



WINTERHAVEN WATER TREATMENT PLANT (WINTERHAVEN WATER AND SEWER IMPROVEMENTS)

Funded by:

**California Department of Housing and Community Development (HCD) through
its Community Development Block Grant (CDBG) Program**

Prepared by:



for

Imperial County Community & Economic Development Department
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**PROJECT MANUAL
AUGUST 2017**

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END OF SECTION

00100 ADVERTISEMENT FOR BIDS

County of Imperial
940 W. Main Street, Suite 203
El Centro, CA 92243

Separate sealed BIDS for the construction of the **Imperial County Community & Economic Development Department – Winterhaven Water and Sewer Upgrades** will be received by the **County of Imperial Clerk of the Board of Supervisors at 940 W. Main Street, Suite 209, El Centro, CA 92243** until **2:00 pm** (prevailing local time) on **Thursday November 2, 2017**, and then at said office **in the Board of Supervisors Chambers** will be publicly opened and read aloud.

The **PLANS, SPECIFICATIONS, AND CONTRACT DOCUMENTS** may be examined at the following locations:

Imperial County Community &
Economic Development Department
940 W. Main Street, Suite 203
El Centro, CA 92243
Phone: (442) 265-1100
Fax: (442) 265-1118

Copies of the **CONTRACT DOCUMENTS** may be obtained at the office of **Imperial County Community & Economic Development Department located at 940 W. Main Street, Suite 203, El Centro, CA 92243** upon the nonrefundable payment of **\$100.00** for each set.

A Mandatory Pre-Bid Conference for prospective **BIDDERS** will be held at the **Winterhaven County Water District**, located at **494 2nd Avenue, Winterhaven, CA 92283** at **10:00 am** (prevailing local time), on **Thursday, October 12, 2017**. To become a qualified Bidder, all contract documents shall be obtained from **Imperial County Community & Economic Development Department**. The contract documents can be purchased in the department's office or obtained from the departments website: www.imperialcountyced.com.

Bidders are notified that this construction project is financed by California Department of Housing and Community Development (HCD) through its Community Development Block Grant (CDBG) and is subject to the rules and regulations of the Housing and Community Development Act of 1974 and all amendments thereof. Neither the United States nor any departments, agencies, or employees is, or will be, a part of this Invitation for Bids or any resulting contract.

The Contractor and Subcontractors on this project must comply with HUD contract provisions 24 CFR part 85.36(i), the Federal Davis-Bacon and Related Acts, California Department of Regulations Wage Determinations and California Labor Codes pertaining to Public Works projects, Nondiscrimination, Equal Employment Opportunity, Affirmative Action, Section 3 requirements, Anti-Kickback Act, and Federal Occupational Safety and Health Act as set for the in the Contract Bid Documents. This municipality is an equal employment opportunity employer, businesses owned by women or minorities are strongly encouraged to bid.

The female and minority goals are applicable to the contractor's aggregate onsite construction work force whether or not part of that work force is performing work on a federal or federally assisted construction contract or subcontract as follows:

Time- tables	Goals for female participation in each trade
From December 30, 1980, until further notice	6.9%

Time- tables	Goals for minority participation for each trade
From November 3, 1980, until further notice	16.2% - Imperial County – Non SMSA Counties

	16.9% - San Diego County – SMSA Counties
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Until further notice, the above goals for minority utilization in each construction craft and trade shall be included in all Federal or Federally assisted construction contracts and subcontracts in excess of \$10,000 to be performed in the respective geographical areas. The goals are applicable to each nonexempt contractor's total on-site construction work force, regardless of whether or not part of that work force is performing work on a Federal, Federally assisted, or non-Federally related project, contract, or subcontract.

The contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations and relevant orders of the Secretary of Labor.

In projects involving construction where federal funding exceeds \$200,000 and any individual contract or subcontract exceeds \$100,000, the Contractor shall have incorporated into their contract the Section 3 clause and comply with the provisions of Section 3 of the Housing and Urban Development Act of 1968, as amended (12 U.S.C. 1701u), and regulations at 24 CFR Part 135.

The Contract executed between the General Contractor and the Awarding agency and the General Contractor and any subcontractor at any tier, for the performance of work on the public works project shall contain the complete verbiage as found in the contract between the Imperial County and the General Contractor including at a minimum a copy of the provisions of California Labor Codes, Sections 1726, 1771, 1775, 1776, 1777.5, 1813, and 1815.

Notice is hereby given that, pursuant to 1773 of the Labor Code of the State of California, the Owner has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holidays and overtime work for each craft, classification, or type of worker required to execute the Contract. A copy of said prevailing rate of per diem wages is on file in the principal office of the Owner, to which reference is hereby made for further particulars. Said prevailing rate of per diem wages will be made available to any interested party upon request, and a copy thereof shall be posted at each site.

In order to comply with HUD Section 3 requirements set forth in 24 CFR 135 of the Code of Federal Regulations, Section 3 Business Concerns are solicited to bid on this contract as prime contractors and are encouraged to make inquiries regarding potential subcontracting opportunities to Section 3 Business Concerns.”

Prospective Bidders shall be licensed Contractors in the State of California and shall be skilled and regularly engaged in the general class or type of work called for under the Contract. Each Bidder shall have a Class A or B California Contractor’s license.

(Date)

Blanca Acosta, Clerk of the Board of Supervisors
Imperial County, California

SPECIAL NOTICE

Pursuant to the requirements of Senate Bill 854 and California Labor Code section 1725.5, all contractors and subcontractors that wish to engage in public work through a public works contract must first register with the Department of Industrial Relation and pay all applicable fees.

Beginning March 1, 2015, no contractor or subcontractor may be listed on a bid proposal for a public works project unless registered with the Department of Industrial Relations, pursuant to Labor Code section 1725.5 (with limited exceptions from this requirement for bid purposes only under Labor Code section 1771.1(a)).

Beginning April 1, 2015, no contractor or subcontractor may be awarded a contract for public work on a public works project unless registered with the Department of Industrial Relations, pursuant to Labor Code section 1725.5

This Project is subject to compliance monitoring and enforcement by the Department of Industrial Relations.

For more information concerning Senate Bill 854 compliance, please visit: <http://www.dir.ca.gov/Public-Works/SB854.html>.

00200 INSTRUCTIONS TO BIDDERS

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ARTICLE 1 - DEFINED TERMS

1.01 Terms used in these Instructions to Bidders will have the meanings indicated in the General Conditions and Supplementary Conditions. Additional terms used in these Instructions to Bidders have the meanings indicated below:

- A. Issuing Office - The office from which the Bidding Documents are to be issued and where the bidding procedures are to be administered: **Imperial County Community & Economic Development Department, 940 W. Main Street, Suite 203, El Centro, CA 92243, P: (442) 265-1100, F: (442) 265-1118.**

ARTICLE 2 - COPIES OF BIDDING DOCUMENTS

- 2.01 Complete sets of the Bidding Documents in the number and for the payment, of **one hundred dollars (\$100.00)** may be obtained from the Issuing Office. **The payment is nonrefundable.**
- 2.02 Complete sets of Bidding Documents must be obtained from *County of Imperial* pursuant to the preparation of Bids. Neither the Owner nor the Engineer assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

- 2.03 The Owner and the Engineer in making copies of Bidding Documents available on the above terms do so only for the purpose of obtaining Bids for the Work and do not confer a license or grant for any other use.

ARTICLE 3 - QUALIFICATIONS OF BIDDERS

- 3.01 To demonstrate Bidder's qualifications to perform the Work, within **five (5) days** of the Owner's request, the Bidder shall submit written evidence such as financial data, previous experience, present commitments, and such other data as may be called for below. The bidder certifies that all statements and information are true and accurate.

ARTICLE 4 - EXAMINATION OF BIDDING DOCUMENTS, OTHER RELATED DATA, AND SITE

4.01 Subsurface and Physical Conditions

A. The Supplementary Conditions identify:

1. Those drawings of physical conditions in or relating to existing surface and subsurface structures at or contiguous to the Site (except Underground Facilities) that the Engineer has used in preparing the Bidding Documents.
- B. Copies of reports and drawings referenced in Paragraph 4.01.A will be made available by the Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which Bidder is entitled to rely as provided in Paragraph 4.02 of the General Conditions has been identified and established in paragraph 4.02 of the Supplementary Conditions. The Bidder is responsible for any interpretation or conclusion that the Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports as shown or indicated on such drawings.

4.02 Underground Facilities

- A. Information and data shown or indicated in the Bidding Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to the Owner and the Engineer by the Owners of such Underground Facilities, including the Owner, or others.

4.03 Hazardous Environmental Condition

- A. The Supplementary Conditions identify those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that the Engineer has used in preparing the Bidding Documents.
- B. Copies of reports and drawings referenced in Paragraph 4.03.A will be made available by the Owner to any Bidder on request. Those reports and drawings are not part of the Contract Documents, but the "technical data" contained therein upon which the Bidder is entitled to rely as provided in Paragraph 4.06 of the General Conditions has been identified and established in Paragraph 4.06 of the Supplementary Conditions. The Bidder is responsible for any interpretation or conclusion that the Bidder draws from any "technical data" or any other data, interpretations, opinions, or information contained in such reports as shown or indicated on such drawings.

- 4.04 Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to subsurface conditions, other physical conditions and Underground Facilities, and possible changes in the Bidding Documents due to differing or unanticipated conditions appear in Paragraphs 4.02, 4.03, and 4.04 of the General Conditions. Provisions concerning responsibilities for the adequacy of data furnished to prospective Bidders with respect to a Hazardous Environmental Condition at the Site, if any, and possible changes in the Contract Documents due to any Hazardous Environmental Condition uncovered or revealed at

the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the Scope of the Work appear in Paragraph 4.06 of the General Conditions.

- 4.05 On request, the Owner will provide the Bidder access to the Site to conduct such examinations, investigations, explorations, tests, and studies as the Bidder deems necessary for submission of a Bid. Bidder shall fill all holes and clean up and restore the Site to its former condition upon completion of such explorations, investigations, tests, and studies. The Bidder shall comply with all applicable Laws and Regulations relative to excavation and utility locates.
- 4.06 It is responsibility of each Bidder before submitting a Bid to:
- A. Examine and carefully study the Bidding Documents, the other related data identified in the Bidding Documents, and any Addenda;
 - B. Visit the Site and become familiar with and satisfy the Bidder as to the general, local, and site conditions that may affect cost, progress, and performance of the Work;
 - C. Become familiar with and satisfy the Bidder as to all Federal, State, and Local Laws and Regulations that may affect cost, progress, or performance of the Work;
 - D. Carefully study all: (1) reports of explorations and tests of subsurface conditions at or contiguous to the Site and all drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) which have been identified in the Supplementary Conditions as provided in Paragraph 4.02 of the General Conditions, and (2) reports and drawings of Hazardous Environmental Conditions at the Site which have been identified in the Supplementary Conditions as provided in paragraph 4.06 of the General Conditions;
 - E. Obtain and carefully study (or accept consequences for not doing so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (surface, subsurface, and Underground Facilities) at or contiguous to the Site which may affect cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder, including applying any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto;
 - F. Agree at the time of submitting its Bid that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for the performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents;
 - G. Become aware of the general nature of the work to be performed by the Owner and others at the Site that relates to the Work as indicated in the Bidding Documents;
 - H. Correlate the information known to the Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents;
 - I. Promptly give the Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that the Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by the Engineer is acceptable to the Bidder; and
 - J. Determine that the Bidding Documents are generally sufficient to indicate and convey an understanding of all terms and conditions for the performance of the Work.
- 4.08 The submission of a Bid will constitute an incontrovertible representation by the Bidder that the Bidder has complied with every requirement of this Article 4, that without exception the Bid is premised upon

performing and furnishing the Work required by the Bidding Documents and applying any specific means, methods, techniques, sequences, and procedures of construction that may be shown or indicated or expressly required by the Bidding Documents, that the Bidder has given the Engineer written notice of all conflicts, errors, ambiguities, and discrepancies that the Bidder has discovered in Bidding Documents and the written resolutions thereof by the Engineer are acceptable to the Bidder, and that the Bidding Documents are generally sufficient to indicate and convey an understanding of all terms and conditions for performing and furnishing the Work.

ARTICLE 5 - PRE-BID CONFERENCE

5.01 A **Mandatory Pre-Bid Conference** will be held at **10:00 am on Thursday, October 12, 2017**, at the **Winterhaven County Water District**, located at **494 2nd Avenue, Winterhaven, CA 92283**. Representatives of the Owner and the Engineer will be present to discuss the Project. Attendance is mandatory. A site visit will immediately follow. The Engineer will transmit to all prospective Bidders of record such Addenda as the Engineer considers necessary in response to questions arising at the conference. Oral statements may not be relied upon and will not be binding or legally effective.

ARTICLE 6 - SITE AND OTHER AREAS

6.01 The Site is identified in the Bidding Documents. Easements for permanent structures or permanent changes in existing facilities are to be obtained and paid for by the Owner unless otherwise provided in the Bidding Documents. All additional lands and access thereto required for temporary construction facilities, construction equipment, or storage of materials and equipment to be incorporated in the Work are to be obtained and paid for by the Contractor.

ARTICLE 7 - INTERPRETATIONS AND ADDENDA

7.01 All questions about the meaning or intent of the Bidding Documents are to be submitted to the Owner in writing. Interpretations or clarifications considered necessary by the Engineer in response to such questions will be issued by Addenda mailed or delivered to all parties recorded by the Owner as having received the Bidding Documents. Questions must be submitted in writing by October 16, 2017 at 5:00 pm. Only questions answered by Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

7.02 Addenda may be issued to clarify, correct, or change the Bidding Documents as deemed advisable by the Owner or the Engineer.

ARTICLE 8 - BID SECURITY

8.01 A Bid must be accompanied by a Bid Security made payable to the Owner in an amount of **ten percent (10%)** of Bidder's maximum Bid price and in the form of a certified check or a Bid Bond (EJCDC No. C-430, 2002 Edition) issued by a surety meeting the requirements of Paragraphs 5.01 and 5.02 of the General Conditions.

8.02 The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Contract Documents, furnished the required contract security and met the other conditions of the Notice of Award, whereupon the Bid Security will be returned. If the Successful Bidder fails to execute and deliver the Contract Documents and furnish the required contract security within **fifteen (15) days** after the Notice of Award, the Owner may annul the Notice of Award and the Bid Security of that Bidder will be forfeited. The Bid security of other Bidders whom the Owner believes to have a reasonable chance of receiving the award may be retained by the Owner until the earlier of **seven (7) days** after the Effective Date of the Agreement or

sixty-one (61) days after the Bid Opening, whereupon the Bid Security furnished by such Bidders will be returned.

- 8.03 The Bid Security of other Bidders whom the Owner believes do not have a reasonable chance of receiving the award will be returned within **seven (7) days** after the Bid Opening.

ARTICLE 9 - CONTRACT TIMES

- 9.01 The number of days within which, or the dates by which, the Work is to be substantially completed and ready for final payment are set forth in the Agreement.

ARTICLE 10 -LIQUIDATED DAMAGES

- 10.01 Provisions for liquidated damages are set forth in the Agreement.

ARTICLE 11 - SUBSTITUTE AND “OR-EQUAL” ITEMS

- 11.01 The Contract, if awarded, will be on the basis of materials and equipment specified or described in the Bidding Documents, or those substitute materials and equipment approved by the Engineer and identified by Addendum. The materials and equipment described in the Bidding Documents establish a standard of required type, function and quality to be met by any proposed substitute or “or-equal” item.

Whenever specifications for any material, product, thing, service, or process is indicated or specified by grade, patent or propriety name or by name of manufacturer, such specifications shall be deemed to be used for the purpose of facilitating the description of material, product, thing, service, or process desired, and shall be deemed to be followed by the words “or equal”, and Contractor may, unless otherwise stated, offer any material, product, thing, service or process which shall be equal or better in every respect to that so indicated or specified. If the material, product, thing, service, or process offered by Contractor is not, in the opinion of COUNTY and Architect/Engineer, equal or better in every respect to that specified, then Contractor shall furnish the material, product, thing, service, or process specified. The burden of proof as to equality of any material, product, thing, service, or process shall rest with Contractor. Contractor shall only be authorized to substitute any designated material, product, thing, service or process required under this contract if such request, together with substantiating data for substitution of an “or equal” item is timely submitted in accordance with the construction period and approval thereof is authorized in writing by COUNTY within the time frame set forth under Public Contract Code section 4104.5(a). Notwithstanding, in the event CONTRACTOR discovers after the stated substitution request filing deadline that a designated material, product, thing, service or process is no longer available and/or the use of the same is necessary to complete the project, CONTRACTOR may within thirty-five (35) days after award of the contract submit a “late substitution request”, together with substantiating data for substitution of an “or equal” item for COUNTY’s review and consideration. However, COUNTY shall have the sole discretion in granting such a late substitution request and shall not be required to accept the same even if the material, product, thing, service or process is equal or better in every respect.

It should be emphasized that a Contractor’s request to substitute an “equal” material, product, thing or service for one designated in the contract specifications and/or COUNTY’s subsequent written approval thereof, shall not in any way authorize an extension of time for performance of this contract. Moreover, in event Contractor furnishes a material, product, thing or service that is more expensive than that specified, the difference in cost of such material, product, thing, service or process, so furnished shall be borne solely by Contractor.

Each request shall conform to the requirements of Paragraph 6.05 of the General Conditions. The burden of proof of the merit of the proposed item is upon the Bidder. The Engineer’s decision of approval or disapproval of a proposed item will be final. If the Engineer approves any proposed substitute item, such

approval will be set forth in an Addendum issued to all prospective Bidders. Bidders shall not rely upon approvals made in any other manner.

ARTICLE 12 - SUBCONTRACTORS, SUPPLIERS, AND OTHERS

- 12.01 If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, individuals, or entities to be submitted to the Owner in advance of a specified date prior to the Effective Date of the Agreement, the apparent Successful Bidder, and any other Bidder so requested, shall within **five (5) days** after the Bid Opening, submit to the Owner a list of all such Subcontractors, Suppliers, individuals, or entities proposed for those portions of the Work for which such identification is required. Such list shall be accompanied by an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, individual, or entity if requested by the Owner. If the Owner or the Engineer, after due investigation, has reasonable objection to any proposed Subcontractor, Supplier, individual, or entity, the Owner may, before the Notice of Award is given, request apparent Successful Bidder to submit a substitute, without an increase in the Bid.
- 12.02 If the apparent Successful Bidder declines to make any such substitution, the Owner may award the Contract to the next lowest responsible Bidder that proposes to use acceptable Subcontractors, Suppliers, individuals, or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid Security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which the Owner and the Engineer makes no written objection prior to the giving of the Notice of Award will be deemed acceptable to the Owner and the Engineer subject to revocation of such acceptance after the Effective Date of the Agreement as provided in Paragraph 6.06 of the General Conditions.
- 12.03 The Contractor shall not be required to employ any Subcontractor, Supplier, individual, or entity against whom the Contractor has reasonable objection.
- 12.04 The Contractor shall not award work to Subcontractor(s) in excess of the limits stated in Supplement Conditions 6.06.

ARTICLE 13 - PREPARATION OF BID

- 13.01 The Bid Form is included with the Bidding Documents. Additional copies may be obtained from Engineer.
- 13.02 All blanks on the Bid form shall be completed by printing in ink or by typewriter and the Bid shall be signed in ink. Erasures or alterations shall be initialed in ink by the person signing the Bid Form. A Bid price shall be indicated for each, *Bid Item, Deductive Alternate, and Unit Price Item* listed therein, or the words “No Bid”, “No Change” or “Not Applicable”.
- 13.03 A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the secretary or an assistant secretary. The corporation business address and state of incorporation shall be provided on the Bid Form.
- 13.04 A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The business address of the partnership shall be provided on the Bid Form.
- 13.05 A Bid by a limited liability company shall be executed in the name of the firm by a member and accompanied by evidence of authority to sign. The state of formation of the firm and the business address of the firm must be provided on the Bid Form.
- 13.06 A Bid by an individual shall show the Bidder’s name and business address.

- 13.07 A Bid by a joint venture shall be executed by each joint venture in the manner indicated on the Bid form. The business address of the joint venture must be provided on the Bid Form.
- 13.08 All names shall be typed or printed in ink below the signatures.
- 13.09 The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers and dates of which shall be filled in on the Bid form.
- 13.10 The address and telephone number and email address for communication regarding the Bid shall be shown.
- 13.11 The Bid shall contain evidence of the Bidder's authority and qualification to do business in the State of California. Bidder's state contractor license number for the state of the Project shall also be shown on the Bid Form. Bidders shall possess a valid State of California Contractors "A" or "B" License at the day and time of the opening of proposals. The license shall be valid during the contract period.

ARTICLE 14 - BASIS OF BID; COMPARISON OF BIDS

14.01 Unit Price

- A. Bidders shall submit a Bid on a unit price basis for each item of Work listed in the Schedule of Values.
- B. The total of all bid prices will be the sum of the products of the estimated quantity of each item and the corresponding unit price. The Final Quantities and Contract Price will be determined in accordance with Paragraph 11.03 of the General Conditions.
- C. Discrepancies between the multiplication of units of Work and unit prices will be resolved in the favor of the unit prices. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum. Discrepancies between words and figures will be resolved in favor of the words.

ARTICLE 15 - SUBMITTAL OF BID

- 15.01 With each copy of the Bidding Documents, a Bidder is furnished one (1) separate unbound copy of the Bid Form, and the Bid Bond Form. The unbound copy of the Bid Form is to be completed and submitted with all the attachments outlined in Article 7 of the Bid Form.
- 15.02 A Bid shall be submitted no later than the date and time prescribed and at the place indicated in the Advertisement or Invitation to Bid and shall be enclosed in an opaque sealed envelope plainly marked with the Project title (and, if applicable, the designated portion of the Project for which the Bid is submitted), the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate envelope plainly marked on the outside with the notation "BID ENCLOSED." A mailed Bid shall be addressed to Owner at the address in Article 1.01 of the Bid Form.

Project Title: Imperial County Community & Economic Development Department – Winterhaven Water and Sewer Improvements

Owner's Address: 940 W. Main Street, Suite 203, El Centro, CA 92243

ARTICLE 16 - MODIFICATION OR WITHDRAWAL OF BID

- 16.01 A Bid may be modified or withdrawn by an appropriate document duly executed in the manner that a Bid must be executed and delivered to the place where Bids are to be submitted prior to the date and time for the opening of Bids.
- 16.02 If within **twenty-four (24) hours** after Bids are opened any Bidder files a duly signed written notice with the Owner and promptly thereafter demonstrates to the reasonable satisfaction of the Owner that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid, and the Bid Security will be returned. Thereafter, if the Work is rebid or negotiated, that Bidder will be disqualified from further bidding on the Work. This provision to withdraw a Bid without forfeiting the Bid Security does not apply to Bidder's errors in judgment in preparing the Bid.

ARTICLE 17 - OPENING OF BIDS

- 17.01 The Bids will be opened at the time and place indicated in the Advertisement for Bids and, unless obviously non-responsive, read aloud publicly. An abstract of the amounts of the Bids and Deductive Alternates will be made available to the Bidders after the opening of the Bids.

ARTICLE 18 - BIDS TO REMAIN SUBJECT TO ACCEPTANCE

- 18.01 All Bids will remain subject to acceptance for the period of time stated in the Bid Form.

ARTICLE 19 - EVALUATION OF BIDS AND AWARD OF CONTRACT

- 19.01 The Owner reserves the right to reject any or all Bids, including without limitation, nonconforming, nonresponsive, unbalanced, or conditional Bids. The Owner further reserves the right to reject the Bid of any Bidder whom it finds, after reasonable inquiry and evaluation, to not be responsible. The Owner may also reject the Bid of any Bidder if the Owner believes that it would not be in the best interest of the Project to make an award to that Bidder. The Owner also reserves the right to waive all informalities not involving price, time, or changes in the Work and to negotiate contract terms with the Successful Bidder.
- 19.02 More than one Bid for the same Work from an individual or entity under the same or different names will not be considered. Reasonable grounds for believing that any Bidder has an interest in more than one (1) Bid for the Work may be cause for disqualification of that Bidder and the rejection of all Bids in which that Bidder has an interest.
- 19.03 In evaluating the Bids, the Owner will consider whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Award.
- 19.04 In evaluating Bidders, the Owner will consider the qualifications of Bidders and may consider the qualifications and experience of Subcontractors, Suppliers, and other individuals or entities proposed for those portions of the Work for which the identity of Subcontractors, Suppliers, and other individuals or entities must be submitted as provided in the Supplementary Conditions.
- 19.05 The Owner may conduct such investigations as the Owner deems necessary to establish the responsibility, qualifications, and financial ability of Bidders, proposed Subcontractors, Suppliers, individuals, or entities to perform the Work in accordance with the Contract Documents.
- 19.06 If the Contract is to be awarded, the Owner will award the Contract to the responsible Bidder who's Bid, conforming with all the material terms and conditions of the Instructions to Bidders, is lowest, price and other factors considered. **The Award shall be made to the lowest responsive, responsible Bidder. The lowest responsive, responsible Bidder shall be determined by: (1) lowest overall cost to the owner, (2)**

evaluation of Bidder’s experience and, (3) a Bidder’s proposal that complies with all of the requirements prescribed in this document.

ARTICLE 20 - CONTRACT SECURITY AND INSURANCE

20.01 Article 5 of the General Conditions, as may be modified by the Supplementary Conditions, sets forth the Owner’s requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the executed Agreement to the Owner, it must be accompanied by such bonds.

ARTICLE 21 - SIGNING OF AGREEMENT

21.01 When Owner gives a Notice of Award to the Successful Bidder, it shall be accompanied by the required number of unsigned counterparts of the Agreement with the other Contract Documents which are identified in the Agreement as attached thereto. Within **fifteen (15) days** thereafter, Successful Bidder shall sign and deliver the required number of counterparts of the Agreement and attached documents to Owner. **Within ten (10) days thereafter, the Owner shall deliver one (1) fully signed counterpart to the Successful Bidder with five (5) complete sets of the “Issued for Construction” Drawings with appropriate identification.**

21.02 This Contract will be funded by the California Department of Housing and Community Development (HCD) through its CDBG Program. Refer to Article 18 of the General Conditions for information on the Federal Requirements.

21.03 Concurrence by CDBG and the County of Imperial in the award of the Contract is required before the Contract is effective.

ARTICLE 22 - SALES AND USE TAXES

22.01 Contractor shall pay all sales, use and other taxes as specified in Paragraph 6.10 of the General Conditions.

ARTICLE 23- WORKERS’ COMPENSATION REQUIREMENTS

23.01 As required by Section 1860 of the California Labor Code and in accordance with the provisions of Section 3700 of the Labor Code, every Contractor will be required to secure the payment of workers’ compensation to its employees.

23.02 In accordance with Section 1861 of the California Labor Code, the Contractor shall furnish the Owner with a statement as follows: “I am aware of the provisions of 3700 of the Labor Code which requires every employer to be insured against liability for worker’s compensation or to undertake self-insurance in accordance with the provisions of that code, and I will comply with such provisions before commencing the performance of the work of this contract.”

23.03 Notice is hereby given that, pursuant to 1773 of the Labor Code of the State of California, the Owner has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holidays and overtime work for each craft, classification, or type of worker required to execute the Contract. A copy of said prevailing rate of per diem wages is on file in the principal office of the Owner, to which reference is hereby made for further particulars. Said prevailing rate of per diem wages will be made available to any interested party upon request, and a copy thereof shall be posted at each site.

ARTICLE 24 – SUBCONTRACTOR LISTING LAW

- 24.01 In accordance with Section 4104 of the California Public Contract Code, each Bidder, in his or her Bid, shall set forth the name and the location of the place of business of each Subcontractor who will perform Work or labor or render service to the prime Contractor in or about the construction of the Work or improvement, or a Subcontractor licensed by the State of California who, under subcontract to the prime contractor, specially fabricates and installs a portion of the work or improvement according to detailed drawings contained in the plans and specifications, in an amount in excess of one-half of one percent of the prime contractor's total bid.
- 24.02 In accordance with Section 4107 of the California Public Contract Code, no Contractor whose Bid is accepted shall without consent of the OWNER either: (a) substitute a person as a Subcontractor in place of the Subcontractor listed in the original Bid; or (b) permit a subcontract to be voluntarily assigned or transferred or allow it to be performed by anyone other than the original Subcontractor listed in the original Bid; or (c) sublet or subcontract any portion of the Work in excess of one-half of one percent of the prime Contractor's total Bid as to which his or her original Bid did not designate a Subcontractor.
- 24.03 Penalties for failure to comply with the foregoing sections of the California Public Contract Code are set forth in Sections 4106, 4110, and 4111 of the Public Contract Code. A prime contractor violating this law violates his or her contract and the awarding authority may exercise the option, in its own discretion, of (1) canceling his or her contract or (2) assessing the prime contractor a penalty in an amount of not more than **ten percent (10%)** of the amount of the subcontract involved, and this penalty shall be deposited in the fund out of which the prime contract is awarded. In any proceedings under this section the prime contractor shall be entitled to a public hearing and to **five (5) day's** notice of the time and place thereof.

ARTICLE 25 – FUNDING REQUIREMENTS

- 25.01 Bidders are to base their bids on the project funding being provided in whole or in part by the California Department of Housing and Community Development (HCD) through its Community Development Block Grant (CDBG) which will review and approve the contract award, contract agreement, partial and final payments, and contract change orders.
- 25.02 Payment and retainage will comply with the contract agreement section 6.02 "Progress Payments; Retainage." Bidders are notified that this contract does not permit retainage to be placed in escrow nor to be invested for the benefit of the contractor.
- 25.03 Intentionally left blank
- 25.04 Bidders are notified of the requirement for affirmative action to ensure equal employment opportunity (Executive Order No. 11246) as set forth in the Equal Opportunity Requirements found in paragraph 18.10 of the General Conditions.

ARTICLE 26 – SUBSTITUTION OF SECURITY

- 26.01 Upon Contractor's request, COUNTY will make payment of funds withheld from progress payments to ensure performance under the contract pursuant to the requirements of California Public Contracts Code, section 22300, if the Contractor deposits in escrow with COUNTY, or with a bank acceptable to COUNTY, securities eligible for investment under Government Code section 16430 or bank savings and loan certifications of deposit, subject to the following conditions:
- a) Contractor shall bear the expense of COUNTY and the escrow agent, and COUNTY and the bank, in connection with the escrow deposit made.

- b) Securities or certificates of deposit to be placed in escrow shall be of a value at least equivalent to the amount of retention to be paid to the Contractor pursuant to this Article.
- c) Contractor shall enter into an escrow agreement satisfactory to COUNTY, which agreement shall include provisions governing, inter alia:
 - 1) the amount of securities to be deposited,
 - 2) the providing of powers of attorney or other documents necessary for the transfer of the securities to be deposited,
 - 3) conversion of cash to provide funds to meet defaults by Contractor including, but not limited to, termination of Contractor’s control over the work, stop notice filed pursuant to law or other amounts to be kept or retained under the provisions of the contract,
 - 4) decrease in value of securities on deposit,
 - 5) the termination of the escrow upon completion of the contract.
- d) Contractor shall obtain the written consent of the surety to such agreement.

ARTICLE 27 – INSURANCE COVERAGES

(a) Contractor hereby agrees at its own cost and expense to procure and maintain, during the entire term of this Agreement and any extended term therefore, insurance in a sum acceptable to COUNTY and adequate to cover potential liabilities arising in connection with the performance of this Agreement and in any event not less than the minimum limit set forth as follows:

<u>INSURANCE</u>	<u>MINIMUM LIMIT</u>
<u>Worker’s Compensation, Coverage A</u>	Statutory
<u>Employers Liability, Coverage B</u>	\$1,000,000.00 per accident for bodily injury or disease
<u>Commercial General Liability Including Contractual Liability</u>	
Operations, Products and Completed Operations:	
Personal/Bodily Injury	\$2,000,000.00 / occurrence \$5,000,000.00 / aggregate
Property Damage	\$2,000,000.00 / occurrence \$5,000,000.00 / aggregate
<u>Commercial Automobile Liability</u> (owned, hired, & non-owned vehicles)	
Personal/Bodily Injury & Property Damage	\$1,000,000.00
Unemployment Insurance	To Be Determined by Scope of Work
Disability Insurance	To Be Determined by Scope of Work
Liability Insurance	To Be Determined by Scope of Work

Article 28. SPECIAL INSURANCE REQUIREMENTS

- (a) All insurance required under Article 27 shall:
- (1) Be procured from an insurer authorized to do business in California.
 - (2) Be primary coverage as respects COUNTY and any insurance or self-insurance maintained by COUNTY shall be in excess of Contractor's insurance coverage and shall not contribute to it.
 - (3) Name COUNTY as an additional insured on all policies, except Workers' Compensation, and provide that COUNTY may recover for any loss suffered by COUNTY by reason of Contractor's negligence.
 - (4) State that it is primary insurance and regards COUNTY as an additional insured and contains a cross-liability or severability of interest clause.
 - (5) Not be canceled, non-renewed, or reduced in scope of coverage until after thirty (30) days written notice has been given to COUNTY. However, Contractor may not terminate such coverage until it provides COUNTY with proof that equal or better insurance has been secured and is in place. Cancellation or change without the prior written consent of COUNTY shall, at the option of COUNTY, be grounds for termination of this Agreement.
- (b) Additional Insurance Requirements.
- (1) Complete copies of certificates of insurance for all required coverages including additional insured endorsements and thirty-day (30-day) notice of cancellation clause endorsements shall be attached hereto as Exhibit E and incorporated herein as though fully set forth.
 - (2) COUNTY is to be notified immediately of all insurance claims. COUNTY is also to be notified if any aggregate insurance limit is exceeded.
- (c) Nothing in this, or any other provision of this Agreement, shall be construed to preclude Contractor from obtaining and maintaining any additional insurance policies in addition to those required pursuant to this Agreement.

Article 29. INSURANCE ENDORSEMENTS, CLAUSES, & INFORMATION

- (a) The comprehensive/commercial general liability insurance shall contain a provision of endorsements stating that such insurance:
- (1) Includes contractual liability;
 - (2) Does not contain a "pro rata" provision which looks to limit the insurer's liability to the total proportion that its policy limits bear to the total coverage available to the insured;
 - (3) Does not contain an "excess only" clause which requires the exhaustion of other insurance prior to providing coverage;
 - (4) Does not contain an "escape clause" which extinguishes the insurer's liability if the loss is covered by other insurance;
 - (5) Includes COUNTY, architect, and the construction manager as an additional insured;
 - (6) States that it is primary insurance and regards COUNTY as an additional insured and contains a cross-liability or severability of interest clause; and
 - (7) Does not contain any exclusion as to loss or damage to property caused by explosion or resulting from collapse of buildings or structures or damage to property underground, commonly referred to by insurers as the "XCU Hazards."

(b) Certificates and insurance policies shall include the following clause: "This policy shall not be canceled or reduced in required limits of liability or amount of insurance until notice has been mailed to COUNTY stating date of cancellation or reduction. Date of cancellation may not be less than thirty (30) days after date of mailing notice."

(c) Certificates of insurance shall state, in particular, those insured, extent of insurance, location and operation to which insurance applies, expiration date, and cancellation and reduction notice.

Article 30. PROOF OF INSURANCE

Contractor shall not commence work nor shall it allow any subcontractor to commence work under this Agreement until Contractor has obtained all required insurance, certificates and endorsements, including but not limited to, Additional Insured Endorsements and thirty-days (30-days) Notice of Cancellation Clause endorsements have been delivered in duplicate to and approved by COUNTY. The above referenced insurance documents must be received by COUNTY on or before the effective date of this Agreement and shall be sent to the following addresses:

(i) County of Imperial
Risk Management Department
940 Main Street, Suite 101
El Centro, CA 92243

and

(ii) County of Imperial
Community and Economic Development
Attn: Community and Economic Development Manager
940 W. Main Street, Suite 203
El Centro, CA 92243

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00300 WAGE REQUIREMENTS

Notice is hereby given that, pursuant to 1773 of the Labor Code of the State of California, the Owner has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holidays and overtime work for each craft, classification, or type of worker required to execute the Contract. A copy of said prevailing rate of per diem wages is on file in the principal office of the Owner, to which reference is hereby made for further particulars. Said prevailing rate of per diem wages will be made available to any interested party upon request, and a copy thereof shall be posted at each job site. Project specific wage rates follow this specification section.

Statutory Penalty for Failure to Pay Minimum Wage

- A. In accordance with 1775 of the California Labor Code, the Contractor shall as a penalty to the State of political subdivision on whose behalf a Contract is made or awarded, forfeit **fifty dollars (\$50.00)** for each calendar day or portion thereof, for each worker paid less than the stipulated prevailing rate for any public work done under the Contract by the Contractor or by any Subcontractor under the Contractor.

Statutory Penalty for Unauthorized Overtime Work

- A. In accordance with 1813 of the California Labor Code, the Contractor shall as a penalty to the State or political subdivision on whose behalf the Contract is made or awarded, forfeit **twenty-five dollars (\$25.00)** for each worker employed in the execution of the Contract by the Contractor or by any Subcontractor for each calendar day during which said worker is required or permitted to work more than eight hours in any one calendar day and forty hours in any one calendar week in violation of 1810-1815 of the California Labor Code.

Apprenticeship Requirements

- A. CONTRACTOR agrees to comply with 1777.5, 1777.6 and 1777.7 of the California Labor Code relating to the employment of apprentices. The responsibility for compliance with these provisions is fixed with the prime contractor for all apprenticeship occupations. Under these sections of the law, Contractors and Subcontractors must employ apprentices in apprenticeship occupations, where journeymen in the craft are employed on the public work, in a ratio of not less than one (1) apprentice hour for each five (5) journeymen hours (unless an exemption is granted in accordance with 1777.5) and Contractors and Subcontractors shall not discriminate among otherwise qualified employees as indentured apprentices on any public work solely on the ground of race, religious creed, color, national origin, ancestry, sex, or age, except as provided in 3077 of the Labor Code. Only apprentices, as defined in 3077, which provides that an apprentice must be at least sixteen (16) years of age, who are in training under apprenticeship standards and who have signed written apprentice agreements will be employed on public works in apprenticeship occupations.

Payroll Records

- A. Contractor shall keep accurate payroll records on forms provided by the Division of Labor Standards Enforcement, or alternatively, the Contractor shall keep accurate payroll records containing the same information. Said information shall include, but not be limited to, a record of the name, address, social security number, work classification, straight time and overtime hours worked each day and week, and actual per diem wages paid to each journeyman, apprentice, or worker employed by the Contractor. Such record shall be made available for inspection at all reasonable hours, and a copy shall be made available to employee or his authorized representative, the Division of Labor Standards Enforcement, and the Division of Apprenticeship Standards in compliance with California Labor Code, Section 1776. Upon written notice from the OWNER or the Division of Labor Standards Enforcement, the Contractor shall, within **ten (10) days**, file with the Owner a certified copy of the payroll records. The Contractor shall cause an identical clause to be included in every subcontract for the Work.

General Decision Number: CA170002 09/08/2017 CA2

Superseded General Decision Number: CA20160002

State: California

Construction Types: Building, Heavy (Heavy and Dredging) and Highway

County: Imperial County in California.

BUILDING CONSTRUCTION PROJECTS; DREDGING PROJECTS (does not include hopper dredge work); HEAVY CONSTRUCTION PROJECTS (does not include water well drilling); HIGHWAY CONSTRUCTION PROJECTS

Note: Under Executive Order (EO) 13658, an hourly minimum wage of \$10.20 for calendar year 2017 applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2015. If this contract is covered by the EO, the contractor must pay all workers in any classification listed on this wage determination at least \$10.20 (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in calendar year 2017. The EO minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Modification Number	Publication Date
0	01/06/2017
1	01/27/2017
2	02/17/2017
3	02/24/2017
4	03/03/2017
5	03/10/2017
6	03/31/2017
7	05/05/2017
8	05/12/2017
9	05/26/2017
10	06/09/2017
11	07/07/2017
12	07/14/2017
13	07/28/2017
14	08/04/2017
15	08/11/2017
16	09/08/2017

ASBE0005-002 07/04/2016

Rates Fringes

Asbestos Workers/Insulator (Includes the application of all insulating materials, protective coverings, coatings, and finishes to all types of mechanical systems).....\$ 38.37	20.13
Fire Stop Technician (Application of Firestopping Materials for wall openings and penetrations in walls, floors, ceilings and curtain	

walls).....\$ 26.15 17.31

ASBE0005-004 07/04/2016

Rates Fringes

Asbestos Removal worker/hazardous material handler (Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not)....\$ 18.38 10.82

BRCA0004-002 11/01/2016

Rates Fringes

BRICKLAYER; MARBLE SETTER.....\$ 45.20 17.45

BRCA0018-004 06/01/2016

Rates Fringes

MARBLE FINISHER.....\$ 29.20 12.93
TILE FINISHER.....\$ 24.53 11.08
TILE LAYER.....\$ 35.89 16.24

BRCA0018-010 09/01/2016

Rates Fringes

TERRAZZO FINISHER.....\$ 28.53 12.27
TERRAZZO WORKER/SETTER.....\$ 35.57 13.14

CARP0409-001 07/01/2016

Rates Fringes

CARPENTER

- (1) Carpenter, Cabinet Installer, Insulation Installer, Hardwood Floor Worker and acoustical installer.....\$ 39.83 15.50
(2) Millwright.....\$ 40.90 15.50
(3) Piledrivermen/Derrick Bargeman, Bridge or Dock Carpenter, Heavy Frammer, Rock Bargeman or Scowman, Rockslinger, Shingler (Commercial).....\$ 40.53 15.50
(4) Pneumatic Nailer, Power Stapler.....\$ 40.09 15.50
(5) Sawfiler.....\$ 39.83 15.50
(6) Scaffold Builder.....\$ 31.60 15.50
(7) Table Power Saw Operator.....\$ 40.93 15.50

FOOTNOTE: Work of forming in the construction of open cut sewers or storm drains, on operations in which horizontal lagging is used in conjunction with steel H-Beams driven or

placed in pre- drilled holes, for that portion of a lagged trench against which concrete is poured, namely, as a substitute for back forms (which work is performed by piledrivers): \$0.13 per hour additional.

* CARP0409-002 07/01/2016

	Rates	Fringes
Diver		
(1) Wet.....	\$ 712.48	17.03
(2) Standby.....	\$ 356.24	17.03
(3) Tender.....	\$ 348.24	17.03
(4) Assistant Tender.....	\$ 324.24	17.03

Amounts in "Rates" column are per day

CARP0409-005 07/01/2015

	Rates	Fringes
Drywall		
DRYWALL INSTALLER/LATHER....	\$ 40.40	15.03
STOCKER/SCRAPPER.....	\$ 10.00	7.17

CARP0409-008 08/01/2010

	Rates	Fringes
Modular Furniture Installer.....	\$ 17.00	7.41

ELEC0569-002 06/05/2017

	Rates	Fringes
Electricians (Electrical contracts of \$500,000 or less)		
Cable Splicer.....	\$ 41.75	13.38
Tunnel Work.....	\$ 49.41	3%+12.63
Electrician.....	\$ 43.25	3%+12.63
Tunnel Work.....	\$ 48.66	3%+12.63
Electricians: (Electrical contracts of \$500,000 and over)		
Cable Splicer.....	\$ 44.75	13.47
Tunnel Work.....	\$ 50.72	3%+12.63
Electrician.....	\$ 49.97	3%+12.63
Tunnel Work.....	\$ 49.13	13.60

ELEC0569-005 06/05/2017

	Rates	Fringes
Sound & Communications		
Sound Technician.....	\$ 31.00	3%+11.53
SOUND TECHNICIAN: Terminating, operating and performing final check-out		

ELEC0569-006 02/27/2017

Work on street lighting; traffic signals; and underground systems and/or established easements outside of buildings

	Rates	Fringes
Traffic signal, street light and underground work		
Utility Technician #1.....	\$ 30.48	3%+7.70
Utility Technician #2.....	\$ 25.45	3%+7.70

STREET LIGHT & TRAFFIC SIGNAL WORK:

UTILITY TECHNICIAN #1: Installation of street lights and traffic signals, including electrical circuitry, programmable controller, pedestal-mounted electrical meter enclosures and laying of pre-assembled cable in ducts. The layout of electrical systems and communication installation including proper position of trench depths, and radius at duct banks, location for manholes, street lights and traffic signals.

UTILITY TECHNICIAN #2: Distribution of material at jobsite, installation of underground ducts for electrical, telephone, cable TV and communication systems. The setting, leveling, grounding and racking of precast manholes, handholes and transformer pads.

ELEC1245-001 06/01/2017

	Rates	Fringes
LINE CONSTRUCTION		
(1) Lineman; Cable splicer..	\$ 55.49	3%+17.65
(2) Equipment specialist (operates crawler tractors, commercial motor vehicles, backhoes, trenchers, cranes (50 tons and below), overhead & underground distribution line equipment).....	\$ 44.32	3%+17.65
(3) Groundman.....	\$ 33.89	3%+17.65
(4) Powderman.....	\$ 49.55	3%+17.65

HOLIDAYS: New Year's Day, M.L. King Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day and day after Thanksgiving, Christmas Day

ELEV0018-001 01/01/2017

	Rates	Fringes
ELEVATOR MECHANIC.....	\$ 52.21	31.585

FOOTNOTE:

PAID VACATION: Employer contributes 8% of regular hourly rate as vacation pay credit for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.
PAID HOLIDAYS: New Years Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

ENGI0012-003 07/01/2016

Rates Fringes

OPERATOR: Power Equipment
(All Other Work)

GROUP 1.....	\$ 39.95	23.35
GROUP 2.....	\$ 40.73	23.35
GROUP 3.....	\$ 41.02	23.35
GROUP 4.....	\$ 42.51	23.35
GROUP 5.....	\$ 41.86	23.35
GROUP 6.....	\$ 41.83	23.35
GROUP 8.....	\$ 42.84	23.35
GROUP 9.....	\$ 42.19	23.35
GROUP 10.....	\$ 42.96	23.35
GROUP 11.....	\$ 42.31	23.35
GROUP 12.....	\$ 43.13	23.35
GROUP 13.....	\$ 43.23	23.35
GROUP 14.....	\$ 43.26	23.35
GROUP 15.....	\$ 43.34	23.35
GROUP 16.....	\$ 43.46	23.35
GROUP 17.....	\$ 43.63	23.35
GROUP 18.....	\$ 43.73	23.35
GROUP 19.....	\$ 43.84	23.35
GROUP 20.....	\$ 43.96	23.35
GROUP 21.....	\$ 44.13	23.35
GROUP 22.....	\$ 44.23	23.35
GROUP 23.....	\$ 44.34	23.35
GROUP 24.....	\$ 44.46	23.35
GROUP 25.....	\$ 44.63	23.35

OPERATOR: Power Equipment
(Cranes, Piledriving & Hoisting)

GROUP 1.....	\$ 43.20	22.15
GROUP 2.....	\$ 43.98	22.15
GROUP 3.....	\$ 44.27	22.15
GROUP 4.....	\$ 44.41	22.15
GROUP 5.....	\$ 44.63	22.15
GROUP 6.....	\$ 44.74	22.15
GROUP 7.....	\$ 44.86	22.15
GROUP 8.....	\$ 45.03	22.15
GROUP 9.....	\$ 45.20	22.15
GROUP 10.....	\$ 46.20	22.15
GROUP 11.....	\$ 47.20	22.15
GROUP 12.....	\$ 48.20	22.15
GROUP 13.....	\$ 49.20	22.15

OPERATOR: Power Equipment
(Tunnel Work)

GROUP 1.....	\$ 41.80	23.35
GROUP 2.....	\$ 42.58	23.35
GROUP 3.....	\$ 42.87	23.35
GROUP 4.....	\$ 43.01	23.35
GROUP 5.....	\$ 43.23	23.35
GROUP 6.....	\$ 43.34	23.35
GROUP 7.....	\$ 43.46	23.35

PREMIUM PAY:

\$3.75 per hour shall be paid on all Power Equipment Operator work on the following Military Bases: China Lake Naval Reserve, Vandenberg AFB, Point Arguello, Seely Naval Base, Fort Irwin, Nebo Annex Marine Base, Marine Corp Logistics Base Yermo, Edwards AFB, 29 Palms Marine Base and Camp Pendleton

Workers required to suit up and work in a hazardous material environment: \$2.00 per hour additional. Combination mixer

and compressor operator on gunite work shall be classified as a concrete mobile mixer operator.

SEE ZONE DEFINITIONS AFTER CLASSIFICATIONS

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Bargeman; Brakeman; Compressor operator; Ditch Witch, with seat or similar type equipment; Elevator operator-inside; Engineer Oiler; Forklift operator (includes loed, lull or similar types under 5 tons; Generator operator; Generator, pump or compressor plant operator; Pump operator; Signalman; Switchman

GROUP 2: Asphalt-rubber plant operator (nurse tank operator); Concrete mixer operator-skip type; Conveyor operator; Fireman; Forklift operator (includes loed, lull or similar types over 5 tons; Hydrostatic pump operator; oiler crusher (asphalt or concrete plant); Petromat laydown machine; PJU side dum jack; Screening and conveyor machine operator (or similar types); Skiploader (wheel type up to 3/4 yd. without attachment); Tar pot fireman; Temporary heating plant operator; Trenching machine oiler

GROUP 3: Asphalt-rubber blend operator; Bobcat or similar type (Skid steer); Equipment greaser (rack); Ford Ferguson (with dragtype attachments); Helicopter radioman (ground); Stationary pipe wrapping and cleaning machine operator

GROUP 4: Asphalt plant fireman; Backhoe operator (mini-max or similar type); Boring machine operator; Boxman or mixerman (asphalt or concrete); Chip spreading machine operator; Concrete cleaning decontamination machine operator; Concrete Pump Operator (small portable); Drilling machine operator, small auger types (Texoma super economatic or similar types - Hughes 100 or 200 or similar types - drilling depth of 30' maximum); Equipment greaser (grease truck); Guard rail post driver operator; Highline cableway signalman; Hydra-hammer-aero stomper; Micro Tunneling (above ground tunnel); Power concrete curing machine operator; Power concrete saw operator; Power-driven jumbo form setter operator; Power sweeper operator; Rock Wheel Saw/Trencher; Roller operator (compacting); Screed operator (asphalt or concrete); Trenching machine operator (up to 6 ft.); Vacuum or much truck

GROUP 5: Equipment Greaser (Grease Truck/Multi Shift).

GROUP 6: Articulating material hauler; Asphalt plant engineer; Batch plant operator; Bit sharpener; Concrete joint machine operator (canal and similar type); Concrete planer operator; Dandy digger; Deck engine operator; Derrickman (oilfield type); Drilling machine operator, bucket or auger types (Calweld 100 bucket or similar types - Watson 1000 auger or similar types - Texoma 330, 500 or 600 auger or similar types - drilling depth of 45' maximum); Drilling machine operator; Hydrographic seeder machine operator (straw, pulp or seed), Jackson track maintainer, or similar type; Kalamazoo Switch tamper, or similar type; Machine tool operator; Maginnis internal full slab vibrator, Mechanical berm, curb or gutter (concrete or asphalt); Mechanical finisher operator (concrete, Clary-Johnson-Bidwell or similar); Micro tunnel system (below ground); Pavement breaker operator (truck mounted); Road oil mixing machine operator; Roller operator (asphalt

or finish), rubber-tired earth moving equipment (single engine, up to and including 25 yds. struck); Self-propelled tar pipelining machine operator; Skiploader operator (crawler and wheel type, over 3/4 yd. and up to and including 1-1/2 yds.); Slip form pump operator (power driven hydraulic lifting device for concrete forms); Tractor operator-bulldozer, tamper-scraper (single engine, up to 100 h.p. flywheel and similar types, up to and including D-5 and similar types); Tugger hoist operator (1 drum); Ultra high pressure waterjet cutting tool system operator; Vacuum blasting machine operator

GROUP 8: Asphalt or concrete spreading operator (tamping or finishing); Asphalt paving machine operator (Barber Greene or similar type); Asphalt-rubber distribution operator; Backhoe operator (up to and including 3/4 yd.), small ford, Case or similar; Cast-in-place pipe laying machine operator; Combination mixer and compressor operator (gunite work); Compactor operator (self-propelled); Concrete mixer operator (paving); Crushing plant operator; Drill Doctor; Drilling machine operator, Bucket or auger types (Calweld 150 bucket or similar types - Watson 1500, 2000 2500 auger or similar types - Texoma 700, 800 auger or similar types - drilling depth of 60' maximum); Elevating grader operator; Grade checker; Gradall operator; Grouting machine operator; Heavy-duty repairman; Heavy equipment robotics operator; Kalamazoo balliste regulator or similar type; Kolman belt loader and similar type; Le Tourneau blob compactor or similar type; Loader operator (Athey, Euclid, Sierra and similar types); Mobark Chipper or similar; Ozzie padder or similar types; P.C. slot saw; Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pumpcrete gun operator; Rock Drill or similar types; Rotary drill operator (excluding caisson type); Rubber-tired earth-moving equipment operator (single engine, caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator (multiple engine up to and including 25 yds. struck); Rubber-tired scraper operator (self-loading paddle wheel type-John Deere, 1040 and similar single unit); Self-propelled curb and gutter machine operator; Shuttle buggy; Skiploader operator (crawler and wheel type over 1-1/2 yds. up to and including 6-1/2 yds.); Soil remediation plant operator; Surface heaters and planer operator; Tractor compressor drill combination operator; Tractor operator (any type larger than D-5 - 100 flywheel h.p. and over, or similar-bulldozer, tamper, scraper and push tractor single engine); Tractor operator (boom attachments), Traveling pipe wrapping, cleaning and bendng machine operator; Trenching machine operator (over 6 ft. depth capacity, manufacturer's rating); trenching Machine with Road Miner attachment (over 6 ft depth capacity): Ultra high pressure waterjet cutting tool system mechanic; Water pull (compaction) operator

GROUP 9: Heavy Duty Repairman

GROUP 10: Drilling machine operator, Bucket or auger types (Calweld 200 B bucket or similar types-Watson 3000 or 5000 auger or similar types-Texoma 900 auger or similar types-drilling depth of 105' maximum); Dual drum mixer, dynamic compactor LDC350 (or similar types); Monorail locomotive operator (diesel, gas or electric); Motor patrol-blade operator (single engine); Multiple engine

tractor operator (Euclid and similar type-except Quad 9 cat.); Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Pneumatic pipe ramming tool and similar types; Prestressed wrapping machine operator; Rubber-tired earth-moving equipment operator (single engine, over 50 yds. struck); Rubber tired earth moving equipment operator (multiple engine, Euclid, caterpillar and similar over 25 yds. and up to 50 yds. struck), Tower crane repairman; Tractor loader operator (crawler and wheel type over 6-1/2 yds.); Woods mixer operator (and similar Pugmill equipment)

GROUP 11: Heavy Duty Repairman - Welder Combination, Welder - Certified.

GROUP 12: Auto grader operator; Automatic slip form operator; Drilling machine operator, bucket or auger types (Calweld, auger 200 CA or similar types - Watson, auger 6000 or similar types - Hughes Super Duty, auger 200 or similar types - drilling depth of 175' maximum); Hoe ram or similar with compressor; Mass excavator operator less tha 750 cu. yards; Mechanical finishing machine operator; Mobile form traveler operator; Motor patrol operator (multi-engine); Pipe mobile machine operator; Rubber-tired earth- moving equipment operator (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck); Rubber-tired self- loading scraper operator (paddle-wheel-auger type self-loading - two (2) or more units)

GROUP 13: Rubber-tired earth-moving equipment operator operating equipment with push-pull system (single engine, up to and including 25 yds. struck)

GROUP 14: Canal liner operator; Canal trimmer operator; Remote- control earth-moving equipment operator (operating a second piece of equipment: \$1.00 per hour additional); Wheel excavator operator (over 750 cu. yds.)

GROUP 15: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine-up to and including 25 yds. struck)

GROUP 16: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 17: Rubber-tired earth-moving equipment operator, operating equipment with push-pull system (multiple engine, Euclid, Caterpillar and similar, over 50 cu. yds. struck); Tandem tractor operator (operating crawler type tractors in tandem - Quad 9 and similar type)

GROUP 18: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, up to and including 25 yds. struck)

GROUP 19: Rotex concrete belt operator (or similar types);

Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, up to and including 25 yds. struck)

GROUP 20: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 21: Rubber-tired earth-moving equipment operator, operating in tandem (scrapers, belly dumps and similar types in any combination, excluding compaction units - multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

GROUP 22: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, up to and including 25 yds. struck)

GROUP 23: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, Caterpillar, Euclid, Athey Wagon and similar types with any and all attachments over 25 yds. and up to and including 50 yds. struck); Rubber-tired earth-moving equipment operator, operating with the tandem push-pull system (multiple engine, up to and including 25 yds. struck)

GROUP 24: Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (single engine, over 50 yds. struck); Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 25: Concrete pump operator-truck mounted; Rubber-tired earth-moving equipment operator, operating equipment with the tandem push-pull system (multiple engine, Euclid, Caterpillar and similar type, over 50 cu. yds. struck)

CRANES, PILEDIVING AND HOISTING EQUIPMENT CLASSIFICATIONS

GROUP 1: Engineer oiler; Fork lift operator (includes loed, lull or similar types)

GROUP 2: Truck crane oiler

GROUP 3: A-frame or winch truck operator; Ross carrier operator (jobsite)

GROUP 4: Bridge-type unloader and turntable operator; Helicopter hoist operator

GROUP 5: Hydraulic boom truck; Stinger crane (Austin-Western or similar type); Tugger hoist operator (1 drum)

GROUP 6: Bridge crane operator; Cretor crane operator; Hoist operator (Chicago boom and similar type); Lift mobile operator; Lift slab machine operator (Vagtborg and similar types); Material hoist and/or manlift operator; Polar gantry crane operator; Self Climbing scaffold (or similar type); Shovel, backhoe, dragline, clamshell operator (over 3/4 yd. and up to 5 cu. yds. mrc); Tugger hoist operator

GROUP 7: Pedestal crane operator; Shovel, backhoe, dragline, clamshell operator (over 5 cu. yds. mrc); Tower crane repair; Tugger hoist operator (3 drum)

GROUP 8: Crane operator (up to and including 25 ton capacity); Crawler transporter operator; Derrick barge operator (up to and including 25 ton capacity); Hoist operator, stiff legs, Guy derrick or similar type (up to and including 25 ton capacity); Shovel, backhoe, dragline, clamshell operator (over 7 cu. yds., M.R.C.)

GROUP 9: Crane operator (over 25 tons and up to and including 50 tons mrc); Derrick barge operator (over 25 tons up to and including 50 tons mrc); Highline cableway operator; Hoist operator, stiff legs, Guy derrick or similar type (over 25 tons up to and including 50 tons mrc); K-crane operator; Polar crane operator; Self erecting tower crane operator maximum lifting capacity ten tons

GROUP 10: Crane operator (over 50 tons and up to and including 100 tons mrc); Derrick barge operator (over 50 tons up to and including 100 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 50 tons up to and including 100 tons mrc), Mobile tower crane operator (over 50 tons, up to and including 100 tons M.R.C.); Tower crane operator and tower gantry

GROUP 11: Crane operator (over 100 tons and up to and including 200 tons mrc); Derrick barge operator (over 100 tons up to and including 200 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 100 tons up to and including 200 tons mrc); Mobile tower crane operator (over 100 tons up to and including 200 tons mrc)

GROUP 12: Crane operator (over 200 tons up to and including 300 tons mrc); Derrick barge operator (over 200 tons up to and including 300 tons mrc); Hoist operator, stiff legs, Guy derrick or similar type (over 200 tons, up to and including 300 tons mrc); Mobile tower crane operator (over 200 tons, up to and including 300 tons mrc)

GROUP 13: Crane operator (over 300 tons); Derrick barge operator (over 300 tons); Helicopter pilot; Hoist operator, stiff legs, Guy derrick or similar type (over 300 tons); Mobile tower crane operator (over 300 tons)

TUNNEL CLASSIFICATIONS

GROUP 1: Skiploader (wheel type up to 3/4 yd. without attachment)

GROUP 2: Power-driven jumbo form setter operator

GROUP 3: Dinkey locomotive or motorperson (up to and

including 10 tons)

GROUP 4: Bit sharpener; Equipment greaser (grease truck); Slip form pump operator (power-driven hydraulic lifting device for concrete forms); Tugger hoist operator (1 drum); Tunnel locomotive operator (over 10 and up to and including 30 tons)

GROUP 5: Backhoe operator (up to and including 3/4 yd.); Small Ford, Case or similar; Drill doctor; Grouting machine operator; Heading shield operator; Heavy-duty repairperson; Loader operator (Athey, Euclid, Sierra and similar types); Mucking machine operator (1/4 yd., rubber-tired, rail or track type); Pneumatic concrete placing machine operator (Hackley-Presswell or similar type); Pneumatic heading shield (tunnel); Pumpcrete gun operator; Tractor compressor drill combination operator; Tugger hoist operator (2 drum); Tunnel locomotive operator (over 30 tons)

GROUP 6: Heavy Duty Repairman

GROUP 7: Tunnel mole boring machine operator

ENGINEERS ZONES

\$1.00 additional per hour for all of IMPERIAL County and the portions of KERN, RIVERSIDE & SAN BERNARDINO Counties as defined below:

That area within the following Boundary: Begin in San Bernardino County, approximately 3 miles NE of the intersection of I-15 and the California State line at that point which is the NW corner of Section 1, T17N,m R14E, San Bernardino Meridian. Continue W in a straight line to that point which is the SW corner of the northwest quarter of Section 6, T27S, R42E, Mt. Diablo Meridian. Continue North to the intersection with the Inyo County Boundary at that point which is the NE corner of the western half of the northern quarter of Section 6, T25S, R42E, MDM. Continue W along the Inyo and San Bernardino County boundary until the intersection with Kern County, as that point which is the SE corner of Section 34, T24S, R40E, MDM. Continue W along the Inyo and Kern County boundary until the intersection with Tulare County, at that point which is the SW corner of the SE quarter of Section 32, T24S, R37E, MDM. Continue W along the Kern and Tulare County boundary, until that point which is the NW corner of T25S, R32E, MDM. Continue S following R32E lines to the NW corner of T31S, R32E, MDM. Continue W to the NW corner of T31S, R31E, MDM. Continue S to the SW corner of T32S, R31E, MDM. Continue W to SW corner of SE quarter of Section 34, T32S, R30E, MDM. Continue S to SW corner of T11N, R17W, SBM. Continue E along south boundary of T11N, SBM to SW corner of T11N, R7W, SBM. Continue S to SW corner of T9N, R7W, SBM. Continue E along south boundary of T9N, SBM to SW corner of T9N, R1E, SBM. Continue S along west boundary of R1E, SMB to Riverside County line at the SW corner of T1S, R1E, SBM. Continue E along south boundary of T1s, SBM (Riverside County Line) to SW corner of T1S, R10E, SBM. Continue S along west boundary of R10E, SBM to Imperial County line at the SW corner of T8S, R10E, SBM. Continue W along Imperial and Riverside county line to NW corner of T9S, R9E, SBM. Continue S along the boundary between Imperial and San Diego Counties, along the west edge of R9E, SBM to the south boundary of Imperial County/California state line. Follow the California state line west to Arizona state line, then north to Nevada state line, then continuing NW back

to start at the point which is the NW corner of Section 1, T17N, R14E, SBM

\$1.00 additional per hour for portions of SAN LUIS OBISPO, KERN, SANTA BARBARA & VENTURA as defined below:

That area within the following Boundary: Begin approximately 5 miles north of the community of Cholame, on the Monterey County and San Luis Obispo County boundary at the NW corner of T25S, R16E, Mt. Diablo Meridian. Continue south along the west side of R16E to the SW corner of T30S, R16E, MDM. Continue E to SW corner of T30S, R17E, MDM. Continue S to SW corner of T31S, R17E, MDM. Continue E to SW corner of T31S, R18E, MDM. Continue S along West side of R18E, MDM as it crosses into San Bernardino Meridian numbering area and becomes R30W. Follow the west side of R30W, SBM to the SW corner of T9N, R30W, SBM. Continue E along the south edge of T9N, SBM to the Santa Barbara County and Ventura County boundary at that point which is the SW corner of Section 34. T9N, R24W, SBM, continue S along the Ventura County line to that point which is the SW corner of the SE quarter of Section 32, T7N, R24W, SBM. Continue E along the south edge of T7N, SBM to the SE corner to T7N, R21W, SBM. Continue N along East side of R21W, SBM to Ventura County and Kern County boundary at the NE corner of T8N, R21W. Continue W along the Ventura County and Kern County boundary to the SE corner of T9N, R21W. Continue North along the East edge of R21W, SBM to the NE corner of T12N, R21W, SBM. Continue West along the north edge of T12N, SBM to the SE corner of T32S, R21E, MDM. [T12N SBM is a thin strip between T11N SBM and T32S MDM]. Continue North along the East side of R21E, MDM to the Kings County and Kern County border at the NE corner of T25S, R21E, MDM, continue West along the Kings County and Kern County Boundary until the intersection of San Luis Obispo County. Continue west along the Kings County and San Luis Obispo County boundary until the intersection with Monterey County. Continue West along the Monterey County and San Luis Obispo County boundary to the beginning point at the NW corner of T25S, R16E, MDM.

\$2.00 additional per hour for INYO and MONO Counties and the Northern portion of SAN BERNARDINO County as defined below:

That area within the following Boundary: Begin at the intersection of the northern boundary of Mono County and the California state line at the point which is the center of Section 17, T10N, R22E, Mt. Diablo Meridian. Continue S then SE along the entire western boundary of Mono County, until it reaches Inyo County at the point which is the NE corner of the Western half of the NW quarter of Section 2, T8S, R29E, MDM. Continue SSE along the entire western boundary of Inyo County, until the intersection with Kern County at the point which is the SW corner of the SE 1/4 of Section 32, T24S, R37E, MDM. Continue E along the Inyo and Kern County boundary until the intersection with San Bernardino County at that point which is the SE corner of section 34, T24S, R40E, MDM. Continue E along the Inyo and San Bernardino County boundary until the point which is the NE corner of the Western half of the NW quarter of Section 6, T25S, R42E, MDM. Continue S to that point which is the SW corner of the NW quarter of Section 6, T27S, R42E, MDM. Continue E in a straight line to the California and Nevada state border at the point which is the NW corner of Section 1, T17N, R14E, San Bernardino Meridian. Then continue NW along the state line to the starting point, which is the center of Section 18, T10N, R22E, MDM.

REMAINING AREA NOT DEFINED ABOVE RECIEVES BASE RATE

 ENGI0012-004 08/01/2015

	Rates	Fringes
OPERATOR: Power Equipment (DREDGING)		
(1) Leverman.....	\$ 49.50	23.60
(2) Dredge dozer.....	\$ 43.53	23.60
(3) Deckmate.....	\$ 43.42	23.60
(4) Winch operator (stern winch on dredge).....	\$ 42.87	23.60
(5) Fireman-Oiler, Deckhand, Bargeman, Leveehand.....	\$ 42.33	23.60
(6) Barge Mate.....	\$ 42.94	23.60

 IRON0377-002 07/01/2016

	Rates	Fringes
Ironworkers:		
Fence Erector.....	\$ 28.33	20.64
Ornamental, Reinforcing and Structural.....	\$ 34.75	29.20

PREMIUM PAY:

\$6.00 additional per hour at the following locations:

China Lake Naval Test Station, Chocolate Mountains Naval Reserve-Niland, Edwards AFB, Fort Irwin Military Station, Fort Irwin Training Center-Goldstone, San Clemente Island, San Nicholas Island, Susanville Federal Prison, 29 Palms - Marine Corps, U.S. Marine Base - Barstow, U.S. Naval Air Facility - Sealey, Vandenberg AFB

\$4.00 additional per hour at the following locations:

Army Defense Language Institute - Monterey, Fallon Air Base, Naval Post Graduate School - Monterey, Yermo Marine Corps Logistics Center

\$2.00 additional per hour at the following locations:

Port Hueneme, Port Mugu, U.S. Coast Guard Station - Two Rock

 LAB00300-005 01/01/2017

	Rates	Fringes
Asbestos Removal Laborer.....	\$ 31.88	16.82

SCOPE OF WORK: Includes site mobilization, initial site cleanup, site preparation, removal of asbestos-containing material and toxic waste, encapsulation, enclosure and disposal of asbestos- containing materials and toxic waste by hand or with equipment or machinery; scaffolding, fabrication of temporary wooden barriers and assembly of

decontamination stations.

LAB00345-001 07/02/2017

	Rates	Fringes
LABORER (GUNITE)		
GROUP 1.....	\$ 41.08	17.39
GROUP 2.....	\$ 40.13	17.39
GROUP 3.....	\$ 36.59	17.39

FOOTNOTE: GUNITE PREMIUM PAY: Workers working from a Bosn'n's Chair or suspended from a rope or cable shall receive 40 cents per hour above the foregoing applicable classification rates. Workers doing gunite and/or shotcrete work in a tunnel shall receive 35 cents per hour above the foregoing applicable classification rates, paid on a portal-to-portal basis. Any work performed on, in or above any smoke stack, silo, storage elevator or similar type of structure, when such structure is in excess of 75'-0" above base level and which work must be performed in whole or in part more than 75'-0" above base level, that work performed above the 75'-0" level shall be compensated for at 35 cents per hour above the applicable classification wage rate.

GUNITE LABORER CLASSIFICATIONS

GROUP 1: Rodmen, Nozzlemen

GROUP 2: Gunmen

GROUP 3: Reboundmen

LAB01184-001 07/01/2017

	Rates	Fringes
Laborers: (HORIZONTAL DIRECTIONAL DRILLING)		
(1) Drilling Crew Laborer...	\$ 34.65	13.20
(2) Vehicle Operator/Hauler.	\$ 34.82	13.20
(3) Horizontal Directional Drill Operator.....	\$ 36.67	13.20
(4) Electronic Tracking Locator.....	\$ 38.67	13.20
Laborers: (STRIPING/SLURRY SEAL)		
GROUP 1.....	\$ 35.86	16.21
GROUP 2.....	\$ 37.16	16.21
GROUP 3.....	\$ 39.17	16.21
GROUP 4.....	\$ 40.91	16.21

LABORERS - STRIPING CLASSIFICATIONS

GROUP 1: Protective coating, pavement sealing, including repair and filling of cracks by any method on any surface in parking lots, game courts and playgrounds; carstops; operation of all related machinery and equipment; equipment repair technician

GROUP 2: Traffic surface abrasive blaster; pot tender - removal of all traffic lines and markings by any method

(sandblasting, waterblasting, grinding, etc.) and preparation of surface for coatings. Traffic control person: controlling and directing traffic through both conventional and moving lane closures; operation of all related machinery and equipment

GROUP 3: Traffic delineating device applicator: Layout and application of pavement markers, delineating signs, rumble and traffic bars, adhesives, guide markers, other traffic delineating devices including traffic control. This category includes all traffic related surface preparation (sandblasting, waterblasting, grinding) as part of the application process. Traffic protective delineating system installer: removes, relocates, installs, permanently affixed roadside and parking delineation barricades, fencing, cable anchor, guard rail, reference signs, monument markers; operation of all related machinery and equipment; power broom sweeper

GROUP 4: Striper: layout and application of traffic stripes and markings; hot thermo plastic; tape traffic stripes and markings, including traffic control; operation of all related machinery and equipment

LAB01184-002 07/03/2017

	Rates	Fringes
LABORER (TUNNEL)		
GROUP 1.....	\$ 39.04	18.24
GROUP 2.....	\$ 39.36	18.24
GROUP 3.....	\$ 39.82	18.24
GROUP 4.....	\$ 40.51	18.24
LABORER		
GROUP 1.....	\$ 32.34	19.07
GROUP 2.....	\$ 32.89	19.07
GROUP 3.....	\$ 33.44	19.07
GROUP 4.....	\$ 34.99	19.07
GROUP 5.....	\$ 35.34	19.07

LABORER CLASSIFICATIONS

GROUP 1: Cleaning and handling of panel forms; Concrete screeding for rough strike-off; Concrete, water curing; Demolition laborer, the cleaning of brick if performed by a worker performing any other phase of demolition work, and the cleaning of lumber; Fire watcher, limber, brush loader, piler and debris handler; Flag person; Gas, oil and/or water pipeline laborer; Laborer, asphalt-rubber material loader; Laborer, general or construction; Laborer, general clean-up; Laborer, landscaping; Laborer, jetting; Laborer, temporary water and air lines; Material hose operator (walls, slabs, floors and decks); Plugging, filling of shee bolt holes; Dry packing of concrete; Railroad maintenance, repair track person and road beds; Streetcar and railroad construction track laborers; Rigging and signaling; Scaler; Slip form raiser; Tar and mortar; Tool crib or tool house laborer; Traffic control by any method; Window cleaner; Wire mesh pulling - all concrete pouring operations

GROUP 2: Asphalt shoveler; Cement dumper (on 1 yd. or larger mixer and handling bulk cement); Cesspool digger and installer; Chucktender; Chute handler, pouring concrete, the handling of the chute from readymix trucks, such as

walls, slabs, decks, floors, foundation, footings, curbs, gutters and sidewalks; Concrete curer, impervious membrane and form oiler; Cutting torch operator (demolition); Fine grader, highways and street paving, airport, runways and similar type heavy construction; Gas, oil and/or water pipeline wrapper - pot tender and form person; Guinea chaser; Headerboard person - asphalt; Laborer, packing rod steel and pans; Membrane vapor barrier installer; Power broom sweeper (small); Riprap stonepaver, placing stone or wet sacked concrete; Roto scraper and tiller; Sandblaster (pot tender); Septic tank digger and installer(lead); Tank scaler and cleaner; Tree climber, faller, chain saw operator, Pittsburgh chipper and similar type brush shredder; Underground laborer, including caisson bellower

GROUP 3: Buggymobile person; Concrete cutting torch; Concrete pile cutter; Driller, jackhammer, 2-1/2 ft. drill steel or longer; Dri-pak-it machine; Gas, oil and/or water pipeline wrapper, 6-in. pipe and over, by any method, inside and out; High scaler (including drilling of same); Hydro seeder and similar type; Impact wrench multi-plate; Kettle person, pot person and workers applying asphalt, lay-kold, creosote, lime caustic and similar type materials ("applying" means applying, dipping, brushing or handling of such materials for pipe wrapping and waterproofing); Operator of pneumatic, gas, electric tools, vibrating machine, pavement breaker, air blasting, come-alongs, and similar mechanical tools not separately classified herein; Pipelayer's backup person, coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services; Rock slinger; Rotary scarifier or multiple head concrete chipping scarifier; Steel headerboard and guideline setter; Tamper, Barko, Wacker and similar type; Trenching machine, hand-propelled

GROUP 4: Asphalt raker, lute person, ironer, asphalt dump person, and asphalt spreader boxes (all types); Concrete core cutter (walls, floors or ceilings), grinder or sander; Concrete saw person, cutting walls or flat work, scoring old or new concrete; Cribber, shorer, lagging, sheeting and trench bracing, hand-guided lagging hammer; Head rock slinger; Laborer, asphalt- rubber distributor boot person; Laser beam in connection with laborers' work; Oversize concrete vibrator operator, 70 lbs. and over; Pipelayer performing all services in the laying and installation of pipe from the point of receiving pipe in the ditch until completion of operation, including any and all forms of tubular material, whether pipe, metallic or non-metallic, conduit and any other stationary type of tubular device used for the conveying of any substance or element, whether water, sewage, solid gas, air, or other product whatsoever and without regard to the nature of material from which the tubular material is fabricated; No-joint pipe and stripping of same; Prefabricated manhole installer; Sandblaster (nozzle person), water blasting, Porta Shot-Blast

GROUP 5: Blaster powder, all work of loading holes, placing and blasting of all powder and explosives of whatever type, regardless of method used for such loading and placing; Driller: All power drills, excluding jackhammer, whether core, diamond, wagon, track, multiple unit, and any and all other types of mechanical drills without regard to the form of motive power; Toxic waste removal

TUNNEL LABORER CLASSIFICATIONS

GROUP 1: Batch plant laborer; Changehouse person; Dump person; Dump person (outside); Swamper (brake person and switch person on tunnel work); Tunnel materials handling person; Nipper; Pot tender, using mastic or other materials (for example, but not by way of limitation, shotcrete, etc.)

GROUP 2: Chucktender, cabletender; Loading and unloading agitator cars; Vibrator person, jack hammer, pneumatic tools (except driller); Bull gang mucker, track person; Concrete crew, including rodder and spreader

GROUP 3: Blaster, driller, powder person; Chemical grout jet person; Cherry picker person; Grout gun person; Grout mixer person; Grout pump person; Jackleg miner; Jumbo person; Kemper and other pneumatic concrete placer operator; Miner, tunnel (hand or machine); Nozzle person; Operating of troweling and/or grouting machines; Powder person (primer house); Primer person; Sandblaster; Shotcrete person; Steel form raiser and setter; Timber person, retimber person, wood or steel; Tunnel Concrete finisher

GROUP 4: Diamond driller; Sandblaster; Shaft and raise work

LAB01184-004 07/01/2017

	Rates	Fringes
Brick Tender.....	\$ 31.36	17.82

LAB01414-003 08/02/2017

	Rates	Fringes
LABORER		
PLASTER CLEAN-UP LABORER....	\$ 35.50	18.29
PLASTER TENDER.....	\$ 38.05	18.29

Work on a swing stage scaffold: \$1.00 per hour additional.

Work at Military Bases - \$3.00 additional per hour:
Coronado Naval Amphibious Base, Fort Irwin, Marine Corps Air Station-29 Palms, Imperial Beach Naval Air Station, Marine Corps Logistics Supply Base, Marine Corps Pickle Meadows, Mountain Warfare Training Center, Naval Air Facility-Seeley, North Island Naval Air Station, Vandenberg AFB.

PAIN0036-001 07/01/2017

	Rates	Fringes
Painters: (Including Lead Abatement)		
(1) Repaint (excludes San Diego County).....	\$ 27.59	13.94
(2) All Other Work.....	\$ 31.12	13.94

REPAINT of any previously painted structure. Exceptions: work involving the aerospace industry, breweries, commercial recreational facilities, hotels which operate commercial establishments as part of hotel service, and

sports facilities.

PAIN0036-008 10/01/2016

	Rates	Fringes
DRYWALL FINISHER/TAPER.....	\$ 37.18	17.99

PAIN0036-013 10/01/2016

	Rates	Fringes
GLAZIER.....	\$ 41.55	11.93

PAIN0036-019 01/01/2017

	Rates	Fringes
SOFT FLOOR LAYER.....	\$ 28.77	13.31

PLAS0200-004 08/02/2017

	Rates	Fringes
PLASTERER.....	\$ 41.26	14.46

Work at Naval Air Facility Seeley: \$3.00 additional per hour

PLAS0500-002 07/01/2016

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	\$ 33.30	23.33

PLUM0016-008 07/01/2017

	Rates	Fringes
PLUMBER/PIPEFITTER		
El Centro Naval Air Facility.....	\$ 56.46	20.71
Plumber and Pipefitter All other work except work on new additions and remodeling of bars, restaurant, stores and commercial buildings not to exceed 5,000 sq. ft. of floor space and work on strip malls, light commercial, tenant improvement and remodel work.....	\$ 49.28	21.61
Work ONLY on new additions and remodeling of bars, restaurants, stores and commercial buildings, not to exceed 5,000 sq. ft. of floor space.....	\$ 47.76	20.63
Work ONLY on strip malls, light commercial, tenant improvement and remodel work.....	\$ 36.91	18.96

PLUM0078-001 07/01/2016

	Rates	Fringes
PLUMBER		
Landscape/Irrigation Fitter..\$	44.16	25.19
Sewer & Storm Drain Work....\$	44.16	25.19

ROOF0045-001 07/01/2017

	Rates	Fringes
ROOFER.....\$	30.73	8.43

SFCA0669-002 04/01/2017

	Rates	Fringes
SPRINKLER FITTER.....\$	38.28	15.84

* SHEE0206-002 07/01/2017

	Rates	Fringes
Sheet Metal (TECHNICIAN).....\$	27.70	8.43
SHEET METAL WORKER.....\$	36.88	26.52

SHEET METAL TECHNICIAN - SCOPE:

LIGHT COMMERCIAL WORK: Any sheet metal, heating and air conditioning work performed on a project where the total construction cost, excluding land, is under \$1,000,000.
 TENANT IMPROVEMENT WORK: Any work necessary to finish interior spaces to conform to the occupants of commercial buildings, after completion of the building shell

TEAM0011-002 07/01/2017

	Rates	Fringes
TRUCK DRIVER		
GROUP 1.....\$	29.59	27.74
GROUP 2.....\$	29.74	27.74
GROUP 3.....\$	29.87	27.74
GROUP 4.....\$	30.06	27.74
GROUP 5.....\$	30.09	27.74
GROUP 6.....\$	30.12	27.74
GROUP 7.....\$	30.37	27.74
GROUP 8.....\$	30.62	27.74
GROUP 9.....\$	30.82	27.74
GROUP 10.....\$	31.12	27.74
GROUP 11.....\$	31.62	27.74
GROUP 12.....\$	32.05	27.74

WORK ON ALL MILITARY BASES:

PREMIUM PAY: \$3.00 per hour additional.
 [29 palms Marine Base, Camp Roberts, China Lake, Edwards AFB, El Centro Naval Facility, Fort Irwin, Marine Corps Logistics Base at Nebo & Yermo, Mountain Warfare Training Center, Bridgeport, Point Arguello, Point Conception, Vandenberg AFB]

TRUCK DRIVERS CLASSIFICATIONS

GROUP 1: Truck driver

GROUP 2: Driver of vehicle or combination of vehicles - 2 axles; Traffic control pilot car excluding moving heavy equipment permit load; Truck mounted broom

GROUP 3: Driver of vehicle or combination of vehicles - 3 axles; Boot person; Cement mason distribution truck; Fuel truck driver; Water truck - 2 axle; Dump truck, less than 16 yds. water level; Erosion control driver

GROUP 4: Driver of transit mix truck, under 3 yds.; Dumpcrete truck, less than 6-1/2 yds. water level

GROUP 5: Water truck, 3 or more axles; Truck greaser and tire person (\$0.50 additional for tire person); Pipeline and utility working truck driver, including winch truck and plastic fusion, limited to pipeline and utility work; Slurry truck driver

GROUP 6: Transit mix truck, 3 yds. or more; Dumpcrete truck, 6-1/2 yds. water level and over; Vehicle or combination of vehicles - 4 or more axles; Oil spreader truck; Dump truck, 16 yds. to 25 yds. water level

GROUP 7: A Frame, Swedish crane or similar; Forklift driver; Ross carrier driver

GROUP 8: Dump truck, 25 yds. to 49 yds. water level; Truck repair person; Water pull - single engine; Welder

GROUP 9: Truck repair person/welder; Low bed driver, 9 axles or over

GROUP 10: Dump truck - 50 yds. or more water level; Water pull - single engine with attachment

GROUP 11: Water pull - twin engine; Water pull - twin engine with attachments; Winch truck driver - \$1.25 additional when operating winch or similar special attachments

GROUP 12: Boom Truck 17K and above

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic

violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at www.dol.gov/whd/govcontracts.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than "SU" or "UAVG" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the "SU" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate

that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

DEPARTMENT OF INDUSTRIAL RELATIONS
OFFICE OF THE DIRECTOR
455 Golden Gate Avenue, 10th Floor
San Francisco, CA 94102

ADDRESS REPLY TO:

San Francisco P.O. Box 420603
CA 94142-0603



February 22, 2010

**NOTICE REGARDING ADVISORY SCOPE OF WORK FOR
THE SAN DIEGO AND IMPERIAL SHEET METAL WORKERS'
GENERAL PREVAILING WAGE DETERMINATION**

The California Labor Code requires the Director of the Department of Industrial Relations to determine the prevailing rate of per diem wages for all workers employed upon public works projects. The Division of Labor Statistics and Research ("DLSR") undertook an investigation in 2009 to determine the prevailing wage rates for the **installation of solar and photovoltaic systems in Los Angeles, San Diego and Imperial Counties**. The results of the questionnaire have been compiled and based on them the minimum rate of pay for the work in question is -- **Electricians: Inside Wiremen** for the Los Angeles, San Diego, and Imperial Counties General Prevailing Wage Determinations.

The type of work listed below, as identified in the Sheet Metal Workers Addendum to the Standard Form of Union Agreement A-01-05 by and between Sheet Metal Workers International Association, Local Union 206 and the San Diego Chapter of the Sheet Metal and Air Conditioning Contractors National Association, were not published or recognized for the **San Diego and Imperial Counties** by the Department of Industrial Relations starting with the **August 22, 2009** issuance of the San Diego and Imperial Sheet Metal Workers' general determinations, **SDI-2009-2 and IMP-2009-2** and continuing with any subsequent San Diego and Imperial Sheet Metal Workers' general determinations until superseded by the Director. The rates associated with this unrecognized type of work (solar systems) **SHALL NOT** be applied or used on public works projects for the associated type of work.

DEPARTMENT OF INDUSTRIAL RELATIONS
OFFICE OF THE DIRECTOR
455 Golden Gate Avenue, 10th Floor
San Francisco, CA 94102

ADDRESS REPLY TO:

P.O. Box 420603
San Francisco CA 94142-0603



February 22, 2010

**NOTICE REGARDING ADVISORY SCOPE OF WORK FOR
THE SOUTHERN CALIFORNIA CARPENTERS'
GENERAL PREVAILING WAGE DETERMINATION**

The California Labor Code requires the Director of the Department of Industrial Relations to determine the prevailing rate of per diem wages for all workers employed upon public works projects. The Division of Labor Statistics and Research ("DLSR") undertook an investigation in 2009 to determine the prevailing wage rates for the **installation of solar and photovoltaic systems in Los Angeles, San Diego and Imperial Counties**. The results of the questionnaire have been compiled and based on them the minimum rate of pay for the work in question is performed by **Electricians: Inside Wiremen** for the Los Angeles, San Diego, and Imperial Counties General Prevailing Wage Determinations.

The type of work listed below, as identified in the Carpenters 1998-2011 Master Labor Agreement, between Southern California Conference of Carpenters and Associated General Contractors of California, Inc., Building Industry Association of Southern California, Inc., Southern California Contractors Association and Millwright Employers Association, were not published or recognized for the **Los Angeles and Imperial Counties** by the Department of Industrial Relations starting with the **August 22, 2009** issuance of the Southern California Carpenters' general determination, **SC-23-31-2-2009-1** and continuing with any subsequent Southern California Carpenters' general determinations until superseded by the Director. The rates associated with this unrecognized type of work (solar energy installations and appurtenances thereto) **SHALL NOT** be applied or used on public works projects for the associated type of work.



March 4, 2011

**NOTICE REGARDING ADVISORY SCOPE OF WORK FOR
THE SOUTHERN CALIFORNIA AND SAN DIEGO
LANDSCAPE/IRRIGATION LABORER/TENDERS'
GENERAL PREVAILING WAGE DETERMINATIONS**

The classifications and types of work listed below, as identified in the Laborers' 2008-2012 Landscape Master Agreement by and between the Southern California District Council of Laborers and Valley Crest Landscape Development, Inc., have not been published or recognized by the Department of Industrial Relations in the **August 22, 2010** issuance of the Southern California and San Diego Landscape/Irrigation Laborer/Tender general determinations, **SC-102-X-14-2010-1 and SD-102-X-14-2010-1** and continuing with any subsequent Southern California (including San Diego) Counties Landscape/Irrigation Laborers/Tender general determinations until superseded by the Director. The rates associated with these unrecognized classifications and types of work **SHALL NOT** be applied or used on public works projects for the associated type of work.

The following classifications and types of work have not been adopted for public works

projects: Classifications

- Landscape/Irrigation Equipment Operator
- Landscape/Irrigation Truck Driver

Types of Work

- The operation of horizontal directional drills, including operation of drill and electronic tracking device (locator) and related work.
- Installation and cutting of pavers and paving stones.
- Operation of pilot trucks.
- *The operation of all landscape/irrigation equipment and landscape/irrigation trucks.

* This shall include all of the classifications listed in the prevailing wage determinations for Landscape Operating Engineer (SC-63-12-33), Operating Engineers (SC-23-63-2 and SD-23-63-3), and Teamster (SC-23-261-2 and SD-23-261-3) in all the Southern California counties, including San Diego County.

DEPARTMENT OF INDUSTRIAL RELATIONS
Office of the Director – Research Unit
455 Golden Gate Avenue, 9th Floor
San Francisco, CA 94102

MAILING ADDRESS:
P. O. Box 420603
San Francisco, CA 94142-0603



September 23, 2016

SUMMARY OF IMPORTANT NOTICES CONCERNING BURGLAR ALARM AND FIRE ALARM INSTALLATION

Dear Public Officials/Other Interested Parties:

The Department has issued several important notices between June 27, 2002, and October 27, 2015, specifying the prevailing rate of pay for the installation of burglar and fire alarms. The tables on the following two pages provide a summary of the applicable rates of pay for burglar and fire alarm installation by county as of September 23, 2016. The information in these tables summarizes but **does not** alter the applicable rates of pay issued in the aforementioned important notices.

Please note that minimum rate of pay determinations are issued on a “project-by-project basis.” If you have a public works project in one of the counties listed in the tables that indicates “project-by-project basis,” you may request a minimum rate of pay determination prior to the bid advertisement date of the project by sending a written request to the address below. Each request should include all the relevant documents that would assist the Department in issuing a determination. These documents include but are not limited to the contract, financial documents, plans, specifications, as well as contact information for the Awarding Body.

Please refer to the county determinations to find the rates associated with the craft(s)/classification(s) referenced in the tables. The scope of work for each classification is posted on the Internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. This information may also be requested from the Office of the Director – Research Unit by calling (415) 703-4774, by faxing a request to (415) 703-4771 or by writing to:

California Department of Industrial Relations
Office of the Director – Research Unit
P.O. Box 420603
San Francisco, CA 94142

Table 1: Burglar Alarm Installation

COUNTY	CRAFT/CLASSIFICATION
Alameda	Project-by-Project Basis
Alpine	Electrician: Inside Wireman
Amador	Electrician: Inside Wireman
Butte	Electrician: Inside Wireman
Calaveras	Project-by-Project Basis
Colusa	Electrician: Inside Wireman
Contra Costa	Electrician: Comm & System Installer
Del Norte	Electrician: Comm & System Installer
El Dorado	Electrician: Inside Wireman
Fresno	Electrician: Comm & System Installer
Glenn	Electrician: Inside Wireman
Humboldt	Electrician: Comm & System Installer
Imperial	Electrician: Sound and Signal Technician
Inyo	Electrician: Comm & System Installer
Kern	Project-by-Project Basis
Kings	Electrician: Comm & System Installer
Lake	Electrician: Comm & System Installer
Lassen	Electrician: Inside Wireman
Los Angeles	Electrician: Comm & System Installer
Madera	Electrician: Comm & System Installer
Marin	Electrician: Comm & System Installer
Mariposa	Electrician: Inside Wireman
Mendocino	Electrician: Comm & System Installer
Merced	Electrician: Inside Wireman
Modoc	Project-by-Project Basis
Mono	Electrician: Comm & System Installer
Monterey	Electrician: Comm & System Installer ^a
Napa	Project-by-Project Basis
Nevada	Electrician: Inside Wireman
Orange	Electrician: Sound Installer
Placer	Electrician: Inside Wireman
Plumas	Electrician: Inside Wireman
Riverside	Project-by-Project Basis
Sacramento	Electrician: Inside Wireman
San Benito	Electrician: Comm & System Installer ^a
San Bernardino	Electrician: Comm & System Installer
San Diego	Electrician: Sound and Signal Technician
San Francisco	Electrician: Comm & System Installer
San Joaquin	Project-by-Project Basis
San Luis Obispo	Electrician: Inside Wireman
San Mateo	Project-by-Project Basis
Santa Barbara	Electrician: Sound Installer
Santa Clara	Electrician: Comm & System Installer
Santa Cruz	Electrician: Comm & System Installer ^a
Shasta	Electrician: Inside Wireman
Sierra	Electrician: Inside Wireman
Siskiyou	Project-by-Project Basis
Solano	Project-by-Project Basis
Sonoma	Electrician: Comm & System Installer
Stanislaus	Electrician: Inside Wireman
Sutter	Electrician: Inside Wireman
Tehama	Electrician: Inside Wireman
Trinity	Electrician: Inside Wireman
Tulare	Electrician: Comm & System Installer
Tuolumne	Electrician: Inside Wireman
Ventura	Electrician: Comm & System Installer
Yolo	Electrician: Inside Wireman
Yuba	Electrician: Inside Wireman

Notes: ^a Installation of conduit, boxes, cables, and devices is performed at the Inside Wireman rate, and the final connection and programming is performed at the Communication and System Installer rate.

Last updated: September 23, 2016

Table 2: Fire Alarm Installation

COUNTY	CRAFT/CLASSIFICATION
Alameda	Project-by-Project Basis
Alpine	Electrician: Inside Wireman
Amador	Electrician: Inside Wireman
Butte	Electrician: Inside Wireman
Calaveras	Project-by-Project Basis
Colusa	Electrician: Inside Wireman
Contra Costa	Electrician: Comm & System Installer
Del Norte	Electrician: Inside Wireman
El Dorado	Electrician: Inside Wireman
Fresno	Electrician: Inside Wireman ^a
Glenn	Electrician: Inside Wireman
Humboldt	Electrician: Inside Wireman
Imperial	Electrician: Sound and Signal Technician
Inyo	Electrician: Comm & System Installer
Kern	Electrician: Inside Wireman
Kings	Electrician: Inside Wireman ^a
Lake	Electrician: Inside Wireman
Lassen	Electrician: Inside Wireman
Los Angeles	Electrician: Comm & System Installer
Madera	Electrician: Inside Wireman ^a
Marin	Electrician: Inside Wireman
Mariposa	Electrician: Inside Wireman
Mendocino	Electrician: Inside Wireman
Merced	Electrician: Inside Wireman
Modoc	Project-by-Project Basis
Mono	Electrician: Comm & System Installer
Monterey	Electrician: Inside Wireman ^b
Napa	Project-by-Project Basis
Nevada	Electrician: Inside Wireman
Orange	Electrician: Sound Installer
Placer	Electrician: Inside Wireman
Plumas	Electrician: Inside Wireman
Riverside	Electrician: Comm & System Installer
Sacramento	Electrician: Inside Wireman
San Benito	Electrician: Inside Wireman ^b
San Bernardino	Electrician: Comm & System Installer
San Diego	Electrician: Sound and Signal Technician
San Francisco	Electrician: Inside Wireman
San Joaquin	Project-by-Project Basis
San Luis Obispo	Electrician: Inside Wireman
San Mateo	Project-by-Project Basis
Santa Barbara	Electrician: Inside Wireman
Santa Clara	Electrician: Comm & System Installer
Santa Cruz	Electrician: Inside Wireman ^b
Shasta	Electrician: Inside Wireman
Sierra	Electrician: Inside Wireman
Siskiyou	Project-by-Project Basis
Solano	Project-by-Project Basis
Sonoma	Electrician: Inside Wireman
Stanislaus	Electrician: Inside Wireman
Sutter	Electrician: Inside Wireman
Tehama	Electrician: Inside Wireman
Trinity	Electrician: Inside Wireman
Tulare	Electrician: Inside Wireman ^a
Tuolumne	Electrician: Inside Wireman
Ventura	Electrician: Inside Wireman
Yolo	Electrician: Inside Wireman
Yuba	Electrician: Inside Wireman

- Notes:**
- ^a Conduit installation is performed at the Inside Wireman rate, and the termination, setting of devices, wiring of control panel and system performance checks are performed at the Comm & System Installer rate.
 - ^b Installation of conduit, boxes, cables, and devices is performed at the Inside Wireman rate, and the final connection and programming is performed at the Comm and System Installer rate.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: ASBESTOS AND LEAD ABATEMENT (LABORER)

DETERMINATION: SC-102-882-1-2017-1

ISSUE DATE: February 22, 2017

EXPIRATION DATE OF DETERMINATION: December 31, 2017** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara and Ventura Counties

Classification (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension	Vacation/ Holiday ^a	Training	Other ^b	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday ^c 1 1/2X	Sunday/ Holiday 2X
Asbestos and Lead Abatement Worker	\$31.88	7.00	6.50	4.45	0.75	0.39	8	\$50.97	\$66.91	\$66.91	\$82.85

^a Includes an amount for supplemental dues.

^b Includes amounts for Center for Contract Compliance, Contract Administration Fund, Industry Fund, and Laborers' Trust Administrative Trust Fund.

^c Saturdays in the same work week may be worked at straight-time if the job is shut down during the normal work week due to inclement weather, or reasons beyond the control of the employer.

NOTE: Asbestos Abatement must be trained and the work conducted according to the Code of Federal Regulations 29 CFR 1926.58, the California Labor Code 6501.5 and the California Code of Regulations Title 8, Section 5208. Contractors must be certified by the Contractors' State License Board and registered with the Division of Occupational Safety and Health (DOSH). For further information, contact the Asbestos Contractors Abatement Registration Unit, DOSH at (916) 574-2993.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director - Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the Travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or Subsistence provisions for current or superseded determinations may be obtained by contacting the Office of the Director - Research Unit at (415) 703-4774.

DEPARTMENT OF INDUSTRIAL RELATIONS
Office of the Director – Research Unit
455 Golden Gate Avenue, 9th Floor
San Francisco, CA 94102

MAILING ADDRESS:
P. O. Box 420603
San Francisco, CA 94142-0603



PREDETERMINED INCREASE FOR
ASBESTOS AND LEAD ABATEMENT (LABORER)
(SC-102-882-1-2017-1)

IN ALL LOCALITIES WITHIN IMPERIAL, INYO, KERN, LOS ANGELES, MONO,
ORANGE, RIVERSIDE, SAN BERNARDINO, SAN DIEGO, SAN LUIS OBISPO, SANTA
BARBARA, AND VENTURA COUNTIES

This predetermined increase for the above named craft applies only to the above referenced determination for work being performed on public works projects with bid advertisement dates on or after **March 4, 2017** until this determination is superseded by a new determination or a predetermined increase modification notice becomes effective.

When referencing our prevailing wage determinations, please note that if the prevailing wage rate determination that was in effect on the bid advertisement date of a project has a single asterisk (*) after the expiration date, the rate will be good for the life of the project. However, if a prevailing wage rate determination has double asterisks (**) after the expiration date, the rate must be updated on the following date to reflect the predetermined rate change(s).

ASBESTOS AND LEAD ABATEMENT WORKER (LABORER)

Determination SC-102-882-1-2017-1 is currently in effect and expires on December 31, 2017**.

Effective January 1, 2018, there will be an increase of \$2.27 to be allocated to wages and/or fringe benefits.

There will be no further increases applicable to this determination.

Issued 2/22/2017, Effective 3/4/2017 until superseded.

