel Wire, Plain, for Concrete Reinforcement.

2. ASTM A184 - Standard Specification for Fabricated Deformed Steel Bar Mats for Concrete Reinforcement.

3. ASTM A185 - Standard Specification for Steel Welded Wire Reinforcement, Plain, for Concrete.

4. ASTM A496 - Standard Specification for Steel Wire, Deformed, for Concrete Reinforcement.

5. ASTM A497 - Standard Specification for Steel Welded Wire Reinforcement, Deformed, for Concrete.

6. ASTM A615 - Standard Specification for Deformed and Plain Carbon-Steel Bars for Concrete Reinforcement.

7. ASTM A706 - Standard Specification for Low-Alloy Steel Deformed and Plain Bars for Concrete Reinforcement.

B. American Concrete Institute (ACI) Publication:

1. ACI SP-66 – ACI Detailing Manual.

2. ACI 318 – Building Code Requirements for Structural Concrete, as modified by CBC.

C. American Welding Society (AWS):

1. AWS D1.4 – Structural Welding Code – Reinforcing Steel.

1.04 SUBMITTALS

A. Shop Drawings: Submit steel reinforcement Shop Drawings in accordance with ACI 315. Include assembly diagrams, bending charts and slab plans. Indicate lengths and location of splices, size and lengths of reinforcing steel.

1.05 QUALITY ASSURANCE

A. Comply with the following as a minimum requirement:

1. Concrete Reinforcing Steel Institute (CRSI) Manual of Standard Practice.

2. American Welding Society (AWS).

3. American Concrete Institute (ACI).

4. CBC, Chapter 19A, Concrete.

B. Source Quality Control: Refer to Division 01 Sections for general requirements and to the following paragraphs for specific procedures. Testing laboratory retained by the OWNER shall select test Samples of bars, ties, and stirrups from the material at the Project Site or from the place of distribution, with each Sample consisting of not less than two 18 inch long pieces, and perform the following tests according to ASTM A615, or ASTM A706, as applicable:

1. Identified Bars: If Samples are obtained from bundles as delivered from the mill, identified as to heat number, accompanied by mill analyses and mill test reports, and properly tagged with the identification certificate so as to be

readily identified, perform one tensile and one bend test for each 10 tons or fraction thereof of each size of bars. Submit mill reports when Samples are selected.

2. Unidentified Bars: When positive identification of reinforcing bars cannot be performed and when random Samples are obtained; perform tests for each 2.5 tons or fraction thereof, one tensile and one bend test from each size of bars.

C. Certification of Welders: Shop and Project site welding shall be performed by welding operators certified by AWS.

1.06 DELIVERY, STORAGE AND HANDLING

A. Avoid exposure to dirt, moisture or conditions harmful to reinforcing.

B. Reinforcing steel bars, wire, and wire fabric shall be stored on the Project site to permit easy access for examination and identification of each shipment. Material of each shipment shall be separated for size and shape.

PART 2 - PRODUCTS

2.01 GENERAL

A. Provide reinforcing of sizes, gages and lengths indicated, bent to indicated shapes.

2.02 MATERIALS

A. Steel Reinforcing Bars: ASTM A615, or ASTM A706 deformed grade 60 billet steel unless otherwise specified or indicated.

B. Bars or Rod Mats: ASTM A184.

C. Welded Wire Fabric for Reinforcement: ASTM A185.

D. Tie Wire: ASTM A82, fully annealed, copper-bearing steel wire, 16 gage minimum.

E. Chairs, Spacers, Supports, and Other Accessories: Standard manufacture conforming to ACI 315 fabricated from steel wire of required types and sizes. For reinforcement supported from grade, provide properly sized dense precast blocks of concrete.

2.03 FABRICATION OF REINFORCING BARS

A. Comply with CRSI Manual of Standard Practice for Reinforced Concrete Construction for fabrication of reinforcing steel.

B. Bending and Forming: Fabricate bars of the indicated sizes and bend and form to required shapes and lengths by methods not injurious to materials. Do not heat reinforcement for bending. Bend bars No. 6 size and larger in the shop only. Bars with unscheduled kinks or bends are not permitted. Provide only tested and permitted bar materials.

C. Welding: Not applicable.

## PART 3 - EXECUTION

### 3.01 INSTALLATION

A. Bars shall be bent cold. Bars partially embedded in concrete shall not be field bent except as indicated on reviewed Shop Drawings.

B. Before installation and just prior to placing concrete, clean reinforcing of loose scale, rust, oil, dirt and any coating that could reduce bond.

C. Accurately position, install, and secure reinforcing to prevent displacement during the placement of concrete.

D. Provide metal chairs to hold reinforcement the required distance above form bottoms. In beams and slab construction, provide chairs under top slab reinforcement as well as under bottom reinforcement. Space chairs so that reinforcement will not be displaced during installation. Provide metal spacers to secure proper spacing. Stirrups shall be accurately and securely wired to bars at both top and bottom. At slabs, footings, and beams in contact with earth, provide concrete blocks to support reinforcement at required distance above grade.

E. Install and secure reinforcement to maintain required clearance between parallel bars and between bars and forms. Lapped splices shall be installed wherever possible in a manner to provide required clearance between sets of bars. Stagger lapped splices. Dowels and bars extending through construction joints shall be secured in position against displacement before concrete is installed and subsequently cleaned of concrete encrustations while they are still soft.

F. Do not install reinforcing in supported slabs and beams until walls and columns have been installed to underside of slabs and beams or until construction joints have been thoroughly cleaned. Reinforcing shall be inspected before placement of concrete and cleaned as required.

G. Use deformed bars unless otherwise indicated, except for spiral reinforcement.

### 3.02 CLEAN UP

A. Remove rubbish, debris and waste materials and legally dispose of off the Project site.

3.03 PROTECTION

A. Protect the Work of this section until Substantial Completion.

END OF SECTION

SECTION 03 3000

CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Cast-in-place normal weight and lightweight concrete, placement and finishing.

B. Related Requirements:

1. Division 01 - General Requirements.

2. Section 03 1000: Concrete Forming and Accessories.

3. Section 03 2000: Concrete Reinforcing.

4. Section 32 1600: Curbs, Gutters and Sidewalks.

1.02 REFERENCES

A. American Concrete Institute (ACI) Publication:

1. ACI 117 – Specifications for Tolerances for Concrete Construction and Materials.

2. ACI 301 – Specifications for Structural Concrete.

3. ACI 302.1R – Guide for Concrete Floor and Slab Construction.

4. ACI 305R - Specification for Hot Weather Concreting.

5. ACI 306.1 – Standard Specification for Cold Weather Concreting.

6. ACI 308R – Guide to External Curing of Concrete.

7. ACI 318 - Building Code Requirements for Structural Concrete, as modified by CBC Sections 1903A and 1905A.

B. American Society for Testing and Materials (ASTM) Standards:

1. ASTM C31 – Standard Specification for Making and Curing Concrete Test Specimens in the Field.

2. ASTM C33 - Standard Specification for Concrete Aggregates.

3. ASTM C39 - Standard Test Method for Compressive Strength of Cylindrical Concrete Specimens.

4. ASTM C42 - Standard Test Method for Obtaining and Testing Drilled Cores and Sawed Beams of Concrete.

5. ASTM C88 - Standard Test Method for Soundness of Aggregates by use of Sodium Sulphate or Magnesium Sulphate.

6. ASTM C94 - Standard Specification for Ready-Mixed Concrete.

7. ASTM C143 - Standard Test Method for Slump of Hydraulic Cement Concrete.

8. ASTM C150 - Standard Specification for Portland Cement.

9. ASTM C156 – Standard Test Method for Water Loss (from a Mortar Specimen) Through Liquid membrane-Forming Curing Compounds for Concrete.

10. ASTM C171 - Standard Specification for Sheet Materials for Curing Concrete.

11. ASTM C172 – Standard Practice for Sampling Freshly Mixed Concrete.

12. ASTM C173 – Standard Test Method for Air Content of Freshly Mixed Concrete by the Volumetric Method.

13. ASTM C260 – Standard Specification for Air-Entraining Admixtures for Concrete.

14. ASTM C289 - Standard Test Method for Potential Alkali-Silica Reactivity of Aggregates (Chemical Method).

15. ASTM C309 - Standard Specification for Liquid Membrane-Forming Compounds for Curing Concrete.

16. ASTM C330 - Standard Specification for Lightweight Aggregates for Structural Concrete.

17. ASTM C494 - Standard Specification for Chemical Admixtures for Concrete.

18. ASTM C567 - Standard Test Method for Determining Density of Structural Lightweight Concrete.

19. ASTM C618 - Standard Specification for Coal Fly Ash and Raw or Calcined Natural Pozzolan for Use in Concrete.

20. ASTM C845 - Standard Specification for Expansive Hydraulic Cement

21. ASTM C989 - Standard Specification for Ground Granulated Blast-Furnace Slag for Use in Concrete and Mortars.

22. ASTM C1107 - Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).

23. ASTM C1064 - Standard Test Method for Temperature of Freshly Mixed Hydraulic-Cement Concrete.

24. ASTM C1240 - Standard Specification for Silica Fume Used in Cementitious Mixtures.

25. ASTM C1315 – Standard Specification for Liquid Membrane-Forming Compounds Having Special Properties for Curing and Sealing Concrete.

26. ASTM D1308 – Standard Test Method for Effect of Household Chemicals on Clear and Pigmented Organic Finishes.

27. ASTM C1567 - Standard Test Method for Determining the Potential Alkali-Silica Reactivity of Combinations of Cementitious Materials and Aggregate (Accelerated Mortar-Bar Method).

28. ASTM D1751 - Standard Test Method for Preformed Expansion Joint Filler for Concrete Paving and Structural Construction (Non-extruding and Resilient Bituminous Types).

29. ASTM D7234 – Standard Test Method for Pull-Off Adhesion Strength of Coatings on Concrete Using Portable Pull-Off Adhesion Testers.

30. ASTM E96 - Standard Test Methods for Water Vapor Transmission of Materials.

31. ASTM E1155 - Standard Test Method for Determining $F_F$ Floor Flatness and $F_L$ Floor Levelness Numbers.

32. ASTM E1643 - Standard Practice for Selection, Design, Installation, and Inspection of Water Vapor Retarders Used in Contact with Earth or Granular Fill under Concrete Slabs.

33. ASTM E1745 - Standard Specification for Water Vapor Retarders Used in Contact with Soil or Granular Fill under Concrete Slabs.

34. ASTM F710 – Standard Practice for Preparing Concrete Floors to Receive Resilient Flooring.

35. ASTM F1869 – Standard Test Method for Measuring Moisture Vapor Emission Rate of Concrete Subfloor Using Anhydrous Calcium Chloride.

36. ASTM F2170 – Standard Test Method for Determining Relative Humidity in Concrete Floor Slabs Using In Situ Probes.

37. ASTM F3010 – Standard Practice for Two-Component Resin Based Membrane-Forming Moisture Mitigation Systems for Use under Resilient Floor Coverings.

1.03 SUBMITTALS

A. Shop Drawings: Submit Shop Drawings indicating locations of cast-in-place concrete Work and accessory items such as vapor barriers. Include details and locations of reinforcing, embedded items, and interfacing with other Work.

B. Mix Design Data: Submit concrete mix designs as specified herein and in Article 2.02.

1. Submit name, address and telephone number of the concrete production facility which the contractor intends to engage to design the concrete mixes. Submit name and qualifications of the proposed concrete technologist.

2. Mix Design: Submit a concrete mix design for each strength and type of concrete indicated in the drawings or specified. Include water/cement ratio, source, size and amount of coarse aggregate and admixtures. Predict minimum compressive strength, maximum slump and air content percentage. Clearly indicate locations where each mix design will be used.

a. Water/cement ration for concrete slabs on grade shall be 0.50 maximum.

3. Test Reports: Submit copies of test reports showing that the proposed mixes produce concrete with the strengths and properties specified. Include tests for cement, aggregates and admixtures. Provide gradation analysis.

C. Material Samples: Submit Samples illustrating concrete finishes and hardeners, minimum 12-inch by 12-inch.

D. Certificates: Submit certification that each of the following conforms to the standards indicated:

1. Portland cement: ASTM C150.

2. Normal weight concrete aggregates: ASTM C33.

3. Lightweight concrete aggregates: ASTM C330.

4. Aggregates: Submit evidence that the aggregate is not reactive in the presence of cement alkalis. In the absence of evidence, aggregate shall be tested by one of the methods in ASTM C33 Appendix XI, Methods for Evaluating Potential for Deleterious Expansion Due to Alkali Reactivity of an Aggregate. Aggregates deemed to be deleterious or potentially deleterious may be used with the addition of a material that has been shown to prevent harmful expansion in accordance

with Appendix XI of ASTM C33, when approved by the building official, in accordance to CBC Section 1903A5A.

5. Curing materials: ASTM C171.

E. Admixtures: Submit product data for proposed concrete admixtures.

1.04 QUALITY ASSURANCE

A. Continuous inspection shall be provided at the batch plant and for transit-mixed concrete to run check sieve analysis of aggregate, check moisture content of fine aggregate, check design of mix, check cement being used with test reports, check loading of mixer trucks, and certify to quantities of materials placed in each mixer truck.

B. Inspection shall be performed by a representative of a testing laboratory selected by the OWNER. OWNER will pay for inspection costs. Notify the laboratory 24 hours in advance of time concrete is to be mixed. Notify the laboratory of postponement or cancellation of mixing within at least 24 hours of scheduling time.

C. CONTRACTOR shall assist the testing laboratory in obtaining and handling samples at the project site and at the source of materials.

D. Continuous batch plant inspection requirement may be waived in accordance with CBC Section 1705A.3.3.1. Waiver shall be in writing. When batch plant inspection is waived by DSA, the following requirements shall be met:

1. Approved inspector of the testing laboratory shall check the first batching at the start of work and furnish mix proportions to the licensed weightmaster.

2. Licensed weightmaster shall positively identify materials as to quantity and certify to each load by a ticket.

3. Tickets shall be transmitted to the Inspector by a truck driver with load identified thereon. The Inspector will not accept the load without a load ticket identifying the mix and will keep a daily record of placements, identifying each truck, its load and time of receipt and approximate location of deposit in the structure.

E. Special Inspections and Tests shall be in accordance with CBC Chapter 17A, Reinforcement and Anchor testing per CBC Section 1910A and Specification Section 01 4523.

1.05 DELIVERY, STORAGE AND HANDLING

A. Store cement and aggregate materials so as to prevent their deterioration or intrusion by foreign matter. Deteriorated or contaminated materials shall not be furnished.

B. Packaged materials shall bear the manufacturers and brand name label, and shall be stored in their original unbroken package in a weather tight place until ready for use in the work.

1.06 PROJECT CONDITIONS

A. Cold Weather Requirements: Batching, mixing, delivering and placing of concrete in cold weather shall comply with the applicable requirements of ACI 306.1.

B. Hot Weather Requirements: Batching, mixing, delivering and placing of concrete in hot weather shall comply with the applicable requirements of ACI 305R.

C. Concrete temperature of freshly mixed concrete shall be determined per ASTM C1064.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Cement: ASTM C150. Portland Cement.

B. Aggregates: Conform to the following standards:

1. Normal weight concrete: ASTM C33.

2. Lightweight concrete: ASTM C330, with fine aggregates per ASTM C33.

3. Aggregate shall be tested for Potential Alkali Reactivity of Cement-Aggregate Combinations per ASTM C289.

4. Nominal maximum size of coarse aggregate shall be no larger than:

a. 1/5 the narrowest dimension between sides of forms, nor

b. 1/3 the depth of slabs, nor

c. 3/4 the clear spacing between individual reinforcing bars or wires, bundles of bars, individual tendons, or ducts.

d. CONTRACTOR may request the ARCHITECT and DSA waiver of the above limitations reported per ACI 318, provided that the workability and methods of consolidation are such that the concrete can be placed without honeycombs or voids.

C. Water: Water for concrete mixes, curing and cleaning shall be potable and free from deleterious matter.

D. Admixtures: Shall be shown capable of maintaining essentially the same composition and performance throughout the work as the product used in establishing concrete proportions in accordance with ACI 318, Section 3.6.

1. Admixtures containing chlorides or sulfides are not permitted.

2. Air-entraining admixtures shall comply with ASTM C260. Air-entrained admixtures shall not be used for floor slabs to receive steel trowel finish.

3. Admixtures for water reduction and setting time modification shall conform to ASTM C494.

4. Admixtures for producing flowing concrete shall conform to ASTM C1017.

5. Fly ash, pozzolan and ground granulated blast-furnace slag: Modify ACI 318 Sections 3.6.6 and 3.6.7 as follows:

   a. Fly ash or other pozzolan used as a partial substitution for ASTM C150 Portland cement shall meet the following requirements:

      1) Shall conform to ASTM C618 for Class N or F materials (Class C is not permitted).

      2) 15 to 20 percent by weight of fly ash or other pozzolans shall substitute for ASTM C150 Portland cement provided the mix design is proportioned per ACI 318, Section 318 5.3.

6. Admixtures containing ASTM C845 expansive cements shall be compatible with the cement and produce no deleterious effects.

7. Silica fumes used as an admixture shall conform to ASTM C1240.

E. Reinforcement Fibers: Chop strands of alkali-resistant polypropylene or nylon fibers added to the concrete mix for protection against shrinkage cracks.

F. Expansion Joint Fillers: Preformed strips, non-extruding and resilient bituminous type, of thickness indicated, conforming to ASTM D1751.

G. Curing:

1. Curing Paper: Shall conform to ASTM C171 and consist of two sheets of kraft paper cemented together with a bituminous material in which are embedded cords or strands of fiber running in both directions. The paper shall be light in color, shall be free of visible defects, with uniform appearance.

2. Elevated slabs and slabs on grade may be cured at CONTRACTOR's option with curing and proactive water vapor emission and alkalinity control system. Products shall be approved by OWNER.

   a. VaporSeal 309, by Floor Seal Technology, Inc., or equal.

      1) ASTM C156: 0.39 kg/m².

      2) ASTM C309: Exceeds requirements.

      3) ASTM C1315: Exceeds requirements.

4) ACI 308R-01 Compliant.

b. Remedial Treatment: Water vapor emission and alkalinity control treatment, MES 100 by Floor Seal Technology, Inc. or equal.

