

## **Project Specifications**

**For**

## **Rowland Unified School District**

**1830 S. Nogales Street  
Rowland Heights, California**

**Subject:**

**Ruth Richard Food Center  
Steam Boiler System Replacement**

**Bid#2017/18(R7)**

**Bid Opening**

**May 31, 2018  
10:00 a.m.**

**BID SET**

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## NOTICE CALLING FOR BIDS

DISTRICT	ROWLAND UNIFIED SCHOOL DISTRICT
PROJECT DESCRIPTION	RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT; RFP# 2017/18(R7)
LATEST TIME/DATE FOR SUBMISSION OF BID PROPOSALS	10:00 a.m. May 31, 2018
LOCATION FOR SUBMISSION OF BID PROPOSALS	ROWLAND UNIFIED SCHOOL DISTRICT PURCHASING OFFICE 1830 S. NOGALES STREET ROWLAND HEIGHTS, CA 91748

**NOTICE IS HEREBY GIVEN** that the ROWLAND UNIFIED SCHOOL DISTRICT (District), acting by and through its Board of Education, will receive up to, but not later than the above-stated date and time, sealed Bid Proposals for the Contract for the Work generally described as:

**RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT;  
RFP 2017/2018(R7)**

1. Submittal of Bid Proposals. All Bid Proposals must be submitted on forms furnished by the District prior to the last time for submission of Bid Proposals and the District's public opening and reading of Bid Proposals.
2. Bid and Contract Documents. The Bid and Contract Documents are available at the location stated above. The Project Manual, Specifications and Contract Drawings will be furnished in a USB and may be downloaded from our District's website at [www.rowlandschools.org](http://www.rowlandschools.org). Bidder shall be responsible, and at their expense, for printing of the documents.
3. Project Planholder List. The District's Project Planholder List will be compiled exclusively from the sign-in sheet at the Mandatory Job Walk. Any Bidder failing to sign-in at the Mandatory Job Walk will be excluded from Project Planholder List and their Bid Proposal will be rejected by the District as being non-responsive. All Project Planholders will receive e-mails from the District advising of any and all Project Addenda issued by the District. Bidders bear sole responsibility for downloading the Project Addenda from the District's website, [www.rowlandschools.org](http://www.rowlandschools.org). The District will not fax Project Addenda to Planholders.
4. Pre-Qualification. Pre-Qualification packets must be returned to the District Purchasing Office before 10:00 AM on May 23, 2018. Contact the Purchasing Office for an application packet or from the District website <http://rowlandschools.org/OurDistrict>.
  - Local-Funded Contracts. Contractors must be pre-qualified prior to bidding District projects.
  - State-Funded Contracts Over \$1,000,000. All general contractors and/or electrical, mechanical and/or plumbing subcontractors must be pre-qualified prior to bidding District projects in compliance with Public Contract Code §20111.6.
5. Documents Accompanying Bid Proposal. Each Bid Proposal shall be submitted with the following documents. All information or responses of a Bidder in its Bid Proposal and other documents accompanying the Bid Proposal shall be complete, accurate and true; incomplete, inaccurate or

untrue responses or information provided therein by a Bidder shall be grounds for the District to reject such Bidder's Bid Proposal for non-responsiveness.

Bid Security	Statement of Bidder's Qualifications
Subcontractors List	DIR Registration Verification
Non-Collusion Affidavit	

In addition to the foregoing, the Bidders submitting the three (3) lowest priced Bid Proposals shall submit DVBE Worksheets within the time established in the DVBE Program Policy.

6. Prevailing Wage Rates. Pursuant to California Labor Code §1773, the Director of the Department of Industrial Relations of the State of California has determined the generally prevailing rates of wages in the locality in which the Work is to be performed. Copies of these determinations, entitled "PREVAILING WAGE SCALE" are available for review on the internet at [http://www.dir.ca.gov/dlsr/statistics\\_research.html](http://www.dir.ca.gov/dlsr/statistics_research.html). The Contractor awarded the Contract for the Work shall post a copy of all applicable prevailing wage rates for the Work at conspicuous locations at the Site of the Work. The Contractor and all Subcontractors performing any portion of the Work shall pay not less than the applicable prevailing wage rate for the classification of labor provide by their respective workers in prosecution and execution of the Work. During the Work and pursuant to Labor Code §1771.4(a)(4), the Department of Industrial Relations shall monitor compliance with prevailing wage rate requirements and enforce the Contractor's prevailing wage rate obligations.
  
7. Contractors' License Classification. Bidders must possess the following classification(s) of California Contractors License at the time that the Bid Proposal is submitted and at time the Contract for the Work is awarded: **C-4 Boiler, Hot-Water Heating; Steam Fitting.** The Bid Proposal of a Bidder who does not possess a valid and in good standing Contractors' License in the classification(s) set forth above will be rejected for non-responsiveness. Any Bidder not duly and properly licensed is subject to all penalties imposed by law. No payment shall be made for the Work unless and until the Registrar of Contractors verifies to the District that the Bidder awarded the Contract is properly and duly licensed for the Work.
  
8. Bidder and Subcontractors DIR Registered Contractor Status. Each Bidder must be a DIR Registered Contractor when submitting a Bid Proposal. The Bid Proposal of a Bidder who is not a DIR Registered Contractor when the Bid Proposal is submitted will be rejected for non-responsiveness. All Subcontractors identified in a Bidder's Subcontractors' List must be DIR Registered contractors at the time the Bid Proposal is submitted. The foregoing notwithstanding a Bid Proposal is not subject to rejection for non-responsiveness for listing Subcontractor the Subcontractors List who is/are not DIR Registered contractors if such Subcontractor(s) complete DIR Registration pursuant to Labor Code §1771.1(c)(1) or (2). Further, a Bid Proposal is not subject to rejection if the Bidder submitting the Bid Proposal listed any Subcontractor(s) who is/are not DIR Registered contractors and such Subcontractor(s) do not become DIR Registered pursuant to Labor Code §1771.1(c)(1) or (2), but the Bidder, if awarded the Contract, must request consent of the District to substitute a DIR Registered 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.
  
9. Contract Time. Substantial Completion of the Work shall be achieved within the time set forth in Contract Documents after the date for commencement of the Work established in the Notice to Proceed issued by the District. Failure to achieve Substantial Completion within the Contract Time will result in the assessment of Liquidated Damages as set forth in the Contract.

10. Disabled Veteran Business Enterprises (“DVBE”) Participation Goal. Pursuant to Military & Veterans Code §999.2, the District has established a Good Faith Participation Goal for DVBEs of three percent (3%) of the value of the Work. The District’s DVBE Participation Goal Policy (“DVBE Policy”) is set forth in the Contract Documents. The responsible Bidders submitting the three (3) lowest priced responsive Bid Proposals shall submit to the District, within the time established in the DVBE Policy, DVBE Worksheets establishing achievement of the DVBE Participation Goal or Good Faith Efforts to achieve the DVBE Participation Goal. Failure of any such Bidders to comply with the DVBE Worksheet submission requirements will result in rejection the Bidder’s Bid Proposal for non-responsiveness.
11. Bid Security. Each Bid Proposal shall be accompanied by Bid Security in an amount equal to TEN PERCENT (10%) of the maximum amount of the Bid Proposal, inclusive of any additive Alternate Bid Item(s). Failure of any Bid Proposal to be accompanied by Bid Security in the form and in the amount required shall render such Bid Proposal to be non-responsive and rejected by the District.
12. Payment Bond; Performance Bond. Prior to commencement of the Work, the Bidder awarded the Contract shall deliver to the District a Payment Bond and a Performance Bond issued by a California Admitted Surety in the form and content included in the Contract Documents each of which shall be in a penal sum equal to One Hundred Percent (100%) of the Contract Price.
13. Pre-Bid Inquiries. Bidders may submit pre-bid inquiries or clarification requests. Bidders are solely and exclusively responsible for submitting such inquiries or clarification requests not less than FIVE (5) prior to the scheduled closing date for the receipt of Bid Proposals. The District will not respond to any bidder inquiries or clarification requests, unless such inquiries or clarification requests are submitted timely to: **Trek Engineering, Inc. on or before May 23, 2018, no later than 10:00 a.m. by e-mail only to William Neal [wneal@trekengineering.com](mailto:wneal@trekengineering.com) and Rosana McLeod at [rmcleod@rowlandschools.org](mailto:rmcleod@rowlandschools.org).**
14. No Withdrawal of Bid Proposals. Bid Proposals shall not be withdrawn by any Bidder for a period of **sixty (60) days** after the opening of Bid Proposals. During this time, all Bidders shall guarantee prices quoted in their respective Bid Proposals.
15. Job-Walk. The District will conduct a **Mandatory Job Walk on May 16, 2018**, beginning at **10:00 a.m.** **Bidders are to meet at Ruth Richard Food Center, 4032 S. Ellesford Ave., West Covina, CA 91792**, for conduct of the Job Walk. If the Job Walk is mandatory, the Bid Proposal submitted by a Bidder whose representative(s) did not attend the entirety of the Mandatory Job Walk will be rejected by the District as being non-responsive.
16. Substitute Security. In accordance with the provisions of California Public Contract Code §22300, substitution of eligible and equivalent securities for any monies withheld by the District to ensure the Contractor’s performance under the Contract will be permitted at the request and expense of the Contractor and in conformity with California Public Contract Code §22300. The foregoing notwithstanding, the Bidder to whom the Contract is awarded shall request consent of the District to substitute securities for retention not later than the time of submitting the first Application for Progress Payment. The failure to request consent of the District in accordance with the foregoing be deemed a waiver of the Bidder’s rights under California Public Contract Code §22300.
17. Waiver of Irregularities. 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.
18. Award of Contract. The Contract for the Work, if awarded, will be by action of the District’s Board of Education to the responsible Bidder submitting the lowest priced responsive Bid Proposal. If Alternate Bid Items are included in the bidding, the lowest Bid Proposal Amount will be determined on the basis of the Base Bid Proposal or on the Base Bid Proposal and the combination of

Alternate Bid Items selected in accordance with the applicable provisions of the Instructions for Bidders. **We anticipate awarding this contract on June 14, 2018.**

19. Essential Bid Requirements. Bidder has completed within the last five (5) years one (1) or more Steam Boiler/Steam Piping Projects.

20. Budgeted Amount: \$

ROWLAND UNIFIED SCHOOL DISTRICT

Advertisement publication dates: **May 1, 2018** and **May 8, 2018**.

**[END OF SECTION]**



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**INSTRUCTIONS FOR BIDDERS**

1. **Preparation and Submittal of Bid Proposal.**
  - 1.1. **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. Partially completed Bid Proposals or Bid Proposals submitted on other than the bid forms included herein are non-responsive and will be rejected. 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.
  - 1.2. **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.
  - 1.3. **Date and Time of Bid Proposal Submittal.** A Bid Proposal is submitted only if the outer envelope containing the Bid Proposal is marked with the Project title and is received by a District Purchasing Department representative for logging-in at (or before) the latest date and time for submittal of Bid Proposals. The official U.S. time-clock website: <http://www.time.gov/timezone.cgi?Pacific/d/-8/java> is controlling and determinative as to the time of the Bidder’s submittal of the Bid Proposal. The foregoing notwithstanding, whether or not Bid Proposals are opened exactly at the time fixed in the Call for Bids, no Bid Proposals shall be received or considered by the District after it has commenced the public opening and reading of Bid Proposals; Bid Proposals submitted after such time are non-responsive and will be returned to the Bidder unopened.
2. **Bid Security.** Each Bid Proposal shall be accompanied by Bid Security in the form of: (i) cash, (ii) a certified or cashier’s check made payable to the District or (iii) a Bid Bond, in the form and content attached hereto, in favor of the District executed by the Bidder as a principal and a Surety as surety (the “Bid Security”) in an amount equal to Ten Percent (10%) of the Bid Proposal amount, inclusive of the price(s) proposed for additive Alternate Bid Items, if any. A Bid Proposal submitted without the required Bid Security is non-responsive and will be rejected. If the Bid Security is in the form of a Bid Bond, the Bidder’s Bid Proposal shall be deemed responsive only if the Bid Bond is in the form and content included herein, duly completed and executed (with notary acknowledgements) on behalf of the Bidder and Surety, and the Surety is an Admitted Surety Insurer under Code of Civil Procedure §995.120.
3. **Documents Accompanying Bid Proposal; Signatures.** Documents which must be submitted with each Bid Proposal are identified in the Call for Bids. Any document submitted with a Bid Proposal which is not complete, accurate and executed, as required by each document, will result in the Bid Proposal being deemed non-responsive.
4. **Bidder Modifications; Withdrawal or Modification of Submitted Bid Proposal.**
  - 4.1. **Bidder Modifications to Bid Forms Prohibited.** Modifications by a Bidder to the bid forms which are not specifically called for or permitted may result in the Bidder’s Bid Proposal being deemed non-responsive and rejected.
  - 4.2. **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, interlineations 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, whether by virtue of any erasures, interlineations, corrections or otherwise, the District may

reject such a Bid Proposal as being non-responsive.

- 4.3. Withdrawal or Modification of Submitted Bid Proposal. A Bidder may not withdraw or modify a Bid Proposal submitted to the District except in strict conformity to the following. Bid Proposals may be withdrawn or modified only if: (i) the Bidder submitting the Bid Proposal submits a request for withdrawal or modification in writing to the District; and (ii) the written withdrawal or modification request is actually received by the District prior to the latest date/time for submittal of Bid Proposals. Requests for withdrawal of a Bid Proposal after the public opening of Bid Proposals pursuant to Public Contract Code §5100, et seq. will be considered only if in strict conformity with requirements of Public Contract Code §5100, et seq.
5. Examination of Site and Contract Documents. Each Bidder shall, at its sole cost and expense, inspect the Site and to become fully acquainted with the Contract Documents and conditions affecting the Work. 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, 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 which are not in the form of Bid Addenda duly issued by the District. The submission of a Bid Proposal shall be deemed prima facie evidence of the Bidder's full compliance with the requirements of this section.
6. Agreement and Bonds Upon Award of Contract. If the Bidder submitting this Bid Proposal is awarded the Contract, the undersigned will execute and deliver to the District the Contract in the form attached hereto **within five (5) calendar days after notification of award of the Contract.** Concurrently with delivery of the executed Agreement to the District, the Bidder awarded the Contract shall deliver to the District: (a) Certificates of Insurance evidencing all insurance coverage required under the Contract Documents; (b) the Performance Bond; (c) the Labor and Material Payment Bond; (d) the Certificate of Workers' Compensation Insurance; (e) the Drug-Free Workplace Certificate; (f) Fingerprint Certificates; and (g) Roof Project Financial Disclosure Certificates, if required. Failure of the Bidder awarded the Contract to strictly comply with the preceding may result in the District's rescission of the award of the Contract and/or forfeiture of the Bidder's Bid Security. In such event, the District may, in its sole and exclusive discretion elect to award the Contract to the responsible Bidder submitting the next lowest Bid Proposal, or to reject all Bid Proposals. The required number of executed copies of the Agreement and the form and content of the Performance Bond and the Payment Bond and other documents or instruments required at the time of execution of the Agreement are specified in the Contract Documents.
7. Pre-Bid Questions; Contract Document Interpretation and Modifications.
- 7.1. Bidder Pre-Bid Questions. Any Bidder in doubt as to the true meaning of any part of the Contract Documents; finds discrepancies, errors or omissions therein; or finds variances in any of the Contract Documents with the Laws ("Pre-Bid Questions"), shall submit a request for an clarification, interpretation or correction thereof using the form of Pre-Bid Inquiry included with the Contract Documents. Bidders are solely and exclusively responsible for submitting Pre-Bid Questions no later than the time/date designated in the Call for Bids. Responses to Pre-Bid Questions will be by written addendum issued by, or on behalf of, the District. A copy of any such addendum will be mailed or otherwise delivered to each Bidder receiving a set of the Contract Documents. 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.
- 7.2. No Oral Interpretations. No person is authorized to: (i) render an oral interpretation or correction of any portion of the Contract Documents; or (ii) provide oral responses to Pre-Bid Questions. No Bidder is authorized to rely on any such oral interpretation, correction or

response.

8. District's Right to Modify Contract Documents. Before the public opening and reading 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 obtained a copy of the Specifications, Drawings and Contract Documents pursuant to the Call for Bids. If the District issues any addenda during the bidding, the failure of any Bidder to acknowledge such addenda in its Bid Proposal will render the Bid Proposal non-responsive and rejected.
9. Bidder's Assumptions. The District is not responsible for any assumptions made or used by the Bidder in calculating its Bid Proposal Amount including, without limitation, assumptions regarding costs of labor, materials, equipment or substitutions/alternatives for any material, equipment, product, item or system incorporated into or forming a part of the Work which have not been previously expressly approved and accepted by the District. The successful Bidder, upon award of the Contract by the District, if any, will be required to complete the Work for the amount bid in the Bid Proposal within the Contract Time and in accordance with the Contract Documents.
10. Bidders Interested in More Than One Bid Proposal; Non-Collusion Affidavit. 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 disqualified from submitting a sub-proposal, quoting prices to other Bidders or submitting a Bid Proposal for the proposed Work to the District. The form of Non-Collusion Affidavit included in the Contract Documents must be completed and duly executed on behalf of the Bidder; failure of a Bidder to submit a completed and executed Non-Collusion Affidavit with its Bid Proposal will render the Bid Proposal non-responsive.
11. Award of Contract.
  - 11.1. 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.
  - 11.2. Award to Lowest Responsive Responsible Bidder. The award of the Contract, if any, will be made by the District through action of its Board of Education and will be to the responsible Bidder submitting the lowest priced responsive Bid Proposal on the basis specified in this article.
  - 11.3. **Not Applicable for this Project** - Alternate Bid Items Proposal. If the bidding includes Alternate Bid Items, the price(s) proposed by a Bidder for each Alternate Bid Item shall be set forth in the form of Alternate Bid Items Proposal, included as Attachment A to the form of Bid Proposal. Each Bidder shall submit its completed and executed form of Alternate Bid Items Proposal concurrently with submission of the Bidder's Bid Proposal, provided that the page(s) forming the Alternate Bid Items Proposal shall be submitted by each Bidder in a separate sealed envelope, prominently marked "ALTERNATE BID ITEMS PROPOSAL." **The Bid Proposal of a Bidder will be rejected for non-responsiveness if the Bidder fails to: (i) propose prices for each Alternate Bid Item on the form Alternate Bid Items Proposal; and/or (ii) submit the completed/executed form of Alternate Bid Items Proposal concurrently with submission of the Bid Proposal.**
  - 11.4. Determination of Lowest Responsive Bid. The lowest responsive bid for the Work shall be determined as follows:
    - The lowest bid shall be the lowest bid price on the base contract without consideration of the prices on the additive or deductive alternate items.*
    - The lowest bid shall be the lowest bid price on the base contract including unit price*

*items but without consideration of the prices on the additive or deductive alternate items.*

- The lowest bid shall be the lowest total of the bid prices on the base contract and those additive or deductive alternate items that are specifically identified herein as being used for the purpose of determining the lowest bid price and include Alternates:*
- \_\_\_\_\_.

- The lowest bid shall be the lowest total of the bid prices on the base contract and those additive or deductive alternate items that when taken in order from the following specifically identified list of those items, and added to, or subtracted from, the base contract, are less than, or equal to, a funding amount in the sum of \_\_\_\_\_ Dollars (\$\_\_\_\_\_):*
- Alternates:*\_\_\_\_\_.

- The selection of Alternate Bid Items for inclusion in the scope of the Work of the Contract to be awarded and for determination of the lowest Bid Proposal based upon the Base Bid Proposal and the combination of Alternate Bid Items selected for inclusion in the Contract to be awarded will be by a blind-bidder process. After opening timely submitted Bid Proposals and before the public reading of Bid Proposals, District clerical staff ("Clerical Staff") who will not be engaged in the selection of Alternate Bid Items for inclusion in the Contract to be awarded will assign each Bidder an alphabetical letter for identification purposes. The Clerical Staff will mask all portions of the Bid Proposal and other documents submitted with Bid Proposals so that the identity of each Bidder is not revealed. The Clerical Staff will maintain a list ("the Bidders List") which identifies by name and the alphabetical letter assigned by the Clerical Staff to each Bidder. After completing the Bidders List, the Clerical Staff will publicly read the Bid Proposals amounts of each Bidder for the Base Bid as well as each Alternate Bid Item. In this public reading of Bid Proposals, Bidders will not be identified by name; Bidders will be identified only by alphabetical letter assigned to each Bidder by the Clerical Staff. After the public reading of Bid Proposals, the Clerical Staff will provide the District's staff responsible for selection of Alternate Bid Items for inclusion in the Contract to be awarded ("District Project Staff") copies of Bid Proposals with the identities of Bidders masked; Bid Proposals reviewed by the District Project Staff will identify Bidders only by alphabetical letters. At such time as District Project Staff have completed review of Bid Proposals and made a determination of which Bidder (by the alphabetical letter assigned by Clerical Staff) has submitted the lowest priced Bid Proposal on the basis of the Base Bid Proposal and any combination of Alternate Bid Items as determined by the Architect and the District Project Staff, the Clerical Staff will make available to the Project Staff the Bidders List so that the identity of the Bidder to be awarded the Contract can be identified. Until such time as the District Project Staff have completed review of Bid Proposals and determination of which Bidder has submitted the lowest Bid Proposal, there will be no communication between the Clerical Staff and the Architect or the District Project Staff regarding the identities of Bidders or disclosure of any portion of the Bidders List.*

11.5. Responsive Bid Proposal. A responsive Bid Proposal shall mean a Bid Proposal which conforms to and complies with requirements of the Bid and Contract Documents. A Bid Proposal that does not conform to material bidding requirements, as reasonably determined by the District, is subject to rejection for non-responsiveness.

11.6. Hearing re Rejected Bid. If a Bidder's bid is rejected by the District, that Bidder may request a hearing on that rejection: (i) if the District issues a notice of intent to award a contract to a Bidder whose bid is higher than the bid that was rejected; and (ii) the Bidder strictly complies with the following provisions relating to time limitations for requesting a

hearing. To be considered by the District, such a request for a hearing must be in writing and submitted to the District's Vice President, Chief Business Officer, Rowland Unified School District, 1830 S. Nogales Street, Rowland Heights, CA 91748 and must be actually received by the District's Vice President, Chief Business Officer by the earlier of: (i) 5:00 PM one (1) business day after the District's notice to the Bidder of the District's rejection of the Bidder's Bid Proposal; or (ii) 5:00 PM one (1) business day after the date of the District's notice of intent to award a contract. If a Bidder does not request a hearing in strict conformity with the foregoing, such Bidder shall be deemed to have knowingly and voluntarily waive rights to a hearing. The District will grant or deny such request for a hearing based on the holding of the California Court of Appeal in *Great West Contractors, Inc. v. Irvine Unified School District* (2010) 187 Cal. App. 4th 1425. If a Bidder timely requests a hearing pursuant to the foregoing, the District will notify such Bidder in writing by 5:00 PM two (2) business days after the date of the Bidder's request for hearing is submitted of the District grant or denial of such a hearing. If the District grants a hearing, the District will schedule the hearing for a date not less than three (3) business days after the date of such notice to the Bidder requesting a hearing. If the District holds such a hearing, any Bidder may at its own expense: i) be represented at the hearing by legal counsel; ii) record the proceedings by court reporter; iii) present oral and/or written statements and/or other documents.

11.7. Responsible Bidder.

11.7.1. Bidder Capacity. Factors affecting the Bidder's capacity to perform and complete the Work will be assessed, including: (i) Bidder's access to labor, materials and other resources necessary to complete the Work; (ii) Bidder's ability to complete the Work within the time established for completion of the Work, or portions thereof; and (iii) Bidder's ability to complete warranty obligations.

11.7.2. Bidder Character, Integrity. Factors reflecting the character and integrity of the Bidder, including: (i) other public agency finding/determination, within the past five (5) years, that the Bidder is not responsible; (ii) currently debarred from bidding public works projects or debarment from bidding within past five (5) years; and (iii) false claims liability within the past five (5) years under local, state or federal laws.

11.7.3. Bidder Financial Capability. Factors considered include: (i) sufficiency of the Bidder's financial resources; (ii) whether the Bidder is current in payment of debts and performance of other financial obligations; and (iii) bankruptcy or insolvency proceedings have been instituted within the past five (5) years.

11.7.4. Bidder Prior Performance. The Bidder's prior performance on prior public works contracts, including without limitation: (i) cost overruns; (ii) compliance with general conditions and other contractual requirements, including schedule development, schedule updates and coordination of labor, material/equipment procurements and subcontractors; (iii) completion within allocated time; (iv) submittal of unsubstantiated, unsupported or excessive cost proposals, claims or contract adjustment requests; (v) completion of a project by a surety; (vi) owner's exercise of default remedies; and (vii) finding or determination by any public agency that the Bidder is not a responsible bidder.

11.7.5. Safety. Factors include: (i) findings of serious or willful safety violations of safety laws, regulations or requirements by any local, state or federal agency within the past five (5) years; (ii) adequacy and implementation of safety plans, programs for on-site and off-site construction and construction related activities; and (iii) Workers Compensation Insurance EMR rating exceeding 1.25.

12. Subcontractors.

12.1. Designation of Subcontractors; Subcontractors List. In accordance with Public Contract Code §4104, the Subletting and Subcontracting Fair Practices Act (California Public Contract Code §§4100 et seq.), each Bidder shall submit, on the form of Subcontractors List included with the Contract Documents, a list of its proposed Subcontractors for the proposed Work, including any Alternate Bid Items, who will perform/provide portions of the Work valued

at or more than one-half (1/2) of one percent (1%) of the amount proposed by the Bidder for the Work. The Subcontractors List consists of five (5) columns, each of which requires the Bidder's disclosure of information relating to each listed Subcontractor as follows:

- Column A Name of Subcontractor
- Column B Subcontractor's Address
- Column C Subcontractor's Portion of the Work
- Column D Subcontractor's California Contractors' License
- Column E Subcontractor DIR Registration

Columns A, B, C and D of the Subcontractors List must be completed by the Bidder for each Subcontractor identified by the Bidder in its Subcontractors List submitted concurrently with the Bidder's Bid Proposal. If Column E of the Subcontractors List is/are not completed on the form of Subcontractors List submitted by a Bidder concurrently with its Bid Proposal, such Bidder shall submit the information required by Column E, as applicable, of the Subcontractors List for each listed Subcontractor within twenty-four (24) hours after the latest date/time for submission of Bid Proposals. Failure of a Bidder to comply with the foregoing will render the Bidder's Bid Proposal non-responsive and rejected.

- 12.2. Work of Subcontractors. All Bidders are referred to the Contract Documents and the notation therein that all Contract Documents are intended to be complimentary and that 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/are necessary to produce the intended results and/or which are reasonably inerrable from the Contract Documents is not a basis for adjustment of the Contract Price or the Contract Time. Dissemination of the Contract Documents to sub-bidders and dissemination of addenda issued during the bidding process is solely the responsibility of each Bidder.
- 12.3. Subcontractor Bonds. Pursuant to California Public Contract Code §4108, if a Bidder requires a bond or bonds of its Subcontractor(s), whether the expense of procuring such bond or bonds are to be borne by the Bidder or the Subcontractor(s), such requirements shall be specified in the Bidder's written or published request for sub-bids. Failure of the Bidder to comply with these requirements shall preclude the Bidder from imposing bonding requirements upon its Subcontractor(s) or rejection of a Subcontractor's bid under California Public Contract Code §4108(b).

13. Department of Justice. Except when there are no pupils present at the Site, no employee or independent contractor to the Contractor, nor any employee or independent contractor to any Subcontractor, of any tier, shall be permitted access to the Site nor to perform any Work at the Site until: (a) such person has submitted her/his fingerprints to the California Department of Justice ("DOJ") pursuant to Education Code § 45125.1; (b) the DOJ has ascertained, based upon the submitted fingerprints, that the individual has not been convicted of a felony defined in Education Code § 45122.1 and has no criminal felony proceedings (as defined in Education Code § 45122.1) pending against her/him; (c) the Contractor or Subcontractor engaging the individual for the Work has received written or electronic verification from the DOJ of the absence of felony convictions and pending felony criminal proceedings; and (d) the Contractor or Subcontractor engaging such individual as an employee or independent contractor has submitted a Fingerprint Certification to the District specifically identifying such individual as having been verified by the DOJ as not having been convicted of a felony and not having pending criminal felony proceeding pending against her/him.

14. Workers' Compensation Insurance. Pursuant to California Labor Code § 3700, the successful

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Bidder shall secure Workers' Compensation Insurance for its employees engaged in the Work of the Contract. The successful Bidder shall execute and deliver to the District the form of Workers Compensation Certification included in the Contract Documents concurrently with such Bidder's delivery of the executed Agreement to the District.

15. Bid Security Return. The Bid Security of the Bidders submitting the three lowest priced Bid Proposals, 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 of such other Bidders will be returned to them.
16. Forfeiture of Bid Security. If the Bidder awarded the Contract fails or refuses to execute the Agreement within **Seven (7)** calendar 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 Bid Proposal or may call for new bids, in its sole and exclusive discretion.
17. Contractors' 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 will not be waived by the District or its Board of Education. The required California Contractors' License classification(s) for the Work is set forth in the Call for Bids.
18. Non-Discriminatory Employment Practices. 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, marital status or other legally protected classification. All Bidders agree to comply with the District's non-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.
19. Sexual Harassment. It is the policy of the District to ensure that everyone complies with Education Code, Government Code, Title V of the Administrative Code, and all other related statutes related to the prevention of Sexual Harassment. All Bidders agree to comply with the District's Sexual Harassment Prevention Program and all applicable Federal and California laws including but not limited to the California Fair Employment & Housing Act commencing with California Government Code §12950, et seq. In addition, all Bidders agree to require like compliance by any Subcontractor employed by them on the Work of the Contract.
20. Verification of Pre-Qualification Application Information. Each Bidder shall complete, execute and submit with its Bid Proposal the form of Verification of Pre-Qualification Application Information included herewith confirming that there are no material and/or adverse changes to any of the information provided by the Bidder in its Pre-Qualification Application; or alternatively, that Bidder has, at least ten (10) calendar days prior to the bid opening date, submitted the requisite Prequalified Bidder Update Form advising the District of any material and/or adverse changes to the information provided by the Bidder in its Pre-Qualification Application. The District expressly reserves the right to verify information provided by the Bidder in its Pre-Qualification Application has not been subject to material and/or adverse changes. If in the reasonable determination of the District, material and/or adverse changes have occurred to the information provided by a



Bidder in its Pre-Qualification Application, the District may reject the Bid Proposal of such Bidder for non-responsiveness.

21. Job-Walk.

21.1. Mandatory and Non-Mandatory Job Walk. The District will conduct a Job-Walk at the time(s) and place(s) designated in the Call for Bids. If attendance at the Job Walk is indicated in the Call for Bids as being mandatory, the failure of any Bidder to have its authorized representative present at the entirety of the Job-Walk will render the Bid Proposal of such Bidder to be non-responsive. The attendance by representatives of the Bidder's Subcontractors at a Mandatory Job Walk without attendance by a representative of the Bidder shall not be sufficient to meet the Bidder's obligations hereunder and will render the Bid Proposal of such Bidder to be non-responsive. If a Job Walk is indicated in the Call for Bids as being Non-Mandatory, the Bid Proposal of a Bidder who does not attend the Non-Mandatory Job Walk will not be rejected for non-responsiveness. Notwithstanding the non-compulsory attendance of Bidders at a Non-Mandatory Job Walk, all Bidders are encouraged to attend Non-Mandatory Job Walks.

21.2. District Additional Job Walk. The District may, in its sole and exclusive discretion, elect to conduct one or more Job-Walk(s) in addition to that set forth in the Call for Bids, in which event the District shall notify all Bidders who have theretofore 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-Walk(s), indicate whether Bidders' attendance at such additional Job-Walk(s) is/are mandatory.

21.3. Bidder Requested Additional Job Walk. Any Bidder who has obtained the Bid Documents pursuant to the Call for Bids may, by written request to the District, request an additional Job Walk if the District has designated a Job Walk in the Call for Bids or a Job Walk if the District has not designated a Job Walk in the Call for Bids. The District may, in its sole and exclusive discretion, conduct such requested Job-Walk taking into consideration factors such as the time remaining prior to the scheduled opening of Bid Proposals. Any such requested Job Walk will be conducted only upon the requesting Bidder's agreement to reimburse the District for the actual and/or reasonable costs for the District's staff and its agents and representatives in arranging for and conducting such additional Job-Walk.

22. Public Records. Bid Proposals and other documents responding to the Call for Bids become the exclusive property of the District upon submittal to the District. At such time as the District issues the Notice of Intent to award the Contract pursuant to these Instructions for Bidders, all Bid Proposals and other documents submitted in response to the Call for Bids become a matter of public record and shall be thereupon be considered public records, except for information contained in such Bid Proposals deemed to be Trade Secrets (as defined in California Civil Code § 3426.1) and information provided in response to the Statement of Qualifications. 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 other similar notations, may result in, or 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. If the District is required to defend or otherwise respond to any action or proceeding wherein request is made for the disclosure of the contents of any portion of a Bid



Proposal deemed exempt from disclosure hereunder, the Bidder submitting the materials sought by such action or proceeding agrees to defend, indemnify and hold harmless the District in any action or proceeding from and against any liability, including without limitation attorneys' fees arising therefrom. The party submitting materials sought by any other party shall be solely responsible for the cost and defense in any action or proceeding seeking to compel disclosure of such materials; the District's sole involvement in any such action shall be that of a stakeholder, retaining the requested materials until otherwise ordered by a court of competent jurisdiction.

23. 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 the Drug Free Workplace Certificate and in California Government Code §§8350 et seq. Failure of the successful Bidder to comply with the measures outlined in the Drug Free Workplace Certificate and in California Government Code §§ 8350 et seq. 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.
24. Roof Projects Certification Re Financial Relationships Disclosure. In accordance with Public Contract Code § 3006, upon award of contract, Contractor and/or any of its Subcontractors and Materialmen involved in bid or proposal for a roof project shall disclose and financial relationships by completing and signing the District the Certification Re Financial Relationships Disclosure. Any person who knowingly provides false information or fails to disclose a financial relationship shall be subject to civil liability and penalties as set forth in Public Contract Code § 3006.
25. 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 Education meeting at which award of the Contract will be considered.
26. Substitute Security. The successful Bidder may request substitution of eligible and equivalent securities for any monies withheld by the District to ensure the Contractor's performance under the Contract pursuant to California Public Contract Code §22300. The foregoing notwithstanding, the Bidder to whom the Contract is awarded shall make its written request to the District for substitute security not later than the date of the submission of the first Application for Progress Payment; failure to request substitute security on or prior to such date shall be deemed a waiver of rights under Public Contract Code §22300.
27. Bid Protest.
  - 27.1. Submittal of 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 all of the following are complied with: (i) the bid protest is in writing; (ii) the bid protest is filed and received by the District's Assistant Superintendent/Chief Business Officer, not more than five (5) calendar days after the date of issuance of the District's Notice of Intent to Award the Contract; and (iii) 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.
  - 27.2. District Review and Disposition of Bid Protest. Provided that a bid protest is filed in strict conformity with the foregoing, the District's Assistant Superintendent/Chief Business Officer, or such individual(s) as may be designated by him/her ("Designee") will review and

evaluate the basis of the bid protest. The District's Assistant Superintendent/Chief Business Officer, or Designee shall provide the Bidder submitting the bid protest with a written statement concurring with or denying the bid protest ("Bid Protest Response"). The Bid Protest Response is deemed the final action of the District and not subject to appeal or reconsideration by any other employee or officer of the District or the Board of Education of the District. The issuance of the Bid Protest Response by the District's Assistant Superintendent/Chief Business Officer, or the Designee is an express condition 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. If 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. Each Bidder shall acknowledge in the Bid Proposal that the foregoing is a binding attorneys' fee agreement pursuant to Civil Code §1717 and shall be enforceable against the Bidder and the District.

## 28. Disclosures.

- 28.1 The District will consider a Bidder's request(s) for confidentiality; however, the District will not be bound by the assertion that a page contains confidential material. An assertion by a Bidder that an entire volume of its proposal is confidential will not be honored. The District reserves the right to disclose all information in the proposal, even if the Bidder requests that it remain confidential, if the District determines that disclosure is not prohibited by law or court order.
- 28.2 Until a contract resulting from this Request for Proposal is executed, no employee, agent or representative of any Bidder shall make available or discuss its proposal with the press, any elected or appointed official or officer of the District, or any employee, agent, or other representative of the District, unless specifically allowed to do so in the Request for Proposal or in writing by the District for the purposes of clarification and evaluation.
- 28.3 Bidders shall not issue any news release(s) or make any statement to the news media pertaining to this Request for Proposal or any proposal and/or contract or work resulting therefrom without the prior written approval of the District which may be given or withheld in its sole and absolute discretion and then only in cooperation with the District

**[End of Section]**

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**BID PROPOSAL**

**Project: RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT;  
RFP# 2017/18(R7)**

Bidder Name	_____	
Bidder Representative(s)	Name and Title _____	
	Name and Title _____	
Bidder Representative(s) Contact Information	Email Address(es) _____	Phone/Fax (_____) _____ Telephone
	_____	(_____) _____ Fax
Bidder Mailing Address	Address _____	
	City/State/Zip Code _____	
California Contractors' License	Number _____	
	Classification(s) and Expiration Date _____	

1. Bid Proposal.

1.1 Bid Proposal Amount. The undersigned Bidder proposes and agrees to furnish and install the Work including, without limitation, providing and furnishing any and all labor, materials, tools, equipment and services necessary to complete, in a workmanlike manner in accordance with the Contract Documents, all of the Work described as:

1.2 **RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT,  
RFP# 2017/18(R7)**

for the sum of: \$

,    ,    .

\_\_\_\_\_ Dollars

(in words; printed or typed)

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 assumptions, errors or omissions on the part of the undersigned Bidder in preparing and submitting this Bid Proposal.

1.3 Acknowledgment of Bid Addenda. The Bidder confirms that this Bid Proposal incorporates and is inclusive of, all items or other matters contained in Bid Addenda, if any, issued by or on behalf of the District.

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

2. Documents Accompanying Bid Proposal. The Bidder has submitted with this Bid Proposal the following:

Bid Security	Statement of Bidder’s Qualifications
Subcontractors List	DIR Registration Verification
Non-Collusion Affidavit	

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.

3. DVBE Participation Goal.

3.1 DVBE Worksheets. The undersigned Bidder acknowledges that if it submitted one (1) of the three (3) lowest priced Bid Proposals for the Work (as reflected in the public opening and reading of Bid Proposals), the Bidder is required to submit DVBE Worksheets substantiating the Bidder’s achievement of the DVBE Participation Goal or the Bidder’s Good Faith Efforts to achieve the DVBE Participation Goal to the District not later than 5:00 PM the third (3<sup>rd</sup>) working day after the date for opening of Bid Proposals. Failure of a Bidder submitting one (1) of the three (3) lowest priced Bid Proposals to timely submit completed and executed DVBE Worksheets will render the Bidder’s Bid Proposal non-responsive and rejected.

3.2 Bidder’s Achievement of DVBE Participation Goal. The Bidder acknowledges that the District has established a three percent (3%) Participation Goal for DVBEs in connection with the Work. The Bidder certifies to the District that the Bidder achieved the DVBE Participation Goal or the Bidder did not achieve the DVBE Participation Goal, but made Good Faith Efforts to achieve the DVBE Participation Goal, as noted by the checked box below.

- The Bidder achieved the DVBE Participation Goal.
- The Bidder did not achieve the DVBE Participation Goal, but made Good Faith Efforts to achieve the DVBE Participation Goal

4. Award of Contract. If the Bidder submitting this Bid Proposal is awarded the Contract, the undersigned will execute and deliver to the District the Agreement in the form attached hereto within **Seven (7)** calendar days after notification of award of the Contract. Concurrently with delivery of the executed Agreement to the District, the Bidder awarded the Contract shall deliver to the District: (i) Certificates of Insurance evidencing all insurance coverages required under the Contract Documents; (ii) Performance Bond; (iii) Labor and Material Payment Bond; (iv) Certificate of Workers’ Compensation Insurance; and (v) Drug-Free Workplace Certificate. Failure of the Bidder awarded the Contract to strictly comply with the preceding may result in the District’s rescinding award of the Contract and/or forfeiture of the Bidder’s Bid Security. In such event, the District may, in its sole and exclusive discretion elect to award the Contract to the responsible Bidder submitting the next lowest priced Bid Proposal or to reject all Bid Proposals.

5. Contractors’ License. The Bidder certifies that: (i) it is possesses a valid and in good standing Contractors’ License, in the necessary class(es), for performing the Work as set for in the Call for Bids; (ii) that such license shall be in full force and effect throughout the duration of the performance of the Work; and (iii) that all Subcontractors providing or performing any portion

of the Work are properly licensed to perform their respective portions of the Work at the time of submitting this Bid Proposal and will remain so properly licensed at all times during their performance of the Work.

6. Agreement to Bidding Requirements and Attorney's Fees. The undersigned Bidder acknowledges and confirms its receipt, review and agreement with, the contractual requirements set forth in this Bid Proposal and the Contract Documents. By executing this Bid Proposal hereinbelow, the Bidder expressly acknowledges and agrees that if the Bidder institutes any legal or equitable proceedings in connection with this Bid Proposal 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. This provision shall constitute a binding attorneys' fee agreement in accordance with and pursuant to California Civil Code §1717 which shall be enforceable against the Bidder and the District. This attorneys' fee provision shall be solely limited to legal or equitable proceedings arising out of a bid protest or the bidding process and shall not extend to or have any force and effect on the Contract for the Work or to modify the terms of the Contract Documents for the Work.
  
7. 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.

By: \_\_\_\_\_  
 (Signature of Bidder's Authorized Officer  
 or Representative)

\_\_\_\_\_  
 (Typed or Printed Name)

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

**NO ALTERNATE BID ITEMS PROPOSAL NOT APPLICABLE FOR THIS PROJECT**

Bidder Name: \_\_\_\_\_

Bidders must provide a proposal price for each Alternate Bid Item set forth herein; failure to do so will result in rejection of the Bid Proposal for non-responsiveness. The amount proposed for each Alternate Bid Item by the above-identified Bidder is set forth hereinbelow:

1. Alternate Bid Item No.1. **[INSERT ALTERNATE DESCRIPTION]**

— Add to Base Bid Proposal Amount

— Deduct From Base Bid Proposal Amount

**(Check appropriate box indicating additive or deductive cost; failure to do so will result in rejection of Bid Proposal for non-responsiveness)**

\$ \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_ Dollars

(in words; printed or typed)

2. Alternate Bid Item No.2. **[INSERT ALTERNATE DESCRIPTION]**

— Add to Base Bid Proposal Amount

— Deduct From Base Bid Proposal Amount

**(Check appropriate box indicating additive or deductive cost; failure to do so will result in rejection of Bid Proposal for non-responsiveness)**

\$ \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_ Dollars

(in words; printed or typed)

3. Alternate Bid Item No.3. **[INSERT ALTERNATE DESCRIPTION]**

— Add to Base Bid Proposal Amount

— Deduct From Base Bid Proposal Amount

**(Check appropriate box indicating additive or deductive cost; failure to do so will result in rejection of Bid Proposal for non-responsiveness)**

\$ \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_ Dollars

(in words; printed or typed)

4. Alternate Bid Item No.4. **[INSERT ALTERNATE DESCRIPTION]**

— Add to Base Bid Proposal Amount

— Deduct From Base Bid Proposal Amount

**(Check appropriate box indicating additive or deductive cost; failure to do so will result in rejection of Bid Proposal for non-responsiveness)**

\$ \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_.

\_\_\_\_\_ Dollars

(in words; printed or typed)

Dated \_\_\_\_\_

By: \_\_\_\_\_  
(Signature of Bidder's Authorized Officer or Representative)

\_\_\_\_\_  
(Typed or Printed Name)

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



**PRE-BID INQUIRY FORM**  
**(FOR PRE-BID USE ONLY)**  
**PRE-BID REQUEST FOR INFORMATION**  
**ROWLAND UNIFIED SCHOOL DISTRICT**

<p><b>TO</b> _____                  Email: <a href="mailto:wneal@treakengineering.com">wneal@treakengineering.com</a>  <a href="mailto:rmcleod@rowlandschools.org">rmcleod@rowlandschools.org</a></p> <p><b>DEADLINE:</b> May 23, 2018, 10:00 a.m. sharp!</p> <p>Date of Pre-Bid RFI: _____                  Project: <b>BID NO. RFP# 2017/18(R7)</b>  <b>RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT</b></p> <p>Trade Description: _____                  _____</p> <p>Bidder Name: _____                  _____</p>	<p><b>PHONE:</b> _____  <b>FAX:</b> _____</p> <p><b>RECEIVED:</b> _____                  (Rowland Unified School District Use Only)</p> <p><b>Bidder's Contact:</b> _____</p> <p><b>Bidder's Contact Phone and Fax Numbers;</b>  <b>Email Address:</b> _____                  _____                  _____</p>
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**Bidder's Pre-Bid Request for Information**

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Additional pages attached by Bidder:  Yes  No  
 Number of additional pages attached by Bidder: \_\_\_\_\_

**Response to Bidder's Pre-Bid Request for Information** Date: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Additional pages of RFI Response attached:  Yes  No  
 Number of additional RFI Response pages attached: \_\_\_\_\_

<p><b>Response By (Firm Name):</b> _____</p>	<p><b>Signed:</b> _____</p>
--	-----------------------------

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**DIR REGISTRATION VERIFICATION**

I am the \_\_\_\_\_ of \_\_\_\_\_ (“Bidder”) submitting the \_\_\_\_\_  
(Title/Position) (Bidder Name)

accompanying Bid Proposal for the Work described as **RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT; RFP# 2017/18(R7)**

1. The Bidder is currently registered as a contractor with the Department of Industrial Relations (“DIR”).
2. The Bidder’s DIR Registration Number is:\_\_\_\_\_. The expiration date of the Bidder’s DIR Registration is\_\_\_\_\_, 20 .
3. If the Bidder is awarded the Contract for the Work and the expiration date of the Bidder’s DIR Registration will occur: (i) prior to expiration of the Contract Time for the Work; or (ii) prior to the Bidder completing all obligations under the Contract for the Work, the Bidder will take all measures necessary to renew the Bidder’s DIR Registration so that there is no lapse in the Bidder’s DIR Registration while performing Work under the Contract.
4. The Bidder, if awarded the Contract for the Work will remain a DIR registered contractor for the entire duration of the Work.
5. The Bidder has independently verified that each Subcontractor identified in the Subcontractors List submitted with the Bid Proposal of the Bidder is currently a DIR registered contractor.
6. The Bidder has provided the DIR Registration Number for each subcontractor identified in the Bidder’s Subcontractors’ List or within twenty-four (24) hours of the opening of Bid Proposals for the Work, the Bidder will provide the District with the DIR Registration Number for each subcontractor identified in the Bidder’s SubcontractorsList.
7. The Bidder’s solicitation of subcontractor bids included notice to prospective subcontractors that: (i) all sub-tier subcontractors must be DIR registered contractors at all times during performance of the Work; and (ii) prospective subcontractors may only solicit sub-bids from and contract with lower-tier subcontractors who are DIR registered contractors.
8. If any of the statements herein are false or omit material facts rendering a statement to be false or misleading, the Bidder’s Bid Proposal is subject to rejection for non-responsiveness.

I have personal first hand-knowledge of all of the foregoing. I declare under penalty of perjury under California law that the foregoing is true and correct.

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ at \_\_\_\_\_  
City and State)

\_\_\_\_\_  
(Signature)  
 \_\_\_\_\_  
(Name, typed or printed)

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**VERIFICATION OF PRE-QUALIFICATION  
APPLICATION INFORMATION**

I, \_\_\_\_\_ am the \_\_\_\_\_ of  
(Name) (Title)

\_\_\_\_\_, declare and state as follows:  
(Bidder Name)

1. I am authorized to execute this Verification of Pre-Qualification Application Information on behalf of the above-identified Bidder.
2. I have reviewed the Pre-Qualification Application submitted by the Bidder to the District, and I have conducted all necessary and appropriate inquiries to ascertain whether there have been any material and/or adverse changes in the information provided by the Bidder in its Pre-Qualification Application.
  - I have personal knowledge of the absence of any material and/or adverse changes to the information provided by the Bidder in its Pre-Qualification Application.
  - On \_\_\_\_\_, 201\_, at least ten (10) calendar days prior to submitting this Bid Proposal, Bidder completed and submitted to the District a Prequalified Bidder's Update Form advising the District of any and all material and/or adverse changes to the information provided by Bidder to the District in the Pre-Qualification Application submitted by the Bidder.
  - The Bidder has received written confirmation from the District confirming Bidder's continued prequalification to bid on District Projects.
  - No written confirmation has been received by the Bidder from the District confirming Bidder's continued prequalification to bid on District Project. Bidder acknowledges and agrees that should the District determine that Bidder is no longer qualified to bid on District projects, Bidder's Bid Proposal will be deemed non-responsive.

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

Dated: \_\_\_\_\_ (Signature)

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**NON-COLLUSION DECLARATION**

**PROJECT: RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT;  
RFP# 2017/18(R7)**

The undersigned declares:

I am \_\_\_\_\_,

(Insert "Sole Owner", "Partner", "President, "Secretary", or other proper title)

of \_\_\_\_\_,

(Insert name of bidder)

As the party submitting a Bid Proposal for the above-identified Project, the undersigned declares, states and certifies that:

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

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

3. 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.

4. 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.

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

6. 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 \_\_\_\_\_, 20\_\_ 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)

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**CERTIFICATE OF WORKERS' COMPENSATION INSURANCE**

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

1. 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.

6. (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.”

2. 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.

\_\_\_\_\_  
(Contractor Name)

By: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Typed or printed name)

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**DRUG-FREE WORKPLACE CERTIFICATION**

I, \_\_\_\_\_, am the \_\_\_\_\_ of  
 (Print Name) (Title)

\_\_\_\_\_  
 (Contractor Name)

I declare, state and certify to all of the following:

1. I am aware of the provisions and requirements of California Government Code §§8350 et seq., the Drug Free Workplace Act of 1990.
2. 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:
    - i. The dangers of drug abuse in the workplace;
    - ii. Contractor's policy of maintaining a drug-free workplace;
    - iii. The availability of drug counseling, rehabilitation and employee-assistance programs; and
    - iv. 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.
  - D. 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: (i) the prohibition of any controlled substance in the workplace, (ii) establishing a drug-free awareness program, and (iii) 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.
3. Contractor and I understand that if the District determines that Contractor has either: (i) made a false certification herein, or (ii) 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.

4. 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)

\_\_\_\_\_  
(Printed or Typed Name)

**DISABLED VETERAN BUSINESS ENTERPRISE (“DVBE”)  
PARTICIPATION GOAL PROGRAM POLICY**

1. DVBE Participation Goal Program Policy. ROWLAND UNIFIED SCHOOL DISTRICT (“the District”) is committed to achieving the legislatively and administratively established Participation Goal for Disabled Business Enterprises (“DVBEs”). Through the DVBE Participation Goal Program, the District encourages contractors to ensure maximum opportunities for the participation of DVBEs in the Work of the Contract. The District’s commitment to the achievement of DVBE Participation Goal for the Work of the Contract shall not, however, result in the District’s discrimination in the award of the Contract on the basis of ethnic group identification, ancestry, religion, age, sex, race, color, or physical or mental disability.
2. Definitions.
  - 2.1. Disabled Veteran. A “Disabled Veteran” means a veteran of the military, naval, or air service of the United States with at least ten percent (10%) service-connected disability who is a resident of the State of California.
  - 2.2. Disabled Veteran Business Enterprise. A “Disabled Veteran Business Enterprise” (“DVBE”) means a business enterprise certified by the Office of Small and Minority Business, State of California, Department of General Services, as a “Disabled Veteran Business Enterprise.”
  - 2.3. Good Faith Efforts. As use herein, the term “Good Faith Efforts” shall be deemed to mean demonstrable and effective efforts of the Bidder to seek out, consider and secure DVBEs as potential Subcontractors or Material Suppliers, or both, in order to meet the Participation Goal; the Good Faith Efforts must be an active and aggressive effort to meet the Participation Goal, as more particularly set forth herein.
3. Participation Goal.
  - 3.1. Participation Goal Defined. The term “Participation Goal” is a numerically expressed objective for DVBE participation in performing the Work of the Contract. The DVBE Participation Goal is not a quota, set-aside, or rigid proportion.
  - 3.2. DVBE Participation Goal. The DVBE Participation Goal is Three Percent (3%) of total amount of Bidder’s Bid Proposal, inclusive of the value of additive Alternate Bid Items, if any.
4. Good Faith Efforts to Meet Participation Goal.
  - 4.1. Good Faith Efforts. The Bid Proposal submitted by any Bidder who has not met the DVBE Participation Goal shall be considered responsive only if the Bidder represents that it made Good Faith Efforts to meet the DVBE Participation Goal.
  - 4.2. Good Faith Efforts to Meet DVBE Participation Goal. A Bidder must secure the participation of DVBEs in a timely manner to ensure that potential DVBE Subcontractors or Material Suppliers have an adequate opportunity to respond to the Bidder’s solicitation of sub-bids and be given serious consideration by the Bidder prior to the closing time for the receipt of Bid Proposals. Such Good Faith Efforts shall include, without limitation:
    - 4.2.1. DVBE Work and Active Solicitation of DVBEs. The Bidder’s identification of portions of the Work which may be provided or performed by DVBE Subcontractors and/or Material Suppliers and the Bidder’s active and sincere solicitation of DVBEs for those identified portions of the Work.
    - 4.2.2. Contact Agencies for DVBEs. Contact local, state and/or federal agencies, and local DVBE organizations to identify potential DVBEs for performing portions of the Work;
    - 4.2.3. Advertisements. Advertise (with sufficient time for submission of sub-bids and the Bidder’s good faith consideration of the same) prior to the last date for submittal of Bid Proposals in: (i) one or more daily or weekly newspapers of general circulation published in the locality of the Work, and (ii) one or more construction trade

publications, and (iii) one or more construction trade publications, journals or papers focusing on DVBEs. Each of the advertisements pursuant to the preceding, must state the following: (i) identification of the general description of the Work and an identification of the District; (ii) state the closing date and time for the District's receipt of Bid Proposals; (iii) state the last date and time for submission of sub-bids from DVBEs to the Bidder; (iv) request sub-bids from DVBE Subcontractors or Material Suppliers; (v) identify the type of Work of the Contract available for sub-bids by DVBEs; and (vi) unequivocally state the requirement of bonds, if any, of a DVBE sub-Bidder and who is to bear the expense of obtaining any required bonds.