This page will be updated when wage rate breakdown becomes available
Last Updated: March 4, 2017.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: # BOILERMAKER-BLACKSMITH

DETERMINATION: C-14-X-2-2017-1

ISSUE DATE: February 22, 2017

EXPIRATION DATE OF DETERMINATION: September 30, 2017* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

LOCALITY: All localities within the State of California

CLASSIFICATION (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension ^d	Vacation/ Holiday	Training	Other Payments	Hours	Total Hourly Rate	Daily 1 1/2X	Saturday 1 1/2X	Sunday/ Holiday 2X
^a AREA 1 Boilermaker-Blacksmith	\$42.16	\$8.57	^b \$17.26	^b \$3.50	\$3.90	\$0.44	8	\$75.83	^c \$107.29	^c \$107.29	\$138.75
^a AREA 2 Boilermaker-Blacksmith	\$43.28	\$8.57	^b \$20.94	^b \$4.00	\$4.40	\$0.44	8	\$81.63	^c \$115.74	^c \$115.74	\$149.85
^a AREA 3 Boilermaker-Blacksmith	\$39.68	\$8.57	^b \$19.24	^b \$3.50	\$4.40	\$0.44	8	\$75.83	^c \$107.04	^c \$107.04	\$138.25

DETERMINATION: C-14-X-2-2017-1

ISSUE DATE: February 22, 2017

EXPIRATION DATE OF DETERMINATION: September 30, 2017* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

LOCALITY: All localities within the State of California

^a AREA 1 Boilermaker-Blacksmith Helper ^f	\$23.19	e	^b \$0.61	-	\$1.50	\$0.34	8	\$25.64	^c \$37.54	^c \$37.54	\$49.44
^a AREA 2 Boilermaker-Blacksmith Helper ^f	\$23.80	e	^b \$0.69	-	\$4.40	\$0.44	8	\$29.33	^c \$41.58	^c \$41.58	\$53.82
^a AREA 3 Boilermaker-Blacksmith Helper ^f	\$21.82	e	^b \$0.69	-	\$4.40	\$0.44	8	\$27.35	^c \$38.61	^c \$38.61	\$49.86

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Area 1 - Imperial, Inyo, Kern, Los Angeles, Orange, Riverside, San Bernardino, San Diego, Santa Barbara, San Luis Obispo (only that portion that is within a 25-mile radius of the city of Santa Maria), and Ventura Counties.

Area 2 - Alameda, Contra Costa, Marin, San Francisco, San Mateo, Santa Clara, and Solano Counties.

Area 3 - All other remaining counties.

^b Contribution is factored at the applicable overtime multiplier for each overtime hour worked.

^c Rate applies to the first 2 daily overtime hours and the first 10 hours worked on Saturday. All other overtime is paid at the Sunday/Holiday rate.

^d Includes amount for Annuity Trust Fund.

^e Helpers will be eligible for Health & Welfare benefits after completing 2000 hours.

^f One Helper shall be employed on each job of 5 to 10 employees.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER

DETERMINATION: SC-23-63-2-2017-1D

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Health and Welfare	Employer Payments				Straight – Time		Overtime Hourly Rate		
			Pension	Vacation/ Holiday (a)	Training	Other Payments	Hours	Total Hourly Rate	Daily (b)	Saturday (c)	Sunday/ Holiday
									1 1/2X	1 1/2X	2X
Classification Groups											
Group 1	\$44.78	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$70.82	\$93.210	\$93.210	\$115.60
Group 2	\$46.56	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$72.60	\$95.880	\$95.880	\$119.16
Group 3	\$48.56	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.60	\$98.880	\$98.880	\$123.16

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount withheld for supplemental dues.

^b Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

^c Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TTRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

CLASSIFICATIONS:

GROUP I

Field Soils and Materials Tester
Field Asphaltic Concrete (Soils and Materials Tester)
Field Earthwork (Grading Excavation and Filling)
Roof Inspector
Water Proofer

GROUP II

AWS-CWI Welding Inspector
Building / Construction Inspector
Licensed Grading Inspector
Reinforcing Steel
Reinforced Concrete
Pre-Tension Concrete
Post-Tension Concrete
Structural Steel and Welding Inspector
Glue-Lam and truss Joints
Truss-Type Joint Construction
Shear Wall and Floor System used as diaphragms
Concrete batch Plant
Spray-Applied Fireproofing
Structural masonry

Group III

Nondestructive Testing (NDT)

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER (SPECIAL SHIFT)

DETERMINATION: SC-23-63-2-2017-1D1

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Health and Welfare	Employer Payments				Straight – Time		Overtime Hourly Rate		
			Pension	Vacation/ Holiday (a)	Training	Other Payments	Hours	Total Hourly Rate	Daily (b)	Saturday (c)	Sunday/ Holiday
Classification Groups									1 1/2X	1 1/2X	2X
Group 1	\$45.28	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$71.32	\$93.960	\$93.960	\$116.60
Group 2	\$47.06	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.10	\$96.630	\$96.630	\$120.16
Group 3	\$49.06	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$75.10	\$99.630	\$99.630	\$124.16

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount withheld for supplemental dues.

^b Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

^c Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

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Roof Inspector
Water Proofer

GROUP II

AWS-CWI Welding Inspector
Building / Construction Inspector
Licensed Grading Inspector
Reinforcing Steel
Reinforced Concrete
Pre-Tension Concrete
Post-Tension Concrete
Structural Steel and Welding Inspector
Glue-Lam and truss Joints
Truss-Type Joint Construction
Shear Wall and Floor System used as diaphragms
Concrete batch Plant
Spray-Applied Fireproofing
Structural masonry

Group III

Nondestructive Testing (NDT)

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #BUILDING/CONSTRUCTION INSPECTOR AND FIELD SOILS AND MATERIAL TESTER (MULTI-SHIFT)

DETERMINATION: SC-23-63-2-2017-1D2

Issue Date: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Employer Payments					Straight – Time		Overtime Hourly Rate		
		Health and Welfare	Pension	Vacation/ Holiday (a)	Training	Other Payments	Hours (d)	Total Hourly Rate	Daily (b)	Saturday (c)	Sunday/ Holiday
									1 1/2X	1 1/2X	2X
Classification Groups											
Group 1	\$45.78	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$71.82	\$94.710	\$94.710	\$117.60
Group 2	\$47.56	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.60	\$97.380	\$97.380	\$121.16
Group 3	\$49.56	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$75.60	\$100.380	\$100.380	\$125.16

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount withheld for supplemental dues.

^b Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

^c Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

^d The Third Shift shall work 6.5 hours, exclusive of meal period, for which 8 hours straight-time shall be paid at the non-shift rate, Monday through Friday.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

CLASSIFICATIONS:

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Field Asphaltic Concrete (Soils and Materials Tester)
Field Earthwork (Grading Excavation and Filling)
Roof Inspector
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GROUP II

AWS-CWI Welding Inspector
Building / Construction Inspector
Licensed Grading Inspector
Reinforcing Steel
Reinforced Concrete
Pre-Tension Concrete
Post-Tension Concrete
Structural Steel and Welding Inspector
Glue-Lam and truss Joints
Truss-Type Joint Construction
Shear Wall and Floor System used as diaphragms
Concrete batch Plant
Spray-Applied Fireproofing
Structural masonry

Group III

Nondestructive Testing (NDT)

DEPARTMENT OF INDUSTRIAL RELATIONS
Office of the Director - Research Unit
455 Golden Gate Avenue, 9th Floor
San Francisco, CA 94102

MAILING ADDRESS:
P. O. Box 420603
San Francisco, CA 94142-0603



PREDETERMINED INCREASES FOR

**OPERATING ENGINEER (SC-23-63-2-2017-1)
OPERATING ENGINEER (MULTI-SHIFT) (SC-23-63-2-2017-1)
OPERATING ENGINEER (SPECIAL SHIFT) (SC-23-63-2-2017-1)**

**CRANES, PILE DRIVER AND HOISTING EQUIPMENT
(OPERATING ENGINEER) (SC-23-63-2-2017-1B)**

**CRANES, PILE DRIVER AND HOISTING EQUIPMENT
(OPERATING ENGINEER, MULTI-SHIFT) (SC-23-63-2-2017-1B1)**

**CRANES, PILE DRIVER AND HOISTING EQUIPMENT
(OPERATING ENGINEER, SPECIAL SHIFT) (SC-23-63-2-2017-1B2)**

TUNNEL (OPERATING ENGINEER) (SC-23-63-2-2017-1C)

TUNNEL (OPERATING ENGINEER) (SC-23-63-2-2017-1C1) (MULTI-SHIFT)

**BUILDING/CONSTRUCTION INSPECTOR, FIELD SOILS AND MATERIAL
TESTER, AND NON-DESTRUCTIVE TESTING (SC-23-63-2-2017-1D)**

**BUILDING/CONSTRUCTION INSPECTOR, FIELD SOILS AND MATERIAL
TESTER, AND NON-DESTRUCTIVE TESTING (SPECIAL SHIFT)
(SC-23-63-2-2017-1D1)**

**BUILDING/CONSTRUCTION INSPECTOR, FIELD SOILS AND MATERIAL
TESTER, AND NON-DESTRUCTIVE TESTING (MULTI-SHIFT)
(SC-23-63-2-2017-1D2)**

**ALL LOCALITIES WITH IMPERIAL, INYO, KERN, LOS ANGELES, MONO,
ORANGE, RIVERSIDE, SAN BERNARDINO, SAN LUIS OBISPO,
SANTA BARBARA, AND VENTURA COUNTIES**

These predetermined increases for the above named crafts apply only to the current determinations for work being performed on public works projects with bid advertisement dates on or after **September 1, 2017**, until the determination(s) is/are superseded by a new determination(s) or a predetermined increase modification notice becomes effective.

When referencing our prevailing wage determinations, please note that if the prevailing wage rate determination which was in effect on the bid advertisement date of a project has a single asterisk (*) after the expiration date, the rate will be good for the life of the project. However, if a prevailing wage rate determination has double asterisks (**) after the expiration date, the rate must be updated on the following date to reflect the predetermined rate change(s).

OPERATING ENGINEER: All Classifications and All Shifts

The above Determinations are currently in effect and will expire on June 30, 2018**.

Effective on July 1, 2018, there will be an increase of \$2.30 to be allocated to wages and/or fringes.

There will be no further increases applicable to these determinations.

Issued 8/22/2017, Effective 9/1/2017 until superseded.

This page will be updated when wage rate breakdown information becomes available.

Last Updated: September 1, 2017

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: # CARPENTER AND RELATED TRADES

DETERMINATION: SC-23-31-2-2017-2

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

Classification (Journey person)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rate		
		Health and Welfare	Pension	Vacation/ Holiday	Training	Other	Total Hourly Rate	Hours	Daily ^g 1 1/2X	Saturday ^h 1 1/2X	Sunday and Holiday
^a AREA 1											
Carpenter ^{c, h} , Cabinet Installer, Insulation Installer, Hardwood Floor Worker, Acoustical Installer	\$41.25	\$7.10	\$4.91	\$5.60 ^f	\$0.57	\$0.39	8	\$59.82	\$80.445	\$80.445	\$101.07
Pile Driverman ⁱ , Derrick Bargeman, Rockslinger, Bridge or Dock Carpenter, Cable Splicer	41.38	7.10	4.91	5.60 ^f	0.57	0.39	8	59.95	80.64	80.64	101.33
Bridge Carpenter ^c	41.38	7.10	4.91	5.60 ^f	0.57	0.39	8	59.95	80.64	80.64	101.33
Shingler ^c	41.38	7.10	4.91	5.60 ^f	0.57	0.39	8	59.95	80.64	80.64	101.33
Saw Filer	41.34	7.10	4.91	5.60 ^f	0.57	0.39	8	59.91	80.58	80.58	101.25
Table Power Saw Operator	41.35	7.10	4.91	5.60 ^f	0.57	0.39	8	59.92	80.595	80.595	101.27
Pneumatic Nailor or Power Stapler	41.50	7.10	4.91	5.60 ^f	0.57	0.39	8	60.07	80.82	80.82	101.57
Roof Loader of Shingles	28.97	7.10	4.91	5.60 ^f	0.57	0.39	8	47.54	62.025	62.025	76.51
Scaffold Builder	32.45	7.10	4.91	5.60 ^f	0.57	0.39	8	51.02	67.245	67.245	83.47
Millwright ^c	41.75	7.10	4.91	5.60 ^f	0.57	0.59	8	60.52	81.395	81.395	102.27
Head Rockslinger	41.48	7.10	4.91	5.60 ^f	0.57	0.39	8	60.05	80.79	80.79	101.53
Rock Bargeman or Scowman	41.28	7.10	4.91	5.60 ^f	0.57	0.39	8	59.85	80.49	80.49	101.13
Diver, Wet (Up To 50 Ft. Depth) ^d	^e 90.76	7.10	4.91	5.60 ^f	0.57	0.39	8	109.33	154.71	154.71	200.09
Diver, (Stand-By) ^d	^e 45.38	7.10	4.91	5.60 ^f	0.57	0.39	8	63.95	86.64	86.64	109.33
Diver's Tender ^d	44.38	7.10	4.91	5.60 ^f	0.57	0.39	8	62.95	85.14	85.14	107.33
Assistant Tender (Diver's) ^d	41.38	7.10	4.91	5.60 ^f	0.57	0.39	8	59.95	80.64	80.64	101.33
^a AREA 2											
Carpenter ^{c, h} , Cabinet Installer, Insulation Installer, Hardwood Floor Worker, Acoustical Installer	40.68	7.10	4.91	5.60 ^f	0.57	0.39	8	59.25	79.59	79.59	99.93
Shingler ^c	40.82	7.10	4.91	5.60 ^f	0.57	0.39	8	59.39	79.80	79.80	100.21
Saw Filer	40.68	7.10	4.91	5.60 ^f	0.57	0.39	8	59.25	79.59	79.59	99.93
Table Power Saw Operator	41.78	7.10	4.91	5.60 ^f	0.57	0.39	8	60.35	81.24	81.24	102.13
Pneumatic Nailor or Power Stapler	40.94	7.10	4.91	5.60 ^f	0.57	0.39	8	59.51	79.98	79.98	100.45
Roof Loader of Shingles	28.57	7.10	4.91	5.60 ^f	0.57	0.39	8	47.14	61.425	61.425	75.71

DETERMINATION: SC-31-741-1-2017-1

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: May 31, 2018* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director - Research Unit at (415) 703-4774 for new rates after 10 days from the expiration date, if no subsequent determination is issued.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

Classification (Journey person)	Basic Hourly Rate	Employer Payments				Straight-Time		Overtime Hourly Rate		
		Health and Welfare	Pension	Vacation/ and Holiday	Training	Total Hourly Rate	Hours	Daily 1 1/2X	Saturday/ ^j Sunday 1 1/2X	Holiday 2X
Terrazzo Installer	\$38.10	7.10	4.91	3.93 ^f	0.52	8	54.56	73.61	73.61	92.66
Terrazzo Finisher	31.60	7.10	4.91	3.93 ^f	0.52	8	48.06	63.86	63.86	79.66

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

a. AREA 1 - Imperial, Los Angeles, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura counties.

AREA 2 - Inyo, Kern, and Mono counties. For Bridge Carpenter, Scaffold Builder, Pile Driverman, Derrick Bargeman, Rockslinger, Bridge or Dock Carpenter, Cable Splicer, Millwright, Head Rockslinger, Rock Bargeman or Scowman, Diver, Wet (Up to 50 Ft. Depth), Diver (Stand-By), Diver's Tender, and Assistant Tender (Diver's) rates, please see Area 1 as this rate applies to Area 2 as well. Basic Hourly Rates for Area 2 include an additional amount deducted for vacation/holiday.

b. First eight (8) hours worked paid at 1 1/2 times the straight time rate, all hours after that paid at double (2x) the straight time rate. Saturdays in the same work week may be worked at straight-time rates if a job is shut down during the normal work week due to inclement weather, major mechanical breakdown or lack of materials beyond the control of the Employer.

c. When performing welding work requiring certification, classification will receive an additional \$1.00 per hour.

d. Shall receive a minimum of 8 hours pay for any day or part thereof.

e. For specific rates over 50 ft depth, contact the Office of the Director - Research Unit. Rates for Technicians, Manifold Operators, Pressurized Submersible Operators, Remote Control Vehicle Operators, and Remote Operated Vehicle Operators, as well as rates for Pressurized Bell Diving and Saturation Diving are available upon request.

f. Includes an amount for supplemental dues.

g. All overtime worked Mon - Fri shall be paid at 1 1/2 times the straight time rate for the first four (4) hours and double (2x) the straight time for work performed after twelve (12) hours.

h. A Carpenter who performs work of forming in the construction of open cut sewers or storm drains shall receive a premium of thirteen cents (\$0.13) per hour in addition to his Carpenter's scale. This premium shall apply only on an operation in which horizontal lagging is used in conjunction with Steel H-Beams driven or placed in pre-drilled holes, for that portion of a lagged trench against which concrete is poured, namely, as a substitute for back forms, which work is performed by pile drivers.

i. When performing welding work requiring certification, classification will receive an additional \$1.00 per hour. An additional \$0.50 per hour when handling or working with new pressure-treated creosote piling or timber, or driving of used pressure-treated creosote piling.

j. Saturdays in the same work week may be worked at straight-time rates if a job is shut down during the normal work week due to inclement weather, major mechanical breakdown or lack of materials beyond the control of the Employer. Work on Sunday, if it is the 7th consecutive workday, shall be paid at double (2x) the straight-time rate.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPrWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director - Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPrWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director - Research Unit at (415) 703-4774.

DEPARTMENT OF INDUSTRIAL RELATIONS
Office of the Director - Research Unit
455 Golden Gate Avenue, 9th Floor
San Francisco, CA 94102

MAILING ADDRESS:
P. O. Box 420603
San Francisco, CA 94142-0603



PREDETERMINED INCREASE FOR
CARPENTER AND RELATED TRADES
(SC-23-31-2-2017-2)

IN ALL LOCALITIES WITHIN IMPERIAL, INYO, KERN, LOS ANGELES,
MONO, ORANGE, RIVERSIDE, SAN BERNARDINO,
SAN LUIS OBISPO, SANTA BARBARA, AND VENTURA COUNTIES

This predetermined increase for the above named craft applies only to the current determination for work being performed on public works projects with bid advertisement dates on or after **September 1, 2017**, until this determination is superseded by a new determination or a predetermined increase modification notice becomes effective.

When referencing our prevailing wage determinations, please note that if the prevailing wage rate determination which was in effect on the bid advertisement date of a project has a single asterisk (*) after the expiration date, the rate will be good for the life of the project. However, if a prevailing wage rate determination has double asterisks (**) after the expiration date, the rate must be updated on the following date to reflect the predetermined rate change(s).

CARPENTER: All classifications:

Determination SC-23-31-2-2017-2 is currently in effect and expires on June 30, 2018**.

Effective on July 1, 2018, there will be an increase of \$2.20 to be allocated to wages and/or employer payments.

Effective on July 1, 2019, there will be an increase of \$2.30 to be allocated to wages and/or employer payments.

There will be no further increases applicable to this determination.

Issued 8/22/2017, Effective 9/1/2017 until superseded.

This page will be updated when wage rate breakdown becomes available.

Last Updated: September 1, 2017

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: # CEMENT MASON

DETERMINATION: SC-23-203-2-2017-1

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura Counties.

CLASSIFICATION (JOURNEYPERSON)	Basic Hourly Rate	Employer Payments					Straight-Time Total Hourly Rate	Overtime Hourly Rate			
		Health and Welfare	Pension	Vacation/ Holiday	Other Training Payments	Hours		Daily 1 1/2X	Saturday ^a 1 1/2X	Sunday/ Holiday 2X	
Cement Mason, Curb and Gutter Machine Operator; Clary and Similar Type of Screed Operator (Cement only); Grinding Machine Operator (all types); Jackson Vibratory, Texas Screed and Similar Type Screed Operator; Scoring Machine Operator	\$34.50	7.77	8.86	6.71 ^b	0.64	0.27	8	58.75	76.00 ^c	76.00 ^c	93.25
Magnesite, magnesite-terrazzo and mastic composition, Epoxy, Urethanes and exotic coatings, Dex-O-Tex	\$34.62	7.77	8.86	6.71 ^b	0.64	0.27	8	58.87	76.18 ^c	76.18 ^c	93.49
Floating and Troweling Machine Operator	\$34.75	7.77	8.86	6.71 ^b	0.64	0.27	8	59.00	76.375 ^c	76.375 ^c	93.75

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Saturday in the same work week may be worked at straight-time rate, up to 8 hours on Saturday or when the employee has worked a total of 40 hours in the work week, if it is not reasonably possible for any individual employee on a particular job site to complete 40 hours of work on a 8 hour day, Monday through Friday, due to inclement weather or similar act of God or a situation beyond the control of the contractor.

^b Includes an amount for supplemental dues.

^c Rate applies to the first 4 daily overtime hours and the first 12 hours worked on Saturday. All other time is paid at the double time (2X) rate.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

DEPARTMENT OF INDUSTRIAL RELATIONS
Office of the Director – Research Unit
455 Golden Gate Avenue, 9th Floor
San Francisco, CA 94102

ADDRESS REPLY TO:

San Francisco P.O. Box 420603
CA 94142-0603



PREDETERMINED INCREASE FOR

CEMENT MASON (SC-23-203-2-2017-1)

IN ALL LOCALITIES WITHIN IMPERIAL, INYO, KERN, LOS ANGELES, MONO, ORANGE, RIVERSIDE, SAN BERNARDINO, SAN LUIS OBISPO, SANTA BARBARA, AND VENTURA COUNTIES

This predetermined increase for the above named craft applies only to the current determination for work being performed on public works projects with bid advertisement dates on or after **September 1, 2017**, until this determination is superseded by a new determination or a predetermined increase modification notice becomes effective.

When referencing our prevailing wage determinations, please note that if the prevailing wage rate determination which was in effect on the bid advertisement date of a project has a single asterisk (*) after the expiration date, the rate will be good for the life of the project. However, if a prevailing wage rate determination has double asterisks (**) after the expiration date, the rate must be updated on the following date to reflect the predetermined rate change(s).

Cement Mason

Determination SC-23-203-2-2017-1 is currently in effect and expires on June 30, 2018**.

Effective on July 1, 2018, there will be an increase of \$2.00 allocated as follows: \$0.15 to Pension, and \$1.85 to Wages and/or fringes.

Effective on July 1, 2019, there will be an increase of \$2.05 allocated as follows: \$0.15 to Pension, and \$1.90 to Wages and/or fringes.

Effective on July 1, 2020, there will be an increase of \$1.85 allocated as follows: \$0.15 to Pension, and \$1.70 to Wages and/or fringes.

There will be no further increases applicable to this determination.

Issued 8/22/2017, Effective 9/1/2017.

This page will be updated when wage rate breakdown information becomes available.

Last Updated: September 1, 2017

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #Cranes, Pile Driver and Hoisting Equipment (Operating Engineer)

DETERMINATION: SC-23-63-2-2017-1B

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Health and Welfare	Employer Payments				Straight – Time		Overtime Hourly Rate		
			Pension	Vacation/ Holiday (a)	Training	Other Payments	Hours	Total Hourly Rate	Daily (c)	Saturday (d)	Sunday/ Holiday
									1 1/2X	1 1/2X	2X
Classification Groups (b)											
Group 1	\$45.35	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$71.39	\$94.065	\$94.065	\$116.74
Group 2	\$46.13	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$72.17	\$95.235	\$95.235	\$118.30
Group 3	\$46.42	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$72.46	\$95.670	\$95.670	\$118.88
Group 4	\$46.56	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$72.60	\$95.880	\$95.880	\$119.16
Group 5	\$46.78	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$72.82	\$96.210	\$96.210	\$119.60
Group 6	\$46.89	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$72.93	\$96.375	\$96.375	\$119.82
Group 7	\$47.01	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.05	\$96.555	\$96.555	\$120.06
Group 8	\$47.18	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.22	\$96.810	\$96.810	\$120.40
Group 9	\$47.35	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.39	\$97.065	\$97.065	\$120.74
Group 10	\$48.35	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.39	\$98.565	\$98.565	\$122.74
Group 11	\$49.35	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$75.39	\$100.065	\$100.065	\$124.74
Group 12	\$50.35	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$76.39	\$101.565	\$101.565	\$126.74
Group 13	\$51.35	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$77.39	\$103.065	\$103.065	\$128.74

* # Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount withheld for supplemental dues.

^b For classifications within each group, see page 10B.

^c Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

^d Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

NOTE: For Special Shift and Multi-Shift, see pages 10A-1 and 10A-2.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Determination: SC-23-63-2-2017-1B; SC-23-63-2-2017-1B1; SC-23-63-2-2017-1B2

CLASSIFICATIONS:

GROUP 1

Engineer Oiler

GROUP 2

Truck Crane Oiler

GROUP 3

A-Frame or Winch Truck Operator

Ross Carrier Operator (Jobsite)

GROUP 4

Bridge-Type Unloader and Turntable Operator

Helicopter Hoist Operator

Snobble Unit (pin-n-go or similar type)

GROUP 5

Hydraulic Boom Truck/Knuckleboom

Stinger Crane (Austin-Western or similar type)

Tugger Hoist Operator (1 drum)

GROUP 6

Bridge Crane Operator

Cretor Crane Operator

Hoist Operator (Chicago Boom and similar type)

Lift Mobile Operator

Lift Slab Machine Operator (Vagtborg and similar types)

Material Hoist and/or Manlift Operator

Polar Gantry Crane Operator

Prentice Self-Loader

Self Climbing Scaffold (or similar type)

Shovel, Dragline, Clamshell Operator (over 3/4 yd and up to 5 cu yds, M.R.C.)

Silent Piler

Tugger Hoist Operator (2 drum)

GROUP 7

Pedestal Crane Operator

Shovel, Dragline, Clamshell Operator (over 5 cu yds, M.R.C.)

Tower Crane Repairman

Tugger Hoist Operator (3 drum)

GROUP 8

Crane Operator (up to and including 25 ton capacity)

Crawler Transporter Operator

Derrick Barge Operator (up to and including 25 ton capacity)

Hoist Operator, Stiff Legs, Guy Derrick or similar type (up to and including 25 ton capacity)

Shovel, Dragline, Clamshell Operator (over 7 cu yds M.R.C.)

GROUP 9

Crane Operator (over 25 tons, up to and including 50 ton M.R.C.)

Derrick Barge Operator (over 25 tons, up to and including 50 ton M.R.C.)

Highline Cableway Operator

Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 25 tons, up to and including 50 ton M.R.C.)

K-Crane

Polar Crane Operator

Self Erecting Tower Crane Operator Maximum Lifting Capacity ten (10) tons.

GROUP 10

ABI/Fundex Machine

Crane Operator (over 50 tons, up to and including 100 ton M.R.C.)

Derrick Barge Operator (over 50 tons, up to and including 100 ton M.R.C.)

Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 50 tons, up to and including 100 ton M.R.C.)

Mobile Tower Crane Operator (over 50 tons, up to and including 100 ton M.R.C.)

Shovel, Dragline, Clamshell Operator (over 10 cu. yds.)

GROUP 11

Crane Operator (over 100 tons, up to and including 200 ton M.R.C.)

Derrick Barge Operator (over 100 tons, up to and including 200 tons M.R.C.)

Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 100 tons, up to and including 200 ton M.R.C.)

Mobile Tower Crane Operator (over 100 tons, up to and including 200 ton M.R.C.)

Tower Crane Operator and Tower Gantry

GROUP 12

Crane Operator (over 200 tons, up to and including 300 tons M.R.C.)

Derrick Barge Operator (over 200 tons, up to and including 300 tons M.R.C.)

Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 200 tons, up to and including 300 ton M.R.C.)

Mobile Tower Crane Operator (over 200 tons, up to and including 300 ton M.R.C.)

GROUP 13

Crane Operator (over 300 tons)

Derrick Barge Operator (over 300 tons)

Helicopter Pilot

Hoist Operator, Stiff Legs, Guy Derrick or similar type (over 300 tons)

Hydraulically Controlled Lift Gantry Operator BCR Lift System (over 300 tons)

Mobile Tower Crane Operator (over 300 tons)

MISCELLANEOUS PROVISIONS:

1. Operators on hoists with three drums shall receive fifteen cents (15¢) per hour additional pay to the regular rate of pay. The additional pay shall be added to the regular rate and become the base rate for the entire shift.
2. All heavy duty repairman and heavy duty combination shall receive fifty cents (50¢) per hour tool allowance in addition to their regular rate of pay and this shall become their base rate of pay.
3. Employees required to suit up and work in a hazardous material environment, shall receive Two Dollars (\$2.00) per hour in addition to their regular rate of pay, and that rate shall become the basic hourly rate of pay.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #Cranes, Pile Driver and Hoisting Equipment (Operating Engineer, Special Shift)

DETERMINATION: SC-23-63-2-2017-1B1

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Employer Payments					Straight – Time		Overtime Hourly Rate		
		Health and Welfare	Pension	Vacation/ Holiday (a)	Training	Other Payments	Hours	Total Hourly Rate	Daily	Saturday (d)	Sunday/ Holiday
									(c)	(d)	2X
								1 1/2X	1 1/2X	2X	
Classification Groups (b)											
Group 1	\$45.85	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$71.89	\$94.815	\$94.815	\$117.74
Group 2	\$46.63	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$72.67	\$95.985	\$95.985	\$119.30
Group 3	\$46.92	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$72.96	\$96.420	\$96.420	\$119.88
Group 4	\$47.06	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.10	\$96.630	\$96.630	\$120.16
Group 5	\$47.28	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.32	\$96.960	\$96.960	\$120.60
Group 6	\$47.39	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.43	\$97.125	\$97.125	\$120.82
Group 7	\$47.51	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.55	\$97.305	\$97.305	\$121.06
Group 8	\$47.68	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.72	\$97.560	\$97.560	\$121.40
Group 9	\$47.85	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.89	\$97.815	\$97.815	\$121.74
Group 10	\$48.85	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.89	\$99.315	\$99.315	\$123.74
Group 11	\$49.85	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$75.89	\$100.815	\$100.815	\$125.74
Group 12	\$50.85	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$76.89	\$102.315	\$102.315	\$127.74
Group 13	\$51.85	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$77.89	\$103.815	\$103.815	\$129.74

* # Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount withheld for supplemental dues.

^b For classifications within each group, see page 10B.

^c Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

^d Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #Cranes, Pile Driver and Hoisting Equipment (Operating Engineer, Multi-Shift)

DETERMINATION: SC-23-63-2-2017-1B2

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Employer Payments					Straight – Time		Overtime Hourly Rate		
		Health and Welfare	Pension	Vacation/ Holiday (a)	Training	Other Payments	Hours (e)	Total Hourly Rate	Daily (c) 1 1/2X	Saturday (d) 1 1/2X	Sunday/ Holiday 2X
Classification Groups (b)											
Group 1	\$46.35	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$72.39	\$95.565	\$95.565	\$118.74
Group 2	\$47.13	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.17	\$96.735	\$96.735	\$120.30
Group 3	\$47.42	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.46	\$97.170	\$97.170	\$120.88
Group 4	\$47.56	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.60	\$97.380	\$97.380	\$121.16
Group 5	\$47.78	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.82	\$97.710	\$97.710	\$121.60
Group 6	\$47.89	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.93	\$97.875	\$97.875	\$121.82
Group 7	\$48.01	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.05	\$98.055	\$98.055	\$122.06
Group 8	\$48.18	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.22	\$98.310	\$98.310	\$122.40
Group 9	\$48.35	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.39	\$98.565	\$98.565	\$122.74
Group 10	\$49.35	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$75.39	\$100.065	\$100.065	\$124.74
Group 11	\$50.35	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$76.39	\$101.565	\$101.565	\$126.74
Group 12	\$51.35	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$77.39	\$103.065	\$103.065	\$128.74
Group 13	\$52.35	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$78.39	\$104.565	\$104.565	\$130.74

* # Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount withheld for supplemental dues.

^b For classifications within each group, see page 10B.

^c Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

^d Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

^e The Third Shift shall work 6.5 hours, exclusive of meal period, for which 8 hours straight-time shall be paid at the non-shift rate, Monday through Friday.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

DEPARTMENT OF INDUSTRIAL RELATIONS
Office of the Director - Research Unit
455 Golden Gate Avenue, 9th Floor
San Francisco, CA 94102

MAILING ADDRESS:
P. O. Box 420603
San Francisco, CA 94142-0603



PREDETERMINED INCREASES FOR

**OPERATING ENGINEER (SC-23-63-2-2017-1)
OPERATING ENGINEER (MULTI-SHIFT) (SC-23-63-2-2017-1)
OPERATING ENGINEER (SPECIAL SHIFT) (SC-23-63-2-2017-1)**

**CRANES, PILE DRIVER AND HOISTING EQUIPMENT
(OPERATING ENGINEER) (SC-23-63-2-2017-1B)**

**CRANES, PILE DRIVER AND HOISTING EQUIPMENT
(OPERATING ENGINEER, MULTI-SHIFT) (SC-23-63-2-2017-1B1)**

**CRANES, PILE DRIVER AND HOISTING EQUIPMENT
(OPERATING ENGINEER, SPECIAL SHIFT) (SC-23-63-2-2017-1B2)**

TUNNEL (OPERATING ENGINEER) (SC-23-63-2-2017-1C)

TUNNEL (OPERATING ENGINEER) (SC-23-63-2-2017-1C1) (MULTI-SHIFT)

**BUILDING/CONSTRUCTION INSPECTOR, FIELD SOILS AND MATERIAL
TESTER, AND NON-DESTRUCTIVE TESTING (SC-23-63-2-2017-1D)**

**BUILDING/CONSTRUCTION INSPECTOR, FIELD SOILS AND MATERIAL
TESTER, AND NON-DESTRUCTIVE TESTING (SPECIAL SHIFT)
(SC-23-63-2-2017-1D1)**

**BUILDING/CONSTRUCTION INSPECTOR, FIELD SOILS AND MATERIAL
TESTER, AND NON-DESTRUCTIVE TESTING (MULTI-SHIFT)
(SC-23-63-2-2017-1D2)**

**ALL LOCALITIES WITH IMPERIAL, INYO, KERN, LOS ANGELES, MONO,
ORANGE, RIVERSIDE, SAN BERNARDINO, SAN LUIS OBISPO,
SANTA BARBARA, AND VENTURA COUNTIES**

These predetermined increases for the above named crafts apply only to the current determinations for work being performed on public works projects with bid advertisement dates on or after **September 1, 2017**, until the determination(s) is/are superseded by a new determination(s) or a predetermined increase modification notice becomes effective.

When referencing our prevailing wage determinations, please note that if the prevailing wage rate determination which was in effect on the bid advertisement date of a project has a single asterisk (*) after the expiration date, the rate will be good for the life of the project. However, if a prevailing wage rate determination has double asterisks (**) after the expiration date, the rate must be updated on the following date to reflect the predetermined rate change(s).

OPERATING ENGINEER: All Classifications and All Shifts

The above Determinations are currently in effect and will expire on June 30, 2018**.

Effective on July 1, 2018, there will be an increase of \$2.30 to be allocated to wages and/or fringes.

There will be no further increases applicable to these determinations.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #DRYWALL INSTALLER/LATHER (CARPENTER)

DETERMINATION: SC-31-X-41-2017-2

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura counties.

Classification (Journey person)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rates		
		Health and Welfare	Pension	Vacation/ Holiday ^a	Training	Other	Hours	Total Hourly Rate	Daily 1 1/2X ^b	Saturday 1 1/2X ^b	Sunday and Holiday 2X
Drywall Installer/ Lather	\$41.25	\$7.10	\$4.91	\$5.60	\$0.57	\$0.67	8	\$60.10	\$80.725	\$80.725	\$101.35

DETERMINATION: SC-31-X-41-2017-2A

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director - Research Unit (415) 703-4774 for the new rates after 10 days from the expiration date, if no subsequent determination is issued.

Stocker, Scrapper	\$12.00	\$7.10	-	\$4.60	\$0.57	-	8	\$24.27	\$30.27	\$30.27	\$36.27
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Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount per hour worked for supplemental dues.

^b Rate applies to the first 4 daily overtime hours and to the first 8 hours on Saturday. All other overtime will be paid the Sunday and Holiday double time rate. Saturdays in the same workweek may be worked at straight-time if job is shut down during the normal work week due to inclement weather.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

DEPARTMENT OF INDUSTRIAL RELATIONS
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455 Golden Gate Avenue, 9th Floor
San Francisco, CA 94102

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P. O. Box 420603
San Francisco, CA 94142-0603



PREDETERMINED INCREASE FOR

DRYWALL INSTALLER/LATHER (CARPENTER) (SC-31-X-41-2017-2)

ALL LOCALITIES WITHIN IMPERIAL, INYO, KERN, LOS ANGELES,
MONO, ORANGE, RIVERSIDE, SAN BERNARDINO, SAN LUIS OBISPO,
SANTA BARBARA, AND VENTURA COUNTIES

This predetermined increase for the above named craft applies only to the current determination for work being performed on public works projects with bid advertisement dates on or after **September 1, 2017**, until this determination is superseded by a new determination or a predetermined increase modification notice becomes effective.

When referencing our prevailing wage determinations, please note that if the prevailing wage rate determination, which was in effect on the bid advertisement date of a project, has a single asterisk (*) after the expiration date, the rate will be good for the life of the project. However, if a prevailing wage rate determination has double asterisks (**) after the expiration date, the rate must be updated on the following date to reflect the predetermined rate change(s).

DRYWALL INSTALLER/LATHER (CARPENTER)

Determination SC-31-X-41-2017-2 is currently in effect and expires on June 30, 2018**.

Effective July 1, 2018, there will be a \$2.20 increase to be allocated to wages and/or employer payments and \$0.05 to Other.

Effective July 1, 2019, there will be a \$2.30 increase to be allocated to wages and/or employer payments.

There will be no further increases for this determination.

Issued 8/22/17, Effective 9/1/17 until superseded.

This page will be updated when wage rate breakdown becomes available
Last Updated: September 1, 2017

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: FENCE BUILDER (CARPENTER)

DETERMINATION: SC-23-31-20-2017-1

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after ten days after the expiration date if no subsequent determination is issued.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara, and Ventura counties.

Classification (Journey person)	Basic Hourly Rate	Employer Payments					Straight-Time Total Hourly Hours	Overtime Hourly Rate			
		Health and Welfare	Pension	Vacation and Holiday	Training	Other		Daily	Saturday ^b	Sunday and Holiday	
Fence Builder	\$37.29	\$7.10	\$4.66	\$5.00	\$0.57	\$0.21	8	\$54.83	\$73.475	\$73.475	\$92.120

^aRate applies to the first 4 overtime hours. All other time is paid at the Sunday and Holiday overtime hourly rate.

^bSaturdays in the same work week may be worked at straight-time for the first 8 hours if the job is shut down during the normal work week due to inclement weather, or reasons beyond the control of the employer.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: # IRON WORKER

DETERMINATION: C-20-X-1-2017-1

ISSUE DATE: February 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2017* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after ten days after the expiration date if no subsequent determination is issued.

LOCALITY: All localities within the State of California

CLASSIFICATION (Journey person)	Employer Payments						Hours	Straight-Time Total Hourly Rate	Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension	Vacation/ Holiday	Training	Other Payments			^b Daily 1 1/2X	^b Saturday 1 1/2X	Sunday/ Holiday
Iron Worker (Ornamental, Reinforcing, Structural)	\$36.00	9.55	13.32	^a 4.00	0.72	2.865	8	66.455	84.455	84.455	102.455
Fence Erector	\$29.58	7.38	8.99	^a 2.70	0.51	1.905	8	51.065	65.855	65.855	80.645

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes supplemental dues.

^b Rate applies to the first 2 daily overtime hours and the first 8 hours on Saturday. All other overtime is at the Sunday/Holiday rate.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #LABORER AND RELATED CLASSIFICATIONS

DETERMINATION: SC-23-102-2-2017-2

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: July 31, 2018* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after ten days after the expiration date if no subsequent determination is issued.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

Classification ^a (Journey person)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rates		
		Health and Welfare	Pension	Vacation/ and Holiday ^d	Training	Other Payment	Hours	Total Hourly Rate	Daily ^b 1 1/2X	Saturday ^{bc} 1 1/2X	Sunday and Holiday

CLASSIFICATION GROUPS

Group 1	\$33.19	7.12	7.53	4.59	0.69	0.61	8	53.73	70.325	70.325	86.920
Group 2	33.74	7.12	7.53	4.59	0.69	0.61	8	54.28	71.150	71.150	88.020
Group 3	34.29	7.12	7.53	4.59	0.69	0.61	8	54.83	71.975	71.975	89.120
Group 4	35.84	7.12	7.53	4.59	0.69	0.61	8	56.38	74.300	74.300	92.220
Group 5	36.19	7.12	7.53	4.59	0.69	0.61	8	56.73	74.825	74.825	92.920

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a For classification within each group, see page 14.

^b Any hours worked over 12 hours in a single workday are double (2) time.

^c Saturdays in the same work week may be worked at straight-time if job is shut down during work week due to inclement weather or similar Act of God, or a situation beyond the employers control.

^d Includes an amount per hour worked for supplemental dues

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

CLASSIFICATION GROUPS

GROUP 1

Boring Machine Helper (Outside)
Certified Confined Space Laborer
Cleaning and Handling of Panel Forms
Concrete Screeding for Rough Strike-Off
Concrete, Water Curing
Demolition Laborer, the cleaning of brick if performed by an employee performing any other phase of demolition work, and the cleaning of lumber
Fiberoptic Installation, Blowing, Splicing, and Testing Technician on public right-of-way only
Fire Watcher, Limbers, Brush Loaders, Pilers and Debris Handlers
Flagman
Gas, Oil and/or Water Pipeline Laborer
Laborer, Asphalt-Rubber Material Loader
Laborer, General or Construction
Laborer, General Cleanup
Laborer, Jetting
Laborer, Temporary Water and Air Lines
Plugging, Filling of Shee-Bolt Holes; Dry Packing of Concrete and Patching
Post Hole Digger (Manual)
Railroad Maintenance, Repair Trackman and Road Beds; Streetcar and Railroad Construction Track Laborers
Rigging and Signaling
Scaler
Slip Form Raisers
Tarman and Mortar Man
Tool Crib or Tool House Laborer
Traffic Control by any method
Water Well Driller Helper
Window Cleaner
Wire Mesh Pulling - All Concrete Pouring Operations

GROUP 2

Asphalt Shoveler
Cement Dumper (on 1 yard or larger mixer and handling bulk cement)
Cesspool Digger and Installer
Chucktender
Chute Man, pouring concrete, the handling of the chute from readymix trucks, such as walls, slabs, decks, floors, foundations, footings, curbs, gutters and sidewalks
Concrete Curer-Impervious Membrane and Form Oiler
Cutting Torch Operator (Demolition)
Fine Grader, Highways and Street Paving, Airport, Runways, and similar type heavy construction
Gas, Oil and/or Water Pipeline Wrapper-Pot Tender and Form Man
Guinea Chaser
Headerboard Man-Asphalt
Installation of all Asphalt Overlay Fabric and Materials used for Reinforcing Asphalt
Laborer, Packing Rod Steel and Pans
Membrane Vapor Barrier Installer
Power Broom Sweepers (small)
Riprap, Stonepaver, placing stone or wet sacked concrete
Roto Scraper and Tiller
Sandblaster (Pot Tender)
Septic Tank Digger and Installer (leadman)

GROUP 2 (continued)

Tank Scaler and Cleaner
Tree Climber, Faller, Chain Saw Operator, Pittsburgh Chipper and similar type Brush Shredders
Underground Laborer, including Caisson Bellow

GROUP 3

Asphalt Installation of all fabrics
Buggymobile Man
Compactor (all types including Tampers, Barko, Wacker)
Concrete Cutting Torch
Concrete Pile Cutter
Driller, Jackhammer, 2 1/2 ft. drill steel or longer
Dri Pak-it Machine
Gas, Oil and/or Water Pipeline Wrapper - 6-inch pipe and over by any method, inside and out
High Scaler (including drilling of same)
Impact Wrench, Multi-Plate
Kettlemen, Potmen and Men applying asphalt, lay-kold, creosote, lime caustic and similar type materials
Laborer, Fence Erector
Material Hoseman (Walls, Slabs, Floors and Decks)
Operators of Pneumatic, Gas, Electric Tools, Vibrating Machines, Pavement Breakers, Air Blasting, Come-Alongs, and similar mechanical tools not separately classified herein; operation of remote controlled robotic tools in connection with Laborers work
Pipelayer's backup man, coating, grouting, making of joints, sealing, caulking, diapering and including rubber gasket joints, pointing and any and all other services
Power Post Hole Digger
Rock Slinger
Rotary Scarifier or Multiple Head Concrete Chipping Scarifier
Steel Headerboard Man and Guideline Setter
Trenching Machine, Hand Propelled

GROUP 4

Any Worker Exposed to Raw Sewage
Asphalt Raker, Luteman, Ironer, Asphalt Dumpman, and Asphalt Spreader Boxes (all types)
Concrete Core Cutter (walls, floors or ceilings), Grinder or Sander
Concrete Saw Man, Cutting Walls or Flat Work, Scoring old or new concrete
Cribber, Shorer, Lagging, Sheeting and Trench Bracing, Hand-Guided Lagging Hammer
Head Rock Slinger
Laborer, Asphalt-Rubber Distributor Bootman
Laser Beam in connection with Laborer's work
Oversize Concrete Vibrator Operator, 70 pounds and over
Pipelayer
Prefabricated Manhole Installer
Sandblaster (Nozzleman), Water Blasting, Porta Shot-Blast
Subsurface Imaging Laborer
Traffic Lane Closure, certified

GROUP 5

Blasters Powderman
Driller
Toxic Waste Removal
Welding, certified or otherwise in connection with Laborers' work

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #LANDSCAPE/IRRIGATION LABORER/TENDER

DETERMINATION: SC-102-X-14-2017-2

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: July 31, 2018* Effective until superseded by a new determination issued by the Director of Industrial Relations.

Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after ten days after the expiration date if no subsequent determination is issued.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura counties.

CLASSIFICATION (Journey person)	Employer Payments						Straight-Time		Overtime Hourly Rate		
	Basic Hourly Rate	Health and Welfare	Pension	Vacation and Holiday	Training	Other	Hours	Total Hourly Rate	Daily ^b 1 1/2X	Saturday ^b 1 1/2X	Sunday/ Holiday 2X
Landscape/Irrigation Laborer	\$31.38	\$7.12	\$7.53	\$4.59 ^a	\$0.69	\$0.48	8	\$51.79	\$67.48	\$67.48	\$83.17
Landscape Hydro Seeder	\$32.48	\$7.12	\$7.53	\$4.59 ^a	\$0.69	\$0.48	8	\$52.89	\$69.13	\$69.13	\$85.37

DETERMINATION: SC-102-X-14-2017-2A

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: July 31, 2018* Effective until superseded by a new determination issued by the Director of Industrial Relations.

Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after ten days after the expiration date if no subsequent determination is issued.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura counties.

Landscape/Irrigation Tender ^c	\$14.21	\$2.25	\$1.00	\$1.27 ^a	--	\$0.21	8	\$18.94	\$26.045	\$26.045	\$33.15
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#Indicates an apprenticeable craft, the applicable apprentice determination for this journeyman determination is Landscape Irrigation Fitter. The current apprentice wage rates are available on the Internet at <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' Website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount per hour worked for Supplemental Dues.

^b Rate applies to first 4 daily overtime hours and the first 12 hours on Saturday. All other time is paid at the Sunday and Holiday double-time rate.

^c The first employee on the jobsite shall be a Landscape/Irrigation Laborer; the second employee on the jobsite must be an Apprentice or a Landscape/Irrigation Laborer; and the third and fourth employees may be Tenders. The fifth employee on the jobsite shall be a Landscape/Irrigation Laborer; the sixth employee must be an Apprentice or a Landscape/Irrigation Laborer; and the seventh and eight employees may be Tenders. Thereafter, Tenders may be employed with Landscape/Irrigation Laborers in a 50/50 ratio on each jobsite. However, plant establishment may be performed exclusively by Landscape/Irrigation Tenders without the supervision of a Journeyman.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the Travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or Subsistence provisions for current or superseded determinations may be obtained by contacting the Office of the Director - Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: DRIVER (ON/OFF-HAULING TO/FROM CONSTRUCTION SITE)

Determination: C-MT-261-36-95-2017-2

Issue Date: August 22, 2017

Expiration date of determination: September 30, 2017** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director – Research Unit for specific rates at (415) 703-4774.

Localities: All localities within Imperial and San Diego Counties.

<u>Classification</u>	<u>Basic Hourly Rate</u>	<u>Employer Payments</u>					<u>Straight-Time Hours</u>	<u>Total Hourly Rate</u>	<u>Overtime Hourly Rate</u>	
		<u>Health And Welfare</u>	<u>Pension</u>	<u>Vacation And Holiday</u>	<u>Training</u>	<u>Other</u>			<u>Daily (1½ X)</u>	<u>Sunday/Holiday (2 X)</u>
Mixer Driver	\$28.40	\$7.22 ^a	\$4.60	\$1.64 ^b	-	-	8.0	\$41.86	\$56.06 ^c	\$70.26

^aThe contribution applies to all hours until \$1,250.00 is paid for the month.

^b\$2.19 after one year of service
\$2.73 after 7 years of service.
\$3.28 after 14 years of service.

^cRate applies to work in excess of eight (8) hours daily and forty (40) hours weekly. All work in excess of 12 hours daily shall be paid the Sunday/Holiday (2X) rate.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director - Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence requirements for the current determinations on the Internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director - Research Unit at (415) 703-4774.

DEPARTMENT OF INDUSTRIAL RELATIONS
Office of the Director - Research Unit
455 Golden Gate Avenue, 9th Floor
San Francisco, CA 94102

MAILING ADDRESS:
P. O. Box 420603
San Francisco, CA 94142-0603



PREDETERMINED INCREASE FOR
DRIVER (ON/OFF-HAULING TO/FROM CONSTRUCTION SITE)
(Determination C-MT-261-36-95-2017-2)

IN ALL LOCALITIES WITHIN IMPERIAL AND SAN DIEGO COUNTIES

This predetermined increase for the above named craft applies only to the above referenced determination for work being performed on public works projects with bid advertisement dates on or after **September 1, 2017**, until this determination is superseded by a new determination or a predetermined increase modification notice becomes effective.

When referencing our prevailing wage determinations, please note that if the prevailing wage rate determination which was in effect on the bid advertisement date of a project has a single asterisk (*) after the expiration date, the rate will be good for the life of the project. However, if a prevailing wage rate determination has double asterisks (**) after the expiration date, the rate must be updated on the following date to reflect the predetermined rate change(s).

Ready Mix Driver

Determination C-MT-261-36-95-2017-2 is currently in effect and expires on September 30, 2017**.

Effective October 1, 2017, there will be an increase of \$0.40 as follows: \$0.40 to the Health & Welfare.

Effective September 1, 2018, there will be an increase of \$0.73 as follows: \$0.50 to the Basic Hourly Rate, \$0.20 to Pension, and \$0.03 to Vacation and Holiday.

After 1 year of service: Effective September 1, 2018, there will be an increase of \$0.74 as follows: \$0.50 to the Basic Hourly Rate, \$0.20 to Pension, and \$0.04 to Vacation and Holiday.

After 7 years of service: Effective September 1, 2018, there will be an increase of \$0.75 as follows: \$0.50 to the Basic Hourly Rate, \$0.20 to Pension, and \$0.05 to Vacation and Holiday.

After 14 years of service: Effective September 1, 2018, there will be an increase of \$0.76 as follows: \$0.50 to the Basic Hourly Rate, \$0.20 to Pension, and \$0.06 to Vacation and Holiday.

Effective October 1, 2018, there will be an increase of \$0.46 as follows: \$0.46 to the Health & Welfare.

There will be no further increases applicable to this determination.

Issued 8/22/2017, Effective 9/1/2017 until superseded.

This page will be updated when wage rate breakdown information becomes available.
Last Updated: September 1, 2017

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #OPERATING ENGINEER

DETERMINATION: SC-23-63-2-2017-1

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

CLASSIFICATION (Journeyperson)	Basic Hourly Rate	Health and Welfare	Employer Payments				Straight - Time		Overtime Hourly Rate		
			Pension	Vacation/ Holiday (a)	Training	Other Payments	Hours	Total Hourly Rate	Daily (c)	Saturday (d)	Sunday/ Holiday
									1 1/2X	1 1/2X	2X
Classification Groups (b)											
Group 1	\$44.00	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$70.04	\$92.040	\$92.040	\$114.04
Group 2	\$44.78	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$70.82	\$93.210	\$93.210	\$115.60
Group 3	\$45.07	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$71.11	\$93.645	\$93.645	\$116.18
Group 4	\$46.56	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$72.60	\$95.880	\$95.880	\$119.16
Group 6	\$46.78	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$72.82	\$96.210	\$96.210	\$119.60
Group 8	\$46.89	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$72.93	\$96.375	\$96.375	\$119.82
Group 10	\$47.01	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.05	\$96.555	\$96.555	\$120.06
Group 12	\$47.18	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.22	\$96.810	\$96.810	\$120.40
Group 13	\$47.28	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.32	\$96.960	\$96.960	\$120.60
Group 14	\$47.31	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.35	\$97.005	\$97.005	\$120.66
Group 15	\$47.39	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.43	\$97.125	\$97.125	\$120.82
Group 16	\$47.51	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.55	\$97.305	\$97.305	\$121.06
Group 17	\$47.68	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.72	\$97.560	\$97.560	\$121.40
Group 18	\$47.78	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.82	\$97.710	\$97.710	\$121.60
Group 19	\$47.89	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.93	\$97.875	\$97.875	\$121.82
Group 20	\$48.01	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.05	\$98.055	\$98.055	\$122.06
Group 21	\$48.18	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.22	\$98.310	\$98.310	\$122.40
Group 22	\$48.28	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.32	\$98.460	\$98.460	\$122.60
Group 23	\$48.39	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.43	\$98.625	\$98.625	\$122.82
Group 24	\$48.51	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.55	\$98.805	\$98.805	\$123.06
Group 25	\$48.68	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.72	\$99.060	\$99.060	\$123.40

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount withheld for supplemental dues.

^b For classifications within each group, see pages 8 and 9.

^c Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

^d Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

NOTE: For Special Shift and Multi-Shift, see pages 9A and 9B.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director - Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director - Research Unit at (415) 703-4774.

DETERMINATION: SC-23-63-2-2017-1

CLASSIFICATIONS:

GROUP 1

Bargeman
Brakeman
Compressor Operator
Ditchwitch, with seat or similar type equipment
Elevator Operator - Inside
Engineer Oiler
Forklift Operator (includes load, lull or similar types – under 5 tons)
Generator Operator
Generator, Pump or Compressor Plant Operator
Heavy Duty Repairman Helper
Pump Operator
Signalman
Switchman

GROUP 2

Asphalt-Rubber Plant Operator (Nurse Tank Operator)
Concrete Mixer Operator - Skip Type
Conveyor Operator
Fireman
Forklift Operator (includes load, lull or similar types – over 5 tons)
Hydrostatic Pump Operator
Oiler Crusher (Asphalt or Concrete Plant)
Petromat Laydown Machine
RJU Side Dump Jack
Rotary Drill Helper (Oilfield)
Screening and Conveyor Machine Operator (or similar types)
Skiploader (Wheel type up to 3/4 yd. without attachment)
Tar Pot Fireman
Temporary Heating Plant Operator
Trenching Machine Oiler

GROUP 3

Asphalt Rubber Blend Operator
Skid Steer, with all
Equipment Greaser (rack)
Ford Ferguson (with dragtype attachments)
(ground)
Stationary Pipe Wrapping and Cleaning Machine Operator

GROUP 4

Asphalt Plant Fireman
Backhoe Operator (mini-max or similar type)
Boring Machine Operator
Boring System Electronic Tracking Locator
Boxman or Mixerman (asphalt or concrete)
Operator
Concrete Cleaning Decontamination Machine Operator
Concrete Pump Operator (small portable)
Drilling Machine Operator, Small Auger types (Texoma Super Economatic, or similar types - Hughes 100 or 200, or similar types - drilling depth of 30 maximum)
Equipment Greaser (grease truck)
Excavator Track/Rubber-Tired (Operating weight under 21,000 lbs)
Guard Rail Post Driver Operator
Highline Cableway Signalman
Hydra-Hammer-Aero Stomper
Hydraulic Casing Oscillator Operator – drilling depth of 30' maximum
(above ground tunnel)
Power Concrete Curing Machine Operator
Power Concrete Saw Operator
Power - Driver Jumbo Form Setter Operator
Power Sweeper Operator
Rock Wheel Saw/Trencher
Roller Operator (compacting)
Screed Operator (asphalt or concrete)
Trenching Machine Operator (up to 6ft.)
Vacuum or Muck Truck

GROUP 5 (for multi-shift rate, see page 9B)

Equipment Greaser (Grease Truck/Multi-Shift)

GROUP 6

Articulating Material Hauler
Asphalt Plant Engineer
Batch Plant Operator
Bit Sharpener
Concrete Joint Machine Operator (canal and similar type)
Concrete Placer Operator
Concrete Planer Operator
Dandy Digger
Deck Engine Operator
Deck Engineer
Derrickman (oilfield type)

Drilling Machine Operator, Bucket or Auger types (Calweld 100 bucket or similar types - Watson 1000 auger or similar types - Texoma 330, 500 or 600 auger or similar types - drilling depth of 45' maximum)
Drilling Machine Operator (including water wells)
Force Feed Loader

Hydraulic Casing Oscillator Operator – drilling depth of 45' maximum
Hydrographic Seeder Machine Operator (straw, pulp or seed)
Jackson Track Maintainer, or similar type
Kalamazoo Switch Tamper, or similar type
Machine Tool Operator
Maginnis Internal Full Slab Vibrator
Mechanical Berm, Curb or Gutter (concrete or asphalt)
Mechanical Finisher Operator (concrete, Clary-Johnson-Bidwell or similar)
Micro Tunnel System Operator (below ground)
Pavement Breaker Operator
Railcar Mover
Road Oil Mixing Machine Operator
Roller Operator (asphalt or finish)
Rubber-Tired Earthmoving Equipment (single engine, up to and including 25 yds. struck)
Self-Propelled Tar Pipelining Machine Operator
Skiploader Operator (crawler and wheel type, over 3/4 yds. and up to and including 1 1/2 yd.)
Slip Form Pump Operator (power driven hydraulic lifting device for concrete forms)
Tractor Operator - Bulldozer, Tamper-Scraper (single engine, up to 100 H.P. flywheel and similar types, up to and including D-5 and similar types)
Tugger Hoist Operator (1 drum)
Ultra High Pressure Waterjet Cutting Tool System Operator
Vacuum Blasting Machine Operator
Volume Mixer Operator
Welder – General

GROUP 7 (for multi-shift rate, see page 9B)

Welder – General (Multi-Shift)

GROUP 8

Asphalt or Concrete Spreading Operator (tamping or finishing)
Asphalt Paving Machine Operator (barber greene or similar type, one (1) Screedman)
Asphalt-Rubber Distributor Operator
Backhoe Operator (up to and including 3/4 yds.) small ford, case or similar
Backhoe Operator (over 3/4 yd. and up to 5 cu. yds. M.R.C.)
Barrier Rail Mover (BTM Series 200 or similar types)
Cast in Place Pipe Laying Machine Operator
Cold Foamed Asphalt Recycler
Combination Mixer and Compressor Operator (gunite work)
Compactor Operator - Self Propelled
Concrete Mixer Operator - Paving
Crushing Plant Operator
Drill Doctor
Drilling Machine Operator, Bucket or Auger types (Calweld 150 bucket or similar types - Watson 1500, 2000, 2500 auger or similar types - Texoma 700, 800 auger or similar types - drilling depth of 60' maximum)
Elevating Grader Operator
Excavator Track/Rubber-Tired (Operating Weight 21,000 lbs - 100,000 lbs)
Global Positioning System/GPS (or Technician)
Checker
Gradall Operator
Grouting Machine Operator
Heavy Duty Repairman/Pump Installer
Heavy Equipment Robotics Operator
Hydraulic Casing Oscillator Operator – drilling depth of 60' maximum
Hydraulic Operated Grout Plant (excludes hand loading)
Kalamazoo Ballast Regulator or similar type
Klemm Drill Operator or similar types
Kolman Belt Loader and similar type
Le Tourneau Blob Compactor or similar type
Lo Drill
Operator
Master Environmental Maintenance Mechanic
Mobark Chipper or similar types
Ozzie Padder or similar types
P.C. 490 Slot Saw
Pneumatic Concrete Placing Machine Operator (Hackley-Presswell or similar type)
Hydro-Ax
Pumpcrete Gun Operator
Rock Drill or Similar Types (see Miscellaneous Provision #4 for additional information regarding this classification)
Rotary Drill Operator (excluding caison type)
Rubber-Tired Earth Moving Equipment Operator (single engine, caterpillar, euclid, atthey wagon, and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck)
Rubber-Tired Earth Moving Equipment Operator (multiple engine - up to and including 25 yds. struck)
Rubber-Tired Scraper Operator (self-loading paddle wheel type - John Deere, 1040 and similar single unit)
Self-Propelled Curb and Gutter Machine Operator
Shuttle Buggy
Skiploader Operator (crawler and wheel type over 1 1/2 yds. up to and including 6 1/2 yds.)
Soil Remediation Plant Operator (CMI, Envirotech or Similar)
Soil Stabilizer and Reclaimer (WR-2400)
Somero SXP Laser Screed
Speed Swing Operator
Surface Heaters and Planer Operator
Tractor Compressor Drill Combination Operator

DETERMINATION: SC-23-63-2-2017-1

GROUP 8 CONT.

Tractor Operator (any type larger than D-5 - 100 flywheel H.P. and over, or similar – bulldozer, tamper, scraper and push tractor, single engine)

Tractor Operator (boom attachments)

Traveling Pipe Wrapping, Cleaning and Bending Machine Operator

Trenching Machine Operator (over 6 ft. depth capacity, manufacturer's rating)

Trenching Machine with Road Miner Attachment (over 6ft. depth capacity, manufacturer's rating - Oiler or Journeyman Trainee required)

Ultra High Pressure Waterjet Cutting Tool System Mechanic

Water Pull (compaction)

GROUP 9 (for multi-shift rate, see page 9B)

Heavy Duty Repairman (Multi-Shift)

GROUP 10

Backhoe Operator (over 5 cu. yds. M.R.C.)

Drilling Machine Operator, Bucket or Auger types (Calweld 200 B bucket or similar types - Watson 3000 or 5000 auger or similar types - Texoma 900 auger or similar types - drilling depth of 105' maximum)

Dual Drum Mixer

Dynamic Compactor LDC350 or similar types

Heavy Duty Repairman-Welder combination

Hydraulic Casing Oscillator Operator – drilling depth of 105' maximum

Monorail Locomotive Operator (diesel, gas or electric)

Motor Patrol - Blade Operator (single engine)

Multiple Engine Tractor Operator (euclid and similar type - except quad 9 cat.

Pneumatic Pipe Ramming Tool and similar types

Pre-stressed Wrapping Machine Operator (2 Operators required)

Rubber - Tired Earth Moving Equipment Operator (single engine, over 50 yds. struck)

Rubber - Tired Earth Moving Equipment Operator (multiple engine, euclid caterpillar and similar - over

25 yds. and up to 50 yds. struck)

Tower Crane Repairman

Tractor Loader Operator (crawler and wheel-type over 6 1/2 yds.

Welder - Certified

Woods Mixer Operator (and similar pugmill equipment)

GROUP 11 (for multi-shift rate, see page 9B)

Heavy Duty Repairman – Welder Combination (Multi-Shift

Welder – Certified (Multi-Shift)

GROUP 12

Auto Grader Operator

Automatic Slip Form Operator

Backhoe Operator (over 7 cu. yds. M.R.C.)

Drilling Machine Operator, Bucket or Auger types (Calweld, auger 200 CA or similar types - watson, auger 6000 or similar types - hughes super duty, auger 200 or similar types - drilling depth of 175' maximum)

Excavator Track/Rubber Tired (Operating Weight 100,000 lbs. - 200,000 lbs)

Hoe Ram or similar with compressor

Hydraulic Casing Oscillator Operator – drilling depth of 175' maximum

Mass Excavator Operator - less than 750 cu. yds.

Mechanical Finishing Machine Operator

Mobile Form Traveler Operator

Motor Patrol Operator (multi-engine)

Pipe Mobile Machine Operator

Moving Equipment

GROUP 13

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Push-Pull System

(single engine, up to and including 25 yds. struck)

GROUP 14

Canal Liner Operator

Canal Trimmer Operator

Drilling Machine Operator, Bucket or Auger types (Calweld, auger 200 CA or similar types - watson, auger 6000 or similar types - hughes super duty, auger 200 or similar types - drilling depth of 300 maximum)

Remote Controlled Earth Moving Operator (\$1.00 per hour additional to base rate)

Wheel Excavator Operator (over 750 cu. yds. per hour)

GROUP 15

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Push-Pull System (single engine, caterpillar, euclid, atey wagon, and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck)

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Push-Pull System (multiple engine - up to and including 25 yds. struck)

MISCELLANEOUS PROVISIONS:

1. Operators on hoists with three drums shall receive fifteen cents (15¢) per hour additional pay to the regular rate of pay. The additional pay shall be added to the regular rate and become the base rate for the entire shift.
2. All heavy duty repairman and heavy duty combination shall receive fifty cents (50¢) per hour tool allowance in addition to their regular rate of pay and this shall become their base rate of pay.
3. Employees required to suit up and work in a hazardous material environment, shall receive Two Dollars (\$2.00) per hour in addition to their regular rate of pay, and that rate shall become the basic hourly rate of pay.
4. A review of rock drilling is currently pending. The minimum acceptable rate of pay for this classification or type of work on public works projects is Laborer and Related Classifications/Group 5 (Driller) as published on pages 13 and 14 of the Director's General Prevailing Wage Determinations. However, the published rate for the craft/classification of Operating Engineer/Group 8 (Rock Drill or Similar Types) may be used by contractors to perform rock drilling on public works projects.

GROUP 16

Excavator Track/Rubber Tired (Operating Weight exceeding 200,000 lbs.)

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Push-Pull System (single engine, over 50 yds. struck)

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Push-Pull System (multiple engine, euclid, caterpillar, and similar, over 25 yds. and up to 50 yds. struck)

GROUP 17

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Push-Pull System (multiple engine, euclid, caterpillar, and similar type, over 50 cu. yds. struck)

Tandem Tractor Operator (operating crawler type tractors in tandem - Quad 9 and similar type)

GROUP 18

Rubber-Tired Earth Moving Equipment Operator, Operating in Tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - single engine, up to and including 25 yds. struck)

GROUP 19

Rotex Concrete Belt Operator

Rubber-Tired Earth Moving Equipment Operator, Operating in Tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - single engine, caterpillar, euclid, atey wagon, and similar types with any and all attachments over 25 yds. and up to and including 50 cu. yds. struck)

Rubber-Tired Earth Moving Equipment Operator, Operating in Tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engines, up to and including 25 yds. struck)

GROUP 20

Rubber-Tired Earth Moving Equipment Operator, Operating in Tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - single engine, over 50 yds. struck)

Rubber-Tired Earth Moving Equipment Operator, Operating in Tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, euclid, caterpillar and similar, over 25 yds. and up to 50 yds. struck)

Drilling Machine Operator, Bucket or Auger types (Calweld, auger 200 CA or similar type)

GROUP 21

Rubber-Tired Earth Moving Equipment Operator, Operating in Tandem (scrapers, belly dumps, and similar types in any combination, excluding compaction units - multiple engine, euclid, caterpillar and similar type, over 50 cu. yds. struck)

GROUP 22

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (single engine, up to and including 25 yds. struck)

GROUP 23

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (single engine, caterpillar, euclid, atey wagon, and similar types with an and all attachments over 25 yds. and up to and including 50 cu. yds. struck)

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (multiple engine, up to and including 25 yds. struck)

GROUP 24

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (single engine, over 50 yds. Struck)

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem Push-Pull System (multiple engine, euclid, caterpillar and similar, over 25 yds. and up to 50 yds. struck)

GROUP 25

Concrete Pump Operator-Truck Mounted

Pedestal Concrete Pump Operator

Rubber-Tired Earth Moving Equipment Operator, Operating Equipment with the Tandem

Push-Pull System (multiple engine, euclid, caterpillar and similar over 50 cu. yds struck)

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #OPERATING ENGINEER (Special Shift)

DETERMINATION: SC-23-63-2-2017-1

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

CLASSIFICATION (Journey person)	Basic Hourly Rate	Health and Welfare	Employer Payments				Straight - Time		Overtime Hourly Rate		
			Pension	Vacation/ Holiday (a)	Training	Other Payments	Hours	Total Hourly Rate	Daily (c)	Saturday (d)	Sunday/ Holiday
									1 1/2X	1 1/2X	2X
Classification Groups (b)											
Group 1	\$44.50	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$70.54	\$92.790	\$92.790	\$115.04
Group 2	\$45.28	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$71.32	\$93.960	\$93.960	\$116.60
Group 3	\$45.57	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$71.61	\$94.395	\$94.395	\$117.18
Group 4	\$47.06	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.10	\$96.630	\$96.630	\$120.16
Group 6	\$47.28	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.32	\$96.960	\$96.960	\$120.60
Group 8	\$47.39	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.43	\$97.125	\$97.125	\$120.82
Group 10	\$47.51	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.55	\$97.305	\$97.305	\$121.06
Group 12	\$47.68	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.72	\$97.560	\$97.560	\$121.40
Group 13	\$47.78	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.82	\$97.710	\$97.710	\$121.60
Group 14	\$47.81	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.85	\$97.755	\$97.755	\$121.66
Group 15	\$47.89	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.93	\$97.875	\$97.875	\$121.82
Group 16	\$48.01	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.05	\$98.055	\$98.055	\$122.06
Group 17	\$48.18	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.22	\$98.310	\$98.310	\$122.40
Group 18	\$48.28	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.32	\$98.460	\$98.460	\$122.60
Group 19	\$48.39	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.43	\$98.625	\$98.625	\$122.82
Group 20	\$48.51	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.55	\$98.805	\$98.805	\$123.06
Group 21	\$48.68	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.72	\$99.060	\$99.060	\$123.40
Group 22	\$48.78	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.82	\$99.210	\$99.210	\$123.60
Group 23	\$48.89	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.93	\$99.375	\$99.375	\$123.82
Group 24	\$49.01	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$75.05	\$99.555	\$99.555	\$124.06
Group 25	\$49.18	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$75.22	\$99.810	\$99.810	\$124.40

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount withheld for supplemental dues.

^b For classifications within each group, see pages 8 and 9.

^c Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

^d Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director - Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director - Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #OPERATING ENGINEER (Multi-Shift)

DETERMINATION: SC-23-63-2-2017-1

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara, and Ventura counties.

CLASSIFICATION (Journeyperson)	Basic Hourly Rate	Health and Welfare	Employer Payments				Straight - Time		Overtime Hourly Rate		
			Pension	Vacation/ Holiday (a)	Training	Other Payments	Hours (e)	Total Hourly Rate	Daily (c)	Saturday (d)	Sunday/ Holiday
Classification Groups (b)									1 1/2X	1 1/2X	2X
Group 1	\$45.00	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$71.04	\$93.540	\$93.540	\$116.04
Group 2	\$45.78	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$71.82	\$94.710	\$94.710	\$117.60
Group 3	\$46.07	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$72.11	\$95.145	\$95.145	\$118.18
Group 4	\$47.56	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.60	\$97.380	\$97.380	\$121.16
Group 5	\$47.66	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.70	\$97.530	\$97.530	\$121.36
Group 6	\$47.78	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.82	\$97.710	\$97.710	\$121.60
Group 7	\$47.88	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.92	\$97.860	\$97.860	\$121.80
Group 8	\$47.89	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$73.93	\$97.875	\$97.875	\$121.82
Group 9	\$47.99	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.03	\$98.025	\$98.025	\$122.02
Group 10	\$48.01	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.05	\$98.055	\$98.055	\$122.06
Group 11	\$48.11	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.15	\$98.205	\$98.205	\$122.26
Group 12	\$48.18	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.22	\$98.310	\$98.310	\$122.40
Group 13	\$48.28	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.32	\$98.460	\$98.460	\$122.60
Group 14	\$48.31	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.35	\$98.505	\$98.505	\$122.66
Group 15	\$48.39	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.43	\$98.625	\$98.625	\$122.82
Group 16	\$48.51	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.55	\$98.805	\$98.805	\$123.06
Group 17	\$48.68	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.72	\$99.060	\$99.060	\$123.40
Group 18	\$48.78	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.82	\$99.210	\$99.210	\$123.60
Group 19	\$48.89	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$74.93	\$99.375	\$99.375	\$123.82
Group 20	\$49.01	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$75.05	\$99.555	\$99.555	\$124.06
Group 21	\$49.18	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$75.22	\$99.810	\$99.810	\$124.40
Group 22	\$49.28	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$75.32	\$99.960	\$99.960	\$124.60
Group 23	\$49.39	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$75.43	\$100.125	\$100.125	\$124.82
Group 24	\$49.51	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$75.55	\$100.305	\$100.305	\$125.06
Group 25	\$49.68	\$11.45	\$9.65	\$3.55	\$1.00	\$0.39	8	\$75.72	\$100.560	\$100.560	\$125.40

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount withheld for supplemental dues.

^b For classifications within each group, see pages 8 and 9.

^c Rate applies to the first 4 overtime hours. All other daily overtime is paid at the Sunday rate.

^d Rate applies to the first 12 hours worked. All other time is paid at the Sunday rate.

^e The Third Shift shall work 6.5 hours, exclusive of meal period, for which 8 hours straight-time shall be paid at the non-shift rate, Monday through Friday.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director - Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director - Research Unit at (415) 703-4774.

DEPARTMENT OF INDUSTRIAL RELATIONS
Office of the Director - Research Unit
455 Golden Gate Avenue, 9th Floor
San Francisco, CA 94102

MAILING ADDRESS:
P. O. Box 420603
San Francisco, CA 94142-0603



PREDETERMINED INCREASES FOR

**OPERATING ENGINEER (SC-23-63-2-2017-1)
OPERATING ENGINEER (MULTI-SHIFT) (SC-23-63-2-2017-1)
OPERATING ENGINEER (SPECIAL SHIFT) (SC-23-63-2-2017-1)**

**CRANES, PILE DRIVER AND HOISTING EQUIPMENT
(OPERATING ENGINEER) (SC-23-63-2-2017-1B)**

**CRANES, PILE DRIVER AND HOISTING EQUIPMENT
(OPERATING ENGINEER, MULTI-SHIFT) (SC-23-63-2-2017-1B1)**

**CRANES, PILE DRIVER AND HOISTING EQUIPMENT
(OPERATING ENGINEER, SPECIAL SHIFT) (SC-23-63-2-2017-1B2)**

TUNNEL (OPERATING ENGINEER) (SC-23-63-2-2017-1C)

TUNNEL (OPERATING ENGINEER) (SC-23-63-2-2017-1C1) (MULTI-SHIFT)

**BUILDING/CONSTRUCTION INSPECTOR, FIELD SOILS AND MATERIAL
TESTER, AND NON-DESTRUCTIVE TESTING (SC-23-63-2-2017-1D)**

**BUILDING/CONSTRUCTION INSPECTOR, FIELD SOILS AND MATERIAL
TESTER, AND NON-DESTRUCTIVE TESTING (SPECIAL SHIFT)
(SC-23-63-2-2017-1D1)**

**BUILDING/CONSTRUCTION INSPECTOR, FIELD SOILS AND MATERIAL
TESTER, AND NON-DESTRUCTIVE TESTING (MULTI-SHIFT)
(SC-23-63-2-2017-1D2)**

**ALL LOCALITIES WITH IMPERIAL, INYO, KERN, LOS ANGELES, MONO,
ORANGE, RIVERSIDE, SAN BERNARDINO, SAN LUIS OBISPO,
SANTA BARBARA, AND VENTURA COUNTIES**

These predetermined increases for the above named crafts apply only to the current determinations for work being performed on public works projects with bid advertisement dates on or after **September 1, 2017**, until the determination(s) is/are superseded by a new determination(s) or a predetermined increase modification notice becomes effective.

When referencing our prevailing wage determinations, please note that if the prevailing wage rate determination which was in effect on the bid advertisement date of a project has a single asterisk (*) after the expiration date, the rate will be good for the life of the project. However, if a prevailing wage rate determination has double asterisks (**) after the expiration date, the rate must be updated on the following date to reflect the predetermined rate change(s).

OPERATING ENGINEER: All Classifications and All Shifts

The above Determinations are currently in effect and will expire on June 30, 2018**.

Effective on July 1, 2018, there will be an increase of \$2.30 to be allocated to wages and/or fringes.

There will be no further increases applicable to these determinations.

Issued 8/22/2017, Effective 9/1/2017 until superseded.

This page will be updated when wage rate breakdown information becomes available.

Last Updated: September 1, 2017

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

**CRAFT: # PARKING AND HIGHWAY IMPROVEMENT
(STRIPING, SLURRY AND SEAL COAT OPERATIONS-LABORER)**

DETERMINATION: SC-23-102-6-2017-1

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018* Effective until superseded by a new determination issued by the Director of Industrial Relations. Contact the Office of the Director – Research Unit at (415) 703-4774 for the new rates after ten days after the expiration date if no subsequent determination is issued.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Diego, San Luis Obispo, Santa Barbara and Ventura counties.

Classification (Journey person)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rates		
		Health and Welfare	Pension	Vacation/ Holiday	Training	Other	Hours ^b	Total Hourly Rate	Daily 1 1/2X	6th & 7th Day ^c 1 1/2X	Holiday 2X

CLASSIFICATION GROUPS

Group 1	\$35.86	\$7.12	\$4.48	\$4.83 ^a	\$1.31	\$0.50	8	\$54.10	\$72.030	\$72.030	\$89.96
Group 2	37.16	7.12	4.48	4.83 ^a	1.31	0.50	8	55.40	73.980	73.980	92.56
Group 3	39.17	7.12	4.48	4.83 ^a	1.31	0.50	8	57.41	76.995	76.995	96.58
Group 4	40.91	7.12	4.48	4.83 ^a	1.31	0.50	8	59.15	79.605	79.605	100.06

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @

<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount per hour worked for Supplemental Dues.

^b Straight-time hours: 8 consecutive hours per day. 40 hours over 5 consecutive days, Monday through Sunday shall constitute a week's work at straight time.

^c The sixth consecutive day in the same work week may be worked at straight-time if job is shut down during work week due to inclement weather.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/OPRL/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

CLASSIFICATION GROUPS:

Group 1

Protective coating, Pavement sealing (repairs and filling of cracks by any method to parking lots, game courts and playgrounds)
Installation of carstops
Traffic Control Person & Serviceman; including work of installing and protecting utility covers, traffic delineating devices, posting of no parking and notifications for public convenience
Asphalt Repair
Equipment Repair Technician

Group 2

Traffic Surface Abrasive Blaster
Pot Tender
Traffic Control Person/Certified Traffic Control Person
Repairing and filling of cracks and surface cleaning on streets, highways, and airports by any means, and other work not directly connected with the application of slurry seal
Slurry Seal Squeegeeman (finisher)

Group 3

Traffic Delineating Device Applicator
Traffic Protective System Installer
Pavement Marking Applicator
Slurry Seal Applicator Operator (Line Driver)
Shuttleman (loader/slurry machine operations) operation of all related machinery and equipment

Group 4

Traffic Striping Applicator
Slurry Seal Mixer Operator
Power Broom Sweeper (operation of all related machinery and equipment)

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #TEAMSTER
(APPLIES ONLY TO WORK ON THE CONSTRUCTION SITE)

DETERMINATION: SC-23-261-2-2017-2

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties

Classification ^c (Journeyman)	Basic Hourly and Rate	Health Welfare	Employer Payments				Straight-Time		Overtime Hourly Rates		
			Pension	Vacation/ Holiday	Training	Other Payments	Hours	Total Hourly Rate	Daily ^d 1 1/2X	Saturday ^d 1 1/2X	Sunday/ Holiday 2X
Group I	29.59	17.47	5.60	3.05 ^a	1.62	.45	8	57.78	72.575	72.575	87.37
Group II	29.74	17.47	5.60	3.05 ^a	1.62	.45	8	57.93	72.80	72.80	87.67
Group III	29.87	17.47	5.60	3.05 ^a	1.62	.45	8	58.06	72.995	72.995	87.93
Group IV	30.06	17.47	5.60	3.05 ^a	1.62	.45	8	58.25	73.28	73.28	88.31
Group V	30.09	17.47	5.60	3.05 ^a	1.62	.45	8	58.28	73.325	73.325	88.37
Group VI	30.12	17.47	5.60	3.05 ^a	1.62	.45	8	58.31	73.37	73.37	88.43
Group VII	30.37	17.47	5.60	3.05 ^a	1.62	.45	8	58.56	73.745	73.745	88.93
Group VIII	30.62	17.47	5.60	3.05 ^a	1.62	.45	8	58.81	74.12	74.12	89.43
Group IX	30.82	17.47	5.60	3.05 ^a	1.62	.45	8	59.01	74.42	74.42	89.83
Group X	31.12	17.47	5.60	3.05 ^a	1.62	.45	8	59.31	74.87	74.87	90.43
Group XI	31.62	17.47	5.60	3.05 ^a	1.62	.45	8	59.81	75.62	75.62	91.43
Subjourneyman ^b											
0-2000 hours	15.80	17.47	5.60	1.90 ^a	1.62	.45	8	42.84	50.74	50.74	58.64
2001-4000 hours	17.80	17.47	5.60	2.15 ^a	1.62	.45	8	45.09	53.99	53.99	62.89
4001-6000 hours	19.80	17.47	5.60	2.40 ^a	1.62	.45	8	47.34	57.24	57.24	67.14
Over 6000 hours and thereafter at journeyman rates											

Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @

<http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp> . To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^a Includes an amount for Supplemental Dues.

^b Subjourneyman may be employed at a ratio of one subjourneyman for every five journeymen.

^c For classifications within each group, see page 21A.

^d Rate applies to the first 4 daily overtime hours on weekdays and the first 12 hours on Saturday. All other overtime is paid at the Sunday/Holiday double-time rate.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

Group I

Warehouseman and Teamster

Group II

Driver of Vehicle or Combination of Vehicles - 2 axles
Traffic Control Pilot Car, excluding moving heavy equipment permit load
Truck Mounted Power Broom

Group III

Driver of Vehicle or Combination of Vehicles - 3 axles
Bootman
Cement Mason Distribution Truck
Fuel Truck Driver
Water Truck - 2 axles
Dump Truck of less than 16 yards water level
Erosion Control Driver

Group IV

Driver of Transit Mix Truck-Under 3 yds
Dumpcrete Truck Less than 6 1/2 yards water level
Truck Repairman Helper

Group V

Water Truck 3 or more axles
Warehouseman Clerk
Slurry Truck Driver

Group VI

Driver of Transit Mix Truck - 3 yds or more
Dumpcrete Truck 6 1/2 yds water level and over
Driver of Vehicle or Combination of Vehicles - 4 or more axles
Driver of Oil Spreader Truck
Dump Truck 16 yds to 25 yds water level
Side Dump Trucks
Flow Boy Dump Trucks

Group VII

A Frame, Swedish Crane or Similar
Forklift Driver
Ross Carrier Driver
Truck Greaser and Tireman - \$0.50 additional for Tireman
Pipeline and Utility Working Truck Driver, including Winch Truck and Plastic Fusion, limited to Pipeline and Utility Work
Working Truck Driver

Group VIII

Dump Truck of 25 yds to 49 yards water level
Truck Repairman
Water Pull Single Engine
Welder

Group IX

Truck Repairman Welder
Low Bed Driver, 9 axles or over

Group X

Water Pull Single Engine with attachment
Dump Truck and Articulating - 50 yards or more water level

Group XI

Water Pull Twin Engine
Water Pull Twin Engine with attachments
Winch Truck Driver - \$0.25 additional when operating a Winch or similar special attachments

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #TEAMSTER (SPECIAL SHIFT)
(APPLIES ONLY TO WORK ON THE CONSTRUCTION SITE)

DETERMINATION: SC-23-261-2-2017-2

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties

Classification ^c (Journeyman)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rates		
		Health and Welfare	Pension	Vacation/ Holiday	Training	Other Payments	Hours	Total Hourly Rate	Daily ^d 1 1/2X	Saturday ^d 1 1/2X	Sunday/ Holiday 2X
Group I	30.09	17.47	5.60	3.05 ^a	1.62	.45	8	58.28	73.325	73.325	88.37
Group II	30.24	17.47	5.60	3.05 ^a	1.62	.45	8	58.43	73.55	73.55	88.67
Group III	30.37	17.47	5.60	3.05 ^a	1.62	.45	8	58.56	73.745	73.745	88.93
Group IV	30.56	17.47	5.60	3.05 ^a	1.62	.45	8	58.75	74.03	74.03	89.31
Group V	30.59	17.47	5.60	3.05 ^a	1.62	.45	8	58.78	74.075	74.075	89.37
Group VI	30.62	17.47	5.60	3.05 ^a	1.62	.45	8	58.81	74.12	74.12	89.43
Group VII	30.87	17.47	5.60	3.05 ^a	1.62	.45	8	59.06	74.495	74.495	89.93
Group VIII	31.12	17.47	5.60	3.05 ^a	1.62	.45	8	59.31	74.87	74.87	90.43
Group IX	31.32	17.47	5.60	3.05 ^a	1.62	.45	8	59.51	75.17	75.17	90.83
Group X	31.62	17.47	5.60	3.05 ^a	1.62	.45	8	59.81	75.62	75.62	91.43
Group XI	32.12	17.47	5.60	3.05 ^a	1.62	.45	8	60.31	76.37	76.37	92.43
Subjourneyman ^b											
0-2000 hours	15.80	17.47	5.60	1.90 ^a	1.62	.45	8	42.84	50.74	50.74	58.64
2001-4000 hours	17.80	17.47	5.60	2.15 ^a	1.62	.45	8	45.09	53.99	53.99	62.89
4001-6000 hours	19.80	17.47	5.60	2.40 ^a	1.62	.45	8	47.34	57.24	57.24	67.14
Over 6000 hours and thereafter at journeyman rates											

#Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^aIncludes an amount for Supplemental Dues.

^bSubjourneyman may be employed at a ratio of one subjourneyman for every five journeymen.

^cFor classifications within each group, see page 21A.

^dRate applies to the first 4 daily overtime hours and the first 12 hours on Saturday. All other overtime is paid at the Sunday/Holiday double-time rate.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

TRAVEL AND/OR SUBSISTENCE PAYMENT: In accordance with Labor Code Sections 1773.1 and 1773.9, contractors shall make travel and/or subsistence payments to each worker to execute the work. You may obtain the travel and/or subsistence provisions for the current determinations on the Internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Travel and/or subsistence requirements for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

CRAFT: #TEAMSTER (SECOND SHIFT)
(APPLIES ONLY TO WORK ON THE CONSTRUCTION SITE)

DETERMINATION: SC-23-261-2-2017-2

ISSUE DATE: August 22, 2017

EXPIRATION DATE OF DETERMINATION: June 30, 2018** The rate to be paid for work performed after this date has been determined. If work will extend past this date, the new rate must be paid and should be incorporated in contracts entered into now. Contact the Office of the Director - Research Unit for specific rates at (415) 703-4774.

LOCALITY: All localities within Imperial, Inyo, Kern, Los Angeles, Mono, Orange, Riverside, San Bernardino, San Luis Obispo, Santa Barbara and Ventura Counties

Classification ^c (Journeyman)	Basic Hourly Rate	Employer Payments					Straight-Time		Overtime Hourly Rates		
		Health and Welfare	Pension	Vacation/ Holiday	Training	Other Payments	Hours ^d	Total Hourly Rate	Daily ^e	Saturday ^e	Sunday/ Holiday
Group I	30.59	17.47	5.60	3.05 ^a	1.62	.45	8	58.78	74.075	74.075	89.37
Group II	30.74	17.47	5.60	3.05 ^a	1.62	.45	8	58.93	74.30	74.30	89.67
Group III	30.87	17.47	5.60	3.05 ^a	1.62	.45	8	59.06	74.495	74.495	89.93
Group IV	31.06	17.47	5.60	3.05 ^a	1.62	.45	8	59.25	74.78	74.78	90.31
Group V	31.09	17.47	5.60	3.05 ^a	1.62	.45	8	59.28	74.825	74.825	90.37
Group VI	31.12	17.47	5.60	3.05 ^a	1.62	.45	8	59.31	74.87	74.87	90.43
Group VII	31.37	17.47	5.60	3.05 ^a	1.62	.45	8	59.56	75.245	75.245	90.93
Group VIII	31.62	17.47	5.60	3.05 ^a	1.62	.45	8	59.81	75.62	75.62	91.43
Group IX	31.82	17.47	5.60	3.05 ^a	1.62	.45	8	60.01	75.92	75.92	91.83
Group X	32.12	17.47	5.60	3.05 ^a	1.62	.45	8	60.31	76.37	76.37	92.43
Group XI	32.62	17.47	5.60	3.05 ^a	1.62	.45	8	60.81	77.12	77.12	93.43
Subjourneyman ^b											
0-2000 hours	15.80	17.47	5.60	1.90 ^a	1.62	.45	8	42.84	50.74	50.74	58.64
2001-4000 hours	17.80	17.47	5.60	2.15 ^a	1.62	.45	8	45.09	53.99	53.99	62.89
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Over 6000 hours and thereafter at journeyman rates											

#Indicates an apprenticeable craft. The current apprentice wage rates are available on the Internet @ <http://www.dir.ca.gov/OPRL/PWAppWage/PWAppWageStart.asp>. To obtain any apprentice wage rates as of July 1, 2008 and prior to September 27, 2012, please contact the Division of Apprenticeship Standards or refer to the Division of Apprenticeship Standards' website at <http://www.dir.ca.gov/das/das.html>.

^aIncludes an amount for Supplemental Dues.

^bSubjourneyman may be employed at a ratio of one subjourneyman for every five journeymen.

^cFor classifications within each group, see page 21A.

^dThe third shift shall work 6.5 hours, exclusive of meal period, for which 8 hours straight-time shall be paid at the non-shift rate, Monday through Friday.

^eRate applies to the first 4 daily overtime hours and the first 12 hours on Saturday. All other overtime is paid at the Sunday/Holiday double-time rate.

RECOGNIZED HOLIDAYS: Holidays upon which the general prevailing hourly wage rate for Holiday work shall be paid, shall be all holidays in the collective bargaining agreement, applicable to the particular craft, classification, or type of worker employed on the project, which is on file with the Director of Industrial Relations. If the prevailing rate is not based on a collectively bargained rate, the holidays upon which the prevailing rate shall be paid shall be as provided in Section 6700 of the Government Code. You may obtain the holiday provisions for the current determinations on the Internet at <http://www.dir.ca.gov/oprl/DPreWageDetermination.htm>. Holiday provisions for current or superseded determinations may be obtained by contacting the Office of the Director – Research Unit at (415) 703-4774.

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DEPARTMENT OF INDUSTRIAL RELATIONS
Office of the Director - Research Unit
455 Golden Gate Avenue, 9th Floor
San Francisco, CA 94102

MAILING ADDRESS:
P. O. Box 420603
San Francisco, CA 94142-0603



PREDETERMINED INCREASE FOR
TEAMSTER (SC-23-261-2-2017-2)
TEAMSTER (SECOND SHIFT) (SC-23-261-2-2017-2)
TEAMSTER (SPECIAL SHIFT) (SC-23-261-2-2017-2)

IN IMPERIAL, INYO, KERN, LOS ANGELES, MONO, ORANGE,
RIVERSIDE, SAN BERNARDINO, SAN LUIS OBISPO, SANTA BARBARA
AND VENTURA COUNTIES

This predetermined increase for the above named craft applies only to the above-referenced determination for work being performed on public works projects with bid advertisement dates on or after **September 1, 2017**, until this determination is superseded by a new determination or a predetermined increase modification notice becomes effective.

When referencing our prevailing wage determinations, please note that if the prevailing wage rate determination which was in effect on the bid advertisement date of a project has a single asterisk (*) after the expiration date, the rate will be good for the life of the project. However, if a prevailing wage rate determination has double asterisks (**) after the expiration date, the rate must be updated on the following date to reflect the predetermined rate change(s).

Teamster: Groups I-XI (All Shifts)

The predetermined increases applicable to Determination SC-23-261-2-2017-2 are as follows:

Effective July 1, 2018, \$1.85 to be allocated to wages and/or employer payments.

Note: Subjourneymen (0-6000 hours) receive no predetermined increases.

There will be no further increases applicable to this determination.

Issued 8/22/2017, Effective 9/1/2017 until superseded.

This page will be updated when wage rate breakdown information becomes available.