1) ASTM E96: <0.1 Perms.

2) ASTM D1308: 14pH Resistant.

3) ASTM D7234: 500+psi 100% concrete failure.

4) ASTM F2170: 100%RH resistant.

5) VOC Content: <100 g/L, meets SCAQMD Rule #1113.

6) ASTM F3010: Meets Requirements.

c. Self-leveling Compounds: Ardex Engineered Cements, K15, or V1200, Schonox ZM Rapid, US Self Leveler Armstrong, S-194, or equal.

H. Floor Hardener: Water soluble, inorganic, silicate-based curing, hardening, sealing and dustproofing compound. Aquaseal W20 by Monopole Inc., Kure-N-Harden by BASF, Chem Hard by L&M, Liqui-Hard by W. R. Meadows, or equal.

I. Underlayment: Two component latex underlayment for filling low spots in concrete for both interior and exterior applications, from featheredge to a maximum of 3/8 inch in thickness. Underlayment shall be non-shrink and suitable for repairing exposed concrete surfaces and for underlayment of carpet, resilient, tile and quarry floor coverings. La-O-Tex by TexRite, Underlay C, RS by Mer-Krete Systems, Underlayment 962 by C-Cure, or equal.

J. Stair Treads and Nosings: Two part stair tread and nosing with ribbed abrasive bars. Fabricated from 6063-T5 or 6063-T6 extruded aluminum, mill finish. Anti-slip abrasive filler consisting of aluminum oxide, silicon carbide, or a combination of both, in an epoxy-resin binder. Color shall extend uniformly throughout filler.

1. American Safety Tread: TP-311R.

2. Balco Inc.: DST-330.

3. Nystrom: STTB-P3.375E.

4. Wooster Products Inc.: WP-RN3SG.

5. Equal.

K. Grout: ASTM C1107, non-shrink type, pre-mixed compound consisting of non-metallic aggregate, cement, water reducing and plasticizing additives, capable of developing a minimum compressive strength of 7,000 psi at 7 days; of consistency suitable for application and a 30 minute working time.

2.02 CONCRETE MIX

A. Mix shall be signed and sealed by a Civil or Structural Engineer currently registered in the State of California.

B. Strength of Concrete: Strengths and types of concretes shall be as indicated in the Drawings. Unless otherwise indicated or specified, concrete shall be provided with minimum 28-day strength of 3000 psi (f'c).

C. Concrete mix shall meet the durability requirements of ACI 318, Chapter 4.

D. Concrete proportioning shall be determined on the basis of field experience and/or trial mixtures shall in accordance with ACI 318, Section 5.3. Proportions of materials shall provide workability and consistency to permit concrete to be placed readily into forms and around reinforcement under conditions of placement to be employed, without segregation or excessive bleeding.

E. Ready-Mixed Concrete: Mix and deliver in accordance with requirements of ASTM C94.

PART 3 - EXECUTION

3.01 GENERAL

A. Surfaces to receive concrete shall be free of debris, standing water, and any other deleterious substances before start of concrete placing.

B. Time of Placing: Do not place concrete until reinforcement, conduits, outlet boxes, anchors, hangers, sleeves, bolts, and other embedded materials are securely fastened in place. Contact the Inspector at least 24 hours before placing concrete; do not place concrete until inspected by the Project Inspector.

C. Pouring Record: A record shall be kept on the Project site of time and date of placing concrete in each portion of structure. Such record shall be maintained on the Project site until Substantial Completion and shall be available for examination by the ARCHITECT and DSA.

3.02 TOLERANCES

A. Concrete construction tolerances shall be as specified in ACI 117 and as modified herein.

B. Floor Flatness ($F_F$) and Floor Levelness ($F_L$) shall be as indicated below:

| | Specified Overall Value | Minimum Local Value |
|---|---|---|

| | $F_F$ | $F_L$ | $F_F$ | $F_L$ |
|---|---|---|---|---|
| Slabs on ground | 20 | 15 | 15 | 10 |
| Suspended slabs | 35 | 20 | N/A | N/A |

C. Refer to ACI 302.1R, Tables 8.1 and 8.2 Slab on Ground and Suspended Flatness/Levelness Construction Guide, for recommended concrete placing and finishing methods.

D. Floor Flatness and Floor Levelness shall be tested in accordance to ASTM E1155. Floor measurements shall be made within 48 hours after slab installation, and shall precede removal of shores and forms.

3.03 PREPARATION

A. Reglets and Rebates:

1. Form reglets and rebates in concrete to receive flashing, frames and other equipment as detailed and required. Coordinate dimensions and locations required with other related Work.

2. If concrete slabs on grade adjoin a wall or other perpendicular concrete surface, form a reglet in wall to receive and carry horizontal concrete Work. Reglet shall be full thickness of the slab and shall be 3/4 inch wide, unless otherwise indicated. Requirement does not apply to exterior walks, unless specifically indicated.

B. Screeds: Install screeds accurately and maintain at required grade or slab elevations after steel reinforcement has been installed, but before starting to place concrete. Install screeds adjacent to walls and in parallel rows not to exceed 8 feet on centers.

3.04 INSTALLATION

A. Conveying and Placing:

1. Concrete shall be placed only under direct observation of the Project Inspector. Do not place concrete outside of regular working hours, unless the Inspector has been notified at least 48 hours in advance.

2. Concrete shall be conveyed from mixer to location of final placement by methods that will prevent separation or loss of materials.

3. Concrete shall be placed as nearly as practicable to its final position to avoid segregation due to re-handling or flowing. No concrete that has partially hydrated or has been contaminated by foreign materials shall be placed, nor shall re-tempered concrete or concrete which has been remixed after initial set be placed.

4. In placing concrete in columns, walls or thin sections, provide openings in forms, elephant trunks, tremies or other recognized devices, to prevent segregation and accumulation of partially hydrated concrete on forms or metal reinforcement above level of concrete being placed. Such devices shall be installed so that concrete will be dropped vertically. Unconfined vertical drop of concrete from end of such devices to final placement surface shall not exceed 6 feet.

5. Concrete shall be placed as a continuous operation until placing of panel or section is completed. Top surfaces of vertically formed lifts shall be level.

6. Concrete shall be thoroughly consolidated by suitable means during placement, and shall be thoroughly worked around reinforcement and embedded fixtures and into corners of forms.

7. Where conditions make consolidation difficult or where reinforcement is congested, batches of mortar containing same proportions of cement, sand, and water as provided in the concrete, shall first be deposited in the forms to a depth of at least one inch.

B. Cold Weather:

1. Provide adequate equipment for heating concrete materials and protecting concrete during freezing or near-freezing weather. All ground with which concrete is to come in contact shall be free from frost. No frozen materials or materials containing ice shall be used.

2. The temperature of concrete at the time of placement shall not be below the minimum temperatures given in Table 3.1 of ACI 306.1.

3. Concrete shall be maintained at a temperature of at least 50° F. for not less than 72 hours after placing or until it has thoroughly hardened. Cover concrete and provide sufficient heat as required. When necessary, aggregates shall be heated before mixing. Special precautions shall be taken for protection of transit-mixed concrete.

C. Hot Weather:

1. Concrete to be placed during hot weather shall comply with the requirements of ACI 318, Section 5.13.

2. Maintain concrete temperatures indicated in Table 2.1.5 of ACI 305R to prevent the evaporation rate from exceeding 0.2 pound of water per square feet of exposed concrete per hour.

3. Cool concrete using methods indicated in ACI 305R Appendix B.

4. Place and cure concrete as specified in ACI 305R Chapter 4.

D. Compaction and Screeding:

1. Tamp freshly placed concrete with a heavy tamper until at least 3/8 inch of mortar is brought to surface. Concrete shall then be tamped with a light tamper and screeded with a heavy straightedge until depressions and irregularities are eliminated, and surface is true to finish grades or elevations. Remove excess water and debris.

2. Where slabs are to receive separate cement finish or mortar setting bed, continued tamping to raise mortar to surface is not performed. Laitance shall be removed by brushing with a stiff brush or by light sandblasting to expose clean top surface of coarse aggregate.

E. Floating and Troweling:

1. When concrete has hydrated sufficiently, it shall be floated to a compact and smooth surface. After floating, wait until concrete has reached proper consistency before troweling. Top surfaces shall receive at least 2 troweling operations with steel hand trowel. Prior to and during final troweling, apply a fine mist of water frequently with an atomizing type fog sprayer. Omit troweling for slabs to receive a separate cement finish.

2. For interior finish slabs, final troweling shall provide a hard, impervious, and non-slip surfaces, free from defects and blemishes. Finished surface shall be within tolerances indicated in Article 3.02. Avoid burnishing. Do not add cement or sand to absorb excess moisture.

3. Vertical concrete surfaces shall be finished smooth and free from marks or other surface defects.

3.05 CURING

A. Length of time, temperature and moisture conditions for curing concrete shall be in accordance with ACI 318, Section 5.11.

B. Forms containing concrete, top of concrete between forms, and exposed concrete surfaces after removal of forms shall be maintained in a thoroughly wet condition for at least 7 consecutive days after placing.

C. If weather is hot or surface has dried out, spray surface of concrete slabs and paving with fine mist of water, starting not later than 2 hours after final troweling and continuing until sunset. Surface of finish shall be kept continuously wet until curing medium has been installed.

D. Immediately after finishing, monolithic floor slabs shall be covered with curing paper. Paper shall be lapped 4 inches at joints and sealed with waterproof sealer. Edges shall be cemented to finish. Repair or replace paper damaged during construction operations.

E. When curing slabs with proactive water vapor emission and alkalinity control system:

1. Coordinate and schedule application of curing compound with concrete pour schedule, while conforming to manufacturer's application instructions.

2. When the surface of the concrete has hardened sufficiently to sustain foot traffic pre-cure slabs with liquefied product application following manufacturer's written instructions. Application shall be by trained applicators.

3. Monitor Environmental Conditions: Set up weather station 20 to 30 inches above freshly placed concrete. Record temperature, humidity and wind velocity measurements at 15 minute maximum intervals.

4. Calculate Evaporation Rate: Use recorded weather information in combination with nomograph per ACI 308R, Figure 4.1, Guide to Curing Concrete, to evaluate relevant evaporation rate.

5. When the bleed water rate of the concrete is approximately equal to the surface water evaporation rate, spray curing compound material throughout surface of slabs and decks, following manufacturer's written instructions. Application shall be by trained applicators.

6. Perform the following tests at least 28 days after placement of concrete and prior to floor covering installation. Submit to OWNER test results indicating locations that do not comply with scheduled flooring installation requirements.

    a. Calcium chloride testing per ASTM F1869.

    b. Relative humidity testing per ASTM F2170.

    c. Alkalinity testing per ASTM F710.

    d. Perform concrete bond layer humidity meter testing to determine substrate surface acceptability.

7. Areas emitting moisture and alkalinity at rates exceeding floor covering manufacturer's published ASTM F1869 limits, shall receive a corrective coating, at no cost to the OWNER, as follows:

    a) Mask and protect adjacent walls and floor surfaces from effects of scarification and application of remedial treatment.

    b) Scarify slab surface in area of application by shot blasting or other method acceptable to corrective coating manufacturer.

    c) Prepare and fill cracks, control joints and cold joints.

    d) Apply two-component modified epoxy penetrant and coating with roller and squeegee over required treatment area; saturate surfaces to ensure a through mechanical bond.

e) Clean and fill divots, chips, voids and other surface irregularities with one hundred percent Portland cement based patching compound or cementitious fill.

f) Apply cementitious surfacing over coating in areas to receive resilient and wood floor coverings to facilitate adhesion; apply to a thickness of 1/8 inch.

3.06 FILLING, LEVELING AND PATCHING

A. Holes resulting from form ties or sleeve nuts shall be solidly packed, through exterior walls, by pressure grouting with cement grout, as specified. Grouted holes on exposed surfaces shall be screeded flush and finished to match adjoining surfaces.

3.07 FINISHING

A. Soda and Acid Wash: Concrete surfaces to receive plaster, paint or other finish, and which have been formed by oil coated forms, shall be scrubbed with a solution of 1-1/2 pounds of caustic soda to one gallon of water. Surfaces where smooth wood or waste molds have been furnished shall be scrubbed with a solution of 20 percent muriatic acid. Wash with clean water after scrubbing.

B. Sacking: Exposed concrete curbs, walls, and other surfaces shall be sacked by an application of Portland cement grout, floated, and rubbed. Sacking shall not be performed until patching and filling of holes has been completed. Entire sacking operation for any continuous area shall be started and completed within the same day.

1. Mix one part Portland cement and 1-1/2 parts fine sand with sufficient water to produce a grout having consistency of thick paint. Wet surface of concrete sufficiently to prevent absorption of water from grout. Apply grout uniformly with a brush or spray gun, then immediately float surface with a cork or other suitable float, scouring wall vigorously.

2. While grout is still plastic, finish surface with a sponge-rubber float, removing excess grout. Allow surface to dry thoroughly, then rub vigorously with dry burlap to completely remove dried grout. No visible film or grout shall remain after rubbing with burlap.

C. Sandblasting: Exterior concrete surfaces to receive stucco dash coat finish, where plywood or other smooth forms have been furnished, shall be uniformly sand-blasted with sharp quartz sand under sufficient air pressure to remove dirt, form oil and other foreign materials, and roughen surface to provide a proper bond. Such surfaces shall be thoroughly washed with clean water after sandblasting.

D. Abrasive: Concrete stair treads, landings, ramps and steps on interior and exterior of buildings, and interior exposed concrete floors in shop buildings shall receive an abrasive finish.

E. Floor Hardener: Exposed interior concrete floors throughout shall be treated with floor hardener.

1. Protect adjacent surfaces. Clean surfaces to receive treatment in accordance with manufacturer's instructions, ensuring that all stains, oil, grease, form release agents, laitance, dust and dirt are removed prior to application.

2. Apply hardener in accordance with manufacturer’s instructions as soon as concrete is firm enough to work on after final troweling.

F. Cement Grout and Dry-Pack Concrete: Cement grout shall be mixed at the Project site and shall be composed of one volume of Portland cement and 2-1/2 volumes of fine aggregate. Materials shall be mixed dry with sufficient water added to make mixture flow under its own weight. When grout is used as a dry pack concrete, add sufficient water to provide a stiff mixture, which can be molded into a sphere.

G. Broom Finish: Exterior stair treads and landings shall be provided with a non-slip broom finish in addition to abrasive finish specified.

H. Abrasive Stair Nosing: Nosing shall be installed according to manufacturers written recommendations.

## 3.08 EXPANSION AND CONSTRUCTION JOINTS

A. Construction Joints: Details and proposed location of construction joints shall be as indicated on the Drawings, located to least impair strength of structure, in accordance with the following:

1. Thoroughly clean contact surface by sand blasting entire surface not earlier than 5 days after initial placement.

2. A mix containing same proportion of sand and cement provided in concrete plus a maximum of 50 percent of coarse aggregate shall be placed to a depth of at least one inch on horizontal joints. Vertical joints shall be wetted and coated with a neat cement grout immediately before placing of new concrete.

3. Should contact surface become coated with earth, sawdust, or deleterious material of any kind after being cleaned, entire surface shall be re-cleaned before applying mix.

B. Expansion Joints: Provide expansion joints, where indicated on the drawings or specified herein, in walks and exterior slabs. Space approximately 20 feet apart, unless otherwise indicated. Joints shall extend entirely through slab with joint filler in one piece for width of walk or slab. Joint filler shall be 3/8 inch thick, unless otherwise indicated.

C. Tooled Joints: Slabs, walks and paving shall be marked into areas as indicated with markings made with a V-grooving tool. Marks shall be round-edged, free from burrs or obstructions, with clean cut angles and shall be straight and true. Walks, if not indicated,

shall be marked off into rectangles of not more than 16 square feet and shall have a center marking where more than 5 feet wide.

3.09 TESTING

A. Molded Cylinder Tests:

1. Inspector or testing lab personnel will prepare cylinders and perform slump tests. Samples for concrete strength shall be taken in accordance to ASTM C172. Each cylinder shall be dated, given a number, point in structure from which sample was obtained, mix design number, mix design strength and result of accompanying slump test noted.

2. Separate tests of molded concrete cylinders obtained at same place and time shall be made at age of three days, seven days, and 28 days. A strength test shall be the average of the compressive strength of two cylinders, obtained from the same sample of concrete and tested at 28 days or at test age designated for determination of f'c.

3. Test cylinders shall be prepared at the Project site and stored in testing laboratory in accordance with ASTM C31, and tested in accordance with ASTM C39.

B. Core Test: At request of the ARCHITECT, cores of hardened concrete shall be cut from portions of hydrated structures for testing, in accordance with CBC and ASTM C42.

1. Provide 4 inch diameter cores at representative places throughout the structure as designated by the ARCHITECT.

2. In general, provide sufficient cores to represent concrete placed with at least one core for each 4,000 square feet of building area, and at least 3 cores total for each Project.

3. Where cores have been removed, fill voids with drypack, and patch the finish to match the adjacent existing surfaces.

C. Concrete Consistency: Measure consistency according to ASTM C143. Test twice each day or partial day's run of the mixer.

D. Adjustment of Mix: If the strength of any grade of concrete for any portion of Work, as indicated by molded test cylinders, falls below minimum 28 days compressive strength specified or indicated, adjust mix design for remaining portion of construction so that resulting concrete meets minimum strength requirements.

E. Air Content Testing: Measure in accordance to ASTM C173 or ASTM C231, for each composite sample taken in accordance to ASTM C172.

F. Defective Concrete:

1. Should strength of any grade of concrete, for any portion of Work indicated by tests of molded cylinders and core tests, fall below minimum 28 days strength specified or indicated, concrete will be deemed defective Work and shall be replaced or adequately strengthened in a manner acceptable to the ARCHITECT and DSA.

2. Concrete Work that is not formed as indicated, is not true within 1/250 of span, not true to intended alignment, not plumb or level where so intended, not true to intended grades and levels, contains sawdust shavings, wood or embedded debris, or does not fully conform to Contract provisions, shall be deemed to be defective Work and shall be removed and replaced.