- 4.2.4. Direct Solicitation of DVBEs. Solicit by direct mail, telephone or personal contact a sufficient number of DVBEs who offer work or services appropriate for the Work identified by the Bidder under Paragraph 4.2.1 above. Solicitations shall be made in a timely manner and contain sufficient information for a sub-Bidder to make a reasonable sub-bid and the Bidder's good faith consideration of the same, including, without limitation, the following: (i) identification of the general description of the Work and an identification of the District; (ii) state the closing date and time for the District's receipt of Bid Proposals; (iii) state the last date and time for submission of bids from DVBEs to the Bidder; (iv) request sub-bids from Subcontractors or Material Suppliers; (v) identify the type of Work of the Contract available for sub-bids by DVBEs; and (vi) unequivocally state the requirement of bonds of a DVBE sub-Bidder and who is to bear the expense of obtaining any required bonds.
- 4.2.5. Bidder Follow-Up To DVBE Interest. The Bidder shall follow-up initial expressions of interest of DVBEs in performing a portion of the Work by contacting such DVBEs to determine with certainty whether such DVBEs are interested in performing specific items of the Work of the Contract and submitting a sub-bid for a portion of the Work.
- 4.2.6. Good Faith Negotiations With Potential DVBE Subcontractors. The Bidder shall negotiate in good faith with potential DVBEs Subcontractors or Material Suppliers and shall not unjustifiably reject, as unsatisfactory, bids prepared by any DVBE for a portion of the Work of the Project. In the event that the District shall reasonably determine that the Bidder has failed to engage in good faith negotiations with a potential DVBE participant or rejects the sub-bid of a DVBE without justification, the District may deem the Bid Proposal of such Bidder to be non-responsive.

5. Documentation of Achievement of Participation Goal or Good Faith Efforts. Each Bidder shall note, where indicated, in the form of Bid Proposal whether the DVBE Participation Goal was achieved and if not, that Good Faith Efforts were made to achieve the DVBE Participation Goal. **The Bidders submitting the three lowest priced Bid Proposals (as determined at the time of the District's public opening and reading of Bid Proposals), shall submit to the District documentation and supporting evidence of achievement of the DVBE Participation Goal or Good Faith efforts to achieve the DVBE Participation Goal.** Such documentation and supporting evidence shall be in the form of duly completed forms of the DVBE Participation Worksheets issued by the District; unless modified by the District, completed DVBE Worksheets must be submitted to the District Purchasing Department no later than 5:00 p.m. of the third (3<sup>rd</sup>) working day after the date of the opening of Bid Proposals. The District may, at its discretion, request that Bidders, other than the Bidders submitting the three lowest priced Bid Proposals, submit documentation of compliance with the DVBE Participation Goal Program at any time after the District's opening of Bid Proposals and prior to the District's award of the Contract. **If a Bidder is required or requested by the District to submit DVBE Participation Goal Program documentation, the failure of any Bidder to timely submit complete and accurate documentation on DVBE Participation Worksheets issued by the District at or prior to the time established herein will render the Bidder's Bid Proposal non-responsive and rejected.**



6. Counting of DVBE Participation.

- 6.1. Certification. DVBEs must be certified in the category identified prior to the closing time for the District's receipt of Bid Proposals; any DVBE who is not so certified will result in such DVBE not counting towards the DVBE Participation Goal.
- 6.2. Bidder Acceptance of Sub-Bid. Sub-bids of DVBEs shall be accepted by the Bidder prior to the closing time for the District's receipt of Bid Proposals, with such acceptance subject only to the District's award of the Contract to the Bidder.
- 6.3. Value of Participation Goal. The total dollar value of a contract between the Bidder and a certified DVBE will count towards the DVBE Participation Goal.
- 6.4. Joint Ventures. If a DVBE is a member of a joint venture, only the dollar value of the Work actually performed by the DVBE member of the joint venture will count towards the DVBE Participation Goal, unless the joint venture entity itself is certified as a DVBE.
- 6.5. Bidder as DVBE. A Bidder certified as a DVBE may count towards the Participation Goal the dollar value of the Work actually performed by the Bidder's own forces. A Bidder certified as a DVBE is not relieved from meeting the DVBE Participation Goal or making Good Faith Efforts to achieve the Participation Goal if the value of its Work is less than the DVBE Participation Goal.
- 6.6. Lower Tier Subcontractors; Material Suppliers. The Bidder may count towards the DVBE Participation Goal the total dollar value of contracts let by its Subcontractors or Material Suppliers to lower tier Subcontractors or Material Suppliers certified as DVBEs provided that such lower tier Subcontractors or Material Suppliers actually assume the contractual responsibility and obligation for the total dollar value of the Work or materials to be supplied by such lower tier Subcontractors or Material Suppliers.
- 6.7. Commercially Useful Functions. DVBEs used by the Bidder to establish achievement of the Participation Goal shall be considered as meeting the Participation Goal only if the DVBE is responsible for execution of a distinct element of the Work of the Contract, carry out its obligations by actually performing, managing, or supervising the Work for which the DVBE is responsible for executing. Such DVBEs must be responsible for the portion of the Work which is normal for its business services and functions. A DVBE Subcontractor who subcontracts a significantly greater portion of the Work assumed by the DVBE Subcontractor than would be considered normal and usual under industry standards and practices will not be presumed to be performing a commercially useful function, and such DVBE Subcontractor will not count or be considered for purposes of achieving the Participation Goal.

7. Substitution of DVBEs. In the event that Bidder awarded the Contract deems it necessary to substitute a DVBE Subcontractor or Material Supplier identified in the Subcontractor's List submitted with the Bidder's Bid Proposal, all provisions of the Contract Documents relating to the substitution of Subcontractors shall be applicable and complied with by the successful Bidder. In addition to the provisions of the Contract Documents relating to the substitution of listed Subcontractors, if a DVBE under a direct contract with the Bidder is to be substituted, the successful Bidder is strongly encouraged to substitute the listed DVBE with an equivalent and certified DVBE.

8. Monitoring of DVBE Participation.

- 8.1. DVBE Participation Worksheets. If the Bidder awarded the Contract is required by the District to complete and submit DVBE Participation Worksheets, the completed forms of DVBE Participation Worksheets submitted by the Bidder shall be deemed a part of the Contract Documents.
- 8.2. Continuing Responsibilities. Efforts of the successful Bidder to include the participation of DVBEs in the performance of the Work of the Contract shall not terminate with the award of the Contract to such Bidder. The successful Bidder's efforts to secure the participation of

DVBEs shall continue for the duration of the Work of the Contract, including when the successful Bidder is purchasing materials, equipment, supplies, and/or needs additional Subcontractors (including substitution of listed Subcontractors).

8.3. DVBE Participation Reports and Data. During performance of the Work of the Contract, the successful Bidder shall maintain complete and accurate records of DVBE Participation in executing the Work. From time-to-time, upon the request of the District the Bidder awarded the Contract shall submit reports, in form and content satisfactory to the District, regarding DVBE Participation in the Work of the Contract, including the participation of DVBEs in the performance of approved Changes to the Work. The failure or refusal of the successful Bidder to submit reports of DVBE Participation during performance of the Work within ten (10) days of the District's request for such reports may be deemed by the District to be the successful Bidder's default of a material obligation of the Contract and thereupon, the District may exercise any right or remedy provided for under the Contract Documents or at law, including without limitation termination of the Contract for default or the withholding of payments otherwise due under the Contract Documents until such report(s) is/are received. If requested by the District, upon completion of the Work of the Contract, the successful Bidder shall submit a final report identifying all DVBEs utilized in the performance of the Work, the type or classification of the Work performed by each such DVBE and the dollar value of the Work performed by each such DVBE. In the event that the District shall request a report of DVBE utilization upon completion of the Work of the Contract, the submission of such report in form and content satisfactory to the District shall be deemed a condition precedent to the District's obligation to make payment of the Final Payment under the Contract Documents. In such event, the submission of such final report shall be in addition to, and not in lieu of any other conditions precedent set forth in the Contract Documents for the District's obligation to make payment of the Final Payment. The Bidder awarded the Contract shall maintain books and records of DVBE Participation in the Work for at least three (3) years following completion of the Project; during such time, the District shall have access, upon reasonable advance notice, to such books and records for inspection or reproduction.

8.4. Contract Audit. The successful Bidder awarded the Contract agrees that the District, or its designee, shall have the right to review, obtain and/or copy any and all writings, materials, documents and other records pertaining to utilization of DVBEs in performance of the Contract. The successful Bidder awarded the Contract agrees that the District, or its designee, shall have access to any of the successful Bidder's premises upon reasonable notice, during usual business hours for the purpose of interviewing employees and inspecting and/or copying such writings, materials, documents and other documents which may be relevant to a matter under investigation for the purpose of determining compliance with the DVBE Participation Goal Program Policy.

9. Capitalized Terms. Capitalized terms used herein shall be as defined herein or elsewhere in the Contract Documents.

**[END OF SECTION]**

**DVBE PARTICIPATION WORKSHEETS  
ATTACHMENT A  
BIDDER'S DVBE STATEMENT**

1. General Information.

1.1. Bidder Name: \_\_\_\_\_.

1.2. Total Amount of Bidder's Bid Proposal (inclusive of additive Alternate Bid Items, if any):  
\_\_\_\_\_ Dollars (\$\_\_\_\_\_).

2. Bidder's Compliance With DVBE Participation Program. (Check the appropriate statement).

The Bidder has achieved or exceeded the DVBE Participation Goal and all DVBEs counting towards the DVBE Participation Goal are set forth and identified in Attachments C-1, C-2 and C-3.

The Bidder did not achieve the Participation Goal for DVBEs, but has made the required Good Faith Efforts to secure the participation of DVBEs in accordance with guidelines established in the District's DVBE Participation Goal Program.

3. DVBE Participation Achieved. The Bidder achieved a DVBE Participation Goal of % of the amount of the Bidder's Bid Proposal.

4. Submittal of Documentation. Concurrently with the submittal of this Bidder's DVBE Statement, the Bidder has also submitted duly completed, and executed if required, forms of Attachments B, C, D, E, F, G and H of these DVBE Participation Worksheets to the extent required by the District's DVBE Participation Goal Program Policy. All of the information provided by the Bidder in its responses to Attachments B, C, E, F, G and H are true, correct and accurate; there are no omissions in the responses of the Bidder to the foregoing Attachments which render any of the Bidder's statements or information provided therein to be false or misleading. Incomplete, inaccurate, false, misleading responses or omissions rendering responses to be false or misleading will render the Bid Proposal non-responsive and rejected.

5. Certification of DVBE Status. The Bidder certifies, warrants and represents to the District that the Bidder has exercised due diligence in ascertaining the status of each proposed DVBE identified in Attachment C as a DVBE in compliance with the applicable provisions of the District's DVBE Participation Program Policy and applicable law. By executing and submitting this Bidder's DVBE Statement, the Bidder represents to the District that each DVBE identified in Attachment C is duly and properly certified as a DVBE in conformity with the District's DVBE Program Goal Policy and applicable law. The Bidder acknowledges that in the event that the District shall reasonably determine that any DVBE identified in the Bidder's responses to Attachment C is not a duly and properly certified DVBE, the Bid Proposal may be rejected by the District as being non-responsive. For each DVBE identified in Attachment C, the Bidder has submitted forms of DVBE Certification (Attachment D) duly completed and executed by each such DVBE.

6. Authority to Execute. The individual executing this Bidder's DVBE Statement on behalf of the Bidder warrants and represents to the District that she/he is duly authorized to execute this Bidder's DVBE Statement on behalf of the Bidder.

Executed this \_\_\_ day of \_\_\_\_\_ 20\_\_\_\_, at \_\_\_\_\_.  
(City and State)

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

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

\_\_\_\_\_  
(Name of Individual Executing Statement)  
[Printed or Typed]



**INSTRUCTIONS FOR COMPLETION OF  
ATTACHMENT C  
DVBE PARTICIPATION SUMMARY**

1. Submittal of Attachment C. The Bidder shall complete and submit Attachment C regardless of whether or not such Bidder has achieved some or all of the Participation Goal. Failure of the Bidder to submit completed form of Attachment C as and when required by the DVBE Participation Goal Program Policy will result in the District rejecting the Bid Proposal of such Bidder as being non-responsive.
2. Firm Name. State name of the enterprise proposed by the Bidder for meeting DVBE Participation Goal; the full name of each enterprise identified must be listed and if the enterprise conducts business under a fictitious business name, the same shall be stated. If the Bidder is a certified DVBE and wishes to be counted in the category certified for purposes of meeting the Participation Goal, the Bidder must be identified in Attachment C.
3. Item or Description of Work. Identify, with specificity, the item or portion of the Work of the Contract to be provided or performed by the proposed DVBEs identified.
4. Contracting With. Identify the name of the company or firm with whom the proposed DVBE will be contracting with in connection with the Work of the Contract.
5. Tier. Identify the tier of contracting for each proposed DVBE with the following designations:
  - 0 = Bidder.
  - 1 = First Tier Subcontractor or Material Supplier under a direct contract with the Bidder.
  - 2 = Second Tier Subcontractor or Material Supplier under a direct contract with a First Tier Subcontractor or Material Supplier, regardless of whether or not the First Tier Subcontractor or Material Supplier is a DVBE.
  - 3 = Third Tier Subcontractor or Material Supplier under a direct contract with a Second Tier Subcontractor or Material Supplier, regardless of whether or not the Second Tier Subcontractor or Material Supplier is a DVBE.
6. Claimed Value. Set forth the total dollar value of the Work to be provided or performed by the proposed DVBE. The dollar value set forth in the responses to Attachments C must conform to the applicable provisions of the District's DVBE Participation Program Goal Policy.
7. Certification. For each DVBE identified in Attachment C, the Bidder shall indicate in this column whether such DVBE is self-certified or certified by a public agency as a DVBE. The Bidder's completion of this portion of Attachment C with respect to each DVBE identified therein is in addition to and not in lieu of the Bidder's submittal of duly completed and executed forms of DVBE Certification (Attachment D) from each proposed DVBE identified in Attachment C.

**[END OF SECTION]**

**DVBE PARTICIPATION WORKSHEETS  
ATTACHMENT C  
DVBE PARTICIPATION SUMMARY**

**Bidder Name:** \_\_\_\_\_

**Project Name:** RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT; RFP# 2017/18(R6)

Firm Name	Item or Description of Work	Contracting with	Tier	Claimed Value	Certification

---

**DVBE PARTICIPATION WORKSHEETS  
INSTRUCTIONS FOR COMPLETION OF ATTACHMENT D  
DVBE CERTIFICATION**

1. DVBEs Completion of Attachment D. The Bidder submitting a Bid Proposal to the District shall make available to each DVBE identified by the Bidder in its responses to Attachment C a copy of the DVBE Certification (Attachment D) for completion and execution by each such DVBE.
2. Bidder Submittal of Completed Attachment D. The Bidder required by the DVBE Participation Goal Program Policy to submit documentation of compliance with the DVBE Participation Goal Program shall submit duly completed and executed forms of the DVBE Certification of each DVBE identified in the Bidder's responses to Attachment C. The failure or refusal, for any reason, of the Bidder to submit such completed and executed DVBE Certification(s) of each DVBE identified in the Bidder's responses to Attachment C as and when required by the DVBE Participation Goal Program Policy will result in the District rejecting the Bid Proposal of such Bidder as being non-responsive.
3. Complete and Accurate Attachment D. Each DVBE identified in the Bidder's responses to Attachment C shall complete and execute, under penalty of perjury, a DVBE Certification. Each such DVBE and the Bidder acknowledge that if the District reasonably determines that any response in the DVBE Certification(s) submitted to the District which are incomplete, false or misleading or which omit facts rendering responses therein to be false or misleading, the District may reject the Bid Proposal of such Bidder as being non-responsive.



**DVBE PARTICIPATION WORKSHEETS  
ATTACHMENT D  
DVBE CERTIFICATION**

1. DVBE Information.

DVBE Firm Name	
DVBE Address	
DVBE Firm Contact Name	
DVBE Firm Contact Phone, Fax and Email	
Services or Goods Generally Provided by DVBE	
Services or Goods to be Provided by DVBE to Bidder	

2. Certification of DVBE Status. The above-identified DVBE is certified as such by California Department of General Services Office of Small Business and Disabled Veteran Business Enterprise Services and a true and correct copy of such certification is attached hereto. The Bidder and the above-identified DVBE acknowledge that if the certification of the above-identified DVBE's status is not attached, the above-identified DVBE will not be counted or considered for purposes of the Bidder's achievement of the Participation Goal.

3. Authority to Execute. The undersigned individual executing this DVBE Certification warrants and represents to the District that she/he has made diligent inquiry to ascertain that all of the information provided herein is true, correct and complete, that there are no omissions of fact in any of the responses herein which would render such responses false or misleading and that she/he is duly authorized to execute this DVBE Certification on behalf of the above-identified DVBE.

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_ at \_\_\_\_\_  
(City and State)

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

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

\_\_\_\_\_  
(Name of Individual Executing DVBE Certification)  
[Printed or Typed]

**DVBE PARTICIPATION WORKSHEETS  
ATTACHMENT E  
DVBS CONTACTED**

For each Subcontractible Item of the Work identified in the Bidder's response to Attachment B (Subcontractible Items of the Work), provide the following:

1. List all the DVBEs you solicited sub-bids from and how you obtained each firm's name.
2. Indicate method and date of solicitation (all written solicitations must conform to Public Contract Code § 4108 with respect to bonding requirements, if any).
3. List the method and date of follow-up and the person you contacted.
4. USE ONE SHEET FOR EACH SUBCONTRACTIBLE ITEM OF WORK IDENTIFIED IN ATTACHMENT B. (Photocopy as many sheets of this Attachment E as necessary.)

**Bidder Name:** \_\_\_\_\_  
**Project Name:** **RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT; RFP# 2017/18(R7)**

DVBE Solicited & Source of the Firm's Name	Method & Date of Solicitation	Follow-up Method, Date & Person Contacted

**DVBE PARTICIPATION WORKSHEETS  
ATTACHMENT F  
DVBE SUB-BIDS NOT ACCEPTED BY BIDDER**

List all DVBEs who submitted bids or quotations to the Bidder which were not accepted. Indicate if the sub-Bidder is a DVBE, identify the item of Work or materials, list the Subcontractor/Material Supplier the Bidder intends to use in lieu of the DVBE submitting a sub-bid for the identified portion of the Work, and the amount of such other sub-Bidder's bid. Give the reason the Bidder did not use the DVBE firm. **(Photocopy if additional sheets are needed.)**

**Bidder Name:** \_\_\_\_\_  
**Project Name:** **RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT; RFP# 2017/18(R7)**

<b>DVBEs Who Submitted Bids</b>	<b>Item of Work or Materials</b>	<b>Subcontractor/ Material Supplier to be Used</b>	<b>Reason DVBE Bid Not Accepted</b>

**DVBE PARTICIPATION WORKSHEETS  
ATTACHMENT G  
VERIFICATION OF DVBE SOLICITATIONS**

**Bidder Name:** \_\_\_\_\_

**Project Name: RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT; RFP# 2017/18(R7)**

Identify ALL DVBE firms contacted by the Bidder for purposes of meeting the DVBE Participation Goal. If a DVBE was solicited in writing, the Bidder shall attach hereto a true and correct copy of such written solicitation; failure of the Bidder to do so may result in the District's rejection of the Bidder's Bid Proposal as being non-responsive.

<b>Name of DVBE Firm Solicited</b>	<b>Manner of Solicitation, i.e., written, personal, telephonic, etc.</b>	<b>Date of Solicitation</b>	<b>General Description of DVBE Response to Solicitation</b>

**DVBE PARTICIPATION WORKSHEETS  
ATTACHMENT H  
AGENCY CONTACTS**

**Bidder Name:** \_\_\_\_\_

**Project Name: RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT;  
RFP# 2017/18(R7)**

Identify all local, state or federal public agencies and DVBE organizations contacted by the Bidder for the purpose of identifying potential DVBEs to meet the Participation Goal. If the Bidder received any list or other writing identifying potential DVBEs from any agency or organization set forth in this Attachment H, the Bidder shall attach hereto a true and correct copy of each such list or other writing; failure of the Bidder to so attach such list(s) or other writing(s) may result in the District rejecting the Bid Proposal of such Bidder as being non-responsive. (Photocopy if additional sheets are necessary.)

**LOCAL, STATE OR FEDERAL AGENCIES.**

<b>Agency Name &amp; Address</b>	<b>Date of Bidder's Contact with Agency</b>	<b>Name &amp; Telephone Number of Individual Contacted</b>	<b>DVBE List Received by Bidder</b> <small>(Indicate Yes or No &amp; if Yes, the date of Bidder's receipt of list)</small>

**DVBE ORGANIZATIONS CONTACTED.**

<b>Organization Name &amp; Address</b>	<b>Date of Bidder's Contact with Organization</b>	<b>Name &amp; Telephone Number of Individual Contacted</b>	<b>DVBE List Received by Bidder</b> <small>(Indicate Yes or No &amp; if Yes, the date of Bidder's receipt of list)</small>

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### FINGERPRINT CERTIFICATION

I, \_\_\_\_\_, am the \_\_\_\_\_ of  
(Print Name) (Title)

\_\_\_\_\_. I declare, state, and certify all of the following:  
(Contractor Name)

1. I am aware of the provisions and requirements of California Education Code §45125.1, regarding fingerprinting of persons providing services to school districts.

2. I have personal knowledge of and/or have made due and diligent inquiry with respect to the following, and based on said knowledge and/or inquiry I certify that:

A. The fingerprints of each person identified on Attachment A have been submitted to the California Department of Justice pursuant to Education Code §45125.1; and,

B. The California Department of Justice has issued written or electronic verification that each person identified on Attachment A has not been convicted of a felony, as defined in Education Code §45122.1, and has no criminal felony proceedings, as defined in Education Code §45122.1, pending against him or her.

3. The Contractor shall provide additional Fingerprint Certificates for each and every person who is not identified on Attachment A prior to permitting such person(s) access to the Site or to perform any Work at the Site.

4. Contractor and I understand that if the District determines that Contractor has either: (a) made a false certification herein, or (b) violates this certification by failing to carry out and to implement the requirements of California Education Code §45125.1, the Contract awarded herein is subject to termination, suspension of payments, or both.

5. I am authorized to execute this Fingerprint Certificate on behalf of the Contractor. All of the statements set forth above and all of the information provided in Attachment A are true, correct, complete, and accurate. Further, there are no omissions or misstatements of material fact in the foregoing statements or in the information set forth in Attachment A which would render such statements and/or information to be false or misleading.

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)

\_\_\_\_\_  
(Handwritten or Typed Name)

**FINGERPRINT CERTIFICATE  
ATTACHMENT A**

(The California Department of Justice has issued electronic verification that each person identified below meets the requirements of California Education Code §45125.1.)



**ROOF PROJECT FINANCIAL DISCLOSURE CERTIFICATE  
(Public Contract Code §3006(b))**

I, \_\_\_\_\_ certify that I am the \_\_\_\_\_ with \_\_\_\_\_,  
(Name) (Title/Position) (Name of Employer)  
 the \_\_\_\_\_ and that I have not offered, given, or agreed to give,  
(architect, engineer, roofing consultant, contractor,  
 materials manufacturer, distributor, or vendor)

received, accepted, or agreed to accept, any gift, contribution, or any financial incentive whatsoever to or from any person in connection with the Contract for the roofing work associated with the Project commonly described as **BID NO. RFP# 2017/18(R7), RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT**. As used in this Certificate, "person" means any natural person, business, partnership, corporation, union, committee, club, or other organization, entity, or group of individuals. Furthermore,

I, \_\_\_\_\_, \_\_\_\_\_, certify that I do not have,  
(Name) (Name of Employer)  
 and throughout the duration of the Contract for this Project, I will not have, any financial relationship in connection with the performance of this Contract with any architect, engineer, roofing consultant, materials manufacturer, distributor, or vendor that is not disclosed below.

I \_\_\_\_\_, \_\_\_\_\_ have the following financial  
(Name) (Name of Employer)  
 relationships with an architect, engineer, roofing consultant, materials manufacturer, distributor, or vendor, or other person in connection with the following roof project contract(s):

Name & Address of Building	Contract Date & Number
<b>Attach additional disclosures, if necessary, to this Certificate</b>	

I certify that to the best of my knowledge, the contents of this Certificate are true, or are believed to be true.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Print Name

\_\_\_\_\_  
Date

\_\_\_\_\_  
Print Name of Employer

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## AGREEMENT

**THIS AGREEMENT** is entered into [Click here to enter a date.](#) in the City of Rowland Heights, County of Los Angeles, State of California, by and between **ROWLAND UNIFIED SCHOOL DISTRICT**, a California School District hereinafter "District" and \_\_\_\_\_ ("Contractor").

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

1. 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 **RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT; RFP# 2017/18(R7)**. Contractor shall complete all Work covered by the Contract Documents, including without limitation, the Drawings and Specifications prepared by the Engineer, **Trek Engineering, Inc.** and other Contract Documents enumerated in Article 5 below, along with all modifications and addenda thereto issued in accordance with the Contract Documents.

2. Contract Time. The Contractor shall achieve Substantial Completion the Work within the Contract Time which is **Thirty (30)** calendar days after the date established in the Notice to Proceed issued by or on behalf of the District for commencement of the Work.

3. 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 adjustments of the Contract Price in accordance with the Contract Documents, the Contract Price of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_). The District's payment of the Contract Price shall be in accordance with the Contract Documents. The Contract Price is based upon the Contractor's Base Bid Proposal and the following Alternate Bid Items, if any: \_\_\_\_\_.

4. Liquidated Damages. The Contractor shall be subject to assessment of Liquidated Damages set forth in the Special Conditions if the Contractor: (i) fails to submit each Submittal required by the Contract Documents in accordance with the Submittal Schedule incorporated into the Contractor's Construction Schedule; or (ii) fails to achieve Substantial Completion of the Work within the Contract Time, subject to adjustments thereto in accordance with the Contract Documents; or (iii) fails to complete all Punchlist items within the time established pursuant to the Contract Documents.

5. Limitation on Damages. In the event of the District's breach or default of its obligations under the Contract Documents, the damages, if any, recoverable by the Contractor shall be limited to general damages which are directly caused by said breach or default of the District and shall exclude any and all special or consequential damages, if any, suffered by the Contractor. By executing this Agreement, the Contractor expressly acknowledges the foregoing limitation to the recovery only of general damages from the District if the District is in breach or default of its obligations under the Contract Documents. The Contractor expressly waives any right to and foregoes the recovery of any special or consequential damages from the District including, without limitation, damages for: i) lost or impaired bonding capacity; and/or, ii) lost profits arising out of or in connection with any past, present, or future work of improvement, except for the Project which is the subject of the Contract Documents.

6. The Contract Documents. The documents forming a part of the Contract Documents consist of the following:

00 11 13	Notice Calling for Bids, including Bid Addenda Nos. [REDACTED]	00 45 28.05	DVBEs Contacted
00 21 13	Instructions for Bidders	00 45 28.06	DVBE Bids Not Accepted
00 42 13	Bid Proposal	00 45 28.07	DVBE Solicitations
00 42 13	Alternate Bid Proposal Form	00 48 28.08	Agency Contacts
00 43 24	Pre-Bid Inquiry Form	00 45 46	Fingerprint Certificate
00 45 00	Subcontractors List	00 50 10	Roof Project Financial Disclosure Agreement
00 45 10	DIR Registration Verification	00 52 00	Agreement
00 45 13	Statement of Qualifications	00 61 10	Bid Bond
00 45 19	Non-Collusion Affidavit	00 61 13	Performance Bond
00 45 26	Certificate of Workers Compensation	00 61 14	Labor and Material Payment Bond
00 45 27	Drug-Free Workplace Certification	00 62 90	Verification of Certified Payroll Form to Labor Commissioner
00 45 28	DVBE Program Policy	00 65 36	Guarantee Form
00 45 28.01	Bidder DVBE Statement	00 72 00	General Conditions
00 45 28.02	Subcontractible Items	00 73 00	Special Conditions
00 45 28.03	DVBE Participation Summary		Drawings/Specifications
00 45 28.04	DVBE Certification		

7. 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.

**CONTRACTORS ARE REQUIRED BY LAW TO BE LICENSED AND REGULATED BY THE CONTRACTORS' STATE LICENSE BOARD. QUESTIONS CONCERNING A CONTRACTOR MAY BE REFERRED TO THE REGISTRAR, CONTRACTORS' STATE LICENSE BOARD, P.O. BOX 2600, SACRAMENTO, CALIFORNIA 95826**

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

**“DISTRICT”**  
**ROWLAND UNIFIED SCHOOL DISTRICT**

**“CONTRACTOR”**

By \_\_\_\_\_  
 Title \_\_\_\_\_

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

**BID BOND**

KNOW ALL MEN BY THESE PRESENTS that we, \_\_\_\_\_, as Surety and \_\_\_\_\_, as Principal, are jointly and severally, along with their respective heirs, executors, administrators, successors and assigns, held and firmly bound unto **ROWLAND UNIFIED SCHOOL DISTRICT** ("the 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 to the Obligee for the Work commonly described as:

**RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT; RFP# 2017/18(R7)**

WHEREAS, subject to the terms of this Bond, the Surety and the Principal are jointly and severally firmly bound unto the Obligee in the penal sum equal to Ten Percent (10%) of the maximum amount of the Bid Proposal submitted by the Principal to the Obligee, inclusive of amounts proposed for 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, 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 there under, the Drawings or the Specifications accompanying the same, or any other portion of the Contract Documents shall in no 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 suit or other proceeding is brought upon this Bond by the Obligee, the Surety and Principal shall be jointly and severally liable for payment to the Obligee all costs, expenses and fees

**[CONTINUED NEXT PAGE]**

incurred by the Obligee in connection therewith, including without limitation, attorney's fees.

IN WITNESS WHEREOF, the Principal and Surety have executed this instrument this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ by their duly authorized agents or representatives.

\_\_\_\_\_

**(Bidder/Principal Name)**

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

(Signature)

\_\_\_\_\_

(Typed or Printed Name)

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

**(Attach Notary Public Acknowledgement of Principal's Signature)**

\_\_\_\_\_

**(Surety Name)**

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

(Signature of Attorney-In-Fact for Surety)

\_\_\_\_\_

(Typed or Printed Name of Attorney-In-Fact)

**(Attach: (i) Attorney-In-Fact Certification; (ii) Notary Public Acknowledgment of Authorizing Signature on Attorney-Fact Certification; and (iii) Notary Public Acknowledgement of Attorney-In-Fact's Signature.)**

**Contact name, address, telephone number and email address for notices to the Surety**

\_\_\_\_\_

(Contact Name)

\_\_\_\_\_

(Street Address)

\_\_\_\_\_

(City, State & Zip Code)

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

Telephone Fax

\_\_\_\_\_

(Email address)

## PERFORMANCE BOND

KNOW ALL MEN BY THESE PRESENTS that we, \_\_\_\_\_, as Surety and \_\_\_\_\_, as Principal, are jointly and severally, along with their respective heirs, executors, administrators, successors and assigns, held and firmly bound unto **ROWLAND UNIFIED SCHOOL DISTRICT** ("the Obligee") for payment of the penal sum the penal sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally.

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

WHEREAS, the Obligee, by resolution of its Board of Education has awarded to the Principal a Contract for the Work described as:

#### **RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT; RFP# 2017/18(R7)**

WHEREAS, the Principal, has entered into an agreement 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 ensuring the Principal's prompt, full and faithful performance of the Work of the Contract Documents.

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 Documents as they 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, liens, costs, and fees of every description, 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 Documents, 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.

The Surety, for value received, hereby stipulates and agrees that no change, adjustment of the Contract Time, adjustment of the Contract Price, alterations, deletions, additions, or any other modifications to the terms of the Contract Documents, the Work to be performed thereunder, or to the Specifications or the Drawings shall limit, restrict or otherwise impair Surety's obligations or Obligee's rights hereunder; Surety hereby waives notice from the Obligee of any such changes, adjustments of Contract Time, adjustments of Contract Price, alterations, deletions, additions or other modifications to the Contract Documents, the Work to be performed under the Contract Documents, or the Drawings or the Specifications.

In the event of the Obligee's termination of the Contract due to the Principal's breach or default of the Principal's obligations thereunder, within twenty (20) days after written notice from the Obligee to the Surety of the Principal's breach or default of the Contract Documents and Obligee's termination of the Contract, the Surety shall notify Obligee in writing of Surety's assumption of obligations hereunder by its election to either remedy the default or breach of the Principal or to take charge of the Work of the Contract Documents and complete the Work at its own expense ("the Notice of Election"); provided, however, that the procedure by which the Surety undertakes to discharge its obligations under this

**[CONTINUED NEXT PAGE]**

Bond shall be subject to the advance written approval of the Obligee, which approval shall not be unreasonably withheld, limited or restricted. The insolvency of the Principal or the Principal's denial of a failure of performance or default under the Contract Documents shall not by itself, without the Surety's prompt, diligent inquiry and investigation of such denial, be justification for Surety's failure to give the Notice of Election or for its failure to promptly remedy the failure of performance or default of the Principal or to complete the Work.

In the event the Surety fails to issue its Notice of Election to Obligee within the time provided for hereinabove, 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 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 of the Work exceeding the then remaining balance of the Contract Price; provided that the Surety's liability hereunder for the costs of performance, damages and other costs sustained by the Obligee upon the Principal's failure of performance or default under the Contract Documents shall be limited to the penal sum hereof, which shall be deemed to include the costs or value of any Changes to the Work which increases the Contract Price.

In the event that suit or other proceeding is brought upon this Bond by the Obligee, the Surety and Principal shall be jointly and severally liable for payment to the Obligee of all costs, expenses and fees incurred by the Obligee 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 agent or representative

\_\_\_\_\_  
**(Contractor-Principal Name)**

By: \_\_\_\_\_  
 (Signature)

\_\_\_\_\_  
 (Typed or Printed Name)

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

**(Attach Notary Public Acknowledgement of Principal's Signature)**

\_\_\_\_\_  
**(Surety Name)**

By: \_\_\_\_\_  
 (Signature of Attorney-In-Fact for Surety)

\_\_\_\_\_  
 (Typed or Printed Name of Attorney-In-Fact)

**(Attach: (i) Attorney-In-Fact Certification; (ii) Notary Public Acknowledgment of Authorizing Signature on Attorney-Fact Certification; and (iii) Notary Public Acknowledgement of Attorney-In-Fact's Signature.)**

**Contact name, address, telephone number and email address for notices to the Surety**

(Contact Name)

(Street Address)

(City, State & Zip Code)

( ) ( )  
 Telephone Fax

(Email address)



**LABOR AND MATERIAL PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS that we, \_\_\_\_\_, as Surety and \_\_\_\_\_, as Principal, are jointly and severally, along with their respective heirs, executors, administrators, successors and assigns, held and firmly bound unto **ROWLAND UNIFIED SCHOOL DISTRICT** ("the Obligee") for payment of the penal sum the penal sum of \_\_\_\_\_ Dollars (\$ \_\_\_\_\_) in lawful money of the United States, well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors and assigns, jointly and severally.

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

WHEREAS, the Obligee, by resolution of its Board of Education has awarded to the Principal a Contract for the Work described as:

**RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT; RFP# 2017/18(R7)**

WHEREAS, the Principal, has entered into an Agreement with the Obligee for performance of the Work, the Agreement and all other Contract Documents set forth therein are incorporated herein by this reference and made a part hereof.

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: (i) to any Claimant for all labor, materials or services used or reasonably required for use in the performance of the Work; (ii) of amounts due under the Unemployment Insurance Code for work or labor performed under the Contract; and (iii) of amounts required to be deducted, withheld and paid to the Employment Development Department from wages of the employees of the Principal and its Subcontractors under Section 13020 of the Unemployment Insurance Code with respect to work and labor under the Contract 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 §1900, 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 attorney's fees pursuant to California Civil Code §9554.

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 agent or representative.

\_\_\_\_\_  
**(Contractor-Principal Name)**

By: \_\_\_\_\_  
(Signature)

\_\_\_\_\_  
(Typed or Printed Name)

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

**(Attach Notary Public Acknowledgement of Principal's Signature)**

\_\_\_\_\_  
**(Surety Name)**

By: \_\_\_\_\_  
(Signature of Attorney-In-Fact for Surety)

\_\_\_\_\_  
(Typed or Printed Name of Attorney-In-Fact)

**(Attach: (i) Attorney-In-Fact Certification; (ii) Notary Public Acknowledgment of Authorizing Signature on Attorney-Fact Certification; and (iii) Notary Public Acknowledgement of Attorney-In-Fact's Signature)**

**Contact name, address, telephone number and email address for notices to the Surety**

\_\_\_\_\_  
(Contact Name)

\_\_\_\_\_  
(Street Address)

\_\_\_\_\_  
(City, State & Zip Code)

(\_\_\_\_\_) \_\_\_\_\_ (\_\_\_\_\_) \_\_\_\_\_  
Telephone Fax

\_\_\_\_\_  
(Email address)

**VERIFICATION OF CERTIFIED PAYROLL RECORDS SUBMITTAL TO LABOR COMMISSIONER**

I am the \_\_\_\_\_ for \_\_\_\_\_ in connection with \_\_\_\_\_.  
(Superintendent/Project Manager) (Contractor)  
(Project Name)

1. This Verification is submitted to Rowland Unified School District concurrently with the Contractor's submittal of an Application for Progress Payment to the District, identified as Application For Progress Payment No. \_\_\_\_\_ ("the Pay Application").

2. The Pay Application requests the District's disbursement of a Progress Payment for the value of Work performed between \_\_\_\_\_, 20\_\_ and \_\_\_\_\_, 20\_\_.

3. The Contractor has submitted Certified Payroll Records ("CPR") to the Labor Commissioner for all employees of the Contractor engaged in performance of Work subject to prevailing wage rate requirements for the period of time covered by the Pay Application.

4. All Subcontractors who are entitled to any portion of payment to be disbursed pursuant to the Pay Application have submitted their CPRs to the Labor Commissioner for all of their employees performing Work subject to prevailing wage rate requirements for the period of time covered by the Pay Application.

5. I have reviewed the Contractor's CPRs submitted to the Labor Commissioner. The CPRs submitted to the Labor Commissioner by the Contractor are complete and accurate for the period of time covered by the Pay Application.

6. I have reviewed the Subcontractors' CPRs submitted to the Labor Commissioner. The CPRs submitted to the Labor Commissioner by the Subcontractors are complete and accurate for the period of time covered by the Pay Application.

I declare under penalty of perjury under California law that the foregoing is true and correct. I executed this Certification on the \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_ at

\_\_\_\_\_  
(City and State)

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

\_\_\_\_\_  
(Typed or Printed Name)

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## GUARANTEE

### **Project: RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT; RFP# 2017/18(R6)**

The Contractor hereby warrants and guarantees to the District that all work, materials, equipment and workmanship provided, furnished or installed by or on behalf of Contractor in connection with the above referenced Project (the "Work") have been provided, furnished and installed in strict conformity with the Contract Documents for the Work, including without limitation, the Drawings and the Specifications. Contractor further warrants and guarantees that all work, materials, equipment and workmanship as provided, furnished and/or installed are fit for use as specified and fulfill all applicable requirements of the Contract Documents including without limitation, the Drawings and the Specifications. Contractor shall, at its sole cost and expense, repair, correct and/or replace any or all of the work, materials, equipment and/or workmanship of the Work, together with any other items which may be affected by any such repairs, corrections or replacement, that may be unfit for use as specified or defective within a period of two (2) years from the date of the District's Final Acceptance of the Work, ordinary wear and tear and unusual abuse or neglect excepted.

In the event of the Contractor's failure and/or refusal to comply with the provisions of this Guarantee, within the period of time set forth in the Contract Documents after the District's issuance of the Notice to the Contractor of any defect(s) in the Work, materials, equipment or workmanship, Contractor authorizes the District, without further notice to Contractor, to repair, correct and/or replace any such defective item at the expense of the Contractor. The Contractor shall reimburse the District for all costs, expenses or fees incurred by the District in providing or performing such repairs, corrections or replacements within ten (10) days of the District's presentation of a demand to the Contractor for the same.

The provisions of this Guarantee and the provisions of the Contract Documents for the Work relating to the Contractor's Guarantee(s) and warranty(ies) relating to the Work shall be binding upon the Contractor's Performance Bond Surety and all successors or assigns of Contractor and/or Contractor's Performance Bond Surety.

The provisions of this Guarantee are in addition to, and not in lieu of, any provisions of the Contract Documents for the Work relating to the Contractor's guarantee(s) and warranty(ies) or any guarantee(s) or warranty(ies) provided by any material supplier or manufacturer of any equipment, materials or other items forming a part of, or incorporated into the Work, or any other guarantee or warranty obligation of the Contractor, prescribed, implied or imposed by law.

The undersigned individual executing this Guarantee on behalf of Contractor warrants and represents that he/she is duly authorized to execute this Guarantee on behalf of Contractor and to bind Contractor to each and every provision hereof.

### **Contractor**

\_\_\_\_\_  
(Contractor Name)

\_\_\_\_\_  
(Signature of Contractor's Authorized Employee, Officer  
Or Representative)

\_\_\_\_\_  
(Printed Name and Title)

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

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## GENERAL CONDITIONS

### ARTICLE 1: DEFINITIONS

1.1 District. "District" refers to **ROWLAND UNIFIED SCHOOL DISTRICT** and unless otherwise stated, includes the District's authorized representatives, including the Project Manager, if a Project Manager is designated, the District's Board of Education and the District's officers, employees, agents and representatives.

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

1.3 Architect. The Architect is the person or entity identified as such in the Agreement; references to the "Architect" include, as required by context of usage, the Architect's employees and authorized representative(s) and the Architect's Consultants and their employees and authorized representative(s).

1.4 The 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.

1.5 The 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.

1.6 Surety. The Surety is the person or entity that executes, as surety, the Contractor's Labor and Material Payment Bond and/or Performance Bond.

1.7 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. References to "Subcontractor" shall include Sub-Subcontractors.

1.8 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.

1.9 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 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.

1.10 Special Conditions; Supplemental Conditions. Special Conditions and/or Supplemental Conditions, if any are special or supplemental provisions, not otherwise provided for in the

Agreement or the General Conditions.

1.11 Contract Documents. The Contract Documents consist of the Agreement between the District and the Contractor, Conditions of the Contract (whether General, Special, Supplemental 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.

1.12 Intent and Correlation of Contract Documents.

1.12.1 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.

1.12.2 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.

1.12.3 Conflict in Contract Documents. Conflicts, inconsistencies or ambiguities in the Contract Documents shall be resolved by the Architect in accordance with Article 3.1.9 of the General Conditions; where conflicts or inconsistencies arise between the Drawings and the Specifications, in resolving such conflicts or inconsistencies, the Architect will be governed generally by the following standards: the Drawings are intended to describe matters relating to placement, type, quantity and the like; the Specifications are intended to describe matters relating to quality, materials, compositions, manufacturers and the like. If conflicts exist between portions of the Contract Documents regarding the quality of any item, product, equipment or materials, unless otherwise directed or authorized by the District, the Contractor shall provide the item, product, equipment or material of the highest or more stringent quality.

1.13 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, Material Supplier, or others 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, Subcontractors or Material Suppliers are collectively referred to as "Submittals".

1.14 Division of State Architect ("DSA"). 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 Regulatory 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.

1.15 Project Inspector. The Project 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 Project 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.

1.16 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 Architect. 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 areas similarly marked as “typical”; Work in such other areas shall conform to that shown as “typical” or as reasonably inferable therefrom.

1.17 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.

1.18 Record Drawings. The Record Drawings are a set of the Drawings 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 Drawings 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.

1.19 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. In the event that a Project Manager is not designated in the Special Conditions, the District reserves the right to designate a Project Manager at any time during Contractor’s performance of the Work. The District reserves the right to remove or replace the Project Manager during Contractor’s performance of the Work. The designation of a Project Manager, if one has not been designated in the Special Conditions, or 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.

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

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

1.22 Field Clarifications. A written or graphic document consisting of supplementary details, instructions or information issued on behalf of the District which clarifies or supplements the Contract Documents and which becomes a part of the Contract Documents upon issuance. Field Clarifications do not constitute an adjustment of the Contract Time or the Contract Price, unless a Change Order relating to a Field Clarification is authorized and issued under the Contract Documents.

1.23 Defective or Non-Conforming Work. Defective or Non-Conforming Work is any Work which is unsatisfactory, faulty or deficient by: (i) not conforming to the requirements of the



Contract Documents; (ii) not conforming to the standards of workmanship of the applicable trade or industry; (iii) not being in compliance with the requirements of any inspection, reference, standard, test, or approval required by the Contract Documents; or (iv) damage occurring prior to Final Completion of all of the Work.

1.24 Delivery. Delivery used in conjunction with any equipment, materials or other items to be incorporated into the Work shall mean the unloading and storage in a protected condition at the Site pending incorporation into the Work.

1.25 Notice to Proceed. The Notice to Proceed is the written notice issued by or on behalf of the District to the Contractor authorizing the Contractor to proceed with commencement of the Work and which establishes the date for commencement of the Contract Time.

1.26 Progress Reports; Verified Reports. Progress Reports, if required, are written reports prepared by the Contractor and periodically submitted to the District in the form and content as required by the Contract Documents. Verified Reports are periodic written reports prepared by the Contractor and submitted to the DSA; Verified Reports shall be in such form and content as required by the applicable provisions of Title 24 of the California Code of Regulations. A material obligation of the Contractor is the preparation of complete and accurate Progress Reports, if required, and Verified Reports as well as the timely submission of the same.

1.27 Laws. Laws refer to all laws, ordinances, codes, rules and/or regulations promulgated by any governmental or quasi-governmental agency with jurisdiction over any portion of the Work and which apply to any portion of the Work, including those in effect as of the execution of the Agreement, amendments thereto and subsequently enacted Laws that take effect during the performance of the Work. No adjustment of the Contract Time or the Contract Price shall be allowed for the Contractor's compliance with the Laws.

1.28 Construction Change Directive. A Construction Change Directive is a written instrument issued by or on behalf of the District to the Contractor directing a Change to the Work prior to the Contractor and District reaching full agreement on an adjustment of the Contract Time and/or Contract Price on account of such Change. A material obligation of the Contractor is timely performance of Work noted in a Construction Change Directive.

## **ARTICLE 2: DISTRICT**

### 2.1 Information Required of District.

2.1.1 Surveys; Site Information. Information, if any, concerning physical characteristics of the Site, including without limitation, surveys, soils reports, and utility locations, to be provided by the District are set forth in the Contract Documents. Information not provided by the District or necessary information in addition to that 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 Permits, Approvals. Except as otherwise provided in the Contract Documents, the District shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities which relate to the Work. If permits, licenses, approvals or similar approvals relating to the Work, or the installation/construction thereof are designated as the responsibility of the Contractor under the Contract Documents, the Contractor shall obtain the same without adjustment of the Contract Price or the Contract Time.

2.1.3 Drawings and Specifications. Except as otherwise provided for in the Contract

Documents, the District shall furnish the Contractor, free of charge, the number of copies of the Drawings and the Specifications as set forth in the Special Conditions. All of the Drawings and the Specifications provided by the District to the Contractor 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.

2.1.4 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. If 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 existing improvements, the conditions and/or existing improvements depicted in the Contract Documents are as they are believed to exist. The Contractor shall bear the risk of any variations between conditions or existing improvements depicted in the Contract Documents and those conditions or existing improvements actually encountered in the performance of the Work. The existence of any variations between conditions or existing improvements depicted in the Contract Documents and those actually encountered in the performance of the Work shall not result in any District liability therefor, nor shall any such variations result in an adjustment of the Contract Time or the Contract Price.

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: (i) waive or limit the exercise of any other right or remedy of the District under the Contract Documents or the Laws; or (ii) result in adjustment of the Contract Time or Contract Price.

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: (i) the District has obtained the consent of, or is otherwise authorized by, public authorities with jurisdiction thereof, to so occupy or use such portion of the Work and (ii) the District and the Contractor have accepted, in writing, the responsibilities assigned to each of them for security, maintenance, utilities, damage to the Work, insurance, 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 in (ii) 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 Project Inspector, the Project Manager, 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. Repairs, replacements or

other corrective action noted in such inspection shall be promptly performed and completed by the Contractor so that the portion of the Work to be occupied or used by the District is in conformity with the requirements of the Contract Documents and the District's occupancy or use thereof is not impaired. 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.** The District's partial occupancy or use of the Work, or any portion thereof, shall not constitute the District's acceptance of the Work which is defective or non-conforming.

**2.4 The Project Inspector.**

**2.4.1 Authority of Project Inspector.** In addition to the authority and rights of the Project Inspector as provided for elsewhere in the Contract Documents and/or the Laws, all of the Work shall be performed under the observation of the Project Inspector. The foregoing notwithstanding, the Contractor shall not perform any Work deviating from the Contract Documents solely on the basis of direction by the Project Inspector; such deviations shall be deemed defective or non-conforming Work subject to correction or replacement at the sole cost of the Contractor and without adjustment of the Contract Time. The performance of the duties of the Project Inspector shall not relieve or limit the Contractor's performance of its obligations under the Contract Documents.

**2.4.2 Limitations on Project Inspector.** The Project Inspector does not have authority to interpret the Contract Documents or to modify the Work depicted in the Contract Documents. The Project Inspector has no authority relative to the content or scope of the Contractor's safety plan/program. The Contractor shall not perform any Work deviating from the Contract Documents solely on the basis of direction by the Project Inspector; such deviations shall be deemed Defective or Non-Conforming Work subject to correction or replacement at the sole cost of the Contractor and without adjustment of the Contract Time.

**2.4.3 Contractor Access for Project Inspector.** The Contractor shall provide the Project Inspector with access to all parts of the Work at any time, wherever located and whether partially or completely fabricated, manufactured, furnished or installed.

**2.4.4 Contractor and District Responsibilities for Costs and Fees of Project Inspector.** The District is responsible only for payment of the fees of the Project Inspector for standard eight (8) hour work day Mondays through Fridays, excepting holiday days ("Project Inspector Standard Workdays"). All services provided by the Project Inspector exceeding an eight (8) hour workday Mondays through Fridays and/or the first eight (8) hours on Saturday shall be at 1½ times the Project Inspector's basic hourly rate. All hours of service provided by the Project Inspector in excess of eight (8) hours on Saturdays, and all hours of service provided by the Project Inspector on holiday days or on Sundays are at two (2) times the Project Inspector's basic hourly rate. Fees for services provided by the Project Inspector beyond the Project Inspector Standard Workdays set forth above are the sole responsibility of the Contractor; the District may deduct fees for the Project Inspector which exceeds the Project Inspector Standard Workdays from the Contract Price.

**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. The Architect will

advise and consult with the District, the Project Manager, if any, and the Project Inspector with respect to the administration of the Contract and the Work. The Architect is authorized to act on behalf of the District to the extent provided for in the Contract Documents; and shall have the responsibilities and authority established by the Laws.

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 is not 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 Review of Applications for Payment. Pursuant to Article 8 hereof, the Architect will review the Contractor's Payment Applications and for Application For Final Payment, evaluate the extent of Work performed and verify to the District the amount properly due the Contractor.

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, for implementation of the intent of the Contract Documents, the Architect is authorized to require additional inspections or testing of the Work, 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 modify requirements of the Contract Documents or any obligation of the Contractor under the Contract Documents.

3.1.6 Submittals.

3.1.6.1 Processing of Submittals. Submittals required by the Contract Documents shall be prepared by or on behalf of the Contractor in accordance with the requirements of the Contract Documents. If the District retains a Project Manager for the Work, Submittals shall be transmitted by the Contractor to the Project Manager for distribution by the Project Manager to the Architect and the District. Upon completion of the Architect's review of a Submittal, the Project Manager shall transmit the reviewed Submittal to the Contractor for the Contractor's distribution to its Subcontractor(s) and other affected parties. If the District does not retain a Project Manager for the Work, Submittals shall be submitted by the Contractor to the Architect or such other party designated in the Contract Documents or by the Architect for review and processing.

3.1.6.2 Architect's Review. 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 general conformance with information given and 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 with the Submittal(s) required and relating to such assembly have been reviewed by the Architect.

3.1.6.3 Time for Architect's Review. The Architect's review of Submittals will be conducted promptly so as not to delay or hinder the progress of the Work or the activities of the Contractor, the District or the District's separate contractors while allowing sufficient time, in the Architect's reasonable professional judgment, to permit adequate review of Submittals. The foregoing notwithstanding, the Architect's review and return of Submittals will conform with the time limits and other conditions, if any, set forth in the Specifications or the Submittal Schedule if the Submittal Schedule is required by other provisions of the Contract Documents, but shall, under no circumstance, be less than fifteen (15) days.

3.1.7 Issuance of Construction Change Directive. The Architect is authorized to issue Construction Change Directives.

3.1.8 Changes to the Work; Change Orders. The Architect will prepare Change Orders, and may authorize minor Changes in the Work which do not result in adjustment of the Contract Time or the Contract Price.

3.1.9 Completion. In conjunction with the District, Project Inspector, Project Manager, if any, and the Contractor, the Architect will conduct observations of the Work to determine the date(s) of Substantial Completion and Final Completion. If the District does not designate a Project Manager for the Work, the Architect shall: (i) be authorized to enforce the Contractor's close-out obligations; and (ii) receive from the Contractor and the records, written warranties and related close-out materials assembled by the Contractor in accordance with the Contract Documents.

3.1.10 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. The Architect's response to such requests will be made with reasonable promptness and within the time limits agreed upon, if any. If no agreement is reached establishing the time for the Architect's review and response to requests under this Article 3.1.10, the Architect shall be afforded a fifteen (15) day period after receipt of such request to review and respond thereto. Interpretations and decisions of the Architect will: (i) be consistent with the intent of and reasonably inferable from the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions; (ii) endeavor to secure faithful performance by both the District and the Contractor; (iii) not show partiality to either the District or Contractor; and (iv) not result in liability 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.