Last Updated: September 1, 2017

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

LOCALITY: IMPERIAL COUNTY
DETERMINATION: IMP-2017-2

CRAFT (JOURNEY LEVEL)	ISSUE DATE	EXPIRATION DATE	EMPLOYER PAYMENTS							STRAIGHT-TIME		OVERTIME HOURLY RATE		
			BASIC HOURLY RATE	HEALTH AND WELFARE	PENSION	VACATION/HOLIDAY	TRAINING	OTHER PAYMENTS	HOURS	TOTAL HOURLY RATE	DAILY	SATURDAY	SUNDAY AND HOLIDAY	
# BRICKLAYER:	8/22/2017	10/31/2017**	A 46.700	8.000	7.020	-	B 0.930	0.100	C 8.0	62.750	D 86.100	D 86.100	109.450	
MASON FINISHER	8/22/2017	10/31/2017*	A 35.750	8.000	7.020	-	B 0.820	0.100	C 8.0	51.690	D 69.570	D 69.570	87.440	
# E BRICK TENDER	8/22/2017	06/30/2018**	31.360	7.120	7.530	F 4.100	0.650	0.440	C 8.0	51.200	66.880	66.880	82.560	
# BRICK TENDER:														
FORKLIFT OPERATOR	8/22/2017	06/30/2018**	31.810	7.120	7.530	F 4.100	0.650	0.440	C 8.0	51.650	67.560	67.560	83.460	
# CARPET LAYER:														
RESILIENT TILE LAYER	8/22/2017	12/31/2017**	28.770	5.000	7.160	0.700	0.450	0.370	8.0	42.450	G 56.830	H 56.830	71.220	
MATERIAL HANDLER - FIRST SIX MONTHS	8/22/2017	12/31/2017*	10.500	-	-	0.500	-	-	8.0	11.000	G 16.250	H 16.250	21.500	
MATERIAL HANDLER - AFTER SIX MONTHS	8/22/2017	12/31/2017**	10.500	5.000	0.150	0.500	0.100	-	8.0	16.250	G 21.500	H 21.500	26.750	
# DRYWALL FINISHER														
DRYWALL FINISHER	2/22/2017	09/30/2017**	J 37.180	8.050	6.130	3.070	0.670	0.570	8.0	55.670	74.260	K 74.260	92.850	
# ELECTRICIAN:														
INSIDE WIREMAN, TECHNICIAN	8/22/2017	06/03/2018**	43.250	6.910	L 4.850	-	0.870	0.240	8.0	57.420	M 79.690	M 79.690	101.970	
CABLE SPLICER	8/22/2017	06/03/2018**	44.000	6.910	L 4.850	-	0.870	0.240	8.0	58.190	M 80.850	M 80.850	103.510	
TUNNEL WIREMAN	8/22/2017	06/03/2018**	48.660	6.910	L 4.850	-	0.870	0.240	8.0	62.990	M 88.050	M 88.050	113.110	
TUNNEL CABLE SPLICER	8/22/2017	06/03/2018**	49.410	6.910	L 4.850	-	0.870	0.240	8.0	63.760	M 89.210	M 89.210	114.650	
INSIDE WIREMAN, TECH. FOR ELECTRICAL PROJECTS OF MORE THAN \$500,000	8/22/2017	06/03/2018**	46.250	6.910	L 4.850	-	0.870	0.240	8.0	60.510	M 84.330	M 84.330	108.150	
CABLE SPLICER FOR ELECTRICAL PROJECTS OF MORE THAN \$500,000	8/22/2017	06/03/2018**	47.000	6.910	L 4.850	-	0.870	0.240	8.0	61.280	M 85.490	M 85.490	109.690	
TUNNEL WIREMAN FOR ELECTRICAL PROJECTS OF MORE THAN \$500,000	8/22/2017	06/03/2018**	51.660	6.910	L 4.850	-	0.870	0.240	8.0	66.080	M 92.680	M 92.680	119.290	
TUNNEL CABLE SPLICER FOR ELECTRICAL PROJECTS OF MORE THAN \$500,000	8/22/2017	06/03/2018**	52.410	6.910	L 4.850	-	0.870	0.240	8.0	66.850	M 93.840	M 93.840	120.830	
SOUND AND SIGNAL TECHNICIAN	8/22/2017	06/03/2018**	31.000	6.910	L 3.840	-	0.780	0.140	8.0	43.600	G 59.560	N 59.560	75.530	
STREETLIGHTING, TRAFFIC SIGNAL, UNDERGROUND SYSTEMS	8/22/2017	10/01/2017**	30.480	5.950	L 1.500	-	0.250	0.170	8.0	39.260	P 54.960	P 54.960	70.660	
O JOURNEYMAN TECHNICIAN GRADE 1														
O TECH GRADE 2	8/22/2017	10/01/2017**	25.450	5.950	L 1.500	-	0.250	0.170	8.0	34.080	P 47.190	P 47.190	60.300	
O TECH GRADE 3	8/22/2017	10/01/2017**	23.150	5.950	L 1.500	-	0.250	0.170	8.0	31.710	P 43.640	P 43.640	55.560	
O TECH GRADE 4	8/22/2017	10/01/2017**	16.550	5.950	L -	-	0.250	0.170	8.0	23.420	P 31.940	P 31.940	40.460	
O TECH GRADE 5	8/22/2017	10/01/2017**	13.950	5.950	L -	-	0.250	0.170	8.0	20.740	P 27.920	P 27.920	35.110	
# FIELD SURVEYOR:														
Q CHIEF OF PARTY (018.167-010)	8/22/2017	09/30/2017**	46.710	11.450	9.650	F 4.520	1.050	0.150	8.0	73.530	R 96.890	R 96.890	120.240	
Q INSTRUMENTMAN (018.167-034)	8/22/2017	09/30/2017**	44.210	11.450	9.650	F 4.350	1.050	0.150	8.0	70.860	R 92.970	R 92.970	115.070	
Q CHAINMAN/RODMAN (869.567-010)	8/22/2017	09/30/2017**	43.630	11.450	9.650	F 4.300	1.050	0.150	8.0	70.230	R 92.040	R 92.040	113.860	
# GLAZIER	2/22/2017	09/30/2017*	J 41.550	7.930	9.360	-	0.580	0.350	S 8.0	59.770	T 80.540	T 80.540	101.320	
# MARBLE FINISHER	8/22/2017	05/31/2018**	U 30.930	9.250	2.830	-	0.870	0.330	8.0	44.210	V 59.670	W 59.670	X 75.140	
# PAINTER														
Y INDUSTRIAL PAINTER	8/22/2017	12/31/2017**	A 32.520	8.250	3.040	2.200	0.700	0.910	8.0	47.620	Z 63.880	Z 63.880	Z 63.880	

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1
FOR COMMERCIAL BUILDING, HIGHWAY, HEAVY CONSTRUCTION AND DREDGING PROJECTS

LOCALITY: IMPERIAL COUNTY
DETERMINATION: IMP-2017-2

CRAFT (JOURNEY LEVEL)	ISSUE DATE	EXPIRATION DATE	EMPLOYER PAYMENTS						STRAIGHT-TIME		OVERTIME HOURLY RATE			
			BASIC HOURLY RATE	HEALTH AND WELFARE	PENSION	VACATION/HOLIDAY	TRAINING	OTHER PAYMENTS	HOURS	TOTAL HOURLY RATE	DAILY	SATURDAY	SUNDAY AND HOLIDAY	
# PAINTER:														
Y PAINTER, LEAD ABATEMENT	8/22/2017	12/31/2017**	A 31.120	8.250	3.040	2.050	0.600	0.910	8.0	45.970	Z 61.530	Z 61.530	Z 61.530	
Y REPAINT PAINTER, LEAD ABATEMENT	8/22/2017	12/31/2017**	A 27.590	8.250	3.040	1.990	0.600	0.910	8.0	42.380	AA 56.180	AA 56.180	AA 56.180	
Y INDUSTRIAL REPAINT PAINTER	8/22/2017	12/31/2017**	A 28.840	8.250	3.040	2.130	0.700	0.910	8.0	43.870	AA 58.290	AA 58.290	AA 58.290	
# PLASTERER	8/22/2017	07/31/2018*	35.610	9.130	4.590	AB 5.650	0.730	0.990	AC 8.0	56.700	Z 74.510	AD 74.510	92.310	
# AE PLASTER TENDER	8/22/2017	08/07/2018*	35.050	7.120	6.930	AB 5.120	1.020	0.960	8.0	56.200	AF 73.720	AG 73.720	91.250	
PLASTER CLEAN-UP LABORER	8/22/2017	08/07/2018*	32.500	7.120	6.930	AB 5.120	1.020	0.960	8.0	53.650	AF 69.900	AG 69.900	86.150	
# PLUMBER:														
PLUMBER, INDUSTRIAL AND GENERAL PIPEFITTER	8/22/2017	08/31/2018**	AH 46.030	8.160	AI 11.500	AJ 3.250	1.950	AK 1.250	8.0	72.140	AL 95.930	AL 95.930	118.100	
SEWER AND STORM DRAIN PIPELAYER	8/22/2017	08/31/2018**	AH 35.170	8.050	AI 8.650	AJ 1.220	1.680	AK 1.250	8.0	56.020	73.370	AM 73.370	90.100	
AN SEWER AND STORM DRAIN PIPE TRADESMAN	8/22/2017	08/31/2018**	AH 18.130	8.050	0.380	-	1.110	AK 1.100	8.0	28.770	36.980	AM 36.980	45.200	
SERVICE & REPAIR (PLUMBER/HVAC-FITTER)	8/22/2017	08/31/2018**	AH 44.510	8.160	AI 11.190	AJ 3.250	1.280	AK 1.250	8.0	69.640	92.670	AO 92.670	AP 114.080	
LANDSCAPE/IRRIGATION FITTER	8/22/2017	08/31/2018**	U 29.590	8.160	AI 11.500	AJ 2.710	1.340	AK 1.050	AM 8.0	54.350	70.500	70.500	85.300	
AQ LANDSCAPE/IRRIGATION TRADESMAN	8/22/2017	08/31/2018**	U 14.110	3.000	AI 0.880	-	0.100	AK 0.850	AM 8.0	18.940	26.000	26.000	33.050	
FIRE SPRINKLER FITTER	2/22/2017	03/31/2017*	& 10.500	8.770	11.060	-	0.450	-	8.0	30.780	AR 36.030	AR 36.030	AR 36.030	
# ROOFER	8/22/2017	06/30/2018**	AS 30.730	6.480	1.620	-	0.300	0.030	8.0	39.160	53.660	AT 53.660	X 68.160	
PITCH WORK	8/22/2017	06/30/2018**	AS 32.230	6.480	1.620	-	0.300	0.030	8.0	40.660	55.910	AT 55.910	X 71.160	
# SHEET METAL WORKER (HVAC)	8/22/2017	06/30/2018**	A 36.880	AU 9.120	AV 16.580	-	AW 0.830	AX 0.590	AM 8.0	64.000	AL 82.440	AL 82.440	100.880	
AY SHEET METAL TECHNICIAN	8/22/2017	06/30/2018*	A 27.700	AU 6.210	AV 1.250	-	AW 0.780	AX 0.540	AM 8.0	36.480	AL 50.330	AL 50.330	64.180	
AZ UTILITY WORKER	8/22/2017	06/30/2018*	13.650	AU 5.810	BA -	-	AW 0.450	AX 0.540	AM 8.0	20.450	AL 27.270	AL 27.270	34.100	
# TERRAZZO FINISHER	8/22/2017	08/31/2018**	J 29.750	8.750	3.530	BB -	0.630	0.260	AM 8.0	42.920	V 57.790	BC 57.790	X 72.670	
# TERRAZZO WORKER	8/22/2017	08/31/2018**	J 36.750	9.250	3.860	BB -	0.710	0.260	AM 8.0	50.830	V 69.210	BC 69.210	X 87.580	
# TILE FINISHER	8/22/2017	05/31/2018**	U 25.980	8.430	2.000	-	0.800	0.280	8.0	37.490	V 50.480	W 50.480	X 63.470	
# TILE LAYER	8/22/2017	05/31/2018**	U 37.760	9.250	6.140	-	0.980	0.370	8.0	54.500	V 73.380	W 73.380	X 92.260	

GENERAL PREVAILING WAGE DETERMINATION MADE BY THE DIRECTOR OF INDUSTRIAL RELATIONS
PURSUANT TO CALIFORNIA LABOR CODE PART 7, CHAPTER 1, ARTICLE 2, SECTIONS 1770, 1773 AND 1773.1

LOCALITY: IMPERIAL COUNTY

DETERMINATION: IMP-2017-2

- THE PREDETERMINED INCREASE SHOWN IS TO BE ALLOCATED TO WAGES AND/OR EMPLOYER PAYMENTS. PLEASE CONTACT THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774 WHEN THE PREDETERMINED INCREASE BECOMES DUE TO CONFIRM THE DISTRIBUTION. PLEASE ALSO EXAMINE THE IMPORTANT NOTICES TO SEE IF ANY MODIFICATIONS HAVE BEEN ISSUED, AS THERE MAY BE REDUCTIONS TO PREDETERMINED INCREASES.
- A WHEN THE PREDETERMINED INCREASE BECOMES DUE TO CONFIRM THE DISTRIBUTION. PLEASE ALSO EXAMINE THE IMPORTANT NOTICES TO SEE IF ANY MODIFICATIONS HAVE BEEN ISSUED, AS THERE MAY BE REDUCTIONS TO PREDETERMINED INCREASES.
- B THE RATIO OF BRICK TENDERS TO BRICKLAYERS SHALL BE AS FOLLOWS: ONE (1) BRICK TENDER TO NO MORE THAN THREE (3) BRICKLAYERS DURING THE INSTALLATION OF BLOCK ON A TYPICAL MASONRY PROJECT.
- C \$1.25 TO BASIC HOURLY RATE, \$0.90 DECREASE TO HEALTH AND WELFARE, \$0.78 TO PENSION, \$0.05 TO TRAINING, AND \$0.07 TO OTHER.
- D \$0.78 TO PENSION.
- E A MATERIAL HANDLER MAY BE UTILIZED IN RATIO OF ONE (1) MATERIAL HANDLER WITH ANY FIVE (5) JOURNEYMEN ON ANY GIVEN PROJECT.
- F \$0.90 DECREASE TO HEALTH & WELFARE
- G \$1.40 TO THE BASIC HOURLY RATE, \$0.40 TO HEALTH & WELFARE, \$0.25 TO PENSION AND \$0.10 TO OTHER PAYMENTS.
- H \$1.60 TO THE BASIC HOURLY RATE, \$0.40 TO HEALTH & WELFARE, \$0.25 TO PENSION AND \$0.10 TO OTHER PAYMENTS.
- I THE FIRST WORKER ON THE SITE MUST BE A JOURNEYMAN TECHNICIAN GRADE #1 OR #2 OR ANY HIGHER PAID JOURNEYMAN CLASSIFICATION, SUCH AS JOURNEYMAN INSIDE WIREMAN; THEREAFTER THE CONTRACTOR MAY EMPLOY FIVE (5) JOURNEYMAN TECHNICIANS WITH A MAXIMUM OF TWO (2) LEVEL #5 TECHNICIANS PER CREW. THESE SIX (6) WORKERS SHALL CONSTITUTE A CREW ON THE JOB SITE.
- J \$0.98 TO THE BASIC HOURLY RATE AND \$0.03 TO NEBF.
- K \$0.80 TO THE BASIC HOURLY RATE, AND \$0.03 TO NEBF.
- L \$0.80 TO THE BASIC HOURLY RATE, AND \$0.02 TO NEBF.
- M \$0.65 TO THE BASIC HOURLY RATE AND \$0.02 TO NEBF.
- N \$0.55 TO THE BASIC HOURLY RATE AND \$0.01 TO NEBF.
- O \$0.55 TO THE BASIC HOURLY RATE AND \$0.02 TO NEBF.
- P \$0.45 TO THE BASIC HOURLY RATE AND \$0.01 TO NEBF.
- Q \$0.45 TO THE BASIC HOURLY RATE AND \$0.02 TO NEBF.
- R DICTIONARY OF OCCUPATIONAL TITLES, FOURTH EDITION, 1977, U.S. DEPARTMENT OF LABOR.
- S \$2.15 TO THE BASIC HOURLY RATE, \$0.10 TO VACATION & HOLIDAY (SUPPLEMENTAL DUES), AND \$0.05 TO TRAINING.
- T AN ADDITIONAL \$0.25 PER HOUR WILL BE ADDED TO THE BASIC HOURLY RATE WHEN PERFORMING PAPERHANGING WORK.
- U \$0.20 TO HEALTH AND WELFARE.
- V \$0.40 TO HEALTH AND WELFARE AND \$0.65 TO WAGES AND/OR FRINGES.
- W \$0.40 TO HEALTH AND WELFARE AND \$0.50 TO WAGES AND/OR FRINGES.
- X PIPE TRADESMEN SHALL NOT BE PERMITTED ON ANY JOB WITHOUT A JOURNEYMAN.
- TRADESMEN SHALL ONLY BE USED IF THE FIRST WORKER ON THE JOB IS A LANDSCAPE/IRRIGATION FITTER, SECOND WORKER MUST BE A LANDSCAPE/IRRIGATION FITTER OR APPRENTICE LANDSCAPE/IRRIGATION FITTER. THE 3RD AND 4TH MAY BE A TRADESMAN. THE 5TH MUST BE A LANDSCAPE/IRRIGATION FITTER AND THEREAFTER TRADESMEN WILL BE REFERRED ON A 50-50 BASIS, TO JOURNEYMAN OR APPRENTICE.
- Y \$0.65 TO PENSION AND \$1.35 TO WAGES AND/OR EMPLOYER PAYMENTS. PLEASE CONTACT THE OFFICE OF THE DIRECTOR - RESEARCH UNIT AT (415) 703-4774 WHEN THE PREDETERMINED INCREASE BECOMES DUE TO CONFIRM THE DISTRIBUTION. PLEASE ALSO EXAMINE THE IMPORTANT NOTICES TO SEE IF ANY MODIFICATIONS HAVE BEEN ISSUED, AS THERE MAY BE REDUCTIONS TO PREDETERMINED INCREASES.
- Z INCREASE BECOMES DUE TO CONFIRM THE DISTRIBUTION. PLEASE ALSO EXAMINE THE IMPORTANT NOTICES TO SEE IF ANY MODIFICATIONS HAVE BEEN ISSUED, AS THERE MAY BE REDUCTIONS TO PREDETERMINED INCREASES.

[IMP-2017-2-INC](#)

00410 BID FORM

Project Identification: **Imperial County Community & Economic Development Department – Winterhaven Water and Sewer Improvements**

Contract Identification and Number: _____

TABLE OF ARTICLES

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ARTICLE 1 - BID RECIPIENT

- 1.01 This Bid Is Submitted To: **County of Imperial Clerk of the Board of Supervisors at 940 W. Main Street, Suite 209, El Centro, CA 92243**
- 1.02 The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with the Owner in the form included in the Bidding Documents to perform all Work as specified or indicated in the Bidding Documents for the prices and within the times indicated in the Bid and in accordance with the other terms and conditions of the Bidding Documents.

ARTICLE 2 - BIDDER'S ACKNOWLEDGMENTS

- 2.01 The Bidder accepts all of the terms and conditions of the Advertisement and Instructions to Bidders, including without limitations those dealing with the dispositions of Bid Security. The Bid will remain subject to acceptance for **sixty (60) days** after the Bid Opening, or for such longer period of time that the Bidder may agree to in writing upon a request from the Owner.

ARTICLE 3 - BIDDER'S REPRESENTATIONS

- 3.01 In submitting this Bid, the Bidder represents that:
 - A. The Bidder has examined and carefully studied the Bidding Documents, the other related data identified in the Bidding Documents, and the following Addenda, receipt of which is hereby acknowledged.

Addendum No.	Addendum Date
_____	_____
_____	_____
_____	_____
_____	_____

- B. The Bidder has visited the Site and become familiar with and is satisfied as to the General, Local, and Site conditions that may affect cost, progress, and performance of the Work.

- C. The Bidder is familiar with and is satisfied as to all Federal, State, and Local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. The Bidder does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price(s) bid and within the times and in accordance with the other terms and conditions of the Bidding Documents.
- E. The Bidder is aware of the general nature of the Work to be performed by the Owner and others at the Site that relates to the Work as indicated in the Bidding Documents.
- F. The Bidder has correlated the information known to the Bidder, information and observations obtained from visits to the Site, reports and drawings identified in the Bidding Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Bidding Documents.
- G. The Bidder has given the Owner written notice of all conflicts, errors, ambiguities, or discrepancies that the Bidder has discovered in the Bidding Documents, and the written resolution thereof by the Engineer is acceptable to the Bidder.
- H. The Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance of the Work for which this Bid is submitted.
- I. The Bidder will submit written evidence of its authority to do business in the State where the Project is located not later than the date of its execution of the Agreement.

ARTICLE 4 - FURTHER REPRESENTATIONS

4.01 The Bidder further represents that:

- A. This Bid is genuine and not made in the interest of or on the behalf of any undisclosed individual or entity and is not submitted in conformity with any agreement or rules of any group, association, organization, or corporation;
- B. The Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. The Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. The Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over the Owner.

ARTICLE 5 – BASIS OF BID – SCHEDULE OF VALUES

5.01 The Bidder will complete the Work in accordance with the Contract Documents for the following price(s):

ITEM	QUANTITY	UNIT	ITEM	UNIT COST	AMOUNT
1	1	LS	Mobilization, Bonds, General Liability Insurance, Workman's Compensation Insurance, Vehicle Insurance, Taxes, Permits, and Miscellaneous Fees	\$	\$
2	1	LS	Provide Bypass Pumping to Deliver a Minimum of 1,000 Gallons Per	\$	\$

Imperial County Community & Economic Development Dept. – Winterhaven Water and Sewer Improvements

			Minute at 80' TDH and Maximum Pressure of 75 psi.		
3	1	LS	Remove Existing Fencing	\$	\$
4	1	LS	Remove Existing Water Distribution Plumbing and Appurtenances	\$	\$
5	1	LS	Remove Existing Water Distribution Pumps and Motors	\$	\$
6	1	LS	Remove Existing SES and MCC Panel	\$	\$
7	1	LS	Remove Existing Electrical Panel and Compressor Unit for Pressure Tank	\$	\$
8	1	LS	Remove Existing Pressure Tank and Foundation	\$	\$
9	1	LS	Remove Existing Well Pump and Motor	\$	\$
10	1	LS	Remove Existing Well Electrical Panel	\$	\$
11	3	EA	Provide and Install New 20 HP Pump	\$	\$
12	1	LS	Provide and Install New SES and MCC with Integrated Programmable Logic Controller	\$	\$
13	1	LS	Construct New Concrete Pad and Pump Pedestals	\$	\$
14	1	LS	Provide and Install New 14' x 12' Shade Structure with Fabric Panels	\$	\$
15	1	LS	Construct Shade Structure Footings		
16	1	LS	Provide and Install New 800 Gallon Hydro-Tank	\$	\$
17	1	LS	Provide and Install New Electrical Panel and Compressor Unit for Hydro-Tank	\$	\$
18	1	LS	Provide and Install New Auto Dialer System for Water Distribution System	\$	\$
19	1	LS	Provide and Install a New 15 HP 7" Submersible Pump and Above Ground Appurtenances	\$	\$
20	1	LS	Provide and Install a New Horizon PTF-60 Ventilation System in Existing Chlorine Room	\$	\$
21	1	LS	Provide and Install New 8' Perimeter Chain Link Fencing	\$	\$
22	1	LS	Provide and Install New 8' Chain Link Gate	\$	\$
23	1	LS	Provide and Install New 8" Flow Meter	\$	\$
24	1	LS	Construct New Concrete Tank Foundation	\$	\$

Imperial County Community & Economic Development Dept. – Winterhaven Water and Sewer Improvements

25	1	LS	Provide and Install New Electrical Cabinet for Submersible Pump	\$	\$
26	2	EA	Provide and Install NEW 10 HP VFD	\$	\$
27	1	LS	Provide and Install New Programmable Logic Controller	\$	\$
28	2	EA	Provide and Install New 10 HP Inverter Duty Pumps	\$	\$
29	1	LS	Provide and Install New 8" Cement Mortar Lined, Flanged, Ductile Iron Pipe Coated with Fusion Bonded Epoxy.	\$	\$
30	1	LS	Provide and Install New 4MA-20MA Rangeable Pressure Transmitter	\$	\$
31	1	LS	Provide and Install New 3/4" Electrical Conduit and Electrical Pull Boxes	\$	\$
32	1	LS	Provide and Install New 4" Cement Mortar Lined, Flanged, Ductile Iron Pipe	\$	\$
33	1	LS	Provide and Install Appropriate Wiring for Water Treatment Upgrades	\$	\$
34	1	LS	Provide Bypass Pumping For Sewer	\$	\$
35	1	LS	Saw cut Existing AC Pavement	\$	\$
36	2	EA	Remove Existing Sewer Manhole	\$	\$
37	2	EA	Provide and Install New Sewer Manhole	\$	\$
38	1	LS	Replace AC Pavement	\$	\$
39	1	LS	Provide and Install Appropriate Wiring Lift Station Upgrades	\$	\$
40	1	LS	Remove Existing Lift Station Electrical Panel	\$	\$
41	1	LS	Provide and Install New Lift Station Electrical Panel	\$	\$
42	1	LS	Provide and Install New Auto Dialer System for Lift Station		
43	1	LS	Provide Appropriate Temporary Traffic Control	\$	\$

TOTAL LUMP SUM BID (Items 1 through 43) in Figures

\$ _____

TOTAL LUMP SUM BID (Items 1 through 43) in Words

_____ (only).

NOTE: The Project Manual is the bound documentary information prepared for bidding and constructing the Work. The listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the Table of Contents in the Project Manual. The Bidder is to review the entire contents of the Project Manual and understand its provisions and requirements prior to preparing the Bid Form.

ARTICLE 6 - TIME OF COMPLETION

- 6.01 The Bidder agrees that the Work will be substantially complete and will be completed and ready for final payment within the number of calendar days indicated in the Agreement.
- 6.02 The Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the work within the Contract Times.

ARTICLE 7 - ATTACHMENTS TO BID

7.01 The following documents are attached to and made a condition of the Bid:

- A. Non-Collusion Affidavit; and
- B. Required Bid Security of ten percent (10%) in the form of a Bid Bond (Section 00430) or Certified Check (circle type of security provided); and
- C. If Bid amount exceeds \$10,000, signed Compliance Statement/Certifications of Non-segregated Facilities (Section 00440). Refer to specific equal opportunity requirements set forth in paragraph 18.10 of the General Conditions; and
- D. If Bid amount exceeds \$25,000, signed Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion- Lower Tier Covered Transactions (Within Section 00451); and
- E. If Bid amount exceeds \$100,000, signed Certification for Contracts, Grant, and Loans (Section 00460). Refer to paragraph 18.11 of the General Conditions; and
- F. Worker's Compensation Certification; and
- G. A Tabulation of Subcontractors with Names and Addresses and percent of Total Contract; and
- H. Required Bidder Qualifications Statement with supporting data; and
- I. Tabulation of Major Material Suppliers; and
- J. Federal and State Contract Language Inclusion – January 1, 2014 – Exhibit 'A' (Section 00451).

ARTICLE 8 - DEFINED TERMS

8.01 The terms used in this Bid with initial capital letters have the meanings stated in the Instructions to Bidders, the General Conditions, and the Supplementary Conditions.

ARTICLE 9 - BID SUBMITTAL

9.01 This Bid submitted by:

If Bidder is:

An Individual

Name (typed or printed): _____

By: _____
(Individual's signature)

SEAL,
if required
by State

Doing business as: _____

A Partnership

Partnership Name: _____

By: _____
(Signature of general partner -- attach evidence of authority to sign)

SEAL,
if required
by State

Name (typed or printed): _____

A Corporation

Corporation Name: _____

State of Incorporation: _____

Type (General Business, Profession, Service, Limited Liability): _____

By: _____
(Signature -- attach evidence of authority to sign)

Name (typed or printed): _____

Title: _____

Attest _____
(Signature of Corporate Secretary)

CORPORATE
SEAL,
if required by State

Date of Qualification to do business in _____ California is ___/___/_____

A Joint Venture

Name of Joint Venture: _____

First Joint Venture Name: _____

By: _____
(Signature of joint venture partner -- attach evidence of authority to sign)

SEAL,
if required
by State

Name (typed or printed): _____

Title: _____

Second Joint Venture Name: _____

By: _____
(Signature of joint venture partner -- attach evidence of authority to sign)

SEAL,
if required
by State

Name (typed or printed): _____

Title: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is party to the venture should be in the manner indicated above.)

Bidder's Business Address:

Business Phone No. (____) _____

Business Fax No. (____) _____

Business E-Mail Address _____

State Contractor License No. _____.

Employer's Tax ID No. _____

Phone and Fax Numbers, and Address for receipt of official communications, if different from Business Contact Information:

9.02 Bid submitted on _____, 20__.

00420 NON COLLUSION AFFIDAVIT
(Public Contract Code Section 7106)

State of California

County of _____

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

By: _____

Subscribed and sworn to before me on _____
(Date)

(Notary Public)

(SEAL)

00430 BID BOND

Any singular reference to Bidder, Surety, Owner, or other party shall be considered plural where applicable.

BIDDER (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

**County of Imperial
Community & Economic Development Department
940 W. Main Street, Suite 203
El Centro, CA 92243**

BID

Bid Due Date: **Thursday, November 2, 2017**

Project: **Imperial County Community & Economic Development – Winterhaven Water and Sewer Improvements**

BOND

Bond Number:

Date (Not later than Bid due date):

Penal sum _____ (Words) _____ (Figures)

Surety and Bidder, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Bid Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

BIDDER

SURETY

Bidder's Name and Corporate Seal (Seal) _____
Surety's Name and Corporate Seal (Seal)

By: _____
Signature and Title

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title

Attest: _____
Signature and Title

Note: Above addresses are to be used for giving required notice.

1. The Bidder and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to pay to the Owner upon default of the Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of the Surety's liability.
2. Default of the Bidder shall occur upon the failure of the Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by the Owner) the executed Agreement required by the Bidding Documents and the Performance and Payment Bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 The Owner accepts the Bidder's Bid and the Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by the Owner) the executed Agreement required by the Bidding Documents and the Performance and Payment Bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by the Owner, or
 - 3.3 The Owner fails to issue a Notice of Award to the Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by the Bidder and, if applicable, consented to by the Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default by the Bidder and within **thirty (30) calendar days** after receipt by the Bidder and the Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. The Surety waives notice of any and all defenses based upon or arising out of any time extension to issue the Notice of Award agreed to in writing by the Owner and the Bidder, provided that the total time for issuing the Notice of Award including extensions shall not in the aggregate exceed **one hundred and twenty (120) days** from Bid due date without the Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to **thirty (30) calendar days** after the notice of default required in Paragraph 4 above is received by the Bidder and the Surety and in no case later than **one (1) year** after the Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the State of California.
8. Notices required hereunder shall be in writing and sent to the Bidder and the Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. The Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of the Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

00440 COMPLIANCE STATEMENT

This statement relates to a proposed contract with the County of Imperial
(Name of borrower or grantee)

Who expects to finance the contract with assistance from the Community Development Block Grant (CDBG) or their successor agencies, California Department of Housing and Community Development (HCD) (whether by a loan, grant, loan insurance, guarantee, or other form of financial assistance). I am the Undersigned Bidder or Prospective Contractor. I represent that:

1. I have, have not, participated in a previous contract or subcontract subject to Executive Order 11246 (regarding equal employment opportunity) or a preceding similar Executive Order.
2. If I have participated in such a contract or subcontract, I have, have not, filed all Compliance Reports that I have been required to file in connection with the contract or subcontract.

If the proposed contract is for \$50,000 or more and I have 50 or more employees, I also represent that:

3. I have, have not, previously had contracts subject to the written Affirmative Action Program Requirements of the Secretary of Labor.
4. If I have participated in such a contract or subcontract, I have, have not, developed and placed on file at each establishment Affirmative Action Programs as required by the rules and regulations of the Secretary of Labor.

I understand that if I have failed to file any compliance reports that have been required by me, I am not eligible and will not be eligible to have my bid considered or to enter into the proposed contract unless and until I make an arrangement regarding such reports that is satisfactory to the CDBG, or to the office of the governing agency where the reports are required to be filed.

I also certify that I do not maintain or provide for my employees any segregated facilities at any of my establishments, and that I do not permit my employees to perform their services at any location, under my control, where segregated facilities are maintained. I certify further that I will not maintain or provide for my employees any segregated facilities at any of my establishments, and that I will not permit my employees to perform their services at any location, under my control, where segregated facilities are maintained. I agree that a breach of this certification is a violation of the Equal Opportunity Clause in my contract. As used in this certification, the term “segregated facilities” means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, creed, color, or national origin, because of habit, local custom, or otherwise. I further agree that (except where I have obtained identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause; that I will retain such certifications in my files; and that I will forward the following notice to such proposed subcontractors (except where the proposed subcontractors have submitted identical certifications for specific time periods).

**NOTICE TO PROSPECTIVE SUBCONTRACTORS OF REQUIREMENTS
FOR
CERTIFICATIONS OF NON-SEGREGATED FACILITIES**

A certification of Nonsegregated Facilities, as required by the May 9, 1967, Order (32F.R. 7439, May 19, 1967) on Elimination of Segregated Facilities, by the Secretary of Labor, must be submitted prior to the award of a subcontract exceeding \$10,000 which is not exempt from the provisions of the Equal Opportunity Clause. The certification may be submitted either for each subcontract or for all subcontracts during a period (i.e., quarterly, semiannually, or annually)

NOTE: The penalty for making false statements in offers is prescribed in 18 U.S.C. 1001.

Date: _____

(Signature of Bidder or Prospective Contractor)

Address (including Zip Code)

**00451 FEDERAL AND STATE CONTRACT LANGUAGE INCLUSION - JANUARY 01, 2014 - EXHIBIT
'A'**

The Contractor shall be in strict conformance with the entire sections included in the CDBG Grant Manual available at <http://www.hcd.ca.gov/fa/cdbg/manual/> and the requirements included as follows:

FEDERAL REGULATIONS

1. Affirmative Action

The work to be performed under this contract is on a project assisted under a program providing direct federal financial assistance from the UNITED States Department of Housing and Urban Development (HUD) and subject to 24 CFR 85.36(e). County hereby notifies all bidders that it will affirmatively insure that in any contract entered into pursuant to this advertisement, disadvantaged, minority and women's business enterprises will be afforded full opportunity to submit bids in response to this invitation and will not be discriminated against on the grounds of race, color, religious creed, sex, or national origin in consideration for an award. Minority- and women-owned and operated businesses are encouraged to apply.

2. Section 3

The work to be performed under this contract in on a project assisted under a program providing direct federal financial assistance from the HUD, Community Development Block Grant Program, and is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 USC 1701u. Section 3 requires that to the greatest extent feasible opportunities for training and employment be given to low and moderate income persons residing within the project area and that the contracts for work in connection with the project be awarded to eligible business concerns which are located in, or owned in substantial part by persons residing in the area of the project. Regulations for implementing the Section 3 clause are contained in 24 CFR 135, as amended, and as specified in the project specifications.

3. Federal Terms and Conditions

During the performance of the contract, the Contractor must agree to comply with all applicable Federal laws and regulations including but not limited to each of the following:

A. Equal Opportunity

During the performance of this Contract, the Contractor agrees as follows:

1. The Contractor will comply with Executive Order 11246 of September 24, 1965 entitled Equal Employment Opportunity as amended by Executive Order 11375 of October 1967 as supplemented in Department of Labor regulations (41 CFR Chapter 60).
2. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to insure that applicants are employed and that employees are treated equally during employment, without regard to race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment upgrading, demotion, transfer, recruitment, or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training including apprenticeship. The Contractor agrees to post in conspicuous places, available

- to employees and applicants for employment, notices to be provided by the County setting forth the provision of the nondiscrimination clause.
3. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to their race, color, religion, sex, or national origin.
 4. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding, a notice, to be provided by the agency contracting officer, advising the labor union or workers' representative of the contractor's commitments under Section 202 of Executive Order No. 11246 of September 24, 1965, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
 5. The Contractor will furnish all information and reports required by Executive Order No. 11246 of September 24, 1965, and by the rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to this books, records, and accounts by the contracting agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
 6. In the event of the Contractor's noncompliance with the nondiscrimination clauses of this contract or with any of such rules, regulations, or orders, this contract may be declared ineligible for further Government contracts in accordance with procedures authorized in Executive Order No. 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order No. 11246 of September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as otherwise provided by law.
 7. The Contractor will include the provisions of paragraphs (1) through (7) in every subcontract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 204 of Executive Order N. 11246 of September 24, 1965, so that such provisions will be binding upon each subcontractor or vendor. The contractor will take such action with respect to any subcontract or purchase order as may be directed by the Secretary of Labor as a means of enforcing such provisions including sanctions for noncompliance: Provided, however, that in the event the contractor becomes involved in, or is threatened with, litigation with a subcontractor or vendor as a result of such direction, the contractor may request the United States or enter into such litigation to protect the interests of the United States.
 8. The contractor shall file, and shall cause each of his subcontractors to file, Compliance Reports with the contracting agency or the Secretary of Labor as may be directed. Compliance Reports shall be filed within such times and shall contain such information as to the practices, policies, programs, and employment policies, programs, and employment statistics of the contractor and each subcontractor, and shall be in such form, as the Secretary of Labor may prescribe.
 9. Bidders or prospective contractors or subcontractors may be required to state whether they have participated in any previous contract subject to the provisions of the Order, or any preceding similar Executive order, and in that event to submit, on behalf of themselves and their proposed subcontractors, Compliance reports prior to or as an initial part of their bid or negotiation of a contract.
 10. Whenever the Contractor or subcontractor has a collective bargaining agreement or other Contract or understanding with a labor union or an agency referring workers or providing or supervising apprenticeship or training for such workers, the compliance Report shall include such information as to such labor union's or agency's practices and policies affecting compliance as the Secretary of Labor may prescribe: Provided, that to the extent such information is within the

exclusive possession of a labor union or an agency referring workers or providing or supervising apprenticeship or training and such labor union or agency shall refuse to furnish such information to the Contractor, the Contractor shall so certify to the Secretary of Labor as part of its Compliance Report and shall set forth what efforts he/she has made to obtain such information.

11. The Secretary of Labor may direct that any bidder or prospective contractor or subcontractor shall submit, as part of his Compliance Report, a statement in writing, signed by an authorized officer or agent of behalf of any labor union or any agency referring workers or providing or supervising apprenticeship or other training, with which the bidder or prospective contractor deals, with supporting information, to the effect that the signer's practices and policies do not discriminate on the grounds of race, color, religion, sex or national origin, and that the signer either will affirmatively cooperate in the implementation of the policy and provision of this order or that it consents and agrees that recruitment, employment, and the terms and conditions of employment under the proposed contract shall be in accordance with the purposes and provisions of the order. In the event that the union, or the agency shall refuse to execute such a statement, the Compliance Report shall so certify and set fourth what efforts have been made to secure such a statement and such additional factual material as the Secretary of Labor may require.
12. The Contractor will cause the forgoing provision to be inserted in all subcontracts for work covered by this Agreement so that such provisions will be binding upon each subcontractor, provided that the forgoing provisions shall not apply to contracts or subcontracts for standard commercial supplies or raw materials.

B. Disadvantaged/Minority/Women Business Enterprise Federal Regulatory Requirements under 24 CFR 85.36(e)

1. The Contractor will take all necessary affirmative steps to assure that minority firms, women's business enterprises, and labor surplus area firms are used when possible.
2. Affirmative steps shall include:
 - a. Placing qualified small and minority businesses and women's business enterprises on solicitation lists;
 - b. Assuring that small and minority businesses, and women's business enterprises are solicited whenever they are potential sources;
 - c. Dividing total requirements, when economically feasible, into smaller tasks or quantities to permit maximum participation by small and minority business, and women's business enterprises;
 - d. Establishing delivery schedules, where the requirement permits, which encourage participation by small and minority business, and women's business enterprises;
 - e. Using the Services and assistance of the Small Business Administration, and the Minority Business Development Agency of the Department of Commerce.

C. Copeland "Anti-Kickback" Act (18 U.S.C. 874)

Contractor shall comply with the Copeland "Anti-Kickback" Act (18 U.S.C. 874) as supplemented in Department of Labor regulations (29 CFR Part 3).

D. Compliance with Labor Standard Provisions

Contractor shall comply with all provisions contained in the form HUD-4010, Federal Labor Standards Provisions.

E. Compliance with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330)

Contractor will comply with Sections 103 and 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 327-330) as supplemented by Department of Labor regulations (29 CFR Part 5) Requires the contracting officer to insert the clauses set forth in 29 CFR Part 5, construction contracts awarded by grantees and subgrantees in excess of \$2,000, and in excess of \$25,000 for other contracts which involve the employment of mechanics or laborers).

F. Requirements and Regulations pertaining to Data and Design

All data and design and engineering work created under this Agreement shall be owned by the County and shall not be subject to copyright protection. The rights to any invention which is developed in the course of this Agreement shall be the property of the County.

G. Requirements and Regulations pertaining to Reporting

The County, State CDBG, HUD and the Comptroller General of the United States of any of their duly authorized representatives shall be granted access to any books, documents, papers and recorders of Contractor which are directly pertinent the contract.

H. Compliance with Clean Air Act and Clean Water Act

1. Contractor Shall comply with all applicable standards, orders and requirements issued under Section 306 of the Clean Air Act (42 U.S.C. 1857 (h)).
2. Contractor shall comply with all applicable standards, orders and requirements issued under Section 508 of the Clean Air Act (33 U.S.C. 1368).
3. Contractor shall comply with Executive Order 11738 and Environmental Protection Agency regulations (40 CFR Part 15).\

I. Compliance with Energy Policy and Conservation Act (Pub. L. 94-163, 89 Stat. 871)

The Contractor shall comply with the mandatory standards and policies relating to energy efficiency with are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Pub. L. 94-163, 89 Stat. 871).

D/MBE/WBE Implementation Guidelines

The following information, as applicable, shall be retained by Contractor and produced upon request by General Services if determined by General Services to be necessary to establish the bidder's "good faith efforts" to meet the Disadvantaged/Minority/Women Business Enterprise (D/M/WBE) requirements:

1. The names and dates of advertisement of each newspaper, trade paper, and minority-focus paper in which a request for D/M/WBE participation for this project was placed by the bidder.
2. The names and dates of notices of all certified D/M/WBEs solicited by direct mail for this project and the dates and methods used for following up initial solicitations to determine with certainty whether the D/M/WBEs were interested.
3. The items of work for which the bidder request subbids or materials to be supplied by D/M/WBEs, the information furnished interested D/M/WBEs in the

way of plans, specifications and requirements for the work, and any breakdown of items of work into economically feasible units to facilitate D/M/WBE participation. Where there are D/M/WBEs available for doing portions of the work normally performed by the bidder with his own forces, the bidder will be expected to make portions of such work available for D/M/WBEs to bid on.

4. The names of D/M/WBEs who submitted bids for any of the work indicated in (3) above, which were not accepted, and summary of the bidder's discussions and/or negotiations with them, the name of the subcontractor or supplier that was selected for that portion of work, and the reasons for the bidder's choice. If the reason for rejecting the D/M/WBE bid was price, give the price bid by the rejected D/M/WBE and the price bid by the selected subcontractor or supplier.
5. Assistance that the bidder has extended to D/M/WBEs identified in (4) above to remedy the deficiency in their subbids.
6. To find a D/M/WBE certified firm, you may call (916) 455-3520, go online to: <http://www.dot.ca.gov/hq.bep>, or via email at: D/M/WBE Listing for County, CalTrans-Publications Distribution Unit, 1900 Royal Oaks, Sacramento, CA 95815-3800.

The Contractor shall review, execute, initial and submit the Exhibit 'A' – Federal and State Contract Language Inclusion dated January 1, 2014 as a part of the Bid. Exhibit 'A' is attached as follows:

EXHIBIT 'A'

FEDERAL AND STATE CONTRACT LANGUAGE INCLUSION

JANUARY 01, 2014

Public Works Projects Required Bid Language

Required contract language for all state Public Works construction contracts between an awarding agency and the prime contractor; subcontractor contracts with the prime contractor; and any lower tier subcontracts.

California Labor Codes:

This Public Works project is funded by Agencies in California and requires compliance with the California Labor Standards, California Code of Regulations pertaining to Public Works projects, California Labor Codes and the California prevailing wage requirements with special attention to CLC §1720, CLC §1770, CLC § 1771, CLC § 1775, CLC § 1776, CLC §1777.5, CLC §1777.7, CLC §1810 through § 1815 and CLC §3700.

The contract executed between the contractor and the subcontractor or the performance of work on the public works project shall include a copy of the provisions of Sections 1771, 1775, 1776, 1777.5, 1813, and 1815.

CLC § 1720; State prevailing wage rates shall apply when the State wage rate is higher than the Federal wage rate. All contractors and subcontractors are subject to the application of Section 1720 et seq. of the California Labor Code which details the regulations and procedures governing the payment of State prevailing wages. Etc.

CLC § 1727; (a) Before making payments to the contractor of money due under a contract for public work, the awarding body shall withhold and retain there from all amounts required to satisfy any civil wage and penalty assessment issued by the Labor Commissioner under this chapter. The amounts required to satisfy a civil wage and penalty assessment shall not be disbursed by the awarding body until receipt of a final order that is no longer subject to judicial review. Etc.

CLC § 1729; It shall be lawful for any contractor to withhold from any subcontractor under him sufficient sums to cover any penalties withheld from him by the awarding body on account of the subcontractor's failure to comply with the terms of this chapter, and if payment has already been made to the subcontractor the contractor may recover from him the amount of the penalty or forfeiture in a suit at law.

CLC § 1729; It shall be lawful for any contractor to withhold from any subcontractor under him sufficient sums to cover any penalties withheld from him by the awarding body on account of the subcontractor's failure to comply with the terms of this chapter, and if payment has already been made to the subcontractor the contractor may recover from him the amount of the penalty or forfeiture in a suit at law. Etc.

CLC § 1771.2; A joint labor-management committee established pursuant to the federal Labor Management Cooperation Act of 1978 (Section 175a of Title 29 of the United States Code) may bring an action in any court of competent jurisdiction against an employer that fails to pay the prevailing wage to its employees, as required by this article.

CLC § 1775; PENALTIES FOR INCORRECT WAGES

1775. (a) (1) The contractor and any subcontractor under the contractor shall, as a penalty to the state or political subdivision on whose behalf the contract is made or awarded, forfeit not more than fifty dollars (\$50) for **each calendar day**, or portion thereof, for each worker paid less than the prevailing wage rates as determined by the director for the work or craft in which the worker is employed for any public work done under the contract by the contractor or, except as provided in subdivision (b), by any subcontractor under the contractor.

CLC § 1776; Each contractor and subcontractor shall keep accurate payroll records, 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 journeyman, apprentice, worker, or other employee employed by him or her in connection with the public work. Each payroll record shall contain or be verified by a written declaration that it is made under penalty of perjury, stating both of the following:

CLC § 1777.5 APPRENTICE REQUIREMENTS;

When the contractor to whom the contract is awarded by the state or any political subdivision, in performing any of the work under the contract, employs workers in any apprenticeable craft or trade, the contractor shall employ apprentices in at least the ratio set forth in this section and may apply to any apprenticeship program in the craft or trade that can provide apprentices to the site of the public work for a certificate approving the contractor under the apprenticeship standards for the employment and training of apprentices in the area or industry affected.

CLC § 1777.7 APPRENTICE PENALTIES; A contractor or subcontractor that is determined by the Chief of the Division of Apprenticeship Standards to have knowingly violated Section 1777.5 shall forfeit as a civil penalty an amount not exceeding one hundred dollars (\$100) for each full calendar day of noncompliance. The amount of this penalty may be reduced by the Chief if the amount of the penalty would be disproportionate to the severity of the violation. A contractor or subcontractor that knowingly commits a second or subsequent violation of Section 1777.5 within a three-year period, where the noncompliance results in apprenticeship training not being provided as required by this chapter, shall forfeit as a civil penalty the sum of not more than three hundred dollars (\$300) for each full calendar day of noncompliance.

CLC § 1810-1814; All contractors and subcontractors are subject to the provisions of Sections 1810-1814 of the California Labor Code which provide that the maximum hours a worker is to be employed is limited to eight hours a day and 40 hours a week and the contractor or subcontractor shall forfeit, as a penalty, \$25 for each worker employed in the execution of the contract for each calendar day during which a worker is required or permitted to labor more than eight hours in any calendar day or more than 40 hours in any calendar week and is not paid overtime. Etc.

CLC § 1815; of the California Labor Code requires that notwithstanding the provisions of Sections 1810-1814, employees of contractors who work in excess of eight hours per day and 40 hours per week shall be compensated for all hours worked in excess of eight hours per day at not less than 1-1/2 times the basic rate of pay. Etc.

CLC § Section 1860; The awarding body shall cause to be inserted in every public works contract a clause providing that, in accordance with the provisions of Section 3700 of the Labor Code, every contractor will be required to secure the payment of compensation to his employees.

CLC § 1861; Each contractor to whom a public works contract is awarded shall sign and file with the awarding body the following certification prior to performing the work of the contract: "I am aware of the provisions of Section 3700 of the Labor Code which 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 the work of this contract."

CONFLICT OF INTEREST:

Contractor needs to be aware of the following provisions regarding current or former state employees. If Contractor has any questions on the status of any person rendering services or involved with the Agreement, the Department must be contacted immediately for clarification. The following explanations are general in nature. Please review the actual text of the statutes for detailed application.

Public Contracts Code section 10410 – Current State Employees:

- 1) No officer or employee shall engage in any employment, activity or enterprise from which the officer or employee receives compensation or has a financial interest and which is sponsored or funded by any state agency, unless the employment, activity or enterprise is required as a condition of regular state employment.
- 2) No officer or employee shall contract on his or her own behalf as an independent contractor with any state agency to provide goods or services.

Public Contracts Code section 10411—Former State Employees:

- 1) For the two-year period from the date he or she left state employment, no former state officer or employee may enter into a contract in which he or she engaged in any of the negotiations, transactions, planning, arrangements or any part of the decision-making process relevant to the contract while employed in any capacity by any state agency.
- 2) For the twelve-month period from the date he or she left state employment, no former state officer or employee may enter into a contract with any state agency if he or she was employed by that state agency in a policy-making position in the same general subject area as the proposed contract within the twelve (12) month period prior to his or her leaving state service.

Public Contracts Code section 10420:

If Contractor violates any provisions of above paragraphs, such action by Contractor shall render this Agreement void.

Public Contracts Code section 10430 (e):

Members of boards and commissions are exempt from this section if they do not receive payment other than payment of each meeting of the board or commission, payment for preparatory time and payment for per diem.

NONDISCRIMINATION:

The Contractor will not discriminate against any employee or applicant for employment because of race, color, creed, religion, ancestry, national origin, sex, disability or other handicap, age, marital/familial status, or status with regard to public assistance. The Contractor will take affirmative action to insure that all employment practices are free from such discrimination. Such employment practices include, but are not limited to, the following: hiring, upgrading, demotion, transfer, recruitment or recruitment advertising, layoff, termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided by the contracting agency setting forth the provisions of the nondiscrimination clause.

TERMINATION FOR CAUSE:

The City/County may terminate this Agreement and be relieved of any payments should the Contractor fail to perform the requirements of this Agreement at the time and in the manner herein provided. In the event of such termination, the City/County may proceed with the work in any manner deemed proper by the City/County. All costs to the City/County shall be deducted from any sum due the Contractor under this Agreement and the balance, if any, shall be paid to the Contractor.

CHILD SUPPORT COMPLIANCE ACT:

For any agreement in excess of \$100,000, the Contractor acknowledges in accordance with, that:

- 1) The contractor recognizes the importance of child and family support obligations and shall fully comply with all applicable state and federal laws relating to child and family support enforcement, including, but not limited to, disclosure of information and compliance with earnings assignment orders, as provided in Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and
- 2) The contractor, to the best of its knowledge is fully complying with the earnings assignment orders of all employees and is providing the names of all new employees to the New Hire Registry maintained by the California Employment Development Department.

UNION ORGANIZING:

By signing this agreement, Contractor hereby acknowledges the applicability of Government Code section 16645 through section 16649 to this agreement.

- a. Contractor will not assist, promote or deter union organizing by employees performing work on a state construction contract, including a public works contract.
- b. No state funds received under this agreement will be used to assist, promote or deter union organizing.
- c. Contractor will not, for any business conducted under this agreement, use any state property to hold meetings with employees or supervisors, if the purpose of such meetings is to assist, promote or deter union organizing, unless the state property is equally available to the general public for holding meetings.
- d. If Contractor incurs costs, or makes expenditures to assist, promote or deter union organizing, the Contractor will maintain records sufficient to show that no reimbursement from state funds has been sought for these costs, and that Contractor shall provide those records to the Attorney General upon request.

DRUG FREE WORKPLACE:

By signing this Agreement, Contractor hereby certifies under penalty of perjury under the laws of the State of California that Contractor will comply with the requirements of the Drug-Free Workplace Act of 1990 (Gov. Code, §8350 et seq.) and will provide a drug-free workplace by taking the following actions:

- a. Publish a statement notifying employees that unlawful manufacture, distribution, dispensation, possession or use of a controlled substance is prohibited and specifying actions to be taken against employees for violations.
- b. Establish a Drug-Free Awareness Program to inform employees about: (1) the dangers of drug abuse in the workplace; (2) the Contractor's policy of maintaining a drug-free workplace; (3) any available counseling, rehabilitation and employee assistance programs; and (4) penalties that may be imposed upon employees for drug abuse violations.

c. Every employee who works at the Property will: (1) receive a copy of the Contractor's drug-free workplace policy statement; and (2) agree to abide by the terms of the Contractor's statement as a condition of employment at the Property.

Failure to comply with these requirements may result in suspension of payments under the Agreement or termination of the Agreement or both and Contractor may be ineligible for award of any future state agreements if the department determines that any of the following has occurred: (1) the Contractor has made false certification, or violated the certification by failing to carry out the requirements as noted above. (Gov. Code, §8350 et seq.)

THE IMMIGRATION REFORM AND CONTROL ACT: (E-Verify.com)

The Immigration Reform and Control Act of 1986 (IRCA) legally mandates that U.S. employers verify the employment eligibility status of newly-hired employees. IRCA made it unlawful for employers to knowingly hire or continue to employ unauthorized workers. In response to the law, the Immigration and Naturalization Service (INS), now an integrated component of the Department of Homeland Security (DHS), created Form I-9 and mandated its accurate and timely completion by all U.S. employers and their employees.

For employers who fail to properly complete, retain, or make I-9 Forms available for inspection, fines range from \$100 to \$1,100 per individual I-9.

For employers who knowingly hire or knowingly continue to employ unauthorized workers, civil penalties range from \$250 to \$11,000 per violation.

For employers engaging in a pattern or practice of knowingly hiring or continuing to employ unauthorized workers, fines can be as much as \$3,000 per employee and/or 6 months of imprisonment. <http://www.formi9.com/index.aspx>

SECTION 504 OF THE REHABILITATION ACT:

Nondiscrimination Under Federal Grants and Programs

No otherwise qualified individual with a disability in the United States, as defined in section 7(20), shall, solely by reason of her or his disability, be excluded from the participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance or under any program or activity conducted by any Executive agency or by the United States Postal Service. The head of each such agency shall promulgate such regulations as may be necessary to carry out the amendments to this section made by the Rehabilitation, Comprehensive Services, and Developmental Disabilities Act of 1978. Copies of any proposed regulation shall be submitted to appropriate authorizing committees of Congress, and such regulations may take effect no earlier than the thirtieth day after the date on which such regulation is so submitted to such committees.

SECTION 3 CLAUSE:

- a. The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended, 12 U.S.C 1701u (Section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
- b. The parties to this contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement Section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with part 135 regulations.
- c. The contractor agrees to send to each labor organization or representative of workers with which the contractor has a collective bargaining agreement or other understanding, if any, a notice advising the labor organization or workers' representative of the contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions, and the anticipated date the work shall begin.
- d. The contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 CFR part 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR Part 135.
- e. The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 135.
- f. Noncompliance with HUD's regulations in 24 CFR Part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD-assisted contracts.

THE DAVIS-BACON AND RELATED ACTS: (DBRA)

Published in Chapter 3, section 276(a) 7 et seq. of U.S.C. Title 40. The Davis Bacon and Related Acts (DBRA) requires all contractors and subcontractors performing work on federal construction contracts or federally assisted contracts in excess of \$2,000 to pay their laborers and mechanics not less than the prevailing wage rates and fringe benefits for corresponding classes of laborers and mechanics employed on similar projects in the area. The prevailing wage rates and fringe benefits are determined by the Secretary of Labor for inclusion in covered contracts.

THE COPELAND “ANTI-KICKBACK” ACT: (ANTI-KICKBACK)

Published in Chapter 3, section 276(c) of U.S.C. Title 40. The Copeland “Anti-Kickback” Act generally prohibits federal contractors or subcontractors engaged in building construction or repair from inducing an employee to give up any part of the compensation to which he or she is entitled under his or her employment contract and requires such contractors and subcontractors to submit weekly statements of compliance.

THE CONTRACT WORK HOURS AND SAFETY STANDARDS ACT, AS AMENDED: (CWHSSA)

Published in Chapter 5, Subchapter II, section 327 et seq. of U.S.C. Title 40. The Contract Work Hours and Safety Standards Act (CWHSSA) applies to federal service contracts and federal and federally assisted construction contracts over \$100,000. It requires contractors and subcontractors on covered contracts to pay laborers and mechanics employed in the performance of the contracts one and one-half times their basic rate of pay for all hours worked over 40 in a workweek. This Act also prohibits unsanitary, hazardous, or dangerous working conditions on federal and federally financed and assisted construction projects.

THE FAIR LABOR STANDARDS ACT: (FLSA)

Is published in Chapter 9, sections 201 et seq. of U.S.C. Title 29 which prescribes standards for the basic minimum wage and overtime pay, affects most private and public employment. It requires employers to pay covered employees who are not otherwise exempt at least the federal minimum wage and overtime pay of one-and-one-half-times the regular rate of pay. For nonagricultural operations, it restricts the hours that children under age 16 can work and forbids the employment of children under age 18 in certain jobs deemed too dangerous. For agricultural operations, it prohibits the employment of children under age 16 during school hours and in certain jobs deemed too dangerous. The Act is administered by the Employment Standards Administration's Wage and Hour Division within the U.S. Department of Labor.

ACCESS AND RETENTION OF RECORDS: (24 CFR 92.508)

The awarding agency, the State of California, the U S DOL, the Comptroller General of the United States, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the contractor which are directly pertinent to this specific contract, for the purpose of making audit, examination, excerpts, and transcriptions. Under federal regulations all required records must be maintained by the contractor for five years after grantee makes final payments and all other pending matters are closed (this is two years longer than the old federal requirement of three years). The Contractor agrees to the above specified requirements.

WORKMAN’S COMP. & LIABILITY INSURANCES.

Contractor shall at his own expense carry all workmen's compensation insurance to protect Contractor's employees and public liability insurance necessary for the full protection of Contractor and Awarding Agency from injury to persons or property arising from the acts of Contractor or his Subcontractors during the progress of the work. Certificates of such insurance shall be filed with Awarding Agency and with the Construction Lender if Awarding Agency so requires, and shall be subject to the approval of both of them as to adequacy of protection.

INSURANCE & BONDING:

The Contractor shall carry sufficient insurance coverage for unemployment, disability, and liability to protect contract assets from loss due to theft, fraud and/or undue physical damage, and as a minimum shall purchase a blanket fidelity bond covering all employees in an amount equal to cash advances from the Grantee. The Consultant shall comply with the bonding and insurance requirements of Attachment B of OMB Circular A-110, Bonding and Insurance.

CLEAN AIR ACT:

The contractor is required to comply with all aspects for the federal Clean Air Act which is the law that defines EPA's responsibilities for protecting and improving the nation's air quality and the stratospheric ozone layer. The last major change in the law, the Clean Air Act Amendments of 1990, was enacted by Congress in 1990. Legislation passed since then has made several minor changes. The Clean Air Act, like other laws enacted by Congress, was incorporated into the United States Code as Title 42, Chapter 85. The House of Representatives maintains a current version of the U.S. Code, which includes Clean Air Act changes enacted since 1990.

LOBBYING:

The Contractor hereby certifies that:

- a. No Federal appropriated funds have been paid or will be paid, by or on behalf of it, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress 'in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement;
- b. If any funds other than Federal appropriated funds have been paid or will be paid to any persons for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, it will complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions;
- c. It will require that the language of paragraph (d) of this certification be included in the award documents for all sub-awards at all tiers (including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements) and that all Consultants shall certify and disclose accordingly; and
- d. Lobbying Certification - Paragraph_This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$ 100,000 for each such failure.

CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY, AND
VOLUNTARY EXCLUSION

LOWER TIER COVERED TRANSACTIONS
NONDEBARMENT CERTIFICATION

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 29 CFR Part 98, Section 98.510, Participants' Responsibilities. The regulations were published as Part VII of the May 26, 1988 Federal Register (pages 19160 – 19211).

(BEFORE COMPLETING CERTIFICATION, READ INSTRUCTIONS FOR CERTIFICATION)

(1) The prospective recipient of Federal assistance funds certifies, by submission of this proposal, that neither it nor its principals are presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any Federal department or agency.

(2) Where the prospective recipient of Federal assistance funds is unable to certify to any of the statements in this certification, such prospective participant shall attach an explanation to this proposal.

Organization

Name & Title of Authorized Representative

Signature

Date

INSTRUCTIONS FOR CERTIFICATION REGARDING DEBARMENT:

1. By signing and submitting this proposal, the prospective recipient of Federal assistance funds is providing the certification as set out below.
2. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective recipient of Federal assistance funds knowingly rendered an erroneous certification, in addition to other remedies available to the Federal government, the Department of Labor (DOL) may pursue available remedies, including suspension and/or debarment.
3. The prospective recipient of Federal assistance funds shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective recipient of Federal assistance funds learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances.
4. The terms “covered transaction” “debarred”, “suspended,” “ineligible,” “lower tier covered transaction,” “participant,” “person,” “primary covered transaction,” “principal,” “proposal,” and “voluntarily excluded,” as used in this clause, have the meanings set out in the definitions and coverage sections of rules implementing Executive Order 12549. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations.
5. The prospective recipient of Federal assistance funds agrees by submitting the proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the DOL.
6. The prospective recipient of Federal assistance funds further agrees by submitting this proposal that it will include the clause titled “Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transactions,” without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions.
7. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant may decide the method and frequency by which it determines the eligibility of its principals. Each participant may, but it is not required to, check the List of Parties Excluded from Procurement or Non-procurement Programs.
8. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of a participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
9. Except for transactions authorized under paragraph 5 of these instructions, if a participant in a covered transactions knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal government, the DOL may pursue available remedies, including suspension and/or debarment.

**STANDARD CONTRACT LANGUAGE REQUIRED FOR ALL
CONTRACTS AND SUBCONTRACTS**

1. The Civil Rights, HCD, and Age Discrimination Acts Assurances:

During the performance of this Contract, the Contractor assures that no otherwise qualified person shall be excluded from participation or employment, denied program benefits, or be subjected to discrimination based on race, color, national origin, sex, age, or handicap, under any program or activity funded by this Contract, as required by Title VI of the Civil Rights Act of 1964, Title I of the Housing and Community Development Act of 1974, as amended, and the Age Discrimination Act of 1975, and all implementing regulations.

2. State Nondiscrimination Clause:

- a. During the performance of this contract, Contractor and its subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or applicant for employment because of the following: race, religion, color, national origin, ancestry, disability, medical condition, marital status, age (over 40) or sex. Contractors and subcontractors shall insure that the evaluation and treatment of their employees and applicants for employment are free of such discrimination and harassment. Contractors and subcontractors shall comply with the provisions of the Fair Employment and Housing Act (Government Code, Section 12900 et seq.) and the applicable regulations promulgated there under (California Code of Regulations, Title 2, Section 7258.0 et seq.) The applicable regulations of the Fair Employment and Housing Commission implementing Government Code, Section 12990 (a-f), set forth in Chapter 5 of Division 4 of Title 2 of the California Code of Regulations are incorporated into this contract by reference and made a part hereof as if set forth in full, Contractor and its subcontractors shall give written notice of their obligations under this clause to labor organizations with which they have a collective bargaining or other agreement.
- b. This Contractor shall include the nondiscrimination and compliance provisions of this clause in all subcontracts to perform work under the contract.

STANDARD EQUAL OPPORTUNITY CLAUSE
(CONSTRUCTION OVER \$10,000)

The Contractor hereby agrees that it will incorporate or cause to be incorporated into any contract for construction work, or modification thereof, as defined in the regulations of the Secretary of Labor at 41 CFR Chapter 60, which is paid for in whole or in part with funds obtained from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant, contract, loan insurance, or guarantee, or undertaken pursuant to any Federal program involving such grant, contract, loan, insurance, or guarantee, the following equal opportunity clause:

During the performance of this contract, the Contractor agrees as follows:

1. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or disabilities. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.
2. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, national origin or disabilities.
3. The Contractor will send to each labor union or representative of workers with which the Contractor has a collective bargaining agreement or other contract or understanding, a notice to be provided advising the said labor union or workers' representatives of the Contractor's commitments under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
4. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary of Labor.
5. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to its books, records, and accounts by the administering agency and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and orders.
6. In the event of the Contractor's noncompliance with the discrimination clauses of this contract or with any of the said rules, regulations, or orders, this contract may be canceled, terminated, or suspended in whole or in part and the Contractor may be declared ineligible for further government contracts or federally assisted construction contracts in accordance with procedures authorized in Executive Order 11246 of September 24, 1965, and such other sanctions may be imposed and remedies invoked as provided in Executive Order 11246 of September 24, 1965, or by rules, regulations, or orders of the Secretary of Labor, or as otherwise provided by law.
7. The Contractor will include the portion of the sentence immediately preceding paragraph "1" and the provisions of paragraphs "1" through "7" in every contract or purchase order unless exempted by rules, regulations, or orders of the Secretary of Labor issued pursuant to Section 504 of Executive Order 11246 of September 24, 1965, so that such provisions will be binding upon each

contractor or vendor. The Contractor will take such action with respect to any contract or purchase order as the administering agency may direct as a means of enforcing such provisions, including sanctions for noncompliance; provided, however, that in the event a Contractor becomes involved in, or is threatened with, litigation with a contractor or vendor as a result of such direction by the administering agency, the Contractor may request the United States to enter into such litigation to protect the interests of the United States.

8. The Contractor further agrees that it will be bound by the above equal opportunity clause with respect to its own employment practices when it participates in federally- assisted construction work; provided that if the Contractor so participating is a State or local government, the above equal opportunity clause is not applicable to any agency, instrumentality, or subdivision of such government which does not participate in work on or under the contract.
9. The Contractor agrees that it will assist and cooperate actively with the administering agency and the Secretary of Labor in obtaining the compliance of Contractors and subcontractors with the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor, that it will furnish the Department and HUD and the Secretary of Labor such information as they may require for the supervision of such compliance, and that it will otherwise assist the administering agency in the discharge of the agency's primary responsibility for securing compliance.
10. The Contractor further agrees that it will refrain from entering into any contract or contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor debarred from, or who has not demonstrated eligibility for, government contracts and federally-assisted construction contracts, pursuant to the Executive Order and will carry out such sanctions and penalties for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive Order. In addition, the Contractor agrees that if it fails or refuses to comply with these undertakings, the administering agency may take any or all of the following actions: Cancel, terminate, or suspend in whole or in part this funding commitment (contract, loan, grant, insurance, guarantee); refrain from extending any further assistance to the applicant under the program with respect to which the failure or refund occurred until satisfactory assurance of future compliance has been received from such Contractor; and refer the case to the Department of Justice for appropriate legal proceedings.

MBE/WBE STANDARD
BID DOCUMENT LANGUAGE FOR CONSTRUCTION CONTRACTS OVER \$10,000

(The following notice shall be included in and shall be a part of all solicitations for offers and bids on all Federal and Federally assisted construction contracts or subcontracts in excess of \$10,000 to be performed in geographical areas designated by the Secretary of Labor.)

Notice of Requirement for Affirmative Action to Ensure Equal Employment Opportunity (Executive Order 11246)

1. The Offeror's or Bidder's attention is called to the "Equal Opportunity Clause" and the "Standard Federal Equal Employment Opportunity Construction Contract Specifications" set forth herein.
2. The goals and timetables for minority and female participation, expressed in percentage terms for the contractor's aggregate workforce in each trade on all construction work in the covered areas are as follows:

Time- tables	Goals for female participation in each trade
From December 30, 1980, until further notice	6.9%

Time- tables	Goals for minority participation for each trade
From November 3, 1980, until further notice	16.2% - Imperial County – Non SMSA Counties

These goals are applicable to all contractor's construction work (whether or not it is Federal or Federally assisted) performed in the covered area. If the contractor performs construction work in a geographical area located outside of the covered area, it shall apply the goals established for such geographical area where the work is actually performed. With regard to this second area, the contractor also is subject to the goals for both its Federally involved and non-Federally involved construction.

The contractor's compliance with the Executive Order and the regulations in 41 CFR Part 60-4 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the specifications set forth in 41 CFR 60-4.3(a), and its efforts to meet the goals established for the geographical area where the contract resulting from this solicitation is to be performed. The hours of minority and female employment and training must be substantially uniform through the length of the contract, and in each trade, and the contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from contractor to contractor or from project to project for the sole purpose of meeting the contractor's goals shall be a violation of the contract, the Executive Order and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.

3. The contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs, U.S. Department of Labor, within 10 working days of award of any construction subcontract in excess of \$10,000 at any tier for construction work under the contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the contract is to be performed.
4. As used in this notice, and in the contract resulting from this solicitation, the "covered area" is (insert description of the geographical areas where the contract is to be performed giving the state, county, and city, if any).

MBE/WBE
STANDARD CONTRACT LANGUAGE - CONSTRUCTION OVER \$10,000

FEMALE AND MINORITY GOALS AND TIMETABLES

The following goals and timetables for female utilization shall be included in all Federal and Federally-assisted construction contracts and subcontracts in excess of \$10,000. The goals are applicable to the contractor's aggregate on-site construction workforce whether or not part of that workforce is performing work on a Federal or Federally-assisted construction contract or subcontract.

AREA COVERED
(Goals for females apply nationwide)

<u>Timetable</u>	<u>Goal</u>
From December 30, 1980, until further notice	6.9%

Until further notice, the following goals for minority utilization in each construction craft and trade shall be included in all Federal or Federally-assisted construction contracts and subcontracts in excess of \$10,000 to be performed in the respective geographical areas. The goals are applicable to each nonexempt contractor's total on-site construction workforce, regardless of whether or not part of that workforce is performing work on a Federal, Federally-assisted, or non-Federally related project, contract, or subcontract.

Construction contractors participating in an approved Hometown Plan (see 41 CFR 60-4.5) are required to comply with the goals of the Hometown Plan with regard to construction work they perform in the area covered by the Hometown Plan. With regard to all their other covered construction work, such contractors are required to comply with the applicable SMSA or EA goal contained in this appendix.

ECONOMIC AREAS

<u>Area Covered</u>	<u>Goal Percent</u>
San Diego Economic Area Imperial County	16.2%

**MBE/WBE SUGGESTED
BID DOCUMENT LANGUAGE FOR
MINORITY/WOMEN'S BUSINESS ENTERPRISE CONSTRUCTION PROJECTS**

- (a) It is the policy of the County of Imperial to take positive steps to maximize the utilization of minority and women's business enterprises in all contract activity administered by the County of Imperial.
- (b) The contractor will utilize his best efforts to carry out this policy in the award of his subcontracts to the fullest extent consistent with the efficient performance of this contract. As used in this contract, the term "minority or women's business enterprise" means a business, at least 50% of which is owned by minority group members or women or, in the case of publicly-owned businesses, at least 51% of the stock is owned by minority group members or women. For the purpose of this definition, minority group members are Black, Hispanics, Asians, Native Americans, Alaskans or Pacific Islanders.
- (c) The contractor will submit the following statement as part of his/her sealed bid:

I have taken affirmative action to seek out and consider minority and women's business enterprises for the portions of work to be subcontracted. Such actions are fully documented in my records and available upon request. Results are as follows:

<u>Name and Address of Minority/ Women's Firms Contractor Anticipates Utilizing*</u>	<u>Category of Work</u>	<u>Dollar Value of Participation</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

Total Bid _____ Total Subcontract Amount

Minority/Women's Enterprise Total of Subcontract Amount

*Indicate whether business is owned by a minority or a woman.

NOTE: Use additional sheets of paper to demonstrate Good Faith Effort, if necessary.

STANDARD FEDERAL EQUAL EMPLOYMENT OPPORTUNITY
CONSTRUCTION CONTRACT SPECIFICATIONS (CONSTRUCTION OVER \$10,000)

1. As used in these specifications:

- a. "Covered area" means the geographical area described in the solicitation from which this contract resulted.
- b. "Director" means Director, Office of Federal Contract Compliance Programs, United States Department of Labor, or any person to whom the Director delegates authority.
- c. "Employer identification number" means the federal social security number used on the Employer's Quarterly Federal Tax Return, U.S. Treasury Department Form 941.
- d. "Minority" includes:
 - (1) Black (all persons having origins in any of the Black African racial groups not of Hispanic origin).
 - (2) Hispanic (all persons of Mexican, Puerto Rican, Cuban, Central or South American or other Spanish culture or origin, regardless of race).
 - (3) Asian and Pacific Islander (all persons having origins in any of the original peoples of the Far East, southeast Asia, the Indian subcontinent or the Pacific Islands).
 - (4) American Indian or Alaskan Native (all persons having origins in any of the original peoples of North America and maintaining identifiable tribal affiliations through membership and participation or community identification).

2. Whenever the Contractor, or any subcontractor at any tier, contracts a portion of the work involving any construction trade, it shall physically include in each subcontract in excess of \$10,000 the provisions of these specifications and the notice which contains the applicable goals for minority and women participation and which is set forth in the solicitations from which this contract resulted.

3. If the Contractor is participating (pursuant to 41 CFR 60-4.5) in a Hometown Plan approved by the U. S. Department of Labor in the covered area either individually or through an association, its affirmative action obligations on all work in the plan area (including goals and timetables) shall be in accordance with that plan for those trades which have unions participating in the plan. Contractors must be able to demonstrate their participation in and compliance with the provisions of any such Hometown Plan. Each Contractor or subcontractor participating in an approved plan is individually required to comply with its obligations under the EEO clause, and to make a good faith effort to achieve each goal under the plan in each trade in which it has employees. The overall good faith performance by other contractors or subcontractors toward a goal in an approved plan does not excuse any covered contractor's or subcontractor's failure to take good faith efforts to achieve the plan's goals and timetables.

4. The Contractor shall implement the specific affirmative action standards provided in paragraphs 7.a. through 7.p. of these specifications. The goals set forth in the solicitation from which this contract resulted are expressed as percentages of the total hours of employment and training of minority and women utilization the Contractor should reasonably be able to achieve in each construction trade in which it has employees in the covered area. Covered construction contractors performing construction work in geographical areas where they do not have a federal

or federally assisted construction contract shall apply the minority and women goals established for the geographical area where the work is being performed. Goals are published periodically in the Federal Register in notice form and such notices may be obtained from any Office of Federal Contract Compliance Programs or from federal procurement contracting officers. The Contractor is expected to make substantially uniform progress in meeting its goals in each craft during the period specified.

5. **Neither the provisions of any collective bargaining agreement, nor the** failure by a union with whom the Contractor has a collective bargaining agreement, to refer either minorities or women shall excuse the Contractor's obligations under these specifications, Executive Order 11246, or the regulations promulgated pursuant thereto.
6. **In order for the nonworking training hours of apprentices and trainees to** be counted in meeting the goals, such apprentices and trainees must be employed by the contractor during the training period, and the contractor must have made a commitment to employ the apprentices and trainees at the completion of their training, subject to the availability of employment opportunities. Trainees must be trained pursuant to training programs approved by the U.S. Department of Labor.
7. **The Contractor shall take specific affirmative action's to ensure equal** employment opportunity. The evaluation of the Contractor's compliance with these specifications shall be based upon its effort to achieve maximum results from its actions. The Contractor shall document these efforts fully and shall implement affirmative action steps at least as extensive as the following:
 - a. Ensure and maintain a working environment free of harassment, intimidation, and coercion at all sites, and in all facilities at which the Contractor's employees are assigned to work. The Contractor, where possible, will assign two or more women to each construction project. The Contractor shall specifically ensure that all foremen, superintendents, and other on-site supervisory personnel are aware of and carry out the Contractor's obligation to maintain such a working environment, with specific attention to minority individuals or women working at such sites or in such facilities.
 - b. Establish and maintain a current list of minority and women recruitment sources, provide written notification to minority and women recruitment sources and to community organizations when the contractor or its unions have employment opportunities available, and maintain a record of the organizations' responses.
 - c. Maintain a current file of the names, addresses and telephone numbers of each minority and female off the street applicant and minority or women referral from a union, a recruitment source or community organization and of what action was taken with respect to each such individual. If such individual was sent to the union hiring hall for referral and was not referred back to the contractor by the union or, if referred, not employed by the contractor, this shall be documented in the file with the reason therefore, along with whatever additional actions the contractor may have taken.
 - d. Provide immediate written notification to the Director when the union or unions with which the contractor has a collective bargaining agreement has not referred to the contractor a minority person or woman sent by the Contractor or when the contractor has other information that the union referral process has impeded the contractor's efforts to meet its obligations.
 - e. Develop on the job training opportunities and/or participate in training programs for the area which expressly include minorities and women, including upgrading programs and

apprenticeship and trainee programs relevant to the contractor's employment needs, especially those programs funded or approved by the Department of Labor. The contractor shall provide notice of these programs to the sources compiled under 7b. above.

- f. Disseminate the contractor's EEO policy by providing notice of the policy to unions and training programs and requesting their cooperation in assisting the Contractor in meeting its EEO obligations; by including it in any policy manual and collective bargaining agreement; by publicizing it in the company newspaper, annual report, etc; by specific review of the policy with all management personnel and with all minority and female employees at least once a year; and by posting the company EEO policy on bulletin boards accessible to all employees at each location where construction work is performed.
- g. Review at least annually, the company's EEO policy and affirmative action obligations under these specifications with all employees having any responsibility for hiring, assignment, layoff, termination or other employment decisions, including specific review of these items with on-site supervisory personnel such as superintendents, general foremen, etc., prior to the initiation of construction work at any job site. A written record shall be made and maintained identifying the time and place of these meetings, persons attending, subject matter discussed, and disposition of the subject matter.
- h. Disseminate the contractor's EEO policy externally by including it in any advertising in the news media, specifically including minority and women-focused news media, and providing written notification to and discussing the contractor's EEO policy with other contractors and subcontractors with whom the contractor does or anticipates doing business.
- i. Direct its recruitment efforts, both oral and written, to minority, women and community organizations, to schools with minority- and women-students and to minority and women-recruitment and training organizations serving the contractor's recruitment area and employment needs. Not later than one month prior to the date for the acceptance of applications for apprenticeship or other training by any recruitment source, the contractor shall send written notification to organizations such as the above, describing the openings, screening procedures, and tests to be used in the selection process.
- j. Encourage present minority and women employees to recruit other minority persons and women and, where reasonable, provide after-school summer and vacation employment to minority and female youth both on the site and in other areas of a contractor's workforce.
- k. Validate all tests and other selection requirements where there is an obligation to do so under 41 CFR Part 60.3.
- l. Conduct at least annually, an inventory and evaluation at least of all minority and women personnel for promotional opportunities and encourage these employees to seek or to prepare for, through appropriate training, etc., or other advancement opportunities.
- m. Ensure that seniority practices, job classifications, work assignments and other personnel practices, do not have a discriminatory effect by continually monitoring all personnel- and employment-related activities to ensure that the EEO policy and the Contractor's obligations under these specifications are being carried out.
- n. Ensure that all facilities and company activities are non-segregated except that separate

or single user toilet and necessary changing facilities shall be provided to assure privacy between the sexes.

- o. Document and maintain a record of all solicitations of offers for subcontracts from minority- and women-owned construction companies, contractors and suppliers, including circulation of solicitations to minority- and women-focused Contractor associations and other business associations.
 - p. Conduct a review, at least annually, of all supervisors' adherence to and performance under the contractor's EEO policies and affirmative action obligations.
- 8. Contractors are encouraged to participate in voluntary associations which** assist in fulfilling one or more of their affirmative action obligations (7.a. through 7.p.). The efforts of a contractor association, joint contractor/union, contractor/community, or other similar group of which the contractor is a member and participant, may be asserted as fulfilling any one or more of its obligations under 7.a. through 7.p. of these specifications provided that the contractor actively participates in the group, makes every effort to assure that the group has a positive impact on the employment of minorities and women in the industry, ensures that the concrete benefits of the program are reflected in the contractor's minority and women workforce participation, makes a good faith effort to meet its individual goals and timetables, and can provide access to documentation which demonstrates the effectiveness of actions taken on behalf of the Contractor. The obligation to comply, however, is the Contractor's and failure of such a group to fulfill an obligation shall not be a defense for the Contractor's noncompliance.
- 9. A single goal for minorities and a separate single goal for women have** been established. The Contractor, however, is required to provide equal employment opportunity and to take affirmative action for all minority groups, both men and women, and all women, both minority and non-minority. Consequently, the Contractor may be in violation of the Executive Order if a particular group is employed in a substantially disparate manner (for example, even though the Contractor has achieved its goals for women generally, the Contractor may be in violation of the Executive Order if a specific minority group of women is underutilized).
- 10. The Contractor shall not use the goals and timetables or affirmative action** standards to discriminate against any person because of race, color, religion, sex or national origin.
- 11. The Contractor shall not enter into any subcontract with any person or firm** debarred from government contracts pursuant to Executive Order 11246.
- 12. The Contractor shall carry out such sanctions and penalties for violation of** these specifications and of the Equal Opportunity Clause, including suspension, termination and cancellation of existing subcontracts as may be imposed or ordered pursuant to Executive Order 11246, as amended, and its implementing regulations, by the Office of Federal Contract Compliance Programs. Any Contractor who fails to carry out such sanctions and penalties shall be in violation of these specifications and Executive Order 11246, as amended.
- 13. The Contractor, in fulfilling its obligations under these specifications, shall** implement specific affirmative action steps, at least as extensive as those standards prescribed in paragraph 7 of these specifications, to achieve maximum results from its efforts to ensure equal employment opportunity. If the Contractor fails to comply with the requirements of the Executive Order, the implementing regulations, or these specifications, the Director shall proceed in accordance with 41 CFR 60-4.8.
- 14. The Contractor shall designate a responsible official to monitor all** employment related activity to ensure that the company's EEO policy is being carried out, to submit reports relating to

the provisions hereof as may be required by the government and to keep records. Records shall at least include for each employee the name, address, telephone number, construction trade, union affiliation, if any, employee identification number when assigned, social security number, race, sex, status (e.g., mechanic, apprentice, trainee, helper, or laborer), dates of changes in status, hours worked per week in the indicated trade, rate of pay, and locations at which the work was performed. Records shall be maintained in an easily understandable and retrievable form; however, to the degree that existing records satisfy this requirement, Contractors shall not be required to maintain separate records.

15. Nothing herein provided shall be construed as a limitation upon the application of other laws which establish different standards of compliance or upon the application of requirements for the hiring of local or other area resident (e.g., those under the Public Works Employment Act of 1977 and the Community Development Block Grant Program).

16. By the submission of this bid, the bidder, offeror, applicant, or subcontractor certifies that he/she does not maintain or provide for his/her employees any segregated facility at any of his/her establishments, and that he/she does not permit employees to perform their services at any location under his/her control where segregated facilities are maintained. He/she certifies further that he/she will not maintain or provide for employees any segregated facilities at any of his/her establishments, and he/she will not permit employees to perform their services at any location under his/her control where segregated facilities are maintained. The bidder, offeror, applicant, or subcontractor agrees that a breach of this certification is a violation of the Equal Opportunity Clause of this contract. As used in this certification, the term "segregated facilities" means any waiting rooms, work areas, rest rooms and wash rooms, restaurants and other eating areas, time clocks, locker rooms, and other storage or dressing areas,* transportation and housing facilities provided for employees which are segregated by explicit directive or are in fact segregated on the basis of race, color, religion, or national origin, habits, local custom, or otherwise. He/she further agrees that (except where he/she has obtained identical certifications from proposed subcontractors for specific time periods) he/she will obtain identical certifications from proposed subcontractors prior to the award of subcontracts exceeding \$10,000 which are not exempt from the provisions of the Equal Opportunity Clause; that he/she will retain such certifications in his/her files; and that he/she will forward the following notice to such proposed subcontractors (except where proposed subcontractors have submitted identical certifications for specific time periods).***Parking lots, drinking fountains, recreation or entertainment areas.**

CALIFORNIA STATE LABOR STANDARDS AND PREVAILING WAGES

All contractors and subcontractors shall give the following certification to the grantee and forward this certification to the grantee within 10 days after the execution of any contract or subcontract.

- A. "I am aware of the provisions of Section **1720 et seq.** of the California Labor Code which requires that the State prevailing wage rate shall be paid to employees where this rate exceeds the Federal wage rate."
- B. "I am aware of the provisions of Section **3700** of the California Labor Code which 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 the work of this contract."
- C. "It is further agreed that, except as may be provided in Section **1810-1814** of the California Labor Code, the maximum hours a worker is to be employed is limited to eight hours a day and 40 hours a week and the subcontractor shall forfeit, as a penalty, \$25 for each worker employed in the execution of the subcontract for each calendar day during which a worker is required or permitted to labor more than eight hours in any calendar day or more than 40 hours in any calendar week."
- D. "I am aware of the provisions of California Labor Code Section **1815** notwithstanding the provisions of 1810-1814 inclusive, of this code, and notwithstanding any stipulation inserted in any contract pursuant to the requirements of said sections, work performed by employees of contractors in excess of 8 hours per day, and 40 hours during any one week, shall be permitted upon public work upon compensation for all hours worked in excess of 8 hours per day at not less than 1-1/2 times the basic rate."
- E. "I am aware of the provisions of California Labor Code, Section **1777.5** which requires the employment of apprentices on all public works projects and the payment of training contributions to the proper agency."
- F. Section **1861** of the California Labor Code; Each contractor to whom a public works contract is awarded shall sign and file with the awarding body the following certification prior to performing the work of the contract: "I am aware of the provisions of Section 3700 of the Labor Code which 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 the work of this contract."

STATE LABOR STANDARDS PROVISIONS

State prevailing wage rates shall apply when the State wage rate is higher than the Federal wage rate. All contractors and subcontractors are subject to the application of Section 1720 et seq. of the California Labor Code which details the regulations and procedures governing the payment of State prevailing wages.

All contractors and subcontractors are subject to the provisions of Section 3700 of the California Labor Code which requires that every employer be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of the code.

All contractors and subcontractors are subject to the provisions of Sections 1810-1814 of the California Labor Code which provide that the maximum hours a worker is to be employed is limited to eight hours a day and 40 hours a week and the contractor or subcontractor shall forfeit, as a penalty, \$25 for each worker employed in the execution of the contract for each calendar day during which a worker is required or permitted to labor more than eight hours in any calendar day or more than 40 hours in any calendar week and is not paid overtime.

Section 1815 of the California Labor Code requires that notwithstanding the provisions of Sections 1810-1814, employees of contractors who work in excess of eight hours per day and 40 hours per week shall be compensated for all hours worked in excess of eight hours per day at not less than 1-1/2 times the basic rate of pay.

Federal Labor Standards Provisions:

Applicability

The Project or Program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this Contract pursuant to the provisions applicable to such Federal assistance.

A. 1. (1) Minimum Wages. All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under Section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR-5.5(a)(1)(iv); also, regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(4). Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: Provided, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classification and wage rates conformed under 29 CFR Part 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1 321) shall be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met

(1) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(2) The classification is utilized in the area by the construction industry; and

(3) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(b) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent by HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB control number 1215-0140.)

(c) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), HUD or its designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

(d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1)(b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, Provided, That the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federal contract with the same prime contractor, or any other Federally-assisted contract subject to Davis-Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers, employed by the contractor or any subcontractor the full amount of wages required by the contract In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under

the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment advance, or guarantee of funds until such violations have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or sub-contractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (I) Payrolls and basic records. Payrolls and basic records relating thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937, or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section I (b)(2)(B) of the Davis-Bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section I (b)(2)(B) of the Davis-Bacon Act the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs. (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely all of the information required to be maintained under 29 CFR Part 5.5(a)(3)(i). This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-WO14-1), U.S. Government Printing Office, Washington, DC. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under 29 CFR Part 5.5 (a)(3)(i) and that such information is correct and complete;

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 shall satisfy the requirement for submission of the "Statement of Compliance" required by paragraph A.3.(ii)(b) of this section.

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph A.3.(i) of this section available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant or owner, take such action as may be necessary to cause the suspension of any further payment advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available may be grounds for debarment action pursuant to 29 CFR Part 5.1 2.

4. (i) Apprentices and Trainees. Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they performed when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeymen on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractor's registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify

fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training Administration. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid at not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the trainee program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed on the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate who is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended, and 29 CFR Part 30.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor will insert in any sub- contracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as HUD or its designee may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.

7. Contract Termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act Requirements. All rulings and interpretations of the Davis-Bacon and Related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. (1) Certification of Eligibility. By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C. 1001. Additionally, U.S. Criminal Code, Section 1010, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part "Whoever, for the purpose of . . . influencing in any way the action of such Administration . . . makes, utters or publishes any statement knowing the same to be false . . . shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

11. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any other manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or relating to the labor standards applicable under this Contract to his employer.

B. Contract Work Hours and Safety Standards Act. As used in this paragraph, the terms "laborers" and "mechanics" include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of eight hours in any calendar day or in excess of forty hours in such workweek, whichever is greater.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory, for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth in sub- paragraph (1) of this paragraph, in the sum of \$1 0 for each calendar day on which such individual was

required or permitted to work in excess of eight hours or in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in subparagraph (1) of this paragraph.

(3) Withholding for unpaid wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract or any other Federal contract with the same prime contract or any other Federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 (formerly part 1518) and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91 -54, 83 Stat 96).

(3) The Contractor shall include the provisions of this Article in every subcontract so that such provisions will be binding on each subcontractor. The Contractor shall take such action with respect to any subcontract as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

(Organization/Firm)

(Name & Title of Authorized Representative)

(Signature)

(Date)

00460 CERTIFICATION FOR CONTRACTS, GRANTS AND LOANS

The undersigned certifies, to the best of his or her knowledge and belief, that:

1. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant or Federal loan, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant or loan.
2. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant or loan, the undersigned shall complete and submit Standard Form – LLL, “Disclosure of Lobbying Activities,” in accordance with its instructions.
3. The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including contracts, subcontracts, and subgrants under grants and loans) and that all subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1354, Title 34, US Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

(Organization/Firm)

(Name & Title of Authorized Representative)

(Signature)

(Date)

**00470 CONTRACTOR'S CERTIFICATION REGARDING WORKER'S
COMPENSATION INSURANCE**

State of California

County of _____

I am aware of the requirements that every employer to be insured against liability for workers' compensation or to undertake self-insurance in accordance with the provisions of that applicable codes, and I will comply with such provisions before commencing the performance of the work of this Contract.

(Organization/Firm)

(Name & Title of Authorized Representative)

(Signature)

(Date)

004800 TABULATION OF SUBCONTRACTORS

No.	Subcontractor	Work To Be Performed	Percent Of Total Contract
1.	Name: Address: CA License #:		
2.	Name: Address: CA License #:		
3.	Name: Address: CA License #:		
4.	Name: Address: CA License #:		
5.	Name: Address: CA License #:		
6.	Name: Address: CA License #:		
7.	Name: Address: CA License #:		
8.	Name: Address: CA License #:		
9.	Name: Address: CA License #:		
10.	Name: Address: CA License #:		

(ATTACH ADDITIONAL NUMBERED PAGES IF NEEDED)

00490 BIDDER QUALIFICATIONS STATEMENT

The bidder shall submit, as part of its proposal, the following statements as to its experience qualifications. The bidder certifies that all statements and information set forth are true and accurate.

- a. The bidder has been engaged in the contracting business under its present business name for _____ years.
- b. Experience in work of nature similar in type and magnitude to that set forth in the specification extends over a period of _____ years.
- c. The bidder, as Contractor, has satisfactorily completed all contracts awarded to it, except as follows: (Name any and all exceptions and reasons therefore. Bidder should attach additional pages if necessary).
 - 1. _____
 - 2. _____
- d. The following contracts cover work similar in type and magnitude to that set forth in the specification have been satisfactorily completed within the last **five (5) years** for the following owners (person, firms or authorities):

No.	Owner	Telephone No.	Contract Amount	Type of Work	Year Complete
1.					
2.					
3.					
4.					
5.					
6.					
7.					

- e. The bidder shall provide an audited financial statement (no more than two years old) with accompanying notes. (An audited financial statement with accompanying notes of a parent company guarantor may be substituted. A financial statement that is not audited is not acceptable. A letter verifying availability of a line of credit is not a substitute for the required financial statement.)

Yes

No

- f. The bidder shall fill in the following blanks based on the bidder's attached financial statement.

Current Assets: \$ _____

Current Liabilities: \$ _____

Total Net Worth: \$ _____

Current Ratio (Assets/Liabilities): _____

Working Capital (Current Assets – Current Liabilities): \$ _____

00500 TABULATION OF MAJOR MATERIAL SUPPLIERS

The contractor shall indicate opposite each item of equipment or material listed below the name of the manufacturer and supplier of the equipment or material proposed to be furnished under the bid.

No.	Item	Manufacturer	Supplier
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
9.			
10.			
11.			
12.			

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26.			

(ATTACH ADDITIONAL NUMBERED PAGES IF NEEDED)

00510 NOTICE OF AWARD

Dated: _____

Project: Winterhaven Water and Sewer Improvements	Owner: County of Imperial	Owner's Contract No.: ICCED-010
Contract:		Engineer's Project No.: 016-0039

Bidder: _____

Bidder's Address (send Certified Mail, Return Receipt Requested):

You are notified that your Bid dated _____ for the above Contract has been considered. You are the Successful Bidder and are awarded a Contract for the construction of the **Imperial County Community & Economic Development Department – Winterhaven Water and Sewer Improvements**.

The Contract Price of your Contract is _____ Dollars (\$_____).

You must comply with the following conditions within **fifteen (15) days** of the date you receive this Notice of Award.

1. Deliver to the Owner four (4) fully executed counterparts of the Contract Documents.
2. Deliver with the executed Contract Documents the Performance and Payment Bonds and Insurance Certificate as specified in the Instructions to Bidders (Article 20), and General Conditions (Paragraph 5.01)

Failure to comply with these conditions within the time specified will entitle the Owner to consider you in default, annul this Notice of Award and declare your Bid Security forfeited.

Within **ten (10) days** after you comply with the above conditions, the Owner will return to you one (1) fully executed counterpart of the Contract Documents.

You are required to return an acknowledged copy of this NOTICE OF AWARD to the OWNER.

County of Imperial
(Owner)

(Authorized Signature)

(Title)

ACCEPTANCE NOTICE

Receipt of above NOTICE OF AWARD is hereby acknowledged

By: _____,

this the _____ day of _____, 2017.

By: _____
(Authorized Signature)

(Title)

State of _____ }

County of _____ }

On _____, before me, _____,

Notary Public, personally appeared _____,
who proved to me on the basis of satisfactory evidence to be the person(s) whose name(s) is/are subscribed to the within
instrument and acknowledged to me that he/she/they executed the same in his/her/their authorized capacity(ies), and that
by his/her/their signature(s) on the instrument the person(s), or the entity upon behalf of which the person(s) acted,
executed the instrument.

I certify under PENALTY OF PERJURY under the laws of the State of California that the foregoing paragraph is true
and correct.

WITNESS my hand and official seal.

Signature of Notary Public

005210 AGREEMENT CONDITIONS AND COUNTY SAMPLE AGREEMENT

THIS AGREEMENT is by and between County of Imperial (“Owner”) and _____ (“Contractor”).

Owner and Contractor, in consideration of the mutual covenants hereinafter set forth, agree as follows:

TABLE OF ARTICLES	Page
Agreement	00521-1
Article 1-Work	00521-1
Article 2-The Project	00521-1
Article 3-Engineer	00521-1
Article 4-Contract Times	00521-2
Article 5-Contract Place	00521-2
Article 6-Payment Procedures	00521-2
Article 7-Interest	00521-4
Article 8-Contractor’s Representatives	00521-4
Article 9-Contract Documents	00521-4
Article 10-Miscellaneous	00521-5

ARTICLE 1 – WORK

1.01 The Contractor shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

Imperial County Community & Economic Development Department – Winterhaven Water and Sewer Improvements

ARTICLE 2 – THE PROJECT

2.01 The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

Imperial County Community & Economic Development Department – Winterhaven Water and Sewer Improvements

ARTICLE 3 – ENGINEER

3.01 The Project has been designed by *Nicklaus Engineering, Inc.* (Design Engineer. The Owner will have a Construction Manager for this project, who is to act as the Owner’s representative, assume all duties and responsibilities, and have the rights and authority assigned to the Engineer in the Contract Documents for the construction phase in connection with the completion of the Work, except for modifying the project design or plans and specifications. The Construction Manager shall act as the Engineer during the construction phase as specified elsewhere in the Contract Documents. The Design Engineer will only be involved for the design related clarifications and changes required as requested by the Owner.

ARTICLE 4 – CONTRACT TIMES

4.01 *Time is of the Essence*

- A. All time limits for Milestones, if any, Substantial Completion, and completion and readiness for final payment as stated in the Contract Documents are of the essence of the Contract.

4.02 *Days to Achieve Final Completion*

- A. The Work will be completed within **Sixty (60) working** days after the date when the Contract Time commences to run as provided in Paragraph 2.03 of the General Conditions.

4.03 *Liquidated Damages*

- A. The Contractor and the Owner recognize that time is of the essence for this Agreement and that the Owner will suffer financial loss if the Work is not completed within the times specified in Paragraph 4.02 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The parties also recognize the delays, expense, and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by the Owner if the Work is not completed on time. Accordingly, instead of requiring any such proof, the Owner and the Contractor agree that as liquidated damages for delay (but not as a penalty), the Contractor shall pay Owner **\$100.00** for each day that expires after the time specified in Paragraph 4.02 for completion and readiness for final payment until the Work is completed and ready for final payment.

ARTICLE 5 – CONTRACT PRICE

5.01 Owner shall pay Contractor for completion of the Work in accordance with the Contract Documents an amount in current funds equal to the sum of the amounts determined pursuant to Paragraphs 5.01.A and 5.01.B below:

- A. For all Unit Price Work, an amount equal to the sum of the established unit price for each separately identified item of Unit Price Work times the estimated quantity of that item as indicated in this paragraph 5.01.B:
- B. As provided in Paragraph 11.03 of the General Conditions, estimated quantities are not guaranteed, and determinations of actual quantities and classifications are to be made by Engineer as provided in Paragraph 9.07 of the General Conditions. Unit prices have been computed as provided in Paragraph 11.03 of the General Conditions.

ARTICLE 6 – PAYMENT PROCEDURES

6.01 *Submittal and Processing of Payments*

- A. The Contractor shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be reviewed, approved and processed by the Construction Manager as provided in the General Conditions.

6.02 *Progress Payments; Retainage*

- A. The Owner shall make progress payments on account of the Contract Price on the basis of the Contractor's Applications for Payment on or about the 20th day of each month during performance of the Work as provided in Paragraphs 6.02.A.1 and 6.02.A.2 below. All such payments will be measured by the Schedule of Values established as provided in Paragraph 2.07.A of the General Conditions.

1. Prior to Substantial Completion, Progress Payments will be made in an amount equal to the percentage indicated below but, in each case, less the aggregate of payments previously made and less such amounts as the Engineer may determine or the Owner may withhold, including but not limited to liquidated damages, in accordance with Paragraph 14.02 of the General Conditions:
 - a. **Ninety-five percent (95%)** of Work completed (with the balance being retainage); and
 - b. **Ninety-five percent (95%)** of cost of materials and equipment not incorporated in the Work (with the balance being retainage).
2. Upon Substantial Completion, the Owner shall pay an amount sufficient to increase total payments to the Contractor to **ninety-five percent (95%)** of the Work completed, less such amounts as the Engineer shall determine in accordance with Paragraph 14.02.B.5 of the General Conditions.

6.03 *Final Payment*

- A. Upon receipt of the final Application for Payment accompanied by the Engineer's recommendation of payment in accordance with Paragraph 14.07 of the General Conditions, the Owner shall pay the Contractor as provided in Paragraph 14.07 of the General Conditions the remainder of the Contract Price as recommended by the Engineer as provided in said Paragraph 14.07, less any sum the Owner is entitled to set off against the Engineer's recommendation, including but not limited to liquidated damages.

6.04 *Substitution of Security*

Upon Contractor's request, COUNTY will make payment of funds withheld from progress payments to ensure performance under the contract pursuant to the requirements of California Public Contracts Code, section 22300, if the Contractor deposits in escrow with COUNTY, or with a bank acceptable to COUNTY, securities eligible for investment under Government Code section 16430 or bank savings and loan certifications of deposit, subject to the following conditions:

- A. Contractor shall bear the expense of COUNTY and the escrow agent, and COUNTY and the bank, in connection with the escrow deposit made.
- B. Securities or certificates of deposit to be placed in escrow shall be of a value at least equivalent to the amount of retention to be paid to the Contractor pursuant to this Article.
- C. Contractor shall enter into an escrow agreement satisfactory to COUNTY, which agreement shall include provisions governing, inter alia:
 1. the amount of securities to be deposited,
 2. the providing of powers of attorney or other documents necessary for the transfer of the securities to be deposited,
 3. conversion of cash to provide funds to meet defaults by Contractor including, but not limited to, termination of Contractor's control over the work, stop notice filed pursuant to law or other amounts to be kept or retained under the provisions of the contract,
 4. decrease in value of securities on deposit,
 5. the termination of the escrow upon completion of the contract.
- D. Contractor shall obtain the written consent of the surety to such agreement.

ARTICLE 7 – INTEREST

7.01 All moneys not paid when due as provided in Article 14 of the General Conditions shall bear interest at **eight percent (8%)** per annum.

ARTICLE 8 – CONTRACTOR’S REPRESENTATIONS

- 8.01 In order to induce the Owner to enter into this Agreement the Contractor makes the following representations:
- A. The Contractor has examined and carefully studied the Contract Documents and the other related data identified in the Bidding Documents.
 - B. The Contractor has visited the Site and become familiar with and is satisfied as to the General, Local, and Site Conditions that may affect cost, progress, and performance of the Work.
 - C. The Contractor is familiar with and is satisfied as to all Federal, State, and Local Laws and Regulations that may affect the cost, progress, and performance of the Work.
 - D. The Contractor has obtained and carefully studied (or assumes responsibility for doing so) all additional or supplementary examinations, investigations, explorations, tests, studies, and data concerning conditions (Surface, Subsurface, and Underground Facilities) at or contiguous to the Site which may affect the cost, progress, or performance of the Work or which relate to any aspect of the means, methods, techniques, sequences, and procedures of construction to be employed by the Contractor, including any specific means, methods, techniques, sequences, and procedures of construction expressly required by the Bidding Documents, and safety precautions and programs incident thereto.
 - E. The Contractor does not consider that any further examinations, investigations, explorations, tests, studies, or data are necessary for the performance of the Work at the Contract Price, within the Contract Times, and in accordance with the other terms and conditions of the Contract Documents.
 - F. The Contractor is aware of the general nature of work to be performed by the Owner and others at the Site that relates to the Work as indicated in the Contract Documents.
 - G. The Contractor has correlated the information known to the Contractor, information and observations obtained from visits to the Site, reports and drawings identified in the Contract Documents, and all additional examinations, investigations, explorations, tests, studies, and data with the Contract Documents.
 - H. The Contractor has given the Owner written notice of all conflicts, errors, ambiguities, or discrepancies that the Contractor has discovered in the Contract Documents, and the written resolution thereof by the Owner is acceptable to the Contractor.
 - I. The Contract Documents are generally sufficient to indicate and convey a clear understanding of all terms and conditions for the performance and furnishing of the Work.

ARTICLE 9 – NOT USED

ARTICLE 10 – MISCELLANEOUS

10.01 *Terms*

- A. Terms used in this Agreement will have the meanings stated in the General Conditions and the Supplementary Conditions.

10.02 *Assignment of Contract*

- A. No assignment by a party hereto of any rights under or interests in the Contract will be binding on another party hereto without the written consent of the party sought to be bound; and, specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment, no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

10.03 *Successors and Assigns*

- A. The Owner and the Contractor each binds itself, its partners, successors, assigns, and legal representatives to the other party hereto, its partners, successors, assigns, and legal representatives in respect to all covenants, agreements, and obligations contained in the Contract Documents.