G. Concrete for Equipment Pads, Mechanical and Electrical Work: Unless otherwise indicated, strength shall have a minimum f'c = 3,000 psi. Exposed concrete shall be provided with a hand trowel finish with radius corners and edges. Form and place concrete where necessary as described in Section 03 1000 Concrete Forming and Accessories, and reinforced as described in Section 03 2000 Concrete Reinforcing. Calcium chloride shall not be furnished in any concrete mix provided for the installation of underground electrical conduits. For concrete encasement of more than one conduit, furnish 3/4 inch maximum aggregate.

## 3.10 CLEAN UP

A. Remove rubbish, debris and waste materials and legally dispose of off the Project site.

## 3.11 PROTECTION

A. Protect the Work of this section until Substantial Completion.

END OF SECTION

SECTION 04 2200

CONCRETE UNIT MASONRY

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Concrete masonry units.

2. Reinforcing steel.

3. Mortar, grout and grouting.

4. Bolts, anchors, hardware, metal frames, and other insert items.

B. Related Requirements:

1. Division 01 - General Requirements.

2. Section 01 4523 - Testing and Inspection.

3. Section 03 1000 - Concrete Forming and Accessories.

4. Section 03 2000 - Concrete Reinforcing.

5. Section 03 3000 - Cast-In-Place Concrete.

1.02 REFERENCES

A. American Society for Testing and Materials International (ASTM):

1. ASTM A307 - Standard Specification for Carbon Steel Bolts and Studs, 60 000 PSI Tensile Strength.

2. ASTM C90 - Standard Specification for Load Bearing Concrete Masonry Units.

3. ASTM C94 - Standard Specification for Ready-Mixed Concrete.

4. ASTM C140 - Standard Test Methods for Sampling and Testing Concrete Masonry Units and Related Units.

5. ASTM C144 - Standard Specification for Aggregate for Masonry Mortar.

6. ASTM C150 - Standard Specification for Portland Cement.

7. ASTM C207 - Standard Specification for Hydrated Lime for Masonry Purposes.

8. ASTM C270 - Standard Specification for Mortar for Unit Masonry.

9. ASTM C404 - Standard Specification for Aggregates for Masonry Grout.

10. ASTM C426 - Standard Test Method for Linear Drying Shrinkage of Concrete Masonry Units.

11. ASTM C476 - Standard Specification for Grout for Masonry.

12. ASTM C780 - Standard Test Method for Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry.

13. ASTM C1019 - Standard Test Method for Sampling and Testing Grout.

14. ASTM C1314 - Standard Test Method for Compressive Strength of Masonry Prisms.

15. ASTM C1586 – Standard Guide for Quality Assurance of Mortars.

B. Masonry Standards Joint Committee (MSJC), the Masonry Society (TMS), American Concrete Institute (ACI) and American Society of Civil Engineers (ASCE).

1. TMS 602/ACI 530.1/ASCE 6 – Specification for Masonry Structures.

2. TMS 402/ACI 530/ASCE 5 – Building Code Requirements for Masonry Structures.

## 1.03 SUBMITTALS

A. Mix Design: Submit grout and mortar mix designs. Mix designs shall be signed and sealed by a Civil or Structural Engineer registered in the State of California.

B. Product Data: Submit manufacturer's Product Data for assembly components, materials, and accessories. Submit certificates and data assuring that the proposed materials meet the specified ASTM standards.

C. Samples: Submit Samples for each type of required masonry unit, including reinforcement and accessories.

D. Shop Drawings: Indicate wall reinforcement, splice locations and bending diagrams.

E. Admixtures: Additives and admixtures to mortar and grout shall not be used unless approved by the enforcing agency. Submit product data for any proposed admixture.

## 1.04 REGULATORY REQUIREMENTS

A. Perform the Work in accordance with CBC, Chapter 21A.

B. Comply with requirements of TMS 602.

1.05 QUALITY ASSURANCE

A. Comply with the requirements of Section 01 4523 - Testing and Inspection.

B. Concrete Masonry Units:

1. Notify the testing laboratory a minimum of 45 days in advance of installing concrete unit masonry, to allow for preconstruction testing of the units.

a. Units will be sampled and tested in accordance with ASTM C140 for compressive strength, absorption and moisture content.

b. Units will be sampled and tested in accordance with ASTM C426 for linear drying shrinkage.

2. The material testing laboratory shall receive concrete masonry unit specimens for testing from masonry unit manufacturer. Number of specimens shall be as indicated in referenced ASTM standard tests. Testing laboratory will perform and send test results to the ARCHITECT and Project Inspector.

C. Portland Cement: Submit certification from the cement manufacturer that the cement proposed for use on the project has been manufactured in accordance with ASTM C150. Certification shall include test results made on cement samples during production.

D. Mortar and Grout Tests: Prior to the beginning of masonry work, mortar and grout will be tested, unless prism tests will be performed as indicated below.

1. Mortar: Shall conform to ASTM C270 Table 2 for Type S mortar.

a. Provide qualifications of mortar as meeting ASTM C270 at the beginning of the job and whenever mix design is changed.

b. Mortars will be evaluated during preconstruction and tested during construction for proportioning or compressive strength in accordance to ASTM C780.

2. Grout: Shall conform to ASTM C476, and will be tested in accordance with ASTM C1019. Compressive strength shall equal or exceed specified compressive strength (*f'm*) at 28 days, but not less than 2,000 psi.

a. Ready-Mix Grout: Grout manufacturer shall furnish batch ticket information in accordance to ASTM C94.

E. Prism Test: The compressive strength of concrete masonry will be determined by the prism test method prior to the start of construction and during construction.

F. Masonry Core Testing: Core testing will be performed in accordance with CBC, Section 2105A.4.

G. Inspection During Installation: A special inspector will continuously observe the installation of reinforced masonry. The Project Inspector shall be responsible for monitoring the work of the special inspector and testing laboratories to ensure that the testing program is satisfactorily completed.

H. OWNER will be responsible for the costs of original tests and inspection.

1.06 DELIVERY, STORAGE AND HANDLING

A. Store units above grade on level platforms or pallets, in a dry location.

B. Store cementitious materials and aggregates in such a manner as to prevent deterioration or intrusion of foreign matter or moisture.

C. Handle units on pallets or flat bed barrows. Free discharge from conveyor units or transportation in mortar trays is not permitted.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Concrete Unit Masonry: Modular **normal** weight conforming to ASTM C90, hollow load-bearing concrete unit masonry. Masonry units shall meet the minimum compressive strength requirements of ASTM C90, or as indicated on project drawings, whichever is greater.

1. Concrete masonry unit sizes shall be as indicated on the drawings.

2. Provide open-end units at walls to be fully grouted.

3. Provide closed-end units at walls and at openings where ends will be exposed in finish Work; provide bond beam blocks where horizontal reinforcement is indicated.

4. Provide special shapes and accessory units at locations indicated on Drawings.

5. Provide units in colors and textures as indicated in the drawings.

6. Masonry unit shall have been cured for a minimum of 28 days.

7. Masonry unit shall have maximum liner shrinkage of 0.065 percent from saturated to oven dry.

B. Portland Cement: ASTM C150, Type II, from one source.

C. Hydrated Lime: ASTM C207, Type S.

D. Aggregates: ASTM C144 for mortar and ASTM C404 for grout.

E. Mortar: ASTM C270, Type S, conforming to the property specifications of CBC Table 2103A.8 (2).

F. Grout: ASTM C476.

G. Admixture for Grout: Grout Aid, as manufactured by Sika Chemical Corp., or equal.

H. Water: Clean, potable, free from substances deleterious to mortar, grout or reinforcement.

I. Reinforcing Steel: Provide and install reinforcing steel in accordance with Section 03 2000 - Concrete Reinforcing.

J. Cleaning Materials: Sure Klean No. 600 detergent by ProSoCo.

K. Miscellaneous Materials: As required to complete the Work.

L. Anchor Bolts: Shall be hex headed bolts conforming to ASTM A307 Grade A with the dimensions of the hex head conforming to ANSI/ASME B18.2.1.

## PART 3 - EXECUTION

### 3.01 EXAMINATION

A. Discard units with cracks or other defects not complying with requirements of ASTM C 90.

### 3.02 CONSTRUCTION

A. Construct per applicable provisions of CBC and TMS 602.

B. Conform to TMS 602 for hot and cold weather masonry construction.

### 3.03 MORTAR AND GROUT MIXING

A. Mortar: Shall provide a minimum strength of 1,800 psi.

B. Grout: Shall provide a minimum strength of 2,000 psi or as indicated in the drawings, whichever is higher. Grout space requirements for coarse and fine grouts shall be per

Table 7 of TMS 602. Add Sika Chemical Corp. Grout Aid per manufacturer's instructions.

C. Measurements: Measure in calibrated devices that can be checked at any time.

1. Add water for workable consistency.

2. Shovel measurements are not permitted.

D. Mixing: Mix in accordance to TMS 602.

1. Mortar: Mix cementitious materials and aggregates between three and five minutes in a mechanically operated mixer. Mix dry ingredients with a sufficient amount of water to provide a workable mix. Batches of less than one sack of cement, and fractional sack batches are not permitted.

2. Factory Blended Mortar: Mix in accordance with manufacturer's recommendations.

3. Grout: Add sufficient water for a workable mix that will flow into all voids of the masonry without separation or segregation. Grout slump shall be between 8 and 11 inches.

E. Re-tempering Time Limit: Use mortar within 2 ½ hours after mixing. Discard any mortar that has been mixed longer or that has begun to set. If necessary, re-temper within this time limit, by replacing only water lost due to evaporation and by thoroughly remixing.

## 3.04 INSTALLATION OF MASONRY UNITS

A. Workmanship: Install masonry plumb and true to line with straight level joints of uniform thickness. Comply with TMS 602 tolerances. Maintain masonry clean during and after installation.

1. Lay-out and incorporate embedded hardware items.

2. Assist other trades with built-in items, which require cutting and fitting of masonry.

3. Cut block units with a diamond saw or carborundum wheel. Trowel or chisel cutting is not permitted.

4. Keep cavities clear of droppings and debris. Remove droppings prior to grouting.

B. Reinforcing Steel: Install as indicated on Drawings. Except as otherwise indicated, install reinforcement in accordance with standards of Concrete Reinforcing Steel

Institute and to requirements specified in Section 03 2000 - Concrete Reinforcing. Do not splice vertical reinforcement except where indicated on the Drawings.

C. Shoring: Provide temporary shoring for lintels with sufficient strength to carry load without deflecting. Remove temporary shoring not less than 28 days after masonry has been installed.

D. Block Installation: Clean dirt and dust from surfaces before installation. Do not wet masonry units.

1. Foundation preparation: Clean top surface of concrete foundation of dirt, projections and laitance before starting masonry construction. Wet saw cutting of units immediately prior to laying is permitted.

2. Install masonry with mortar to required joint thickness. Install blocks with 3/8-inch mortar bed. Fill head joints solid, install tightly to adjoining units. Provide 3/8-inch joint thickness.

a. Hold racking to a minimum.

b. No toothing is permitted.

c. If it becomes necessary to move a unit after it has been installed, remove the unit, discard the mortar, and install the unit in fresh mortar.

3. Anchor Bolts: Provide 1/2-inch minimum grout space between bolts and masonry.

4. Bond: Unless otherwise indicated, install units in common running bond.

5. Finish Joint Treatment: Unless otherwise indicated, cut both interior and exterior joints flush, and tool slightly concave to a dense, uniform surface.

6. Grouting: Unless noted otherwise on Drawings, completely fill cells with grout.

## 3.05 GROUTING

A. Prior to grouting all cells shall be cleaned so that all spaces to be filled with grout do not contain mortar projections greater than 1/4 inch, loose mortar or foreign material.

B. Grout materials and water contents shall be controlled to provide adequate fluidity for placement without segregation of the constituents, and shall be mixed thoroughly. Reinforcement shall be properly positioned and solidly embedded in the grout.

C. The grouting of any section of wall shall be completed in one day with no interruptions greater than one hour.

D. Between grout pours, a horizontal control joint shall be formed by stopping all wythes at the same elevation and with the grout stopping at 1 ½ inches below a mortar joint, except at the top of the wall. Where bond beams occur, the grout pour shall be stopped a minimum of ½ inch below the top of the masonry.

3.06 LOW-LIFT GROUTING FOR HOLLOW MASONRY UNITS

A. Grouting shall meet the requirements of CBC Section 2104A.1.3.

B. After mortar joints have set, cells are cleaned of mortar and debris, and reinforcement is installed and inspected, grout cells in 4-foot maximum lifts. Horizontal and vertical reinforcement shall be held in place within permitted tolerances by suitable devices.

C. Grout may be installed by pump, tremie or bucket, using hoppers to avoid spilling on exposed surfaces.

D. All grout shall be consolidated and reconsolidated with a mechanical vibrator after placing so as to completely fill all voids and to consolidate the grout. Grouted walls shall be solid and without voids.

3.07 HIGH-LIFT GROUTING OPTION FOR HOLLOW MASONRY UNITS

A. Grouting shall meet the requirements of CBC Section 2104A.1.3 and DSA IR 21-2.

B. High-lift grouting shall apply only to cell sizes available with 8 inch and wider block units. This method is subject to approval of the Division of the State Architect (DSA).

C. Provide bond beam units, inverted for start course, and omit alternate blocks or remove entire face shell of every other unit to allow access to all cells on bottom course for cleanouts.

D. Plug each cleanout by setting a face shell in mortar into opening and securely bracing it in place to prevent displacement. If masonry is not exposed in finish Work, cleanouts may be formed.

E. Grouting: Grouting shall be done in a continuous pour in lifts not exceeding 5-foot in height. The grouting of any section of a wall between control barriers shall be completed in one day, with no interruptions greater than one hour.

F. Consolidating: Grout shall be consolidated by mechanical vibration only, and shall be reconsolidated after excess moisture has been absorbed, but before plasticity is lost. Vibrating of reinforcing steel is not permitted.

3.08 CURING

A. Remove efflorescence, stains, debris, excess grout, and foreign matter.

B. During curing, or for any other purpose, do not saturate masonry with water.

3.09 PARGE COAT

A. Apply parge coat to the earth side of surfaces that are to receive waterproofing.

B. A Portland cement and sand mix (1:3.5 by volume) or Type S mortar may be used for the parge coat.

C. Parging should be applied to damp (not saturated) concrete masonry in two 1/4 inch thick layers. The first coat should be roughened when partially set, hardened for 24 hours, and then moistened before second coat is applied. The second coat should be trowelled to a smooth, dense surface.

D. The parge coat should be beveled at the top to form a wash, and thickened at the bottom to form a cove between the base of the wall and the top of footing.

3.10 CLEANING

A. At completion of masonry Work, remove misplaced mortar, grout or other foreign substances, and clean surfaces which will be exposed in finish Work with specified cleaner, or with clean water and stiff fiber brushes.

B. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

3.11 PROTECTION

A. Protect the Work of this section until Substantial Completion.

END OF SECTION

SECTION 05 0513

HOT-DIP GALVANIZING

PART 1 - GENERAL

1.01 SUMMARY

A. Section Includes:

1. Hot-dip galvanizing of steel railings.

B. Related Sections:

1. Division 01 - General Requirements.

2. Section 05 5100: Metal Railings.

1.02 REFERENCES

A. American Galvanizers Association (AGA):

1. Inspection of Products Hot-dip Galvanized after Fabrication.

2. The Design of Products to be Hot-dip Galvanized after Fabrication.

3. Recommended Details of Galvanized Structures.

B. ASTM International (ASTM):

1. ASTM A123 – Standard Specification for Zinc (Hot-Dipped Galvanized) Coatings on Iron and Steel Products.

2. ASTM A143 – Standard Practice for Safeguarding Against Embrittlement of Hot-Dip Galvanized Structural Steel Products and Procedure for Detecting Embrittlement.

3. ASTM A153 – Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.

4. ASTM A384 – Standard Practice for Safeguarding Against Warpage and Distortion during Hot-Dip Galvanizing of Steel Assemblies.

5. ASTM A385 – Standard Practice for Providing High-Quality Zinc Coatings (Hot-Dip).

6. ASTM A780 – Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.

7. ASTM B6 – Standard Specification for Zinc.

8. ASTM D6386 – Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Painting.

9. ASTM D7803 - Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Powder Coating.

10. ASTM E376 - Measuring Coating Thickness by Magnetic-Field or Eddy-Current (Electromagnetic) Test Methods.

C. The Society for Protective Coatings (SSPC):

1. SSPC-SP1 – Solvent Cleaning.

2. SSPC-SP2 – Hand Tool Cleaning.

3. SSPC-SP3 – Power Tool Cleaning.

4. SSPC-SP5 – White Metal Blast Cleaning.

5. SSPC-SP7 – Brush-Off Blast Cleaning.

6. SSPC-SP10 – Near White Blast Cleaning.

7. SSPC-SP11 – Power Tool Cleaning to Bare Metal.

8. SSPC-SP16 - Brush-Off Blast Cleaning of Coated and Uncoated Galvanized Steel, Stainless Steels, and Non-Ferrous Metals.

## 1.03 COORDINATION WITH STEEL FABRICATOR

A. Prior to fabrication, steel fabricators shall submit approved fabrication shop drawings to the galvanizer. The Galvanizer shall review fabricator shop drawings for suitability of materials for galvanizing and coatings and coordinate any required fabrication modifications.

B. Steel Fabricator shall notify the galvanizer of steel fabrications that exceed the ASTM A385 recommended percentages for carbon, phosphorus, manganese and silicon, so special galvanizing processing techniques are used.

C. Coordinate with steel fabricator appropriate marking and masking materials.

## 1.04 QUALITY ASSURANCE

A. Coating Applicator: Company specializing in hot-dip galvanizing after fabrication following the procedures in the Quality Assurance Manual of the American Galvanizers Association.

B. Galvanizer shall have an in-plant inspection program designed to maintain the coating thickness, finish, and appearance within the requirements of this Section.

## 1.05 SUBMITTALS

A. Galvanizing Certificate of Compliance: Provide notarized Certificate of Compliance with ASTM standards and specifications herein listed. The Certificate shall be signed by the galvanizer and contain a detailed description of the material processed. The Certificate shall include information as to the ASTM standard used for the coating.