3.1.11 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"), Contractor shall timely notify the Architect, in writing, of the Conditions encountered and to request information from the Architect 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 Architect 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. In requesting information of the Architect to address and resolve any Conditions the Contractor shall act with promptness in submitting any such written request so as to allow the Architect a reasonable period of time to review, evaluate and respond to any such request, taking into account the then current status of the progress and completion of the Work and the actual or potential impact of any such Conditions upon the completion of the Work within the Contract Time. The Contract Time shall not be subject to adjustment in the event that the Contractor shall fail to timely request information from the Architect. The Architect's responses to any such Contractor request for information shall conform to the standards and time frame set forth in Article 3.1.10 of these General Conditions. The foregoing provisions notwithstanding, if 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; (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. In responding to any of Contractor's request(s) for information, the Architect shall, in the response, indicate if the Architect has made the determination pursuant to the preceding sentence and, if so, the costs to be borne by the Contractor for the processing, review, evaluation and response to the request for information. Thereafter, the District is authorized to deduct such costs from any portion of the Contract Price then or thereafter due the Contractor.

3.2 Communications; Architect's Role. All communications regarding the Work, the performance thereof or the Contract Documents shall be in writing; verbal communications shall be reduced to writing. If the District does not designate a Project Manager for the Work, communications between the Contractor and the District shall be through the Architect. Communications between separate contractors, if any, shall be through the Architect.

3.3 Termination of Architect; Substitute Architect. In case of termination of employment of the Architect, the District shall appoint a substitute architect whose status under the Contract Documents shall be that of the Architect.

3.4 Project Manager. If a Project Manager is designated for the Work, the Project Manager shall be a representative of the District until Final Completion is achieved and Final Payment is due the Contractor. The Project Manager is authorized to act on behalf of the District and in connection with the Work as set forth in the Contract Documents, including without limitation: (i) review of the Contractor's Construction Schedule and updates thereto; (ii) review of the Contractor's Applications for Payment and verification of the amount due the Contractor under an Application for Payment; (iii) conducting the Pre-Construction Meeting, Progress Meetings and/or Special Meetings and maintaining minutes thereof; and (iv) enforcement of the Contractor's obligations under the Contract Documents, including the Contractor's close-out obligations.

**ARTICLE 4: THE CONTRACTOR****4.1 Contractor Review of Contract Documents.**

4.1.1 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 Architect 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 notice to the Architect of the same, the Contractor shall assume full responsibility for such performance and shall bear all costs for correction of the same without adjustment of the Contract Price.

4.1.2 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 with information provided in the Contract Documents. Errors, inconsistencies or omissions discovered shall be immediately reported to the Architect along with request for clarification or direction.

4.1.3 Dimensions; Layouts and Field Engineering. Unless otherwise expressly provided, dimensions indicated in the Drawings are intended for reference only. The Drawings are intended to be diagrammatic and schematic in nature; the Contractor is solely responsible for dimensioning and coordinating the Work of the Contract Documents. All field engineering required for laying out the Work and 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 the an engineer duly registered under the laws of the State of California in the engineering discipline for such portion of the Work.

4.1.4 Work in Accordance With Contract Documents. The Contractor shall perform all of the Work in strict conformity with the Contract Documents, the Laws and Architect accepted Submittals.

**4.2 Site Investigation; Subsurface Conditions.**

4.2.1 Contractor Investigation. The Contractor is 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 Contract Documents.

4.2.2 Subsurface Data. By executing the Agreement, the Contractor acknowledges that it has examined the boring data and other 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 are neither guaranteed or warranted by the District to be complete and accurate. The Contractor shall examine all boring and other 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.

4.2.3 Subsurface Conditions. If the Work 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 Project 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 Supervision and Construction Procedures.

4.3.1 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.

4.3.2 Responsibility for the Work. The Contractor is 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 is not relieved from its obligation to perform the Work in accordance with the Contract Documents either by activities or duties of the Project Manager, Project Inspector or the Architect, or by tests, inspections or approvals required or performed by persons other than the Contractor.

4.3.3 Surveys. The Contractor shall prepare or cause to be prepared all detailed surveys necessary for performance of the Work, including without limitation, slope



stakes, points, lines and elevations. The Contractor is responsible for the establishment, location, maintenance and preservation of benchmarks, reference points and stakes for the Work without adjustment of the Contract Price. The Contractor is solely responsible for all loss or costs resulting from the loss, destruction, disturbance or damage of benchmarks, reference points or stakes.

4.3.4 Construction Utilities. The District will furnish and pay the costs of utility services for the Work as set forth in the Special Conditions; all other utilities necessary to complete the Work and the Contractor's obligations hereunder shall be obtained by the Contractor without adjustment of the Contract Price or the Contract Time. The Contractor shall furnish and install necessary or appropriate temporary distributions of utilities, including utilities furnished by the District. 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, relocations and removal of temporary distributions thereof, shall be borne by the Contractor and included in the Contract Price.

4.3.5 Existing Utilities; Removal, Relocation and Protection.

4.3.5.1 Contractor Responsibility for Locating Utilities. The Contractor is responsible for locating all below grade drainage lines, storm drains, sewers, domestic water, gas, electrical, hot water and irrigation utility services, vaults, duct banks and other similar items or utilities services (collectively "Underground Facilities") which are shown in the Drawings or other portions of the Contract Documents; or (ii) which are identified in information relating to Underground Facilities maintained by the regional notification center, "Underground Service Alert" ("USA"). Contractor shall locate and mark locations of the Underground Facilities shown in the Contract Documents and information relating to Underground Facilities maintained by USA before proceeding with Work that may: (i) damage, destroy or impair Underground Facilities; or (ii) limit, disrupt or interrupt utility services provided through Underground Facilities. Prior to commencing Work in the proximity of Underground Facilities or other underground structures that can be readily inferred from adjacent surface improvements, Contractor shall further locate, by carefully excavating with small equipment, potholing and principally by hand, such utilities or installations that are to remain and that are subject to damage, destruction or disruption.

4.3.5.2 Contractor Responsibility for Damage to Underground Facilities. Without adjustment of the Contract Time or the Contract Price, the Contractor shall repair or replace all damage to or destruction of Underground Facilities occurring during performance of the Work. All such repairs or replacements shall be with materials, equipment and other items consistent with those in place prior to commencement of the Work and when the repair or replacement is completed, the Underground Facilities shall be in the same functional and operational condition as prior to the damage or destruction.

4.3.5.3 Contractor Responsibility for Maintaining Utility Services. The Contractor shall maintain in service all utility services provided through the Underground Facilities unless the Contractor has notified the District and Construction Manager in writing of utility service disruptions at least two (2) working days in advance of the anticipated disruption of utility services. Notwithstanding the Contractor's notice pursuant to the foregoing, the District may, in the sole discretion of the District, direct alternative times/days for the anticipated utility service disruption as necessary for conduct of on-going activities or operations of the District at and about the Site. The Contractor shall be liable for all costs, fees or charges incurred by the District to provide

utility services if there is disruption, interruption or limitation of any utility services for which the Contractor has not provided the advance written notice of utility disruption pursuant to the foregoing. The District may deduct such costs, fees or charges from the Contract Price then or thereafter due the Contractor.

4.3.5.4 Unmarked; Unknown Utilities. Additional Underground Facilities not shown in the Contract Documents or USA data may exist on or about the Site. The Contractor shall be alert to their existence; if they are encountered, Contractor shall immediately report such Underground Facilities to the Project Inspector, Construction Manager and District for disposition of the same prior to disturbing any existing condition. In accordance with California Government Code §4215, the District is responsible for the timely removal, relocation, or protection of existing main or trunkline utility facilities located on the Site which are not identified in the 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 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 District of the utility to provide for removal or relocation of such utility facilities. Nothing in this Article 4.3.5 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 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 reasonable price.

4.3.6 Conferences and Meetings. A material obligation of the Contractor under the Contract Documents is the attendance at meetings and conferences relating to the Work by the Contractor's supervisory personnel for the Work and the Contractor's management personnel as required by the Contract Documents or as requested by the District. The Contractor's personnel participating in conferences and meetings relating to the Work shall be authorized to act on behalf of the Contractor and to bind the Contractor. The Contractor is solely responsible for arranging for the attendance by Subcontractors, Material Suppliers at meetings and conferences relating to the Work as necessary, appropriate or as requested by the District.

4.3.6.1 Pre-Construction Conference. The Contractor's representatives (and representatives of Subcontractors as requested by the District) shall attend a Pre-Construction Conference at such time and place as designated by the District. The Pre-Construction Conference will address items such as the Contractor's access to the Site, review of construction procedures and requirements and other matters pertaining generally to construction of the Work.

4.3.6.2 Progress Meetings. Progress meetings will be conducted on regular intervals (weekly unless otherwise expressly indicated elsewhere in the Contract Documents). The Contractor's representatives and representatives of Subcontractors (as requested by the District) shall attend Progress Meetings. Progress Meetings will be chaired by the Architect or the Project Manager and will generally include as agenda items: Site safety, field issues, coordination of Work, construction progress and impacts to timely completion, if any. The purposes of the Progress Meetings include without limitation: a formal and regular forum for discussion of the status and progress of the Work by all

Project participants, a review of progress or resolution of previously raised issues and action items assigned to the Project participants, and reviews of the Construction Schedule and Submittals.

4.3.6.3 Pre-Installation Conference. The Contractor's representatives (and representatives of Subcontractors as requested by the District or the Project Manager) shall attend a Pre-Installation Conference prior to the initiation of a new phase of Work or in connection with the delivery and installation of major items of equipment incorporated into the Work. Pre-Installation Conferences will generally address the requirements of the new phase of Work and Contract Documents, and/or to coordinate delivery and installation of major equipment items.

4.3.6.4 Special Meetings. As deemed necessary or appropriate by the District, Special Meetings will be conducted with the participation of the Contractor, Subcontractors and other Project participants as requested by the District.

4.3.6.5 Minutes of Meetings. Following conclusion of the Pre-Construction Conference, Progress Meetings and Special Meetings, the Architect or the Project Manager will prepare and distribute minutes reflecting the items addressed and actions taken at a meeting or conference. Unless the Contractor notifies the Architect or the Project Manager in writing of objections or corrections to minutes prepared hereunder within five (5) days of the date of distribution of the minutes, the minutes as distributed shall constitute the official record of the meeting or conference. No objections or corrections of any Subcontractor or Material Supplier shall be submitted directly to the Architect or the Project Manager; such objections or corrections shall be submitted to the Architect and the Project Manager through the Contractor. If the Contractor timely interposes objections or notes corrections, the resolution of such matters shall be addressed at the next scheduled Progress Meeting.

#### 4.4 Labor and Materials.

4.4.1 Payment for Labor, Materials and Services. Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, Construction Equipment and machinery, water, heat, utilities, transportation, 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.

4.4.2 Employee Discipline. The Contractor shall enforce strict discipline and good order among the Contractor's employees, the employees of any Subcontractor or Sub-subcontractor, 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 employ and direct any Subcontractor or Sub-subcontractor to dismiss from their employment 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.

4.4.3 Compliance with Immigration Reform and Control Act of 1986. The Contractor 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. (the "IRCA"); the Contractor shall also require Subcontractors and any other person or entity employing labor in connection with any of the Work to so similarly comply with the IRCA. The foregoing includes without limitation, verification

that individuals engaged in any Work are legally entitled to do so.

#### 4.4.4 Contractor's Project Manager and Superintendent

4.4.4.1 Qualifications of Contractor Superintendent and Contractor Project Manager. Prior to start of Work at the Site, the Contractor shall submit in writing to the District and Construction Manager, the qualifications of the Contractor's proposed superintendent ("Contractor Superintendent") and the Contractor's proposed Project Manager ("Contractor PM") for acceptance by the Construction Manager and District. The Contractor's proposed Contractor Superintendent and proposed Contractor PM shall each have recent experience in similar types of construction to the Work. The Contractor's proposed Contractor Superintendent and Contractor PM shall be satisfactory to the District and Construction Manager and shall not be changed during the Work unless the Contractor's employment of the Contractor Superintendent or Contractor PM is terminated by the Contractor for cause or the Contractor Superintendent or Contractor PM voluntary ceases employment by the Contractor. The Contractor shall dismiss the Contractor Superintendent or the Contractor PM 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 Contractor Superintendent or Contractor Project Manager, as applicable.

4.4.4.2 Contractor Superintendent. Competency of the Contractor Superintendent shall include, without limitation, a minimum of three (3) years prior experience as a superintendent for a general contractor on projects similar in size, scope and complexity to the Work. The Contractor's communications relating to the Work or the Contract Documents shall be through the Contractor Superintendent. The Contractor Superintendent shall represent the Contractor and communications given to the Contractor Superintendent shall be binding as if given to the Contractor.

4.4.4.3 Contractor Project Manager. The Contractor shall employ a Contractor PM who shall be a senior management employee of the Contractor. The Contractor PM shall be at the Site periodically to observe the progress and quality of the Work in progress and in place. The Contractor PM shall be responsible for directing and coordinating human and material resources of the Contractor and Subcontractors throughout the course of the Work using management techniques so that the Work is completed for the Contract Price and within the Contract Time. Prohibition on Harassment.

4.4.5 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, veteran status or other legally protected classification. 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.

4.4.5.1 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 4.4.5.

4.4.5.2 Prohibition on Harassment at the Site. Contractor shall not permit any person, whether employed by Contractor, a 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 4.4.5.2 above. Any person, performing or providing Work on or about the Site engaging 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. If 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, 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 Education, 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 4.4.5.3; 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.

4.5 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.

4.6 Permits, Fees and Notices; Compliance With Laws.

4.6.1 Payment of Permits, Fees. The Contractor shall secure and pay for permits, approvals governmental fees, licenses and inspections necessary or required for the proper execution and completion of the Work which are designated in the Contract Documents as the responsibility of the Contractor.

4.6.2 Compliance With Laws. The Contractor shall comply with and give notices required by the Laws and other orders of public authorities bearing on performance of the Work.

4.6.3 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 the Laws, the Contractor shall promptly notify the Architect, Project Manager and the Project Inspector, in writing, of the same. If the Contractor performs Work knowing, or with reasonable diligence should have known, it to be contrary to the Laws without such notice to the Architect, Project Manager and the Project Inspector, 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.

#### 4.7 Submittals.

4.7.1 Purpose of Submittals. Submittals are not Contract Documents. Submittals are for the purpose of demonstrating, 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.

##### 4.7.2 Contractor's Submittals.

4.7.2.1 Prompt Submittals. The Contractor shall review, approve and submit to the Architect or such other person or entity designated by the District or the Contract Documents, the number of copies of Submittals required by the Contract Documents. All Submittals required by the Contract Documents shall be prepared, assembled and submitted by the Contractor within the time frames set forth in the Submittal Schedule incorporated and made a part of the Approved Construction Schedule. Contractor's submission of Submittals in conformity with the Submittal Schedule is a material obligation of the Contractor. If the Contractor fails or refuses to deliver Submittals in accordance with the Submittal Schedule, the Contractor shall be subject to per diem assessments in the amount set forth in the Special Conditions for each day of delayed submission for any Submittal beyond the date set forth in the Submittal Schedule for Contractor's submission of such Submittal. Contractor and the District acknowledge and agree that the per diem assessment for delayed submission of Submittals set forth in the Special Conditions represents a reasonable estimate of costs and expenses the District will incur as a result of delayed submission of Submittals and that the same is not a penalty. Notwithstanding Contractor's submission of all required Submittals in accordance with the Submittal Schedule, in the event that the District or the Architect reasonably determines that all or any portion of such Submittals fail to comply with the requirements of Articles 4.7.2.2, 4.7.2.3 and 4.7.2.4 of these General Conditions and/or such Submittals are not otherwise complete and accurate so as to require re-submission, Contractor shall bear all costs associated with the review and approval of resubmitted Submittals, including without limitation Architect's fees incurred in connection therewith; provided that such costs are in addition to, and not in lieu of, Liquidated Damages imposed under this Article 4.7.2.1 for Contractor's delayed submission of Submittals. If Liquidated Damages are assessed for the Contractor's delayed submission of

Submittals or if the Contractor is assessed Architect fees to review incomplete or inaccurate Submittals, the District may deduct the same from any portion the Contract Price then or thereafter due the Contractor. Submittals not required by the Contract Documents or which do not otherwise conform to the requirements of 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 timely submit of any Submittal.

4.7.2.2 Approval of Subcontractor Submittals. All Submittals prepared by Subcontractors, 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 to the Contract Time or the Contract Price.

4.7.2.3 Verification of Submittal Information. By approving and submission of 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.

4.7.2.4 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 by the Contract Documents for the Architect's review, evaluation and acceptance of the Contractor's Submittals.

4.7.2.5 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 review 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 Architect 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 review thereof.

4.7.2.6 No Performance of Work Without Architect Review. The Contractor shall perform no portion of the Work requiring the Architect's review of Submittals until the Architect has completed its review and returned the Submittal to the Contractor indicating "No Exception Taken" to 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 processed. Such Work shall be in accordance with the final action taken by the Architect in review of Submittals and other applicable portions of the Contract Documents.

4.7.3 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. If the Architect returns a Submittal as rejected or requiring correction(s) with 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 accordance with the Architect’s direction. 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. The following notations or notations of a similar nature noted on a reviewed Submittal will require the Contractor action noted below.

Notation	Action Required
No Exceptions Taken	No formal revision required
Make Corrections Noted	Make revision noted; re-submission of revised Submittal not required
Revise and Re-Submit	Revise Submittal in accordance with notations and re-submit for revision
Rejected Re-Submit	Prepare new alternative Submittal and re-submit for review

4.7.4 Deferred Approval Items. If any portion of the Work is designated in the Contract Documents as a “Deferred Approval” item, Contractor shall be solely and exclusively responsible for: (i) the design, engineering and specifying the materials/equipment forming any part of the Deferred Approval Item; (ii) integrating and/or coordinating the Deferred Approval Item with other portions of the Work; (iii) 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; and (iv) timely obtaining DSA approval thereof.

4.8 Materials and Equipment.

4.8.1 Specified Materials, Equipment. 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.

4.8.2 Approval of Substitutions or Alternatives. The Contractor may propose to furnish alternatives or substitutes for a particular item specified in the Contract Documents, provided that: (i) such proposed substitution or alternative complies with the requirements of the Specifications relating to substitutions of specified items; (ii) the Contractor certifies to the Architect and District that the quality, performance capability and functionality (including visual and/or aesthetic effect) of the proposed alternative or substitute meet or exceed the quality, performance capability and functionality of the item or process specified; and (iii) demonstrate to the reasonable satisfaction of the Architect and 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 calculations engineering, construction, dimension, visual, aesthetic and performance data to the Architect to permit its proper evaluation of the proposed substitution or alternative. If requested by the Architect, Contractor shall promptly furnish any additional information or data regarding a proposed substitution or alternative which the Architect deems reasonably necessary for the evaluation of the proposed substitution or alternative. The Contractor shall not provide, furnish or install any substitution or alternative without the Architect’s review and final action on the proposed substitution or alternative; any alternative or substitution installed or



incorporated into the Work without first obtaining the Architect's review and final action of the same shall be subject to removal pursuant to Article 12 hereof. The Architect's decision evaluating the Contractor's proposed substitutions or alternatives shall be final. Neither the Contract Time nor the Contract Price shall be increased on account of any substitution or alternative proposed by the Contractor and which is accepted by the Architect; provided, however, that in the event a substitution or alternative accepted by the Architect and purchase, fabrication and/or installation or such accepted substitution or alternative shall be less expensive than the originally specified item, the Contract Price shall be reduced by the actual cost savings realized by the Contractor's furnishing and/or installation of such approved substitution or alternative. The Contractor shall be solely responsible for all costs and fees incurred by the District to review a proposed substitution or alternative, including without limitation fees of the Architect, and/or governmental agencies to review and/or approve any proposed substitution or alternative. The Contractor shall be solely responsible for any increase in the cost of any accepted substitution or alternative or any Work affected by such alternative or substitution. The foregoing notwithstanding, all requests for the Architect's review and approval of any proposed substitution or alternative and all engineering, construction, dimension and performance data substantiating the equivalency of the proposed substitution or alternative shall be submitted by Contractor not later than thirty-five (35) days following the date of the District's award of the Contract to Contractor by action of the District's Board of Education; any request for approval of proposed alternatives or substitutions submitted thereafter may be rejected summarily. The foregoing process and time limits shall apply to any proposed substitution or alternative regardless of whether the substitute or alternate item is to be provided, furnished or installed by Contractor, any Subcontractor, any Sub-Subcontractor, Material Supplier or Manufacturer.

4.8.3 "Sole Source" Products. If any material, equipment, or other item is identified in the Contract Documents as being the only source of the material, equipment or other item necessary to accomplish the intended result(s), such material, equipment or other item shall not be subject to substitution.

4.8.4 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 similarly place orders for all materials and/or equipment to be furnished by any such Subcontractor in a prompt and timely manner so that delivery of the same shall be made without delay or interruption to the timely completion of the Work. Upon request of the District, Project Manager or the Architect, 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.

4.8.5 District's Right to Place Orders for Materials and/or Equipment. Notwithstanding any other provision of the Contract Documents, if the Contractor shall, upon request of the District, Project Manager or the Architect, fails or refuses, for any reason, 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 any orders for materials and/or equipment have not been placed in a manner so that such materials and/or equipment will be delivered 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 the right to place orders for

materials and/or equipment pursuant to the foregoing, the District's conduct shall not be deemed to be an exercise, by the District, of any control over the means, methods, techniques, sequences or procedures for completion of the Work, all of which remain the responsibility and obligation of the Contractor. Notwithstanding the right of the District to place orders for materials and/or equipment pursuant to the foregoing, the election of the District to exercise, or not to exercise, such right shall not relieve the Contractor 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.

4.8.6 Contractor and Subcontractor Communication. All written communications between the Contractor and any Subcontractor, Material Supplier or others directly or indirectly engaged by the Contractor to perform or provide any portion of the Work shall be available to the District, the Project Manager and the Architect for review, inspection and reproduction as may be requested from time to time. The foregoing is a material obligation of the Contractor hereunder.

#### 4.9 Safety.

4.9.1 Safety Programs. The Contractor shall be solely responsible for initiating, maintaining and supervising all safety programs required by the Laws required by the type or nature of the Work. The foregoing include, without limitation: (i) workplace safety programs mandated by the Laws; and (ii) safety programs and safety measures required by the OCIP, including without limitation, compliance with the California Drug Free Workplace Act of 1990 (California Government Code §§8350 et seq.). Without limiting or relieving the Contractor of its obligations hereunder, the Contractor shall require that its Subcontractors similarly initiate and maintain all appropriate or required safety programs.

4.9.2 Contractor Safety Plan. Prior to commencement of Work at the Site, the Contractor shall submit to the District and the Project Manager, if any, the Contractor's Safety Plan for the Work for review and acceptance by the District. Acceptance by the District is subject to the Safety Plan conforming to requirements of the Laws, conditions at or about the Site and the nature of the Work. The Contractor shall modify its Safety Plan as necessary to obtain the District's acceptance thereof. Notwithstanding the District's acceptance of the Contractor's Safety Plan, the Contractor shall remain solely responsible for implementing the Safety Plan and implementing measures as necessary to maintain safety of persons and property at and about the Site. The District's acceptance of the Contractor's Safety Plan shall not limit, restrict or otherwise modify the Contractor's obligations relating to safety at or about the Site in accordance with the Contract Documents and the Laws.

4.9.3 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 Subcontractors; and (iii) other property or items at the Site, or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement.

4.9.4 Safety Signs, Barricades. 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, barricades, promulgating safety regulations and notifying owners and users of adjacent sites and utilities.

4.9.5 Safety Notices. The Contractor shall give or post all safety notices required by the Laws and comply with the Laws bearing on safety of persons or property or their protection from damage, injury or loss.

4.9.6 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 Project Manager, Project Inspector and the Architect.

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

4.9.8 Hazardous Materials.

4.9.8.1 General. If 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 applicable thereto and shall exercise all necessary safety precautions relating to the use, storage or disposal thereof.

4.9.8.2 Prohibition on Use of Asbestos Construction 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. In the event that 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 Architect and the Project Inspector 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. If the Contractor fails or refuses, 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, including without limitation fees and costs of consultants and

attorneys, incurred by the District in connection with such removal and replacement shall be the responsibility of the Contractor and the Surety.

4.9.8.3 Disposal of Hazardous Materials. Contractor shall be solely and exclusively responsible for the disposal of any Hazardous Materials on or about the Site. The Contractor's obligations hereunder shall include without limitation, the transportation and disposal of any Hazardous Materials in strict conformity with the Laws.

4.9.9 Temporary Sanitary Facilities. At all times during Work at the Site, the Contractor shall obtain and maintain temporary sanitary facilities in conformity with applicable law, rule or regulation. The Contractor shall maintain temporary sanitary facilities in a neat and clean manner with sufficient toilet room supplies. Personnel engaged in the Work are not permitted to use toilet facilities at or about the Site.

4.9.10 Noise and Dust Control

4.9.10.1 Noise Control. The Contractor shall install noise reducing devices on construction equipment. Contractor shall comply with the requirements of the city and county having jurisdiction with regard to noise ordinances governing construction sites and activities. Construction Equipment noise at the Site shall be limited and only as permitted by applicable law, rule or regulation. If classes are in session at any point during the progress of the Work, and, in the District's reasonable discretion, the noise from any Work disrupts or disturbs the students or faculty or the normal operation of the School District, at the District's request, the Contractor shall schedule the performance of all such Work around normal District hours or make other arrangements so that the Work does not cause such disruption or disturbance. In no event shall such arrangements result in adjustment of the Contract Price or the Contract Time.

4.9.10.2 Dust Control. The Contractor shall be fully and solely responsible for maintaining and upkeeping all areas of the Site and adjoining areas, outdoors and indoors, free from flying debris, grinding powder, sawdust, dirt and dust as well as any other product, product waste or work waste, that by becoming airborne may cause respiratory inconveniences to persons, particularly to students and District personnel. Additionally, the Contractor shall take specific care to avoid deposits of airborne dust or airborne elements. Such protection devices, systems or methods shall be in accordance with the Laws, including, without limitation, the EPA, OSHA and Cal-OSHA,. Additionally, the Contractor shall be the sole party responsible to regularly and routinely clean up and remove any and all deposits of dust and other elements. Damage and/or any liability derived from the Contractor's failure to comply with these requirements shall be exclusively at the cost of the Contractor, including, without limitation, any and all penalties that may be incurred for violations of applicable law, rule or regulation, and any amounts expended by the District to pay such damages shall be due and payable to the District on demand. Contractor shall replace any damaged property or part thereof and professionally clean any and all items that become covered or partially covered to any degree by dust or other airborne elements. If classes are in session at any point during the progress of Work, and, in the District's reasonable discretion, flying debris, grinding powder, sawdust, dirt or dust from any Work disrupts or disturbs the students or faculty or the normal operation of the District, at the District's request, the Contractor shall schedule the performance of all such Work around normal District hours and make other arrangements so that the Work does not cause such disruption or disturbance. In no event shall such arrangements result in adjustment of the Contract Price or the Contract Time.

4.9.10.3 Air Pollution. The Contractor shall comply with all applicable air

pollution control rules, regulations, ordinances, or statutes. Neither the Contract Time nor the Contract Price shall be subject to adjustment for measures of the Contractor to comply with air pollution control requirements. The Contractor shall be solely responsible for implementing measures required by any governmental or quasi-governmental agency with jurisdiction and/or authority to enforce air pollution control measures without adjustment of the Contract Time or the Contract Price. If in performance of the Work, the Contractor violates applicable air pollution control requirements, the Contractor shall be solely responsible for discharging and satisfying any fine, penalty or remedial measure imposed by a governmental or quasi-governmental agency with authority or jurisdiction to enforce air pollution control measures. The scope of the Contractor's indemnity obligations under the Contract Documents shall include, without limitation, the defense, indemnity and hold harmless of the Indemnified Parties from any fine, penalty or remedial measure imposed by a governmental or quasi-governmental agency with authority or jurisdiction to enforce air pollution control measures as a result of the Contractor's failure or refusal to comply with its obligations hereunder.

**4.9.10.4 Contractor Failure to Comply.** If the Contractor fails to comply with the requirements for dust control, noise control, or any other maintenance or clean up requirement of the Contract Documents, the District, Architect, District Inspector or Construction Manager are each authorized to notify the Contractor in writing of such failure and the Contractor shall take immediate action. Should the Contractor fail to respond with immediate and responsive action and not later than twenty-four (24) hours from such notification, the District shall have the absolute right to proceed as it may deem necessary to remedy such matter. Any and all costs incurred by the District in connection with such actions shall be the sole responsibility of, and be borne by, the Contractor; the District may deduct such amounts from the Contract Price then or thereafter due the Contractor.

#### 4.10 Maintenance of Documents.

**4.10.1 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) Record Drawings; (v) Material Safety Data Sheets ("MSDS") accompanying any materials, equipment or products delivered or stored at the Site or incorporated into the Work; and (vi) 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 Project 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 shall be assembled and transmitted to the Architect for delivery to the District.

**4.10.2 Maintenance of Record Drawings.** During its performance of the Work, the Contractor shall maintain Record Drawings consisting of a set of the Drawings which are marked to indicate all field changes made to adapt the Work depicted in the Drawings to field conditions, changes resulting from Change Orders and all concealed or buried installations, including without limitation, piping, conduit and utility services. All buried or concealed items of Work shall be completely and accurately marked and located on the Record Drawings. The Record Drawings shall be clean and all changes, corrections and dimensions shall be marked in a neat and legible manner in

a contrasting color. Record Drawings relating to the Structural, Mechanical, Electrical and Plumbing portions of the Work shall indicate without limitation, circuiting, wiring sizes, equipment/member sizing and shall depict the entirety of the as built conditions of such portions of the Work. The Record Drawings shall be continuously maintained by the Contractor during the performance of the Work. At any time during the Contractor's performance of the Work, upon the request of the District, the Project Inspector or the Architect, the Contractor shall make the Record Drawings maintained here under available for the District's review and inspection. The District's review and inspection of the Record Drawings during the Contractor's performance of the Work shall be only for the purpose of generally verifying that Contractor is continuously maintaining the Record Drawings in a complete and accurate manner; any such inspection or review shall not be deemed to be the District's approval or verification of the completeness or accuracy thereof. The failure or refusal of the Contractor to continuously maintain complete and accurate Record Drawings or to make available the Record Drawings for inspection and review by the District may be deemed by the District to be Contractor's default of a material obligation hereunder. Without waiving, restricting or limiting any other right or remedy of the District for the Contractor's failure or refusal to continuously maintain the Record Drawings, the District may, upon reasonably determining that the Contractor has not, or is not, continuously maintaining the Record Drawings in a complete and accurate manner, take appropriate action to cause the continuous maintenance of complete and accurate Record Drawings, in which event all fees and costs incurred or associated with such action shall be charged to the Contractor and the District may deduct the amount of such fees and costs from any portion of the Contract Price then or thereafter due the Contractor. In accordance with Article 8.4.2 of these General Conditions, prior to receipt of the Final Payment, Contractor shall deliver the Record Drawings to the Architect.

4.10.3 Daily Reports By Contractor. At the end of each work day, the Contractor shall submit a daily report to the Construction Manager and the Project Inspector for document control listing all labor, materials, and equipment involved with the Work for that day, including but not limited to: (i) Labor, number of classifications of work by contractor/subcontractors, (ii) Materials used, by contractor/subcontractor, (iii) Equipment used, by contractor/subcontractors, (iv) Any inspections or testing performed, (v) Any other authorized services or expenditures.

4.10.4

4.11 Site.

4.11.1 Contractor Use of Site. The Contractor shall confine operations at the Site to areas permitted by the Laws or permits relating to the Work, 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 is 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.

4.11.2 Limitations Upon Site Activities. Except in the circumstances of an emergency, no construction activities shall be permitted at or about the Site except during the District's hours and days set forth in the Special Conditions. Work performed outside of the hours and days noted in the Special Conditions will not result in adjustment of the Contract Time or the Contract Price; unless Work outside of the hours and days noted in the Special Conditions is expressly authorized by the District. Additional or premium costs incurred by the District for Work performed outside the hours and days of Work permitted at the Site shall be borne solely and exclusively by the Contractor. The District may deduct such additional or premium costs from the Contract Price then or thereafter due the Contractor.

4.12 Clean-Up. The Contractor shall at all times keep the Site and all adjoining areas free from the accumulation of any waste material or rubbish caused or generated by performance of the Work. Without limiting the generality of the foregoing, Contractor shall maintain the Site in a "rake-clean" standard on a daily basis. If the Work includes painting and/or the installation of floor covering, before any painting operations or the installation of any flooring covering, the area and adjoining areas of the Site where paint is to be applied or floor covering is to be installed shall be in a "broom-clean" condition. Prior to completion of the Work, Contractor shall remove from the Site all rubbish, waste materials, excess excavated materials, tools, Construction Equipment, machinery, surplus materials 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 by the Contractor in a neat and broom clean condition satisfactory to District. The Project Inspector or Project Manager shall be 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.

4.13 Access to the Work. The Contractor shall provide DSA, the District, the Project Manager, the Project Inspector and the Architect access to the Work, whether in place, preparation and progress and wherever located.

4.14 Facilities and Information for the Project Inspector.

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

4.14.2 Facilities for Project Inspector. Facilities, services or other items to be provided by the Contractor for use by the Project Inspector, if any, shall be as set forth in the Special Conditions. If any such facilities, services or other items are designated in the Special Conditions and the Contractor fails or refuses to provide the same, the District may furnish such facilities, services or other items, with the costs, fees or expenses incurred to furnish the same being deducted from the Contract Price.

4.15 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.

4.16 Cutting and Patching. The Contractor is responsible for cutting, fitting or patching required to complete the Work or to make the component parts thereof fit together properly. 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.

4.17 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 containment, removal, abatement or handling of such Hazardous Materials, the Contractor shall immediately stop the Work in the affected area, but

shall diligently proceed with the Work in all other unaffected areas. Upon encountering such Hazardous Materials, the Contractor shall immediately notify the Project Inspector and the Architect, in writing, of such condition. The Contractor shall proceed with the Work in such affected area only after such Hazardous Materials have been rendered harmless, contained, removed or abated. If such Hazardous Materials are encountered, the Contractor shall be entitled to an adjustment of the Contract Time to the extent that the Work is stopped and Substantial Completion of the Work is affected thereby. In no event shall there be an adjustment to the Contract Price solely on account of the Contractor encountering such Hazardous Materials.

#### 4.18 Wage Rates; Employment of Labor.

##### 4.18.1 Prevailing Wage Rates.

4.18.1.1 Prevailing Wage Rate Schedules. Pursuant to the provisions of Division 2, Part 7, Chapter 1, Article 2 of the California Labor Code at §§1770 et seq., the District has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the prevailing rate for holiday and overtime work in the locality in which the Work is to be performed. 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 as provided in California Labor Code §1773.8, 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.

4.18.1.2 Payment of Prevailing Rates. There shall be paid each worker of the Contractor and Subcontractors, of any tier, engaged in the Work, not less than the general prevailing wage rate, regardless of any contractual relationship which may be alleged to exist between the Contractor or any Subcontractor, of any tier, and such worker.

4.18.1.3 Prevailing Rate Penalty. The Contractor shall, as a penalty, forfeit not more than Two Hundred Dollars (\$200.00) to the District for each calendar day or portion thereof, for each worker paid less than the prevailing rates 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 amount of the penalty for failure to pay applicable prevailing wage rates shall be determined and assessed in accordance with the standards established pursuant to Labor Code §1775(a)(2). The amount of the penalty shall be determined based on consideration of both of the following: (i) whether the failure of the Contractor or Subcontractor to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily corrected when brought to the attention of the Contractor or Subcontractor; and (ii) whether the Contractor or Subcontractor has a prior record of failing to meet its prevailing wage obligations. The penalty may not be less than forty dollars (\$40) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, unless the failure of the Contractor or Subcontractor to pay the correct rate of per diem wages was a good faith mistake and, if so, the error was promptly and voluntarily corrected when brought to the attention of the contractor or subcontractor. The penalty



may not be less than eighty dollars (\$80) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, if the Contractor or Subcontractor has been assessed penalties within the previous three years for failing to meet its prevailing wage obligations on a separate contract, unless those penalties were subsequently withdrawn or overturned. The penalty may not be less than one hundred twenty dollars (\$120) for each calendar day, or portion thereof, for each worker paid less than the prevailing wage rate, if the Labor Commissioner determines that the violation was willful, as defined in subdivision (c) of Section 1777.1. When the penalty amount due hereunder is collected from the Contractor or Subcontractor, any outstanding wage claim under Chapter 1 (commencing with Section 1720) of Part 7 of Division 2 against that Contractor or Subcontractor shall be satisfied before applying that amount to the penalty imposed on that Contractor or Subcontractor hereunder. 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.

4.18.1.4 Prevailing Wage Rate Monitoring and Enforcement. During the Work and pursuant to Labor Code §1771.4(a)(4), the Department of Industrial Relations shall monitor and enforce the obligation of the Contractor and Subcontractors of every tier to pay laborers performing any portion of the Work the Prevailing Wage Rate established for the classification of work/labor performed.

4.18.2 Payroll Records.

4.18.2.1 Certified Payroll Records. Pursuant to California Labor Code §1776, the Contractor and each Subcontractor, of any tier, shall keep an accurate payroll record, showing the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and the actual per diem wages paid to each person employed for the Work.

4.18.2.2 Certified Payroll Records Submittal to Labor Commissioner. The Contractor and all Subcontractors shall prepare and submit Certified Payroll Records to the Labor Commissioner in compliance with requirements established in Labor Code §1771.4. The form and content of Certified Payroll Records shall be as established by the Labor Commissioner and the frequency of Certified Payroll Records submittal to the Labor Commissioner shall be pursuant to Labor Code §1771.4.

4.18.2.3 Inspection and Copies of Certified Payroll Records. The payroll records shall be certified and 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 ("DLSE") and the Division of Apprenticeship Standards of the Department of Industrial Relations ("Apprenticeship Council"); (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, DLSE and the Apprenticeship Council. If the requested payroll records have not been provided, 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 Apprenticeship Council or DLSE 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 foregoing requirements, 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 noncompliance still be evident after such ten (10) day period, the Contractor shall, as a penalty to the District, forfeit One Hundred Dollars (\$100.00) for each calendar day, or portion thereof, for each worker, until strict compliance is effectuated. Upon the request of the Apprenticeship Council or DLSE, such penalties shall be withheld from any portion of the Contract Price then or thereafter due the Contractor. The Contractor is solely responsible for compliance with the foregoing provisions.

#### 4.18.3 Hours of Work.

4.18.3.1 Limits on Hours of Work. Pursuant to California Labor Code §1810, eight (8) hours of labor shall constitute a legal day's work. Pursuant to California 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.

4.18.3.2 Penalty for Excess Hours. The Contractor shall pay to the District a penalty of Twenty-five Dollars (\$25.00) for each worker employed on the Work 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, 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.

4.18.3.3 Contractor Responsibility. Any Work performed by workers necessary to be performed after regular working hours or on Saturdays, Sundays or other holidays shall be performed without adjustment to the Contract Price or any other additional expense to the District. The Contractor shall be responsible for costs incurred by the District which arise out of Work performed by the Contractor at times other than regular working hours and regular working days. Upon determination of such costs, the District may deduct such costs from the Contract Price then or thereafter due the Contractor.

#### 4.18.4 Apprentices.

4.18.4.1 Employment of Apprentices. 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. 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.

4.18.4.2 Apprenticeship Certificate. 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. Prior to the commencement of the Work, the Contractor and Subcontractors shall submit contract award information (on Form DAS-140) to the applicable Joint Apprenticeship Committee which shall include an estimate of journeyman hours to be performed under the Contract, the number of apprentices to be employed, and the approximate dates the apprentices will be employed. Concurrently with submission of contract information on Form DAS-140 to the Apprenticeship Council, the Contractor shall deliver a copy of its completed DAS-140 to the District and the Construction Manager. 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.

4.18.4.3 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.

4.18.4.4 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.

4.18.4.5 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 and who is not contributing to a fund or funds to administer and conduct the apprenticeship program in any such craft or trade in the area of the site of the Work, to which fund or funds other contractors in the area of the site of the Work are contributing, shall contribute to the fund or funds in each craft or trade in which it employs journeymen or apprentices in the same amount or upon the same basis and in the same manner as the other contractors do, but where the trust fund administrators are unable to accept such funds, contractors not signatory to the

trust agreement shall, using California Apprenticeship Council Training Fund Contributions Form CAC-2, pay a like amount to the California Apprenticeship Council. 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.

4.18.4.6 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. If 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.

4.18.5 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. If the Contractor employs 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 4.18.5 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 or Sub-Subcontractor performing or providing any portion of the Work to adhere to and comply with the foregoing provisions.

4.19 Assignment of Antitrust Claims. Pursuant to California Government Code §4551, 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 Government Code §§4550 et seq., 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.

#### 4.20 Employee Fingerprinting; Contractor's Compliance With Education Code §§ 45125.1 and 45125.2

4.20.1 General; School Session Requirements. The Contractor acknowledges that the safety of students on or about the Site is of paramount importance and that Contractor's compliance with these provisions is a material obligation of the Contractor under the Contract Documents. To ensure the safety of students on or about the Site, the Contractor agrees that if at any time during performance of any Work at or about the Site occurs when classes are in session at the Site or during school related functions at the Site, no personnel of the Contractor, Subcontractor, Material Supplier or others performing or providing any portion of the Work of the Contract Documents will be permitted access to the Site unless such personnel are specifically identified in Exhibit A to a Fingerprint Certification. Any personnel at the Site who is not identified in Exhibit A to a Fingerprint Certification will be immediately removed from the Site and will not be permitted access until a Fingerprint Certification is submitted to the District identifying such personnel in Exhibit A thereto. Neither the Contract Time nor the Contract Price shall be adjusted on account of the removal of any personnel from the Site pursuant to the foregoing.

4.20.2 Non-School Session. If at any time during performance of Work at or about the Site which when classes are not in session at the Site or when there are no other school related functions at the Site, personnel of the Contractor, Subcontractors, Material Suppliers or others performing or providing any portion of the Work will be permitted access to the Site without such personnel being specifically identified in Exhibit A to a Fingerprint Certification. The foregoing notwithstanding, during such times, the Contractor shall comply with the provisions of Education Code §42125.2 by either: (a) erecting physical barriers to limit contact with students or (b) continual supervision and monitoring of personnel at the Site by a employee of the Contractor who has been verified by the California Department of Justice as not having been convicted of a violent or serious felony. If the Contractor elects the procedure under (b) in the preceding sentence, the Contractor shall submit a Fingerprint Certification attesting to the Department of Justice verification that such employee has not been convicted of a violent or serious felony and has no felony proceedings pending against her/him. The provisions of Education Code §45125.2 notwithstanding, there will be no surveillance of the personnel of the Contractor, Subcontractors, Material Suppliers or others performing or providing Work at the Site by the personnel of the District, Architect, Construction Manager, or the Inspector.

4.20.3 District Required Identification. In addition to compliance with the foregoing, if the District requires the issuance of identification badges or other means of identification, no person will be permitted access to the Site until the District has issued such person an identification badge or other means of identification. Notwithstanding compliance with the foregoing requirements, if the District requires that identification

badges be issued and worn at the Site, any person providing or performing Work at the Site who has not been issued or who is not wearing his/her identification badge will be immediately removed from the Site; such person will not be permitted access to the Site until the District has issued such person an identification badge and/or such person wears her/her identification badge issued by the District. The removal of any personnel from the Site under the foregoing provisions shall not result in adjustment of the Contract Price or the Contract Time.

4.21 DSA Construction Oversight. All of the Work is subject to DSA Construction Oversight processes and procedures; a material obligation of the Contractor hereunder is the Contractor's compliance with the processes and procedures established by DSA for the Work. As applicable, the foregoing shall include without limitation, the processes and procedures established under DSA PR 13-01 in effect at the time of performing the Work hereunder. The foregoing shall include:

4.21.1 DSA Approved Documents. The Contractor shall carefully study the DSA approved documents and shall plan a schedule of operations well ahead of time.

4.21.2 Correction of Non-Conforming Work. If at any time it is discovered that Work is not in accordance with the DSA approved construction documents, the Contractor shall correct the Work immediately.

4.21.3 Verification of DSA 152 Forms. The Contractor shall verify that DSA 152 forms were issued for prior to the commencement of construction.

4.21.4 Test/Inspection Communications. The Contractor shall meet with the Architect, Construction Manager, the Laboratory of Record retained by the District for special tests/inspections and the Project Inspector to mutually communicate and understand the testing and inspection program, and the methods of communication appropriate for the Work.

4.21.5 DSA Form 156 Notifications to Project Inspector. The Contractor shall notify the Project Inspector, in writing, of the commencement of construction of each and every aspect of the Work at least 48 hours in advance by submitting Commencement/Completion of Work Notification (form DSA 156), or other agreed upon written documents, to the Project Inspector. The Contractor shall notify the Project Inspector of the completion of construction of each and every aspect of the Work by submitting form DSA 156 (or other agreed upon written documents) to the Project Inspector.

4.21.6 Limitations on Contractor Work. Until the Project Inspector has signed off applicable blocks and sections of the form DSA 152, the Contractor may be prohibited from proceeding with subsequent construction activities that cover up the unapproved Work. Any subsequent construction activities, that cover up the unapproved Work, will be subject to a "Stop Work Order" from DSA or the District, and are subject to removal and remediation if found to be in non-compliance with the DSA approved construction documents.

4.21.7 Final Verified Report. The Contractor shall submit the final Contractor Verified Report. (form DSA 6-C) to DSA and the Project Inspector. The DSA 6-C reports are required to be submitted by the Contractor upon occurrence of any of the following events: (i) the Work is substantially complete (DSA considers the Work to be complete when the construction is sufficiently complete in accordance with the DSA approved construction documents so that the owner can occupy or utilize the Work); (ii) Work is suspended for a period of more than one (1) month; (iii) services of the Contractor are terminated for any reason prior to the completion of the Work; or (iv) DSA requests a verified report.

## 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, including without limitation, the policies of insurance required under Article 6 of these General Conditions and obligates the Subcontractor to assume toward the Contractor all the obligations and responsibilities of the Contractor which by the Contract Documents the Contractor assumes toward the District and the Architect. 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 hereof, subject to the prior rights of the Surety if the District terminates the Contract for the Contractor's default. The Contractor shall provide to the District copies of all executed Subcontracts and Purchase Orders to which Contractor is a party within thirty (30) days after Contractor's execution of the Agreement. During performance of the Work, the Contractor shall, from time to time, as and when requested by the District, the Architect or the Project Manager provide the District with copies of any and all Subcontracts or Purchase Orders relating to the Work and all modifications thereto. The Contractor's failure or refusal, for any reason, to provide copies of such Subcontracts or Purchase Orders in accordance with the two preceding sentences is Contractor's default of a material term of the Contract Documents.

5.2 Subcontractor DIR Contractor Registration.

5.2.1 No Subcontractor Performance of Work Without DIR Registration. No portion of the Work is permitted to be performed by a Subcontractor unless the Subcontractor is a DIR Registered contractor. The foregoing DIR contractor registration requirement is applicable for all Subcontractors, including without limitation, lower tier Subcontractors and Subcontractors who are not identified in the Contractor's Subcontractors List.

5.2.2 Contractor Obligation to Verify Subcontractor DIR Registration Status. An affirmative and on-going obligation of the Contractor under the Contract Documents is the Contractor's verification that all Subcontractors are at all times during performance of the Work in full and strict compliance with DIR contractor registration requirements. The Contractor shall not permit or allow any Subcontractor to perform any Work without the Contractor's verification that the Subcontractor is in full and strict compliance with DIR contractor registration requirements.

5.2.3 Contractor Obligation to Request Substitution of Listed Subcontractor Who Is Not DIR Registered Contractor. If any Subcontractor identified in the Contractor's Subcontractors List submitted with the Contractor's proposal for the Work is not a DIR registered contractor at the time of opening of proposals for the Work or if a Subcontractor's DIR contractor registration lapses prior to or during a Subcontractor's performance of Work, the Contractor shall request the District's consent to substitute the Subcontractor who is not a DIR registered contractor pursuant to Labor Code §1771.1(c)(3) and/or Labor Code §1771.1(d).

5.3 Substitution of Listed Subcontractor.

5.3.1 Substitution Process. Request of the Contractor to substitute a listed Subcontractor will be considered only if in strict conformity with this Article 5.3 and California Public Contract Code §4107. All costs incurred by the District, including without limitation, costs of the Project Inspector, the Architect, the Project Manager or attorney's fees in the review and evaluation of a request to substitute a listed Subcontractor shall be borne by the Contractor; such costs may be deducted by the



District from the Contract Price then or thereafter due the Contractor.

**5.3.2 Responsibilities of Contractor Upon Substitution of Subcontractor.** The District's consent to Contractor's substitution of a listed Subcontractor shall not relieve Contractor from its obligation to complete the Work within the Contract Time and for the Contract Price. The substitution of a listed Subcontractor shall not, under any circumstance, result in, or give rise to any to any increase of the Contract Price or the Contract Time on account of such substitution. If the District consents to substitution of a listed Subcontractor, the Architect shall determine the extent to which, if any, revised or additional Submittals will be required of the newly substituted Subcontractor ("Substituted Subcontractor"). If the Architect determines that revised or additional Submittals are required of a Substituted Subcontractor, the Architect shall promptly notify the Contractor, in writing, of such requirement. In such event, revised or additional Submittals shall be submitted to Architect not later than thirty (30) days following the date of the Architect's written notice to the Contractor pursuant to the foregoing sentence; provided that if in the reasonable and good faith judgment of the Architect, the progress of the Work or completion of the Work requires submission of additional or revised Submittals by a Substituted Subcontractor in less than thirty (30) days, the Architect shall so state in its written notice to the Contractor. If the revised or additional Submittals are not submitted by Contractor within thirty (30) days, or such earlier time as determined by the Architect pursuant to the preceding sentence, following the Architect's written notice of the requirement for revised or additional Submittals, Contractor shall be subject to the per diem assessments for late Submittals as set forth in Article 4.7.2.1 of these General Conditions. Any revised or additional Submittals required pursuant to this Article 5.3.2 shall conform to the requirements of Article 4.7 of these General Conditions. Contractor shall reimburse the District for all fees and costs, including without limitation fees of the Architect, the District's administrative costs and DSA fees, incurred or associated with the processing, review and evaluation of any revised or additional Submittals required pursuant to this Article 5.3.2; 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 5.3.2, such requirement shall not result in an increase to the Contract Time or the Contract Price.

**5.4 Subcontractors' Work.** Whenever the Work of a Subcontractor is dependent upon the Work of the Contractor or another Subcontractor, the Contractor shall require the Subcontractor to: (i) coordinate its Work with the dependent Work; (ii) provide necessary dependent data and requirements; (iii) supply and/or install items to build into the dependent Work of others; (iv) make appropriate provisions for dependent Work of others; (v) carefully examine and understand the portions of the Contract Documents (including Drawings, Specifications and Field Clarifications) and Submittals relating to the dependent Work; and (vi) examine the existing dependent Work and verify that the dependent Work is in proper condition for the Subcontractor's Work. If the dependent Work is not in a proper condition, the Subcontractor shall notify the Contractor in writing and not proceed with the Subcontractor's Work until the dependent Work has been corrected or replaced and is in a proper condition for the Subcontractor's Work.

**5.5 Prequalification of Subcontractors for State Funded Projects of \$1,000,000 or More.** The District's prequalification of all general contractors and/or electrical, mechanical and/or plumbing subcontractors in compliance with Public Contract Code § 20111.6 does not and shall not constitute a recommendation or referral by the District of any prequalified general contractor and/or electrical, mechanical and/or plumbing subcontractor. The District assumes no responsibility for and shall not be liable to Contractor for the acts or omissions of any

general contractor and/or electrical, mechanical and/or plumbing subcontractor prequalified in compliance with Public Contract Code § 20111.6, including, without limitation, contractor's pricing, refusal to execute a subcontract, performance of work, quality of work, and/or voluntary or involuntary bankruptcy or other termination. General contractors and/or electrical, mechanical and/or plumbing subcontractors who have not been prequalified by the District as required by Public Contract Code § 20111.6 and are not on the District's list of prequalified contractors may submit a Prequalification Application to the District in advance of a scheduled Bid Opening, provided that the Prequalification Application is submitted and approved by the District in accordance with the District's Prequalification process and timelines.

5.6 Waiver of Claims. Contractor acknowledges and agrees that it shall bear full responsibility and liability for completing its own due diligence and making its own independent determinations as to whether a general contractor and/or electrical, mechanical and/or plumbing subcontractor is qualified, having the requisite experience and financial wherewithal to perform and complete the subcontract work of the Project, and is responsible, as defined in Public Contract Code § 1103, prior to soliciting bids from and/or contracting with any prequalified general contractors, electrical, mechanical and/or plumbing subcontractors. By executing the Agreement, Contractor hereby waives any and all claims that has, or that may accrue, against the District arising out of or in connection and the District's prequalification of general contractors and/or electrical, mechanical and/or plumbing subcontractors in conformance with Public Contract Code §20111.6

## **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, sickness or disease or death of any person other than the Contractor's employees; (ii) 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; (iii) claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; (iv) 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; (v) contractual liability insurance applicable to the Contractor's obligations under the Contract Documents; (vi) Completed Operations; and (vii) pollution liability.

6.3 Builder's Risk "All-Risk" Insurance. The Contractor, during the progress of the Work and until Final Acceptance of all Work by the District, 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 Required Qualifications of Insurers. The Contractor and Subcontractors' policies of Commercial General Liability and Property/Casualty insurance and the Contractor's Builders Risk insurance will be accepted by the District only if the insurer(s) are: (a) A.M. Best rated A- or better; (b) A.M. Best Financial Size Category VII or higher; and (c) authorized under California law to transact business in the State of California and authorized to issue insurance policies in the State of California. If at any time during performance of the Work, the insurer(s) issuing a policy of insurance covering Commercial General Liability or Property/Casualty is/are not A.M. Best rated A- or better and is/are not A.M. Best Financial Size Category VII or higher, the Contractor or Subcontractor, as applicable shall within thirty (30) days of the District's written notice of the insufficiency of an insurer to the Contractor, obtain insurance coverage(s) from alternative insurer(s) who is/are then A.M. Best rated A- or better and who is/are A.M. Best Financial Size Category VII or higher. If the Contractor fails to deliver Certificate(s) of Insurance from an alternative insurer(s) meeting or exceeding the A.M. Best rating and A.M. Best Financial Size Category set forth above, within thirty (30) days of the date of the District's issuance of a written notice pursuant to the preceding sentence, in addition to any other right or remedy of the District under the Contract Documents or arising by operation of law, the District may withhold disbursement of any Progress Payment otherwise due hereunder until the Contractor has delivered such Certificate(s) of Insurance from an alternative insurer(s).