10.04 *Severability*

- A. Any provision or part of the Contract Documents held to be void or unenforceable under any Law or Regulation shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the Owner and the Contractor, who agree that the Contract Documents shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision that comes as close as possible to expressing the intention of the stricken provision.

10.05 *Prevailing Wage*

- A. Notice is hereby given that, pursuant to 1773 of the Labor Code of the State of California, the Owner has obtained from the Director of the Department of Industrial Relations the general prevailing rate of per diem wages and the general prevailing rate for holidays and overtime work for each craft, classification, or type of worker required to execute the Contract. A copy of said prevailing rate of per diem wages is on file in the principal office of the Owner, to which reference is hereby made for further particulars. Said prevailing rate of per diem wages will be made available to any interested party upon request, and a copy thereof shall be posted at each site.

**00521 AGREEMENT
BETWEEN OWNER AND CONTRACTOR
FOR CONSTRUCTION CONTRACT (STIPULATED PRICE)
FUNDING AGENCY EDITION**

IMPERIAL COUNTY SAMPLE CONTRACT

15. SAMPLE AGREEMENT

AGREEMENT FOR CONSTRUCTION SERVICES

[Contractor]

THIS AGREEMENT FOR SERVICES (“Agreement”), made and entered into effective the _____ day of _____, 2017, by and between the County of Imperial, a political subdivision of the State of California, by and through its Community & Economic Development Department (“COUNTY”), and [Enter Contractor], a [Enter Business Entity] (“CONTRACTOR”) (individually, “Party;” collectively, “Parties”).

RECITALS

WHEREAS, COUNTY desires to retain a qualified individual, firm or business entity to provide professional services for construction services for the Winterhaven Water and Sewer Improvements Project (“Project”); and

WHEREAS, CONTRACTOR represents that it is qualified and experienced to perform the services; and

WHEREAS, COUNTY desires to engage CONTRACTOR to provide services by reason of its qualifications and experience for performing such services, and CONTRACTOR has offered to provide the required services for the Project on the terms and in the manner set forth herein.

NOW, THEREFORE, in consideration of their mutual covenants, COUNTY and CONTRACTOR have and hereby agree to the following:

1. DEFINITIONS.

1.1. “Invitation for Bids” shall mean that document that describes the Project and project requirements to prospective bidders entitled “Winterhaven Water / Sewer Improvements ...” dated _____, 2015. The Invitation for Bids, including Special Conditions, Addendum(s), Special Notice(s), and Plans and Specifications (as defined in paragraph 1.3), are attached hereto as **Exhibit “A”** and incorporated herein by this reference.

1.2. “Proposal” shall mean CONTRACTOR’s document entitled [Enter Proposal] dated [Enter Date] and submitted to Clerk of the Board on [Enter Date]. The Proposal is attached hereto as **Exhibit “B”** and incorporated herein by reference.

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1 **1.3.** “Plans and Specifications” shall mean the plans and specifications approved by the
2 Manager of ICCED, or his/her designee, for the Project. While COUNTY is responsible for the
3 completeness and accuracy of the Plans and Specifications for the Project, CONTRACTOR is required
4 to review the Plans and Specifications and promptly report any errors or omissions to COUNTY.

5 **2. CONTRACT COORDINATION.**

6 **2.1.** The Manager of ICCED or his/her designee shall be the representative of COUNTY for
7 all purposes under this Agreement. The Manager of ICCED or his/her designee is hereby designated
8 as the Contract Manager for COUNTY. He/she shall supervise the progress and execution of this
9 Agreement.

10 **2.2.** CONTRACTOR shall assign a single Contract Manager to have overall responsibility
11 for the progress and execution of this Agreement. Should circumstances or conditions subsequent to
12 the execution of this Agreement require a substitute Contract Manager for any reason, the Contract
13 Manager designee shall be subject to the prior written acceptance and approval of COUNTY’s
14 Contract Manager.

15 **3. SCOPE OF WORK.**

16 **3.1.** CONTRACTOR shall provide all materials and labor to perform this Agreement
17 consistent with the Invitation for Bid and the Proposal, as set forth in **Exhibits “A” and “B.”** In the
18 event of a conflict amongst this Agreement, the Invitation for Bid, and the Proposal, the Invitation for
19 Bid shall take precedence over the Proposal and this Agreement shall take precedence over both.

20 **3.2.** All described work shall be constructed, installed, placed, and performed in
21 conformance with the Plans and Specifications and all Special Provisions contained therein and as
22 directed by COUNTY’s engineer.

23 **4. WORK TO BE PERFORMED BY CONTRACTOR.**

24 **4.1.** CONTRACTOR shall comply with all terms, conditions, and requirements of the
25 Invitation for Bid, Plans and Specifications, Proposal, and this Agreement.

26 **4.2.** CONTRACTOR shall perform such other tasks as necessary and proper for the full
27 performance of the obligations assumed by CONTRACTOR hereunder.

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1 **4.3.** CONTRACTOR shall:

2 **(a)** Procure all permits and licenses, pay all charges and fees, and give all notices
3 that may be necessary and incidental to the due and lawful prosecution of the services to be performed
4 by CONTRACTOR under this agreement;

5 **(b)** Keep itself fully informed of all existing and proposed federal, state and local
6 laws, ordinances, regulations, orders and decrees which may affect those engaged or employed under
7 this Agreement;

8 **(c)** At all times observe and comply with, and cause all of its employees to observe
9 and comply with all of said laws, ordinances, regulations, orders and decrees mentioned above; and

10 **(d)** Immediately report to COUNTY's Contract Manager in writing any discrepancy
11 or inconsistency it discovers in said laws, ordinances, regulations, orders and decrees mentioned above
12 in relation to any plans, drawings, specifications or provisions of this Agreement.

13 **5. CHANGE ORDERS.**

14 **5.1. Change Orders.** CONTRACTOR shall make no changes to the work to be performed
15 pursuant to this Agreement, including but not limited to additions, deletions, modifications or
16 substitutions, nor shall CONTRACTOR perform any extra work (collectively, "Change Order Work")
17 without the prior written consent of COUNTY. If CONTRACTOR encounters conditions it considers
18 different from those described in **Exhibit "A"** to this Agreement, CONTRACTOR may request a
19 change order in conformance with COUNTY's standard procedure ("Change Order"). If COUNTY
20 approves the request, CONTRACTOR will execute a Change Order and CONTRACTOR's execution
21 of the Change Order shall confirm approval thereof. COUNTY may order additional work, and
22 CONTRACTOR shall perform such changes in the work as directed by COUNTY in any Change
23 Order prepared by CONTRACTOR. COUNTY's rights to eliminate portions of the work or initiate a
24 Change Order shall not be limited in any way. The Change Order shall be in writing and shall include:

25 **(a)** Any and all supporting documents and drawings depicting the source and
26 location of the desired change, and explain in detail the field conditions and reasons for the requested
27 change;

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1 (b) Any change or adjustment to the compensation set forth in this Agreement as a
2 result of changes in the work based on a lump sum or time and material basis, as may be directed by
3 COUNTY; and

4 (c) Any request for adjustments to time for completion of the Project.

5 **5.2. Payment for Change Order Work.** CONTRACTOR shall not be entitled to receive any
6 compensation for work, labor, materials, or changes of any kind, regardless of whether ordered by
7 COUNTY or any of its representatives, unless a Change Order has been submitted in writing and
8 approved prior to the commencement of any Change Order Work as described above. If the changes
9 are required by any inspecting governmental agencies or utility companies, or are otherwise required
10 to comply with any codes, laws, rules or regulations, including those set forth in this Agreement, then
11 CONTRACTOR shall not be entitled to any increases in the compensation set forth in this Agreement
12 or other compensation as a result of the changes.

13 **5.3. Disputed Change Order Work.** Any dispute concerning the performance of such
14 Change
15 Order Work or the amount of compensation to be paid to CONTRACTOR by COUNTY shall not
16 affect CONTRACTOR's obligation to perform such Change Order Work. CONTRACTOR agrees
17 that it shall timely complete all Change Order Work even if there shall be a dispute between
18 CONTRACTOR and COUNTY over the amount or scope of the Change Order Work.
19 CONTRACTOR shall have the right to be compensated for any undisputed Change Order Work
20 amounts as determined to be undisputed in COUNTY's sole discretion.

21 **5.4. Authorized Representative.** No Change Order shall be valid or binding against
22 COUNTY unless such Change Order has been executed by COUNTY's designated representative,
23 who is the Imperial County Community & Economic Development Manager. COUNTY shall notify
24 CONTRACTOR in writing if the designated representative is changed.

25 **5.5. Limits.** When applicable, the authority to execute a Change Order on this project shall
26 not exceed the amount allowed by law pursuant to Public Contract Code sections 20137-20142 et seq.,
27 except as follows:

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1 (a) Where Change Orders are in an amount between ten percent (10%) and twenty-
2 five percent (25%) of the amount set forth in this Agreement and based on a need for additional
3 quantities due to an increase in the unit quantities required to complete the project in excess of the
4 COUNTY's Engineer's estimate of unit quantities as set forth in the Invitation to Bid, CONTRACTOR
5 shall be paid pursuant to Public Contract Code sections 20143 and 20139 referred to in **Exhibit "A"**
6 and incorporated herein by reference.

7 **6. REPRESENTATIONS BY CONTRACTOR.**

8 **6.1.** CONTRACTOR understands and agrees that COUNTY has limited knowledge in the
9 multiple areas specified in the Proposal. CONTRACTOR has represented itself to be an expert in
10 these fields and understands that COUNTY is relying upon such representation.

11 **6.2.** CONTRACTOR represents and warrants that it is a lawful entity possessing all required
12 licenses and authorities to do business in the State of California and perform all aspects of this
13 Agreement.

14 **6.3.** CONTRACTOR shall not commence any work under this Agreement or provide any
15 other services, or materials, in connection therewith until CONTRACTOR has received written
16 authorization from the Manager of Imperial County Community & Economic Development, or his/her
17 designee ("Notice to Proceed") to do so.

18 **6.4.** CONTRACTOR represents and warrants that the people executing this Agreement on
19 behalf of CONTRACTOR have the authority of CONTRACTOR to sign this Agreement and bind
20 CONTRACTOR to the performance of all duties and obligations assumed by CONTRACTOR herein.

21 **6.5.** CONTRACTOR represents and warrants that any employee, contractor and/or agent
22 who will be performing any of the duties and obligations of CONTRACTOR herein possess all
23 required licenses and authorities, as well as the experience and training, to perform such tasks.

24 **6.6.** CONTRACTOR represents and warrants that the allegations contained in the Proposal
25 are true and correct.

26 **6.7.** CONTRACTOR understands that COUNTY considers the representations made herein
27 to be material and would not enter into this Agreement with CONTRACTOR if such representations
28 were not made.

1 **6.8. Retention and Access of Books and Records.** CONTRACTOR represents and warrants
2 that it shall maintain books, records, documents, reports and other materials developed under this
3 Agreement as follows:

4 **(a)** CONTRACTOR shall maintain all ledgers, books of accounts, invoices,
5 vouchers, canceled checks, and other records relating to CONTRACTOR's charges for services or
6 expenditures and disbursements charged to COUNTY for a minimum period of three (3) years, or for
7 any longer period required by law, from the date of final payment to CONTRACTOR pursuant to this
8 Agreement.

9 **(b)** CONTRACTOR shall hold and possess as the property of COUNTY all papers,
10 books, files, correspondence and other records of all kinds which at any time shall come into its
11 possession or under its control relating only to services performed by CONTRACTOR under this
12 Agreement for a minimum period of five (5) years, or for any longer period required by law, from the
13 date said papers came into the possession of CONTRACTOR pursuant to this Agreement.

14 **(c)** Any records or documents required to be maintained by CONTRACTOR
15 pursuant to this Agreement shall be made available to COUNTY for inspection or audit at any time
16 during CONTRACTOR's regular business hours provided that COUNTY provides CONTRACTOR
17 with seven (7) days advanced written or e-mail notice. Copies of such documents shall, at no cost to
18 COUNTY, be provided to COUNTY for inspection at CONTRACTOR's address indicated for receipt
19 of notices under this Agreement.

20 **(d)** CONTRACTOR shall surrender all papers maintained by CONTRACTOR
21 pursuant to Paragraph 6.8. of this Agreement within thirty (30) days of termination of this Agreement.

22 **(e)** CONTRACTOR represents and warrants that it has not been engaged by, nor
23 will it be engaged by and owes no duty of performance to any other person or entity that would
24 constitute a conflict. For breach or violation of this warranty, COUNTY shall amongst other remedies
25 at law, have the right to terminate this Agreement without liability, or at its sole discretion, to deduct
26 from the Agreement price or consideration, or otherwise recover the full amount of such fee,
27 commission, percentage brokerage fee, gift or contingent fee paid or received from another entity or
28 person.

1 **6.9.** CONTRACTOR represents and warrants that it and its subcontractors are not ineligible
2 to work for COUNTY due to violations of Labor Code §§1777.1 and 1777.7.

3 **6.10.** CONTRACTOR shall perform pursuant to this Agreement in accordance with and in
4 full compliance with all applicable Federal, State and local statutes, rules, regulations, policies, and
5 procedures, regardless of whether they are expressly set forth in this Agreement.

6 **(a)** Applicable Federal, State, and local statutes, rules, regulations, policies, and
7 procedures include, but are not limited to, those found in this Agreement, as well as those incorporated
8 by reference through **Exhibit “A.”**

9 **(b)** It is understood that in the event COUNTY is investigated or audited by any
10 State or Federal governmental agency, or any other recognized investigative/auditing entity,
11 CONTRACTOR shall fully cooperate with such agencies’ reasonable and lawful request for
12 information.

13 **6.11.** CONTRACTOR is familiar with the State and Federal requirements that may be
14 applicable to CONTRACTOR pursuant to the State of California’s CDBG agreements between the
15 COUNTY through the Imperial County Community & Economic Development Department and the
16 State of California that are incorporated into this Agreement including but limited to the Davis-Bacon
17 Act (40 U.S.C 3141-3148; 24 CFR Part 85.36), the Anti-Kickback Act of 1986 (41 U.S.C 51-58),
18 Contract Work Hours and Safety Standards Act-CWHSSA (40 U.S.C 3702)(the “Acts”).

19 **6.12.** CONTRACTOR understands and agrees not to discuss this Agreement or work
20 performed pursuant to this Agreement with anyone not a party to this Agreement without the prior
21 permission of COUNTY. CONTRACTOR further agrees to immediately advise COUNTY of any
22 contacts or inquiries made by anyone not a party to this Agreement with respect to work performed
23 pursuant to this Agreement.

24 **6.13.** Prior to accepting any work under this Agreement, CONTRACTOR shall perform a due
25 diligence review of its files and advise COUNTY of any conflict or potential conflict CONTRACTOR
26 may have with respect to the work requested.

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1 **6.14.** CONTRACTOR understands and agrees that in the course of performance of this
2 Agreement CONTRACTOR may be provided with information or data considered by the owner or the
3 COUNTY to be confidential. COUNTY shall clearly identify such information and/or data as
4 confidential. CONTRACTOR shall take all necessary steps necessary to maintain such confidentiality
5 including but not limited to restricting the dissemination of all material received to those required to
6 have such data in order for CONTRACTOR to perform under this Agreement.

7 **6.15.** CONTRACTOR represents that the personnel dedicated to this project as identified in
8 CONTRACTOR's Proposal, will be the people to perform the tasks identified therein.
9 CONTRACTOR will not substitute other personnel or engage any contractors to work on any tasks
10 identified herein without prior written notice to COUNTY.

11 **7. TERM OF AGREEMENT.**

12 This Agreement shall commence on the date first written above and shall remain in effect until
13 [Enter date], unless otherwise terminated as provided for in this Agreement.

14 **8. COMPENSATION.**

15 **8.1.** The total compensation payable under this Agreement shall not exceed [Enter
16 Amount], unless otherwise previously agreed to in writing by COUNTY.

17 **8.2.** The fee for any additional services required by COUNTY will be computed either on a
18 negotiated lump sum basis or upon actual hours and expenses incurred by CONTRACTOR and based
19 on CONTRACTOR's current standard rates as set forth in the Proposal. Additional services or costs
20 will not be paid without a prior written agreement between the Parties.

21 **8.3.** Except as provided under paragraph 8.1 and 8.2, COUNTY shall not be responsible to
22 pay CONTRACTOR any compensation, out of pocket expenses, fees, reimbursement of expenses or
23 other remuneration.

24 **9. PAYMENT.**

25 **9.1.** CONTRACTOR shall bill COUNTY on a time and material basis as set forth in
26 **Exhibit "A."** COUNTY shall pay CONTRACTOR for completed and approved services upon
27 presentation of its itemized billing.

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1 **9.2.** COUNTY shall have the right to retain five percent (5%) of the total of amount of each
2 invoice, not to exceed five percent (5%) of the total compensation amount of the completed project.
3 “Completion of the Project” is when the work to be performed has been completed in accordance with
4 this Agreement, as determined by COUNTY, and all subcontractors, if any, have been paid in full by
5 CONTRACTOR. Upon completion of the Project CONTRACTOR shall bill COUNTY the retention
6 for payment by COUNTY.

7 **10. METHOD OF PAYMENT.**

8 **10.1.** CONTRACTOR shall at any time prior to the fifteenth (15th) day of any month, submit
9 to COUNTY a written claim for compensation for services performed. The claim shall be in a format
10 approved by COUNTY. No payment shall be made by COUNTY prior to the claims being approved
11 in writing by COUNTY’s Contract Manager or his/her designee. CONTRACTOR may expect to
12 receive payment within a reasonable time thereafter and in any event in the normal course of business
13 within thirty (30) days after the claim is submitted.

14 **10.2.** After determining that the claim is a proper payment request, the Manager of Imperial
15 County Community & Economic Development, or his/her designee, shall submit to COUNTY’s
16 Auditor/Controller undisputed and properly submitted claims approved for payment within ten (10)
17 days following the date the claim was submitted to his/her Department.

18 **10.3.** CONTRACTOR may expect to receive payment within a reasonable time thereafter and
19 in any event in the normal course of business within thirty (30) days after the undisputed and properly
20 submitted claim is submitted.

21 **10.4.** Any claim determined to be an improper payment request shall be returned to
22 CONTRACTOR as soon as practicable, but not later than seven (7) days, after receipt with a written
23 explanation as to why the claim is an improper request for payment.

24 **10.5.** In order for prompt payment to be made by COUNTY pursuant to Public Contract Code
25 §20104.50, CONTRACTOR must properly fill out all written claims for compensation for services
26 performed.

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1 **10.6.** COUNTY shall pay interest at the legal rate set forth in Code of Civil Procedure
2 §685.010 in the event payment is not made within thirty (30) days of an undisputed properly submitted
3 request.

4 **11. TIME FOR COMPLETION OF THE WORK.**

5 **11.1.** The Parties agree that time is of the essence in the performance of this Agreement.
6 Program scheduling shall be as described in **Exhibit A and B**, unless revisions are approved by both
7 COUNTY’s Contract Manager and CONTRACTOR’s Contract Manager. The Project will be
8 completed and ready for final payment within **ninety (90) calendar days** after the commencement of
9 this Agreement. Time extensions may be allowed for delays caused by COUNTY, other governmental
10 agencies or factors not directly brought about by the negligence or lack of due care on the part of
11 CONTRACTOR.

12 **11.2. Liquidated Damages.** COUNTY and CONTRACTOR agree that as liquidated damages
13 for delay (but not as a penalty), the CONTRACTOR shall pay COUNTY **Two Thousand Dollars**
14 **(\$2,000.00)** for each day that expires past the time specific in paragraph 7 and according to the
15 timeline provided in the Exhibits. CONTRACTOR shall pay the liquidated damages amount until the
16 Work is completed and ready for final payment.

17 **12. SUSPENSION OF AGREEMENT.**

18 COUNTY’s Contract Manager shall have the authority to suspend this Agreement, in whole or
19 in part, for such period as deemed necessary due to unfavorable conditions or to the failure on the part
20 of CONTRACTOR to perform any provision of this Agreement. CONTRACTOR will be paid the
21 compensation due and payable to the date of suspension.

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1 **13. TERMINATION.**

2 COUNTY retains the right to terminate this Agreement for any reason by notifying
3 CONTRACTOR in writing twenty (20) days prior to termination and by paying the compensation due
4 and payable to the date of termination; provided, however, if this Agreement is terminated for fault of
5 CONTRACTOR, COUNTY shall be obligated to compensate CONTRACTOR only for that portion of
6 CONTRACTOR's services which are of benefit to COUNTY. Said compensation is to be arrived at
7 by mutual agreement between COUNTY and CONTRACTOR; should the parties fail to agree on said
8 compensation, an independent arbitrator shall be appointed and the decision of the arbitrator shall be
9 binding upon the parties.

10 **14. INSPECTION.**

11 CONTRACTOR shall furnish COUNTY with every reasonable opportunity for COUNTY to
12 ascertain that the services of CONTRACTOR are being performed in accordance with the
13 requirements and intentions of this Agreement. All work done and materials furnished, if any, shall be
14 subject to COUNTY's Contract Manager's inspection and approval. The inspection of such work shall
15 not relieve CONTRACTOR of any of its obligations to fulfill its Agreement as prescribed.

16 **15. OWNERSHIP OF MATERIALS.**

17 All original drawings, videotapes, studies, sketches, computations, reports, information, data
18 and other materials given to or prepared or assembled by or in the possession of CONTRACTOR
19 pursuant to this Agreement shall become the permanent property of COUNTY and shall be delivered
20 to COUNTY upon demand, whether or not completed, and shall not be made available to any
21 individual or organization without the prior written approval of COUNTY.

22 **16. INTEREST OF CONTRACTOR.**

23 **16.1.** CONTRACTOR covenants that it presently has no interest, and shall not acquire any
24 interest, direct or indirect, financial or otherwise, which would conflict in any manner or degree with
25 the performance of the services hereunder.

26 **16.2.** CONTRACTOR covenants that, in the performance of this Agreement, no sub-
27 contractor or person having such an interest shall be employed.

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1 **16.3.** CONTRACTOR certifies that no one who has or will have any financial interest under
2 this Agreement is an officer or employee of COUNTY.

3 **17. INDEMNIFICATION.**

4 **17.1.** CONTRACTOR agrees to the fullest extent permitted by law to indemnify, defend,
5 protect and hold COUNTY and its representatives, officers, directors, designees, employees,
6 successors and assigns harmless from any and all claims, expenses, liabilities, losses, causes of actions,
7 demands, losses, penalties, attorneys' fees and costs, in law or equity, of every kind and nature
8 whatsoever arising out of or in connection with CONTRACTOR's negligent acts and omissions or
9 willful misconduct under this Agreement ("Claims"), whether or not arising from the passive
10 negligence of COUNTY, but does not include Claims that are the result of the negligence or willful
11 misconduct of COUNTY.

12 **17.2.** CONTRACTOR agrees to defend with counsel acceptable to COUNTY, indemnify and
13 hold COUNTY harmless from all Claims, including but not limited to:

14 **(a)** Personal injury, including but not limited to bodily injury, emotional injury,
15 sickness or disease or death to persons including but not limited to COUNTY's representatives,
16 officers, directors, designees, employees, agents, successors and assigns, subcontractors and other third
17 parties and/or damage to property of anyone (including loss of use thereof) arising out of
18 CONTRACTOR's negligent performance of, or willful misconduct surrounding, any of the terms
19 contained in this Agreement, or anyone directly or indirectly employed by CONTRACTOR or anyone
20 for whose acts CONTRACTOR may be liable;

21 **(b)** Liability arising from injuries to CONTRACTOR and/or any of
22 CONTRACTOR's employees or agents arising out of CONTRACTOR's negligent performance of, or
23 willful misconduct surrounding, any of the terms contained in this Agreement, or anyone directly or
24 indirectly employed by CONTRACTOR or anyone for whose acts CONTRACTOR may be liable;

25 **(c)** Penalties imposed upon account of the violation of any law, order, citation, rule,
26 regulation, standard, ordinance or statute caused by the negligent action or inaction, or willful
27 misconduct of CONTRACTOR or anyone directly or indirectly employed by CONTRACTOR or
28 anyone for whose acts CONTRACTOR may be liable;

1 (d) Infringement of any patent rights which may be brought against COUNTY
2 arising out of CONTRACTOR's work;

3 (e) Any violation or infraction by CONTRACTOR of any law, order, citation, rule,
4 regulation, standard, ordinance or statute in any way relating to the occupational health or safety of
5 employees; and

6 (f) Any breach by CONTRACTOR of the terms, requirements or covenants of this
7 Agreement.

8 **17.3.** These indemnification provisions shall extend to Claims occurring after this Agreement
9 is terminated, as well as while it is in force.

10 **18. INDEPENDENT CONTRACTOR.**

11 In all situations and circumstances arising out of the terms and conditions of this Agreement,
12 CONTRACTOR is an independent contractor, and as an independent contractor, the following shall
13 apply:

14 **18.1.** CONTRACTOR is not an employee or agent of COUNTY and is only responsible for
15 the requirements and results specified by this Agreement or any other agreement.

16 **18.2.** CONTRACTOR shall be responsible to COUNTY only for the requirements and results
17 specified by this Agreement and except as specifically provided in this Agreement, shall not be subject
18 to COUNTY's control with respect to the physical actions or activities of CONTRACTOR in
19 fulfillment of the requirements of this Agreement.

20 **18.3.** CONTRACTOR is not, and shall not be, entitled to receive from, or through,
21 COUNTY, and COUNTY shall not provide, or be obligated to provide, CONTRACTOR with
22 Workers' Compensation coverage or any other type of employment or worker insurance or benefit
23 coverage required or provided by any Federal, State or local law or regulation for, or normally afforded
24 to, an employee of COUNTY.

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1 **18.4.** CONTRACTOR shall not be entitled to have COUNTY withhold or pay, and
2 COUNTY shall not withhold or pay, on behalf of CONTRACTOR, any tax or money relating to the
3 Social Security Old Age Pension Program, Social Security Disability Program, or any other type of
4 pension, annuity, or disability program required or provided by any Federal, State or local law or
5 regulation.

6 **18.5.** CONTRACTOR shall not be entitled to participate in, nor receive any benefit from, or
7 make any claim against any COUNTY fringe program, including, but not limited to, COUNTY's
8 pension plan, medical and health care plan, dental plan, life insurance plan, or any other type of benefit
9 program, plan, or coverage designated for, provided to, or offered to COUNTY's employees.

10 **18.6.** COUNTY shall not withhold or pay, on behalf of CONTRACTOR, any Federal, State,
11 or local tax, including, but not limited to, any personal income tax, owed by CONTRACTOR.

12 **18.7.** CONTRACTOR is, and at all times during the term of this Agreement, shall represent
13 and conduct itself as an independent contractor, not as an employee of COUNTY.

14 **18.8.** CONTRACTOR shall not have the authority, express or implied, to act on behalf of,
15 bind or obligate COUNTY in any way without the written consent of COUNTY.

16 **19. INSURANCE.**

17 **19.1.** CONTRACTOR agrees at its own cost and expense to procure and maintain during the
18 entire term of this Agreement, and any extended term, commercial general liability insurance (bodily
19 injury and property damage), employer's liability insurance, commercial automobile liability insurance
20 (bodily injury and property damage) and professional liability insurance in a sum acceptable to
21 COUNTY and adequate to cover potential liabilities arising in connection with the performance of this
22 Agreement and in any event not less than the minimum limit set forth as follows:

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<u>Insurance</u>	<u>Minimum Limit</u>
Errors & Omissions Coverage (professional liability – malpractice)	[Enter Amount] Per person, per occurrence.
Workers’ Compensation, Coverage A	Statutory
Employer’s Liability, Coverage B	[Enter Amount]
Commercial General Liability (Including Contractual Liability)	[Enter Amount] combined single limit to any one person (“CSL”) and [Enter Amount] aggregate for any one accident, including personal injury, death and property damage.
Bodily Injury	
Property Damage	
Products – Completed Operations	[Enter Amount]
Aggregate	
Personal & Advertising Injury	[Enter Amount]
Excess or Umbrella Liability	[Enter Amount] per occurrence and [Enter Amount] general aggregate.
Commercial Automobile Liability (owned, hired & non-owned vehicles)	[Enter Amount] combined single limit (“CSL”) [Enter Amount] combined single limit (“CSL”)

19.2. Special Insurance Requirements. All insurance required shall:

- (a) Be procured from California admitted insurers (licensed to do business in California) with a current rating by Best’s Key Rating Guide, acceptable to COUNTY. A rating of at least A-VII shall be acceptable to COUNTY; lesser ratings must be approved in writing by COUNTY.
- (b) Be primary coverage as respects COUNTY and any insurance or self-insurance maintained by COUNTY shall be in excess of CONTRACTOR’s insurance coverage and shall not contribute to it.

1 (c) Name The Imperial County Community and Economic Development
2 Department and the County of Imperial and their officers, employees, and volunteers as additional
3 insured on all policies, except Workers' Compensation insurance and Errors & Omissions insurance,
4 and provide that COUNTY may recover for any loss suffered by COUNTY due to CONTRACTOR's
5 negligence.

6 (d) State that it is primary insurance and regards COUNTY as an additional insured
7 and contains a cross-liability or severability of interest clause.

8 (e) Not be canceled, non-renewed or reduced in scope of coverage until after thirty
9 (30) days written notice has been given to COUNTY. CONTRACTOR may not terminate such
10 coverage until it provides COUNTY with proof that equal or better insurance has been secured and is
11 in place. Cancellation or change without prior written consent of COUNTY shall, at the option of
12 COUNTY, be grounds for termination of this Agreement.

13 (f) If this Agreement remains in effect more than one (1) year from the date of its
14 original execution, COUNTY may, at its sole discretion, require an increase to liability insurance to the
15 level then customary in similar COUNTY Agreements by giving sixty (60) days notice to
16 CONTRACTOR.

17 **19.3. Additional Insurance Requirements.**

18 (a) COUNTY is to be notified immediately of all insurance claims. COUNTY is
19 also to be notified if any aggregate insurance limit is exceeded.

20 (b) The comprehensive or commercial general liability shall contain a provision of
21 endorsements stating that such insurance:

22 (i) Includes contractual liability;

23 (ii) Does not contain any exclusions as to loss or damage to property caused
24 by explosion or resulting from collapse of buildings or structures or damage to property underground,
25 commonly referred to by insurers as the "XCU Hazards;"

26 (iii) Does not contain a "pro rata" provision which looks to limit the insurer's
27 liability to the total proportion that its policy limits bear to the total coverage available to the insured;
28

1 (iv) Does not contain an “excess only” clause which require the exhaustion
2 of other insurance prior to providing coverage;

3 (v) Does not contain an “escape clause” which extinguishes the insurer’s
4 liability if the loss is covered by other insurance;

5 (vi) Includes COUNTY and COUNTY’s Engineer as an additional insured.

6 (vii) States that it is primary insurance and regards COUNTY as an additional
7 insured and contains a cross-liability or severability of interest clause.

8 **19.4. Deposit of Insurance Policy.** Promptly on issuance, reissuance, or renewal of any
9 insurance policy required by this Agreement, CONTRACTOR shall, if requested by COUNTY,
10 provide COUNTY satisfactory evidence that insurance policy premiums have been paid together with
11 a duplicate copy of the policy or a certificate evidencing the policy and executed by the insurance
12 company issuing the policy or its authorized agent.

13 **19.5. Certificates of Insurance.**

14 CONTRACTOR agrees to provide COUNTY with the following insurance documents on or
15 before the effective date of this Agreement:

16 (a) Complete copies of certificates of insurance for all required coverages including
17 additional insured endorsements shall be attached hereto as **Exhibit “C”** and incorporated herein.

18 (b) The documents enumerated in this Paragraph shall be sent to the following:

19
20 County of Imperial
21 Risk Management Department
22 940 Main Street, Suite 101
23 El Centro, CA 92243

24 County of Imperial
25 Community & Economic Development Department
26 940 Main Street, Suite 203
27 El Centro, CA 92243

28 **19.6. Additional Insurance.** Nothing in this, or any other provision of this Agreement, shall
be construed to preclude CONTRACTOR from obtaining and maintaining any additional insurance
policies in addition to those required pursuant to this Agreement.

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1 **20. PREVAILING WAGE.**

2 **20.1.** CONTRACTOR and its subcontractors shall pay all workers employed on the Project
3 the higher of either the rates determined by the Director of the California Department of Industrial
4 Relations (“DIR”) or, when applicable, the Davis-Bacon Federal wage rates as supplemented by the
5 Department of Labor regulations. The Davis-Bacon Federal wage rates are attached to the RFP.
6 Copies of the State prevailing rate of per diem wages are on file with the Department of Industrial
7 Relations, Division of Apprenticeship Standards, 445 Golden Gate Avenue, San Francisco, California,
8 and at COUNTY’s Department of Public Works, and are available to CONTRACTOR and any other
9 interested party upon request. CONTRACTOR shall post the prevailing rate of per diem wages to be
10 posted at the Project site

11 **20.2.** CONTRACTOR acknowledges that any work that qualifies as a “public work” within
12 the meaning of California Labor Code section 1720 shall cause CONTRACTOR, and its sub-
13 contractors, to comply with the provisions of California Labor Code sections 1775 et seq.

14 **20.3.** When applicable, copies of the prevailing rate of per diem wages shall be on file at
15 COUNTY’s Imperial County Community & Economic Development Department and available to
16 CONTRACTOR and any other interested party upon request. CONTRACTOR shall post copies of the
17 prevailing wage rate of per diem wages at the Project site.

18 **20.4.** CONTRACTOR hereby acknowledges and stipulates to the following:

19 (a) CONTRACTOR has reviewed and agrees to comply with the provisions of
20 Labor Code section 1776 regarding retention and inspection of payroll records and noncompliance
21 penalties; and

22 (b) CONTRACTOR has reviewed and agrees to comply with the provisions of
23 Labor Code section 1777.5 regarding employment of registered apprentices; and

24 (c) CONTRACTOR has reviewed and agrees to comply with the provisions of
25 Labor Code section 1810 regarding the legal day’s work; and

26 (d) CONTRACTOR has reviewed and agrees to comply with the provisions of
27 Labor Code section 1813 regarding forfeiture for violations of the maximum hours per day and per
28 week provisions contained in the same chapter.

1 (e) CONTRACTOR has reviewed and agrees to comply with any applicable
2 provisions for those Projects subject to Department of Industrial Relations (DIR) Monitoring and
3 Enforcement of prevailing wages, including Labor Code Section 1773.3 regarding notification to DIR
4 of contract award. COUNTY hereby notifies CONTRACTOR that CONTRACTOR is responsible for
5 submitting certified payroll records directly to the State Compliance Monitoring Unit (CMU) The
6 Compliance Monitoring Unit or "CMU" is a new component within the State Division of Labor
7 Standards Enforcement (DLSE) that was created to monitor and enforce prevailing wage requirements
8 on public works projects that receive state bond funding and on other projects that are legally required
9 to use the CMU. The CMU began operations on January 1, 2012, following the recent adoption of AB
10 436 and approval of revisions to program regulations. By actively monitoring compliance on an
11 ongoing basis while work is being performed, the CMU will play a special role in ensuring that public
12 works construction workers are promptly paid the proper prevailing wage rates and in helping maintain
13 a level playing field for employers who comply with the law. Only projects for which the public works
14 contract is awarded on or after January 1, 2012 are subject to the CMU requirements. For further
15 information concerning compliance monitoring please visit the website located at:
16 <http://www.dir.ca.gov/dlse/cmucmu.html>.

17 **20.5. Mandatory Registration with the Department of Industrial Relations – NEW**
18 **REQUIREMENTS PURSUANT TO SB 854.**

19 (a) CONTRACTOR and its subcontractors shall register with the DIR and pay
20 all applicable fees as set forth in Labor Code section 1725.5.

21 (b) CONTRACTOR and its subcontractors acknowledge that they shall not be
22 listed on any bid proposal for a public works project (submitted on or after March 1, 2015)
23 unless registered with the DIR pursuant to Labor Code section 1725.5. The requirements of this
24 section shall apply unless one of the limited exceptions provided under Labor Code Section
25 1771.1(a) applies.

26 (c) CONTRACTOR and its subcontractors acknowledge that they shall not be
27 awarded any contract for public work on a public works project (awarded on or after April 1,
28 2015) unless registered with the DIR pursuant to Labor Code section 1725.5.

1 (d) The Project described herein is subject to compliance monitoring and
2 enforcement with the DIR.

3 For further information concerning compliance with SB 854, please visit:
4 <http://www.dir.ca.gov/Public-Works/SB854.html>.

5 **21. WORKERS' COMPENSATION CERTIFICATION.**

6 **21.1.** Prior to the commencement of work, CONTRACTOR shall sign and file with
7 COUNTY the following certification: "I am aware of the provisions of California Labor Code §§3700
8 et seq. which require every employer to be insured against liability for workers' compensation or to
9 undertake self-insurance in accordance with the provisions of that code, and I will comply with such
10 provisions before commencing the performance of the work of this contract."

11 **21.2.** This certification is included in this Agreement and signature of the Agreement shall
12 constitute signing and filing of the certificate.

13 **21.3.** CONTRACTOR understands and agrees that any and all employees, regardless of hire
14 date, shall be covered by Workers' Compensation pursuant to statutory requirements prior to beginning
15 work on the Project.

16 **21.4.** If CONTRACTOR has no employees, initial here: _____.

17 **22. WARRANTY.**

18 **22.1. One Year Warranty.** CONTRACTOR agrees to provide a minimum one-year warranty
19 for all of its work and component parts and guarantees that all work shall be performed in a
20 professional and workman-like manner and be free from defects. CONTRACTOR guarantees to
21 timely correct all work performed by it under this Agreement which COUNTY determines to be
22 defective in design, material and/or workmanship within a period of one (1) year from the date of the
23 completion of the Work. The warranties set forth in this Agreement shall be in addition to, and not in
24 lieu of, all other warranties in **Exhibit A**, statutory and case law warranties and obligations of
25 CONTRACTOR. CONTRACTOR expressly agrees that all warranties made by CONTRACTOR, all
26 obligations under this Agreement and all remedies for breach of such warranties shall survive this
27 Agreement in the event it is terminated or expires for any reason prior to the running of the full
28 warranty periods listed above.

1 **22.2. Materials.** All materials furnished by CONTRACTOR shall be new, manufactured
2 during the current year, of first quality and carrying full manufacturer's warranty. CONTRACTOR
3 shall be responsible for any expiration of manufacturer or other warranties of material or equipment
4 being supplied for this Agreement. CONTRACTOR guarantees that all warranties of material and
5 equipment shall become effective when the project is accepted by COUNTY's Board of Supervisors,
6 not at time of installation by CONTRACTOR.

7 **22.3. Manufacturers' Warranty Information.** CONTRACTOR agrees to promptly
8 provide such information and maintenance recommendations to COUNTY at the inception of
9 CONTRACTOR's work to the extent such information is reasonably available.

10 **23. DEFAULT & REMEDIES.**

11 **23.1. Default.** In the event that (i) CONTRACTOR files a petition requesting relief under
12 any bankruptcy act, or is adjudged as bankrupt, or makes a general assignment for the benefit of
13 creditors or has a receiver appointed on account of its insolvency, or (ii) CONTRACTOR refuses or is
14 unable, for whatever reason, to supply enough properly skilled workers or proper materials to complete
15 the Project, or (iii) CONTRACTOR fails to follow the directions of COUNTY, or (iv)
16 CONTRACTOR fails to make prompt payment to its subcontractors and suppliers for materials or
17 labor supplied or permits any lien to be imposed upon all or any portion of the Project, or (v)
18 CONTRACTOR disregards any laws or orders of any public or private authority having jurisdiction
19 over the Work or the Project, or (vi) CONTRACTOR fails to perform in accordance with any of the
20 terms of this Agreement or breaches any provision of this Agreement, COUNTY may give notice of
21 such failure or breach to CONTRACTOR, identifying the failure or breach of this Agreement. Should
22 any such failure or breach continue for twenty-four (24) hours after delivery of notice without a good
23 faith effort on the part of CONTRACTOR to commence all necessary corrective action, or should such
24 a breach continue despite CONTRACTOR's efforts for forty-eight (48) hours, then at that time such
25 failure shall be deemed a default by CONTRACTOR under this Agreement and COUNTY shall have
26 all rights and remedies available at law or in equity, including the right to terminate this Agreement.
27 Without limiting its rights and remedies, COUNTY may then proceed as follows:

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1 **(a)** Without terminating this Agreement or the obligations of CONTRACTOR
2 hereunder as to all of the Work required to be performed or furnished by CONTRACTOR pursuant to
3 this Agreement, COUNTY may require CONTRACTOR, at CONTRACTOR's expense, to cure such
4 default(s) as may exist in the performance of CONTRACTOR's obligations hereunder within forty-
5 eight (48) hours after such default(s) has/have occurred including but not limited to repairing,
6 replacing and correcting material or Work determined by COUNTY to be defective or not complying
7 with the requirements of this Agreement. Should CONTRACTOR fail to timely repair, replace and/or
8 correct non-complying or defective materials and workmanship or otherwise cure its default(s)
9 hereunder, and in the case of emergencies in which case COUNTY may act immediately if
10 CONTRACTOR is not available or is not responding, and without further notice, COUNTY may make
11 required repairs, replacements and other corrections or otherwise remedy the default by
12 CONTRACTOR pursuant to the paragraph below.

13 **(b)** Without terminating this Agreement or the obligations of CONTRACTOR
14 hereunder as to all of the Work required to be performed or furnished by CONTRACTOR pursuant to
15 this Agreement, COUNTY may engage another contractor to perform such portion of
16 CONTRACTOR's Work required pursuant to this Agreement or furnish any materials or other items
17 required hereunder as COUNTY in its sole discretion may deem necessary to avoid delay in the
18 progress of the Work, and in connection therewith, COUNTY may perform such Work or any portion
19 thereof itself or have the same performed by others and COUNTY may procure all necessary materials,
20 equipment or other items required for the continued progress of such Work. The costs incurred by
21 COUNTY as a result of engaging another contractor shall be deducted from the compensation payable
22 pursuant to this Agreement and if COUNTY's costs exceed or may reasonably be anticipated to exceed
23 the balance of the compensation due to CONTRACTOR for such work, such excess, or anticipated
24 excess, shall be immediately due and owing from CONTRACTOR to COUNTY and may be withheld
25 from any funds due to CONTRACTOR pursuant to this Agreement or any other agreement.

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1 (c) COUNTY may terminate CONTRACTOR's right to perform upon written
2 notice and COUNTY shall then have the option of completing the Work or any portion thereof by
3 exercise of its interest under the performance bond issued in favor by CONTRACTOR, or having such
4 Work in whole or in part be completed by others for CONTRACTOR's account. A calculation shall
5 take place at the conclusion of the Project wherein to the degree the sum of COUNTY's costs and any
6 amounts paid to complete the Project exceed the compensation payable pursuant to this Agreement,
7 then any such excess shall be immediately due and owing from CONTRACTOR to COUNTY.

8 **23.2. Damages.** CONTRACTOR shall be liable for all damages suffered by COUNTY by
9 reason of CONTRACTOR's default in any provision of this Agreement and the exercise of COUNTY
10 of its option to terminate this Agreement shall not release CONTRACTOR of such liability.
11 CONTRACTOR shall have no right to receive any further payment after a default has occurred until
12 such time as the Work to be performed by CONTRACTOR pursuant hereto has been completed and
13 accepted by COUNTY and damages suffered by COUNTY, if any, ascertained. Damages shall
14 include by way of illustration, but not of exclusion, COUNTY's costs of completing the Work which
15 exceeds the compensation payable pursuant to this Agreement, other general, liquidated, special or
16 consequential damages, attorney fees and costs.

17 **23.3. Actions After Default.** Should COUNTY exercise any of its options, remedies or rights
18 granted pursuant to the terms of this Agreement in the event of a default by CONTRACTOR,
19 COUNTY at its sole election may, but shall not be obligated to, use any materials, supplies, tools or
20 equipment on the work site which belong to CONTRACTOR to complete the Work required to be
21 completed by CONTRACTOR, whether such work is completed by COUNTY or by others, and
22 CONTRACTOR agrees that it shall not remove such materials, supplies, tools and equipment from the
23 work site unless directed in writing by COUNTY to do so.

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1 **23.4. Limit on Force Majeure Damages.** CONTRACTOR shall not be responsible for
2 repairing or restoring damage to work caused by an act of God in excess of five (5) percent of the
3 contract amount, provided that the work damaged is built in accordance with accepted and applicable
4 building standards and the plans and specifications of COUNTY. In the event of such damage,
5 COUNTY may, at its option, elect to terminate this Agreement. For purposes of this Agreement, an
6 “act of God” shall be defined as an earthquake in excess of 3.5 on the Richter Scale and a tidal wave.

7 **23.5. Resolution of Claims of Three Hundred Seventy-Five Thousand Dollars (\$375,000) or**
8 **Less.** For claims of three hundred seventy-five thousand dollars (\$375,000) or less, COUNTY and
9 CONTRACTOR agree to follow and comply with the mediation, arbitration, claim, civil action
10 procedure and trial de novo provisions set forth in California Public Contracts Code §§20104, 20104.2
11 and 20104.4.

12 **23.6. No Limitation of Rights.** The options and rights granted to COUNTY herein shall not
13 be deemed as limitations upon the other rights and remedies of COUNTY in the event of a failure of
14 performance or breach by CONTRACTOR, and COUNTY shall be entitled to exercise the rights and
15 remedies hereinabove specified and all other rights and remedies which may be provided in this
16 Agreement or by law or in equity, either cumulatively or consecutively, and in such order as COUNTY
17 in its sole discretion shall determine.

18 **24. ASSIGNMENT.**

19 Neither this Agreement nor any duties or obligations hereunder shall be assignable by
20 CONTRACTOR without the prior written consent of COUNTY. CONTRACTOR may employ other
21 specialists to perform services as required with prior approval by COUNTY.

22 **25. NON-DISCRIMINATION.**

23 **25.1.** CONTRACTOR and its subcontractors shall reference and abide by the guidance and
24 Disadvantaged Business Enterprise specifications contained in the California Department of
25 Transportation’s Local Programs Procedures 06-01 (which has been approved and released at
26 (<http://www.dot.ca.gov/hq/LocalPrograms/>) when working pursuant to this Agreement.

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1 **25.2. The Civil Rights, Affirmative Action, HCD, and Age Discrimination Acts Assurances:**

2 **(a)** During the performance of this Agreement, CONTRACTOR assures that no
3 otherwise qualified person shall be excluded from participation or employment, denied program
4 benefits, or be subjected to discrimination based on race, color, national origin, sex, age, or handicap,
5 under any program or activity funded by this contract, as required by Title VI of the Civil Rights Act
6 of 1964, Title I of the Housing and Community Development Act of 1974, as amended, and the Age
7 Discrimination Act of 1975, and all implementing regulations.

8 **25.3. The Training, Employment, and Contracting Opportunities for Business and Lower**
9 **Income Persons Assurance of Compliance:**

10 **(a)** The work to be performed under this Agreement is on a project assisted under a
11 program providing direct Federal financial assistance from the Department of Housing and Urban
12 Development and is subject to the requirements of Section 3 of the Housing and Urban Development
13 Act of 1968, as amended, 12 U.S.C. 1701u. Section 3 requires that to the greatest extent feasible,
14 opportunities for training and employment be given lower income residents of the project area and
15 contracts for Work in connection with the project be awarded to business concerns which are located
16 in, or owned in substantial part by persons residing in the area of the project.

17 **(b)** The parties to this Agreement will comply with the provisions of said Section 3
18 and the regulations issued pursuant thereto by the Secretary of Housing and Urban Development set
19 forth in 24 CFR Part 135, and all applicable rules and orders of the Department issued there under
20 prior to the execution of this contract. The parties to this contract certify and agree that they are under
21 no contractual or other disability which would prevent them from complying with these requirements.

22 **(c)** CONTRACTOR will send to each labor organization or representative of
23 workers with which he has a collective bargaining agreement or other contract or understanding, if
24 any, a notice advertising the said labor organization or worker's representative of his commitments
25 under this Section 3 clause and shall post copies of the notice in conspicuous places available to
26 employees and applicants for employment or training.

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1 (d) CONTRACTOR will include these Section 3 clauses in every contract and
2 subcontract for Work in connection with the project and will, at the direction of the State, take
3 appropriate action pursuant to the contract upon a finding that the CONSULTANT or any contractor or
4 subcontractor is in violation of regulations issued by the Secretary of Housing and Urban
5 Development, 24 CFR Part 135 and, will not let any contract unless the CONSULTANT or contractor
6 or subcontractor has first provided it with a preliminary statement of ability to comply with the
7 requirements of these regulations.

8 (e) Compliance with the provisions of Section 3, the regulations set forth in 24 CFR
9 Part 135, and all applicable rules and orders of the Department issued thereunder prior to the execution
10 of the Agreement shall be a condition of the Federal financial assistance provided to the project,
11 binding upon the CONSULTANT, its successors, and assigns. Failure to fulfill these requirements
12 shall subject the CONSULTANT, its contractors and subcontractors, its successors, and assigns to
13 those sanctions specified by the grant or contract through which Federal assistance is provided, and to
14 such sanctions as are specified by 24 CFR Part 135.

15 **25.4. State Nondiscrimination Clause:**

16 (a) During the performance of this Agreement, CONTRACTOR and its
17 subcontractors shall not unlawfully discriminate, harass, or allow harassment against any employee or
18 applicant for employment because of sex, race, color, ancestry, religious creed, national origin,
19 physical disability (including HIV and AIDS), mental disability, medical condition (cancer), age (over
20 40), marital status and denial of family care leave. CONTRACTOR and subcontractors shall ensure
21 that the evaluation and treatment of their employees and applicants for employment are free from such
22 discrimination and harassment.

23 (b) CONTRACTOR and subcontractors shall comply with the provisions of the Fair
24 Employment and Housing Act (Government Code, Section 12900 et seq.) and the applicable
25 regulations promulgated thereunder (California Code of Regulations, Title 2, Section 7258.0 et seq.)

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1 (c) The applicable regulations of the Fair Employment and Housing Commission
2 implementing Government Code, Section 12990, set forth in Chapter 5 of Division 4 of Title 2 of the
3 California Code of Regulations are incorporated into this contract by reference and made a part hereof
4 as if set forth in full.

5 (d) CONTRACTOR shall include the nondiscrimination and compliance provisions
6 of this clause in all subcontracts to perform work under the contract. “The CONSULTANT hereby
7 agrees to abide by the requirement of executive order 11246 and all implement regulations of the
8 Department of Labor.”

9 **26. CDBG REQUIRED “SECTION 3” CLAUSE.**

10 CONSULTANT will comply with Section 3 of the Housing and Urban Development Act of
11 1968 (12 U.S.C. 1701u), and implementing Regulations at 24 CFR, Part 135.

12 **27. DISPUTE RESOLUTION PROCESS.**

13 The parties shall attempt to resolve any dispute arising out of or relating to this Agreement
14 through negotiations between the Contract Manager for COUNTY and Project Manager for
15 CONTRACTOR, who have authority to settle the same.

16 **28. COGNIZANCE OF VIOLATIONS BY COUNTY.**

17 **28.1.** CONTRACTOR understands and agrees that COUNTY shall take cognizance of
18 violations of Chapter 1 of Part 7 of Division 2 of the California Labor Code committed in the course of
19 the execution of this Agreement, and shall promptly report any suspected violations to the Labor
20 Commissioner.

21 **28.2.** If COUNTY determines as a result of its own investigation that there has been a
22 violation of Chapter 1 of Part 7 of Division 2 of the California Labor Code and withholds payment to
23 CONTRACTOR, the procedures in California Labor Code §1771.6 shall be followed.

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1 **28.3.** CONTRACTOR may bring an action in a court of competent jurisdiction to recover
2 from COUNTY the difference between the wages actually paid to an employee and the wages that
3 were required to be paid to an employee pursuant to Chapter 1 of Part 7 of Division 2 of the California
4 Labor Code, any penalties required to be paid pursuant to Chapter 1 of Part 7 of Division 2 of the
5 California Labor Code, and costs and attorney’s fees related to the action, if either of the following is
6 true:

7 **(a)** COUNTY previously affirmatively represented to CONTRACTOR in writing,
8 in the call for bids, or otherwise, that the Work was not a “public work,” as defined in Chapter 1 of
9 Part 7 of Division 2 of the California Labor Code; or

10 **(b)** COUNTY received actual written notice from the Department of Industrial
11 Relations that the Work is a “public work,” as defined in Chapter 1 of Part 7 of Division 2 of the
12 California Labor Code, and failed to disclose that information to CONTRACTOR before the bid
13 opening or award of the contract.

14 **29. PREVAILING WAGE RATES AND PAYROLL RECORDS.**

15 **29.1.** CONTRACTOR agrees to comply with §§1775 and 1776 of the California Labor Code
16 relating to the payment of prevailing wage and the maintenance of certified payroll records and to
17 make the certified payroll records available for inspection at all reasonable hours at CONTRACTOR’s
18 principal office. The responsibility for compliance with these provisions is fixed with
19 CONTRACTOR. CONTRACTOR understands and agrees that it shall, as a penalty to COUNTY,
20 forfeit specific monetary fines for each worker paid less than the prevailing wage rates as determined
21 by the Labor Commissioner for the work or craft in which the worker is employed for any Work done
22 pursuant to this Agreement.

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1 **29.2. Prevailing Wage Compliance.** For those Projects subject to Department of Industrial
2 Relations (DIR) Monitoring and Enforcement, be advised that the CONTRACTOR is responsible for
3 submitting certified payroll records directly to the State Compliance Monitoring Unit (CMU) The
4 Compliance Monitoring Unit or “CMU” is a component within the State Division of Labor Standards
5 Enforcement (DLSE) that was created to monitor and enforce prevailing wage requirements on public
6 works projects that receive state bond funding and on other projects that are legally required to use the
7 CMU. **Effective Date and Applicability:** The laws and regulations that govern the new program are
8 effective January 1, 2012. This project for which the public works contract is awarded is subject to the
9 CMU requirements. For further information concerning compliance monitoring please visit the
10 website located at: <http://www.dir.ca.gov/dlse/cmu/cmu.html>.

11 **29.3.** CONTRACTOR shall be liable for penalties pursuant to this section when a
12 subcontractor on the Project fails to pay its workers the general prevailing rate of per diem wages and
13 any of the following conditions are met:

14 (a) CONTRACTOR had knowledge of that failure of the subcontractor to pay the
15 specified prevailing rate of wages to those workers; or

16 (b) CONTRACTOR fails to comply with all of the following requirements: The
17 contract executed between CONTRACTOR and the subcontractor for the performance of Work on the
18 Project shall include a copy of the provisions of California Labor Code §§1771, 1775, 1776, 1777.5,
19 1813 and 1815; and

20 (c) CONTRACTOR shall monitor the payment of the specified general prevailing
21 rate of per diem wages by the subcontractor to the employees, by periodic review of the certified
22 payroll records of the subcontractor; and

23 (d) Upon becoming aware of the failure of the subcontractor to pay his or her
24 workers the specified prevailing rate of wages, CONTRACTOR shall diligently take corrective action
25 to halt or rectify the failure, including, but not limited to, retaining sufficient funds due the
26 subcontractor for work performed on the public works project; and

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1 (e) Prior to making final payment to the subcontractor for Work performed on the
2 Project, CONTRACTOR shall obtain an affidavit signed under penalty of perjury from the
3 subcontractor that the subcontractor has paid the specified general prevailing rate of per diem wages to
4 his or her employees on the Project and any amounts due pursuant to California Labor Code §1813.

5 **30. WORK DAY AND WORK WEEK REQUIREMENTS.**

6 CONTRACTOR agrees to comply with §§1810 through 1815 of the California Labor Code
7 and, when applicable, sections 103 and 107 of the Contract Work Hours and Safety Standards Act, 40
8 U.S.C. §§3700 et seq., as supplemented by the Department of Labor regulations, which provide that
9 CONTRACTOR's workers and its subcontractor's workers may not be required or permitted to work
10 more than eight (8) hours in any one (1) calendar day and forty (40) hours in any one (1) calendar
11 week. Further, work performed by employees of CONTRACTOR or its subcontractor in excess of
12 eight (8) hours per day, and forty (40) hours during any one (1) week, shall be compensated for all
13 hours worked in excess of eight (8) hours per day at not less than one and one-half (1½) times the basic
14 rate of pay. The responsibility for compliance with these provisions is fixed with CONTRACTOR.
15 CONTRACTOR understands and agrees that it shall, as a penalty to COUNTY, forfeit specific
16 monetary fines to COUNTY should CONTRACTOR or its subcontractors fail to comply with the
17 provisions contained within this paragraph.

18 **31. APPRENTICESHIP REQUIREMENTS.**

19 **31.1.** CONTRACTOR agrees to comply with §§1777.5, 1777.6 and 1777.7 of the California
20 Labor Code relating to the employment of apprentices and to provide COUNTY with copies of any
21 contract award information and verified statements of the journeyman and apprentice hours performed
22 pursuant to this Agreement as required by §1777.5(e).

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1 **31.2.** The responsibility for compliance with these provisions is fixed with CONTRACTOR
2 for all apprenticeable occupations, where journeymen in the craft are employed on the public work, in
3 a ratio of not less than one (1) apprentice for each five (5) journeymen (unless an exemption is granted
4 in accordance with §1777.5) and CONTRACTOR and its subcontractors shall not discriminate among
5 otherwise qualified employees as indentured apprentices on any public work solely on the ground of
6 race, religious creed, color, national origin, ancestry, sex, or age, except as provided in California
7 Labor Code §3077. Only apprentices, as defined in California Labor Code §3077, who are in training
8 under apprenticeship standards and who have signed written apprentice agreements will be employed
9 on public works in apprenticeable occupations. This section shall not be enforced if the not-to-exceed
10 amount of this Agreement set forth and/or incorporated in the “COMPENSATION” paragraph is less
11 than thirty thousand dollars (\$30,000).

12 **31.3.** If the Project falls within the jurisdiction of California Labor Code §1777.5, COUNTY
13 shall, within five (5) days of the award, send a copy of the award to the Division of Apprenticeship
14 Standards. In addition, COUNTY shall notify the Division of Apprenticeship Standards of a finding of
15 any discrepancy regarding the ratio of apprentices to journeymen within five (5) days of the finding.

16 **32. LABOR STANDARDS COMPLIANCE REQUIREMENTS.**

17 **32.1.** It is CONTRACTOR’s responsibility to provide all labor compliance documentation
18 from its subcontractors completely and accurately in a timely manner. CONTRACTOR is responsible
19 to review promptly and then forward on all required documentation to COUNTY per the time
20 schedules in the Labor Compliance Handout. Included with the Labor Compliance Handout,
21 COUNTY will provide training, documentation requirements, forms, etc., at the preconstruction
22 conference or at a time designated by COUNTY.

23 **32.2.** In the event, during the review process of labor compliance documentation from
24 COUNTY’s labor compliance monitor, inaccurate, missing or incomplete information was provided,
25 the labor compliance monitor will request from CONTRACTOR the items, revisions and
26 documentation needed. The cost of this additional labor compliance enforcement shall be borne by
27 CONTRACTOR.

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1 **33. SIGNAGE REQUIREMENTS.**

2 **33.1. Project Identity Signage.** CONTRACTOR is required to provide and install the
3 required project identity signage as detailed in the Plans and Specifications, in the size and at the
4 location indicated by the Imperial County Community and Economic Development Manager or his/her
5 designee, and to maintain the signage in good condition for the duration of the Project. The signage
6 may not be removed until the Notice of Completion is recorded or by written direction of the
7 Economic Development Manager or his/her designee.

8 **33.2. Required Employee Signage and Posters.** CONTRACTOR is required to provide and
9 install the Federal and State required employee posters and the required material pertaining to the
10 required labor standards provisions are posted (including, but not limited to, WH-1321, OSHA 3165
11 and OFCCP-English, EFCCP-Spanish) at the worksite in a prominent and accessible place.

12 **33.3. Section 3 Compliant Signage.** If required by COUNTY, CONTRACTOR is directed to
13 provide and install the “Offer for Employment” signage as detailed in the Plans and Specifications in
14 the size and at the location indicated by the Imperial County Community & Economic Development
15 Department Manger or his/her designee and to maintain the signage in good condition for the duration
16 of the Project. The signage may not be removed until the Notice of Completion is recorded or by
17 written direction of the Imperial County Community or his/her designee.

18 **34. CONFLICT OF INTEREST AND GRATUITIES.**

19 **34.1.** CONTRACTOR agrees that it presently has no interest and shall not acquire any
20 interest, direct or indirect, which could conflict in any manner or degree with the performance of
21 services required to be performed under this Agreement. CONTRACTOR further agrees that in the
22 performance of this Agreement, no person having any such interest shall be employed.

23 **34.2.** CONTRACTOR agrees to designate such person or persons who have responsibility for
24 carrying out the services under this Agreement and that such person or persons as may be designated
25 shall take any and all actions necessary to comply with COUNTY’s Conflict of Interest Code adopted
26 pursuant to California Government Code §81000 to the extent required thereunder.

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1 **34.3.** If it is found, after notice and hearing by COUNTY, that gratuities (in the form of
2 entertainment., gifts, or otherwise) were offered or given by CONTRACTOR, or any agent or
3 representative of CONTRACTOR, to any officer, employee or agent of COUNTY with a view toward
4 securing a contract or securing favorable treatment with respect to the awarding or amending or the
5 making of any determinations with respect to the performance of this Agreement, COUNTY may, by
6 written notice to CONTRACTOR, terminate the right of CONTRACTOR to proceed under this
7 Agreement and/or may pursue such other rights and remedies provided by law or under this
8 Agreement.

9 **34.4.** In the event this Agreement is terminated as provided herein, COUNTY shall be
10 entitled 1.) to pursue the same remedies against CONTRACTOR as it could pursue in the event of a
11 breach of the Agreement by CONTRACTOR, and 2.) as a penalty in addition to any other damages to
12 which it may be entitled by law, to exemplary damages in an amount (as determined by COUNTY)
13 which shall be not less than three (3) nor more than ten (10) times the costs incurred by
14 CONTRACTOR in providing any such gratuities to any such officer, employee or agent.

15 **35. HOUSING AND URBAN DEVELOPMENT ACT COMPLIANCE.**

16 When applicable, CONTRACTOR agrees to comply with Section 3 of the Housing and Urban
17 Development Act of 1968 (42 U.S.C. 3601 et seq.) which provides that to the greatest extent feasible,
18 CONTRACTOR shall provide job training, employment and contracting opportunities for low or very-
19 low income residents in connection with the Project. The responsibility for compliance with these
20 provisions is fixed with CONTRACTOR.

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1 **36. COPELAND “ANTI-KICKBACK” ACT COMPLIANCE.**

2 When applicable, CONTRACTOR agrees to comply with the Copeland Act (*18 USC §874*
3 and *40 USC §276c; 29 C.F.R. Part 3*) which precludes CONTRACTOR and its subcontractors from in
4 any way inducing an employee to give up any part of the compensation to which he or she is entitled
5 under his or her contract of employment. CONTRACTOR and its subcontractors shall submit a
6 weekly statement of the wages paid to each employee performing on covered work during the
7 preceding payroll period. CONTRACTOR understands and agrees that should CONTRACTOR its
8 subcontractors induce an employee working on a covered contract to give up any part of the
9 compensation to which he or she is entitled, the inducing party may be subject to a five thousand dollar
10 (\$5,000) fine, or imprisonment for up to five (5) years, or both. CONTRACTOR also understands and
11 agrees that willful falsification of the statement of compliance may subject the employer to civil or
12 criminal prosecution and may be cause for contract termination or debarment. The responsibility for
13 compliance with these provisions is fixed with CONTRACTOR.

14 **37. FAIR LABOR STANDARDS ACT COMPLIANCE.**

15 When applicable, CONTRACTOR agrees to comply with the Fair Labor Standards Act of 1938
16 as amended (29 U.S.C. 201 et seq.) which establishes minimum wage, overtime pay, recordkeeping,
17 and youth employment standards affecting full-time and part-time workers on the Project. The
18 responsibility for compliance with these provisions is fixed with CONTRACTOR.

19 **38. CERTIFICATION REGARDING DEBARMENT, SUSPENSION AND OTHER**
20 **RESPONSIBILITY MATTERS.**

21 When applicable, CONTRACTOR agrees to execute a certification regarding debarment,
22 suspension, and other responsibility matters. The responsibility for compliance with this provision is
23 fixed with CONTRACTOR.

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1 **39. FEDERAL EQUAL EMPLOYMENT OPPORTUNITY CONSTRUCTION CONTRACT**
2 **SPECIFICATIONS.**

3 When applicable, CONTRACTOR agrees to incorporate the notice set forth in paragraph (d) of
4 41 C.F.R. 60-4.2 relating to the “Equal Opportunity Clause” and the “Standard Federal Equal
5 Employment Specifications.” The responsibility for compliance with this provision is fixed with
6 CONTRACTOR.

7 **40. CLEAN AIR ACT AND THE FEDERAL WATER POLLUTION CONTROL ACT.**

8 When applicable, CONTRACTOR agrees to comply with all applicable standards, orders or
9 regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 et seq.), the Federal Water Pollution
10 Control Act as amended (33 U.S.C. 1251 et seq.), Presidential Executive Order 11738 and
11 Environmental Protection Agency regulations set forth at 40 C.F.R. Part 15. CONTRACTOR
12 understands and agrees that violations shall be reported to the Federal awarding agency and the
13 Regional Office of the Environmental Protection Agency. The responsibility for compliance with
14 these provisions is fixed with CONTRACTOR.

15 **41. PROHIBITION ON THE USE OF FEDERAL FUNDS FOR LOBBYING.**

16 When applicable, CONTRACTOR shall file the required certification. Each tier certifies to the
17 tier above that it will not and has not used Federal appropriated funds to pay any person or
18 organization for influencing or attempting to influence an officer or employee of any agency, a
19 member of Congress, officer or employee of Congress, or an employee of a member of Congress in
20 connection with obtaining any Federal contract, grant or any other award covered by 31 U.S.C. 1352.
21 Each tier shall also disclose any lobbying with non-Federal funds that takes place in connection with
22 obtaining any Federal award. Such disclosures are forwarded from tier to tier up to the recipient. The
23 responsibility for compliance with this provision is fixed with CONTRACTOR.

24 **42. FEDERAL EMPLOYMENT ELIGIBILITY VERIFICATION.**

25 CONTRACTOR shall verify name, date of birth and social security number, along with
26 immigration information for non-citizens in order to verify the identity and employment eligibility of
27 both citizen and non-citizen new hires. The responsibility for compliance with this provision is fixed
28 with CONTRACTOR.

1 **43. THE CIVIL RIGHTS, HCD AND AGE DISCRIMINATION ACT ASSURANCES.**

2 During the performance of this Agreement, CONTRACTOR assures that no otherwise
3 qualified person shall be excluded from participation or employment, denied program benefits or be
4 subjected to discrimination based on race, color, national origin, gender, age or handicap, under any
5 program or activity funded by this Agreement, as required by Title VI of the Civil Rights Act of 1964,
6 Title I of the Housing and Community Development Act of 1974, as amended, and the Age
7 Discrimination Act of 1975, and all implementing regulations. The responsibility for compliance with
8 these provisions is fixed with CONTRACTOR.

9 **44. STANDARD EQUAL OPPORTUNITY CLAUSE.**

10 **44.1.** CONTRACTOR hereby agrees that it will incorporate or cause to be incorporated into
11 any contract for construction work, or modification thereof, as defined in the regulations of the
12 Secretary of Labor at 41 C.F.R. Chapter 60, which is paid for in whole or in part with funds obtained
13 from the Federal Government or borrowed on the credit of the Federal Government pursuant to a grant,
14 contract, loan insurance, or guarantee, or undertaken pursuant to any Federal program involving such
15 grant, contract, loan, insurance, or guarantee, the following equal opportunity clause:

16 “During the performance of this contract, the Contractor agrees as follows:

- 17 (1) The contractor will not discriminate against any employee or applicant for
18 employment because of race, color, religion, sex, or national origin. The
19 contractor will take affirmative action to ensure that applicants are employed,
20 and that employees are treated during employment, without regard to their race,
21 color, religion, sex, or national origin. Such action shall include, but not be
22 limited to the following: Employment, upgrading, demotion, or transfer,
23 recruitment or recruitment advertising; layoff or termination; rates of pay or other
24 forms of compensation; and selection for training, including apprenticeship. The
25 contractor agrees to post in conspicuous places, available to employees and
26 applicants for employment, notices to be provided by the contracting officer
27 setting forth the provisions of this nondiscrimination clause.

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1 (2) The contractor will, in all solicitations or advertisements for employees placed by
2 or on behalf of the contractor, state that all qualified applicants will receive
3 consideration for employment without regard to race, color, religion, sex, or national
4 origin.

5 (3) The contractor will send to each labor union or representative of workers with
6 which he has a collective bargaining agreement or other contract or understanding, a
7 notice to be provided by the agency contracting officer, advising the labor union or
8 workers' representative of the contractor's commitments under section 202 of Executive
9 Order 11246 of September 24, 1965, and shall post copies of the notice in conspicuous
10 places available to employees and applicants for employment.

11 (4) The contractor will comply with all provisions of Executive Order 11246 of
12 September 24, 1965, and of the rules, regulations, and relevant orders of the Secretary
13 of Labor.

14 (5) The contractor will furnish all information and reports required by Executive
15 Order 11246 of September 24, 1965, and by the rules, regulations, and orders of the
16 Secretary of Labor, or pursuant thereto, and will permit access to his books, records,
17 and accounts by the contracting agency and the Secretary of Labor for purposes of
18 investigation to ascertain compliance with such rules, regulations, and orders.

19 (6) In the event of the contractor's non-compliance with the nondiscrimination
20 clauses of this contract or with any of such rules, regulations, or orders, this contract
21 may be canceled, terminated or suspended in whole or in part and the contractor may be
22 declared ineligible for further Government contracts in accordance with procedures
23 authorized in Executive Order 11246 of September 24, 1965, and such other sanctions
24 may be imposed and remedies invoked as provided in Executive Order 11246 of
25 September 24, 1965, or by rule, regulation, or order of the Secretary of Labor, or as
26 otherwise provided by law.

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1 (7) the contractor will include the provisions of paragraphs (1) through (7) in every
2 subcontract or purchase order unless exempted by rules, regulations, or orders of the
3 Secretary of Labor issued pursuant to section 204 of Executive Order 11246 of
4 September 24, 1965, so that such provisions will be binding upon each subcontractor or
5 vendor. The contractor will take such action with respect to any subcontract or purchase
6 order as may be directed by the Secretary of Labor as a means of enforcing such
7 provisions including sanctions for noncompliance: Provided, however, that in the event
8 the contractor becomes involved in, or is threatened with, litigation with a subcontractor
9 or vendor as a result of such direction, the contractor may request the United States to
10 enter into such litigation to protect the interests of the United States.”

11 **44.2.** CONTRACTOR further agrees that it will be bound by the above equal opportunity
12 clause with respect to its own employment practices when it participates in federally- assisted
13 construction work; provided that if CONTRACTOR so participating is a State or local government, the
14 above equal opportunity clause is not applicable to any agency, instrumentality, or subdivision of such
15 government which does not participate in work on or under the Agreement.

16 **44.3.** CONTRACTOR agrees that it will assist and cooperate actively with the administering
17 agency and the Secretary of Labor in obtaining the compliance of Contractors and subcontractors with
18 the equal opportunity clause and the rules, regulations, and relevant orders of the Secretary of Labor,
19 that it will furnish the Department and HUD and the Secretary of Labor such information as they may
20 require for the supervision of such compliance, and that it will otherwise assist the administering
21 agency in the discharge of the agency’s primary responsibility for securing compliance.

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1 **44.4.** CONTRACTOR further agrees that it will refrain from entering into any contract or
2 contract modification subject to Executive Order 11246 of September 24, 1965, with a contractor
3 debarred from, or who has not demonstrated eligibility for, government contracts and federally-assisted
4 construction contracts, pursuant to the Executive Order and will carry out such sanctions and penalties
5 for violation of the equal opportunity clause as may be imposed upon contractors and subcontractors
6 by the administering agency or the Secretary of Labor pursuant to Part II, Subpart D of the Executive
7 Order. In addition, CONTRACTOR agrees that if it fails or refuses to comply with these undertakings,
8 COUNTY may take any or all of the following actions: Cancel, terminate, or suspend in whole or in
9 part this funding commitment (contract, loan, grant, insurance, guarantee); refrain from extending any
10 further assistance to the applicant under the program with respect to which the failure or refund
11 occurred until satisfactory assurance of future compliance has been received from such Contractor; and
12 refer the case to the Department of Justice for appropriate legal proceedings.

13 **45. Disadvantaged/Minority/Women Business Enterprise Federal Regulatory Requirements.**

14 When applicable, Contractor will take all necessary affirmative steps to assure that minority
15 firms, women's business enterprises, and labor surplus area firms are used when possible. Affirmative
16 steps shall include:

17 **45.1.** Placing qualified small and minority businesses and women's business enterprises on
18 solicitation lists;

19 **45.2.** Assuring that small and minority businesses, and women's business enterprises are
20 solicited whenever they are potential sources;

21 **45.3.** Dividing total requirements, when economically feasible, into smaller tasks or
22 quantities to permit maximum participation by small and minority business, and women's business
23 enterprises;

24 **45.4.** Establishing delivery schedules, where the requirement permits, which encourage
25 participation by small and minority business, and women's business enterprises;

26 **45.5.** Using the Services and assistance of the Small Business Administration, and the
27 Minority Business Development Agency of the Department of Commerce.

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1 **46. CHILD SUPPORT COMPLIANCE ACT**

2 If the compensation specified in Paragraph 8 exceeds one hundred thousand dollars (\$100,000),
3 then CONTRACTOR agrees to the following:

4 **46.1.** Recognize the importance of child and family support obligations and fully comply with
5 all applicable state and federal laws relating to child and family support enforcement, including but not
6 limited to, disclosure of information and compliance with earnings assignment orders, as provided in
7 Chapter 8 (commencing with section 5200) of Part 5 of Division 9 of the Family Code; and

8 **46.2.** To the best of its knowledge, is fully comply with the earnings assignment orders of all
9 employees and is provide the names of all new employees to the New Hire Registry maintained by the
10 California Employment Development Department

11 **47. ASSIGNMENT OF UNFAIR BUSINESS PRACTICES CLAIMS (CLAYTON ACT AND**
12 **CARTWRIGHT ACT).**

13 CONTRACTOR and its subcontractors offer and agree to assign to COUNTY all rights, title
14 and interest in and to all causes of action it may have under Section 4 of the Clayton Act (15 U.S.C.
15 §15) or under the Cartwright Act (Chapter 2 (commencing with §16700) of Part 2 of Division 7 of the
16 Business and Professions Code), arising from purchases of goods, services or materials pursuant to this
17 Agreement. This assignment shall be made and become effective at the time COUNTY tenders final
18 payment to CONTRACTOR, without further acknowledgment by the Parties.

19 **48. NON-COLLUSION.**

20 CONTRACTOR agrees he/she has executed and submitted with the Bid a Non-Collusion
21 Affidavit that complies with Cal. Public Code §7106, included in **Exhibit “B”** and incorporated
22 herein.

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1 **49. NOTICES AND REPORTS.**

2 **49.1.** Any notice and reports under this Agreement shall be in writing and may be given by
3 personal delivery or by mailing by certified mail, addressed as follows:

4 **COUNTY**

5 Imperial County Community and
6 Economic Development Manager
7 940 Main Street, Suite 203
8 El Centro, CA 92243

CONTRACTOR

[Mail Info]

9 County of Imperial
10 Clerk of the Board of Supervisors
11 940 W. Main Street, Suite 209
12 El Centro, CA 92243

13 **49.2.** Notice shall be deemed to have been delivered only upon receipt by the Party, seventy-
14 two (72) hours after deposit in the United States mail or twenty-four (24) hours after deposit with an
15 overnight carrier.

16 **49.3.** The addressees and addresses for purposes of this paragraph may be changed to any
17 other addressee and address by giving written notice of such change. Unless and until written notice of
18 change of addressee and/or address is delivered in the manner provided in this paragraph, the addressee
19 and address set forth in this Agreement shall continue in effect for all purposes hereunder.

20 **50. ENTIRE AGREEMENT.**

21 This Agreement contains the entire Agreement between COUNTY and CONTRACTOR
22 relating to the transactions contemplated hereby and supersedes all prior or contemporaneous
23 agreements, understandings, provisions, negotiations, representations, or statements, either written or
24 oral.

25 **51. MODIFICATION.**

26 No modification, waiver, amendment, discharge, or change of this Agreement shall be valid
27 unless the same is in writing and signed by both Parties.

28 **52. CAPTIONS.**

Captions in this Agreement are inserted for convenience of reference only and do not define,
describe or limit the scope or the intent of this Agreement or any of the terms thereof.

1 **53. PARTIAL INVALIDITY.**

2 If any provision in this Agreement is held by a court of competent jurisdiction to be invalid,
3 void, or unenforceable, the remaining provisions will nevertheless continue in full force without being
4 impaired or invalidated in any way.

5 **54. GENDER AND INTERPRETATION OF TERMS AND PROVISIONS.**

6 As used in this Agreement and whenever required by the context thereof, each number, both
7 singular and plural, shall include all numbers, and each gender shall include a gender.
8 CONTRACTOR as used in this Agreement or in any other document referred to in or made a part of
9 this Agreement shall likewise include the singular and the plural, a corporation, a partnership,
10 individual, firm or person acting in any fiduciary capacity as executor, administrator, trustee or in any
11 other representative capacity or any other entity. All covenants herein contained on the part of
12 CONTRACTOR shall be joint and several if more than one person, firm or entity executes the
13 Agreement.

14 **55. WAIVER.**

15 No Waiver of any breach or of any of the covenants or conditions of this Agreement shall be
16 construed to be a waiver of any other breach or to be consent to any further or succeeding breach of the
17 same or any other covenant or condition.

18 **56. CHOICE OF LAW.**

19 This Agreement shall be governed by the laws of the State of California. This Agreement is
20 made and entered into in Imperial County, California. Any action brought by either party with respect
21 to this agreement shall be brought in a court of competent jurisdiction within said County.

22 **57. AUTHORITY.**

23 **57.1.** Each individual executing this Agreement on behalf of CONTRACTOR represents and
24 warrants that:

25 (a) She/he is duly authorized to execute and deliver this Agreement on behalf of
26 CONTRACTOR;

27 (b) Such execution and delivery is in accordance with the terms of the Articles of
28 Incorporation or Partnership, any by-laws or Resolutions of CONTRACTOR and;

1 (c) This Agreement is binding upon CONTRACTOR accordance with its terms.

2 **57.2.** CONTRACTOR shall deliver to COUNTY evidence acceptable to COUNTY of the
3 foregoing within thirty (30) days of execution of this Agreement.

4 **58. COUNTERPARTS.**

5 This Agreement (as well as any amendments hereto) may be executed in any number of
6 counterparts, each of which when executed shall be an original, and all of which together shall
7 constitute the same Agreement. No counterparts shall be effective until all Parties have executed a
8 counterpart hereof.

9 **59. REVIEW OF AGREEMENT TERMS.**

10 **59.1.** Each Party has received independent legal advice from its attorneys with respect to the
11 advisability of making the representations, warranties, covenants and agreements provided for herein,
12 and with respect to the advisability of executing this Agreement.

13 **59.2.** Each Party represents and warrants to and covenants with the other Party that:

14 (a) This Agreement in its reduction to final written form is a result of extensive
15 good faith negotiations between the Parties and/or their respective legal counsel;

16 (b) The Parties and their legal counsel have carefully reviewed and examined this
17 Agreement for execution by said Parties; and

18 **59.3.** Any statute or rule of construction that ambiguities are to be resolved against the
19 drafting party shall not be employed in the interpretation of this Agreement.

20 **60. NON-APPROPRIATION.**

21 This Agreement is based upon the availability of public funding. In the event that public funds
22 are unavailable and not appropriated for the performance of the services set forth in this Agreement,
23 the Agreement shall be terminated without penalty after written notice to CONTRACTOR of the
24 unavailability and/or non-appropriation of funds.

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1 **IN WITNESS WHEREOF**, the Parties have executed this Agreement on the day and year first
2 above written.

3
4 **County of Imperial**

[Contractor]

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6
7 By: _____
8 Ryan E. Kelley, Chairman
9 Imperial County Board of Supervisors

By: _____
[Name],
[Title]

10 **ATTEST:**

11
12 _____
13 Blanca Acosta, Clerk of the Board,
14 County of Imperial, State of California

15 **APPROVED AS TO FORM:**

16 Michael L. Rood
17 County Counsel

18 By: _____
19 [Name],
20 [Title]

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EXHIBIT D

ANTI-LOBBYING CERTIFICATION

The undersigned certifies, to the best of his or her knowledge or belief, that:

- A. No Federal appropriated funds have been paid or will be paid, by or on behalf of it, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.
- B. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, it will complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.

CONTRACTOR:
[Contractor]

By: _____
[Enter Name],
[Enter Title]

00550 NOTICE TO PROCEED

Dated: _____

Project: Winterhaven Water and Sewer Improvements	Owner: County of Imperial	Owner's Contract No.: ICCED-010
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Contract:	Engineer's Project No.: 016-0039
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Contractor: _____

Contractor's Address (send Certified Mail, Return Receipt requested):

You are notified that the Contract Times under the above contract will commence to run on _____. On or before that date, you are to start performing your obligations under the Contract Documents.

Before you may start any Work at the Site, Paragraph 2.01.B of the General Conditions provides that you and the Owner must each deliver to the other (with copies to the Engineer and other identified additional insured's) Certificates of Insurance which each is required to purchase and maintain in accordance with the Contract Documents.

You are required to return an acknowledged copy of this NOTICE TO PROCEED to the OWNER.

_____ Contractor	County of Imperial _____ Owner
Given by: _____ Authorized Signature	Given by: _____ Authorized Signature
_____ Title	_____ Title
_____ Date	_____ Date

Copy to Engineer

00610 PERFORMANCE BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

**County of Imperial
Community & Economic Development Department
940 West Main Street, Suite 203
El Centro, CA 92243**

CONTRACT

Date:

Amount:

Description: **Imperial County Community & Economic Development Department – Winterhaven Water and Sewer Improvements**

BOND

Bond Number:

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

The Surety and the Contractor, intending to be legally bound hereby, subject to the terms hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: _____ (Seal)
Name and Title:

Surety's Name and Corporate Seal (Seal)

By: _____
Signature and Title
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

Attest: _____
Signature and Title

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: _____ (Seal)
Name and Title:

Surety's Name and Corporate Seal (Seal)

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title:

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Contract, which is incorporated herein by reference.
2. If the Contractor performs the Contract, the Surety and the Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 3.1.
3. If there is no Owner Default, the Surety's obligation under this Bond shall arise after:
 - 3.1 The Owner has notified the Contractor and the Surety, at the addresses described in Paragraph 10 below, that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than **fifteen (15) days** after receipt of such notice to discuss methods of performing the Contract. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default; and
 - 3.2 The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than **twenty (20) days** after the Contractor and the Surety have received notice as provided in Paragraph 3.1; and
 - 3.3 The Owner has agreed to pay the Balance of the Contract Price to:
 1. The Surety in accordance with the terms of the Contract;
 2. Another contractor selected pursuant to Paragraph 4.3 to perform the Contract.
4. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 4.1 Arrange for the Contractor, with consent of the Owner, to perform and complete the Contract; or
 - 4.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the Owner and the Contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to the Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor Default; or
 - 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:
 1. After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefore to the Owner; or
 2. Deny liability in whole or in part and notify the Owner citing reasons therefore.
5. If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond **fifteen (15) days** after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 4.4, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.
6. After the Owner has terminated Contractor's right to complete the Contract, and if the Surety elects to act under Paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the

Contract. To a limit of the amount of this Bond, but subject to commitment by the Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, the Surety is obligated without duplication for:

- 6.1 The responsibilities of the Contractor for correction of defective Work and completion of the Contract;
- 6.2 Additional Legal, Design Professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and
- 6.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the Contractor.
- 7. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, or successors.
- 8. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders, and other obligations.
- 9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within **two (2) years** after Contractor Default or within **two (2) years** after the Contractor ceased working or within **two (2) years** after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties

as a defense in the jurisdiction of the suit shall be applicable.

- 10. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the signature page.
- 11. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted here from and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.
- 12. Definitions.
 - 12.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other Claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Contract.
 - 12.2 Contract: The agreement between the Owner and the Contractor identified on the signature page, including all the Contract Documents and changes thereto.
 - 12.3 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
 - 12.4 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY (Name, Address and Telephone)
SURETY AGENCY OR BROKER: _____ _____ _____
OWNER'S REPRESENTATIVE: <i>TBD</i>

00610 PERFORMANCE BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

**County of Imperial
Community & Economic Development Department
940 West Main Street, Suite 203
El Centro, CA 92243**

CONTRACT

Date:

Amount:

Description: **Imperial County Community & Economic Development Department – Winterhaven Water and Sewer Improvements**

BOND

Bond Number:

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

The Surety and the Contractor, intending to be legally bound hereby, subject to the terms hereof, do each cause this Performance Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: _____ (Seal)
Name and Title:

Surety's Name and Corporate Seal (Seal)

By: _____
Signature and Title
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

Attest: _____
Signature and Title

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: _____ (Seal)
Name and Title:

Surety's Name and Corporate Seal (Seal)

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title:

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Contract, which is incorporated herein by reference.
2. If the Contractor performs the Contract, the Surety and the Contractor have no obligation under this Bond, except to participate in conferences as provided in Paragraph 3.1.
3. If there is no Owner Default, the Surety's obligation under this Bond shall arise after:
 - 3.1 The Owner has notified the Contractor and the Surety, at the addresses described in Paragraph 10 below, that the Owner is considering declaring a Contractor Default and has requested and attempted to arrange a conference with the Contractor and the Surety to be held not later than **fifteen (15) days** after receipt of such notice to discuss methods of performing the Contract. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default; and
 - 3.2 The Owner has declared a Contractor Default and formally terminated the Contractor's right to complete the Contract. Such Contractor Default shall not be declared earlier than **twenty (20) days** after the Contractor and the Surety have received notice as provided in Paragraph 3.1; and
 - 3.3 The Owner has agreed to pay the Balance of the Contract Price to:
 1. The Surety in accordance with the terms of the Contract;
 2. Another contractor selected pursuant to Paragraph 4.3 to perform the Contract.
4. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:
 - 4.1 Arrange for the Contractor, with consent of the Owner, to perform and complete the Contract; or
 - 4.2 Undertake to perform and complete the Contract itself, through its agents or through independent contractors; or
 - 4.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Contract, arrange for a contract to be prepared for execution by the Owner and the Contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Contract, and pay to the Owner the amount of damages as described in Paragraph 6 in excess of the Balance of the Contract Price incurred by the Owner resulting from the Contractor Default; or
 - 4.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:
 1. After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, tender payment therefore to the Owner; or
 2. Deny liability in whole or in part and notify the Owner citing reasons therefore.
5. If the Surety does not proceed as provided in Paragraph 4 with reasonable promptness, the Surety shall be deemed to be in default on this Bond **fifteen (15) days** after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 4.4, and the Owner refuses the payment tendered or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.
6. After the Owner has terminated Contractor's right to complete the Contract, and if the Surety elects to act under Paragraph 4.1, 4.2, or 4.3 above, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the

Contract. To a limit of the amount of this Bond, but subject to commitment by the Owner of the Balance of the Contract Price to mitigation of costs and damages on the Contract, the Surety is obligated without duplication for:

- 6.1 The responsibilities of the Contractor for correction of defective Work and completion of the Contract;
 - 6.2 Additional Legal, Design Professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 4; and
 - 6.3 Liquidated damages, or if no liquidated damages are specified in the Contract, actual damages caused by delayed performance or non-performance of the Contractor.
7. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, or successors.
8. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related subcontracts, purchase orders, and other obligations.
9. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the Work or part of the Work is located and shall be instituted within **two (2) years** after Contractor Default or within **two (2) years** after the Contractor ceased working or within **two (2) years** after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties

as a defense in the jurisdiction of the suit shall be applicable.

10. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the signature page.
11. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted here from and provisions conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

12. Definitions.

- 12.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other Claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Contract.
- 12.2 Contract: The agreement between the Owner and the Contractor identified on the signature page, including all the Contract Documents and changes thereto.
- 12.3 Contractor Default: Failure of the Contractor, which has neither been remedied nor waived, to perform or otherwise to comply with the terms of the Contract.
- 12.4 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY (Name, Address and Telephone)
SURETY AGENCY OR BROKER: _____ _____
OWNER'S REPRESENTATIVE: <i>TBD</i>

00615 PAYMENT BOND

Any singular reference to Contractor, Surety, Owner, or other party shall be considered plural where applicable.

CONTRACTOR (Name and Address):

SURETY (Name and Address of Principal Place of Business):

OWNER (Name and Address):

**County of Imperial
Community & Economic Development Department
940 West Main Street, Suite 203
El Centro, CA 92243**

CONTRACT

Date:

Amount:

Description: **Imperial County Community & Economic Development Department – Winterhaven Water and Sewer Improvements**

BOND

Bond Number:

Date (Not earlier than Contract Date):

Amount:

Modifications to this Bond Form:

The Surety and the Contractor, intending to be legally bound hereby, subject to the terms printed on the reverse side hereof, do each cause this Payment Bond to be duly executed on its behalf by its authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: _____ (Seal)
Name and Title:

Surety's Name and Corporate Seal

By: _____
Signature and Title
(Attach Power of Attorney)

(Space is provided below for signatures of additional parties, if required.)

Attest: _____
Signature and Title

CONTRACTOR AS PRINCIPAL

SURETY

Company:

Signature: _____ (Seal)
Name and Title:

Surety's Name and Corporate Seal

By: _____
Signature and Title
(Attach Power of Attorney)

Attest: _____
Signature and Title:

1. The Contractor and the Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished by Claimants for use in the performance of the Contract, which is incorporated herein by reference.
2. With respect to the Owner, this obligation shall be null and void if the Contractor:
 - 2.1 Promptly makes payment, directly or indirectly, for all sums due Claimants, and
 - 2.2 Defends, indemnifies, and holds harmless the Owner from all claims, demands, liens, or suits alleging non-payment by the Contractor by any person or entity who furnished labor, materials, or equipment for use in the performance of the Contract, provided the Owner has promptly notified the Contractor and the Surety (at the addresses described in Paragraph 12) of any claims, demands, liens, or suits and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety, and provided there is no Owner Default.
3. With respect to Claimants, this obligation shall be null and void if the Contractor promptly makes payment, directly or indirectly, for all sums due.
4. The Surety shall have no obligation to Claimants under this Bond until:
 - 4.1 Claimants who are employed by or have a direct contract with the Contractor have given notice to the Surety (at the addresses described in Paragraph 12) and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and, with substantial accuracy, the amount of the claim.
 - 4.2 Claimants who do not have a direct contract with the Contractor:
 1. Have furnished written notice to the Contractor and sent a copy, or notice thereof, to the Owner, within **ninety (90) days** after having last performed labor or last furnished materials or equipment included in the claim stating, with substantial accuracy, the amount of the claim and the name of the party to whom the materials or equipment were furnished or supplied, or for whom the labor was done or performed; and
2. Have either received a rejection in whole or in part from the Contractor, or not received within **thirty (30) days** of furnishing the above notice any communication from the Contractor by which the Contractor had indicated the claim will be paid directly or indirectly; and
3. Not having been paid within the above **thirty (30) days**, have sent a written notice to the Surety and sent a copy, or notice thereof, to the Owner, stating that a claim is being made under this Bond and enclosing a copy of the previous written notice furnished to the Contractor.
5. If a notice by a Claimant required by Paragraph 4 is provided by the Owner to the Contractor or to the Surety that is sufficient compliance.
6. When a Claimant has satisfied the conditions of Paragraph 4, the Surety shall promptly and at the Surety's expense take the following actions:
 - 6.1 Send an answer to that Claimant, with a copy to the Owner, within **forty-five (45) days** after receipt of the claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed.
 - 6.2 Pay or arrange for payment of any undisputed amounts.
7. The Surety's total obligation shall not exceed the amount of this Bond, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
8. Amounts owed by the Owner to the Contractor under the Contract shall be used for the performance of the Contract and to satisfy claims, if any, under any performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Contract are dedicated to satisfy obligations of the Contractor and the Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the Work.

9. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Contract. The Owner shall not be liable for payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligations to make payments to, give notices on behalf of, or otherwise have obligations to Claimants under this Bond.
10. The Surety hereby waives notice of any change, including changes of time, to the Contract or to related Subcontracts, purchase orders and other obligations.
11. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the location in which the Work or part of the Work is located or after the expiration of **one (1) year** from the date (1) on which the Claimant gave the notice required by Paragraph 4.1 or Paragraph 4.2.3, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the addresses shown on the signature page. Actual receipt of notice by the Surety, the Owner, or the Contractor, however accomplished, shall be sufficient compliance as of the date received at the address shown on the signature page.
13. When this Bond has been furnished to comply with a statutory requirement in the location where the Contract was to be performed, any provision in this Bond conflicting with said statutory requirement shall be deemed deleted herefrom and provisions
- conforming to such statutory requirement shall be deemed incorporated herein. The intent is that this Bond shall be construed as a statutory Bond and not as a common law bond.
14. Upon request of any person or entity appearing to be a potential beneficiary of this Bond, the Contractor shall promptly furnish a copy of this Bond or shall permit a copy to be made.
15. Definitions.
- 15.1 Claimant: An individual or entity having a direct contract with the Contractor, or with a first-tier subcontractor of the Contractor, to furnish labor, materials, or equipment for use in the performance of the Contract. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Contract, Architectural and Engineering Services required for performance of the Work of the Contractor and the Contractor's Subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.
- 15.2 Contract: The agreement between the Owner and the Contractor identified on the signature page, including all Contract Documents and changes thereto.
- 15.3 Owner Default: Failure of the Owner, which has neither been remedied nor waived, to pay the Contractor as required by the Contract or to perform and complete or comply with the other terms thereof.

FOR INFORMATION ONLY (Name, Address and Telephone)	
SURETY AGENCY OR BROKER:	_____

OWNER'S REPRESENTATIVE:	<i>TBD</i>

**00620 CERTIFICATE OF OWNER’S ATTORNEY
EXHIBIT GC-A**

I, the undersigned, _____ the duly authorized and acting legal representative of

County of Imperial do hereby certify as follows:

I have examined the attached Contract(s) and performance and payment bond(s) and the manner of execution thereof, and I am of the opinion that each of the aforesaid agreements is adequate and has been duly executed by the proper parties thereto acting through their duly authorized representatives; that said representatives have full power and authority to execute said agreements on behalf of the respective parties named thereon; and that the foregoing agreements constitute valid and legally binding obligations upon the parties executing the same in accordance with the terms, conditions, and provisions thereof.

Signature: _____

Name: _____

Title: _____

Date: _____

00625 CERTIFICATE OF SUBSTANTIAL COMPLETION

Project: Winterhaven Water and Sewer Improvements	Owner: County of Imperial	Owner's Contract No.: ICCED-010
Contract:		Date of Contract:
Contractor:		Engineer's Project No.: 016-0039

This [tentative] [definitive] Certificate of Substantial Completion applies to:

- All Work under the Contract Documents: The following specified portions:

Date of Substantial Completion

The Work to which this Certificate applies has been inspected by authorized representatives of the Owner, the Contractor and the Engineer, and found to be substantially complete. The Date of Substantial Completion of the Project or portion thereof designated above is hereby declared and is also the date of commencement of applicable warranties required by the Contract Documents, except as stated below.

A (tentative) (revised tentative) (definitive) list of items to be completed or corrected, is attached hereto. This list may not be all-inclusive, and the failure to include any items on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

The responsibilities between the OWNER and the CONTRACTOR for security, operation, safety, maintenance, heat, utilities, insurance and warranties shall be as provided in the Contract Documents except as amended as follows:

- Amended Responsibilities Not Amended

Owner's Amended Responsibilities:

Contractor's Amended Responsibilities:

The following documents are attached to and made part of this Certificate:

00710 STANDARD GENERAL CONDITIONS

ARTICLE 1 – DEFINITIONS AND TERMINOLOGY

1.01 *Defined Terms*

- A. Wherever used in the Bidding Requirements or Contract Documents and printed with initial capital letters, the terms listed below will have the meanings indicated which are applicable to both the singular and plural thereof. In addition to terms specifically defined, terms with initial capital letters in the Contract Documents include references to identified articles and paragraphs, and the titles of other documents or forms.
1. *Addenda* – Written or graphic instruments issued prior to the opening of Bids which clarify, correct, or change the Bidding Requirements or the proposed Contract Documents.
 2. *Agency* – The Federal or State Agency named as such in the Agreement.
 3. *Agreement* – The written instrument which is evidence of the agreement between the Owner and the Contractor covering the Work.
 4. *Application for Payment* – The form acceptable to the Engineer which is to be used by the Contractor during the course of the Work in requesting progress or final payments and which is to be accompanied by such supporting documentation as is required by the Contract Documents.
 5. *Asbestos* – Any material that contains more than one percent asbestos and is friable or is releasing asbestos fibers into the air above current action levels established by the United States Occupational Safety and Health Administration.
 6. *Bid* – The offer or proposal of a Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.
 7. *Bidder* – The individual or entity who submits a Bid directly to the Owner.
 8. *Bidding Documents* – The Bidding Requirements and the proposed Contract Documents (including all Addenda).
 9. *Bidding Requirements* – The Advertisement or Invitation to Bid, Instructions to Bidders, Bid Security of Acceptable Form, if any, and the Bid Form with any supplements.
 10. *Change Order* – A document recommended by the Engineer which is signed by the Contractor and the Owner and Agency and authorizes an addition, deletion, or revision in the Work or an adjustment in the Contract Price or the Contract Times, issued on or after the Effective Date of the Agreement.
 11. *Claim* – A demand or assertion by the Owner or Contractor seeking an adjustment of the Contract Price or Contract Times, or both, or other relief with respect to the terms of the Contract. A demand for money or services by a third party is not a Claim.
 12. *Construction Manager* – The individual or entity who performs the roles as the representative of Owner/Engineer during the construction phase.
 13. *Contract* – The entire and integrated written agreement between the Owner and Contractor concerning the Work. The Contract supersedes prior negotiations, representations, or agreements, whether written or oral.