1.06 DELIVERY, STORAGE AND HANDLING

A. Package and handle galvanized material in a manner which will avoid damage to the zinc coating.

B. Store in dry, well-ventilated conditions until shipping.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Steel for Galvanizing: As specified in Sections:

1. Section 05 5100: Metal Railings.

B. Zinc for Galvanizing: Conform to ASTM B6, as specified in ASTM A123.

PART 3 – EXECUTION

3.01 PREPARATION

A. Remove welding slag, splatter, anti-splatter compounds and burrs remaining in steel articles.

B. Provide drainage and venting holes in tubular assemblies. In thicker material drill holes in place of punching. Holes shall have a relatively uniform circumference. Punched holes or burned holes with a plasma torch shall be treated with a drill to even the diameter to appropriate size.

C. Masking installed by steel fabricator shall remain in place through galvanizing process completion.

D. Provide lifting lugs to allow for handling during galvanizing. Avoid the use of chains or wires directly connected to steel articles.

E. Safeguard against warpage or distortion of steel members in accordance with ASTM A384.

F. Pre-clean steel work in accordance with accepted methods to produce an acceptable surface for quality hot-dip galvanizing. Remove surface contaminants and coatings that are not removable by the normal chemical cleaning process in the galvanizing operation by grit-blasting, sand-blasting, or other mechanical means.

G. Follow the degreasing, pickling and fluxing steps to remove remaining oxides and to deposit a protective layer on the steel to prevent any further oxides from forming on the surface prior to immersion in the molten zinc.

3.02 COATING APPLICATION

A. Galvanize steel articles, fabrications and assemblies by the hot-dip process in accordance with ASTM A123. The bath chemistry shall be as specified by ASTM B6, and requires at least 98% pure zinc maintained at approximately 840 F.

B. Galvanize bolts, nuts, washers and iron and steel hardware components in accordance with ASTM A153.

C. Safeguard products against steel embrittlement in conformance with ASTM A143.

D. Once the fabricated items' coating growth is complete, withdraw slowly from the galvanizing bath, and remove the excess zinc by draining, vibrating, and/or centrifuging.

E. Prepare galvanized products for powder coating in accordance to ASTM D7803. Prepare galvanized products for painting in accordance to ASTM D6386.

F. Handle articles to be galvanized in such a manner as to avoid mechanical damage and to minimize distortion.

G. Apply a chromate passivation treatment to fabrications that will not be painted after galvanizing to minimize the wet storage staining which may occur on articles unable to be stored in dry, well-ventilated conditions.

3.03 COATING REQUIREMENTS

A. Conform to paragraph 6.1 of ASTM A123, or Table 1 of ASTM A153, as applicable.

B. Surface Finish: Continuous, adherent, as smooth and evenly distributed as possible and free from any defect detrimental to the stated end use of the coated article

C. Adhesion: Withstand normal handling consistent with the nature and thickness of the coating and normal use of the article.

1.04 TESTS

A. Inspection and testing of hot-dip galvanized coatings shall be done under the guidelines provided in the AGA publication Inspection of Products Hot-dip Galvanized after Fabrication. Tests and inspections shall be performed immediately after the coating is applied and has cooled to ambient temperature, and before it leaves the galvanizing facility.

B. Include visual examination and test methods in accordance with ASTM A123, or A153, as applicable, to determine the thickness of the zinc coating on the metal surface.

C. During the visual inspection, if adhesion concerns are suspected, such as peeling or flaking of the galvanized coating, then adhesion testing using the stout knife method shall be conducted. Embrittlement testing is required when there is evidence of embrittlement and shall be conducted per the requirements of ASTM A143.

D. Upon completion of tests furnish notarized Certificate of Compliance with ASTM standards and specifications herein listed.

3.05 REPAIR OF DAMAGED COATINGS

A. Smooth out rough surfaces, bumpy or high spots and icicles by hand filing or power sanding the area without removing any more zinc coating than necessary. Repair damaged galvanized surface with a zinc rich coating.

B. Repair areas damaged during galvanizing process or handling by one of the approved methods in accordance with ASTM A780 whenever damage exceeds 3/16" in width. Minimum thickness requirements for the repair shall be per ASTM A123, Section 6.2.

C. Remove lifting lugs and repair coating with a zinc rich coating.

D. Surface preparation for application of zinc rich coating shall be in accordance to ASTM A780.

1. Clean areas in accordance to SSPC-SP2.

2. Prepare surface for zinc spray in accordance to SSPC-SP5, or zinc rich paint repair in accordance to SSPC-SP10.

END OF SECTION

# SECTION 05 3000

# METAL DECKING

## PART 1 - GENERAL

### 1.01 SUMMARY

A. Section Includes:

1. Floor and roof metal decking.

2. Edge strips, closure strips and decking accessories.

B. Related Requirements:

1. Division 01 - General Requirements.

2. Section 01 4523 - Testing and Inspection.

3. Section 03 3000 – Cast-In-Place Concrete.

4. Section 05 1200 - Structural Steel Framing.

5. Section 07 6000 - Flashing and Sheet Metal.

### 1.02 REFERENCES

A. ASTM International (ASTM):

1. ASTM A108 – Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished.

2. ASTM A653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

3. ASTM A780 – Standard Practice for Repair of Damaged and Uncoated Areas of Hot-Dip Galvanized Coatings.

4. ASTM D746 - Standard Test Method for Brittleness Temperature of Plastics and Elastomers by Impact.

5. ASTM D1056 - Standard Specification for Flexible Cellular Materials—Sponge or Expanded Rubber.

B. American Welding Society (AWS):

1. AWS D1.1 - Structural Welding Code Sheet – Steel.

2. AWS D1.3 – Structural Welding Code Sheet – Sheet Steel.

C. American Iron and Steel Construction (AISI):

1. AISI – Specifications for the Design of Cold-Formed Steel Structural Members.

D. Underwriters Laboratory (UL):

1. UL – Fire Resistance Directory.

1.03 PERFORMANCE REQUIREMENTS

A. Compute properties of deck sections on basis of effective design width as limited by provisions of the AISI specifications. Provide no less than deck section properties specified, including section modulus and moment of inertia per foot of width.

B. Regulatory Requirements:

1. Decking installed as part of a fire rated assembly shall meet the requirements of the applicable UL Fire Resistance Directory design number.

2. Work of this section shall be in accordance with CBC.

1.04 SUBMITTALS

A. Shop Drawings: Drawings, sections and details indicate type of decking, location, finish, gage of metal, arrangement of sheets, necessary fabrication to incorporate decking into the Work, and relationship to openings and flashing.

B. Product Data: For each type of decking specified, including structural properties, dimensions, profiles and finishes.

C. Welder Certificates: Signed by CONTRACTOR certifying that welders comply with the requirements specified under Article “Quality Assurance”.

1.05 QUALITY ASSURANCE

A. General: Metal decking steel shall conform to requirements of strengths and properties of standards specified.

B. Qualifications of Welders: Properly certified for the type of Work involved in compliance with CBC requirements.

C. Continuous inspection of welding will be performed by a special inspector. Refer to Section 01 4523 - Testing and Inspection. The Project Inspector will be responsible for

monitoring the work of the special inspector to ensure that the inspection program is satisfactorily completed.

D. Identification of metal decking steel shall conform to the standards specified in this section and the Drawings.

1. Fabricator shall furnish sufficient evidence to the ARCHITECT attesting compliance with specified requirements.

2. Conform to CBC requirements. Unclassified or unidentified decking is not permitted. Furnish deck manufacturer's certified mill analyses and test reports for each heat covering decking having a minimum Fy of 33 Ksi. In addition, for decking having $F_y$ greater than 33 Ksi, testing laboratory shall perform one tension and elongation test and one bend or flattening test for each gage.

E. Unidentifiable Steel: Steel which is not readily identifiable as to grade from markings and test records is not permitted to be provided as part of the Work of this section.

F. Manufacturers shall be members of Steel Deck Institute (SDI).

1.06 DELIVERY, STORAGE AND HANDLING

A. Protect steel deck from corrosion, deformation and other damage during delivery, storage and handling.

B. Deck bundles shall be stored off the ground, with one end elevated to provide drainage. Bundles shall be protected against condensation with a ventilated waterproof covering.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

A. ASC Steel Deck.

B. Verco Manufacturing Co.

C. Epic Metals Corporation.

D. Equal.

2.02 MATERIALS

A. Metal Decking:

1. Roll-formed sheets conforming to ASTM A653, with G90 zinc coating.

2. Section properties conforming to applicable provisions of latest edition of AISI - Specification for the Design of Cold-Formed Steel Structural Members.

B. Flexible Closure Strips for Deck: Vulcanized, closed-cell, expanded chloroprene elastomer, complying with ASTM D1056, Grade SCE #41.

1. Brittleness Temperature: Minus 40 degrees F, ASTM D746.

2. Flammability Resistance: Self-extinguishing,

C. Decking Accessories: Metal cover plates, sheet metal edging, metal closure strips, valley and ridge strips, seat angles, sump pans, flashings: 22 gage minimum, with ASTM A653, G90 zinc coating.

D. Galvanizing Repair Paint: Mil. Spec. MIL-P-21035B and approved by the OWNER's Office of Environmental Health and Safety (OEHS).

2.03 FABRICATION

A. Corrugated sheets or sections shall be designed to support required live load between supporting members.

B. Provide decking in lengths to span over three or more supports.

C. Except as detailed otherwise, provide decking with interlocking side laps, 2 ½-inch minimum end bearing, and 1 ½-inch minimum side bearing.

D. Welding: Provide materials and methods in accordance with recommendations of steel decking manufacturer and reviewed submittals. Hold decking tight to the supporting elements with screws or other means for proper welding or crimping of the decking edges. Conform to AWS D1.3, and to the patterns and weld types indicated, with welds free from sharp edges and protrusions. Field coat welds and abraded surfaces at completion with an anodic type galvanizing repair paint. Omit the field paint coating where welds or abrasions are covered by concrete fill or sprayed fireproofing.

PART 3 - EXECUTION

3.01 EXAMINATION

A. Verify supporting structure and existing conditions prior to starting work.

B. Remove oil, dirt, paint, and rust from steel surfaces to which metal decking will be welded.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.02 OPENINGS

A. Cut and reinforce units to provide openings which are located and dimensioned on the structural and mechanical Drawings.

B. Provide openings, or other Work not indicated on the Drawings.

3.03 INSTALLATION

A. Install metal decking in accordance with decking manufacturers' recommendations, requirements of Drawings, Shop Drawings, and Specifications.

B. Install metal decking on supporting steel framework and adjust to final position before permanently fastening in place.

1. Install each unit to proper bearing on supports.

2. Install units in straight alignment for entire length of run of cells with close registration of cells of one unit with those of abutting unit.

C. Fasten decking to steel framework at ends of units and at intermediate supports. Welding shall be as indicated on Drawings.

D. Fasten side laps between supports as indicated on Drawings.

E. Perform field cutting parallel with cells in area between cells, leaving sufficient horizontal material to permit welding to support steel.

3.04 METAL FLASHINGS AND CLOSURES

A. Furnish, install, and weld in position, sheet metal closure flashing, closure angles, closure plates, profile plates, and shear plates.

B. Close open ends of cell runs at columns, openings, walls, similar interruptions and termination.

3.05 FIELD QUALITY CONTROL

A. Install steel decking under continuous inspection according to CBC Section 1704A.

B. Welding inspection for steel deck diaphragms shall conform to CBC Section 2204A.1.

3.06 CLEAN UP

A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

3.07 PROTECTION

A. Protect the Work of this section until Substantial Completion.

END OF SECTION

# SECTION 05 5100

# METAL RAILINGS AND FRAMES

## PART 1 - GENERAL

### 1.01 SUMMARY

A. Section includes:

1. Steel railings and frames.

B. Related Requirements:

1. Division 01 - General Requirements.
2. Section 01 4523: Testing and Inspection.
3. Section 03 2000 – Concrete Reinforcing.
4. Section 03 3000: Cast-in-Place Concrete.
5. Section 05 0513: Hot-Dip Galvanizing.

### 1.02 REFERENCES

A. ASTM International (ASTM):

1. ASTM A27 - Standard Specification for Steel Castings, Carbon, for General Application.
2. ASTM A36 - Standard Specification for Carbon Structural Steel.
3. ASTM A47 - Standard Specification for Ferritic Malleable Iron Castings.
4. ASTM A53 - Standard Specification for Pipe, Steel, Black and Hot-Dipped, Zinc-Coated, Welded and Seamless.
5. ASTM A108 - Standard Specification for Steel Bar, Carbon and Alloy, Cold-Finished.
6. ASTM A123 – Standard Specification for Zinc (Hot-Dipped Galvanized) Coatings on Iron and Steel Products.
7. ASTM A153 – Standard Specification for Zinc Coating (Hot-Dip) on Iron and Steel Hardware.
8. ASTM A283 - Standard Specification for Low and Intermediate Tensile Strength Carbon Steel Plates.

9. ASTM A307 - Standard Specification for Carbon Steel Bolts, Studs, and Threaded Rod 60 000 PSI Tensile Strength.

10. ASTM A500 - Standard Specification for Cold-Formed Welded and Seamless Carbon Steel Structural Tubing in Rounds and Shapes.

11. ASTM A501 - Specification for Hot-Formed Welded and Seamless Carbon Steel Structural Tubing.

12. ASTM A513 - Standard Specification for Electric-Resistance-Welded Carbon and Alloy Steel Mechanical Tubing.

13. ASTM A563 - Standard Specification for Carbon and Alloy Steel Nuts.

14. ASTM A575 - Standard Specification for Steel Bars, Carbon, Merchant Quality, M-Grades.

15. ASTM A653 - Standard Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.

16. ASTM A786 - Standard Specification for Hot-Rolled Carbon, Low-Alloy, High-Strength Low-Alloy, and Alloy Steel Floor Plates.

17. ASTM A1008 - Standard Specification for Steel, Sheet, Cold-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, Solution Hardened, and Bake Hardenable.

18. ASTM A1011 - Standard Specification for Steel, Sheet and Strip, Hot-Rolled, Carbon, Structural, High-Strength Low-Alloy, High-Strength Low-Alloy with Improved Formability, and Ultra-High Strength.

19. ASTM C1107 – Standard Specification for Packaged Dry, Hydraulic-Cement Grout (Nonshrink).

20. ASTM D1187 - Standard Specification for Asphalt-Base Emulsions for Use as Protective Coatings for Metal.

21. ASTM D6386 – Standard Practice for Preparation of Zinc (Hot-Dip Galvanized) Coated Iron and Steel Product and Hardware Surfaces for Painting.

22. ASTM F1554 - Standard Specification for Anchor Bolts, Steel, 36, 55, and 105-ksi Yield Strength.

23. ASTM F2329 - Standard Specification for Zinc Coating, Hot-Dip, Requirements for Application to Carbon and Alloy Steel Bolts, Screws, Washers, Nuts, and Special Threaded Fasteners.

24. ASTM F3125 - Standard Specification for High Strength Structural Bolts, Steel and Alloy Steel, Heat Treated, 120 ksi (830 MPa) and 150 ksi (1040 MPa) Minimum Tensile Strength, Inch and Metric Dimensions.

B. American Welding Society (AWS):

1. AWS D1.1 Structural Welding Code - Steel.

2. AWS D1.3 Structural Welding Code - Sheet Steel.

3. AWS D-19.0 Welding Zinc Coated Steel.

C. The Society for Protective Coatings (SSPC):

1. SSPC-SP1 – Solvent Cleaning.

2. SSPC-SP3 – Power Tool Cleaning.

3. SSPC-SP10 – Near White Metal Blast Cleaning.

4. SSPC-SP11 – Power Tool Cleaning to Bare Metal.

5. SSPC-PA-1 – Shop, Field and Maintenance Coating of Metals.

1.03 COORDINATION

A. Coordination between Steel Fabricator and Galvanizer:

1. Prior to fabrication, submit approved fabrication shop drawings to the galvanizer.

2. Notify galvanizer of steel fabrications that exceed the ASTM A385 recommended percentages for carbon, phosphorus, manganese and silicon, so special galvanizing processing techniques are used.

B. Coordinate installation of metal fabrications that are anchored to concrete or masonry, or that receive work specified by other Sections. Furnish setting drawings, templates, and directions for installing anchorages, including sleeves, concrete inserts, anchor bolts, and items with integral anchors, that are to be embedded in concrete or masonry.

C. Field Measurements: Field verify dimensions prior to fabrication.

1.04 SUBMITTALS

A. Shop Drawings: Submit detailed Shop Drawings of metal railings, showing floor plans, elevations, sections and details. Indicate member sizes and thicknesses, methods of assembly, welding, locations of hardware, anchors, and accessories.

B. Manufacturer's Mill Certificate: Submit, certifying that products meet or exceed specified requirements.

C. Fabricator and Installer qualifications per Article "Quality Assurance".

D. Welding:

1. Welder's Certificates: Field welders shall be Project certified in accordance with AWS D1.1.

2. Welding Material Certification: Provide certificate that welding material complies with specifications. Submit to OWNER's testing laboratory.

E. Research/Evaluation Reports: ICC-ES for post-installed anchors.

1.05 QUALITY ASSURANCE

A. Fabricator and Installer Qualifications: A firm with a minimum of five years' experience in supplying and installing steel work required by this Section. Submit fabricator and installer qualifications and list of projects with the contact information of owners and architects.

B. Welding Qualifications: Qualify procedures and personnel according to the following:

1. AWS D-1.1– Structural Welding Code – Steel.

2. AWS D1.3 - Structural Welding Code - Sheet Steel.

C. Comply with the following as a minimum requirement:

1. Design, fabricate, and install miscellaneous metals in accordance with AISC - Design, Fabrication, and Erection of Structural Steel for Buildings.

2. AWS D-1.1 Code - Structural Welding Code – Steel and AWS D1.3 - Structural Welding Code - Sheet Steel.

3. Inspection of Welding: Refer to Section 01 4523: Testing and Inspection.

D. Preassemble items in shop to greatest extent possible to minimize field welding. Mark units for reassembly and coordination of installation. Use marking method compatible with galvanizing.

1.06 DELIVERY, STORAGE AND HANDLING

A. Store components and materials above grade on platforms, skids, or other required supports.

B. Protect from corrosion or damage, cover with waterproof material.

C. Load, unload, and handle fabrications in a manner that will not damage metal or finishes.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Structural Steel Shapes: ASTM A36.