6.6 Evidence of Insurance; Subcontractor's Insurance.

6.6.1 Certificates of Insurance. Prior to commencing the Work, 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, and thereupon the District may proceed to exercise any right or remedy provided for under the Contract Documents or at law. 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. The additional Insured acknowledgement shall be submitted as a separate declaration from the Contractor's insurance provider (ACCORD form modifications are not acceptable). 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.

6.6.2 Subcontractors' Insurance. Contractor shall require that every Subcontractor, to 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 to 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.

6.7 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.

6.8 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 Comprehensive 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.

6.9 Indemnity. Unless arising solely out of the active negligence, gross negligence or willful misconduct the District or the Architect, the Contractor shall indemnify, defend and hold harmless the Indemnified Parties who are: (i) the District and its Board of Education, officers, employees, agents and representatives (including the District's Inspector); (ii) the Architect its respective agents and employees; and (iii) if one is designated by the District for the Work, the Project Manager and its agents and employees. The Contractor's obligations hereunder includes indemnity, defense and hold harmless of the Indemnified Parties from and against any and all damages, losses, claims, demands or liabilities whether for damages, losses or other relief, including, without limitation attorney's fees and costs which arise, in whole or in part, from the Work, the Contract Documents or the negligent, grossly negligent or willful acts, omissions or other conduct of the Contractor, 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; (iv) Stop Notice claims asserted by any person or entity in connection with the Work; and (v) 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 any of the Indemnified Parties as a party thereto, the Contractor shall, at its sole cost and expense, defend the named Indemnified Parties in such action or proceeding with counsel reasonably satisfactory to the named Indemnified Parties. 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 any of the Indemnified Parties are bound by, Contractor shall pay, satisfy or otherwise discharge any such judgment, award, ruling, settlement or relief; Contractor shall indemnify and hold harmless the Indemnified Parties 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.

6.10 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 penal sum of the Performance Bond and the Payment Bond shall each 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 pursuant to the Agreement, 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 and the Project Inspector as such in accordance with the Contract Documents.

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 or any designated portion thereof (whether described as milestones, phases, segments or other similar terms) is complete in accordance with the Contract Documents so the District can occupy or use the Work or designated portion thereof for its intended purpose. Substantial Completion shall be determined by the Architect, Project Manager, if any, and the Project Inspector upon request by the Contractor in accordance with the Contract Documents. The good faith and reasonable determination of Substantial Completion by the Project Inspector, Project Manager, if any and the Architect shall be controlling and final.

7.2.3 Correction or Completion of the Work After Substantial Completion.

7.2.3.1 Punchlist. Upon achieving Substantial Completion of the Work, the District, the Project Inspector, the Project Manager, if any, the Architect and the Contractor shall jointly inspect the Work and prepare a comprehensive list of items of the Work to be corrected or completed by the Contractor (“the Punchlist”). The exclusion of, or failure to include, any item on the Punchlist 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.

7.2.3.2 Time for Completing Punchlist Items. In addition to establishing the Punchlist items pursuant to Article 7.2.3.1, the Project Manager, if any, Contractor and Architect shall, after the joint inspection, establish a reasonable time for Contractor’s completion of all Punchlist items. If mutual agreement is not reached to establish the time for the Contractor’s completion of Punchlist items, the Architect shall determine such time, and in such event, the time determined by the Architect shall be final and binding upon the District and Contractor so long as the Architect’s determination is made in good faith. The Contractor shall promptly and diligently proceed to complete all Punchlist items within the time established. If the Contractor fails or refuses, for any reason, to complete all Punchlist items within the time established, Contractor shall be subject to assessment of Liquidated Damages in accordance with Article 7.4 hereof. The foregoing notwithstanding, if the Contractor fails or refuses to complete all Punchlist items, the District may in its sole and exclusive discretion and without further notice to Contractor, elect to cause the completion of all remaining Punchlist items 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 Punchlist items of the Work, pursuant to the foregoing, Contractor shall be responsible for all costs incurred by the District in connection herewith 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 jointly and severally 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, all Punchlist items noted upon Substantial Completion, and the Contract has been otherwise fully performed by the Contractor. Final Completion shall be determined by the Architect, Project Manager, if any and the Project Inspector upon request of the Contractor. The good faith and reasonable determination of Final Completion by the Project Inspector, Project Manager, if any, and the Architect shall be controlling and final.

7.2.5 Contractor Responsibility for Multiple Inspections. If the Contractor requests determination of Substantial Completion or Final Completion by the Project Inspector, Project Manager, if any, and the Architect and it is determined by the Project Inspector, Project Manager, if any, or the Architect that the Work does not then justify certification of Substantial Completion or Final Completion 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, Project Manager, if any, and the Project 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 Education; such approval shall be submitted for adoption at the next regularly scheduled meeting of the District's Board of Education after the determination of Final Completion. The commencement of any warranty or guarantee period under the Contract Documents is the date upon which the District's Board of Education approves of the Final Acceptance of the Work.

### 7.3 Construction Schedule.

7.3.1 Submittal of Preliminary Construction Schedule. Within five (5) days following execution of the Agreement, the Contractor shall prepare and submit to the District, the Project Manager, if any, and the Architect a Preliminary Construction Schedule indicating, in graphic 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. Unless otherwise provided in the Special Conditions, the Construction Schedules required under this Article 7 shall; (i) be prepared with a commercially available computer software program in a critical path format; (ii) indicate the date(s) for commencement and completion of various portions of the Work including without limitation, procurement, fabrication and delivery of major items, materials or equipment; (iii) indicate manpower and other resources required for completion of each Construction Schedule activity; (iv) indicate costs for completion of each Construction Schedule activity; (v) identify each Submittal required by the Contract Documents, the date for the Contractor's submission of each Submittal and the date for the return of the reviewed Submittal to the Contractor. 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. If the Construction Schedules required under this Article 7.3 incorporate therein any "float" time, such float shall be deemed to jointly belong to and owned by the District and the Contractor. As used herein, "float time" shall be deemed to refer to the time between 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, if any, 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, the Preliminary Construction Schedule will be returned to the Contractor with comments to the form or content thereof. Review of the Preliminary Construction 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 to the Architect and the Project Manager, if any, the Construction Schedule which incorporates therein the comments to the Preliminary Construction Schedule. Upon the Contractor's submittal of such Construction Schedule, the District, the Project Manager and the Architect 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 and the Architect. Updates to the Approved Construction Schedule pursuant to Article 7.3.5 below shall not be deemed revisions to the Approved Construction Schedule. If the Approved Construction Schedule depicts 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 be 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 to the Architect and the Project Manager 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. The Contractor shall provide the District, the Project Manager and the Architect 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.

7.4 Adjustment of Contract Time. If Substantial Completion 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 is delayed by Excusable Delays, the Contract Time shall be subject to adjustment for such reasonable period of time as determined by the Architect; 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, unanticipated unusually severe weather conditions or DSA directive to stop the Work. 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 exceeds those noted in the Special Conditions and such additional Rain Days directly and adversely impact the critical path 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 is delayed and such delay is caused by the acts or omissions of the District, the Architect, 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 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, including without limitation, home office expenses, bond capacity impairment or loss of prospective economic advantage. 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 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.

7.4.5 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. In addition to the foregoing limitations upon extension of the Contract Time, 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 or Work activities on the critical path of the then current and updated Approved Construction Schedule.

7.5 Liquidated Damages. Should the Contractor neglect, fail or refuse to: (i) submit Submittals in accordance with the Approved Construction Schedule; (ii) achieve Substantial Completion of the Work or designated portions thereof within the Contract Time, (subject to adjustments authorized under the Contract Documents); (iii) or to complete Punchlist items within the time established pursuant to 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, until Submittals are submitted, Substantial Completion or completion of the Punchlist items are 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 submission of Submittals, Substantial Completion or completion of Punchlist items. 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 complete Punchlist items 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. 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.

## **7.6 District Right to Take-Over Work.**

7.6.1 Progress of Work. Unless caused by the District, Architect, Project Manager or the Project Inspector, if the Contractor fails or refuses, for any reason and at any time, to furnish adequate materials, labor, equipment or services to maintain progress of the Work in accordance with the then current Construction Schedule after seventy-two (72) hour advance written notice from the Project Manager to the Contractor of its failure or refusal, the District may, without terminating the Contract or waiving, limiting or conditioning any right or remedy of the District, thereafter furnish or cause to be furnished such materials, labor, equipment or services necessary to maintain progress of the Work in accordance with the then current Construction Schedule. All costs, expenses or other charges (whether direct, indirect and administrative) incurred by the District in furnishing such materials, labor, equipment or services shall be at the sole cost of the Contractor and the District may deduct the same from the Contract Price then or thereafter due the Contractor. The District's exercise of rights pursuant to the foregoing shall not be deemed a waiver or limitation of any other right or remedy of the District under the Contract Documents.

7.6.2 Non-exclusive Remedy. The District's exercise of rights pursuant to the foregoing shall not be deemed a waiver or limitation of any other right or remedy of the District under the Contract Documents or the Laws.

## **ARTICLE 8: CONTRACT PRICE**

8.1 Contract Price. The Contract Price is the amount stated in the Agreement and subject to adjustments thereto in accordance with the Contract Documents, is the total amount payable by the District to the Contractor for completion of the Work and other obligations of the Contractor 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. Within fifteen (15) days of the execution of the Agreement by Contractor, Contractor shall furnish, in a form acceptable to the District, a detailed estimate and complete Cost Breakdown of the Contract Price. The Cost Breakdown is subject to the District's review and approval of the form and content thereof. If the District objects 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. Upon the District's approval of the Cost Breakdown, 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, conditioned or withheld in the sole 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 by the District in equal installments with its disbursements of Progress Payments and the Final Payment with the amount of each such installment equal to the aggregate amount of such items as reflected in the Cost Breakdown divided by the number of months of the Contract Time.

### 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 District, Project Inspector, Project Manager, if any, and the Architect, Applications for Progress Payments ("Payment Applications"), on forms approved by the District, setting forth an itemized estimate of Work completed in the preceding month for the purpose of the District's making of Progress Payments thereon. Values utilized in the Payment Applications shall be based upon the District approved Cost Breakdown pursuant to Article 8.2 above provided that such values are only for determining the basis of Progress Payments to Contractor, and shall not be considered as fixing a basis for adjustments, whether additive or deductive, to the Contract Price, or for determining the extent of Work actually completed.

8.3.2 Payment Application Review for Determination of Proper Payment Application. In accordance with Public Contract Code §20104.50, upon receipt of an Application for Progress Payment, the District shall cause the same to be reviewed by the Project Inspector, the Construction Manager, if one is designated by the District, and the Architect, as soon as is practicable after receipt of such Application for Progress Payment. 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 form approved by the District, with all of the requested information of such form of Application for Progress Payment completely and accurately provided by the Contractor and such completed Application for Progress Payment is accompanied by: (i) the form of Verification of Certified Payroll Records Submittal to Labor Commissioner, executed under penalty of perjury by the Contractor's Superintendent and/or the Contractor PM; which verifies that all Certified Payroll Records for the Contractor and all Subcontractors for the period of time covered by the Application for Progress Payment have been completed and submitted in strict conformity with Labor Code §1771.4; (ii) Certified Payrolls of the Contractor and all Subcontractors for laborers performing any portion of the Work for which the Progress Payment is requested; (iii) duly completed and executed forms of Conditional Waiver and Release of Rights Upon Progress Payment in accordance with California Civil Code §8132 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 §8134 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) if applicable, 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; (vi) a certification by the Contractor that it has continuously maintained, or caused to maintained, the Record Drawings reflecting the actual as-built conditions of the Work performed be for which the Progress Payment is requested, it being understood that such certification is subject to verification by the District, Architect or the Construction

Manager prior to disbursement of the Progress Payment; and (vii) an updated Construction Schedule, reflecting Work actually completed and in progress. 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.

8.3.3 Verification of Work Completed. Upon receipt of a Payment Application, the Architect, Project Manager, if any and the Project Inspector shall inspect and verify the Work to determine whether it has been performed in accordance with requirements of the Contract Documents and to determine the portion of the Payment Application which is properly due to the Contractor under the terms of the Contract Documents.

8.3.4 District's Disbursement of Progress Payments.

8.3.4.1 Timely Disbursement of Progress Payments. Pursuant to Public Contract Code §20104.50, within thirty (30) days after the District's receipt of a proper Payment Application, there shall be paid, by District, to Contractor a sum equal to ninety-five percent (95%) of the value of the Work indicated in the Payment Application which is actually in place as of the date of the Payment Application, as verified by the Project Inspector, Project Manager, if any, and the Architect and the pro rata portion of the Contractor's overhead, supervision and general conditions costs and profit for that month; provided, however, that the District's obligation to disburse any Progress Payment shall be subject to the District's receipt of all documents set forth in Article 8.3.2 above, each and all of which are conditions precedent to the District's obligation to disburse Progress Payments. If a Payment Application is determined not to be proper due to the failure or refusal of the Contractor to submit documents with the Payment Application, as required by Article 8.3.2, or incompleteness or inaccuracies in any such documents submitted or if it is reasonably determined that the Record Drawings 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 is deemed to commence on the date that the District is actually in receipt of documents not submitted with the Payment Application, or corrections to documents with the Payment Application so as to render them complete and accurate, or the date upon which the Contractor accurately and fully completes preparation of the Record Drawings relating to the Work for which the Progress Payment is requested.

8.3.4.2 Untimely Disbursement of Progress Payments. Pursuant to Public Contract Code §20104.50, if the District fails to make a Progress Payment within thirty (30) days after receipt of an undisputed and proper Payment Application, the District shall pay the Contractor interest on the undisputed amount of such Payment Application at the legal rate of interest set forth in California Code of Civil Procedure §685.010(a). The foregoing notwithstanding, if the District determines that any Payment Application is not proper, pursuant to Article 8.3.2 above, and the District does not return such Payment Application within the seven (7) day period provided for in Article 8.3.2, the period of time for the District's disbursement of the Progress Payment on such Payment Application without incurring interest liability shall be reduced by the

number of days exceeding the seven (7) day return period.

8.3.4.3 District's Right to Disburse Payments by Joint Checks. The District, may, in its sole discretion, issue joint checks to the Contractor and Subcontractors/Material Suppliers in satisfaction of its obligation to make Progress Payments or the Final Payment due hereunder.

8.3.4.4 No Waiver of Defective or Non-Conforming Work. The approval of any Payment Application or the disbursement of any Progress Payment to the Contractor shall not be deemed nor constitute acceptance of defective or non-conforming Work.

8.3.5 Progress Payments for Changed Work. The Contractor's Payment Applications may include requests for payment on account of Changes in the Work which have been properly authorized and approved by the Project Inspector, the Architect and all other governmental agencies with jurisdiction over such Change in accordance with the terms of the Contract Documents and for which a Change Order has been issued. 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, at the time of the Contractor's submittal of a Payment Application, 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, at or prior to the time of the Contractor's submittal of a Payment Application requesting payment for such materials or equipment if all of the following are complied with: (i) the materials or equipment have been delivered to the Site; (ii) 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 (iii) 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 pursuant to the preceding sentence shall be exercised exclusively by the District; the District's exercise of discretion not to make payment shall not be deemed the District's default hereunder. If the District elects to make payment for materials or equipment delivered and stored at the Site, the costs and expenses incurred to comply with the requirements of (ii) and (iii) 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.

8.3.6.3 Materials or Equipment Not Delivered or Stored at the Site. 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 or which are in the process of fabrication or transportation to the Site.

8.3.6.4 Materials or Equipment in Fabrication or Transit. The provisions of this Article 8.3.6.4 notwithstanding, 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 of or other storage location.

8.3.7 Exclusions From Progress Payments. In addition to the District's right to withhold disbursement of any Progress Payment provided for in the Contract Documents, neither the Contractor's Payment Application 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 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 a Payment Application will pass to the District no later than the time of payment. The Contractor further warrants that upon submittal of a Payment Application, all Work for which a Progress Payment has been previously disbursed 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.

8.3.9 Substitute Security for Retention. Pursuant to California Public Contract Code §22300, eligible and equivalent securities may be substituted for any monies withheld by the District to ensure the Contractor's performance under the Contract Documents at the request and expense of the Contractor and in conformity with the provisions of California Public Contract Code §22300. The foregoing and the provisions of California Public Contract Code §22300 notwithstanding, failure of the Contractor to request the substitution of eligible and equivalent securities for monies to be withheld by the District within ten (10) days following the date of award of the Contract to Contractor shall be deemed a waiver of such right.

#### 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, Project Manager, if any, and the Project Inspector will promptly make a final inspection of the Work and when the Architect, Project Manager, if any and the Project Inspector find the Work acceptable under the Contract Documents and that the Contract has been fully performed by the Contractor, the Architect, Project Manager, if any, and the Project 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; (iv) consent of the Surety on the



Labor and Material Payment Bond and Performance Bond, to Final Payment if required; (v) duly completed and executed forms of Conditional or Unconditional Waivers and Releases of rights upon Final Payment of the Contractor, Subcontractors/Material Suppliers in accordance with California Civil Code §§8136 and 8138, 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; (x) the completion and submittal of all reports required by the Contract Documents, including without limitation, verified reports required by applicable provisions of the California Code of Regulations; and (xi) 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. If the Contractor fails to timely submit completed DSA Reports in accordance with Article 4.21.1 above, the Final Payment due the Contractor shall be reduced in accordance with Article 4.21.2 above.

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, 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 and the Surety. The Contractor and Surety shall 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 attorney's fees incurred by the District in connection therewith.

8.5 Withholding of Payments. The District may withhold any Progress Payment or the Final Payment, in whole or in part, or backcharge the Contractor to the extent it may deem advisable to protect the District on account of: (i) defective Work or Work not in conformity with the requirements of the Contract Documents which is not remedied; (ii) failure of the Contractor to make payments when due Subcontractors/Material Suppliers; (iii) claims filed or reasonable evidence of the probable filing of claims by Subcontractors, laborers, Material Suppliers, or others performing any portion of the Work under the Contract Documents for which the District may be liable or responsible including, without limitation, Stop Notice Claims filed with the District pursuant to California Civil Code §9350 et seq.; (iv) a reasonable doubt

that the Contract can be completed for the then unpaid balance of the Contract Price; (v) tax demands filed in accordance with California Government Code §12419.4; (vi) other claims, penalties and/or forfeitures for which the District is required or authorized to retain funds otherwise due the Contractor; (vii) any amounts due from the Contractor to the District under the terms of the Contract Documents; or (viii) the Contractor's failure to perform any of its obligations under the Contract Documents, its default under the Contract Documents or its failure to maintain adequate progress of the Work. In addition to the foregoing, the District shall not be obligated to process any Payment Application or Application for Final Payment, nor shall Contractor be entitled to any Progress Payment or Final Payment so long as any lawful or proper direction concerning the Work or the performance thereof or any portion thereof, given by the District, the Project Inspector, the Architect or any public authority having jurisdiction over the Work, or any portion thereof, shall not be fully and completely complied with by the Contractor. When the District is reasonably satisfied that the Contractor has remedied any such deficiency, payment shall be made of the amount withheld.

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. If the Contractor fails 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. The Contractor shall timely make payment of retention due Subcontractors in accordance with Public Contract Code §7107.

8.7 Computerized Job Cost Reporting System.

8.7.1 Job Cost Reporting. The Contractor and each Subcontractor with a Subcontract valued at One Million Five Hundred Thousand Dollars (\$1.5M) or greater shall maintain a computerized job cost reporting system conforming to the requirements set forth herein. The computer program(s) utilized by the Contractor and applicable Subcontractors shall be subject to the review and acceptance by the District. The job cost reporting systems for the Work shall be updated in regular intervals of not more than one (1) calendar month.

8.7.2 Job Cost Reporting System Requirements. The computerized job cost programs utilized by the Contractor and applicable Subcontractors shall conform and comply with generally accepted accounting principles applied in a consistent manner and with recognized and generally accepted construction industry accounting standards, guidelines and procedures. The job cost reporting system format and configuration shall follow the general format of the District approved Cost Breakdown and budgets established for each line item shall be traceable to a bid estimate of costs. The job cost reporting systems utilized by the Contractor and applicable Subcontractors shall be capable of: (i) providing overall cost status on a monthly and cumulative basis; (ii) providing comparative analysis of the original budgeted costs, actual costs, remaining budget, and projected cost of completion; the job cost reporting system shall be capable of providing comparative analysis for individual line items and the totality of the Work reflected in the job cost report and; (ii) tracking adjustments to original budget amounts for Changes to the Work (including, without limitation, issued, pending and potential Change Orders).

8.7.3 Job Cost System Information. Upon request of the District, the Contractor and applicable Subcontractors shall make available written job cost reports and/or provide the District with the electronic files of the then current or requested job cost report. The

Contractor's obligations hereunder are material.

## **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 authorization issued pursuant to the preceding sentence; the Contractor is not relieved or excused from its obligation to promptly commence and diligently complete 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 is not 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 Laws enacted after award of the Contract.

9.2 Construction Change Directive. A Construction Change Directive is a written instrument issued by or on behalf of the District directing a Change to the Work prior to the Contractor and District reaching full agreement on an adjustment of the Contract Time and/or Contract Price on account of such Change. The Contractor shall promptly commence and diligently complete any Change to the Work subject to a Construction Change Directive issued hereunder. The issuance of a Change Order pursuant to this Article 9 in connection with any Construction Change Directive authorized by the District is not a condition precedent to Contractor's obligation to promptly commence and diligently complete any such Construction Change Directive. Upon completion of the Work subject to a Construction Change Directive, if the Contractor and District have not agreed on the adjustment of Contract Time and/or Contract Price for such Change, District shall issue a Unilateral Change Order pursuant to this Article 9.

9.3 Oral Order of Change in the Work. Any oral order, direction, instruction, interpretation, or determination from the District or the Architect which in the opinion of the Contractor constitutes a Change to 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, Project Manager, if any and the Project 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. 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 is the 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 waives any claim for any adjustment to the Contract Price or the Contract Time on account thereof.

9.4 Contractor Submittal of Data. Within thirty (30) 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 Architect, Project Manager, if any, the Project Inspector and the District a detailed written statement setting forth the general nature of the Change, the 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.

9.5 Adjustment to Contract Price and Contract Time on Account of Changes to the Work.

9.5.1 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. Costs computed to any of the following methods shall exclude: (i) fees, salaries or other compensation for: field/office supervisory personnel, project engineers, scheduler, estimator, drafting/detailing; (ii) vehicles not directly engaged in performance of a Change; (iii) field/home office expenses, including personnel, materials, supplies, etc.; (iv) on-Site or off-Site trailer, storage costs (whether rented, leased or owned); and (v) except as incorporated into an applicable Prevailing Wage Rate for labor required to complete a Change, insurance (including without limitation, general liability, automobile liability, employer's liability and workers compensation)

9.5.1.1 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, Project Manager, if any, or the Architect, 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's estimate of increase or decrease in costs pursuant to the foregoing, if requested, shall be in sufficient detail and in such form as to allow the District, the Project Inspector and the Architect to review and assess the completeness and accuracy thereof. 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 the time specified in the request of the District or the Architect for such estimate.

9.5.1.2 Determination by the District. By the District, whether or not negotiations are initiated pursuant to Article 9.5.1.1 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 9.5.1.2 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 is 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 notifies the District, the

Architect, Project Manager, if any and the Project 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 Project Manager, the Architect and the Project 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 9.5.1.2, Contractor shall, pursuant to Article 9.8 below, diligently proceed to perform and complete any such Change.

9.5.1.3 Basis for Adjustment of Contract Price. If Changes in the Work require an adjustment of the Contract Price pursuant to Articles 9.5.1.1 or 9.5.1.2 above, the basis for adjustment of the Contract Price shall be as follows:

9.5.1.3.1 Allowable Labor Costs. Except in the event adjustment of the Contract Price for a District authorized Change is computed by unit prices, the labor costs allowable for incorporation into a Contract Price adjustment for a Change shall be limited as set forth herein.

9.5.1.3.1.1 Limitation to Field Labor and Prevailing Wage Rates. The Contract Price adjustment for labor necessary to complete a Change shall be limited to the laborers of the Contractor or Subcontractors actually and necessarily engaged in the performance of the Change and for which there is a prevailing wage rate classification. Wage rates for laborers shall not exceed the applicable prevailing wage rate in the locality of the Site for the classification(s) of labor necessary to complete a Change. Use of a prevailing wage rate classification which increases the costs of a Change shall not be allowed. Overtime labor charges for performing any part of the Change shall only be allowed if authorized in writing by the Architect, Construction Manager and the District prior to Contractor's performance of the overtime labor. Use of a labor classification which would increase labor costs associated with any Change shall not be permitted.

9.5.1.3.1.2 Fringe Benefits, Payroll Taxes and Labor Burdens. The Contractor or Subcontractor may adjust the prevailing wage rate for allowable labor costs to reflect fringe benefits, payroll taxes and labor burdens actually incurred by Contractor and provided to such labor directly engaged in performing a Change. The allowable adjustment for fringe benefit payments, payroll taxes and labor burdens shall not, however, exceed fifteen percent (15%) of the applicable prevailing wage rate and shall not be subject to the additional mark-up set forth in Article 9.5.1.3.4 and the Special Conditions.

9.5.1.3.1.3 Excluded Labor Costs. The Contract Price adjustment for labor costs on account of a Change shall exclude costs: (i) for preparing estimate(s) of the costs of the Change; (ii) to maintain records relating to the costs of the Change; (iii) for coordination and assembly of materials and information relating to the Change or performance thereof; (iv) to supervise, coordinate or manage the Work of a Change; or (v) any other

general administrative overhead or general conditions costs associated with the Change or performance thereof as such costs are incorporated into the overhead and general conditions mark-up costs set forth in Article 9.5.1.3.6.

9.5.1.3.2 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 necessarily 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 therefor 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.

9.5.1.3.3 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 the Work shall be compensated in increments of fifteen (15) minutes. 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 notwithstanding, 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, Project Manager, if any, the Project 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 \$500.00 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 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, Project Manager, if any, the Project Inspector and the District, the allowable rate for the use of Construction Equipment in connection with 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.

9.5.1.3.4 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, no profit, general conditions or overhead costs shall be paid by the District to the Contractor for the reduced or deleted Work. In such event, the 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 for mark-ups on the cost of a Change adding to the scope of the Work.

9.5.1.4 Contractor Maintenance of Records. If the Contractor is directed to perform any Changes to the Work pursuant to Article 9.1, 9.2 or 9.3, or should the Contractor encounter conditions which the Contractor believes to 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. If 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. If any Subcontractor provides or performs any portion of a 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 which shall constitute the Contractor's representation and warranty to the District that all information contained therein is true, accurate, complete and relate only to the Change referenced therein. All records maintained by a Subcontractor 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, Project Manager, if any or the Project Inspector upon request. If the Contractor fails or refuses, 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, 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.

9.5.2 Adjustment to Contract Time. If any Change to the Work authorized pursuant to this Article 9, the Contract Time affects the critical path of the Work, 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. The Contractor is solely responsible for submitting scheduling data, analysis and other materials necessary or required by the District to substantiate the Contract Time adjustment requested by the Contractor for a Change. The District is not obligated to consider any adjustment to the Contract Time on account of a Change until the Contractor has submitted such scheduling data, analysis and other materials.

9.5.3 Addition or Deletion of Alternate Bid Item(s). If the Bid Proposal 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. If any Alternate Bid Item is added or deleted from the Work pursuant to the foregoing, the Contract Time shall be adjusted by the number of days allocated for the added or deleted Alternate Bid Item in the Contract Documents; if days are not allocated for any Alternate Bid Item added or deleted pursuant to the foregoing, the Contract Time shall be equitably adjusted.

9.6 Change Orders. If the District approves of a Change, a written Change Order prepared by the Architect 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, costs of delays or impacts related to, or arising out of, items covered and affected by the Change Order, including without limitation: impacts of any kind; preparation and processing of any and all related RFIs, ASIs, Bulletins, FCDs, Quotes, and/or CCDs; inefficiencies; productivity losses; delay; acceleration; field and home office overhead; and any and all other incidental costs for all of the work described in the Change Order, as well as any and all adjustments to the Contract Time necessitated thereby. 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 Education 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 9.6, unless otherwise expressly stated in its approval and ratification of such Change Order, any action of the Board of Education 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.

9.7 Unilateral Change Orders. A Unilateral Change Order is a Change Order issued by the District, in the sole and exclusive discretion of the District, before the Contractor and District have agreed on the extent of adjustment of the Contract Time or the Contract Price relating to a Change. The District may, in its sole reasonable discretion, issue a Unilateral Change Order for any Change to the Work authorized by the District when the Contractor and the District have been unable to reach mutual agreement as to the extent of any adjustment to the Contract Price or Contract Time on account of such Change. If the District elects to issue a Unilateral Change Order, the District shall forward to the Contractor a copy of the proposed Unilateral Change Order (for the Contractor's information) at least ten (10) days prior to the date of the Board of Education' meeting to review and consider approval of the Unilateral Change Order. Any Unilateral Change Order issued hereunder shall be binding upon the District and Contractor only if the District's Board of Education' takes action to approve or ratify the Unilateral Change Order. Any and all claims by the Contractor arising out of such Unilateral Change Order, and/or the Change giving rise to such Unilateral Change Order, shall accrue as of the date of the Board of Education' action approving or ratifying a Unilateral Change Order and shall be subject to the claim provisions set forth in Article 16.11. Notwithstanding any provision of the Contract Documents to the contrary, an express condition precedent to the Contractor's exercise of rights and remedies under Article 16.11 relating to a Unilateral Change Order, is the Contractor notification to the District, Architect and Project Manager, if any, in writing of the Contractor's objections to all or any portion of a Unilateral Change Order within ten (10) days after the date of the Board of Education meeting ratifying or approving a Unilateral Change Order; failure of the Contractor to do so is deemed the Contractor's acceptance of the entirety of a Unilateral Change Order, as approved or ratified by the District's Board of Education and an express unequivocal waiver by the Contractor of any right or remedy of the Contractor, under the Contract Documents or the Laws to: (i) object to the Unilateral Change Order or any portion thereof; or (ii) further adjustment of the Contract Time or the Contract Price on account of the Change(s) incorporated into a Unilateral Change Order.

9.8 Contractor Notice of Changes. If the Contractor claims 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 Project Manager, if any, the Project Inspector 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 Project Inspector 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 9.7, any such adjustment shall be determined in accordance with the provisions of Articles 9.5.1 and 9.5.2.

9.9 Disputed Changes. If there is any dispute or disagreement between the Contractor and the District 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 and completion 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 is the Contractor's default of a material obligation of the Contractor under the Contract Documents.

9.10 Emergencies. In an emergency affecting or threatening the safety of persons, or which affects or threatens the Work, or property, the Contractor, without special instruction or prior authorization from the District, Project Manager 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.

9.11 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 Contractor shall carry out such orders promptly.

9.12 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, Project Manager and the Project Inspector in the manner and within the time set forth in Articles 9.2 or 9.7 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 of the District 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 Architect, Project Manager, if any and the Project Inspector any discrepancies or defects in such other construction that would render it unsuitable for such proper execution and results of the Contractor's Work. 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, the Laws 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 Architect, the Project Manager and the Project Inspector 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. 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. If any portion of the Work subject to tests, inspection or approval is 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. The District will pay for fees, costs and expenses for the initial tests/inspections of materials/equipment which are conducted at the Site or locations within a one hundred (100) mile radius of the Site. All fees, costs or expenses for subsequent tests/inspections or for tests/inspections conducted at a location more than a one hundred (100) mile radius from the Site (including without limitation, travel and travel-related expenses) shall be borne solely and exclusively by the Contractor.

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 Laws, including without limitation, 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 Project 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 Project Inspector or public authorities having jurisdiction over the Work determine that portions of the Work require additional testing, inspection or approval, the Architect or Project Manager, if any will, upon written authorization from the District, 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 Architect, the Project Manager and the Project Inspector of when and where tests and inspections are to be made so the Project 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 fees of the Architect, Project Manager, if any, and the Project Inspector in connection therewith.

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.

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 Project 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 Project 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 Project 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 to 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 Project 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 Project Inspector or the requirements of the Contract Documents, it must, if required by the Architect or the Project Inspector, be uncovered for observation by the Architect and the Project Inspector and be replaced at the Contractor's expense 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

constitutes Defective or Non-Conforming Work may be rejected by the District, the Project Manager the Architect or the Project 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 Project Inspector or even if they failed to observe the Defective or Non-Conforming nature of the Work, materials or equipment.

12.4 Correction of Work. The Contractor shall promptly correct any Defective or Non-Conforming Work whether observed before or after Substantial Completion and whether or not fabricated, installed or completed. The Contractor shall bear all costs of correcting Defective or Non-Conforming Work, including additional testing and inspections and compensation for the Architect'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 Defective or Non-Conforming Work.

12.5 Removal of Non-Conforming or Defective Work. The Contractor shall, at its sole cost and expense, remove from the Site all Defective or Non-Conforming Work 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 proceed with correction of such Defective or Non-Conforming Work within the time fixed herein, 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 services, attorney's 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 be jointly and severally liable to the District for any such excess amount.

12.7 Acceptance of Defective or Non-Conforming Work. The District may, in its sole and exclusive discretion, elect to accept Defective or Non-Conforming Work in lieu of requiring its removal and correction, in which case the Contract Price shall be reduced as appropriate and equitable. The District's determination of the extent of reduction of the Contract Price on account of Defective or Non-Conforming Work accepted by the District shall be binding, conclusive, dispositive and not subject to appeal or other dispute resolution procedures, unless such determination is manifestly unreasonable.

## **ARTICLE 13: WARRANTIES**

13.1 Workmanship and Materials. The Contractor warrants to the District that: (i) the Work and all materials and equipment incorporated therein conform to requirements of the Contract Documents; (ii) all materials and equipment incorporated into the Work are new, of good quality and of the most suitable grade and quality for the purpose intended, unless otherwise specified in the Contract Documents; and (iii) all Work and workmanship is of good quality, free from faults and defects and in conformity with the requirements of the Contract Documents. If required by the Architect, Project Inspector, Project Manager or 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 or Non-Conforming. 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. The obligations of the Contractor hereunder are 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 the Laws.

13.2 Warranty Work. If, within one (1) 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. If the Contractor fails or refuses 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. 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 (Attachment D to Special Conditions). 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 and any right of the Contractor to Final Payment.

13.4 Survival of Warranties; Surety Obligations. The Contractor's warranty obligations hereunder shall survive the Contractor's completion of Work under the Contract Documents, the District's Final Acceptance or the termination of the Contract. The obligations of the Surety issuing the Performance Bond shall include assumption and discharge of the Contractor's warranty obligations if the Contractor fails or refuses to perform its warranty obligations hereunder in strict conformity herewith.

#### **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. In the event the District shall order 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. The foregoing notwithstanding, 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 insure 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 ten (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 the Laws or requirements of any public entity having jurisdiction over any portion of the Work; (iv) if the Contractor disregards proper directives of the Architect, the Project Manager, the Project Inspector or District; (vii) Defective/Non-Conforming Work which the Contractor neglects or refuses to correct; or (viii) if the Contractor otherwise violates 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 the Laws.

15.1.2 District's Rights Upon Termination. If 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 or about the Site, 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 at or about the Site 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 price for completion of the Work. If 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. If 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 twenty (20) days after demand therefor, the District may take over the Work and prosecute it to completion as provided for above.

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, fees for additional professional and consultant services, and the District's administrative costs, 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 Surety are jointly and severally liable for payment of such difference to the District.

15.1.6 Contractor Responsibility for Damages. The Contractor and the Surety shall be jointly and severally 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 exceeding 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 the Laws or 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 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.

16.3 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.

16.4 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.

16.5 Severability. If any provision of the Contract Documents is 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.

16.6 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.

16.7 Gender and Number. Whenever the context of the Contract Documents so require, the neuter gender shall include the feminine and masculine, the masculine gender shall include the feminine and neuter, the singular number shall include the plural and the plural number shall include the singular.

16.8 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.

16.9 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.

16.10 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.

16.11 Dispute Resolution; Arbitration.

16.11.1 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).

16.11.2 Government Code Claim Requirements. Pursuant to Government Code §930.6, any claim, demand, dispute, disagreement or other matter in controversy asserted by the Contractor against the District for money or damages, including, without limitation, a Demand for Arbitration, except for those subject to resolution pursuant to Article 16.11.1, shall be deemed a "suit for money or damages" and shall be subject to the provisions of Government Code §§945.4, 945.6 and 946. Notwithstanding the resolution of disputes pursuant to the arbitration provisions set forth in Article 16.11.3 any claim, demand, dispute, disagreement or other matter in controversy between the Contractor and the District seeking money or damages in excess of \$375,000 shall first be presented to the District and acted upon or deemed rejected by the District in accordance with Government Code § 900, et seq., as an express condition precedent to the Contractor's commencement of arbitration proceedings.

16.11.3 Arbitration. Except as provided in Article 16.11.1, any other claims, disputes, disagreements or other matters in controversy between the District and the Contractor arising out of, or related, in any manner, to the Contract Documents, or the interpretation, clarification or enforcement thereof shall be resolved by binding arbitration conducted before a retired judge in accordance with the arbitration rules of Judicial Arbitration Mediation Services (“JAMS”) in effect as of the date that a Demand for Arbitration is filed, except as expressly modified herein. The locale for any arbitration commenced hereunder shall be the regional office of the JAMS closest to the Site. The award rendered by the Arbitrator(s) shall be final and binding upon the District and the Contractor only if the arbitration award: (i) is supported by substantial evidence; (ii) is based on applicable legal standards in effect that the time the arbitration award is issued; and (iii) includes written findings of fact and conclusions of law in conformity with California Code of Civil Procedure §1296. In connection with any arbitration proceeding commenced hereunder, the discovery rights and procedures provided for in California Code of Civil Procedure §1283.05 shall be applicable, and the same shall be deemed incorporated herein by this reference. A Demand for Arbitration shall be filed and served within a reasonable time after the occurrence of the claim, dispute or other disagreement giving rise to the Demand for Arbitration, but in no event shall a Demand for Arbitration be filed or served after the date when the institution of legal or equitable proceedings based upon such claim, dispute or other disagreement would be barred by the applicable statute of limitations. If more than one Demand for Arbitration is filed by either the District or the Contractor relating to the Work or the Contract Documents, all Demands for Arbitration shall be consolidated into a single arbitration proceeding, unless otherwise agreed to by the District and the Contractor. The Contractor’s Surety, a Subcontractor or Material Supplier to the Contractor and other third parties may be permitted to join in and be bound by an arbitration commenced hereunder if required by the terms of their respective agreements with the Contractor, except to the extent that such joinder would unduly delay or complicate the expeditious resolution of the claim, dispute or other disagreement between the District and the Contractor, in which case an appropriate severance order shall be issued by the Arbitrator(s). The expenses and fees of the Arbitrator(s) shall be divided equally among the parties to the arbitration. Each party to any arbitration commenced hereunder shall be responsible for and shall bear its own attorneys’ fees, witness fees and other costs or expenses incurred in connection with such arbitration. The foregoing notwithstanding, the Arbitrator(s) may award arbitration costs, including Arbitrators’ fees but excluding attorneys’ fees, to the prevailing party. The confirmation, enforcement, vacation or correction of an arbitration award rendered hereunder shall be the Superior Court of the State of California for the county in which the Site is situated. The substantive and procedural rules for such post-award proceedings shall be as set forth in California Code of Civil Procedure §1285 et seq.

16.11.4 Limitation on Arbitrator. Notwithstanding any other provision of this Article 16, the Superior Court for the State of California for the County in which the Project Site is situated shall have sole and exclusive jurisdiction, and an arbitrator shall have no authority, to hear and/or determine a challenge to the institution or maintenance of a proceeding in arbitration of a claim on the grounds that: i) the claim is barred by the applicable statute of limitations; ii) the claim is barred by a provision of the California Government Claims Act; iii) claimant has failed to satisfy any and all conditions precedent to arbitration; iv) the right to compel arbitration has been waived by the petitioner; v) grounds exist for the revocation of the arbitration agreement; and/or, vi) there is the prospect that a ruling in arbitration would conflict with a ruling in a pending proceeding regarding the Project on a common issue of law or fact.

16.11.5 Inapplicability to Bid Bond. The provisions of this Article 16.11 shall not be

applicable to disputes, disagreements or enforcement of rights or obligations under the Bid Bond; all claims, disputes and actions to enforce rights or obligations under the Bid Bond shall be adjudicated only by judicial proceedings commenced in a court of competent jurisdiction.

16.12 Limitation on Special/Consequential Damages. In the event of the District's breach or default of its obligations under the Contract Documents, the damages, if any, recoverable by the Contractor shall be limited to general damages which are directly caused by the breach or default of the District and shall exclude any and all special or consequential damages, if any. By executing the Agreement, the Contractor expressly acknowledges the foregoing limitation to recovery of only general damages from the District if the District is in breach or default of its obligations under the Contract Documents; the Contractor expressly waives and relinquishes any recovery of special or consequential damages from the District.

16.13 Capitalized Terms. Except as otherwise expressly provided, capitalized terms used in the Contract Documents shall have the meaning and definition for such term as set forth in the Contract Documents.

16.14 Attorney's Fees. Except as expressly provided for in the Contract Documents, or authorized by the Laws, neither the District nor the Contractor shall recover from the other any attorney's 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.

16.15 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.

16.16 Prohibited Interests. No employee of the District, who is authorized in such capacity on behalf of the District to negotiate, make, accept or approve, or to take part in negotiating, making, accepting or approving any architectural, engineering, inspection, construction or material supply contract or subcontract in connection with the Work shall become directly or indirectly financially interested in the Work or any part thereof.

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

16.18 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.

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**SPECIAL CONDITIONS**

1. **Application of Special Conditions.** These Special Conditions form a part of the Contract Documents for the Work generally described as:

**BID NO. RFP# 2017/18(R6), RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT**

2. **Drawings and Specifications.** The number of sets of the Drawings and Specifications which the District will provide to the Contractor, pursuant to Article 2.1.3 of the General Conditions is three (3) Additional sets of the Drawings and Specifications may be obtained by the Contractor from the District at the cost of reproduction.

3. **Insurance.**

3.1. **Insurance Requirements for Contractors.** Pursuant to Article 6 of the General Conditions, the Contractor shall obtain and maintain the following insurance coverage with the following minimum coverage amounts:

Workers Compensation Insurance	In accordance with applicable law
Employers Liability Insurance	<u>\$1,000,000</u>
Commercial <b>General</b> Liability Insurance (including coverage for bodily injury, death, property damage and motor vehicle liability)	
Per Occurrence	<u>\$1,000,000</u>
Aggregate	<u>\$2,000,000</u>

3.2. **Builders Risk Insurance.** In accordance with Article 6.3 of the General Conditions, coverage shall be provided for the full insurable value of the Work. Coverage for the perils of earthquakes **is not** to be included within the scope of coverage under the Builders Risk Insurance Policy.

3.3. **Subcontractor’s Insurance.** In accordance with Article 6.5 of the General Conditions, each Subcontractor shall obtain and maintain the following insurance coverages in the following minimum coverage amounts:

Workers Compensation Insurance	In accordance with applicable law
Employers Liability Insurance	<u>\$1,000,000</u>
Commercial General Liability Insurance (including coverage for bodily injury, death, property damage and motor vehicle liability)	
Per Occurrence	<u>\$1,000,000</u>
Aggregate	<u>\$2,000,000</u>

4. **Contract Time.** The Work at **RUTH RICHARD FOOD CENTER STEAM BOILER REPLACEMENT PROJECT** shall commence on the date set forth in the Notice to Proceed issued by or on behalf of the District; the Contractor shall achieve Substantial Completion within **30** calendar days and Final Completion within **40** calendar days after the commencement date set forth in the Notice to Proceed.

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**5. Liquidated Damages: District Withhold of Liquidated Damages; Performance Bond Surety.** If the Contractor is subject to assessment of Liquidated Damages for delayed

Submittals, delayed Substantial Completion, and/or delayed completion of Punchlist Items, the District may withhold such assessments from the Contract Price then or thereafter due the Contractor. If the assessment of Liquidated Damages exceeds the then remaining balance of the Contract Price, the Contractor and the Surety issuing the Performance Bond shall be jointly and severally liable to the District for such amounts.

- 5.1. Delayed Submittals.** Each and every submittal delayed beyond the time frames listed in the Submittal Schedule and Article 4.7.2.1. of the General Conditions shall be subject to an assessment and withholding of Liquidated Damages in the sum of **Five-Hundred Dollars (\$500.00)** per day per Submittal until the required Submittal is submitted.
- 5.2. Delayed Substantial Completion.** The Contractor shall be subject to assessment and withholding of Liquidated Damages for each day of delayed Substantial Completion beyond the Contract Time for Substantial Completion of the Work in the sum of **Five-Hundred Dollars (\$500.00) per day.**
- 5.3. Delayed Completion of Punchlist Items.** The Contractor shall be subject to assessment and withholding of Liquidated Damages if completion of Punchlist items for the Work are not achieved within the time for Final Completion established pursuant to the Contract Documents, in the sum of **One-Hundred Dollars** per day until all Punchlist items are completed: **(\$100.00)**
- 5.4. Mark-Ups on Changes to the Work.** In the event of Changes to the Work, pursuant to Article 9 of the General Conditions, the mark-up for all overhead (including home and field office overhead), general conditions costs and profit, shall not exceed the percentage of allowable direct actual costs for performance of the Change as set forth below.
- 5.4.1. Subcontractor Performed Changes.** For the portion of any Change performed by Subcontractors of any tier, the percentage of mark-up on allowable actual direct labor and materials costs incurred by all Subcontractors of any tier shall be Ten Percent (10%). In addition, for the portion of any Change performed by a Subcontractor of any tier, the Contractor may add an amount equal to Five Percent (5%) of the allowable actual direct labor and materials costs of Subcontractors performing the Change; the foregoing mark-up shall not be applied to the Subcontractor mark-up.
- 5.4.2. Contractor Performed Changes.** For the portion of any Change performed by the Contractor's own forces, the mark-up on the allowable actual direct labor and materials costs of such portion of a Change shall be Fifteen Percent (15%).
- 5.4.3. Bond Premium Costs.** In addition to the foregoing mark-ups on the direct costs of labor and materials, a bond premium expense in an amount equal to the lesser of the Contractor's actual bond premium rate or one percent (1%) of the total actual direct costs of labor and materials (before Subcontractor and Contractor mark-ups) will be allowed.
- 5.4.4. Exclusions From Mark-Up of Actual Costs.** Mark-ups on the actual cost of materials/equipment incorporated into a Change or for purchase/rental of Construction Equipment shall not be applied to any portion of such costs which are for sales, use or other taxes arising out of the purchase of materials/equipment and/or for purchase/rental of Construction Equipment.



- 6. **Hours/Days of Work at Site.** Work at the site is limited to Mondays through Fridays, except for District holiday days, between the hours of 7:00 a.m. to 4:00 p.m. No Work at the Site is permitted except during such days and hours.
- 7. **Site Activity Limitations.** Pursuant to Article 4.20 of the General Conditions, the permitted hours and days of Work activities on the Site Work activities are set forth in paragraph 7, above. Limitations set forth above must be incorporated into and reflected in the Construction Schedules prepared by the Contractor pursuant to the Contract Documents. No adjustment of the Contract Time or Contract Price will be allowed due to the limitations/prohibitions on Work activities as set above.
- 8. **Weather Days for Unusually Severe Weather Conditions.** For purposes of Article 7.4.1 of the General Conditions, the number of days of weather days for unusually severe weather conditions expected during each calendar month of the Contract Time is set forth below. Construction Schedules prepared pursuant to the Contract Documents shall incorporate the unusually severe weather days set forth below. The Contract Time will not be subject to adjustment for unusually severe weather conditions resulting from rain until the actual number of unusually severe weather conditions in any calendar month during the Contract Time exceeds the number of unusually severe weather days set forth below for such month.

Month	Unusually Severe Weather Days
January	
February	
March	
April	
May	
June	
July	
August	
September	
October	
November	
December	

To be considered an Unusually Severe Weather Day, all of the following conditions must be met: (i) the unusually severe weather conditions must occur on a scheduled workday; (ii) the weather conditions must be the sole cause of the work stoppage for a continuous period of at least three (3) hours; and (iii) the work stopped must be on the critical path of the then current Updated Construction Schedule.

- 9. **Contractor Obtained Permits.** In addition to permits or approvals obtained by the District for the Work, the Contractor shall obtain the following permits, approvals and other authorizations from any public agency with jurisdiction over any portion of the Work. The Contractor shall obtain the permits, approvals and/or authorizations set forth below: (i) without adjustment of the Contract Price, unless otherwise indicated below; and (ii) without adjustment of the Contract Time.

<b>Contractor Obtained Permit, Approval or Authorization</b>	<b>Cost Reimbursement</b>
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Deferred Approval Items	No reimbursement to Contractor; cost included in Contract Price.
	Choose an item.
	Choose an item.

**10. Utility Services Disruption.** If any portion of the Work requires the cessation, limitation or other disruption to utility services (including without limitation, electrical power, voice/data services, water, sewer, storm drain, or gas) serving any portion of the District’s campus, the Contractor shall not commence such Work without prior notice to the District of the extent and nature of utility service cessation, limitation or disruption and written approval by the District to proceed with such Work. The District’s approval of any cessation, limitation or disruption of utility services may be denied, granted or conditioned in the sole and exclusive discretion of the District. The foregoing may include, without limitation, approval conditioned on the Contractor providing temporary utility services and distribution thereof during the cessation, limitation or disruption of utility services during; any such temporary utility services and distributions thereof shall be at the cost and expense of the Contractor without adjustment of the Contract Price or the Contract Time.

**11. Vegetation Removal/Vegetation Trimming.** All activities relating to the removal of any existing vegetation in or about the Site shall be coordinated with the District pursuant to such limitations, restrictions or conditions established by the District. Prior to any vegetation removal activities, each Contractor and its Subcontractor performing any portion of the vegetation removal or related activities shall meet and confer with the District to establish the scope of removal/trimming. If a Contractor removes or trims vegetation materials without having engaged in such meet and confer with the District and the District’s designation of the scope and extent of removal/trimming, the Contractor shall be responsible for all costs, fees and expenses to replace the removed/trimmed vegetation materials as directed by the District.

**12. Existing Improvements/Conditions.**

**12.1. Verification of Existing Improvements/Conditions.** Prior to commencement of any portion of the Work, the Contractor shall review the Contract Documents and the existing improvements/conditions in, on or about the area(s) for such portion of the Work to confirm that the actual existing improvements/conditions are consistent with the existing improvements/conditions depicted in the Contract Documents. If any discrepancies exist between actual existing improvements/conditions and those depicted in the Contract Documents, the Contractor shall, prior to commencement of Work in such area notify the District Representative and the Architect, in writing of such variation; as necessary or appropriate, the Contractor shall obtain clarification or direction from the District Representative and/or the Architect to address such variations.

**12.2. Damage or Destruction to Existing Improvements/Conditions.** If any portion of the Work results in damage or destruction to any existing improvements or conditions in, on or about the Site, the Contractor shall: (i) notify the District Representative and the Architect in writing within four (4) hours of the occurrence of an event of damage or destruction and (ii) repair, replace or otherwise correct such damage/destruction and restore the existing improvements/conditions to the condition existing immediately prior to

such damage or destruction at the sole cost and expense of the Contractor without adjustment of the Contract Price or the Contract Time. The foregoing notwithstanding, the Contractor shall not, and shall not permit others to, backfill or cover-up any damage or destruction to existing improvements/conditions without prior notice by the Contractor to the District of backfilling or covering-up of damage/destruction and the District's authorization to proceed with backfilling or covering-up.

**12.3. No Use of Existing Facilities.** The personnel of the Contractor, Subcontractors and other performing Work at the Site shall not use any existing facilities, improvements in, on or about the District campus, including without limitation, trash/rubbish bins/dumpsters, restrooms, food service areas, loading/storage areas and other similar areas.

**12.4. Vehicular Access.** Construction activities which limit or prevent access to existing vehicular roadways or existing parking areas shall be performed only during non-school hours. Performance of Work in such areas during non-school hours shall be without adjustment of the Contract Price or the Contract Time.

**12.5. Fire, Police, Emergency Access.** Each Contractor shall at all times during the Work provide unimpeded vehicular access for the police, fire and other emergency services in and around the Site and adjacent areas. Each Contractor shall provide the District, Project Manager and any other public agency designated by the District with keys/codes/card keys to all Site perimeter locks.

### **13. Demolition Materials.**

**13.1. Demolition Materials Categories.** All demolished materials/equipment shall be separated by the Contractor into three (3) categories: (i) concrete and concrete type materials; (ii) steel and other metals; and (ii) general trash.

**13.2. Recycling of Demolition Materials.** Each Contractor and each of its Subcontractors engaged in any portion of the demolition work shall: (i) recycle concrete/concrete type and steel/metal materials; and (ii) maintain recycling records/submit recycling reports as set forth herein. All concrete/concrete type and steel/metal demolition materials shall be recycled at appropriate recycling centers and/or locations. Each Subcontractor engaged in any portion of the demolition work shall submit a written report to the Contractor upon completion of its demolition activities at the Site. Each report shall include: (i) the name of the Contractor/Subcontractor; (ii) address/telephone of the Contractor/Subcontractor; (iii) date(s) of demolition materials removed; (iv) estimated weight of demolition materials removed from the Site; (v) type(s) of demolition materials removed from the Site; and (vi) the disposal location. Each Contractor shall compile the foregoing reports prepared by its Subcontractor and submit to the District and Project Manager a comprehensive report of demolition materials types, removal and disposition prior to Final Payment. The Contractor's obligations under the preceding sentence are material and each Contractor's submission of the comprehensive report summarizing the reports of its Subcontractors activities relating to demolition materials and the removal, disposal or recycling thereof is an express condition precedent to the District's obligation to disburse the Final Payment and each Contractor's right to receive the Final Payment. The Contractor shall submit to District with each progress payment application a written report or manifest detailing all recycled and demolished materials removed from the Project during the progress payment period.