14. *Contract Documents* – Those items so designated in the Agreement. Only printed or hard copies of the items listed in the Agreement are Contract Documents. Approved Shop Drawings, other Contractor’s submittals, and the reports and drawings of subsurface and physical conditions are not Contract Documents.
15. *Contract Price* – The moneys payable by the Owner to the Contractor for completion of the Work in accordance with the Contract Documents as stated in the Agreement (subject to the provisions of Paragraph 11.03 in the case of Unit Price Work).
16. *Contract Times* – The number of days or the dates stated in the Agreement to: (i) achieve Milestones, if any, (ii) achieve Substantial Completion; and (iii) complete the Work so that it is ready for final payment as evidenced by the Engineer’s written recommendation of final payment.
17. *Contractor* – The individual or entity with whom the Owner has entered into the Agreement.
18. *Cost of the Work* – See Paragraph 11.01.A for definition.
19. *Drawings* – That part of the Contract Documents prepared or approved by the Engineer which graphically shows the scope, extent, and character of the Work to be performed by the Contractor. Shop Drawings and other Contractor submittals are not Drawings as so defined.
20. *Effective Date of the Agreement* – The date indicated in the Agreement on which it becomes effective; if no such date is indicated, it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.
21. *Engineer* – The individual or entity named as such in the Agreement. The Construction Manager takes the Engineer’s role during the construction phase related to the construction activities.
22. *Field Order* – A written order issued by the Engineer which requires minor changes in the Work but which does not involve a change in the Contract Price or the Contract Times.
23. *General Requirements* – Sections of Division 1 of the Specifications. The General Requirements pertain to all sections of the Specifications.
24. *Hazardous Environmental Condition* – The presence at the Site of Asbestos, PCBs, Petroleum, Hazardous Waste, or Radioactive Material in such quantities or circumstances that may present a substantial danger to persons or property exposed thereto in connection with the Work.
25. *Hazardous Waste* – The term Hazardous Waste shall have the meaning provided in Section 1004 of the Solid Waste Disposal Act (42 USC Section 6903) as amended from time to time.
26. *Laws and Regulations; Laws or Regulations* – Any and all applicable laws, rules, regulations, ordinances, codes, and orders of any and all governmental bodies, agencies, authorities, and courts having jurisdiction.
27. *Liens* – Charges, security interests, or encumbrances upon Project funds, real property, or personal property.
28. *Milestone* – A principal event specified in the Contract Documents relating to an intermediate completion date or time prior to the Substantial Completion of all of the Work.
29. *Notice of Award* – The written notice by the Owner to the Successful Bidder stating that upon timely compliance by the Successful Bidder with the conditions precedent listed therein, the Owner will sign and deliver the Agreement.

30. *Notice to Proceed* – A written notice given by the Owner to the Contractor fixing the date on which the Contract Times will commence to run and on which the Contractor shall start to perform the Work under the Contract Documents.
31. *Owner* – The individual or entity with whom the Contractor has entered into the Agreement and for whom the Work is to be performed.
32. *PCBs* – Polychlorinated Biphenyls.
33. *Petroleum* – Petroleum, including crude oil or any fraction thereof which is liquid at standard conditions of temperature and pressure (60 degrees Fahrenheit and 14.7 pounds per square inch absolute), such as oil, petroleum, fuel oil, oil sludge, oil refuse, gasoline, kerosene, and oil mixed with other non-Hazardous Waste and crude oils.
34. *Progress Schedule* – A schedule prepared and maintained by the Contractor, describing the sequence and duration of the activities comprising the Contractor’s plan to accomplish the Work within the Contract Times.
35. *Project* – The total construction of which the Work to be performed under the Contract Documents may be the whole, or a part.
36. *Project Manual* – The bound documentary information prepared for bidding and constructing the Work. A listing of the contents of the Project Manual, which may be bound in one or more volumes, is contained in the Table(s) of Contents.
37. *Radioactive Material* – Source, special nuclear, or byproduct material as defined by the Atomic Energy Act of 1954 (42 USC Section 2011 et seq.) as amended from time to time.
38. *Related Entity* – An officer, director, partner, employee, agent, consultant, or subcontractor.
39. *Resident Project Representative* – The authorized representative of the Engineer who may be assigned to the Site or any part thereof.
40. *Samples* – Physical examples of materials, equipment, or workmanship that are representative of some portion of the Work and which establish the standards by which such portion of the Work will be judged.
41. *Schedule of Submittals* – A schedule, prepared and maintained by the Contractor, of required submittals and the time requirements to support scheduled performance of related construction activities.
42. *Schedule of Values* – A schedule, prepared and maintained by the Contractor, allocating portions of the Contract Price to various portions of the Work and used as the basis for reviewing the Contractor’s Applications for Payment.
43. *Shop Drawings* – All drawings, diagrams, illustrations, schedules, and other data or information which are specifically prepared or assembled by or for the Contractor and submitted by the Contractor to illustrate some portion of the Work.
44. *Site* – Lands or areas indicated in the Contract Documents as being furnished by the Owner upon which the Work is to be performed, including rights-of-way and easements for access thereto, and such other lands furnished by the Owner which are designated for the use of the Contractor.
45. *Specifications* – That part of the Contract Documents consisting of written requirements for materials, equipment, systems, standards and workmanship as applied to the Work, and certain administrative requirements and procedural matters applicable thereto.

46. *Subcontractor* – An individual or entity having a direct contract with the Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
47. *Substantial Completion* – The time at which the Work (or a specified part thereof) has progressed to the point where, in the opinion of the Engineer, the Work (or a specified part thereof) is sufficiently complete, in accordance with the Contract Documents, so that the Work (or a specified part thereof) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to all or part of the Work refer to Substantial Completion thereof.
48. *Successful Bidder* – The Bidder submitting a responsive Bid to whom the Owner makes an award.
49. *Supplementary Conditions* – That part of the Contract Documents which amends or supplements these General Conditions.
50. *Supplier* – A manufacturer, fabricator, supplier, distributor, material man, or vendor having a direct contract with the Contractor or with any Subcontractor to furnish materials or equipment to be incorporated in the Work by the Contractor or any Subcontractor.
51. *Underground Facilities* – All underground pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels, or other such facilities or attachments, and any encasements containing such facilities, including those that convey electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water, wastewater, storm water, other liquids or chemicals, or traffic or other control systems.
52. *Unit Price Work* – Work to be paid for on the basis of unit prices.
53. *Work* – The entire construction or the various separately identifiable parts thereof required to be provided under the Contract Documents. Work includes and is the result of performing or providing all labor, services, and documentation necessary to produce such construction, and furnishing, installing, and incorporating all materials and equipment into such construction, all as required by the Contract Documents.
54. *Work Change Directive* – A written statement to the Contractor issued on or after the Effective Date of the Agreement and signed by the Owner and the Agency upon recommendation of the Engineer ordering an addition, deletion, or revision in the Work, or responding to differing or unforeseen subsurface or physical conditions under which the Work is to be performed or to emergencies. A Work Change Directive will not change the Contract Price or the Contract Times but is evidence that the parties expect that the change ordered or documented by a Work Change Directive will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Times.

1.02 Terminology

- A. The following words or terms are not defined but, when used in the Bidding Requirements or Contract Documents, have the following meaning.
- B. *Intent of Certain Terms or Adjectives*
 1. The Contract Documents include the terms “as allowed,” “as approved,” “as ordered,” “as directed” or terms of like effect or import to authorize an exercise of Professional Judgment by the Engineer. In addition, the adjectives “reasonable,” “suitable,” “acceptable,” “proper,” “satisfactory,” or adjectives of like effect or import are used to describe an action or determination of the Engineer as to the Work. It is intended that such exercise of Professional Judgment, Action or Determination will be solely to evaluate, in general, the Work for compliance with the requirements of and information in the Contract Documents and conformance with the Design Concept of the Completed Project as a functioning whole as shown or

indicated in the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective is not intended to and shall not be effective to assign to the Engineer any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of Paragraph 9.09 or any other provision of the Contract Documents.

C. *Day*

1. The word “day” means a calendar day of **twenty-four (24) hours** measured from midnight to the next midnight.

D. *Defective*

1. The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:
 - a. Does not conform to the Contract Documents, or
 - b. Does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents, or
 - c. Has been damaged prior to the Engineer’s recommendation of final payment (unless responsibility for the protection thereof has been assumed by the Owner at Substantial Completion in accordance with Paragraph 14.04 or 14.05).

E. *Furnish, Install, Perform, Provide*

1. The word “furnish,” when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Site (or some other specified location) ready for use or installation and in usable or operable condition.
2. The word “install,” when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use.
3. The words “perform” or “provide,” when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use.
4. When “furnish,” “install,” “perform,” or “provide” is not used in connection with services, materials, or equipment in a context clearly requiring an obligation of the Contractor, “provide” is implied.

- F. Unless stated otherwise in the Contract Documents, words or phrases which have a well-known technical or construction industry or trade meaning are used in the Contract Documents in accordance with such recognized meaning.

ARTICLE 2 – PRELIMINARY MATTERS

2.01 Delivery of Bonds and Evidence of Insurance

- A. When the Contractor delivers the executed counterparts of the Agreement to the Owner, the Contractor shall also deliver to the Owner such bonds as the Contractor may be required to furnish.
- B. *Evidence of Insurance:* Before any Work at the Site is started, the Contractor and Owner shall each deliver to the other, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance which either of them or any additional insured may

reasonably request) which the Contractor and Owner respectively are required to purchase and maintain in accordance with Article 5.

2.02 *Copies of Documents*

- A. The Owner shall furnish to the Contractor ten (10) sets of printed or hard copies of the “Issued for Construction” Drawings and “Conformed” Project Manuals. Additional copies will be furnished upon request at the cost of reproduction.

2.03 *Commencement of Contract Times; Notice to Proceed*

- A. The Contract Times will commence to run on the thirtieth day after the Effective Date of the Agreement or, if a Notice to Proceed is given, on the day indicated in the Notice to Proceed. A Notice to Proceed may be given at any time within 30 days after the Effective Date of the Agreement.

2.04 *Starting the Work*

- A. The Contractor shall start to perform the Work on the date when the Contract Times commence to run. No Work shall be done at the Site prior to the date on which the Contract Times commence to run.

2.05 *Before Starting Construction*

- A. *Preliminary Schedules:* Within **ten (10) days** after the Effective Date of the Agreement (unless otherwise specified in the General Requirements), the Contractor shall submit to the Engineer for timely review:
 - 1. A Preliminary Progress Schedule;
 - 2. A Preliminary Schedule of Submittals; and
 - 3. A Preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Price and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during the performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.

2.06 *Preconstruction Conference*

- A. Before any Work at the Site is started, a Conference attended by the Owner, Contractor, Engineer, Agency, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 2.05.A, procedures for handling Shop Drawings and other submittals, processing Applications for Payment, and maintaining required project records.

2.07 *Initial Acceptance of Schedules*

- A. At least **ten (10) days** before submission of the first Application for Payment a conference attended by the Contractor, Engineer, and others as appropriate will be held to review for acceptability to the Engineer as provided below the schedules submitted in accordance with Paragraph 2.05.A. The Contractor shall have an additional **five (5) days** to make corrections and adjustments and to complete and resubmit the schedules. No progress payment shall be made to the Contractor until acceptable schedules are submitted to the Engineer.
 - 1. The Progress Schedule will be acceptable to the Engineer if it provides an orderly progression of the Work to completion within the Contract Times. Such acceptance will not impose on the Engineer responsibility for the Progress Schedule, for sequencing, scheduling, or progress of the Work nor interfere with or relieve the Contractor from the Contractor’s full responsibility therefore.

2. The Contractor's Schedule of Submittals will be acceptable to the Engineer if it provides a workable arrangement for reviewing and processing the required submittals.
3. The Contractor's Schedule of Values will be acceptable to the Engineer as to form and substance if it provides a reasonable allocation of the Contract Price to component parts of the Work.

ARTICLE 3 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

3.01 Intent

- A. The Contract Documents are complementary; what is required by one is as binding as if required by all.
- B. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereof) to be constructed in accordance with the Contract Documents. Any labor, documentation, services, materials, or equipment that may reasonably be inferred from the Contract Documents or from prevailing custom or trade usage as being required to produce the intended result will be provided whether or not specifically called for at no additional cost to the Owner.
- C. Clarifications and interpretations of the Contract Documents shall be issued by the Engineer as provided in Article 9.

3.02 Reference Standards

- A. *Standards, Specifications, Codes, Laws, and Regulations*
 1. Reference to standards, specifications, manuals, or codes of any technical society, organization, or association, or to Laws or Regulations, whether such reference be specific or by implication, shall mean the standard, specification, manual, code, or Laws or Regulations in effect at the time of opening of Bids (or on the Effective Date of the Agreement if there were no Bids), except as may be otherwise specifically stated in the Contract Documents.
 2. No provision of any such standard, specification, manual or code, or any instruction of a Supplier shall be effective to change the duties or responsibilities of the Owner, Contractor, or Engineer, or any of their subcontractors, consultants, agents, or employees from those set forth in the Contract Documents. No such provision or instruction shall be effective to assign to the Owner, or Engineer, or any of their Related Entities, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the Contract Documents.

3.03 Reporting and Resolving Discrepancies

- A. Reporting Discrepancies
 1. *Contractor's Review of Contract Documents Before Starting Work:* Before undertaking each part of the Work, the Contractor shall carefully study and compare the Contract Documents and check and verify pertinent figures therein and all applicable field measurements. The Contractor shall promptly report in writing to the Engineer any conflict, error, ambiguity, or discrepancy which the Contractor may discover and shall obtain a written interpretation or clarification from the Engineer before proceeding with any Work affected thereby.
 2. *Contractor's Review of Contract Documents During Performance of Work:* If, during the performance of the Work, the Contractor discovers any conflict, error, ambiguity, or discrepancy within the Contract Documents or between the Contract Documents and any provision of any Law or Regulation applicable to the performance of the Work or of any standard, specification, manual or code, or of any instruction of any Supplier, the Contractor shall promptly report it to the Engineer in writing. The Contractor shall not proceed with the Work affected thereby (except in an emergency as required by Paragraph 6.16.A) until

an amendment or supplement to the Contract Documents has been issued by one of the methods indicated in Paragraph 3.04.

3. The Contractor shall not be liable to the Owner or Engineer for failure to report any conflict, error, ambiguity, or discrepancy in the Contract Documents unless the Contractor knew or reasonably should have known thereof.

B. Resolving Discrepancies

1. Except as may be otherwise specifically stated in the Contract Documents, the provisions of the Contract Documents shall take precedence in resolving any conflict, error, ambiguity, or discrepancy between the provisions of the Contract Documents and:
 - a. The provisions of any standard, specification, manual, code, or instruction (whether or not specifically incorporated by reference in the Contract Documents); or
 - b. The provisions of any Laws or Regulations applicable to the performance of the Work (unless such an interpretation of the provisions of the Contract Documents would result in violation of such Law or Regulation).

3.04 Amending and Supplementing Contract Documents

- A. The Contract Documents may be amended to provide for additions, deletions, and revisions in the Work or to modify the terms and conditions thereof by either a Change Order or a Work Change Directive.
- B. The requirements of the Contract Documents may be supplemented, and minor variations and deviations in the Work may be authorized, by one or more of the following ways:
 1. A Field Order;
 2. Engineer's approval of a Shop Drawing or Sample; (Subject to the provisions of Paragraph 6.17.D.3) or
 3. Engineer's written interpretation or clarification.

3.05 Reuse of Documents

- A. The Contractor and any Subcontractor or Supplier shall not:
 1. Have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of the Engineer or the Engineer's consultants, including electronic media editions; or
 2. Reuse any of such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without the written consent of the Owner and Engineer and specific written verification or adaptation by the Engineer.
- B. The prohibition of this Paragraph 3.05 will survive final payment, or termination of the Contract. Nothing herein shall preclude the Contractor from retaining copies of the Contract Documents for record purposes.

3.06 Electronic Data

- A. Copies of data furnished by the Owner or Engineer to the Contractor or the Contractor to the Owner or Engineer that may be relied upon are limited to the printed copies (also known as hard copies). Files in electronic media format of text, data, graphics, or other types are furnished only for the convenience of the receiving party. Any conclusion or information obtained or derived from such electronic files will be at the

user's sole risk. If there is a discrepancy between the electronic files and the hard copies, the hard copies shall govern.

- B. Because data stored in electronic media format can deteriorate or be modified inadvertently or otherwise without authorization of the data's creator, the party receiving electronic files agrees that it will perform acceptance tests or procedures within **sixty (60) days**, after which the receiving party shall be deemed to have accepted the data thus transferred. Any errors detected within the **sixty (60) days** acceptance period will be corrected by the transferring party.
- C. When transferring documents in electronic media format, the transferring party makes no representations as to long term compatibility, usability, or readability of documents resulting from the use of software application packages, operating systems, or computer hardware differing from those used by the data's creator.

ARTICLE 4 – AVAILABILITY OF LANDS; SUBSURFACE AND PHYSICAL CONDITIONS; REFERENCE POINTS; HAZARDOUS ENVIRONMENTAL CONDITIONS

4.01 *Availability of Lands*

- A. The Owner shall furnish the Site. The Owner shall notify the Contractor of any encumbrances or restrictions not of general application but specifically related to use of the Site with which the Contractor must comply in performing the Work. The Owner will obtain in a timely manner and pay for easements for permanent structures or permanent changes in existing facilities. If the Contractor and Owner are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, as a result of any delay in the Owner's furnishing the Site or a part thereof, the Contractor may make a Claim therefore as provided in Paragraph 10.05.
- B. Upon reasonable written request, the Owner shall furnish the Contractor with a current statement of record legal title and legal description of the lands upon which the Work is to be performed and the Owner's interest therein as necessary for giving notice of or filing a mechanic's or construction lien against such lands in accordance with applicable Laws and Regulations.
- C. The Contractor shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

4.02 *Subsurface and Physical Conditions*

- A. *Reports and Drawings:*
- B. The Supplementary Conditions identify:
 - 1. Those reports of explorations and tests of subsurface conditions at or contiguous to the Site that the Engineer has used in preparing the Contract Documents; and
 - 2. Those drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site (except Underground Facilities) that the Engineer has used in preparing the Contract Documents.
- C. *Limited Reliance by the Contractor on Technical Data Authorized:*
- D. The Contractor may rely upon the general accuracy of the "technical data" contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such "technical data" is identified in the Supplementary Conditions. Except for such reliance on such "technical data," the Contractor may not rely upon or make any claim against the Owner or Engineer, or any of their Related Entities with respect to:

1. The completeness of such reports and drawings for the Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences, and procedures of construction to be employed by the Contractor, and safety precautions and programs incident thereto; or
2. Other data, interpretations, opinions, and information contained in such reports or shown or indicated in such drawings; or
3. Any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions, or information.

4.03 *Differing Subsurface or Physical Conditions*

A. *Notice:* If the Contractor believes that any subsurface or physical condition at or contiguous to the Site that is uncovered or revealed either:

1. Is of such a nature as to establish that any “technical data” on which the Contractor is entitled to rely as provided in Paragraph 4.02 is materially inaccurate; or
2. Is of such a nature as to require a change in the Contract Documents; or
3. Differs materially from that shown or indicated in the Contract Documents; or
4. Is of an unusual nature, and differs materially from conditions ordinarily encountered and generally recognized as inherent in work of the character provided for in the Contract Documents;
5. then the Contractor shall, promptly after becoming aware thereof and before further disturbing the subsurface or physical conditions or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), notify the Owner and the Engineer in writing about such condition. The Contractor shall not further disturb such condition or perform any Work in connection therewith (except as aforesaid) until receipt of written order to do so.

B. *Engineer’s Review:* After receipt of written notice as required by Paragraph 4.03.A, the Engineer will promptly review the pertinent condition, determine the necessity of the Owner obtaining additional exploration or tests with respect thereto, and advise the Owner in writing (with a copy to the Contractor) of the Engineer’s findings and conclusions.

C. *Possible Price and Times Adjustments*

1. The Contract Price or the Contract Times, or both, will be equitably adjusted to the extent that the existence of such differing subsurface or physical condition causes an increase or decrease in the Contractor’s cost of, or time required for, performance of the Work; subject, however, to the following:
 - a. Such condition must meet any one or more of the categories described in Paragraph 4.03.A; and
 - b. With respect to Work that is paid for on a Unit Price Basis, any adjustment in Contract Price will be subject to the provisions of Paragraphs 9.07 and 11.03.
2. The Contractor shall not be entitled to any adjustment in the Contract Price or Contract Times if:
 - a. The Contractor knew of the existence of such conditions at the time the Contractor made a final commitment to the Owner with respect to the Contract Price and Contract Times by the submission of a Bid or becoming bound under a negotiated contract; or
 - b. The existence of such condition could reasonably have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Site and contiguous areas required by the

Bidding Requirements or Contract Documents to be conducted by or for the Contractor prior to the Contractor's making such final commitment; or

- c. The Contractor failed to give the written notice as required by Paragraph 4.03.A.
3. If the Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times, or both, a Claim may be made therefore as provided in Paragraph 10.05. However, the Owner and Engineer, and any of their Related Entities shall not be liable to the Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of Engineers, Architects, Attorneys, and other Professionals and all court or arbitration or other dispute resolution costs) sustained by the Contractor on or in connection with any other project or anticipated project.

4.04 *Underground Facilities*

A. *Shown or Indicated:* The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the Site is based upon information and data furnished to the Owner or Engineer by the owners of such Underground Facilities, including the Owner, or by others. Unless it is otherwise expressly provided in the Supplementary Conditions:

1. The Owner and Engineer shall not be responsible for the accuracy or completeness of any such information or data; and
2. the cost of all of the following will be included in the Contract Price, and the Contractor shall have full responsibility for:
 - a. Reviewing and checking all such information and data,
 - b. Locating all Underground Facilities shown or indicated in the Contract Documents,
 - c. Coordination of the Work with the owners of such Underground Facilities, including the Owner, during construction, and
 - d. The safety and protection of all such Underground Facilities and repairing any damage thereto resulting from the Work.

B. *Not Shown or Indicated*

1. If an Underground Facility is uncovered or revealed at or contiguous to the Site which was not shown or indicated, or not shown or indicated with reasonable accuracy in the Contract Documents, the Contractor shall, promptly after becoming aware thereof and before further disturbing conditions affected thereby or performing any Work in connection therewith (except in an emergency as required by Paragraph 6.16.A), identify the owner of such Underground Facility and give written notice to that owner and to the Owner and Engineer. The Engineer will promptly review the Underground Facility and determine the extent, if any, to which a change is required in the Contract Documents to reflect and document the consequences of the existence or location of the Underground Facility. During such time, the Contractor shall be responsible for the safety and protection of such Underground Facility.
2. If the Engineer concludes that a change in the Contract Documents is required, a Work Change Directive or a Change Order will be issued to reflect and document such consequences. An equitable adjustment shall be made in the Contract Price or Contract Times, or both, to the extent that they are attributable to the existence or location of any Underground Facility that was not shown or indicated or not shown or indicated with reasonable accuracy in the Contract Documents and that the Contractor did not know of and could not reasonably have been expected to be aware of or to have anticipated. If the Owner and Contractor are unable to agree upon entitlement to or on the amount or extent, if any, of any such

adjustment in Contract Price or Contract Times, the Owner or Contractor may make a Claim therefore as provided in Paragraph 10.05.

4.05 *Reference Points*

- A. The Owner shall provide engineering surveys to establish reference points for construction which in the Engineer’s judgment are necessary to enable the Contractor to proceed with the Work. The Contractor shall be responsible for laying out the Work, shall protect and preserve the established reference points and property monuments, and shall make no changes or relocations without the prior written approval of the Owner. The Contractor shall report to the Engineer whenever any reference point or property monument is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points or property monuments by professionally qualified personnel.

4.06 *Hazardous Environmental Condition at Site*

- A. *Reports and Drawings:* Reference is made to the Supplementary Conditions for the identification of those reports and drawings relating to a Hazardous Environmental Condition identified at the Site, if any, that have been utilized by the Engineer in the preparation of the Contract Documents.
- B. *Limited Reliance by Contractor on Technical Data Authorized:* Contractor may rely upon the general accuracy of the “technical data” contained in such reports and drawings, but such reports and drawings are not Contract Documents. Such “technical data” is identified in the Supplementary Conditions. Except for such reliance on such “technical data,” Contractor may not rely upon or make any claim against Owner or Engineer, or any of their Related Entities with respect to:
 - 1. the completeness of such reports and drawings for Contractor’s purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by Contractor and safety precautions and programs incident thereto; or
 - 2. other data, interpretations, opinions and information contained in such reports or shown or indicated in such drawings; or
 - 3. any Contractor interpretation of or conclusion drawn from any “technical data” or any such other data, interpretations, opinions or information.
- C. The Contractor shall not be responsible for any Hazardous Environmental Condition uncovered or revealed at the Site which was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be within the Scope of the Work. The Contractor shall be responsible for a Hazardous Environmental Condition created with any materials brought to the Site by the Contractor, Subcontractors, Suppliers, or anyone else for whom the Contractor is responsible.
- D. If the Contractor encounters a Hazardous Environmental Condition or if the Contractor or anyone for whom the Contractor is responsible creates a Hazardous Environmental Condition, the Contractor shall immediately: (i) secure or otherwise isolate such condition; (ii) stop all Work in connection with such condition and in any area affected thereby (except in an emergency as required by Paragraph 6.16.A); and (iii) notify the Owner and Engineer (and promptly thereafter confirm such notice in writing). The Owner shall promptly consult with the Engineer concerning the necessity for the Owner to retain a Qualified Expert to evaluate such condition or take corrective action, if any.
- E. The Contractor shall not be required to resume Work in connection with such condition or in any affected area until after the Owner has obtained any required permits related thereto and delivered to the Contractor written notice: (i) specifying that such condition and any affected area is or has been rendered safe for the resumption of Work; or (ii) specifying any special conditions under which such Work may be resumed safely. If the Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of

any adjustment in the Contract Price or Contract Times, or both, as a result of such Work stoppage or such special conditions under which the Work is agreed to be resumed by the Contractor, either party may make a Claim therefore as provided in Paragraph 10.05.

- F. If after receipt of such written notice the Contractor does not agree to resume such Work based upon a reasonable belief it is unsafe, or does not agree to resume such Work under such special conditions, then the Owner may order the portion of the Work that is in the area affected by such condition to be deleted from the Work. If the Owner and Contractor cannot agree as to entitlement to or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times as a result of deleting such portion of the Work, then either party may make a Claim therefore as provided in Paragraph 10.05. The Owner may have such deleted portion of the Work performed by the Owner's own forces or others in accordance with Article 7.
- G. To the fullest extent permitted by Laws and Regulations, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of Engineers, Architects, Attorneys, and other Professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition, provided that such Hazardous Environmental Condition: (i) was not shown or indicated in the Drawings or Specifications or identified in the Contract Documents to be included within the scope of the Work, and (ii) was not created by Contractor or by anyone for whom the Contractor is responsible. Nothing in this Paragraph 4.06.G shall obligate the Owner to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- H. To the fullest extent permitted by Laws and Regulations, the Contractor shall indemnify and hold harmless the Owner and Engineer, and the officers, directors, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of Engineers, Architects, Attorneys, and other Professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to a Hazardous Environmental Condition created by the Contractor or by anyone for whom the Contractor is responsible. Nothing in Paragraph 4.06. H shall obligate the Contractor to indemnify any individual or entity from and against the consequences of that individual's or entity's own negligence.
- I. The provisions of Paragraphs 4.02, 4.03, and 4.04 do not apply to a Hazardous Environmental Condition uncovered or revealed at the Site.

ARTICLE 5 – BONDS AND INSURANCE

5.01 Performance, Payment, and Other Bonds

- A. The Contractor shall furnish performance and payment bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all of the Contractor's obligations under the Contract Documents. These bonds shall remain in effect until **one (1) year** after the date when final payment becomes due or until completion of the correction period specified in Paragraph 13.07, whichever is later, except as provided otherwise by Laws or Regulations or by the Contract Documents. The Contractor shall also furnish such other bonds as are required by the Contract Documents.
- B. All bonds shall be in the form prescribed by the Contract Documents except as provided otherwise by Laws or Regulations, and shall be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. All bonds signed by an agent must be accompanied by a certified copy of the agent's authority to act.
- C. If the surety on any bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in any state where any part of the Project is located or it ceases to meet the

requirements of Paragraph 5.01.B, the Contractor shall promptly notify the Owner and Engineer and shall, within **twenty (20) days** after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the requirements of Paragraphs 5.01.B and 5.02.

5.02 *Licensed Sureties and Insurers*

- A. All bonds and insurance required by the Contract Documents to be purchased and maintained by the Owner or Contractor shall be obtained from surety or insurance companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds or insurance policies for the limits and coverage's so required. Such surety and insurance companies shall also meet such additional requirements and qualifications as may be provided in the Supplementary Conditions.

5.03 *Certificates of Insurance*

- A. The Contractor shall deliver to the Owner, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by the Owner or any other additional insured) which the Contractor is required to purchase and maintain.
- B. The Owner shall deliver to the Contractor, with copies to each additional insured identified in the Supplementary Conditions, certificates of insurance (and other evidence of insurance requested by the Contractor or any other additional insured) which the Owner is required to purchase and maintain.

5.04 *Contractor's Liability Insurance*

- A. The Contractor shall purchase and maintain such liability and other insurance as is appropriate for the Work being performed and shall provide protection from claims set forth below which may arise out of or result from the Contractor's performance of the Work and the Contractor's other obligations under the Contract Documents, whether it is to be performed by the Contractor, any Subcontractor or Supplier, or by anyone directly or indirectly employed by any of them to perform any of the Work, or by anyone for whose acts any of them may be liable:
1. Claims under workers' compensation, disability benefits, and other similar employee benefit acts;
 2. Claims for damages because of bodily injury, occupational sickness or disease, or death of the Contractor's employees;
 3. Claims for damages because of bodily injury, sickness or disease, or death of any person other than the Contractor's employees;
 4. Claims for damages insured by reasonably available personal injury liability coverage which are sustained:
 - a. by any person as a result of an offense directly or indirectly related to the employment of such person by Contractor, or
 - b. by any other person for any other reason;
 5. Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property wherever located, including loss of use resulting there from; and
 6. Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.
- B. The policies of insurance required by this Paragraph 5.04 shall:

1. With respect to insurance required by Paragraphs 5.04.A.3 through 5.04.A.6 inclusive, include as additional insurer (subject to any customary exclusion regarding professional liability) the Owner and Engineer, and any other individuals or entities identified in the Supplementary Conditions, all of whom shall be listed as additional insurers, and include coverage for the respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of all such additional insurers, and the insurance afforded to these additional insurers shall provide primary coverage for all claims covered thereby;
2. Include at least the specific coverage's and be written for not less than the limits of liability provided in the Supplementary Conditions or required by Laws or Regulations, whichever is greater;
3. Include completed operations insurance;
4. Include contractual liability insurance covering the Contractor's indemnity obligations under Paragraphs 6.11 and 6.20;
5. Contain a provision or endorsement that the coverage afforded will not be canceled, materially changed or renewal refused until at least **thirty (30) days** prior written notice has been given to the Owner and Contractor and to each other additional insured identified in the Supplementary Conditions to whom a certificate of insurance has been issued (and the certificates of insurance furnished by the Contractor pursuant to Paragraph 5.03 will so provide);
6. Remain in effect at least until final payment and at all times thereafter when the Contractor may be correcting, removing, or replacing defective Work in accordance with Paragraph 13.07; and
7. With respect to completed operations insurance, and any insurance coverage written on a claims-made basis, remain in effect for at least **two (2) years** after final payment.
 - a. The Contractor shall furnish the Owner and each other additional insured identified in the Supplementary Conditions, to whom a certificate of insurance has been issued, evidence satisfactory to the Owner and any such additional insured of continuation of such insurance at final payment and **one (1) year** thereafter.

5.05 *Owner's Liability Insurance*

- A. In addition to the insurance required to be provided by the Contractor under Paragraph 5.04, the Owner, at the Owner's option, may purchase and maintain at Owner's expense Owner's own liability insurance as will protect the Owner against claims which may arise from operations under the Contract Documents.

5.06 *Property Insurance*

- A. Unless otherwise provided in the Supplementary Conditions, the Contractor shall purchase and maintain property insurance upon the Work at the Site in the amount of the full replacement cost thereof (the Contractor shall be responsible for any deductible or self-insured retention.). This insurance shall:
 1. Include the interests of the Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured;
 2. Be written on a Builder's Risk "all-risk" or open peril or special causes of loss policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, false work, and materials and equipment in transit, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than

caused by flood), and such other perils or causes of loss as may be specifically required by the Supplementary Conditions;

3. Include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of Engineers and Architects);
 4. Cover materials and equipment stored at the Site or at another location that was agreed to in writing by the Owner prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment recommended by the Engineer;
 5. Allow for partial utilization of the Work by the Owner;
 6. Include testing and startup; and
 7. Be maintained in effect until final payment is made unless otherwise agreed to in writing by the Owner, Contractor, and Engineer within **thirty (30) days** written notice to each other additional insured to whom a certificate of insurance has been issued.
- B. The Contractor shall purchase and maintain such boiler and machinery insurance or additional property insurance as may be required by the Supplementary Conditions or Laws and Regulations which will include the interests of the Owner, Contractor, Subcontractors, and Engineer, and any other individuals or entities identified in the Supplementary Conditions, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them, each of whom is deemed to have an insurable interest and shall be listed as an insured or additional insured.
- C. All the policies of insurance (and the certificates or other evidence thereof) required to be purchased and maintained in accordance with Paragraph 5.06 will contain a provision or endorsement that the coverage afforded will not be canceled or materially changed or renewal refused until at least **thirty (30) days** prior written notice has been given to the Owner and Contractor and to each other additional insured to whom a certificate of insurance has been issued and will contain waiver provisions in accordance with Paragraph 5.07.
- D. The Owner shall not be responsible for purchasing and maintaining any property insurance specified in this Paragraph 5.06 to protect the interests of the Contractor, Subcontractors, or others in the Work to the extent of any deductible amounts that are identified in the Supplementary Conditions. The risk of loss within such identified deductible amount will be borne by the Contractor, Subcontractors, or others suffering any such loss, and if any of them wishes property insurance coverage within the limits of such amounts, each may purchase and maintain it at the purchaser's own expense.

5.07 *Waiver of Rights*

- A. The Owner and Contractor intend that all policies purchased in accordance with Paragraph 5.06 will protect the Owner, Contractor, Subcontractors, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) in such policies and will provide primary coverage for all losses and damages caused by the perils or causes of loss covered thereby. All such policies shall contain provisions to the effect that in the event of payment of any loss or damage the insurers will have no rights of recovery against any of the insured or additional insured there under. The Owner and Contractor waive all rights against each other and their respective officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for all losses and damages caused by, arising out of or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work; and, in addition, waive all such rights against Subcontractors, and the Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) under such policies for losses and damages

so caused. None of the above waivers shall extend to the rights that any party making such waiver may have to the proceeds of insurance held by the Contractor as trustee or otherwise payable under any policy so issued.

- B. Owner waives all rights against the Contractor, Subcontractors, and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them for:
 - 1. Loss due to business interruption, loss of use, or other consequential loss extending beyond direct physical loss or damage to the Owner's property or the Work caused by, arising out of, or resulting from fire or other perils whether or not insured by the Owner; and
 - 2. Loss or damage to the completed Project or part thereof caused by, arising out of, or resulting from fire or other insured peril or cause of loss covered by any property insurance maintained on the completed Project or part thereof by the Owner during partial utilization pursuant to Paragraph 14.05, after Substantial Completion pursuant to Paragraph 14.04, or after final payment pursuant to Paragraph 14.07.
- C. Any insurance policy maintained by the Owner covering any loss, damage or consequential loss referred to in Paragraph 5.07.B shall contain provisions to the effect that in the event of payment of any such loss, damage, or consequential loss, the insurers will have no rights of recovery against the Contractor, Subcontractors, or Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them.

5.08 *Receipt and Application of Insurance Proceeds*

- A. Any insured loss under the policies of insurance required by Paragraph 5.06 will be adjusted with the Contractor and made payable to the Contractor as fiduciary for the insured, as their interests may appear, subject to the requirements of any applicable mortgage clause and of Paragraph 5.08.B. The Contractor shall deposit in a separate account any money so received and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached, the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof.
- B. The Contractor as fiduciary shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within **fifteen (15) days** after the occurrence of loss to the Contractor's exercise of this power. If such objection be made, the Contractor as fiduciary shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If no such agreement among the parties in interest is reached, the Contractor as fiduciary shall adjust and settle the loss with the insurers and, if required in writing by any party in interest, the Contractor as fiduciary shall provide a bond for the proper performance of such duties.

5.09 *Acceptance of Bonds and Insurance; Option to Replace*

- A. If either the Owner or Contractor has any objection to the coverage afforded by or other provisions of the bonds or insurance required to be purchased and maintained by the other party in accordance with Article 5 on the basis of non-conformance with the Contract Documents, the objecting party shall so notify the other party in writing within **ten (10) days** after receipt of the certificates (or other evidence requested) required by Paragraph 2.01.B. The Owner and Contractor shall each provide to the other such additional information in respect of insurance provided as the other may reasonably request. If either party does not purchase or maintain all of the bonds and insurance required of such party by the Contract Documents, such party shall notify the other party in writing of such failure to purchase prior to the start of the Work, or of such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, the other party may elect to obtain equivalent bonds or insurance to protect such other party's interests at the expense of the party who was required to provide such coverage, and a Change Order shall be issued to adjust the Contract Price accordingly.

5.10 *Partial Utilization, Acknowledgment of Property Insurer*

- A. If the Owner finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work as provided in Paragraph 14.05, no such use or occupancy shall commence before the insurers providing the property insurance pursuant to Paragraph 5.06 have acknowledged notice thereof and in writing effected any changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies, but the property insurance shall not be canceled or permitted to lapse on account of any such partial use or occupancy.

ARTICLE 6 – CONTRACTOR’S RESPONSIBILITIES

6.01 *Supervision and Superintendence*

- A. The Contractor shall supervise, inspect, and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. The Contractor shall be solely responsible for the means, methods, techniques, sequences, and procedures of construction. The Contractor shall not be responsible for the negligence of the Owner or Engineer in the design or specification of a specific means, method, technique, sequence, or procedure of construction which is shown or indicated in and expressly required by the Contract Documents.
- B. At all times during the progress of the Work, the Contractor shall assign a competent Resident Superintendent who shall not be replaced without written notice to Owner and Engineer except under extraordinary circumstances. The superintendent will be the Contractor’s representative at the Site and shall have authority to act on behalf of the Contractor. All communications given to or received from the superintendent shall be binding on the Contractor.

6.02 *Labor; Working Hours*

- A. The Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. The Contractor shall at all times maintain good discipline and order at the Site.
- B. Except as otherwise required for the safety or protection of persons or the Work or property at the Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Site shall be performed during regular working hours. The Contractor will not permit the performance of Work on a Saturday, Sunday, or any legal holiday without the Owner’s written consent (which will not be unreasonably withheld) given after prior written notice to the Engineer.

6.03 *Services, Materials, and Equipment*

- A. Unless otherwise specified in the Contract Documents, the Contractor shall provide and assume full responsibility for all services, materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities, and all other facilities and incidentals necessary for the performance, testing, start-up, and completion of the Work.
- B. All materials and equipment incorporated into the Work shall be as specified or, if not specified, shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of the Owner. If required by the Engineer, the Contractor shall furnish satisfactory evidence (including reports of required tests) as to the source, kind, and quality of materials and equipment.

- C. All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

6.04 *Progress Schedule*

- A. The Contractor shall adhere to the Progress Schedule established in accordance with Paragraph 2.07 as it may be adjusted from time to time as provided below.
 - 1. The Contractor shall submit to the Engineer for acceptance (to the extent indicated in Paragraph 2.07) proposed adjustments in the Progress Schedule that will not result in changing the Contract Times. Such adjustments will comply with any provisions of the General Requirements applicable thereto.
 - 2. Proposed adjustments in the Progress Schedule that will change the Contract Times shall be submitted in accordance with the requirements of Article 12. Adjustments in Contract Times may only be made by a Change Order.

6.05 *Substitutes and “Or-Equals”*

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance, and quality required. Unless the specification or description contains or is followed by words reading that no like, equivalent, or “or-equal” item or no substitution is permitted, other items of material or equipment or material or equipment of other Suppliers may be submitted to the Engineer for review under the circumstances described below.
 - 1. *“Or-Equal” Items:* If in the Engineer’s sole discretion an item of material or equipment proposed by the Contractor is functionally equal to that named and sufficiently similar so that no change in related Work will be required, it may be considered by the Engineer as an “or-equal” item, in which case review and approval of the proposed item may, in the Engineer’s sole discretion, be accomplished without compliance with some or all of the requirements for approval of proposed substitute items. For the purposes of this Paragraph 6.05.A.1, a proposed item of material or equipment will be considered functionally equal to an item so named if:
 - a. In the exercise of reasonable judgment the Engineer determines that:
 - 1) It is at least equal in materials of construction, quality, durability, appearance, strength, and design characteristics;
 - 2) It will reliably perform at least equally well the function and achieve the results imposed by the design concept of the completed Project as a functioning whole;
 - 3) It has a proven record of performance and availability of responsive service; and
 - b. The Contractor certifies that, if approved and incorporated into the Work:
 - 1) There will be no increase in cost to the Owner or increase in Contract Times, and
 - 2) It will conform substantially to the detailed requirements of the item named in the Contract Documents.
 - 2. Substitute Items

- a. If in the Engineer’s sole discretion an item of material or equipment proposed by the Contractor does not qualify as an “or-equal” item under Paragraph 6.05.A.1, it will be considered a proposed substitute item.
 - b. The Contractor shall submit sufficient information as provided below to allow the Engineer to determine that the item of material or equipment proposed is essentially equivalent to that named and an acceptable substitute therefore. Requests for review of proposed substitute items of material or equipment will not be accepted by the Engineer from anyone other than the Contractor.
 - c. The procedural requirements for review by the Engineer will be as set forth in Paragraph 6.05.A.2.d, as supplemented in the General Requirements and as the Engineer may decide is appropriate under the circumstances.
 - d. The Contractor shall make written application to the Engineer for review of a proposed substitute item of material or equipment that the Contractor seeks to furnish or use. The application:
 - 1) *Shall certify that the proposed substitute item will:*
 1. Perform adequately the functions and achieve the results called for by the general design,
 2. be similar in substance to that specified, and be suited to the same use as that specified;
 - 2) *Will state:*
 1. The extent, if any, to which the use of the proposed substitute item will prejudice the Contractor’s achievement of Substantial Completion on time;
 2. whether or not use of the proposed substitute item in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with the Owner for other work on the Project) to adapt the design to the proposed substitute item; and
 3. whether or not incorporation or use of the proposed substitute item in connection with the Work is subject to payment of any license fee or royalty;
 - 3) *Will identify:*
 1. All variations of the proposed substitute item from that specified and available engineering,
 2. sales, maintenance, repair, and replacement services;
 - 4) And shall contain an itemized estimate of all costs or credits that will result directly or indirectly from use of such substitute item, including costs of redesign and claims of other Contractors affected by any resulting change.
- B. *Substitute Construction Methods or Procedures:* If a specific means, method, technique, sequence, or procedure of construction is expressly required by the Contract Documents, the Contractor may furnish or utilize a substitute means, method, technique, sequence, or procedure of construction approved by the Engineer. The Contractor shall submit sufficient information to allow the Engineer, in the Engineer’s sole discretion, to determine that the substitute proposed is equivalent to that expressly called for by the Contract Documents. The requirements for review by the Engineer will be similar to those provided in Paragraph 6.05.A.2.
- C. *Engineer’s Evaluation:* Engineer will be allowed a reasonable time within which to evaluate each proposal or submittal made pursuant to Paragraphs 6.05.A and 6.05.B. Engineer may require Contractor to furnish additional data about the proposed substitute item. Engineer will be the sole judge of acceptability. No “or equal” or substitute will be ordered, installed or utilized until Engineer’s review is complete, which will be evidenced by either a Change Order for a substitute or an approved Shop Drawing for an “or equal.” Engineer will advise Contractor in writing of any negative determination.

- D. *Special Guarantee:* The Owner may require the Contractor to furnish at the Contractor's expense a special performance guarantee or other surety with respect to any substitute.
- E. *Engineer's Cost Reimbursement:* The Engineer will record the Engineer's costs in evaluating a substitute proposed or submitted by the Contractor pursuant to Paragraphs 6.05.A.2 and 6.05.B. Whether or not the Engineer approves a substitute item so proposed or submitted by the Contractor, the Contractor shall reimburse the Owner for the charges of the Engineer for evaluating each such proposed substitute. The Contractor shall also reimburse the Owner for the charges of the Engineer for making changes in the Contract Documents (or in the provisions of any other direct contract with the Owner) resulting from the acceptance of each proposed substitute.
- F. *Contractor's Expense:* The Contractor shall provide all data in support of any proposed substitute or "or-equal" at the Contractor's expense.

6.06 *Concerning Subcontractors, Suppliers, and Others*

- A. The Contractor shall not employ any Subcontractor, Supplier, or other individual or entity (including those acceptable to the Owner as indicated in Paragraph 6.06.B), whether initially or as a replacement, against whom the Owner may have reasonable objection. The Contractor shall not be required to employ any Subcontractor, Supplier, or other individual or entity to furnish or perform any of the Work against whom Contractor has reasonable objection.
- B. If the Supplementary Conditions require the identity of certain Subcontractors, Suppliers, or other individuals or entities to be submitted to the Owner in advance for acceptance by the Owner by a specified date prior to the Effective Date of the Agreement, and if the Contractor has submitted a list thereof in accordance with the Supplementary Conditions, the Owner's acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the Bidding Documents or the Contract Documents) of any such Subcontractor, Supplier, or other individual or entity so identified may be revoked on the basis of reasonable objection after due investigation. The Contractor shall submit an acceptable replacement for the rejected Subcontractor, Supplier, or other individual or entity, and the Contract Price will be adjusted by the difference in the cost occasioned by such replacement, and an appropriate Change Order will be issued. No acceptance by the Owner of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of any right of the Owner or Engineer to reject defective Work.
- C. The Contractor shall be fully responsible to the Owner and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as the Contractor is responsible for the Contractor's own acts and omissions. Nothing in the Contract Documents:
 - 1. Shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between the Owner or Engineer and any such Subcontractor, Supplier or other individual or entity, nor
 - 2. Shall anything in the Contract Documents create any obligation on the part of the Owner or Engineer to pay or to see to the payment of any moneys due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by Laws and Regulations.
- D. The Contractor shall be solely responsible for scheduling and coordinating the Work of Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work under a direct or indirect contract with the Contractor.
- E. The Contractor shall require all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work to communicate with the Engineer through the Contractor.

- F. The divisions and sections of the Specifications and the identifications of any Drawings shall not control the Contractor in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.
- G. All Work performed for the Contractor by a Subcontractor or Supplier will be pursuant to an appropriate agreement between Contractor and the Subcontractor or Supplier which specifically binds the Subcontractor or Supplier to the applicable terms and conditions of the Contract Documents for the benefit of the Owner and Engineer. Whenever any such agreement is with a Subcontractor or Supplier who is listed as an additional insured on the property insurance provided in Paragraph 5.06, the agreement between the Contractor and the Subcontractor or Supplier will contain provisions whereby the Subcontractor or Supplier waives all rights against the Owner, Contractor, and Engineer, and all other individuals or entities identified in the Supplementary Conditions to be listed as insured or additional insured (and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them) for all losses and damages caused by, arising out of, relating to, or resulting from any of the perils or causes of loss covered by such policies and any other property insurance applicable to the Work. If the insurers on any such policies require separate waiver forms to be signed by any Subcontractor or Supplier, the Contractor will obtain the same.

6.07 *Patent Fees and Royalties*

- A. The Contractor shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of the Owner or Engineer its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by the Owner in the Contract Documents.
- B. To the fullest extent permitted by Laws and Regulations, the Contractor shall indemnify and hold harmless the Owner and Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of Engineers, Architects, Attorneys, and other Professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents.

6.08 *Permits*

- A. Unless otherwise provided in the Supplementary Conditions, the Contractor shall obtain and pay for all construction permits and licenses. The Owner shall assist the Contractor, when necessary, in obtaining such permits and licenses. The Contractor shall pay all governmental charges and inspection fees necessary for the prosecution of the Work which are applicable at the time of opening of Bids, or, if there are no Bids, on the Effective Date of the Agreement. The Owner shall pay all charges of utility owners for connections for providing permanent service to the Work.

6.09 *Laws and Regulations*

- A. The Contractor shall give all notices required by and shall comply with all Laws and Regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable Laws and Regulations, neither the Owner nor the Engineer shall be responsible for monitoring the Contractor's compliance with any Laws or Regulations.
- B. If the Contractor performs any Work knowing or having reason to know that it is contrary to Laws or Regulations, the Contractor shall bear all claims, costs, losses, and damages (including but not limited to all fees and charges of Engineers, Architects, Attorneys and other Professionals and all court or arbitration or

other dispute resolution costs) arising out of or relating to such Work. However, it shall not be the Contractor's primary responsibility to make certain that the Specifications and Drawings are in accordance with Laws and Regulations, but this shall not relieve the Contractor of the Contractor's obligations under Paragraph 3.03.

- C. Changes in Laws or Regulations not known at the time of opening of Bids (or, on the Effective Date of the Agreement if there were no Bids) having an effect on the cost or time of performance of the Work shall be the subject of an adjustment in the Contract Price or the Contract Times. If the Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefore as provided in Paragraph 10.05.

6.10 *Taxes*

- A. The Contractor shall pay all sales, consumer, use, and other similar taxes required to be paid by the Contractor in accordance with the Laws and Regulations of the place of the Project which are applicable during the performance of the Work.

6.11 *Use of Site and Other Areas*

A. *Limitation on Use of Site and Other Areas*

1. The Contractor shall confine construction equipment, the storage of materials and equipment, and the operations of workers to the Site and other areas permitted by Laws and Regulations, and shall not unreasonably encumber the Site and other areas with construction equipment or other materials or equipment. The Contractor shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof, or of any adjacent land or areas resulting from the performance of the Work.
2. Should any claim be made by any such owner or occupant because of the performance of the Work, the Contractor shall promptly settle with such other party by negotiation or otherwise resolve the claim by arbitration or other dispute resolution proceeding or at law.
3. To the fullest extent permitted by Laws and Regulations, the Contractor shall indemnify and hold harmless the Owner and the Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of Engineers, Architects, Attorneys and other Professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such owner or occupant against the Owner, Engineer, or any other party indemnified hereunder to the extent caused by or based upon Contractor's performance of the Work.

B. *Removal of Debris during Performance of the Work:* During the progress of the Work the Contractor shall keep the Site and other areas free from accumulations of waste materials, rubbish, and other debris. Removal and disposal of such waste materials, rubbish, and other debris shall conform to applicable Laws and Regulations.

C. *Cleaning:* Prior to Substantial Completion of the Work, the Contractor shall clean the Site and the Work and make it ready for utilization by the Owner. At the completion of the Work the Contractor shall remove from the Site all tools, appliances, construction equipment and machinery, and surplus materials and shall restore to original condition all property not designated for alteration by the Contract Documents.

D. *Loading Structures:* The Contractor shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall the Contractor subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

6.12 *Record Documents*

- A. The Contractor shall maintain in a safe place at the Site one record copy of all Drawings, Specifications, Addenda, Change Orders, Work Change Directives, Field Orders, and written interpretations and clarifications in good order and annotated to show changes made during construction. These record documents together with all approved Samples and a counterpart of all approved Shop Drawings will be available to the Engineer for reference. Upon completion of the Work, these record documents, Samples, and Shop Drawings will be delivered to the Engineer.

6.13 *Safety and Protection*

- A. The Contractor shall be solely responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. The Contractor shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:
 - 1. All persons on the Site or who may be affected by the Work;
 - 2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the Site; and
 - 3. Other property at the Site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities, and Underground Facilities not designated for removal, relocation, or replacement in the course of construction.
- B. The Contractor shall comply with all applicable Laws and Regulations relating to the safety of persons or property, or to the protection of persons or property from damage, injury, or loss; and shall erect and maintain all necessary safeguards for such safety and protection. The Contractor shall notify owners of adjacent property and of Underground Facilities and other utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property.
- C. All damage, injury, or loss to any property referred to in Paragraph 6.13.A.2 or 6.13.A.3 caused, directly or indirectly, in whole or in part, by the Contractor, any Subcontractor, Supplier, or any other individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, shall be remedied by the Contractor (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of the Owner or Engineer, or anyone employed by any of them, or anyone for whose acts any of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the Contractor or any Subcontractor, Supplier, or other individual or entity directly or indirectly employed by any of them).
- D. The Contractor's duties and responsibilities for safety and for protection of the Work shall continue until such time as all the Work is completed and the Engineer has issued a notice to the Owner and Contractor in accordance with Paragraph 14.07.B that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

6.14 *Safety Representative*

- A. The Contractor shall designate a qualified and experienced safety representative at the Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs.

6.15 *Hazard Communication Programs*

- A. The Contractor shall be responsible for coordinating any exchange of Material Safety Data Sheets (MSDS) or other hazard communication information required to be made available to or exchanged between or among employers at the Site in accordance with applicable Laws or Regulations.

6.16 *Emergencies*

- A. In emergencies affecting the safety or protection of persons or the Work or property at the Site or adjacent thereto, the Contractor is obligated to act to prevent threatened damage, injury, or loss. The Contractor shall give the Engineer prompt written notice if the Contractor believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby or are required as a result thereof. If the Engineer determines that a change in the Contract Documents is required because of the action taken by the Contractor in response to such an emergency, a Work Change Directive or Change Order will be issued.

6.17 *Shop Drawings and Samples*

- A. The Contractor shall submit Shop Drawings and Samples to the Engineer for review and approval in accordance with the acceptable Schedule of Submittals (as required by Paragraph 2.07). Each submittal will be identified as the Engineer may require.

- 1. *Shop Drawings*

- a. Submit number of copies specified in the General Requirements.
- b. Data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials, and similar data to show the Engineer the services, materials, and equipment that the Contractor proposes to provide and to enable the Engineer to review the information for the limited purposes required by Paragraph 6.17.D.

- 2. *Samples*

- a. Submit number of Samples specified in the Specifications.
- b. Clearly identify each Sample as to material, Supplier, pertinent data such as catalog numbers, the use for which it is intended and other data may require to enable the Engineer to review the submittal for the limited purposes required by Paragraph 6.17.D.

- B. Where a Shop Drawing or Sample is required by the Contract Documents or the Schedule of Submittals, any related Work performed prior to the Engineer's review and approval of the pertinent submittal will be at the sole expense and responsibility of the Contractor.

- C. *Submittal Procedures*

- 1. Before submitting each Shop Drawing or Sample, the Contractor shall have determined and verified:

- a. All field measurements, quantities, dimensions, specified performance and design criteria, installation requirements, materials, catalog numbers, and similar information with respect thereto;
- b. The suitability of all materials with respect to intended use, fabrication, shipping, handling, storage, assembly, and installation pertaining to the performance of the Work;
- c. All information relative to the Contractor's responsibilities for means, methods, techniques, sequences, and procedures of construction, and safety precautions and programs incident thereto; and

- d. Shall also have reviewed and coordinated each Shop Drawing or Sample with other Shop Drawings and Samples and with the requirements of the Work and the Contract Documents.
2. Each submittal shall bear a stamp or specific written certification that the Contractor has satisfied the Contractor's obligations under the Contract Documents with respect to the Contractor's review and approval of that submittal.
3. With each submittal, the Contractor shall give the Engineer specific written notice of any variation, that the Shop Drawing or Sample may have from the requirements of the Contract Documents. This notice shall be both a written communication separate from the Shop Drawings or Sample Submittal; and, in addition, by a specific notation made on each Shop Drawing or Sample submitted to the Engineer for review and approval of each such variation.

D. *Engineer's Review*

1. The Engineer will provide timely review of Shop Drawings and Samples in accordance with the Schedule of Submittals acceptable to the Engineer. The Engineer's review and approval will be only to determine if the items covered by the submittals will, after installation or incorporation in the Work, conform to the information given in the Contract Documents and be compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents.
2. The Engineer's review and approval will not extend to the means, methods, techniques, sequences, or procedures of construction (except where a particular means, method, technique, sequence, or procedure of construction is specifically and expressly called for by the Contract Documents) or to safety precautions or programs incident thereto. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions.
3. The Engineer's review and approval shall not relieve the Contractor from responsibility for any variation from the requirements of the Contract Documents unless the Contractor has complied with the requirements of Paragraph 6.17.C.3 and the Engineer has given written approval of each such variation by specific written notation thereof incorporated in or accompanying the Shop Drawing or Sample. The Engineer's review and approval shall not relieve Contractor from responsibility for complying with the requirements of Paragraph 6.17.C.1.

E. *Resubmittal Procedures*

1. The Contractor shall make corrections required by the Engineer and shall return the required number of corrected copies of Shop Drawings and submit, as required, new Samples for review and approval. The Contractor shall direct specific attention in writing to revisions other than the corrections called for by the Engineer on previous submittals.

6.18 *Continuing the Work*

- A. The Contractor shall carry on the Work and adhere to the Progress Schedule during all disputes or disagreements with the Owner. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, except as permitted by Paragraph 15.04 or as the Owner and Contractor may otherwise agree in writing.

6.19 *Contractor's General Warranty and Guarantee*

- A. The Contractor warrants and guarantees to the Owner that all Work shall be in accordance with the Contract Documents and will not be defective. The Engineer and its Related Entities shall be entitled to rely on representation of the Contractor's warranty and guarantee.
- B. The Contractor's warranty and guarantee hereunder excludes defects or damage caused by:

1. Abuse, modification, or improper maintenance or operation by persons other than Contractor, Subcontractors, Suppliers, or any other individual or entity for whom the Contractor is responsible; or
 2. Normal wear and tear under normal usage.
- C. The Contractor's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. None of the following will constitute an acceptance of Work that is not in accordance with the Contract Documents or a release of the Contractor's obligation to perform the Work in accordance with the Contract Documents:
1. Observations by Engineer;
 2. Recommendation by Engineer or payment by Owner of any progress or final payment;
 3. The issuance of a certificate of Substantial Completion by the Engineer or any payment related thereto by the Owner;
 4. Use or occupancy of the Work or any part thereof by the Owner;
 5. Any review and approval of a Shop Drawing or Sample Submittal or the issuance of a Notice of Acceptability by the Engineer;
 6. Any inspection, test, or approval by others; or
 7. Any correction of defective Work by the Owner.

6.20 *Indemnification*

- A. To the fullest extent permitted by Laws and Regulations, the Contractor shall indemnify and hold harmless the Owner and the Engineer, and the officers, directors, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of Engineers, Architects, Attorneys, and other Professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting there from but only to the extent caused by any negligent act or omission of the Contractor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.
- B. In any and all claims against the Owner or the Engineer or any of their respective consultants, agents, officers, directors, partners, or employees by any employee (or the survivor or personal representative of such employee) of the actor, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under Paragraph 6.20.A shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts.
- C. The indemnification obligations of the Contractor under Paragraph 6.20.A shall not extend to the liability of the Engineer and the Engineer's officers, directors, partners, employees, agents, consultants and subcontractors arising out of:
1. The preparation or approval of, or the failure to prepare or approve, maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or

6.21 *Delegation of Professional Design Services*

- A. The Contractor will not be required to provide Professional Design Services unless such services are specifically required by the Contract Documents for a portion of the Work or unless such services are required to carry out the Contractor's responsibilities for the construction means, methods, techniques, sequences and procedures. The Contractor shall not be required to provide Professional Services in violation of applicable law.
- B. If Professional Design Services or Certifications by a design professional related to systems, materials or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Engineer will specify all performance and design criteria that such services must satisfy. The Contractor shall cause such services or certifications to be provided by a properly licensed professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings and other submittals prepared by such professional. Shop Drawings and other submittals related to the Work designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Engineer.
- C. The Owner and the Engineer shall be entitled to rely upon the adequacy, accuracy and completeness of the services, certifications or approvals performed by such design professionals, provided the Owner and the Engineer have specified to the Contractor all performance and design criteria that such services must satisfy.
- D. Pursuant to this Paragraph 6.21, the Engineer's review and approval of design calculations and design drawings will be only for the limited purpose of checking for conformance with performance and design criteria given and the design concept expressed in the Contract Documents. The Engineer's review and approval of Shop Drawings and other submittals (except design calculations and design drawings) will be only for the purpose stated in Paragraph 6.17.D.1.
- E. The Contractor shall not be responsible for the adequacy of the performance or design criteria required by the Contract Documents.

ARTICLE 7 – OTHER WORK AT THE SITE

7.01 *Related Work at Site*

- A. The Owner may perform other work related to the Project at the Site with the Owner's employees or via other direct contracts therefore, or have other work performed by utility owners. If such other work is not noted in the Contract Documents, then:
 - 1. Written notice thereof will be given to the Contractor prior to starting any such other work; and
 - 2. If the Owner and Contractor are unable to agree on entitlement to or on the amount or extent, if any, of any adjustment in the Contract Price or Contract Times that should be allowed as a result of such other work, a Claim may be made therefore as provided in Paragraph 10.05.
- B. The Contractor shall afford each other Contractor who is a party to such a direct contract, each utility owner and the Owner, if the Owner is performing other work with the Owner's employees, proper and safe access to the Site, a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such other work, and shall properly coordinate the Work with theirs. Contractor shall do all cutting, fitting, and patching of the Work that may be required to properly connect or otherwise make its several parts come together and properly integrate with such other work. The Contractor shall not endanger any work of others by cutting, excavating, or otherwise altering their work and will only cut or alter their work with the written consent of the Engineer and the others whose work will be affected. The duties and responsibilities of the Contractor under this Paragraph are for the benefit of such utility owners and other

Contractors to the extent that there are comparable provisions for the benefit of the Contractor in said direct contracts between the Owner and such utility owners and other Contractors.

- C. If the proper execution or results of any part of the Contractor's Work depends upon work performed by others under this Article 7, the Contractor shall inspect such other work and promptly report to the Engineer in writing any delays, defects, or deficiencies in such other work that render it unavailable or unsuitable for the proper execution and results of the Contractor's Work. The Contractor's failure to so report will constitute an acceptance of such other work as fit and proper for integration with the Contractor's Work except for latent defects and deficiencies in such other work.

7.02 *Coordination*

- A. If the Owner intends to contract with others for the performance of other work on the Project at the Site, the following will be set forth in the Supplementary Conditions:
 - 1. The individual or entity who will have authority and responsibility for coordination of the activities among the various Contractors will be identified;
 - 2. The specific matters to be covered by such authority and responsibility will be itemized; and
 - 3. The extent of such authority and responsibilities will be provided.
- B. Unless otherwise provided in the Supplementary Conditions, the Owner shall have sole authority and responsibility for such coordination.

7.03 *Legal Relationships*

- A. Paragraphs 7.01.A and 7.02 are not applicable for utilities not under the control of the Owner.
- B. Each other direct contract of the Owner under Paragraph 7.01.A shall provide that the other Contractor is liable to the Owner and the Contractor for the reasonable direct delay and disruption costs incurred by the Contractor as a result of the other contractor's inactions.
- C. The Contractor shall be liable to the Owner and any other Contractor for the reasonable direct delay and disruption costs incurred by such other Contractor as a result of the Contractor's actions or inactions.

ARTICLE 8 – OWNER'S RESPONSIBILITIES

8.01 *Communications to the Contractor*

- A. Except as otherwise provided in these General Conditions, the Owner shall issue all communications to the Contractor through the Construction Manager.

8.02 *Replacement of the Engineer*

- A. In the case of termination of the employment of the Engineer, the Owner shall appoint an Engineer to whom the Contractor makes no reasonable objection and whose status under the Contract Documents shall be that of the former Engineer.

8.03 *Furnish Data*

- A. The Owner shall promptly furnish the data required of the Owner under the Contract Documents.

8.04 *Pay When Due*

- A. The Owner shall make payments to the Contractor when they are due as provided in Paragraphs 14.02.C and 14.07.C.

8.05 *Lands and Easements; Reports and Tests*

- A. The Owner's duties in respect of providing lands and easements and providing Engineering Surveys to establish reference points are set forth in Paragraphs 4.01 and 4.05. Paragraph 4.02 refers to the Owner's identifying and making available to the Contractor copies of reports of explorations and tests of subsurface conditions and drawings of physical conditions in or relating to existing surface or subsurface structures at or contiguous to the Site that have been utilized by the Engineer in preparing the Contract Documents.

8.06 *Insurance*

- A. The Owner's responsibilities, if any, with respect to purchasing and maintaining liability and property insurance are set forth in Article 5.

8.07 *Change Orders*

- A. The owner is obligated to execute Change Orders as indicated in Paragraph 10.03.

8.08 *Inspections, Tests, and Approvals*

- A. The Owner's responsibility with respect to certain inspections, tests, and approvals is set forth in Paragraph 13.03.B.

8.09 *Limitations on the Owner's Responsibilities*

- A. The Owner shall not supervise, direct, or have control or authority over, nor be responsible for, the Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of the Contractor to comply with the Laws and Regulations applicable to the performance of the Work. The Owner will not be responsible for Contractor's failure to perform the Work in accordance with the Contract Documents.

8.10 *Undisclosed Hazardous Environmental Condition*

- A. The Owner's responsibility with respect to an undisclosed Hazardous Environmental Condition is set forth in Paragraph 4.06.

8.11 *Evidence of Financial Arrangements*

- A. If and to the extent the Owner has agreed to furnish the Contractor reasonable evidence that financial arrangements have been made to satisfy the Owner's obligations under the Contract Documents, the Owner's responsibility with respect thereof will be as set forth in the Supplementary Conditions.

ARTICLE 9 – ENGINEER'S STATUS DURING CONSTRUCTION

9.01 *Owner's Representative*

- A. The Construction Manager also described elsewhere within the Contract Documents as the Engineer in charge during the construction phase will be the Owner's representative during the construction period. The duties and responsibilities and the limitations of authority of the Engineer as the Owner's representative during construction are set forth in the Contract Documents and will not be changed without the written consent of the Owner and the Engineer.

9.02 *Visits to Site*

- A. The Construction Manager will make visits to the Site at intervals appropriate to the various stages of construction as the Construction Manager deems necessary in order to observe as an experienced and Qualified Design Professional the progress that has been made and the quality of the various aspects of the Contractor's executed Work. Based upon information obtained during such visits and observations, the Construction Manager, for the benefit of the Owner, will determine, in general, if the Work is proceeding in accordance with the Contract Documents. The Construction Manager will not be required to make exhaustive or continuous inspections on the Site to check the quality or quantity of the Work. The Construction Manager's efforts will be directed toward providing for the Owner a greater degree of confidence that the completed Work will conform generally to the Contract Documents. On the basis of such visits and observations, the Construction Manager will keep the Owner informed of the progress of the Work and will endeavor to guard the Owner against defective Work.
- B. The Engineer's visits and observations are subject to all the limitations on the Engineer's authority and responsibility set forth in Paragraph 9.09. Particularly, but without limitation, during or as a result of the Engineer's visits or observations of the Contractor's Work the Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of the Contractor to comply with Laws and Regulations applicable to the performance of the Work.

9.03 *Project Representative*

- A. The Engineer shall furnish a Resident Project Representative to assist the Engineer in providing more extensive observation of the Work. The authority and responsibilities of the Resident Project Representative and assistants will be as provided in the Supplementary Conditions, and limitations on the responsibilities thereof will be as provided in Paragraph 9.09. If Owner designates another representative or agent to represent Owner at the Site who is not Engineer's consultant, agent or employee, the responsibilities and authority and limitations thereon of such other individual or entity will be as provided in the Supplementary Conditions.

9.04 *Authorized Variations in Work*

- A. The Engineer may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Times and are compatible with the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. These may be accomplished by a Field Order and will be binding on the Owner and also on the Contractor, who shall perform the Work involved promptly. If the Owner or the Contractor believes that a Field Order justifies an adjustment in the Contract Price or the Contract Times, or both, and the parties are unable to agree on entitlement to or on the amount or extent, if any, of any such adjustment, a Claim may be made therefore as provided in Paragraph 10.05.

9.05 *Rejecting Defective Work*

- A. The Engineer will have authority to reject Work which the Engineer believes to be defective, or that the Engineer believes will not produce a completed Project that conforms to the Contract Documents or that will prejudice the integrity of the design concept of the completed Project as a functioning whole as indicated by the Contract Documents. The Engineer will also have authority to require special inspection or testing of the Work as provided in Paragraph 13.04, whether or not the Work is fabricated, installed, or completed.

9.06 *Shop Drawings, Change Orders and Payments*

- A. In connection with the Engineer's authority, and limitations thereof, as to Shop Drawings and Samples, see Paragraph 6.17.

- B. In connection with the Engineer’s authority, and limitations thereof, as to design calculations and design drawings submitted in response to a delegation of Professional Design Services, if any, see Paragraph 6.21.
- C. In connection with the Engineer’s authority as to Change Orders, see Articles 10, 11, and 12.
- D. In connection with the Engineer’s authority as to Applications for Payment, see Article 14.

9.07 *Determinations for Unit Price Work*

- A. The Engineer will determine the actual quantities and classifications of Unit Price Work performed by the Contractor. The Engineer will review with the Contractor the Engineer’s preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). The Engineer’s written decision thereon will be final and binding (except as modified by the Engineer to reflect changed factual conditions or more accurate data) upon the Owner and the Contractor, subject to the provisions of Paragraph 10.05.

9.08 *Decisions on Requirements of Contract Documents and Acceptability of Work*

- A. The Engineer will be the initial interpreter of the requirements of the Contract Documents and the judge of the acceptability of the Work there under. All matters in question and other matters between the Owner and the Contractor arising prior to the date final payment is due relating to the acceptability of the Work, and the interpretation of the requirements of the Contract Documents pertaining to the performance of the Work, will be referred initially to the Engineer in writing within **thirty (30) days** of the event giving rise to the question.
- B. The Engineer will, with reasonable promptness, render a written decision on the issue referred. If the Owner or the Contractor believes that any such decision entitles them to an adjustment in the Contract Price or the Contract Times or both, a Claim may be made under Paragraph 10.05. The date of the Engineer’s decision shall be the date of the event giving rise to the issues referenced for the purposes of Paragraph 10.05.B.
- C. The Engineer’s written decision on the issue referred will be final and binding on the Owner and the Contractor, subject to the provisions of Paragraph 10.05.
- D. When functioning as interpreter and judge under this Paragraph 9.08, the Engineer will not show partiality to the Owner or the Contractor and will not be liable in connection with any interpretation or decision rendered in good faith in such capacity.

9.09 *Limitations on Engineer’s Authority and Responsibilities*

- A. Neither the Engineer’s authority or responsibility under this Article 9 or under any other provision of the Contract Documents nor any decision made by the Engineer in good faith either to exercise or not exercise such authority or responsibility or the undertaking, exercise, or performance of any authority or responsibility by the Engineer shall create, impose, or give rise to any duty in contract, tort, or otherwise owed by the Engineer to the Contractor, any Subcontractor, any Supplier, any other individual or entity, or to any surety for or employee or agent of any of them.
- B. The Engineer will not supervise, direct, control, or have authority over or be responsible for Contractor’s means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of the Contractor to comply with Laws and Regulations applicable to the performance of the Work. The Engineer will not be responsible for the Contractor’s failure to perform the Work in accordance with the Contract Documents.
- C. The Engineer will not be responsible for the acts or omissions of the Contractor or of any Subcontractor, any Supplier, or of any other individual or entity performing any of the Work.

- D. The Engineer's review of the final Application for Payment and accompanying documentation and all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, tests and approvals, and other documentation required to be delivered by Paragraph 14.07.A will only be to determine generally that their content complies with the requirements of, and in the case of certificates of inspections, tests, and approvals that the results certified indicate compliance with the Contract Documents.
- E. The limitations upon authority and responsibility set forth in this Paragraph 9.09 shall also apply to the Resident Project Representative and assistants, if any.

ARTICLE 10 – CHANGES IN THE WORK; CLAIMS

10.01 Authorized Changes in the Work

- A. Without invalidating the Contract and without notice to any surety, the Owner may, subject to written approval by the Agency at any time or from time to time, order additions, deletions, or revisions in the Work by a Change Order, or a Work Change Directive. Upon receipt of any such document, the Contractor shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).
- B. If the Owner and the Contractor are unable to agree on entitlement to, or on the amount or extent, if any, of an adjustment in the Contract Price or Contract Times, or both, that should be allowed as a result of a Work Change Directive, a Claim may be made therefore as provided in Paragraph 10.05.

10.02 Unauthorized Changes in the Work

- A. The Contractor shall not be entitled to an increase in the Contract Price or an extension of the Contract Times with respect to any work performed that is not required by the Contract Documents as amended, modified, or supplemented as provided in Paragraph 3.04, except in the case of an emergency as provided in Paragraph 6.16 or in the case of uncovering Work as provided in Paragraph 13.04.B.

10.03 Execution of Change Orders

- A. The Owner and the Contractor shall execute appropriate Change Orders recommended by the Engineer covering:
 - 1. Changes in the Work which are: (i) ordered by Owner pursuant to Paragraph 10.01.A, (ii) required because of acceptance of defective Work under Paragraph 13.08.A or the Owner's correction of defective Work under Paragraph 13.09, or (iii) agreed to by the parties;
 - 2. Changes in the Contract Price or Contract Times which are agreed to by the parties, including any undisputed sum or amount of time for Work actually performed in accordance with a Work Change Directive; and
 - 3. Changes in the Contract Price or Contract Times which embody the substance of any written decision rendered by the Engineer pursuant to Paragraph 10.05; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provisions of the Contract Documents and applicable Laws and Regulations, but during any such appeal, the Contractor shall carry on the Work and adhere to the Progress Schedule as provided in Paragraph 6.18.A.

10.04 Notification to Surety

- A. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or Contract Times) is required by the provisions of any bond to be given to a surety, the giving of any such notice will be the Contractor's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

10.05 *Claims*

- A. *Construction Manager's Decision Required:* All Claims, except those waived pursuant to Paragraph 14.09, shall be referred to the Construction Manager for decision. A decision by the Construction Manager shall be required as a condition precedent to any exercise by the Owner or the Contractor of any rights or remedies either may otherwise have under the Contract Documents or by Laws and Regulations in respect of such Claims.
- B. *Notice:* Written notice stating the general nature of each Claim shall be delivered by the claimant to the Construction Manager and the other party to the Contract promptly (but in no event later than **thirty (30) days** after the start of the event giving rise thereto. The responsibility to substantiate a Claim shall rest with the party making the Claim. Notice of the amount or extent of the Claim, with supporting data shall be delivered to the Engineer and the other party to the Contract within **sixty (60) days** after the start of such event (unless the Engineer allows additional time for claimant to submit additional or more accurate data in support of such Claim). A Claim for an adjustment in the Contract Price shall be prepared in accordance with the provisions of Paragraph 12.01.B. A Claim for an adjustment in the Contract Time shall be prepared in accordance with the provisions of Paragraph 12.02.B. Each Claim shall be accompanied by the claimant's written statement that the adjustment claimed is the entire adjustment to which the claimant believes it is entitled as a result of said event. The opposing party shall submit any response to the Engineer and the claimant within **thirty (30) days** after receipt of the claimant's last submittal (unless the Engineer allows additional time).
- C. *Construction Manager's Action:* The Construction Manager will review each Claim and, within **thirty (30) days** after receipt of the last submittal of the claimant or the last submittal of the opposing party, if any, take one of the following actions in writing:
 - 1. Deny the Claim in whole or in part,
 - 2. Approve the Claim, or
 - 3. Notify the parties that the Construction Manager is unable to resolve the Claim if, in the Construction Manager's sole discretion, it would be inappropriate for the Construction Manager to do so. For purposes of further resolution of the Claim, such notice shall be deemed a denial.
- D. In the event that the Construction Manager does not take action on a Claim within said **thirty (30) days**, the Claim shall be deemed denied.
- E. The Construction Manager's written action under the Paragraph 10.05.C or denial pursuant to Paragraphs 10.05.C.3 or 10.05.D will be final and binding upon the Owner and the Contractor, unless the Owner or the Contractor invoke the dispute resolution procedure set forth in Article 16 within **thirty (30) days** of such action or denial.
- F. No Claim for an adjustment in Contract Price or Contract Times will be valid if not submitted in accordance with this Paragraph 10.05.

ARTICLE 11 – COST OF THE WORK; ALLOWANCES; UNIT PRICE WORK

11.01 *Cost of the Work*

- A. *Costs Included:* The term Cost of the Work means the sum of all costs, except those excluded in Paragraph 11.01.B, necessarily incurred and paid by the Contractor in the proper performance of the Work. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the costs to be reimbursed to the Contractor will be only those additional or incremental costs required because of the change in the Work or because of the event giving rise to the Claim. Except as otherwise may be agreed to in writing by the Owner, such costs shall be in

amounts no higher than those prevailing in the locality of the Project, shall include only the following items, and shall not include any of the costs itemized in Paragraph 11.01.B.

1. Payroll costs for employees in the direct employ of the Contractor in the performance of the Work under schedules of job classifications agreed upon by the Owner and the Contractor. Such employees shall include, without limitation, superintendents, foremen, and other personnel employed full time at the Site. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs shall include, but not be limited to, salaries and wages plus the cost of fringe benefits, which shall include social security contributions, unemployment, excise, and payroll taxes, workers' compensation, health and retirement benefits, bonuses, sick leave, vacation and holiday pay applicable thereto. The expenses of performing Work outside of regular working hours, on Saturday, Sunday, or legal holidays, shall be included in the above to the extent authorized by the Owner.
2. The Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to the Contractor unless the Owner deposits funds with the Contractor with which to make payments, in which case the cash discounts shall accrue to the Owner. All trade discounts, rebates and refunds and returns from sale of surplus materials and equipment shall accrue to the Owner, and the Contractor shall make provisions so that they may be obtained.
3. Payments made by the Contractor to Subcontractors for Work performed by the Subcontractors. If required by the Owner, the Contractor shall obtain competitive bids from subcontractors acceptable to the Owner and the Contractor and shall deliver such bids to the Owner, who will then determine, with the advice of the Engineer, which bids, if any, will be acceptable. If any subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work plus a fee, the Subcontractor's Cost of the Work and fee shall be determined in the same manner as the Contractor's Cost of the Work and fee as provided in this Paragraph 11.01.
4. Costs of special consultants (including but not limited to Engineers, Architects, Testing Laboratories, Surveyors, Attorneys, and Accountants) employed for services specifically related to the Work.
5. Supplemental costs including the following:
 - a. The proportion of necessary transportation, travel, and subsistence expenses of the Contractor's employees incurred in discharge of duties connected with the Work.
 - b. The Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office, and temporary facilities at the Site, and hand tools not owned by the workers, which are consumed in the performance of the Work, and cost, less market value, of such items used but not consumed which remain the property of the Contractor.
 - c. Rentals of all construction equipment and machinery, and the parts thereof whether rented from the Contractor or others in accordance with rental agreements approved by the Owner with the advice of Engineer, and the costs of transportation, loading, unloading, assembly, dismantling, and removal thereof. All such costs shall be in accordance with the terms of said rental agreements. The rental of any such equipment, machinery, or parts shall cease when the use thereof is no longer necessary for the Work.
 - d. Sales, consumer, use, and other similar taxes related to the Work, and for which the Contractor is liable, imposed by Laws and Regulations.
 - e. Deposits lost for causes other than negligence of the Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, and royalty payments and fees for permits and licenses.

- f. Losses and damages (and related expenses) caused by damage to the Work, not compensated by insurance or otherwise, sustained by the Contractor in connection with the performance of the Work (except losses and damages within the deductible amounts of property insurance established in accordance with Paragraph 5.06.D), provided such losses and damages have resulted from causes other than the negligence of the Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of the Owner. No such losses, damages, and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's fee.
- g. The cost of utilities, fuel, and sanitary facilities at the Site.
- h. Minor expenses such as telegrams, long distance telephone calls, telephone service at the Site, expressages, and similar petty cash items in connection with the Work.
- i. The costs of premiums for all bonds and insurance that the Contractor is required by the Contract Documents to purchase and maintain.

B. *Costs Excluded:* The term Cost of the Work shall not include any of the following items:

- 1. Payroll costs and other compensation of the Contractor's officers, executives, principals (of partnerships and sole proprietorships), general managers, safety managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by the Contractor, whether at the Site or in the Contractor's principal or branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in Paragraph 11.01.A.1 or specifically covered by Paragraph 11.01.A.4, all of which are to be considered administrative costs covered by the Contractor's fee.
- 2. Expenses of the Contractor's principal and branch offices other than the Contractor's office at the Site.
- 3. Any part of the Contractor's capital expenses, including interest on the Contractor's capital employed for the Work and charges against the Contractor for delinquent payments.
- 4. Costs due to the negligence of the Contractor, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- 5. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in Paragraphs 11.01.A and 11.01.B.

C. *Contractor's Fee:* When all the Work is performed on the basis of cost-plus, the Contractor's fee shall be determined as set forth in the Agreement. When the value of any Work covered by a Change Order or when a Claim for an adjustment in Contract Price is determined on the basis of Cost of the Work, the Contractor's fee shall be determined as set forth in Paragraph 12.01.C.

D. *Documentation:* Whenever the Cost of the Work for any purpose is to be determined pursuant to Paragraphs 11.01.A and 11.01.B, the Contractor shall establish and maintain records thereof in accordance with generally accepted accounting practices and submit in a form acceptable to the Engineer an itemized cost breakdown together with supporting data.

11.02 *Allowances*

- A. It is understood that Contractor has included in the Contract Price all allowances so named in the Contract Documents and shall cause the Work so covered to be performed for such sums and by such persons or entities as may be acceptable to Owner and Engineer.

B. *Cash Allowances:*

1. The Contractor agrees that:
 - a. The cash allowances include the cost to the Contractor (less any applicable trade discounts) of materials and equipment required by the allowances to be delivered at the Site, and all applicable taxes; and
 - b. The Contractor's costs for unloading and handling on the Site, labor, installation, overhead, profit, and other expenses contemplated for the cash allowances have been included in the Contract Price and not in the allowances, and no demand for additional payment on account of any of the foregoing will be valid.

C. *Contingency Allowance*

1. The Contractor agrees that a contingency allowance, if any, is for the sole use of the Owner to cover unanticipated costs.
- D. Prior to final payment, an appropriate Change Order will be issued as recommended by the Engineer to reflect actual amounts due the Contractor on account of Work covered by allowances, and the Contract Price shall be correspondingly adjusted.

11.03 *Unit Price Work*

- A. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the unit price for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement.
- B. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of the Comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by the Contractor will be made by Engineer subject to the provisions of Paragraph 9.07.
- C. Each unit price will be deemed to include an amount considered by the Contractor to be adequate to cover Contractor's overhead and profit for each separately identified item.
- D. The Owner or the Contractor may make a Claim for an adjustment in the Contract Price in accordance with Paragraph 10.05 if:
 1. The Bid price of a particular item of Unit Price Work amounts to more than five percent (5%) of the Contract Price and the variation in the quantity of that particular item of Unit Price Work performed by the Contractor differs by more than twenty-five percent (25%) from the estimated quantity of such item indicated in the Agreement; and
 2. There is no corresponding adjustment with respect to any other item of Work; and
 3. The Contractor believes that the Contractor is entitled to an increase in the Contract Price as a result of having incurred additional expense or the Owner believes that the Owner is entitled to a decrease in the Contract Price and the parties are unable to agree as to the amount of any such increase or decrease.

ARTICLE 12 – CHANGE OF CONTRACT PRICE; CHANGE OF CONTRACT TIMES

12.01 *Change of Contract Price*

- A. The Contract Price may only be changed by a Change Order. Any Claim for an adjustment in the Contract Price shall be based on written notice submitted by the party making the Claim to the Engineer and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. The value of any Work covered by a Change Order or of any Claim for an adjustment in the Contract Price will be determined as follows:
 - 1. Where the Work involved is covered by unit prices contained in the Contract Documents, by application of such unit prices to the quantities of the items involved (subject to the provisions of Paragraph 11.03); or
 - 2. Where the Work involved is not covered by unit prices contained in the Contract Documents, by a mutually agreed lump sum (which may include an allowance for overhead and profit not necessarily in accordance with Paragraph 12.01.C.2); or
 - 3. Where the Work involved is not covered by unit prices contained in the Contract Documents and agreement to a lump sum is not reached under Paragraph 12.01.B.2, on the basis of the Cost of the Work (determined as provided in Paragraph 11.01) plus a Contractor's fee for overhead and profit (determined as provided in Paragraph 12.01.C).
- C. *Contractor's Fee:* The Contractor's fee for overhead and profit shall be determined as follows:
 - 1. A mutually acceptable fixed fee; or
 - 2. If a fixed fee is not agreed upon, then a fee based on the following percentages of the various portions of the Cost of the Work:
 - a. For costs incurred under Paragraphs 11.01.A.1 and 11.01.A.2, the Contractor's fee shall be fifteen percent (15%);
 - b. For costs incurred under Paragraph 11.01.A.3, the Contractor's fee shall be five percent (5%);
 - c. Where one or more tiers of subcontracts are on the basis of Cost of the Work plus a fee and no fixed fee is agreed upon, the intent of Paragraph 12.01.C.2.a is that the Subcontractor who actually performs the Work, at whatever tier, will be paid a fee of fifteen percent (15%) of the costs incurred by such Subcontractor under Paragraphs 11.01.A.1 and 11.01.A.2 and that any higher tier Subcontractor and Contractor will each be paid a fee of five percent (5%) of the amount paid to the next lower tier Subcontractor;
 - d. No fee shall be payable on the basis of costs itemized under Paragraphs 11.01.A.4, 11.01.A.5, and 11.01.B;
 - e. The amount of credit to be allowed by the Contractor to the Owner for any change which results in a net decrease in cost will be the amount of the actual net decrease in cost plus a deduction in the Contractor's fee by an amount equal to five percent (5%) of such net decrease; and
 - f. When both additions and credits are involved in any one change, the adjustment in the Contractor's fee shall be computed on the basis of the net change in accordance with Paragraphs 12.01.C.2.a through 12.01.C.2.e, inclusive.

12.02 *Change of Contract Times*

- A. The Contract Times may only be changed by a Change Order. Any Claim for an adjustment in the Contract Times shall be based on written notice submitted by the party making the Claim to the Owner and the other party to the Contract in accordance with the provisions of Paragraph 10.05.
- B. Any adjustment of the Contract Times covered by a Change Order or any Claim for an adjustment in the Contract Times will be determined in accordance with the provisions of this Article 12.

12.03 *Delays*

- A. Where the Contractor is prevented from completing any part of the Work within the Contract Times due to delay beyond the control of the Contractor, the Contract Times will be extended in an amount equal to the time lost due to such delay if a Claim is made therefore as provided in Paragraph 12.02.A. Delays beyond the control of the Contractor shall include, but not be limited to, acts or neglect by the Owner, acts or neglect of utility owners or other Contractors performing other work as contemplated by Article 7, fires, floods, epidemics, abnormal weather conditions, or acts of God.
- B. If the Owner, Engineer, Construction Manager or other Contractors or utility owners performing other work for the Owner as contemplated by Article 7, or anyone for whom the Owner is responsible, delays, disrupts, or interferes with the performance or progress of the Work, then the Contractor shall be entitled to an equitable adjustment in the Contract Price or the Contract Times, or both. The Contractor's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to the Contractor's ability to complete the Work within the Contract Times.
- C. If the Contractor is delayed in the performance or progress of the Work by fire, flood, epidemic, abnormal weather conditions, acts of God, acts or failures to act of utility owners not under the control of the Owner, or other causes not the fault of and beyond control of the Owner and the Contractor, then the Contractor shall be entitled to an equitable adjustment in the Contract Times, if such adjustment is essential to the Contractor's ability to complete the Work within the Contract Times. Such an adjustment shall be the Contractor's sole and exclusive remedy for the delays described in this Paragraph 12.03.B.
- D. The Owner, the Engineer, Construction Manager and the Related Entities of each of them shall not be liable to the Contractor for any claims, costs, losses, or damages (including but not limited to all fees and charges of Engineers, Construction Managers, Architects, Attorneys, and other Professionals and all court or arbitration or other dispute resolution costs) sustained by the Contractor on or in connection with any other project or anticipated project.
- E. The Contractor shall not be entitled to an adjustment in the Contract Price or Contract Times for delays within the control of the Contractor. Delays attributable to and within the control of a Subcontractor or Supplier shall be deemed to be delays within the control of the Contractor.

ARTICLE 13 – TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

13.01 *Notice of Defects*

- A. Prompt notice of all defective Work of which the Owner or the Engineer has actual knowledge will be given to the Contractor. All defective Work may be rejected, corrected, or accepted as provided in this Article 13.

13.02 *Access to Work*

- A. The Owner, the Engineer, their consultants and other representatives and personnel of the Owner, independent testing laboratories, and governmental agencies with jurisdictional interests will have access to

the Site and the Work at reasonable times for their observation, inspecting, and testing. The Contractor shall provide them proper and safe conditions for such access and advise them of the Contractor's Site safety procedures and programs so that they may comply therewith as applicable.

13.03 *Tests and Inspections*

- A. The Contractor shall give the Engineer timely notice of readiness of the Work for all required inspections, tests, or approvals and shall cooperate with inspection and testing personnel to facilitate required inspections or tests.
- B. The Owner shall employ and pay for the services of an independent testing laboratory to perform all inspections, tests, or approvals required by the Contract Documents except:
 - 1. For inspections, tests, or approvals covered by Paragraphs 13.03.C and 13.03.D below;
 - 2. That costs incurred in connection with tests or inspections conducted pursuant to Paragraph 13.04.B shall be paid as provided in said Paragraph 13.04.C; and
 - 3. As otherwise specifically provided in the Contract Documents.
- C. If Laws or Regulations of any public body having jurisdiction require any Work (or part thereof) specifically to be inspected, tested, or approved by an employee or other representative of such public body, the Contractor shall assume full responsibility for arranging and obtaining such inspections, tests, or approvals, pay all costs in connection therewith, and furnish the Engineer the required certificates of inspection or approval.
- D. The Contractor shall be responsible for arranging and obtaining and shall pay all costs in connection with any inspections, tests, or approvals required for the Owner's and the Engineer's acceptance of materials or equipment to be incorporated in the Work; or acceptance of materials, mix designs, or equipment submitted for approval prior to the Contractor's purchase thereof for incorporation in the Work. Such inspections, tests, or approvals shall be performed by organizations acceptable to the Owner and the Engineer.
- E. If any Work (or the work of others) that is to be inspected, tested, or approved is covered by the Contractor without written concurrence of the Engineer, it must, if requested by the Engineer, be uncovered for observation.
- F. Uncovering Work as provided in Paragraph 13.03.E shall be at the Contractor's expense unless the Contractor has given the Engineer timely notice of the Contractor's intention to cover the same and the Engineer has not acted with reasonable promptness in response to such notice.

13.04 *Uncovering Work*

- A. If any Work is covered contrary to the written request of the Engineer, it must, if requested by the Engineer, be uncovered for the Engineer's observation and replaced at the Contractor's expense.
- B. If the Engineer considers it necessary or advisable that covered Work be observed by the Engineer or inspected or tested by others, the Contractor, at the Engineer's request, shall uncover, expose, or otherwise make available for observation, inspection, or testing as the Engineer may require, that portion of the Work in question, furnishing all necessary labor, material, and equipment.
- C. If it is found that the uncovered Work is defective, the Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of Engineers, Architects, Attorneys, and other Professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such uncovering, exposure, observation, inspection, and testing, and of satisfactory replacement or reconstruction (including but not limited to all costs of repair or replacement of work of others); and the Owner shall be

entitled to an appropriate decrease in the Contract Price. If the parties are unable to agree as to the amount thereof, the Owner may make a Claim therefore as provided in Paragraph 10.05.

- D. If, the uncovered Work is not found to be defective, Contractor shall be allowed an increase in the Contract Price or an extension of the Contract Times, or both, directly attributable to such uncovering, exposure, observation, inspection, testing, replacement, and reconstruction. If the parties are unable to agree as to the amount or extent thereof, the Contractor may make a Claim therefore as provided in Paragraph 10.05.

13.05 *Owner May Stop the Work*

- A. If the Work is defective, or the Contractor fails to supply sufficient skilled workers or suitable materials or equipment, or fails to perform the Work in such a way that the completed Work will conform to the Contract Documents, the Owner may order the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the Owner to stop the Work shall not give rise to any duty on the part of the Owner to exercise this right for the benefit of the Contractor, any Subcontractor, any Supplier, any other individual or entity, or any surety for, or employee or agent of any of them.

13.06 *Correction or Removal of Defective Work*

- A. Promptly after receipt of notice, the Contractor shall correct all defective Work, whether or not fabricated, installed, or completed, or, if the Work has been rejected by the Engineer, remove it from the Project and replace it with Work that is not defective. The Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of Engineers, Architects, Attorneys, and other Professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or removal (including but not limited to all costs of repair or replacement of work of others).
- B. When correcting defective Work under the terms of this Paragraph 13.06 or Paragraph 13.07, the Contractor shall take no action that would void or otherwise impair the Owner's special warranty and guarantee, if any, on said Work.

13.07 *Correction Period*

- A. If within **one (1) year** after the date of Substantial Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents) or by any specific provision of the Contract Documents, any Work is found to be defective, or if the repair of any damages to the land or areas made available for Contractor's use by the Owner or permitted by Laws and Regulations as contemplated in Paragraph 6.11.A is found to be defective, the Contractor shall promptly, without cost to the Owner and in accordance with the Owner's written instructions:
 - 1. Repair such defective land or areas; or
 - 2. Correct such defective Work; or
 - 3. If the defective Work has been rejected by the Owner, remove it from the Project and replace it with Work that is not defective, and
 - 4. Satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others or other land or areas resulting there from.
- B. If the Contractor does not promptly comply with the terms of the Owner's written instructions, or in an emergency where delay would cause serious risk of loss or damage, the Owner may have the defective Work corrected or repaired or may have the rejected Work removed and replaced. All claims, costs, losses, and damages (including but not limited to all fees and charges of Engineers, Architects, Attorneys, and other Professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to

such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others) will be paid by the Contractor.

- C. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications.
- D. Where defective Work (and damage to other Work resulting there from) has been corrected or removed and replaced under this Paragraph 13.07, the correction period hereunder with respect to such Work will be extended for an additional period of **one (1) year** after such correction or removal and replacement has been satisfactorily completed.
- E. The Contractor's obligations under this Paragraph 13.07 are in addition to any other obligation or warranty. The provisions of this Paragraph 13.07 shall not be construed as a substitute for or a waiver of the provisions of any applicable statute of limitation or repose.

13.08 *Acceptance of Defective Work*

- A. If, instead of requiring correction or removal and replacement of defective Work, Owner (and, prior to the Construction Manager's recommendation of final payment, the Construction Manager) prefers to accept it, the Owner may do so. The Contractor shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of Engineers, Construction Managers, Architects, Attorneys, and other Professionals and all court or arbitration or other dispute resolution costs) attributable to the Owner's evaluation of and determination to accept such defective Work (such costs to be approved by the Construction Manager as to reasonableness) and the diminished value of the Work to the extent not otherwise paid by the Contractor pursuant to this sentence. If any such acceptance occurs prior to the Construction Manager's recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work, and the Owner shall be entitled to an appropriate decrease in the Contract Price, reflecting the diminished value of Work so accepted. If the parties are unable to agree as to the amount thereof, the Owner may make a Claim therefore as provided in Paragraph 10.05. If the acceptance occurs after such recommendation, an appropriate amount will be paid by the Contractor to the Owner.

13.09 *Owner May Correct Defective Work*

- A. If the Contractor fails within a reasonable time after written notice from the Engineer to correct defective Work or to remove and replace rejected Work as required by the Engineer in accordance with Paragraph 13.06.A, or if the Contractor fails to perform the Work in accordance with the Contract Documents, or if the Contractor fails to comply with any other provision of the Contract Documents, the Owner may, after **seven (7) days** written notice to the Contractor, correct or remedy any such deficiency.
- B. In exercising the rights and remedies under this Paragraph 13.09, the Owner shall proceed expeditiously. In connection with such corrective or remedial action, the Owner may exclude the Contractor from all or part of the Site, take possession of all or part of the Work and suspend the Contractor's services related thereto, take possession of the Contractor's tools, appliances, construction equipment and machinery at the Site, and incorporate in the Work all materials and equipment stored at the Site or for which the Owner has paid the Contractor but which are stored elsewhere. The Contractor shall allow the Owner, the Owner's representatives, agents and employees; the Owner's other Contractors, and the Engineer and the Engineer's Consultants access to the Site to enable the Owner to exercise the rights and remedies under this Paragraph.
- C. All claims, costs, losses, and damages (including but not limited to all fees and charges of Engineers, Architects, Attorneys, and other Professionals and all court or arbitration or other dispute resolution costs) incurred or sustained by the Owner in exercising the rights and remedies under this Paragraph 13.09 will be charged against the Contractor, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and the Owner shall be entitled to an appropriate

decrease in the Contract Price. If the parties are unable to agree as to the amount of the adjustment, the Owner may make a Claim therefore as provided in Paragraph 10.05. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of the Contractor's defective Work.

- D. The Contractor shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by the Owner of the Owner's rights and remedies under this Paragraph 13.09.

ARTICLE 14 – PAYMENTS TO CONTRACTOR AND COMPLETION

14.01 *Schedule of Values*

- A. The Schedule of Values established as provided in Paragraph 2.07.A will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to the Construction Manager. Progress payments on account of Unit Price Work will be based on the number of units completed.

14.02 *Progress Payments*

A. *Applications for Payments*

1. At least **twenty (20) days** before the date established in the Agreement for each progress payment (but not more often than once a month), the Contractor shall submit to the Construction Manager for review an Application for Payment filled out and signed by the Contractor covering the Work completed as of the date of the Application and accompanied by such supporting documentation as is required by the Contract Documents. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the Site or at another location agreed to in writing, the Application for Payment shall also be accompanied by a bill of sale, invoice, or other documentation warranting that the Owner has received the materials and equipment free and clear of all Liens and evidence that the materials and equipment are covered by appropriate property insurance or other arrangements to protect the Owner's interest therein, all of which must be satisfactory to the Owner.
2. Beginning with the second Application for Payment, each Application shall include an affidavit of the Contractor stating that all previous progress payments received on account of the Work have been applied on account to discharge the Contractor's legitimate obligations associated with prior Applications for Payment.
3. The amount of retainage with respect to progress payments will be as stipulated in the Agreement.