B. Rolled Steel Plates: ASTM A36. Plates to be bent or cold-formed shall conform to ASTM A283, Grade C.

C. Round HSS: ASTM A500 Grade B or C.

D. Square and Rectangular HSS: ASTM A500 Grade B or C.

E. Steel Pipe: ASTM A53 Type E or S, Grade B, standard weight (Schedule 40), unless otherwise noted. Black finish.

F. Steel Sheet: ASTM A1008 or ASTM A1011.

G. Steel Bolts: ASTM A307, Grade A, or F3125 with hex steel nuts per ASTM A563 and washers. Galvanized in accordance with ASTM A153 for exterior locations.

H. Steel Bars: Conforming to ASTM A108 or ASTM A575.

I. Concrete Inserts: Threaded or wedge type; galvanized ferrous castings, either malleable iron, ASTM A47, or cast steel, ASTM A27. Provide bolts, washers, and shims, hot-dip galvanized per ASTM A153.

J. Nonshrink, Nonmetallic Grout: Factory-packaged, nonstaining, noncorrosive, nongaseous grout complying with ASTM C1107. Provide grout specifically recommended by manufacturer for interior and exterior applications.

K. Concrete Materials:

1. Concrete per Section 03 3000, Cast-in-Place Concrete.

2. Welded wire fabric and reinforcing per section 03 2000, Concrete Reinforcing.

## 2.02 GENERAL FABRICATION

A. Field verify dimensions before fabrication. Design units to allow for adjustment and fitting of components during field installation. Preassemble units at shop to minimize mechanical joints, splicing and field assembly of units.

B. For fabrication of Work exposed to view, provide only materials smooth and free of blemishes. Remove blemishes by grinding or by welding and grinding, before cleaning, treating, and installation of surface finishes including zinc coatings. Exposed to view surfaces that exhibit pitting seam marks, roller marks, “oil-canning” stains, discoloration or other imperfections on finished units are not acceptable.

C. Fabricate joints that will be exposed to weather in a manner to exclude water. Provide weep holes where water may accumulate.

D. Cut, drill, or punch holes at right angles to the surface of the metal. Holes shall not be made or enlarged by burning. Holes in base or bearing plates shall be drilled.

E. Ease exposed edges to a radius of approximately 1/32 inch, unless otherwise indicated or specified.

F. Bend metal corners to the smallest radius possible without causing grain separation or otherwise impairing the work.

G. Welding:

1. Weld connections unless otherwise indicated.

2. Weld corners and seams continuously and in accordance with requirements of AWS Code. Welds will be inspected as required in Section 05 1200: Structural Steel Framing.

3. Welds exposed to view shall be ground down and dressed smooth, so that the shape and profile of the item welded are maintained.

## 2.04 RAILING FABRICATION

A. Pipe Railing: Handrails, posts and pickets shall be fabricated of black ASTM A53 Type E or S, Grade B standard weight steel pipe.

B. Handrail Brackets: Wagner cast iron bracket Style D, or equal.

C. Form elbow bends and wall returns to uniform radius, free from buckles and twists. Close exposed ends of pipe and tubing by welding metal closure in place or by use of pre cased fittings.

D. Accurately miter and cope intersections of posts, pickets and rails and weld all around; grind welds smooth.

E. For posts set in concrete, furnish matching sleeves.

## 2.05 PREPARATION FOR GALVANIZING

A. Fabricate to the largest size possible and whenever possible use slip joints to minimize field welding.

B. Fabricate structural steel in accordance with Class I, II, III guidelines as described in AGA's Recommended Details for Galvanized Structures, to facilitate galvanizing process. Corners of gussets, stiffeners, and bracing shall be cropped to allow free flow of zinc during galvanizing process.

C. Remove welding slag, splatter, anti-splatter compounds and burrs immediately after welding.

D. Remove oil, grease, dirt, mill scale, rust, corrosion products, oxides, paint or other foreign matter from steel surface in accordance with SSPC-SP3.

E. Marking for Identification: Avoid unsuitable marking paints for identification, such as oil based paints and markers and crayon markers. Use water soluble paints or markers acceptable to galvanizer or steel tags wired to the work.

F. Masking: Use masking materials recommended by the American Galvanizers Association (AGA) to produce ungalvanized areas for field welding and at slip critical bolts.

G. Galvanize fabrications per Section 05 5013, Hot-Dip Galvanizing, in accordance with ASTM A123 and ASTM A153.

## PART 3 - EXECUTION

### 3.01 EXAMINATION

A. Field check and verify that structural framing, enclosures, weld plates, blocking, size and location of pockets are as called for in the approved shop drawings. Notify the OAR in writing of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected.

### 3.02 INSTALLATION

A. Load, unload and handle material in a manner that will not strain, bend, deform or otherwise damage it.

B. Provide anchorage devices and fasteners as indicated in the drawings and where necessary for securing metal stair fabrications to in-place construction.

C. Set fabrication accurately in location, alignment, and elevation; with edges and surfaces level, plumb, true, and free of rack; and measured from established lines and levels.

D. Fit exposed connections accurately together to form hairline joints. Weld connections that are not to be left as exposed joints, but cannot be shop-welded because of shipping size limitations. Do not weld, cut, or abrade the surfaces of hot-dip galvanized fabrications intended for bolted or screwed field connections.

E. Alignment: Verify alignment of items with adjacent construction. Coordinate related work.

F. Place, compact, finish, and cure concrete poured in treads and landings in accordance with applicable requirements of Section 03 3000, Cast-in-Place Concrete.

G. Corrosion Protection: Coat concealed surfaces of metals that will come into contact with grout, concrete, masonry, or wood, with a heavy coat of bituminous paint or zinc chromate primer. Bituminous Paint shall be cold applied asphalt emulsion complying with ASTM D1187. Protect dissimilar metals from galvanic corrosion by pressure tapes, coating, or isolators.

### 3.03 FIELD WELDING

A. Preparation of Weld Area of Galvanized Fabrications: Remove masking from fabrications. Remove remaining zinc coating between one inch and four inches from both sides of members to be welded, by grinding back the zinc coating, burning the zinc away or pushing back the molten zinc from the weld area.

B. Welding: Comply with AWS Code for procedures of manual shielded metal-arch welding, appearance and quality of welds made, methods used in correcting welding work.

1. Weld in accordance to AWS D-1.1.

2. Weld galvanized fabrications in accordance to AWS D-19.0.

C. Remove welding flux immediately. At exposed connections, finish exposed welds and surfaces smooth and blended so that no roughness shows after finishing and contour of welded surfaces matches those adjacent.

D. Upon completion of welding plug vent, drainage and lifting holes of galvanized fabrications with appropriate diameter zinc plugs. Push in about half way by hand, and hammer to a tight fit. With a hand file or an abrasive tool, file away excess material. Repair scratches with a zinc rich coating.

1. Plug railing holes.

3.04 RAILING INSTALLATION

A. Adjust handrails and railing systems prior to anchoring to ensure matching alignment at abutting joints. Secure brackets, posts and rails to steel by welds, and to masonry or concrete with expansion sleeves and bolts.

B. Set posts plumb and aligned. Set rails horizontal.

C. Rails contacting a vertical surface shall be fitted with standard pipe rail flanges, secured to concrete or masonry surfaces with 3/8 inch 2-unit cinch anchor bolts and secured to wood frame surfaces with 3/8 inch lag screws, unless otherwise indicated.

D. Install posts into metal sleeves cast in concrete, and extending into it at least 9 inches. Wedge posts true, plumb, and fastened by packing with grout. Finish grout smooth and flush with adjacent surfaces.

3.05 ADJUSTING AND CLEANING

A. Do not cut or abrade finishes which cannot be completely restored in the field. Return items with such finishes to the shop for required alterations, followed by complete refinishing or provide new units as required.

B. Touch Up Damaged Surfaces:

1. Shop Painted Finishes: Comply with SSPC-PA-1 for touch-up; apply with brush to produce a minimum 2.0 mil dry film thickness.

2 Galvanized Surfaces: Clean field welds, connections and damaged areas. Apply two coats of Carbomastic 15, by Carboline or equal product. Brush or roll to a 4 to 6 mil thickness.

1.06 CLEAN UP

A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

1.07 PROTECTION

A. Protect the Work of this section until Substantial Completion.

END OF SECTION

# SECTION 06 1000

# ROUGH CARPENTRY

## PART 1 - GENERAL

### 1.01 SUMMARY

A. Section Includes:

1. Rough carpentry Work.

B. Related Requirements:

1. Division 01 - General Requirements.
2. Section 01 4523: Testing and Inspection.
3. Section 03 1000: Concrete Forming and Accessories.
4. Section 03 3000: Cast-In-Place Concrete.

### 1.02 SYSTEM DESCRIPTION

A. Regulatory Requirements:

1. Work of this Section shall comply with CBC Chapter 23.

### 1.03 QUALITY ASSURANCE

A. Comply with the following as a minimum requirement:

1. Redwood structural and framing lumber shall be graded in accordance with Standard Specifications for Grades of California Redwood Lumber of the Redwood Inspection Service.
2. Douglas fir, larch or hemlock structural and framing lumber shall be graded in accordance with the Standard Grading Rules of the West Coast Lumber Inspection Bureau (WCLIB) or the Western Lumber Grading Rules of the Western Wood Products Association (WWPA).
3. Plywood shall conform to requirements of Product Standard PS 1, and shall be grade marked by a recognized grading agency (APA and PTL).

B. Lumber shall bear official grade mark of the association under whose rules it was graded or official grade mark of another recognized grading agency.

C. Structural and framing members 2-inch thick (nominal) and larger shall be air-dried to moisture content not to exceed 19 percent before installation.

D. Each piece of preservative treated lumber shall be identified by the Quality Mark of an approved inspection agency in accordance with CBC Chapter 23; refer to Section 01 4523: Testing and Inspection.

E. Lumber showing visible signs of mold growth:

1. Lumber showing visible signs of mold growth shall be removed from the project site or cleaned as outlined below.

2. The contractor is responsible for all costs associated with cleaning, post-cleaning testing, and reporting for lumber with mold.

a. Lumber that shows visible signs of mold growth prior to, or after installation, shall be cleaned pursuant to the current edition of USEPA's guidance publication "Mold Remediation in Schools and Commercial Buildings (EPA 402-K-01-001).

b. A minimum of 10 percent of the total locations cleaned must be sampled (tape lift method) post cleaning to ensure cleaning effort was successful. Cleaning will be considered acceptable when tape lift sample results evaluated by direct microscopic examination determine that the general abundance of mold is non-detect or rare (normal trapping to 1+).

c. A report prepared by a Certified Industrial Hygienist (CIH) that details the sampling and cleaning results shall be prepared and submitted to the OAR for review and approval of the LAUSD Office of Environmental Health and Safety.

d. Cleaned lumber shall not be installed or enclosed by finish materials until approval of test results. Cleaned lumber must meet moisture content requirements as required elsewhere in this specification prior to installation or application of finishes.

## 1.04 STORAGE, HANDLING AND PROTECTION

A. The materials supplied as part of the Work of this section shall be protected from exposure to inclement weather before being covered by other Work.

# PART 2 - PRODUCTS

## 2.01 MATERIALS

A. Lumber: Structural and framing lumber shall be of following species and grades:

| | INSTALLATION | SPECIES | GRADE |
|---|---|---|---|
| 1. | Subfloor, wall sheathing, roof sheathing and ceiling furring | Douglas fir and larch | Construction Board, WCLIB; WWPA |
| 2. | Posts, (5-inch by 5-inch and larger, width not more than 2 inches greater than thickness). | Douglas fir and larch | No. 1 or better Structural Posts and Timbers, WCLIB. No. 1 or better Post and Timbers, WWPA. |
| 3. | Beams, girders and truss members (5-inch and thicker, rectangular, width more than 2-inches greater than thickness) where exposed as finish members. | Douglas fir and larch | No. 1 or better Structural Beams and Stringers, WCLIB; WWPA. |
| 4. | Joists, rafters, lintels, posts, mullions and members (2 to 4-inch thick, 2 to 4-inch wide) | Douglas fir and larch | No. 1 or better; Structural Light Framing, WCLIB; |
| 5. | Other lumber (2 to 4-inch thick, 2 to 4-inch wide) not specified in subparagraph 5 above. | Douglas fir and larch | Construction Light Framing WCLIB; WWPA |
| 6. | Framing lumber (2 to 4-inch thick, 5-inch and wider). | Douglas fir and Larch | No. 1 or better Structural Joists and Planks, WCLIB; WWPA. |
| 7. | Mudsills and plates in contact with earth. | Douglas fir and Larch Treated | Same as subparagraphs 5 and 6. |
| 8. | Sills or plates installed on concrete or masonry surfaces 6 inches or less above earth or finish grade. | Douglas fir and Larch Treated | Same as subparagraphs 5 and 6. |
| 9. | Sills, foundation plates and sleepers installed on concrete, masonry foundations, or installed on concrete slab in direct contact with earth. | Douglas fir and Larch treated | Same as subparagraphs 5 and 6. |
| 10. | Miscellaneous nailing strips and blocks embedded in concrete or | Douglas fir and Larch | Same as subparagraphs |

masonry. treated 5 and 6.

B. Plywood: Plywood furnished for structural purposes, when exposed outdoors, shall be exterior type plywood. Other plywood furnished for structural purposes shall be exterior type, or Exposure 1.

C. OSB Board or Panels:

1. Oriented strand board or panels shall not be furnished as part of the Work of this section.

D. Preservative Treated Wood:

1. Wood and plywood specified; as treated wood shall be pressure treated wood in accordance with CBC requirements.

2. Seasoning: Treated lumber shall be air seasoned after treatment, for a minimum of two weeks before installation. Moisture content shall be 15 percent maximum.

3. Creosote or arsenic is not permitted for treating wood.

4. When treated wood member have been notched, dapped, drilled, or cut, such newly cut surfaces shall be painted with a heavy coat of the same preservative material originally provided for treatment of wood member.

E. Fire Retardant Protection: Wood and plywood specified as fire retardant protected wood shall be treated by approved methods and materials and shall be dried following treatment to maximum moisture content as follows:

1. Solid sawn lumber 2-inch thick or less: 19 percent.

2. Plywood: 15 percent.

F. Plywood Subflooring: Underlayment, Group 1, Exposure 1; of thickness indicated.

G. Mineral Fiber Panels: Asbestos-free, thickness as indicated.

H. Adhesive: Elastomeric adhesive – follow manufacturer's installation instructions. Product must be approved by OWNER Office of Environmental Health and Safety and conform to ASTM D 3498 or APA-AFG-01.

## PART 3 - EXECUTION

### 3.01 FASTENINGS

A. Nails and Spikes:

1. Furnish only common wire nails or spikes whenever indicated, specified or required.

2. Whenever necessary to prevent splitting, holes shall be pre-drilled for nails and spikes.

3. Nails in plywood shall not be overdriven.

4. Machine Applied Nailing: Use of machine nailing is subject to a satisfactory Project site demonstration for each Project and approval by the Architect or structural engineer retained by the Architect as an Architect Consultant and DSA. Installation is subject to continued satisfactory performance. Machine nailing is not permitted for 5/16 inch plywood. Do not permit nail heads to penetrate outer ply. Maintain minimum allowable edge distances when installing nails.

B. Lag Screws:

1. When installing lag screws in a wood member, pre-drill hole as required by the CBC.

2. Lag screws, which bear on wood, shall be fitted with standard steel plate washers under head. Lag screws shall be screwed and not driven into place.

C. Bolts:

1. Lumber and timber to be fastened together with bolts shall be clamped together with holes for bolts bored true to line.

2. Bolts shall be fitted with steel plates or standard cut washers under heads and nuts. Bolts shall be tightened when installed and again before completion of the Work of this section.

D. Wood Screws: When installing wood screws, pre-drill holes as required by the CBC.

E. Metal Framing Devices: Framing anchors, joist hangers, ties, and other mechanical fastenings shall be galvanized or furnished with a rust inhibitive coating. Nails and fastenings shall be of the type recommended by manufacturer.

F. Powder Driven Fasteners:

1. Loads shall not exceed 75 pounds unless indicated on the Drawings or when reviewed by the Architect.

2. The operator, tool, and fastener shall perform the following as observed by the Inspector.

a. Observe installation of first 10 fasteners.

b. Test the first 10 fasteners by performing a pullout test. Load shall be at least twice the design load, or 150 pounds, whichever is greater.

c. Random testing:

1) Load less than 75 pounds - approximately 1 in 10 pins.

2) Load 75 pounds or greater - 1/2 of the pins.

3. Failure of any test will result in testing of all installed pins.

4. Nail heads shall not break the outer skin of sheathing.

5. Non-compliant pins shall be replaced.

## 3.02 INSTALLATION

A. Stud Walls, Partitions and Furring:

1. Wood stud walls, partitions and vertical furring shall be constructed of members of size and spacing indicated. Provide single treated plate at bottom and double plate at top unless otherwise indicated. Interior, nonbearing non-shear partitions may be framed with a single top plate, installed to provide overlapping at corners and at intersections with other wall and partitions or by metal ties as detailed.

2. Walls and partitions shall be provided with horizontal staggered blocking at least 2 inch nominal thickness and same width as studs, fitted snugly, and nailed into studs. Blocking shall be installed at mid-height of partition or not more than 7 feet on center vertically. Install wood backing on top of top plate wherever necessary for nailing of lath or gypsum board.

3. Walls, partitions and furred spaces shall be provided with 2-inch nominal thickness wood firestops, same width as space to be firestopped, at ceiling line, mid-height of partition and at floor line. Firestops at floor line are not required when floor is concrete. If width of opening is such that more than one piece of lumber is necessary, provide two thicknesses of one inch nominal material installed with staggered joints.

4. Firestops shall be installed in stud walls and partitions, including furred spaces, so the maximum dimension of any concealed space is not over 10 feet.

5. Corners, and where wood stud walls and wood vertical furring meet, shall be constructed of triple studs. Openings in stud walls and partitions shall be provided with headers as indicated and a minimum of 2 studs at jambs, one stud of which may be cut to support header in bearing.

6. Where wood and masonry or concrete walls intersect, end stud shall be fastened at top, bottom and mid-height with one 1/2 inch diameter bolt through stud and embedded in masonry or concrete a minimum of 4 inches. Bolts shall be provided with washers under nuts.

7. Sills under bearing, exterior or shear walls shall be bolted to concrete with 5/8 inch diameter by 12-inch long bolts with nuts and washers, spaced not more than 4 feet on center unless noted otherwise. There shall be a bolt within 9 inches of each end of each piece of sill plate. Sills shall be installed and leveled with shims, washers, with nuts tightened to level bearing. Space between sill and concrete shall be dry packed with cement grout.