**14. Waste Disposal.** No Contractor or any Subcontractors of any tier are permitted to use

District dumpsters or waste disposal services for removal of waste and debris resulting from the Work. Each Contractor must, without adjustment of the Contract Price, provide for the removal of waste/debris materials from the Site with its own forces or with its own retained waste/debris removal service.

**15. Discovery of Archeological Resources.** If, during the Work, the Contractor encounters materials which are or may be an Archeological Resource (as that term is used and defined in California Public Resources Code §21083.2), the Contractor shall take action as set forth herein.

**15.1. Contractor Responsibility.** Upon encountering such materials, the Contractor shall: (i) immediately cease Work and any other activity which will or may result in disturbances of the area(s) where such materials are encountered; (ii) immediately notify the Architect, Project Inspector and District in writing of the encountering of such materials; and (iii) take appropriate measures, including any directed or authorized by the District to cordon-off the area(s) in which such materials are encountered to prevent access to, and further disturbance of such area(s), pending determination of whether such materials are Archeological Resources and direction from the District regarding resumption of Work in such area(s).

**15.2. District Investigation.** Upon receipt of such written notice from the Contractor, the District shall promptly investigate and determine whether the materials encountered constitute Archeological Resource(s), and if so, whether such materials are Unique or Non-Unique Archeological Resources. Upon completing such investigation, the District shall notify the Contractor in writing of the results of such investigation, along with direction for resumption of the Work or further suspension of the Work in such area(s), pending completion of archeological mitigation measures.

**15.3. Contractor Continuation of Work.** If it is determined that the materials are not Archeological Resources or are Non-Unique Archeological Resources (as that term is used and defined in California Public Resources Code §21083.2(h)), the District shall notify the Contractor in writing of such conclusion. Upon receipt of such notice from the District, the Contractor shall immediately resume the Work in the area(s) where potential Archeological Resources were encountered. If it is determined that the materials are Unique Archeological Resources (as that term is used and defined in California Public Resources Code 12083.2(g)), the District shall notify the Contractor in writing of such conclusion. In such event, the Contractor shall defer further Work in such area(s) pending the District's completion of archeological mitigation measures and direction or authorization from the District to resume Work in such area(s).

**15.4. Adjustment of Contract Time for Encountering Actual or Potential Archeological Resources.** If the Contractor encounters materials which are or may be Archeological Resources and the Work is suspended pending the District's investigation of such materials to ascertain whether or not such materials constitute Archeological Resources and the suspension of Work in such area(s) directly delays performance of activities on the Critical Path of the then current Master Project Schedule, such suspension of the Work shall be deemed an Excusable Delay (as that term is used and defined in Article 7.4.1 of the General Conditions). The Contractor shall be entitled to an adjustment of the Contract Time to the extent that the Contractor's Critical Path activities are delayed by such suspension. The Contract Price due the Contractor shall not be subject to increase or other adjustment on account of suspension of Work as a result of encountering materials which are or may be Archeological Resources.

- 15.5. Adjustment of Contract Time for Encountering Unique Archeological Resources.** If the Contractor encounters materials which are determined to be Unique Archeological Resources and the Work is suspended pending the District's archeological mitigation activities and the suspension of Work in such area(s) directly delays performance of activities on the Critical Path of the then current Master Project Schedule, such suspension of the Work shall be deemed an Excusable Delay (as that term is used and defined in Article 7.4.1 of the General Conditions). The Contractor shall be entitled to an adjustment of the Contract Time to the extent that the Contractor's Critical Path activities are delayed by such suspension. The Contract Price due the Contractor shall not be subject to increase or other adjustment on account of suspension of Work as a result of encountering materials which are determined to be Unique Archeological Resources.
- 15.6. Adjustment of Contract Price.** The extent to which, if any, the Contract Price due the Contractor is subject to adjustment as a result of encountering actual or potential Archeological Resources shall be limited as set forth herein. Adjustment of the Contract Price shall be limited to activities necessary to secure the area(s) in which actual or potential Archeological Resources are encountered from further access or disturbances. The extent of adjustment of the Contract Price shall be limited to the allowable costs and mark-ups thereon for Changes to the Work, as set forth in the Contract Documents.
- 15.7. Contractor Continuation of Work In Other Areas.** The foregoing provisions shall not excuse nor limit, waive or modify the Contractor's obligation to diligently proceed with performance of Work in all areas of the Site unaffected by the encountering of materials which may be Archeological Resources.
- 16. Similar Conditions.** The intent of the Contract Documents 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 cases of construction on this project. 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 specifically specified to be different in the Contract Documents. Any deviation must be approved in writing, by the Architect prior to incorporation into the Work.
- 17. Applicable Codes.** All work shall conform to the most recent edition of the California Building Code as adopted and amended DSA and the Laws. All Work shall conform to all applicable requirements set forth in Titles 21 and 24 of the California Code of Regulations. No part of the Contract Documents shall be construed as requiring or permitting Work contrary to the requirements of the Laws.
- 18. Handicap Access Regulations.** The Contractor and all Subcontractors shall comply with Title 24 of the California Code of Regulations relating to 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, the Contractor, without adjustment to Contract Price or Contract Time, shall maintain barrier-free paths of travel.
- 19. Conflicts in Drawings and Specifications.** In addition to the provisions of Article 1.12.3 of the General Conditions the following shall apply:

**Inclusion of conflicting Items:** Where an item or portion of the Work is described in conflicting or different terms, the Contractor shall provide without adjustment of the Contract Price, the highest cost alternative that can be reasonably inferred from the Contract Documents, as determined by the Architect.

**20. Locked Door Policy.** In addition to the security requirements set forth elsewhere in the Contract Documents, the Contractor must adhere to 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.

**21. No Employment of Persons Convicted of Sex Offenses or Controlled Substance Offenses.** California Education Code section 44836 states, in relevant part:

(a)(1) The governing board of a school district shall not employ or retain in employment persons in public school service who have been convicted, or who have been convicted following a plea of nolo contendere to charges, of any sex offense as defined in Section 44010.

(2) If a person's conviction of a sex offense as defined in Section 44010 is reversed and the person is acquitted of the offense in a new trial or the charges against him or her are dismissed, this section does not prohibit his or her employment thereafter. If the dismissal was pursuant to Section 1203.4 of the Penal Code and the victim of the sex offense was a minor, this section does prohibit the person's employment.

(b)(1) The governing board of a school district also shall not employ or retain in employment persons in public school service who have been convicted of any controlled substance offense as defined in Section 44011.

(2) If a person's conviction for a controlled substance offense as defined in Section 44011 is reversed and the person is acquitted of the offense in a new trial or the charges against him or her are dismissed, this section does not prohibit his or her employment thereafter.

(c) Notwithstanding subdivision (b), the governing board of a school district may employ a person convicted of a controlled substance offense in a position requiring certification qualifications if that person holds an appropriate credential issued by the Commission on Teacher Credentialing.

**22. Identification Badges.** Identification badges are required for Site access. Personnel providing or performing any Work at the Site will be permitted access to the Site only if District-issued identification badges are worn.

**23. Fingerprinting.** The Contractor must have the job superintendent and all employees, consultants, subcontractors of all tiers, and regular delivery persons who may be working on or frequenting the site at any time fingerprinted.

**24. Completion of Work.** The Contractor shall complete all Work no later than the date set forth in the Contract Documents.

**[End of Section]**

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**ACADEMIC CALENDAR**  
**(Attachment A to Special Conditions)**



**Contractor Provided Facilities, Services, Furnishings  
and Equipment for Project Inspector  
(Attachment B to Special Conditions)**

The Contractor shall provide and furnish the following for use by the Project Inspector for the entire duration of the Work at the Site, until Final Completion is achieved. All costs, fees, expenses or other charges for the following are included within the Contract Price.

Site Office Facility	
Site Office Furnishings	
Site Office Equipment	
Site Office Services	
Site Office Consumable Materials	
Other Items/Services	

## Purchasing Services

1830 South Nogales Street  
Rowland Heights  
CA 91748  
Phone: (626) 854-8387  
Fax: (626) 854-8587  
www.rowlandschools.org



## Governing Board

Cary C. Chen  
Lynne Ebenkamp  
Donna Freedman  
David M. Malkin  
Angelena M. Pride

Julie Sayler Mitchell, Ed. D.  
Superintendent

## CONTRACTORS AND SUBCONTRACTORS PRE-QUALIFICATION APPLICATION

Rowland Unified School District will be soliciting bids for reconstruction and new construction on several of its facilities over a five year period. It is estimated the construction costs for specific work will range from \$1 to \$10 million per facility.

As a condition of bidding and in accordance with the provisions of Section 20111.6 of the California Public Contract Code, the District requires that all prospective bidders, including, without limitation, General Contractors, Electrical subcontractors, Mechanical Subcontractors and Plumbing Subcontractors on certain projects, submit a completed prequalification questionnaire and financial statement on the forms supplied by the District.

Once submitted and approved, a Contractor's prequalification statement is valid for one year.

In order to bid on a project, the Contractor must submit a prequalification statement for approval at least fifteen (15) working days prior to the bid opening date for a particular project or other date established by and at the discretion of the District's Director of Purchasing and must be prequalified at least five (5) business days prior to the date fixed for the public opening of sealed bids. The District will notify the applicant if, in the District's opinion, the applicant meets the prequalification requirements and may bid the project(s).

Please complete the attached questionnaire and return it to:

Director of Purchasing  
Rowland Unified School District  
1830 Nogales Street  
Rowland Heights, CA 91748

Bids for projects requiring prequalification will not be accepted if a Contractor's prequalification statement is not on file with the District.

For information regarding prequalification please call (626) 854-8387.

**GENERAL INFORMATION**

1. The Bidder (“Contractor”) shall complete the enclosed Pre-Qualification Application. If an explanation and/or additional sheets are required for any of the responses, please attach additional pages signed by the preparer and identify clearly which questions the attached page refer to.
2. “You” or “Your” as used herein refers to the Bidder’s firm and any of its officers, directors, shareholders, parties or principals.
3. Any statement which is proven to be false shall be grounds for immediate disqualification.
4. The District reserves the right to determine disqualification on the basis of information secured from any source(s).
5. Failure to complete all questions and provide all information requested within this pre-qualification application form shall be basis for disqualification.
6. Please be advised that all references are subject to verification.

## PREQUALIFICATION APPLICATION

Rowland Unified School District (“District”) has determined that all Contractors, including, without limitation, General Building Contractors, General Engineering Contractors, Electrical subcontractors, Mechanical Subcontractors and Plumbing Subcontractors, must be pre-qualified prior to submitting bids for all public works projects with a Project Contract Price of One Million Dollars (\$1,000,000.00) or more. It is mandatory that all licensed Contractors who intend to submit bids complete this Prequalification Application, provide all materials requested herein, be currently registered with the DIR as a public works contractor, and be approved by the District to be on the Bidder’s list. No Bid will be accepted from Contractor and/or Electrical subcontractor, Mechanical Subcontractor and Plumbing Subcontractor that has failed to comply with these requirements. If two or more business entities submit a bid on a project as a Joint Venture, or expect to submit a bid as part of a Joint venture, each entity within the Joint Venture must be separately qualified to bid. Contractors are encouraged to submit pre-qualification packages as soon as possible, so that they may be notified of omissions of information to be remedied or of their pre-qualification status well in advance of the bid advertisement for any given project.

Answers to questions contained in the attached questionnaire, information about current bonding capacity, notarized statement from surety, and the most recent reviewed or audited financial statements, with accompanying notes and supplemental information, are required. The District will use these documents as basis for rating Contractors in respect to the size and scope of contracts upon which each Contractor is qualified to bid.

**Contractor Qualification will be determined based on the dollar value of the projects and in four (4) different categories:**

- 1. New Construction**  
**Minimum Bidder Experience Qualifications:** Completion of at least two (2) DSA-approved new construction projects.
- 2. Modernization/Infrastructure**  
**Minimum Bidder Experience Qualifications:** Completion of at least two (2) DSA-approved Modernization/Infrastructure projects
- 3. Modernization with Classrooms**  
**Minimum Bidder Experience Qualifications:** Completion of at least two (2) DSA-approved K-12 Modernization projects with a combined total at least fifteen (15) modernized individual Classrooms.
- 4. Modernization with Science Classrooms.**  
**Minimum Bidder Experience Qualifications:** Completion of at least two (2) DSA approved K-12 Modernization projects with a combined total at least fifteen (15) modernized individual Classrooms and at least eight (8) modernized individual science rooms in total.

The District reserves the right to check other sources available. The District’s decision will be based on objective evaluation criteria and scorable questions. Not all questions in the questionnaire are scorable; some questions simply ask for information about the contractor firm’s structure, officers and history. Omission of requested information may result the Prequalification Application being deemed non-responsive.

**1. Prequalification of Bidders.**

The District requires from prospective bidders answers to questions contained in this Application including a complete statement of the prospective bidder's financial ability and experience in performing public works, DSA projects. These documents will be the basis of rating bidders to determine whether a bidder is qualified to bid on the Project.

**2. Contents of Prequalification Application.**

A Prequalification Application consists of the following:

- Statement of Experience;
- Notarized Statement of Bondability;
- Notarized Statement of Insurability;
- Financial Statement and Accountant's Release Letter;
- Prequalification Rating Questionnaire with required explanations.
- DIR Registration Verification

**3. Submission of Completed Application.**

One fully completed Prequalification Application with all required documentation should be submitted to the District in a sealed envelope labeled in the lower left-hand corner "CONFIDENTIAL- Prequalification Application" and submitted to:

Director of Purchasing Rowland  
Unified School District 1830 S.  
Nogales Street Rowland  
Heights, CA 91748

**4. Questions Regarding Prequalification Application.**

All questions regarding the Prequalification Application or Prequalification process must be submitted no later than **10:00 a.m. on May 21, 2018**. Questions will only be accepted in writing and sent via email to Carlos Martinez [cmartinez@rowlandschools.org](mailto:cmartinez@rowlandschools.org)

**5. Notarized Statement of Bondability.**

The prospective bidder must attach a notarized statement from an admitted surety insurer authorized to issue bonds in the State of California which states the bidder's current available bonding capacity. The surety must be an admitted surety in the State of California and have an A.M. Best rating of A- or better.

**6. Notarized Statement of Insurability.**

The prospective bidder must attach a notarized statement from a qualified insurer which states the current insurability of Contractor. The contractor must show insurability of at least \$1,000,000 per occurrence/\$2,000,000 aggregate in Comprehensive General Liability Insurance. Notarized Statement of Insurability will be accepted by the District only if the insurer is: (i) A.M. Best rated A- or better; (ii) A.M. Best Financial Size Category VII or higher; and (iii) authorized under California law to transact business in the State of California and authorized to issue

insurance policies in the State of California.

**7. Non-Responsiveness.**

Each Prequalification Application shall include: (a) Statement of Experience; (b) Notarized Statement of Bondability; (c) Notarized Statement of Insurability; (d) Financial Statement and Accountant's Release Letter; (d) completed Prequalification Rating Questionnaire with required written explanations; and (e) DIR Registration Verification. Any Prequalification Application not containing the above-referenced requisite documents completed with all information required and bearing the signature of the Bidder's duly authorized representative under penalty of perjury may render the Prequalification Application non-responsive. All information or responses of a prospective Bidder in its Prequalification Application and other documents accompanying the Prequalification Application shall be complete, accurate and true.

**8. Waiver of Irregularities.**

The District reserves the right to waive minor irregularities and omissions in the information contained in the Prequalification Application submitted, to make all final determinations.

**9. Late Applications.**

The District may refuse to grant prequalification where the requested information and materials are not provided by the specified date and time. There is no appeal from a failure to submit an incomplete application or late application. The closing time for prequalification will not be changed to accommodate supplementation of an incomplete submission of an application, or a late submission of an application.

**10. Confidentiality.**

The completed Prequalification Applications submitted by Contractors are not public records and are not open to public inspection. All information provided will be kept confidential to the extent permitted by law. However, the contents may be disclosed to third parties for purpose of verification, or investigation of substantial allegations, or in the appeal process. State law requires, however, that the names of Contractors applying for prequalification status shall be subject to disclosure, and the first page of the questionnaire will be used for that purpose.

**11. Notification of Prequalification Results.**

Contractors will be notified by fax or e-mail of their prequalification rating. Prequalification approval will remain valid for until January 31<sup>st</sup> of the following calendar year, except that the District reserves the right during the calendar year to adjust, increase, limit, suspend or rescind the prequalification ratings based on subsequently learned information and after giving notice of the proposed action to the prequalified Bidder and affording the prequalified Bidder an opportunity to rebut any evidence used as a basis for disqualification and to present evidence to the District as to why the prequalified Bidder's prequalification status should not be altered or rescinded.

**12. Post-Bid Determination of Responsibility.**

While it is the intent of this Prequalification Application to assist the District in determining

bidder responsibility prior to bid, neither the fact of prequalification, nor any prequalification rating, will preclude the District from a post-bid consideration and determination of whether a bidder has the quality, fitness, capacity and experience to satisfactorily perform the proposed work, and has demonstrated the requisite trustworthiness.

**13. Prequalification Requirements/Scoring.**

To prequalify, each prospective bidder must meet or exceed the requirements outlined in the sections below:

**i) Pass/Fail Section**

Part IV, Section I – Essential Requirements for Qualification. The questions within this section are evaluated utilizing pass or fail approach. Bidders that do not meet all requirements in this section will not be qualified to bid. Bidders receiving a fail score in this section will not be evaluated any further.

**ii) Scoring Sections.** Part IV, Section II. Bidders must achieve a minimum score of 147 out of 197 possible on questions that are scored and the reference questionnaires contained in parts II and III. Note that meeting the minimum score on the scored sections does not guarantee prequalification as there are non-scored questions that will also be objectively evaluated.

Section II - Evaluation Criteria. The questions in this section are evaluated utilizing a points system. The points from this section will be added to the points from section III. There are 167 possible points in this section.

Section III: Reference Questionnaire. The questionnaire will be used to evaluate the contractors past performance. The Contractor shall send this questionnaire to the owner references listed for each project and shall ensure that the three (3) completed questionnaires are sent directly from the references to Rowland Unified School District. If more than three responses are received by the District the three (3) lowest scored questionnaires will be utilized in calculating the points from this section. A score of zero will be assigned for any questionnaires less than three (3) not received by the District, and a maximum score of ten (10) for each received questionnaire. The highest possible score for this part is thirty (30) Points.

**14. Appeal of Prequalification Rating.**

Where a timely and completed Prequalification Application results in a rating below that necessary to prequalify or a Contractor is deemed disqualified based upon the essential elements, an appeal can be made. An appeal is begun by the Contractor delivering notice to Director of Purchasing, Rowland Unified School District of its appeal of the decision with respect to its prequalification rating, no later than two (2) working days after the District provides notice to the Contractor of the Contractor prequalification status for the Project. The written appeal shall set forth in detail all grounds for the appeal, including without limitation all facts, supporting documentation, legal authorities and argument in support of the grounds for the appeal. Any matters not set forth in the written appeal may be deemed invalid. All factual contentions must be supported by competent, admissible and credible evidence.

Unless the Contractor submits a timely appeal, the Contractor waives any and all rights to challenge the decision of the District, whether by administrative process, judicial process or any

other legal process or proceeding.

Upon receipt of a timely written appeal from Contractor, the District shall have five (5) working days within which to prepare and forward to Contractor a written response to Contractor's Appeal which advises Contractor of the basis for the District's prequalification determination. If Contractor disputes the District's response, Contractor may submit to the District a written request for an appeal hearing, provided such request is made no later than two (2) working days after the District serves its written response on Contractor. Contractor's failure to submit a written request for an appeal hearing within the two (2) working day period shall be deemed to have waived its right to an appeal hearing and shall also waive any and all rights to challenge the decision of the District, whether by administrative process, judicial process or any other legal process or proceeding..

If the Contractor gives the required notice of appeal and requests a hearing, the hearing shall be conducted so that it is concluded no later than five business days after Public Entity's receipt of the notice of appeal. The hearing shall be an informal process conducted by a panel to whom the District's Board of Education has delegated responsibility to hear such appeals (the "Appeals Panel"). The Contractor will be given the opportunity to present information and present reasons in opposition to the rating. After the conclusion of the hearing, a decision will be rendered and the Contractor shall be notified in writing of the decision. It is the intention of the District that the date for the submission and opening of bids will not be delayed or postponed to allow for completion of an appeal process.

A Contractor may be found not pre-qualified for bidding on a specific public works contract to be let by the District, or on all contracts to be let by the District until the Contractor meets the District's requirements. In addition, a Contractor may be found not pre-qualified for either:

- (1) Omission of requested information or
- (2) Falsification of information

Any appeal not conforming to the foregoing may be rejected by the District as invalid. The foregoing notwithstanding, Contractor's waiver of an appeal hearing shall not render this appeal process invalid.





**PART II. STATEMENT OF EXPERIENCE**

**A. Current Organization and Structure of the Business**

**For Firms That Are Corporations:**

- 1a. Date incorporated: \_\_\_\_\_
- 1b. Under the laws of what state: \_\_\_\_\_
- 1c. Provide all the following information for each person who is either (a) an officer of the corporation (president, vice president, secretary, treasurer), or (b) the owner of at least ten per cent of the corporation's stock.

Name	Position	Years with Co.	% Ownership	Social Security #

- 1d. Identify every construction firm that any person listed above has been associated with (as owner, general partner, limited partner or officer) at any time during the last five years.

***NOTE: For this question, "owner" and "partner" refer to ownership of ten per cent or more of the business, or 10 per cent or more of its stock, if the business is a corporation.***

Person's Name	Construction Firm	Dates of Person's Participation with Firm

**For Firms That Are Partnerships:**

- 1a. Date of formation: \_\_\_\_\_
- 1b. Under the laws of what state: \_\_\_\_\_
- 1c. Provide all the following information for each partner who owns 10 per cent or more of the firm.

Name	Position	Years with Co.	% Ownership	Social Security #

- 1d. Identify every construction company that any partner has been associated with (as owner, general partner, limited partner or officer) at any time during the last five years.  
**NOTE: For this question, "owner" and "partner" refer to ownership of ten per cent or more of the business, or ten per cent or more of its stock, if the business is a corporation.**

Person's Name	Construction Company	Dates of Person's Participation with Company

**For Firms That Are Sole Proprietorships:**

- 1a. Date of commencement of business. \_\_\_\_\_  
 1b. Social security number of company owner. \_\_\_\_\_  
 1c. Identify every construction firm that the business owner has been associated with (as owner, general partner, limited partner or officer) at any time during the last five years.  
**NOTE: For this question, "owner" and "partner" refer to ownership of ten per cent or more of the business, or ten per cent or more of its stock, if the business is a corporation.**

Person's Name	Construction Company	Dates of Person's Participation with Company

**For Firms That Intend to Make a Bid as Part of a Joint Venture:**

- 1a. Date of commencement of joint venture. \_\_\_\_\_  
 1b. Provide all of the following information for each firm that is a member of the joint venture that expects to bid on one or more projects:

Name of firm	% Ownership of Joint Venture

**B. History of the Business and Organizational Performance**

2. Has there been any change in ownership of the firm at any time during the last three years?



Contractor's Net Worth: \$ \_\_\_\_\_

12. Bonding capacity: Provide documentation from your surety confirming your firm has sufficient bonding capacity for this Project and identifying the following:

Name of bonding company/surety: \_\_\_\_\_

Name of surety agent, address and telephone number:

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

Total bonding capacity: \_\_\_\_\_

13. List all other sureties (name and full address) that have written bonds for your firm during the last five years, including the dates during which each wrote the bonds:

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

14. Type of construction in which your firm specializes and trades/scope of work that you self-perform: \_\_\_\_\_

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

**Licenses**

15. List all California construction license numbers, classifications and expiration dates of the California contractor licenses held by your firm:

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

16. If any of your firm's license(s) are held in the name of a corporation or partnership, list below the names of the qualifying individual(s) listed on the CSLB records who meet(s) the experience and examination requirements for each license.

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

17. Has your firm changed names or license number in the past five years?

Yes       No

If "yes," explain on a separate signed page, including the reason for the change.

18. Has any owner, partner or (for corporations :) officer of your firm operated a construction firm under any other name in the last five years?

Yes       No

If "yes," explain on a separate signed page, including the reason for the change.

19. Has any CSLB license held by your firm or its Responsible Managing Employee (RME) or Responsible Managing Officer (RMO) been suspended within the last five years?

Yes       No

If "yes," please explain on a separate signed sheet.

20. Are you currently a DIR Registered Contractor?

Yes       No

If "no," Not Qualified to bid any District projects.

### Disputes

21. At any time in the last five years has your firm been assessed and paid liquidated damages after completion of a project under a construction contract with either a public or private owner?

Yes       No

If yes, explain on a separate signed page, identifying all such projects by owner, owner's address, the date of completion of the project, amount of liquidated damages assessed and all other information necessary to fully explain the assessment of liquidated damages.

22. In the last five years has your firm, or any firm with which any of your company's owners, officers or partners was associated, been debarred, disqualified, removed or otherwise prevented from bidding on, or completing, any government agency or public works project for any reason?

**NOTE: "Associated with" refers to another construction firm in which an owner, partner or officer of your firm held a similar position, and which is listed in response to question 1c or 1d on this form.**

Yes       No

If "yes," explain on a separate signed page. State whether the firm involved was the firm applying for pre-qualification here or another firm. Identify by name of the company, the name of the person within your firm who was associated with that company, the year of the event, the owner of the project, the project and the basis for the action.

23. In the last five years has your firm been denied an award of a public works contract based on a finding by a public agency that your company was not a responsible bidder?

Yes       No

If "yes," explain on a separate signed page. Identify the year of the event, the owner, the project and the basis for the finding by the publicagency.

\* \* \*

**NOTE: The following two questions refer only to disputes between your firm and the owner of a project. You need not include information about disputes between your firm and a supplier, another contractor, or subcontractor. You need not include information about "pass-through" disputes in which the actual dispute is between a sub-contractor and a**

**project owner. Also, you may omit reference to all disputes about amounts of less than \$50,000.**

24. In the past five years has any claim **against** your firm concerning your firm's work on a construction project been **filed in court or arbitration**?  
 Yes       No  
If "yes," on separate signed sheets of paper identify the claim(s) by providing the project name, date of the claim, name of the claimant, a brief description of the nature of the claim, the court in which the case was filed and a brief description of the status of the claim (pending or, if resolved, a brief description of the resolution).
25. In the past five years has your firm made any claim against a project owner concerning work on a project or payment for a contract and **filed that claim in court or arbitration**?  
 Yes       No  
If "yes," on separate signed sheets of paper identify the claim by providing the project name, date of the claim, name of the entity (or entities) against whom the claim was filed, a brief description of the nature of the claim, the court in which the case was filed and a brief description of the status of the claim (pending, or if resolved, a brief description of the resolution).
26. At any time during the past five years, has any surety company made any payments on your firm's behalf as a result of a default, to satisfy any claims made against a performance or payment bond issued on your firm's behalf, in connection with a construction project, either public or private?  
 Yes  No  
If "yes," explain on a separate signed page the amount of each such claim, the name and telephone number of the claimant, the date of the claim, the grounds for the claim, the present status of the claim, the date of resolution of such claim if resolved, the method by which such was resolved if resolved, the nature of the resolution and the amount, if any, at which the claim was resolved.
27. In the last five years has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm?  
 Yes       No  
If "yes," explain on a separate signed page. Name the insurance carrier, the form of insurance and the year of the refusal.
28. Within the last five years has there ever been a period when your firm had employees but was without workers' compensation insurance or state-approved self-insurance?  
 Yes       No  
If "yes," please explain the reason for the absence of workers' compensation insurance on a separate signed page. If "No," please provide a statement by your current workers' compensation insurance carrier that verifies periods of workers' compensation insurance coverage for the last five years. (If your firm has been in the construction business for less than five years, provide a statement by your workers' compensation insurance carrier verifying continuous workers' compensation insurance coverage for the period that your firm has been in the construction business.)

**Criminal Matters and Related Civil Suits**

29. Has your firm or any of its owners, officers or partners ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or material misrepresentation to any public agency or entity?  
 Yes       No  
 If “yes,” explain on a separate signed page, including identifying who was involved, the name of the public agency, the date of the investigation and the grounds for the finding.
30. Has your firm or any of its owners, officers or partners ever been convicted of a crime involving any federal, state, or local law related to construction?  
 Yes       No  
 If “yes,” explain on a separate signed page, including identifying who was involved, the name of the public agency, the date of the conviction and the grounds for the conviction.
31. Has your firm or any of its owners, officers or partners ever been convicted of a federal or state crime of fraud, theft, or any other act of dishonesty?  
 Yes       No  
 If “yes,” identify on a separate signed page the person or persons convicted, the court (the county if a state court, the district or location of the federal court), the year and the criminal conduct.

**Bonding**

32. If your firm was required to pay a premium of more than one per cent for a performance and payment bond on any project(s) on which your firm worked at any time during the last three years, state the percentage that your firm was required to pay. You may provide an explanation for a percentage rate higher than one per cent, if you wish to do so.
- 
33. During the last five years, has your firm ever been denied bond coverage by a surety company, or has there ever been a period of time when your firm had no surety bond in place during a public construction project when one was required?  
 Yes       No  
 If yes, provide details on a separate signed sheet indicating the date when your firm was denied coverage and the name of the company or companies which denied coverage; and the period during which you had no surety bond in place.

**C. Compliance with Occupational Safety and Health Laws and with Other Labor Legislation Safety**

34. Has CAL OSHA cited and assessed penalties against your firm for any “serious,” “willful” or “repeat” violations of its safety or health regulations in the past five years?



**NOTE: If you have filed an appeal of a citation, and the Occupational Safety and Health Appeals Board has not yet ruled on your appeal, you need not include information about it.**

Yes       No

If "yes," attached a separate signed page describing the citations, including information about the dates of the citations, the nature of the violation, the project on which the citation(s) was or were issued, the amount of penalty paid, if any. If the citation was appealed to the Occupational Safety and Health Appeals Board and a decision has been issued, state the case number and the date of the decision.

35. Has the federal Occupational Safety and Health Administration cited and assessed penalties against your firm in the past five years?

**NOTE: If you have filed an appeal of a citation and the Appeals Board has not yet ruled on your appeal, or if there is a court appeal pending, you need not include information about the citation.**

Yes       No

If "yes," attach a separate signed page describing each citation.

36. Has the EPA or any Air Quality Management District or any Regional Water Quality Control Board cited and assessed penalties against either your firm or the owner of a project on which your firm was the contractor, in the past five years?

**NOTE: If you have filed an appeal of a citation and the Appeals Board has not yet ruled on your appeal, or if there is a court appeal pending, you need not include information about the citation.**

Yes       No

If "yes," attach a separate signed page describing each citation.

37. How often do you require documented safety meetings to be held for construction employees and field supervisors during the course of a project? \_\_\_\_\_

38. Within the last five years has there ever been a period when your firm had employees but was without workers' compensation insurance or state-approved self-insurance?

Yes       No

If "yes," please explain the reason for the absence of workers' compensation insurance on a separate signed page. If "No," please provide a statement by your current workers' compensation insurance carrier that verifies periods of workers' compensation insurance coverage for the last five years. (If your firm has been in the construction business for less than five years, provide a statement by your workers' compensation insurance carrier verifying continuous workers' compensation insurance coverage for the period that your firm has been in the construction business.)

### **Prevailing Wage and Apprenticeship Compliance Record**

39. Has there been more than one occasion during the last five years in which your firm was required to pay either back wages or penalties for your own firm's failure to comply with the

state’s prevailing wage laws?

**NOTE: This question refers only to your own firm’s violation of prevailing wage laws, not to violations of the prevailing wage laws by a subcontractor.**

Yes       No

If “yes,” attach a separate signed page or pages, describing the nature of each violation, identifying the name of the project, the date of its completion, the public agency for which it was constructed; the number of employees who were initially underpaid and the amount of back wages and penalties that you were required to pay.

40. During the last five years, has there been more than one occasion in which your own firm has been penalized or required to pay back wages for failure to comply with the **federal** Davis-Bacon prevailing wage requirements?

Yes       No

If “yes,” attach a separate signed page or pages describing the nature of the violation, identifying the name of the project, the date of its completion, the public agency for which it was constructed; the number of employees who were initially underpaid, the amount of back wages you were required to pay along with the amount of any penalty paid.

41. Provide the **name, address and telephone number** of the apprenticeship program (approved by the California Apprenticeship Council) from whom you intend to request the dispatch of apprentices to your company for use on any public work project for which you are awarded a contract by *[Public Entity]*.

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

42. If your firm operates its own State-approved apprenticeship program:

(a) Identify the craft or crafts in which your firm provided apprenticeship training in the past year.

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

(b) State the year in which each such apprenticeship program was approved, and attach evidence of the most recent California Apprenticeship Council approval(s) of your apprenticeship program(s).

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

(c) State the number of individuals who were employed by your firm as apprentices at any time during the past three years in each apprenticeship and the number of persons who, during the past three years, completed apprenticeships in each craft while

employed by your firm.

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

43. At any time during the last five years, has your firm been found to have violated any provision of California apprenticeship laws or regulations, or the laws pertaining to use of apprentices on public works?

**NOTE: You may omit reference to any incident that occurred prior to January 1, 1998, if the violation was by a subcontractor and your firm, as general contractor on a project, had no knowledge of the subcontractor’s violation at the time they occurred.**

Yes  No

If “yes,” provide the date(s) of such findings, and attach copies of the Department’s final decision(s).

**PART III. CONTRACTOR’S PERFORMANCE/EXPERIENCE**

**QUALIFICATION CATEGORIES:**

Using the forms attached hereto (Attachments 1 and 2), Contractor shall provide the following information:

1. Contractor shall identify and provide information about its six most recently completed public works projects and its three largest completed private projects within the last five (5) years. Names and references must be current and verifiable.
2. Contractor shall identify and provide information about K-12 new construction and/or modernization construction completed by your organization within the past five (5) years sufficient to satisfy the Bidder Experience Qualification requirement of any or all of the following **Contractor Qualification Categories:**
  - A. **New Construction**  
**Minimum Bidder Experience Qualifications:** Completion of at least two (2) DSA-approved new construction projects.
  - B. **Modernization (No Classrooms)/Infrastructure**  
**Minimum Bidder Experience Qualifications:** Completion of at least two (2) DSA-approved Modernization/Infrastructure projects.
  - C. **Modernization with Classrooms**  
**Minimum Bidder Experience Qualifications:** Completion of at least two (2) DSA-approved K-12 Modernization projects with a combined total at least fifteen (15) modernized individual classrooms.
  - D. **Modernization with Science Classrooms.**  
**Minimum Bidder Experience Qualifications:** Completion of at least two (2) DSA approved K-12 Modernization projects with a combined total at least fifteen (15)

modernized individual Classrooms and at least eight (8) modernized individual science classrooms.

- 3. Contractor shall identify and provide information about **all construction projects your organization currently has in progress**

\* \* \* \* \*

**CONTRACTOR CERTIFICATION**

I, the undersigned, certify that I am duly authorized to execute this Contractor Certification on behalf of applicant. I further certify and declare that I have read all the foregoing answers to this prequalification questionnaire and know their contents. The matters stated in the questionnaire answers are true of my own knowledge and belief, except as to those matters stated on information and belief, and as to those matters I believe them to be true. I acknowledge that if the matters stated in the answers to this Prequalification Questionnaire are determined by the District to be false or untrue, Applicant may be deemed disqualified and may further be precluded from applying for prequalification with District for a period of one year. I declare under penalty of perjury under the laws of the State of California, that the foregoing is true and correct.

Dated: \_\_\_\_\_

\_\_\_\_\_  
Signature

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

\_\_\_\_\_  
Title

**ATTACHMENT 1  
CONSTRUCTION PROJECTS COMPLETED**

Contractor Name: \_\_\_\_\_

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

Location: \_\_\_\_\_

Owner: \_\_\_\_\_

Owner Contact (name, address, current phone number and e-mail address):

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

Project Type:  New Construction     Modernization     Modernization with Classrooms  
 Modernization with Science Rooms

Procurement:  General Contractor     Multi-Prime     Lease/Leaseback     Design-Build

Contractor's Role:  General Contractor     Subcontractor. Trade \_\_\_\_\_

Architect or Engineer (name, company name, current phone number and e-mail address):

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

Construction Manager (name, company name, current phone number and e-mail address):

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

Description of Project, Scope of Work Performed: \_\_\_\_\_

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

Contractor's Original Contract Price:	
Contractor's Total Adjusted Contract Price:	
Start Date <b>and</b> Planned Duration	/
Date of Completion <b>and</b> Actual Duration	/
Time Extensions Granted (no. of days):	
Included Modernization of # ___ Classrooms	
Included Modernization of # ___ Science Rooms	

**ATTACHMENT 2  
CONSTRUCTION PROJECTS IN PROGRESS**

Contractor Name: \_\_\_\_\_

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

Location: \_\_\_\_\_

Owner: \_\_\_\_\_

Owner Contact (name, address, current phone number and e-mail address):  
\_\_\_\_\_  
\_\_\_\_\_

Project Type:  New Construction     Modernization     Modernization with Classrooms  
 Modernization with Science Rooms

Procurement:  General Contractor     Multi-Prime     Lease/Leaseback     Design-Build

Contractor's Role:  General Contractor     Subcontractor. Trade \_\_\_\_\_

Architect or Engineer (name, company name, current phone number and e-mail address):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Construction Manager (name, company name, current phone number and e-mail address):  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Description of Project, Scope of Work Performed:  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Contractor's Original Contract Price:	
Contractor's Total Adjusted Contract Price:	
Start Date <b>and</b> Planned Duration	/
Date of Completion <b>and</b> Actual Duration	/
Time Extensions Granted (no. of days):	
Included Modernization of # __ Classrooms	
Included Modernization of #    Science Rooms	
Contractor's Original Contract Price:	

**PART IV, SECTION I. ESSENTIAL REQUIREMENTS FOR QUALIFICATION**

**Contractor will be immediately disqualified if the answer to any of questions 1 through 9 is “no.”**  
**Contractor will be immediately disqualified if the answer to any of questions 10 through 18 is “yes.”**  
**Contractor will be immediately disqualified from modernization projects involving classroom remodels if the answer to question 19 is “no.”**  
**Contractor will be immediately disqualified from modernization projects involving science classrooms if the answer to question 20 is “no.”**

**NOTE: ESSENTIAL REQUIREMENTS 1 AND 2 APPLY TO GENERAL CONTRACTORS ONLY.**

- 1. Has your firm completed two (2) public works projects with a contract price of at least One Million Dollars (\$1,000,000.00) that were subject to review, approval, and inspection by the California Department of the General Services, Division of State Architect within the last five (5) years?  
 Yes       No
  
- 2. Does your firm have a minimum of three (3) years’ experience in public school/community college construction as a prime generalcontractor?  
 Yes       No

**NOTE: ESSENTIAL REQUIREMENTS 3 AND 4 APPLY TO ELECTRICAL, MECHANICAL AND PLUMBING SUBCONTRACTORS ONLY.**

- 3. Has your firm completed two (2) public works projects, either as a Prime Contractor or a subcontractor, with a contract price of at least Two Hundred Fifty Thousand Dollars (\$250,000.00) in your license classification that were subject to review, approval, and inspection by the California Department of the General Services, Division of State Architect within the last five (5) years?  
 Yes       No
  
- 4. Does your firm have a minimum of two (2) years’ experience in public school/community college construction as a licensed trade contractor in one of the following CSCLB Classifications?:  
 Yes       No
  
- 5. Contractor possesses a valid and current California Contractor’s license for the Project for which it intends to submit a bid?  
 Yes       No
  
- 6. Contractor has a liability insurance policy with a policy limit of at least \$1,000,000 per occurrence and \$2,000,000 aggregate from an insurer with an A.M. Best rated A- or better;  
 A.M. Best Financial Size Category VII or higher; authorized under California law to transact business in the State of California and authorized to issue insurance policies in the State of California?  
 Yes       No

7. Contractor has current workers' compensation insurance policy as required by the Labor Code or is legally self-insured pursuant to Labor Code section 3700, et. seq.?  
 Yes       No       Contractor is exempt from this requirement, it has no employees
8. Have you attached a notarized statement from an admitted surety insurer (approved by the California Department of Insurance) authorized to issue bonds in the State of California having an A.M. Best rating of A- or better which states: (a) that your current bonding capacity is sufficient for the project for which you seek pre-qualification if you are seeking pre-qualification for a single project; or (if you are seeking pre-qualification valid for a year) (b) your current available bonding capacity?  
**NOTE: Notarized statement must be from the surety company, not an agent or broker.**  
 Yes       No
9. Have you attached your latest copy of a reviewed or audited financial statement with accompanying notes and supplemental information.  
 Yes       No
10. Is the Contractor's current Workers Compensation Insurance EMR higher than 1.25?  
 Yes       No
11. Has your contractor's license been revoked at any time in the last five-year?  
 Yes       No
12. Has a surety firm completed a contract on your behalf, or paid for completion because your firm was terminated for cause or default by the project owner within the last five (5) years?  
 Yes       No
13. At the time of submitting this Prequalification form, is your firm ineligible to bid on or be awarded a public works contract, or perform as a subcontractor on a public works contract, pursuant to either Labor Code section 1777.1 or Labor Code section 1777.7?  
 Yes       No
14. At any time during the last five years, has your firm or any of its owners or officers been convicted of a crime involving the awarding of a contract of a government construction project, or the bidding or performance of a government contract?  
 Yes       No
15. Has any CSLB license held by your firm or its Responsible Managing Employee (RME) or Responsible Managing Officer (RMO) been suspended within the last five-year?  
 Yes       No
16. In the last five years has your firm, or any firm with which any of your company's owners, officers or partners was associated, been debarred, disqualified, removed or otherwise



prevented from bidding on any government agency or public works project for any reason?

**NOTE: "Associated with" refers to another construction firm in which an owner, partner or officer of your firm held a similar position, and which is listed in response to question 1c or 1d on this form.**

Yes       No

17. Is your firm currently the debtor in a bankruptcy case?

Yes       No

18. At any time during the last five years, has your firm or any of its owners, officers or partners ever been found liable in a civil suit or found guilty in a criminal action for making any false claim or material misrepresentation to any public agency or entity?

Yes       No

19. Has your firm completed construction on one (1) or more K-12 public works modernization projects that cumulatively required modernization of at least fifteen (15) individual classrooms?

Yes       No

20. Has your firm completed construction on one (1) or more K-12 public works modernization projects that cumulatively required modernization of at least eight (8) individual science classrooms?

Yes       No

**SECTION II: EVALUATION CRITERIA**

- 1. How many years has your organization been in business in California as a contractor under your present business name and license number? \_\_\_\_\_years  
**5 points for 6 years or more**                      **4 points for 5 years**  
**3 points for 4 years**                                      **2 points for 3 years or less**
  
- 2. Was your firm or any predecessor to your firm, or any of its owners, officers or partners at any time during the last five years in bankruptcy? (This question refers only to a bankruptcy action that was not described in answer to question 7, above)  
 Yes     No  
 If "yes," please attach a copy of the bankruptcy petition, showing the case number and the date on which the petition was filed, and a copy of the Bankruptcy Court's discharge order, or of any other document that ended the case, if no discharge order was issued.  
**10 points for "No"**  
**0 points for "Yes"**
  
- 3. Has any CSLB license held by your firm or its Responsible Managing Employee (RME) or Responsible Managing Officer (RMO) been suspended within the last five-year?  
 Yes     No  
**5 points for "No"**  
**0 points for "Yes"**
  
- 4. At any time in the last five years has your firm been assessed and paid liquidated damages after completion of a project under a construction contract with either a public or private owner?  
 Yes     No  
 If yes, explain on a separate signed page, identifying all such projects by owner, owner's address, the date of completion of the project, amount of liquidated damages assessed and all other information necessary to fully explain the assessment of liquidated damages.  
**10 points for "No"**  
**4 points for "Yes" indicating one project with liquidated damages of more than \$50,000**  
**0 points for "Yes" indicating two projects or more projects with liquidated damages of more than \$50,000**  
**0 points for any other answer**
  
- 5. In the last five years has your firm, or any firm with which any of your company's owners, officers or partners was associated, been debarred, disqualified, removed or otherwise prevented from bidding on, or completing, any government agency or public works project for any reason?  
**NOTE: "Associated with" refers to another construction firm in which an owner, partner or officer of your firm held a similar position, and which is listed in response to question 1c or 1d on this form.**  
 Yes     No  
**5 points for "No"**  
**0 points for "Yes"**

6. In the last five years, has your firm been denied an award of a public works contract based on a finding by a public agency that your company was not a responsible bidder?

Yes  No

**10 points for "No"**

**0 points for "Yes"**

7. Has your organization ever refused to sign a construction 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.

**10 points for "No"**

**0 points for "Yes"**

8. Has your organization ever failed to complete or been precluded from completing a construction contract or been terminated for convenience?

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.

**10 Points for "No"**

**7 points for "Yes" if termination for convenience or if precluded due to events beyond Contractor's control**

**0 Points for "Yes" indicating any other reason**

\* \* \* \* \*

**NOTE: The following two questions refer only to disputes between your firm and the owner of a project. You need not include information about disputes between your firm and a supplier, another contractor, or subcontractor. You need not include information about "pass-through" disputes in which the actual dispute is between a sub-contractor and a project owner. Also, you may omit reference to all disputes about amounts of less than \$50,000.**

**If the firm's average gross revenue for the last three years was less than \$50 million, scoring is as follows:**

**10 points for either "No" or "Yes" indicating 1 such instance.**

**5 points for "Yes" indicating 2 such instances.**

**0 points for "Yes" if more than 2 such instances.**

**If your firm's average gross revenue for the last three years was more than \$50 million, scoring is as follows:**

**10 points for either "No" or "Yes" indicating 1, 2, or 3 such instances.**

**5 points for "Yes" indicating either 4 or 5 such instances.**

**0 points for "Yes" if more than 5 such instances.**

9. In the past five years has your firm made any claim against a project owner concerning work on a project or payment for a contract and filed that claim in court or arbitration?  
 Yes    Number of instances: \_\_\_\_\_     No
10. In the past five years has any claim **against** your firm concerning your firm's work on a construction project been **filed in court or arbitration**?  
 Yes    Number of instances: \_\_\_\_\_     No
11. At any time during the past five years, has any surety company made any payments on your firm's behalf as a result of a default, to satisfy any claims made against a performance or payment bond issued on your firm's behalf in connection with a construction project, either public or private?  
 Yes     No  
**5 points for either "No" or "Yes" indicating 1 such claim.**  
**3 points for "Yes" indicating no more than 2 such claims**  
**Subtract five points for "Yes" if more than 2 such claims**
12. In the last five years has any insurance carrier, for any form of insurance, refused to renew the insurance policy for your firm?  
 Yes     No  
**5 points for "No"**  
**3 points for "Yes" indicating 1 such instance**  
**0 points for "Yes" or if 2 or more such instances**
13. 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.  
**10 points for "No"**  
**0 points for "Yes"**
14. Has your firm or any of its owners, officers or partners ever been convicted of a crime involving any federal, state, or local law related to construction?  
 Yes     No  
**5 points for "No"**  
**0 points for "Yes"**
15. Has your firm or any of its owners, officers or partners ever been convicted of a federal or state crime of fraud, theft, or any other act of dishonesty?  
 Yes     No  
**5 points for "No"**  
**0 points for "Yes"**

16. Was your firm required to pay a premium of more than one percent for a performance and payment bond on any project(s) on which your firm worked at any time during the last three years, state the percentage that your firm was required to pay.

Yes Bond Premium Paid: \_\_\_\_\_  No

**3 points if the rate is no more than one percent**  
**0 points if the rate is more than one percent**

17. During the last five years, has your firm ever been denied bond coverage by a surety company, or has there ever been a period of time when your firm had no surety bond in place during a public construction project when one was required?

Yes  No

**5 points for "No"**  
**0 points for "Yes"**

18. During the last five years, has a claim or other demand been made against your organization's California Contractors License Bond?

Yes  No

**5 points for "No"**  
**0 points for "Yes"**

19. During the last five years, has a complaint been filed against your organization's California Contractors License with the California Contractors State License Board?

Yes  No

**5 points for "No"**  
**0 points for "Yes"**

20. Within the last five years has there ever been a period when your firm had employees but was without workers' compensation insurance or state-approved self-insurance?

Yes  No

**5 points for "No"**  
**3 points for "Yes" indicating 1 such instance**  
**0 points for "Yes" if 2 or more such instances**

21. Has there been more than one occasion during the last five years in which your firm was required to pay either back wages or penalties for your own firm's failure to comply with the **state's** prevailing wage laws or with the **federal** Davis-Bacon prevailing wage requirements?

**NOTE: This question refers only to your own firm's violation of prevailing wage laws, not to violations of the prevailing wage laws by a subcontractor.**

Yes  No

If "yes," attach a separate signed page or pages, describing the nature of each violation, identifying the name of the project, the date of its completion, the public agency for which it was constructed;

the number of employees who were initially underpaid and the amount of back wages and penalties that you were required to pay.

**5 points for "No"**

**3 points for "Yes" indicating no more than 3 such instances**

**0 points for "Yes" indicating 4 or more such instances**

\* \* \* \* \*

**NOTE: The scoring for the following four (4) questions shall be as follows:**

***If the firm's average gross revenues for the last three years was less than \$50 million, scoring is as follows:***

***5 points for either "No" or "Yes" indicating 1 such instance.***

***3 points for "Yes" indicating 2 such instances.***

***0 points for "Yes" if more than 2 such instances.***

***If the firm's average gross revenues for the last three years was more than \$50 million, scoring is as follows:***

***5 points for either "No" or "Yes" indicating 1, 2, or 3 such instances.***

***3 points for "Yes" indicating either 4 or 5 such instances.***

***0 points for "Yes" if more than 5 such instances.***

22. Has CAL OSHA cited and assessed penalties against your firm for any "serious," "willful" or "repeat" violations of its safety or health regulations in the past five years?

**Note: If you have filed an appeal of a citation and the appropriate appeals Board has not yet ruled on your appeal, you need not include information about it.**

Yes     No

23. Has the federal Occupational Safety and Health Administration cited and assessed penalties against your firm in the past five years?

**Note: If you have filed an appeal of a citation and the appropriate appeals Board has not yet ruled on your appeal, you need not include information about it.**

Yes     No

If yes, attach a separate signed page describing each citation.

24. Has the EPA or any Air Quality Management District or any Regional Water Quality Control Board cited and assessed penalties against either your firm or the owner of a project on which your firm was the contractor, in the past five years?

**NOTE: If you have filed an appeal of a citation and the Appeals Board has not yet ruled on your appeal, or if there is a court appeal pending, you need not include information about the citation.**

Yes     No

If "yes," attach a separate signed page describing each citation.

25. At any time during the last five years, has your firm been found to have violated any provision of California apprenticeship laws or regulations, or the laws pertaining to use of apprentices on public works?

Yes     No.

If yes, provide the date(s) of such findings, and attach copies of the Department’s final decision(s).

26. List your firm’s Experience Modification Rate (EMR) (California workers’ compensation insurance) for each of the past three premium years:

**NOTE: An Experience Modification Rate is issued to your firm annually by your workers’ compensation insurance carrier.**

Current year: \_\_\_\_\_

Previous year: \_\_\_\_\_

Year prior to previous year: \_\_\_\_\_

If your EMR for any of these three years is or was 1.00 or higher you may, if you wish, attach a letter of explanation.

**4 points for three-year average EMR of .95 or less**

**3 points for three-year average of EMR of more than .95 but no more than 1.10**

**2 points for three-year average of EMR of more than 1.10 but no more than 1.25**

**0 points for any other EMR**

\* \* \* \* \*

The individual executing this Prequalification Application on behalf of the Contractor is duly and fully authorized to execute this Prequalification Application and hereby certifies and declares:

I have read all of the responses to this Prequalification Application and the supporting documentation attached hereto and know their contents. The matters stated in the Prequalification Application responses and supporting documentation are true of my own knowledge and belief, except as to those matters stated on information and belief, and as to those matters I believe them to be true. I declare under penalty of perjury under the laws of the State of California, that the foregoing is correct.

Dated: \_\_\_\_\_

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

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

**PART V: REFERENCE/QUESTIONNAIRE**

**Contractor:** \_\_\_\_\_

Contractor shall complete the following information about its largest completed public projects within the last five years. Please indicate if DSA project. Once complete, send to listed owner for completion of the questionnaire and submission of all pages to the District. District will verify all Reference Questionnaires submitted.

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

Location: \_\_\_\_\_

Owner: \_\_\_\_\_

Owner Contact (name and current phone number, fax and e-mail):

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

**To Be Completed by Contractor and Verified By Owner:**

Architect or Engineer: \_\_\_\_\_

Architect or Engineer Contact (name and current phone number, fax and e-mail):

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

Construction Manager (name and current phone number, fax and e-mail):

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

Description of Project, Scope of Work Performed:

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

Original Contract Price: \_\_\_\_\_

Total Adjusted Contract Price (including changeorders): \_\_\_\_\_

Original Duration: \_\_\_\_\_

Actual Duration: \_\_\_\_\_



Time Extensions Granted (number of days): \_\_\_\_\_

**REFERENCE QUESTIONNAIRE (con't)**

**Contractor Name:** \_\_\_\_\_

**Reference:** Please confirm Project information identified on preceding page and then rate the contractor from 0 to 10, with 0 being the least and 10 being the highest, using the following questions. Once completed please sign and send all pages directly to Rowland Unified School District, Attention: Director of Purchasing, via fax at (626) 854-8369.