B. *Review of Applications*

1. The Construction Manager will, within **ten (10) days** after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to the Owner or return the Application to the Contractor indicating in writing the Construction Manager's reasons for refusing to recommend payment. In the latter case, the Contractor may make the necessary corrections and resubmit the Application.
2. The Construction Manager's recommendation of any payment requested in an Application for Payment will constitute a representation by the Construction Manager to the Owner, based on the Construction Manager's observations on the Site of the executed Work as an experienced and qualified design professional and on the Construction Manager's review of the Application for Payment and the accompanying data and schedules, that to the best of the Construction Manager's knowledge, information and belief:

- a. The Work has progressed to the point indicated;
 - b. The quality of the Work is generally in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning whole prior to or upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, to a final determination of quantities and classifications for Unit Price Work under Paragraph 9.07, and to any other qualifications stated in the recommendation); and
 - c. The conditions precedent to the Contractor's being entitled to such payment appear to have been fulfilled in so far as it is the Construction Manager's responsibility to observe the Work.
3. By recommending any such payment the Construction Manager will not thereby be deemed to have represented that:
- a. Inspections made to check the quality or the quantity of the Work as it has been performed have been exhaustive, extended to every aspect of the Work in progress, or involved detailed inspections of the Work beyond the responsibilities specifically assigned to the Construction Manager in the Contract Documents; or
 - b. That there may not be other matters or issues between the parties that might entitle the Contractor to be paid additionally by the Owner or entitle the Owner to withhold payment to the Contractor.
4. Neither the Construction Manager's review of the Contractor's Work for the purposes of recommending payments nor the Construction Manager's recommendation of any payment, including final payment, will impose responsibility on the Construction Manager:
- a. To supervise, direct, or control the Work, or
 - b. For the means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or
 - c. For the Contractor's failure to comply with Laws and Regulations applicable to the Contractor's performance of the Work, or
 - d. To make any examination to ascertain how or for what purposes the Contractor has used the moneys paid on account of the Contract Price, or
 - e. To determine that title to any of the Work, materials, or equipment has passed to the Owner free and clear of any Liens.
5. The Construction Manager may refuse to recommend the whole or any part of any payment if, in the Construction Manager's opinion, it would be incorrect to make the representations to the Owner stated in Paragraph 14.02.B.2. The Construction Manager may also refuse to recommend any such payment or, because of subsequently discovered evidence or the results of subsequent inspections or tests, revise or revoke any such payment recommendation previously made, to such extent as may be necessary in the Construction Manager's opinion to protect the Owner from loss because:
- a. The Work is defective, or completed Work has been damaged, requiring correction or replacement;
 - b. The Contract Price has been reduced by Change Orders;
 - c. The Owner has been required to correct defective Work or complete Work in accordance with Paragraph 13.09; or

- d. The Construction Manager has actual knowledge of the occurrence of any of the events enumerated in Paragraph 15.02.A.

C. *Payment Becomes Due*

1. **Ten (10) days** after presentation of the Application for Payment to Owner with Construction Manager's recommendation, the amount recommended will (subject to the provisions of Paragraph 14.02.D) become due, and when due will be paid by Owner to Contractor.

D. *Reduction in Payment*

1. The Owner may refuse to make payment of the full amount recommended by the Construction Manager because:
 - a. claims have been made against the Owner on account of the Contractor's performance or furnishing of the Work;
 - b. Liens have been filed in connection with the Work, except where the Contractor has delivered a specific bond satisfactory to the Owner to secure the satisfaction and discharge of such Liens;
 - c. The Contractor's performance or furnishing of the Work is inconsistent with funding Agency requirements;
 - d. There are other items entitling the Owner to a set-off against the amount recommended; or
 - e. The Owner has actual knowledge of the occurrence of any of the events enumerated in Paragraphs 14.02.B.5.a through 14.02.B.5.c or Paragraph 15.02.A.
2. If the Owner refuses to make payment of the full amount recommended by the Construction Manager, the Owner will give the Contractor immediate written notice (with a copy to the Construction Manager) stating the reasons for such action and promptly pay the Contractor any amount remaining after deduction of the amount so withheld. The Owner shall promptly pay the Contractor the amount so withheld, or any adjustment thereto agreed to by the Owner and the Contractor, when the Contractor corrects to the Owner's satisfaction the reasons for such action.
3. If it is subsequently determined that the Owner's refusal of payment was not justified, the amount wrongfully withheld shall be treated as an amount due as determined by Paragraph 14.02.C.1.

14.03 *Contractor's Warranty of Title*

- A. The Contractor warrants and guarantees that title to all Work, materials, and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to the Owner no later than the time of payment free and clear of all Liens.

14.04 *Substantial Completion*

- A. When the Contractor considers the entire Work ready for its intended use the Contractor shall notify the Owner and the Construction Manager in writing that the entire Work is substantially complete (except for items specifically listed by the Contractor as incomplete) and request that the Construction Manager issue a certificate of Substantial Completion.
- B. Promptly after the Contractor's notification, the Owner, Agency, Contractor, and Construction Manager shall make a pre-final inspection of the Work to determine the status of completion. If the Construction Manager does not consider the Work substantially complete, the Construction Manager will notify the Contractor in writing giving the reasons therefore.

- C. If the Construction Manager considers the Work substantially complete, the Construction Manager will deliver to the Owner a Tentative Certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a tentative list of items to be completed or corrected before final payment. The Owner shall have **seven (7) days** after receipt of the Tentative Certificate during which to make written objection to the Construction Manager as to any provisions of the certificate or attached list. If, after considering such objections, the Construction Manager concludes that the Work is not substantially complete, the Construction Manager will within **fourteen (14) days** after submission of the Tentative Certificate to the Owner notify the Contractor in writing, stating the reasons therefore. If, after consideration of the Owner's objections, the Construction Manager considers the Work substantially complete, the Construction Manager will within said **fourteen (14) days** execute and deliver to the Owner and the Contractor a Definitive Certificate of Substantial Completion (with a revised tentative list of items to be completed or corrected) reflecting such changes from the tentative certificate as the Construction Manager believes justified after consideration of any objections from the Owner.
- D. At the time of delivery of the Tentative Certificate of Substantial Completion, the Construction Manager will deliver to the Owner and the Contractor a written recommendation as to division of responsibilities pending final payment between the Owner and the Contractor with respect to security, operation, safety, and protection of the Work, maintenance, heat, utilities, insurance, and warranties and guarantees. Unless the Owner and the Contractor agree otherwise in writing and so inform the Construction Manager in writing prior to the Construction Manager's issuing the Definitive Certificate of Substantial Completion, the Construction Manager's aforesaid recommendation will be binding upon the Owner and the Contractor until final payment.
- E. The Owner shall have the right to exclude the Contractor from the Site after the date of Substantial Completion subject to allowing the Contractor reasonable access to complete or correct items on the tentative list.

14.05 *Partial Utilization*

- A. Prior to the Substantial Completion of all the Work, the Owner may use or occupy any substantially completed part of the Work which has specifically been identified in the Contract Documents, or which the Owner, the Construction Manager, and the Contractor agree constitutes a separately functioning and usable part of the Work that can be used by the Owner for its intended purpose without significant interference with Contractor's performance of the remainder of the Work, subject to the following conditions.
 - 1. The Owner at any time may request the Contractor in writing to permit the Owner to use or occupy any such part of the Work which the Owner believes to be ready for its intended use and substantially complete. If and when the Contractor agrees that such part of the Work is substantially complete, the Contractor will certify to the Owner and the Construction Manager that such part of the Work is substantially complete and request Construction Manager to issue a certificate of Substantial Completion for that part of the Work.
 - 2. The Contractor at any time may notify the Owner and the Construction Manager in writing that the Contractor considers any such part of the Work ready for its intended use and substantially complete and request the Construction Manager to issue a certificate of Substantial Completion for that part of the Work.
 - 3. Within a reasonable time after either such request, the Owner, the Contractor, and the Construction Manager shall make an inspection of that part of the Work to determine its status of completion. If the Construction Manager does not consider that part of the Work to be substantially complete, the Construction Manager will notify the Owner and the Contractor in writing giving the reasons therefore. If the Construction Manager considers that part of the Work to be substantially complete, the provisions of Paragraph 14.04 will apply with respect to Certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

4. No use or occupancy or separate operation of part of the Work may occur prior to compliance with the requirements of Paragraph 5.10 regarding property insurance.

14.06 *Final Inspection*

- A. Upon written notice from the Contractor that the entire Work or an agreed portion thereof is complete, the Construction Manager will promptly make a final inspection with the Owner, the Agency, and the Contractor and will notify the Contractor in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. The Contractor shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

14.07 *Final Payment*

A. *Application for Payment*

1. After the Contractor has, in the opinion of the Construction Manager, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates of inspection, marked-up record documents (as provided in Paragraph 6.12), and other documents, the Contractor may make application for final payment following the procedure for progress payments.
2. The final Application for Payment shall be accompanied (except as previously delivered) by:
 - a. All documentation called for in the Contract Documents, including but not limited to the evidence of insurance required by Paragraph 5.04.B.7;
 - b. Consent of the surety, if any, to final payment;
 - c. A list of all Claims against the Owner that the Contractor believes are unsettled; and
 - d. Complete and legally effective releases or waivers (satisfactory to the Owner) of all Lien rights arising out of or Liens filed in connection with the Work.
3. In lieu of the releases or waivers of Liens specified in Paragraph 14.07.A.2 and as approved by the Owner, the Contractor may furnish receipts or releases in full and an affidavit of Contractor that: (i) the releases and receipts include all labor, services, material, and equipment for which a Lien could be filed; and (ii) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which the Owner or the Owner's property might in any way be responsible have been paid or otherwise satisfied. If any Subcontractor or Supplier fails to furnish such a release or receipt in full, the Contractor may furnish a bond or other collateral satisfactory to the Owner to indemnify the Owner against any Lien.

B. *Construction Manager's Review of Application and Acceptance*

1. If, on the basis of the Construction Manager's observation of the Work during construction and final inspection, and the Construction Manager's review of the final Application for Payment and accompanying documentation as required by the Contract Documents, the Construction Manager is satisfied that the Work has been completed and the Contractor's other obligations under the Contract Documents have been fulfilled, the Construction Manager will, within **ten (10) days** after receipt of the final Application for Payment, indicate in writing the Construction Manager's recommendation of payment and present the Application for Payment to the Owner for payment. At the same time the Construction Manager will also give written notice to the Owner and the Contractor that the Work is acceptable subject to the provisions of Paragraph 14.09. Otherwise, the Construction Manager will return the Application for Payment to the Contractor, indicating in writing the reasons for refusing to recommend final payment, in which case the Contractor shall make the necessary corrections and resubmit the Application for Payment.

C. *Payment Becomes Due*

1. **Thirty (30) days** after the presentation to Owner of the Application for Payment and accompanying documentation, the amount recommended by Construction Manager, less any sum Owner is entitled to set off against Construction Manager's recommendation, including but not limited to liquidated damages, will become due and will be paid by Owner to Contractor.

14.08 *Final Completion Delayed*

- A. If, through no fault of the Contractor, final completion of the Work is significantly delayed, and if the Construction Manager so confirms, the Owner shall, upon receipt of the Contractor's final Application for Payment (for Work fully completed and accepted) and recommendation of the Construction Manager, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by the Owner for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if bonds have been furnished as required in Paragraph 5.01, the written consent of the surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Construction Manager with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of Claims. The remaining balance of any sum included in the final Application for Payment but held by the Owner for Work not fully completed and accepted will become due when the Work is fully completed and accepted.

14.09 *Waiver of Claims*

- A. The making and acceptance of final payment will constitute:
 1. A waiver of all Claims by the Owner against the Contractor, except Claims arising from unsettled Liens, from defective Work appearing after final inspection pursuant to Paragraph 14.06, from failure to comply with the Contract Documents or the terms of any special guarantees specified therein, or from the Contractor's continuing obligations under the Contract Documents; and
 2. A waiver of all Claims by the Contractor against the Owner other than those previously made in accordance with the requirements herein and expressly acknowledged by the Owner in writing as still unsettled.

ARTICLE 15 – SUSPENSION OF WORK AND TERMINATION

15.01 *Owner May Suspend Work*

- A. At any time and without cause, the Owner may suspend the Work or any portion thereof for a period of not more than **ninety (90) consecutive days** by notice in writing to the Contractor and the Engineer which will fix the date on which Work will be resumed. The Contractor shall resume the Work on the date so fixed. The Contractor shall be granted an adjustment in the Contract Price or an extension of the Contract Times, or both, directly attributable to any such suspension if the Contractor makes a Claim therefore as provided in Paragraph 10.05.

15.02 *Owner May Terminate for Cause*

- A. The occurrence of any one or more of the following events will justify termination for cause:
 1. The Contractor's persistent failure to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the Progress Schedule established under Paragraph 2.07 as adjusted from time to time pursuant to Paragraph 6.04);

2. The Contractor's disregard of Laws or Regulations of any public body having jurisdiction;
 3. The Contractor's disregard of the authority of the Construction Manager; or
 4. The Contractor's violation in any substantial way of any provisions of the Contract Documents.
- B. If one or more of the events identified in Paragraph 15.02.A occur, Owner may, after giving the Contractor (and surety) **seven (7) days** written notice of its intent to terminate the services of the Contractor:
1. Exclude the Contractor from the Site, and take possession of the Work and of all the Contractor's tools, appliances, construction equipment, and machinery at the Site, and use the same to the full extent they could be used by the Contractor (without liability to the Contractor for trespass or conversion),
 2. Incorporate in the Work all materials and equipment stored at the Site or for which the Owner has paid the Contractor but which are stored elsewhere, and
 3. Complete the Work as the Owner may deem expedient.
- C. If the Owner proceeds as provided in Paragraph 15.02.B, the Contractor shall not be entitled to receive any further payment until the Work is completed. If the unpaid balance of the Contract Price exceeds all claims, costs, losses, and damages (including but not limited to all fees and charges of Engineers, Architects, Attorneys, and other Professionals and all court or arbitration or other dispute resolution costs) sustained by the Owner arising out of or relating to completing the Work, such excess will be paid to the Contractor. If such claims, costs, losses, and damages exceed such unpaid balance, the Contractor shall pay the difference to the Owner. Such claims, costs, losses, and damages incurred by the Owner will be reviewed by the Engineer as to their reasonableness and, when so approved by the Engineer, incorporated in a Change Order. When exercising any rights or remedies under this Paragraph the Owner shall not be required to obtain the lowest price for the Work performed.
- D. Notwithstanding Paragraphs 15.02.B and 15.02.C, the Contractor's services will not be terminated if the Contractor begins within **seven (7) days** of receipt of notice of intent to terminate to correct its failure to perform and proceeds diligently to cure such failure within no more than **thirty (30) days** of receipt of said notice.
- E. Where the Contractor's services have been so terminated by the Owner, the termination will not affect any rights or remedies of the Owner against the Contractor then existing or which may thereafter accrue. Any retention or payment of moneys due the Contractor by the Owner will not release the Contractor from liability.
- F. If and to the extent that the Contractor has provided a performance bond under the provisions of Paragraph 5.01.A, the termination procedures of that bond shall supersede the provisions of Paragraphs 15.02.B, and 15.02.C.

15.03 *Owner May Terminate For Convenience*

- A. Upon **seven (7) days** written notice to the Contractor and the Engineer, the Owner may, without cause and without prejudice to any other right or remedy of the Owner, terminate the Contract. In such case, the Contractor shall be paid for (without duplication of any items):
1. Completed and acceptable Work executed in accordance with the Contract Documents prior to the effective date of termination, including fair and reasonable sums for overhead and profit on such Work;
 2. Expenses sustained prior to the effective date of termination in performing services and furnishing labor, materials, or equipment as required by the Contract Documents in connection with uncompleted Work, plus fair and reasonable sums for overhead and profit on such expenses;

3. All claims, costs, losses, and damages (including but not limited to all fees and charges of Engineers, Architects, Attorneys, and other Professionals and all court or arbitration or other dispute resolution costs) incurred in settlement of terminated contracts with Subcontractors, Suppliers, and others; and
 4. Reasonable expenses directly attributable to termination.
- B. The Contractor shall not be paid on account of loss of anticipated profits or revenue or other economic loss arising out of or resulting from such termination.

15.04 *Contractor May Stop Work or Terminate*

- A. If, through no act or fault of the Contractor, (i) the Work is suspended for more than **ninety (90) consecutive days** by the Owner or under an order of court or other public authority, or (ii) the Engineer fails to act on any Application for Payment within **thirty (30) days** after it is submitted, or (iii) the Owner fails for **thirty (30) days** to pay the Contractor any sum finally determined to be due, then the Contractor may, upon **seven (7) days** written notice to the Owner and the Engineer, and provided the Owner or the Engineer do not remedy such suspension or failure within that time, terminate the Contract and recover from the Owner payment on the same terms as provided in Paragraph 15.03.
- B. In lieu of terminating the Contract and without prejudice to any other right or remedy, if the Engineer has failed to act on an Application for Payment within **thirty (30) days** after it is submitted, or the Owner has failed for **thirty (30) days** to pay the Contractor any sum finally determined to be due, the Contractor may, **seven (7) days** after written notice to the Owner and the Engineer, stop the Work until payment is made of all such amounts due the Contractor, including interest thereon. The provisions of this Paragraph 15.04 are not intended to preclude the Contractor from making a Claim under Paragraph 10.05 for an adjustment in Contract Price or Contract Times or otherwise for expenses or damage directly attributable to the Contractor's stopping the Work as permitted by this Paragraph.

ARTICLE 16 – DISPUTE RESOLUTION

16.01 *Methods and Procedures*

- A. The Owner and the Contractor may mutually request mediation of any Claim submitted to the Engineer for a decision under Paragraph 10.05 before such decision becomes final and binding. The mediation will be governed by the Construction Industry Mediation Rules of the American Arbitration Association in effect as of the Effective Date of the Agreement. The request for mediation shall be submitted in writing to the American Arbitration Association. Timely submission of the request shall stay the effect of Paragraph 10.05.E.
- B. The Owner and the Contractor shall participate in the mediation process in good faith. The process shall be concluded within **sixty (60) days** of filing of the request. The date of termination of the mediation shall be determined by application of the mediation rules referenced above.
- C. If the claim is not resolved by mediation, the Engineer's action under Paragraph 10.05.C or a denial pursuant to Paragraphs 10.05.C.3 or 10.05.D shall become final and binding **thirty (30) days** after termination of the mediation unless, within that time period, the Owner or the Contractor:
1. Elects in writing to invoke any dispute resolution process provided for in the Supplementary Conditions, or
 2. Agrees with the other party to submit the Claim to another dispute resolution process, or
 3. Gives written notice to the other party of their intent to submit the Claim to a court of competent jurisdiction.

ARTICLE 17 – MISCELLANEOUS

17.01 *Giving Notice*

- A. Whenever any provision of the Contract Documents requires the giving of written notice, it will be deemed to have been validly given if:
 - 1. Delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or
 - 2. Delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

17.02 *Computation of Times*

- A. When any period of time is referred to in the Contract Documents by days, it will be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day will be omitted from the computation.

17.03 *Cumulative Remedies*

- A. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee, or by other provisions of the Contract Documents. The provisions of this Paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

17.04 *Survival of Obligations*

- A. All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract Documents, as well as all continuing obligations indicated in the Contract Documents, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of the Contractor.

17.05 *Controlling Law*

- A. This Contract is to be governed by the law of the State of California.

17.06 *Headings*

- A. Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

ARTICLE 18 – FEDERAL REQUIREMENTS

18.01 *Agency Not a Party*

- A. This Contract is expected to be funded in part with funds provided by the Agency. Neither the Agency, nor any of its departments, entities, or employees is a party to this Contract.

18.02 *Contract Approval*

- A. The Owner and the Contractor will furnish the Owner’s attorney such evidence as required so that the Owner’s attorney can complete and execute the following “Certificate of Owner’s Attorney” (Exhibit GC-A) before the Owner submits the executed Contract Documents to the Agency for approval.
- B. Concurrence by Agency in the award of the Contract is required before the Contract is effective.

18.03 *Conflict of Interest*

- A. The Contractor may not knowingly contract with a supplier or manufacturer if the individual or entity who prepared the plans and specifications has a corporate or financial affiliation with the supplier or manufacturer.
- B. The Owner’s officers, employees, or agents shall not engage in the award or administration of this Contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when: (i) the employee, officer or agent; (ii) any member of their immediate family; (iii) their partner or (iv) an organization that employs, or is about to employ, any of the above, has a financial interest in the Contractor. The Owner’s officers, employees, or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from the Contractor or subcontractors.

18.04 *Gratuities*

- A. If the Owner finds after a notice and hearing that the Contractor, or any of the Contractor’s agents or representatives, offered or gave gratuities (in the form of entertainment, gifts, or otherwise) to any official, employee, or agent of the Owner or the Agency in an attempt to secure this Contract or favorable treatment in awarding, amending, or making any determinations related to the performance of this Contract, the Owner may, by written notice to the Contractor, terminate this Contract. The Owner may also pursue other rights and remedies that the law or this Contract provides. However, the existence of the facts on which the Owner bases such findings shall be an issue and may be reviewed in proceedings under the dispute resolution provisions of this Contract.
- B. In the event this Contract is terminated as provided in paragraph 18.04.A, the Owner may pursue the same remedies against the Contractor as it could pursue in the event of a breach of this Contract by the Contractor. As a penalty, in addition to any other damages to which it may be entitled by law, the Owner may pursue exemplary damages in an amount (as determined by the Owner) which shall not be less than three (3) nor more than ten (10) times the costs the Contractor incurs in providing any such gratuities to any such officer or employee.

18.05 *Audit and Access to Records*

- A. For all negotiated contracts and negotiated modifications (except those of \$10,000 or less), the Owner, the Agency, the Controller General, or any of their duly authorized representatives, shall have access to any books, documents, papers, and records of the Contractor, which are pertinent to the Contract, for the purpose of making audits, examinations, excerpts and transcriptions. The Contractor shall maintain all required records for **three (3) years** after final payment is made and all other pending matters are closed.

18.06 *Small, Minority and Women’s Businesses*

- A. If the Contractor intends to let any subcontracts for a portion of the work, the Contractor shall take affirmative steps to assure that small, minority and women’s businesses are used when possible as sources of supplies, equipment, construction, and services. Affirmative steps shall consist of: (1) including qualified small, minority and women’s businesses on solicitation lists; (2) assuring that small, minority and women’s businesses are solicited whenever they are potential sources; (3) dividing total requirements when economically feasible, into small tasks or quantities to permit maximum participation of small, minority,

and women’s businesses; (4) establishing delivery schedules, where the requirements of the work permit, which will encourage participation by small, minority and women’s businesses; (5) using the services and assistance of the Small Business Administration and the Minority Business Development Agency of the U.S. Department of Commerce; (6) requiring each party to a subcontract to take the affirmative steps of this section; and (7) the Contractor is encouraged to procure goods and services from labor surplus area firms.

18.07 *Anti-Kickback*

- A. The Contractor shall comply with the Copeland Anti-Kickback Act (18 USC 874 and 40 USC 276c) as supplemented by Department of Labor regulations (29 CFR Part 3, “Contractors and Subcontractors on Public Buildings or Public Works Financed in Whole or in Part by Loans or Grants of the United States”). The Act provides that the Contractor or subcontractor shall be prohibited from inducing, by any means, any person employed in the construction, completion, or repair of public facilities, to give up any part of the compensation to which they are otherwise entitled. The Owner shall report all suspected or reported violations to the Agency.

18.08 *Clean Air and Pollution Control Acts*

- A. If this Contract exceeds **\$100,000**, Contractor shall comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 USC 7401 *et seq.*) and the Federal Water Pollution Control Act as amended (33 USC 1251 *et seq.*). Contractor will report violations to the Agency and the Regional Office of the EPA.

18.09 *State Energy Policy*

- A. The Contractor shall comply with the Energy Policy and Conservation Act (P.L. 94-163). Mandatory standards and policies relating to energy efficiency, contained in any applicable State Energy Conservation Plan, shall be utilized.

18.10 *Equal Opportunity Requirements*

- A. If this Contract exceeds **\$10,000**, the Contractor shall comply with Executive Order 11246, “Equal Employment Opportunity,” as amended by Executive Order 11375, “Amending Executive Order 11246 Relating to Equal Employment Opportunity,” and as supplemented by regulations at 41 CFR Part 60, “Office of Federal Contract Compliance Programs, Equal Employment Opportunity, Department of Labor.”
- B. Contractor’s compliance with Executive Order 11246 shall be based on its implementation of the Equal Opportunity Clause, specific affirmative action obligations required by the Standard Federal Equal Employment Opportunity Construction Contract Specifications, as set forth in 41 CFR Part 60-4 and its efforts to meet the goals established for the geographical area where the Contract is to be performed. The hours of minority and female employment and training must be substantially uniform throughout the length of the Contract, and in each trade, and the Contractor shall make a good faith effort to employ minorities and women evenly on each of its projects. The transfer of minority or female employees or trainees from Contractor to Contractor or from project to project for the sole purpose of meeting the Contractor’s goals shall be a violation of the Contract, the Executive Order, and the regulations in 41 CFR Part 60-4. Compliance with the goals will be measured against the total work hours performed.
- C. The Contractor shall provide written notification to the Director of the Office of Federal Contract Compliance Programs within **ten (10) working days** of award of any construction subcontract in excess of **\$10,000** at any tier for construction work under the Contract resulting from this solicitation. The notification shall list the name, address, and telephone number of the subcontractor; employer identification number; estimated dollar amount of subcontract; estimated starting and completion dates of the subcontract; and the geographical area in which the Contract is to be performed.

18.11 *Restrictions on Lobbying*

- A. The Contractor and each subcontractor shall comply with Restrictions on Lobbying (Public Law 101-121, Section 349) as supplemented by applicable Agency regulations. This Law applies to the recipients of contracts and subcontracts that exceed **\$100,000** at any tier under a Federal loan that exceeds **\$150,000** or a Federal grant that exceeds **\$100,000**. If applicable, the Contractor must complete a certification form on lobbying activities related to a specific Federal loan or grant that is a funding source for this Contract. Each tier certifies to the tier above that it will not and has not used Federal appropriated funds to pay any person or organization for influencing or attempting to influence an officer or employee of any agency, a member of Congress, or an employee of a member of Congress in connection with obtaining any Federal contract, grant, or any other award covered by 34 USC 1354. Each tier shall disclose any lobbying with non-Federal funds that takes place in connection with obtaining any Federal award. Certifications and disclosures are forwarded from tier to tier up to the Owner. Necessary certification and disclosure forms shall be provided by the Owner.

18.12 *Environmental Requirements*

- A. When constructing a project involving trenching and/or other related earth excavations, the Contractor shall comply with the following environmental constraints:
1. *Wetlands* – When disposing of excess, spoil, or other construction materials on public or private property, the Contractor shall not fill in or otherwise convert wetlands.
 2. *Floodplains* – When disposing of excess, spoil, or other construction materials on public or private property, the Contractor shall not fill in or otherwise convert one-hundred (100) year floodplain areas delineated on the latest Federal Emergency Management Agency Floodplain Maps, or other appropriate maps, i.e., alluvial soils on NRCS Soil Survey Maps.
 3. *Historic Preservation* – Any excavation by the Contractor that uncovers an historical or archaeological artifact shall be immediately reported to the Owner and a representative of the Agency. Construction shall be temporarily halted pending the notification process and further directions issued by the Agency after consultation with the State Historic Preservation Officer (SHPO).
 4. *Endangered Species* – The Contractor shall comply with the Endangered Species Act, which provides for the protection of endangered and/or threatened species and critical habitat. Should any evidence of the presence of endangered and/or threatened species or their critical habitat be brought to the attention of the Contractor, the Contractor will immediately report this evidence to the Owner and a representative of the Agency. Construction shall be temporarily halted pending the notification process and further directions issued by the Agency after consultation with the U.S. Fish and Wildlife Service.

00810 PROJECT SIGN

- Below is a typical project identity sign to include the project identity, credit to the State and/or Federal grant agencies and the awarding agency.
- Below is a typical contractor's identity sign.

<p>THIS PROJECT IS ADMINISTERED BY THE COUNTY OF IMPERIAL, WITH FUNDING FROM THE CALIFORNIA DEPARTMENT OF HOUSING & COMMUNITY DEVELOPMENT'S (HCD) COMMUNITY DEVELOPMENT BLOCK GRANT (CDBG) PROGRAM</p>  <p>IMPERIAL COUNTY 940 W. Main Street, Suite 203 El Centro, CA 92243 (760) 482-4900</p>  	<p>CONTRACTOR'S NAME BUSINESS ADDRESS BUSINESS PHONE # STATE CONTRACTOR'S LICENSE # EMERGENCY AFTER HOURS #</p>
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- Project identity sign to be placed on white background with black lettering.
- Provide and install logos.
- Both signs may be incorporated into one sign 8' x 4'.
- Contractor's identity sign to be placed on white background with black lettering.
- Provide art work and logo.
- Sign to measure a minimum 36" wide and 36" high

**PROGRESS ESTIMATE
APPLICATION**

For (contract):				Application Number:				
Application Period:				Application Date:				
A		B	Work Completed		E	F		G
Item		Scheduled Value	C	D	Materials Presently Stored (not in C or D)	Total Completed and Stored to Date (C + D + E)	%	Balance to Finish (B - F)
Specification Section No.	Description		From Previous Application (C + D)	This Period		(F) B		
TOTALS								

00830 CHANGE ORDER FORM

No. _____

Date of Issuance: _____ Effective Date: _____

Project: Winterhaven Water and Sewer Improvements	Owner: County of Imperial	Owner's Contract No.:
---	-------------------------------------	-----------------------

Contract: _____ Date of Contract: _____

Contractor: _____ Engineer's Project No.:
016-0039

The Contract Documents are modified as follows upon execution of this Change Order:

Description: _____

Attachments: (List documents supporting change): _____

CHANGE IN CONTRACT PRICE:

CHANGE IN CONTRACT TIMES:

Original Contract Price: \$ _____ Original Contract Working days Calendar days
Substantial completion (days or date): _____
Ready for final payment (days or date): _____

[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____: \$ _____
[Increase] [Decrease] from previously approved Change Orders No. _____ to No. _____: _____
Substantial completion (days): _____
Ready for final payment (days): _____

Contract Price prior to this Change Order: \$ _____ Contract Times prior to this Change Order:
Substantial completion (days or date): _____
Ready for final payment (days or date): _____

[Increase] [Decrease] of this Change Order: \$ _____ [Increase] [Decrease] of this Change Order:
Substantial completion (days or date): _____
Ready for final payment (days or date): _____

Contract Price incorporating this Change Order: \$ _____ Contract Times with all approved Change Orders:
Substantial completion (days or date): _____
Ready for final payment (days or date): _____

RECOMMENDED: _____ ACCEPTED: _____ ACCEPTED: _____
By: _____ By: _____ By: _____
Engineer (Authorized Signature) Owner (Authorized Signature) Contractor (Authorized Signature)

Date: _____ Date: _____ Date: _____

Approved by Funding Agency (if applicable): _____ Date: _____ Date: _____

CHANGE ORDER INSTRUCTIONS

A. General Information

This document was developed to provide a uniform format for handling contract changes that affect Contract Price or Contract Times. Changes that have been initiated by a Work Change Directive must be incorporated into a subsequent Change Order if they affect Price or Times.

Changes that affect Contract Price or Contract Times should be promptly covered by a Change Order. The practice of accumulating Change Orders to reduce the administrative burden may lead to unnecessary disputes.

If Milestones have been listed in the Agreement, any effect of a Change Order thereon should be addressed.

For supplemental instructions and minor changes not involving a change in the Contract Price or Contract Times, a Field Order should be used.

B. Completing the Change Order Form

Engineer normally initiates the form, including a description of the changes involved and attachments based upon documents and proposals submitted by Contractor, or requests from Owner, or both.

Once Engineer has completed and signed the form, all copies should be sent to Owner or Contractor for approval, depending on whether the Change Order is a true order to the Contractor or the formalization of a negotiated agreement for a previously performed change. After approval by one contracting party, all copies should be sent to the other party for approval. Engineer should make distribution of executed copies after approval by both parties.

If a change only applies to price or to times, cross out the part of the tabulation that does not apply.

SECTION 01070 - ABBREVIATIONS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Wherever in these Contract Documents the following abbreviations or acronyms are used, they shall have the meanings indicated as follows:

1.02 ABBREVIATIONS AND ACRONYMS

AA	Aluminum Association
AAMA	Architectural Aluminum Manufacturer's Association
AASHTO	American Association of the State Highway and Transportation Officials
A2LA	American Association of Laboratory Accreditation
A.C.	Asphalt Concrete
ACI	American Concrete Institute
ADWR	California Division of Water Resources
AGC	Associated General Contractors
AGMA	American Gear Manufacturer's Association
AI	The Asphalt Institute
AIA	American Institute of Architects
AISC	American Institute of Steel Construction
AISI	American Iron and Steel Institute
AITC	American Institute of Timber Construction
AMCA	Air Moving and Conditioning Association
ANSI	American National Standards Institute, Inc.
AOS	Apparent Opening Size
APA	American Plywood Association
API	American Petroleum Institute
APN	Assessor's Parcel Number
APWA	American Public Works Association
ASA	Acoustical Society of America
ASAE	American Society of Agriculture Engineers
ASCE	American Society of Civil Engineers
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers
ASLE	American Society of Lubricating Engineers
ASME	American Society of Mechanical Engineers
ASQC	American Society for Quality Control
ASSE	American Society of Sanitary Engineers
ASTM	American Society for Testing and Materials
AWPA	American Society for Preservers Association
AWPI	American Wood Preservers Institute
AWS	American Welding Society
AWWA	American Water Works Association
BHMA	Builders Hardware Manufacturer's Association
CBC	California Building Code
CBR	California Bearing Ratio
CDX	Apa Rated Plywood Sheathing Exposure
CGA	Compressed Gas Association
CLFMI	Chain Link Fence Manufacturer's Institute
CMA	Concrete Masonry Association
CRSI	Concrete Reinforcing Steel Institute
ETL	Electrical Test Laboratories
ETL	Extract, Transform Load
EPDM	Ethylene Propylene Diene M-Class

FHWA	Federal Highway Administration
GAI	Geosynthetic Accreditation Institute
GCP	Construction General Permit
GPM	Gallons per Minute
GRI	Geosynthetic Research Institute
HDPE	High Density Polyethylene
HPC	Heterotrophic Plate Count
ICBO	International Conference of Building Officials
IEEE	Institute of Electrical and Electronics Engineers
IES	Illuminating Engineering Society
IID	Imperial Irrigation District
IPC	Institute of Printed Circuits
IPCEA	Insulated Power Cable Engineers Association
IPS	Iron Pipe Size
ISA	Instrument Society of America
LAP	Laboratory Accreditation Program
LLDPE	Linear Low Density Polyethylene
MARV	Minimum Average Roll Value
MD	Machine Direction
MGD	Million Gallons per Day
MPA	Mega Pascal
MBMA	Metal Building Manufacturer's Association
NACE	National Association of Corrosion Engineers
NBS	National Bureau of Standards
NEC	National Electrical Code
NEMA	National Electrical Manufacturer's Association
NFPA	National Fire Protection Association
NFPA	National Forest Products Association
NGLI	National Lubricating Grease Institute
No.	Number
NOI	Notice of Intent
NOT	Notice of Termination
NSF	National Sanitation Foundation
NTPEP	National Transportation Product Evaluation Program
OD	Outside Diameter
OEM	Original Equipment Manufacturer
OIT	Oxidative Induction Time
OS&Y	Outside Stem and York
OSHA	Occupational Safety and Health Administration
PCA	Portland Cement Association
PCC	Portland Concrete Cement
PSI	Pounds per Square Inch
PVC	Polyvinyl Chloride
SBR	Styrene Butadiene Rubber
SCH	Schedule
SDR	Standard Dimension Ratio
SMA	Screen Manufacturer's Association
SMACCNA	Sheet Metal and Air Conditioning Contractors National Association
SPDT	Single Pole-Double Throw
SSPC	Steel Structures Painting Council
SSPWC	Standard Specifications for Public Works Construction
SWPPP	Storm Water Pollution Prevention Plan
UBC	Uniform Building Code
UL	Underwriters Laboratories, Inc.
USEPA	United States Environmental Protection Agency
UV	Ultra-Violet Disinfection

WCRSI	Western Concrete Reinforcing Steel Institute
WRI	Wire Reinforcement Institute, Inc.
WWPA	Western Wood Products Association
XMD	Cross Machine Direction

1.03 PLAN SHEET ABBREVIATIONS

%	Percent
AASHTO	American Association of State Highway and Transportation Officials
A.C.	Asphalt Concrete
A.C.P.	Asbestos Cement Pipe
AC-FT	Acer Feet
Agg.	Aggregate
AOS	Apparent Opening Size
APP	Approximate
ASTM	American Society for Testing and Materials
AVE	Average
AWWA	American Water Works Association
BC	Beginning of Curve
BLDG.	Building
BTM	Bottom
B.V.	Butterfly Valve
C2B	Class 2 Base
CC	Cubic Centimeter
C.I.	Cast Iron
CIRC	Circumferential
CL	Centerline
CLR	Clear
C.M.C.	Cement Mortar Coated
C.M.L.	Cement Mortar Lined
CPVC	Chlorinated Polyvinyl Chloride
D.I.	Ductile Iron
DIA	Diameter
DWG	Drawing
D/W	Driveway
Δ	Delta
EC	End of Curve
EF	Each Face
EL.	Elevation
E.P.	Edge of Pavement
EPDM	Ethylene Propylene Diene M-Class
EW	Each Way
FF	Finish Floor Elevation
FG	Finished Grade
FL	Flowline
FL.	Flanged
F.M.	Flow Meter
FM	Force Main
FS	Finish Surface
GALV	Galvanized
GPH	Gallons per Hour
GPM	Gallons per Minute
GW	Ground Water
H.B.	Hose Bib
HDPE	High Density Polyethylene
HP	Horsepower

HPUD	Heber Public Utility District
HW	High Water
I.D.	Inside Diameter
INV. EL.	Invert Elevation
INV.	Invert
IPS	Iron Pipe Size
L.	Length
LBS	Pounds
MAX.	Maximum
MG	Million Gallon
MGD	Million Gallons per Day
M.H.	Manhole
MIN.	Minimum
MISC.	Miscellaneous
M.J.	Mechanical Joint
MPH	Miles per Hour
N. RIM	North Rim
N.S.	Native Surface
N.T.S.	Not To Scale
O.C.	On Center
O.D.	Outside Diameter
OHC	Overhead Cable
OHE	Overhead Electric Line
OHT	Overhead Telephone Line
OS&Y	Outside Stem & York
P.C.C.	Portland Concrete Cement
P.E.	Plain End
PL	Property Line
P.P.	Power Pole
PP#	Power Pole Number
PPM	Parts per Million
PSI	Pounds per Square Inch
PT	Pressure Transmitter
PVC	Polyvinyl Chloride
P/S	Prestressing
R.C.	Reinforced Concrete
ROW	Right-of-Way
S.	Slope
SCH	Schedule
SCHED	Schedule
SD	Storm Drain
SDFM	Storm Drain Force Main
SDR	Standard Dimension Ratio
SM	Static Mixer
SQ	Square
SS	Sanitary Sewer
SST	Stainless Steel
STA	Station
S/W	Sidewalk
SWPPP	Storm Water Pollution Prevention Plan
TBD	To Be Determined
TBM	Temporary Benchmark
T.C.	Top of Curb or Top of Concrete
TDH	Total Dynamic Head
TF	Top of Footing
TMH	Top of Manhole

TOE	Top of Slope
TOF	Top of Floor
TOW	Top of Wall
T.P.	Top of Pavement
TV	Television
TYP.	Typical
UE	Underground Electricity
UNO	Unless Noted Otherwise
UT	Underground Telephone
VERT	Vertical

END OF SECTION 01070

SECTION 01090 - REFERENCE STANDARDS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Whenever in these Specifications references are made to published specifications, codes, standards or other requirements, it shall be understood that when no date is specified, only the latest published specifications, standards or requirements of the respective issuing agencies, as of the date that the Work is advertised for bids, shall apply; except to the extent that said standards or requirements may be in conflict with applicable laws, ordinances, or governing codes. No requirements set forth herein or shown on the drawings shall be waived because of any provision of, or omission from, said standards or requirements.

1.02 REFERENCE SPECIFICATIONS, CODE AND STANDARDS

- A. All work specified herein shall conform to or exceed the requirements of the referenced specifications, codes and standards to the extent that the provisions of such documents are not in conflict with the requirements of these Specifications.
- B. References herein to “Building Code” or UBC shall mean the Uniform Building Code of the International Conference of Building Officials (ICBO). The latest edition of the code, as of the date of award, as approved and adopted by the agency having jurisdiction, including all addenda, modifications, amendments or other lawful changes thereto, shall apply to the Work.
- C. References herein to American Water Works Association or AWWA shall comply with the latest edition of the code, as of the date of award.
- D. In case of conflict between codes, reference standards, drawings and other Contract Documents, the most stringent requirements shall govern. All conflicts shall be brought to the attention of the Engineer for clarification and directions prior to ordering or providing any materials or labor. The contractor shall bid the most stringent requirements.
- E. Applicable Standard Specifications: The Contractor shall construct the Work specified herein in accordance with the requirements of the Contract Documents and the referenced portions of those referenced codes, standards and specifications listed herein; except, that wherever references to “Standard Specifications” are made, the provisions therein for measurement and payment shall not apply.
- F. References herein to “OSHA Regulations for Construction” shall mean Title 29, Part 1926, Construction Safety and Health Regulations, Code of Federal Regulations (OSHA), including all changes and amendments thereto.
- G. References herein to “OSHA Standards” shall mean Title 29, Part 1910, Occupational Safety and Health Standards, Code of Federal Regulations (OSHA), including all changes and amendments thereto.
- H. All materials and equipment appurtenances that can contact potable water or water that will be treated to become potable shall be listed in NSF / ANSI Standard 61.
- I. References in the Contract Documents to “Standard Specifications” shall mean the Greenbook, formally known as the “Standard Specifications for Public Works

Construction” as published by the American Public Works Association, including all current supplements, addenda and revisions thereof, latest edition.

END OF SECTION 01090

SECTION 01300 - CONTRACTOR SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. All submittals by the Contractor shall be submitted to the Construction Manager at the Site. The Construction Manager may submit the submittals to the Design Engineer if required as authorized by the Owner. The Construction Manager will forward the approved submittals to the Owner.
- B. Within ten (10) days after the date of Notice to Proceed, the Contractor shall submit the following items to the Construction Manager:
 - 1. A Construction Schedule providing the starting and completion dates of the various stages of the Work. The Contractor shall be prepared to discuss its construction schedule at the pre-construction conference.
 - 2. Schedule of Values or lump sum price breakdown for progress payment purposes.
- C. Equipment submittals shall comply with Section 01660 – Mechanical Equipment – Installation and Start-Up

1.02 SUBMITTAL REQUIREMENTS AND PROCESS

- A. The Contractor shall prepare a detailed list of required submittals required for the Winterhaven Water and Sewer Improvements Project within five (5) days of receiving the Notice to Proceed. The Construction Manager will review and forward comments regarding the submittal list to the contractor within three (3) days after receiving the list. The Project Owner and County of Imperial staff shall also review and offer comments regarding the submittal list. The Construction Manager shall insure the submittal list for the Winterhaven Water and Sewer Improvements Project is approved within 10 days after the issuance of the Notice to Proceed. The submittal list for the on-site and off-site civil improvements is included in the Material and Equipment Submittal List, Section 1.09.
- B. Wherever called for in the Contract Documents or when requested by the Construction Manager, the Contractor shall furnish to the Resident Project Representative for review, six (6) copies of each submittal.
- C. All submittals shall be accompanied by a submittal transmittal form. This form may be obtained from the Construction Manager. A separate transmittal form shall be used for each specific item for which a submittal is required. Each submittal should be referenced to the specification section requiring the submittal. All Contractor submittals shall be carefully reviewed by an authorized representative of the Contractor, prior to submission to the Construction Manager. Each submittal shall be dated, signed and certified by the Contractor as being correct and in strict conformance with the Contract Documents. In the case of shop drawings, each sheet shall be so dated, signed and certified. No consideration for review by the Construction Manager of any Contractor submittals will be made for any items which have not been so certified by the Contractor. All non-certified submittals will be returned to the Contractor without action taken by the Engineer and any delays caused thereby shall be the sole responsibility of the Contractor.
- D. Multiple-page submittals shall be collated into sets with each set stapled or bound.

- E. The Construction Manager will return copies of each submittal to the Contractor with review comments within fifteen (15) calendar days following their receipt by the Resident Project Representative. There will be three (3) copies of a submittal returned to the Contractor when marked either “NO EXCEPTIONS TAKEN” or “APPROVED AS NOTED”, and no formal revision and re-submission of said submittal will be required. However, if one or more copies of the submittal are returned to the Contractor marked “REVISE AND RESUBMIT” or “REJECTED”, the Contractor shall revise said submittal and shall resubmit the required number of copies of said revised submittal to the Construction Manager.
- F. Fabrication of an item shall commence only after the Engineer has reviewed the submittal and returned copies to the Contractor marked either “NO EXCEPTIONS TAKEN” or “APPROVED AS NOTED”. Corrections indicated on submittals shall be considered as changes necessary to meet the requirements of the Contract Documents and shall not be taken as the basis of claims for extra work.
- G. The Engineer’s review of Contractor’s submittals shall not relieve the Contractor of the entire responsibility for the correctness of details and dimensions. The Contractor shall assume all responsibility and risk for any misfits due to any errors in the Contractor submittals. The Contractor shall be responsible for the dimensions and the design of adequate connections and details.

1.03 CONTRACTOR’S SCHEDULE SUBMITTAL

- A. The Contractor shall submit to the Resident Project Representative a construction schedule for the Work showing a general plan for orderly progression of the Work including mobilization of plant and equipment and timing of procurement of major materials and equipment.
- B. The Construction Manager may request that the Contractor provide a revised or updated Construction Schedule if, at any time, the Construction Manager considers the completion date to be in jeopardy because of any portion of the Work falling behind schedule or the sequence of operations becomes different from the previous schedule.

1.04 PROPOSED SUBSTITUTES OR “OR EQUAL” ITEM SUBMITTAL

- A. Whenever an item of material or equipment is specified or described in the Contract Documents by using the name of a proprietary item or the name of a particular Supplier, the specification or description is intended to establish the type, function, appearance and quality required. Other items of material or equipment, or material or equipment of other Suppliers may be submitted to the Engineer for review under the circumstances described below subject to the *Instruction to Bidders* (Section 2, Article 11), *Standard General Conditions* (Article 6.05), and the following requirements:
 - 1. The Contractor shall be responsible for resultant changes and all additional costs or credit to the Owner which the accepted substitution requires in the Contractor’s work, the work of its subcontractors and of other contractors and shall effect such changes without cost to the Owner.
- B. The procedure for review by the Engineer will include the following:
 - 1. If proposed substitute material or equipment has been judged to be unacceptable by the Engineer, the Contractor shall provide the material or equipment named in the Contract Documents.

1.05 SAMPLES SUBMITTAL

- A. The Contractor shall submit not less than two (2) samples, unless noted otherwise in a material or equipment specification, to the Engineer for acceptance at no additional cost to the Owner. Samples shall be submitted for acceptance a minimum of ten (10) days prior to ordering such material for delivery to the job site. If accepted by the Engineer, one (1) set of samples will be returned to the Contractor and one (1) set of samples shall remain at the job site until completion of the Work.

1.06 OPERATION, MAINTENANCE AND TECHNICAL MANUAL SUBMITTAL

- A. The Contractor shall furnish operation, maintenance and technical manuals in accordance with Section 01730 – Operation and Maintenance Manuals.
- B. All technical manuals shall be submitted to the Engineer not later than the seventy-five percent (75%) of construction completion date or fourteen (14) days prior to start-up of equipment if started before seventy-five percent (75%) completion of project. All discrepancies found in the technical manuals shall be corrected by the Contractor within thirty (30) days from the date of written notification by the Engineer.

1.07 AS-BUILT SUBMITTAL

- A. The Contractor shall maintain, during the progress of the Work, one (1) set of As-Built Drawings and shall neatly mark on them all project changes from the details shown on the original Contract Drawings. Special attention shall be given to recording on the drawings the horizontal and vertical location of all buried utilities that differ from the locations indicated or which were revealed during the construction.
- B. As-Built drawings shall be accessible to the Construction Manager at all times during the construction period and shall be delivered to the Construction Manager and the Design Engineer upon completion of the Work.
- C. Upon substantial completion of the Work and prior to final acceptance the Contractor shall deliver a complete set of As-Built drawings to the Engineer.

1.08 SUPERINTENDENT SUBMITTAL

- A. A letter designating the Project Superintendent shall be forwarded to the Construction Manager for his review. The letter shall also include emergency contact information for the Project Superintendent and other Contractor Representative.

1.09 SUBMITTAL LIST

- 1. General Requirements
 - 1.1 Construction Schedule
 - 1.2 Schedule of Values
 - 1.3 Letter Designation Project Superintendent
 - 1.4 Emergency Contact Number
 - 1.5 Operation and Maintenance Manuals

- 1.6 Signs, traffic control devices, cones, barricades and all other items required per the Traffic Control Plan
- 1.7 Project Identity and Construction Signs
- 1.8 Contractor to forward a complete submittal list for the Winterhaven Water and Sewer Improvements Project to the Construction Manager, Owner and County of Imperial Staff within 5 days of receiving the Notice to Proceed. See Section 01300, 1.0.2A.

END OF SECTION 01300

SECTION 01312 - PROJECT MEETINGS

PART 1 - GENERAL

1.01 DESCRIPTION

A. Work Included:

1. Required to enable orderly review during pre-installation conference and progress of the Work, and to provide for systematic discussion of installation problems and other construction problems arisen, the Construction Manager will conduct project meetings throughout the construction period.

1.02 RELATED WORK SPECIFIED ELSEWHERE

1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Division 1 - General Requirements.
2. The Contractor's relations with his Subcontractors and materials suppliers, and discussions relative thereto, are the Contractor's responsibility and normally are not part of project meetings content.

1.03 SUBMITTALS

A. Conform to provisions of Section 01300 – Contractor Submittals of the Technical Specifications.

B. Agenda Items:

1. To the maximum extent practicable, advise the Construction Manager at least twenty-four (24) hours in advance of project meetings regarding items to be added to the agenda or requesting the cancellation of any Meeting.

C. Minutes:

1. The Construction Manager will compile minutes of each project meeting and will furnish one copy to the Contractor, Resident Project Representative, and all other involved parties.
2. Recipients of copies may make and distribute such other copies as they wish.

1.04 QUALITY ASSURANCE

A. For those persons designated by the Contractor to attend and participate in project meetings, provide required authority to commit the Contractor to solutions agreed upon in the project meetings.

PART TWO - PRODUCTS (NOT APPLICABLE)

PART THREE - EXECUTION

3.01 MEETING SCHEDULE

A. Except as noted below for Preconstruction Meeting, project meetings will be held bi-weekly or as otherwise directed by the Construction Manager.

- B. Coordinate as necessary to establish mutually acceptable schedule for additional meetings.

3.02 MEETING LOCATION

- A. Project meetings will be held at the project site unless another location has been agreed upon prior to the biweekly meeting.

3.03 PRECONSTRUCTION MEETING

- A. A Preconstruction Meeting will be scheduled after the Notice to Proceed has been issued.
 - 1. Provide attendance by authorized representatives of the Contractor and major Subcontractors.
 - 2. The Construction Manager will advise other interested parties.
- B. Minimum Agenda: Data will be distributed and discussed on at least the following items.
 - 1. Organizational arrangement of Contractor's forces and personnel, and those of the subcontractors, and materials suppliers.
 - 2. Organizational arrangement of the Owner's forces and personnel and other authorized representatives.
 - 3. Channels and procedures for communication.
 - 4. Construction Schedule, including sequence of events and critical work.
 - 5. Contract Documents, including distribution of required copies of original Documents and revisions.
 - 6. Processing of Shop Drawings and other data submitted to the Construction Manager for review.
 - 7. Processing of bulletin, addenda, field decisions, Requests for Information and Change Orders.
 - 8. Rules and regulations governing performance of the Work.
 - 9. Procedures for site security, project quality control, housekeeping, and related matters.
 - 10. It is the responsibility of the Contractor for Site Safety & First Aid; however, it shall be on the agenda.
 - 11. Procedures for contractor's request.
 - 12. Emergency Information: The name, addresses, telephone and fax numbers of the Contractor, and Subcontractors, or their representatives, shall be filed with the Construction Manager prior to start of the Work.

3.04 PROJECT MEETINGS

- A. Attendance:

1. To the maximum extent practicable, the Project Superintendent and other representatives who have full knowledge of the project and full authority to act for the Contractor shall represent the Contractor at Project Meetings throughout the progress of the Work.
2. Subcontractors, materials suppliers, and others may be invited to attend these Project Meetings in which their aspect of the Work is involved.
3. The Contractor may not cancel or be absent from any meeting without advanced approval from the Construction Manager. The Contractor must submit a written request with reason to the Construction Manager twenty-four (24) hours before the scheduled meeting. If approved, the Contractor shall notify all parties of the cancellation.

B. Minimum Agenda:

1. Review progress of the Work since last meeting. Review actual starts and finish dates of activities.
2. Review status (total complete and outstanding) of submittal for approval, Request for Information and Change Orders.
3. Identify old and new problems, which impede planned progress, identify responsible party for the follow-up actions. Mutually agree to a common solution and date of correction.
4. Develop corrective measures and procedures to regain lost time on the planned schedule.
5. Review Weekly Progress Reports including the forecasts.
6. Status of As-Builts.
7. Project site Walk-Through. Record all discussion and follow-up actions.
8. Any project site health and/or accident or safety issues.

3.05 SPECIFIC SITE MEETINGS

- A. Required when necessary to enable orderly review and discussion of site conditions and problems requiring solution during the progress of the contracted work. Notify the Construction Manager of the need for additional site meetings as early as possible to resolve the problem without any impact to the Project Schedule.
- B. Provide necessary labor, tools, and equipment such as shoring, scaffolding, ladder, etc. to gain access to the specific sites.
- C. The Contractor or The Contractor's authorized representative shall be present at all times.

All discussion and follow-up actions shall be recorded by the Construction Manager, and the minutes shall be distributed at the next meeting or at earliest time

END OF SECTION 01312

SECTION 01505 - MOBILIZATION

PART 1 - GENERAL

1.01 DESCRIPTION

A. Mobilization shall include obtaining all permits; moving plant equipment on-site; furnishing and erecting plants, temporary buildings and other construction facilities; all as required for the proper performance and completion of the Work. Mobilization shall include, but not be limited to, the following principal items:

1. Moving on to the site, Contractor's equipment and materials required for operations.
2. Installing temporary construction power, wiring and lighting facilities.
3. Establishing fire protection equipment and instructing designated personnel in the operation of such apparatus.
4. Providing all on-site Contractor communication facilities.
5. Providing on-site Contractor's sanitary facilities.
6. Arranging and setting up the Contractor's work and storage yard.
7. Obtaining all required permits.
8. Posting all OSHA required notices and establishment of safety programs.
9. Have Contractor's superintendent at the Site full time.
10. Submittal of Construction Schedule.
11. Submittal of Schedule of Values
12. Install Project Sign, by the Standard General Conditions, Article 19.
13. Costs of Insurance, Payment Bond, Performance Bond, Taxes, Permits, Freight and similar expenses.

1.02 PAYMENT FOR MOBILIZATION

A. Payment for Mobilization, as noted in the Proposal Forms and approved Schedule of Values, shall not be released to the Contractor unless all items in Paragraph "A" above have been satisfied.

END OF SECTION 01505

SECTION 01520 - TEMPORARY FACILITIES

PART 1 - GENERAL

1.01 DESCRIPTION

The Owner shall bear no costs of temporary facilities, unless noted otherwise.

It shall be the Contractor's responsibility to provide equipment that is adequate for the performance of the Work under this Contract within the time specified. All equipment shall be kept in satisfactory operating condition, shall be capable of safely and efficiently performing the required Work and shall be subject to inspection and approval by the Owner's representative at any time within the duration of the Contract. All work hereunder shall conform to the applicable requirements of the OSHA Standards for Construction.

1.02 POWER AND LIGHTING

The Contractor shall provide temporary electric power as necessary for the execution of the Work, including that required by all Subcontractors. Contractor shall make the necessary arrangements with utility purveyor to include all permits, applications and fees, and shall bear all costs for these temporary services and shall furnish and install all necessary transformers, metering facilities and distribution centers from branch circuits as may be required.

The Contractor shall provide lighting and outlets in temporary structures throughout the Project as may be required for safety, proper performance and inspection of the Work. If operations are performed during hours of darkness, or if natural lighting is deemed insufficient by Engineer, the Contractor shall provide adequate floodlights, clusters and spot illumination. The use of permanently installed lighting fixtures, lamps and tubes for work shall not be permitted except by special permission of Engineer. The Contractor shall make arrangements with Subcontractors for electrical services and lighting as may be necessary in the performance of their work.

1.03 WATER SUPPLY

- A. General: The Contractor shall provide an adequate supply of water of a quality suitable for all domestic and construction purposes. Potable water shall be furnished by the Owner without charge.
- B. Drinking Water: All drinking water on the site during construction shall be furnished by the Contractor and shall be bottled water or water furnished in approved dispensers. Notices shall be posted conspicuously throughout the site warning the Contractor's personnel that piped water for construction purposes may be contaminated and is not for human consumption.
- C. Water Connections: The Contractor shall not make connection to, or draw water from, any fire hydrant or pipeline without first obtaining permission, in writing, of the authority having jurisdiction over the use of said fire hydrant or pipeline and from the agency owning the water system. For each such connection made the Contractor shall first attach to the fire hydrant or pipeline a valve, backflow preventer and a meter, if required by the said authority, of a size and type acceptable to said authority and agency.
- D. Removal of Water Connections: Before final acceptance of the Work all temporary water connections and piping installed by the Contractor shall be entirely removed, and all affected improvements shall be restored to their original condition, or better, to the satisfaction of the Engineer and to the agency owning the affected utility.

- E. Fire Protection: The Contractor shall provide fire extinguishers and other fire protection equipment to adequately protect new and existing facilities and temporary facilities against damage by fire. Hose connections and hose, water casks, chemical equipment or other sufficient means shall be provided for fighting fires in the new, existing and temporary structures and other portions of the Work and responsible persons shall be designated and instructed in the operation of such fire apparatus so as to prevent or minimize the hazard of fire. The Contractor’s fire protection program shall conform to the requirements of the OSHA Standards for Construction. The Contractor shall employ every reasonable means to prevent the hazard of fire.

1.04 CONSTRUCTION OFFICE TRAILER

Not Applicable

1.05 SANITATION

- A. Toilet Facilities: Portable chemical toilet facilities shall be provided wherever needed for the use of employees. Toilets at Site(s) shall conform to the requirements of Subpart “D”, Section 1926.51 of the OSHA Standards for Construction. The Owner’s toilet facilities shall not be used by the Contractor. Two (2) toilet facilities shall be positioned at the project site. One (1) toilet facility shall be for men. The other toilet facility shall be for women. Toilet facilities shall be relocated as required and be maintained close to daily work activities. The toilet facilities shall be cleaned and serviced on a weekly basis.
- B. Sanitary and Other Organic Wastes: The Contractor shall establish adequate and regular collection of all sanitary and organic wastes. All wastes and refuse from sanitary facilities provided by the Contractor or organic material wastes from any other source related to the Contractor’s operations shall be disposed of in a manner satisfactory to the Engineer and in accordance with all laws and regulations pertaining thereto. Contractor may install temporary piping for toilet facilities to discharge into the incoming sewer.

1.06 COMMUNICATIONS

- A. Telephone Services: The Contractor shall provide and maintain a phone line.

1.07 FENCE AND BARRICADES

The Contractor shall provide such protective fences and barricades as deemed necessary for public safety and to protect storage areas and the Work in place. The location and appearance of all fences shall be subject to the approval of the Engineer.

1.08 CONTRACTOR PARKING

The Contractor shall not park his equipment, nor allow his personnel to park, in any area except those specifically designated by the Engineer and Owner.

1.09 TEMPORARY LIVING QUARTERS

Temporary living quarters shall not be allowed on the Site or on publicly owned properties. In addition, all local zoning codes for the area in question shall be strictly adhered to.

1.10 REMOVAL OF TEMPORARY CONSTRUCTION FACILITIES

The Contractor shall remove temporary toilets, storage sheds and other temporary construction facilities from the site as soon as, in Engineer's opinion, the progress of Work permits. Contractor shall recondition and restore those portions of the site occupied by the same to a condition equal to or better than it was prior to construction.

END OF SECTION 01520

SECTION 01530 - PROTECTION OF EXISTING FACILITIES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. The Contractor shall protect all existing utilities, piping and improvements not designated for removal and shall restore damaged or temporarily relocated utilities, piping and improvements to a condition equal to or better than they were prior to such damage or temporary relocation.
- B. The Contractor shall verify the exact locations and depths of all underground piping and utilities shown and not shown and shall make exploratory excavations of all piping and utilities that may interfere with the Work. It shall be the Contractor's responsibility to ascertain the actual location of all existing utilities, piping and other improvements that will be encountered during construction operations and verify that such utilities or other improvements are adequately protected from damage due to such operations.
- C. Maintaining in Service: All pipelines, electrical, power, telephone communication cables, gas and water mains shall remain continuously in service during all the operations under the Contract, unless other arrangements satisfactory to the Engineer are made with the Owner. Where the proper completion of the Work requires the temporary or permanent removal and/or relocation of an existing utility or other improvement the Contractor, after necessary scheduling and approval, shall remove and, without unnecessary delay, temporarily replace or relocate such utility or improvement in a manner satisfactory to the Engineer and the Owner of the facility. In all cases of such temporary removal or relocation, the Work shall be accomplished by the Contractor in a manner that will restore or replace the utility or improvement to a new condition meeting the specification requirements.
- D. All repairs to a damaged utility or improvement are subject to inspection and approval by a Resident Project Representative before being concealed by backfill or other work.

1.02 RIGHTS-OF-WAY

- A. The Contractor shall refrain from commencing work or entering upon the rights-of-way of any oil, gas, sewer or water pipeline; any telephone or electric transmission line; any fence; or any other structure, until notified by the Engineer that the Owner has secured authority to do so. After authority has been obtained, the Contractor shall give the governing utility proper advanced notice of its intention to begin work.

1.03 RESTORATION OF PAVEMENT AND SIDEWALKS

- A. All paved areas and sidewalks not designated for replacement, cut or damaged during construction shall be replaced with similar materials and of equal thickness to match the existing adjacent undisturbed areas unless otherwise noted. All sidewalks, curbs and gutters and pavements which are subject to partial removal shall be neatly saw-cut in straight lines. The sidewalk, curb and gutter and pavement shall be constructed in accordance with the Standard Details and Plans of the governing agency.

1.04 UNDERGROUND UTILITIES NOT SHOWN OR INDICATED

- A. If the Contractor damages existing utilities, piping or improvements that are not illustrated or the location of which was not made known to the Contractor prior to excavation and the damage was not due to failure of the Contractor to exercise reasonable care the Contractor shall immediately notify the Engineer. If directed by the Engineer

repairs shall be made by the Contractor under the provisions for changes and extra work contained in Articles 10, 11 and 13 of the Standard General Conditions.

1.05 NOTIFICATION BY THE CONTRACTOR

- A. Prior to any excavation in the vicinity of any existing underground facilities, including water, sewer, storm drain, gas, petroleum products, or other pipelines; all buried electric power, communications or telecommunication cables; all traffic signal and street lighting facilities; and all roadway and state highway rights-of-way, the Contractor shall notify the respective utility purveyors or agencies or owners responsible for such facilities not less than three (3) working days prior to excavation so that a representative is afforded the opportunity to be present during the excavation work.

END OF SECTION 01530

SECTION 01550 - SITE ACCESS AND STORAGE

PART 1 - GENERAL

1.01 HIGHWAY AND STREET LIMITATIONS

- A. The Contractor shall make its own investigation of the condition of available public and private roads and of clearances, restrictions, bridge load limits and other limitations affecting transportation and ingress and egress to the Site. It shall be the Contractor's responsibility to construct and maintain any haul roads required for its construction operations or define any alternate routes to the Site due to roadway or bridge restrictions.
- B. Nothing herein shall be construed to entitle the Contractor to the exclusive use of any public street, utility right-of-way or the Site during the performance of the Work hereunder. The Contractor shall conduct its operations so as not to interfere unnecessarily with the authorized work of utility companies, other agencies, or the Owner's plant personnel. No street or access shall be closed without first obtaining permission of the Engineer or proper governmental authority. Where excavation is being performed in primary streets or highways one (1) lane in each direction shall be kept open to traffic at all times unless otherwise provided or shown by the Contract Documents. Fire hydrants on or adjacent to the Work shall be kept accessible to fire-fighting equipment at all times. Temporary provisions shall be made by the Contractor to assure the use of sidewalks, access routes and the proper functioning of all gutters, sewer inlets and other drainage facilities.
- C. Traffic Control: For the protection of traffic in public streets and construction workers at the Site, the Contractor shall provide, place and maintain all necessary barricades, traffic cones, warning signs, lights and other approved safety devices. All barricades, traffic cones, warning signs, lights and other approved safety devices shall be placed according to the agency requirements maintaining jurisdiction, as applicable. The Contractor shall take all necessary precautions for the protection of the Work and the safety of the Owner's personnel and the public. All barricades and obstructions shall be illuminated at night.

1.02 CONTRACTOR'S WORK AND STAGING AREA

- A. The Owner will designate and arrange, for the Contractor's use, a portion(s) of the property on or adjacent to the Site for its exclusive use during the term of the Contract. The area is designated for an office, storage and shop area for construction operations relative to this Contract. Contractor shall be solely responsible for the security of its tools, supplies and equipment at the site. The staging area(s) for this project are illustrated on the new site plan of the Plans.

END OF SECTION 01550

SECTION 01560 - PROJECT ENVIRONMENTAL CONTROLS

PART 1 - GENERAL

1.01 EXPLOSIVES AND BLASTING

- A. The use or storage of explosives on the Work or site will not be permitted.
- B. Controls outlined in the Environmental Report developed for this project shall be implemented throughout the course of construction. A copy of the Environmental Report is included in the Special Conditions.

1.02 DUST ABATEMENT AND RUBBISH CONTROL

- A. The Contractor shall provide under the Contract all necessary measures to prevent its operation from producing dust in amounts damaging to property or causing a nuisance to Owner's plant personnel and operations or to persons living in or occupying buildings in the vicinity. The Contractor shall be responsible for damage resulting from any dust originating from its operations. The dust abatement measures shall be continued throughout the length of the Contract.
- B. During the progress of the Work the Contractor shall keep the Site and other areas used by it in a neat and clean condition and free from any accumulation of rubbish and waste materials. The Contractor shall dispose of all rubbish and waste materials of any nature occurring at the Site, and shall establish regular intervals of collection and disposal of such materials and waste. The Contractor shall also keep its haul roads free from dirt, rubbish and unnecessary obstructions resulting from its operations. Disposal of all rubbish and surplus materials shall be off the site of construction in accordance with local codes and ordinances governing locations and methods of disposal and in conformance with all applicable Safety Laws and Health Standards for Construction. The Owner's dumpster shall not be used by the Contractor.
- C. Contractor shall implement regulations set by CAL EPA and the Imperial County Air Pollution Control District for all work activities related to this Project.

1.03 CHEMICALS

- A. All chemicals used during project construction or furnished for project operation, whether soil sterilant, herbicide, pesticide, disinfectant, polymer, reactant or of other classification, shall show approval for use by either the U.S. Environmental Protection Agency, the U.S. Department of Agriculture or the local jurisdictional agency. Use of all such chemicals and disposal of residues shall be in strict accordance with the printed instructions of the manufacturer.

1.04 CULTURAL RESOURCES

- A. The Contractor's attention is directed to the National Historic Preservation Act of 1966 (16 U.S.C. 470) and 36 CFR 800 which provides for the preservation of potential historical, architectural, archeological or cultural resources (hereinafter called "cultural resources). If potential cultural resources are discovered during subsurface excavations at the site of construction, the following procedures shall be instituted:
 - 1. The Contractor shall immediately notify the Engineer.

2. The Engineer will issue a Field Order directing the Contractor to cease all construction operations at the location of such potential cultural resources find.
 3. Such Field Order shall be effective until such time as a qualified archeologist can be called to assess the value of these potential cultural resources and make recommendations to the California State Historical Society Archeologist.
- B. If the archeologist determines that the potential find is a bona fide cultural resource, at the direction of the California State Historical Society Archeologist, the Contractor shall suspend work at the location of the find under the provisions for changes contained in Articles 4, 8 and 18 of the Standard General Conditions and Supplementary Conditions 4.02, 4.06 and 4.06D.

1.05 STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

- A. The entire project will disturb less than 1 acre and will not require a Storm Water Pollution Prevention Plan (SWPPP).

END OF SECTION 01560

SECTION 01600 - MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.01 QUALITY ASSURANCE

- A. To the greatest extent possible for each unit of work, the Contractor shall provide products, materials or equipment from a single source.
- B. Where more than one choice is available as options for Contractor's selection of a product, material or equipment, the Contractor shall select an option which is compatible with other products, materials or equipment already selected.

1.02 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. The Contractor shall transport, deliver, handle and store products in accordance with supplier's written recommendations and by methods and means which will prevent damage, deterioration and loss including theft. Delivery schedules shall be coordinated to minimize long-term storage of products at the Site and overcrowding of construction spaces. The Contractor shall provide installation coordination to ensure minimum storage times for products recognized to be flammable, hazardous or easily damaged.
- B. Products shall be delivered in a dry, undamaged condition in the supplier's unopened packaging. The Engineer and Owner reserve the right to reject all damaged products, materials and equipment. Rejected products shall be immediately removed from the Site.
- C. Products, materials and equipment shall be stored in accordance with the manufacturer's written instructions, with seals and labels intact and legible. Motors, electrical gear, mechanical equipment with open bearings or moving parts or any product sensitive to the environment shall be stored in weather-tight enclosures with necessary temperature and humidity ranges maintained within the manufacturer's instructions.
- D. Fabricated structural components shall be stored on supports above ground and in a manner to prevent accumulation of water and warping. Products subject to deterioration from atmospheric conditions shall be covered in a manner that will provide adequate ventilation to avoid condensation.
- E. Products, materials and equipment not stored in a manner that will insure the maintaining of a new condition will be rejected by the Engineer. Such rejected products, materials and equipment shall be immediately removed from the Site.

END OF SECTION 01600

SECTION 01700 - PROJECT CLOSEOUT

PART 1 - GENERAL

1.01 FINAL CLEANUP

- A. The Contractor shall promptly remove from the vicinity of the completed work, all rubbish, unused materials, concrete forms, construction equipment and temporary structures and facilities used during construction. Final acceptance of the Work by the Owner will be withheld until the Contractor has satisfactorily complied with the requirements for final cleanup of the site.

1.02 FINAL SUBMITTALS

- A. The Contractor, prior to requesting final payment shall obtain and submit the following items to the Engineer for transmittal to the Owner:

1. Written guarantees, where required.
2. Operating manuals, technical manuals and instructions. The Contractor's attention is directed to the condition that one percent (1%) of the contract price will be deducted from any monies due the Contractor as progress payments if at the seventy-five percent (75%) construction completion point the approved technical manuals have not been submitted in accordance with Section 01300 - Contractor Submittals. The aforementioned amount will be retained by the Owner as the agreed estimated value of the approved technical manuals. Any such retention of money for failure to submit the approved technical manuals on or before the seventy-five percent (75%) construction completion point shall be in addition to the retention of any payments due to the Contractor as specified in Article 14 of the Standard General Conditions and the Agreement.
3. Manufacturers representatives installation, testing and startup report.
4. Keying.
5. Maintenance stock items, spare parts and special tools.
6. Completed As-Builts.
7. Certificates of inspection and acceptance by local governing agencies having jurisdiction.
8. Releases from all parties who are entitled to claims against the subject project, property or improvement pursuant to the provisions of law.
9. Extension of Performance Bond in accordance with Article 5.01A of the Standard General Conditions, if applicable.

1.05 MAINTENANCE AND GUARANTEE

- A. The Contractor shall provide a bond to comply with the guarantee requirements contained in Article 5.01A of the Standard General Conditions.
- B. The Contractor shall make all repairs and replacements promptly upon receipt of written order from the Owner. If the Contractor fails to make such repairs or replacements promptly the Owner reserves the right to do the Work and the Contractor and his surety

shall be liable to the Owner for the cost thereof. Replacement of native material or aggregate fill, backfill or resurfacing where it has settled below the required finish elevations shall be considered as part of such required repair work.

END OF SECTION 01700

SECTION 01730 - OPERATION AND MAINTENANCE MANUALS

PART 1 - GENERAL

1.01 DESCRIPTION

The Contractor shall furnish to the Engineer six (6) identical sets of operation, maintenance and technical manuals. The Contractor shall include in the manuals for each item of mechanical, electrical and instrumentation equipment the following:

1. Complete operating instructions, including recommended troubleshooting and start-up procedures; tabulation of proper settings for all pressure relief valves, pressure switches and other related equipment protection devices; detailed test procedures to determine performance efficiency of equipment; list of all electrical relay settings including alarm and contact settings.
2. Preventive maintenance procedures and schedules, including required lubricants, filters, adjustments and special tools.
3. Parts lists, by generic title and identification number, complete with exploded views of each assembly. Spare parts information shall be included for each mechanical, electrical and instrumentation equipment. The spare parts list shall include the current list price of each spare part. The spare parts list shall be limited to those spare parts which each manufacturer recommends be maintained by the Owner in inventory at the plant site. Each manufacturer or supplier shall indicate the name, address and telephone number of its nearest outlet for spare parts to facilitate the Owner in ordering.
4. Disassembly and reassembly instructions, including required special tools.
5. Record drawings including diagrams and schematics as required under the electrical and instrumentation portions of these specifications.

1.02 OPERATIONS AND MAINTENANCE MANUALS

A. General:

1. The “Operating and Maintenance Manual” is a bound compilation of drawings and data required for each project. These manuals, complete with drawings and data, shall be furnished to the Owner.
2. The Contractor has overall responsibility to obtain the necessary data from and compile the data as set forth in this specification, including items or equipment purchased by the Owner and delivered to the Contractor for installation.
3. The number of binders (or “volumes”) required for each individual project will depend on the amount of information to be catalogued.
4. All information included shall be legible and sufficiently marked to indicate the exact size, model, type, etc., of equipment furnished and installed.

B. Purpose: The Operating and Maintenance Manual is prepared to provide a ready reference to all important mechanical, electrical and instrumental equipment components installed at the project. It is also to provide the necessary operating and maintenance data for use by service personnel. It is also to provide information required for checking equipment performance or for planning of plant expansion or redesign.

- C. Quantity and Preparation (Submit through Engineer):
 - 1. Operation and Maintenance Manuals shall be prepared for the project.
 - A. Three (3) sets to the Engineer.
 - B. Three (3) sets to Owner.
 - 2. The quantities of drawings, manufacturer’s literature, or other data required for these manuals are in addition to those otherwise required for normal distribution for approval during the construction period.

PART 2 - MATERIALS AND METHODS

2.01 PAGE SIZE

- A. All pages shall be standard 8-½ x 11 inches size or approximate multiples (preferably 11 x 17 inches) folded to 8-½ x 11-inch manila pockets, which shall have standard three-ring side punching for insertion in the binders. The equipment name, drawing description and number shall be written on the face of each manila pocket.

2.02 DRAWINGS

- A. All drawings larger than 8-½ x 11” shall be folded and inserted in individual 8-½” x 11” manila pockets, which shall have standard three-ring side punching for insertion in the binders. The equipment name, drawing description and number shall be written on the face of each manila pocket.

2.03 BINDERS

- A. Binders shall be Buckram binders with block lettering for sheet size 8-½ x 11 inches with 2” to 3-½” expandable metal capacity as required for the project. The number of binders, however, shall be based on not filling them beyond 4”.
- B. The following information shall appear on the front cover and backbone:
 - 1. “Operation and Maintenance Manual”
 - 2. Project Name (Imperial County Winterhaven Water and Sewer Improvements) and volume number if more than one volume
 - 3. Owner’s name
 - 4. Engineer’s name
 - 5. General Contractor’s name

Item 5 need not be printed on the backbone.

2.04 CONTENTS AND INDEXING

- A. Manuals shall contain descriptions of the plant systems in sufficient detail to adequately indicate the type of systems installed and the basic details of their operation.

- B. All purchased equipment data shall be used to designate the sections. Within each section additional indexing of component parts may be required.
- C. Operation and Maintenance Manuals shall contain to the fullest extent all possible information pertinent to the equipment. The arrangement and type of information to be filed shall be as follows:
 - 1. Copy of purchase order change (if any).
 - 2. Outline drawings, special construction details, “as built” electrical wiring and control diagrams for all major and supplementary systems.
 - 3. Manufacturer’s test or calculated performance data and certified test curves.
 - 4. Installation, operating and maintenance instructions, including a complete parts list and sectional drawing with parts identification numbers. Mark with model, size and plan number.
 - 5. Manufacturer’s brochure marked to indicate exact equipment purchased. Brochures on component parts supplied by a manufacturer with his equipment, but not manufactured directly by him, shall also be included.
 - 6. The serial numbers of each item of equipment installed are to be listed with the model numbers and plan symbols.
 - 7. Written warranties.
 - 8. Include a Table of Contents. The contents shall be divided with tabbed index dividers into the following suggested parts:
 - Part I Treatment Plant and System Descriptions
 - Part II Purchased Equipment Data
 - Part III Test Reports and Valve Charts
 - Part IV Start-Up and Operation
 - Part V Preventative Maintenance Recommendations
 - 9. A copy of the approved submittals for each piece of equipment.
 - 10. A copy of all testing, adjusting and balancing reports.
 - 11. Wiring diagrams marked with model and size and plan symbol.
 - 12. Operating and Maintenance Manuals data for Part I shall be obtained directly from the mechanical and electrical consultants. (All consultant preparation cost.)
 - 13. The index shall contain the name and address of the manufacturer and, if different, where replacement and repair parts may be obtained.

2.05 EQUIPMENT SUMMARY DATA FORMS INFORMATION SHEET

Equipment Summary Data Forms are intended to provide the Maintenance Department with sufficient information to catalogue newly purchased equipment items installed at the project site. This information is used for inventory purposes as well as for equipment performance tracking purposes. Each item of equipment installed at the facility must be documented on Equipment Summary Data Form. Examples of the form is attached. Additional requirements regarding submittal format, quantities, etc, are found elsewhere in this Specification.

1. Equipment item (included industry-accepted nomenclature).
2. Manufacturer address, phone/fax numbers
3. Supplier address (if different than above), phone/fax numbers
4. Equipment serial and model numbers
5. Size
6. Capacity
7. Rated output
8. Drive motor data (as appropriate).

In addition, information specific to the item described shall be provided as indicated on the following form.

**EQUIPMENT SUMMARY
DATA FORM**

EQUIPMENT ITEM: _____

EQUIPMENT COST: _____

EQUIPMENT SUPPLIER: _____

COMPONENT INFORMATION:	
NAMEPLATE DATE:	MANUFACTURER:
EQUIPMENT MODEL NO.:	EQUIPMENT SERIAL NO.:
EQUIPMENT MODEL DESIGNATION:	TYPE:
SIZE:	RATED OUTPUT:
CAPACITY:	SERVICE:
COMPONENT INFORMATION: DRIVE MOTOR DATA	
MANUFACTURER:	
SERIAL NO.:	HORSEPOWER:
MODEL:	FRAME:
TYPE:	VOLTAGE:
ENCLOSURE:	AMPERAGE:
PHASE:	HERTZ:
	SERVICE FACTOR:
LUBRICATION REQUIREMENTS: MOTOR	
COMMENTS:	

2.06 INFORMATION SHEET FOR EQUIPMENT MAINTENANCE SUMMARY FORMS

Equipment Maintenance Summary forms are intended to provide the Maintenance Division with information sufficient to properly diagnose (troubleshoot, repair, check-out, and return an item of equipment to service. Standard information contained in each Form shall be as follows:

In addition, Maintenance information required to troubleshoot, repair, and return electrical/electronic equipment to service (including set point, derivatives, etc.) shall be included as required. The Maintenance Summary Form attached in intended to serve as a (minimum) guide to the information required per item of equipment. Additional requirements regarding submittal format, quantities, etc. are found elsewhere in this Specification.

1. Equipment item (include industry-accepted nomenclature)
2. Manufacturer address, phone/fax numbers
3. Equipment serial number(s)
4. Weight of individual components (over 100 pounds)
5. Nameplate date (including voltage, horsepower, lubrication requirements, speed, etc.)
6. Manufacturer's local representative address, phone/fax numbers
7. Maintenance operation(s) required. Listing shall include (1) Maintenance Operation to be performed. (2) frequency of said Maintenance Operation based on actual service conditions of installed equipment (i.e., type of duty, environmental factors). Reference shall be made to the appropriate section of the manufacturer's technical literature.
8. Lubricant list. List shall include primary and two secondary manufacturer-approved lubricants.
9. Spare parts required for a minimum of one (1) year of equipment operation based on anticipated actual service conditions. Also, the name, address, and phone number of the recommended source of spare parts shall be included if different than manufacturer's representative.

TYPICAL MAINTENANCE SUMMARY FORM

NOTE: SUPPLEMENTARY INFORMATION SHALL BE INCLUDED AS APPROPRIATE

1. EQUIPMENT ITEM: _____
2. MANUFACTURER: _____
 ADDRESS: _____
 TELEPHONE NO.: _____ FAX NO.: _____
3. EQUIPMENT SERIAL/IDENTIFICATION NUMBERS: _____
4. WEIGHT OF INDIVIDUAL COMPONENTS (OVER 100 POUNDS): _____
5. NAMEPLATE DATA: _____
6. MANUFACTURER’S LOCAL REPRESENTATIVE: _____
 ADDRESS: _____
 TELEPHONE NO.: _____
 FAX NO.: _____
7. MAINTENANCE OPERATION(S) REQUIRED: (attach separate sheet if required).

<u>OPERATION</u>	<u>FREQUENCY</u>	<u>COMMENTS</u>

8. LUBRICANT LIST. Provide Reference symbol used in items recommended.

SHELL	STANDARD OIL	GULF	ARCO	EQUAL

9. RECOMMENDED SPARE PARTS LISTS FOR MINIMUM OF ONE (1) YEAR UNINTERRUPTED SERVICE. (Attach separate sheet if required).

ITEM	PART NO.	QUANTITY REQUIRED (per unit)	UNIT COST	COMMENTS

END OF SECTION 01730

SECTION 01781 - SPARE PARTS

PART 1 - GENERAL

1.01 DESCRIPTION

A. General:

1. The Spare Parts supplier must be the manufacturer or a factory authorized representative of the manufacturer. The manufacturer will be responsible for any default of the representative that is not corrected by the representative in a timely and efficient manner. This responsibility includes replacing incorrect or defective parts, troubleshooting, and correcting problems that are traceable to the manufacturer's parts. The supplier shall provide, along with the Spare Parts List, a formal letter of certification from the manufacturer that the supplier is an authorized representative of the manufacturer.
2. The supplier shall be a stocking facility of the manufacturer of the proposed parts, or the manufacturer must maintain a stocking facility of these parts on the West Coast, or the supplier can guarantee delivery of spare parts within seventy-two (72) hours.
3. Spare Parts should be supplied in the manufacturer's original packaging and shall be new and unused. A statement shall be included to clearly indicate that the Spare Parts are new and unused.
4. The Spare Parts list shall be in addition to any other lists required under any other sections of these Specifications. This list shall include but is not limited to the following:
 - a) Current prices including delivery to the Site.
 - b) Original Equipment Manufacturer (OEM) part numbers, which identify interchangeability.
 - c) Make and type of equipment as well as model number.
 - d) Size.
 - e) Supplier's contact information.
 - f) Letter of certification from the manufacturer.
 - g) Materials.
 - h) Special tools.
 - i) Estimated delivery lead times.
 - j) Warranty: State terms of warranty of spare parts offered.
 - k) Cross-sectional, exploded view or assembly-type drawing with part numbers.
 - l) Manufacturer's price list catalog.

- m) Applicable trade discount (for budget purposes).
- 5. Delivery of all required Spare Parts shall be a condition precedent to receipt of Partial Completion or a Statement of Completion.
- 6. The Contractor shall be responsible for proper storage and protection of the Spare Parts until delivered to the Owner.
- 7. To ensure proper tracking of the Spare Parts the Contractor shall fill out and submit a Spare Parts List to the Engineer with the delivery of Spare Parts. The Contractor's cost of preparing and submitting the Spare Parts List(s), procuring, and inspection of the Spare Parts shall be included in the Contractor's lump sum bid, and therefore, no overhead or profit shall be added to the cost of the Spare Parts.

B. Required Spare Parts:

- 1. The Required Spare Parts Lists shall be included with the equipment submittal to the Engineer.
- 2. The Contractor shall include in the Bid the cost of providing the Required Spare Parts described under individual equipment Specifications.

C. Recommended Spare Parts:

1. The Contractor shall submit with each equipment submittal a list from the manufacturer of the Recommended Spare Parts adequate to ensure two (2) continuous years of normal operation after expiration of the equipment warranty. The cost of preparing and submitting the Recommended Spare Parts List(s) shall be included in the Contractor's lump sum bid.
2. The Recommended Spare Parts List(s) shall include items requiring replacement under the following conditions:
 - a) Wear, corrosion, or erosion during normal operation.
 - b) Failure which causes a shutdown of equipment or systems.
 - c) Damage or breakage during routine maintenance or inspections of equipment.
 - d) Custom or specially fabricated parts, and
 - e) Long lead items.
3. The Contractor shall supply the Owner with all Spare Parts indicated on the Specifications.

END OF SECTION 01781

SECTION 01783 – AS-BUILT DRAWINGS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. As-Builts are full size drawings (Plans) and Record Project Manual which are marked up during construction to delineate the actual in-place constructed conditions. As-Builts shall be provided by the Contractor for this Project. Requirements for As-Builts, as specified elsewhere, shall supplement the requirements specified herein.
- B. As-Builts shall include all changes in the Plans including those issued as Change Orders, Plan Clarifications, Addenda, Notice to Bidders, responses to Request for Information, Project Site Memos, and any additional details needed for the construction of the Project but not shown on the Plans. Any substructures encountered while excavating that are left in place shall be located by survey, to the satisfaction of the Engineer, shown, and identified on the As-Builts. All substructures including, but not limited to, concrete structures, electrical conduit and duct banks, drains and sanitary sewer pipelines, process piping, water lines, etc, whose installed location differs from that shown on the original Plans shall be precisely located by survey to the satisfaction of the Engineer and recorded on the As-Builts before backfilling.
- C. As-Builts shall be marked with red ink or chemical fluid on one (1) set of full size prints to produce a record of the complete installation. Any additional drawings that may be required to indicate record conditions shall be prepared on 24" x 36" paper. All additions to the plans shall employ and use drafting standards which are consistent with the drafting standards used in the Contract.
- D. The As-Builts, including those of all Subcontractors, shall be kept by the Contractor in the Contractor's Project Site Office, shall be updated during construction, and shall be available for the Engineer's inspection and copying at all times. The Engineer will review the As-Builts prior to submittal of all Monthly Payment Requests. If, in the opinion of the Engineer, the As-Builts are not current, approval of the Monthly Payment may be withheld until the drawings are made current.
- E. Where the Plans are diagrammatic or lacking precise details, the Contractor shall produce dimensioned full size sheets as the As-Builts. For installations outside of the structures, the locations shall be given by coordinates and elevations. Where substructures are encased in concrete, the outside dimensions of the encasement shall also be given.
- F. In the case of those Drawings which depict the detail requirements for equipment to be assembled and wired in the factory, the As-Builts shall be updated by indicating those portions which are superseded by final Shop Drawings and by including appropriate reference information describing the Shop Drawings by manufacturer, drawing and revision numbers.
- G. At the Completion of the Work and after Final Inspection, the Contractor shall copy As-Built data, using red ink, onto a new set of Plans provided by the Owner. The Contractor shall certify to the completeness and accuracy of the "as installed" information indicated on the new set of Plans with its signature. The Contractor shall then deliver as a submittal to the Engineer, for review and approval, both the field developed As-Built Plans and the final signed As-Built Plans as a condition precedent to the Owner's release of any retained funds.

END OF SECTION 01783

Imperial County Air Pollution Control District Construction Notification Form

Project Information	
Project Name:	_____
Project Address:	_____
Major X-Streets:	_____
City:	_____ County: _____
Expected Construction Start Date:	_____ Total project site area: _____ Acres
End Date:	_____ Total disturbed surface area: _____ Acres
The project is:	<input type="checkbox"/> Residential <input type="checkbox"/> Non-residential (commercial, industrial, institutional, public, etc.)
Construction activities on any site will include ten acres or more of disturbed surface area for residential developments, or five acres or more for non-residential developments, are required to submit a Dust Control Plan to the District prior to the start of any construction activity. The Construction Notification Form may not be used to circumvent any Dust Control Plan requirement.	

Contacts	
Property Owner:	_____
Address:	_____
City / State / Zip:	_____
Phone:	_____ Fax: _____ Cell: _____
Developer:	_____
Address:	_____
City / State / Zip:	_____
Contact Person:	_____
Phone:	_____ Fax: _____ Cell: _____
General Contractor:	_____
Address:	_____
City / State / Zip:	_____
Contact Person:	_____
Phone:	_____ Fax: _____ Cell: _____
Other Contact:	_____
Company:	_____
Address:	_____
City / State / Zip:	_____
Phone:	_____ Fax: _____ Cell: _____

**Mailing Address: 150 South 9th Street
El Centro, CA 92243
Office: (760) 482-4606
Fax: (760) 353-9904**



REGULATION VIII - Rules 800-805

PROJECT IDENTIFICATION

Project Name _____ Project CUP # _____

Legal Name/Company _____ City _____

Contact name _____ Contact Phone _____

Description of the location of the project; such as Address and major cross roads

PROJECT CONTACTS

In order to comply with the requirements of Regulation VIII all contacts responsible for the submittal and implementation of the Dust Control Plan shall be identified below with an explanation of the responsibility of each contact. If additional space is needed please attach a sheet. (Rule 801, subsection F.2.c.1)

NAME _____ **TITLE** _____

PHONE NUMBER _____ **E-MAIL ADDRESS** _____

Describe the association the named person above has to the identified project. What are that person's duties, responsibilities. Does the person named above have the primary responsibility for implementing the Dust Control Plan? Is this person responsible for the project site?

NAME _____ **TITLE** _____

PHONE NUMBER _____ **E-MAIL ADDRESS** _____

Describe the association the named person above has to the identified project. What are that person's duties, responsibilities. Does the person named above have the primary responsibility for implementing the Dust Control Plan? Is this person responsible for the project site?

Please identify any known contractors, names, phone contact person etc., hired to work on the project site on separate cover.



Project Name _____ Project CUP # _____

PROJECT CONSTRUCTION OPERATIONS

Provide pertinent information concerning the projects **construction operations** - include a **plot plan** (which may be a tract map, site map or topographic map) which identifies the boundaries of the project, existing roads (including but not limited to paved, unpaved road ways, highways and freeways), where new proposed roads will be constructed, where the staging areas will be located, easements, entry and exit points (include whether these entry points will be permanent or temporary), whether or not sensitive receptors are adjacent to the project (including but not limited to residential areas, schools, day cares, churches, hospitals, nursing facilities, commercial and/or retail), include the distance between the project and the sensitive receptors and any other information as to allow for the proper evaluation of dust generating point sources and their impact. (Rule 801, subsection F.2.c.2&5)

The following checklist is provided solely as a guide and is not meant to be all inclusive. During the Plot Plan review process the Air District may identify additional dust generating point sources. For those instances where additional sources, not listed, have been identified please list under other. (Rule 801 subsection F.2.c.2&5)

List all identified actual and potential sources of fugitive dust emissions

- Bulk material handling and storage areas.
- Paved and unpaved access roads, haul roads, traffic areas, and equipment storage yards.
- Exit points where carryout and trackout onto paved public roads may occur.
- Water supply locations if water application will be used for controlling visible dust emissions.
- Other list below.

Check or list the relative locations of sensitive receptors within ¼ mile of the project. (Rule 407, Nuisance)

- No sensitive receptors within ¼ mile of the project.
- Residential areas, schools, day care, churches, hospitals, nursing facilities, commercial, retail, etc.
- Freeways, roads, or traffic areas that may be affected by the dust generating activities.
- Other list below.



Project Name _____ Project CUP # _____

DISTURBED SURFACE AREA

Report the total area of land surface to be disturbed, the daily throughput volume of earthmovement in cubic yards and the total area in acres of the entire project site. (Rule 801, subsection F.2.c.3&4)

Total area of project site _____ Acres Total surface area to be disturbed _____ Acres
 Total disturbed areas left inactive for more than seven days
 _____ Acres

Daily average throughput volume of earthmoving _____ Cubic Yards Daily maximum throughput volume of earthmoving
 _____ Cubic Yards

OTHER SITES

Identify whether any other locations should be included with this plan that are involved with this project. An example may include listing any site where materials will be imported from or exported to.

No other locations are included with this project

Location 1: _____

No Dust Control Plan Required Included with this plan Included with another plan

Location 2: _____

No Dust Control Plan Required Included with this plan Included with another plan

Location 3: _____

No Dust Control Plan Required Included with this plan Included with another plan

DUST GENERATING ACTIVITY DATES

EXPECTED CONTRUCTION START AND END DATES

IF CONSTRUCTION IS NOT PHASED SIMPLY INCLUDE THE START AND END DATES UNDER THE PHASE 1 OPTION

Phase 1 Start Date _____

Phase 3 Start Date _____

Phase 1 End Date _____

Phase 3 End Date _____

Phase 2 Start Date _____

Phase 4 Start Date _____

Phase 2 End Date _____

Phase 4 Start Date _____



Project Name _____ Project CUP # _____

MINIMUM REQUIREMENTS

This section describes the minimum requirements for limiting visible dust emissions from activities that cause fugitive dust emissions. Each category must have one requirement check marked.

(Rule 801 section F) For Enhanced Measures check all that apply.

Structural Demolition

No demolitions are planned for this project explain below.

Asbestos NESHAP notification has been submitted to the ARB and copy to the District.
 Date notification submitted _____

Pre-Activity (Rule 801 subsection F.1.a)

Not applicable for this project explain below.

The site will be pre-watered and work will be phased to reduce the amount of disturbed surface area at any one time. (Complete section M-1 beginning with page 7)

Active Operations (Rule 801, subsection F.1.b)

Application of water or Chemical Stabilizers to earthmoving activities. (Complete sections M-1 and/or M-2)

Construct & maintain wind barriers to limit visible dust emissions to 20%. (Complete section M-3)

Temporary stabilization: areas unused for seven or more days (Rule 801 subsection F.1.c)

Not applicable for this project explain below.

Vehicular access will be restricted and water or dust suppressants will be applied and maintained at all unvegetated areas. (Complete sections M-2 and/or section M-3)



Project Name _____ Project CUP # _____

MINIMUM REQUIREMENTS CONTINUED

This section describes the minimum requirements for limiting visible dust emissions from activities that cause fugitive dust emissions. Each category must have one requirement check marked.

(Rule 801 section F) For Enhanced Measures check all that apply.

Unpaved Access, Haul Roads, Traffic & Equipment Storage Areas (Rule 805)

Not applicable for this project explain below.

- Apply water or dust suppressants to unpaved haul and access roads. *(Complete sections M-1 and/or M-2)*
- Method of restricting unauthorized vehicle access. *(Complete section M-3)*
- Water or dust suppressants will be applied to vehicle traffic and equipment storage areas. *(Complete sec M-1 and/or M-2)*
- Establish vegetation on all previously disturbed areas. *(Complete section M-3)*

Outdoor Handling of Bulk Materials (Rule 802)

No bulk materials will be handled during this project explain below.

- Water or dust suppressants will be applied when handling bulk materials. *(Complete sections M-1 and/or M-2)*
- Protection from wind erosion by sheltering or enclosing the operation and transfer line. *(Complete section M-3)*

Outdoor Storage of Bulk Materials (Rule 802)

No bulk materials will be stored during this project explain below.

- Water or dust suppressants will be applied to storage piles. *(Complete sections M-1 and/or M-2)*
- Storage piles will be covered with tarps, plastic or other suitable material and anchored in such a manner that prevents the cover from being removed by wind action. *(Complete section M-3)*



Project Name _____ Project CUP # _____

MINIMUM REQUIREMENTS CONTINUED

This section describes the minimum requirements for limiting visible dust emissions from activities that cause fugitive dust emissions. Each category must have one requirement check marked.

(Rule 801 section F) For Enhanced Measures check all that apply.

On-Site/Off Site Transporting of Bulk Materials

No bulk materials will be transported on the project site explain below.

- Haul trucks will be covered with a tarp or other suitable cover. *(Complete section M-5)*
- All haul trucks will be loaded such that the freeboard is not less than six inches when transported across any paved public access road. *(Complete section M-5)*
- Cargo compartments are maintained so that **no** spillage and loss of bulk material will occur from holes or other openings in the floor, side and/or tailgate. *(Complete section M-5)*
- Cargo compartment is to be cleaned and/or washed at delivery site after removal of Bulk Material. *(Complete section M-5)*

Enhanced Measures: *According to Regulation VIII stabilization must be met at all times. See Rule 801 subsection D.2*

- Cease dust generating activities when wind speeds exceed 25mph. *(Records of wind speeds and wind gusts must be maintained and provided to the APCD upon request.)*
- Application of water or dust suppressants once per hour when wind speeds exceed 15mph. *(Records of wind speeds and wind gusts must be maintained and provided to the APCD upon request.)*
- Apply water to maintain 12% soil moisture content when wind speed exceeds 15mph. *(Records of wind speeds and wind gusts must be maintained and provided to the APCD upon request.)*
- Construct fences 3-5 feet high with 50% or less porosity in conjunction with water application or dust suppressant when wind speeds exceed 15mph. *(Records of wind speeds and wind gusts must be maintained and provided to the APCD upon request.)*
- OTHER - If necessary attach separate sheet.



SECTION M-1

Project Name _____ Project CUP # _____

WATER APPLICATION

Complete this section if water application will be used as a control method for limiting visible dust emissions and stabilizing surface areas. Check and answer all sections that apply to this project. In addition, if there is no intention of applying water to any phase of the project explain below. (Rule 801 section F)

NO WATER APPLICATION - EXPLAIN?

WATER APPLICATION SUPPLY - THE LOCATION OF EACH MUST BE IDENTIFIED ON THE PLOT PLAN

Fire hydrants

Number of hydrants available On-Site _____ Off-Site _____

Approval granted by the owner or public agency to use their fire hydrants for this project.

Owner or Agency granting approval _____

Contact Name and phone number _____

Storage tanks Number of tanks _____ Capacity of each _____

Wells Number of wells _____ Flow rate of each well _____

Canal, River, Pond, Lake etc.