B. Floor Joists, Roof and Ceiling Framing:

1. Wood joists shall be of the size and spacing indicated, installed with crown edge up, and shall have at least 4-inch bearing at supports. Provide 2-inch solid blocking, cut in between joists, same depth as joists, at ends and bearings, unless otherwise indicated.

2. Floor joists of more than 4 inches in depth and roof joists of more than 8 inches in depth shall be provided with bridging. Floor joists shall be bridged every 8 feet with solid blocking or metal cross bridging. Roof joists shall be bridged every 10 feet.

3. Joists under and parallel to bearing partitions shall be doubled and nailed or bolted together as detailed. Whenever a partition containing piping runs parallel to floor joists, joists underneath shall be doubled and spaced to permit passage of pipes and blocked with solid blocking spaced at not more than 4 feet intervals.

4. Trimmer and header joists shall be doubled, when span of header exceeds 4 feet. Ends of header joists more than 6 feet long shall be supported by framing anchors or joist hangers unless bearing on a beam, partition, or wall. Tail joists over 12 feet long shall be supported at header by framing anchors or on ledger strips at least 2 by 4.

5. Provide solid blocking between rafters and ceiling joists over partitions and at end supports where indicated.

C. Beams, Girders and Joists:

1. Ends of wood beams, girders and joists which are 2 feet or less above finished outside grade and which abut, but do not enter concrete or masonry walls, as well as wood blocking used in connection with ends of those members shall be treated with wood preservative.

2. Where wood beams, girders and joists enter masonry or concrete walls 2 feet or less above outside wall, metal wall boxes or equivalent moisture barriers shall be provided between wood and masonry or concrete.

D. Roof and Wall Sheathing:

1. Plywood roof sheathing shall be Structural I, Grade C-D, Exposure 1, thickness as indicated.

2. Where exposed roof sheathing is indicated, area shall be sheathed solid with dressed and center matched, V-jointed boards of sizes indicated. Boards shall be installed perpendicular to supports.

3. Soffits of overhanging eaves, where indicated, shall be boxed-in using Group I, Exterior Type, Grade A-C, plywood, thickness as indicated.

4. Plywood for shear walls shall be Structural I, Grade C-D Exterior Type, thickness as indicated. Install with the long dimension parallel or perpendicular to the supports. Blocking shall be provided behind edges not located over supports. Shear wall construction, nailing, and top and bottom anchorage shall be as indicated.

5. Provide and install metal H-clips of required size, midway between rafters at unsupported edge joints of plywood roof sheathing where rafters are spaced at 24 inches on center. Clips shall be Plyclips, by Timber Fasteners Inc., Panel Clips by Simpson Co., USP Structural Connectors, or equal.

E. Nailing Strips and Plates:

1. Provide wood nailing strips, plates and blocking indicated or required. Nailing strips in connection with metal work shall be bolted to metal. Wood nailing blocks for securing grounds shall be built into concrete, or masonry.

2. Nailing schedule shall comply with CBC requirements.

3. Treated wood nailing strips for lightweight insulated concrete roof decks at eaves, ridges, rakes, base of curbs and wherever else indicated, shall be provided and installed. Strips shall be treated Douglas fir, 4 inches (nominal) width by thickness of insulated concrete.

F. Wood Backing: Provide wood backing as indicated and as required to receive plumbing, electrical fixtures and equipment, cabinets, door stop plates and other fixed equipment.

## 3.03 CLEAN UP

A. Remove rubbish, debris and waste materials and legally dispose of off the Project site.

## 3.04 PROTECTION

A. Protect the Work of this section until Substantial Completion.

END OF SECTION

# SECTION 07 9200

# JOINT SEALANTS

## PART 1 - GENERAL

### 1.01 SUMMARY

A. Section Includes:

1. Joint sealants.

2. Preparation for application of sealants.

B. Related Requirements:

1. Division 01 - General Requirements.

2. Section 03 3000 – Cast-in-Place Concrete

### 1.02 SUBMITTALS

A. Shop Drawings: Submit Shop Drawings indicating sealant joint locations, with full-size sealant joint details.

B. Product Data: Submit manufacturer's literature for each sealant material.

C. Material Samples: Submit Samples indicating color range available for each sealant material intended for installation in exposed locations.

D. Certifications: Submit manufacturer’s certification materials comply with requirements specified.

E. Site Samples: At locations required, provide a Sample of sealant for each typical installation, approximately 24 inches long, including joint preparation, backing, sealant and tooling. Allow backing to extend 6 inches beyond end of sealant for inspection of substrate.

F. Test Reports: Submit manufacturer's adhesion compatibility test reports according to ASTM C794 for each substrate.

### 1.03 QUALITY ASSURANCE

A. Qualifications of Installer: The Work of this section shall be installed by a firm which has been in the business of installing similar materials for at least five consecutive years; and can show evidence of satisfactory completion of five projects of similar size and scope. Installer shall have applicators trained and approved by manufacturer for performing this Work.

### 1.04 DELIVERY, STORAGE AND HANDLING

A. Store in accordance with manufacturer's recommendations. Provide a uniform ambient temperature between 60 and 80 degrees F.

1.05 WARRANTY

A. Manufacturer: five year material warranty.

B. Installer: two year installation/application warranty.

PART 2 - PRODUCTS

2.01 GENERAL

A. Furnish sealants meeting following in-service requirements:

1. Normal curing schedules are permitted.

2. Non-staining, color fastness (resistance to color change), and durability when subjected to intense actinic (ultraviolet) radiation are required.

B. Furnish the products of only one manufacturer unless otherwise required, sealant colors as selected to match the adjoining surfaces.

2.03 MATERIALS

A. Sealants:

1. Sealant 1: Acrylic latex, one-part, non-sag, mildew resistant acrylic emulsion compound complying with ASTM C834, Type S, Grade NS, formulated to be paintable.

a. Tremco Inc., Acrylic Latex Caulk.

b. Pecora Corporation, AC-20.

c. Equal.

2. Sealant 2: Butyl sealant, one-part, non-sag, solvent-release-curing sealant complying with ASTM C1311, gun grade and formulated with a minimum of 75 percent solids.

a. Tremco Inc., Tremco Butyl Sealant.

b. Pecora Corp., BC-158.

c. Equal.

3. Sealant 3: Silicone sealant, one-part non-acid-curing silicone sealant complying with ASTM C920, Type S, Grade NS, Class 25.

a. Dow Corning Corp., Dow Corning 790, 791, 795.

b. General Electric Co., Silpruf.

c. Tremco, Inc., Spectrem 1.

d. Pecora Corp., 864.

e. Equal.

4. Sealant 4: One-part mildew-resistant silicone sealant, complying with ASTM C920, Type S, Grade NS, Class 25.

a. Dow Corning Corp., Dow Corning 786.

b. General Electric Co., Sanitary 1700.

c. Tremco, Inc., Proglaze White.

d. Equal.

5. Sealant 5: One-part non-sag urethane sealant, complying with ASTM C920, Type S, Grade NS, Class 25.

a. Sika Corporation, Sikaflex -221e.

b. Equal.

6. Sealant 6: Multi-part pouring urethane sealant, complying with ASTM C920, Type M, Grade P, Class 25.

a. Sika Corporation, Sikaflex 2C NS/SL.

b. Equal.

7. Sealant 7: Acoustical sealant, non-drying, non-hardening permanently flexible conforming to ASTM D217.

a. Pecora Corp., BA-98 Acoustical Sealant.

b. Equal.

B. See 07 8413 - Penetration Firestopping for rated sealants.

C. .Joint Backing: ASTM D1056; round, closed cell Polyethylene Foam Rod; oversized 30 to 50 percent larger than joint width, reticulated polyolefin foam.

D. Primer: Non-Staining Type. Provide primer as required and shall be product of manufacturer of installed sealant.

E. Bond Breaker: Pressure sensitive tape recommended by sealant manufacturer.

F. Sealants shall have normal curing schedules, shall be nonstaining, color fast and shall resist deterioration due to ultraviolet radiation.

## PART 3 - EXECUTION

### 3.01 EXAMINATION

A. Verify that joint openings are ready to receive Work and field tolerances are within the guidelines recommended by sealant manufacturer.

### 3.02 SURFACE PREPARATION

A. Joints and spaces to be sealed shall be completely cleaned of all dirt, dust, mortar, oil, and other foreign materials which might adversely affect sealing Work. Where necessary, degrease with a solvent or commercial degreasing agent. Surfaces shall be thoroughly dry before application of sealants.

B. If recommended by manufacturer, remove paint and other protective coatings from surfaces to be sealed before priming and installation of sealants.

C. Preparation of surfaces to receive sealant shall conform to the sealant manufacturer's specifications. Provide air pressure or other methods to achieve required results. Provide masking tape to keep sealants off surfaces that will be exposed in finished Work.

D. Etch concrete or masonry surfaces to remove excess alkalinity, unless sealant manufacturer's printed instructions indicate that alkalinity does not interfere with sealant bond and performance. Etch with 5 percent solution of muriatic acid; neutralize with dilute ammonia solution, rinse thoroughly with water and allow to dry before sealant installation.

E. Perform preparation in accordance with ASTM C804 for solvent release sealants, and ASTM C962 for elastomeric sealants.

F. Protect elements surrounding Work of this section from damage or disfiguration.

### 3.03 SEALANT APPLICATION SCHEDULE

| | Location | Type | Color |
|---|---|---|---|
| A. | Exterior and Interior joints in horizontal surfaces of concrete; between metal and concrete masonry and mortar. | Sealant 6 | To match adjacent material |
| B. | Exterior door, entrance and window frames. Exterior and interior vertical joints in concrete and masonry metal flashing. | Sealant 3 or 5 | To match adjacent material |
| C. | Joints within glazed curtain wall system. Skylight framing system. Aluminum entrance system glass and glazing. | Sealant 3 | Translucent or Black |

| | | | |
|---|---|---|---|
| D. | Interior joints in ceramic tile and at plumbing fixtures. | Sealant 4 | Translucent or White |
| E. | Under thresholds. | Sealant 2 | Black |
| F. | All interior joints not otherwise scheduled | Sealant 1 | To Match Adjacent Surfaces |
| G. | Heads and sills, perimeters of frames and other openings in insulated partitions | Sealant 7 | Match Adjacent Surfaces |

3.04 APPLICATION

A. Provide sealant around all openings in exterior walls, and any other locations indicated or required for structure weatherproofing and/or waterproofing.

B. Sealants shall be installed by experienced mechanics using specified materials and proper tools. Preparatory Work (cleaning, etc.) and installation of sealant shall be as specified and in accordance with manufacturer's printed instructions and recommendations.

C. Concrete, masonry, and other porous surfaces, and any other surfaces if recommended by manufacturer, shall be primed before installing sealants. Primer shall be installed with a brush that will reach all parts of joints to be filled with sealant.

D. Sealants shall be stored and installed at temperatures as recommended by manufacturer. Sealants shall not be installed when they become too jelled to be discharged in a continuous flow from gun. Modification of sealants by addition of liquids, solvents, or powders is not permitted.

E. Sealants shall be installed with guns furnished with proper size nozzles. Sufficient pressure shall be furnished to fill all voids and joints solid. In sealing around openings, include entire perimeter of each opening, unless indicated or specified otherwise. Where gun installation is impracticable, suitable hand tools shall be provided.

F. Sealed joints shall be neatly pointed on flush surfaces with beading tool, and internal corners with a special tool. Excess material shall be cleanly removed. Sealant, where exposed, shall be free of wrinkles and uniformly smooth. Sealing shall be complete before final coats of paint are installed.

G. Comply with sealant manufacturer's printed instructions except where more stringent requirements are indicated on Drawings or specified.

H. Partially fill joints with joint backing material, furnishing only compatible materials, until joint depth does not exceed 1/2 inch joint width. Minimum joint width for metal to metal

joints shall be 1/4 inch. Joint depth, shall be not less than 1/4 inch and not greater than 1/2 inch.

I. Install sealant under sufficient pressure to completely fill voids. Finish exposed joints smooth, flush with surfaces or recessed as indicated. Install non-tracking sealant to concrete expansion joints subject to foot or vehicular traffic.

J. Where joint depth prevents installation of standard bond breaker backing rod, furnish non-adhering tape covering to prevent bonding of sealant to back of joint. Under no circumstances shall sealant depth exceed 1/2 inch maximum, unless specifically indicated on Drawings.

K. Prime porous surfaces after cleaning. Pack joints deeper than 3/4 inch with joint backing to within 3/4 inch of surface. Completely fill joints and spaces with gun applied compound, forming a neat, smooth bead.

3.05 MISCELLANEOUS WORK

A. Sealing shall be provided wherever required to prevent light leakage as well as moisture leakage. Refer to Drawings for condition and related parts of Work.

B. Install sealants to depths as indicated or, if not indicated, as recommended by sealant manufacturer but within following general limitations:

1. For joints in concrete walks, slab and paving subject to traffic, fill joints to a depth equal to 75 percent of joint width, but not more than 3/4 inch deep or less than 3/8 inch deep, depending on joint width.

2. For building joints, fill joints to a depth equal to 50 percent of joint width, but not more than 1/2 inch deep or less than 1/4 inch deep.

3.06 CLEANING

A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

3.07 CURING

A. Sealants shall cure in accordance with manufacturer's printed recommendations. Do not disturb seal until completely cured.

3.08 PROTECTION

A. Protect the Work of this section until Substantial Completion.

END OF SECTION

SECTION 09 9000

PAINTING AND COATING

## PART 1 - GENERAL

### 1.01 SUMMARY

A. Section Includes:

1. Interior and exterior painting.

B. Following items shall not be painted:

1. Brass valves, chromium or nickel-plated piping and fittings.

2. Boiler control panels and control systems.

3. Fabric connections to fans.

4. Flexible conduit connections to equipment, miscellaneous name plates, stamping, and instruction labels and manufacturer's data.

5. Mechanical and electrical utility lines, piping and heating and ventilation ductwork in tunnels, under-floor excavated areas or crawl spaces, attic spaces and enclosed utility spaces.

6. Flag, floodlight, parking light poles and loudspeaker poles, metal stairs, handrails and chain-link fence with a galvanized finish, unless otherwise noted.

7. Structural and miscellaneous steel, open web steel joists and metal floor decking, which will not be exposed in final construction, shall have no finish other than one coat of shop primer.

8. Hardboard covering on tops and backs of counters and benches.

9. Brass, bronze, aluminum, lead, stainless steel and chrome or nickel-plated surfaces.

10. Non-metallic walking surfaces unless specifically shown or specified to be painted.

### 1.02 REGULATORY REQUIREMENTS

A. Paint materials shall comply with the Food and Drug Administration’s (F.D.A.) Lead Law and the current rules and regulations of local, state and federal agencies governing the use of paint materials.

### 1.03 SUBMITTALS

A. List of Materials: Before submittal of samples, submit a complete list of proposed paint materials, identifying each material by distributor's name, manufacturer's name, product name and number, including primers, thinners, and coloring agents, together with manufacturers' catalog data fully describing each material as to contents, recommended installation, and preparation methods. Identify surfaces to receive various paint materials.

B. Material Samples: Submit manufacturer's standard colors samples for each type of paint specified. Once colors have been selected, submit Samples of each color selected for each type of paint accordingly:

1. Samples of Paint and Enamel must be submitted on standard 8 ½" x 11" Leneta Opacity-Display Charts. Each display chart shall have the color in full coverage. The sample shall be prepared from the material to be installed on the Work. Identify the school on which the paint is to be installed, the batch number, the color number, the type of material, and the name of the manufacturer.

2. Elastomeric shall be submitted in duplicate samples of the texture coating. Samples will be not less than 2 ½ by 3 ½ in size and installed upon backing. Finished Work will match the reviewed Sample in texture.

3. Materials and color samples shall be reviewed before starting any painting.

C. For transparent and stained finishes, prepare samples on same species and quality of wood to be installed in the Work, with written description of system used.

1.04 QUALITY ASSURANCE

A. Certification of Materials: With every delivery of paint materials, the manufacturer shall provide written certification the materials comply with the requirements of this section.

B. Coats: The number of coats specified is the minimum number. If full coverage is not obtained with the specified number of coats, install additional coats as required to provide the required finish.

C. Install coats and undercoats for finishes in strict accordance with the recommendations of the paint manufacturer as reviewed by the Architect.

D. Paint materials shall comply with the following as a minimum requirement:

1. Materials shall be delivered to Project site in original unbroken containers bearing manufacturer's name, brand number and batch number.

1.05 DELIVERY, STORAGE AND HANDLING

A. Storage and Mixing of Materials: Store materials and mix only in spaces suitable for such purposes. Maintain spaces clean and provide necessary precautions to prevent fire. Store paint containers so the manufacturer's labels are clearly displayed.

1.06 SITE CONDITIONS

A. Temperature: Do not install exterior paint in damp, rainy weather or until surface has thoroughly dried from effects of such weather. Do not install paint, interior, or exterior, when temperature is below 50 degrees F, or above 90 degrees F, or dust conditions are unfavorable for installation.

1.07 WARRANTY

A. Manufacturer shall provide a three year material warranty.

B. Installer shall provide a three year application warranty.

1.08 MAINTENANCE

A. Provide at least one gallon of each type, color and sheen of paint coating installed. Label containers with color designation indicated on Drawings.

PART 2 - PRODUCTS

2.01 PAINT MATERIALS

A. Furnish the products of only one paint manufacturer unless otherwise specified or required. Primers, intermediate and finish coats of each painting system must all be the products of the same manufacturer, including thinners and coloring agents, except for materials furnished with shop prime coat by other trades.

B. Factory mix paint materials to correct color, gloss, and consistency for installation to the maximum extent feasible.

C. Paint materials to be minimum “Architectural Grade”.

D. Gloss degree standards shall be as follows:

| | | | |
|---|---|---|---|
| HIGH GLOSS | 70 and above | EGGSHELL | 30 to 47 |
| SEMI-GLOSS | 48 to 69 | SATIN | 15 to 29 |

2.02 MANUFACTURERS

A. Acceptable manufacturers, unless otherwise noted:

1. Dunn-Edwards Corporation Paints
2. Frazee Paints and Wall coverings
3. Vista Paints
4. Sherwin Williams
5. PPG Paints
6. Equal.