- 1. How did the contractor perform in preventing or resolving any stop notices or liens?  
0 1 2 3 4 5 6 7 8 9 10
- 2. Did the contractor provide adequate personnel?  
0 1 2 3 4 5 6 7 8 9 10
- 3. How was the contractor's performance in adequately planning, coordinating, and implementing the work?  
0 1 2 3 4 5 6 7 8 9 10
- 4. How cooperative was the contractor in working with the Owner?  
0 1 2 3 4 5 6 7 8 9 10
- 5. Rate the contractor's timeliness in providing reports and paperwork, including change order paperwork?  
0 1 2 3 4 5 6 7 8 9 10
- 6. Was the contractor timely in completing the project?  
0 1 2 3 4 5 6 7 8 9 10
- 7. How did the contractor perform in mitigating or preventing change orders on the job?  
0 1 2 3 4 5 6 7 8 9 10
- 8. How fair was the contractor in pricing changes?  
0 1 2 3 4 5 6 7 8 9 10
- 9. How has the contractor been in taking care of warranty items?  
0 1 2 3 4 5 6 7 8 9 10
- 10. How fair was the contractor when dealing with claims?  
0 1 2 3 4 5 6 7 8 9 10
- 11. Rate the effectiveness of the safety program provided by the contractor.  
0 1 2 3 4 5 6 7 8 9 10
- 12. Rate the contractor's timeliness in paying their suppliers/subcontractors.  
0 1 2 3 4 5 6 7 8 9 10

13. How proactive was the contractor in resolving problems?

0 1 2 3 4 5 6 7 8 9 10

14. How would you rate the contractor's overall performance?

0 1 2 3 4 5 6 7 8 9 10

15. Would you work with this contractor again?

0 1 2 3 4 5 6 7 8 9 10

\* \* \* \* \*

Dated: \_\_\_\_\_

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

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

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

**PART VI: FINANCIAL STATEMENT / ACCOUNTANT'S RELEASE LETTER**

The certificate of a licensed Certified Public Accountant will be required in all cases. A suggested form of a certificate for both an audit and a review is attached hereto. One of these may be used if appropriate. It will be acceptable for the accountant to submit a certificate in the accountant's own words. However, such qualifications shall not be so extensive as to nullify the value of the statement or its usefulness to the District.

Accountant's Release Letter will be required. Rowland Unified School District will verify financial statement validity with responsible accountant.

Term of Financial Statements. A Contractor's financial information shall be valid until the date shown is more than one year old from the time the prequalification application is approved. Statements will be held on file until the financial information is fifteen (15) months old at which time it will be destroyed. All applicable portions of the form should be completed with schedules attached if the space provided does not suffice.

**FINANCIAL INFORMATION**

**COMPLETE THIS CERTIFICATE FOR AN AUDIT OF FINANCIAL STATEMENT:**

STATE OF: \_\_\_\_\_

We have examined the Financial Statement of \_\_\_\_\_ as of \_\_\_\_\_, a copy of which is attached hereto. Our examination was made in accordance with generally accepted auditing standards, and accordingly included such tests of the accounting records and such other auditing procedures as we considered necessary in the circumstances.

In our opinion, the accompanying financial statement included on pages \_\_\_\_\_ to \_\_\_\_\_ inclusive, sets forth fairly the financial condition of \_\_\_\_\_ as of \_\_\_\_\_, in conformity with generally accepted accounting principles.

\_\_\_\_\_  
**Type Name of Firm**

\_\_\_\_\_  
**Accountant must sign here**

\_\_\_\_\_  
**Telephone No.**

\_\_\_\_\_  
**License No.**

**COMPLETE THIS CERTIFICATE FOR A REVIEW ONLY OF FINANCIAL STATEMENT:**

I (we) have reviewed the accompanying financial statement of \_\_\_\_\_ as of \_\_\_\_\_, a copy of which is attached hereto. The information included in the financial statement is the representation of the management of the above firm.

Based on my (our) review with the exception of the matter(s) described in the following paragraphs(s), I am (we are) not aware of any material modifications that should be made to the accompanying financial statements in order for them to be in conformity with generally accepted accounting principles.

\_\_\_\_\_  
**Type Name of Firm**

\_\_\_\_\_  
**Accountant must sign here**

\_\_\_\_\_  
**Telephone No.**

\_\_\_\_\_  
**License No.**

(Note this review consists principally of inquiries of management and appropriate analytical procedures applied to this financial data. It is substantially less in scope than an examination in accordance with generally accepted auditing standards, the objective of which is the expression of opinion regarding the financial statements taken as a whole. Accordingly, we have not expressed such an opinion.)

Special note to Accountant:

The above Certificates of Accountant shall not be made by any individual who is in the regular employ of the individual, partnership or corporation submitting the statement; nor by any individual who is a member of the firm with more than a ten percent financial interest.

**ACCOUNTANT'S RELEASE LETTER**

By signing the form below, I authorize Rowland Unified School District to contact our company's licensed accounting firm to verify our most recent audited or reviewed financial statement. I understand the financial statement is confidential information and is not open to public inspection.

\_\_\_\_\_

***Name***

\_\_\_\_\_

***Title***

\_\_\_\_\_

***Company Name***

\_\_\_\_\_

***Date***

<b>Verified by Rowland Unified School District</b>	
_____	_____
<b><i>Name</i></b>	<b><i>Date</i></b>

**DIR REGISTRATION VERIFICATION**

I am the \_\_\_\_\_ of \_\_\_\_\_ (“Bidder”)  
(Title/Position) (Bidder Name)

submitting the accompanying Prequalification Application for Rowland Unified School District public works projects.

1. Bidder is currently registered as a contractor with the Department of Industrial Relations (“DIR”).
2. Bidder’s DIR Registration Number is:\_\_\_\_\_. The expiration date of the Bidder’s DIR Registration is \_\_\_\_\_, 201\_.
3. If Bidder is awarded the Contract for the Work and the expiration date of the Bidder’s DIR Registration will occur: (i) prior to expiration of the Contract Time for the Work; or (ii) prior to the Bidder completing all obligations under the Contract for the Work, the Bidder will take all measures necessary to renew the Bidder’s DIR Registration so that there is no lapse in the Bidder’s DIR Registration while performing Work under the Contract.
4. Bidder, if awarded a Contract for Work, will remain a DIR registered contractor for the entire duration of the Work.
5. The Bidder acknowledges that it shall be required to independently verify that each Subcontractor identified in the Subcontractors List submitted with the Bid Proposal of the Bidder is currently a DIR registered contractor.
6. Bidder has provided the DIR Registration Number for each subcontractor identified in Bidder’s Subcontractors’ List or within twenty-four (24) hours of the opening of Bid Proposals for the Work, the Bidder will provide the District with the DIR Registration Number for each subcontractor identified in Bidder’s Subcontractors List.
7. Bidder’s solicitation of subcontractor bids shall include notice to prospective subcontractors that: (i) all sub-tier subcontractors must be DIR registered contractors at all times during performance of the Work; and (ii) prospective subcontractors may only solicit sub-bids from and contract with lower-tier subcontractors who are DIR registered contractors.
8. If any of the statements herein are false or omit material facts rendering a statement to be false or misleading, Bidder may be deemed not qualified and its Bid Proposal may be deemed non-responsive.

I have personal first hand-knowledge of all of the foregoing. I declare under penalty of perjury under California law that the foregoing is true and correct.

Executed this \_\_\_\_\_ day of \_\_\_\_\_, 201\_ at \_\_\_\_\_  
City and State)

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

\_\_\_\_\_  
(Name, typed or printed)

**ROWLAND UNIFIED SCHOOL DISTRICT**

**UNIFORM CONSTRUCTION COST ACCOUNTING; INFORMAL BIDDING  
PRE-QUALIFICATION APPLICATION  
(Public Contract Code §22030 et seq. for  
Projects Valued Between \$45,000 and \$175,000)**

**FOR THE Choose an item. CALENDAR YEAR**



**PRE-QUALIFICATION APPLICATION; INFORMAL BIDDING  
UNIFORM PUBLIC CONSTRUCTION COST ACCOUNTING  
(Public Contract Code §22030 et seq. for Projects Valued Between \$45,000 and \$175,000)  
FOR THE Choose an item. CALENDAR YEAR**

The undersigned Applicant requests that Rowland Unified School District (“District”) pre-qualify the Applicant to bid on the District’s informally bid projects, as authorized by Public Contract Code §22030, et seq.

**1. Applicant Information.** Complete the following to provide information about the Applicant.

Firm/Company Name	_____	
Physical Office Location	_____ (Address) _____ (City, State and Zip Code)	
Mailing Address (if different from physical office address)	_____ (Address) _____ (City, State and Zip Code)	
Applicant Contacts	_____ (Name) _____ (Phone) _____ (email)	_____ (Name) _____ (Phone) _____ (email)
Applicant California Contractors’ License	_____ (License No.)	_____ (Expiration Date)
Applicant DIR Registration	_____ (DIR Registration No.)	_____ (Expiration Date)

**2. Pre-Qualification.** The Applicant requests to be pre-qualified for submitting proposals for the District’s informally bid projects in the classification(s) noted by the Applicant in Exhibit A (Pre-Qualification Classifications) attached to this Pre-Qualification Application.

**3. Applicant Annual Revenue.** Complete the following. If the Applicant is engaged in business enterprises other than construction, responses to the following are limited to the Applicant’s construction operations.

Calendar Year/ Fiscal Year	Annual Gross Revenue	Average Dollar Value of all Contracts	Dollar Value of Largest Contract
Choose an item.			
Choose an item.			
Choose an item.			

**[CONTINUED NEXT PAGE]**

**4. Applicant Insurance and Bonding.** Complete the following for the Applicant's current General Liability Insurance, Workers Compensation Insurance and bonding capacity.

<p><b>General Liability Insurance</b></p>	<p>Insurer: _____                  Policy No. _____                  Broker _____                  _____                  (Liability Insurance Broker Contact Name)                  _____                  (Street Address)                  _____                  (City, State &amp; Zip Code)                  ( ) ( ) _____                  Telephone Fax                  _____                  Email address _____</p>	<p><b>Coverage Limits:</b></p> <p>Per Occurrence:                  _____                  _ Dollars (\$_____)</p> <p>Aggregate:                  _____ Dollars                  (\$_____)</p>
<p><b>Bid, Performance and Labor &amp; Materials Payment Bonds</b></p>	<p>Surety: _____                  Surety Broker _____                  _____                  (Surety Broker Contact Name)                  _____                  (Street Address)                  _____                  (City, State &amp; Zip Code)                  ( ) ( ) _____                  Telephone Fax                  _____                  (Email address) _____</p>	<p><b>Bonding Capacity:</b></p> <p>Maximum Per Project:                  _____                  _ Dollars (\$_____)</p> <p>Maximum All Projects                  _____                  _ Dollars (\$_____)</p>
<p><b>Workers Compensation Insurance</b></p>	<p>Insurer: _____                  Policy No. _____                  Broker _____                  _____                  (Broker Contact Name)                  _____                  (Street Address)                  _____                  (City, State &amp; Zip Code)                  ( ) ( ) _____                  Telephone Fax                  _____                  (Email address) _____</p>	

**[CONTINUED NEXT PAGE]**

5. **Current Public Works Projects.** Complete the following to identify all public works construction projects for which the Applicant is under contract as of the date of submitting this Application. Duplicate this page as necessary to identify all of the Applicant's current public works projects.

Project Description	Owner and Owner Contact Information	Architect and Architect Contact Information	Contract Information
	_____ Owner Name _____ Owner Contact Person _____ Owner Contact Phone Number _____ Owner Contact email	_____ Architect Name _____ Architect Contact Person _____ Architect Contact Phone Number _____ Architect Contact email	_____ Applicant Contract Value _____ Applicant Scope of Work _____ Percentage Complete; Applicant Work _____ Percentage Complete; Overall Project
	_____ Owner Name _____ Owner Contact Person _____ Owner Contact Phone Number _____ Owner Contact email	_____ Architect Name _____ Architect Contact Person _____ Architect Contact Phone Number _____ Architect Contact email	_____ Applicant Contract Value _____ Applicant Scope of Work _____ Percentage Complete; Applicant Work _____ Percentage Complete; Overall Project
	_____ Owner Name _____ Owner Contact Person _____ Owner Contact Phone Number _____ Owner Contact email	_____ Architect Name _____ Architect Contact Person _____ Architect Contact Phone Number _____ Architect Contact email	_____ Applicant Contract Value _____ Applicant Scope of Work _____ Percentage Complete; Applicant Work _____ Percentage Complete; Overall Project

6. **Prior Public Works Projects.** Complete the following to identify all public works construction projects for which the Applicant completed in the three (3) years preceding the date of submitting this Application. Duplicate this page as necessary to identify all of the Applicant's public works projects completed in the preceding three (3) years:

Project Description	Owner and Owner Contact Information	Architect and Architect Contact Information	Contract Information
<hr/>	<hr/> Owner Name <hr/> Owner Contact Person <hr/> Owner Contact Phone Number <hr/> Owner Contact email	<hr/> Architect Name <hr/> Architect Contact Person <hr/> Architect Contact Phone Number <hr/> Architect Contact email	<hr/> Applicant Scope of Work <hr/> Applicant's Original Contract Value <hr/> Applicant's Final Contract Value
<hr/>	<hr/> Owner Name <hr/> Owner Contact Person <hr/> Owner Contact Phone Number <hr/> Owner Contact email	<hr/> Architect Name <hr/> Architect Contact Person <hr/> Architect Contact Phone Number <hr/> Architect Contact email	<hr/> Applicant Scope of Work <hr/> Applicant's Original Contract Value <hr/> Applicant's Final Contract Value
<hr/>	<hr/> Owner Name <hr/> Owner Contact Person <hr/> Owner Contact Phone Number <hr/> Owner Contact email	<hr/> Architect Name <hr/> Architect Contact Person <hr/> Architect Contact Phone Number <hr/> Architect Contact email	<hr/> Applicant Scope of Work <hr/> Applicant's Original Contract Value <hr/> Applicant's Final Contract Value

**7. References.** Complete the following to identify Applicant references.

DSA Inspectors References			
DSA Inspector Firm Name	Address	Contact Person	Contact information
_____	_____ (Street Address) _____ (City, State and Zip Code)	_____	_____ (Contact Phone Number)  _____ (Contact email)
_____	_____ (Street Address) _____ (City, State and Zip Code)	_____	_____ (Contact Phone Number)  _____ (Contact email)
_____	_____ (Street Address) _____ (City, State and Zip Code)	_____	_____ (Contact Phone Number)  _____ (Contact email)

Material Supplier References			
Material Supplier Name	Material Supplier Address	Material Supplier Contact Person	Material Supplier Contact information
_____	_____ (Street Address) _____ (City, State and Zip Code)	_____	_____ (Contact Phone Number)  _____ (Contact email)
_____	_____ (Street Address) _____ (City, State and Zip Code)	_____	_____ (Contact Phone Number)  _____ (Contact email)
_____	_____ (Street Address) _____ (City, State and Zip Code)	_____	_____ (Contact Phone Number)  _____ (Contact email)

Public Agency Owners (California K-12 Owners Preferred)			
Owner Name	Owner Contact Person	Owner Address	Owner Contact information
_____	_____	_____ (Street Address) _____ (City, State and Zip Code)	(Contact Phone Number)  (Contact email)
_____	_____	_____ (Street Address) _____ (City, State and Zip Code)	(Contact Phone Number)  (Contact email)
_____	_____	_____ (Street Address) _____ (City, State and Zip Code)	(Contact Phone Number)  (Contact email)

Architect References			
Architect Name	Architect Contact Person	Architect Address	Architect Contact information
_____	_____	_____ (Street Address) _____ (City, State and Zip Code)	(Contact Phone Number)  (Contact email)
_____	_____	_____ (Street Address) _____ (City, State and Zip Code)	(Contact Phone Number)  (Contact email)
_____	_____	_____ (Street Address) _____ (City, State and Zip Code)	(Contact Phone Number)  (Contact email)

- 8. Essential Questions.** An Applicant will not be pre-qualified if the response to any of the following essential questions results in a “Not Qualified” designation.
- 8.1. The Applicant possesses a valid and currently in good standing California Contractors’ license for the trade category (ies) for which the Applicant requests pre-qualification.  
 Yes  No (Not Qualified)
- 8.2. The Applicant is a DIR registered contractor.  
 Yes  No (Not Qualified)
- 8.3. Applicant maintains a commercial general liability insurance policy with a coverage amount of at least \$1,000,000 per occurrence and \$2,000,000 in the aggregate.  
 Yes  No (Not Qualified)
- 8.4. Applicant has a current workers’ compensation insurance policy as required by the Labor Code or is legally self-insured pursuant to Labor Code §3700.  
 Yes  No (Not Qualified)  
 Applicant is exempt from this requirement, because it has no employees
- 8.5. Applicant has bonding capacity of at least Two Hundred Thousand Dollars (\$200,000) per project and One Million Dollars (\$1,000,000) in the aggregate for all projects.  
 Yes  No (Not Qualified)
- 8.6. Within the past twenty four (24) months, has the Applicant provided public works construction services under a direct contract with a public owner where the value of the construction services provided by the Applicant was greater than \$50,000?  
 Yes  No (Not Qualified)
- 8.7. The Applicant is ineligible or debarred from submitting bid proposals for public works projects or public works contracts pursuant Labor Code §1777.1 or Labor Code §1777.7.  
 Yes (Not Qualified)  No
- 8.8. Within the past five (5) years a public agency has determined that the Applicant or any predecessor to the Applicant, is not a “responsible” bidder for a public works project or a public works contract?  
 Yes (Not Qualified)  No
- 8.9. During the past five (5) years, the Applicant or any predecessor to the Applicant, or any of the equity owners of the Applicant been convicted of a federal or state crime involving fraud, theft, or any other act of dishonesty.  
 Yes (Not Qualified)  No
- 8.10. During the past five (5) years a Surety has completed any project or the Applicant’s obligations under a construction contract.  
 Yes (Not Qualified)  No
- 8.11. During the past five (5) years the Applicant been declared in default under a construction contract to which the Applicant was a party.  
 Yes (Not Qualified)  No





**PRE-QUALIFICATION APPLICATION; INFORMAL BIDDING; UNIFORM CONSTRUCTION COST ACCOUNTING Public  
Contract Code §22030 et seq.; Exhibit A; Pre-Qualification Classifications  
For the Choose an item. Calendar Year**

Each Applicant must check each trade category for which the Applicant requests to be pre-qualified. An Applicant must be a California licensed contractor for the classification of Contractors' License required for each trade category for which pre-qualification is requested.

Applicant Name: \_\_\_\_\_

Qualification Requested; Trade Categories		Required California Contractors' License	
<input type="checkbox"/>	General Engineering	A	General Engineering
<input type="checkbox"/>	General Construction	B	General Building
<input type="checkbox"/>	Insulation and Acoustical	C-2	Insulation and Acoustical
<input type="checkbox"/>	Boiler, Hot-Water Heating System Fitting	C-4	Boiler, Hot-Water Heating System Fitting
<input type="checkbox"/>	Framing and Rough Carpentry	C-5	Framing and Rough Carpentry
<input type="checkbox"/>	Cabinetry, Millwork, Finish Carpentry	C-6	Cabinet, Millwork, Finish Carpentry
<input type="checkbox"/>	General Low Voltage Electrical	C-7	Low Voltage Electrical
<input type="checkbox"/>	Telecommunications/ Data Cabling	C-7	Low Voltage Electrical
<input type="checkbox"/>	Concrete Contractor	C-8	Concrete Contractor
<input type="checkbox"/>	Drywall Contractor	C-9	Drywall Contractor
<input type="checkbox"/>	General Electrical	C-10	Electrical
<input type="checkbox"/>	Elevator Contractor	C-11	Elevator Contractor
<input type="checkbox"/>	Earthwork/Paving	C-12	Earthwork and Paving
<input type="checkbox"/>	Fence	C-13	Fencing
<input type="checkbox"/>	Flooring	C-15	Floor and Flooring
<input type="checkbox"/>	Fire Protection/Fire Alarms	C-16	Fire Protection
<input type="checkbox"/>	Glass	C-17	Glazing
<input type="checkbox"/>	HVAC	C-20	Warm-Air Heating and Air Conditioning
<input type="checkbox"/>	Moving/Demolition	C-21	Building Moving/Demolition
<input type="checkbox"/>	Ornamental Metal Contractor	C-23	Ornamental Metal Contractor
<input type="checkbox"/>	Landscaping/Irrigation	C-27	Landscaping
<input type="checkbox"/>	Doors, Locks, Security	C-28	Lock and Security Equipment
<input type="checkbox"/>	Masonry Contractor	C-29	Masonry Contractor
<input type="checkbox"/>	Construction Zone Traffic Control	C-31	Construction Zone Traffic Control
<input type="checkbox"/>	Parking Lot	C-32	Parking and Highway Improvement
<input type="checkbox"/>	Painting	C-33	Painting and Decorating
<input type="checkbox"/>	Pipeline	C-34	Pipeline
<input type="checkbox"/>	Lathing and Plastering	C-35	Lathing and Plastering
<input type="checkbox"/>	Plumbing	C-36	Plumbing
<input type="checkbox"/>	Refrigeration	C-38	Refrigeration
<input type="checkbox"/>	Roofing	C-39	Roofing
<input type="checkbox"/>	Sanitation System	C-42	Sanitation System
<input type="checkbox"/>	Sheet Metal	C-43	Sheet Metal
<input type="checkbox"/>	Electrical Sign	C-45	Electrical Sign
<input type="checkbox"/>	Solar	C-46	Solar
<input type="checkbox"/>	General Manufactured Housing	C-47	General Manufactured Housing
<input type="checkbox"/>	Reinforcing Steel	C-50	Reinforcing Steel
<input type="checkbox"/>	Structural Steel	C-51	Structural Steel
<input type="checkbox"/>	Swimming Pool	C-53	Swimming Pool
<input type="checkbox"/>	Ceramic Tile	C-54	Tile
<input type="checkbox"/>	Trenching	D-56	Trenching
<input type="checkbox"/>	Hydro seed Spraying	D-59	Hydroseed Spraying
<input type="checkbox"/>	Air and Water Balancing	D-62	Air and Water Balancing
<input type="checkbox"/>	Construction Cleanup	D-63	Construction Cleanup
<input type="checkbox"/>	Non-Specialized	D-64	Non-specialized
<input type="checkbox"/>	Weatherization and Energy Conservation	D-65	Weatherization and Energy Conservation
<input type="checkbox"/>	Asbestos-Related Work	ASB	Asbestos Certification
<input type="checkbox"/>	Hazardous Substance Removal	HAZ	Hazardous Substance Removal Certification

## SECTION 220529 - HANGERS AND SUPPORTS FOR PLUMBING PIPING AND EQUIPMENT

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. Metal pipe hangers and supports.
2. Trapeze pipe hangers.
3. Thermal-hanger shield inserts.
4. Fastener systems.
5. Pipe positioning systems.
6. Equipment supports.

#### 1.2 PERFORMANCE REQUIREMENTS

- A. Delegated Design: Design trapeze pipe hangers and equipment supports, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- B. Structural Performance: Hangers and supports for plumbing piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEI 7.
1. Design supports for multiple pipes capable of supporting combined weight of supported systems, system contents, and test water.
  2. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
  3. Design seismic-restraint hangers and supports for piping and equipment and obtain approval from authorities having jurisdiction.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Shop Drawings: Signed and sealed by a qualified professional engineer. Show fabrication and installation details and include calculations for the following; include Product Data for components:
1. Trapeze pipe hangers.
  2. Equipment supports.
- C. Delegated-Design Submittal: For trapeze hangers indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Welding certificates.

#### 1.5 QUALITY ASSURANCE

- A. Structural Steel Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- B. Pipe Welding Qualifications: Qualify procedures and operators according to ASME Boiler and Pressure Vessel Code.

### PART 2 - PRODUCTS

#### 2.1 METAL PIPE HANGERS AND SUPPORTS

- A. Carbon-Steel Pipe Hangers and Supports:

1. Description: MSS SP-58, Types 1 through 58, factory-fabricated components.
2. Galvanized Metallic Coatings: Pregalvanized or hot dipped.
3. Nonmetallic Coatings: Plastic coating, jacket, or liner.
4. Padded Hangers: Hanger with fiberglass or other pipe insulation pad or cushion to support bearing surface of piping.
5. Hanger Rods: Continuous-thread rod, nuts, and washer made of carbonsteel.

- B. Stainless-Steel Pipe Hangers and Supports:

1. Description: MSS SP-58, Types 1 through 58, factory-fabricated components.
2. Padded Hangers: Hanger with fiberglass or other pipe insulation pad or cushion to support bearing surface of piping.
3. Hanger Rods: Continuous-thread rod, nuts, and washer made of stainlesssteel.

- C. Copper Pipe Hangers:

1. Description: MSS SP-58, Types 1 through 58, copper-coated-steel, factory-fabricated components.
2. Hanger Rods: Continuous-thread rod, nuts, and washer made of copper-coated steel.

#### 2.2 TRAPEZE PIPE HANGERS

- A. Description: MSS SP-69, Type 59, shop- or field-fabricated pipe-support assembly made from structural carbon-steel shapes with MSS SP-58 carbon-steel hanger rods, nuts, saddles, and U-bolts.

## 2.3 THERMAL-HANGER SHIELD INSERTS

- A. Insulation-Insert Material for Cold Piping: ASTM C 552, Type II cellular glass with 100-psig (688-kPa) or ASTM C 591, Type VI, Grade 1 polyisocyanurate with 125-psig (862-kPa) minimum compressive strength and vapor barrier.
- B. Insulation-Insert Material for Hot Piping: Water-repellent treated, ASTM C 533, Type I calcium silicate with 100-psig (688-kPa) or ASTM C 591, Type VI, Grade 1 polyisocyanurate with 125-psig (862-kPa) minimum compressive strength.
- C. For Trapeze or Clamped Systems: Insert and shield shall cover entire circumference of pipe.
- D. For Clevis or Band Hangers: Insert and shield shall cover lower 180 degrees of pipe.
- E. Insert Length: Extend 2 inches (50 mm) beyond sheet metal shield for piping operating below ambient air temperature.

## 2.4 FASTENER SYSTEMS

- A. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.
- B. Mechanical-Expansion Anchors: Insert-wedge-type, zinc-coated steel anchors, for use in hardened portland cement concrete; with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.

## 2.5 PIPE POSITIONING SYSTEMS

- A. Description: IAPMO PS 42, positioning system of metal brackets, clips, and straps for positioning piping in pipe spaces; for plumbing fixtures in commercial applications.

## 2.6 EQUIPMENT SUPPORTS

- A. Description: Welded, shop- or field-fabricated equipment support made from structural carbon-steel shapes.

## 2.7 MISCELLANEOUS MATERIALS

- A. Structural Steel: ASTM A 36/A 36M, carbon-steel plates, shapes, and bars; black and galvanized.
- B. Grout: ASTM C 1107, factory-mixed and -packaged, dry, hydraulic-cement, nonshrink and nonmetallic grout; suitable for interior and exterior applications.
  - 1. Properties: Nonstaining, noncorrosive, and nongaseous.
  - 2. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.

## PART 3 - EXECUTION

### 3.1 HANGER AND SUPPORT INSTALLATION

- A. Metal Pipe-Hanger Installation: Comply with MSS SP-69 and MSS SP-89. Install hangers, supports, clamps, and attachments as required to properly support piping from the building structure.
- B. Metal Trapeze Pipe-Hanger Installation: Comply with MSS SP-69 and MSS SP-89. Arrange for grouping of parallel runs of horizontal piping, and support together on field-fabricated trapeze pipe hangers.
  - 1. Pipes of Various Sizes: Support together and space trapezes for smallest pipe size or install intermediate supports for smaller diameter pipes as specified for individual pipe hangers.
  - 2. Field fabricate from ASTM A 36/A 36M, carbon-steel shapes selected for loads being supported. Weld steel according to AWS D1.1/D1.1M.
- C. Thermal-Hanger Shield Installation: Install in pipe hanger or shield for insulated piping.
- D. Fastener System Installation:
  - 1. Install powder-actuated fasteners for use in lightweight concrete or concrete slabs less than 4 inches (100 mm) thick in concrete after concrete is placed and completely cured. Use operators that are licensed by powder-actuated tool manufacturer. Install fasteners according to powder-actuated tool manufacturer's operating manual.
  - 2. Install mechanical-expansion anchors in concrete after concrete is placed and completely cured. Install fasteners according to manufacturer's written instructions.
- E. Pipe Positioning-System Installation: Install support devices to make rigid supply and waste piping connections to each plumbing fixture.
- F. Install hangers and supports complete with necessary attachments, inserts, bolts, rods, nuts, washers, and other accessories.
- G. Equipment Support Installation: Fabricate from welded-structural-steel shapes.
- H. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- I. Install lateral bracing with pipe hangers and supports to prevent swaying.
- J. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- K. Load Distribution: Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.

- L. Pipe Slopes: Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.
- M. Insulated Piping:
  - 1. Attach clamps and spacers to piping.
    - a. Piping Operating above Ambient Air Temperature: Clamp may project through insulation.
    - b. Piping Operating below Ambient Air Temperature: Use thermal-hanger shield insert with clamp sized to match OD of insert.
    - c. Do not exceed pipe stress limits allowed by ASME B31.9 for building services piping.
  - 2. Install MSS SP-58, Type 39, protection saddles if insulation without vapor barrier is indicated. Fill interior voids with insulation that matches adjoining insulation.
    - a. Option: Thermal-hanger shield inserts may be used. Include steel weight-distribution plate for pipe NPS 4 (DN 100) and larger if pipe is installed on rollers.
  - 3. Install MSS SP-58, Type 40, protective shields on cold piping with vapor barrier. Shields shall span an arc of 180 degrees.
    - a. Option: Thermal-hanger shield inserts may be used. Include steel weight-distribution plate for pipe NPS 4 (DN 100) and larger if pipe is installed on rollers.
  - 4. Shield Dimensions for Pipe: Not less than the following:
    - a. NPS 1/4 to NPS 3-1/2 (DN 8 to DN 90): 12 inches (305 mm) long and 0.048 inch (1.22 mm) thick.
    - b. NPS 4 (DN 100): 12 inches (305 mm) long and 0.06 inch (1.52 mm) thick.
    - c. NPS 5 and NPS 6 (DN 125 and DN 150): 18 inches (457 mm) long and 0.06 inch (1.52 mm) thick.
    - d. NPS 8 to NPS 14 (DN 200 to DN 350): 24 inches (610 mm) long and 0.075 inch (1.91 mm) thick.
    - e. NPS 16 to NPS 24 (DN 400 to DN 600): 24 inches (610 mm) long and 0.105 inch (2.67 mm) thick.
  - 5. Pipes NPS 8 (DN 200) and Larger: Include wood or reinforced calcium-silicate-insulation inserts of length at least as long as protective shield.
  - 6. Thermal-Hanger Shields: Install with insulation same thickness as piping insulation.

### 3.2 EQUIPMENT SUPPORTS

- A. Fabricate structural-steel stands to suspend equipment from structure overhead or to support equipment above floor.
- B. Grouting: Place grout under supports for equipment and make bearing surfaces smooth.
- C. Provide lateral bracing, to prevent swaying, for equipment supports.

### 3.3 METAL FABRICATIONS

- A. Cut, drill, and fit miscellaneous metal fabrications for trapeze pipe hangers and equipment supports.
- B. Fit exposed connections together to form hairline joints. Field weld connections that cannot be shop welded because of shipping size limitations.
- C. Field Welding: Comply with AWS D1.1/D1.1M procedures for shielded, metal arc welding; appearance and quality of welds; and methods used in correcting welding work; and with the following:
  - 1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
  - 2. Obtain fusion without undercut or overlap.
  - 3. Remove welding flux immediately.
  - 4. Finish welds at exposed connections so no roughness shows after finishing and so contours of welded surfaces match adjacent contours.

### 3.4 ADJUSTING

- A. Hanger Adjustments: Adjust hangers to distribute loads equally on attachments and to achieve indicated slope of pipe.
- B. Trim excess length of continuous-thread hanger and support rods to 1-1/2 inches (40mm).

### 3.5 PAINTING

- A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
  - 1. Apply paint by brush or spray to provide a minimum dry film thickness of 2.0 mils (0.05 mm).
- B. Touchup: Cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint on miscellaneous metal are specified in Section 099113 "Exterior Painting" or Section 099123 "Interior Painting."
- C. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

### 3.6 HANGER AND SUPPORT SCHEDULE

- A. Specific hanger and support requirements are in Sections specifying piping systems and equipment.
- B. Comply with MSS SP-69 for pipe-hanger selections and applications that are not specified in piping system Sections.

- C. Use hangers and supports with galvanized metallic coatings for piping and equipment that will not have field-applied finish.
- D. Use nonmetallic coatings on attachments for electrolytic protection where attachments are in direct contact with copper tubing.
- E. Use carbon-steel pipe hangers and supports and metal trapeze pipe hangers and attachments for general service applications.
- F. Use copper-plated pipe hangers and copper or stainless-steel attachments for copper piping and tubing.
- G. Use padded hangers for piping that is subject to scratching.
- H. Use thermal-hanger shield inserts for insulated piping and tubing.
- I. Horizontal-Piping Hangers and Supports: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
  - 1. Adjustable, Steel Clevis Hangers (MSS Type 1): For suspension of no insulated or insulated, stationary pipes NPS 1/2 to NPS 30 (DN 15 to DN 750).
  - 2. Yoke-Type Pipe Clamps (MSS Type 2): For suspension of up to 1050 deg F (566 deg C), pipes NPS 4 to NPS 24 (DN 100 to DN 600), requiring up to 4 inches (100 mm) of insulation.
  - 3. Carbon- or Alloy-Steel, Double-Bolt Pipe Clamps (MSS Type 3): For suspension of pipes NPS 3/4 to NPS 36 (DN 20 to DN 900), requiring clamp flexibility and up to 4 inches (100 mm) of insulation.
  - 4. Adjustable, Steel Band Hangers (MSS Type 7): For suspension of no insulated, stationary pipes NPS 1/2 to NPS 8 (DN 15 to DN 200).
  - 5. U-Bolts (MSS Type 24): For support of heavy pipes NPS 1/2 to NPS 30 (DN 15 to DN 750).
  - 6. Pipe Saddle Supports (MSS Type 36): For support of pipes NPS 4 to NPS 36 (DN 100 to DN 900), with steel-pipe base stanchion support and cast-iron floor flange or carbon-steel plate.
  - 7. Pipe Stanchion Saddles (MSS Type 37): For support of pipes NPS 4 to NPS 36 (DN 100 to DN 900), with steel-pipe base stanchion support and cast-iron floor flange or carbon-steel plate, and with U-bolt to retain pipe.
  - 8. Single-Pipe Rolls (MSS Type 41): For suspension of pipes NPS 1 to NPS 30 (DN 25 to DN 750), from two rods if longitudinal movement caused by expansion and contraction might occur.
  - 9. Complete Pipe Rolls (MSS Type 44): For support of pipes NPS 2 to NPS 42 (DN 50 to DN 1050) if longitudinal movement caused by expansion and contraction might occur but vertical adjustment is not necessary.
- J. Vertical-Piping Clamps: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
  - 1. Extension Pipe or Riser Clamps (MSS Type 8): For support of pipe risers NPS 3/4 to NPS 24 (DN 24 to DN 600).
  - 2. Carbon- or Alloy-Steel Riser Clamps (MSS Type 42): For support of pipe risers NPS 3/4 to NPS 24 (DN 20 to DN 600) if longer ends are required for riser clamps.



- K. Hanger-Rod Attachments: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Steel Turnbuckles (MSS Type 13): For adjustment up to 6 inches (150 mm) for heavy loads.
  2. Steel Clevises (MSS Type 14): For 120 to 450 deg F (49 to 232 deg C) piping installations.
- L. Building Attachments: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Steel or Malleable Concrete Inserts (MSS Type 18): For upper attachment to suspend pipe hangers from concrete ceiling.
  2. Top-Beam C-Clamps (MSS Type 19): For use under roof installations with bar-joint construction, to attach to top flange of structural shape.
  3. Side-Beam or Channel Clamps (MSS Type 20): For attaching to bottom flange of beams, channels, or angles.
  4. Center-Beam Clamps (MSS Type 21): For attaching to center of bottom flange of beams.
  5. Welded Beam Attachments (MSS Type 22): For attaching to bottom of beams if loads are considerable and rod sizes are large.
  6. C-Clamps (MSS Type 23): For structural shapes.
  7. Welded-Steel Brackets: For support of pipes from below, or for suspending from above by using clip and rod. Use one of the following for indicated loads:
    - a. Light (MSS Type 31): 750 lb (340 kg).
    - b. Medium (MSS Type 32): 1500 lb (680 kg).
    - c. Heavy (MSS Type 33): 3000 lb (1360 kg).
  8. Side-Beam Brackets (MSS Type 34): For sides of steel or wooden beams.
  9. Plate Lugs (MSS Type 57): For attaching to steel beams if flexibility at beam is required.
- M. Saddles and Shields: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Steel-Pipe-Covering Protection Saddles (MSS Type 39): To fill interior voids with insulation that matches adjoining insulation.
  2. Protection Shields (MSS Type 40): Of length recommended in writing by manufacturer to prevent crushing insulation.
  3. Thermal-Hanger Shield Inserts: For supporting insulated pipe.
- N. Spring Hangers and Supports: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Spring Cushions (MSS Type 48): For light loads if vertical movement does not exceed 1-1/4 inches (32 mm).
  2. Spring-Cushion Roll Hangers (MSS Type 49): For equipping Type 41, roll hanger with springs.
  3. Variable-Spring Base Supports (MSS Type 52): Preset to indicated load and limit variability factor to 25 percent to allow expansion and contraction of piping system from base support.

- O. Comply with MSS SP-69 for trapeze pipe-hanger selections and applications that are not specified in piping system Sections.
- P. Use powder-actuated fasteners or mechanical-expansion anchors instead of building attachments where required in concrete construction.
- Q. Use pipe positioning systems in pipe spaces behind plumbing fixtures to support supply and waste piping for plumbing fixtures.

END OF SECTION 220529

## SECTION 221116 - DOMESTIC WATER PIPING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes under-building-slab and aboveground domestic water pipes, tubes, and fittings inside buildings.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For transition fittings and dielectric fittings.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. System purging and disinfecting activities report.
- B. Field quality-control reports.

### PART 2 - PRODUCTS

#### 2.1 PIPING MATERIALS

- A. Comply with requirements in "Piping Schedule" Article for applications of pipe, tube, fitting materials, and joining methods for specific services, service locations, and pipe sizes.
- B. Potable-water piping and components shall comply with NSF 14 and NSF 61. Plastic piping components shall be marked with "NSF-pw."

#### 2.2 COPPER TUBE AND FITTINGS

- A. Hard Copper Tube: ASTM B 88, Type L (ASTM B 88M, Type B) and ASTM B 88, Type M (ASTM B 88M, Type C) water tube, drawn temper.
- B. Soft Copper Tube: ASTM B 88, Type L (ASTM B 88M, Type B)] water tube, annealed temper.
- C. Cast-Copper, Solder-Joint Fittings: ASME B16.18, pressure fittings.
- D. Wrought-Copper, Solder-Joint Fittings: ASME B16.22, wrought-copper pressure fittings.
- E. Bronze Flanges: ASME B16.24, Class 150, with solder-joint ends.
- F. Copper Unions:

1. MSS SP-123.
2. Cast-copper-alloy, hexagonal-stock body.
3. Ball-and-socket, metal-to-metal seating surfaces.
4. Solder-joint or threaded ends.

G. Copper Pressure-Seal-Joint Fittings:

1. Fittings for NPS 2 (DN 50) and Smaller: Wrought-copper fitting with EPDM-rubber, O-ring seal in each end.
2. Fittings for NPS 2-1/2 to NPS 4 (DN 65 to DN 100): Cast-bronze or wrought-copper fitting with EPDM-rubber, O-ring seal in each end.

H. Copper Push-on-Joint Fittings:

1. Cast-copper fitting complying with ASME B16.18 or wrought-copper fitting complying with ASME B 16.22.
2. Stainless-steel teeth and EPDM-rubber, O-ring seal in each end instead of solder-joint ends.

## 2.3 PIPING JOINING MATERIALS

A. Pipe-Flange Gasket Materials:

1. AWWA C110/A21.10, rubber, flat face, 1/8 inch (3.2 mm) thick or ASME B16.21, nonmetallic and asbestos free unless otherwise indicated.
2. Full-face or ring type unless otherwise indicated.

B. Metal, Pipe-Flange Bolts and Nuts: ASME B18.2.1, carbon steel unless otherwise indicated.

C. Solder Filler Metals: ASTM B 32, lead-free alloys.

D. Flux: ASTM B 813, water flushable.

E. Brazing Filler Metals: AWS A5.8/A5.8M, BCuP Series, copper-phosphorus alloys for general-duty brazing unless otherwise indicated.

F. Solvent Cements for Joining CPVC Piping and Tubing: ASTM F493.

1. CPVC solvent cement shall have a VOC content of 490 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
2. Adhesive primer shall have a VOC content of 550 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
3. Solvent cement and adhesive primer shall comply with the testing and product requirements of the California Department of Health Services' "Standard Practice for the Testing of Volatile Organic Emissions from Various Sources Using Small-Scale Environmental Chambers."

## 2.4 TRANSITION FITTINGS

A. General Requirements:

1. Same size as pipes to be joined.
  2. Pressure rating at least equal to pipes to be joined.
  3. End connections compatible with pipes to be joined.
- B. Fitting-Type Transition Couplings: Manufactured piping coupling or specified piping system fitting.

## 2.5 DIELECTRIC FITTINGS

- A. General Requirements: Assembly of copper alloy and ferrous materials with separating nonconductive insulating material. Include end connections compatible with pipes to be joined.
- B. Dielectric Unions:
1. Manufacturers: Subject to compliance with requirements, provide products by the following:
    - a. Capitol Manufacturing Company; member of the Phoenix Forge Group.
    - b. Central Plastics Company.
    - c. Hart Industries International, Inc.
    - d. Jomar International.
    - e. Matco-Norca.
    - f. McDonald, A. Y. Mfg. Co.
    - g. Watts; a division of Watts Water Technologies, Inc.
    - h. Wilkins; a Zurn company.
  2. Standard: ASSE 1079.
  3. Pressure Rating: 150 psig (1035 kPa).
  4. End Connections: Solder-joint copper alloy and threaded ferrous.
- C. Dielectric Flanges:
1. Manufacturers: Subject to compliance with requirements, provide products by the following] [provide products by one of the following:
    - a. Capitol Manufacturing Company; member of the Phoenix Forge Group.
    - b. Central Plastics Company.
    - c. Matco-Norca.
    - d. Watts; a division of Watts Water Technologies, Inc.
    - e. Wilkins; a Zurn company.
  2. Standard: ASSE 1079.
  3. Factory-fabricated, bolted, companion-flange assembly.
  4. Pressure Rating: 125 psig (860 kPa) minimum at 180 deg F (82 deg C).
  5. End Connections: Solder-joint copper alloy and threaded ferrous; threaded solder-joint copper alloy and threaded ferrous.
- D. Dielectric-Flange Insulating Kits:

1. Manufacturers: Subject to compliance with requirements, provide products by the following:
  - a. Advance Products & Systems, Inc.
  - b. Calpico, Inc.
  - c. Central Plastics Company.
  - d. Pipeline Seal and Insulator, Inc..
2. Nonconducting materials for field assembly of companion flanges.
3. Pressure Rating: 150 psig (1035 kPa).
4. Gasket: Neoprene or phenolic.
5. Bolt Sleeves: Phenolic or polyethylene.
6. Washers: Phenolic with steel backing washers.

E. Dielectric Nipples:

1. Manufacturers: Subject to compliance with requirements, provide products by the following:
  - a. Elster Perfection Corporation.
  - b. Grinnell Mechanical Products; Tyco Fire Products LP.
  - c. Matco-Norca.
  - d. Precision Plumbing Products, Inc.
  - e. Victaulic Company.
2. Standard: IAPMO PS 66.
3. Electroplated steel nipple complying with ASTM F 1545.
4. Pressure Rating and Temperature: 300 psig (2070 kPa) at 225 deg F (107 deg C).
5. End Connections: Male threaded or grooved.
6. Lining: Inert and noncorrosive, propylene.

## PART 3 - EXECUTION

### 3.1 PIPING INSTALLATION

- A. Drawing plans, schematics, and diagrams indicate general location and arrangement of domestic water piping. Indicated locations and arrangements are used to size pipe and calculate friction loss, expansion, and other design considerations. Install piping as indicated unless deviations to layout are approved on coordination drawings.
- B. Install copper tubing under building slab according to CDA's "Copper Tube Handbook."
- C. Install ductile-iron piping under building slab with restrained joints according to AWWA C600 and AWWA M41.
- D. Install shutoff valve, hose-end drain valve, strainer, pressure gage, and test tee with valve inside the building at each domestic water-service entrance. Comply with requirements for pressure gages in Section 220519 "Meters and Gages for Plumbing Piping" and with requirements for drain valves and strainers in Section 221119 "Domestic Water Piping Specialties."

- E. Install shutoff valve immediately upstream of each dielectric fitting.
- F. Install water-pressure-reducing valves downstream from shutoff valves. Comply with requirements for pressure-reducing valves in Section 221119 "Domestic Water Piping Specialties."
- G. Install domestic water piping level with 0.25 percent slope downward toward drain andplumb.
- H. Rough-in domestic water piping for water-meter installation according to utility company's requirements.
- I. Install seismic restraints on piping. Comply with requirements for seismic-restraint devices in Section 220548 "Vibration and Seismic Controls for Plumbing Piping and Equipment."
- J. Install piping concealed from view and protected from physical contact by building occupants unless otherwise indicated and except in equipment rooms and service areas.
- K. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- L. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal, and coordinate with other services occupying that space.
- M. Install piping to permit valve servicing.
- N. Install nipples, unions, special fittings, and valves with pressure ratings the same as or higher than the system pressure rating used in applications below unless otherwise indicated.
- O. Install piping free of sags and bends.
- P. Install fittings for changes in direction and branchconnections.
- Q. Install unions in copper tubing at final connection to each piece of equipment, machine, and specialty.
- R. Install pressure gages on suction and discharge piping for each plumbing pump and packaged booster pump. Comply with requirements for pressure gages in Section 220519 "Meters and Gages for Plumbing Piping."
- S. Install thermostats in hot-water circulation piping. Comply with requirements for thermostats in Section 221123 "Domestic Water Pumps."
- T. Install thermometers on inlet and outlet piping from each water heater.
- U. Install sleeves for piping penetrations of walls, ceilings, and floors.
- V. Install sleeve seals for piping penetrations of concrete walls andslabs.
- W. Install escutcheons for piping penetrations of walls, ceilings, andfloors.

### 3.2 JOINT CONSTRUCTION

- A. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- B. Remove scale, slag, dirt, and debris from inside and outside of pipes, tubes, and fittings before assembly.
- C. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:
  - 1. Apply appropriate tape or thread compound to external pipe threads.
  - 2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged.
- D. Brazed Joints for Copper Tubing: Comply with CDA's "Copper Tube Handbook," "Braze Joints" chapter.
- E. Soldered Joints for Copper Tubing: Apply ASTM B 813, water-flushable flux to end of tube. Join copper tube and fittings according to ASTM B 828 or CDA's "Copper Tube Handbook."
- F. Pressure-Sealed Joints for Copper Tubing: Join copper tube and pressure-seal fittings with tools recommended by fitting manufacturer.
- G. Flanged Joints: Select appropriate asbestos-free, nonmetallic gasket material in size, type, and thickness suitable for domestic water service. Join flanges with gasket and bolts according to ASME B31.9.
- H. Joint Construction for Solvent-Cemented Plastic Piping: Clean and dry joining surfaces. Join pipe and fittings according to the following:
  - 1. Comply with ASTM F 402 for safe-handling practice of cleaners, primers, and solvent cements. Apply primer.
  - 2. CPVC Piping: Join according to ASTM D 2846/D 2846M Appendix.
  - 3. PVC Piping: Join according to ASTM D 2855.
- I. Joints for PEX Piping: Join according to ASTM F 1807.
- J. Joints for Dissimilar-Material Piping: Make joints using adapters compatible with materials of both piping systems.

### 3.3 TRANSITION FITTING INSTALLATION

- A. Install transition couplings at joints of dissimilar piping.
- B. Transition Fittings in Underground Domestic Water Piping:
  - 1. Fittings for NPS 1-1/2 (DN 40) and Smaller: Fitting-type coupling.
  - 2. Fittings for NPS 2 (DN 50) and Larger: Sleeve-type coupling.



### 3.4 DIELECTRIC FITTING INSTALLATION

- A. Install dielectric fittings in piping at connections of dissimilar metal piping and tubing.
- B. Dielectric Fittings for NPS 2 (DN 50) and Smaller: Use dielectric unions.
- C. Dielectric Fittings for NPS 2-1/2 to NPS 4 (DN 65 to DN 100): Use dielectric flanges.
- D. Dielectric Fittings for NPS 5 (DN 125) and Larger: Use dielectric flange kits.

### 3.5 HANGER AND SUPPORT INSTALLATION

- A. Comply with requirements for seismic-restraint devices in Section 220548 "Vibration and Seismic Controls for Plumbing Piping and Equipment."
- B. Comply with requirements for pipe hanger, support products, and installation in Section 220529 "Hangers and Supports for Plumbing Piping and Equipment."
  - 1. Vertical Piping: MSS Type 8 or 42, clamps.
  - 2. Individual, Straight, Horizontal Piping Runs:
    - a. 100 Feet (30 m) and Less: MSS Type 1, adjustable, steel clevis hangers.
    - b. Longer Than 100 Feet (30 m): MSS Type 43, adjustable roller hangers.
    - c. Longer Than 100 Feet (30 m) if Indicated: MSS Type 49, spring cushion rolls.
  - 3. Multiple, Straight, Horizontal Piping Runs 100 Feet (30 m) or Longer: MSS Type 44, pipe rolls. Support pipe rolls on trapeze.
  - 4. Base of Vertical Piping: MSS Type 52, spring hangers.
- C. Support vertical piping and tubing at base and at each floor.
- D. Rod diameter may be reduced one size for double-rod hangers, to a minimum of 3/8 inch (10 mm).
- E. Install hangers for copper tubing with the following maximum horizontal spacing and minimum rod diameters:
  - 1. NPS 3/4 (DN 20) and Smaller: 60 inches (1500 mm) with 3/8-inch (10-mm) rod.
  - 2. NPS 1 and NPS 1-1/4 (DN 25 and DN 32): 72 inches (1800 mm) with 3/8-inch (10-mm) rod.
  - 3. NPS 1-1/2 and NPS 2 (DN 40 and DN 50): 96 inches (2400 mm) with 3/8-inch (10-mm) rod.
  - 4. NPS 2-1/2 (DN 65): 108 inches (2700 mm) with 1/2-inch (13-mm) rod.
  - 5. NPS 3 to NPS 5 (DN 80 to DN 125): 10 feet (3 m) with 1/2-inch (13-mm) rod.
  - 6. NPS 6 (DN 150): 10 feet (3 m) with 5/8-inch (16-mm) rod.
  - 7. NPS 8 (DN 200): 10 feet (3 m) with 3/4-inch (19-mm) rod.
- F. Install supports for vertical copper tubing every 10 feet (3m).
- G. Install hangers for steel piping with the following maximum horizontal spacing and minimum rod diameters:

1. NPS 1-1/4 (DN 32) and Smaller: 84 inches (2100 mm) with 3/8-inch (10-mm) rod.
  2. NPS 1-1/2 (DN 40): 108 inches (2700 mm) with 3/8-inch (10-mm) rod.
  3. NPS 2 (DN 50): 10 feet (3 m) with 3/8-inch (10-mm) rod.
  4. NPS 2-1/2 (DN 65): 11 feet (3.4 m) with 1/2-inch (13-mm) rod.
  5. NPS 3 and NPS 3-1/2 (DN 80 and DN 90): 12 feet (3.7 m) with 1/2-inch (13-mm) rod.
  6. NPS 4 and NPS 5 (DN 100 and DN 125): 12 feet (3.7 m) with 5/8-inch (16-mm) rod.
  7. NPS 6 (DN 150): 12 feet (3.7 m) with 3/4-inch (19-mm) rod.
  8. NPS 8 to NPS 12 (DN 200 to DN 300): 12 feet (3.7 m) with 7/8-inch (22-mm) rod.
- H. Install supports for vertical steel piping every 15 feet (4.5m).
- I. Install vinyl-coated hangers for CPVC piping with the following maximum horizontal spacing and minimum rod diameters:
1. NPS 1 (DN 25) and Smaller: 36 inches (900 mm) with 3/8-inch (10-mm) rod.
  2. NPS 1-1/4 to NPS 2 (DN 32 to DN 50): 48 inches (1200 mm) with 3/8-inch (10-mm) rod.
  3. NPS 2-1/2 to NPS 3-1/2 (DN 65 to DN 90): 48 inches (1200 mm) with 1/2-inch (13-mm) rod.
  4. NPS 4 and NPS 5 (DN 100 and DN 125): 48 inches (1200 mm) with 5/8-inch (16-mm) rod.
  5. NPS 6 (DN 150): 48 inches (1200 mm) with 3/4-inch (19-mm) rod.
  6. NPS 8 (DN 200): 48 inches (1200 mm) with 7/8-inch (22-mm) rod.
- J. Install supports for vertical CPVC piping every 60 inches (1500 mm) for NPS 1 (DN 25) and smaller, and every 72 inches (1800 mm) for NPS 1-1/4 (DN 32) and larger.
- K. Install vinyl-coated hangers for PEX piping with the following maximum horizontal spacing and minimum rod diameters:
1. NPS 1 (DN 25) and Smaller: 32 inches (815 mm) with 3/8-inch (10-mm) rod.
- L. Install hangers for vertical PEX piping every 48 inches (1200mm).
- M. Install vinyl-coated hangers for PVC piping with the following maximum horizontal spacing and minimum rod diameters:
1. NPS 2 (DN 50) and Smaller: 48 inches (1200 mm) with 3/8-inch (10-mm) rod.
  2. NPS 2-1/2 to NPS 3-1/2 (DN 65 to DN 90): 48 inches (1200 mm) with 1/2-inch (13-mm) rod.
  3. NPS 4 and NPS 5 (DN 100 and DN 125): 48 inches (1200 mm) with 5/8-inch (16-mm) rod.
  4. NPS 6 (DN 150): 48 inches (1200 mm) with 3/4-inch (19-mm) rod.
  5. NPS 8 (DN 200): 48 inches (1200 mm) with 7/8-inch (22-mm) rod.
- N. Install supports for vertical PVC piping every 48 inches (1200 mm).
- O. Support piping and tubing not listed in this article according to MSS SP-69 and manufacturer's written instructions.