Approval granted by the owner or public agency to use their water source for this project

Owner or Agency granting approval _____

Contact Name and phone number _____

Other explain



SECTION M-1 CONTINUED

Project Name _____ Project CUP # _____

WATER APPLICATION CONTINUED

Complete this section if water application will be used as a control method for limiting visible dust emissions and stabilizing surface areas. Check and answer all sections that apply to this project. In addition, if there is no intention of applying water to any phase of the project explain above. (Rule 801 section F)

WATER APPLICATION EQUIPMENT: THE LOCATION OF EACH MUST BE IDENTIFIED ON THE PLOT PLAN

Sprinklers

Describe the activities that will utilize sprinklers

Minimum treated area _____ Square Feet Frequency _____

Acres

Maximum treated area _____ Square Feet Frequency _____

Acres

Water Truck Other explain _____

Describe the activities that will utilize the equipment

Number of application equipment to be used _____ Hours of operation _____

Application equipment capacity _____

Application frequency must be once per day or more explain frequency below

Water application equipment is available to operate after normal working hours, on weekends and holidays

Name of contact after hours _____ Phone No. _____

Name of contact after hours _____ Phone No. _____



SECTION M-2

Project Name _____ Project CUP # _____

DUST SUPPRESSANT PRODUCTS

Complete this section if a dust suppressant product will be used. These materials include but are not limited to: hygroscopic suppressants (road salts), adhesives, petroleum emulsions, polymer emulsions and bituminous materials (road oils).

Not Applicable - The only control method will be the application of water *(Complete section M-1)*

Application Area; Explain where the dust suppressant will be applied below

Product (Manufacturer) Name _____

Name of contractor _____ Phone No. _____

Explain the rate of application including the amount of gallons of undiluted material per mile or per acre below.

Explain the application frequency; type and number of equipment; capacity including the amount of gallons of undiluted material per mile or per acre below.

Utilizing the checklist below attach each of the following pieces of information that fully describes the product to be used. All information must be submitted with this plan.

- Product Specifications. (MSDS, Product Safety Data Sheet, etc.)
- Manufacturer's Usage Instructions. (method, frequency and intensity of application)
- Environmental impacts and approvals or certifications related to the appropriate and safe use for ground application.
- Check here if more than one dust suppressant will be utilized and include the necessary copies of this page with the information for each dust suppressant to be used.



SECTION M-3

Project Name _____ Project CUP # _____

OTHER DUST CONTROL METHODS

Check below all other types of dust control methods that will be employed at the construction site.

- Physical barriers for restricting unauthorized vehicle access
 - Fences Gates Posts Berms Concrete Barriers
 - Other explain below

- Wind barriers describe below.

- Re-establish vegetation for temporarily stabilizing previously disturbed surfaces explain below.

- Apply Gravel- for the application of gravel identify where application will occur such as haul road, access roads, equipment storage yards (areas), vehicle traffic areas etc explain below.

- Apply pavement - explain where paving will occur.

- Other explain below.



SECTION M-4

Project Name _____ Project CUP # _____

TREATMENTS FOR PREVENTING TRACKOUT

Select the control devices that will be used for preventing trackout from occurring onto paved public roads. Trackout is any material that adheres to vehicle tires and is deposited onto a paved public road or the paved shoulder of a paved public road. Check all that apply to this project below.

Grizzly: Rails, pipes, or grates used to dislodge debris off of vehicles before exiting the site. Extends from the intersection with the paved public road surface for the full width of the unpaved exit surface for a distance of at least 25 feet. **Describe below**

Gravel Pad: A layer of washed gravel at least three (3) inches deep which extends from the intersection with the public paved road surface for the full width of the unpaved exit surface for a distance of at least 50 feet. Identify gravel size in inches, the pad width in feet, including the length and depth of the gravel below.

Paved Surface: Extends from the intersection with the paved public road surface for the full width of the unpaved access road for at least 50 feet to allow mud and dirt to drop off of vehicles before exiting the site. Identify the width and length of the paved surface below in feet.

Mud and dirt deposits within an urban area shall be cleaned immediately when trackout or carryout extends a cumulative distance of 50 linear feet or more otherwise clean up must be at the end of the workday.

Wheel Washer: Uses water to dislodge debris from tires and vehicle undercarriage. If utilizing a wheel washer describe the location, type and operation of the wheel washer below.

Other - describe any other measure utilized to prevent trackout below.



SECTION M-5

Project Name _____ Project CUP # _____

TREATMENTS FOR PREVENTING CARRYOUT

Report the required treatments that will be used for preventing carryout from occurring on paved public roads. Carryout occurs when materials from emptied or loaded haul trucks, vehicles, or trailers fall onto a paved public road or paved shoulder of a paved public road. Check all that apply.

No haul trucks will be routinely entering or leaving the project site explain below.

Emptied Haul Trucks:

Interior cargo compartments will be cleaned before leaving the project site. Explain below how emptied haul truck will be washed and the source of the water supply.

Cargo compartment will be covered with a tarp or suitable cover before leaving the project site.

Loaded Haul Trucks:

Spillage or loss of materials from holes or other opening(s) in the cargo compartment will be prevented when material transported onto any paved public access road.

Haul trucks will be loaded such that the freeboard is not less than six inches.

Other describe below.



SECTION M-6

Project Name _____ Project CUP # _____

CLEANING UP CARRYOUT AND TRACKOUT

Check and report below the methods and frequency for cleaning up carryout and trackout from the surface and paved shoulder of paved public roads. All material tracked or carried out onto paved road must be removed. Check all that apply.

The project is located in

An Urban Area

Identify the urban area by location, description etc. below.

Minimum cleanup frequency will be at the end of the workday and removed immediately if carryout and trackout, extends beyond 50 feet.

Non Urban Area

Identify the non urban area by location, description etc. below.

At the end of the workday

Optional - Clean up Method

Manually sweeping and picking up.

Mechanical sweeping with a rotary brush or broom accompanied or preceded by water.

Describe types of equipment that will be used.

The use of blower devices, or dry rotary brushers or brooms, for removal of carryout and trackout from paved public roads is not recommended.



AIR POLLUTION CONTROL DISTRICT
150 S. 9th Street, El Centro, CA 92243
Ph. (760) 482-4606
Fax (760) 353-9904

SAMPLE FORMAT
CONSTRUCTION
DUST CONTROL PLAN

Project Name _____ Project CUP # _____

RECORD KEEPING

Records and/or any other supporting documents used for the demonstration of compliance must be maintained for two years and provided to the Air Pollution Control District upon request.

CERTIFICATION

I certify that all information contained herein and information submitted in the attachments to these documents are true and correct.

Print Name

Title

Signature

Date

Phone Number _____

Fax Number _____

Cell Number _____

Technical Specifications

October 31, 2016

WINTERHAVEN WATER/SEWER IMPROVEMENT

Winterhaven, California 92283

Winterhaven Water District

494 2nd Avenue

Winterhaven, California 92283



1851 W. 24th St
Yuma, AZ 85364
928-344-8374
016-0039

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HORIZON PTF-60 VENTILATION SYSTEM

SECTION 011000 - SUMMARY

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Contract description.
 2. Owner-Furnished Products
 3. Work sequence.

1.2 CONTRACT DESCRIPTION

- A. Work for this Project includes improvements to the Water Treatment Plant and Sewer Disposal System in Winterhaven California. More Specifically, work will include the removal of the following items: three 20 HP pump station pumps, all exposed steel, 8" header piping, 12" steel pipe at tank valves, SES and MCC panel, electrical panel and compressor unit for hydro pneumatic tank, 10,000 gallon hydro pneumatic tank, well pump and motor from well #2, existing electrical panel from well #2, existing chain link fence, two sewer manholes and existing sewer lift station electrical panel and the installation of the following items: three new 20 HP Pumps, new cement mortar lined flanged ductile iron pipe and fittings, two new 10 HP inverter duty with VFD drive, new SES and MCC with integrated programmable logic controller, new shade structure for electrical cabinet, new auto dialer for water system, new 8" micrometer ultra mag totalizing flow meter, new 800 gallon hydro pneumatic tank with new foundation and electrical panel, new 15 HP 7" 400 GPM submersible pump with new electrical cabinet, new Horizon PTF-60 ventilation system, new chain link fence with gate, two new sewer manholes and a new sewer lift station electrical panel with auto dialer.
- B. Perform Work under **fixed cost** Contract with Owner according to Conditions of Contract.

1.3 WORK SEQUENCE

- A. Sequencing of Construction Plan: Before start of construction, submit three copies of construction plan regarding phasing of demolition and new Work for acceptance by Owner. The plan shall include by-pass pumping details and sequence of construction as well as electrical phasing to ensure the booster station is operational throughout construction. After acceptance of plan, construction sequencing shall comply with accepted plan unless deviations are accepted by Owner in writing.

SECTION 012500 - SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Quality assurance.
- B. Product substitution procedures.

1.2 QUALITY ASSURANCE

- A. Contract is based on products and standards established in Contract Documents without consideration of proposed substitutions.
- B. Products specified define standard of quality, type, function, dimension, appearance, and performance required.
- C. Substitution Proposals: Permitted for specified products except where specified otherwise. Do not substitute products unless substitution has been accepted and approved in writing by Owner.

1.3 PRODUCT SUBSTITUTION PROCEDURES

- A. Engineer will consider requests for substitutions only within 30 days of date established in Notice to Proceed.
- B. Substitutions may be considered when a product becomes unavailable through no fault of Contractor.
- C. Document each request with complete data, substantiating compliance of proposed substitution with Contract Documents, including:
 - 1. Manufacturer's name and address, product, trade name, model, or catalog number, performance and test data, and reference standards.
 - 2. Itemized point-by-point comparison of proposed substitution with specified product, listing variations in quality, performance, and other pertinent characteristics.
 - 3. Reference to Article and Paragraph numbers in Specification Section.
 - 4. Cost data comparing proposed substitution with specified product and amount of net change to Contract Sum.
 - 5. Changes required in other Work.
 - 6. Availability of maintenance service and source of replacement parts as applicable.
 - 7. Certified test data to show compliance with performance characteristics specified.
 - 8. Samples when applicable or requested.
 - 9. Other information as necessary to assist Architect/Engineer's evaluation.
- D. A request constitutes a representation that Bidder or Contractor:

1. Has investigated proposed product and determined that it meets or exceeds quality level of specified product.
 2. Will provide same warranty for substitution as for specified product.
 3. Will coordinate installation and make changes to other Work that may be required for the Work to be complete with no additional cost to Owner.
 4. Waives claims for additional costs or time extension that may subsequently become apparent.
 5. Will coordinate installation of the accepted substitute, making such changes as may be required for the Work to be complete in all respects.
 6. Will reimburse Owner for review or redesign services associated with reapproval by authorities having jurisdiction.
- E. Substitutions will not be considered when they are indicated or implied on Shop Drawing or Product Data submittals without separate written request or when acceptance will require revision to Contract Documents.
- F. Substitution Submittal Procedure:
1. Submit three copies of Request for Substitution for consideration. Limit each request to one proposed substitution.
 2. Submit Shop Drawings, Product Data, and certified test results attesting to proposed product equivalence. Burden of proof is on proposer.
 3. Engineer will notify Contractor in writing of decision to accept or reject request.

SECTION 013000 - ADMINISTRATIVE REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Coordination and Project conditions.
- B. Preconstruction meeting.
- C. Site mobilization meeting.
- D. Progress meetings.
- E. Closeout Meeting

1.2 COORDINATION AND PROJECT CONDITIONS

- A. Coordinate scheduling, submittals, and Work of various Sections of Project Manual to ensure efficient and orderly sequence of installation of interdependent construction elements.
- B. Verify that utility requirements and characteristics of operating equipment are compatible with building utilities. Coordinate Work of various Sections having interdependent responsibilities for installing, connecting to, and placing operating equipment in service.
- C. Coordinate space requirements, supports, and installation of mechanical and electrical Work indicated diagrammatically on Drawings. Follow routing shown for pipes, ducts, and conduit as closely as practical; place runs parallel with lines of building. Use spaces efficiently to maximize accessibility for other installations, for maintenance, and for repairs.
 - 1. Coordination Drawings: Prepare as required to coordinate all portions of Work. Show relationship and integration of different construction elements that require coordination during fabrication or installation to fit in space provided or to function as intended. Indicate locations where space is limited for installation and access and where sequencing and coordination of installations are important.
- D. Coordination Meetings: In addition to other meetings specified in this Section, hold coordination meetings with personnel and Subcontractors to ensure coordination of Work.
- E. In finished areas, conceal pipes, ducts, and wiring within construction. Coordinate locations of fixtures and outlets with finish elements.

1.3 PRECONSTRUCTION MEETING

- A. Owner will schedule and preside over meeting after Notice of Award.

- B. Attendance Required: Engineer, Owner, Construction Manager, major Subcontractors and Contractor.
- C. Minimum Agenda:
 - 1. Execution of Owner-Contractor Agreement.
 - 2. Submission of executed bonds and insurance certificates.
 - 3. Distribution of Contract Documents.
 - 4. Submission of list of Subcontractors, list of products, schedule of values, and Progress Schedule.
 - 5. Designation of personnel representing parties in Contract and Engineer.
 - 6. Communication procedures.
 - 7. Procedures and processing of requests for interpretations, field decisions, submittals, substitutions, Applications for Payments, proposal request, Change Orders, and Contract closeout procedures.
 - 8. Scheduling.
 - 9. Critical Work sequencing.
- D. Construction Manager: Record minutes and distribute copies to participants within 5 days after meeting, to Engineer, Owner, and those affected by decisions made.

1.4 SITE MOBILIZATION MEETING

- A. Owner will schedule meeting at Project Site prior to Contractor occupancy. Construction Manager presides over meeting.
- B. Attendance Required: Engineer, Owner, Contractor, Construction Manager, major Subcontractors.
- C. Minimum Agenda:
 - 1. Use of premises by Owner and Contractor.
 - 2. Owner's requirements.
 - 3. Construction facilities and controls.
 - 4. Temporary utilities.
 - 5. Survey layout.
 - 6. Security and housekeeping procedures.
 - 7. Schedules.
 - 8. Procedures for testing.
 - 9. Procedures for maintaining record documents.
 - 10. Requirements for startup of equipment.
 - 11. Inspection and acceptance of equipment put into service during construction period.
- D. Construction Manager Record minutes and distribute] to participants within 5 days after meeting, to Engineer, Owner, and those affected by decisions made.

1.5 PROGRESS MEETINGS

- A. Schedule and administer meetings throughout progress of the Work at maximum semi-monthly intervals.
- B. Construction Manager will arrange for meetings, prepare agenda with copies for participants, and preside over meetings.
- C. Attendance Required: Job superintendent, major Subcontractors, and Engineer, Owner, as appropriate to agenda topics for each meeting.
- D. Minimum Agenda:
 - 1. Review minutes of previous meetings.
 - 2. Review of Work progress.
 - 3. Field observations, problems, and decisions.
 - 4. Identification of problems impeding planned progress.
 - 5. Review of submittal schedule and status of submittals.
 - 6. Review of off-site fabrication and delivery schedules.
 - 7. Maintenance of Progress Schedule.
 - 8. Corrective measures to regain projected schedules.
 - 9. Planned progress during succeeding work period.
 - 10. Coordination of projected progress.
 - 11. Maintenance of quality and work standards.
 - 12. Effect of proposed changes on Progress Schedule and coordination.
 - 13. Other business relating to Work.
- E. Construction Manager Record minutes and distribute to participants within 2 days after meeting, Engineer, Owner, and those affected by decisions made.

CLOSEOUT MEETING

- F. Schedule Project closeout meeting with sufficient time to prepare for requesting Substantial Completion. Preside over meeting and be responsible for minutes.
- G. Attendance Required: Contractor, Construction Manager, major Subcontractors, Engineer, Owner, and others appropriate to agenda.
- H. Notify Engineer four days in advance of meeting date.
- I. Minimum Agenda:
 - 1. Start-up of facilities and systems.
 - 2. Operations and maintenance manuals.
 - 3. Testing, adjusting, and balancing.
 - 4. System demonstration and observation.
 - 5. Operation and maintenance instructions for Owner's personnel.
 - 6. Contractor's inspection of Work.
 - 7. Contractor's preparation of an initial "punch list."
 - 8. Procedure to request Engineer inspection to determine date of Substantial Completion.

9. Completion time for correcting deficiencies.
 10. Inspections by authorities having jurisdiction.
 11. Certificate of Occupancy and transfer of insurance responsibilities.
 12. Partial release of retainage.
 13. Final cleaning.
 14. Preparation for final inspection.
 15. Closeout Submittals:
 - a. Project record documents.
 - b. Operating and maintenance documents.
 - c. Operating and maintenance materials.
 - d. Affidavits.
 16. Final Application for Payment.
 17. Contractor's demobilization of Site.
 18. Maintenance.
- J. Record minutes and distribute to participants within 5 days after meeting, to Engineer, Owner, and those affected by decisions made.

PART 2 - EXECUTION

2.1 ALTERATION PROCEDURES

- A. Entire facility will be occupied for normal operations during progress of construction. Cooperate with Owner in scheduling operations to minimize conflict and to permit continuous usage.
1. Perform Work not to interfere with operations of occupied areas.
 2. Keep utility and service outages to a minimum and perform only after written approval of Owner.
 3. Clean Owner-occupied areas daily. Clean spillage, overspray, and heavy collection of dust in Owner-occupied areas immediately.

END OF SECTION 013000

SECTION 013216 - CONSTRUCTION PROGRESS SCHEDULE

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Submittals.
- B. Format.

1.2 SUBMITTALS

- A. Within 10 days after date of established in Notice to Proceed, submit draft of proposed complete bar chart schedule for review. Include written certification that major Subcontractors have reviewed and accepted proposed schedule.
- B. Within 5 days after joint review, submit revised Progress Schedule.

1.3 FORMAT

- A. Computer-generated bar chart schedule to include at least:
 - 1. Identification and listing in chronological order of those activities reasonably required to complete the Work, including:
 - a. Subcontract Work.
 - b. Major equipment design, fabrication, factory testing, and delivery dates including required lead times.
 - c. Move-in and other preliminary activities.
 - d. Equipment and equipment system test and startup activities.
 - e. Project closeout and cleanup.
 - f. Work sequences, constraints, and milestones.
 - 2. Listings identified by Specification Section number.
 - 3. Identification of the following:
 - a. Horizontal time frame by year, month, and week.
 - b. Duration, early start, and completion for each activity and subactivity.
 - c. Critical activities and Project float.
 - d. Subschedules to further define critical portions of Work.

END OF SECTION 013216

SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Definitions.
- B. Submittal procedures.
- C. Proposed product list.
- D. Product data.
- E. Shop Drawings
- F. Samples.
- G. Test reports.
- H. Certificates.
- I. Manufacturer's instructions.
- J. Contractor review.

1.2 DEFINITIONS

- A. Action Submittals: Written and graphic information and physical samples that require Engineer's and Construction Manager's responsive action.
- B. Informational Submittals: Written and graphic information and physical Samples that do not require Engineer's and Construction Manager's responsive action. Submittals may be rejected for not complying with requirements.

1.3 SUBMITTAL PROCEDURES

- A. Transmit each submittal with Engineer-accepted form.
- B. Sequentially number transmittal forms. Mark revised submittals with original number and sequential alphabetic suffix.
- C. Identify: Project, Contractor, Subcontractor and supplier, pertinent Drawing and detail number, and Specification Section number appropriate to submittal.

- D. Apply Contractor's stamp, signed or initialed, certifying that review, approval, verification of products required, field dimensions, adjacent construction Work, and coordination of information is according to requirements of the Work and Contract Documents.
- E. Schedule submittals to expedite Project, and submit electronic submittals via email as PDF electronic files. Coordinate submission of related items.
- F. For each submittal for review, allow 5 days excluding delivery time to and from Contractor.
- G. Identify variations in Contract Documents and product or system limitations that may be detrimental to successful performance of completed Work.
- H. Allow space on submittals for Contractor and Engineer review stamps.
- I. When revised for resubmission, identify changes made since previous submission.
- J. Distribute copies of reviewed submittals as appropriate. Instruct parties to promptly report inability to comply with requirements.

1.4 PROPOSED PRODUCT LIST

- A. Within 15 days after date of Notice to Proceed, submit list of major products proposed for use, with name of manufacturer, trade name, and model number of each product.
- B. For products specified only by reference standards, indicate manufacturer, trade name, model or catalog designation, and reference standards.

1.5 PRODUCT DATA

- A. Product Data: Action Submittal: Submit to Engineer for review for assessing conformance with information given and design concept expressed in Contract Documents.
- B. Submit electronic submittals via email as PDF electronic files.
- C. Mark each copy to identify applicable products, models, options, and other data. Supplement manufacturers' standard data to provide information specific to this Project.
- D. Indicate product utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.
- E. After review, produce copies and distribute.

1.6 SHOP DRAWINGS

- A. Shop Drawings: Action Submittal: Submit to Engineer for assessing conformance with information given and design concept expressed in Contract Documents.
- B. Indicate special utility and electrical characteristics, utility connection requirements, and location of utility outlets for service for functional equipment and appliances.

- C. When required by individual Specification Sections, provide Shop Drawings signed and sealed by a professional Engineer responsible for designing components shown on Shop Drawings.
 - 1. Include signed and sealed calculations to support design.
 - 2. Submit Shop Drawings and calculations in form suitable for submission to and approval by authorities having jurisdiction.
 - 3. Make revisions and provide additional information when required by authorities having jurisdiction.

1.7 SAMPLES

- A. Samples: Action Submittal: Submit to Engineer for assessing conformance with information given and design concept expressed in Contract Documents.
- B. Samples for Selection as Specified in Product Sections:
 - 1. Submit to Engineer for aesthetic, color, and finish selection.
 - 2. Submit Samples of finishes, textures, and patterns for Engineer selection.
- C. Submit Samples to illustrate functional and aesthetic characteristics of products, with integral parts and attachment devices. Coordinate Sample submittals for interfacing work.
- D. Include identification on each Sample, with full Project information.

1.8 TEST REPORTS

- A. Informational Submittal: Submit reports for Engineer's knowledge as Contract administrator or for Owner.
- B. Submit test reports for information for assessing conformance with information given and design concept expressed in Contract Documents.

1.9 CERTIFICATES

- A. Informational Submittal: Submit certification by manufacturer, installation/application Subcontractor, or Contractor to Engineer, in quantities specified for Product Data.
- B. Indicate material or product conforms to or exceeds specified requirements. Submit supporting reference data, affidavits, and certifications as appropriate.
- C. Certificates may be recent or previous test results on material or product but must be acceptable to Engineer.

1.10 MANUFACTURER'S INSTRUCTIONS

- A. Informational Submittal: Submit manufacturer's installation instructions for Engineer's knowledge as Contract administrator or for Owner.

- B. Submit printed instructions for delivery, storage, assembly, installation, startup, adjusting, and finishing, to Engineer.
- C. Indicate special procedures, perimeter conditions requiring special attention, and special environmental criteria required for application or installation.

1.11 CONTRACTOR REVIEW

- A. Review for compliance with Contract Documents and approve submittals before transmitting to Engineer and Construction Manager.
- B. Contractor: Responsible for:
 - 1. Determination and verification of materials including manufacturer's catalog numbers.
 - 2. Determination and verification of field measurements and field construction criteria.
 - 3. Checking and coordinating information in submittal with requirements of Work and of Contract Documents.
 - 4. Determination of accuracy and completeness of dimensions and quantities.
 - 5. Confirmation and coordination of dimensions and field conditions at Site.
 - 6. Construction means, techniques, sequences, and procedures.
 - 7. Safety precautions.
 - 8. Coordination and performance of Work of all trades.
- C. Stamp, sign or initial, and date each submittal to certify compliance with requirements of Contract Documents.
- D. Do not fabricate products or begin Work for which submittals are required until approved submittals have been received from Architect/Engineer.

END OF SECTION 013300

SECTION 014000 - QUALITY REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Quality control.
- B. Tolerances.
- C. References.
- D. Labeling.
- E. Mockup requirements.
- F. Testing and inspection services.

1.2 QUALITY CONTROL

- A. Monitor quality control over suppliers, manufacturers, products, services, Site conditions, and workmanship, to produce Work of specified quality.
- B. Comply with specified standards as the minimum quality for the Work except where more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- C. Perform Work using persons qualified to produce required and specified quality.
- D. Supervise performance of Work in such manner and by such means to ensure that Work, whether completed or in progress, will not be subjected to harmful, dangerous, damaging, or otherwise deleterious exposure during construction period.

1.3 TOLERANCES

- A. Monitor fabrication and installation tolerance control of products to produce acceptable Work. Do not permit tolerances to accumulate.
- B. Comply with manufacturers' recommended tolerances and tolerance requirements in reference standards. When such tolerances conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.

1.4 REFERENCES

- A. For products or workmanship specified by association, trade, or other consensus standards, comply with requirements of standard except when more rigid requirements are specified or are required by applicable codes.
- B. When requirements of indicated reference standards conflict with Contract Documents, request clarification from Engineer before proceeding.
- C. Neither contractual relationships, duties, or responsibilities of parties in Contract nor those of Engineer shall be altered from Contract Documents by mention or inference in reference documents.

1.5 LABELING

- A. Attach label from agency approved by authorities having jurisdiction for products, assemblies, and systems required to be labeled.
- B. Label Information: Include manufacturer's or fabricator's identification, approved agency identification, and the following information, as applicable, on each label:
 - 1. Model number.
 - 2. Serial number.
 - 3. Performance characteristics.
- C. Manufacturer's Nameplates, Trademarks, Logos, and Other Identifying Marks on Products: Not allowed on surfaces exposed to view in public areas, interior or exterior.

1.6 MOCK-UP REQUIREMENTS

- A. Tests will be performed under provisions identified in this Section and identified in individual product Specification Sections.
- B. Assemble and erect specified or indicated items with specified or indicated attachment and anchorage devices, flashings, seals, and finishes.
- C. Accepted mockups shall be comparison standard for remaining Work.

1.7 TESTING AND INSPECTION SERVICES

- A. Employ and pay for services of an independent testing agency or laboratory acceptable to Owner to perform specified testing.
 - 1. Before starting Work, submit testing laboratory name, address, and telephone number, and names of full-time Professional Engineer and responsible officer.
 - 2. Submit copy of report of laboratory facilities' inspection made by Materials Reference Laboratory of National Bureau of Standards during most recent inspection, with memorandum of remedies of deficiencies reported by inspection.

- B. Independent firm will perform tests, inspections, and other services specified in individual Specification Sections and as required by Engineer.
 - 1. Laboratory: Authorized to operate in State of California.
- C. Reports shall be submitted by independent firm to Engineer, Contractor, and authorities having jurisdiction, indicating observations and results of tests and compliance or noncompliance with Contract Documents.
- D. Cooperate with independent firm; furnish samples of materials, design mix, equipment, tools, storage, safe access, and assistance by incidental labor as requested.
 - 1. Notify Engineer and independent firm 24 hours before expected time for operations requiring services.
 - 2. Make arrangements with independent firm and pay for additional Samples and tests required for Contractor's use.
- E. Employment of testing agency or laboratory shall not relieve Contractor of obligation to perform Work according to requirements of Contract Documents.
- F. Retesting or re-inspection required because of nonconformance with specified or indicated requirements shall be performed by same independent firm on instructions from Engineer. Payment for retesting or re-inspection will be charged to Contractor by deducting testing charges from Contract Sum/Price.
- G. Agency Responsibilities:
 - 1. Test Samples of mixes submitted by Contractor.
 - 2. Provide qualified personnel at Site. Cooperate with Engineer and Contractor in performance of services.
 - 3. Perform indicated sampling and testing of products according to specified standards.
 - 4. Ascertain compliance of materials and mixes with requirements of Contract Documents.
 - 5. Promptly notify Architect/Engineer and Contractor of observed irregularities or nonconformance of Work or products.
 - 6. Perform additional tests required by Architect/Engineer.
 - 7. Attend preconstruction meetings and progress meetings.
- H. Agency Reports: After each test, promptly submit one copy of report to Engineer, Contractor, and authorities having jurisdiction. When requested by Engineer, provide interpretation of test results.
- I. Limits on Testing Authority:
 - 1. Agency or laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
 - 2. Agency or laboratory may not approve or accept any portion of the Work.
 - 3. Agency or laboratory may not assume duties of Contractor.
 - 4. Agency or laboratory has no authority to stop the Work.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 014000

SECTION 015000 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Construction Facilities:

1. Field offices and sheds.
2. Vehicular access.
3. Parking.
4. Progress cleaning and waste removal.
5. Project identification.
6. Traffic regulation.
7. Fire-prevention facilities.

B. Temporary Controls:

1. Barriers.
2. Enclosures and fencing.
3. Security.
4. Water control.
5. Dust control.
6. Erosion and sediment control.
7. Noise control.
8. Pest and rodent control.
9. Pollution control.

C. Removal of utilities, facilities, and controls.

1.2 TEMPORARY WATER SERVICE

- A. Provide bypass piping for water service as indicated on the plans.

1.3 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Existing facility use is not permitted. Provide facilities at time of Project mobilization.

1.4 PROGRESS CLEANING AND WASTE REMOVAL

- A. Maintain areas free of waste materials, debris, and rubbish. Maintain Site in clean and orderly condition.

1.5 TRAFFIC REGULATION

A. Signs, Signals, and Devices

1. Traffic Cones, Drums, Flares, and Lights: As approved by authorities having jurisdiction.

B. Traffic Signs and Signals:

1. Provide signs at approaches to Site and on Site, at crossroads, detours, parking areas, and

1.6 SECURITY

A. Security Program:

1. Protect Work on existing premise from theft, vandalism, and unauthorized entry.
2. Initiate program at Project mobilization.
3. Maintain program throughout construction period.

1.7 WATER CONTROL

- ### A. Grade Site to drain. Maintain excavations free of water. Provide, operate, and maintain necessary pumping equipment.

1.8 DUST CONTROL

- ### A. Execute Work by methods that minimize raising dust from construction operations.

1.9 EROSION AND SEDIMENT CONTROL

- ### A. Plan and execute construction by methods to control surface drainage from cuts and fills from borrow and waste disposal areas. Prevent erosion and sedimentation.

1.10 NOISE CONTROL

- ### A. Provide methods, means, and facilities to minimize noise produced by construction operations.

1.11 POLLUTION CONTROL

- ### A. Provide methods, means, and facilities to prevent contamination of soil, water, and atmosphere from discharge of noxious, toxic substances and pollutants produced by construction operations.

1.12 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- ### A. Remove temporary utilities, equipment, facilities, and materials before inspection.

- ### B. Clean and repair damage caused by installation or use of temporary Work.

- C. Restore existing facilities used during construction to original condition. Restore permanent facilities used during construction to specified condition.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 015000

SECTION 016000 - PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Products.
- B. Product delivery requirements.
- C. Product storage and handling requirements.
- D. Product options.

1.2 PRODUCTS

- A. At minimum, comply with specified requirements and reference standards.
- B. Specified products define standard of quality, type, function, dimension, appearance, and performance required.
- C. Furnish products of qualified manufacturers that are suitable for intended use. Furnish products of each type by single manufacturer unless specified otherwise. Confirm that manufacturer's production capacity can provide sufficient product, on time, to meet Project requirements.
- D. Domestic Products: Except where specified otherwise, domestic products are required and interpreted to mean products mined, manufactured, fabricated, or produced in United States or its territories.
- E. Do not use materials and equipment removed from existing premises except as specifically permitted by Contract Documents.
- F. Furnish interchangeable components from same manufacturer for components being replaced.

1.3 PRODUCT DELIVERY REQUIREMENTS

- A. Transport and handle products according to manufacturer's instructions.
- B. Promptly inspect shipments to ensure products comply with requirements, quantities are correct, and products are undamaged.
- C. Provide equipment and personnel to handle products; use methods to prevent soiling, disfigurement, or damage.

1.4 PRODUCT STORAGE AND HANDLING REQUIREMENTS

- A. Store and protect products according to manufacturer's instructions.
- B. Store products with seals and labels intact and legible.
- C. Store sensitive products in weathertight, climate-controlled enclosures in an environment suitable to product.
- D. For exterior storage of fabricated products, place products on sloped supports aboveground.
- E. Provide off-Site storage and protection when Site does not permit on-Site storage or protection.
- F. Cover products subject to deterioration with impervious sheet covering. Provide ventilation to prevent condensation and degradation of products.
- G. Store loose granular materials on solid flat surfaces in well-drained area. Prevent mixing with foreign matter.
- H. Provide equipment and personnel to store products; use methods to prevent soiling, disfigurement, or damage.

1.5 PRODUCT OPTIONS

- A. Products Specified by Reference Standards or by Description Only: Products complying with specified reference standards or description.
- B. Products Specified by Naming One or More Manufacturers: Products of one of manufacturers named and complying with Specifications; no options or substitutions allowed.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION - Not Used

END OF SECTION 016000

SECTION 017000 - EXECUTION AND CLOSEOUT REQUIREMENTS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Closeout procedures.
- B. Starting of systems.
- C. Demonstration and instructions.
- D. Testing, adjusting, and balancing.
- E. Project record documents.
- F. Operation and maintenance data.
- G. Manual for materials and finishes.
- H. Manual for equipment and systems.
- I. Spare parts and maintenance products.
- J. Product warranties and product bonds.
- K. Examination.
- L. Preparation.
- M. Execution.
- N. Cutting and patching.
- O. Protecting installed construction.
- P. Final cleaning.

1.2 CLOSEOUT PROCEDURES

- A. Prerequisites to Substantial Completion: Complete following items before requesting Certification of Substantial Completion, either for entire Work or for portions of Work:
 - 1. Submit maintenance manuals, Project record documents, and other similar final record data in compliance with this Section.
 - 2. Complete facility startup, testing, adjusting, balancing of systems and equipment, demonstrations, and instructions to Owner's operating and maintenance personnel as specified in compliance with this Section.

3. Conduct inspection to establish basis for request that Work is substantially complete. Create comprehensive list (initial punch list) indicating items to be completed or corrected, value of incomplete or nonconforming Work, reason for being incomplete, and date of anticipated completion for each item. Include copy of list with request for Certificate of Substantial Completion.
4. Obtain and submit releases enabling Owner's full, unrestricted use of Project and access to services and utilities. Include certificate of occupancy, operating certificates, and similar releases from authorities having jurisdiction and utility companies.
5. Deliver tools, spare parts, extra stocks of material, and similar physical items to Owner.
6. Discontinue or change over and remove temporary facilities and services from Project Site, along with construction tools, mockups, and similar elements.
7. Perform final cleaning according to this Section.

B. Substantial Completion Inspection:

1. When Contractor considers Work to be substantially complete, submit to Owner:
 - a. Written certificate that Work, or designated portion, is substantially complete.
 - b. List of items to be completed or corrected (initial punch list).
2. Within 7 days after receipt of request for Substantial Completion, Engineer will make inspection to determine whether Work or designated portion is substantially complete.
3. Should Engineer determine that Work is not substantially complete:
 - a. Owner will promptly notify Contractor in writing, stating reasons for its opinion.
 - b. Contractor shall remedy deficiencies in Work and send second written request for Substantial Completion to Owner.
 - c. Owner will reinspect Work.
 - d. Redo and Inspection of Deficient Work: Repeated until Work passes Owner's inspection.

C. Prerequisites for Final Completion: Complete following items before requesting final acceptance and final payment.

1. When Contractor considers Work to be complete, submit written certification that:
 - a. Contract Documents have been reviewed.
 - b. Work has been examined for compliance with Contract Documents.
 - c. Work has been completed according to Contract Documents.
 - d. Work is completed and ready for final inspection.
2. Submittals: Submit following:
 - a. Final punch list indicating all items have been completed or corrected.
 - b. Final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.
 - c. Specified warranties, workmanship/maintenance bonds, maintenance agreements, and other similar documents.
 - d. Accounting statement for final changes to Contract Sum.

3. Perform final cleaning for Contractor-soiled areas according to this Section.

D. Final Completion Inspection:

1. Within 7 days after receipt of request for final inspection, Owner will make inspection to determine whether Work or designated portion is complete.
2. Should Owner consider Work to be incomplete or defective:
 - a. Owner will promptly notify Contractor in writing, listing incomplete or defective Work.
 - b. Contractor shall remedy stated deficiencies and send second written request to Owner that Work is complete.
 - c. Owner will reinspect Work.
 - d. Redo and Inspection of Deficient Work: Repeated until Work passes Owner's inspection.

1.3 STARTING OF SYSTEMS

- A. Coordinate schedule for startup of various equipment and systems.
- B. Notify Owner 7 days prior to startup of each item.
- C. Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, and for conditions which may cause damage.
- D. Verify that tests, meter readings, and electrical characteristics agree with those required by equipment or system manufacturer.
- E. Verify that wiring and support components for equipment are complete and tested.
- F. Execute startup under supervision of manufacturer's representative or Contractors' personnel according to manufacturer's instructions.
- G. When specified in individual Specification Sections, require manufacturer to provide authorized representative who will be present at Site to inspect, check, and approve equipment or system installation prior to startup and will supervise placing equipment or system in operation.
- H. Submit a written report that equipment or system has been properly installed and is functioning correctly.

1.4 DEMONSTRATION AND INSTRUCTIONS

- A. Demonstrate operation and maintenance of products to Owner's personnel 1 week prior to date of final inspection.
- B. Demonstrate Project equipment by qualified who is knowledgeable about the Project.
- C. Use operation and maintenance manuals as basis for instruction. Review contents of manual with Owner's personnel in detail to explain all aspects of operation and maintenance.

- D. Demonstrate startup, operation, control, adjustment, troubleshooting, servicing, maintenance, and shutdown of each item of equipment at designated location.
- E. Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

1.5 PROJECT RECORD DOCUMENTS

- A. Maintain on Site one set of the following record documents; record actual revisions to the Work:
 - 1. Drawings.
 - 2. Specifications.
 - 3. Addenda.
 - 4. Change Orders and other modifications to the Contract.
 - 5. Reviewed Shop Drawings, product data, and Samples.
 - 6. Manufacturer's instruction for assembly, installation, and adjusting.
- B. Ensure entries are complete and accurate, enabling future reference by Owner.
- C. Store record documents separate from documents used for construction.
- D. Record information concurrent with construction progress, not less than weekly.
- E. Specifications: Legibly mark and record, at each product Section, description of actual products installed, including the following:
 - 1. Manufacturer's name and product model and number.
 - 2. Product substitutions or alternates used.
 - 3. Changes made by Addenda and modifications.
- F. Record Drawings and Shop Drawings: Legibly mark each item to record actual construction as follows:
 - 1. Include Contract modifications such as Addenda, supplementary instructions, change directives, field orders, minor changes in the Work, and change orders.
 - 2. Include locations of concealed elements of the Work.
 - 3. Identify depth of buried utility lines and provide dimensions showing distances from permanent facility components that are parallel to utilities.
 - 4. Dimension ends, corners, and junctions of buried utilities to permanent facility components using triangulation.
 - 5. Identify and locate existing buried or concealed items encountered during Project.
 - 6. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 7. Measured locations of internal utilities and appurtenances concealed in construction, referenced to visible and accessible features of the Work.
 - 8. Field changes of dimension and detail.
 - 9. Details not on original Drawings.
- G. Submit marked-up paper copy documents to Engineer before Substantial Completion.

- H. Submit PDF electronic files of marked-up documents to Engineer before Substantial Completion.

1.6 OPERATION AND MAINTENANCE DATA

- A. Submit in PDF composite electronic indexed file.
- B. Submit data bound in 8-1/2 x 11-inch (A4) text pages, binders with durable plastic covers.
- C. Prepare binder cover with printed title "OPERATION AND MAINTENANCE INSTRUCTIONS," title of Project.
- D. Internally subdivide binder contents with permanent page dividers, logically organized as described below; with tab titling clearly printed under reinforced laminated plastic tabs.
- E. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- F. Contents: Prepare table of contents for each volume, with each product or system description identified, typed on white paper, in three parts as follows:
 - 1. Part 1: Directory, listing names, addresses, and telephone numbers of Engineer, Contractor, Subcontractors, and major equipment suppliers.
 - 2. Part 2: Operation and maintenance instructions, arranged by system. For each category, identify names, addresses, and telephone numbers of Subcontractors and suppliers. Include the following:
 - a. Significant design criteria.
 - b. List of equipment.
 - c. Parts list for each component.
 - d. Operating instructions.
 - e. Maintenance instructions for equipment and systems.
 - f. Maintenance instructions for special finishes, including recommended cleaning methods and materials, and special precautions identifying detrimental agents.
 - g. Safety precautions to be taken when operating and maintaining or working near equipment.
 - 3. Part 3: Project documents and certificates, including the following:
 - a. Shop Drawings and product data.
 - b. Air and water balance reports.
 - c. Certificates.
 - d. Originals of warranties and bonds.

1.7 MANUAL FOR MATERIALS AND FINISHES

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Engineer will review draft and return one copy with comments.

- B. For equipment or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes before Substantial Completion. Draft copy be reviewed and returned after Substantial Completion, with Engineer comments. Revise content of document sets as required prior to final submission.
- D. Submit 2 sets of revised final volumes within 10 days after final inspection.
- E. Submit in PDF composite electronic indexed file of final manual within 10 days after final inspection.
- F. Building Products, Applied Materials, and Finishes: Include product data, with catalog number, size, composition, and color and texture designations.
- G. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods, and recommended schedule for cleaning and maintenance.
- H. Moisture Protection and Weather Exposed Products: Include product data listing applicable reference standards, chemical composition, and details of installation. Include recommendations for inspections, maintenance, and repair.
- I. Additional Requirements: As specified in individual product Specification Sections.
- J. Include listing in table of contents for design data, with tabbed fly sheet and space for insertion of data.

1.8 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Submit two copies of preliminary draft or proposed formats and outlines of contents before start of Work. Engineer will review draft and return one copy with comments.
- B. For equipment, or component parts of equipment put into service during construction and operated by Owner, submit documents within ten days after acceptance.
- C. Submit one copy of completed volumes before Substantial Completion. Draft copy will be reviewed and returned after Substantial Completion, with Engineer comments. Revise content of document sets as required prior to final submission.
- D. Submit 2 sets of revised final volumes within 10 days after final inspection.
- E. Submit in PDF composite electronic indexed file of final manual within 10 days after final inspection.
- F. Each Item of Equipment and Each System: Include description of unit or system and component parts. Identify function, normal operating characteristics, and limiting conditions. Include performance curves, with engineering data and tests, and complete nomenclature and model number of replaceable parts.

- G. Panelboard Circuit Directories: Provide electrical service characteristics, controls, and communications; by label machine.
- H. Include color-coded wiring diagrams as installed.
- I. Operating Procedures: Include startup, break-in, and routine normal operating instructions and sequences. Include regulation, control, stopping, shutdown, and emergency instructions. Include summer, winter, and special operating instructions.
- J. Maintenance Requirements: Include routine procedures and guide for preventative maintenance and troubleshooting; disassembly, repair, and reassembly instructions; and alignment, adjusting, balancing, and checking instructions.
- K. Include servicing and lubrication schedule and list of lubricants required.
- L. Include manufacturer's printed operation and maintenance instructions.
- M. Include sequence of operation by controls manufacturer.
- N. Include original manufacturer's parts list, illustrations, assembly drawings, and diagrams required for maintenance.
- O. Include control diagrams by controls manufacturer as installed.
- P. Include Contractor's coordination drawings with color-coded piping diagrams as installed.
- Q. Include charts of valve tag numbers, with location and function of each valve, keyed to flow and control diagrams.
- R. Include list of original manufacturer's spare parts, current prices, and recommended quantities to be maintained in storage.
- S. Include test and balancing reports.
- T. Additional Requirements: As specified in individual product Specification Sections.
- U. Include listing in table of contents for design data with tabbed dividers and space for insertion of data.

1.9 SPARE PARTS AND MAINTENANCE PRODUCTS

- A. Furnish spare parts, maintenance, and extra products in quantities specified in individual Specification Sections.
- B. Deliver to Project Site, obtain receipt prior to final payment.

1.10 PRODUCT WARRANTIES AND PRODUCT BONDS

- A. Obtain warranties and bonds executed in duplicate by responsible Subcontractors, suppliers, and manufacturers within 10 days after completion of applicable item of Work.

- B. Execute and assemble transferable warranty documents and bonds from Subcontractors, suppliers, and manufacturers.
- C. Verify documents are in proper form, contain full information, and are notarized.
- D. Co-execute submittals when required.
- E. Include table of contents and assemble in binder with durable plastic cover.
- F. Submit prior to final Application for Payment.
- G. Time of Submittals:
 - 1. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within 10 days after acceptance.
 - 2. Make other submittals within 10 days after date of Substantial Completion, prior to final Application for Payment.
 - 3. For items of Work for which acceptance is delayed beyond Substantial Completion, submit within 10 days after acceptance, listing date of acceptance as beginning of warranty or bond period.

PART 2 - PRODUCTS - Not Used

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that existing Site conditions and substrate surfaces are acceptable for subsequent Work. Beginning new Work means acceptance of existing conditions.
- B. Verify that existing substrate is capable of structural support or attachment of new Work being applied or attached.
- C. Examine and verify specific conditions described in individual Specification Sections.
- D. Verify that utility services are available with correct characteristics and in correct locations.

3.2 PREPARATION

- A. Clean substrate surfaces prior to applying next material or substance according to manufacturer's instructions.
- B. Seal cracks or openings of substrate prior to applying next material or substance.
- C. Apply manufacturer-required or -recommended substrate primer, sealer, or conditioner prior to applying new material or substance in contact or bond.

3.3 EXECUTION

- A. Comply with manufacturer's installation instructions, performing each step in sequence. Maintain one set of manufacturer's installation instructions at Project Site during installation and until completion of construction.
- B. When manufacturer's installation instructions conflict with Contract Documents, request clarification from Architect/Engineer before proceeding.
- C. Verify that field measurements are as indicated on approved Shop Drawings or as instructed by manufacturer.
- D. Secure products in place with positive anchorage devices designed and sized to withstand stresses, vibration, physical distortion, or disfigurement.
 - 1. Secure Work true to line and level and within specified tolerances, or if not specified, industry-recognized tolerances.
 - 2. Physically separate products in place, provide electrical insulation, or provide protective coatings to prevent galvanic action or corrosion between dissimilar metals.
 - 3. Exposed Joints: Provide uniform joint width and arrange to obtain best visual effect. Refer questionable visual-effect choices to Architect/Engineer for final decision.
- E. Allow for expansion of materials and building movement.
- F. Climatic Conditions and Project Status: Install each unit of Work under conditions to ensure best possible results in coordination with entire Project.
 - 1. Isolate each unit of Work from incompatible Work as necessary to prevent deterioration.
 - 2. Coordinate enclosure of Work with required inspections and tests to minimize necessity of uncovering Work for those purposes.
- G. Mounting Heights: Where not indicated, mount individual units of Work at industry recognized standard mounting heights for particular application indicated.
 - 1. Refer questionable mounting heights choices to Architect/Engineer for final decision.
 - 2. Elements Identified as Accessible to Handicapped: Comply with applicable codes and regulations.
- H. Adjust operating products and equipment to ensure smooth and unhindered operation.
- I. Clean and perform maintenance on installed Work as frequently as necessary through remainder of construction period. Lubricate operable components as recommended by manufacturer.

3.4 CUTTING AND PATCHING

- A. Employ skilled and experienced installers to perform cutting and patching.
- B. Submit written request in advance of cutting or altering elements affecting:
 - 1. Structural integrity of element.
 - 2. Integrity of weather-exposed or moisture-resistant elements.

3. Efficiency, maintenance, or safety of element.
 4. Visual qualities of sight-exposed elements.
 5. Work of Owner or separate contractor.
- C. Execute cutting, fitting, and patching including excavation and fill to complete Work and to:
1. Fit the several parts together, to integrate with other Work.
 2. Uncover Work to install or correct ill-timed Work.
 3. Remove and replace defective and nonconforming Work.
 4. Remove samples of installed Work for testing.
 5. Provide openings in elements of Work for penetrations of mechanical and electrical Work.
- D. Execute Work by methods to avoid damage to other Work and to provide proper surfaces to receive patching and finishing.
- E. Cut masonry and concrete materials using masonry saw or core drill.
- F. Restore Work with new products according to requirements of Contract Documents.
- G. Fit Work tight to pipes, sleeves, ducts, conduits, and other penetrations through surfaces.
- H. Maintain integrity of wall, ceiling, or floor construction; completely seal voids.
- I. Refinish surfaces to match adjacent finishes. For continuous surfaces, refinish to nearest intersection; for assembly, refinish entire unit.
- J. Identify hazardous substances or conditions exposed during the Work to Architect/Engineer for decision or remedy.

3.5 PROTECTING INSTALLED CONSTRUCTION

- A. Protect installed Work and provide special protection where specified in individual Specification Sections.
- B. Provide temporary and removable protection for installed products. Control activity in immediate Work area to prevent damage.
- C. Provide protective coverings at walls, projections, jambs, sills, and soffits of openings.
- D. Use durable sheet materials to protect finished floors, stairs, and other surfaces from traffic, dirt, wear, damage, or movement of heavy objects.
- E. Prohibit traffic or storage upon waterproofed or roofed surfaces. When traffic or activity is necessary, obtain recommendations for protection from waterproofing or roofing material manufacturer.
- F. Prohibit traffic from landscaped areas.

3.6 FINAL CLEANING

- A. Execute final cleaning prior to final Project assessment.
- B. Clean Site; sweep paved areas, rake clean landscaped surfaces.
- C. Remove waste and surplus materials, rubbish, and construction facilities from Site.

END OF SECTION 017000

SECTION 033000 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes cast-in-place concrete, including formwork, reinforcement, concrete materials, mixture design, placement procedures, and finishes.

1.2 ACTION SUBMITTALS

1.3 QUALITY ASSURANCE

- A. Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and that complies with ASTM C 94/C 94M requirements for production facilities and equipment.
 - 1. Manufacturer certified per NRMCA's "Certification of Ready Mixed Concrete Production Facilities."
- B. Testing Agency Qualifications: An independent agency, qualified per ASTM C 1077 and ASTM E 329 for testing indicated.
- C. Welding Qualifications: Qualify procedures and personnel per AWS D1.4/D 1.4M, "Structural Welding Code - Reinforcing Steel."
- D. ACI Publications: Comply with the following unless modified by requirements in the Contract Documents:
 - 1. ACI 301, "Specifications for Structural Concrete,"
 - 2. ACI 117, "Specifications for Tolerances for Concrete Construction and Materials."
- E. Concrete Testing Service: Engage a qualified independent testing agency to perform material evaluation tests and to design concrete mixtures.

PART 2 - PRODUCTS

2.1 FORM-FACING MATERIALS

- A. Rough-Formed Finished Concrete: Plywood, lumber, metal, or another approved material. Provide lumber dressed on at least two edges and one side for tight fit.

2.2 STEEL REINFORCEMENT

- A. Reinforcing Bars: ASTM A 615/A 615M, Grade 60 (Grade 420), deformed.
- B. Bar Supports: Bolsters, chairs, spacers, and other devices for spacing, supporting, and fastening reinforcing bars and welded wire reinforcement in place. Manufacture bar supports from steel wire, plastic, or precast concrete according to CRSI's "Manual of Standard Practice."

2.3 CONCRETE MATERIALS

- A. Cementitious Material: Use the following cementitious materials, of the same type, brand, and source, throughout Project:
 - 1. Portland Cement: ASTM C 150,
 - a. Fly Ash: ASTM C 618,
 - b. Ground Granulated Blast-Furnace Slag: ASTM C 989, Grade 100 or 120.
 - 2. Blended Hydraulic Cement: ASTM C 595, cement.
- B. Lightweight Aggregate: ASTM C 330, 1/2-inch nominal maximum aggregate size.
- C. Water: ASTM C 94/C 94M.

2.4 CURING MATERIALS

- A. Evaporation Retarder: Waterborne, monomolecular film forming, manufactured for application to fresh concrete.
- B. Absorptive Cover: AASHTO M 182, Class 2, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. (305 g/sq. m) when dry.
- C. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet.
- D. Water: Potable.
- E. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, dissipating.
- F. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, nondissipating.
- G. Clear, Solvent-Borne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.
 - 1. VOC Content: Curing and sealing compounds shall have a VOC content of 200 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

H. Clear, Waterborne, Membrane-Forming Curing and Sealing Compound: ASTM C 1315, Type 1, Class A.

1. VOC Content: Curing and sealing compounds shall have a VOC content of 200 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).

2.5 CONCRETE MIXING

A. Ready-Mixed Concrete: Measure, batch, mix, and deliver concrete according to ASTM C 94/C 94M, and furnish batch ticket information.

1. When air temperature is between 85 and 90 deg F (30 and 32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes; when air temperature is above 90 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.

PART 3 - EXECUTION

3.1 FORMWORK

- A. Design, erect, shore, brace, and maintain formwork, according to ACI 301, to support vertical, lateral, static, and dynamic loads, and construction loads that might be applied, until structure can support such loads.
- B. Construct formwork so concrete members and structures are of size, shape, alignment, elevation, and position indicated, within tolerance limits of ACI 117.

3.2 EMBEDDED ITEMS

- A. Place and secure anchorage devices and other embedded items required for adjoining work that is attached to or supported by cast-in-place concrete. Use setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.

3.3 STEEL REINFORCEMENT

- A. General: Comply with CRSI's "Manual of Standard Practice" for placing reinforcement.

3.4 JOINTS

- A. General: Construct joints true to line with faces perpendicular to surface plane of concrete.
- B. Construction Joints: Install so strength and appearance of concrete are not impaired, at locations indicated or as approved by Architect.
- C. Contraction Joints in Slabs-on-Grade: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of concrete thickness as follows:

1. Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint to a radius of 1/8 inch (3.2 mm). Repeat grooving of contraction joints after applying surface finishes. Eliminate groover tool marks on concrete surfaces.
 2. Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- (3.2-mm-) wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before concrete develops random contraction cracks.
- D. Isolation Joints in Slabs-on-Grade: After removing formwork, install joint-filler strips at slab junctions with vertical surfaces, such as column pedestals, foundation walls, grade beams, and other locations, as indicated.
- E. Waterstops: Install in construction joints and at other joints indicated per manufacturer's written instructions.

3.5 CONCRETE PLACEMENT

- A. Before placing concrete, verify that installation of formwork, reinforcement, and embedded items is complete and that required inspections have been performed.
- B. Deposit concrete continuously in one layer or in horizontal layers of such thickness that no new concrete will be placed on concrete that has hardened enough to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as indicated. Deposit concrete to avoid segregation.
1. Consolidate placed concrete with mechanical vibrating equipment per ACI 301.
- C. Cold-Weather Placement: Comply with ACI 306.1.
- D. Hot-Weather Placement: Comply with ACI 301.

3.6 FINISHING FORMED SURFACES

- A. Smooth-Formed Finish: As-cast concrete texture imparted by form-facing material, arranged in an orderly and symmetrical manner with a minimum of seams. Repair and patch tie holes and defects. Remove fins and other projections that exceed specified limits on formed-surface irregularities.

3.7 FINISHING FLOORS AND SLABS

- A. General: Comply with ACI 302.1R recommendations for screeding, restraightening, and finishing operations for concrete surfaces. Do not wet concrete surfaces.
- B. Broom Finish: Apply a broom finish to exterior concrete platforms, steps, ramps, and elsewhere as indicated.

3.8 CONCRETE PROTECTING AND CURING

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. Comply with ACI 306.1 for cold-weather protection and ACI 301 for hot-weather protection during curing.
- B. Evaporation Retarder: Apply evaporation retarder to unformed concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h (1 kg/sq. m x h) before and during finishing operations. Apply per manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete, but before float finishing.
- C. Cure concrete per ACI 308.1, by one or a combination of the following methods:
 - 1. Curing Compound: Apply uniformly in continuous operation by power spray or roller per manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating and repair damage during curing period.
 - 2. Curing and Sealing Compound: Apply uniformly to floors and slabs indicated in a continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas subjected to heavy rainfall within three hours after initial application. Repeat process 24 hours later and apply a second coat. Maintain continuity of coating and repair damage during curing period.

END OF SECTION 033000

SECTION 099000 - PAINTING AND COATING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Surface preparation and field application of paints, and other coatings.

1.2 DEFINITIONS

- A. Refer to ASTM D16 for definitions of terms used in this Section.

1.3 SUBMITTALS

- A. Product Data:
 - 1. Manufacturer information on finishing products.
- B. Manufacturer's Certificate: Products meet or exceed specified requirements.
- C. Manufacturer Instructions: Special surface preparation procedures, and substrate conditions requiring special attention.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store materials in ventilated area and otherwise per manufacturer instructions.
- B. Protection:
 - 1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
 - 2. Provide additional protection per manufacturer instructions.
 - 3. surface.

1.5 WARRANTY

- A. Furnish five-year manufacturer's warranty for paint and coatings.

PART 2 - EXECUTION

2.1 EXAMINATION

- A. Verify that surfaces are ready to receive Work as recommended by product manufacturer.

- B. Examine surfaces scheduled to be finished prior to commencement of Work, and report conditions capable of affecting proper application to Architect/Engineer.
- C. Test shop-applied primer for compatibility with subsequent cover materials.
- D. Moisture Content:
 - 1. Measure moisture content of surfaces using electronic moisture meter.

2.2 PREPARATION

- A. Defects:
 - 1. Correct defects and clean surfaces capable of affecting Work of this Section.
- B. Marks: Seal marks that may bleed through surface finishes with shellac.

2.3 APPLICATION

- A. Comply with MPI - Architectural Painting Manual.

END OF SECTION 099000

SECTION 220553 - IDENTIFICATION FOR PLUMBING PIPING AND EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Nameplates.
2. Tags.
3. Stencils.
4. Pipe markers.
5. Labels.
6. Lockout devices.

1.2 SUBMITTALS

- A. Product Data: Manufacturers catalog literature for each product required.
- B. Shop Drawings: List of wording, symbols, letter size, and color coding for mechanical identification and valve chart and schedule, including valve tag number, location, function, and valve manufacturer's name and model number.
- C. Manufacturer's Installation Instructions: Special procedures and installation.
- D. Manufacturer's Certificate: Products meet or exceed specified requirements.

1.3 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of tagged valves; include valve tag numbers.

1.4 QUALITY ASSURANCE

- A. Conform to ASME A13.1 for color scheme for identification of piping systems and accessories.

1.5 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this Section with three years' experience.

PART 2 - PRODUCTS

2.1 NAMEPLATES

- A. Product Description: Laminated three-layer plastic with engraved black letters on light contrasting background color.

2.2 TAGS

- A. Plastic Tags:

- 1. Laminated three-layer plastic with engraved black letters on light contrasting background color. Tag size minimum 1-1/2 inches (38 mm) square.

- B. Metal Tags:

- 1. Stainless Steel with stamped letters; tag size minimum 1-1/2 inches (38 mm) square with finished edges.

2.3 STENCILS

- A. Stencils: With clean cut symbols and letters of following size:

- 1. Up to 2 inches (51 mm) Outside Diameter of Insulation or Pipe: 1/2 inch (13 mm) high letters.
 - 2. 2-1/2 to 6 inches (64-150 mm) Outside Diameter of Insulation or Pipe: 1-inch (25-mm) high letters.
 - 3. Over 6 inches (150 mm) Outside Diameter of Insulation or Pipe: 1-3/4-inch-high letters.
 - 4. Ductwork and Equipment: 1-3/4-inch-high letters.

- B. Stencil Paint: Semi-gloss enamel, colors and lettering size conforming to ASME A13.1.

2.4 PIPE MARKERS

- A. Color and Lettering: Conform to ASME A13.1.

- B. Plastic Pipe Markers:

- 1. Factory fabricated, flexible, semi-rigid plastic, preformed to fit around pipe or pipe covering. Larger sizes may have maximum sheet size with spring fastener.

- C. Plastic Tape Pipe Markers:

- 1. Flexible, vinyl film tape with pressure sensitive adhesive backing and printed markings.

- D. Plastic Underground Pipe Markers:

1. Bright colored continuously printed plastic ribbon tape, minimum 6 inches (150 mm) wide by 4 mil (0.10 mm) thick, manufactured for direct burial service.

2.5 LABELS

- A. Description: Aluminum, size 1.9 x 0.75 inches (48 x 19 mm), adhesive backed with printed identification.

END OF SECTION 220553

SECTION 260503 - EQUIPMENT WIRING CONNECTIONS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Electrical connections to equipment.

1.2 SUBMITTALS

- A. Product Data: Wiring device manufacturer's catalog information showing dimensions, configurations, and construction.
- B. Manufacturer's installation instructions.

1.3 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations, sizes, and configurations of equipment connections.

1.4 COORDINATION

- A. Obtain and review Shop Drawings, product data, manufacturer's wiring diagrams, and manufacturer's instructions for equipment furnished under other Sections.
- B. Determine connection locations and requirements.
- C. Sequence rough-in of electrical connections to coordinate with installation of equipment.
- D. Sequence electrical connections to coordinate with startup of equipment.

PART 2 - EXECUTION

2.1 EXISTING WORK

- A. Remove exposed abandoned equipment wiring connections.
- B. Disconnect abandoned utilization equipment and remove wiring connections. Remove abandoned components when connected raceway is abandoned and removed. Install blank cover for abandoned boxes and enclosures not removed.
- C. Extend existing equipment connections using materials and methods compatible with existing electrical installations, or as specified.

2.2 INSTALLATION

- A. Make electrical connections.
- B. Make conduit connections to equipment using flexible conduit. Use liquidtight flexible conduit with watertight connectors in damp or wet locations.
- C. Connect heat-producing equipment using wire and cable with insulation suitable for temperatures encountered.
- D. Install receptacle outlet to accommodate connection with attachment plug.
- E. Install cord and cap for field-supplied attachment plug.
- F. Install strain-relief clamps and fittings for cord connections at outlet boxes and equipment connection boxes.
- G. Install disconnect switches, controllers, control stations, and control devices to complete equipment wiring requirements.
- H. Install terminal block jumpers to complete equipment wiring requirements.
- I. Install interconnecting conduit and wiring between devices and equipment to complete equipment wiring requirements.

2.3 ADJUSTING

- A. Cooperate with equipment installers and field service personnel during checkout and starting of equipment to allow testing and balancing and other startup operations.
- B. Provide personnel to operate electrical system and checkout wiring connection components and configurations.

END OF SECTION 260503

SECTION 262923 - VARIABLE-FREQUENCY MOTOR CONTROLLERS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Variable frequency controllers.

1.2 SUBMITTALS

- A. Shop Drawings: Indicate front and side views of enclosures with overall dimensions and weights shown; conduit entrance locations and requirements; and nameplate legends.
- B. Product Data: Voltage, controller size, ratings and size of switching and overcurrent protective devices, short circuit ratings, dimensions, and enclosure details.
- C. Test Reports: Indicate field test and inspection procedures and test results.
- D. Manufacturer's Field Reports: Indicate start-up inspection findings.

1.3 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: Include instructions complying with NEMA ICS 7.1. Include procedures for starting and operating controllers, and describe operating limits possibly resulting in hazardous or unsafe conditions. Include routine preventive maintenance schedule.

1.4 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this Section with three years' experience, and with service facilities within 200 miles of Project.

1.5 ENVIRONMENTAL REQUIREMENTS

- A. Conform to NEMA ICS 7 service conditions during and after installation of variable frequency controllers.

1.6 WARRANTY

- A. Furnish five-year manufacturer's warranty for variable frequency controller.

1.7 MAINTENANCE SERVICE

- A. Furnish service and maintenance of variable frequency controller for one year from date of Substantial Completion.

1.8 MAINTENANCE MATERIALS

- A. Furnish two of each air filter.

PART 2 - PRODUCTS

2.1 VARIABLE FREQUENCY CONTROLLERS

- A. Manufacturers:
 - 1. ABB, Allen Bradley/Rockwell Automation, Eaton, Siemens or equal.
 - 2. Substitutions: Permitted.
- B. Product Description: NEMA ICS 7, enclosed variable frequency controller suitable for operating indicated loads. Select unspecified features and options according to NEMA ICS 7.1.
- C. Ratings:
 - 1. Rated Input Voltage: 240 volts, three phase, 60 Hz.
 - 2. Motor Nameplate Voltage: 230 volts, three phase, 60 Hz.
 - 3. Displacement Power Factor: Between 1.0 and 0.95, lagging, over entire range of operating speed and load.
 - 4. Operating Ambient: Zero degrees C to 50 degrees C.
 - 5. Minimum Efficiency at Full Load: 97.4 percent.
- D. Design Features:
 - 1. Employ microprocessor-based inverter logic isolated from power circuits.
 - 2. Employ pulse-width-modulated inverter system.
 - 3. Design for ability to operate controller with motor disconnected from output.
 - 4. Design to attempt five automatic restarts following fault condition before locking out and requiring manual restart.
- E. Indicators and Manual Controls:
 - 1. Input Signal: 4 to 20 mA DC or as otherwise indicated on the plans.
 - 2. Display: Furnish integral digital display to indicate output voltage, output frequency, and output current.
 - 3. Status Indicators: Separate indicators for overcurrent, overvoltage, ground fault, overtemperature, and input power ON.
 - 4. Volts Per Hz Adjustment: Plus or minus 10 percent.
 - 5. Current Limit Adjustment: 60 to 110 percent of rated.
 - 6. Acceleration Rate Adjustment: 0.5 to 3000 seconds.
 - 7. Deceleration Rate Adjustment: 1 to 3000 seconds.

8. HAND-OFF-AUTOMATIC selector switch and manual speed control.
9. Control Power Source: Separate circuit.

F. Safeties and Interlocks:

1. Includes undervoltage release.
2. Door Interlocks: Mechanical means to prevent opening of equipment with power connected, or to disconnect power when door is opened; include means for defeating interlock by qualified persons.
3. Safety Interlocks: Terminals for remote contact to inhibit starting under both manual and automatic mode.
4. Control Interlocks: Furnish terminals for remote contact to allow starting in automatic mode.
5. Manual Bypass: Includes contactor, motor running overload protection, and short circuit protection for full voltage, non-reversing operation of motor. Includes isolation switch to allow maintenance of inverter during bypass operation. Includes speed-pot manual speed control.
6. Emergency Stop: Use dynamic brakes for emergency stop function.
7. Disconnecting Means: Integral fused disconnect switch with clips for NEMA FU 1, Class J fuses on line side of each controller.

G. Fabrication:

1. Wiring Terminations: Match conductor materials and sizes as indicated.
2. Enclosure: NEMA 250, Type 3R, suitable for equipment application in places accessible only to qualified personnel.
3. Finish: Manufacturer's standard enamel.

2.2 QUALITY CONTROL

- A. Shop inspect and perform standard production tests for each controller.
- B. Allow witnessing of factory inspections and tests at manufacturer's test facility.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify building environment is maintained within service conditions required by manufacturer.

3.2 EXISTING WORK

- A. Disconnect and remove abandoned controllers.
- B. Clean and repair existing controllers to remain or to be reinstalled.

3.3 INSTALLATION

- A. Install according to NEMA ICS 7.1.
- B. Tighten accessible connections and mechanical fasteners after placing controller.
- C. Install fuses in fusible switches.
- D. Select and install overload heater elements in motor controllers to match installed motor characteristics.
- E. Install engraved plastic nameplates.
- F. Neatly type label inside controller door identifying motor served, nameplate horsepower, full load amperes, code letter, service factor, and voltage/phase rating. Place label in clear plastic holder.
- G. Ground and bond controller according to Section 260526.

3.4 FIELD QUALITY CONTROL

- A. Inspect and test according to NETA ATS, except Section 4.
- B. Perform inspections and tests listed in NETA ATS, Section 7.16 and NEMA ICS 7.1.

3.5 MANUFACTURER'S FIELD SERVICES

- A. Prepare and startup variable frequency controller.

3.6 DEMONSTRATION AND TRAINING

- A. Furnish 4 hours of instruction each for two persons, to be conducted at Project Site with manufacturer's representative.

END OF SECTION 262923

SECTION 330130.13 - SEWER AND MANHOLE TESTING

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Testing of Gravity Sewer Piping:
 - a. Low pressure air testing.
 - b. Exfiltration testing.
 - c. Infiltration testing.
 - 2. Testing of pressure piping.
 - 3. Deflection testing of plastic sewer piping.
 - 4. Testing of Manholes:
 - a. Vacuum testing.
 - b. Exfiltration testing.

1.2 SUBMITTALS

- A. Submit following items prior to start of testing:
 - 1. Testing procedures.
 - 2. List of test equipment.
 - 3. Testing sequence schedule.
 - 4. Provisions for disposal of flushing and test water.
 - 5. Certification of test gage calibration.
 - 6. Deflection mandrel drawings and calculations.
- B. Test and Evaluation Reports: Indicate results of **manhole** tests.

PART 2 - PRODUCTS

2.1 TESTING

- A. Vacuum Equipment:
 - 1. Vacuum pump.
 - 2. Vacuum line.
 - 3. Vacuum Tester Base:
 - a. Compression band seal.
 - b. Outlet port.

4. Shutoff valve.
 5. Stopwatch.
 6. Plugs.
 7. Vacuum Gage: Calibrated to 0.1 in. Hg (0.34 kPa).
- B. Exfiltration Equipment:
1. Plugs.
 2. Pump.
 3. Measuring device.
- C. Air Equipment:
1. Air compressor.
 2. Air supply line.
 3. Shutoff valves.
 4. Pressure regulator.
 5. Pressure relief valve.
 6. Stopwatch.
 7. Plugs.
 8. Pressure Gage: Calibrated to 0.1 psi (0.69 kPa).
- D. Infiltration Equipment: Weirs.
- E. Hydrostatic Equipment:
1. Hydro pump.
 2. Pressure hose.
 3. Water meter.
 4. Test connections.
 5. Pressure relief valve.
 6. Pressure Gage: Calibrated to 0.1 psi (0.69 kPa).
- F. Deflection Equipment:
1. "Go, no go" mandrels.
 2. Pull/retrieval ropes.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that manholes and piping are ready for testing.
- B. Verify that trenches are backfilled.
- C. Verify that pressure piping thrust restraint system is installed.

3.2 PREPARATION

A. Lamping:

1. Lamp gravity piping after flushing and cleaning.
2. Perform lamping operation by shining light at one end of each pipe section between manholes.
3. Observe light at other end.
4. Pipe not installed with uniform line and grade will be rejected.
5. Remove and reinstall rejected pipe sections.
6. Reclean and lamp until pipe section is installed to uniform line and grade.

B. Plugs:

1. Plug outlets, wye branches, and laterals.
2. Brace plugs to resist test pressures.

C. Testing of Manholes:

1. Description:

- a. If air testing, test whenever possible prior to backfilling to more easily locate leaks.
- b. Repair both outside and inside of joint to ensure permanent seal.
- c. Test manholes with manhole frame set in place.

2. Vacuum test per ASTM C1244 (C1244M) and following:

- a. Plug pipe openings; securely brace plugs and pipe.
- b. Inflate compression band to create seal between vacuum base and structure.
- c. Connect vacuum pump to outlet port with valve open, then draw vacuum.
- d. Close valve.
- e. Manhole Test Duration in Seconds:
 - 1) Diameter 4 Feet (1.2 m):60.
 - 2) Diameter 5 Feet (1.5 m):75.
 - 3) Diameter 6 Feet (1.8 m):90.
- f. Record vacuum drop during test period.

3. Exfiltration Testing:

- a. Plug pipes in manhole.
- b. Remove water from manhole.
- c. Observe plugs over period of not less than two hours to ensure that there is no leakage into manhole.
- d. Determine ground water level outside manhole.
- e. Fill manhole with water.
- f. Prior to testing, allow manhole to soak from minimum of four hours.
- g. After soak period, adjust water level inside manhole.
- h. Measure water level from top of manhole frame.

- i. At end of four-hour testing period, again measure water level from top of manhole frame; compute drop in water level during testing period.
- j. Manhole exfiltration test is considered satisfactory when drop in water level is less than following:
 - 1) Manhole Depth of 4 feet (1.2 m):
 - a) Diameter of 4 feet (1.2 m):0.11 inch (3 mm).
 - b) Diameter of 5 feet (1.5 m):0.14 inch (4 mm).
 - c) Diameter of 6 feet (1.8 m): 0.17 inch (5 mm).
 - 2) Manhole Depth of 6 feet (1.5 m):
 - a) Diameter of 4 feet (1.2 m):0.17 inch (5 mm).
 - b) Diameter of 5 feet (1.5 m): 0.21 inch (6 mm).
 - c) Diameter of 6 feet (1.8 m):0.26 inch (8 mm).
 - 3) Manhole Depth of 8 feet (2.4 m):
 - a) Diameter of 4 feet (1.2 m):0.23 inch (7 mm).
 - b) Diameter of 5 feet (1.5 m): 0.29 inch (9 mm).
 - c) Diameter of 6 feet (1.8 m): 0.35 inch (11 mm).
 - 4) Manhole Depth of 10 feet (3.0 m):
 - a) Diameter of 4 feet (1.2 m):0.28 inch (9 mm).
 - b) Diameter of 5 feet (1.5 m): 0.35 inch (11 mm).
 - c) Diameter of 6 feet (1.8 m):0.42 inch (13 mm).
 - 5) Manhole Depth of 12 feet (3.7 m):
 - a) Diameter of 4 feet (1.2 m):0.34 inch (10 mm).
 - b) Diameter of 5 feet (1.5 m):0.43 inch (13 mm).
 - c) Diameter of 6 feet (1.8 m):0.51 inch (16 mm).
 - 6) Manhole Depth of 14 feet (4.3 m):
 - a) Diameter of 4 feet (1.2 m):0.40 inch (12 mm).
 - b) Diameter of 5 feet (1.5 m):0.50 inch (15 mm).
 - c) Diameter of 6 feet (1.8 m):0.60 inch (18 mm).
 - 7) Manhole Depth of 16 feet (4.9 m):
 - a) Diameter of 4 feet (1.2 m):0.45 inch (14 mm).
 - b) Diameter of 5 feet (1.5 m):0.56 inch (17 mm).
 - c) Diameter of 6 feet (1.8 m): 0.68 inch (21 mm).
 - 8) Manhole Depth of 18 feet (5.5 m):
 - a) Diameter of 4 feet (1.2 m):0.51 inch (16 mm).
 - b) Diameter of 5 feet (1.5 m):0.64 inch (19 mm).
 - c) Diameter of 6 feet (1.8 m):0.77 inch (23 mm).

- 9) Manhole Depth of 20 feet (6.1 m):
 - a) Diameter of 4 feet (1.2 m):0.57 inch (17 mm).
 - b) Diameter of 5 feet (1.5 m):0.71 inch (22 mm).
 - c) Diameter of 6 feet (1.8 m):0.86 inch (26 mm).
 - 10) Manhole Depth of 22 feet (6.7 m):
 - a) Diameter of 4 feet (1.2 m):0.62 inch (19 mm).
 - b) Diameter of 5 feet (1.5 m):0.78 inch (24 mm).
 - c) Diameter of 6 feet (1.8 m):0.93 inch (28 mm).
 - 11) Manhole Depth of 24 feet (7.3 m):
 - a) Diameter of 4 feet (1.2 m):0.68 inch (21 mm).
 - b) Diameter of 5 feet (1.5 m):0.85 inch (26 mm).
 - c) Diameter of 6 feet (1.8 m):1.02 inch (31 mm).
 - 12) Manhole Depth of 26 feet (7.9 m):
 - a) Diameter of 4 feet (1.2 m):0.74 inch (23 mm).
 - b) Diameter of 5 feet (1.5 m):0.93 inch (28 mm).
 - c) Diameter of 6 feet (1.8 m):1.11 inch (34 mm).
 - 13) Manhole Depth of 28 feet (8.5 m):
 - a) Diameter of 4 feet (1.2 m):0.79 inch (24 mm).
 - b) Diameter of 5 feet (1.5 m):0.99 inch (30 mm).
 - c) Diameter of 6 feet (1.8 m):1.19 inch (36 mm).
 - 14) Manhole Depth of 30 feet (9.1 m):
 - a) Diameter of 4 feet (1.2 m):0.85 inch (26 mm).
 - b) Diameter of 5 feet (1.5 m):1.06 inch (32 mm).
 - c) Diameter of 6 feet (1.8 m):1.28 inch (39 mm).
4. If unsatisfactory testing results are achieved, repair manhole and retest until result meets criteria.
 5. Repair visible leaks regardless of quantity of leakage.

END OF SECTION 330130.13

SECTION 330513 - MANHOLES AND STRUCTURES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Modular precast concrete manholes and structures with tongue-and-groove joints, covers, anchorage, and accessories.

1.2 SUBMITTALS

- A. Product Data: Manhole covers, component construction, features, configuration, dimensions.
- B. Shop Drawings:
 - 1. Structure locations and elevations.
 - 2. Sizes and elevations of **pipng, conduit**, penetrations.
- C. Manufacturer's Certificate: Products meet or exceed specified requirements.
- D. Manufacturer Instructions: Installation requirements, including storage and handling procedures.
- E. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.
- F. Qualifications Statements:
 - 1. Qualifications for manufacturer and installer.
 - 2. Manufacturer's approval of installer.

1.3 QUALITY ASSURANCE

- A. Perform Work per imperial county standards.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Comply with precast concrete manufacturer's instructions **and ASTM C913** for unloading, storing, and moving precast manholes and drainage structures.
- B. Storage:
 - 1. Store precast concrete manholes and drainage structures to prevent damage to Owner's property or other public or private property.
 - 2. Repair property damaged from materials storage.

PART 2 - PRODUCTS

2.1 MANHOLES AND STRUCTURES

1. Furnish materials per imperial county standards.

B. Manhole and Structure Sections:

1. Description: Reinforced precast concrete conforming to ASTM C478 (C478M) with gaskets conforming to ASTM C923 (C923M).
2. Joints for Precast Manholes and Structures:
 - a. Conforming to ASTM C913.
 - b. Maximum Leakage: 0.025 gal. ([**94.6 ml**]) per hour per foot (0.3 m) of joint at 3 feet (91 cm) of head.

C. Shape: **Cylindrical**.

D. Pipe Entry: Furnish openings as **required**.

E. Structure Joint Gaskets:

1. ASTM C361 (C361M).
2. Material: Rubber.

2.2 FRAMES AND COVERS

1. Furnish materials per imperial county standards.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that items provided by other Sections of Work are properly sized and located.
- B. Verify that built-in items are in proper location and are ready for roughing into Work.
- C. Verify correct size of manhole and structure excavation.

3.2 PREPARATION

- A. Mark each precast structure by indentation or waterproof paint showing date of manufacture, manufacturer, and identifying symbols and numbers as indicated to indicate its intended use.
- B. Coordinate placement of inlet and outlet pipe or duct sleeves required by other Sections.
- C. Do not install manholes and structures where Site conditions induce loads exceeding structural capacity of manholes or structures.

- D. Inspect precast concrete manholes and structures immediately prior to placement in excavation to verify that they are internally clean and free from damage; remove and replace damaged units.

3.3 INSTALLATION

A. Excavation and Backfill:

1. Excavate for manholes and structures as specified.
2. Provide clearance around sidewalls of manhole or structure for construction operations.
3. If groundwater is encountered, prevent accumulation of water in excavations; place manhole or structure in dry trench.
4. Where possibility exists of watertight manhole or structure becoming buoyant in flooded excavation, anchor manhole or structure to avoid flotation, as approved by Engineer.

B. Precast Concrete Manholes and Structures:

1. Lift precast components at lifting points designated by manufacturer.
2. When lowering manholes into excavations and joining pipe to units, take precautions to ensure that interior of pipeline and structure remains clean.
3. Set precast structures, bearing firmly and fully on crushed stone bedding, compacted or on other support system as indicated.
4. Assembly:
 - a. Assemble multi-section manholes and structures by lowering each section into excavation.
 - b. Install rubber gasket joints between precast sections per manufacturer's recommendations.
 - c. Lower, set level, and firmly position base section before placing additional sections.
5. Remove foreign materials from joint surfaces and verify sealing materials are placed properly.
6. Maintain alignment between sections by using guide devices affixed to lower section.
7. Joint sealing materials may be installed on Site or at manufacturer's plant.
8. Verify that installed manholes meet required alignment and grade.
9. Remove knockouts or cut structure to receive piping without creating openings larger than required to receive pipe; fill annular spaces with mortar.
10. Cut pipe flush with interior of structure.
11. Shape inverts through manholes as indicated.

END OF SECTION 330513

SECTION 331113 - PUBLIC WATER UTILITY DISTRIBUTION PIPING

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Pipe and fittings for public line, including potable water line.
2. Valves and fire hydrants.
3. Positive displacement meters.
4. Underground pipe markers.
5. Pipe support systems.
6. Bedding and cover materials.

1.2 SUBMITTALS

- A. Product Data: Pipe materials, pipe fittings, valves, and accessories.
- B. Shop Drawings: Piping layout, including piping specialties.
- C. Include following Paragraph for submission of physical samples for selection of finish, color, texture, and other properties.
- D. Manufacturer's Certificate: Products meet or exceed specified requirements.
- E. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.

1.3 SUSTAINABLE DESIGN SUBMITTALS

- A. Manufacturer's Certificate: Products meet or exceed specified sustainable design requirements.

1.4 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of piping mains, valves, connections, thrust restraints, and invert elevations.
- B. Identify and describe unexpected variations to subsoil conditions or discovery of uncharted utilities.

1.5 QUALITY ASSURANCE

- A. Valves: Mark valve body with manufacturer's name and pressure rating.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver and store valves in shipping containers with manufacturer's labeling in place and inspect for damage.
- B. Block individual and stockpiled pipe lengths to prevent moving.
- C. Do not place pipe or pipe materials on private property or in areas obstructing pedestrian or vehicle traffic.

1.7 EXISTING CONDITIONS

- A. Field Measurements:
 - 1. Verify field measurements prior to fabrication.
 - 2. Indicate field measurements on Shop Drawings.

PART 2 - PRODUCTS

2.1 WATER PIPING

- A. Ductile-Iron Pipe:
 - 1. Comply with AWWA C151.
 - 2. Bituminous Outside Coating: Comply with AWWA C151.
 - 3. Pipe Mortar Lining:
 - a. Comply with AWWA C104.
 - b. Double thickness.
 - 4. Polyethylene Encasement: Comply with AWWA C105.
 - 5. Pipe Class:
 - a. Comply with AWWA C151.
 - 6. Fittings:
 - a. Material: Ductile iron, AWWA C110.
 - b. Compact Fittings: Comply with AWWA C153.
 - c. Coating and Lining:
 - 1) Bituminous Coating: Comply with AWWA C110.
 - 2) Cement Mortar Lining: Comply with AWWA C104, double thickness.
 - 7. Joints:
 - a. Flanged Joints: Comply with AWWA C115.

2.2 VALVES

- A. Valves: As specified in Section 331216 - Water Utility Distribution Valves.

2.3 PIPE SUPPORTS AND ANCHORING

- A. Metal for Pipe Support Brackets: Structural steel, galvanized thoroughly coated with bituminous paint.
- B. Metal Tie Rods and Clamps or Lugs: Galvanized steel sized per NFPA 24, thoroughly coated with bituminous paint.

PART 3 - EXECUTION

3.1 TOLERANCES

- A. Install pipe to indicated elevation.

3.2 FIELD QUALITY CONTROL

- A. Perform pressure test on domestic Site water distribution system per AWWA C600.

END OF SECTION 331113

SECTION 331216 - WATER UTILITY DISTRIBUTION VALVES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Valves.

1.2 SUBMITTALS

- A. Product Data: Manufacturer's latest published literature. Include illustrations, installation and maintenance instructions, and parts lists.
- B. Shop Drawings: Description of proposed installation.
- C. Manufacturer's Certificate: Products meet or exceed specified requirements.
- D. Manufacturer Instructions: Installation requirements, including storage and handling procedures.
- E. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.
- F. Qualifications Statements:
 1. Qualifications for manufacturer and installer.
 2. Manufacturer's approval of installer.

1.3 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of valves.

1.4 QUALITY ASSURANCE

- A. Cast manufacturer's name, pressure rating, and year of fabrication into valve body.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Prepare valves and accessories for shipment per applicable AWWA standards.
- B. Seal valve and ends to prevent entry of foreign matter.
- C. Storage:

1. Store materials in areas protected from weather, moisture, or other potential damage.
 2. Do not store materials directly on ground.
- D. Handle products carefully to prevent damage to interior or exterior surfaces.

PART 2 - PRODUCTS

2.1 DOUBLE-DISC GATE VALVES

A. Description:

1. Comply with AWWA C500 and NSF 61 and 372.
2. Materials:
 - a. Body: Iron.
 - b. Trim: Bronze.
3. Gate: Double-disc parallel seat.
4. Stem Seals: O-ring.
5. Operation:
 - a. Handwheel.
 - b. Open counterclockwise unless otherwise indicated.
6. End Connections: Flanged.
7. Coatings:
 - a. Comply with AWWA C550.
 - b. Interior and exterior.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that invert elevations of existing work prior to excavation and installation of valves are as indicated.

3.2 PREPARATION

- A. Identify required lines, levels, contours, and datum locations.
- B. Do not interrupt existing utilities without permission and without planning to provide temporary utility services.
1. Notify Engineer not less than 7 days in advance of proposed utility interruption.
 2. Do not proceed without written permission from Engineer.

3.3 INSTALLATION

- A. Install valves in conjunction with pipe laying.
- B. Set valves plumb.
- C. Disinfection of Water Piping System:
 - 1. Flush and disinfect system as specified.

3.4 FIELD QUALITY CONTROL

- A. Pressure test water distribution system per AWWA C600.

END OF SECTION 331216

SECTION 331300 - DISINFECTING OF WATER UTILITY DISTRIBUTION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Disinfection of potable water distribution system.
2. Testing and reporting of results.

1.2 SUBMITTALS

- A. Product Data: Procedures, proposed chemicals, and treatment levels.
- B. Manufacturer's Certificate: Products meet or exceed specified requirements.
- C. Certify that cleanliness of water distribution system meets or exceeds specified requirements.
- D. Certify that water conforms or fails to conform to bacterial standards of authority having jurisdiction.
- E. Certify that water conforms to quality standards of authority having jurisdiction.
- F. Test and Evaluation Reports: Indicate testing results comparative to specified requirements.
- G. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.
- H. Qualifications Statements:
 1. Qualifications for water treatment firm and testing firm.

1.3 CLOSEOUT SUBMITTALS

A. Disinfection Report:

1. Type and form of disinfectant used.
2. Date and time of disinfectant injection start and time of completion.
3. Test locations.
4. Name of person collecting samples.
5. Initial and 24-hour disinfectant residuals in treated water in ppm for each outlet tested.
6. Date and time of flushing start and completion.
7. Disinfectant residual after flushing in ppm for each outlet tested.

B. Bacteriological Report:

1. Date issued, project name, and testing laboratory name, address, and telephone number.

2. Time and date of water sample collection.
3. Name of person collecting samples.
4. Test locations.
5. Initial and 24-hour disinfectant residuals in ppm for each outlet tested.
6. Coliform bacteria test results for each outlet tested.
7. Submit bacteriologist's signature and authority associated with testing.

1.4 QUALITY ASSURANCE

- A. Perform Work per AWWA C651.

PART 2 - PRODUCTS

2.1 DISINFECTION CHEMICALS

- A. Chemicals:
 1. Hypochlorite: Comply with AWWA B300.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that piping system has been cleaned, inspected, and pressure tested.
- B. Perform scheduling and disinfecting activity with startup, water pressure testing, adjusting and balancing, and demonstration procedures, including coordination with related systems.

3.2 INSTALLATION

- A. Provide and attach required equipment to perform Work of this Section.
- B. Perform disinfection of water distribution system and installation of system and pressure testing as specified in Section 331116 - Site Water Utility Distribution Piping.
- C. Introduce treatment into piping system.
- D. Maintain disinfectant in system for 24 hours.
- E. Flush, circulate, and clean until required cleanliness is achieved using municipal domestic water.
- F. Replace permanent system devices that were removed for disinfection.

3.3 FIELD QUALITY CONTROL

A. Disinfection, Flushing, and Sampling:

1. Disinfect pipeline installation per AWWA C651.
2. Use of liquid chlorine is not permitted.
3. Upon completion of retention period required for disinfection, flush pipeline until chlorine concentration in water leaving pipeline is no higher than that generally prevailing in existing system or is acceptable for domestic use.
4. Disposal:
 - a. Legally dispose of chlorinated water.
 - b. When chlorinated discharge may cause damage to environment, apply neutralizing chemical to chlorinated water to neutralize chlorine residual remaining in water.
5. After final flushing and before pipeline is connected to existing system or placed in service, employ an approved independent testing laboratory to sample, test, and certify that water quality meets quality standards of authority having jurisdiction.

END OF SECTION 331300

SECTION 400564 - BUTTERFLY VALVES

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Rubber-seated butterfly valves.

PART 2 - PRODUCTS

2.1 RUBBER-SEATED BUTTERFLY VALVES

1. Furnish materials per standards.

B. Description:

1. Comply with AWWA C504.
2. Minimum Working Pressure: As indicated.
3. Maximum Process Fluid Temperature: As indicated.
4. Style: Lugged.
5. Shaft: Self-lubricating.

6. Packing: Replaceable without dismantling valve.
7. End Connections: Comply with ASME B16.1.

C. Operator:

1. Handwheel.

D. Materials:

1. Body: Ductile iron, ASTM A536.
2. Stem: Stainless steel
3. Disc: Stainless steel
4. Seats:
 - a. Type: Resilient and replaceable.
 - b. Material: EPDM rubber

5. Seating Surfaces: Type 316 stainless steel
6. Bearings:
 - a. Sleeve.

7. Connecting Hardware: Type 316 stainless steel.

- E. Provide shop inspection and testing of completed assembly per AWWA C504.
- F. Certificate of Compliance:
 - 1. If manufacturer is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at manufacturer's facility conforms to Contract Documents.
 - 2. Specified shop tests are not required for Work performed by approved manufacturer.

PART 3 - EXECUTION

- A. Per AWWA C504.

END OF SECTION 400564

SECTION 400565.23 - SWING CHECK VALVES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Swing check valves 3 inches (75 mm) and larger.

1.2 SUBMITTALS

- A. Product Data: Manufacturer's catalog information, indicating materials of construction and compliance with indicated standards.
- B. Manufacturer's Certificate: Products meet or exceed specified requirements.
- C. Source Quality-Control Submittals: Indicate results of factory tests and inspections.
- D. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.
- E. Qualifications Statement:
 - 1. Qualifications for manufacturer.

1.3 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of piping, valves and other appurtenances, connections, and invert elevations.

1.4 QUALITY ASSURANCE

- A. Materials in Contact with Potable Water: Certified per NSF 61 and NSF 372.
- B. Perform Work per standards.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store materials per manufacturer instructions.
- B. Protection:
 - 1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
 - 2. Protect valves and appurtenances by storing off ground.
 - 3. Provide additional protection per manufacturer instructions.

1.6 EXISTING CONDITIONS

A. Field Measurements:

1. Verify field measurements prior to fabrication.
2. Indicate field measurements on Shop Drawings.

1.7 WARRANTY

- ### A. Furnish 5-year manufacturer's warranty for swing check valves.

PART 2 - PRODUCTS

2.1 SWING CHECK VALVES

1. Furnish materials per standards.

B. Description:

1. Type: Swing, resilient seated, with outside lever and adjustable spring.
2. Size: 3 inches (76 mm) and larger.
3. Comply with AWWA C508.
4. Minimum Working Pressure: As indicated.
5. Maximum Fluid Temperature: As indicated.
6. Flow Area: Full open equal to connecting nominal pipe diameter.
7. Check Valves 3 Inches and Larger: Furnish with adjustable air cushion chambers.
8. Mounting: Horizontal or vertical.
9. End Connections: Flanged, ASME B16.1

C. Materials:

1. Body and Cover: Ductile iron, ASTM A536.
2. Disc: Ductile iron, ASTM A536
3. Seat: Field replaceable, Type 304 stainless steel.
4. Chamber and Plunger: [Bronze, ASTM B62] <_____>.
5. Hinge Pin and Key: Stainless steel.
6. Packing and O-Ring: [Buna-N] <_____>.
7. Rubber Components: Buna-N.
8. Connecting Hardware: Type 304 stainless steel.

2.2 SOURCE QUALITY CONTROL

A. Testing:

1. Hydrostatically test check valves at twice rated pressure per AWWA C508.
2. Permitted Leakage at Indicated Working Pressure: None.

B. Certificate of Compliance:

1. If manufacturer is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at manufacturer's facility conforms to Contract Documents.
2. Specified shop tests are not required for Work performed by approved manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that field dimensions are as indicated.
- B. Inspect existing flanges for nonstandard bolt-hole configurations or design, and verify that new valve and flange mate properly.

3.2 PREPARATION

- A. Surface Preparation:
 1. Touch up shop-primed surfaces with primer as specified.
 2. Solvent-clean surfaces that are not shop primed.
 3. Clean surfaces to remove loose rust, mill scale, and other foreign substances by power wire brushing.
 4. Prime surfaces as specified in Section.

3.3 INSTALLATION

- A. Per AWWA C508 and manufacturer instructions.
- B. Dielectric Fittings: Provide between dissimilar metals.

3.4 FIELD QUALITY CONTROL

- A. Inspection:
 1. Inspect for damage to valve lining or coating and for other defects that may be detrimental as determined by Architect/Engineer.
 2. Repair damaged valve or provide new, undamaged valve.
 3. After installation, inspect for proper supports and interferences.
- B. Pressure Testing: As indicated.

END OF SECTION 400565.23

SECTION 406343 - PROGRAMMABLE LOGIC CONTROLLERS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Programmable controllers and accessories.

1.2 SUBMITTALS

- A. Product Data: Catalog data for each component specified showing electrical characteristics and connection requirements.
- B. Shop Drawings: Indicate electrical characteristics and connection requirements, including layout of completed assemblies, interconnecting cabling, dimensions, weights, and external power requirements.
- C. Test and Evaluation Reports: Indicate procedures and results for specified factory and field testing and inspection.
- D. Manufacturer Reports: Indicate activities on-Site, adverse findings, and recommendations.
- E. Qualifications Statements:
 - 1. Qualifications for manufacturer and supplier.
 - 2. Manufacturer's approval of supplier.

1.3 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of controller cabinets and input and output devices connected to system. Include interconnection wiring and cabling information, and terminal block layouts in controller cabinets. Include copy of manufacturer's certified drawings.
- B. Operation and Maintenance Data: Submit bound copies of operating and programming instructions, and include card replacement, adjustments, and preventive maintenance procedures and materials.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Spare Parts: One spare circuit card for each unique circuit card type installed.

1.5 QUALIFICATIONS

- A. Manufacturer: Company specializing in manufacturing products specified in this Section.

1.6 AMBIENT CONDITIONS

- A. Conform to specified service conditions during and after installation of programmable controllers.
- B. Maintain area free of dirt and dust during and after installation of products.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

- A. Configuration: Standalone programmable controller incorporated into new system control panel.
- B. Sequence of Operation: per plans.

2.2 PROGRAMMABLE CONTROLLER

- A. Description: Controller conforming to NEMA IA 2.2, and with required memory and functional capacity to perform specified sequence of operation with scheduled input and output points.
- B. Service Conditions: Conform to NEMA ICS 3.
- C. Programming Language: Conform to NEMA IA 2.3.
- D. Programming Software: Furnish 1 license for program for use with general purpose microcomputer and Microsoft Windows operating system.
- E. Spare Input/Output Capacity: 30 percent.
- F. Input Voltage: 120 single phase, 60 Hz.
- G. Enclosure: NEMA ICS 6; Type 12.

2.3 SOURCE QUALITY CONTROL

- A. Testing: Test programmable controller per NEMA IA 2.2.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Disconnect and remove abandoned programmable controller components.

3.2 INSTALLATION

- A. Connect input and output devices as indicated on Drawings.
- B. Install engraved plastic nameplates.
- C. Ground and bond programmable controllers.

3.3 FIELD QUALITY CONTROL

- A. Perform operational testing on control systems to verify proper operation and field wiring connections.
- B. Manufacturer's Field Services: Prepare and start up programmable controller.

3.4 DEMONSTRATION AND TRAINING

- A. Furnish 4 hours of instruction each for 2 persons, to be conducted at Project Site with manufacturer's representative.

3.5 MAINTENANCE

- A. Furnish service and maintenance of programmable controllers for one year from date of Substantial Completion.

SECTION 407113 - MAGNETIC FLOW METERS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Magnetic flow meters.

1.2 SUBMITTALS

A. Product Data: Manufacturer information for system materials and component equipment, including connection requirements.

B. Shop Drawings:

1. System materials and component equipment.
2. Installation requirements and other details.

C. Manufacturer's Certificate: Products meet or exceed specified requirements.

D. Source Quality-Control Submittals: Indicate results of factory tests and inspections.

E. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.

F. Manufacturer Reports: Indicate that equipment has been installed according to manufacturer instructions.

G. Qualifications Statement:

1. Qualifications for manufacturer.

1.3 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations and final orientation of equipment and accessories.

1.4 QUALITY ASSURANCE

A. Ensure that materials of construction of wetted parts are compatible with process liquid.

B. Materials in Contact with Potable Water: Certified to NSF 61 and NSF 372.

C. Perform Work per standards.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Store equipment per manufacturer instructions.
- B. Protection:
 - 1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
 - 2. Provide additional protection per manufacturer instructions.

1.6 WARRANTY

- A. Furnish 5-year manufacturer's warranty for magnetic flow meters and appurtenant devices.

PART 2 - PRODUCTS

2.1 SYSTEM DESCRIPTION

- A. Furnish sensors, field preamplifiers, signal conditioners, offset and span adjustments, amplifiers, transducers, transmitters, control devices, interconnecting cables, and unit conversions and algorithms as required for application.

2.2 MAGNETIC FLOW METERS

- 1. Furnish materials per standards.
- B. Description: Low-frequency, electromagnetic induction-type flow meter, producing a linear signal directly proportional to flow rate, consisting of flow tube, signal cable, and transmitter.
- C. Performance and Design Criteria:
 - 1. Design: Per AWWA M33.
- D. Flow Rate Range: 0 to 2,000 gpm.
- E. Size: As indicated on Drawings.
- F. Flow Tubes:
 - 1. Material: Type 304 stainless steel with polyurethane liner.
 - 2. Length: As indicated on Drawings.
 - 3. End Connections: Flanged, ASME B16.1, carbon steel.
- G. Electrodes:
 - 1. Type 316L stainless steel.
 - 2. Self-cleaning.
- H. Accuracy: Plus or minus 1 percent of actual flow rate over a <100:500> range.

- I. Provide adjustment for zero and span.
- J. Accessories:
 - 1. Provide automatic, nonmechanical electrode cleaning system without taking meter out of service.
 - 2. Furnish cable between transmitter and receiver.

2.3 TRANSMITTERS

- A. Transmitter Output:
 - 1. 4- to 20-mA dc analog signal.
 - 2. Accuracy: Plus or minus 1 percent of full scale.
- B. Housing Material: Cast aluminum.
- C. HMI:
 - 1. Touch-screen programming, functioning through enclosure window without opening enclosure.
 - 2. Display:
 - a. Size: Four lines by 16 characters.
 - b. Type: Backlit digital display.
 - c. User-selectable engineering units.
 - d. Readout of diagnostic error messages.
- D. Mounting:
 - 1. Integral or remote mounting up to 5 feet from flow meter.
- E. Transmitter Communication Interface: PROFIBUS
- F. Communication Firmware and Software
- G. Accessories:
 - 1. Current signal output simulation.
 - 2. Empty pipe detection.
 - 3. Self-diagnostics.
 - 4. Automatic zero adjustment.
 - 5. Stainless-steel sunshield.
 - 6. Signal Cable: Provided by flow meter manufacturer.