PART 3 - EXECUTION

3.01 PREPARATION

A. Examine surfaces to receive paint finish. Surfaces which are not properly prepared and cleaned or which are not in condition to receive the finish specified shall be corrected before prime coat is installed.

B. New woodwork shall be thoroughly cleaned, hand sandpapered, and dusted off. Nail holes, cracks or defects in Work shall be filled. On stained woodwork, fill shall be colored to match stain. Filling shall be performed after the first coat of paint, shellac or varnish has been installed.

C. Plaster surfaces except veneer plaster shall be allowed to dry at least 3 weeks before painting. Veneer plaster shall be allowed to dry sufficiently to receive paint as determined by moisture meter tests.

D. Metal surfaces to be painted shall be thoroughly cleaned of rust, corrosion, oil, foreign materials, blisters, and loose paint.

E. Do not install painting materials to wet, damp, dusty, dirty, finger marked, rough, unfinished or defective surfaces.

F. Concrete surfaces shall be dry, cleaned of dirt and foreign materials and in proper condition to receive paint. Neutralize spots demonstrating effects of alkali.

G. Mask off areas where necessary.

3.02 APPLICATION

A. Backpainting: Immediately upon delivery to the Project site, finish lumber and millwork shall be backpainted on surfaces that will be concealed after installation. Items to be painted shall be backpainted with priming coat specified under "Priming".

B. Priming: New wood and metal surfaces specified to receive paint finish shall be primed. Surfaces of miscellaneous metal and steel not embedded in concrete, and surfaces of unprimed plain sheet metal Work shall be primed immediately upon delivery to the Project site. Galvanized metal Work and interior and exterior woodwork shall be primed immediately after installation. Priming of surfaces and priming coat shall be as follows:

1. Knots, Pitch and Sap Pockets: Shellac before priming.

2. Exterior Woodwork and Wood Doors: Prime with one coat of exterior waterborne emulsion wood primer.

3. Interior Woodwork: Where indicated to be painted, prime with one coat of waterborne wood primer.

4. Stain: Woodwork indicated to receive a stain and varnish finish shall be stained to an even color with water borne stain. On open-grained hardwood, mix stain with paste filler and completely fill pores in wood.

5. Galvanized Metal Work: Clean oil, grease and other foreign materials from surfaces. Install vinyl wash pretreatment coating. Follow manufacturer's instructions for drying time, and then prime with one coat of metal primer.

6. Unprimed Iron, Steel, and Other Uncoated Metals: Where specified to be painted, prime with one coat of metal primer.

7. Shop Primed Metal Items: Touch up bare and abraded areas with metal primer before installation of second and third coats.

8. Coats shall be installed evenly and with full coverage. Finished surfaces shall be free of sags, runs and other imperfections.

C. Allow at least 24 hours between coats of paint.

D. Rollers shall not be used on wood surfaces.

E. Each coat of painted woodwork and metal, except last coat, shall be sandpapered smooth when dry. Texture-coated gypsum board shall be sanded lightly to remove surface imperfections after first coat of paint has been installed.

F. Each coat of paint or enamel shall be a slightly different tint as required. Each coat of paint, enamel, stain, shellac, and varnish will be inspected by the IOR before next coat is applied. Notify the Project Inspector that such Work is ready for inspection.

1. Tinting Guideline: The first coat, primer/undercoat(s) to be untinted or tinted up to 50 percent lighter or darker (at the discretion of the installer) than the finish coat. The second coat (or third coat if a seal coat and undercoat have been specified) is to be factory tinted in the range of 10 percent to 15 percent lighter or darker (at the discretion of the installer) than the finish coat. The final coat is to be factory tinted to the required color selected. These tinting guidelines shall be provided on all surfaces receiving paint.

G. Do not "paint-out" UL labels, fusible links and identification stamps.

H. Paint Roller, brush and spray.

1. Only Paint rollers shall be used on interior plaster, drywall, masonry/plaster and plywood surfaces, nap shall not exceed one half inch in length.

2. First coat on wood overhang and ceilings shall have material applied by roller and then brushed out in a professional manner to leave surface free of imperfections. Finish coat may be sprayed.

3. Other surfaces shall have all coatings applied with brushes of proper size.

4. Spray work is permitted only on radiators, acoustic plaster, masonry and plaster.

I. Where ceilings are specified to be painted, beams, cornices, coves, ornamental features, plaster grilles, etc. shall be included.

J. Ceilings shall be white, including classrooms, storage rooms, offices, arcades, etc. Boiler room and fan room ceiling color shall match adjacent walls.

3.03 CLEANING

A. Remove rubbish, waste, and surplus material and clean woodwork, hardware, floors, and other adjacent Work.

B. Remove paint, varnish and brush marks from glazing material and, upon completion of painting Work, wash and polish glazing material both sides. Glazing material, which is damaged, shall be removed and replaced with new material.

C. Clean hardware and other unpainted metal surfaces with recommended cleaner. Do not furnish abrasives or edged tools.

3.04 SCHEDULE

A. Exterior:

1. Woodwork: 3 coats.

a. First Coat: As specified in this section under Priming.

b. Second and Third Coats: Exterior house and trim enamel.

2. Wood Doors: 3 coats.

a. First Coat: As specified in this section under Priming.

b. Second and Third Coats: Exterior gloss enamel.

3. Plaster and Stucco: 3 coats. Flat 100 percent acrylic.

a. Prime Coat: Alkali resistant primer/sealer.

b. Exterior 100 percent acrylic.

4. Concrete: 3 coats. Flat 100 percent acrylic.

a. First Coat: Concrete sealer.

b. Second and Third Coats: Exterior 100 percent acrylic.

5. Concrete Block: 3 coats. Flat 100 percent acrylic.

a. First Coat: Concrete block filler.

b. Second and Third Coats: Exterior 100 percent acrylic.

6. Metal: 3 coats. Shall be cleaned and pre-treated. Items to be painted include, but are not limited to: steel columns and miscellaneous steel items, gravel stops, metal doors and frames, hoods and flashings.

a. First Coat: As specified in this section under Priming.

b. Second and Third Coats: Exterior gloss enamel.

B. Miscellaneous:

1. Outside Storage Units (wood or metal): 3 coats.

a. First Coat: As specified in this section under Priming.

b. Second and Third Coats: Exterior gloss enamel.

2. Exterior and interior surfaces of storage bins, and potting tables shall have 3 coats of acrylic stain.

3. Wood compost bins shall be finished with 3 coats of acrylic stain.

3.05 PROTECTION

A. Protect the Work of this section until Substantial Completion.

3.06 CLEANUP

A. Remove rubbish, debris, and waste materials and legally dispose of off the Project site.

END OF SECTION

SECTION 31 23 33

TRENCHING AND BACKFILLING

PART 1 - GENERAL

1.01 SUMMARY

A. Excavating trenches for construction of utilities.

B. Trench backfill materials.

C. Backfilling and compacting requirements.

1.02 REFERENCES

A. Standard Specifications for Public Works Construction (SSPWC), latest edition.

B. Geotechnical Update, Gymnasium Swing Space, Moorpark College, Moorpark, California, dated June 30, 2017, Project No. 1003.035, prepared by Geotechniques and shall be superseded by the most current version.

1.03 SUBMITTALS

A. Materials source.

B. Sand equivalent test reports per ASTM D2419.

C. Certificates.

D. Drawings for shoring, bracing, sloping, or other provisions for worker protection for any excavation shall conform to the requirements of the CAL/OSHA Construction Safety Orders Requirements.

1.04 EXISTING UTILITIES

A. Drawings show existing major underground utilities from reference drawings. Prior to excavation, the Contractor shall notify the District's Representative to obtain any additional information which may be applicable to the Work.

B. Any incident of a utility being inadvertently damaged by the Contractor shall be immediately shutoff and then be immediately repaired by the Contractor at no cost to the District.

C. Contractor to pothole all utility connections and verify exact size, location and material prior to beginning construction and notify engineer of any discrepancies.

PART 2 - MATERIALS

2.01 APPROVALS

A. Imported material shall be approved by the District's Representative prior to being brought to the site. Provide a sample of the material in sufficient quantity for the

District's Representative's use in evaluating the material.

2.02 TRENCH BACKFILL MATERIAL

A. Sand bedding shall have a sand equivalent (SE) of 30 or greater. The SE shall be evaluated during grading. Materials shall conform to the specification of the Geotechnical Study.

B. Slurry Backfill shall be a two-sack slurry mix and shall conform to the requirements of Section 201 of the SSPWC for Backfill Slurry.

C. Aggregate base course shall be per Plan.

D. Topsoil removed from trenches shall be stockpiled at locations approved by the District's Representative.

2.03 SOURCE QUALITY CONTROL

A. Inspection and testing shall be performed by the District's Representative.

PART 3 - EXECUTION

3.01 PREPARATION

A. Identify required lines, levels, contours, and datum.

3.02 TRENCH EXCAVATION

A. All saw cutting shall be neat, straight cuts and shall conform to Section 300-1.3.2 of the SSPWC. All cuts shall be square unless otherwise specifically noted on plans.

B. Trench excavation shall conform to Section 306-1.1 of the SSPWC and the following requirements:

1. The bottom of the trench shall be graded and prepared to provide a firm and uniform bearing throughout the entire length of the pipe barrel. Suitable excavations shall be made to receive the bell of the pipe and the joint shall not bear upon the bottom of the trench. All adjustments to line and grade shall be made by scraping away or filling in with sand under the body of the pipe and not by wedging or blocking.

2. If the trench is excavated below the required grade, correct any part of the trench excavated below the grade, at no additional cost to the District per the Geotechnical Study. Place the backfill material over the full width of trench in compacted layers not exceeding 6 inches deep to the established grade with allowance for the pipe base. If shoring is required, the trenches shall be shored and braced in accordance with the Trench Construction Safety Orders of the Division of Industrial Safety.

3. When subgrade is encountered that in the opinion of the District's Representative is unsuitable for pipe support, the District's Representative may order the excavation to be carried to an approved depth below the bottom of the pipe and backfilled with sand, to the lines and grades shown on the drawings and specified

by the District's Representative.

4. The minimum width of the trench at the top of the pipe zone shall be as necessary to install the pipe. The utility lines shall be centered in the trench. In the event of (1) actual physical interference between existing crossing subsurface utilities and the proposed utility lines and (2) vertical discrepancy in connecting proposed utility lines to existing utility system, a minimum clearance of 0.5 feet between the utility line and the crossing, interfering utility shall be provided, unless otherwise indicated on the plans.

5. Where existing utilities or tree roots are to be protected, trench excavation shall be by hand. No mechanical excavating equipment shall be used within 6 inches of any utility or root.

6. Trenching machinery may be used for excavations provided the specified trench width can be maintained.

3.03 TRENCH BACKFILL

A. Pipe bedding and trench backfill materials: Suitable imported pipe bedding for utilities shall consist of material having a sand equivalent of at least 30. The sand backfill material shall be placed within the pipe zone that extends from the bottom of the pipe to at least 12 inches above the top of the pipe for the full width of the trench. The horizontal distance between the springline of the pipe and the side walls of the trench shall be such that bedding material can be properly placed and compacted below the haunches of the pipe. Pipe bedding and pipe zone backfill shall be compacted to at least 95 percent relative compaction. Backfill material placement shall conform to provisions of Geotechnical Study.

B. Trench backfill placed above the pipe zone shall consist of suitable onsite or imported soil per Geotechnical Study. The trench backfill materials shall be compacted to at least 90 percent relative compaction. Compaction shall be increased to a minimum of 95 percent of maximum dry density within structural fills within building areas. Mechanical compaction of trench backfill shall be performed and water consolidation (jetting) methods of compaction shall not be permitted. Trench backfill in landscape areas shall be compacted to a minimum of 90 percent relative compaction or per landscape specifications.

C. Trench Backfilling shall conform to the requirements of Sections 306-1.2.1 and 306-1.3 of the SSPWC and Geotechnical Study:

1. During the process of laying pipe in trenches, sufficient material shall be carefully placed and hand tamped about the pipe to hold it firmly to established line and grade. Oversized material, broken rock or shale, if encountered, shall not be used for backfill.

2. No motor driven mechanical compacting equipment shall be used over pipelines until the backfill has been compacted to 12 inches over the crown of the pipe.

3. All backfill material shall be deposited in horizontal layers not exceeding the thickness specified in Section 306-1.3.2 of the SSPWC and not exceeding 8 inches in thickness. The distribution of materials shall be such that all material following compaction and consolidation will form a homogeneous mass free of

voids, pockets, streaks or other imperfections. Backfilling shall be done with earth free from lumps, hardpan, chunks, paving material, organic matter or other deleterious substances.

4. Jetting of bedding or backfill material to obtain specific moisture content or for compaction shall not be permitted. If encountered, existing fill in the utility excavation shall be excavated and recompacted or removed and replaced with new fill materials per requirements of Section 2.02.

5. Compaction of all backfill material for trenches, pavements or structures, shall be per provisions of the Geotechnical Study. Appropriate warning detector tape shall be placed over all utilities.

6. Prior to final cleanup or resurfacing, the District's Representative shall take compaction tests in any backfill area and at any depth, with the Contractor providing equipment and operator to assist in such test. If any such compaction test fails, the Contractor shall correct such failure and pay for any retesting that is required. The District's Representative shall make as many tests as he feels is required to receive a satisfactory and acceptable job.

3.04 STOCKPILING

A. Stockpiling of imported materials or excavated materials shall direct surface water away from approved stockpile site to prevent erosion.

B. After stockpiles are removed, leave area in a clean and neat condition.

3.05 FIELD QUALITY CONTROL

A. Inspection and testing shall be performed by District's Representative.

END OF SECTION

SECTION 32 11 23

AGGREGATE BASE COURSES

PART 1 - GENERAL

1.01 SUMMARY

A. Aggregate base course for curbs, gutters, sidewalks, and fire access driveway.

1.02 RELATED SECTIONS

A. Section 31 20 00 Earthwork.

B. Section 32 16 00 Curbs, Gutters, Sidewalks, and Driveways.

1.03 REFERENCES

A. Standard Specifications for Public Works (SSPWC), latest edition.

B. ASTM Standards.

C. State Standard Specifications (SSS), Caltrans, latest edition.

D. Geotechnical Update, Gymnasium Swing Space, Moorpark College, Moorpark, California, dated June 30, 2017, Project No. 1003.035, prepared by Geotechniques and shall be superseded by the most current version.

1.04 SUBMITTALS:

A. Submit material samples and reports in accordance with requirements of District.

B. Submit samples in sufficient quantities for material testing.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Aggregate Base Material shall be Class 2 Aggregate Base conforming to SSS Section 26-1.02A. Aggregate Base shall have a minimum sand equivalence of 22 and a minimum R-value of 78 and shall be free of organic materials and other deleterious substances.

B. Aggregate Base materials used within building areas shall be free of asphaltic materials.

## PART 3 - EXECUTION

### 3.01 EXAMINATION

A. Verify substrate has been inspected; gradients and elevations are correct, and dry.

### 3.02 AGGREGATE BASE PLACEMENT

A. Aggregate base placement shall conform to the provisions of the SSPWC, Section 301-2

B. Level and contour surfaces to elevations and gradients indicated.

C. Add water to assist compaction. If excess water is apparent, remove aggregate and aerate to reduce moisture content.

D. Where the required aggregate base thickness is 6 inches or less, the watered base may be spread and compacted in one layer. Where the required thickness is more than 6 inches, the aggregate base material shall be spread and compacted in 2 or more layers of approximately equal thickness. The maximum compacted thickness of any one layer shall not exceed 6 inches.

E. Aggregate base course shall be dense and unyielding upon proof-rolling with full water truck.

### 3.03 TOLERANCES

A. Flatness: Maximum variation of 1/4 inch.

B. Scheduled Compacted Thickness shall conform to the provisions of the SSPWC Section 301-2.2.

### 3.04 FIELD QUALITY CONTROL

A. Inspection and testing shall be performed by the District's Testing Laboratory. Compaction testing will be performed in accordance with ASTM D1557, latest edition.

B. If tests indicate work does not meet specified requirements, remove work, replace and retest at Contractor's expense.

END OF SECTION

SECTION 32 16 00

CURBS, GUTTERS, SIDEWALKS

PART 1 – GENERAL

1.01 SUMMARY

A. Concrete for curbs, gutters, sidewalks.

1.02 RELATED SECTIONS

A. Section 31 20 00 – Earthwork

1.03 REFERENCES

A. Standard Specifications for Public Works Construction (SSPWC), latest edition.

B. Geotechnical Update, Gymnasium Swing Space, Moorpark College, Moorpark, California, dated June 30, 2017, Project No. 1003.035, prepared by Geotechniques and shall be superseded by the most current version.

C. ASTM Standards.

1.04 SUBMITTALS

A. Submit the following:

1. Product Data: Provide data on admixtures and curing compounds.

2. Concrete mix design(s).

3. Certificates from the batch plant.

1.05 QUALITY ASSURANCE

A. Perform Work in accordance with the SSPWC, latest edition; and ASTM Standards, latest edition.

B. Obtain cementitious materials from same source throughout.

1.06 ENVIRONMENTAL REQUIREMENTS

A. Do not place concrete when base surface temperature is less than 40 degrees F or surface is wet.

PART 2 – PRODUCTS

2.01 FORM MATERIALS

A. Form Materials: Section 303-5 of the SSPWC.

2.02 CONCRETE MATERIALS

A. Concrete Material for Curbs, Walk (Path of Travel), Pavement, and Cast-in-Place Catch Basin:

1. Class 560-C-3250 for cast-in-place catch basins, curbs, and gutters. Portland cement concrete per Standard Specifications for Public Works Construction Section 201-1.1.2.

2. Concrete reinforcements shall be constructed per the Project Plans and Specifications.

2.03 ACCESSORIES

A. Curing Compound shall conform to SSPWC Section 201-4. Pigmented compound shall not demonstrate any residual coloring of the concrete after one week.

2.04 CONCRETE MIX

A. Mix and deliver concrete in accordance with ASTM C94.

B. Use accelerating admixtures in cold weather only when approved by the District's Representative. Use of admixtures will not relax cold weather placement requirements.