### 3.6 CONNECTIONS

- A. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. When installing piping adjacent to equipment and machines, allow space for service and maintenance.
- C. Connect domestic water piping to exterior water-service piping. Use transition fitting to join dissimilar piping materials.
- D. Connect domestic water piping to water-service piping with shutoff valve; extend and connect to the following:
  - 1. Domestic Water Booster Pumps: Cold-water suction and discharge piping.
  - 2. Water Heaters: Cold-water inlet and hot-water outlet piping in sizes indicated, but not smaller than sizes of water heater connections.
  - 3. Plumbing Fixtures: Cold- and hot-water-supply piping in sizes indicated, but not smaller than that required by plumbing code.
  - 4. Equipment: Cold- and hot-water-supply piping as indicated, but not smaller than equipment connections. Provide shutoff valve and union for each connection. Use flanges instead of unions for NPS 2-1/2 (DN 65) and larger.

### 3.7 IDENTIFICATION

- A. Identify system components. Comply with requirements for identification materials and installation in Section 220553 "Identification for Plumbing Piping and Equipment."
- B. Label pressure piping with system operating pressure.

### 3.8 FIELD QUALITY CONTROL

- A. Perform the following tests and inspections:
  - 1. Piping Inspections:
    - a. Do not enclose, cover, or put piping into operation until it has been inspected and approved by authorities having jurisdiction.
    - b. During installation, notify authorities having jurisdiction at least one day before inspection must be made. Perform tests specified below in presence of authorities having jurisdiction:
      - 1) Roughing-in Inspection: Arrange for inspection of piping before concealing or closing in after roughing in and before setting fixtures.
      - 2) Final Inspection: Arrange for authorities having jurisdiction to observe tests specified in "Piping Tests" Subparagraph below and to ensure compliance with requirements.
    - c. Reinspection: If authorities having jurisdiction find that piping will not pass tests or inspections, make required corrections and arrange for reinspection.

- d. Reports: Prepare inspection reports and have them signed by authorities having jurisdiction.

2. Piping Tests:

- a. Fill domestic water piping. Check components to determine that they are not air bound and that piping is full of water.
- b. Test for leaks and defects in new piping and parts of existing piping that have been altered, extended, or repaired. If testing is performed in segments, submit a separate report for each test, complete with diagram of portion of piping tested.
- c. Leave new, altered, extended, or replaced domestic water piping uncovered and unconcealed until it has been tested and approved. Expose work that was covered or concealed before it was tested.
- d. Cap and subject piping to static water pressure of 50 psig (345 kPa) above operating pressure, without exceeding pressure rating of piping system materials. Isolate test source and allow it to stand for four hours. Leaks and loss in test pressure constitute defects that must be repaired.
- e. Repair leaks and defects with new materials, and retest piping or portion thereof until satisfactory results are obtained.
- f. Prepare reports for tests and for corrective action required.

B. Domestic water piping will be considered defective if it does not pass tests and inspections.

C. Prepare test and inspection reports.

### 3.9 ADJUSTING

A. Perform the following adjustments before operation:

- 1. Close drain valves, hydrants, and hose bibbs.
- 2. Open shutoff valves to fully open position.
- 3. Open throttling valves to proper setting.
- 4. Adjust balancing valves in hot-water-circulation return piping to provide adequate flow.
  - a. Manually adjust ball-type balancing valves in hot-water-circulation return piping to provide hot-water flow in each branch.
  - b. Adjust calibrated balancing valves to flows indicated.
- 5. Remove plugs used during testing of piping and for temporary sealing of piping during installation.
- 6. Remove and clean strainer screens. Close drain valves and replace drain plugs.
- 7. Remove filter cartridges from housings and verify that cartridges are as specified for application where used and are clean and ready for use.
- 8. Check plumbing specialties and verify proper settings, adjustments, and operation.

### 3.10 CLEANING

A. Clean and disinfect potable domestic water piping as follows:

1. Purge new piping and parts of existing piping that have been altered, extended, or repaired before using.
2. Use purging and disinfecting procedures prescribed by authorities having jurisdiction; if methods are not prescribed, use procedures described in either AWWA C651 or AWWA C652 or follow procedures described below:
  - a. Flush piping system with clean, potable water until dirty water does not appear at outlets.
  - b. Fill and isolate system according to either of the following:
    - 1) Fill system or part thereof with water/chlorine solution with at least 50 ppm (50 mg/L) of chlorine. Isolate with valves and allow to stand for 24 hours.
    - 2) Fill system or part thereof with water/chlorine solution with at least 200 ppm (200 mg/L) of chlorine. Isolate and allow to stand for three hours.
  - c. Flush system with clean, potable water until no chlorine is in water coming from system after the standing time.
  - d. Repeat procedures if biological examination shows contamination.
  - e. Submit water samples in sterile bottles to authorities having jurisdiction.
- B. Prepare and submit reports of purging and disinfecting activities. Include copies of water-sample approvals from authorities having jurisdiction.
- C. Clean interior of domestic water piping system. Remove dirt and debris as work progresses.

### 3.11 PIPING SCHEDULE

- A. Transition and special fittings with pressure ratings at least equal to piping rating may be used in applications below unless otherwise indicated.
- B. Flanges and unions may be used for aboveground piping joints unless otherwise indicated.
- C. Fitting Option: Extruded-tee connections and brazed joints may be used on aboveground copper tubing.
- D. Aboveground domestic water piping, NPS 2 (DN 50) and smaller, shall be the following:
  1. Hard copper tube, ASTM B 88, Type L (ASTM B 88M, Type B) ASTM B 88, Type M (ASTM B 88M, Type C) and brazed or soldered joints.
- E. Aboveground domestic water piping, NPS 2-1/2 to NPS 4 (DN 65 to DN 100) shall be the following:
  1. Hard copper tube, ASTM B 88, Type L (ASTM B 88M, Type B) or ASTM B 88, Type M (ASTM B 88M, Type C) and brazed or soldered joints.
- F. Aboveground domestic water piping, NPS 5 to NPS 8 (DN 125 to DN 200) shall be the following:
  1. Hard copper tube, ASTM B 88, Type L (ASTM B 88M, Type B) or ASTM B 88, Type M (ASTM B 88M, Type C) and brazed or soldered joints.

END OF SECTION 221116

## SECTION 221123 - DOMESTIC WATER PUMPS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
  - 1. In-line, sealless centrifugal pumps.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.

#### 1.3 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

#### 1.4 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. UL Compliance: Comply with UL 778 for motor-operated water pumps.

### PART 2 - PRODUCTS

#### 2.1 IN-LINE, SEALLESS CENTRIFUGAL PUMPS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - 1. Armstrong Pumps Inc.
  - 2. Bell & Gossett Domestic Pump; ITT Corporation.
  - 3. Grundfos Pumps Corp.
  - 4. TACO Incorporated.
  - 5. WILO USA LLC - WILO Canada Inc.
- B. Description: Factory-assembled and -tested, in-line, close-coupled, canned-motor, sealless, overhung-impeller centrifugal pumps.
- C. Pump Construction:

1. Pump and Motor Assembly: Hermetically sealed, replaceable-cartridge type with motor and impeller on common shaft and designed for installation with pump and motor shaft horizontal.
2. Casing: Bronze, with threaded or companion-flange connections.
3. Impeller: Plastic.
4. Motor: Single speed, unless otherwise indicated.

D. Capacities and Characteristics:

1. Capacity: Refer to Plans for Specifications.

## 2.2 MOTORS

A. Comply with NEMA designation, temperature rating, service factor, enclosure type, and efficiency requirements for motors specified in Section 220513 "Common Motor Requirements for Plumbing Equipment."

1. Motor Sizes: Minimum size as indicated. If not indicated, large enough so driven load will not require motor to operate in service factor range above 1.0.

## 2.3 CONTROLS

A. Thermostats: Electric; adjustable for control of hot-water circulation pump.

1. Type: Water-immersion temperature sensor, for installation in piping.
2. Range: 50 to 125 deg F (10 to 52 deg C).
3. Enclosure: NEMA 250, Type 4X.
4. Operation of Pump: On or off.
5. Transformer: Provide if required.
6. Power Requirement: 120 V, ac.
7. Settings: Start pump at 105 deg F (41 deg C) and stop pump at 120 deg F (49 deg C).

B. Timers: Electric, for control of hot-water circulation pump.

1. Type: Programmable, seven-day clock with manual override on-off switch.
2. Enclosure: NEMA 250, Type 1, suitable for wall mounting.
3. Operation of Pump: On or off.
4. Transformer: Provide if required.
5. Power Requirement: 24-V ac.
6. Programmable Sequence of Operation: Up to two on-off cycles each day for seven days.

## PART 3 - EXECUTION

### 3.1 PUMP INSTALLATION

A. Comply with HI 1.4.

B. Install in-line, sealless centrifugal pumps with shaft horizontal unless otherwise indicated.



- C. Install horizontally mounted, in-line, close-coupled centrifugal pumps with shaft horizontal.
- D. Install continuous-thread hanger rods and spring hangers with vertical-limit stop of size required to support pump weight.
  - 1. Comply with requirements for vibration isolation devices specified in Section 220548 "Vibration and Seismic Controls for Plumbing Piping and Equipment." Fabricate brackets or supports as required.
  - 2. Comply with requirements for hangers and supports specified in Section 220529 "Hangers and Supports for Plumbing Piping and Equipment."
- E. Install thermostats in hot-water return piping.
- F. Install timers on wall in engineer's office.

### 3.2 CONNECTIONS

- A. Comply with requirements for piping specified in Section 221116 "Domestic Water Piping." Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Install piping adjacent to pumps to allow service and maintenance.
- C. Connect domestic water piping to pumps. Install suction and discharge piping equal to or greater than size of pump nozzles.
  - 1. Install flexible connectors adjacent to pumps in suction and discharge piping of the following pumps:
    - a. Horizontally mounted, in-line, close-coupled centrifugal pumps.
    - b. Comply with requirements for flexible connectors specified in Section 221116 "Domestic Water Piping."
  - 2. Install shutoff valve and strainer on suction side of each pump, and check, shutoff, and throttling valves on discharge side of each pump. Install valves same size as connected piping. Comply with requirements for valves specified in Section 220523 "General-Duty Valves for Plumbing Piping" and comply with requirements for strainers specified in Section 221119 "Domestic Water Piping Specialties."
  - 3. Install pressure gage and snubber at suction of each pump and pressure gage and snubber at discharge of each pump. Install at integral pressure-gage tappings where provided or install pressure-gage connectors in suction and discharge piping around pumps. Comply with requirements for pressure gages and snubbers specified in Section 220519 "Meters and Gages for Plumbing Piping."
- D. Connect thermostats and timers to pumps that they control.

### 3.3 ADJUSTING

- A. Adjust domestic water pumps to function smoothly, and lubricate as recommended by manufacturer.

- B. Adjust initial temperature set points.
- C. Set field-adjustable switches and circuit-breaker trip ranges as indicated.

END OF SECTION 221123

## SECTION 230523 - GENERAL-DUTY VALVES FOR HVAC PIPING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section Includes:
1. Bronze or Brass ball valves.
  2. Iron, single-flange butterfly valves.
  3. Bronze swing check valves.
  4. Iron swing check valves.
  5. Iron swing check valves with closure control.
  6. Bronze globe valves.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of valve indicated.

#### 1.3 QUALITY ASSURANCE

- A. Source Limitations for Valves: Obtain each type of valve from single source from single manufacturer.
- B. ASME Compliance: ASME B16.10 and ASME B16.34 for ferrous valve dimensions and design criteria.

### PART 2 - PRODUCTS

#### 2.1 GENERAL REQUIREMENTS FOR VALVES

- A. Refer to HVAC valve schedule articles for applications of valves.
- B. Valve Pressure and Temperature Ratings: Not less than indicated and as required for system pressures and temperatures.
- C. Valve Sizes: Same as upstream piping unless otherwise indicated.
- D. Valve Actuator Types:
1. Gear Actuator: For quarter-turn valves NPS 8 (DN 200) and larger.
  2. Handwheel: For valves other than quarter-turn types.
  3. Handlever: For quarter-turn valves NPS 6 (DN 150) and smaller.
- E. Valves in Insulated Piping: With 2-inch (50-mm) stem extensions and the following features:

1. Gate Valves: With rising stem.
2. Ball Valves: With extended operating handle of non-thermal-conductive material, and protective sleeve that allows operation of valve without breaking the vapor seal or disturbing insulation.
3. Butterfly Valves: With extended neck.

F. Valve-End Connections:

1. Flanged: With flanges according to ASME B16.1 for iron valves.
2. Solder Joint: With sockets according to ASME B16.18.
3. Threaded: With threads according to ASME B1.20.1.

## 2.2 BRONZE OR BRASS BALL VALVES

A. Two-Piece, Full-Port, Bronze or Brass Ball Valves with Brass Trim:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Crane Co.; Crane Valve Group; Crane Valves.
  - b. Hammond Valve.
  - c. Marwin Valve; a division of Richards Industries.
  - d. Milwaukee Valve Company.
  - e. Watts Regulator Company.
2. Description:
  - a. Standard: MSS SP-110.
  - b. SWP Rating: 150 psig (1035 kPa).
  - c. CWP Rating: 600 psig (4140 kPa).
  - d. Body Design: Two piece.
  - e. Body Material: Forged brass.
  - f. Ends: Threaded.
  - g. Seats: PTFE or TFE.
  - h. Stem: Brass.
  - i. Ball: Chrome-plated brass.
  - j. Port: Full.

## 2.3 IRON, SINGLE-FLANGE BUTTERFLY VALVES

A. 150 CWP, Iron, Single-Flange Butterfly Valves with EPDM Seat and Aluminum-Bronze Disc:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Bray Controls; a division of Bray International.
  - b. Conbraco Industries, Inc.; Apollo Valves.
  - c. Cooper Cameron Valves; a division of Cooper Cameron Corp.
  - d. Crane Co.; Crane Valve Group; Jenkins Valves.

- e. Crane Co.; Crane Valve Group; Stockham Division.
- f. Milwaukee Valve Company.
- g. NIBCO INC.
- h. Watts Regulator Co.; a division of Watts Water Technologies, Inc.

2. Description:

- a. Standard: MSS SP-67, Type I.
- b. CWP Rating: 150 psig (1035 kPa).
- c. Body Design: Lug type; suitable for bidirectional dead-end service at rated pressure without use of downstream flange.
- d. Body Material: ASTM A 126, cast iron or ASTM A 536, ductile iron.
- e. Seat: EPDM.
- f. Stem: One- or two-piece stainless steel.
- g. Disc: Aluminum bronze.

B. 150 CWP, Iron, Single-Flange Butterfly Valves with NBR Seat and Aluminum-Bronze Disc:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- a. Conbraco Industries, Inc.; Apollo Valves.
- b. Cooper Cameron Valves; a division of Cooper Cameron Corp.
- c. Crane Co.; Crane Valve Group; Jenkins Valves.
- d. Crane Co.; Crane Valve Group; Stockham Division.
- e. Milwaukee Valve Company.
- f. NIBCO INC.
- g. Tyco Valves & Controls; a unit of Tyco Flow Control.
- h. Watts Regulator Co.; a division of Watts Water Technologies, Inc.

2. Description:

- a. Standard: MSS SP-67, Type I.
- b. CWP Rating: 150 psig (1035 kPa).
- c. Body Design: Lug type; suitable for bidirectional dead-end service at rated pressure without use of downstream flange.
- d. Body Material: ASTM A 126, cast iron or ASTM A 536, ductile iron.
- e. Seat: NBR.
- f. Stem: One- or two-piece stainless steel.
- g. Disc: Aluminum bronze.

C. 150 CWP, Iron, Single-Flange Butterfly Valves with EPDM Seat and Ductile-Iron Disc:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Conbraco Industries, Inc.; Apollo Valves.
  - b. Cooper Cameron Valves; a division of Cooper Cameron Corp.
  - c. Crane Co.; Crane Valve Group; Center Line.
  - d. Crane Co.; Crane Valve Group; Stockham Division.
  - e. Milwaukee Valve Company.
  - f. Mueller Steam Specialty; a division of SPX Corporation.
  - g. NIBCO INC.
  - h. Tyco Valves & Controls; a unit of Tyco Flow Control.
  - i. Watts Regulator Co.; a division of Watts Water Technologies, Inc.

2. Description:

- a. Standard: MSS SP-67, Type I.
- b. CWP Rating: 150 psig (1035 kPa).
- c. Body Design: Lug type; suitable for bidirectional dead-end service at rated pressure without use of downstream flange.
- d. Body Material: ASTM A 126, cast iron or ASTM A 536, ductile iron.
- e. Seat: EPDM.
- f. Stem: One- or two-piece stainless steel.
- g. Disc: Nickel-plated ductile iron.

D. 150 CWP, Iron, Single-Flange Butterfly Valves with NBR Seat and Ductile-Iron Disc:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Conbraco Industries, Inc.; Apollo Valves.
  - b. Cooper Cameron Valves; a division of Cooper Cameron Corp.
  - c. Crane Co.; Crane Valve Group; Center Line.
  - d. Crane Co.; Crane Valve Group; Stockham Division.
  - e. Milwaukee Valve Company.
  - f. NIBCO INC.
  - g. Norriseal; a Dover Corporation company.
  - h. Spence Strainers International; a division of CIRCOR International.

- i. Sure Flow Equipment Inc.
  - j. Tyco Valves & Controls; a unit of Tyco Flow Control.
  - k. Watts Regulator Co.; a division of Watts Water Technologies, Inc.
2. Description:
- a. Standard: MSS SP-67, Type I.
  - b. CWP Rating: 150 psig (1035 kPa).
  - c. Body Design: Lug type; suitable for bidirectional dead-end service at rated pressure without use of downstream flange.
  - d. Body Material: ASTM A 126, cast iron or ASTM A 536, ductile iron.
  - e. Seat: NBR.
  - f. Stem: One- or two-piece stainless steel.
  - g. Disc: Nickel-plated ductile iron.

## 2.4 BRONZE SWING CHECK VALVES

### A. Class 125, Bronze Swing Check Valves with Bronze Disc:

- 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Crane Co.; Crane Valve Group; Crane Valves.
  - b. Crane Co.; Crane Valve Group; Jenkins Valves.
  - c. Crane Co.; Crane Valve Group; Stockham Division.
  - d. Hammond Valve.
  - e. Kitz Corporation.
  - f. Milwaukee Valve Company.
  - g. NIBCO INC.
  - h. Powell Valves.
  - i. Watts Regulator Co.; a division of Watts Water Technologies, Inc.
- 2. Description:
  - a. Standard: MSS SP-80, Type 3.
  - b. CWP Rating: 200 psig (1380 kPa).
  - c. Body Design: Horizontal flow.
  - d. Body Material: ASTM B 62, bronze.
  - e. Ends: Threaded.
  - f. Disc: Bronze.

### B. Class 150, Bronze Swing Check Valves with Bronze Disc:

- 1. Manufacturers: Subject to compliance with requirements, [provide products by one of the following] [available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following]:

- a. Crane Co.; Crane Valve Group; Crane Valves.
- b. Crane Co.; Crane Valve Group; Jenkins Valves.
- c. Crane Co.; Crane Valve Group; Stockham Division.
- d. Milwaukee Valve Company.
- e. NIBCO INC.

2. Description:

- a. Standard: MSS SP-80, Type 3.
- b. CWP Rating: 300 psig (2070 kPa).
- c. Body Design: Horizontal flow.
- d. Body Material: ASTM B 62, bronze.
- e. Ends: Threaded.
- f. Disc: Bronze.

## 2.5 IRON SWING CHECK VALVES

### A. Class 125, Iron Swing Check Valves with Metal Seats:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- a. Crane Co.; Crane Valve Group; Crane Valves.
- b. Crane Co.; Crane Valve Group; Jenkins Valves.
- c. Crane Co.; Crane Valve Group; Stockham Division.
- d. Legend Valve.
- e. Milwaukee Valve Company.
- f. NIBCO INC.
- g. Watts Regulator Co.; a division of Watts Water Technologies, Inc.

2. Description:

- a. Standard: MSS SP-71, Type I.
- b. NPS 2-1/2 to NPS 12 (DN 65 to DN 300), CWP Rating: 200 psig (1380 kPa).
- c. NPS 14 to NPS 24 (DN 350 to DN 600), CWP Rating: 150 psig (1035 kPa).
- d. Body Design: Clear or full waterway.
- e. Body Material: ASTM A 126, gray iron with bolted bonnet.
- f. Ends: Flanged.
- g. Trim: Bronze.



h. Gasket: Asbestos free.

B. Class 250, Iron Swing Check Valves with Metal Seats:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- a. Crane Co.; Crane Valve Group; Crane Valves.
- b. Crane Co.; Crane Valve Group; Jenkins Valves.
- c. Crane Co.; Crane Valve Group; Stockham Division.
- d. Hammond Valve.
- e. Milwaukee Valve Company.
- f. NIBCO INC.
- g. Watts Regulator Co.; a division of Watts Water Technologies, Inc.

2. Description:

- a. Standard: MSS SP-71, Type I.
- b. NPS 2-1/2 to NPS 12 (DN 65 to DN 300), CWP Rating: 500 psig (3450kPa).
- c. NPS 14 to NPS 24 (DN 350 to DN 600), CWP Rating: 300 psig (2070kPa).
- d. Body Design: Clear or full waterway.
- e. Body Material: ASTM A 126, gray iron with bolted bonnet.
- f. Ends: Flanged.
- g. Trim: Bronze.
- h. Gasket: Asbestos free.

## 2.6 IRON SWING CHECK VALVES WITH CLOSURE CONTROL

A. Class 125, Iron Swing Check Valves with Lever- and Spring-Closure Control:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

- a. NIBCO INC.
- b. Approved alternate.

2. Description:

- a. Standard: MSS SP-71, Type I.
- b. NPS 2-1/2 to NPS 12 (DN 65 to DN 300), CWP Rating: 200 psig (1380kPa).
- c. NPS 14 to NPS 24 (DN 350 to DN 600), CWP Rating: 150 psig (1035kPa).
- d. Body Design: Clear or full waterway.
- e. Body Material: ASTM A 126, gray iron with bolted bonnet.
- f. Ends: Flanged.
- g. Trim: Bronze.
- h. Gasket: Asbestos free.
- i. Closure Control: Factory-installed, exterior lever and spring.

B. Class 125, Iron Swing Check Valves with Lever and Weight-Closure Control:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Crane Co.; Crane Valve Group; Crane Valves.
  - b. Crane Co.; Crane Valve Group; Jenkins Valves.
  - c. Crane Co.; Crane Valve Group; Stockham Division.
  - d. Hammond Valve.
  - e. Milwaukee Valve Company.
  - f. NIBCO INC.
  - g. Watts Regulator Co.; a division of Watts Water Technologies, Inc.
  
2. Description:
  - a. Standard: MSS SP-71, Type I.
  - b. NPS 2-1/2 to NPS 12 (DN 65 to DN 300), CWP Rating: 200 psig (1380kPa).
  - c. NPS 14 to NPS 24 (DN 350 to DN 600), CWP Rating: 150 psig (1035kPa).
  - d. Body Design: Clear or full waterway.
  - e. Body Material: ASTM A 126, gray iron with bolted bonnet.
  - f. Ends: Flanged.
  - g. Trim: Bronze.
  - h. Gasket: Asbestos free.
  - i. Closure Control: Factory-installed, exterior lever and weight.

## 2.7 BRONZE GLOBE VALVES

### A. Class 125, Bronze Globe Valves with Bronze Disc:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Crane Co.; Crane Valve Group; Crane Valves.
  - b. Crane Co.; Crane Valve Group; Stockham Division.
  - c. Hammond Valve.
  - d. Kitz Corporation.
  - e. Milwaukee Valve Company.
  - f. NIBCO INC.
  - g. Powell Valves.
  - h. Red-White Valve Corporation.
  - i. Watts Regulator Co.; a division of Watts Water Technologies, Inc.
  - j. Zy-Tech Global Industries, Inc.
  
2. Description:
  - a. Standard: MSS SP-80, Type 1.
  - b. CWP Rating: 200 psig (1380 kPa).
  - c. Body Material: ASTM B 62, bronze with integral seat and screw-in bonnet.
  - d. Ends: Threaded or solder joint.
  - e. Stem and Disc: Bronze.
  - f. Packing: Asbestos free.
  - g. Handwheel: Malleable iron.

B. Class 125, Bronze Globe Valves with Nonmetallic Disc:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Crane Co.; Crane Valve Group; Crane Valves.
  - b. Crane Co.; Crane Valve Group; Stockham Division.
  - c. NIBCO INC.
  - d. Red-White Valve Corporation.
2. Description:
  - a. Standard: MSS SP-80, Type 2.
  - b. CWP Rating: 200 psig (1380 kPa).
  - c. Body Material: ASTM B 62, bronze with integral seat and screw-in bonnet.
  - d. Ends: Threaded or solder joint.
  - e. Stem: Bronze.
  - f. Disc: PTFE or TFE.
  - g. Packing: Asbestos free.
  - h. Handwheel: Malleable iron.

C. Class 150, Bronze Globe Valves with Nonmetallic Disc:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Crane Co.; Crane Valve Group; Crane Valves.
  - b. Hammond Valve.
  - c. Kitz Corporation.
  - d. Milwaukee Valve Company.
  - e. NIBCO INC.
  - f. Powell Valves.
  - g. Red-White Valve Corporation.
  - h. Watts Regulator Co.; a division of Watts Water Technologies, Inc.
  - i. Zy-Tech Global Industries, Inc.
2. Description:
  - a. Standard: MSS SP-80, Type 2.
  - b. CWP Rating: 300 psig (2070 kPa).
  - c. Body Material: ASTM B 62, bronze with integral seat and union-ring bonnet.
  - d. Ends: Threaded.
  - e. Stem: Bronze.
  - f. Disc: PTFE or TFE.
  - g. Packing: Asbestos free.
  - h. Handwheel: Malleable iron.

## PART 3 - EXECUTION

### 3.1 EXAMINATION

- A. Examine valve interior for cleanliness, freedom from foreign matter, and corrosion. Remove special packing materials, such as blocks, used to prevent disc movement during shipping and handling.
- B. Operate valves in positions from fully open to fully closed. Examine guides and seats made accessible by such operations.
- C. Examine threads on valve and mating pipe for form and cleanliness.
- D. Examine mating flange faces for conditions that might cause leakage. Check bolting for proper size, length, and material. Verify that gasket is of proper size, that its material composition is suitable for service, and that it is free from defects and damage.
- E. Do not attempt to repair defective valves; replace with new valves.

### 3.2 VALVE INSTALLATION

- A. Install valves with unions or flanges at each piece of equipment arranged to allow service, maintenance, and equipment removal without systems shutdown.
- B. Locate valves for easy access and provide separate support where necessary.
- C. Install valves in horizontal piping with stem at or above center of pipe.
- D. Install valves in position to allow full stem movement.
- E. Install swing check valves for proper direction of flow and in horizontal position with hinge pin level.

### 3.3 ADJUSTING

- A. Adjust or replace valve packing after piping systems have been tested and put into service but before final adjusting and balancing. Replace valves if persistent leaking occurs.

### 3.4 GENERAL REQUIREMENTS FOR VALVE APPLICATIONS

- A. If valve applications are not indicated, use the following:
  - 1. Shutoff Service: Ball or butterfly valves.
  - 2. Throttling Service: Globe, ball or butterfly valves.
  - 3. Pump-Discharge Check Valves:
    - a. NPS 2 (DN 50) and Smaller: Bronze swing check valves with bronze or nonmetallic disc.

- b. NPS 2-1/2 (DN 65) and Larger: Iron swing check valves with lever and weight or with spring.
- B. If valves with specified SWP classes or CWP ratings are not available, the same types of valves with higher SWP classes or CWP ratings may be substituted.
- C. Select valves, except wafer types, with the following end connections:
  - 1. For Copper Tubing, NPS 2 (DN 50) and Smaller: Threaded ends except where solder-joint valve-end option is indicated in valve schedules below.
  - 2. For Copper Tubing, NPS 2-1/2 to NPS 4 (DN 65 to DN 100): Flanged ends except where threaded valve-end option is indicated in valve schedules below.
  - 3. For Copper Tubing, NPS 5 (DN 125) and Larger: Flanged ends.
  - 4. For Steel Piping, NPS 2 (DN 50) and Smaller: Threaded ends.
  - 5. For Steel Piping, NPS 2-1/2 to NPS 4 (DN 65 to DN 100): Flanged ends except where threaded valve-end option is indicated in valve schedules below.
  - 6. For Steel Piping, NPS 5 (DN 125) and Larger: Flanged ends.

### 3.5 HEATING-WATER VALVE SCHEDULE

- A. Pipe NPS 2 (DN 50) and Smaller:
  - 1. Bronze and Brass Valves: May be provided with solder-joint ends instead of threaded ends.
  - 2. Bronze and Brass Angle Valves: Class 125, Class 150, bronzedisc.
  - 3. Ball Valves: Two piece, full port, brass or bronze with brass or bronzetrim.
  - 4. Bronze or Brass Swing Check Valves: Class 125, Class 150, bronzedisc.
  - 5. Bronze Gate Valves: Class 125, Class 150, NRS bronze.
  - 6. Bronze Globe Valves: Class 125, Class 150, bronze disc.
- B. Pipe NPS 2-1/2 (DN 65) and Larger:
  - 1. Iron Valves, NPS 2-1/2 to NPS 4 (DN 65 to DN 100): May be provided with threaded ends instead of flanged ends.
  - 2. Iron, Single-Flange Butterfly Valves, NPS 2-1/2 to NPS 12 (DN 65 to DN 300): 200 CWP, EPDM seat, aluminum-bronze, ductile-iron or stainless-steel disc.
  - 3. Iron Swing Check Valves: Class 125 or Class 250, metal seats.
  - 4. Iron Swing Check Valves with Closure Control, NPS 2-1/2 to NPS 12 (DN 65 to DN 300): Class 125, lever and spring.
  - 5. Iron Globe Valves: Class 125 or Class 250.

END OF SECTION 230523

## SECTION 230529 - HANGERS AND SUPPORTS FOR HVAC PIPING AND EQUIPMENT

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. Metal pipe hangers and supports.
2. Trapeze pipe hangers.
3. Thermal-hanger shield inserts.
4. Fastener systems.
5. Equipment supports.

#### 1.2 PERFORMANCE REQUIREMENTS

A. Delegated Design: Design trapeze pipe hangers and equipment supports, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

B. Structural Performance: Hangers and supports for HVAC piping and equipment shall withstand the effects of gravity loads and stresses within limits and under conditions indicated according to ASCE/SEI 7.

1. Design supports for multiple pipes capable of supporting combined weight of supported systems, system contents, and test water.
2. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
3. Design seismic-restraint hangers and supports for piping and equipment and obtain approval from authorities having jurisdiction.

#### 1.3 ACTION SUBMITTALS

A. Product Data: For each type of product indicated.

B. Shop Drawings: Signed and sealed by a qualified professional engineer. Show fabrication and installation details and include calculations for the following; include Product Data for components:

1. Trapeze pipe hangers.
2. Equipment supports.

C. Delegated-Design Submittal: For trapeze hangers indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Welding certificates.

#### 1.5 QUALITY ASSURANCE

- A. Structural Steel Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- B. Pipe Welding Qualifications: Qualify procedures and operators according to ASME Boiler and Pressure Vessel Code.

### PART 2 - PRODUCTS

#### 2.1 METAL PIPE HANGERS AND SUPPORTS

- A. Carbon-Steel Pipe Hangers and Supports:
  - 1. Description: MSS SP-58, Types 1 through 58, factory-fabricated components.
  - 2. Galvanized Metallic Coatings: Pregalvanized or hot dipped.
  - 3. Nonmetallic Coatings: Plastic coating, jacket, or liner.
  - 4. Padded Hangers: Hanger with fiberglass or other pipe insulation pad or cushion to support bearing surface of piping.
  - 5. Hanger Rods: Continuous-thread rod, nuts, and washer made of carbonsteel.

#### 2.2 TRAPEZE PIPE HANGERS

- A. Description: MSS SP-69, Type 59, shop- or field-fabricated pipe-support assembly made from structural carbon-steel shapes with MSS SP-58 carbon-steel hanger rods, nuts, saddles, and U-bolts.

#### 2.3 THERMAL-HANGER SHIELD INSERTS

- A. Insulation-Insert Material for Cold Piping: ASTM C 591, Type VI, Grade 1 polyisocyanurate with 125-psig (862-kPa) minimum compressive strength and vapor barrier.
- B. Insulation-Insert Material for Hot Piping: Water-repellent treated, ASTM C 533, Type I calcium silicate with 100-psig (688-kPa) minimum compressive strength.
- C. For Trapeze or Clamped Systems: Insert and shield shall cover entire circumference of pipe.
- D. For Clevis or Band Hangers: Insert and shield shall cover lower 180 degrees of pipe.
- E. Insert Length: Extend 2 inches (50 mm) beyond sheet metal shield for piping operating below ambient air temperature.

## 2.4 FASTENER SYSTEMS

- A. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.
- B. Mechanical-Expansion Anchors: Insert-wedge-type, zinc-coated steel anchors, for use in hardened portland cement concrete; with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.

## 2.5 EQUIPMENT SUPPORTS

- A. Description: Welded, shop- or field-fabricated equipment support made from structural carbon-steel shapes.

## 2.6 MISCELLANEOUS MATERIALS

- A. Structural Steel: ASTM A 36/A 36M, carbon-steel plates, shapes, and bars; black and galvanized.
- B. Grout: ASTM C 1107, factory-mixed and -packaged, dry, hydraulic-cement, nonshrink and nonmetallic grout; suitable for interior and exterior applications.
  - 1. Properties: Nonstaining, noncorrosive, and nongaseous.
  - 2. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.

## PART 3 - EXECUTION

### 3.1 HANGER AND SUPPORT INSTALLATION

- A. Metal Pipe-Hanger Installation: Comply with MSS SP-69 and MSS SP-89. Install hangers, supports, clamps, and attachments as required to properly support piping from the building structure.
- B. Metal Trapeze Pipe-Hanger Installation: Comply with MSS SP-69 and MSS SP-89. Arrange for grouping of parallel runs of horizontal piping, and support together on field-fabricated trapeze pipe hangers.
  - 1. Pipes of Various Sizes: Support together and space trapezes for smallest pipe size or install intermediate supports for smaller diameter pipes as specified for individual pipe hangers.
  - 2. Field fabricate from ASTM A 36/A 36M, carbon-steel shapes selected for loads being supported. Weld steel according to AWS D1.1/D1.1M.
- C. Thermal-Hanger Shield Installation: Install in pipe hanger or shield for insulated piping.
- D. Fastener System Installation:



1. Install powder-actuated fasteners for use in lightweight concrete or concrete slabs less than 4 inches (100 mm) thick in concrete after concrete is placed and completely cured. Use operators that are licensed by powder-actuated tool manufacturer. Install fasteners according to powder-actuated tool manufacturer's operating manual.
  2. Install mechanical-expansion anchors in concrete after concrete is placed and completely cured. Install fasteners according to manufacturer's written instructions.
- E. Install hangers and supports complete with necessary attachments, inserts, bolts, rods, nuts, washers, and other accessories.
- F. Equipment Support Installation: Fabricate from welded-structural-steel shapes.
- G. Install hangers and supports to allow controlled thermal and seismic movement of piping systems, to permit freedom of movement between pipe anchors, and to facilitate action of expansion joints, expansion loops, expansion bends, and similar units.
- H. Install lateral bracing with pipe hangers and supports to prevent swaying.
- I. Install building attachments within concrete slabs or attach to structural steel. Install additional attachments at concentrated loads, including valves, flanges, and strainers, NPS 2-1/2 (DN 65) and larger and at changes in direction of piping. Install concrete inserts before concrete is placed; fasten inserts to forms and install reinforcing bars through openings at top of inserts.
- J. Load Distribution: Install hangers and supports so that piping live and dead loads and stresses from movement will not be transmitted to connected equipment.
- K. Pipe Slopes: Install hangers and supports to provide indicated pipe slopes and to not exceed maximum pipe deflections allowed by ASME B31.9 for building services piping.
- L. Insulated Piping:
1. Attach clamps and spacers to piping.
    - a. Piping Operating above Ambient Air Temperature: Clamp may project through insulation.
    - b. Piping Operating below Ambient Air Temperature: Use thermal-hanger shield insert with clamp sized to match OD of insert.
    - c. Do not exceed pipe stress limits allowed by ASME B31.9 for building services piping.
  2. Install MSS SP-58, Type 39, protection saddles if insulation without vapor barrier is indicated. Fill interior voids with insulation that matches adjoining insulation.
    - a. Option: Thermal-hanger shield inserts may be used. Include steel weight-distribution plate for pipe NPS 4 (DN 100) and larger if pipe is installed on rollers.
  3. Install MSS SP-58, Type 40, protective shields on cold piping with vapor barrier. Shields shall span an arc of 180 degrees.
    - a. Option: Thermal-hanger shield inserts may be used. Include steel weight-distribution plate for pipe NPS 4 (DN 100) and larger if pipe is installed on rollers.

4. Shield Dimensions for Pipe: Not less than the following:
  - a. NPS 1/4 to NPS 3-1/2 (DN 8 to DN 90): 12 inches (305 mm) long and 0.048 inch (1.22 mm) thick.
  - b. NPS 4 (DN 100): 12 inches (305 mm) long and 0.06 inch (1.52 mm) thick.
  - c. NPS 5 and NPS 6 (DN 125 and DN 150): 18 inches (457 mm) long and 0.06 inch (1.52 mm) thick.
  - d. NPS 8 to NPS 14 (DN 200 to DN 350): 24 inches (610 mm) long and 0.075 inch (1.91 mm) thick.
  - e. NPS 16 to NPS 24 (DN 400 to DN 600): 24 inches (610 mm) long and 0.105 inch (2.67 mm) thick.
5. Pipes NPS 8 (DN 200) and Larger: Include wood or reinforced calcium-silicate-insulation inserts of length at least as long as protective shield.
6. Thermal-Hanger Shields: Install with insulation same thickness as piping insulation.

### 3.2 EQUIPMENT SUPPORTS

- A. Fabricate structural-steel stands to suspend equipment from structure overhead or to support equipment above floor.
- B. Grouting: Place grout under supports for equipment and make bearing surfaces smooth.
- C. Provide lateral bracing, to prevent swaying, for equipment supports.

### 3.3 METAL FABRICATIONS

- A. Cut, drill, and fit miscellaneous metal fabrications for trapeze pipe hangers and equipment supports.
- B. Fit exposed connections together to form hairline joints. Field weld connections that cannot be shop welded because of shipping size limitations.
- C. Field Welding: Comply with AWS D1.1/D1.1M procedures for shielded, metal arc welding; appearance and quality of welds; and methods used in correcting welding work; and with the following:
  1. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
  2. Obtain fusion without undercut or overlap.
  3. Remove welding flux immediately.
  4. Finish welds at exposed connections so no roughness shows after finishing and so contours of welded surfaces match adjacent contours.

### 3.4 ADJUSTING

- A. Hanger Adjustments: Adjust hangers to distribute loads equally on attachments and to achieve indicated slope of pipe.

- B. Trim excess length of continuous-thread hanger and support rods to 1-1/2 inches (40mm).

### 3.5 PAINTING

- A. Touchup: Clean field welds and abraded areas of shop paint. Paint exposed areas immediately after erecting hangers and supports. Use same materials as used for shop painting. Comply with SSPC-PA 1 requirements for touching up field-painted surfaces.
  - 1. Apply paint by brush or spray to provide a minimum dry film thickness of 2.0 mils (0.05 mm).
- B. Touchup: Cleaning and touchup painting of field welds, bolted connections, and abraded areas of shop paint on miscellaneous metal are specified in Section 099113 "Exterior Painting" or Section 099123 "Interior Painting".
- C. Galvanized Surfaces: Clean welds, bolted connections, and abraded areas and apply galvanizing-repair paint to comply with ASTM A 780.

### 3.6 HANGER AND SUPPORT SCHEDULE

- A. Specific hanger and support requirements are in Sections specifying piping systems and equipment.
- B. Comply with MSS SP-69 for pipe-hanger selections and applications that are not specified in piping system Sections.
- C. Use hangers and supports with galvanized metallic coatings for piping and equipment that will not have field-applied finish.
- D. Use nonmetallic coatings on attachments for electrolytic protection where attachments are in direct contact with copper tubing.
- E. Use carbon-steel pipe hangers and supports and metal trapeze pipe hangers and attachments for general service applications.
- F. Use padded hangers for piping that is subject to scratching.
- G. Use thermal-hanger shield inserts for insulated piping and tubing.
- H. Horizontal-Piping Hangers and Supports: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
  - 1. Adjustable, Steel Clevis Hangers (MSS Type 1): For suspension of noninsulated or insulated, stationary pipes NPS 1/2 to NPS 30 (DN 15 to DN 750).
  - 2. Yoke-Type Pipe Clamps (MSS Type 2): For suspension of up to 1050 deg F (566 deg C), pipes NPS 4 to NPS 24 (DN 100 to DN 600), requiring up to 4 inches (100 mm) of insulation.
  - 3. Carbon- or Alloy-Steel, Double-Bolt Pipe Clamps (MSS Type 3): For suspension of pipes NPS 3/4 to NPS 36 (DN 20 to DN 900), requiring clamp flexibility and up to 4 inches (100 mm) of insulation.

4. Adjustable, Steel Band Hangers (MSS Type 7): For suspension of noninsulated, stationary pipes NPS 1/2 to NPS 8 (DN 15 to DN 200).
  5. U-Bolts (MSS Type 24): For support of heavy pipes NPS 1/2 to NPS 30 (DN 15 to DN 750).
  6. Pipe Saddle Supports (MSS Type 36): For support of pipes NPS 4 to NPS 36 (DN 100 to DN 900), with steel-pipe base stanchion support and cast-iron floor flange or carbon-steel plate.
  7. Pipe Stanchion Saddles (MSS Type 37): For support of pipes NPS 4 to NPS 36 (DN 100 to DN 900), with steel-pipe base stanchion support and cast-iron floor flange or carbon-steel plate, and with U-bolt to retain pipe.
  8. Single-Pipe Rolls (MSS Type 41): For suspension of pipes NPS 1 to NPS 30 (DN 25 to DN 750), from two rods if longitudinal movement caused by expansion and contraction might occur.
  9. Complete Pipe Rolls (MSS Type 44): For support of pipes NPS 2 to NPS 42 (DN 50 to DN 1050) if longitudinal movement caused by expansion and contraction might occur but vertical adjustment is not necessary.
- I. Vertical-Piping Clamps: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Extension Pipe or Riser Clamps (MSS Type 8): For support of pipe risers NPS 3/4 to NPS 24 (DN 24 to DN 600).
  2. Carbon- or Alloy-Steel Riser Clamps (MSS Type 42): For support of pipe risers NPS 3/4 to NPS 24 (DN 20 to DN 600) if longer ends are required for riser clamps.
- J. Hanger-Rod Attachments: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Steel Turnbuckles (MSS Type 13): For adjustment up to 6 inches (150 mm) for heavy loads.
  2. Steel Clevises (MSS Type 14): For 120 to 450 deg F (49 to 232 deg C) piping installations.
- K. Building Attachments: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
1. Steel or Malleable Concrete Inserts (MSS Type 18): For upper attachment to suspend pipe hangers from concrete ceiling.
  2. Top-Beam C-Clamps (MSS Type 19): For use under roof installations with bar-joint construction, to attach to top flange of structural shape.
  3. Side-Beam or Channel Clamps (MSS Type 20): For attaching to bottom flange of beams, channels, or angles.
  4. Center-Beam Clamps (MSS Type 21): For attaching to center of bottom flange of beams.
  5. Welded Beam Attachments (MSS Type 22): For attaching to bottom of beams if loads are considerable and rod sizes are large.
  6. C-Clamps (MSS Type 23): For structural shapes.
  7. Welded-Steel Brackets: For support of pipes from below, or for suspending from above by using clip and rod. Use one of the following for indicated loads:
    - a. Light (MSS Type 31): 750 lb (340 kg).
    - b. Medium (MSS Type 32): 1500 lb (680 kg).

- c. Heavy (MSS Type 33): 3000 lb (1360 kg).
- 8. Side-Beam Brackets (MSS Type 34): For sides of steel or wooden beams.
- 9. Plate Lugs (MSS Type 57): For attaching to steel beams if flexibility at beam is required.
- L. Saddles and Shields: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
  - 1. Steel-Pipe-Covering Protection Saddles (MSS Type 39): To fill interior voids with insulation that matches adjoining insulation.
  - 2. Protection Shields (MSS Type 40): Of length recommended in writing by manufacturer to prevent crushing insulation.
  - 3. Thermal-Hanger Shield Inserts: For supporting insulated pipe.
- M. Spring Hangers and Supports: Unless otherwise indicated and except as specified in piping system Sections, install the following types:
  - 1. Spring Cushions (MSS Type 48): For light loads if vertical movement does not exceed 1-1/4 inches (32 mm).
  - 2. Spring-Cushion Roll Hangers (MSS Type 49): For equipping Type 41, roll hanger with springs.
  - 3. Variable-Spring Base Supports (MSS Type 52): Preset to indicated load and limit variability factor to 25 percent to allow expansion and contraction of piping system from base support.
- N. Comply with MSS SP-69 for trapeze pipe-hanger selections and applications that are not specified in piping system Sections.
- O. Use powder-actuated fasteners or mechanical-expansion anchors instead of building attachments where required in concrete construction.

END OF SECTION 230529

## SECTION 231123 - FACILITY NATURAL-GAS PIPING

### PART 1 - GENERAL

#### 1.1 SUMMARY

##### A. Section Includes:

1. Pipes, tubes, and fittings.
2. Piping specialties.
3. Piping and tubing joining materials.
4. Valves.
5. Pressure regulators.

#### 1.2 PERFORMANCE REQUIREMENTS

##### A. Minimum Operating-Pressure Ratings:

1. Piping and Valves: 100 psig (690 kPa) minimum unless otherwise indicated.
2. Service Regulators: 65 psig (450 kPa) minimum unless otherwise indicated.

##### B. Natural-Gas System Pressure within Buildings: More than 0.5 psig (3.45 kPa) but not more than 5 psig (34.5 kPa).

##### C. Natural-Gas System Pressures within Buildings: Two pressure ranges. Primary pressure is more than 0.5 psig (3.45 kPa) but not more than 2 psig (13.8 kPa), and is reduced to secondary pressure of 0.5 psig (3.45 kPa) or less.

##### D. Delegated Design: Design restraints and anchors for natural-gas piping and equipment, including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.

#### 1.3 ACTION SUBMITTALS

##### A. Product Data: For each type of product indicated.

##### B. Shop Drawings: For facility natural-gas piping layout. Include plans, piping layout and elevations, sections, and details for fabrication of pipe anchors, hangers, supports for multiple pipes, alignment guides, expansion joints and loops, and attachments of the same to building structure. Detail location of anchors, alignment guides, and expansion joints and loops.

##### C. Delegated-Design Submittal: For natural-gas piping and equipment indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.

1. Detail fabrication and assembly of seismic restraints.
2. Design Calculations: Calculate requirements for selecting seismic restraints.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Welding certificates.
- B. Field quality-control reports.

#### 1.5 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

#### 1.6 QUALITY ASSURANCE

- A. Steel Support Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- B. Pipe Welding Qualifications: Qualify procedures and operators according to ASME Boiler and Pressure Vessel Code.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

### PART 2 - PRODUCTS

#### 2.1 PIPES, TUBES, AND FITTINGS

- A. Steel Pipe: ASTM A 53/A 53M, black steel, Schedule 40, Type E or S, Grade B.
  - 1. Malleable-Iron Threaded Fittings: ASME B16.3, Class 150, standard pattern.
  - 2. Wrought-Steel Welding Fittings: ASTM A 234/A 234M for butt welding and socket welding.
  - 3. Unions: ASME B16.39, Class 150, malleable iron with brass-to-iron seat, ground joint, and threaded ends.
  - 4. Protective Coating for Underground Piping: Factory-applied, three-layer coating of epoxy, adhesive, and PE.
    - a. Joint Cover Kits: Epoxy paint, adhesive, and heat-shrink PE sleeves.
- B. Corrugated, Stainless-Steel Tubing: Comply with ANSI/IAS LC1.
  - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. OmegaFlex, Inc.
    - b. Parker Hannifin Corporation; Parflex Division.
    - c. Titeflex.
    - d. Tru-Flex Metal Hose Corp.

2. Tubing: ASTM A 240/A 240M, corrugated, Series 300 stainlesssteel.
  3. Coating: PE with flame retardant.
    - a. Surface-Burning Characteristics: As determined by testing identical products according to ASTM E 84 by a qualified testing agency. Identify products with appropriate markings of applicable testingagency.
      - 1) Flame-Spread Index: 25 or less.
      - 2) Smoke-Developed Index: 50 or less.
  4. Fittings: Copper-alloy mechanical fittings with ends made to fit and listed for use with corrugated stainless-steel tubing and capable of metal-to-metal seal without gaskets. Include brazing socket or threaded ends complying with ASME B1.20.1.
  5. Striker Plates: Steel, designed to protect tubing frompenetrations.
  6. Manifolds: Malleable iron or steel with factory-applied protective coating. Threaded connections shall comply with ASME B1.20.1 for pipe inlet and corrugated tubing outlets.
  7. Operating-Pressure Rating: 5 psig (34.5 kPa).
- C. Annealed-Temper Copper Tube: Comply with ASTM B 88, Type L, ASTM B 88M, Type B or ASTM B 837, Type G.
1. Copper Fittings: ASME B16.22, wrought copper, and streamlinedpattern.
  2. Flare Fittings: Comply with ASME B16.26 and SAEJ513.
    - a. Copper fittings with long nuts.
    - b. Metal-to-metal compression seal withoutgasket.
    - c. Dryseal threads complying with ASME B1.20.3.
  3. Protective Coating for Underground Tubing: Factory-applied, extruded PE a minimum of 0.022 inch (0.56 mm) thick.

## 2.2 PIPING SPECIALTIES

- A. Appliance Flexible Connectors:
1. Indoor, Fixed-Appliance Flexible Connectors: Comply with ANSIZ21.24.
  2. Indoor, Movable-Appliance Flexible Connectors: Comply with ANSI Z21.69.
  3. Outdoor, Appliance Flexible Connectors: Comply with ANSIZ21.75.
  4. Corrugated stainless-steel tubing with polymer coating.
  5. Operating-Pressure Rating: 0.5 psig (3.45 kPa).
  6. End Fittings: Zinc-coated steel.
  7. Threaded Ends: Comply with ASME B1.20.1.
  8. Maximum Length: 72 inches (1830mm.)
- B. Quick-Disconnect Devices: Comply with ANSIZ21.41.
1. Copper-alloy convenience outlet and matching plug connector.
  2. Nitrile seals.
  3. Hand operated with automatic shutoff when disconnected.



4. For indoor or outdoor applications.
5. Adjustable, retractable restraining cable.

C. Y-Pattern Strainers:

1. Body: ASTM A 126, Class B, cast iron with bolted cover and bottom drain connection.
2. End Connections: Threaded ends for NPS 2 (DN 50) and smaller.
3. Strainer Screen: 60-mesh startup strainer, and perforated stainless-steel basket with 50 percent free area.
4. CWP Rating: 125 psig (862 kPa).

D. Weatherproof Vent Cap: Cast- or malleable-iron increaser fitting with corrosion-resistant wire screen, with free area at least equal to cross-sectional area of connecting pipe and threaded-end connection.

## 2.3 JOINING MATERIALS

- A. Joint Compound and Tape: Suitable for natural gas.
- B. Welding Filler Metals: Comply with AWS D10.12/D10.12M for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.
- C. Brazing Filler Metals: Alloy with melting point greater than 1000 deg F (540 deg C) complying with AWS A5.8/A5.8M. Brazing alloys containing more than 0.05 percent phosphorus are prohibited.

## 2.4 MANUAL GAS SHUTOFF VALVES

- A. General Requirements for Metallic Valves, NPS 2 (DN 50) and Smaller: Comply with ASME B16.33.
1. CWP Rating: 125 psig (862 kPa).
  2. Threaded Ends: Comply with ASME B1.20.1.
  3. Dryseal Threads on Flare Ends: Comply with ASME B1.20.3.
  4. Tamperproof Feature: Locking feature for valves indicated in "Underground Manual Gas Shutoff Valve Schedule" and "Aboveground Manual Gas Shutoff Valve Schedule" Articles.
  5. Listing: Listed and labeled by an NRTL acceptable to authorities having jurisdiction for valves 1 inch (25 mm) and smaller.
  6. Service Mark: Valves 1-1/4 inches (32 mm) to NPS 2 (DN 50) shall have initials "WOG" permanently marked on valve body.
- B. One-Piece, Bronze Ball Valve with Bronze Trim: MSS SP-110.
1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
    - a. BrassCraft Manufacturing Company; a Mascocompany.

- b. Conbraco Industries, Inc.; Apollo Div.
- c. Lyall, R. W. & Company, Inc.
- d. McDonald, A. Y. Mfg. Co.
- e. Perfection Corporation; a subsidiary of American Meter Company.

- 2. Body: Bronze, complying with ASTM B 584.
- 3. Ball: Chrome-plated brass.
- 4. Stem: Bronze; blowout proof.
- 5. Seats: Reinforced TFE; blowout proof.
- 6. Packing: Separate packnut with adjustable-stem packing threaded ends.
- 7. Ends: Threaded, flared, or socket as indicated in "Underground Manual Gas Shutoff Valve Schedule" and "Aboveground Manual Gas Shutoff Valve Schedule" Articles.
- 8. CWP Rating: 600 psig (4140 kPa).
- 9. Listing: Valves NPS 1 (DN 25) and smaller shall be listed and labeled by an NRTL acceptable to authorities having jurisdiction.
- 10. Service: Suitable for natural-gas service with "WOG" indicated on valvebody.

C. Two-Piece, Full-Port, Bronze Ball Valves with Bronze Trim: MSS SP-110.

- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

- a. BrassCraft Manufacturing Company; a Masco company.
- b. Conbraco Industries, Inc.; Apollo Div.
- c. Lyall, R. W. & Company, Inc.
- d. McDonald, A. Y. Mfg. Co.
- e. Perfection Corporation; a subsidiary of American Meter Company.