2.4 INDICATORS

- 1. Furnish materials per standards.
- B. Description:

1. Integrally mounted in transmitter housing.
2. Scale: Graduated.

2.5 RECORDERS

1. Furnish materials per standards.

2.6 INTEGRATORS

1. Furnish materials per standards.

2.7 OPERATION

A. Control Power:

1. Wiring: As specified.
2. 120-V ac, single phase, 60 Hz.
3. Furnish local transformers as required.

B. Enclosures: As indicated.

2.8 SOURCE QUALITY CONTROL

A. Provide shop inspection and testing of meters per AWWA M6.

B. Certificate of Compliance:

1. If manufacturer is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at manufacturer's facility conforms to Contract Documents.
2. Specified shop tests are not required for Work performed by approved manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- #### A. Verify that items provided by other Sections of Work are ready to receive Work of this Section.

3.2 INSTALLATION

- #### A. Coordinate location and orientation of flow meter with final equipment installations.
- #### B. Ensure that instruments are located to be easily accessible for maintenance.

FIELD QUALITY CONTROL

C. Testing:

1. Test and calibrate flow meter to demonstrate that it meets specified accuracy requirements.
2. Comply with AWWA M6.

D. Equipment Acceptance: Adjust, repair, modify, or replace components failing to perform as specified and rerun tests.

3.3 DEMONSTRATION

- A. Demonstrate equipment startup, shutdown, routine maintenance, and emergency repair procedures to Owner's personnel.

END OF SECTION 407113

SECTION 407326 - GAUGE-PRESSURE TRANSMITTERS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Gage-pressure transmitters.

1.2 SUBMITTALS

- A. Product Data: Manufacturer information for system materials and component equipment, including connection requirements.
- B. Shop Drawings:
 - 1. System materials and component equipment.
 - 2. Installation requirements and other details.
- C. Manufacturer's Certificate: Products meet or exceed specified requirements.
- D. Source Quality-Control Submittals: Indicate results of factory tests and inspections.
- E. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.
- F. Qualifications Statement:
 - 1. Qualifications for manufacturer.

1.3 CLOSEOUT SUBMITTALS

- A. Project Record Documents: Record actual locations of equipment and accessories.

1.4 MAINTENANCE MATERIAL SUBMITTALS

- A. Extra Stock Materials: Two spare transmitters complete with diaphragm seals.

1.5 QUALITY ASSURANCE

- A. Ensure that materials of construction of wetted parts are compatible with process liquid.
- B. Materials in Contact with Potable Water: Certified to NSF 61 and NSF 372.
- C. Perform Work according Imperial County Department of Public Works Standards.

- D. Manufacturer: Company specializing in manufacturing products specified in this Section with three years' experience.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Store materials according to manufacturer instructions.
- B. Protection:
 - 1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
 - 2. Provide additional protection according to manufacturer instructions.

1.7 WARRANTY

- A. Furnish five-year manufacturer's warranty for gage-pressure transmitters.

PART 2 - PRODUCTS

2.1 GAGE-PRESSURE TRANSMITTERS

- A. Manufacturers:
 - 1. ABB, Honeywell International, Omega
 - 2. Substitutions: Permitted.
- B. Description:
 - 1. Excitation:
 - a. 9- to 30-V dc.
 - b. Overvoltage protected.
 - 2. Accuracy: Plus or minus 0.25% percent.
 - 3. Output Signal: 4 to 20 mA dc.
 - 4. Operating Temperature Range: 25 to 150 degrees F
 - 5. Response Time: Less than 30 ms (adjustable).
 - 6. Materials: Type 316 stainless steel.
 - 7. Location: As indicated.
- C. Mounting: Pipe.
- D. Furnish cable, field preamplifiers, and signal conditioners as required to maintain accuracy from transducer to terminal device.
- E. Operation:
 - 1. Control Power:

- a. Wiring: As specified in Section 260503 - Equipment Wiring Connections.
 - b. 120-V ac, single phase, 60 Hz.
 - c. Furnish local transformers as required.
2. Enclosures: NEMA 250 Type As indicated.

2.2 SOURCE QUALITY CONTROL

- A. Provide shop inspection and testing of completed assembly.
- B. Certificate of Compliance:
 1. If manufacturer is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at manufacturer's facility conforms to Contract Documents.
 2. Specified shop tests are not required for Work performed by approved manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that items provided by other Sections of Work are ready to receive Work of this Section.

3.2 INSTALLATION

- A. According to manufacturer instructions.

3.3 FIELD QUALITY CONTROL

- A. Equipment Acceptance: Adjust, repair, modify, or replace components failing to perform as specified and rerun tests.

3.4 DEMONSTRATION

- A. Demonstrate equipment startup, shutdown, routine maintenance, and emergency repair procedures to Owner's personnel.

END OF SECTION 407326

SECTION 432313.27 – FRAME MOUNTED HORIZONTAL END SUCTION CENTRIFUGAL PUMPS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Horizontal end suction pumps.

1.2 SUBMITTALS

A. Product Data: Manufacturer information for materials of construction and fabrication.

B. Shop Drawings:

1. Detailed dimensions for materials and equipment, including wiring and control diagrams, performance charts and curves, installation and anchoring requirements, fasteners, and other details.
2. Manufacturer's specified displacement tolerances for vibration at operational speed specified for pumps.

C. Manufacturer's Certificate: Products meet or exceed specified requirements.

D. Manufacturer Instructions: Installation requirements, including storage and handling procedures, anchoring, and layout.

E. Source Quality-Control Submittals: Indicate results of factory tests and inspections.

F. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.

G. Manufacturer Reports: Certify that equipment has been installed according to manufacturer instructions.

1.3 CLOSEOUT SUBMITTALS

A. Project Record Documents: Record actual locations and final orientation of equipment and accessories.

1.4 WARRANTY

A. Furnish five-year manufacturer's warranty for pumps and accessories.

PART 2 - PRODUCTS

2.1 HORIZONTAL END SUCTION PUMPS

- A. Manufacturers:
 - 1. Deming, Goulds, Grundfos, Paco or equal.
 - 2. Substitutions: Permitted.
- B. Description: Frame-mounted, centrifugal, horizontal end suction pump, with direct-coupled or variable-speed electric motor as indicated on the plans.
- C. Pump Designation:
 - 1. LF-1
 - 2. LF-2
 - 3. HF-3
 - 4. HF-4
 - 5. HF-5
- D. Performance Criteria:
 - 1. Design Flow Rate: LF 134 gpm, HF 550 gpm.
 - 2. Design Flow Total Dynamic Head: LF 159 feet, HF 100 feet. .
 - 3. See Pump Schedule on plans for additional pump criteria.
- E. Casing:
 - 1. Type: Double Volute.
 - 2. Material: ASTM A536, ductile iron.
 - 3. Connections: Gage and drain.
 - 4. Furnish backhead to permit removal of impeller, shaft, and bearings without affecting piping.
 - 5. End Connections: Flanged; ASME B16.1, Class 150.
- F. Impeller:
 - 1. Type: Single stage, end suction centrifugal.
 - 2. Material: Stainless Steel.
 - 3. Statically and dynamically balanced after assembly.
- G. Shaft:
 - 1. Material: Stainless steel.
 - 2. Couplings: Keyed to shaft.
- H. Wearing Rings: Stainless steel.
- I. Bearings:
 - 1. Type: Ball or roller.

2. Minimum L-10 Life: 200,000 hours at continuous maximum load and speed, according to ABMA 9.

J. Seals: Split mechanical.

K. Lubrication: Grease.

L. Operation:

1. Electrical Characteristics: As specified and following:
 - a. LF 10 hp, HF 20 hp.
 - b. Voltage: 230 V, three phase, 60 Hz.
2. Controls: PLC. See plans for PLC parameters.
3. Control Panel: As indicated.
4. Disconnect Switch: as indicated.
5. Operation Sequences: As indicated.

M. Fabrication:

1. Connect pump shaft to drive motor with universal flexible coupling to compensate for minor misalignment and to permit removal of pump-rotating assembly and motor without removing piping.
2. Shaft Guard: Enclose shaft and universal joint with enclosed-type metal shaft guard complying with OSHA standards.
3. Pump and Drive Mating Surfaces: Machine finished.
4. Base: Heavy fabricated structural-steel base.

2.2 SOURCE QUALITY CONTROL

- A. As specified in Section 430520 - Common Work Requirements for Liquid Handling Equipment.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install pumps where indicated and according to manufacturer instructions.
- B. Provide and connect piping, power and control conduit, and wiring to make system operational and ready for startup.
- C. Flush piping with clean water.
- D. Installation Standards: Install Work according to <_____> standards.

3.2 FIELD QUALITY CONTROL

- A. As specified in Section 430520 - Common Work Requirements for Liquid Handling Equipment.

END OF SECTION 432313.27

SECTION 434221 - WELDED STEEL PRESSURE TANKS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes: Welded steel pressure tanks.

1.2 SUBMITTALS

- A. Shop Drawings: Tank dimensions, materials of construction, tank lining methods, anchors, attachments, lifting points, taps, and drains.
- B. Manufacturer's Certificate:
 - 1. Tanks and appurtenances meet or exceed specified requirements.
 - 2. Submit certified list of tank installations storing same liquid and concentration, in service for period of not less than five years.
- C. Welder Certificates: Certify welders and welding procedures employed on Work, verifying ASME qualification within previous 12 months.
- D. Test and Evaluation Reports: Installation certificate from equipment manufacturer's representative as described in PART 3.
- E. Manufacturer Instructions: Installation requirements, including storage and handling procedures.
- F. Source Quality-Control Submittals: Indicate results of factory tests and inspections.
- G. Field Quality-Control Submittals: Indicate results of Contractor-furnished tests and inspections.
- H. Manufacturer Reports: Certify that equipment has been installed according to manufacturer instructions.
- I. Qualifications Statements:
 - 1. Qualifications for manufacturer, installer, and licensed professional.
 - 2. Manufacturer's approval of installer.
 - 3. Welder Certificates: Submit welder certification of compliance with ASME BPVC-IX.

1.3 QUALITY ASSURANCE

- A. Perform Work according to ASME BPVC-IX for welding materials and procedures.
- B. Provide tanks registered with National Board of Boiler and Pressure Vessel Inspectors.

- C. Materials in Contact with Potable Water: Certified to NSF Standards 61 and 372.
- D. Perform Work according to Imperial County Public Works standards.
- E. Manufacturer: Company specializing in manufacturing products specified in this Section with three years' experience.
- F. Installer: Company specializing in performing Work of this Section with three years' experience.
- G. Welders: ASME qualified within previous 12 months for employed weld types.
- H. Licensed Professional: experienced in design of specified Work.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Store materials according to manufacturer instructions.
- B. Protection:
 - 1. Protect materials from moisture and dust by storing in clean, dry location remote from construction operations areas.
 - 2. Protect valve ends from entry of foreign materials by providing temporary covers and plugs.
 - 3. Provide additional protection according to manufacturer instructions.

1.5 EXISTING CONDITIONS

- A. Field Measurements:
 - 1. Verify field measurements prior to fabrication.
 - 2. Indicate field measurements on Shop Drawings.

1.6 WARRANTY

- A. Furnish five-year manufacturer's warranty for welded steel pressure tanks.

PART 2 - PRODUCTS

2.1 WELDED STEEL PRESSURE TANKS

- A. Manufacturers:
 - 1. AA Tanks, Hanson's Tank, Wessels Tank Co., or equal.
 - 2. Substitutions: Permitted.
- B. Description:

1. Welded steel tank, ASME-labeled for working pressure of 125 psig with heavy duty butyl bladder.
2. Furnish appurtenances as indicated.
3. Configuration: Vertical.
4. Overall Length: 11 feet
5. Diameter: 4 feet.
6. Nominal capacity: 800 gal.

C. Fabrication:

1. Assembly:
 - a. Welded steel shell with inspection port.
 - b. Furnish fittings to accept gages and safety controls, threaded or flanged inlet and outlet connections, and lifting lugs.
 - c. Comply with ASME Section VIII.

D. Accessories:

1. Pressure Relief Valve:
 - a. ASME rated.
 - b. Setting: 125.

2.2 SOURCE QUALITY CONTROL

- A. Provide shop inspection and testing of completed assembly.
- B. Certificate of Compliance:
 1. If fabricator is approved by authorities having jurisdiction, submit certificate of compliance indicating Work performed at fabricator's facility conforms to Contract Documents.
 2. Specified shop tests are not required for Work performed by approved fabricator.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify layout and orientation of tank accessories and piping connections.

3.2 INSTALLATION

- A. Maintain manufacturer's recommended clearances around and above tanks.
- B. Piping:
 1. Connect piping to tank.

- C. Install tank accessories not factory mounted.
- D. Touch-up Painting: According to manufacturer instructions.
- E. Installation Standards: Install Work according to Imperial County Public Works standards.

3.3 FIELD QUALITY CONTROL

- A. Arrange with local authorities having jurisdiction for inspection of tank, piping, and accessories, and for certificate of operation.
- B. Equipment Acceptance:
 - 1. Adjust, repair, modify, or replace components failing to perform as specified and rerun tests.
 - 2. Make final adjustments to equipment under direction of manufacturer's representative.
- C. Furnish installation certificate from equipment manufacturer's representative attesting that equipment has been properly installed and is ready for startup and testing.

END OF SECTION 434221



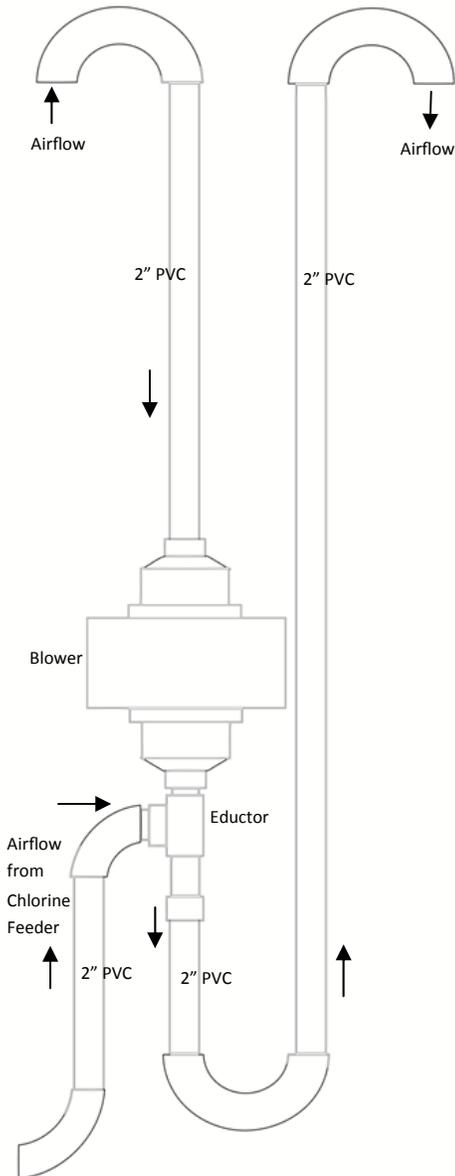
PTF-60 Ventilation System

Manufactured by:
AllChem Performance Products
416 South Main Street, Corsicana, Texas 75110
www.horizonwatercare.co

The Horizon PTF-60 Ventilation System is designed for use with the Horizon PTF-60 Automatic Chlorinating Feeder. This unit is designed for the purpose of providing a mechanism of air circulation and to reduce chlorine odors in the vicinity of the operating PTF-60 chlorine feeder.

This unit should only be installed in a well ventilated area to prevent any possible accumulation of chlorine odors. It should be installed in a secured area or suitable location to prevent general public access.

All electrical connections should be made in accordance with the National Electric code and all applicable local regulations.



Factory Supplied Installation Parts

- 1 – One(1) Blower assembly attached to 2" eductor
- 2 – Six(6) PVC 90 degree elbows
- 3 – Two(2) PVC 45 degree elbows
- 4 – Two(2) PVC "bug" screens
- 5 – One(1) PVC Female Adapter
- 6 – One(1) PVC 2" Union
- 7 – Two(2) PVC 2" Male Adapter
- 8 – Four(4) 2" Minerlac Straps
- 9 – One(1) Plastic Wall Mount Bracket

Lengths of 2" diameter PVC pipe, labeled in the adjacent diagram, will be required to complete the installation and are not supplied.

The blower requires a connection to a 120 VAC power source. A power cord or associated electrical supplies are not supplied.

NOTE: Due to variations between installation locations, some additional parts may be required to customize installations.

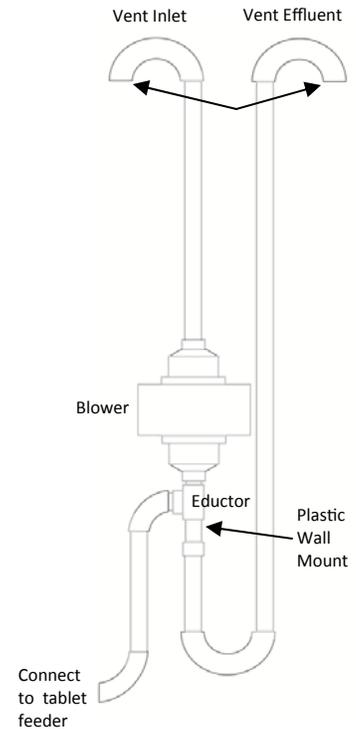
Installation Overview

The PTF-60 Ventilation system uses fresh outside air to supply the eductor. A slight suction is created by the eductor to draw air from the solution tank of the chlorine tablet feeder. The air drawn from the feeder is then mixed with fresh air at the eductor and the combined airflow is then discharged to the exterior of the building. The complete assembly will typically be mounted to the building exterior while a 2" PVC suction line will be used to connect the eductor to the solution tank of the chlorine tablet feeder located inside the building.

Installation

Select a suitable mounting location on the buildings exterior for the blower with eductor. The mounting location should provide both a source of fresh air to supply the blower and a suitable location to discharge air from the building. Additionally, the location should be convenient to the chlorine tablet feeder. This location will ensure a short and simple suction pipe length between the eductor and the Horizon PTF-60 chlorine tablet feeder. The performance of the eductor is related to airflow. An effort should be made to select a location for the ventilation system and chlorine tablet feeder that minimizes long lengths of pipe and numerous flow reducing elbows and pipe turns. The diagram located at right is intended to be a guideline for installation. Specific installation site requirements will require some installation variations.

- 1) Construct the vent inlet by connecting two of the 2" PVC elbows(supplied) and inserting one of the PVC screens(supplied) in one end. Repeat this process for the vent discharge.
- 2) Mount the blower with eductor assembly using the plastic wall mount bracket(supplied). The bracket is secured to the bottom of the eductor as show in the diagram at right. Additional support will be provided by the minerlac straps(supplied) which is used to secure the 2" PVC pipe connecting the blower to the assembled vent inlet.
- 3) Create an effluent vent line by connecting the bottom on the eductor to the assembled vent discharge using the 2" PVC Female Adapter(supplied), 2" PVC Elbows(supplied), and a length of 2" PVC pipe.
- 4) Prepare the lower solution tank of the PTF-60 chlorine tablet feeder by attaching the supplied 2" PVC Male Adapter and the 2" PVC Union.
- 5) Create the air suction line between the eductor and the tablet feeder using the 2" PVC Elbows(supplied), 2" PVC Male Adapter(supplied), and a length of 2" PVC pipe.
- 6) Complete 120 VAC electrical connections to the blower. The blower should run continuously.



For Technical Assistance please call 352-333-7317 or by email at horizon@allchem.com

LIMITED WARRANTY

AllChem Performance Products hereby warrants, subject to the conditions set below, that should the Horizon® PTF-60 Ventilation System or any component part included prove defective by reason of improper workmanship or material from the original date of retail purchase and up to one year thereafter; AllChem Performance Products will replace the defective part(s) upon receipt of those same part(s) from the purchaser. AllChem Performance Products will not pay for any labor or shipping costs incurred in the removal or replacement of those parts.

CONDITIONS

1. **Registration:** the registration card included must be filled out completely and forwarded to AllChem Performance Products, 6010 NW First Place, Gainesville, FL 32607 within 30 days of installation.
2. **Notification:** the purchaser must notify AllChem Performance Products within 30 days after discovery of part failure, stating which part(s) were defective or broken.
3. Installation and operation of the warranted equipment must be in accordance with the instructions contained in the Installation and Operation Manual. Should the warranted equipment prove defective in workmanship or material, the consumer's sole remedy shall be replacement of defective parts as is herein above expressly provided: and under no circumstances shall AllChem Performance Products be liable for any loss or damage direct or consequential arising from the use of the warranted equipment. Some states do not allow limitations on how long an implied warranty lasts or the exclusion or limitation of accidental or consequential damages, so the above limitation or exclusion may not apply. This warranty gives the purchaser specific legal rights and (s)he may also have other rights, which vary, from state to state.

Warranty Registration Card

For technical support, please call 352-333-7317 or by email at horizon@allchem.com

Fill out warranty information and mail within 30 days of Product Purchase/Installation

Mail to: AllChem Performance Products, 6010 NW First Place, Gainesville, FL 32607, Attn: Warranty Dept.

Name _____

Address _____

City _____ State _____ Zip _____

E-Mail Address _____

Purchased From _____

Installed By _____

Design Report

WINTERHAVEN WATER TREATMENT PLANT IMPROVEMENTS

BASIS OF DESIGN

September 22, 2016

Prepared For

Winterhaven County Water District

Attn: Rick Miller

494 2nd Avenue

Winterhaven, CA 92283

Prepared By

Eric Gardner, P.E.

D. Kody Johnson



EXECUTIVE SUMMARY

The Winterhaven County Water District delivers potable water to the residents of Winterhaven, California. The existing water treatment plant and distribution network is old and much of the infrastructure and equipment has reached the end of useful life. The District has contracted with Nicklaus Engineering, Inc. (NEI) to develop construction documents to address some of the more important replacement needs of the water treatment plant. This report details the analysis and recommendations for the replacement of the existing booster pumping station and the incorporation of variable frequency drive pumping at the plant. The three existing booster pumps are recommended to be replaced with new pumps of similar hydraulic characteristics to handle fire flow demands. Two new smaller horse power, VFD controlled pumps are added to handle average flow and peak non-fire related flow. Additionally, the existing 10,000 gallon hydropneumatic pressure tank is replaced by a much smaller 800 gallon bladder tank. Additional improvements not mentioned in this report can be found elsewhere in the construction documents.

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INTRODUCTION

The Winterhaven County Water District (WCWD) provides potable water to approximately 180 residential service connections, an RV park with 500 spaces occupied primarily in the winter months, and a small number of commercial service connections in the Town of Winterhaven, California. The treatment plant provides 75,000 gpd to 85,000 gpd of potable water with the higher demand coming during the winter months when the RV park is at peak occupancy. The treatment plant receives source water from two onsite wells. Well 2, located on the southern portion of the 0.9 acre site, has a depth of 426 ft and utilizes a 20 hp vertical turbine pump. Well 3 is located on the northern portion of the site, has a depth of 530 ft, and is equipped with a 15 hp submersible pump. The pumps are operated alternately and are manually switched every three days. Each pump delivers an average of 350 gpm to an iron & manganese filtration system with 4 vertical cartridge filters containing 12 inches of anthracite, 24 inches of ferrosand and 12 inches of gravel media. The source water is dosed with potassium permanganate prior to filtration, and after filtration the water is treated with calcium hypochlorite and an anti-scaling mixture. After treatment, potable water is delivered to two 100,000 gallon storage tanks that supply the distribution network. The booster station consists of three alternating 20 hp pumps and a 10,000 gallon hydropneumatic pressure tank operating between a cutoff pressure of 60 psi and a cut-in pressure of 40 psi. The existing distribution network consists primarily of asbestos concrete pipe, with some repaired or new C900 PVC pipe sections.

Much of the existing treatment plant is over 30 years old and has reached the end of useful life. The original water treatment plant, built in 1973, was expanded in 1983 to include Well 2, the existing filtration system, two of the existing 20 hp booster pumps, and one of the existing 100,000 gallon storage tanks. The 1983 expansion also incorporated the relocation of a previously installed 10,000 gallon hydropneumatic pressure tank. The date of installation of the pressure tank is unknown, however according to the nameplate, the tank was constructed in the 1950's. The plant was expanded further 1988 to add an additional 20 hp booster pump and a second 100,000 gallon storage tank, and in 1999 Well 3 was constructed and the 100,000 gallon storage tanks were refurbished. The original distribution piping was installed prior to the 1973 water treatment plant construction and some pipe sections may be as old as the pressure tank which was installed approximately 65 years ago.

Accordingly, WCWD has contracted with Nicklaus Engineering, Inc. (NEI) to prepare construction documents for the following improvements:

1. Provide a new 15 hp submersible pump to replace the existing 20 hp vertical turbine Well 2 pump.
2. Provide a new booster station capable of delivering a 1,500 gpm fire flow to commercial hydrants and a 1,000 gpm fire flow to residential hydrants.

3. Provide variable frequency drive (VFD) pumps.
4. Remove the existing 10,000 gallon hydropneumatic pressure tank and install a new appropriately sized pressure tank.
5. Replace all above ground booster pump suction and discharge piping.
6. Provide a new flow meter.
7. Replace the existing electrical Service Entrance Section (SES), Motor Control Center (MCC), and provide an auto-dialer emergency notification system.
8. Provide a new forced air ventilation system for the existing chlorine room.
9. Provide a new shade structure over the new SES & MCC panels.
10. Replace existing site fencing.

This report deals primarily with the analysis of the existing plant in relation to the required booster pumping station operational requirements. Some of the additional items listed above are addressed elsewhere in the construction documents.

ANALYSIS METHODS

The water distribution network was modeled using Bentley's WaterCad modeling software. WaterCad is a Hazen-Williams based calculation engine capable of determining distribution node pressures, flow rates, pumping requirements, and node by node fire flow analysis. Other WaterCad functions including extended period simulation, transient analysis, and water quality analysis were not used in the design analysis. NEI conducted a limited topographic survey of the water treatment plant. This data was supplemented by previous topographic survey data along with the georeferenced mapping functionality of AutoDesk Civil3D to model the existing water distribution network. Historical size and material data, if available, was used to define network piping, appurtenances and water treatment equipment. NEI also conducted limited fire hydrant flow tests and used this data to calibrate the WaterCad model to meet field conditions. The water model was used to determine the pump requirements to meet peak hourly demand (PHD) and fire flow demand (FFD) requirements. Figure 1 in Appendix B shows a schematic of the water distribution system model and Tables 1 through 6 in Appendix A summarizes the hydraulic characteristics of each element under the PHD/FFD flow calculation scenario.

A comparison of power consumption of existing/proposed pumping scenarios is shown in Table 7 in Appendix A. This comparison is a basic comparison of estimated run time for an average (non-peak) day during the winter months when daily consumption averages 85,000 gallons per day. Typical daily flow variations (Chin, 2013) were used to estimate pump load variations throughout a typical day. This in turn was used to estimate annual pumping costs for various scenarios in an effort to find a more energy efficient booster pump solution to meet average daily demand (ADD) requirements.

DEMAND ANALYSIS

Based on water usage records, average daily water consumption is as high as 85,000 gpd during the winter months. Taking this value as the ADD, the PHD was estimated as follows:

$$Q_{ph} = f_p Q_{ad}$$

Where Q_{ph} is the peak hourly flow rate, Q_{ad} is the average daily flow rate, and f_p is the peaking factor. Peaking factors for municipal water distribution can range between two and four with a typical value of 3.25 (Chin, 2013). Due to the small size of the Winterhaven distribution system, a peaking factor of four was used to estimate the PHD as:

$$Q_{ph} = 85,000 \text{ gpd} \times \frac{\text{day}}{24\text{hr}} \times \frac{\text{hr}}{60\text{min}} \times 4 = 236 \text{ gpm}$$

The determination of the unit demand, Q_u , placed on each service connection in the WaterCad model was determined as follows:

$$Q_u = \frac{236 \text{ gpm}}{(180 + 500) \text{ Services}} = 0.35 \frac{\text{gpm}}{\text{Service}}$$

FIRE FLOW ANALYSIS

The three existing 20 hp booster pumps were used to determine fire flow pumping capacity. A fire flow calculation scenario in WaterCad was conducted with the PHD unit flow placed on each service node. In this analysis, the software alternately placed the required FFD of 1,500 gpm on each hydrant and calculated the minimum pressure within the network. It then iteratively increased or reduced the FFD until the minimum system pressure was 20 gpm. The final hydrant flow at a 20 psi minimum system pressure is the fire flow available at that hydrant. Table 3 in Appendix A summarizes the results of this analysis for each hydrant in the system.

The commercial hydrant at Winterhaven Drive and 3rd Avenue has an available fire flow of 1,733 gallons per minute using the three existing 20 hp pumps. Additionally, all residential hydrants have a fire flow of over 1,000 gpm with the exception of the hydrants at the RV park. The size of the water mains at the RV park are unknown, however according to staff they are thought to be between four and six inches in diameter. In the WaterCad model, the RV park mains were assumed to be six inch diameter PVC and the results are consistent with hydrant flow test data in that area. In either case, these mains are too small to deliver the required 1,000 gpm with the existing system. Changing the pumping capacity at the booster station is not considered a viable option as the increased pressures necessary to force enough water through these undersized mains would overburden the existing distribution piping and may cause breakage of some of the older mains. Table 6 in Appendix A shows a design scenario where all the mains in the RV park have been

upgraded to eight inch diameter pvc pipe. Under this scenario, the existing booster station can adequately provide the required capacity for PHD and FFD throughout the entire distribution network.

The three existing 20 hp pumps have a long service history of over 30 years and are the recommended booster pump for this application. Using duplex or simplex booster configurations are not viable options as the motor requirements would increase to approximately 40 hp and 75 hp respectively which are well above the existing backup generator load capacity and would require additional electrical system upgrades. For these reasons, it is recommended that the existing booster pumps be replaced with three new 20 hp pumps that deliver 550 gpm at 100 ft TDH.

AVERAGE DAILY DEMAND

A requirement of the Contract between WCWD and NEI is to provide variable frequency drive (VFD) pumps. This option was thought to be more energy efficient and would eliminate the need for the large 10,000 gallon hydropneumatic tank. In addition, a VFD eliminates the nearly 600% increase in motor start amperage and reduces mechanical shock to pumps as the motors can be slowly ramped up to speed.

The existing system delivers approximately 675 gpm at an average of 50 psi to the 10,000 gallon hydropneumatic tank. This allows the pumps to operate near their best efficiency point and keeps pump cycle times to below the recommended level of six starts per hour. VFD control of this system would have limited benefit. VFD control would eliminate hard starts of the pump reducing mechanical wear and potentially realizing a relatively small reduction in energy consumption. However, even at minimum speed and a minimum flow of approximately 300 gpm, the pump capacity is well above the ADD and even with VFD control, the pumps would still require a large hydropneumatic tank to control cycle times.

However, by decoupling the fire flow requirements from the average daily flow requirements, VFD control becomes a much more viable option. Through VFD control of two smaller 10 hp pumps delivering 175 gpm at 138 ft TDH each, the full range of non-fire related flow can be provided. Operating in parallel, these pumps can deliver 350 gpm at 60 psi which is nearly six times greater than the ADD of 60 gpm. Additionally, these pumps have the capacity to handle the PHD of approximately 236 gpm. With VFD control, a single pump can also provide a minimum flow of approximately 60 gpm. This variability provides an operating range that covers all flows from the ADD to the PHD. A typical minimum daily demand (MDD) factor of 0.3 (Chin, 2013) applied to the ADD results in a flow of approximately 18 gpm. This flow is below the minimum speed of the pumps and a small hydropneumatic tank would be required to maintain appropriate cycle times. The size of the hydropneumatic tank required to handle low flow conditions is calculated as follows using a pumping rate of 60 gpm and a minimum pump run time of 3 minutes:

$$\text{Drawdown Volume} = 60 \text{ gpm} \times 3 \text{ min} = 180 \text{ gallons}$$

$$\text{Tank Volume} = \frac{180 \text{ gallons}}{0.268} = 672 \text{ gallons},$$

where the 0.268 drawdown factor is a typical value determined from a 60 psi to 40 psi pressure reduction. A Wessels FXA 3000L bladder tank was selected and used in pump cycle time calculations and has a drawdown volume of 212 gallons and a total volume of 792 gallons.

Table 7a and 7b in Appendix A provides a cost comparison between the existing system and a proposed system utilizing two smaller pumps to handle average daily flows. The comparison is done for a typical winter day when the RV park is at high occupancy. The hourly variations in flow demand are estimated from Figure 2 (Chin, 2013), by taking the midpoint between the maximum day and typical winter day (minimum day) curves. These flow rates were used to calculate the pump run times based on the drawdown volume of the hydropneumatic tank

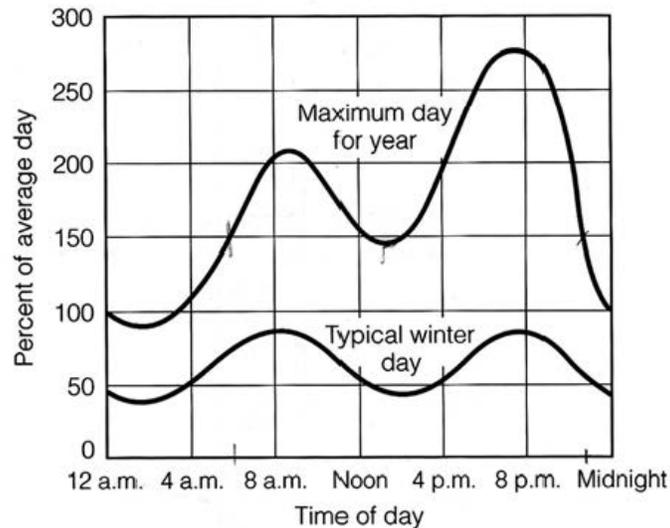


Figure 2 – Typical Residential Water Demand Variation

associated with the given pump scenario. These run times were multiplied by the brake horsepower required to deliver the minimum flow rate to determine the kW-hr power consumption and associated yearly power costs. Brake horse power estimates were made from the Paco 12709LF and 30707LF pump curves (Grundfos, 2016). For this comparison, a minimum flow rate of 85 gallons per minute was used. This flow rate represents a more efficient duty point at 50 psi than the ADD flow rate of 60 gpm. Also, this is the maximum flow rate that can be used and still keep pump starts per hour below six with the selected bladder tank. In the event that observable pump starts exceed 6 starts per hour, the minimum pump flow rate set point can be lowered giving the operator precise control of pumps starts. Accordingly, the minimum flow rate set point for the VFD controller should be set to 85 gpm to realize the power

consumption estimated in Table 7a. The comparison does not take into account VFD efficiency (approximately 97.4%), direct drive current-inrush power consumption, or the additional power required to operate the make-up air compressor for the larger 10,000 gallon hydropneumatic tank. However, the comparison does show nearly a 10% reduction in power consumption using the smaller VFD controlled pumps and this estimate is assumed to be slightly conservative based on the elimination of the make-up air compressor. In addition, this scenario reduces mechanical across the line torque stress on the pump and uses a smaller less expensive pump for primary pump duty for the life of the booster station effectively reducing pump replacement costs.

Accordingly, it is recommended that two smaller alternating 10 hp pumps capable of delivering 175 gpm at 138 ft TDH are added to the booster pumping station along with an 800 gallon hydropneumatic bladder tank. These pumps shall be VFD controlled and shall be operated at a minimum set point pressure of 40 psi and a minimum flow rate set point of 85 gpm. When the system pressure reaches 40 psi and the line flow is less than 85 gpm, the lead pump shall be energized and operated until a system pressure of 60 psi is reached and de-energized. For flow rates above 85 gpm, the pump shall be operated to maintain a constant pressure of 50 psi. When flow is above 85 gpm, and a pressure of 50 psi can no longer be maintained, the lag pump shall energize and both pumps operated to maintain a pressure of 50 psi. In the event that both pumps are at maximum speed and line pressure drops below 40 psi, the 10 hp pumps shall be de-energized and the 20 hp pumps shall be energized to deliver FFD.

This control scenario requires the use of a new programmable logic controller (PLC), a new pressure transmitter and a new magnetic flow meter. In addition to operating the two low-flow 10 hp pumps and three high-flow 20 hp pumps, the PLC will alternately operate the two well pumps based on control input from the existing storage tank float controls in a lead/lag configuration. The storage tank floats shall be set to ensure a minimum water level of three feet within the storage tanks is maintained. In addition, the PLC shall lock-out the lag well pump and the two low-flow pumps when the high-flow pumps are in operation under emergency power due to the capacity of the emergency generator. With the addition of these components along with proper operational training, the operator will have a high level of operational control and will be able to monitor plant operation and make adjustments to fine-tune operational efficiency.

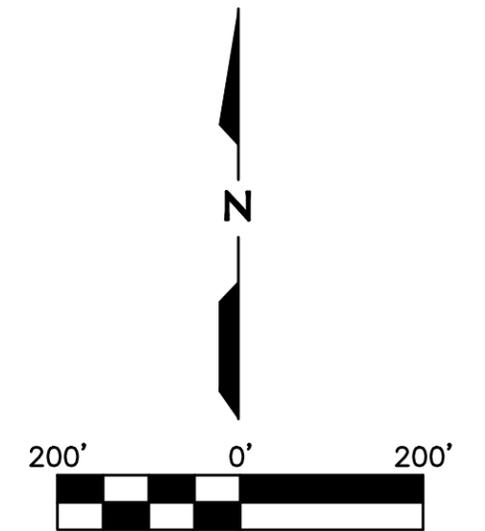
CONCLUSION

The existing WCWD water treatment plant has successfully delivered potable water to the community of Winterhaven, California for over 30 years. However, much of the infrastructure has reached the end of useful life and is in need of replacement. If the recommendations of this report are incorporated, WCWD will have addressed the more important replacement needs of the plant by replacing the booster station pumps, above ground piping, and a failing

hydropneumatic tank. Further operational control will also be added by including a flow meter, and PLC pump control system. In addition, by adding VFD controlled pumps, power consumption can be reduced and pump life increased. With these concerns addressed, additional planning to replace treatment process equipment and aging distribution piping will complete the necessary infrastructure upgrades WCWD needs to ensure reliable high quality potable water for the foreseeable future.

Exhibit A

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LEGEND

 FIRE HYDRANT

WINTERHAVEN COUNTY WATER DISTRICT

VICINITY MAP



Nicklaus Engineering Inc.
1851 West 24th Street P.O. Box 6029
YUMA, ARIZONA 85364 (928)344-8374
Email: nel@nelaw.com

SCALE:	AS SHOWN
DATE:	MONTH, 2016
DES. BY:	DESIGNER
DRAWN BY:	STAFF
SURVEYED BY:	STAFF
JOB. No.:	XXX
SHEET	- OF -

EXHIBIT
A

Exhibit B

N:\2016\0006-0009\Winterhaven VFP - WTRa & Water Treatment Improvements\060609\060901\060901.dwg, 1/15/2016 10:53:00 AM



MATCHLINE

A STREET

INTERSTATE 8

COLORADO RIVER

LEGEND

 FIRE HYDRANT

200' 0' 200'

N

WINTERHAVEN COUNTY WATER DISTRICT

VICINITY MAP



Nicklaus Engineering Inc.
 1851 West 24th Street P.O. Box 6029
 YUMA, ARIZONA 85364 (928)344-8374
 Email: nel@nelaw.com

SCALE:	AS SHOWN
DATE:	MONTH, 2016
DES. BY:	DESIGNER
DRAWN BY:	STAFF
SURVEYED BY:	STAFF
JOB. No.:	XXX
SHEET	- OF -

EXHIBIT B

Table 1

Table 1 Base Scenario: Peak Hourly Flow Pipe Report										
Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Length (ft)	Headloss (ft)
P-1	26	R-1	PMP-1	4	PVC	150	348.44	8.9	70	4.07
P-3	10	J-1	T-1	6	Asbestos Cement	140	513.12	5.82	10	0.19
P-4	60	J-1	T-2	6	Asbestos Cement	140	197.27	2.24	60	0.19
P-6	6	J-2	PMP-2	6	Ductile Iron	130	81.03	0.92	4	0
P-7	4	J-2	J-3	8	Ductile Iron	130	83.65	0.53	4	0
P-8	6	J-3	PMP-3	6	Ductile Iron	130	80.79	0.92	4	0
P-9	3	J-3	J-4	8	Ductile Iron	130	2.87	0.02	4	0
P-10	6	J-4	PMP-4	6	Ductile Iron	130	80.74	0.92	4	0
P-11	13	T-2	J-4	6	Ductile Iron	130	77.87	0.88	10	0.01
P-12	19	R-2	PMP-5	4	PVC	150	361.94	9.24	70	4.37
P-13	23	PMP-1	J-5	6	Asbestos Cement	140	348.44	3.95	23	0.21
P-14	139	J-5	J-1	6	Asbestos Cement	140	710.39	8.06	139	4.76
P-15	128	PMP-5	J-5	6	PVC	150	361.94	4.11	128	1.11
P-16	11	PMP-2	J-6	6	Ductile Iron	130	81.03	0.92	9	0.01
P-17	11	PMP-3	J-7	6	Ductile Iron	130	80.79	0.92	9	0.01
P-18	12	PMP-4	J-8	6	Ductile Iron	130	80.74	0.92	9	0.01
P-19	4	J-8	J-7	8	Ductile Iron	130	80.74	0.52	4	0
P-20	6	J-7	J-6	8	Ductile Iron	130	161.52	1.03	4	0
P-25	8	J-9	H-1	6	Asbestos Cement	140	0	0	8	0
P-26	14	J-10	J-11	6	Asbestos Cement	140	34.26	0.39	14	0
P-27	9	J-11	H-2	6	Asbestos Cement	140	0	0	9	0
P-28	135	J-11	J-12	6	Asbestos Cement	140	34.26	0.39	135	0.02
P-30	11	J-13	J-14	6	Asbestos Cement	140	16.05	0.18	11	0
P-31	9	J-14	H-3	6	Asbestos Cement	140	0	0	9	0
P-32	145	J-14	J-15	6	Asbestos Cement	140	16.05	0.18	145	0
P-33	177	J-15	J-16	6	Asbestos Cement	140	12.74	0.14	177	0
P-34	13	J-16	J-17	6	Asbestos Cement	140	12.74	0.14	13	0
P-35	9	J-17	H-4	6	Asbestos Cement	140	0	0	9	0
P-37	11	J-18	H-5	6	Asbestos Cement	140	0	0	11	0
P-39	15	J-19	H-6	6	Asbestos Cement	140	0	0	15	0
P-40	13	J-19	J-20	6	Asbestos Cement	140	6.44	0.07	13	0
P-42	12	J-21	H-7	6	Asbestos Cement	140	0	0	12	0
P-43	14	J-21	J-22	6	Asbestos Cement	140	18.21	0.21	14	0
P-45	18	J-23	H-8	6	Asbestos Cement	140	0	0	18	0
P-46	11	J-23	J-24	6	Asbestos Cement	140	6.13	0.07	11	0
P-47	163	J-24	J-25	6	Asbestos Cement	140	6.13	0.07	163	0
P-48	225	J-25	J-26	6	Asbestos Cement	140	6.13	0.07	225	0
P-49	143	J-26	J-27	6	Asbestos Cement	140	9.46	0.11	143	0
P-51	8	J-28	H-9	6	Asbestos Cement	140	0	0	8	0
P-53	211	J-29	H-10	6	Asbestos Cement	140	0	0	211	0
P-55	223	J-30	J-31	6	Asbestos Cement	140	1.03	0.01	223	0
P-56	146	J-31	J-32	6	Asbestos Cement	140	1.03	0.01	146	0
P-57	8	J-32	H-11	6	Asbestos Cement	140	0	0	8	0
P-58	10	J-32	J-33	6	Asbestos Cement	140	1.03	0.01	10	0
P-59	184	J-33	J-34	6	Asbestos Cement	140	1.06	0.01	184	0
P-60	14	J-34	H-12	6	Asbestos Cement	140	0	0	14	0
P-64	10	J-37	H-13	6	Asbestos Cement	140	0	0	10	0
P-65	116	J-37	J-38	6	Asbestos Cement	140	-3.84	0.04	116	0
P-67	53	J-39	J-40	6	Asbestos Cement	140	-4.54	0.05	53	0
P-68	7	J-40	H-14	6	Asbestos Cement	140	0	0	7	0
P-70	12	J-41	H-15	6	Asbestos Cement	140	0	0	12	0
P-72	55	J-42	J-43	6	Asbestos Cement	140	-192.85	2.19	55	0.17
P-73	3	J-43	H-16	6	Asbestos Cement	140	0	0	3	0
P-74	7	J-43	J-7	8	Asbestos Cement	140	-192.85	1.23	7	0.01
P-76	28	J-44	J-45	4	Asbestos Cement	140	0.35	0.01	28	0
P-78	15	J-46	H-17	4	Asbestos Cement	140	0	0	15	0
P-80	166	J-47	J-48	4	Asbestos Cement	140	10.14	0.26	166	0.02
P-82	9	J-49	H-18	6	Asbestos Cement	140	0	0	9	0
P-83	6	J-46	J-50	4	Asbestos Cement	140	7.4	0.19	6	0
P-86	616	J-47	J-12	4	Asbestos Cement	140	-4.14	0.11	616	0.01
P-88	12	J-48	J-52	6	Asbestos Cement	140	4.54	0.05	12	0
P-89	6	J-52	H-20	6	Asbestos Cement	140	0	0	6	0
P-91	17	J-53	H-21	6	Asbestos Cement	140	0	0	17	0
P-92	43	J-54	J-53	6	Asbestos Cement	140	-2.79	0.03	43	0
P-94	42	J-55	H-22	6	Asbestos Cement	140	0	0	42	0
P-97	632	J-56	J-15	4	Asbestos Cement	140	-3.31	0.08	632	0.01
P-102	158	J-57	H-24	6	Asbestos Cement	140	0	0	158	0
P-103	155	J-30	J-58	6	Asbestos Cement	140	0.73	0.01	155	0
P-104	52	J-58	J-59	4	Asbestos Cement	140	(N/A)	(N/A)	52	(N/A)
P-106	264	J-38	H-25	6	Asbestos Cement	140	0	0	264	0
P-107	15	J-35	J-61	6	Asbestos Cement	140	2.45	0.03	15	0
P-108	10	J-61	H-26	6	Asbestos Cement	140	0	0	10	0
P-112	2	J-64	J-42	6	Asbestos Cement	140	-192.85	2.19	2	0.01
P-114	127	J-65	J-66	6	PVC	150	134.4	1.53	127	0.18
P-115	8	J-66	H-27	6	PVC	150	0	0	8	0
P-116	2	J-66	J-67	6	PVC	150	134.4	1.53	2	0
P-117	137	J-67	J-68	6	PVC	150	127.4	1.45	137	0.17
P-118	132	J-68	J-69	6	PVC	150	119	1.35	132	0.15
P-119	8	J-69	H-28	6	PVC	150	0	0	8	0
P-120	5	J-69	J-70	6	PVC	150	119	1.35	5	0.01
P-121	133	J-70	J-71	6	PVC	150	110.6	1.26	133	0.13
P-122	143	J-71	J-72	6	PVC	150	106.4	1.21	143	0.13
P-123	8	J-72	H-29	6	PVC	150	0	0	8	0
P-124	7	J-72	J-74	6	PVC	150	106.4	1.21	7	0.01
P-126	8	J-75	H-30	6	PVC	150	0	0	8	0
P-127	4	J-75	J-76	6	PVC	150	100.45	1.14	4	0
P-128	138	J-76	J-77	6	PVC	150	91.35	1.04	138	0.09

Table 1 Base Scenario: Peak Hourly Flow Pipe Report										
Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Length (ft)	Headloss (ft)
P-129	131	J-77	J-78	6	PVC	150	81.55	0.93	131	0.07
P-130	8	J-78	H-31	6	PVC	150	0	0	8	0
P-131	3	J-78	J-79	6	PVC	150	81.55	0.93	3	0
P-132	130	J-79	J-80	6	PVC	150	72.45	0.82	130	0.06
P-133	137	J-80	J-81	6	PVC	150	62.65	0.71	137	0.05
P-134	8	J-81	H-32	6	PVC	150	0	0	8	0
P-135	5	J-81	J-82	6	PVC	150	62.65	0.71	5	0
P-136	130	J-82	J-83	6	PVC	150	52.15	0.59	130	0.03
P-137	127	J-83	J-84	6	PVC	150	40.95	0.46	127	0.02
P-138	8	J-84	H-33	6	PVC	150	0	0	8	0
P-139	4	J-84	J-85	6	PVC	150	40.95	0.46	4	0
P-140	138	J-85	J-86	6	PVC	150	29.75	0.34	138	0.01
P-141	132	J-86	J-87	6	PVC	150	17.85	0.2	132	0
P-142	8	J-87	H-34	6	PVC	150	0	0	8	0
P-143	4	J-87	J-88	6	PVC	150	17.85	0.2	4	0
P-144	136	J-88	J-89	6	PVC	150	5.95	0.07	136	0
P-145	8	J-65	J-90	18	PVC	150	43.05	0.05	8	0
P-146	134	J-90	J-91	6	PVC	150	36.05	0.41	134	0.02
P-147	4	J-91	J-92	6	PVC	150	29.05	0.33	4	0
P-148	8	J-92	H-35	6	PVC	150	0	0	8	0
P-149	128	J-92	J-93	6	PVC	150	29.05	0.33	128	0.01
P-150	136	J-93	J-94	6	PVC	150	22.05	0.25	136	0.01
P-151	134	J-94	J-95	6	PVC	150	15.75	0.18	134	0
P-152	138	J-95	J-96	6	PVC	150	9.45	0.11	138	0
P-153	119	J-96	J-97	6	PVC	150	3.15	0.04	119	0
P-154	8	J-97	J-98	6	PVC	150	3.15	0.04	8	0
P-155	11	J-96	J-99	6	PVC	150	6.3	0.07	11	0
P-156	7	J-95	J-100	6	PVC	150	6.3	0.07	7	0
P-157	7	J-94	J-101	6	PVC	150	6.3	0.07	7	0
P-158	9	J-93	J-102	6	PVC	150	7	0.08	9	0
P-159	8	J-91	J-103	6	PVC	150	7	0.08	8	0
P-160	10	J-90	J-104	6	PVC	150	7	0.08	10	0
P-161	12	J-67	J-105	6	PVC	150	7	0.08	12	0
P-162	11	J-68	J-106	6	PVC	150	8.4	0.1	11	0
P-163	10	J-70	J-107	6	PVC	150	8.4	0.1	10	0
P-164	10	J-71	J-108	6	PVC	150	4.2	0.05	10	0
P-165	8	J-74	J-109	6	PVC	150	1.4	0.02	8	0
P-166	11	J-76	J-110	6	PVC	150	9.1	0.1	11	0
P-167	11	J-77	J-111	6	PVC	150	9.8	0.11	11	0
P-168	10	J-79	J-112	6	PVC	150	9.1	0.1	10	0
P-169	8	J-80	J-113	6	PVC	150	9.8	0.11	8	0
P-170	7	J-82	J-114	6	PVC	150	10.5	0.12	7	0
P-171	7	J-83	J-115	6	PVC	150	11.2	0.13	7	0
P-172	7	J-85	J-116	6	PVC	150	11.2	0.13	7	0
P-173	8	J-86	J-117	6	PVC	150	11.9	0.14	8	0
P-174	12	J-88	J-118	1	PVC	150	11.9	4.86	12	1.14
P-175	6	J-89	J-119	1	PVC	150	5.95	2.43	6	0.16
P-176	632	J-24	H-36	6	Asbestos Cement	140	(N/A)	(N/A)	632	(N/A)
P-177	141	J-74	J-120	6	PVC	150	105	1.19	141	0.12
P-178	138	J-120	J-75	6	PVC	150	100.45	1.14	138	0.11
P-179	7	J-120	J-121	6	PVC	150	4.55	0.05	7	0
P-180	40	J-17	J-123	6	Asbestos Cement	140	12.74	0.14	40	0
P-182	13	J-123	J-124	1	PVC	150	0.7	0.29	13	0.01
P-185	13	J-125	J-126	1	PVC	150	0.7	0.29	13	0.01
P-186	47	J-18	J-127	6	Asbestos Cement	140	9.94	0.11	47	0
P-188	13	J-127	J-128	1	PVC	150	0.7	0.29	13	0.01
P-189	42	J-127	J-129	6	Asbestos Cement	140	9.24	0.1	42	0
P-191	13	J-129	J-130	1	PVC	150	0.7	0.29	13	0.01
P-192	9	J-129	J-131	6	Asbestos Cement	140	8.54	0.1	9	0
P-194	30	J-131	J-132	1	PVC	150	0.7	0.29	30	0.02
P-195	69	J-131	J-133	6	Asbestos Cement	140	7.84	0.09	69	0
P-197	13	J-133	J-134	1	PVC	150	0.7	0.29	13	0.01
P-198	62	J-123	J-135	6	Asbestos Cement	140	12.04	0.14	62	0
P-199	64	J-135	J-125	6	Asbestos Cement	140	11.34	0.13	64	0
P-200	30	J-135	J-136	1	PVC	150	0.7	0.29	30	0.02
P-201	106	J-133	J-137	6	Asbestos Cement	140	7.14	0.08	106	0
P-202	85	J-137	J-19	6	Asbestos Cement	140	6.44	0.07	85	0
P-203	13	J-137	J-138	1	PVC	150	0.7	0.29	13	0.01
P-204	48	J-125	J-139	6	Asbestos Cement	140	10.64	0.12	48	0
P-205	37	J-139	J-18	6	Asbestos Cement	140	9.94	0.11	37	0
P-206	30	J-139	J-140	1	PVC	150	0.7	0.29	30	0.02
P-207	39	J-20	J-141	6	Asbestos Cement	140	18.56	0.21	39	0
P-209	94	J-141	J-142	1	PVC	150	0.35	0.14	94	0.01
P-210	72	J-141	J-143	6	Asbestos Cement	140	18.21	0.21	72	0
P-211	67	J-143	J-21	6	Asbestos Cement	140	18.21	0.21	67	0
P-212	13	J-143	J-144	1	PVC	150	0	0	13	0
P-213	77	J-22	J-145	6	Asbestos Cement	140	12.78	0.14	77	0
P-215	35	J-145	J-146	1	PVC	150	0.35	0.14	35	0
P-216	20	J-145	J-147	6	Asbestos Cement	140	12.43	0.14	20	0
P-218	13	J-147	J-148	1	PVC	150	0.7	0.29	13	0.01
P-219	77	J-147	J-149	6	Asbestos Cement	140	11.73	0.13	77	0
P-221	35	J-149	J-150	1	PVC	150	0.7	0.29	35	0.02
P-222	25	J-149	J-151	6	Asbestos Cement	140	11.03	0.13	25	0
P-224	13	J-151	J-152	1	PVC	150	0.7	0.29	13	0.01
P-225	76	J-151	J-153	6	Asbestos Cement	140	10.33	0.12	76	0
P-227	35	J-153	J-154	1	PVC	150	0.7	0.29	35	0.02
P-228	23	J-153	J-155	6	Asbestos Cement	140	9.63	0.11	23	0

Table 1
Base Scenario: Peak Hourly Flow Pipe Report

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Length (ft)	Headloss (ft)
P-230	13	J-155	J-156	1	PVC	150	0.7	0.29	13	0.01
P-231	80	J-155	J-157	6	Asbestos Cement	140	8.93	0.1	80	0
P-233	36	J-157	J-158	1	PVC	150	2.1	0.86	36	0.14
P-234	22	J-157	J-159	6	Asbestos Cement	140	6.83	0.08	22	0
P-235	65	J-159	J-23	6	Asbestos Cement	140	6.13	0.07	65	0
P-236	13	J-159	J-160	1	PVC	150	0.7	0.29	13	0.01
P-238	69	J-161	J-20	6	Asbestos Cement	140	12.12	0.14	69	0
P-239	40	J-161	J-162	1	PVC	150	0.7	0.29	40	0.02
P-240	54	J-56	J-163	6	Asbestos Cement	140	13.52	0.15	54	0
P-241	49	J-163	J-161	6	Asbestos Cement	140	12.82	0.15	49	0
P-242	27	J-163	J-164	1	PVC	150	0.7	0.29	27	0.01
P-244	40	J-165	J-56	6	Asbestos Cement	140	10.21	0.12	40	0
P-245	40	J-165	J-166	1	PVC	150	0.7	0.29	40	0.02
P-246	105	J-54	J-167	6	Asbestos Cement	140	11.26	0.13	105	0
P-247	9	J-167	J-165	6	Asbestos Cement	140	10.91	0.12	9	0
P-248	14	J-167	J-168	1	PVC	150	0.35	0.14	14	0
P-250	45	J-169	J-53	6	Asbestos Cement	140	2.79	0.03	45	0
P-251	47	J-169	J-170	1	PVC	150	0.7	0.29	47	0.02
P-253	80	J-171	J-169	6	Asbestos Cement	140	3.49	0.04	80	0
P-254	47	J-171	J-172	1	PVC	150	0.35	0.14	47	0.01
P-255	116	J-52	J-173	6	Asbestos Cement	140	4.54	0.05	116	0
P-256	38	J-173	J-173	6	Asbestos Cement	140	3.84	0.04	38	0
P-257	15	J-173	J-174	1	PVC	150	0.7	0.29	15	0.01
P-258	120	J-48	J-175	6	Asbestos Cement	140	2.8	0.03	120	0
P-260	47	J-175	J-176	1	PVC	150	0.7	0.29	47	0.02
P-261	23	J-175	J-177	6	Asbestos Cement	140	2.1	0.02	23	0
P-263	9	J-177	J-178	1	PVC	150	0.35	0.14	9	0
P-264	41	J-177	J-179	6	Asbestos Cement	140	1.75	0.02	41	0
P-266	55	J-179	J-180	1	PVC	150	0.35	0.14	55	0.01
P-267	15	J-179	J-181	6	Asbestos Cement	140	1.4	0.02	15	0
P-269	9	J-181	J-182	1	PVC	150	0.7	0.29	9	0
P-270	33	J-181	J-183	6	Asbestos Cement	140	0.7	0.01	33	0
P-272	55	J-183	J-184	1	PVC	150	0.35	0.14	55	0.01
P-273	39	J-183	J-185	6	Asbestos Cement	140	0.35	0	39	0
P-274	62	J-185	H-19	6	Asbestos Cement	140	0	0	62	0
P-275	9	J-185	J-186	1	PVC	150	0.35	0.14	9	0
P-277	81	J-187	J-13	6	Asbestos Cement	140	-13.37	0.15	81	0
P-278	13	J-187	J-188	1	PVC	150	0.7	0.29	13	0.01
P-280	25	J-189	J-187	6	Asbestos Cement	140	-12.67	0.14	25	0
P-281	37	J-189	J-190	1	PVC	150	0.7	0.29	37	0.02
P-282	17	J-55	J-191	6	Asbestos Cement	140	-11.27	0.13	17	0
P-283	172	J-191	J-189	6	Asbestos Cement	140	-11.97	0.14	172	0
P-284	13	J-191	J-192	1	PVC	150	0.7	0.29	13	0.01
P-286	84	J-193	J-55	6	Asbestos Cement	140	-11.27	0.13	84	0
P-287	13	J-193	J-194	1	PVC	150	0.7	0.29	13	0.01
P-289	7	J-195	J-193	6	Asbestos Cement	140	-10.57	0.12	7	0
P-290	37	J-195	J-196	1	PVC	150	0.7	0.29	37	0.02
P-292	149	J-197	J-195	6	Asbestos Cement	140	-9.87	0.11	149	0
P-293	30	J-197	J-198	1	PVC	150	0.35	0.14	30	0
P-294	85	J-54	J-199	6	Asbestos Cement	140	-8.82	0.1	85	0
P-295	9	J-199	J-197	6	Asbestos Cement	140	-9.52	0.11	9	0
P-296	13	J-199	J-200	1	PVC	150	0.7	0.29	13	0.01
P-297	122	J-54	J-201	6	Asbestos Cement	140	0.35	0	122	0
P-298	74	J-201	H-23	6	Asbestos Cement	140	0	0	74	0
P-299	13	J-201	J-202	1	PVC	150	0.35	0.14	13	0
P-300	51	J-12	J-203	6	Asbestos Cement	140	30.12	0.34	51	0.01
P-301	133	J-203	J-13	6	Asbestos Cement	140	29.42	0.33	133	0.01
P-302	44	J-203	J-204	1	PVC	150	0.7	0.29	44	0.02
P-303	65	J-10	J-205	4	Asbestos Cement	140	10.2	0.26	65	0.01
P-305	46	J-205	J-206	1	PVC	150	0.35	0.14	46	0.01
P-306	11	J-205	J-207	4	Asbestos Cement	140	9.85	0.25	11	0
P-308	12	J-207	J-208	1	PVC	150	0.7	0.29	12	0.01
P-309	111	J-207	J-209	4	Asbestos Cement	140	9.15	0.23	111	0.01
P-311	13	J-209	J-210	1	PVC	150	0.7	0.29	13	0.01
P-312	40	J-209	J-211	4	Asbestos Cement	140	8.45	0.22	40	0
P-314	46	J-211	J-212	1	PVC	150	0.35	0.14	46	0.01
P-315	54	J-211	J-213	4	Asbestos Cement	140	8.1	0.21	54	0
P-316	52	J-213	J-46	4	Asbestos Cement	140	7.4	0.19	52	0
P-317	13	J-213	J-214	1	PVC	150	0.7	0.29	13	0.01
P-318	46	J-50	J-215	4	Asbestos Cement	140	6.7	0.17	46	0
P-319	78	J-215	J-47	4	Asbestos Cement	140	6	0.15	78	0
P-320	13	J-215	J-216	1	PVC	150	0.7	0.29	13	0.01
P-321	110	J-50	J-217	1	PVC	150	0.7	0.29	110	0.06
P-322	254	J-217	J-51	1	PVC	150	0.35	0.14	254	0.04
P-323	23	J-217	J-218	1	PVC	150	0.35	0.14	23	0
P-324	86	J-9	J-219	6	Asbestos Cement	140	44.81	0.51	86	0.02
P-325	173	J-219	J-10	6	Asbestos Cement	140	44.46	0.5	173	0.04
P-326	10	J-219	J-220	1	PVC	150	0.35	0.14	10	0
P-327	109	J-48	J-221	6	Asbestos Cement	140	2.8	0.03	109	0
P-329	18	J-221	J-222	1	PVC	150	2.1	0.86	18	0.07
P-330	57	J-221	J-223	6	Asbestos Cement	140	0.7	0.01	57	0
P-331	15	J-223	J-49	6	Asbestos Cement	140	0.35	0	15	0
P-332	18	J-223	J-224	1	PVC	150	0.35	0.14	18	0
P-333	71	J-49	J-225	1	PVC	150	0.35	0.14	71	0.01
P-335	66	J-226	J-22	4	Asbestos Cement	140	-5.43	0.14	66	0
P-336	9	J-226	J-227	1	PVC	150	0.7	0.29	9	0
P-338	99	J-230	J-226	4	Asbestos Cement	140	-4.73	0.12	99	0

Table 1
Base Scenario: Peak Hourly Flow Pipe Report

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Length (ft)	Headloss (ft)
P-339	8	J-230	J-231	1	PVC	150	0.35	0.14	8	0
P-341	70	J-232	J-230	4	Asbestos Cement	140	-4.38	0.11	70	0
P-342	16	J-232	J-233	1	PVC	150	0.35	0.14	16	0
P-343	76	J-26	J-234	4	Asbestos Cement	140	-3.33	0.08	76	0
P-344	102	J-234	J-232	4	Asbestos Cement	140	-4.03	0.1	102	0
P-345	13	J-234	J-235	1	PVC	150	0.7	0.29	13	0.01
P-346	32	J-27	J-236	6	Asbestos Cement	140	2.1	0.02	32	0
P-348	27	J-236	J-237	1	PVC	150	0.35	0.14	27	0
P-349	16	J-236	J-238	6	Asbestos Cement	140	1.75	0.02	16	0
P-351	6	J-238	J-239	1	PVC	150	0.7	0.29	6	0
P-352	90	J-238	J-240	6	Asbestos Cement	140	1.05	0.01	90	0
P-354	27	J-240	J-241	1	PVC	150	0.35	0.14	27	0
P-355	20	J-240	J-242	6	Asbestos Cement	140	0.7	0.01	20	0
P-356	60	J-242	J-28	6	Asbestos Cement	140	0	0	60	0
P-357	7	J-242	J-243	1	PVC	150	0.7	0.29	7	0
P-358	28	J-27	J-244	6	Asbestos Cement	140	7.36	0.08	28	0
P-360	65	J-244	J-245	1	PVC	150	0.7	0.29	65	0.03
P-361	177	J-244	J-246	6	Asbestos Cement	140	6.66	0.08	177	0
P-363	10	J-246	J-247	1	PVC	150	1.05	0.43	10	0.01
P-364	42	J-246	J-248	6	Asbestos Cement	140	5.61	0.06	42	0
P-365	83	J-248	J-29	6	Asbestos Cement	140	5.26	0.06	83	0
P-366	7	J-248	J-249	1	PVC	150	0.35	0.14	7	0
P-367	74	J-29	J-250	6	Asbestos Cement	140	5.26	0.06	74	0
P-368	130	J-250	J-30	6	Asbestos Cement	140	3.16	0.04	130	0
P-369	17	J-250	J-251	1	PVC	150	2.1	0.86	17	0.07
P-370	167	J-30	J-252	6	Asbestos Cement	140	1.4	0.02	167	0
P-371	84	J-252	J-57	6	Asbestos Cement	140	0	0	84	0
P-372	9	J-252	J-253	1	PVC	150	1.4	0.57	9	0.02
P-373	85	J-58	J-254	4	Asbestos Cement	140	0.73	0.02	85	0
P-374	137	J-254	J-33	4	Asbestos Cement	140	0.03	0	137	0
P-375	7	J-254	J-255	1	PVC	150	0.7	0.29	7	0
P-376	103	J-34	J-256	8	Asbestos Cement	140	1.06	0.01	103	0
P-377	92	J-256	J-35	8	Asbestos Cement	140	0.71	0	92	0
P-378	9	J-256	J-257	1	PVC	150	0.35	0.14	9	0
P-379	106	J-35	J-258	6	Asbestos Cement	140	-1.74	0.02	106	0
P-381	6	J-258	J-259	1	PVC	150	0.7	0.29	6	0
P-382	91	J-258	J-260	6	Asbestos Cement	140	-2.44	0.03	91	0
P-384	6	J-260	J-261	1	PVC	150	0.7	0.29	6	0
P-385	9	J-260	J-262	6	Asbestos Cement	140	-3.14	0.04	9	0
P-386	27	J-262	J-36	6	Asbestos Cement	140	-3.49	0.04	27	0
P-387	43	J-262	J-263	1	PVC	150	0.35	0.14	43	0.01
P-388	47	J-36	J-264	6	Asbestos Cement	140	-3.49	0.04	47	0
P-390	6	J-264	J-265	1	PVC	150	0	0	6	0
P-391	45	J-264	J-266	6	Asbestos Cement	140	-3.49	0.04	45	0
P-392	30	J-266	J-37	6	Asbestos Cement	140	-3.84	0.04	30	0
P-393	43	J-266	J-267	1	PVC	150	0.35	0.14	43	0.01
P-394	65	J-62	J-268	1	PVC	150	1.05	0.43	65	0.07
P-395	57	J-268	J-269	1	PVC	150	0.7	0.29	57	0.03
P-396	43	J-269	J-270	1	PVC	150	0.35	0.14	43	0.01
P-397	6	J-63	H-37	6	Asbestos Cement	140	0	0	6	0
P-398	63	J-62	J-272	6	Asbestos Cement	140	0.35	0	63	0
P-399	4	J-272	J-63	6	Asbestos Cement	140	0	0	4	0
P-400	6	J-272	J-273	1	PVC	150	0.35	0.14	6	0
P-402	23	J-274	J-62	6	Asbestos Cement	140	1.4	0.02	23	0
P-403	6	J-274	J-275	1	PVC	150	0.35	0.14	6	0
P-405	35	J-276	J-274	6	Asbestos Cement	140	1.75	0.02	35	0
P-406	6	J-276	J-277	1	PVC	150	0.35	0.14	6	0
P-407	169	J-61	J-278	6	Asbestos Cement	140	2.45	0.03	169	0
P-408	53	J-278	J-276	6	Asbestos Cement	140	2.1	0.02	53	0
P-409	6	J-278	J-279	1	PVC	150	0.35	0.14	6	0
P-411	110	J-280	J-9	6	Asbestos Cement	140	44.81	0.51	110	0.02
P-412	47	J-280	J-281	1	PVC	150	0.7	0.29	47	0.02
P-414	41	J-282	J-280	6	Asbestos Cement	140	45.51	0.52	41	0.01
P-415	13	J-282	J-283	1	PVC	150	0.35	0.14	13	0
P-416	58	J-8	J-284	6	Asbestos Cement	140	46.21	0.52	58	0.01
P-417	65	J-284	J-282	6	Asbestos Cement	140	45.86	0.52	65	0.01
P-418	13	J-284	J-285	1	PVC	150	0.35	0.14	13	0
P-419	201	J-8	J-286	4	Asbestos Cement	140	2.45	0.06	201	0
P-421	32	J-286	J-287	1	PVC	150	0.35	0.14	32	0
P-422	256	J-286	J-288	4	Asbestos Cement	140	2.1	0.05	256	0
P-424	6	J-288	J-289	1	PVC	150	0.35	0.14	6	0
P-425	53	J-288	J-290	4	Asbestos Cement	140	1.75	0.04	53	0
P-427	7	J-290	J-291	1	PVC	150	0.35	0.14	7	0
P-428	40	J-290	J-292	4	Asbestos Cement	140	1.4	0.04	40	0
P-429	161	J-292	J-44	4	Asbestos Cement	140	0.7	0.02	161	0
P-430	13	J-292	J-293	1	PVC	150	0.7	0.29	13	0.01
P-431	19	J-44	J-294	1	PVC	150	0.35	0.14	19	0
P-432	33	J-45	J-295	1	PVC	150	0.35	0.14	33	0
P-433	97	J-7	J-296	8	Asbestos Cement	140	49.71	0.32	97	0.01
P-434	30	J-296	J-8	8	Asbestos Cement	140	49.36	0.32	30	0
P-435	13	J-296	J-297	1	PVC	150	0.35	0.14	13	0
P-437	53	J-298	J-64	6	Asbestos Cement	140	-15.04	0.17	53	0
P-438	6	J-298	J-299	1	PVC	150	0.7	0.29	6	0
P-441	6	J-300	J-301	1	PVC	150	0.7	0.29	6	0
P-442	65	J-41	J-302	6	Asbestos Cement	140	-6.29	0.07	65	0
P-444	6	J-302	J-303	1	PVC	150	0.7	0.29	6	0
P-446	54	J-304	J-41	6	Asbestos Cement	140	-6.29	0.07	54	0

Table 1
Base Scenario: Peak Hourly Flow Pipe Report

Label	Length (Scaled) (ft)	Start Node	Stop Node	Diameter (in)	Material	Hazen-Williams C	Flow (gpm)	Velocity (ft/s)	Length (ft)	Headloss (ft)
P-447	6	J-304	J-305	1	PVC	150	0.7	0.29	6	0
P-449	103	J-306	J-304	6	Asbestos Cement	140	-5.59	0.06	103	0
P-450	6	J-306	J-307	1	PVC	150	0.7	0.29	6	0
P-451	73	J-40	J-308	6	Asbestos Cement	140	-4.54	0.05	73	0
P-452	21	J-308	J-306	6	Asbestos Cement	140	-4.89	0.06	21	0
P-453	43	J-308	J-309	1	PVC	150	0.35	0.14	43	0.01
P-454	72	J-38	J-310	6	Asbestos Cement	140	-3.84	0.04	72	0
P-455	78	J-310	J-39	6	Asbestos Cement	140	-4.54	0.05	78	0
P-456	6	J-310	J-311	1	PVC	150	0.7	0.29	6	0
P-457	80	J-300	J-312	6	Asbestos Cement	140	-13.64	0.15	80	0
P-458	53	J-312	J-298	6	Asbestos Cement	140	-14.34	0.16	53	0
P-459	45	J-312	J-313	1	PVC	150	0.7	0.29	45	0.02
P-461	4	J-314	J-300	6	Asbestos Cement	140	-12.94	0.15	4	0
P-462	46	J-314	J-315	1	PVC	150	0.35	0.14	46	0.01
P-463	3	J-302	J-317	6	Asbestos Cement	140	-6.99	0.08	3	0
P-464	99	J-317	J-314	6	Asbestos Cement	140	-12.59	0.14	99	0
P-465	54	J-316	J-317	1	PVC	150	-5.6	2.29	54	1.28
P-466	257	J-64	J-318	8	Asbestos Cement	140	177.8	1.13	257	0.17
P-467	1326	J-318	J-65	8	PVC	150	177.45	1.13	1326	0.76
P-468	3	J-318	J-319	1	PVC	150	0.35	0.14	3	0
P-470	8	J-320	J-321	1	PVC	150	0.35	0.14	8	0
P-471	117	J-8	J-322	4	Asbestos Cement	140	0.7	0.02	117	0
P-472	24	J-322	J-320	1	PVC	150	0.7	0.29	24	0.01
P-474	3	J-323	J-2	8	Ductile Iron	130	164.68	1.05	1	0
P-476	1	J-6	J-324	8	Asbestos Cement	140	242.55	1.55	1	0
P-479	26	T-1	J-325	8	Ductile Iron	130	164.68	1.05	7	0
P-480	1	J-325	J-323	8	Ductile Iron	130	164.68	1.05	0	0
P-486	1	J-324	J-327	8	Asbestos Cement	140	242.55	1.55	1	0
P-487	302	J-327	J-7	8	Asbestos Cement	140	242.55	1.55	302	0.35

Table 2

Table 2			
Base Scenario: Peak Hourly Flow Junction Report			
Label	Elevation (ft)	Demand (gpm)	Pressure (psi)
J-1	0	0	9
J-2	1	0	8
J-3	1	0	8
J-4	1	0	8
J-5	0	0	11
J-6	0	0	67
J-7	0	0	67
J-8	0	0	67
J-7	0	0	67
J-8	0	0	67
J-9	0	0	67
J-10	0	0	67
J-11	0	0	67
J-12	0	0	67
J-13	0	0	67
J-14	0	0	67
J-15	0	0	67
J-16	0	0	67
J-17	0	0	67
J-18	0	0	67
J-19	0	0	67
J-20	0	0	67
J-21	0	0	67
J-22	0	0	67
J-23	0	0	67
J-24	0	0	67
J-25	0	0	67
J-26	0	0	67
J-27	0	0	67
J-28	0	0	67
J-29	0	0	67
J-30	0	0	67
J-31	0	0	67
J-32	0	0	67
J-33	0	0	67
J-34	0	0	67
J-35	0	0	67
J-36	0	0	67
J-37	0	0	67
J-38	0	0	67
J-39	0	0	67
J-40	0	0	67
J-41	0	0	67
J-42	0	0	67

J-43	0	0	67
J-44	0	0	67
J-45	0	0	67
J-46	0	0	67
J-47	0	0	67
J-48	0	0	67
J-49	0	0	67
J-50	0	0	67
J-51	0	0.35	67
J-52	0	0	67
J-53	0	0	67
J-54	0	0	67
J-55	0	0	67
J-56	0	0	67
J-57	0	0	67
J-58	0	0	67
J-59	0	(N/A)	(N/A)
J-61	0	0	67
J-62	0	0	67
J-63	0	0	67
J-64	0	0	67
J-65	0	0	66
J-66	0	0	66
J-67	0	0	66
J-68	0	0	66
J-69	0	0	66
J-70	0	0	66
J-71	0	0	66
J-72	0	0	66
J-74	0	0	66
J-75	0	0	66
J-76	0	0	66
J-77	0	0	66
J-78	0	0	66
J-79	0	0	66
J-80	0	0	66
J-81	0	0	66
J-82	0	0	66
J-83	0	0	66
J-84	0	0	66
J-85	0	0	66
J-86	0	0	66
J-87	0	0	66
J-88	0	0	66
J-89	0	0	66

Junction	Flow 1	Flow 2	Flow 3
J-90	0	0	66
J-91	0	0	66
J-92	0	0	66
J-93	0	0	66
J-94	0	0	66
J-95	0	0	66
J-96	0	0	66
J-97	0	0	66
J-98	0	3.15	66
J-99	0	6.3	66
J-100	0	6.3	66
J-101	0	6.3	66
J-102	0	7	66
J-103	0	7	66
J-104	0	7	66
J-105	0	7	66
J-106	0	8.4	66
J-107	0	8.4	66
J-108	0	4.2	66
J-109	0	1.4	66
J-110	0	9.1	66
J-111	0	9.8	66
J-112	0	9.1	66
J-113	0	9.8	66
J-114	0	10.5	66
J-115	0	11.2	66
J-116	0	11.2	66
J-117	0	11.9	66
J-118	0	11.9	65
J-119	0	5.95	66
J-120	0	0	66
J-121	0	4.55	66
J-123	0	0	67
J-124	0	0.7	67
J-125	0	0	67
J-126	0	0.7	67
J-127	0	0	67
J-128	0	0.7	67
J-129	0	0	67
J-130	0	0.7	67
J-131	0	0	67
J-132	0	0.7	67
J-133	0	0	67
J-134	0	0.7	67
J-135	0	0	67

J-136	0	0.7	67
J-137	0	0	67
J-138	0	0.7	67
J-139	0	0	67
J-140	0	0.7	67
J-141	0	0	67
J-142	0	0.35	67
J-143	0	0	67
J-144	0	0	67
J-145	0	0	67
J-146	0	0.35	67
J-147	0	0	67
J-148	0	0.7	67
J-149	0	0	67
J-150	0	0.7	67
J-151	0	0	67
J-152	0	0.7	67
J-153	0	0	67
J-154	0	0.7	67
J-155	0	0	67
J-156	0	0.7	67
J-157	0	0	67
J-158	0	2.1	67
J-159	0	0	67
J-160	0	0.7	67
J-161	0	0	67
J-162	0	0.7	67
J-163	0	0	67
J-164	0	0.7	67
J-165	0	0	67
J-166	0	0.7	67
J-167	0	0	67
J-168	0	0.35	67
J-169	0	0	67
J-170	0	0.7	67
J-171	0	0	67
J-172	0	0.35	67
J-173	0	0	67
J-174	0	0.7	67
J-175	0	0	67
J-176	0	0.7	67
J-177	0	0	67
J-178	0	0.35	67
J-179	0	0	67
J-180	0	0.35	67

J-181	0	0	67
J-182	0	0.7	67
J-183	0	0	67
J-184	0	0.35	67
J-185	0	0	67
J-186	0	0.35	67
J-187	0	0	67
J-188	0	0.7	67
J-189	0	0	67
J-190	0	0.7	67
J-191	0	0	67
J-192	0	0.7	67
J-193	0	0	67
J-194	0	0.7	67
J-195	0	0	67
J-196	0	0.7	67
J-197	0	0	67
J-198	0	0.35	67
J-199	0	0	67
J-200	0	0.7	67
J-201	0	0	67
J-202	0	0.35	67
J-203	0	0	67
J-204	0	0.7	67
J-205	0	0	67
J-206	0	0.35	67
J-207	0	0	67
J-208	0	0.7	67
J-209	0	0	67
J-210	0	0.7	67
J-211	0	0	67
J-212	0	0.35	67
J-213	0	0	67
J-214	0	0.7	67
J-215	0	0	67
J-216	0	0.7	67
J-217	0	0	67
J-218	0	0.35	67
J-219	0	0	67
J-220	0	0.35	67
J-221	0	0	67
J-222	0	2.1	67
J-223	0	0	67
J-224	0	0.35	67
J-225	0	0.35	67

Junction ID	Flow 1	Flow 2	Flow 3
J-226	0	0	67
J-227	0	0.7	67
J-230	0	0	67
J-231	0	0.35	67
J-232	0	0	67
J-233	0	0.35	67
J-234	0	0	67
J-235	0	0.7	67
J-236	0	0	67
J-237	0	0.35	67
J-238	0	0	67
J-239	0	0.7	67
J-240	0	0	67
J-241	0	0.35	67
J-242	0	0	67
J-243	0	0.7	67
J-244	0	0	67
J-245	0	0.7	67
J-246	0	0	67
J-247	0	1.05	67
J-248	0	0	67
J-249	0	0.35	67
J-250	0	0	67
J-251	0	2.1	67
J-252	0	0	67
J-253	0	1.4	67
J-254	0	0	67
J-255	0	0.7	67
J-256	0	0	67
J-257	0	0.35	67
J-258	0	0	67
J-259	0	0.7	67
J-260	0	0	67
J-261	0	0.7	67
J-262	0	0	67
J-263	0	0.35	67
J-264	0	0	67
J-265	0	0	67
J-266	0	0	67
J-267	0	0.35	67
J-268	0	0.35	67
J-269	0	0.35	67
J-270	0	0.35	67
J-272	0	0	67
J-273	0	0.35	67

J-274	0	0	67
J-275	0	0.35	67
J-276	0	0	67
J-277	0	0.35	67
J-278	0	0	67
J-279	0	0.35	67
J-280	0	0	67
J-281	0	0.7	67
J-282	0	0	67
J-283	0	0.35	67
J-284	0	0	67
J-285	0	0.35	67
J-286	0	0	67
J-287	0	0.35	67
J-288	0	0	67
J-289	0	0.35	67
J-290	0	0	67
J-291	0	0.35	67
J-292	0	0	67
J-293	0	0.7	67
J-294	0	0.35	67
J-295	0	0.35	67
J-296	0	0	67
J-297	0	0.35	67
J-298	0	0	67
J-299	0	0.7	67
J-300	0	0	67
J-301	0	0.7	67
J-302	0	0	67
J-303	0	0.7	67
J-304	0	0	67
J-305	0	0.7	67
J-306	0	0	67
J-307	0	0.7	67
J-308	0	0	67
J-309	0	0.35	67
J-310	0	0	67
J-311	0	0.7	67
J-312	0	0	67
J-313	0	0.7	67
J-314	0	0	67
J-315	0	0.35	67
J-316	0	5.6	66
J-317	0	0	67
J-318	0	0	67

J-319	0	0.35	67
J-320	0	0.35	67
J-321	0	0.35	67
J-322	0	0	67
J-323	0.88	0	8
J-324	0	0	67
J-325	0.83	0	8
J-327	0	0	67

Table 3

Table 3 Base Scenario: Fire Flow Report						
Label	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated)	Junction w/ Minimum	Junction w/ Minimum
H-1	1500	1732.71	20	20	J-4	J-4
H-2	1500	1563.57	20	20	J-4	J-4
H-3	1500	1468.38	20	20	J-4	J-4
H-4	1500	1382.63	20	20	J-4	J-4
H-5	1500	1369.16	20	20	J-4	J-4
H-6	1500	1430.71	20	20	J-4	J-4
H-7	1500	1402.32	20	20	J-4	J-4
H-8	1500	1319.25	20	20	J-4	J-4
H-9	1500	1201.8	20	20	J-4	J-4
H-10	1500	1205.72	20	20	J-4	J-4
H-11	1500	1351.56	20	20	J-4	J-4
H-12	1500	1365.79	20	20	J-4	J-4
H-13	1500	1434.86	20	20	J-4	J-4
H-14	1500	1529.62	20	20	J-4	J-4
H-15	1500	1641.8	20	20	J-4	J-4
H-16	1500	2164.83	20	20	J-4	J-4
H-17	1500	1110.39	20	20	J-4	J-4
H-18	1500	1205.79	20	20	J-4	J-4
H-19	1500	1132.12	20	20	J-4	J-4
H-20	1500	1328.2	20	20	J-4	J-4
H-21	1500	1403.12	20	20	J-4	J-4
H-22	1500	1373.36	20	20	J-4	J-4
H-23	1500	1283.12	20	20	J-4	J-4
H-24	1500	1109.44	20	20	J-4	J-4
H-25	1500	1262.38	20	20	J-4	J-4
H-26	1500	1362.58	20	20	J-4	J-4
H-27	1500	1293.68	20	20	J-4	J-4
H-28	1500	1121.54	20	20	J-4	J-4
H-29	1500	996.54	20	20	J-4	J-4
H-30	1500	901.63	20	20	J-4	J-4
H-31	1500	831.57	20	20	J-4	J-4
H-32	1500	776.75	20	20	J-4	J-4
H-33	1500	733.89	20	20	J-4	J-4
H-34	1500	697.35	20	20	J-4	J-4
H-35	1500	1298.49	20	20	J-4	J-4
H-36	1500	(N/A)	20	(N/A)	(N/A)	(N/A)
H-37	1500	1147.98	20	20	J-4	J-4

Table 4

Table 4: Booster Pump Report

Element Details			
ID	58	Notes	
Label	Booster Pump		
Pump Definition Type			
Pump Definition Type	Standard (3 Point)	Design Head	100.00 ft
Shutoff Flow	0.00 gpm	Maximum Operating Flow	730.00 gpm
Shutoff Head	135.00 ft	Maximum Operating Head	69.00 ft
Design Flow	550.00 gpm		
Pump Efficiency Type			
Pump Efficiency Type	Best Efficiency Point	Motor Efficiency	100.0 %
BEP Efficiency	100.0 %	Is Variable Speed Drive?	False
BEP Flow	0.00 gpm		
Transient (Physical)			
Inertia (Pump and Motor)	0.000 lb·ft ²	Specific Speed	SI=25, US=1280
Speed (Full)	0 rpm	Reverse Spin Allowed?	True

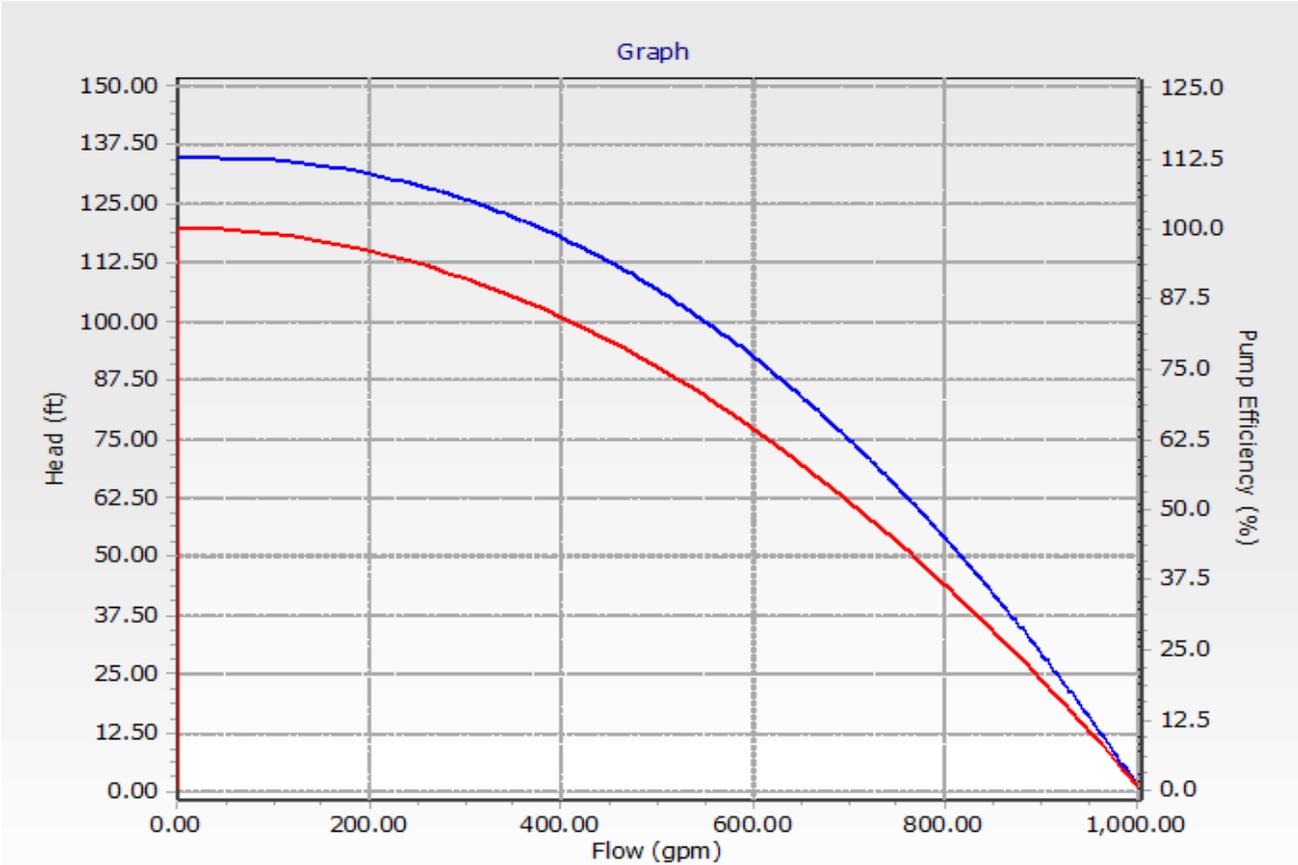


Table 5

Table 5: Well Pump Report

Element Details			
ID	907	Notes	
Label	Fire Pump		
Pump Definition Type			
Pump Definition Type	Design Point (1 Point)	Design Head	120.00 ft
Shutoff Flow	0.00 gpm	Maximum Operating Flow	0.00 gpm
Shutoff Head	0.00 ft	Maximum Operating Head	0.00 ft
Design Flow	1,750.00 gpm		
Pump Efficiency Type			
Pump Efficiency Type	Best Efficiency Point	Motor Efficiency	100.0 %
BEP Efficiency	100.0 %	Is Variable Speed Drive?	False
BEP Flow	0.00 gpm		
Transient (Physical)			
Inertia (Pump and Motor)	0.000 lb·ft ²	Specific Speed	SI=25, US=1280
Speed (Full)	0 rpm	Reverse Spin Allowed?	True

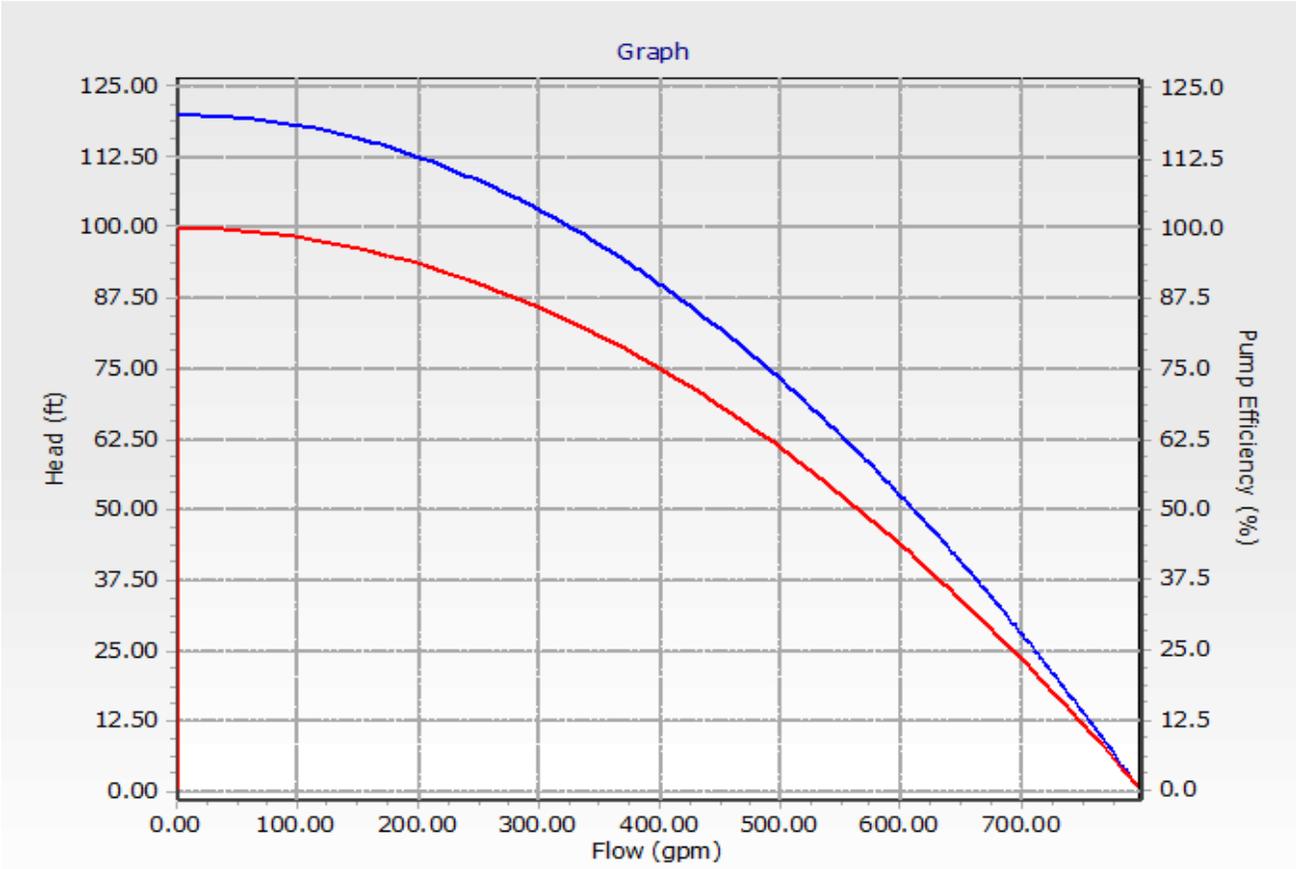


Table 6

Table 6
8" RV Park Main Fire Flow Report

Label	Fire Flow (Needed) (gpm)	Fire Flow (Available) (gpm)	Pressure (Residual Lower Limit) (psi)	Pressure (Calculated)	Junction w/ Minimum	Junction w/ Minimum
H-1	1500	1732.71	20	20	J-4	J-4
H-2	1500	1563.57	20	20	J-4	J-4
H-3	1500	1468.38	20	20	J-4	J-4
H-4	1500	1382.63	20	20	J-4	J-4
H-5	1500	1369.16	20	20	J-4	J-4
H-6	1500	1430.71	20	20	J-4	J-4
H-7	1500	1402.32	20	20	J-4	J-4
H-8	1500	1319.25	20	20	J-4	J-4
H-9	1500	1201.8	20	20	J-4	J-4
H-10	1500	1205.72	20	20	J-4	J-4
H-11	1500	1351.56	20	20	J-4	J-4
H-12	1500	1365.79	20	20	J-4	J-4
H-13	1500	1434.86	20	20	J-4	J-4
H-14	1500	1529.62	20	20	J-4	J-4
H-15	1500	1641.8	20	20	J-4	J-4
H-16	1500	2164.83	20	20	J-4	J-4
H-17	1500	1110.39	20	20	J-4	J-4
H-18	1500	1205.79	20	20	J-4	J-4
H-19	1500	1132.12	20	20	J-4	J-4
H-20	1500	1328.2	20	20	J-4	J-4
H-21	1500	1403.12	20	20	J-4	J-4
H-22	1500	1373.36	20	20	J-4	J-4
H-23	1500	1283.12	20	20	J-4	J-4
H-24	1500	1109.44	20	20	J-4	J-4
H-25	1500	1262.38	20	20	J-4	J-4
H-26	1500	1362.58	20	20	J-4	J-4
H-27	1500	1373.03	20	20	J-4	J-4
H-28	1500	1315.72	20	20	J-4	J-4
H-29	1500	1262.19	20	20	J-4	J-4
H-30	1500	1212.32	20	20	J-4	J-4
H-31	1500	1171.27	20	20	J-4	J-4
H-32	1500	1135.42	20	20	J-4	J-4
H-33	1500	1103.69	20	20	J-4	J-4
H-34	1500	1074.31	20	20	J-4	J-4
H-35	1500	1372.12	20	20	J-4	J-4
H-36	1500	(N/A)	20	(N/A)	(N/A)	(N/A)
H-37	1500	1147.98	20	20	J-4	J-4

Table 7

Table 7a							
Average Daily Demand Pumping Costs: 10 HP Variable Frequency Drive							
		Average Daily Demand (GPD)	Tank Drawdown (Gallons)	Pump Flow Rate (GPM)	Pressure (Average) (PSI)		
		85000	212	85	50		
Time	Percentage of ADD	Flow Rate	Average Run Time per Cycle	Cycles per 2hr Period	Total Run Time per Period	BHP	KW Hr
12AM	75%	44.27	5.21	12.01	62.50	3.2	2.49
2AM	63%	37.19	4.43	11.84	52.50	3.2	2.09
4AM	66%	38.96	4.60	11.94	55.00	3.2	2.19
6AM	107%	63.16	9.71	9.19	89.17	3.3	3.66
8AM	122%	72.01	16.33	6.23	101.67	3.3	4.17
10AM	118%	69.65	13.81	7.12	98.33	3.3	4.03
12PM	102%	60.21	8.55	9.94	85.00	3.3	3.49
2PM	98%	57.85	7.81	10.46	81.67	3.3	3.35
4PM	112%	66.11	11.22	8.32	93.33	3.3	3.83
6PM	159%	93.85	120.00	1.00	120.00	3.4	5.07
8PM	165%	97.40	120.00	1.00	120.00	3.4	5.07
10PM	119%	70.24	14.37	6.90	99.17	3.3	4.07
						KW-hr/Day	43.51
						Cost/Kw-hr	\$0.12
						Cost/Day	\$5.22
						Cost/year	\$1,905.76

Table 7b							
Average Daily Demand Pumping Costs: 20 HP Direct Drive							
		Average Daily Demand (GPD)	Tank Drawdown (Gallons)	Pump Flow Rate (GPM)	Pressure (Average) (PSI)		
		85000	2,500	445	50		
Time	Percentage of ADD	Flow Rate	Average Run Time per Cycle	Cycles per 2hr Period	Total Run Time per Period	BHP	KW Hr
12AM	75%	44.27	6.24	1.91	11.94	18.7	2.78
2AM	63%	37.19	6.13	1.64	10.03	18.7	2.33
4AM	66%	38.96	6.16	1.71	10.51	18.7	2.44
6AM	107%	63.16	6.55	2.60	17.03	18.7	3.96
8AM	122%	72.01	6.70	2.90	19.42	18.7	4.52
10AM	118%	69.65	6.66	2.82	18.78	18.7	4.37
12PM	102%	60.21	6.50	2.50	16.24	18.7	3.77
2PM	98%	57.85	6.46	2.42	15.60	18.7	3.63
4PM	112%	66.11	6.60	2.70	17.83	18.7	4.15
6PM	159%	93.85	7.12	3.55	25.31	18.7	5.88
8PM	165%	97.40	7.19	3.65	26.26	18.7	6.11
10PM	119%	70.24	6.67	2.84	18.94	18.7	4.40
						KW-hr/Day	48.33
						Cost/Kw-hr	\$0.12
						Cost/Day	\$5.80
						Cost/year	\$2,117.02

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