C. Use calcium chloride only when approved by the District 's Representative.

D. Use set retarding admixtures during hot weather only when approved by the District 's Representative.

2.05 CONCRETE REINFORCEMENT

A. Concrete reinforcement shall conform to SSPWC Section 201-2.

2.06 SOURCE QUALITY CONTROL

A. Provide certificates of compliance from the batch plant.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Verify compacted subgrade is acceptable and ready to support imposed loads.

B. Verify gradients and elevations of subgrade are correct.

3.02 PREPARATION

A. Moisten subgrade to minimize absorption of water from fresh concrete. Compact subgrade material to a depth of 12" beneath aggregate base below concrete pavements to 95% relative compaction.

B. Coat surfaces of catch basin frames with oil to prevent bond with concrete pavement.

C. Notify District's Representative a minimum of 24 hours prior to commencement of concrete placement operations.

3.03 FORMING

A. Place and secure forms to correct location, dimension, and profile.

B. Assemble formwork to permit easy stripping and dismantling without damaging concrete.

C. Place joint filler vertical in position, in straight lines. Secure to formwork during concrete placement.

3.04 PLACING CONCRETE

A. Place concrete in accordance with SSPWC Section 303-5.

B. Install ½" thick fiberboard expansion joint and snap cap. Seal with Sikaflex self-leveling sealant after removal of snap cap (typical).

C. Construct weakened plane joints conforming to SSPWC Section 303-5.4.3, one inch deep, at intervals not exceeding 10 feet.

D. The top edges of curbs shall have 0.5" radius.

3.05 FINISHING

A. Concrete finishes shall be per SSPWC Section 303-5.5.3.

B. Portland cement concrete paving shall have a medium salt (medium broom) finish on all surfaces less than or equal to 5% and slip resistant (heavy broom finish) on all surfaces greater than 5%.

C. Walkway grades in excess of 5% shall conform to requirements of Section 1133B.7.3, California Building Code (2010 edition).

D. Place curing compound in accordance with SSPWC Section 303-5.6 on exposed concrete surfaces immediately after finishing. Apply in accordance with manufacturer's instructions.

3.06 FIELD QUALITY CONTROL

A. Inspection and testing shall be performed by the District’s Testing Laboratory.

B. District 's Testing Laboratory will perform slump and compressive strength tests.

C. Contractor shall maintain records of placed concrete items. Record date, location of pour, quantity, air temperature, and test samples taken.

3.07 PROTECTION

A. Immediately after placement, protect pavement from premature drying, excessive hot or cold temperatures, vandalism and mechanical injury.

B. It is the Contractor's responsibility to replace all concrete work subject to vandalism and graffiti at no extra cost to the District.

END OF SECTION

SECTION 33 10 00

WATER UTILITIES

PART 1 – GENERAL

1.01 SUMMARY

A. Pipe and fittings for site water lines.

B. Valves.

C. Fire hydrant.

D. Water meter

E. Backflow preventer.

1.02 RELATED SECTIONS

A. Section 31 20 00 Earthwork.

B. Section 31 23 33 Trenching and Backfilling.

1.03 REFERENCES

A. American Water Works Association Standards (AWWA).

B. Ventura County Water Works Districts - Design Standards.

C. Standard Specifications for Public Works Construction (Green Book), latest edition.

1.04 SUBMITTALS

A. Submit the following:

1. Product Data: Provide data on pipe materials, pipe fittings, valves, and accessories.

2. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

3. Project Record Documents: Record actual locations of piping mains, valves, connections, thrust restraints, and invert elevations. Turn over to the project manager one set of drawings with all deviations from the plans shown in neat, clean and readable red ink.

4. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

5. Disinfection Report:
    a. Type and form of disinfectant used.
    b. Date and time of disinfectant injection start and time of completion.
    c. Test locations.
    d. Name of person collecting samples.
    e. Initial and 24-hour disinfectant residuals in treated water in ppm for each outlet tested.
    f. Date and time of flushing start and completion.
    g. Disinfectant residual after flushing in ppm for each outlet tested.

6. Bacteriological Report:
    a. Date issued, project name, and testing laboratory name, address, and telephone number.
    b. Time and date of water sample collection.
    c. Name of person collecting samples.
    d. Test locations.
    e. Initial and 24-hour disinfectant residuals in ppm for each outlet tested.
    f. Coliform bacteria test results for each outlet tested.
    g. Certify water conforms, or fails to conform, to bacterial standards of AWWA C651 Section 7.1 Standard Conditions

7. Water Quality Certificate: Certify water conforms to quality standards of City of Moorpark, suitable for human consumption.

1.05 PROJECT RECORD DOCUMENTS

A. Accurately record actual locations of piping mains, valves, connections, fire hydrant, and invert elevations.

B. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

1.06 QUALITY ASSURANCE

A. Perform work in accordance with County of Ventura Standards, AWWA, and Standard Specifications for Public Works Construction.

B. Valves: Manufacturer's name and pressure rating marked on valve body.

1.07 QUALIFICATIONS

A. Water Treatment Firm: Company specializing in disinfecting potable water systems specified in this section with minimum three years experience.

B. Testing Firm: Company specializing in testing potable water systems, certified by State of California.

C. Submit bacteriologist's signature and authority associated with testing.

1.08 DELIVERY AND STORAGE

A. Deliver and store valves in shipping containers with labeling in place.

PART 2 – PRODUCTS

2.01 GENERAL

A. All water lines shall be designed for a minimum working pressure of 250 psi. All fittings appurtenant piping materials shall be designed for a minimum working pressure of 250 psi unless otherwise indicated.

2.02 PIPE

A. Joints: Mechanical joints shall be used for the waterline construction unless otherwise shown on plans and standard details. Gaskets for mechanical joints shall be rubber conforming to ANSI A21.11 and AWWA C111.

B. Fittings: Fittings shall be ductile iron rated for 250 psi working pressure. Mechanical joint fittings shall conform to ANSI A21.10 or AWWA C110 (short short body style, not approved). Lining for fittings shall be Plastic Engineering P.E.I. 100 epoxy to a minimum thickness of 10 mils. Fittings shall be wrapped with 6 mil. polyethylene sheet. Grease all underground nuts and bolts before wrapped with the polyethylene sheet.

C. Polyvinyl Chloride (PVC) potable water pipe: Pipe material shall be (Polyvinyl chloride (PVC) pressured pipe shall be manufactured in accordance with AWWA Standard Specification C-900).

2.03 GATE VALVES

A. Conform to AWWA C-509-01.

B. Gate valves shall be iron body, NRS valves with O-ring seals, and shall open when the stem is rotated counterclockwise. The valves shall be designed for a minimum working pressure of 250 psig, have a bronze stem, and have a cast iron wedge with styrene butadiene rubber permanently bonded to the wedge. The valves shall have full port openings for unobstructed flow, be designed for underground service, and be in full compliance with the latest revision of AWWA C509. The valve linings and coatings shall be in accordance with AWWA C210-84. Linings and coatings shall be factory applied. Valves shall be furnished with 2-inch square operating nut. Valve shall be wrapped with 6 mil. polyethylene sheet. Grease all underground nuts and bolts before wrapping with the polyethylene sheet.

2.04 FIRE HYDRANT

A. Per County of Ventura Plans & Specifications.

2.05 WATER METER

A. Not Applicable.

2.06 BACKFLOW PREVENTER

A. Per County of Ventura Plans & Specifications.

B. Backflow preventer shall be lead free and USC approved.

2.07 ACCESSORIES

A. Concrete for Thrust Blocks: Contractor shall construct concrete thrust block per County of Ventura Standards.

B. Thrust blocks shall be constructed to bear against undisturbed earth and shall not bear against adjacent pipe, fittings, or valves. Where concrete must be poured around adjacent pipe, a block out or a short pipe length shall be used such that a flexible joint exists within 12 inches of each side of thrust block, unless indicated otherwise on the plans. Concrete shall not be allowed to set in contact with pipe surfaces or to enter or come in contact with any joint.

C. Valve Appurtenances: The Contractor shall furnish and install all valve appurtenances. Provide two galvanized T-handled operating wrenches, 4 feet total length or as required to easily access valve from grade.

D. Valve box body shall be unreinforced concrete 8 ¾" inside diameter traffic box with cast iron ring. The valve box cover shall be cast iron. Both valve body and cover shall be Christy G3 or equal. The cover shall be marked "water." The cover of each valve box shall be provided with a 2" diameter bronze disc and the Contractor shall stamp the valve number on the disc per the Architect's instructions. The disc shall be mounted to the valve box cover or higher using stainless steel screws. The extension piece shall be 8" in diameter, Class 150 P.V.C. water line conforming to the requirements of AWWA C-900.

E. Appropriate warning detector tape shall be placed over all utilities.

1. Underground detectable warning tape shall be placed over all non-metallic underground utilities.

2. 12-gauge copper continuous location wire shall be placed on all water mains.

F. Corrosion-Protection Encasement for Piping

1. Encasement for Underground Metal Piping and Fittings: AWWA C105, Polyethylene film, 10 mil minimum thickness, tube or sheet. Plastic wrap shall be clear or black. Purple wrap shall not be used.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Verify the existing water main sizes, class of pipes, and locations as indicated.

B. Verify piping system has been cleaned, inspected, and pressure tested.

C. Perform scheduling and disinfecting activity with start-up, water pressure testing, adjusting and balancing, demonstration procedures, including coordination with related systems

3.02 PREPARATION

A. Remove scale and dirt, on inside and outside, before assembly.

B. Prepare pipe connections to equipment with flanges or unions.

3.03 BEDDING

A. Excavate pipe trench in accordance with Specification Section 31 23 33 for work of this section. Hand trim excavation for accurate placement of pipe to elevations indicated.

B. Place bedding material at trench bottom, level fill materials in one continuous layer not exceeding 6 inches compacted depth, compact to a minimum of 95 percent relative compaction.

C. The compaction of the backfill material along the sides and one foot above the pipe shall be done with hand tampers to protect the pipe. Jetting is not permitted to obtain required compaction.

D. Maintain optimum moisture content of bedding material to attain required compaction density.

3.04 INSTALLATION - PIPE

A. Route pipe in straight line.

B. Install pipe to allow for expansion and contraction without stressing pipe or joints.

C. Install access fittings to permit disinfection of water system.

D. Form and place concrete for thrust blocks at each elbow or change of direction of pipe main in accordance with County of Ventura Standard Plans & Specifications.

E. Protect metal restrained joint components against corrosion by applying a bituminous coating by coating with non-oxide corrosion resistant greased 10 mil plastic wrap.

F. Establish elevations of buried piping to ensure cover conforming to District Standards. The minimum cover from the finish grade to the top of pipe is 36 inches for potable and

fire waterline, any shallower cover to clear with the existing utility crossings shall be reviewed and approved by the District's Representative.

G. Install 12 gauge copper continuous location wire over top of pipe.

H. Backfill trench in accordance with Specification Section 31 23 33.

I. Maintain separation of water main from sewer piping in accordance with the State Department of Health Services, Criteria for the Separation of Water Mains and Sanitary Sewers (Section 64630, Title 22 California Administrative Code), and State Regional Water Quality Control Board.

J. All pipe laid in trench which is to be left for further extension (i.e., end of work day) shall have its open end covered to protect from possible rodent intrusion.

3.05 INSTALLATION - VALVES

A. Set valves on solid bearing per County of Ventura Standard Plans & Specifications.

B. Center and plumb valve box over valve. Set box cover flush with finished grade.

C. Install brass valve 1 ½" diameter tags and imprint valve number per District.

3.06 SERVICE CONNECTIONS

A. Install service connections in accordance with County of Ventura Standard Plans & Specifications.

3.07 PRESSURE TEST OF WATER PIPING SYSTEM

A. Water piping system shall be pressure tested for 2 hours at 200 psi, with no allowable drop in water pressure.

B. All leakage tests shall be completed and approved prior to placing of permanent resurfacing.

C. Pressure test shall be witnessed by District's inspector.

3.08 DISINFECTION AND BACTERIA TESTING OF WATER PIPING SYSTEM

A. Water piping system shall be disinfected and flushed per AAWA Section C651.

B. Upon completion of retention period required for disinfection, flush pipeline until chlorine concentration in water leaving pipeline is no higher than that generally prevailing in existing system or is acceptable for domestic use.

C. Legally dispose of chlorinated water. When chlorinated discharge may cause damage to environment, apply neutralizing chemical to chlorinated water to neutralize chlorine residual remaining in water.

D. After final flushing and before pipeline is connected to existing system, or placed in service, employ an approved independent testing laboratory to sample, test and certify water quality suitable for human consumption.

3.09 TEST RECORDS

A. Records shall be made of each piping system installation during the test. These records shall include:

1. Date of test.

2. Description and identification of piping tested.

3. Test fluid.

4. Test pressure.

5. Remarks to include such items as:

a. Leaks (type, location).
b. Repairs made on leaks.

6. Certification by Contractor and signed acknowledgment by the District's Representative.

3.10 FIELD QUALITY CONTROL

A. Inspection and testing shall be performed by District's Representative.

B. Perform pressure test on potable water distribution system in accordance with County of Ventura Standard Plans & Specifications except that there is no allowable leakage for the duration of the test.

1. Slowly bring piping to test pressure and allow system to stabilize prior to conducting leakage test. Do not open or close valves at differential pressures above rated pressure.

2. Examine exposed piping, fittings, valves, hydrants, and joints carefully during hydrostatic pressure test. Repair or replace damage or defective pipe, fittings, valves, hydrants, or joints discovered, following pressure test.

END OF SECTION

SECTION 33 40 00

STORM DRAINAGE UTILITIES

PART 1 - GENERAL

1.01 SUMMARY

A. Storm drainage piping, fittings, accessories, and bedding.

B. Catch basins.

C. Manholes.

D. Inlet and outlet structures.

1.02 RELATED SECTIONS

A. Section 31 20 00 Earthwork.

B. Section 31 23 33 Trenching and Backfilling.

1.03 REFERENCES

A. Standard Specifications for Public Works Construction (SSPWC), latest edition.

B. ASTM Standards.

1.04 SUBMITTALS

A. Submit the following in accordance with provisions in Division 1:

1. Product Data: Provide data indicating pipe, pipe accessories and catch basin grates.

2. Manufacturer's Installation Instructions: Indicate special procedures required to install Products specified.

3. Manufacturer's Certificate: Certify that products meet or exceed specified requirements.

4. Layout diagram for storm drain components per plan.

1.05 PROJECT RECORD DOCUMENTS

A. Submit record drawings. Accurately record locations of pipe runs, connections, catch basins, structures, manholes and invert elevations.

B. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

1.06 FIELD MEASUREMENTS

A. Verify that field measurements and elevations are as indicated on drawings.

B. Complete pothole work per plans and notify the District of any discrepancy prior to commencing construction.

1.07 COORDINATION

A. Coordinate the work with connection to existing storm drain mains, and trenching.

PART 2 – PRODUCTS

2.01 PIPE MATERIALS

A. Polyvinyl Chloride (PVC) SDR35, per SSPWC Section 207-17.

2.02 PIPE ACCESSORIES

A. Fittings: Same material as pipe molded or formed to suit pipe size and end design, in required tee, bends, elbows, cleanouts, reducers, traps and other configurations required. Fittings shall be watertight.

B. Solvent cap cement: pipe with solvent cement joints per SSPWC Section 207-17.3.3.

2.03 CATCH BASINS AND MANHOLES

A. Precast catch basins shall include traffic rated grate, as manufactured by Brooks or approved equal 3.

B. Cast-in-Place catch basins per Utility Improvement Plan.

2.04 METAL

A. All exposed metal parts are to be galvanized in accordance with SSPWC, Section 210-3.

2.05 CONCRETE

A. All concrete shall be Class 560-C-3250, per SSPWC Section 201.

2.06 BEDDING MATERIALS

A. Refer to Specification Section 31 23 33 Trenching and Backfilling for Bedding Material.

2.07 FILTER FABRIC

A. Filter fabric shall be non-woven geosynthetic per SSPWC Section 213-2.

PART 3 – EXECUTION

3.01 EXAMINATION

A. Verify that trench cut is ready to receive Work and excavations, dimensions, and elevations are as indicated on Drawings.

3.02 PREPARATION

A. Hand trim excavations to required elevations. Correct over excavation with compacted bedding material.

B. Remove large stones or other hard matter which could damage piping or impede consistent backfilling or compaction.

3.03 BEDDING

A. Excavate pipe trench in accordance with Specification Section 31 23 33. Hand trim excavation for accurate placement of pipe to elevations indicated on Drawings.

B. Place bedding material in trench bottom, level materials in continuous layer. Bedding shall be 1/2 of pipe diameter or 4" minimum thickness whichever is greater, compact to a minimum of 95 percent of maximum dry density.

C. Maintain optimum moisture content of bedding material to attain required compaction density.

3.04 INSTALLATION - PIPE

A. Install pipe, fittings, and accessories in accordance with manufacturer's instructions. Construct tongue-and-groove mortar type of joint on RCP per SSPWC Section 207-2.5.

B. Lay pipe to slope gradients noted on drawings; with maximum variation from true slope of 1/8 inch in 10 feet.

C. Install sand backfill along sides and over top of pipe. Provide sand backfill over top of pipe to minimum compacted thickness of 12 inches, compacted to a minimum of 95 percent of maximum dry density.

D. Refer to Specification Section 31 23 33 for Trenching Requirements. Do not displace or damage pipe when compacting.

E. The compaction of the backfill material along the sides and one foot above the pipe shall be done with hand tampers or equal to protect the pipe.

3.05 INSTALLATION - CATCH BASINS, MANHOLES

A. Form bottom of excavation clean and smooth to correct elevation.

B. Form and place cast-in-place concrete base with provisions for storm drainage pipe end sections.

C. Level top surface of concrete base to receive shaft sections.

D. Establish elevations and pipe inverts for inlets and outlets as indicated on drawings.

E. Compact top 12" of native materials below the bottom of catch basins and manholes to minimum 95 percent of maximum dry density.

3.06 FIELD QUALITY CONTROL

A. Inspection and testing shall be performed by the District's representative.

B. Request inspection prior to and immediately after placing backfill cover over pipe.

C. If tests indicate work does not meet specified requirements, remove work, replace and retest at no cost to the District.

3.07 PROTECTION

A. Protect pipe and backfill cover from damage or displacement until backfilling operation is in progress.

END OF SECTION