- 2. Body: Bronze, complying with ASTM B 584.
- 3. Ball: Chrome-plated bronze.
- 4. Stem: Bronze; blowout proof.
- 5. Seats: Reinforced TFE; blowout proof.
- 6. Packing: Threaded-body packnut design with adjustable-stem packing.
- 7. Ends: Threaded, flared, or socket as indicated in "Underground Manual Gas Shutoff Valve Schedule" and "Aboveground Manual Gas Shutoff Valve Schedule" Articles.
- 8. CWP Rating: 600 psig (4140 kPa).
- 9. Listing: Valves NPS 1 (DN 25) and smaller shall be listed and labeled by an NRTL acceptable to authorities having jurisdiction.
- 10. Service: Suitable for natural-gas service with "WOG" indicated on valvebody.

D. Two-Piece, Regular-Port Bronze Ball Valves with Bronze Trim: MSS SP-110.

- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

- a. BrassCraft Manufacturing Company; a Masco company.
- b. Conbraco Industries, Inc.; Apollo Div.
- c. Lyall, R. W. & Company, Inc.
- d. McDonald, A. Y. Mfg. Co.

- e. Perfection Corporation; a subsidiary of American Meter Company.
- 2. Body: Bronze, complying with ASTM B 584.
- 3. Ball: Chrome-plated bronze.
- 4. Stem: Bronze; blowout proof.
- 5. Seats: Reinforced TFE.
- 6. Packing: Threaded-body packnut design with adjustable-stempacking.
- 7. Ends: Threaded, flared, or socket as indicated in "Underground Manual Gas Shutoff Valve Schedule" and "Aboveground Manual Gas Shutoff Valve Schedule" Articles.
- 8. CWP Rating: 600 psig (4140 kPa).
- 9. Listing: Valves NPS 1 (DN 25) and smaller shall be listed and labeled by an NRTL acceptable to authorities having jurisdiction.
- 10. Service: Suitable for natural-gas service with "WOG" indicated on valvebody.

E. Bronze Plug Valves: MSSSP-78.

- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - a. Lee Brass Company.
  - b. McDonald, A. Y. Mfg. Co.
- 2. Body: Bronze, complying with ASTM B 584.
- 3. Plug: Bronze.
- 4. Ends: Threaded, socket, as indicated in "Underground Manual Gas Shutoff Valve Schedule" and "Aboveground Manual Gas Shutoff Valve Schedule" Articles.
- 5. Operator: Square head or lug type with tamperproof feature where indicated.
- 6. Pressure Class: 125 psig (862 kPa).
- 7. Listing: Valves NPS 1 (DN 25) and smaller shall be listed and labeled by an NRTL acceptable to authorities having jurisdiction.
- 8. Service: Suitable for natural-gas service with "WOG" indicated on valvebody.

## 2.5 MOTORIZED GAS VALVES

A. Electrically Operated Valves: Comply with UL 429.

- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - a. ASCO Power Technologies, LP; Division of Emerson.
  - b. Dungs, Karl, Inc.
  - c. Eclipse Combustion, Inc.
  - d. Goyen Valve Corp.; Tyco Environmental Systems.
  - e. Magnatrol Valve Corporation.
  - f. Parker Hannifin Corporation; Climate & Industrial Controls Group; Skinner Valve Div.
  - g. Watts Regulator Co.; Division of Watts Water Technologies, Inc.

2. Pilot operated.
3. Body: Brass or aluminum.
4. Seats and Disc: Nitrile rubber.
5. Springs and Valve Trim: Stainless steel.
6. 120-V ac, 60 Hz, Class B, continuous-duty molded coil, and replaceable.
7. NEMA ICS 6, Type 4, coil enclosure.
8. Normally closed.
9. Visual position indicator.

## 2.6 PRESSURE REGULATORS

### A. General Requirements:

1. Single stage and suitable for natural gas.
2. Steel jacket and corrosion-resistant components.
3. Elevation compensator.
4. End Connections: Threaded for regulators NPS 2 (DN 50) and smaller.

### B. Line Pressure Regulators: Comply with ANSI Z21.80.

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Actaris.
  - b. American Meter Company.
  - c. Eclipse Combustion, Inc.
  - d. Fisher Control Valves and Regulators; Division of Emerson Process Management.
  - e. Invensys.
  - f. Maxitrol Company.
  - g. Richards Industries; Jordan Valve Div.
2. Body and Diaphragm Case: Cast iron or die-cast aluminum.
3. Springs: Zinc-plated steel; interchangeable.
4. Diaphragm Plate: Zinc-plated steel.
5. Seat Disc: Nitrile rubber resistant to gas impurities, abrasion, and deformation at the valve port.
6. Orifice: Aluminum; interchangeable.
7. Seal Plug: Ultraviolet-stabilized, mineral-filled nylon.
8. Single-port, self-contained regulator with orifice no larger than required at maximum pressure inlet, and no pressure sensing piping external to the regulator.
9. Pressure regulator shall maintain discharge pressure setting downstream, and not exceed 150 percent of design discharge pressure at shutoff.
10. Overpressure Protection Device: Factory mounted on pressure regulator.
11. Atmospheric Vent: Factory- or field-installed, stainless-steel screen in opening if not connected to vent piping.
12. Maximum Inlet Pressure: 5 psig (34.5 kPa).

### C. Appliance Pressure Regulators: Comply with ANSI Z21.18.

1. **Manufacturers:** Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - a. Canadian Meter Company Inc.
  - b. Eaton Corporation; Controls Div.
  - c. Harper Wyman Co.
  - d. Maxitrol Company.
  - e. SCP, Inc.
2. **Body and Diaphragm Case:** Die-cast aluminum.
3. **Springs:** Zinc-plated steel; interchangeable.
4. **Diaphragm Plate:** Zinc-plated steel.
5. **Seat Disc:** Nitrile rubber.
6. **Seal Plug:** Ultraviolet-stabilized, mineral-filled nylon.
7. **Factory-Applied Finish:** Minimum three-layer polyester and polyurethane paint finish.
8. **Regulator may include vent limiting device, instead of vent connection, if approved by authorities having jurisdiction.**
9. **Maximum Inlet Pressure:** 1 psig (6.9 kPa).

## 2.7 DIELECTRIC UNIONS

### A. Dielectric Unions:

1. **Manufacturers:** Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - a. Capitol Manufacturing Company.
  - b. Central Plastics Company.
  - c. Hart Industries International, Inc.
  - d. Jomar International Ltd.
  - e. Matco-Norca, Inc.
  - f. McDonald, A. Y. Mfg. Co.
  - g. Watts Regulator Co.; a division of Watts Water Technologies, Inc.
2. **Description:**
  - a. **Standard:** ASSE 1079.
  - b. **Pressure Rating:** 125 psig (860 kPa) minimum at 180 deg F (82 deg C).
  - c. **End Connections:** Solder-joint copper alloy and threaded ferrous.

## 2.8 LABELING AND IDENTIFYING

- A. **Detectable Warning Tape:** Acid- and alkali-resistant, PE film warning tape manufactured for marking and identifying underground utilities, a minimum of 6 inches (150 mm) wide and 4 mils (0.1 mm) thick, continuously inscribed with a description of utility, with metallic core encased in a protective jacket for corrosion protection, detectable by metal detector when tape is buried up to 30 inches (750 mm) deep; colored yellow.

## PART 3 - EXECUTION

### 3.1 OUTDOOR PIPING INSTALLATION

- A. Comply with NFPA 54 for installation and purging of natural-gas piping.
- B. Steel Piping with Protective Coating:
  - 1. Apply joint cover kits to pipe after joining to cover, seal, and protect joints.
  - 2. Repair damage to PE coating on pipe as recommended in writing by protective coating manufacturer.
  - 3. Replace pipe having damaged PE coating with new pipe.
- C. Copper Tubing with Protective Coating:
  - 1. Apply joint cover kits over tubing to cover, seal, and protect joints.
  - 2. Repair damage to PE coating on pipe as recommended in writing by protective coating manufacturer.
- D. Install fittings for changes in direction and branch connections.
- E. Install pressure gage upstream and downstream from each service regulator.

### 3.2 INDOOR PIPING INSTALLATION

- A. Comply with NFPA 54 for installation and purging of natural-gas piping.
- B. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Indicated locations and arrangements are used to size pipe and calculate friction loss, expansion, and other design considerations. Install piping as indicated unless deviations to layout are approved on Coordination Drawings.
- C. Arrange for pipe spaces, chases, slots, sleeves, and openings in building structure during progress of construction, to allow for mechanical installations.
- D. Install piping in concealed locations unless otherwise indicated and except in equipment rooms and service areas.
- E. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- F. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal.
- G. Locate valves for easy access.
- H. Install natural-gas piping at uniform grade of 2 percent down toward drip and sediment traps.
- I. Install piping free of sags and bends.

- J. Install fittings for changes in direction and branch connections.
- K. Verify final equipment locations for roughing-in.
- L. Comply with requirements in Sections specifying gas-fired appliances and equipment for roughing-in requirements.
- M. Drips and Sediment Traps: Install drips at points where condensate may collect, including service-meter outlets. Locate where accessible to permit cleaning and emptying. Do not install where condensate is subject to freezing.
  - 1. Construct drips and sediment traps using tee fitting with bottom outlet plugged or capped. Use nipple a minimum length of 3 pipe diameters, but not less than 3 inches (75 mm) long and same size as connected pipe. Install with space below bottom of drip to remove plug or cap.
- N. Extend relief vent connections for service regulators, line regulators, and overpressure protection devices to outdoors and terminate with weatherproof vent cap.
- O. Conceal pipe installations in walls, pipe spaces, utility spaces, above ceilings, below grade or floors, and in floor channels unless indicated to be exposed to view.
- P. Use eccentric reducer fittings to make reductions in pipe sizes. Install fittings with level side down.
- Q. Connect branch piping from top or side of horizontal piping.
- R. Install unions in pipes NPS 2 (DN 50) and smaller, adjacent to each valve, at final connection to each piece of equipment.
- S. Do not use natural-gas piping as grounding electrode.
- T. Install strainer on inlet of each line-pressure regulator and automatic or electrically operated valve.
- U. Install pressure gage upstream and downstream from each line regulator. Pressure gages are specified in Section 230519 "Meters and Gages for HVAC Piping."
- V. Install sleeves for piping penetrations of walls, ceilings, and floors.
- W. Install sleeve seals for piping penetrations of concrete walls and slabs. Comply with requirements for sleeve seals specified in Section 230517 "Sleeves and Sleeve Seals for HVAC Piping."
- X. Install escutcheons for piping penetrations of walls, ceilings, and floors.

### 3.3 VALVE INSTALLATION

- A. Install manual gas shutoff valve for each gas appliance ahead of corrugated stainless-steel tubing or copper connector.

- B. Install underground valves with valve boxes.
- C. Install regulators and overpressure protection devices with maintenance access space adequate for servicing and testing.
- D. Install earthquake valves aboveground outside buildings according to listing.
- E. Install anode for metallic valves in underground PE piping.

### 3.4 PIPING JOINT CONSTRUCTION

- A. Ream ends of pipes and tubes and remove burrs.
- B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- C. Threaded Joints:
  1. Thread pipe with tapered pipe threads complying with ASME B1.20.1.
  2. Cut threads full and clean using sharp dies.
  3. Ream threaded pipe ends to remove burrs and restore full inside diameter of pipe.
  4. Apply appropriate tape or thread compound to external pipe threads unless dryseal threading is specified.
  5. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.
- D. Welded Joints:
  1. Construct joints according to AWS D10.12/D10.12M, using qualified processes and welding operators.
  2. Bevel plain ends of steel pipe.
  3. Patch factory-applied protective coating as recommended by manufacturer at field welds and where damage to coating occurs during construction.
- E. Brazed Joints: Construct joints according to AWS's "Brazing Handbook," "Pipe and Tube" Chapter.
- F. Flared Joints: Cut tubing with roll cutting tool. Flare tube end with tool to result in flare dimensions complying with SAE J513. Tighten finger tight, then use wrench. Do not overtighten.
- G. PE Piping Heat-Fusion Joints: Clean and dry joining surfaces by wiping with clean cloth or paper towels. Join according to ASTM D 2657.
  1. Plain-End Pipe and Fittings: Use butt fusion.
  2. Plain-End Pipe and Socket Fittings: Use socket fusion.

### 3.5 HANGER AND SUPPORT INSTALLATION

- A. Install seismic restraints on piping.



- B. Comply with requirements for pipe hangers and supports specified in Section 230529 "Hangers and Supports for HVAC Piping and Equipment."
- C. Install hangers for horizontal steel piping with the following maximum spacing and minimum rod sizes:
  1. NPS 1 (DN 25) and Smaller: Maximum span, 96 inches (2438 mm); minimum rod size, 3/8 inch (10 mm).
  2. NPS 1-1/4 (DN 32): Maximum span, 108 inches (2743 mm); minimum rod size, 3/8 inch (10 mm).
  3. NPS 1-1/2 and NPS 2 (DN 40 and DN 50): Maximum span, 108 inches (2743 mm); minimum rod size, 3/8 inch (10 mm).
- D. Install hangers for horizontal, corrugated stainless-steel tubing with the following maximum spacing and minimum rod sizes:
  1. NPS 3/8 (DN 10): Maximum span, 48 inches (1220 mm); minimum rod size, 3/8 inch (10 mm).
  2. NPS 1/2 (DN 15): Maximum span, 72 inches (1830 mm); minimum rod size, 3/8 inch (10 mm).
  3. NPS 3/4 (DN 20) and Larger: Maximum span, 96 inches (2440 mm); minimum rod size, 3/8 inch (10 mm).

### 3.6 CONNECTIONS

- A. Connect to utility's gas main according to utility's procedures and requirements.
- B. Install natural-gas piping electrically continuous, and bonded to gas appliance equipment grounding conductor of the circuit powering the appliance according to NFPA 70.
- C. Install piping adjacent to appliances to allow service and maintenance of appliances.
- D. Connect piping to appliances using manual gas shutoff valves and unions. Install valve within 72 inches (1800 mm) of each gas-fired appliance and equipment. Install union between valve and appliances or equipment.
- E. Sediment Traps: Install tee fitting with capped nipple in bottom to form drip, as close as practical to inlet of each appliance.

### 3.7 LABELING AND IDENTIFYING

- A. Comply with requirements in Section 230553 "Identification for HVAC Piping and Equipment" for piping and valve identification.
- B. Install detectable warning tape directly above gas piping, 12 inches (300 mm) below finished grade, except 6 inches (150 mm) below subgrade under pavements and slabs.

### 3.8 FIELD QUALITY CONTROL

- A. Test, inspect, and purge natural gas according to NFPA 54 and authorities having jurisdiction.
- B. Natural-gas piping will be considered defective if it does not pass tests and inspections.
- C. Prepare test and inspection reports.

### 3.9 OUTDOOR PIPING SCHEDULE

- A. Aboveground natural-gas piping shall be one of the following:
  - 1. Steel pipe with malleable-iron fittings and threaded joints.
  - 2. Steel pipe with wrought-steel fittings and welded joints.
  - 3. Annealed-temper copper tube with wrought-copper fittings and brazed joints.
- B. Containment Conduit: Steel pipe with wrought-steel fittings and welded joints. Coat pipe and fittings with protective coating for steel piping.

### 3.10 INDOOR PIPING SCHEDULE

- A. Aboveground, branch piping NPS 1 (DN 25) and smaller shall be one of the following:
  - 1. Corrugated stainless-steel tubing with mechanical fittings having socket or threaded ends to match adjacent piping.
  - 2. Annealed-temper copper tube with wrought-copper fittings and brazed or flared joints.
  - 3. Steel pipe with malleable-iron fittings and threaded joints.
- B. Aboveground, distribution piping shall be one of the following:
  - 1. Steel pipe with malleable-iron fittings and threaded joints.
  - 2. Steel pipe with wrought-steel fittings and welded joints.
- C. Containment Conduit: Steel pipe with wrought-steel fittings and welded joints. Coat pipe and fittings with protective coating for steel piping.
- D. Containment Conduit Vent Piping: Steel pipe with malleable-iron fittings and threaded or wrought-steel fittings with welded joints. Coat underground pipe and fittings with protective coating for steel piping.

### 3.11 ABOVEGROUND MANUAL GAS SHUTOFF VALVE SCHEDULE

- A. Valves for pipe sizes NPS 2 (DN 50) and smaller at service meter shall be the following:
  - 1. One-piece, bronze ball valve with bronze trim.
  - 2. Two-piece, full-port, bronze ball valves with bronze trim.
  - 3. Bronze plug valve.
- B. Distribution piping valves for pipe sizes NPS 2 (DN 50) and smaller shall be the following:

1. One-piece, bronze ball valve with bronze trim.
2. Two-piece, full-port, bronze ball valves with bronze trim.
3. Bronze plug valve.

C. Valves in branch piping for single appliance shall be the following:

1. One-piece, bronze ball valve with bronze trim.
2. Two-piece, full-port, bronze ball valves with bronze trim.
3. Bronze plug valve.

END OF SECTION 231123

## SECTION 232213 - STEAM AND CONDENSATE HEATING PIPING

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following for MP steam (less than 75 psig (104 kPa)) and condensate piping:
  - 1. Pipe and fittings.
  - 2. Strainers.
  - 3. Safety valves.
  - 4. Pressure-reducing valves.
  - 5. Steam traps.
  - 6. Thermostatic air vents and vacuum breakers.

#### 1.2 PERFORMANCE REQUIREMENTS

- A. Components and installation shall be capable of withstanding the following minimum working pressures and temperatures:
  - 1. LP Steam Piping: 60 psig.
  - 2. Condensate Piping: 15 at 250 deg F (121 deg C).
  - 3. Makeup-Water Piping: 80 psig (552 kPa) 150 deg F (66 degC).
  - 4. Blowdown-Drain Piping: Equal to pressure of the piping system to which it is attached.
  - 5. Air-Vent and Vacuum-Breaker Piping: Equal to pressure of the piping system to which it is attached.
  - 6. Safety-Valve-Inlet and -Outlet Piping: Equal to pressure of the piping system to which it is attached.

#### 1.3 ACTION SUBMITTALS

- A. Product Data: For each type of the following:
  - 1. Pressure-reducing and safety valve.
  - 2. Steam trap.
  - 3. Air vent and vacuum breaker.
- B. Shop Drawings: Detail, 1/4 inch equals 1 foot (1:50) scale, fabrication of pipe anchors, hangers, pipe, multiple pipes, alignment guides, and expansion joints and loops and their attachment to the building structure. Detail locations of anchors, alignment guides, and expansion joints and loops.

#### 1.4 INFORMATIONAL SUBMITTALS

- A. Field quality-control test reports.

## 1.5 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

## 1.6 QUALITY ASSURANCE

- A. ASME Compliance: Comply with ASME B31.9, "Building Services Piping" for materials, products, and installation. Safety valves and pressure vessels shall bear the appropriate ASME label.

## PART 2 - PRODUCTS

### 2.1 COPPER TUBE AND FITTINGS

- A. Drawn-Temper Copper Tubing: ASTM B 88, Type L (ASTM B 88M, TypeB).
- B. Annealed-Temper Copper Tubing: ASTM B 88, Type L (ASTM B 88M, TypeB).
- C. Wrought-Copper Fittings and Unions: ASME B16.22.

### 2.2 STEEL PIPE AND FITTINGS

- A. Steel Pipe: ASTM A 53/A 53M, black steel, plain ends, Type, Grade, and Schedule as indicated in Part 3 piping applications articles.
- B. Cast-Iron Threaded Fittings: ASME B16.4; Classes 125, 150, and 300 as indicated in Part 3 piping applications articles.
- C. Malleable-Iron Threaded Fittings: ASME B16.3; Classes 150 and 300 as indicated in Part 3 piping applications articles.
- D. Malleable-Iron Unions: ASME B16.39; Classes 150, 250, and 300 as indicated in Part 3 piping applications articles.
- E. Cast-Iron Threaded Flanges and Flanged Fittings: ASME B16.1, Classes 125 and 250 as indicated in Part 3 piping applications articles; raised ground face, and bolt holes spotfaced.
- F. Stainless-Steel Bellows, Flexible Connectors:
  - 1. Body: Stainless-steel bellows with woven, flexible, bronze, wire-reinforced, protective jacket.
  - 2. End Connections: Threaded or flanged to match equipment connected.
  - 3. Performance: Capable of 3/4-inch (20-mm) misalignment.
  - 4. CWP Rating: 150 psig (1035 kPa).
  - 5. Maximum Operating Temperature: 250 deg F (121 deg C).

## 2.3 JOINING MATERIALS

- A. Pipe-Flange Gasket Materials: Suitable for chemical and thermal conditions of piping system contents.
  - 1. ASME B16.21, nonmetallic, flat, asbestos free, 1/8-inch (3.2-mm) maximum thickness unless thickness or specific material is indicated.
    - a. Full-Face Type: For flat-face, Class 125, cast-iron and cast-bronze flanges.
    - b. Narrow-Face Type: For raised-face, Class 250, cast-iron and steel flanges.
- B. Flange Bolts and Nuts: ASME B18.2.1, carbon steel, unless otherwise indicated.
- C. Solder Filler Metals: ASTM B 32, lead-free alloys. Include water-flushable flux according to ASTM B 813.
- D. Brazing Filler Metals: AWS A5.8, BCuP Series, copper-phosphorus alloys for joining copper with copper; or BAg-1, silver alloy for joining copper with bronze or steel.

## 2.4 DIELECTRIC FITTINGS

- A. Description: Combination fitting of copper alloy and ferrous materials with threaded, solder-joint, plain, or weld-neck end connections that match piping system materials.
- B. Insulating Material: Suitable for system fluid, pressure, and temperature.
- C. Dielectric Unions:
  - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
  - 2. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
    - a. Capitol Manufacturing Company.
    - b. Central Plastics Company.
    - c. Hart Industries, International Inc.
    - d. Watts Water Technologies, Inc.
    - e. Zurn Plumbing Products Group.
  - 3. Factory-fabricated union assembly, for 250-psig (1725-kPa) minimum working pressure at 180 deg F (82 deg C).

## 2.5 VALVES

- A. Gate, Globe, Check, Ball, and Butterfly Valves: Comply with requirements specified in Section 230523 "General-Duty Valves for HVAC Piping."
- B. Stop-Check Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Crane Co.
  - b. Jenkins Valves; a Crane Company.
  - c. Lunkenheimer Valves.
  - d. A.Y. McDonald Mfg. Co.
2. Body and Bonnet: Malleable iron.
3. End Connections: Flanged.
4. Disc: Cylindrical with removable liner and machined seat.
5. Stem: Brass alloy.
6. Operator: Outside screw and yoke with cast-iron handwheel.
7. Packing: Polytetrafluoroethylene-impregnated packing with two-piece packing gland assembly.
8. Pressure Class: 250.

## 2.6 STRAINERS

### A. Y-Pattern Strainers:

1. Body: ASTM A 126, Class B cast iron, with bolted cover and bottom drain connection.
2. End Connections: Threaded ends for strainers NPS 2 (DN 50) and smaller; flanged ends for strainers NPS 2-1/2 (DN 65) and larger.
3. Strainer Screen: Stainless-steel, 20 mesh strainer, and perforated stainless-steel basket with 50 percent free area.
4. Tapped blowoff plug.
5. CWP Rating: 250-psig (1725-kPa) working steam pressure.

## 2.7 SAFETY VALVES

### A. Bronze or Brass Safety Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Armstrong International, Inc.
  - b. Kunkle Valve; a Tyco International Ltd. Company.
  - c. Spirax Sarco, Inc.
  - d. Watts Water Technologies, Inc.
2. Disc Material: Forged copper alloy.
3. End Connections: Threaded inlet and outlet.
4. Spring: Fully enclosed steel spring with adjustable pressure range and positive shutoff, factory set and sealed.
5. Pressure Class: 250.
6. Drip-Pan Elbow: Cast iron and having threaded inlet and outlet with threads complying with ASME B1.20.1.

7. Size and Capacity: As required for equipment according to ASME Boiler and Pressure Vessel Code.

B. Cast-Iron Safety Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Armstrong International, Inc.
  - b. Kunkle Valve; a Tyco International Ltd. Company.
  - c. Spirax Sarco, Inc.
  - d. Watts Water Technologies, Inc.
2. Disc Material: Forged copper alloy with bronze nozzle.
3. End Connections: Raised-face flanged inlet and threaded or flanged outlet connections.
4. Spring: Fully enclosed cadmium-plated steel spring with adjustable pressure range and positive shutoff, factory set and sealed.
5. Pressure Class: 250.
6. Drip-Pan Elbow: Cast iron and having threaded inlet, outlet, and drain, with threads complying with ASME B1.20.1.
7. Exhaust Head: Cast iron and having threaded inlet and drain, with threads complying with ASME B1.20.1.
8. Size and Capacity: As required for equipment according to ASME Boiler and Pressure Vessel Code.

## 2.8 PRESSURE-REDUCING VALVES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  1. Armstrong International, Inc.
  2. Hoffman Specialty; Division of ITT Industries.
  3. Leslie Controls, Inc.
  4. Spence Engineering Company, Inc.
  5. Spirax Sarco, Inc.
- B. Size, Capacity, and Pressure Rating: Factory set for inlet and outlet pressures indicated.
- C. Description: Pilot-actuated, diaphragm type, with adjustable pressure range and positive shutoff.
- D. Body: Cast iron.
- E. End Connections: Threaded connections for valves NPS 2 (DN 50) and smaller and flanged connections for valves NPS 2-1/2 (DN 65) and larger.
- F. Trim: Hardened stainless steel.
- G. Head and Seat: Replaceable, main head stem guide fitted with flushing and pressure-arresting device cover over pilot diaphragm.



H. Gaskets: Non-asbestos materials.

## 2.9 STEAM TRAPS

### A. Thermostatic Traps:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Armstrong International, Inc.
  - b. Barnes & Jones, Inc.
  - c. Dunham-Bush, Inc.
  - d. Hoffman Specialty; Division of ITT Industries.
  - e. Spirax Sarco, Inc.
  - f. Sterling.
2. Body: Bronze angle-pattern body with integral union tailpiece and screw-in cap.
3. Trap Type: Balanced-pressure.
4. Bellows: Stainless steel or monel.
5. Head and Seat: Replaceable, hardened stainless steel.
6. Pressure Class: 125.

### B. Float and Thermostatic Traps:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Armstrong International, Inc.
  - b. Barnes & Jones, Inc.
  - c. Dunham-Bush, Inc.
  - d. Hoffman Specialty; Division of ITT Industries.
  - e. Spirax Sarco, Inc.
  - f. Sterling
2. Body and Bolted Cap: ASTM A 126, cast iron.
3. End Connections: Threaded.
4. Float Mechanism: Replaceable, stainless steel.
5. Head and Seat: Hardened stainless steel.
6. Trap Type: Balanced pressure.
7. Thermostatic Bellows: Stainless steel or monel.
8. Thermostatic air vent capable of withstanding 45 deg F (25 deg C) of superheat and resisting water hammer without sustaining damage.
9. Vacuum Breaker: Thermostatic with phosphor bronze bellows, and stainless steel cage, valve, and seat.
10. Maximum Operating Pressure: 125 psig (860 kPa).

## 2.10 THERMOSTATIC AIR VENTS AND VACUUMBREAKERS

### A. Thermostatic Air Vents:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Armstrong International, Inc.
  - b. Barnes & Jones, Inc.
  - c. Dunham-Bush, Inc.
  - d. Hoffman Specialty; Division of ITT Industries.
  - e. Spirax Sarco, Inc.
  - f. Sterling.
2. Body: Cast iron, bronze, or stainless steel.
3. End Connections: Threaded.
4. Float, Valve, and Seat: Stainless steel.
5. Thermostatic Element: Phosphor bronze bellows in a stainless-steel cage.
6. Pressure Rating: 125 psig (861 kPa).
7. Maximum Temperature Rating: 350 deg F (177 degC).

B. Vacuum Breakers:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  - a. Armstrong International, Inc.
  - b. Dunham-Bush, Inc.
  - c. Hoffman Specialty; Division of ITT Industries.
  - d. Johnson Corporation (The).
  - e. Spirax Sarco, Inc.
2. Body: Cast iron, bronze, or stainless steel.
3. End Connections: Threaded.
4. Sealing Ball, Retainer, Spring, and Screen: Stainless steel.
5. O-ring Seal: EPR.
6. Pressure Rating: 125 psig (861 kPa).
7. Maximum Temperature Rating: 350 deg F (177 degC).

## PART 3 - EXECUTION

### 3.1 MP STEAM PIPING APPLICATIONS

- A. MP Steam Piping: Schedule 40, Type S, Grade B, steel pipe; Class 125 cast-iron fittings; and threaded joints.
- B. Condensate Piping above Grade: Schedule 80, Type S, Grade B, steel pipe; Class 125 cast-iron fittings; and threaded joints.
- C. Condensate Piping below Grade: Schedule 80, Type S, Grade B, steel pipe; Class 125 cast-iron fittings; and threaded joints.

### 3.2 ANCILLARY PIPING APPLICATIONS

- A. Makeup-water piping installed above grade shall be either of the following:
  - 1. Drawn-temper copper tubing, wrought-copper fittings, and soldered joints.
- B. Makeup-Water Piping Installed below Grade and within Slabs: Annealed-temper copper tubing, wrought-copper fittings, and soldered joints. Use the fewest possible joints.
- C. Blowdown-Drain Piping: Same materials and joining methods as for piping specified for the service in which blowdown drain is installed.
- D. Air-Vent Piping:
  - 1. Inlet: Same as service where installed.
  - 2. Outlet: Type K (A) annealed-temper copper tubing with soldered or flared joints.
- E. Vacuum-Breaker Piping: Outlet, same as service where installed.
- F. Safety-Valve-Inlet and -Outlet Piping: Same materials and joining methods as for piping specified for the service in which safety valve is installed.

### 3.3 VALVE APPLICATIONS

- A. Install shutoff duty valves at branch connections to steam supply mains, at steam supply connections to equipment, and at the outlet of steam traps.
- B. Install safety valves on pressure-reducing stations and elsewhere as required by ASME Boiler and Pressure Vessel Code. Install safety-valve discharge piping, without valves, to nearest floor drain or as indicated on Drawings. Comply with ASME Boiler and Pressure Vessel Code: Section VIII, Division 1, for installation requirements.

### 3.4 PIPING INSTALLATION

- A. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Use indicated piping locations and arrangements if such were used to size pipe and calculate friction loss, expansion, and other design considerations. Install piping as indicated unless deviations to layout are approved on Coordination Drawings.
- B. Install piping in concealed locations, unless otherwise indicated and except in equipment rooms and service areas.
- C. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- D. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal.
- E. Install piping to permit valve servicing.

- F. Install piping free of sags and bends.
- G. Install fittings for changes in direction and branch connections.
- H. Install piping to allow application of insulation.
- I. Select system components with pressure rating equal to or greater than system operating pressure.
- J. Install groups of pipes parallel to each other, spaced to permit applying insulation and servicing of valves.
- K. Install drains, consisting of a tee fitting, NPS 3/4 (DN 20) full port-ball valve, and short NPS 3/4 (DN 20) threaded nipple with cap, at low points in piping system mains and elsewhere as required for system drainage.
- L. Install steam supply piping at a minimum uniform grade of 0.2 percent downward in direction of steam flow.
- M. Install condensate return piping at a minimum uniform grade of 0.4 percent downward in direction of condensate flow.
- N. Reduce pipe sizes using eccentric reducer fitting installed with level side down.
- O. Install branch connections to mains using tee fittings in main pipe, with the branch connected to top of main pipe.
- P. Install valves according to Section 230523 "General-Duty Valves for HVAC Piping."
- Q. Install unions in piping, NPS 2 (DN 50) and smaller, adjacent to valves, at final connections of equipment, and elsewhere as indicated.
- R. Install flanges in piping, NPS 2-1/2 (DN 65) and larger, at final connections of equipment and elsewhere as indicated.
- S. Install strainers on supply side of control valves, pressure-reducing valves, traps, and elsewhere as indicated. Install NPS 3/4 (DN 20) nipple and full port ball valve in blowdown connection of strainers NPS 2 (DN 50) and larger. Match size of strainer blowoff connection for strainers smaller than NPS 2 (DN 50).
- T. Install expansion loops, expansion joints, anchors, and pipe alignment guides as specified in Section 230516 "Expansion Fittings and Loops for HVAC Piping."
- U. Install drip legs at low points and natural drainage points such as ends of mains, bottoms of risers, and ahead of pressure regulators, and control valves.
  - 1. On straight runs with no natural drainage points, install drip legs at intervals not exceeding 50 feet (20 m).
  - 2. Size drip legs same size as main. In steam mains NPS 6 (DN 150) and larger, drip leg size can be reduced, but to no less than NPS 4 (DN 100).

### 3.5 STEAM-TRAP INSTALLATION

- A. Install steam traps in accessible locations as close as possible to connected equipment.
- B. Install full-port ball valve, strainer, and union upstream from trap; install union, check valve, and full-port ball valve downstream from trap unless otherwise indicated.

### 3.6 PRESSURE-REDUCING VALVE INSTALLATION

- A. Install pressure-reducing valves in accessible location for maintenance and inspection.
- B. Install bypass piping around pressure-reducing valves, with globe valve equal in size to area of pressure-reducing valve seat ring, unless otherwise indicated.
- C. Install gate valves on both sides of pressure-reducing valves.
- D. Install unions or flanges on both sides of pressure-reducing valves having threaded- or flanged-end connections respectively.
- E. Install pressure gages on low-pressure side of pressure-reducing valves after the bypass connection.
- F. Install strainers upstream for pressure-reducing valve.
- G. Install safety valve downstream from pressure-reducing valve station.

### 3.7 SAFETY VALVE INSTALLATION

- A. Install safety valves according to ASME B31.9, "Building Services Piping."
- B. Pipe safety-valve discharge without valves to atmosphere outside the building.
- C. Install drip-pan elbow fitting adjacent to safety valve and pipe drain connection to nearest floor drain.
- D. Install exhaust head with drain to waste, on vents equal to or larger than NPS 2-1/2 (DN 65).

### 3.8 HANGERS AND SUPPORTS

- A. Install hangers and supports according to Section 230529 "Hangers and Supports for HVAC Piping and Equipment." Comply with requirements below for maximum spacing.
- B. Install the following pipe attachments:
  - 1. Adjustable steel clevis hangers for individual horizontal piping less than 20 feet (6 m) long.
  - 2. Adjustable roller hangers and spring hangers for individual horizontal piping 20 feet (6 m) or longer.

3. Pipe Roller: MSS SP-58, Type 44 for multiple horizontal piping 20 feet (6 m) or longer, supported on a trapeze.
  4. Spring hangers to support vertical runs.
- C. Install hangers with the following maximum spacing and minimum rod sizes:
1. NPS 3/4 (DN 20): Maximum span, 9 feet (2.7 m); minimum rod size, 1/4 inch (6.4 mm).
  2. NPS 1 (DN 25): Maximum span, 9 feet (2.7 m); minimum rod size, 1/4 inch (6.4 mm).
  3. NPS 1-1/2 (DN 40): Maximum span, 12 feet (3.7 m); minimum rod size, 3/8 inch (10 mm).
  4. NPS 2 (DN 50): Maximum span, 13 feet (4 m); minimum rod size, 3/8 inch (10mm).
  5. NPS 2-1/2 (DN 65): Maximum span, 14 feet (4.3 m); minimum rod size, 3/8 inch (10 mm).
  6. NPS 3 (DN 80): Maximum span, 15 feet (4.6 m); minimum rod size, 3/8 inch (10 mm).
  7. NPS 4 (DN 100): Maximum span, 17 feet (5.2 m); minimum rod size, 1/2 inch (13 mm).
- D. Install hangers for drawn-temper copper piping with the following maximum spacing and minimum rod sizes:
1. NPS 1/2 (DN 15): Maximum span, 4 feet (1.2 m); minimum rod size, 1/4 inch (6.4 mm).
  2. NPS 3/4 (DN 20): Maximum span, 5 feet (1.5 m); minimum rod size, 1/4 inch (6.4 mm).
  3. NPS 1 (DN 25): Maximum span, 6 feet (1.8 m); minimum rod size, 1/4 inch (6.4 mm).
  4. NPS 1-1/2 (DN 40): Maximum span, 8 feet (2.4 m); minimum rod size, 3/8 inch (10 mm).
  5. NPS 2 (DN 50): Maximum span, 8 feet (2.4 m); minimum rod size, 3/8 inch (10mm).
  6. NPS 2-1/2 (DN 65): Maximum span, 9 feet (2.7 m); minimum rod size, 3/8 inch (10 mm).
  7. NPS 3 (DN 80): Maximum span, 10 feet (3 m); minimum rod size, 3/8 inch (10mm).
- E. Support vertical runs at roof, at each floor, and at 10-foot (3-m) intervals between floors.

### 3.9 PIPE JOINT CONSTRUCTION

- A. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- B. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- C. Soldered Joints: Apply ASTM B 813, water-flushable flux, unless otherwise indicated, to tube ends. Construct joints according to ASTM B 828 or CDA's "Copper Tube Handbook," using lead-free solder alloy complying with ASTM B 32.
- D. Brazed Joints: Construct joints according to AWS's "Brazing Handbook," Chapter "Pipe and Tube," using copper-phosphorus brazing filler metal complying with AWSA5.8.
- E. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:

1. Apply appropriate tape or thread compound to external pipe threads unless dry seal threading is specified.
  2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or openwelds.
- F. Flanged Joints: Select appropriate gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Use suitable lubricants on boltthreads.

### 3.10 TERMINAL EQUIPMENT CONNECTIONS

- A. Size for supply and return piping connections shall be the same as or larger than equipment connections.
- B. Install traps and control valves in accessible locations close to connected equipment.
- C. Install bypass piping with globe valve around control valve. If parallel control valves are installed, only one bypass is required.
- D. Install vacuum breakers downstream from control valve, close to coil inlet connection.
- E. Install a drip leg at coil outlet.

### 3.11 FIELD QUALITY CONTROL

- A. Prepare steam and condensate piping according to ASME B31.9, "Building Services Piping," and as follows:
  1. Leave joints, including welds, uninsulated and exposed for examination during test.
  2. Provide temporary restraints for expansion joints that cannot sustain reactions due to test pressure. If temporary restraints are impractical, isolate expansion joints from testing.
  3. Flush system with clean water. Clean strainers.
  4. Isolate equipment from piping. If a valve is used to isolate equipment, its closure shall be capable of sealing against test pressure without damage to valve. Install blinds in flanged joints to isolate equipment.
- B. Perform the following tests on steam and condensate piping:
  1. Use ambient temperature water as a testing medium unless there is risk of damage due to freezing. Another liquid that is safe for workers and compatible with piping may be used.
  2. Subject piping system to hydrostatic test pressure that is not less than 1.5 times the working pressure. Test pressure shall not exceed maximum pressure for any vessel, pump, valve, or other component in system under test. Verify that stress due to pressure at bottom of vertical runs does not exceed 90 percent of specified minimum yield strength.
  3. After hydrostatic test pressure has been applied for at least 10 minutes, examine piping, joints, and connections for leakage. Eliminate leaks by tightening, repairing, or replacing components, and repeat hydrostatic test until there are no leaks.

C. Prepare written report of testing.

END OF SECTION 232213



## SECTION 232223 - STEAM CONDENSATE PUMPS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. Section includes steam condensate pumps.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings: For each pump.
  - 1. Show pump layout and connections.
  - 2. Include setting drawings with templates for installing foundation and anchor bolts and other anchorages.
  - 3. Include diagrams for power, signal, and control wiring.

#### 1.3 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

### PART 2 - PRODUCTS

#### 2.1 TWO-STAGE, CENTRIFUGAL PUMPS WITH FLOOR-MOUNTED RECEIVER

- A. Manufacturers: Subject to compliance with requirements, provide products by the following:
  - 1. Bryan Steam, LLC.
  - 2. Skidmore Pump.
  - 3. Spirax-Sarco Inc.
  - 4. Sterling.
- B. Description: Factory-fabricated, packaged, electric-driven pumps; with receiver, pumps, controls, and accessories suitable for operation with steam condensate.
  - 1. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
  - 2. ASME Compliance: Fabricate and label steam condensate receivers to comply with ASME Boiler and Pressure Vessel Code: Section VIII, Division 1.
- C. Configuration: Duplex floor-mounted pumps with receiver and float switches; rated to pump minimum 210 deg F (99 deg C) steam condensate with a minimum of 2 feet (6 kPa) of NPSH.

D. Receiver:

1. Floor mounted.
2. Welded steel.
3. Externally adjustable float switches.
4. Flanges for pump mounting.
5. Water-level gage and dial thermometer.
6. Pressure gage at pump discharge.
7. Bronze gate valves between receiver and pump discharge.
8. Lifting eyebolts.
9. Inlet vent and an overflow.
10. Cast-iron inlet strainer with self-cleaning bronze screen, dirt pocket, and cleanout plug on receiver inlet.

E. Pumps:

1. Centrifugal, two-stage, close coupled.
2. Vertical design, permanently aligned, and bronze fitted.
3. Axial-flow first-stage bronze impeller.
4. Enclosed second-stage bronze impeller with replaceable bronze caserings.
5. Stainless-steel shafts.
6. Mechanical seals rated at 250 deg F (120 deg C).
7. Rated to operate with a minimum of 2 feet (6 kPa) of NPSH.
8. Mounted on receiver flanges.

F. Motor:

1. Comply with NEMA designation, temperature rating, service factor, and efficiency requirements for.
2. Enclosure: Totally enclosed, fan cooled.
3. Enclosure Materials: Cast iron or rolled steel.
4. Motor Bearings: Permanently lubricated ball bearings.

G. Control Panel:

1. Factory wired between pumps and float switches, for single external electrical connection.
2. Provide fused, control-power transformer if voltage exceeds 230 V ac.
3. NEMA Type 12 enclosure with hinged door and grounding lug, mounted on pump.
4. Motor controller for each pump.
5. Electrical pump alternator to operate pumps in lead-lag sequence and allow both pumps to operate on receiver high level.
6. Manual lead-lag control to override electrical pump alternator and manually select the lead pump.
7. Momentary-contact "TEST" push button on cover for each pump.
8. Numbered terminal strip.
9. Disconnect switch.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Install pumps according to HI 1.1-1.2, HI 1.3, and HI 1.4.
- B. Install pumps to provide access for periodic maintenance including removing motors, impellers, couplings, and accessories.
- C. Support pumps and piping separately so piping is not supported by pumps.
- D. Install thermometers and pressure gages.
- E. Equipment Mounting: Install pumps on cast-in-place concrete equipment bases.
  - 1. Coordinate sizes and locations of concrete bases with actual equipment provided.
  - 2. Construct bases to withstand, without damage to equipment, seismic force required by code.
  - 3. Construct concrete bases 4 inches (100 mm) high and extend base not less than 6 inches (150 mm) in all directions beyond the maximum dimensions of pumps unless otherwise indicated or unless required for seismic-anchor support.
  - 4. Minimum Compressive Strength: 4000 psi (27.6 MPa) at 28 days.

### 3.2 CONNECTIONS

- A. Comply with requirements for piping specified in Section 232213 "Steam and Condensate Heating Piping." Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Where installing piping adjacent to machine, allow space for service and maintenance.
- C. Install a globe and check valve and pressure gage before inlet of each pump and a gate and check valve at pump outlet.
- D. Pipe drain to nearest floor drain for overflow and drain piping connections.
- E. Install full-size vent piping to outdoors, terminating in 180-degree elbow at point above highest steam system connection or as indicated.
- F. Ground equipment according to Section 260526 "Grounding and Bonding for Electrical Systems."
- G. Connect wiring according to Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

END OF SECTION 232223

## SECTION 235233 - WATER-TUBE BOILERS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes packaged, factory-fabricated and -assembled, gas-fired, finned water-tube boilers, trim, and accessories for generating steam.

#### 1.2 ACTION SUBMITTALS

- A. Product Data: Include performance data, operating characteristics, furnished specialties, and accessories.
- B. Shop Drawings: For boilers, boiler trim, and accessories. Include plans, elevations, sections, details, and attachments to other work.
  - 1. Design calculations and vibration isolation base details, signed and sealed by a qualified professional engineer.
    - a. Design Calculations: Calculate requirements for selecting vibration isolators and seismic restraints and for designing vibration isolation bases.
    - b. Vibration Isolation Base Details: Detail fabrication including anchorages and attachments to structure and to supported equipment. Include auxiliary motor slides and rails and equipment mounting frames.
  - 2. Wiring Diagrams: Power, signal, and control wiring.

#### 1.3 INFORMATIONAL SUBMITTALS

- A. Source quality-control test reports.
- B. Field quality-control test reports.
- C. Warranty: Special warranty specified in this Section.

#### 1.4 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

## 1.5 REFERENCE STANDARDS

- A. ANSI Z21.13: Gas-Fired Low Pressure Steam and Hot Water Boilers
- B. ASME Boiler and Pressure Vessel Code: Section I, Power Boilers
- C. ASME CSD-1: Control Standard
- D. NFPA 31: Standard for the Installation of Oil-Burning Equipment
- E. NFPA 54 (AGA Z223.1): National Fuel Gas Code
- F. NFPA 58: Storage and Handling of Liquefied Petroleum Gases
- G. NFPA 70: National Electrical Code.
- H. Underwriters' Laboratories, Inc. (UL) Listed Products

## 1.6 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. ASME Compliance: Fabricate and label boilers to comply with ASME Boiler and Pressure Vessel Code.
- C. ASHRAE/IESNA 90.1 Compliance: Boilers shall have minimum efficiency according to "Gas and Oil Fired Boilers - Minimum Efficiency Requirements."
- D. DOE Compliance: Minimum efficiency shall comply with 10 CFR 430, Subpart B, Appendix N, "Uniform Test Method for Measuring the Energy Consumption of Furnaces and Boilers."
- E. I=B=R Compliance: Boilers shall be tested and rated according to HI's "Rating Procedure for Heating Boilers" and "Testing Standard for Commercial Boilers," with I=B=R emblem on a nameplate affixed to boiler.
- F. UL Compliance: Test boilers for compliance with UL 795, "Commercial-Industrial Gas Heating Equipment." Boilers shall be listed and labeled by a testing agency acceptable to authorities having jurisdiction.

## 1.7 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer agrees to repair or replace drums, tubes, headers, cabinets, atmospheric gas burners, and pressure vessels of boilers that fail in materials or workmanship within specified warranty period.
  - 1. Warranty Period for Drums, Tubes, Headers, Cabinets, and Atmospheric Gas Burner:  
Five years from date of Substantial Completion, prorata.

2. Warranty Period for Pressure Vessel: 20 years from date of Substantial Completion, for thermal shock.

## PART 2 - PRODUCTS

### 2.1 FLEXIBLE WATER-TUBE BOILERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
  1. Ajax Boiler Inc.
  2. Bryan Steam, LLC.
  3. Cleaver-Brooks; div. of Aqua-Chem, Inc.
  4. Parker Boiler Company.
- B. Description: Factory-fabricated and -assembled, water-tube boiler with heat exchanger sealed pressure tight, built on a steel base; including insulated jacket, flue-gas vent, supply and return connections, and controls.
- C. Heat-Exchanger Design: Bent steel tubes swaged or welded into steelheaders.
  1. Limit tube configurations to two.
  2. Accessible drain and blowdown tappings, both high and low, for surface and mud removal.
  3. Accessible inspection ports in drum, mud legs, and tubemanifolds.
  4. Lifting lugs on top of boiler.
  5. Built-in air separator.
- D. Combustion Chamber: Equipped with minimum 2-1/2-inch (64-mm), 2700 deg F (1482 deg C) poured refractory on floor and minimum 2-inch (50-mm) lap-jointed cast refractory with fiber-blanket joint seals on side walls. Combustion chamber shall have flame observation ports in front and or back.
- E. Casing:
  1. Insulation: Minimum 1-1/2 inch (38-mm) thick, mineral-fiber insulation surrounding the heat exchanger and combustion chamber.
  2. Top Flue Connection: Constructed of stainless steel.
  3. Jacket: Galvanized sheet metal, with screw-fastened closures and baked-enamel or powder-coated protective finish.
  4. Mounting base to secure boiler to concrete base.
  5. Control Compartment Enclosure: NEMA 250, Type 1A.
- F. Barometric Damper: Galvanized-steel assembly with flue-gas thermometer.
- G. Burner:
  1. Burner and Orifices: Stainless steel or cast iron for natural gas.

2. Gas Train: Control devices and full-modulation control sequence shall comply with requirements in ASME CSD-1 and UL.
3. Gas Train: Combination gas valve with manual shutoff, pressure regulator, and pilot adjustment.
4. Pilot: Standing pilot ignition with 100 percent main-valve and pilot-safety shutoff with electronic supervision of burner flame.

H. Trim:

1. Include devices sized to comply with ANSI B31.9, "Building Services Piping."
2. Aquastat Controllers: Operating, firing rate, and high limit.
3. Safety Relief Valve: ASME rated.
4. Pressure and Temperature Gage: Minimum 3-1/2-inch- (89-mm-) diameter, combination water-pressure and -temperature gage. Gages shall have operating-pressure and -temperature ranges so normal operating range is about 50 percent of full range.
5. Boiler Air Vent: Automatic.
6. Drain Valve: Minimum NPS 3/4 (DN 20) hose-end gate valve.

I. Controls:

1. Boiler operating controls shall include the following devices and features:
  - a. Control transformer.
  - b. Set-Point Adjust: Set points shall be adjustable.
  - c. Sequence of Operation: Electric, factory-fabricated and field-installed panel to control burner firing rate to maintain space temperature in response to thermostat with heat anticipator located in heated space.
  - d. Include automatic, alternating-firing sequence for multiple boilers to ensure maximum system efficiency throughout the load range and to provide equal runtime for boilers.
2. Burner Operating Controls: To maintain safe operating conditions, burner safety controls limit burner operation.
  - a. High Cutoff: Automatic reset stops burner if operating conditions rise above maximum boiler design temperature.
  - b. Low-Water Cutoff Switch: Electronic probe shall prevent burner operation on low water. Cutoff switch shall be manual-reset type.
  - c. Blocked Vent Safety Switch: Manual-reset switch factory mounted on draft diverter.
  - d. Rollout Safety Switch: Factory mounted on boiler combustion chamber.
  - e. Audible Alarm: Factory mounted on control panel with silence switch; shall sound alarm for above conditions.

## 2.2 ELECTRICAL POWER

- A. Controllers, Electrical Devices, and Wiring: Electrical devices and connections are specified in electrical Sections.

- B. Single-Point Field Power Connection: Factory-installed and -wired switches, motor controllers, transformers, and other electrical devices necessary shall provide a single-point field power connection to boiler.
  - 1. House in NEMA 250, Type 12 enclosure.
  - 2. Wiring shall be numbered and color-coded to match wiring diagram.
  - 3. Install factory wiring outside of an enclosure in a metal raceway.
  - 4. Field power interface shall be to circuit breaker.
  - 5. Provide branch power circuit to each motor and to controls with disconnect switch or circuit breaker.
  - 6. Provide each motor with overcurrent protection.

## 2.3 VENTING KITS

- A. Vent Damper: Motorized, UL listed for use on atmospheric burner boiler equipped with draft hood; motor to open and close damper; stainless-steel vent coupling and damper blade; keyed wiring harness connector plug; and dual-position switches to permit burner operation.
- B. Kit: Complete system, ASTM A 959, Type 29-4C stainless steel, pipe, vent terminal, thimble, indoor plate, vent adapter, condensate trap, and sealant.
- C. Combustion-Air Intake: Stainless steel, pipe, vent terminal with screen, inlet air coupling, and sealant.

## 2.4 SOURCE QUALITY CONTROL

- A. Test and inspect factory-assembled boilers, before shipping, according to ASME Boiler and Pressure Vessel Code.
- B. Burner and Hydrostatic Test: Factory adjust burner to eliminate excess oxygen, carbon dioxide, oxides of nitrogen emissions, and carbon monoxide in flue gas and to achieve combustion efficiency; perform hydrostatic test.

## PART 3 - EXECUTION

### 3.1 BOILER INSTALLATION

- A. Equipment Mounting: Install boilers using elastomeric pads.
- B. Install gas-fired boilers according to NFPA 54.
- C. Assemble and install boiler trim.
- D. Install electrical devices furnished with boiler but not specified to be factory mounted.
- E. Install control wiring to field-mounted electrical devices.



### 3.2 CONNECTIONS

- A. Piping installation requirements are specified in other Sections. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Install piping adjacent to boiler to allow service and maintenance.
- C. Connect gas piping to boiler gas-train inlet with union. Piping shall be at least full size of gas train connection. Provide a reducer if required.
- D. Connect hot-water piping to supply- and return-boiler tappings with shutoff valve and union or flange at each connection.
- E. Install piping from safety relief valves to nearest floor drain.
- F. Install piping from equipment drain connection to nearest floor drain. Piping shall be at least full size of connection. Provide an isolation valve if required.
- G. Boiler Flue Venting:
  - 1. Install venting kit and combustion-air intake.
  - 2. Connect full size to boiler connections
- H. Connect breeching to full size of boiler outlet. Comply with requirements in Section 235100 "Breechings, Chimneys, and Stacks" for venting materials.
- I. Install flue-gas recirculation duct from vent to burner. Comply with requirements in Section 235100 "Breechings, Chimneys, and Stacks" for recirculation duct materials.
- J. Ground equipment according to Section 260526 "Grounding and Bonding for Electrical Systems."
- K. Connect wiring according to Section 260519 "Low-Voltage Electrical Power Conductors and Cables."

### 3.3 FIELD QUALITY CONTROL

- A. Perform tests and inspections and prepare test reports.
  - 1. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect components, assemblies, and equipment installations, including connections, and to assist in testing.
- B. Tests and Inspections:
  - 1. Perform installation and startup checks according to manufacturer's written instructions.
  - 2. Leak Test: Hydrostatic test. Repair leaks and retest until no leaks exist.
  - 3. Operational Test: Start units to confirm proper motor rotation and unit operation. Adjust air-fuel ratio and combustion.
  - 4. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

- a. Check and adjust initial operating set points and high- and low-limit safety set points of fuel supply, water level, and watertemperature.
  - b. Set field-adjustable switches and circuit-breaker trip ranges as indicated.
- C. Remove and replace malfunctioning units and retest as specified above.
- D. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to two visits to Project during other than normal occupancy hours for this purpose.

### 3.4 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain boilers.

END OF SECTION 235233